

Proposed Natural Hazards Plan Change 3

Section 42 Hearings Report for Hearing
Commencing 9th November 2021

Report Dated 15th October 2021

Report on submissions and further
submissions

Chapter 8: Natural Hazards

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Submitters

List of submitters addressed in this report

Submitter	Submitter Number
George Acland	3
Lydia Adams	1
Oil Companies	12
Margaret Egan	15
Environment Canterbury	14
Federated Farmers New Zealand	10
Incite on behalf of Spark New Zealand Trading Limited	4
Kaikōura District Council	5
Kate Finnerty	9
Deb Kitchingham	6

William Loppe on behalf Cargil Station	2
Dave Melville	8
Ministry of Education	13
Main Power	16
David and Lynne Robinson	7
Sharon Semmens	11

Two further submissions were received on the proposed Natural Hazards Plan Change 3.

Submitter	Submitter number
Margaret Egan	FS1
Federated Farmers	FS2

Introduction

1. My name is Kerry Andrews, I am employed by the Kaikōura District Council as a policy planner. I hold the qualifications of Bachelor of Environmental Management and Planning from Lincoln University. I have over a 1 years' experience as a planner and in my current role the with the Kaikōura District Council. During this time I have been working closely with Mr Andrew Willis (Director of Planning Matters) and Mr Matt Hoggard(Strategy Policy and District Plan Manager) both experienced planners and we have been undertaking weekly meeting to consider aspects of Plan Change 3. I am an associate member of the New Zealand Institute of Planning.

Code of conduct

2. Although this is a Council hearing, I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note and that I agree to comply with it. I confirm that I have considered all the material facts that I am aware of that might alter or detract from the opinions that I express, and that this evidence is within my area of expertise, except where I state that I am relying on the evidence of another person. I am authorised to give this evidence on Council's behalf.

Preparation of this report

3. KDC has commissioned GNS to undertake further investigations with the aim of further refining the Landslide Debris Inundation and Debris Flow Fan Overlays. A draft version of report was received on the 13th of October 2021. It sets out a Local Personal Risk from EIL (Earthquake Induced Landslides) and RIL (Rainfall Induced Landslides). The maps identify landslide risk in bands, with upper bands (84%) being more conservative and median bands (50%) being less conservative.
4. Further information concerning the GNS report is set out in paragraph 302-308 to supplement KDC's submission point 5.4. The GNS report and maps are set out in appendix 5 of this report. The recommendations made on the Landslide Debris Inundation Overlay and the Debris Flow Fan Overlay are based off the draft report and assumes the technical information and mapping will not significantly change in the final report. The final report will be made sent to submitters as an addendum to this report prior to the hearing once it has been received.
5. To further furnish my recommendations, Mr Matt Hoggard, the Strategy, Policy and District Planning Manager for Kaikōura District Council, has provided evidence in relation to the Flood Assessment Overlays and the Canterbury Regional Policy Statement. Further to this, Mr Hoggard has provided planning recommendations for the further GNS investigation report and what is a tolerable and intolerable risk for the community.
6. It is also anticipated that further evidence will be provided by Mr Nick Griffiths, Senior Scientist with environment Canterbury to cover technical matters.

Scope of Hearings

7. This report is prepared in accordance with section 42A of the Resource Management Act 1991 (RMA).
8. This report assesses submissions and will provide recommendations to the Hearings Panel.
9. Submitters have stated whether they wish to speak to their submissions and present evidence at the hearing, therefore the recommendations made in this report are preliminary and relate only to the written submissions and further submissions.
10. For the avoidance of doubt, it should be emphasised that any recommendations made in this report are not binding on the Hearing Panel. It should not be assumed that the Hearing Panel will reach the same decisions having considered all the evidence to be brought before them by the submitters.

Overview of Provisions

11. This report assesses submissions to Natural Hazards provisions of the Kaikōura District Plan including:
 - Chapter 1: Introduction
 - Chapter 2: Policy and legal framework
 - Chapter 3: Users Guide
 - Chapter 4: Definitions
 - Chapter 7: Development and Tourism
 - Chapter 8: Natural Hazards
 - Chapter 13: Subdivision
 - Analysis of submissions
12. In terms of submissions received to this topic there are:
 - 16 submissions with 136 submission points
 - 2 further submissions were received.

Format and Recommendations

13. Recommended amendments from submitters are shown in **bold red underlined** and deleted text of provisions are shown in ~~red strikethrough~~. Planner recommendations or amendments are identified in **blue, bold underline or blue strikethrough**.
14. A full copy of the recommended amendments can be found in Appendix 1 of this report
15. The submissions are accepted, accepted in part, or rejected. Submission points that are in supported of provisions will be noted and are not discussed in further detail in this report.
16. Submission points have been colour coded in this report as shown in the following tables. Green represents where a submitter agrees with certain provisions and orange signifies where a submitter opposes or opposes in part with a proposed natural hazard provision. Further submissions have been identified in a darker shade of green to show agreement or conversely, shown in a darker shade of orange to signal disagreement with a submission point.

Statutory Framework

17. A number of statutory documents are relevant to the provisions and/or submissions within the scope of this report, including the Resource Management Act 1991 and National Policy Statements and Plans which are referred to where appropriate.

The Resource Management Act

18. The RMA defines Natural Hazard in s2 as "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"
19. The RMA and in particular the purpose and principles in Part 2, which emphasise the requirement to sustainably manage the use, development, and protection of the natural and physical resources for current and future generations, taking into account the 'four well beings' (social, economic, cultural and environmental) is relevant to issues arising with Chapter 28. In addition Part 2 seeks to recognise and provide for the management of significant risk from natural hazards as identified in section s6(h), the following s7 matters are relevant and shall be had regard to when preparing and deciding on the chapter:
 - i. the efficient use and development of natural and physical resources;
 - ii. maintenance and enhancement of the quality of the environment;
 - iii. any finite characteristics of natural and physical resources; and
 - iv. the effects of climate change.
20. Section 106 (1a) enables consent authorities to refuse a subdivision consent and impose conditions if that consent authority considers that there is significant risk from natural hazards.
21. Section 220(1)(d) provides that a council may impose conditions on subdivision consents for the protection of the land against "erosion, subsidence, slippage, or inundation from any source..."

National Planning Standards

22. There are definitions in the national environmental standards that are relevant to the proposed Natural Hazards Plan Change 3.

Canterbury Regional Policy Statement (CRPS)

23. The CRPS deals with natural hazards in Chapter 11. The objectives and policies set out a framework which manage natural hazards. The policies and objective provide for management of natural hazards to an acceptable level, or where this is not practical, the CRPS directs avoidance of activities that will increase the risk of natural hazards to an intolerable level.

National Planning Standards

24. The national planning standards seek to provide a standard format for district plans nationwide. This report adheres to national planning standards, in particular standard 7 which relates to plan structure and standard 18 which relates to overlays.

Iwi Authority Advice

25. Clause 3(1)(d) of Schedule 1 of the RMA sets out the requirements for local authorities to consult with iwi authorities during the preparation of a proposed plan. Clause 4A requires the District Council to provide a copy of a draft proposed plan (or plan change) to iwi authorities and have particular regard to any advice received. This section summarises the consultation feedback/advice received from Te Rūnanga o Kaikōura, the local iwi authority (as required by Section 32(4A)(b) of the RMA), that feedback/advice.

Iwi Management Plans

26. Te Poha o Tohu Raumati is the relevant iwi management plan for Kaikōura. Under section 3.1.2 Global air and atmosphere, Nga Kaupapa (policy) 8 states that

To consider the potential impacts of natural hazards that may be associated with global climate change (e.g. sea level rise; severe weather events) with regards to the use and development of land and water resources, particularly in coastal regions of the takiwā.

Local Government Act

27. The LGA requires that when performing its role, local government shall have particular regard to the avoidance and mitigation of natural hazards for its infrastructure. The Long Term Plan (LTP) prepared under the LGA must cover a period of at least 10 years and provide for integrated and co-ordinated decision-making. It is through the LTP and asset management planning process that Council decides what level of natural hazard protection their assets are to provide (in the case of flood protection and erosion control works) or what level of event they are to withstand (in the case of network infrastructure).

The Building Act

28. The Building Act seeks to ensure the safety and intended performance of any building constructed. Therefore, Council also has responsibilities in relation to the management of natural hazard risk under the Act and the Building Code regulations established under it.
29. The Act defines a natural hazard to mean:
- Erosion - including coastal erosion, bank erosion, and sheet erosion
 - Falling debris - including soil, rock, snow, and ice
 - Subsidence
 - Inundation - including flooding, overland flow, storm surge, tidal effects, and ponding
 - Slippage
30. Section 71 of the Building Act requires councils to refuse consent for the construction of a building or major alterations on land that is subject to natural hazards, where the proposed works will accelerate, worsen, or create a hazard on that land or any other property, unless adequate mitigation measures are taken. However, Section 72 does allow council to grant building consent for land subject to natural hazards where it is considered that the works will not accelerate, worsen, or create a hazard. In these situations, the property owner takes on the risk, which is recorded on the title for the property through procedures under Section 73 of the Act. It is noted that Caselaw in relations to these hazards relates on 1:100year event, as

opposed to the RMA which focuses is on less frequent events allows for better long term planning.

31. Recent changes to the Building Act have extended the requirements in relation to residential construction on liquefaction prone land that were introduced for the Canterbury region following the 2010-2011 earthquakes to the remainder of New Zealand. This means that Council are required to map liquefaction prone areas, and new dwellings in these areas will be required to have a specific foundation design to mitigate the effects of liquefaction and lateral spread.

Section 32 of the RMA

32. Section 32 of the RMA requires that the objectives of the proposal be examined for their appropriateness in achieving the purpose of the RMA. A section 32 report was published when the proposed Natural Hazards Plan Change was publicly notified in 2021.

Pre-hearing meetings

33. It was anticipated that all of the pre-hearing meetings would be completed by meeting in person to inform the s42a report, but due to unforeseen circumstances (i.e. the Covid 19 lockdown) this was not possible. Pre-hearing meeting were undertaken with six parties either in person or by zoom meetings. Future pre-hearing meetings will be held in person where permitted, with any agreements provided to the panel as a memorandum or covered in supplementary evidence.
34. The purpose of the pre-hearing meetings was to provide opportunity for submitters to share background as to why submissions were made allowing KDC staff to better understand the nature of the submission and for KDC to share why the direction chosen was taken.
35. Pre-hearing meeting notes have been referenced throughout the report and are set out in full in the Appendices. Future prehearing meeting reports will be provided, if necessary, as Council Evidence prior to the hearing. All prehearing meetings have been held without prejudice, and those submitters may wish to also address the matters discussed and covered in this report though their own evidence at the hearing.

Submissions out of scope

Submission Point	Relevant provisions	Change sought by submitter
14.10 (Environment Canterbury)	8.1 introduction	Seeks to remove the inclusion of coastal inundation as a natural hazard that the Kaikōura District is susceptible to.
FS2.3 (Federated Farmers)	14.10 (Environment Canterbury)	Seeks to allow the submission point 14.10 (Environment Canterbury)
14.15	Paragraph	Submitter requests to reinstate this section of the proposed Natural

(Environment Canterbury)	titled “Coastal erosion and inundation from the sea and tsunamis”	Hazards Plan Change.
FS2.4 (Federated Farmers)		Further submission seeks to allow submission point 14.15 (Environment Canterbury)
10.42 (Federated Farmers)	8.4 Coastal Hazards	

36. Three submission points and two further submissions were received that are considered to be out of scope of this plan change. It is recommended these submission points be rejected in full.
37. Environment Canterbury seek to remove the inclusion of coastal inundation as a natural hazard that Kaikōura is susceptible to. I note that section 8.4 – coastal Hazards is being carried over from the operative plan, into PC3. However, it has been greyed out in the plan change documentation as it is out scope of this plan change and submissions have not been considered on these aspects. I view that coastal inundation should still be referenced as a natural hazard that the Kaikōura District is subject to.
38. Federated Farmers (FS2.3) submitted to allow the submission point 4.12 (Environment Canterbury). As consistent with my recommendation in paragraph 37, I do not support the submission point.
39. Submission Point 14.15 (Environment Canterbury) requested the Coastal Hazards paragraph be reinstated into the natural hazards chapter. Further submission point FS2.4 in in support of this and seeks the submission point be allowed.
40. The Coastal Hazards section is from the operative plan and has not been omitted as suggested by the submitter. Rather, it has been carried over to the new natural hazards chapter but is not within the scope of PC 3, which is why the section had been greyed out in the plan change documentation and described as not being part of Plan Change 3.

Issue 1 – Chapter 1 Introduction

Submission point	Relevant provision	Changes sought by submitter
10.1 (Federated Farmers)	1.3.1, 1.3.2 and 1.7	Support and retain as notified.
14.3 (Environment Canterbury)	1.3.2	Support in part. Start “the control of subdivision on land” on a new line with a hyphen.
10.2 (Federated Farmers)	Status of activities 2.3	Support and retain as notified.

Submission Points 10.1, 10.2 and 10.3 – Federated Farmers

41. Submission points 10.1 (Federated Farmers), 10.2 (Federated Farmers) and 10.3 (Federated Farmers) requested provisions for 1.3.1, 1.3.2 and 1.7 to be retained as notified.

Submission Point 14.3 – Environment Canterbury

42. In response to Environment Canterbury (14.3), I consider the requested relief to be minor in nature with no foreseeable adverse effects and I recommend accepting the submission point.

Recommendation:

43. Reject in part submission point 10.1 (Federated Farmers) and retain section 1.3.1 and 1.7. Accept submission points 14.3 (Environment Canterbury) and amend section 1.3.2 as set out in Appendix 1.

Issue 2 – Chapter 2 Policy and Legal Framework

Submission point	Relevant provision	Changes sought by submitter
10.2 (Federated Farmers)	Status of activities 2.3	Support and retain as notified.

Submission Point 10.2 – Federated Farmers

44. Federated Farmers (10.2) are in support of 2.3 which is noted.

Recommendation:

45. Accept submission point 10.2 (Federated Farmers) and retain 2.3 as set out in Appendix 1.

Issue 3 Chapter 3 – Chapter 3 User’s - Guide

Submission point	Relevant provision	Changes sought by submitter
10.3 (Federated Farmers)	3.2.1(4) drawings	Support and retain as notified.
10.4 (Federated Farmers)	3.2.2(b)	Support and retain as notified.
FS1.1 M. Egan	10.4 (Federated Farmers)	Further submission seeks to disallow submission point 10.4 (Federated Farmers)
14.2 (Environment Canterbury)	Chapter 3, Chapter 8, Chapter 13 and Chapter 25	Insert text in the introduction sections of chapter 8, and 13 that explains the role of Chapter 3, and Chapter 25 and consider amending the matters to improve consistency with the proposed plan change provisions.
FS2.2 (Federated Farmers)	14.2 (Environment Canterbury)	Submitter seeks to allow submission point 14.2 (Environment Canterbury)

Submission Point 10.3 and 10.4 – Federated Farmers

46. Federated Farmers (10.3 and 10.4) support provisions for Chapter 3 – User’s Guide which is noted.

Further Submission Point FS1.1 – M Egan

47. Further submission Point FS1.1 (M. Egan) seeks to disallow submission point 10.4 (Federated Farmers). I recommend rejecting this further submission point as the submitter has not included reasoning as to why 10.4 should be disallowed and I view section 3.2.2.(b) to be fit for purpose.

Submission Point 14.2 Environment Canterbury

48. Environment Canterbury (14.2) seeks to insert text in the introduction sections of chapter 8, 13 and include an explanation of the role of Chapter 3 and Chapter 25 for the purposes of clarity and consistency. I consider the requested amendment to be unnecessary and I don't consider the requested change to add further clarity to the plan change.

Further Submission Point FS2.2 – Federated Farmers

49. Federated Farmers (FS2.2) seek to allow submission point 14.2 (Environment Canterbury). I do not support the requested relief consistent with my views in paragraph 48.

Recommendation:

50. Reject submission point 14.2 (Environment Canterbury). Accept submission points 10.3 and 10.4 (Federated Farmers) and retain as set out in Appendix 1. Reject further submission FS1.1 (M Egan). Reject further submission point FS2.2 (Federated Farmers)

Issue 4 – Chapter 4: Definitions

Definition – Average Recurrence Interval (ARI)

Submission point	Changes sought by submitter
10.5 (Federated Farmers)	Support and retain as notified.

Submission Point 10.5 – Federated Farmers

51. Submission Point 10.5 (Federated Farmers) is in support of the definition for Average Recurrence Interval which is noted. No other submission points oppose this definition.

Recommendation:

52. Accept submission point 10.5 (Federated Farmers) and retain the definition for Average Recurrence Interval as notified as shown in Appendix 1.

Definition – Critical infrastructure

Submission point	Changes sought by submitter
4.1 (Spark New)	Retain definition of Critical Infrastructure as notified.

Zealand Trading Limited)	
12.1 (Oil Companies)	Retain the definition of Critical Infrastructure as notified.
16.1 (Main Power)	Support in part. Amend as follows: 4. electricity substations, networks, and distribution installations, including the electricity substation network.
10.6 (Federated Farmers)	Retain the definition of Critical Infrastructure as notified.

Submission Point 4.1 – Spark New Zealand Trading Limited, 12.1 – Oil Companies, and 10.6 – Federated Farmers

53. Submission Points 4.1 (Spark New Zealand Trading Limited), 12.1 (Oil Companies) and 10.6 (Federated Farmers) are in support of the definition and request that it be retained as notified which is noted.

Submission Point 16.1 – Main Power

54. Submission Point 16.1 (Main Power) request the definition be amended to include electricity substations a plural of the word installation. I view this change to be consistent with the CRPS definition of Critical Infrastructure and I view the change to be sensible.

Recommendation:

55. Reject submission points 4.1 (Spark New Zealand Trading Limited), 12.1 (Oil Companies), 10.6 (Federated Farmers). Accept submission point 16.1 (Main Power) and amend as set out below and in in appendix 1.

Definition – Critical Infrastructure

(...)

4. electricity substations, networks, and distribution installations, including the electricity substation network.

(...)

Definition – Earthworks

Submission point	Changes sought by submitter
4.3 (Spark New	Retain the definition of Earthworks as notified.

Zealand Trading Limited)	
10.7 (Federated Farmers)	Retain the definition of Earthworks as notified.

Submission Point 4.3 – Spark New Zealand Trading Limited, and 10.7 – Federated Farmers

56. Submission point 4.3 (Spark New Zealand Trading Limited) and 10.7 (Federated Farmers) are in support of the definition for Earthworks which is noted.

Recommendation:

57. Accept submission points 4.3 (Spark New Zealand Trading Limited) and 10.7 (Federated Farmers) and retain the definition for Earthworks as set out in Appendix 1.

Definition – Hazard Mitigation Works

Submission point	Change sought by submitter
10.8 (Federated Farmers)	Partially oppose. Delete the definition of Hazard Mitigation Works as it is a duplicate definition.

Submission Point 10.8 Federated Farmers

58. Federated Farmers (10.8) partially opposes the definition of Hazard Mitigation Works as there is also a proposed definition for Natural Hazard Mitigation Works.

59. I agree with the submission point as there is also a definition for Natural Hazard Mitigation Works. I note this is a drafting error and I recommend deleting this definition and retaining the definition of Natural Hazard Mitigation Works.

Recommendation:

60. Accept submission point 10.8 (Federated Farmers) and remove this definition, and retain the definition for Natural Hazard Mitigation Works.

Definition – Hazard Sensitive Building

Submission point	Change sought by submitter
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4.2 (Spark New Zealand Trading Limited)	Support in part. Insert with a clause v to read as follows: <u>v. any building used solely for network utility purpose.</u>
14.4 (Environment Canterbury)	Support in part. Amend to read: Means any building or buildings which: Is/ are -used as part of the...
16.2 (Main Power)	Support in part. Amend to read: For the purposes of clause 1, buildings such as the following are not included: 1. Farm shed used solely for storage; 2. Carports; 3. Garden sheds; and 4. Any buildings with a dirt/gravel or similarly unconstructed floor, <u>and</u> 5. <u>Infrastructure and critical infrastructure.</u>
10.9 (Federated Farmers)	Support in part. Amend definition as follows: For the purposes of clause 1, buildings such as the following are not included: i. Farm sheds uses solely for storage; <u>and animal shelters</u> ii. Carports; iii. Garden S sheds; and iv. Any buildings with a dirt/gravel or similarly unconstructed floor.

Submission Point 4.2 – Spark New Zealand Trading Limited

61. Submission Point 4.2 (Spark New Zealand Trading Limited) requests a clause v be added which allows buildings used for utility purposes to be included as an exemption of a hazard sensitive building. I view that buildings used solely for utility purposes may be in some cases considered to be critical infrastructure and therefore would be identified as hazard sensitive and may be prone to adverse natural hazard events. Therefore, I do not recommend accepting the submission point.

Submission Point 14.4 – Environment Canterbury

62. Environment Canterbury (14.4) requests the words “or buildings” and “are” to be deleted. I view the requested amendment to be acceptable for the purpose of clarity of the plan change.

Submission Point 16.2 – Main Power

63. Submission Point 16.2 (Main Power) requests that a fifth clause be inserted into the definition of Hazard Sensitive Building to include infrastructure and critical infrastructure. It appears the rationale behind this is to exempt infrastructure and critical infrastructure from being classed as a hazard sensitive building. I agree that non-critical infrastructure can be excluded from the definition of hazard sensitive as it is unlikely to be sensitive to natural hazards. In addition,

critical infrastructure has separate specific provisions applying to it in PC3. If critical infrastructure was also classified as a hazard sensitive building, then it would be simultaneously covered by competing provisions. I therefore agree with the relief sought in the Main Power submission and recommend accepting the submission point.

Submission Point 10.9 – Federated Farmers

64. Federated Farmers (10.9) seeks to exclude animal shelters from the definition of Hazard Sensitive Building. I note that some animal shelters such as large cow barns with auto milkers are significant assets and should be captured within the definition of Hazard Sensitive Building. However, other animal shelters will not be significant assets. In my opinion the definition can be made more targeted, and I therefore recommend that animal shelters with unconstructed floors or buildings with a dirt/gravel floor are not captured by the definition of hazard sensitive building. I suggest accepting the submission point in part and amend the definition of Hazard Sensitive Building as shown in the recommendations (paragraph 65) and in Appendix 1.

