

# Waimakariri District Council Proposed Waimakariri District Plan

## Recommendations of the PDP Hearings Panel

### Recommendation Report 7

#### Hearing Stream 3 Part 2: District-wide matters – NH – Natural Hazards

This report should be read in conjunction with **Report 1** and **Recommendation Reports 2 and 3**.

**Report 1** contains an explanation of how the recommendations in all subsequent reports have been developed and presented, along with a glossary of terms used throughout the reports, a record of all Panel Minutes, a record of the recommendation reports and a summary of overarching recommendations. It does not contain any recommendations per se.

**Recommendation Report 2** contains the PDP Panel's recommendations on the PDP's Part 2: District-wide Matters – Strategic directions - SD Strategic directions objectives and policies.

**Recommendation Report 3** contains the PDP Panel's recommendations on the PDP's Part 2: District-wide Matters – Strategic directions - UFD Urban Form and Development objectives and policies.

**Appendix 1:** Schedule of attendances

**Appendix 2:** Recommended amendments to the Proposed Plan - Tracked from notified version (provisions not consequentially renumbered).

The Hearings Panel for the purposes of **Hearing Stream 3** comprised Commissioners Gina Sweetman (Chair), Allan Cubitt, Gary Rae, Neville Atkinson and Niki Mealings.

# 1. Introduction

## Report outline and approach

1. This is Report 7 of 37 Recommendation Reports prepared by the PDP Hearings Panel appointed to hear and make recommendations on submissions to the Proposed Waimakariri District Plan (PDP).
2. The report addresses the objective, policies and the advice note relating to the NH – Natural Hazards Chapter and the submissions received on those provisions. The relevant provisions are:
  - Introduction
  - Objectives NH-O1 to NH-O4
  - Policies NH-P1 to NH-P19
  - Rules NH-R1 – NH-R20
  - Standards NH-S1 and NH-S2
  - Matters of Discretion NH-MD1 – NH-MD4
3. We have structured our discussion on this topic as follows:
  - (a) **Section 2** summarises key contextual matters, including relevant provisions and key issues/themes in submissions;
  - (b) **Sections 3 - 16** contains our evaluation of key issues and recommended amendments to provisions; and
  - (c) **Section 17** contains our conclusions.
4. This Recommendation Report contains the following appendices:
  - (a) **Appendix 1: Schedule of attendances** at the hearing on this topic. We refer to the parties concerned and the evidence they presented throughout this Recommendation Report, where relevant.
  - (b) **Appendix 2: Recommended amendments to the Proposed Plan – Tracked from notified version.** This sets out the final amendments we recommend be made to the PDP provisions relating to this topic. The amendments show the specific wording of the amendments we have recommended and are shown in a ‘tracked change’ format showing changes from the notified version of the PDP for ease of reference. Where whole provisions have been deleted or added, we have not shown any consequential renumbering, as this method maintains the integrity of how the submitters and s42A Report authors have referred to specific provisions, and our analysis of these in the Recommendation Reports. New whole provisions are prefaced with the term ‘new’ and deleted provisions are shown as struck out, with no subsequential renumbering in either case.
5. We record that all submissions on the provisions relating to the NH – Natural Hazards chapter have been taken into account in our deliberations. In general, submissions in support of the PDP have not been discussed but are accepted or accepted in part. More

detailed descriptions of the submissions and key issues can be found in the relevant s42A Reports, Responses to Preliminary Questions and written Reply Reports, which are available on the Council's website. As stated above, our decision on each submission point is set out in Appendix 2.