Recommendation

65. Reject submission point 4.2 (Spark New Zealand Trading Limited). Accept submission point 14.4 (Environment Canterbury) and amend as shown in Appendix 1. Accept submission point 16.2 (Main Power) and amend as set out below and in Appendix 1. Accept in part submission point 10.9 and amend as shown below and in appendix 1.

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, the following buildings are not included.

- i. **farm sheds used solely for storage; or**
- ii. **animal shelters which comply with v below: or**
- iii. **carports; or**
- iv. **garden sheds; or**
- v. **any buildings with a dirt/gravel or similarly unconstructed floor; or**
- vi. **critical and non-critical infrastructure.**

Definition – High Flood Hazard Area

Submission point	Change sought by submitter
6.1 (D. Kitchingham)	Decision requested to change the definition of High Flood Hazard from a 500 yr flood to a 200 yr flood.
8.1 (D. Melville)	Decision requested to amend the definition of High Flood Hazard to reference a 200 yr flood rather than a 500 yr flood.
9.1 (K. Finnerty)	Submitter seeks for the definition of High Flood Hazard to refer to a 200yr flood as opposed to a 500yr flood.
10.10 (Federated Farmers)	Retain as notified.
FS1.1 M. Egan	Further submission opposes submission point 10.10 (Federated Farmers) and seeks to disallow the submission point
14.5 (Environment Canterbury)	Submitter seeks for the definition to be amended as follows: High Flood Hazard Area Means an area subject to inundation events where the water depth (metres) x velocity (metres per second) is greater than or equal to 1 where depths are greater than 1 metre in in a 500 year ARI flood in a 0.2% annual exceedance probability flood event.
FS1.1 (M. Egan)	Further submission opposes submission point 14.5 (Environment Canterbury)
15.1 (M. Egan)	Submitter seeks for the definition of High Hazard Area to be amended so that it is defined by reference to a 200yr flood as opposed to a 500yr flood.

Submission Points 15.1 – M Egan, 6.1 – D Kitchingam, 8.1 – D Melville, and 9.1 – K Finnerty

66. Submission points 6.1 (D. Kitchingam), 8.1 (D. Melville), 9.1 (K. Finnerty), and 15.1 (M. Egan) are pro forma and seek similar relief to have the definition of High Flood Hazard Area amended reference a 200yr flood as opposed to a 500yr flood.
67. NHPC 3 refers to a 500yr flood event in two ways. Firstly, this return period is used to define High Flood Hazard Areas. Secondly, it is used to identify the finished floor level buildings are to be built to under the proposed rules. With regard to the definition, in my view, the 500yr reference is an appropriate measure to define High Flood Hazard Areas as it is consistent with the definition as prescribed by the CRPS that the Kaikōura District Plan must give effect to. With regard to finished floor levels, the CRPS notes that there is a net benefit to building to both a 0.5% AEP and 0.2% AEP floor levels.¹ While it specifies a 200yr return period for flood mitigation through finished floor levels the CRPS also notes that councils can require a higher flood event threshold should this be warranted.
68. As set out in appendix 6 in Mr Hoggard’s statement of evidence, Kaikōura has a unique landscape with limited warning time of potential flooding. As set out in his evidence:
- The speed at which flooding can occur for Kaikoura is further highlighted by Kaikōura Civil Defence Standards Operating Procedures which identify travel time for rainfall:
- Time of travel from the Luke Creek rain gauge to Postman’s Road - 20 minutes.
 - Heavy rain at Snowflake will cause a significant rise at Middle Ford in 1.5 hours.
69. A pre-hearing meeting was held with M. Egan to discuss concerns held by the submitter. There appeared to be an understanding as to why KDC has not elected to map High Flood Hazard Areas upfront but there were still concerns as to why a 500 yr standard has been used to map areas outside of High Flood Hazard Areas. The matter was left unresolved but concerns by the submitter were heard. A concern held by the submitter and other pro-forma submissions related to increases in insurance. It was explained to Ms M Egan that matters of insurance are not within Council’s control.
70. Finally, I note the current Operative Plan standard is a 500yr AEP or 0.2% ARI with dwellings being built to a 500yr standard. Mr Hoggard notes that changing the standard creates uncertainty for the community. I agree with Mr Hoggard’s recommendation to continue using a 500-year standard. I do not support the requested relief to amend the definition of a high flood hazard area to use a 200 yr standard for the purposes of consistency with the CRPS. I also do not support changing the mapped flood assessment areas outside of High Flood Hazard Areas to a 200 yr standard for the reasoning above. The submitters may wish to present further evidence to furnish their submission.

¹ *Canterbury Regional Policy Statement. Environment Canterbury. (2020). pg 170.*

Submission Point 10.10 – Federated Farmers

71. Submission Point 10.10 (Federated Farmers) is in support of the definition of High Flood Hazard Area and request the definition be retained as notified which is noted.

Submission Point 14.5 – Environment Canterbury

72. Regarding Environment Canterbury’s submission point 14.5, I understand the rationale to behind the requested relief to further align with the CRPS. I agree that the definition should align with the definition used in the CRPS for the sake of consistency.

Further Submission Point FS1.1 – M Egan

73. Further submission point FS1.1 (M Egan) opposed submission points 10.10 (Federated Farmers) and 14.6 (Environment Canterbury) and provided the reasoning as to why Ms Egan is opposed to the submission points.

“It is not clear to me why Ecan is advocating at 500 year flood standard – or, indeed, any other standard. Ecan’s responsibility for natural hazards is described at p163, CRPS. It does not obviously include responsibility for flooding caused by rivers (as opposed to considering the use of the land “within the beds of rivers and lakes...”). The responsibility for flooding appears to be that of KDC and I do not understand why Ecan is trying to control its decision making. KDC should be free to choose an appropriate flood standard.”

74. Consistent with my views in paragraphs 67-68, and 70, I view the proposed approach to be fit for purpose and I do not support the requested relief.

Recommendation:

75. Reject submission points 6.1 (D. Kitchingham), 8.1 (D. Melville), 9.1 (K. Finnerty), 10.10 (Federated Farmers), 15.1 (M. Egan) and FS1.1 (M. Egan). Accept submission point 14.5 (Environment Canterbury) and make amendments as shown below and in Appendix 1.

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 500-year ARI flood event, ~~in a 0.2% annual exceedance probability flood event.~~

Definition - Land Disturbance Liquefaction Hazard

Submission point	Change sought by submitter
4.4 (Spark)	Retain definition of Land Disturbance as notified.

New Zealand Limited)	
10.11 (Federated Farmers)	Retain definition of Land Disturbance as notified.

Submission Point 4.4 – Spark New Zealand Trading Limited and 10.11 – Federated Farmers

76. Submission Points 4.4 (Spark New Zealand Trading Limited) and 10.11 (Federated Farmers) support the definition of Land Disturbance which is noted.
77. There are no submissions that oppose the definition of Land Disturbance.

Recommendation:

78. Accept submission points 4.4 (Spark New Zealand Trading Limited) and 10.11 (Federated Farmers) and retain the definition of Land Disturbance as shown in Appendix 1.

Definition – Liquefaction Hazard

Submission point	Change sought by submitter
10.12 (Federated Farmers)	Retain definition of Liquefaction Hazard as notified.

Submission Point 10.12 – Federated Farmers

79. Submission Point 10.12 (Federated Farmers) support the definition of Liquefaction Hazard which is noted.
80. There are no submission points that oppose the definitions for Liquefaction Hazard.

Recommendation:

81. Accept submission point 10.12 (Federated Farmers) and retain the definition of Liquefaction Hazard as set out in Appendix 1.

Definition – Natural Hazard Mitigation Works

Submission point	Change sought by submitter
10.14 (Federated Farmers)	Support in part and amend definition to mean works intended to control the effects of natural- events hazards
14.6 (Environment Canterbury)	Environment Canterbury seeks to have the definition of Natural Hazard Mitigation Works deleted as it is a duplicate of Hazard Mitigation Works.

Submission Point 10.14 – Federated Farmers

82. Federated Farmers (10.14) supports the definition of Natural Hazard Mitigation Works in part.

Submission Point 14.6 – Environment Canterbury

83. Environment Canterbury (14.6) submit to remove the definition of natural hazard mitigation works as it is a duplicate definition of hazard mitigation works. I agree it is a duplicate, but I have recommended to remove the definition of Hazard Mitigation Works instead.

Recommendation:

84. Reject submission point 14.6 (Environment Canterbury) and accept submission point 10.14 (Federated Farmers) amend the definition of Natural Hazard Mitigation Works as set out below and in appendix 1.

Support in part and amend definition to mean works intended to control the effects of natural-~~events~~ **hazards**

Definition – Natural Hazard Overlays

Submission point	Change sought by submitter
10.15 (Federated Farmers)	Retain the definition of Natural Hazard Overlays as notified.
14.7 (Environment Canterbury)	Submitter seeks for the definition to be amended as follows: Natural Hazard Overlays Identify areas subject to a natural hazard... g. Liquefaction Hazard Overlay

Submission Point 10.15 – Federated Farmers

85. Submission Point 10.15 (Federated Farmers) is in support of the definition for Natural Hazard Overlays which is noted.

Submission Point 14.7 – Environment Canterbury

86. Submission Point 14.7 (Environment Canterbury) seeks the word “Hazard” to be removed from the Liquefaction Hazard Overlay.
87. I view the change to be appropriate and as the submitter points out, the Liquefaction is the only natural hazard to contain the word “hazard”, it makes sense to remove it for consistency.

Recommendation:

88. Reject submission point 10.15 (Federated Farmers) and accept submission point 14.7 (Environment Canterbury) and amend the definition for Natural Hazard Overlays as shown in Appendix 1.

Definition – Operational Need

Submission point	Change sought by submitter
4.5 (Spark New Zealand Trading Limited)	Retain the definition of Operational Need as notified.
10.16 (Federated Farmers)	Retain the definition of Operational Need as notified.
16.3 (Main Power)	Retain the definition of Operational Need as notified.

89. Spark New Zealand Trading Limited (4.5), Federated Farmers (10.16), and Main Power (16.3) are all in support of the definition for Operational Need which is noted. There are no submission points that oppose the definition for Operational Need.

Recommendation:

90. Accept submission points 4.5 (Spark New Zealand Trading Limited), 10.16 (Federated Farmers), and 16.3 (Main Power) and retain the definition of Operational Need as set out in Appendix 1.

Definition – Plantation Forestry

Submission point	Change sought by submitter
10.17 (Federated Farmers)	Retain the definition of Plantation Forestry as notified.

Submission Point 10.17 – Federated Farmers

91. Federated Farmers (10.17) are in support of the definition for plantation forestry. No other submissions oppose this definition.

Recommendation:

92. Accept submission point 10.7 (Federated Farmers) and retain the definition of Plantation Forestry as set out in Appendix 1.

Definition – Shelterbelt

Submission point	Change sought by submitter
10.19 (Federated Farmers)	Support in part the definition for Shelterbelt. Requests the council reviews the two proposed definitions for Shelterbelt and retain and NES-PF's limit of an average width of less than 30m.

Submission Point 10.19 – Federated Farmers

93. Federated Farmers (10.19) request that the definition for Shelterbelt be amended to a setback zone of 30m to be consistent with the definition of Plantation Forestry which directs a setback of 30m.
94. I note that the proposed definition of Plantation Forestry, does not include:
- (i) A shelterbelt of forest species, where the tree crown cover has, or is likely to have, an average width of less than 30m; or

95. The Plantation Forestry definition excludes the identified shelterbelts to ensure these are not captured by the NES. The proposed definition of Shelterbelt has a setback zone of 20m. I view that it makes sense to have a shelterbelt with the same setback area to avoid confusion for plan readers. I recommend amending the definition of Shelterbelt to align with the NES-PF definition of Shelterbelt and amend the setback zone to 30m to be consistent.

Recommendation:

96. Accept submission point 10.19 (Federated Farmers) and amend definition as set out in appendix 1.

Definition – Structure

Submission point	Change sought by submitter
10.18 (Federated Farmers)	Retain the definition of Structure as notified.

Submission Point 10.18 – Federated Farmers

97. Federated Farmers (10.18) are in support of the definition of Structure which is noted. No other submissions oppose this definition.

Recommendation:

98. Accept submission point 10.18 (Federated Farmers) and retain the definition of Structure as set out in Appendix 1.

Definition – Woodlot

Submission point	Change sought by submitter
10.20 (Federated Farmers)	Retain the definition of Woodlot as notified.

Submission Point 10.20 – Federated Farmers

99. Federated Farmers (10.20) is in support of the definition of Woodlot which is noted.

Recommendation:

100. Retain definition of Woodlot as set out in Appendix 1.

Issue 5 – Chapter 7: Development and tourism

Submission point	Change sought by submitter
10.21 (Federated Farmers)	Retain 7.2.2(1) as notified.
10.22 (Federated Farmers)	Retain 7.2.3 as notified.
10.23 (Federated Farmers)	Submitter is in support of explanation and reasons but recommends a short note is added to cross refer readers to the risk assessment factors in Chapter 8
14.8 (Environment Canterbury)	Submitter seeks the paragraph explanations and reasons be amended so that it reflects how flooding affects other parts of the district in addition to the Kaikōura township and surrounding areas.

Submission Point 10.21 – Federated Farmers, 10.22 – Federated Farmers

101. Federated Farmers (10.21) and (10.22) support the provisions for 7.2.2.(1) and 7.2.3 which is noted.

Submission Point 10.23 – Federated Farmers

102. Regarding Federated Farmers submission point 10.23, I agree with the relief sought. I view that the requested amendment would direct plan readers to the relevant section in the plan regarding the management of natural hazards. I recommend the following amendment.

[Chapter 8 is the designated Natural Hazards Chapter which contains rules and policies around the management of natural hazard risk in the district.](#)

Submission Point 14.8 – Environment Canterbury

103. I also agree with the requested relief from submission point 14.8 (Environment Canterbury) to add an additional paragraph which explains that flooding not only affects the Kaikōura township, but the wider district as well. My view is the suggested amendment would further clarify the explanations and reasons. Without the amendment the plan lacks transparency that flooding affects other areas of the district other than just the township and immediate surrounding areas.

Recommendation:

104. Accept submission points 10.21 (Federated Farmers), 10.22 (Federated Farmers), 10.24 (Federated Farmers), and 14.8 (Environment Canterbury as set out in Appendix 1.

Issue 6 – Chapter 8: Natural Hazards Introduction

Submission point	Change sought by submitter
10.24 (Federated Farmers)	Retain the introduction as notified.
14.14 (Environment Canterbury)	Insert a new heading titled “flooding” and amend the paragraph to reflect that not all areas of the district that may be at risk of flooding are identified in the two flooding overlays.
14.11 (Environment Canterbury)	Amend the third paragraph to read: Intergovernmental Panel on Climate Change
14.12 (Environment Canterbury)	Amend to read: Risk is a product...while also ensuring that their lives or and significant assets are not likely...
14.13 (Environment Canterbury)	Amend to read: This chapter anticipates the use of hazard mitigation measures works where it is appropriate to...

Submission Point 10.24 – Federated Farmers

105. Federated Farmers (10.24) submit to retain the introduction of chapter 8 Natural Hazards as notified which is noted.

Submission Point 14.11 – Environment Canterbury

106. I agree with the change in submission point 14.11 (Environment Canterbury) as it is considered a drafting error.

Submission Point 14.14 – Environment Canterbury

107. In response to submission point 14.14 (Environment Canterbury, I note there is already a sentence in the introduction of chapter 8 that reads:

(...)

Plan users should be aware that in extreme events, localised flooding or ponding may still occur on areas not marked as at-risk areas.

(...)

108. I view the sentence above to adequately recognise that not all areas potentially subject to flooding are identified on the planning maps. I do not support the requested amendment.

Submission Point 14.12 – Environment Canterbury

109. Submission point 14.12 (Environment Canterbury) seeks the word “or” be replaced with “and” so it reads:

Risk is a product...while also ensuring that their lives ~~or~~ and significant assets are not likely...

110. I view the requested change to be sensible. As the paragraph stands, it implies either significant assets *or* lives should be managed. I consider that the suggested amendment would strengthen the policy as it would clarify that both property *and* lives are significant and need to be managed simultaneously.

Recommendation:

111. Accept submission points 10.24 (Federated Farmers), 14.11 (Environment Canterbury), 14.12 (Environment Canterbury), and 14.13 (Environment Canterbury). Reject submission point 14.14 (Environment Canterbury).

Issue 7 – Natural hazards objectives

Submission point	Change sought by submitter
10.25 (Federated Farmers)	Retain objective 8.2.1 as notified.
4.6 Spark Limited	<p>Amend objective 8.2.2 to read:</p> <p>The risk profile to the infrastructure is a matter which should be determined by the asset owner, not the Council, and as such point 1 of the objective should be widened to include all infrastructure, and point 2 can be deleted, as follows:</p> <p>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</p> <p>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</p>
10.28 (Federated Farmers)	Retain objective 8.2.2 as notified
12.2 (Oil Companies)	Retain objective 8.2.2 as notified
16.4 (Main Power)	<p>Amend objective 8.2.2 as follows:</p> <p>1. Upgrading maintenance and replacement of existing infrastructure, critical 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;</p> <p>and</p> <p>2. New critical infrastructure avoids High Flood Hazard Areas but where this unless it is not</p>

	possible or is impractical when considering operational and technical constraints and is designed to maintain its integrity and ongoing function during and after natural hazard events or can be reinstated in a timely manner.
14.16 (Environment Canterbury)	Decision requested to insert a new objective 8.2.1 to reflect an overarching objective for all natural hazards, whereby the outcome sought is management of all natural hazard risk (including in areas not identified by an overlay) to acceptable levels. <u>Objective 8.2.1 Risk from natural hazards</u> <u>New land use and development is managed in areas subject to natural hazards to ensure that natural hazard risk is avoided/mitigated to an acceptable level.</u>
FS2.6 (Federated Farmers)	Seeks to disallow the submission point 14.16 (Environment Canterbury)
14.17 (Environment Canterbury)	Decision requested to insert a new objective 8.2.4 relating to natural hazard mitigation works where the outcome sought is that communities relying on hazard mitigation works enable new development in the first instance, and that where new mitigation works are unavoidable, they do not have significant effects on the environment.
FS.2.5 (Federated Farmers)	Seeks to disallow submission point in part.

Objective 8.2.1

112. Objective 8.2.1 establishes a risk based approach to the Natural Hazards chapter. It is directive in that new land use and development is managed, avoided or mitigated throughout the Natural Hazard Overlays.

Submission Point 10.25 – Federated Farmers

113. Submission point 10.25 (Federated Farmers) is in support of objective 8.2.1. No other submission points oppose objective 8.2.1.

Objective 8.2.2

114. Objective 8.2.2. manages Critical Infrastructure and Non-Critical Infrastructure within the Natural Hazard Overlays. It highlights that critical infrastructure be avoided within High Flood Hazard Areas but is permissive where infrastructure does not increase risk to people or significant assets.

Submission Point 4.6 – Spark New Zealand Trading Limited

115. Submission point 4.6 (Spark New Zealand Trading Limited) requests that objective 8.2.2 clause 2 be deleted in full. The changes to the submission would mean that the objective would treat critical infrastructure and non-critical infrastructure the same. I consider that it is not appropriate to consider critical infrastructure and non-critical infrastructure the same. Critical infrastructure requires special consideration that is separate to non-critical infrastructure. At this time, I do not support the requested relief and recommend rejecting the submission point.

Submission Point 16.4 – Main Power

116. Regarding submission point 16.4 (Main Power), I view the first part of the requested relief to be appropriate as it makes sense due to the fact the provisions are permissive for critical infrastructure that is already in place. The rule framework has separate provisions for critical infrastructure that is not yet existing which may be hazard sensitive.
117. I view the second part of requested relief to be minor in nature and I see no adverse consequences as a result of including the recommended wording. I support the requested amendments.

Additions to objectives

Submission Point 14.17 – Environment Canterbury

118. 14.17 Environment Canterbury have requested a new objective is inserted which manages natural hazard mitigation works. This matter was discussed in a pre-hearing meeting with Environment Canterbury, and it was agreed the submission point be accepted. Environment Canterbury have drafted the objective as set out in paragraph 127.
119. The objective will be directive in avoiding hazard mitigation works in the first instance within High Hazard Areas. It is intended for the objective to be more permissive of hazard mitigation works outside of High Flood Hazard Areas where minimum floor levels are met and there are no significant consequences on the environment.
120. As a consequential amendment, a definition of Community Scale Hazard Mitigation Works has been set out in Appendix 1.

Further Submission Point FS2.6 – Federated Farmers

121. Federated Farmers (FS2.6) have made a further submission which seeks to disallow submission point 14.16 (Environment Canterbury). Federated Farmers noted in their further submission that mitigation works is a means to an end and should not be an objective. This matter was discussed at the pre-hearing meeting with Federated Farmers. I disagree with this statement as in my opinion it is appropriate to have an objective for mitigation works. I am consistent with my recommendation to insert a new objective for hazard mitigation works as drafted in the recommendations (paragraph 127).

Submission Point 14.16 – Environment Canterbury

122. Environment Canterbury (14.16) request for an additional objective to be added which reflects an overarching management of all natural hazards. The intention behind is to reflect that not all natural hazards are managed in the planning maps or the natural hazard overlays. An example is wildfire, which is regulated by rules and policies but is not included on the planning maps. I agree with the submission point as we have not identified wildfire on the planning maps or natural hazard overlays. I view it to be sensible to include an objective that encompasses wildfire.

Further Submission Point FS.25 – Federated Farmers

123. Federated Farmers (FS2.5) seek to disallow submission point 14.16 (Environment Canterbury) to insert an overarching objective that cover all natural hazards, even those that are not identified. This matter was discussed at a pre-hearing meeting with Federated Farmers, and it was explained the reasoning behind this is to include natural hazards that have not been identified on the planning maps/natural hazard overlays i.e wildfire. This issue was unresolved, with Federated Farmers being opposed to this objective. It's stated in the pre-hearing meeting notes (appendix four), that Federated Farmers will reconsider if re-drafted. At this stage,

discussions regarding this submission point had not been had and amendments have since been made. These are outlined in appendix 1 and in the recommendation below (paragraph 127).

Recommendation:

Objective 8.2.1

124. Accept submission point 10.25 (Federated Farmers) and retain as notified as set out in appendix 1.

Objective 8.2.2

125. Reject submission points 10.28 (Federated Farmers) and 12.2 (Oil Companies). Reject submission point 4.6 (Spark New Zealand Trading Limited). Accept submission point 16.4 (Main Power) and amend as set out in Appendix 1.

Additions to objectives

126. Accept submission point 14.16 (Environment Canterbury) and insert new objective 8.2.1 as shown in appendix 1. Amend objective 8.2.1 to become 8.2.2 as a consequential amendment as shown in appendix 1. Reject submission point FS2.6 (Federated Farmers)

8.2.1 Risk from natural hazards
New land use and development is managed in areas subject to natural hazards to ensure that natural hazard risk is avoided or mitigated to an acceptable level

127. Accept submission point 14.17 (Environment Canterbury) and insert new objective 8.2.4 as set out below and Appendix 1. Reject submission point FS2.5 Federated Farmers)

Objective 8.2.4 Hazard Mitigation Works

Reliance on new or upgraded hazard mitigation works to enable new development is avoided in the first instance, unless outside of high flood hazard areas the works consist of raised floor levels, or they are unavoidable, and they do not have significant effects on the environment.

Issue 8 – Policies 8.3.1 identification of natural hazards and 8.3.2 Risk based approach.

Submission point	Change sought by submitter
10.27(Federated Farmers)	Retain policy 8.3.1 as notified.
4.7 (Spark New Zealand	Retain policy 8.3.2 as notified.

Trading Limited)	
10.28 (Federated Farmers)	Retain policy 8.3.2 as notified.
12.3 (Oil Companies)	Retain policy 8.3.2 as notified
14.18(Environment Canterbury)	Consider inserting a second clause in policy 8.3.2 requiring natural hazard risk to be managed to an acceptable level.

Policy 8.3.1

128. Federated Farmers (10.27) is in support of policy 8.3.1 which is noted.

129. No other submission points oppose policy 8.3.1.

Policy 8.3.2

130. Submission points 4.7 (Spark New Zealand Trading Limited), 10.28 (Federated Farmers), and 12.3 (Oil Companies) are in support of policy 8.3.2.

131. In response to submission point 14.18 (Environment Canterbury), I agree that a second clause would strengthen policy 8.3.2. As the rule framework takes a risk based approach, I consider it appropriate to add a second clause requiring natural hazard risk to be managed to an acceptable level.

Recommendation:

Policy 8.3.1

132. Accept submission point 10.27 (Federated Farmers) and retain policy 8.3.1 as notified.

Policy 8.3.2

133. Reject submission points 4.7 (Spark New Zealand Trading Limited), 10.28 (Federated Farmers), and 12.3 (Oil Companies). Accept submission point 14.18 (Environment Canterbury) and amend policy 8.2.3 as set out below and in Appendix 1.

Issue 9 – Policies 8.3.3 Additions to buildings in all hazard overlays

Submission point	Change sought by submitter
10.29 (Federated Farmers)	Retain policy 8.3.3 as notified.
12.3 (Oil Companies)	Retain policy 8.3.3 as notified.

Policy 8.3.3

134. As titled above, Policy 8.3.3 actively seeks to manage additions to buildings within all the natural hazard overlays. The policy is directive in managing additions to hazard sensitive buildings, so they do not increase the natural hazard risk onsite or to any adjoining site.

Submission Point 10.29 – Federated Farmers and 12.3 – Oil Companies

135. Submission points 10.29 (Federated Farmers) and 12.3 (Oil Companies) are in support of policy 8.3.3. No other submission points oppose this policy.

Recommendation:

136. Accept submission points 10.29 (Federated Farmers) and 12.3 (Oil Companies) and retain as set out in Appendix 1.

Issue 10 – 8.3.4 Hazard Mitigation works

Submission point	Change sought by submitter
10.30 (Federated Farmers)	Retain policy 8.3.4 as notified.
14.19 (Environment Canterbury)	Decision requested to amend policy 8.3.4 to read: 2. not undertaken by or on behalf of the Crown, Canterbury Regional Council...
14.20 (Environment Canterbury)	Decision requested to amend policy 8.3.4 to read: 2.c. the mitigation works...to other people, property, infrastructure or the natural environment.

Policy 8.3.4

Submission Point 10.30 – Federated Farmers

137. Federated Farmers (10.30) are in support of policy 8.3.4 which is noted.

Submission Point 14.19 – Environment Canterbury

138. Submission point 14.19 (Environment Canterbury) seek to insert the words “or on behalf” into policy 8.3.4. I consider the addition of the words “or on behalf” to be acceptable as it recognises the scope for hazard mitigation works to be undertaken on behalf of the Crown, Canterbury Regional Council, or the Council.

Submission Point 14.20 – Environment Canterbury

139. Environment Canterbury (14.20) requested the word “other” to be removed from policy 8.3.4 as it was considered to create confusion on who the “other” people are being referred to are. I agree with the suggested amendment and my view is the policy would have more clarity with the removal of the word “other”.

Recommendation:

140. Reject submission point 10.30 (Federated Farmers) and accept submission points 14.19 (Environment Canterbury) and 14.20 (Environment Canterbury) and amend policy 8.3.4 as set out in Appendix 1.

Issue 11 – 8.3.5 Natural features providing natural hazard resilience.

Submission point	Change sought by submitter
10.31 (Federated Farmers)	Retain policy 8.3.5 as notified.
14.22 (Environment Canterbury)	Amend policy 8.3.5 to the following: Restore, maintain or enhance... where they which assist in avoiding or mitigating natural hazards.

Policy 8.3.5

141.

Submission Point 10.31 – Federated Farmers

142. Federated Farmers (10.31) is in support of policy 8.3.5 and request the policy be retained as notified.

Submission Point 14.22 -Environment Canterbury

143. Environment Canterbury (14.22) requests the words “where they” be replaced with “which”. My view is that the requested relief broadens the policy beyond natural hazards. The words “where they” specifically correlate to natural hazards and amending the wording to “which” removes the association as the policy intends to do. I recommend rejecting this submission point.

Recommendation:

144. Accept submission point 10.31 (Federated Farmers) and reject submission point 14.22 (Environment Canterbury) and retain policy 8.3.5 as set out in appendix 1.

Issue 12 – Policies 8.3.6 Operation, maintenance, replacement, and repair of all infrastructure, 8.3.7 New and upgrading of non-critical infrastructure, and 8.3.8 Critical infrastructure.

Submitter	Change sought by submitter
4.8 (Spark New Zealand Trading Limited)	Retain policy 8.3.6 as notified.
10.32 (Federated Farmers)	Retain policy 8.3.6 as notified.
12.3 (Oil Companies)	Retain policy 8.3.6 as notified
16.5 (Main Power)	Retain policy 8.3.6 as notified
4.9 (Spark New Zealand Trading Limited)	Amend policy 8.3.7 as follows: Policy 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

	<p>Policy 8.3.8 Critical infrastructure</p> <p>1 Enable the upgrading of existing critical infrastructure in Flood Assessment Overlays only where the infrastructure does not increase flood risk on another site;</p> <p>2 Provide for upgrading of existing critical infrastructure in all other identified Natural Hazard Overlays;</p> <p>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;</p> <p>4 Avoid new critical infrastructure in High Flood Hazard Areas unless:</p> <p>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</p> <p>b. The critical infrastructure does not significantly increase the natural hazard risk to life, or increase risk to life and property on another site</p>
10.33 (Federated Farmers)	Retain policy 8.3.7 as notified.
10.34 (Federated Farmers)	Retain policy 8.3.8 as notified
16.6 (Main Power)	<p>Amend policy 8.3.8 as follows:</p> <p>1. enable the operation, maintenance, replacement, repair and upgrading of existing critical infrastructure in Flood Assessment Overlays only where the infrastructure does not increase flood risk on another site;</p> <p>2. provide for the operation, maintenance, replacement, repair and upgrading of existing critical infrastructure in all other identified Natural Hazard Overlays.</p> <p>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;</p> <p>4. Avoid new critical infrastructure in High Flood Hazard Areas unless:</p> <p>a. avoidance is impossible or impracticable when considering operational and technical constraints, 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</p> <p>b. The critical infrastructure does not significantly increase the natural hazard risk to life or increase risk to life and property on another site.</p>
14.24 (Environment Canterbury)	<p>Amend to read:</p> <p>b. The critical infrastructure does not significantly increase the natural hazard risk to life on the site or increase the risk to life or property on another site.</p>

Policy 8.3.6

145. Policy 8.3.6 relates to existing infrastructure and enables operation, maintenance, replacement, repair, or removal of all infrastructure in all identified natural hazard overlays. The policy recognises that there is existing infrastructure within areas susceptible to natural hazards and seeks to be permissive of the usage and removal of such existing infrastructure.

Submission Point 4.8 – Spark New Zealand Trading Limited, 10.32 – Federated Farmers, 12.3 – Oil Companies, and 16.5 – Main Power

146. Spark New Zealand Trading Limited (4.8), Federated Farmers (10.32), Oil Companies (12.3) and Main Power (16.5) are all in support of policy 8.3.6 which is noted. No submission points oppose this policy.

Policy 8.3.7

147. Policy 8.3.7 relates to new and upgrading of non-critical infrastructure. It is permissive of new non-critical infrastructure to be developed and upgraded within natural hazard overlays so long as the flood risk is not increased to another site.

Submission Point 10.34 – Federated Farmers

148. Federated Farmers (10.34) are in support of policy 8.3.7 which is noted.

Submission Point 4.9 – Spark New Zealand Trading Limited

149. Spark New Zealand Trading Limited (4.9) seek to combine policy 8.3.7 and 8.3.8 into one policy. This would essentially treat critical infrastructure and non-critical infrastructure the same in terms of the rules. The CRPS policy 11.3.4 is directive in that critical infrastructure is avoided in high hazard areas unless there is no reasonable alternative. This approach does not apply to non-critical infrastructure.
150. The relief sought to delete policy 8.3.8 would be permissive of new infrastructure that is critical in high hazard areas in which the CPRS deems inappropriate. I do not support the submission point.

Policy 8.3.8

151. Policy 8.3.8 relates to critical infrastructure and enables the upgrading of existing critical infrastructure within the Flood Assessment Overlays where the infrastructure does not increase the flood risk to another site. The policy also enables upgrading of existing critical infrastructure within the other identified Natural Hazard Overlays.

Submission Point 16.6 – Main Power

152. In response to the first part of requested relief in Main Power’s submission point (16.6), I note that as the policy currently stands, it does not clarify that it is permissive for operation, maintenance, replacement, or repair of existing critical infrastructure. I view the requested amendment to be suitable as it makes sense to allow operation, maintenance, replacement, and repair of critical infrastructure that is already in existence.
153. The second part of the requested relief sought by Main Power (16.6) appears to be reasonable, with no foreseeable adverse effects. I view the change to be suitable as it would further clarify what is acceptable. I am in support of this submission point.

Submission Point 14.24 – Environment Canterbury

154. In response to submission point 14.24 (Environment Canterbury), I agree there is a gap in the wording and in my view, adding the words “on the site” would clarify the full intention of the policy, to manage onsite and offsite risks to people and property. I support the requested amendment.

Recommendations:

Policy 8.3.6

155. Accept submission point 4.8 (Spark New Zealand Trading Limited), 10.32 (Federated Farmers), 12.3 (Oil Companies) and 16.5 (Main Power) and retain policy 8.3.6 as set out in appendix 1.

Policy 8.3.7

156. Accept submission point 10.33 (Federated Farmers) and retain policy 8.3.7 as set out in Appendix 1. Reject submission point 4.9 (Spark New Zealand Trading Limited).

Policy 8.3.8

157. Reject submission point 10.34 (Federated Farmers) and accept submission point 16.6 (Main Power). Accept submission point 14.24 (Environment Canterbury) and amend as set out below and in Appendix 1.
158. Amend policy 8.3.8 as follows:

1. enable the **operation, maintenance, replacement, repair and** upgrading of existing critical infrastructure in Flood Assessment Overlays only where the infrastructure does not increase flood risk on another site;
2. provide for the **operation, maintenance, replacement, repair and** 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 **when considering operational and technical constraints**, 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 **on the site** and property on another site.

Issue 13 – 8.3.9 Earthworks

Submission point	Change sought by submitter
10.35 (Federated Farmers)	Retain policy 8.3.9 as notified.

Policy 8.3.9

159. Policy 8.3.9 seeks to manage earthworks within the two flood overlays to ensure earthworks undertaken do not increase risk of floodwaters offsite.

Submission Point 10.35 – Federated Farmers

160. Federated Farmers (10.35) is in support of policy 8.3.9 which is noted.

Recommendation:

161. Accept submission point 10.35 (Federated Farmers and retain policy 8.3.9 as notified as set out in Appendix 1.

Issue 14 – 8.3.10 High Flood Hazard Areas within the Urban Flood Assessment Overlay, 8.3.11 High Flood Hazard Areas outside of the Urban Flood Assessment Overlay and 8.3.12 Flooding outside of High Flood Hazard Areas

Submission point	Change sought by submitter
10.36 (Federated Farmers)	Retain policy 8.3.10 as notified.
14.25 (Environment Canterbury)	<p>Amend policy 8.3.10 to read:</p> <p>Avoid land use and development for hazard sensitive buildings in High Flood Hazard Areas within the Urban Flood Hazard Assessment Overlay, as determined by a Flood Assessment Certificate unless it can be demonstrated that:</p> <p>1. The nature of the activity means the risk to life and potential for damage from flooding is acceptable; or</p> <p>1. 2. Minimum floor levels are incorporated ...to ensure buildings are located above the flood level so that the risk to life and potential for property damage is mitigated to an acceptable level.</p> <p>2. 3. The risk to surrounding...</p> <p>3. <u>The development is not likely to require new or upgraded community hazard mitigation works.</u></p> <p>4. <u>The hazard sensitive building can be accessed and serviced during flood events</u></p>
14.26 (Environment Canterbury)	Delete the words “as determined by a Flood Hazard Assessment” from policies 8.3.10, 8.3.11, and 8.3.12.
10.37 (Federated Farmers)	Retain policy 8.3.11 as notified
10.38 (Federated Farmers)	Delete policy 8.3.12 in its entirety.

Policy 8.3.10

162. Policy 8.3.10 seeks to manage land use and development within High Flood Hazard Areas within the Urban Flood Assessment Overlay. The policy recognises there is existing development within Urban High Flood Hazard Areas and that people residing in these areas have already accepted some level of risk. The policy seeks to allow development in these areas where the risk to life and property is acceptable and developments meet minimum floor levels so that property damage is minimised in the event of a significant flood.

Submission Point 10.36 – Federated Farmers

163. Federated Farmers (10.36) is in support of policy 8.3.10 which is noted.

Submission Point 14.25 – Environment Canterbury

164. Environment Canterbury (14.25) seeks for policy 8.3.10 to be amended. It has been requested the for the first clause of 8.3.10 to be deleted and for two new clauses to be inserted.

165. This matter was discussed at a pre-hearing meeting with Environment Canterbury and the following amendment was agreed as set out below and in appendix 1 appendix 7.

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; or
3. the risk to surrounding properties is not significantly increased; or
4. The development is not likely to require new or upgraded community hazard mitigation works
5. ~~The hazard sensitive building can be accessed and serviced during flood events.~~

166. Environment Canterbury's submission requested the first clause be struck out. It was agreed at the pre-hearing meeting to retain the first clause.
167. Further to this, proposed clause 4 has been left in as it gives the policy scope to disallow hazard sensitive buildings that may require community, or larger scale hazard mitigation works. Clause 5 has also been struck out as it created confusion around what defines "serviced" and "accessed" and was unduly restrictive.

Submission Point 14.26 – Environment Canterbury

168. Environment Canterbury (14.26) request that the words "as determined by a Flood Hazard Assessment" are deleted from policies 8.3.10, 8.3.11 and 8.3.12. I view the change as unnecessary as the provisions were included for further clarity for plan readers.

Policy 8.3.11

169. Policy 8.3.11 seeks to manage flood risk within High Flood Hazard Areas that are outside of the Urban Flood Assessment Overlay. The policy recognises that there are High Flood Hazard Areas outside of the Kaikōura Township in low lying areas which may be at risk of flooding.

Submission Point 10.37 – Federated Farmers

170. Federated Farmers (10.37) are in support of policy 8.3.11 which is noted.
171. Environment canterbury have submitted against this policy and I have recommended to reject this submission point as detailed in paragraph 168.

Policy 8.3.12

172. Policy 8.3.12 relates to flooding outside of the High Flood Hazard Area. The policy intends to manage Hazard Sensitive buildings outside of the High Flood Hazard Areas.

Submission Point 10.38 – Federated Farmers

173. Federated Farmers (10.38) requests to delete policy 8.3.12 in its entirety as it is considered that there are other policies and rules that will safeguard the community from installing hazard sensitive buildings in flood prone areas. Federated Farmers noted in their submission that the policy is too broad, stating:

"As it is currently written, it can capture all buildings outside the High Flood Hazard areas. We do not believe this is what is intended. Furthermore, looking at the rules in the plan, this policy does not seem to apply, or refer, to any of the flood overlays, specifically."

174. As it stands, policy 8.3.12 captures Hazard Sensitive Buildings which have not been identified to be within High Hazard Areas in either the urban or non-urban areas. The policy recognises that there may be Hazard Sensitive Buildings outside of the high hazard areas, but still within areas that have potential to flood that should be managed. In my opinion it is useful to provide policy support for hazard sensitive buildings in areas that are subject to a low or medium flood hazard risk where they meet the prescribed criteria. This policy supports Rule 8.5.2 and 8.5.3.
175. This matter was discussed at the pre-hearing meeting with Federated Farmers (Appendix 4), and there was no overall resolution for this matter. However, Federated Farmers noted they would be open to agreement of the policy if it were redrafted.
176. I view the policy to be fit for purpose to manage flood risk outside the High Flood Hazard Areas, however I note there may be some ambiguity as the title of the policy reads:

Flooding outside of High Hazard Areas

177. I note there may be better clarity if the policy heading read:

Flooding outside of High Hazard Areas [within the Urban and Non-Urban Flood Assessment Overlays](#)

This would confirm the policy is only capturing areas within the Flood Assessment Overlays.

Recommendation:

Policy 8.3.10

178. Reject submission point 14.26 (Environment Canterbury). Accept in part submission point 14.25 (Environment Canterbury) and amend policy 8.3.10 as set out in appendix 1. Reject submission point 10.36 (Federated Farmers).

Policy 8.3.11

179. Reject submission point 14.26 (Environment Canterbury). Accept submission point 10.37 (Federated Farmers) and retain policy 8.3.11 as set out in appendix 1.

Policy 8.3.12

180. Reject submission point 14.26 (Environment Canterbury) and reject in part submission points 10.38 (Federated Farmers) and amend policy 8.3.12 as identified in paragraph 177 and in appendix 1.

Issue 15 – Policy 8.3.13 Debris Flow Fan Overlay and Landslide Debris Inundation Overlay

Submission point	Change sought by submitter
4.10 (Spark New Zealand Trading Limited)	Retain policy 8.3.13 as notified.
10.39 (Federated Farmers New Zealand)	Retain policy 8.3.13 as notified.

181. Policy 8.3.13 seeks to manage hazard sensitive buildings in the Debris Flow Fan Overlay and Landslide Debris Inundation Overlay.

Submission Point 4.10 – Spark New Zealand Trading Limited and 10.39 – Federated Farmers

182. Spark New Zealand Trading Limited (Submission Point 4.10) and Federated Farmers (submission point 10.39) are in support of policy 8.3.13 which is noted. No other submission points oppose this policy.

Recommendation:

183. Accept submission points 4.10 (Spark New Zealand Trading Limited) and 10.39 (Federated Farmers) and retain policy 8.3.13 as notified as set out in Appendix 1.

Issue 16 – Policy 8.3.14 The Fault Avoidance Overlay and Fault Awareness Overlay

Submission point	Change sought by submitter
4.11 (Spark New Zealand Trading Limited)	Retain policy 8.3.14 as notified.
10.40 (Federated)	Retain policy 8.3.14 as notified.

Farmers)	
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184. Policy 8.3.14 seeks to manage land use and development within the Fault Avoidance Overlay and Fault Awareness Overlay.

Submission Point 4.11 – Spark New Zealand Trading Limited and 10.40 – Federated Farmers

185. Submission points 4.11 (Spark New Zealand Trading Limited), and Federated Farmers (10.40) are both in support of the policy which is noted.

Recommendation:

186. Accept submission points 4.11 (Spark New Zealand Trading Limited), and 10.40 (Federated Farmers) and retain policy 8.3.14 as notified as shown in Appendix 1.

Issue 17 – Policy 8.3.15 Other Natural Hazards

Submission point	Change sought by submitter
10.41 (Federated Farmers)	Retain policy 8.3.15 as notified.

187. Policy 8.3.15 seeks to manage other natural hazards which may be prevalent in the district that lie outside of the rule framework in Chapter 8. An example of this is liquefaction, as there are no rules pertaining to liquefaction hazards in Chapter 8: Natural Hazards but Chapter 13: Subdivision has rules relating to liquefaction hazards.

Submission Point 10.41 – Federated Farmers

188. Submission point 10.41 (Federated Farmers) is in support of policy 8.3.15 which is noted.

Recommendation:

189. Accept submission point 10.41 (Federated Farmers) and retain policy 8.3.15 as shown in Appendix 1.

Issue 18 – Rule 8.5.1 Natural Hazard rules relating to wildfire

Submission point	Change sought by submitter
10.43 (Federated Farmers)	Retain rule 8.5.1 as notified
14.27 (Environment Canterbury)	Insert matters of discretion to rule 8.5.1 as follows: <ol style="list-style-type: none"><u>1. The wildfire risk to life and property on the site and to adjacent properties</u><u>2. Proposals to mitigate any risk including the enabling of firefighting and alignment with 4509:2008 (Code of Practice for Firefighting Water Supplies)</u>
FS2.7 (Federated Farmers)	Seeks to allow submission point 14.27 (Environment Canterbury)

Rule 8.5.1

190. Rule 8.5.1 seeks to manage wildfire risk by directing setback zones be implemented into the planning framework to prevent the rapid spread of wildfire.