6. In accordance with the approach set out in Report 1, this Report focuses only on 'exceptions', where we do not agree fully or in part with the s42A report author's recommendations and / or reasons, and / or have additional discussion and reasons in respect to a particular submission point, evidence at the hearing, or another matter. Original submissions have been accepted or rejected as recommended by the s42A report author unless otherwise stated in our Recommendation Reports. Further submissions are either accepted or rejected in conformance with our recommendations on the original submission to which the further submission relates.
7. The requirements in clause 10 of the First Schedule of the Act and s32AA are relevant to our considerations of the PDP provisions and the submissions received on those provisions. These are outlined in full in Report 1. In summary, these provisions require among other things:
  - (a) our evaluation to be focussed on changes to the proposed provisions arising since the notification of the PDP and its s32 reports;
  - (b) the provisions to be examined as to whether they are the most appropriate way to achieve the objectives; and
  - (c) as part of that examination, that:
    - i. reasonable alternatives within the scope afforded by submissions on the provisions and corresponding evidence are considered;
    - ii. the efficiency and effectiveness of the provisions is assessed;
    - iii. the reasons for our recommendations are summarised; and
    - iv. our report contains a level of detail commensurate with the scale and significance of the changes recommended.
8. We have not produced a separate evaluation report under s32AA. Where we have adopted the recommendations of Council's s42A report authors, we have adopted their reasoning, unless expressly stated otherwise. This includes the s32AA assessments attached to the relevant s42A Reports and/or Reply Reports. Those reports are part of the public record and are available on the Council website. Where our recommendation differs from the s42A report authors' recommendations, we have incorporated our s32AA evaluation into the body of our report as part of our reasons for recommended amendments, as opposed to including this in a separate table or appendix.
9. A fuller discussion of our approach in this respect is set out in Section 5 of Report 1.

## **2. Summary of provisions and key issues**

### **Outline of matters addressed in this section**

10. In this section, we provide relevant context around which our evaluation of the notified provisions and submissions received on them is based. Our discussion includes:

- (a) summary of relevant provisions;
- (b) themes raised in submissions; and
- (c) identification of key issues for our subsequent evaluation.

### **Relevant provisions**

11. As indicated in paragraph 1.2 of this Recommendation Report, the relevant provisions we address relate to Part 2: District-wide matters – NH – Natural Hazards.

### **Submissions**

12. The submissions to this Chapter were diverse and sought a range of amendments. Particular areas of contention included the use and extent of overlays, the definition of a high coastal flood hazard, the appropriate AEP to use for floor levels, managing critical infrastructure and flow path disruption.

### **Key issues**

13. With the exception of the General – Plan wide submission points, we have grouped the issues in contention in this report in line with the s42A report itself, as follows:
  - (a) General – Chapter specific
    - i. Flood assessment certificates (FAC)
    - ii. Removal of the flood assessment overlays to make them non-statutory
    - iii. Extending the flood assessment overlays to cover all of the District susceptible to flooding
    - iv. Ensuring a consistent approach across the chapter to manage offsite flood effects
  - (b) NH-O1 and NH-O2
  - (c) NH-P14
  - (d) NH-P18 and NH-MD1
  - (e) NH-P19
  - (f) New Policy
  - (g) NH-R1 to NH-R3
  - (h) New NH-R4 and NH-R17 – floodwater displacement
  - (i) New NH-R5 and NH-16 (old NH-R6 and NH-R17)
  - (j) New NH-R7 to NH-R9
  - (k) NH-S1 and NH-S2
  - (l) NH-MD1 and NH-MD4
  - (m) NH-MD3
  - (n) Minor Errors
14. In saying that, each of these groupings have a number of sub-categories within them, which we equally respond to.

### 3. General – Chapter Specific

#### Overview

15. The Panel has no recommended amendments in response to the submissions, beyond those recommended by the s42A report author.

#### Reasons

16. The submissions we consider here are those seeking amendments which were general to the Chapter. In summary, these were:
- (a) Seeking a statutory process for FACs and ensuring they are certain, robust, peer reviewed and open to challenge<sup>1</sup>
  - (b) Removal of the flood assessment overlays to make them non-statutory<sup>2</sup>
  - (c) Extending the flood assessment overlays to cover all of the District susceptible to flooding<sup>3</sup>
  - (d) Ensuring a consistent and appropriate approach across the chapter to manage offsite flood effects<sup>4</sup>.
17. We have addressed these separately below.
18. We also note here that there were some amendments sought which have flow on implications through the Chapter, but no opposing or further submissions were made and the s42A report author has recommended that these be accepted. In particular, Environment Canterbury sought that the Kaiapoi Fixed Minimum Finished Floor Levels Overlay be amended so that the same approach as in the remainder of the District is applied. Given there were no opposing or further submissions and no evidence to the contrary, we have not addressed this, we rely on the s42A evaluation, and recommend this amendment be accepted. We note that the removal of the Kaiapoi Fixed Minimum Finished Floor Levels Overlay results in recommended amendments to delete reference to the Overlay in the Introduction, How to interpret and apply the rules, NH-R1, NH-R2, NH-R3, NH-R4, NH-R5 and NH-R13. We agree with these recommended amendments, and do not address them further.
19. The other significant amendment sought is in respect to extending the overlays to cover all of the District. We have addressed this below, because of its magnitude.

#### *Flood Assessment Certificates*

20. The s42A report recommended that the submission from Federated Farmers be rejected, on the basis that the provision of information and guidance is not new and there is already a level of formality which will be increased through the Flood Assessment Certificates (FACs). Federated Farmers did not address their requested relief in evidence.

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<sup>1</sup> Federated Farmers [414.98], Andrea and William 'Rob' Thomson [260.3], McAlpines [226.8]

<sup>2</sup> Kāinga Ora [325.100, 325.101, 325.102, 325.119, 325.127]

<sup>3</sup> Environment Canterbury [316.51]

<sup>4</sup> Environment Canterbury [316.49]

21. The s42A report author also recommended that the submission from Andrea and William 'Rob' Thomson be rejected on the basis that the FACs are always based on surveyed ground points using modelled flood depths, which have been peer reviewed, and there is an opportunity for applicants to undertake their own flood assessments if they disagree with the Council's assessment. The submitters did not appear at the hearing.
22. McAlpines considered the FAC approach is too uncertain and will not manage increased risk to neighbouring properties. It is relevant here to set out the advice we received on how the FACs work alongside the Flood Assessment Overlays. We were advised that the Overlay would trigger the requirement for an applicant to obtain a FAC which would enable an up-to-date site-specific assessment of flood risk, including whether the site is high hazard. This approach would allow for changes in modelling inputs, such as from stormwater infrastructure changes and land raising. The cost of a FAC was approximately \$100 to \$150<sup>5</sup>.
23. While we note the s42A report author's recommendation that these submissions be rejected, in our view these should be accepted in part, given the FAC provisions and process address the submitters' concerns, at least in part.

*Extending the flood assessment overlays to cover all of the District susceptible to flooding*