Submission Point 10.43 – Federated Farmers

191. Submission point 10.43 (Federated Farmers) is in support of rule 8.5.1 which is noted.

Submission Point 14.27 – Environment Canterbury

192. Submission point 14.27 (Environment Canterbury) requests two matters of discretion into rule 8.5.1

- 1. The wildfire risk to life and property on the site and to adjacent properties.**
- 2. Proposals to mitigate any risk including the enabling of firefighting and alignment with 4509:2008 (Code of Practice for Firefighting Water Supplies)**

193. I note that in rule 8.5.1, no matters of discretion have been included which is a drafting error as the activity status of the rule is restricted discretionary. I recommend accepting in part the requested additions. The suggested clause 2 references a document which I suggest omitting from the clause for the reason being that if the referenced document becomes outdated, the planning officer is required to assess the proposal against that outdated document. I recommend amending clause 2 to read:

Proposals to mitigate any risk ~~including the enabling of firefighting and alignment with 4509:2008 (Code of Practice for Firefighting Water Supplies~~

Further Submission Point 14.27 – Federated Farmers

194. Federated Farmers have made a further submission to allow 14.27 (Environment Canterbury) and have recommended the word “adjacent” be amended to “adjoining” in clause 1 for consistency within the rule. I note that throughout the natural hazard rules, the term adjacent would be the more consistent word. I recommend to reject this further submission point.

Recommendation:

1. Reject submission point 10.43 (Federated Farmers) and accept in part submission point 14.27 (Environment Canterbury) and amend rule 8.5.1 as set out below and in Appendix 1.

Matters of discretion are restricted to:

1. **The wildfire risk to life and property on the site and to adjacent properties; and**
2. **Proposals to mitigate any risk.**

Issue 19 – Natural Hazard rules relating to the establishment of a new hazard sensitive building 8.5.2, 8.5.3, 8.5.4, and 8.5.5

Submission point	Change sought by submitter
10.44 (Federated)	Retain rule 8.5.2 as notified.

Farmers)	
7.2 (D. & L. Robinson)	Relates to rule 8.5.3. Decision requested to amend activity status to controlled and waive consent fee where allotment has already been granted to the title and building on the allotment was an expectation of the buyer.
10.45 (Federated Farmers)	Amend rule 8.5.3 as follows: Non-complying: Activity status where compliance with rule 8.5.2.3.a is not achieved Restricted discretionary: Activity status where compliance with rule 8.5.2.3.b is not achieved
10.46 (Federated Farmers)	Retain rule 8.5.4 as notified.
14.28 (Environment Canterbury)	Amend the matter of discretion (2) in rule 8.5.4 to read: The nature, design and intended use of the building, or structure and its susceptibility to damage.
10.47 (Federated Farmers)	Retain rule 8.5.5 as notified
(3.1) G. Acland	Request for the Council to meet costs for geotechnical investigation in relation to rule 8.5.5

Rule 8.5.2

191. Rule 8.5.2 directs the establishment of hazard sensitive buildings within the Urban Flood Hazard Assessment Overlay.

Submission Point 10.44 – Federated Farmers

192. Federated Farmers (submission point 10.44) is in support of rule 8.5.2 which is noted. No submission points oppose this rule.

Rule 8.5.3

193. Rule 8.5.3 seeks to manage new hazard sensitive buildings within the Non-Urban Flood Hazard Assessment Overlay. The rule is permissive of new hazard sensitive buildings within this overlay as long as it meets minimum recommended floor heights and is outside of the High Flood Hazard Area. For non-compliance of floor heights, the consent process is triggered and is then elevated to a restricted discretionary activity. If the Hazard Sensitive Building is in a High Flood Hazard Area, it would then become a non-complying activity.

Submission Point 10.45 – Federated Farmers

194. Regarding submission point 10.45 (Federated Farmers), the amendment requested is to fix a drafting error which is noted and will be amended.

Submission Point 7.2 – D. & L. Robinson

195. D. & L. Robinson (7.2) oppose rule 8.5.3 and submit two parts of requested relief. The first being the activity status for properties within the Flood Assessments Overlays, be amended to controlled, and the second being the consent fee is waived for properties that have already been allocated a title.
196. My response to the first part is that a controlled activity status for flooding is not appropriate. A controlled activity status does not give effect to the CRPS which promotes an avoidance policy for land use and development within High Flood Hazard Areas. I note that the activity is permitted unless minimum floor heights are not met and/or the site is within a high hazard area. As described in paragraph 181, the activity becomes restricted discretionary if the minimum floor height is not met, or non-complying if the site is within a high hazard area. A controlled activity application cannot be declined, even if the application proposed insufficient flood mitigation. In my opinion this does not give effect to the higher order documents.
197. As to the second part of requested relief for submission point 7.2 (D. & L. Robinson) is that consent fees are outside of the scope of the District Plan. The matter is ultra vires as the District Plan cannot set Council fees such as resource consent costs. This is controlled by the Local Government Act. Therefore, I recommend rejecting both parts of this submission point.

Rule 8.5.4

198. Rule 8.5.4 relates to new hazard sensitive buildings within the Debris Flow Fan Overlay and the Landslide Debris Inundation Overlay. The activity status is set at restricted discretionary as the rule recognises the dynamic and unpredictable nature of landslide inundation and debris flow fans.

Submission Point 10.46 – Federated Farmers

199. Federated Farmers (10.46) are in support of rule 8.5.4 which is noted.

Submission Point 14.28 – Environment Canterbury

200. Environment Canterbury (14.28) seek to remove the word “structure” from the second matter of discretion in rule 8.5.4. I see this as a suitable amendment to provide further clarity in the plan change.

Rule 8.5.5

201. Rule 8.5.5 also relates to the establishment of new hazard sensitive buildings within the Fault Awareness Overlay and the Fault Avoidance Overlay. The rule recognises the need for further information to assess fault rupture risk to people and property.

Submission Point 10.47 – Federated Farmers

202. Federated Farmers (10.47) is in support of rule 8.5.5. which is noted.

Submission Point 3.1 – G. Acland

203. G. Acland (3.1) opposes rule 8.5.5 and requests that costs be met in full or in part by the Council. The original submission reads as follows:

I am opposed to the transfer of cost to show if land can be developed onto the owner on account of modelling of perceived risk of that land. I feel costs of engineer and GNS assessment of safety to build on land already council approved on subdivided land should be met in part if not all by the Council.

I own a section of land which I have bought in 2014 with intention to build a residential holiday house on at Mangamaunu. Under the proposed changes the entire section has been modelled as in a Fault Avoidance Zone. Under the proposed changes, in order to seek building consent, I would have to conduct and pay for geotechnical and engineering studies. At the time of subdivision in 2006 a geotechnical assessment of my section was conducted which recognised some small earthquake risks but nothing to preclude building. There was no damage to the section in any form with the 2016 earthquake, the 'stress test' of this massive earthquake validated the assessment made in 2006. However, on account of

models I would need to pay for further assessment to confirm if the risk assessment of this model is accurate.

204. Whilst I have sympathy for the submitter, I note that the Council is obliged to use the latest technical information to assist in forming planning decisions, and in this case, there is new technical information which supersedes the geotechnical investigations undertaken in 2006. Further it is noted that not all faults within the district ruptured in 2016 and future stress testing may differ.
205. The approach taken is an assessment which has created a broad footprint informing the Fault Awareness and Fault Avoidance Overlays which indicate where fault rupture may pose risk to people and significant assets. This information is not site specific and further evidence is needed to determine fault rupture risk on an individual basis. While I understand the submitters frustration with paying for a further geotechnical assessment, the requested relief for the Council to cover the cost of this would come at an expense to the ratepayer. Furthermore, other property owners may also seek to have the ratepayer cover their technical assessments. This submission was discussed at a pre-hearing meeting but was not resolved. At this time, I cannot support the submission point and I recommend rejecting the submission point. The submitter may wish to present further evidence to further furnish their submission.

Recommendation:

Rule 8.5.2

206. Accept 10.44 (Federated Farmers) and retain rule 8.2.2 as set out in Appendix 1.

Rule 8.5.3

207. Accept submission point 10.45 (Federated Farmers) and amend rule 8.5.3 as set out below and in Appendix 1.

Activity status where compliance with rule 8.5.23.a is not achieved

Activity status where compliance with rule 8.5.23.b is not achieved

Rule 8.5.4

208. Reject submission point 10.47 (Federated Farmers) and accept submission point 14.28 (Environment Canterbury) and amend rule 8.5.4 as set out below and in appendix 1.

The nature, design and intended use of the building, ~~or structure~~, and its susceptibility to damage.

Rule 8.5.5

209. Reject submission point 3.1 (George Acland). Accept submission point 10. 47 (Federated Farmers) and retain rule 8.5.5 a set out in Appendix 1.

Issue 20 – Natural Hazard rules relating to additions to existing hazard sensitive buildings 8.5.6

Submission number	Change sought by submitter
10.48 (Federated Farmers)	Retain rule 8.5.6 as notified.
14.28 (Environment Canterbury)	Amend matter of discretion (2) to read: The nature, design and intended use of the building, or structure , and its susceptibility to damage.

Submission Point 10.48 – Federated Farmers

210. Federated Farmers (10.48) are in support of the rule 8.5. which is noted.

Submission Point 14.28 – Environment Canterbury

211. Environment Canterbury (14.28) support the rule in part and request the words “or structure” be removed from matter of discretion (2). The submission point states the inclusion of the word ‘structure’ to be unnecessary and confusing for plan readers as the rule does not use the word “structure”.

212. I view the requested relief to be suitable. Removing the words “or structure” would further clarify the rule and would capture buildings as the rule 8.5.6 intends to do.

Recommendation:

213. Reject submission point 10.48 (Federated Farmers). Accept submission point 14.18 (Environment Canterbury) and amend rule 8.5.6 clause 2 set out below and in Appendix 1.

The nature, design and intended use of the building, ~~or structure~~, and its susceptibility to damage.

Issue 21 – Natural Hazard rules relating to earthworks 8.5.7

Submission point	Change sought by submitter
10.49	Retain rule 8.5.7 as notified.

(Federated Farmers)	
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Submission Point 10.49 - Federated Farmers

214. Federated Farmers (10.49) is in support of the definition of Earthworks which is noted. No other submissions oppose rule 8.5.7.

Recommendation:

215. Accept submission point 10.49 (Federated Farmers) and retain the definition of Earthworks and set out in Appendix 1.

Issue 22 – Natural Hazard rules relating to infrastructure 8.5.8 and 8.5.9

Submission point	Change sought by submitter
4.11 (Spark New Zealand Trading Limited)	Retain rule 8.5.8 as notified. Submitter notes that this rule relates to non-critical infrastructure and critical infrastructure triggers need for consent under rule 8.5.9.
5.3 (Kaikōura District Council)	Amend rule 8.5.8 to read: New non-critical infrastructure and critical infrastructure , or upgrading of non-critical infrastructure and critical infrastructure where; The activity does not result in permanent raising of the ground level.
10.50 (Federated Farmers)	Retain rule 8.5.8 as notified.
16.7 (Main Power)	Amend rule 8.5.8 to read: New infrastructure, or the operation, maintenance, repair, replacement or upgrading of infrastructure and critical infrastructure where: a. the activity does not result in permanent raising of the ground level.
4.12 (Spark New Zealand Trading Limited)	Amend rule 8.5.9 as follows: All zones with the Urban Flood Assessment Overlay, Non-Urban Flood Assessment Overlay, Landslide Debris Inundation Overlay, Fault Avoidance Overlay or Fault Awareness Overlay New Critical Infrastructure <u>Permitted where:</u>

	<p><u>a. the footprint of the critical infrastructure structures do not exceed 20m2 [or similar relief]</u></p> <p>Restricted discretionary</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> 1. The extent to which infrastructure exacerbates the natural hazard risk or transfers the risk to another site; 2. The ability for flood water conveyance to be maintained; 3. 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; 4. The extent to which the location and design of the infrastructure address relevant natural hazard risk and appropriate measures that have been incorporated into the design to provide for the continued operation
10.51 (Federated Farmers)	Retain rule 8.5.9 as notified.

Rule 8.5.8

216. Rule 8.5.8 directs management of new infrastructure or upgrading of infrastructure and critical within the Non-Urban Flood Assessment Overlay and the Urban Flood Assessment overlay. The rule is permissive where the infrastructure does not permanently raise the ground level. Non-compliance raises the activity status to restricted discretionary.

Submission Point 5.3 - Kaikōura District Council

217. Kaikōura District Council (5.3) supports rule 8.5.8 in part and seeks the following amendment;

New non-critical infrastructure and critical infrastructure, or upgrading of non-critical infrastructure and critical infrastructure where:

- a. The activity does not result in permanent raising of the ground level.

Submission Point 10.50 – Federated Farmers

218. Federated Farmers (10.50) supports rule 8.5.8 which is noted.

Submission Point 16.7 – Main Power

219. Main Power (16.7) requests the words “operation, maintenance, repair, replacement or” be inserted into rule 8.5.8. I view the requested amendment to be acceptable as I see no adverse consequences as a result of the change.

Rule 8.5.9

220. Rule 8.5.9 specifically relates to new critical infrastructure within the Urban Flood Assessment Overlay, Non-Urban Flood Assessment Overlay, Landslide Debris Inundation Overlay, Fault Avoidance Overlay and the Fault Awareness Overlay.

Submission Point 10.51 – Federated Farmers

221. Federated Farmers (10.51) is in support of rule 8.5.9 which is noted.

Submission Point 4.12 – Spark New Zealand Trading Limited

222. Spark New Zealand Trading Limited (4.12) seek to insert a permitted activity under the rule if:

- a. the footprint of the critical infrastructure structures do not exceed 20m2
[or similar relief]

223. It was discussed at a pre-hearing meeting that telecommunications are exempt from District Plan natural hazards rules and provisions under the NESTF clause 57 which states that:

District rules about natural hazard areas disapplied

- (1) A territorial authority cannot make a natural hazard rule that applied 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.²

224. I note that while telecommunications may be exempt from district plan rules pertaining to natural hazards, I view it appropriate to retain the proposed rule 8.5.8 which will manage other critical infrastructure in the District.

² <https://www.legislation.govt.nz/regulation/public/2016/0281/30.0/DLM7027210.html>

225. I am unclear why Spark New Zealand Trading Limited are proposing to insert a permitted activity clause into the rule if telecommunications are exempt from the rule. However, this may be further communicated through further evidence to be received prior to the hearing.

Recommendation:

Rule 8.5.8

226. Accept submission point 5.3 (Kaikōura District Council) in part and accept submission point 16.7 (Main Power) in part and amend rule 8.5.3 as set out below in appendix 1. Reject submission point 10.50 (Federated Farmers) and submission point 4.11 (Spark Trading Limited New Zealand).

New non-critical infrastructure critical infrastructure, or the operation, maintenance, repair, replacement, upgrading of non-critical infrastructure and critical infrastructure where:

- a. **The activity does not result in permanent raising of the ground level**

Rule 8.5.9

227. Reject submission point 4.12 (Spark New Zealand Trading Limited). Accept submission point 10.51 (Federated Farmers) and retain rule 8.5.9 as set out in Appendix 1.

Issue 23 – Natural Hazard rules relating to change of use of an existing building 8.5.10, 8.5.11.

Submission Point	Change sought by submitter
10.52 (Federated Farmers)	Retain rule 8.5.10 as notified.
10.53 (Federated Farmers)	Retain rule 8.5.11 as notified.

Submission Point 10.52 and 10.53 – Federated Farmers

228. Submission points 10.52 (Federated Farmers) and 10.53 (Federated Farmers) are in support of rules 8.5.10 and 8.5.11 which is noted.

Recommendation:

229. Accept submission points 10.52 (Federated Farmers) and 10.53 (Federated Farmers) and retain rules 8.5.10 and 8.5.11 as notified as set out in Appendix 1.

Issue 24 – Natural Hazard rules relating to establishment of camping ground 8.5.12 and 8.5.13.

Submission Point	Change sought by submitter
10.54 (Federated Farmers)	Retain rule 8.5.12 as notified.
10.55 (Federated Farmers)	Retain rule 8.5.13 as notified.

Submission Point 10.54 and 10.55 – Federated Farmers

230. Submission points 10.54 (Federated Farmers) and 10.55 (Federated Farmers) are in support of rules 8.5.12 and 8.5.13 which is noted.

Recommendation:

231. Accept submission points 10.54 (Federated Farmers) and 10.55 (Federated Farmers) and retain rules 8.5.12 and 8.5.13 as notified as shown in Appendix 1.

Issue 25 – Natural Hazards standards 8.6

Submission Point	Change sought by submitter
10.56 (Federated Farmers)	Retain standard 8.6 as notified.
14.29 (Environment Canterbury)	Amend as follows: 8.6.1 Natural Hazard Activity Standard

Submission Point 10.56 – Federated Farmers

232. Submission point 10.56 (Federated Farmers) support of standard 8.6.1 which is noted.

Submission Point 14.29 – Environment Canterbury

233. Submission point 14.29 (Environment Canterbury), requests the word “Activity” is inserted into the standard as is referred to as “activity standard” in the rules. The relief sought is based on the grounds that it is referred to as an “activity standard” in the proposed rules.

234. I agree with requested decision as it is 8.6.1 is referred to an activity standard throughout the rules. I consider the addition to add clarity and consistency to the plan.

Recommendation:

235. Accept submission point 14.29 (Environment Canterbury) and amend standard 8.6.1 as set out in Appendix 1.

Issue 26 – Chapter 13 Subdivision issues, objectives and policies

Submission Point	Change sought by submitter
10.57 (Federated Farmers)	Retain 13.2 Issue 1 as notified.
14.30 (Environment Canterbury)	Amend 13.2.1 Objective 1 as follows: 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 unless this risk can be remedied, avoided, or mitigated without significant adverse effects on the environment. <u>Subdivision is:</u> <u>1. avoided in areas where the risk to life or property from natural hazards is unacceptable</u>

	<u>2. managed in other areas to ensure that the risk of natural hazards to people and property is appropriately mitigated</u>
FS2.8 (Federated Farmers)	Submitter seeks to allow submission point 14.30 in part. Agrees to subclause (1) as a standalone objective but does not agree to subclause (2)
14.31 (Environment Canterbury)	Amend policy 7 to read <ul style="list-style-type: none"> <u>1. Avoid subdivision within High Flood Hazard areas unless it is within the Urban Flood Overlay in which case the flood risk must be avoided or mitigated.</u> <u>2. Avoid subdivision within the Fault Avoidance Overlay</u> <u>3. Manage subdivision within all natural hazard overlays other than those referred to in Clause 1 and 2 above, to ensure that the natural hazard risk is acceptable</u> <u>4. Manage subdivision in areas of the district that are subject to natural hazards, but are not identified as within a natural hazards overlay, to ensure that the risk to life and property from natural hazards is acceptable</u> <u>5. Manage subdivision to ensure that development is not likely to require new or upgraded community scale hazard mitigation works, and that in the event of a flood all properties continue to have physical access and services</u> <u>Manage subdivision within all natural hazard overlays to ensure risk to life and property is acceptable</u>
FS2.9 (Federated Farmers)	Submitter seeks to allow the submission point 14.31 (Environment Canterbury in part) Submitter agrees to subclause (2) and (3) but does not agree to subclause (4)
10.59 (Federated Farmers)	Retain 13.2.2 as notified.
14.32 (Environment Canterbury)	Amend policy 13.2.2 as follows: <ul style="list-style-type: none"> <u>1. Avoid subdivision within High Flood Hazard areas unless it is within the Urban Flood Assessment Overlay in which case the flood risk must be avoided or mitigated.</u> <u>2. Avoid subdivision within the Fault Avoidance Overlay</u> <u>3. Manage subdivision within all natural hazard overlays other than those referred to in Clause 1 and 2 above, to ensure the natural hazard risk is acceptable.</u> <u>4. Manage subdivision in areas of the district natural hazards but are not identified as within a natural hazard overlay, to ensure that the risk to life and property from natural hazards is acceptable.</u> <u>5. Manage subdivision to ensure that development is not likely to require new or upgraded community scale hazard mitigation works, and that in the event of a flood all properties continue to have physical access and services.</u>

236. Chapter 13: Subdivision is directive in the management of subdivision in the district.

Submission Point 10.57 – Federated Farmers

237. Submission point 10.57 (Federated Farmers) requests 13.2 Issue 1 be retained as notified. No other submission points oppose 13.2 Issue 1.

Submission Point 14.30 – Environment Canterbury

238. Submission point 14.30 (Environment Canterbury) request that 13.2.1 Objective 1 is separated into 2 clauses. In their submission, Environment Canterbury state that objective 1 and policy 7 are at odds as objective 1 seeks avoidance of subdivision in areas where it increases risk unless it can be remedied avoided or mitigated. Whereas policy 7 directs management to ensure risk to life and property is acceptable. I agree that objective 1 and policy 7 appear to be in conflict and the suggested amendments would be suitable to provide clarity for plan readers. The recommended change would also give better effect to RPS policies 11.3.1, 11.3.2, and 11 3.5.

239. This matter was discussed at a pre-hearing meeting with Environment Canterbury as set out in appendix 7. It was agreed to accept the submission point and amend the policy as proposed by Environment Canterbury.

Submission Point 14.31 – Environment Canterbury

240. Environment Canterbury (14.31) seek to amend policy 7 as shown in the table above. The original submission states that Objective 1 and Policy 7 are in contradiction, and that the policy would benefit from further direction on areas where subdivision is inappropriate and where it may be appropriate. I view the requested additions to policy 7 would provide further clarity and direction of how the policy will manage natural hazard risk regarding subdivision.

241. The following amendment was agreed at a pre-hearing meeting as described in appendix 7:

(...)

Policy 13.2.2 Subdivision for new hazard sensitive buildings shall:

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

1. **Be avoided** within High Flood Hazard areas unless it is within the Urban Flood Overlay in which case the flood risk must be ~~avoided or~~ mitigated.
2. **Avoid subdivision** within the Fault Avoidance Overlay
3. **Be managed** within all natural hazard overlays other than those referred to in Clause 1 and 2 above, to ensure that the natural hazard risk is acceptable
4. **Be managed** in areas of the district that are subject to natural hazards, but are not identified as within a natural hazards overlay, to ensure that the risk to life and property from natural hazards is acceptable.
5. **Be managed** to ensure that development is not likely to require new or upgraded community scale

Further Submission Point FS2.9

242. Federated Farmers made a further submission against 14.31 (Environment Canterbury) and agrees to the submission point in part. Federated Farmers agree to subclause (1), but does not agree to subclause (2) and recommends the following wording:

Subdivision is managed appropriately within all natural hazard overlays to ensure risk to life and property is acceptable.

243. The wording 'acceptable' is used throughout the PC3 rules and policies. I recommend using the word "acceptable" to be consistent with the plan. I do not agree with the requested relief.