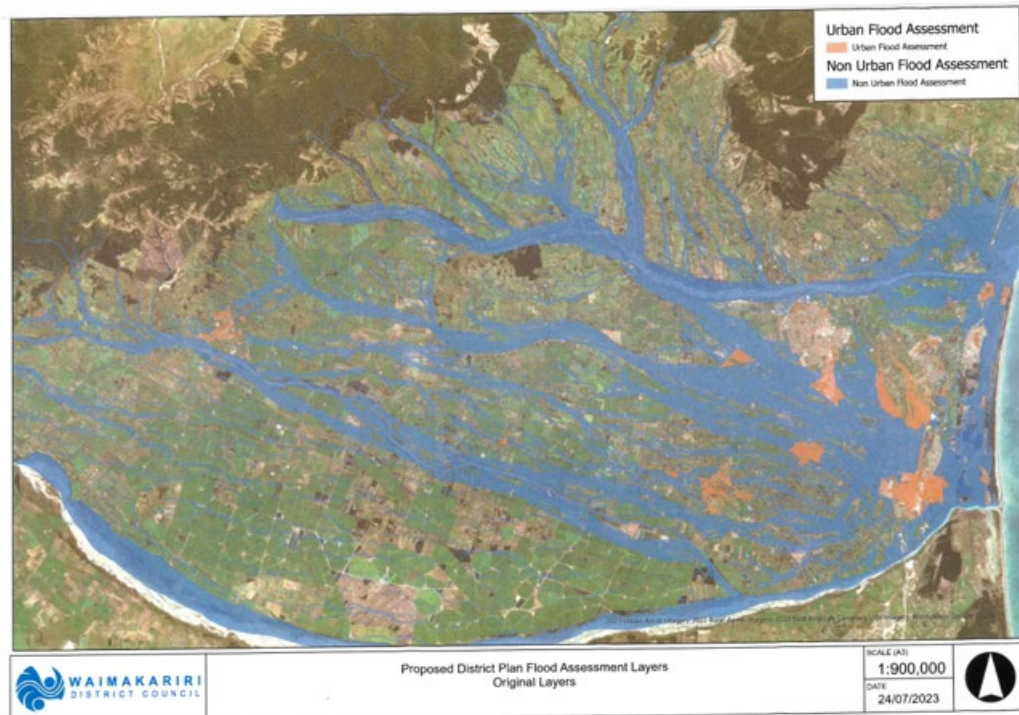
24. The s42A report author recommended that this submission point be accepted. We have addressed this submission point as our recommendation on this point directly affects our evaluation of the removal of the overlays sought by Kāinga Ora. We note that Kāinga Ora opposed this submission point in its further submission but did not address it at the hearing in planning evidence or legal submissions. Nor did Kāinga Ora provide any expert flooding evidence. We therefore had no evidence before us that opposed the s42A recommendation.
25. This submission was addressed through a Joint Witness Statement (JWS) between Mr Bacon and Mr Griffiths and resulted in new overlays being produced for insertion within the PDP. The JWS sets out that the main difference between the notified and revised overlays is that the notified ones were based on model results, while the revised ones are based primarily on the slope of the land. Model results have only been used in the revised overlays to identify main stream channels in the hill country and to exclude some urban areas (Rangiora, Kaiapoi, Woodened, Oxford and Pegasus) where detailed modelling has been undertaken. The end result was that the experts and the Environment Canterbury and Council's planners agreed that it was appropriate that most areas of the district that could be subject to flooding are captured within the revised overlays. Any areas not included in the overlay that are susceptible to flooding would still need to meeting Building Act and Code requirements.

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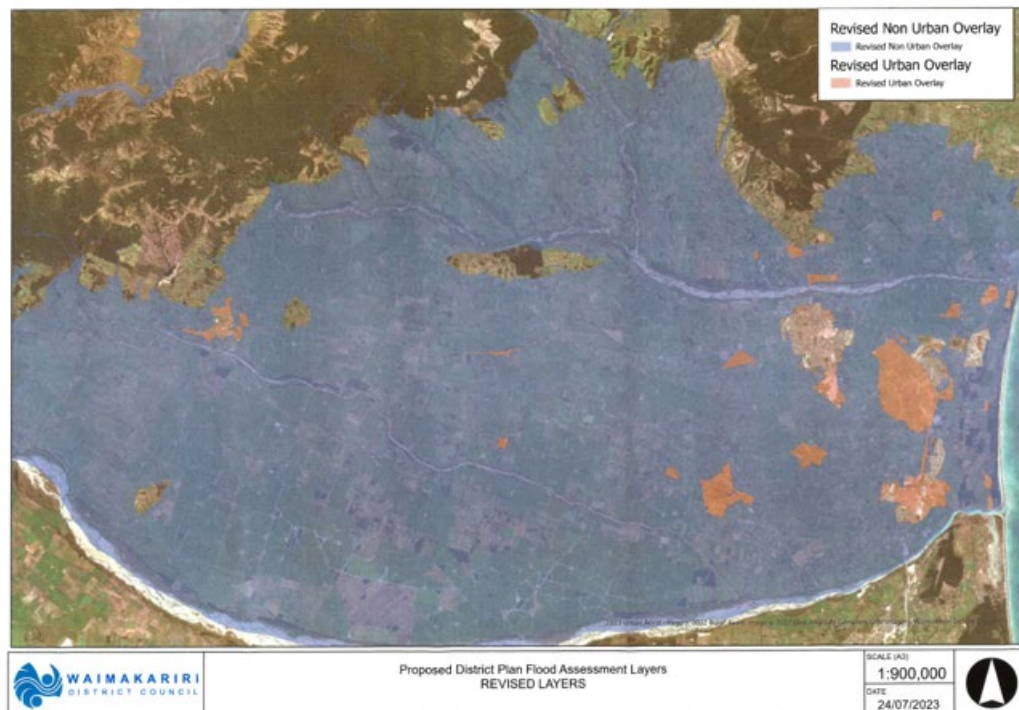
<sup>5</sup> Response to Preliminary Questions

26. We consider it pertinent to include the notified Flood Assessment Overlay map and the revised Flood Assessment Overlay map agreed by the experts and planners.