Submission Point 14.32 – Environment Canterbury

244. Environment Canterbury (14.32) seeks to amend policy 13.11.1 and add in four new clauses as shown in the table above. This matter was discussed at a pre-hearing meeting and the following final version of proposed amendment was agreed:

Subdivision for new hazard sensitive buildings shall be:

1. ~~Avoid subdivision~~ **avoided within High Flood Hazard areas unless it is within the Urban Flood Overlay in which case the flood risk must be avoided or mitigated.**
2. **avoided within the Fault Avoidance Overlay**
3. ~~managed subdivision~~ within all natural hazard overlays other than those referred to in Clause 1 and 2 above, to ensure that the natural hazard risk is acceptable
4. **managed Manage subdivision in areas of the district that are subject to natural hazards, but are not identified as within a natural hazards overlay, to ensure that the risk to life and property from natural hazards is acceptable.**
5. ~~managed Manage subdivision~~ **to ensure that development is not likely to require new or upgraded community scale**

245. The word “new” was added to recognise that hazard sensitive buildings already in existence are not part of the scope of the rules.

Submission Point 10.59 – Federated Farmers

246. Federated Farmers (10.59) are in support of 13.2.2 which is noted.

Recommendation:

247. Accept submission point 10.57 (Federated Farmers) and retain 13.1 issue 1 as set out in Appendix 1.

248. Accept submission point 14.30 (Environment Canterbury) and amend as set out in Appendix 1. Reject submission point FS2.8 (Federated Farmers).

249. Accept submission point 14.31 (Environment Canterbury) and amend as set out in Appendix 1. Reject submission point FS2.9 (Federated Farmers).

250. Reject submission point 10.59 (Federated Farmers) and accept submission point 14.32 (Environment Canterbury) in part and amend as shown in paragraph 238 and appendix 1.

Issue 27 – Chapter 13 Subdivision rules 13.11.1 Controlled Subdivision Activities, 13.11.2 Restricted Discretionary Activities, and 13.11.4 Non-complying Subdivision Activities

Submission point	Change sought by submitter
10.60 (Federated Farmers)	Retain 13.11.1 as notified
14.32 (Environment Canterbury)	Delete the first paragraph of 13.11.1 and replace the first paragraph with: <u>Natural Hazards</u> <u>1. The nature and extent of natural hazards that may affect the area proposed to be subdivided;</u> <u>2. Proposals to avoid or mitigate natural hazards;</u> <u>3. Whether proposed new allotment(s) would lead to an increase in risk from natural hazards, including to people, property on the new allotments or other properties.</u> <u>4. Whether the new subdivision is likely to require new or upgraded community scale hazard mitigation works.</u> <u>5. Proposals to ensure that any new Hazard Sensitive Buildings to be developed as a result of the subdivision are able to be accessed in the event of flooding.</u>
10.61 (Federated)	Retain 13.11.2 as notified

Farmers)	
10.62 (Federated Farmers)	Retain rule 13.11.3 as notified

Rule 13.11.1

251. Rule 13.11.1 sets out controlled activities in relation to subdivision.

Submission Point 10.60 – Federated Farmers

252. Federated Farmers (10.60) are in support of rule 13.11.1 which is noted.

Submission Point 14.32 – Environment Canterbury

253. Environment Canterbury (14.32) request that the first paragraph of the rule be deleted and replaced with 5 new clauses as shown in the table above.

254. Environment Canterbury (14.32) submit the amendments would give better effect to RPS policies 11.3.1, 11.3.2, 11.3.5, and 11.3.7. it is noted the matters of control have been carried over from the operative plan but is inconsistent with the new natural hazards chapter and provision, including the matters of discretion.

255. This matter was discussed at a pre-hearing meeting and the following amendment was agreed.

(...)

Natural Hazards

- ~~1. The nature and extent of natural hazards that may affect the area proposed to be subdivided;~~
- ~~2. Proposals to avoid or mitigate natural hazards;~~
- ~~3. Whether proposed new allotment(s) would lead to an increase in risk from natural hazards, including to people, property on the new allotments or other properties.~~
- ~~4. Whether the new subdivision is likely to require new or upgraded community scale hazard mitigation works.~~
- ~~5. Proposals to ensure that any new Hazard Sensitive Buildings to be developed as a result of the subdivision are able to be accessed in the event of flooding.~~

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
3. Recommendations for foundations for future buildings;
4. Remediation and ground treatment

256. The first paragraph originally proposed by Environment Canterbury has been struck out as 13.11.1 relates to controlled activities. The only controlled activities in respect to natural hazards is liquefaction. The proposed paragraph relates to other matters and is not appropriate to be retained in a policy that is reserved for controlled activities.
257. Further to this, as a consequential amendment, the list of natural hazards described as controlled activities in rule 13.11.1 below has also been struck out as the list of natural hazards below relate to a controlled activities in the subdivision chapter. Suggest refer to recommendation rather than restate it here.

~~— 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.~~

~~— Erosion~~

~~— Flooding and Inundation~~

~~— Landslip~~

~~— Rockfall~~

~~— Aggregation~~

~~— Unconsolidated Fill~~

~~— Subsidence~~

~~— Coastal erosion~~

~~— Tsunami.~~

Rule 13.11.2

258. Rule 13.11.2 sets out restricted discretionary activities where subdivision is concerned. The PPC3 proposes a new restricted discretionary activity which seeks to manage new subdivisions locating a hazard sensitive platform within the natural hazard overlays.

Submission Point 10.61 – Federated Farmers

259. Federated Farmers (10.61) are in support of rule 13.11.2 which is noted. No submission points oppose rule 13.11.2.

Rule 13.11.3

260. Rule 13.11.3 relates to subdivision and non-complying activities. Two new non-complying activities have been proposed: subdivision locating a platform for a new hazard sensitive building within the Fault Avoidance Overlay; and any subdivision locating a platform for a new hazard sensitive building within a High Flood Hazard Area.

Submission Point 10.62 – Federated Farmers

261. Federated Farmers (10.62) are in support of rule 13.11.3 and request the rule be retained as notified. No submission points oppose rule 13.11.3.

Recommendation:

Rule 13.11.1

262. Accept in part submission point 14.32 (Environment Canterbury) and amend rule 13.11.1 as set out below and in Appendix 1.

Natural Hazards

~~— Erosion~~

~~— Flooding and Inundation~~

~~— Landslip~~

~~— Rockfall~~

~~— Aggregation~~

~~— Unconsolidated Fill~~

~~— Subsidence~~

~~— Coastal erosion~~

~~— Tsunami.~~

~~— 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;**

Rule 13.11.2

263. Accept submission point 10.61 (Federated Farmers) and retain as set out in Appendix 1.

Rule 13.11.3

264. Accept submission point 10.62 (Federated Farmers) and retain rule 13.11.3 as set out in Appendix 1.

Issue 28 – General Submissions

Submission Point	Relevant provisions	Change sought by submitter
5.1 (Kaikōura District Council)	All	After each semicolon add an “and” or an “or”
14.1 (Environment Canterbury)	All	Amend all key words: Urban Flood Hazard Assessment Overlay Flood Hazard Assessment Certificate vs Flood Hazard Certificate Inconsistent capitalisation of flood hazard assessment certificate. Debris fan flows vs debris flow fan, debris fans overlays vs debris flow fan overlay Wildfire vs wild fire Risk based vs risk-based Inconsistent capitalisation: Natural Hazards Policies vs Natural Hazards rules Capitalisation of first word in defined terms, e.g. plantation forestry, hazard sensitive building, the use of ‘new’ in relation to activities managed, e.g. Rule 8.5.2 and 8.5.3/8.5.4 Use of ‘in’ and ‘within’ and ‘of’ natural hazard overlays
2.2 (Cargil Station)	Rule 8.5.4 Rule 8.5.6	Submitter seeks for the Council to undertake further “area wide” assessment focusing on identifying potential hazard zones in Urban areas where the Landslide Debris Inundation Overlay is concerned.

	Rule 8.5.9 Rule 8.5.11 Rule 8.5.13 Rule 13.11.2	
2.3 (Cargil Station)	General	For the Council to put together a liquefaction database comprised of geotechnical investigations with specific relation to liquefaction information.
7.1 D. & L. Robinson	Provisions relating to landslide debris inundation	Request to amend activity status to controlled and waive consent fees where allotments have already been granted the title and building on the allotment was an expectation of the buyer.

Submission Point 5.1 – Kaikōura District Council

265. Kaikōura District Council (5.1) submitted that an “and” or an “or” should be added after each semicolon to provide further clarity and consistency to the plan change. I view the amendment sought to be suitable as it would add further clarity to the plan change and seeks to ease potential confusion for plan readers.

Submission Point 14.1 – Environment Canterbury

266. Environment Canterbury (14.1) submits for all key words to be amended throughout the PPC3. A list of words and terms have been provided which have inconsistent spelling, wording of terms, and capitalisation of words. I agree that for better consistency and clarity of the plan, the key words should be amended to be uniform throughout.

Submission Point 2.2 – Cargill Station

267. Submission point 2.2 (Cargil Station) seeks for the Council to undertake further “area wide” assessment which focuses on identifying landslide hazards in Urban areas. The original submission reads as follows:

“Referring to GNS’ recommendations to consider whether or not the assessment carried provides sufficient information to underpin DP provisions, we note that their work “does not provide information regarding the likelihood of a given area being inundated with debris”. We also note that while this deterministic exercise (largely based on topography/LiDAR derived DEM) allows a very high level understanding or potential areas of interest in the district, it does not consider any parameter such as Geotech, established vegetation, likelihood of a trigger event, etc. Those parameters should be considered in a district wide assessment before being used as a DP provision purposes, as strongly suggested by Council’s engaged experts in their recommendations. We believe there is better value for money for the community in Council undertaking further “area wide” assessment focusing on identified potential hazard zone in urban areas.”

268. The submitter makes informed comments which I consider to have merit and I generally agree with the submission point. Here I will refer to paragraph 302, where the Kaikoura District Council has made a submission requesting to undertake further GNS work. The further GNS works is anticipated to further refine the Landslide Debris Inundation Overlay and the Debris Flow Fan Overlay.
269. This matter was discussed in a pre-hearing meeting and the submitter is generally satisfied with KDC's direction to undertake GNS investigations to further refine landslide debris inundation and debris flow fan areas.
270. The GNS investigation has been completed. KDC staff received the final draft report on the 13th of October 2021.

Submission Point 2.3 – Cargil Station

271. Cargil Station (submission point 2.3) seek for the Council to put to together a liquefaction hazard database with geotechnical information from the district collated in one place. I note that this already exists on some level. The New Zealand Geotechnical Database holds historical geotechnical information.
272. This matter was also discussed at a pre-hearing meeting and is unresolved as the submitter is concerned about large scale maps being used to replace existing more detailed maps. The submitter has produced an amended liquefaction map based on the existing geotechnical reports.
273. It was discussed in the pre-hearing meeting (appendix 8) that only the technical data can be uploaded to the New Zealand Geotechnical Database, such as penetrometer tests and bore logs. The interpretation of that data is not included in information uploaded to the NZGD.
274. Further to this, the matter of uploading information to the NZGD is essentially outside of the scope of the plan change, but Council Staff are looking further into the matter and this will be addressed outside of the plan change. As the submission point requests for Council to put together a database, I will be recommending to reject this submission point.

Submission Point 7.1 – D and L Robinson

275. D. & L. Robinson (submission 7.1) submit on proposed provisions that require resource consent on properties at Koura Bay Drive due to debris flow risk. Specific rules have not been referenced in the submission, but I note the rules which relate to this are as follows: 8.5.4; 8.5.6; and 8.5.11.
276. There are two parts to the requested relief. The first is to amend the activity status to controlled as opposed to restricted discretionary for properties within the debris flow fan risk.
277. The reasoning for the requested relief from the original submission has been provided below:
- “... this will make our property unable to be built on. The risk was known at the time of subdivision and Council granted consent to allow lifestyle blocks to be developed. Those of us that haven’t built now face huge costs or have sections that are unable to be on sold...”
278. Similar to my comments in paragraph 196, a controlled activity status is not an appropriate measure of assessment for properties within the Debris Flow Fan Overlay. Amending the activity status to controlled would be inconsistent with the CRPS policy 11.3.2 which directs land use and development should be avoided where land may be subject to inundation. No evidence has been presented on the effects of changing the activity status to controlled. I note that based on the GNS report commissioned by Kaikoura District Council and Environment Canterbury has been received. the property is no longer within the Debris Flow Fan Overlay nor the Landslide Debris Inundation Overlay.
279. The second part of the requested relief is to waive the consent fee for titles that have already been allocated. The matter of consent fees is not within the scope of a District Plan Change
280. I also note the submitters have not provided any evidence that the property will not be able to be built on. I do not support the requested relief.

Recommendations:

281. Accept submission point 5.1 (Kaikoura District Council) and amend policies and rules to contain and “and” or an “or” as set out in Appendix 1.
282. Accept submission point 14.1 (Environment Canterbury) and amend all key words as set out in Appendix 1.
283. Accept submission point 2.2 (Cargil Station) and undertake GNS works to further refine the Landslide Debris Inundation Overlay and the Debris Flow Fan Overlay on the planning maps.
284. Reject submission point 2.3 (Cargil Station).
285. Reject submission point 7.1 (D & L Robinson) and retain rules 8.4.5, 8.5.6, and 8.5.11 as set out in appendix 1.

Issue 29 – Submission Points relating to the Planning Maps and Natural Hazard Overlays

Submission point	Change sought by submitter
1.1 (Lydia Adams)	Request to remove property from the Non-Urban Flood Assessment Overlay, Debris Flow Fan Overlay and Landslide Debris Inundation Overlay.
2.1 (Cargil Station)	Decision requested for the Council to identify a high hazard flood risk overlay in the planning maps
5.4 (Kaikoura District Council)	Request to undertake further GNS work to further refine the Landslide Debris Inundation Overlay and the Debris Flow Fan Overlay
FS2.1 (Federated Farmers)	Further submission seeks to allow submission point 5.4 (Kaikoura District Council).
11.1 Sharon Semmens	Remove Waitane Road from Urban Flood Assessment Overlay.
13.1 (Ministry of Education)	Request for the Council to undertake detailed flood mapping and include this information in the planning maps.

Submission Point 1.1 – L. Adams

286. Ms. L Adams (1.1) requests to remove her property at Koura Bay Drive from the Non-Urban Flood Assessment Overlay, Debris Flow Fan Overlay, and the Landslide Debris Inundation Overlay.
287. It was intended to have a pre-hearing meeting with Ms Adams but at the time of writing this has not yet been undertaken. I view the approach to implement a broad overlay which identifies areas that have potential to be subject to flooding to be appropriate.
288. In the submission, Ms Adams states the property is classed as high risk and I note that the Natural Hazard Overlays in question are not suggesting the property is in a “high risk” area. The natural hazard overlays identified in the planning maps are broad overlays that recognise the area has potential to be susceptible to flooding, debris flow fans and landslide inundation.

289. The Science Consultancy report commissioned by Kaikoura District Council and Environment Canterbury has identified risk in regards to Debris Fan Flows and Landslide Debris Inundation. Given the risk to loss of life it is not considered the return period is reasonable and Ms Adams' property at Koura Bay Drive can now be excluded from the Debris Flow Fan Overlay and the Landslide Debris Inundation Overlay.
290. I will recommend accepting the submission point in part as it is proposed the property will remain in the Non-Urban Flood Assessment Overlay.
291. This recommendation is made on the basis that the technical data in the final GNS report does not change.

Submission Point 2.1 – Cargil Station

292. In response to submission point 2.1 (Cargil Station), I note the requested relief is similar to that of submission point 13.1 (Ministry of Education). Consistent with my discussions in paragraphs 300-301, I view the broad flood assessment overlays to be fit for purpose.
293. As set out in appendix 8, this submission point was discussed at a pre-hearing meeting and Mr Loppe expressed it was likely this submission point would be withdrawn.

Submission Point 11.1 – S. Semmens.

294. Submission point 11.1 (S Semmens) requests for Waitane Road to be removed from the Urban Flood Hazard Assessment Overlay. I note that the Flood Awareness Overlay is not suggesting the site is located on a floodplain, as stated in the submission by Ms Semmens. The property has been identified as part of a broad flood hazard overlay.
295. Further to this, the Environment Canterbury report referenced in the submission only considered flooding from the Kekerengu, Hapuku, and Oaro rivers. The historic flooding information presented in the report is not comprehensive history of flooding and not is focussed on the property relevant to the submission.
296. Consistent with my views as described in paragraph 300-301, I consider the method proposed for management of land use and development within the Flood Assessment Overlays, which seeks further information for properties within the Urban and Non-Urban Flood Assessment Overlay to acquire a Flood Assessment Certificate, to be consistent with higher order planning documents such as the Resource Management Act and the CRPS. It is a useful and efficient tool that enables the most up-to-date flood modelling to be used, targeted to the site under investigation.
297. On the basis of discussions with Mr Griffiths, I view the Flood Awareness Overlays are fit for the purpose of broadly identifying areas that may be subject to flooding in extreme events. I understand Mr Griffiths will be providing evidence at the hearing that will further address this matter.

Submission Point 13.1 – Ministry of Education

298. The Ministry of Education (13.1) opposes the requirement to obtain a Flood Hazard Assessment prior to land use and development within the Urban and Non-Urban Flood Hazard Assessment Areas and the submits that the Council should provide upfront detailed mapping of high hazard flood areas.

299. The original submission reads as follows:

...this process does not provide the Ministry any certainty in terms of understanding development potential of an existing school site, as a certificate will only be valid for three years and based on the most up to date models and maps held by Kaikoura District Council or Canterbury. The status of Ministry land in regard to natural hazard risk may therefore be subject to change as models and maps held by Kaikoura District Council or Canterbury are updated.

The Ministry request that natural hazard mapping is undertaken upfront by Council for the Kaikoura District and made accessible to landowners via district planning maps. This will provide certainty to landowners and/or future landowners when looking to develop land or acquire new land as well as provide an enhanced community understanding of natural hazards. Mapping natural hazards upfront will communicate to the Ministry and the community generally the location and extent of land areas subject to natural hazards effects on existing education facilities and associated infrastructure. This will increase community resilience and promote better community awareness of natural hazards.

300. I agree that mapping High Hazard Areas and indeed all areas in the district that flood would provide more certainty, however the approach taken is considered to be the most efficient. The approach allows for mapping to change over time, without the need for plan changes. As flood hazard mapping is superseded by new information over time, the approach does not require the need for a plan change to be undertaken every time new flood information is received. The Kaikoura landscape is dynamic and is constantly changing, and a fixed mapping approach would be a very costly and time intensive process for the Council and the community. In addition, in my opinion it is inefficient to map large areas for flood susceptibility to a level of detail suitable to be used to support planning applications/decisions if there are no actual developments proposed on that site or area for the foreseeable future. This would be an unnecessary burden on the ratepayer. I view the approach to be the best outcome for the community.

301. Finally, the submission is requesting further certainty and scope for the maps to change, and I view that the proposed approach to use a broader overlay already allows for that. At this time, I do not support the submission point.

Submission Point 5.4 – Kaikōura District Council

302. Kaikōura District Council (5.4) submitted to undertake further GNS work which seeks to further refine the Landslide Inundation Overlay and the Debris Flow Fan Overlay from within the original assessment area.
303. The draft report titled “District-scale landslide risk analysis of debris inundation for the Kaikōura District - GNS Science Consultancy Report 2021/89 October 2021”, was sent to Council on the 13th of October 2021 and is intended to be formally received at the October Council meeting. The report calculates the LPR (Local Personal Risk) to determine different layers, or bands of landslide and debris flow fan risk. The AIFR (Annual Incident Fatality Risk) can be calculated by multiplying the LPR by the percentage of time a person spends in the area. The work further refines the Debris Flow Fan Overlay and the Landslide Debris Inundation Overlay and combines it into a single overlay to be titled “Debris Inundation Overlay”. It is anticipated the new maps will replace the previous proposed maps.
304. The report does not come with planning recommendations, so it is up to the Council to determine which risk threshold to adopt.
305. As outlined in Mr Hoggard’s evidence (appendix 6), the community workshops held in 2019 highlight the communities want for a more conservative approach in terms of the level of risk the community is willing to accept.
306. As set out in Mr Hoggard’s evidence (appendix 6), KDC is recommending a conservative approach to the input for the landslide and debris flow fan risk which creates the layer depicting $\geq 10^{-4}$. Mr Hoggard recommends in his evidence (appendix 6), to adopt a $\geq 10^{-4}$ threshold for the Landslide Debris Inundation Overlay and Debris Flow Fan Overlay. Where hazard sensitive buildings are concerned, anything above or equal to 10^{-4} would trigger the need for a resource consent, consents could then consider the risk on a case by case basis. I agree with this approach.
307. The Council has proposed to take a more conservative approach, with 10^{-5} being the limit of risk that is deemed to be acceptable for the community and not requiring resource consent for land use. New hazard sensitive buildings located on properties with the 10^{-4} and above will trigger rules pertaining to the Landslide Debris Inundation Overlay and Debris Flow Fan Overlay.
308. The report and maps are set out in appendix 5 of this report. The maps provided in the report will be used to inform new planning maps that will replace the planning maps originally supplied with the PC3. It is proposed the Landslide Debris Inundation Overlay and Debris Flow Fan Overlay will be amended and combined to reflect the further GNS works. It is proposed that the other Natural Hazard Overlays will not be amended on the planning maps.
309. As stated in paragraph 302, it is proposed that the Landslide Debris Inundation Overlay and the Debris Flow Fan Overlay will be combined into one overlay that reads Debris Inundation Overlay. As a consequential amendment, rules and policies will be updated to reflect this, as shown in appendix 1. This will not result in any material to rules and policies that relates.

Further Submission Point FS2.1 – Federated Farmers

310. Federated Farmers (FS2.1) seek to allow submission point 5.4 (Kaikōura District Council) to undertake further GNS works. Federated Farmers agrees to the changes to the maps of the Landslide Debris Inundation Overlay and Debris Flow Fan Overlay.

Recommendations:

- 311. Reject submission point 11.1 (Sharon Semmens) and retain property at Waitane Road within the Urban Flood Assessment Overlay.
- 312. Accept submission point 5.4 (Kaikōura District Council) and undertake further GNS works to further refine the Landslide Debris Inundation Overlay and Debris Flow Fan Overlay.
- 313. Accept further submission FS2.1 (Federated Farmers).
- 314. Accept in part submission point 1.1 (Lydia Adams) and remove property from Landslide Debris Inundation Overlay and Debris Flow Fan Overlay. Retain property in Non-Urban Flood Assessment Overlay. Note: this recommendation is being made on the basis of the draft report provided by GNS and assumes the final report will not alter the risk threshold.
- 315. Reject submission point 2.1 (Cargil Station).
- 316. Reject submission point 13.1 (Ministry of Education) and retain as set out in Appendix 1.