*Notified Flood Assessment Overlays*



*Revised Flood Assessment Overlays*





27. It is evident that the revised Non-Urban Overlay map extends across the majority of the District. As we were advised at the hearing, the result of the revised Overlay maps would be that a significant portion of the District would be subject to the Flood Overlays, and therefore buildings accommodating natural hazard sensitive activities and certain infrastructure would require FACs in most instances. We discuss these later in this recommendation report.
28. Having no evidence to the contrary, we recommend that this submission point be accepted. In doing so, we note that its acceptance has significant consequential implications.

*Removal of the flood assessment overlays*

29. A significant part of the hearing and evidence we received was dedicated to the submission points of Kāinga Ora in respect to the Natural Hazards Chapter and specific provisions within the Chapter, which opposed differentiating between urban and non-urban flood assessment overlays. They sought that these overlays and the mapped fixed floor overlay be deleted from the PDP and instead included as non-statutory map layers in the Waimakariri District Natural Hazards Interactive Viewer.
30. Mr Willis, the s42A report author, addressed these submission points through his s42A report. We have consolidated his evaluation against the different points into one single evaluation. The Kāinga Ora submission remained live and contested through the hearing, with Mr Willis providing his final position in his Reply Report. We have focussed on Mr Willis's final recommendation and Kāinga Ora's position as articulated through evidence by Ms Dale and legal submission by Mr Matheson. We thank both Mr Willis and Kāinga Ora for the time spent articulating their positions to us on this matter.
31. Kāinga Ora's position, in summary, was that flood hazard information is dynamic, and it cannot be accurately and effectively mapped as an overlay in the PDP planning maps. Ms Dale's view was that mapping that sits outside the Plan is a useful and legitimate planning tool. Mr Matheson told us that the use of non-statutory layers was lawful and had been adopted elsewhere. He gave us the example of the Auckland Unitary Plan. We were not made aware of other examples. Mr Matheson considered that concerns about natural justice if the flood layer could be changed without public involvement of rights of appeal was more apparent than real, on the basis that the risk exists irrespective. Mr Matheson submitted that it was better to direct a plan user to where they might be able to identify where flood risk might be shown. He supported Ms Dale's proposed amendments to the PDP that would see:
  - (a) New definitions for Urban Flood Assessment Area and Non-Flood Assessment Area, which would replace the Urban Flood Assessment Overlay and Non-Urban Flood Assessment Overlay.
  - (b) Cross-referencing from the PDP to the Waimakariri District Natural Hazards Interactive GIS
  - (c) Subsequent amendments to the following provisions: Introduction, NH-O2, NH-P1, NH-P8, NH-P10, NH-P11, how to interpret and apply rules, NH-R1, NH-R2, NH-R3, NH-R4, NH -R5, NH -R6, NH-R13, NH-R15, NH -R16, NH-S1 and NH-S2.