Issue 30 – Submission points requesting additions to the proposed Natural Hazards Plan Change 3

Submitter Number	Change sought by submitter
16.8 (Main Power)	Add new rule identifying the operation, maintenance, repair or replacement of critical infrastructure (similar to 8.5.8) as a permitted activity within the Landslide Debris Inundation Overlay, Fault Avoidance Overlay and Fault Awareness Overlay as a permitted activity.
5.2 (Kaikōura District Council)	Add definition for new Non-Critical Infrastructure
14.9 (Environment Canterbury)	In relation to non-assessed hazard areas, submitter seeks for an explanatory text to be included as to how these situations will be managed. For example, if it is via the Building Act, this can be achieved by inserting an additional paragraph in the introduction.

Submission Point 16.8 – Main Power

317. Main Power (16.8) request that a new rule be inserted identifying the operation, maintenance, repair or replacement of critical infrastructure. The submission notes that whilst rule 8.5.8 provides for the upgrading of critical infrastructure, there is no proposed rule than enables the operation, maintenance, repair or replacement of existing critical infrastructure within the Landslide Debris Inundation Overlay, Fault Avoidance Overlay, or Fault Awareness Overlay as a permitted activity.
318. This matter was intended to be discussed at a pre-hearing meeting but at the time of writing, this had not yet taken place.
319. I also note that it has been agreed to clarify that policy 8.3.8 operation, maintenance and repair of critical infrastructure is enabled (Refer to paragraph 152). I note that rule 8.5.9 is silent on the operation, maintenance and repair of critical infrastructure as it is already permitted.

Submission Point 14.9 Environment Canterbury

320. In relation to submission point 14.9 (Environment Canterbury), an explanatory note would seek to provide further clarity and transparency on non-assessed areas in the district. The submitter also notes, and I agree, that the addition would give better effect to CRPS policies.

Submission Point 5.2 – Kaikōura District Council

321. Kaikōura District Council (5.2) have submitted to include a definition of non-critical infrastructure. I view this requested change to be appropriate as it would further clarify the difference between critical and non-critical infrastructure. As a consequential amendment. All references to “infrastructure” will be amended to “non-critical infrastructure”
322. The following definition has been drafted for non-critical infrastructure

Means: infrastructure that is not identified as critical infrastructure and includes customer connections, and any infrastructure that provides a service, facility or connection that does not have a public or community function.

Recommendation:

323. Reject submission point 16.8 (Main Power).
324. Accept submission point 5.2 (Kaikōura District Council) and add new definition for non-critical infrastructure and make consequential amendments as set out in Appendix 1.
325. Accept submission point 14.9 (Environment Canterbury) and include explanatory text on how non-assessed areas will be managed as set out in Appendix 1.

Conclusion

326. On the basis of the analysis set out within this evidence, I recommend that the changes within the Recommend Revised Chapter in Appendix 1 be accepted.
327. The changes seek to improve the clarity and accuracy of the District Plan where natural hazards are concerned.
328. The changes will also give effect to the purpose and principles of the RMA, as well as the objectives and policy framework of the CRPS.
329. Further to this, the changes will contribute towards achieving the objectives and functions of the Council and the District Plan in relation to natural hazards.

Appendix 1: Recommended Revised Chapter

The following sets out the amendments to the provisions of the proposed Kaikōura Natural Hazards Plan Change 3 that are proposed and/or supported in evidence. The proposed Natural Hazards Plan Change 3 amendments are shown in black **bold underline** and black ~~strikethrough~~.

Submitter recommendations that propose additions are shown in **red bold underline**. Submitter recommendations that propose deletions are in ~~red strikethrough~~.

Planning recommendations that propose additions are shown in **bolded blue underline**. Planning recommendations that propose deletions are shown in ~~blue strikethrough~~.

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 Kaikōura District is at risk include earthquakes, **fault rupture, liquefaction, landslide debris** inundation, **debris fan flows**, tsunamis, **wildfire**, high winds and other extreme climatic events.

(...)

Amend section 1.3.2 as follows:

1.3.2 The Management Role of the Kaikōura 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 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, uncompact 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 of Community Scale Natural Hazard Mitigation Works

Community Scale Natural Hazard Mitigation Works

Means natural hazard mitigation works that serve multiple properties and are constructed and administered by the District Council, the Crown, the Regional Council or their nominated contractor or agent.

Amend 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

electricity substations, networks and distribution installations, including the electricity distribution network

4. supply and treatment of water for public supply
5. storm water and sewage disposal systems
6. telecommunications installations and networks
7. strategic road and rail networks (as defined in the Regional Land Transport Strategy).
8. Petroleum storage and supply facilities
9. Public healthcare institutions including hospitals and medical centres
10. Fire stations, police stations, ambulance stations, emergency coordination facilities.

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

Remove the definition for Hazard Mitigation Works as follows

Hazard Mitigation Works

~~means works intended to control the effects of natural events~~ hazards

Amend the 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, the following buildings are not included.

- i. farm sheds used solely for storage; or
- ii. animal shelters which comply with v below: or
- iii. carports; or
- iv. garden sheds; or
- v. any buildings with a dirt/gravel or similarly unconstructed floor; or
- vi. critical and non-critical infrastructure.

Amend the definition of High Flood Hazard Area as follows:

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.

Retain the 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.

Retain definition for Liquefaction Hazard as follows:

Liquefaction Hazard

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

Insert definition of Natural Hazard 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 as follows:

Natural Hazard Mitigation Works

means works intended to control the effects of natural events

Insert and amend the 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**
~~Debris Fans Overlay~~
- f. **Liquefaction Hazard Overlay**

Insert new definition of non-critical infrastructure;

Non-critical infrastructure

Infrastructure that is not identified as critical infrastructure and includes customer connections, and any infrastructure that provides a service, facility or connection that does not have a public or community function.

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 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 ~~30m~~ 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. **Flooding has the potential to affect other parts of the district outside of the township, where low-lying land may be susceptible to floods.** 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. **Chapter 8 is the designated Natural Hazards Chapter which contains rules and policies around the management of natural hazard risk in the District.**

(...)

Instruction: Delete all of chapter 8, except for 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 Intergovernmental~~ 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~~ **and** significant assets are not likely to be harmed as a result of a natural hazard event.

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

- 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 operative 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 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 Kaikoura 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. [The Natural Hazard Chapter also](#)

recognises that not all areas of the District that may be at risk of flooding are identified on the planning maps.

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 is managed in areas subject to natural hazards to ensure that natural hazard risk is avoided or mitigated to an acceptable level.

8.2.1.2: Risk from Flood Hazards 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 an acceptable level.

8.2.2.3 Infrastructure

1. Upgrading maintenance and replacement of existing critical infrastructure, non-critical 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 it is not possible or is impractical when considering operational and technical constraints and, is designed to maintain its integrity and ongoing function during and after natural hazard events or can be reinstated in a timely manner.

8.2.4 Hazard Mitigation Works

Reliance on new or upgraded hazard mitigation works to enable new development is avoided in the first instance, unless outside of high flood hazard areas the works consist of raised floor levels, or they are unavoidable, and they do not have significant effects on the environment.

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;
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

1. 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.
2. Manage natural hazard risk within all natural hazard overlays to an acceptable level

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 or on behalf of 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

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 ~~operation, maintenance, replacement, repair and~~ upgrading of existing critical infrastructure in Flood Assessment Overlays only where the infrastructure does not increase flood risk on another site;
- 2 Provide for ~~operation, maintenance, replacement, repair and~~ 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 ~~when considering operational and technical constraints~~, 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 ~~on the site~~, 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;

~~the nature of the activity means the risk to life and potential for damage from flooding is acceptable; or~~

1. ~~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~~
2. ~~the risk to surrounding properties is not significantly increased.~~
3. **The development is not likely to require new or upgraded community hazard mitigation works**
4. ~~The hazard sensitive building can be accessed and serviced during flood events.~~

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 [within the Urban and Non-Urban Flood Assessment Overlays](#)

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.

<p><u>8.5.2</u></p> <p><u>All zones within the:</u></p> <p><u>URBAN FLOOD HAZARD ASSESSMENT OVERLAY</u></p>	<p><u>The establishment of any hazard sensitive building where it:</u></p> <ol style="list-style-type: none"> a. <u>Is located on land outside of High Flood Hazard Areas;</u> b. <u>Has a finished floor level equal to or higher than the minimum floor level;</u> <p><u>as stated in a FLOOD ASSESSMENT CERTIFICATE issued in accordance with activity standard 8.6.1</u></p>	<p><u>Permitted</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><u>Activity status when compliance is not achieved</u></p>	<p><u>Restricted Discretionary</u></p>
<p><u>8.5.3</u></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> <ol style="list-style-type: none"> a. <u>Is located on land outside of High Flood Hazard Areas;</u> b. <u>Has a finished floor level equal to or higher than the minimum floor level;</u> <p><u>As stated in a FLOOD ASSESSMENT CERTIFICATE issued in accordance with activity standard 8.6.1</u></p>	<p><u>Permitted</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</u>

		<p><u>damage;</u></p> <ol style="list-style-type: none"> <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><u>Activity status where compliance with rule 8.5.23.a is not achieved</u></p> <p><u>Activity status where compliance with rule 8.5.23.b is not achieved</u></p>	<p><u>Non-complying</u></p> <p><u>Restricted discretionary</u></p>
<p>8.5.4</p> <p><u>All zones within the:</u></p> <p>DEBRIS FLOW/FAN OVERLAY; or</p> <p>LANDSLIDE DEBRIS INUNDATION OVERLAY</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>8.5.5</p> <p><u>All zones within the:</u></p> <p>FAULT AVOIDANCE OVERLAY; or</p> <p>FAULT AWARENESS OVERLAY</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 likely fault rupture 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 fault rupture hazards on the site, including risk to the health and safety of occupants.</u>
<p>8.5.6</p>	<p><u>Additions to existing hazard</u></p>	<p><u>Permitted</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>sensitive buildings that:</u></p> <p>a. <u>do not increase the floor area by more than 25m² in any continuous 5-year period; or</u></p> <p>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> <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 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 ASSESSMENT OVERLAY; or</u></p> <p><u>NON-URBAN FLOOD ASSESSMENT OVERLAY</u></p>	<p><u>Above ground earthworks, buildings and new structures that:</u></p> <p>a. <u>will not worsen flooding on another property through the diversion or displacement of floodwaters; or</u></p> <p>b. <u>meet the definition of land disturbance</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</u>

		<p><u>site;</u></p> <ol style="list-style-type: none"> 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>8.5.8</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>New non-critical infrastructure critical infrastructure, or the operation, maintenance, repair, replacement, upgrading of non-critical 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>8.5.9</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>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="padding-left: 20px;"><u>a. Is located on land outside of High Flood Hazard Areas; and</u></p> <p style="padding-left: 20px;"><u>b. 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"> <u>1. The likely extent of flooding on the site;</u> <u>2. 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> <u>3. 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> <u>4. 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>8.5.11</p> <p><u>All zones within the:</u></p> <p>DEBRIS FLOW/FAN OVERLAY; or</p> <p>LANDSLIDE DEBRIS INUNDATION OVERLAY; or</p> <p>FAULT AVOIDANCE OVERLAY; or</p> <p>FAULT AWARENESS OVERLAY</p>	<p>The change of use of any existing building that is not currently a hazard sensitive building to a hazard sensitive building</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 nature, design and intended use of the building or structure;</u> <u>An assessment of natural hazards on the site;</u> <u>Proposals to mitigate any risk arising from natural hazards on the site, including risk to the health and safety of occupants;</u> <u>The potential for the activity to exacerbate natural hazard risk, including to any other sites; and</u> <u>The extent of any positive effects of the proposal.</u>
<p>8.5.12</p> <p><u>All zones within the:</u></p> <p>URBAN FLOOD ASSESSMENT OVERLAY; or</p> <p>NON-URBAN FLOOD ASSESSMENT OVERLAY</p>	<p>The establishment of any new camping grounds where:</p> <ol style="list-style-type: none"> <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"> <u>An assessment of natural hazards on the site;</u> <u>Proposals to mitigate any risk arising from natural hazards on the site, including risk to the health and safety of occupants;</u> <u>The potential for the activity to</u>

		<p><u>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>
<p>8.5.13</p> <p><u>All zones within the:</u></p> <p><u>FAULT AVOIDANCE OVERLAY; or</u></p> <p><u>LANDSLIDE DEBRIS INUNDATION OVERLAY</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> 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>

8.6 Natural Hazards Activity 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:

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.~~

(...)

2. ~~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.~~

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.~~

Subdivision is:

1. avoided in areas where the risk to life or property from natural hazards is unacceptable

2. managed in other areas to ensure that the risk of natural hazards to people and property is appropriately mitigated

Insert new subdivision policy as follows:

13.2.2 Policies

(...)

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

Subdivision for new hazard sensitive buildings shall:

6. **Be managed within High Flood Hazard areas unless it is within the Urban Flood Overlay in which case the flood risk must be avoided or mitigated.**
7. **Be avoided within the Fault Avoidance Overlay**
8. **Be managed within all natural hazard overlays other than those referred to in Clause 1 and 2 above, to ensure that the natural hazard risk is acceptable**
9. **Be managed in areas of the district that are subject to natural hazards, but are not identified as within a natural hazards overlay, to ensure that the risk to life and property from natural hazards is acceptable .**
10. **Be managed to ensure that development is not likely to require new or upgraded community scale**

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

— Erosion

— Flooding and Inundation

— Landslip

— Rockfall

— Aggregation

— ~~Unconsolidated Fill~~

— ~~Subsidence~~

— ~~Coastal erosion~~

— ~~Tsunami~~

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

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

— ~~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.~~

(...)

(...)

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;
~~the Debris Flow Fan Overlay;~~
3. the ~~Landslide~~ Debris Inundation Overlay; or
4. 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~~**3** Non-complying Subdivision Activities

(...)

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

Appendix 2: List of Submitters and Recommended Decisions

Original submission number	Submitter	Further Submission Number	Relevant provisions	Submitter position	Summary	Planner recommendation
10.1	Federated Farmers		1.3.1, 1.3.2 and 1.7	Support	Retain as notified	Accept
14.3	Environment Canterbury		1.3.2	Support	Retain as notified	Accept
10.2	Federated Farmers		2.3	Support	Retain as notified.	Accept
14.2	Environment Canterbury	FS2.2 Allow the submission point	Chapter 3: User's Guide	Support in part	Insert text in the introduction sections of Chapter 23 and 25 and consider amending matters to improve consistency with the proposed plan change provisions	Reject
10.3	Federated Farmers		Chapter 3: Users Guide, Drawings	Support	Retain as notified	Accept
10.4	Federated Farmers	FS1 Disallow submission point	3.2.2	Support	Retain as notified	Accept
10.5	Federated Farmers		Definition – Average Recurrence Interval	Support	Retain as notified	Accept
4.1	Main Power		Definition - Critical Infrastructure	Support	Retain as notified	Accept
12.1	Oil Companies		Definition – Critical Infrastructure	Support	Retain as notified	Accept
16.1	Main Power		Definition – Critical Infrastructure	Support in part	Amend point 4 to read: 4. electricity substations, networks, and distribution installations, including the electricity substation network.	Accept
10.6	Federated Farmers		Definition – Critical Infrastructure	Support	Retain as notified	Accept
4.3	Spark New Zealand Trading Limited		Definition – earthworks	Support	Retain as notified	Accept
10.7	Federated Farmers		Definition – earthworks	Support	Retain as notified	Accept
10.8	Federated Farmers		Definition – Hazard Mitigation Works	Support	Retain as notified	Accept
4.2	Spark New Zealand Trading Limited		Definition – Hazard Sensitive Building	Support in part	Insert with a clause v to read as follows: <u>v. any building used solely for network utility purpose.</u>	Accept
10.9	Federated Farmers		Definition – Hazard Sensitive Building	Support in part	Support in part. Amend clause 1 to read: For the purposes of clause 1, buildings such as the following are not included; I. Farm sheds used solely for storage <u>and animal shelter</u> II. Carports	Accept in part

					<p>III. Garden Ssheds; and</p> <p>IV. Any buildings with a dirt/gravel or similarly constructed floor.</p>	
14.4	Environment Canterbury		Definition – Hazard Sensitive Building	Support in part	Amend to read: Means any building or buildings which: Is/ are used as part of the... Contains... Is serviced...	Accept
16.2	Main Power		Definition – Hazard Sensitive Building	Support in part	Amend to: For the purposes of clause 1, buildings such as the following are not included: 1. farm sheds used solely for storage; 2. carports; 3. garden sheds; and 4. any buildings with a dirt/gravel or similarly unconstructed floor; and <u>5 infrastructure and critical infrastructure.</u>	Accept in part
6.1	D. Kitchingham		Definition – High Flood Hazard Area	Oppose	Amend the definition of High Flood Hazard Area from a 500yr flood to a 200yr flood.	Reject
8.1	D. Melville		Definition – High Flood Hazard Area	Oppose	Amend the definition of High Flood Hazard Area from a 500yr flood to a 200yr flood.	Reject
9.1	K. Finnerty		Definition – High Flood Hazard Area	Oppose	Amend the definition of High Flood Hazard Area from a 500yr flood to a 200 yr flood	Reject
10.10	Federated Farmers	FS1.1 Disallows submission point	Definition – High Flood Hazard Area	Support	Retain as notified	Accept
14.5	Environment Canterbury	FS1.1 Disallow submission point	Definition – High Flood Hazard Area	Support in part	Amend as follows High Flood Hazard Area: Means an area subject to inundation events where the water depth (metres) x velocity (metres pre second) is greater than or equal to 1 where depths are greater than 1 metre in a 500 year ARI flood in a 0.2% annual exceedance probability flood event.	Accept
15.1	M. Egan		Definition - High Flood Hazard Area	Oppose	Amend the definition of High Flood Hazard Area	Reject
4.4	Spark New Zealand Trading Limited		Definition n- High Flood Hazard Area	Support	Retain as notified	Accept
10.11	Federated Farmers		Definition – Land Disturbance	Support	Retain as notified.	Accept
10.12	Federated Farmers		Definition – Liquefaction Hazard	Support	Retain as notified	Accept
10.13	Federated Farmers		Definition – Natural Hazard	Support	Retain as notified.	Accept
10.14	Federated Farmers		Definition – Natural Hazard Mitigation Works	Support in part	Retain as notified	Accept

14.6	Environment Canterbury		Definition – Natural Hazard Mitigation Works	Oppose	Remove duplicate definition	Accept
10.15	Federated Farmers		Definition - Natural Hazard Overlays	Support	Retain as notified	Accept
14.7	Environment Canterbury		Definition – Natural Hazard Overlays	Support in part	Retain as notified	Accept
4.5	Spark New Zealand Trading Limited		Definition – Operational Need	Support	Retain as notified	Accept
10.16	Federated Farmers		Definition - Operational Need	Support	Retain as notified	Accept
16.3	Main Power		Definition - Operational Need	Support	Retain as notified	Accept
10.17	Federated Farmers		Definition – Plantation Forestry	Support	Retain as notified	Accept
10.18	Federated Farmers		Definition – Structure	Support	Retain as notified	Accept
10.19	Federated Farmers		Definition – Shelterbelt	Support in part	Review the two definitions of shelterbelts and retain the NES-PF limit of an average width of less than 30m	Accept
10.20	Federated Farmers		Definition – Woodlot	Support	Retain as notified	Accept
10.21	Federated Farmers		7.2.2.1	Support	Retain as notified	Accept
10.22	Federated Farmers		7.2.2.2	Support	Retain as notified	Accept
10.23	Federated Farmers		Explanations and reasons	Support	Add a short note to cross refer readers to the risk assessment factors in Chapter 8	Accept
14.8	Environment Canterbury		Explanations and reasons	Support in part	Amend the paragraph to reflect that flooding affects other parts of the Kaikoura District township and its surrounding land	Accept
10.24	Federated Farmers		8.1	Support	Retain as notified	Accept
14.10	Environment Canterbury	FS2.3 Allow the submission point	8.1, paragraph 1	Support in part	Remove inclusion of coastal inundations as a natural hazard that the Kaikoura District is susceptible to	Out of scope
14.14	Environment Canterbury		General	Support in part	Add a new heading “flooding” and amend the paragraph for clarity to reflect that not all areas of the district that may be at risk of flooding are identified by the two flood assessment overlays on the planning maps.	Reject
14.11	Environment Canterbury		8.1, third paragraph	Support in part	Amend to read: “Intergovernmental Panel on Climate Change”	Accept
14.12	Environment Canterbury		8.1 paragraph titled “Risk ”	Support in part	Amend to read: Risk is a product...while also ensuring that their lives or and significant assets are not likely...	Accept
14.13	Environment Canterbury		8.1, paragraph 5	Support in part	Amend to read: This chapter anticipates the use of hazard mitigation measures-works where it is appropriate to..	Accept

14.15	Environment Canterbury	FS2.4 Allow the submission point	Coastal erosion and inundation from the sea and tsunamis	Oppose	Reinstate this paragraph as per the operative district plan.	Reject
14.16	Environment Canterbury	FS2.5 Disallow the submission point	8.2 Objectives	Support in part	Insert new objective 8.2.1 to reflect an overarching objective for all natural hazards, whereby the outcome sought is management of all natural hazard risk (including areas not identified in an overlay) to acceptable levels. Objective 8.2.1 Risk from natural hazards New land use and development is managed in areas subject to natural hazards to ensure that natural hazard risk is avoided/mitigated to an acceptable level.	Accept in part
14.17	Environment Canterbury	FS2.6 Disallow the submission point	8.2 Objectives	Support in part	Insert new objective 8.2.3 relating to natural hazard mitigation works where the outcomes sought is that communities relying on hazard mitigation works enable new development in the first instance, and that where new mitigation works are unavoidable, they do not have significant effects on the environment.	Accept
10.25	Federated Farmers		8.2.1	Support	Retain as notified.	Accept
4.6	Spark New Zealand Trading Limited		8.2.2	Support in part	Amend as follows: 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	Reject
10.26	Federated Farmers		8.2.2	Support	Retain as notified	Accept
16.4	Main Power		8.2.2	Support in part	Amend as follows: 1. Upgrading maintenance and replacement of existing infrastructure, critical 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 unless it is not possible or is impractical when considering operational and technical constraints and is designed to maintain its integrity and ongoing function during and after natural hazard events or can be reinstated in a timely manner.	Accept
12.2	Oil Companies		8.2.2	Support	Retain as notified	Accept
10.27	Federated Farmers		8.3.1	Support	Retain as notified	Accept
4.7	Spark New Zealand Trading		8.3.2	Support	Retain as notified	Accept
10.28	Federated Farmers		8.3.2	Support	Retain as notified	Accept
12.3	Oil Companies		8.3.2 8.3.3 8.3.6 8.3.8	Support	Retain as notified	Accept
14.18	Environment Canterbury		8.3.2	Support in part	Insert a second clause in policy 8.3.2 requiring natural hazard risk to be managed to an acceptable level.	Accept
10.29	Federated Farmers		8.3.3	Support	Retain as notified	Accept
10.30	Federated		8.3.4	Support	Retain as notified	Accept

	Farmers					
14.19	Environment Canterbury		8.3.4	Support in part	Amend policy to read: decision requested Amend policy to read: 2. not undertaken by or on behalf of the Crown, Canterbury Regional Council	Accept
14.20	Environment Canterbury		8.3.4.c	Support in part	Amend to read: 2.c. the mitigation works...to other people, property, infrastructure or the natural environment.	Accept
10.31	Federated Farmers		8.3.5	Support	Retain as notified	Accept
14.21	Environment Canterbury		8.3.5	Support in part	Amend to read: Restore, maintain, or enhance...wetlands	Accept
14.22	Environment Canterbury		8.3.5	Support in part	Amend to read: Restore, maintain or enhance... where they which assist in avoiding or mitigating natural hazards.	Reject
4.8	Spark New Zealand Trading Limited		8.3.6	Support	Retain as notified.	Accept
10.32	Federated Farmers		8.3.6	Support	Retain as notified.	Accept
12.3	Oil Companies		8.3.6	Support	Retain as notified	Accept
16.5	Main Power		8.3.6	Support	Retain as notified	Accept
4.9	Spark New Zealand Trading Limited		8.3.7	Support with amendment	Amend to read: Policy 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 Policy 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	Reject
10.33	Federated Farmers		8.3.7	Support	Retain as notified.	Accept
10.34	Federated Farmers		8.3.8	Support	Retain as notified.	Accept
16.6	Main Power		3.8.3	Support in part	Amend as follows: 1. enable the operation, maintenance, replacement, repair and upgrading of existing critical infrastructure in Flood Assessment Overlays only where the infrastructure does not increase flood risk on another site; 2. provide for the operation, maintenance, replacement, repair and 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;	Accept

					<p>4. Avoid new critical infrastructure in High Flood Hazard Areas unless:</p> <p>a. avoidance is impossible or impracticable <u>when considering operational and technical constraints</u>, 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</p> <p>b. The critical infrastructure does not significantly increase the natural hazard risk to life or increase risk to life and property on another site.</p>	
14.24	Environment Canterbury		8.3.8.b	Support in part	Amend to read: b. the critical infrastructure does not significantly increase the natural hazard risk to life <u>on the site</u> or increase the risk to life or property on another site.	Accept
10.35	Federated Farmers		8.3.9	Support	Retain as notified	Accept
10.36	Federated Farmers		8.3.10	Support	Retain as notified	Reject
14.25	Environment Canterbury		8.3.10	Support in part	<p>Amend policy 8.3.10 to read:</p> <p>Avoid land use and development for hazard sensitive buildings in High Flood Hazard Areas within the Urban Flood Hazard Assessment Overlay, as determined by a Flood Assessment Certificate unless it can be demonstrated that:</p> <p>1. The nature of the activity means the risk to life and potential for damage from flooding is acceptable; or</p> <p>1. <u>2.</u> Minimum floor levels are incorporated ...to ensure buildings are located above the flood level so that the risk to life and potential for property damage is mitigated to an acceptable level.</p> <p>2-3. <u>3.</u> The risk to surrounding...</p> <p><u>3. The development is not likely to require new or upgraded community hazard mitigation works.</u></p> <p><u>4. The hazard sensitive building can be accessed and serviced during flood events</u></p> <p>Amend policy 8.3.11 to read: High Flood Hazard Areas outside of the urban Flood Assessment Overlay</p> <p>Avoid land use and development for hazard sensitive buildings in High Flood Hazard Areas outside of the Urban Flood Assessment Overlay as determined by a Flood Hazard Assessment Certificate, unless...</p>	Accept in part
14.26	Environment Canterbury		8.3.10 8.3.11 8.3.12	Support in part	Delete the words "as determined by a Flood Hazard Assessment"	Reject
10.37	Federated Farmers		8.3.11	Support	Retain as notified	Accept
10.38	Federated Farmers		8.3.12	Oppose	Delete policy 8.3.12	reject
4.10	Spark New Zealand Trading Limited		8.3.13	Support	Retain as notified	Accept
10.39	Federated		8.3.13	Support	Retain as notified	Accept

	Farmers					
4.11	Spark New Zealand Trading Limited		8.3.14	support	Retain as notified	Accept
10.40	Federated Farmers		8.3.14	Support	Retain as notified	Accept
10.41	Federated Farmers		8.3.15	Support	Retain as notified	Accept
10.42	Federated Farmers		8.4	Support	Retain as notified	Out of scope
12.4	Oil Companies		8.5	Support	Retain as notified	Accept
10.43	Federated Farmers		8.5.1	Support	Retain as notified	Accept in part
14.27	Environment Canterbury	FS2.7 Allow the submission point Recommend subclause (1) should say "adjoining" instead of adjacent, for consistency of language within that rule	8.5.1	Support in part	Insert matters of discretion: <i>The wildfire risk to life and property on the site and to adjacent property</i> <i>Proposals to mitigate any risk including the enabling of firefighting and alignment with NZS 4509:2008 (Code of Practice for Firefighting Water Supplies)</i>	Accept in part
1.1	Lydia Adams		Planning maps	Oppose	Remove property from Flood Assessment Overlay	Accept in part
2.1	Cargil Station		8.5.2 8.5.3 8.5.10 13.11.2 13.11.4 District Planning Maps	Oppose	Insert a high flood awareness risk overlay in the planning maps	Reject
10.44	Federated Farmers		8.5.2	Support	Retain as notified.	Accept
11.1	Sharon Semmens		Planning maps and natural hazard overlays	Not specified	Remove Waitane Road from Urban Flood Assessment Overlay	Reject
13.1	Ministry of Education		8.5.2	Oppose	Undertake High Flood Hazard Mapping upfront.	Reject
7.2	D. & L. Robinson		8.5.3	Oppose	Amend activity status to controlled and waive the consent fee where allotment already has the title and building on the allotment was an expectation of the buyer.	reject
10.45	Federated Farmers		8.5.3	Support in part	Amend as follows: Non-complying Activity status where compliance with rule 8.5.23.a is not achieved Restricted Discretionary Activity status where compliance with rule 8.5.23.b is not achieved	Accept.

7.1	D. and L. Robinson		8.5.4	Oppose	Make the activity status controlled and waive the consent fee for anyone with an existing title and an expectation to build.	Reject
10.46	Federated Farmers		8.5.4	Support	Retain as notified	Accept
14.28	Environment Canterbury		8.5.4 8.5.6	Support in part	Amend matter of discretion 2 to read: The nature, design and intended use of the building, or structure and its susceptibility to damage.	Accept
3.1	G. Acland		8.5.5	Oppose	Request for the Council to meet costs for geotechnical investigation	Reject
10.47	Federated Farmers		8.5.5	Support	Retain as notified	Accept
10.48	Federated Farmers		8.5.6	Support	Retain as notified	Accept
10.49	Federated Farmers		8.5.7	Support	Retain as notified	Accept
4.11	Spark New Zealand Trading Limited		8.5.8	Support	Retain as notified	Accept
5.3	Kaikoura District Council		8.5.8	Support in part	Amend to read: New non-critical infrastructure and critical infrastructure , or upgrading of non-critical infrastructure and critical infrastructure where; The activity does not result in permanent raising of the ground level.	Accept
10.50	Federated Farmers		8.5.8	Support	Retain as notified	Accept
16.7	Main Power		8.5.8	Support in part	Amend to read: UBRAN FLOOD ASSESSMENT OVERLAY; or NON-URBAN FLOOD ASSESSMENT OVERLAY New infrastructure, or the operation, maintenance, repair, replacement or upgrading of infrastructure and critical infrastructure where: a. the activity does not result in permanent raising of the ground level.	Accept
2.2	Cargil Station		8.5.4 8.5.6 8.5.9 8.5.11 8.5.13 13.11.2	Oppose	Request for the Council to undertake further “areawide assessment focusing on identifying potential hazard zones in urban areas”	Accept
4.12	Spark New Zealand Trading Limited		8.5.9	Oppose	Amend as follows: All zones with the Urban Flood Assessment Overlay, Non-Urban Flood Assessment Overlay , Landslide Debris Inundation Overlay, Fault Avoidance Overlay or Fault Awareness Overlay New Critical Infrastructure Permitted where	Reject

					<p>a. the footprint of the critical infrastructure structures do not exceed 20m2 [or similar relief]</p> <p>Restricted discretionary</p> <p>Matters of discretion are restricted to:</p> <ol style="list-style-type: none"> 1. The extent to which infrastructure exacerbates the natural hazard risk or transfers the risk to another site; 2. The ability for flood water conveyance to be maintained; 3. 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; 4. The extent to which the location and design of the infrastructure address relevant natural hazard risk and appropriate measures that have been incorporated into the design to provide for the continued operation 	
10.51	Federated Farmers		8.5.9	Support	Retain as notified	Accept
16.8	Main Power		8.5.9	Support in part	Add a new rule identifying the operation, maintenance, repair or replacement of critical infrastructure (similar to 8.5.8) as a permitted activity within the Landslide Debris Inundation Overlay, Fault Avoidance Overlay, Fault Awareness Overlay as a permitted activity.	Reject
10.52	Federated Farmers		8.5.10	Support in part	<p>Amend as follows:</p> <p>Noncomplying Activity status where compliance with rule 8.5.9.10.a is not achieved</p> <p>Restricted Discretionary Activity status where compliance with rule 8.5.9.10.ba is not achieved</p>	Accept
10.53	Federated Farmers		8.5.11	Support	Retain as notified	Accept
10.54	Federated Farmers		8.5.12	Support	Retain as notified	Accept
10.55	Federated Farmers		8.5.13	Support	Retain as notified	Accept
10.56	Federated Farmers		8.6	Support	Retain as notified	Accept
14.29	Environment Canterbury		8.6	Support in part	<p>Amend to read:</p> <p>8.6.1 Natural Hazards Activity Standard</p>	Accept
10.57	Federated Farmers		13.2 issue 1	Support	Retain as notified	Accept
10.58	Federated Farmers		13.2.1 Objective 1	Support	Retain as notified	Accept
14.30	Environment Canterbury	FS2.8 Allow the submission point in pat	13.2.1 Objective 1	Support in part	<p>Amend as follows:</p> <p>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 unless this risk can be remedied, avoided, or mitigated without significant adverse effects on the environment.</p> <p>Subdivision is:</p> <p>1. avoided in areas where the risk to life or property from natural hazards is unacceptable</p> <p>2. managed in other areas to ensure that the risk of natural hazards to people and property is appropriately mitigated</p>	Accept in part
10.59	Federated Farmers		13.2.2.7	Support	Retain as notified	Accept

14.31	Environment Canterbury	FS2.9 Allow the submission point in part	13.2.2.7	Support in part	Amend to policy 7 to read: <u>Avoid subdivision within High Flood Hazard areas unless it is within the Urban Flood Assessment Overlay in which case the flood risk must be avoided or mitigated.</u> <u>Avoid subdivision within the Fault Avoidance Overlay</u> Manage subdivision within all natural hazard overlays other than those referred to in Clause 1 and 2 above, to ensure the natural hazard risk is acceptable. <u>Manage subdivision in areas of the district natural hazards, but are not identified as within a natural hazard overlay, to ensure that the risk to life and property from natural hazards is acceptable.</u> <u>Manage subdivision to ensure that development is not likely to require new or upgraded community scale hazard mitigation works, and that in the event of a flood all properties continue to have physical access and services.</u>	Accept in part
2.3	Cargil Station		13.11.1	Oppose	Request for the Council to retain a liquefaction database that is built over time	Reject
10.60	Federated Farmers		13.11.1	Support	Retain as notified	Accept
14.32	Environment Canterbury		13.11.1	Support in part	Delete the first paragraph under matters of control: natural hazards (including the list of natural hazards but retaining the liquefaction paragraph), and replace the first paragraph with: <u>Natural Hazards</u> <u>1. The nature and extent of natural hazards that may affect the area proposed to be subdivided;</u> <u>2. Proposals to avoid or mitigate natural hazards;</u> <u>3. Whether proposed new allotment(s) would lead to an increase in risk from natural hazards, including to people, property on the new allotments or other properties.</u> <u>4. Whether the new subdivision is likely to require new or upgraded community scale hazard mitigation works.</u> <u>5. Proposals to ensure that any new Hazard Sensitive Buildings to be developed as a result of the subdivision are able to be accessed in the event of flooding.</u>	Accept In part
10.61	Federated Farmers		13.11.2	Support	Retain as notified	Accept
10.62	Federated Farmers		13.11.4	Support	Retain as notified	Accept
5.1	Kaikoura District Council		All	Support	After each semicolon add an “and ” or an “or”	Accept
14. 1	Environment Canterbury		All	Support in part	Amend all key words and terms for consistency. <ul style="list-style-type: none"> Urban Flood Hazard Assessment Overlay Flood Hazard Assessment Certificate vs Flood Hazard Certificate <ul style="list-style-type: none"> Inconsistent capitalisation of flood hazard assessment certificate. Debris fan flows vs debris flow fan, debris fans overlays bs debris flow fan overlay Wildfire vs wild fire Risk based vs risk-based Inconsistent capitalisation: Natural Hazards Policies vs Natural Hazards rules <ul style="list-style-type: none"> Capitalisation of first word in defined terms, eg plantation forestry, hazard sensitive building, the use of ‘new’ in relation to activities managed, eg Rule 8.5.2 and 8.5.3/8.5.4 Use of ‘in’ Vs ‘within’ and ‘of’ natural hazard overlays 	Accept
5.2	Kaikoura District Council		Definitions	Support	Add definition for Non-Critical Infrastructure	Accept
5.4	Kaikoura District Council	FS2.1 Allow the submission point	Planning maps	Support	The area of “Landslide Debris Inundation Overlay” and “Debris Flow Fan Overlay” is reduced as provided by expert evidence to be provided at the hearing	Accept
14.19	Environment Canterbury		Non-assessed areas	Support in part	Include explanatory note as to how non-assessed areas will be managed, i.e if it will be managed by the Building Act	Accept

Appendix 3: Summary of submissions

Appendix 4- Federated Farmers – Pre-Hearing meeting notes

Present: Elisha Ebert-Young (Senior Policy Advisor, Federated Farmers), Matt Hoggard (Strategy, Policy and District Planning Manager, Kaikoura District Council), Kerry Andrews (Policy Planner, Kaikoura District Council)

- This meeting was held without prejudice.
- These notes have been confirmed by the submitter.
- The table below has been provided to KDC by the submitter.

Sub Point	Provision	What was sought	Why it was sought	My comments (as at 30 September 2021)
9.	New definition for <i>Hazard Sensitive Buildings</i>	<p>Recommend an amendment to the definition:</p> <p>For the purposes of clause 1, buildings such as the following are not included:</p> <p>i. farm sheds used solely for storage <u>and animal shelter</u>;</p> <p>ii. carports;</p> <p>iii. garden <u>S</u> sheds; and</p>	<p>We broadly agree to the proposed definition but submit many farm sheds are used for storage and sheltering animals during adverse weather events.</p> <p>Other examples may inadvertently be captured by this definition include shearing sheds, hen houses and dog kennels.</p> <p>We recommend an amendment to the</p>	<p>KDC is concerned ‘farm sheds used for animal shelter’ could include large dairy sheds and platforms, which would not be permitted.</p> <p>From memory we suggested this was included for emergency reasons, like a snow storm...</p> <p>Could we change to ‘temporary</p>

		iv. any buildings with a dirt/gravel or similarly unconstructed floor.	list of buildings not included.	animal shelter to protect stock from adverse events’? Or do we leave it? If it is a once in a while, you stick a bunch of sheep in your storage barn to keep them out of the snow, do we need this defined??
14.16	New Objective Suggested by ECan	<p>Insert new objective 8.2.1 to reflect an overarching objective for all natural hazards, whereby the outcome sought is management of all natural hazard risk (including in areas not identified by an overlay) to acceptable levels. For example:</p> <p><i>Objective 8.2.1 risk from natural hazards</i></p> <p><i>New land use and development is managed in areas subject to natural hazards to ensure that natural hazard risk is avoided mitigated to an acceptable level.</i></p> <p>Objective 8.2.2 would become the objective focused on flooding and retain clause 1 and 2 of the proposed objective 8.2.1</p> <p>Objective 8.2.3 would become the objective focused on infrastructure</p>	<p>ECan considers these changes would give better effect to RPS policies;</p> <ul style="list-style-type: none"> • 5.3.2 Development conditions, • 11.3.1 Avoidance of inappropriate development in high hazard areas. • 11.3.2 Avoid development in areas subject to inundation, • 11.3.3 Earthquake hazards, • 11.3.5 General Risk Management Approach. <p>Submitter considers changes would also improve hierarchy of provisions, providing a clear line of sight from the objectives through to policies and rules.</p> <p>Submitter is in support of objective in part, but considers that clause 3 does not make sense</p>	<p>Federated Farmers opposed this. Agree that there could an overarching objective but disagree this objective should cover all natural hazard risks, even those that have not been identified.</p> <p>The chapter identifies and addresses natural hazards in the district through maps and consequential rules. The proposal is too broad and creates ambiguity for plan users.</p> <p>However, I can accept there needs to be a general sentence about hazards management as a whole since it’s RPS policy 11.3.7</p> <p>Open to having this policy redrafted at section 42A, and will reconsider it then.</p>

14.17	Objectives	<p>Insert a new objective 8.2.4 relating to natural hazard mitigation works where the outcomes sought is that communities relying on hazard mitigation works to enable new development in the first instance, and that where new mitigation works are unavoidable, they do not have significant effects on the environment.</p>	<p>ECan considers the plan change lacks objectives relating to natural hazards mitigation works. Including an objective for mitigation works addition would give better effect to RPS policies:</p> <ul style="list-style-type: none"> • 11.3.1 Avoidance of inappropriate development in high hazard areas • 11.3.2 avoid development in areas subject to inundation • 11.3.7 Physical mitigation works <p>Submitter considers change would also provide an outcome for policy 8.3.4 to achieve, and a clear line of sight from the objectives through to policies and rules relating to mitigation works.</p> <p>Submitter considers there is a lack of objectives relating to natural hazard mitigation works.</p>	<p>I opposed this one because I think mitigation works is a means to end, it is inappropriate to have it as an objective.</p> <p>Like the RPS Policies, the council has elected to have mitigation works provided for in the policies section of Chapter 8.</p> <p>We agree with their approach.</p> <p>However, I can accept there may need to be short and simple objective to tie into this policy.</p> <p>Open to having this policy redrafted at section 42A, and will reconsider it then.</p>
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38	New policy – Flooding outside of High Flood Hazard Areas	<p>We recommend the Council deletes policy 8.3.12 in its entirety.</p> <p>There are other policies and rules that will provide appropriately safeguard the community from installing hazard sensitive buildings flood-prone areas.</p>	<p>We find the wording of this policy is too broad. As it is currently written it can capture all buildings outside the High Flood Hazards areas. We do not believe this is what was intended.</p> <p>Furthermore, looking at the rules in this plan, this policy does not seem to apply,</p>	<p>Going back to it I think this is okay. It covers everything else within the flood overlay, which is HUGE, but it is needed given the low-lying location of the district.</p> <p>Question: does this policy apply to just the flood overlay or the entire</p>
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			<p>or refer, to any of the flood overlays, specifically.</p> <p>It is our view that proposed policies 8.3.11 (which covers the Urban flood assessment overlay) and 8.3.13 (covering the Non-urban flood assessment overlay), and the related rules, will provide sufficient safeguards.</p> <p>There are no other flood overlays in the plan.</p>	<p>district? Perhaps this could be clarified in the policy?</p>
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Appendix 5: District-scale landslide risk analysis of debris inundation for the Kaikōura District

Appendix 6: Statement of Evidence

Statement of Evidence – Matthew Edwin Hoggard 13 October 2021

1.0 Experience

- 1.1 My name is Matthew Edwin Hoggard and I am the Strategy, Policy and District Plan Manager for the Kaikoura District Council. I hold a Bachelor of Resource Studies from Lincoln University. I am a full member of the New Zealand Planning Institute and have over 23 years experience in the field of resource management. I was employed by the Buller District Council from 5th October 1998 to 4th April 2001. I have been employed by the Kaikoura District Council since 7th May 2001. I was first employed as a Planning Officer and appointed as a District Planner on 5th November 2005 and on 17th July 2017 I was appointed to my current position.
- 1.2 During my time working for Local Government, I have been involved in Civil Defence and my current role within Civil Defence is the Planning and Intelligence Manager. After the 14th November 2016 7.8 magnitude earthquake at various time I acted as the Planning and Intelligence Manager. In the recovery period I managed the Building and the Planning Teams. I was later involved in the development of Council policy which led to the identification of property with unacceptable levels of hazard risks. Where possible mitigation was undertaken and where this was not possible properties were purchased by the Kaikoura District Council. Post Kaikoura earthquake I was involved in the North Canterbury Transport Infrastructure Recovery (NCTIR) as a member of the Restoration Liaison Group (RLG).
- 1.3 I have completed the Making Good Decisions and my certificate is valid until 30th July 2022.
- 1.4 I have read Environment Court of New Zealand Practice Note 2014 – Expert witnesses and agree to comply with these requirements. I will be providing planning evidence.

2.0 Matters Addressed

- 2.1 This statement of evidence provides an overview of why the 1:500yr (0.2 AEP) has been retained from the Operative District Plan to the Natural Hazards Plan Change – PC3. In doing so it addresses application of Policy 11.3.2 of the Canterbury Regional Policy Statement (CRPS).
- 2.2 This statement also addresses debris inundation and which threshold of the Draft³ GNS Science Consultancy Report 2021/89 is considered appropriate to trigger resource consent.

3.0 Background

- 3.1 The Kaikoura District like much of New Zealand is on the boundary of two tectonic plates. Where the West Coast and Canterbury are separated by the Alpine Fault, Kaikoura District is fractured by the Marlborough fault system. Around the seaward base of Mt Fyffe the Hope Fault creates the intersection of the eastern boundary of the Australian Plate with the western boundary of the Pacific Plate. The Kaikoura Flats are on the Pacific Plate and extend for less than 10 kilometres from the Hope Fault to the Pacific Ocean. The plates boundaries intersection has created the rapid uplift of the Inland and Seward Kaikoura Mountains. The uplift has resulted in erosion including landslides and debris flow. Overtime fans have extended seaward creating the Kaikoura flat and river deltas within the district.
- 3.2 The combination of the districts geological setting with potential for intensive rainfall and earthquakes means debris inundation and flooding risk are present.
- 3.3 The Great Flood of February 1868 and the 23rd December 1993 flood are examples of weather events which effected the whole of the Kaikoura District, refer Appendix 1. The speed at which flooding can occur for Kaikoura is further highlighted by Kaikoura Civil Defence Standards Operating Procedures which identify travel time for rainfall:
- Time of travel from the Luke Creek rain gauge to Postman’s Road - 20 minutes.
 - Heavy rain at Snowflake will cause a significant rise at Middle Ford in 1.5 hours.

³ Note: The report at time of writing had been delayed by Covid19 however material differences are not expected from the draft and the final report, and any material difference will be addressed by GNS in a cover letter.

- 3.4 In summary the step catchments created by the colliding plate boundary results in potential for flooding and debris flow with limited warning time. From a planning perspective the Kaikoura District Plan is the most appropriate document to manage the effects of flooding and debris flow.

4.0 Kaikoura District Plan – Background

- 4.1 In July 1994 the Draft Kaikoura District Plan was produced and in October 1998 the draft was notified seeking feedback from the community. After the feedback on the Draft Plan a Proposed Plan (April 2000) was publicly notified in May 2000. This is a similar timeframe to the Kaikoura Floodplain Management Strategy Issues and Options, with submissions closing on 5th May 1999. The Plan was made fully operative 23rd June 2008. The 1998 Draft Plan contained no flood maps but flood maps were included in the April 2000 version with the a cautionary note:

“Analysis of flood risk is subject to considerable uncertainty in the Kaikoura District, because the District’s river and stream lack numerical flow data on which predictive flood modelling and flood hazard distribution can be based. Accordingly, the flooding maps are drawn as a subjective geomorphic interpretation of the flood hazard, based on detailed field mapping and local knowledge. Map users should be aware that line boundaries drawn between flood risk areas are not more than an approximate of a flood hazard. Accordingly, some discretion must be used when interpreting the flood hazard maps. In adopting and interpreting the following maps, the Kaikoura District Council will exercise a precautionary discretion.”

- 4.2 It is noted that the geomorphic maps do not reference a timeframe. However, the submission by the Canterbury Regional Council on the Proposed District Plan sought to ensure that Policy 8.3.2.2 and 8.3.2.3 include reference to a 0.2% AEP. This relief was accepted with the following reasons given:

(i) It will provide better clarification and greater certainty to plan users regarding the level of risk adopted by the Council and the Regional Council and how it should be interpreted.

(ii) It will be consistent with the Canterbury Regional Policy Statement.

(iii) It will be consistent with the 1:500 year event Flood Hazard Maps

- 4.3 These decision in 2005 have created expectations of how flooding within the district should be managed.
- 4.4 Turning to the potential for debris flow the operative district plan contains Objective 8.5.1 and Policy 8.5.2 and 8.5.3 to address land instability. The implementation methods for these policies seek to identify unstable land. Until PC3 this identification has been undertaken on a case-by-case basis at the time of subdivision.

5.0 Discussion – Flooding

- 5.1 Policy 11.3.1 (Avoidance of inappropriate development in high hazard areas) of the CRPS requires assessments based on a 0.2% AEP, for areas which are not addressed by Policy 13.3.4 (Critical infrastructure) and Policy 11.3.2 (Avoid development in areas subject to inundation) requires that subdivision and development be assessed by a 0.5% AEP event. Policy 11.3.2 provides the ability for Council to set higher standards where local catchment conditions warrant. The explanation and reason within the CRPS identified that in some circumstances the cost of constructing new buildings at a higher level, resulting in a much lower likelihood of flood damages, is relatively low.
- 5.2 Kaikoura’s geology is unique, and Council has previously agreed to a 0.2%AEP standard. This has seen numerous houses being built over the last 16 years with floor levels based on a 0.2%AEP. A move away from this standard creates uncertainty within the community. In addition to these factors, it is noted that flooding places the vulnerable at greatest risk. For planning and regulatory purposes, when looking at risk it is established practice to consider individual risk to a “critical group” of more highly -exposed- to- risk people.⁴ For example people with less mobility, the very old, the very young, and the sick. With limited warning time these parties are at greater risk.
- 5.3 The difference between a 200 ARI and a 500 ARI is 40% change in frequency where it only results in a 15-16% increase in flow when calculated from the river design flows provided by Environment Canterbury. Refer Appendix 2.

⁴ Taig, Massey, Webb – Canterbury Earthquakes Port Hills Slope Stability – Principles and Criteria for the Assessment of Risk from Slope Instability in the Port Hills, Christchurch, GNS Science Consultancy Report 2011/319

6.0 Discussion - Debris Flow

- 6.1 Policy 11.3.5 (General risk management approach) of the CRPS requires use or development of land shall be avoided if the risk from natural hazards is unacceptable and where uncertainty exists a precautionary approach should be adopted. The CRPS identifies what risk management techniques, but does not set a frequency as occurs for flooding.
- 6.2 The draft GNS Science Consultancy Report 2021/89 provides a range of local personal risk (LPR) but does not provide an indication of what level the LPR is unacceptable. "Land use planning that takes into account natural hazard risk requires a value judgement over what is deemed an acceptable or unacceptable risk."⁵ As identified in Councils Section 32 report community risk workshops were undertaken. A consistent view exists from the community risk workshops that certain natural risks are intolerable and should be more tightly controlled by the district plan. This was the case for some of the debris inundation and active faults scenarios.
- 6.3 In applying the desire expressed in community risk workshops in regard to risk, guidance has been taken from the 6.2 magnitude Christchurch Earthquake that caused 185 fatalities. Jacka's 2015 use of $\geq 10^{-4}$ was seen as an acceptable threshold to determine properties future uses. See Appendix 3.
- 6.4 Christchurch City Council has refined this approach within its District Plan as identified within the Policy 5.2.2.4.1 attached as Appendix 4. This Policy contains a number of inputs for individual hazards. Similar variables are also present in the GNS Science report (2021/89) for Kaikoura District and examples include, the fraction of time a person might spend in a dwelling, which climate change model should be used, which earthquake and rainfall induced landside probability should be used. Policy 11.3.5 for the CRPS requires adoption of a precautionary approach which fits well with the direction of the Kaikoura community risk workshops. Given the precautionary approach more conservative inputs are being used. These inputs create framework which triggers resource consent. Over time the application of the framework or the model itself may need refining as has occurred with Council's

⁵ M. Kilvington W.S.A. Saunders 2015, "I can live with this" The Bay of Plenty Regional Council public engagement on acceptable risk. GNS Science Miscellaneous Series 86.

approach to flooding. However, with the absents of any evidence to the contrary this precautionary framework around debris flow as seen as suitable.

- 6.5 In terms of scope, it is noted that Kaikoura District Councils submission seeks decision makers to accept a reduction in the hazard area. Any framework developed cannot extend the extent of the hazard areas as notified.

7.0 Recommendation

1. The Kaikoura District Plan use 0.2%AEP in regard to Policy 11.3.2 of the CRPS.
2. The Kaikoura District Plan use $\geq 10^{-4}$ upper scenario of the Draft GNS Science Consultancy Report 2021/89 as the basis for the new district plan maps to replace the Landslide Debris Inundation Overlay and Debris Flow Fan Overlay.

Appendix 1 – Example of Flooding within the Kaikoura District

Information relating to the Great Flood of February 1868:

“The Clarence, thirty feet higher than any previously known level, rose to within a inches of the door of Lyford’s accommodation house and, spreading over the valley floor almost to the Woodbank Homestead, swept hundreds of acres of land out to sea.”⁶

“At Kaikoura, wrote Chaytor, “it was very bad. Keens’s gum trees near the house were all washed away and five miles of fencing down the Kowhai and some houses washed away. The Hapuku was tremendously high. All the islands in the river are washed out. ... Although there is no record of the rainfall at Kaikoura during the 1868 flood the destructive effect seems to have been greater than that caused by the flood of 1923 when 25.88 inches of rain fell within four days.”⁷

Since 1868 to 1993 there have been 41 flood events for the Kowhai River and the Kaikoura Township. This reinforces the summary of the Marlborough Catchment Board report in 1969:

“Since the formation of the Kaikoura River Board and the Kaikoura County Council in 1877, a great deal of money and effort has been expended towards gaining an acceptable standard of protection against the raging rivers, and although temporary relief was obtained from time to time, no permanent solution to the problems resulted.”⁸

Kaikoura’s Rivers with their steep catchments and readily available supply of sediments so close to the districts settlements make Kaikoura District very different from other parts of Canterbury. These differences need to be considered with the application of policy 11.3.2.

A difference between Kaikoura and other parts of Canterbury is the very limited warning time of potential flooding. This is highlighted in the 23rd December 1993 flood.

“... the Works Inspector viewed the rivers by helicopter, returning to the office at 1505hr. He observed that, while the Kowhai was carrying a lot of water, the control system was working well. At 1520hr a phone call was received from a farmer advising that the river was

⁶ J M Sherrard, 1966, Kaikoura – A History of the District, pages 168-169

⁷ J M Sherrard, 1966, Kaikoura – A History of the District, page 169

⁸ Canterbury Regional Council, 1999, Kaikoura Floodplain – Issues and Options for reducing the impacts of flooding and flood sediment deposition, page 6

attacking the left bank below Middle Ford. ... At approximately 1900hr Lyell Creek overtopped a small stopbank and floodwaters rise rapidly in the town's West End commercial area causing sever damage to building and stock and a major extended dislocation to business activity.”⁹

The 1993 flood resulted in the Kowhai River breaching the true left bank and flooding the Kaikoura flats including Kaikoura High School and St Joseph's Primary School. As result of this flood a Kaikoura Floodplain Issues and Options document was put to the community in April 1999 and the Kaikoura Flood Management Strategy 2000 was produced by Environment Canterbury.

Appendix 2 – Examples of ARI for Kaikoura Rivers

Kowhai River design flows

ARI	Present-day Kowhai River flow (m ³ /s)	Present-day Kowhai River - excl Goldmine & Floodgate Stms - flow (m ³ /s)	Kowhai River flows with Climate change to 2100 ^a (m ³ /s)
50	370	320	460
100	420	370	525
200	475	415	595
500	550	480	690

^a Present-day Kowhai River flows increased by 25%

Middle Ford Breakout design flows

ARI	Present-day Middle Ford breakout flow ^b (m ³ /s)	Middle Ford breakout flow with climate change to 2100 ^c (m ³ /s)
50	190	240
100	220	280
200	250	310
500	290	360

^b 60% of present-day Kowhai River - excluding Goldmine & Floodgate Stms - flows

^c Present-day Middle Ford breakout flows increased by 25%

Appendix 3 – Examples of AIFR and Zoning

“On 1 October 2012, the New Zealand cabinet confirmed the following criteria to be used for residential zoning decisions in the Port Hills (taken from Jacka, 2015).

1. Green zone is where the AIFR < 10^{-4} and where land damage and any life risk $\geq 10^{-4}$ could be addressed on an individual basis.
2. Red zone is where (a) AIFR $\geq 10^{-4}$ when adopting the model assumptions in Table S3, or (b) there is potential for immediate cliff collapse or landslide caused or accentuated by the Canterbury earthquake sequence with associated risk to life, and (c) an engineering solution to mitigate the life risk is judged not desirable and would (amongst other factors) be uncertain in terms of detailed design, and/or be disruptive for landowners, and/or not be timely, and/or not be cost effective, and put the health and wellbeing of residents at risk.”¹⁰

¹⁰ M. C. Quigley et al. 2020: Earth science information in post-earthquake land-use decision-making: the 2010–2011 Canterbury earthquake sequence in Aotearoa New Zealand

Appendix 4 - Christchurch City Council 5.2.2.4.1 Policy -- Slope Instability

5.2.2.4.1 Policy - Slope instability

1. Map areas of slope instability risk at an area-wide scale using the following fixed inputs into calculations² that establish the Annual Individual Fatality Risk (AIFR) for a typical residential site³:

Slope instability hazard management area		Inputs			Mapped risk (AIFR)
		Percentage of a day the property is assumed to be occupied (%)	Year of predicted seismic activity used in modelling	Whether or not the property is evacuated immediately following a Natural Hazard Event	
i.	Cliff Collapse Management Area 1	100	2012	No	$\geq 10^{-2}$
ii.	Cliff Collapse Management Area 2	100	2012	No	$\geq 10^{-4}$
iii.	Rockfall Management Area 1	67	2016	Yes	$\geq 10^{-4}$
iv.	Rockfall Management Area 2	100	2016	No	$\geq 10^{-4}$
v.	Mass Movement Management Area 1	67	2016	Yes	$\geq 10^{-4}$
vi.	Mass Movement Management Areas 2 & 3	Refer to natural hazard maps			

1. In slope instability hazard management areas in the Port Hills and across Banks Peninsula:

1. avoid subdivision, use and development where the activity will result in an unacceptable risk to life safety (AIFR $\geq 10^{-4}$ using the GNS Science method and parameters for establishing life safety risk), taking into account all relevant site-specific information and any hazard mitigation works proposed; and
2. otherwise, manage subdivision, use and development so that risk of damage to property and infrastructure is mitigated to an acceptable extent.

² Using the method and parameters described in GNS Science Consultancy Report 2011/311 Canterbury Earthquakes Port Hills Slope Stability: Pilot study for assessing life-safety risk from rockfalls (boulder rolls) and GNS Science Consultancy Reports 2012/57 Canterbury Earthquakes Port Hills Slope Stability: Pilot study for assessing life-safety risk from cliff collapse and 2012/124 Port Hills Slope Stability: Life-safety risk from cliff collapse in the Port Hills, and any subsequent updates to those reports by GNS Science. Calculations also include modelling and estimates, such as probability of a rockfall/cliff collapse event, vulnerability, rock/debris volumes and rockfall run-out. The mapping does not take account of hazard mitigation works. Rocks can, and will, fall outside of the mapped hazard risk areas, however the risk of a fatality is lower.

³ Except Mass Movement Management Areas 2 & 3 which are mapped based on potential effect on property, not Annual Individual Fatality Risk.

Appendix 7: Environment Canterbury – Pre-hearing meeting notes

Pre-hearing meeting with Environment Canterbury on 28/09/21 (meeting held in Christchurch) and 1/10/21 (meeting online)

Present: Jane Doogue, Matt Hoggard, Andrew Willis, Kerry Andrews

- Matters that were agreed upon were not discussed in the pre-hearing meeting.
- These notes have been confirmed by the submitter
- This meeting was held on a non-prejudiced basis

Matters covered in pre-hearing meeting

1. Submission point 14.16: Insert new objective 8.2.1 and make 8.2.1 8.2.2 and focus on flooding and overlays
 - Create entirely new 8.2.1 for overall approach.
 - This is so natural hazards that haven't been identified on the planning maps/natural hazard overlays are captured in the objective. i.e Wildfire.
 - RPS has general hazard risk management approach. Objective 11.2.1 is general risk management approach policy 11.3.5 general risk management approach.
 - Accept submission point 14.16 and amend as suggested
2. Submission point 14.17 insert objective 8.2.4 hazard mitigation works
 - Insert wording used in submission point.
 - Accept submission point 14.17 and amend as suggested
 - Considered to be reasonable.
 - Give better effect to RPS policy 11.3.7.
 - Supports own proposed policy 8.3.4
 - Raises issues with floor levels.
 - 11.3.7 physical mitigation works. Use def from this for definition of hazard mitigation works
 - New hazard mitigation works –
 - Concept is to not build in places where risk is high even where mitigation is possible.
 - Significant community hazard mitigation works
 - Issue is scale of the works
 - Suggested wording not inconsistent with RPS
 - Don't need a new rule, is captured by earthworks and floor level approach.

3. Submission point 14.25 amend policy 8.3.10

Environment Canterbury proposed the following amendment to policy 8.3.10

Policy 8.3.10

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.**
4. **The development is not likely to require new or upgraded community hazard mitigation works**
5. **The hazard sensitive building can be accessed and serviced during flood events.**

The following points were noted.

- It was agreed to retain clause 1
- Proposed clause 4: it was agreed that there was value in proposed clause 4
- Proposed clause 5: it was agreed to remove this proposed clause as it was too nebulous to define how a property could be accessed and serviced during an adverse event

Policy 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;

5. the nature of the activity means the risk to life and potential for damage from flooding is acceptable; or
6. **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; or**
7. **the risk to surrounding properties is not significantly increased; or**
8. **The development is not likely to require new or upgraded community hazard mitigation works**
9. **The hazard sensitive building can be accessed and serviced during flood events.**

4. Submission point 14.30

- It was agreed to accept this submission point as and accept amendments as proposed by ECan.

5. Submission point 14.31 amend policy 13.2.2

Environment Canterbury proposed the following amendment to policy 13.2.2

~~Manage subdivision within all natural hazard overlays to ensure risk to life and property is acceptable~~

1. Avoid subdivision within High Flood Hazard areas unless it is within the Urban Flood Overlay in which case the flood risk must be avoided or mitigated.
2. Avoid subdivision within the Fault Avoidance Overlay
3. Manage subdivision within all natural hazard overlays other than those referred to in Clause 1 and 2 above, to ensure that the natural hazard risk is acceptable
4. Manage subdivision in areas of the district that are subject to natural hazards , but are not identified as within a natural hazards overlay, to ensure that the risk to life and property from natural hazards is acceptable .
5. Manage subdivision to ensure that development is not likely to require new or upgraded community scale

The following amendments were agreed

- Adding “subdivision for hazard sensitive buildings shall...” to the beginning of the policy. The intention behind this was to capture subdivisions that will entail hazard sensitive buildings. For example if a someone wanted to subdivide property with a fault avoidance overlay on the site, they would be permitted to do so as long as long as a hazard sensitive building was not proposed.
- The words “avoided or” were also agreed to be removed to recognise that development in High Flood Hazard areas within urban areas are to be managed within the consent process.
- The following amendments to policy 13.2.2 have been made below:

Policy 13.2.2

Subdivision for new hazard sensitive buildings shall:

11. ~~Avoid subdivision~~ **Be avoided** within High Flood Hazard areas unless it is within the Urban Flood Overlay in which case the flood risk must be ~~avoided or~~ mitigated.
12. ~~Be avoided~~ ~~be avoided~~ within the Fault Avoidance Overlay
13. **Be managed** ~~subdivision~~ within all natural hazard overlays other than those referred to in Clause 1 and 2 above, to ensure that the natural hazard risk is acceptable
14. **Be managed** ~~Manage subdivision~~ in areas of the district that are subject to natural hazards, but are not identified as within a natural hazards overlay, to ensure that the risk to life and property from natural hazards is acceptable.
15. **Be managed** ~~Manage subdivision~~ to ensure that development is not likely to require new or upgraded community scale hazard mitigation works.

16. Submission point 14.32 Amend policy 13.11.1

The following points were discussed and agreed:

- To delete the first paragraph of 13.11.1 as it is within scope of the ECan submission
- To reject the entire first proposed paragraph from ECan as it goes beyond liquefaction hazards which are the only controlled subdivisions (all other hazards require an RDIS consent).
- To delete the list of natural hazards as an error as these are not triggered by the subdivision rules.

13.11.1 is to be amended as follows:

(...)

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.~~

~~— Erosion~~

~~— Flooding and Inundation~~

~~— Landslip~~

~~— Rockfall~~

~~— Aggregation~~

~~— Unconsolidated Fill~~

~~— Subsidence~~

~~— Coastal erosion~~

~~— Tsunami.~~

~~1. The nature and extent of natural hazards that may affect the area proposed to be subdivided;~~

~~2. Proposals to avoid or mitigate natural hazards;~~

~~3. Whether proposed new allotment(s) would lead to an increase in risk from natural hazards, including to people, property on the new allotments or other properties.~~

4. Whether the new subdivision is likely to require new or upgraded community scale hazard mitigation works.

5. Proposals to ensure that any new Hazard Sensitive Buildings to be developed as a result of the subdivision are able to be accessed in the event of flooding.

Liquefaction within the Liquefaction Hazard overlay, with the matters of control restricted to:

5. **Geotechnical recommendations from a site-specific geotechnical assessment of liquefaction hazard, including testing of soils;**
6. **Location, size and design of the subdivision**
7. **Recommendations for foundations for future buildings;**
8. **Remediation and ground treatment**

Appendix 8: W. Loppe – Pre-hearing meeting notes

Pre-hearing Meeting – W. Loppe on behalf of Cargil Station

Dated 6.09.21

Present: William Loppe (Independent Consultant acting on behalf of Cargil Station), Matt Hoggard (Strategy, Policy and District Plan Manager for Kaikoura District Council), and Kerry Andrews (Policy Planner for Kaikoura District Council)

- This pre-hearing meeting intended to cover submission points raised in the submission and further discuss any concerns from either party.
- These notes have been validated by the submitter

Matters discussed in the pre-hearing meeting

1. Submission point 2.1 – High Flood Hazard mapping

- Submitter expressed to Council staff it is likely they will withdraw this submission point.

2. Submission point 2.2 – Landslide Debris Inundation Areas

- The submitter wishes to retain this submission point.
- The submitter expressed they would like to see the factual information we have provided to council integrated into GNS exercise for the second submission point

3. Submission point 2.3 – Liquefaction hazard overlay

- Submitter wishes to retain this submission point.

- The submitter is seeking to retain the liquefaction damage possible and remove the liquefaction damage unlikely but possible from the overlay.
- The submitter expressed they would like the risk overlay they have provided to amend the proposed overlay within Ocean Ridge Subdivision. For the practical aspects of implementing it would council be comfortable without proposal, I can provide with associated shapefiles.
- There was a discussion around a scientific database and what this might look like. The New Zealand Geotechnical Database was mentioned and Council Staff explained that only technical data is uploaded to the NZGD as opposed to the interpretation of that data.
- It is noted that the database is not within scope of plan change but KDC will look into the matter further.
- Council could potentially look to implement a requirement for geotechnical information to be within a format that can be uploaded to the database.