32. Ms Dale explained that her approach was preferable as:
- (a) It was consistent with Chapter 11 of the RPS and addressed in part by Environment Canterbury [316.51]
  - (b) Applicants and the Council can use the GIS maps to inform an assessment against the definitions in the Plan, or undertake their own assessments using the definitions.
  - (c) The GIS maps would be readily accessible and updated.
  - (d) There would be unnecessary time, cost and resources for numerous plan changes to update the PDP maps every time flooding maps were updated, and new unmapped flood prone areas could be missed.
33. Ms Dale noted that there were some limitations of the non-statutory maps, including a lack of certainty as information may change at any time and the maps may be missed when a search is undertaken on one location in the maps. However, she noted that the requirements of the Building Act for minimum flood levels designed for a 2% AEP would apply regardless. Ms Dale considered that the latter could be addressed by cross-referencing the GIS viewer from the introduction, how to interpret the rules and the definitions would cross-reference the GIS viewer.
34. In his s42A report, Mr Willis recommended that these submission points be rejected, on the basis that:
- (a) Updates in the understanding of flood risk and management requirements are introduced through the FAC, rather than the Flood maps themselves.
  - (b) While overlays may prove to be inaccurate in extent over time as modelled risk evolves, reduced risk can be considered as part of the FAC, and areas not subject to the overlay are captured by the Building Act.
  - (c) Mr Bacon supports the PDP approach.
35. We asked Mr Willis to address the differences in approach between the PDP and Kāinga Ora in his Reply Report, and in particular the steps plan users would take and the relative difference in costs. Mr Willis's view was that the approach articulated by Ms Dale would see an applicant needing to rely on advice notes or other statements in the NH Chapter to determine they had to look at the GIS viewer, and then apply for a FAC. Other hazard overlays would continue to be mapped. The Council approach would see the Overlay being identified on a property search and apply for a FAC, and be able to use the GIS viewer to provide them with additional guidance. Mr Willis also identified that Ms Dale's approach would shrink the agreed new overlay (which we discuss earlier) and potentially exclude some areas that flood. His advice that the costs would not be too dissimilar between the approaches; noting that the flood assessment overlay may need to be updated by way of plan change every 6-8 years when remodelling is done. He noted the cost to Council of keeping the GIS viewer up to date, robust and working.
36. Having considered both planners' evidence, we prefer that of Mr Willis. We agree that the added certainty of having a mapped Overlay that comes up when using the property search function is preferable and is consistent with the other Hazard Overlays (and how the Plan works as a whole). Further, we consider any cost differential is negligible on the

basis of Mr Willis's evidence. We therefore recommend that this group of submissions be rejected.

## 4. NH-O1 and NH-O2

### Overview

37. The Panel's recommended amendments to NH-O1 and NH-O2, over and above the amendments recommended by the report author, is summarised below:

Provision	Panel recommendations
NH-O1	Amend clause 3 to replace "people" with "life" as a consequential amendment.
NH-O2	Amend the objective to explicitly reference critical infrastructure, and to make it clear that it is new critical infrastructure that is to be avoided in high hazard areas.

### Amendments and reasons

38. Submitters sought clarity in respect of NH-O1 so that it:
- (a) did not apply to critical infrastructure given that this was addressed through NH-O2<sup>6</sup>
  - (b) more accurately reflected the RPS policy direction to avoid or mitigate high hazard areas inside the urban environment and avoid them otherwise<sup>7</sup>.
39. The s42A report author recommended amendments to the wording of NH-O1, which he further refined following Panel questions. We received no evidence from Summerset in respect to the amendments. Environment Canterbury agreed with the recommended amendments. We accept Mr Willis's recommended amendments as set out in the Reply Report. We have also recommended amending clause 3 to replace "people" with "life" to be consistent with the new clause 2.
40. Federated Farmers<sup>8</sup> sought amendments to distinguish between infrastructure and critical infrastructure to ensure internal consistency within the Objective. Mr Willis generally agreed that the amendments would help to clarify the application of the objective. These amendments were supported by Federated Farmers. In response to Panel questions, Mr Willis refined the objective to provide greater clarity. We accept Mr Willis's advice and recommend these amendments be accepted. However, we have made some minor amendments to provide greater clarity of how the objective relates to critical infrastructure separately to infrastructure.

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<sup>6</sup> Summerset Retirement Villages (Rangiora) [207.10]

<sup>7</sup> Environment Canterbury [316.57]

<sup>8</sup> 414.93

## 5. NH-P14

### Overview

41. The Panel's recommended amendment to NH-P14, over and above the amendments recommended by the report author, is summarised below:

Provision	Panel recommendations
NH-P14	Amend the title to simplify it to "infrastructure and critical infrastructure within fault overlays"

### Amendments and reasons

42. The submissions we consider here are the requests by:
- (a) Transpower to replace "avoid" with "only allow" and delete reference to alternatives in clause 2<sup>9</sup>
  - (b) Waimakariri Irrigation Limited to delete reference to small scale critical infrastructure in clause 3<sup>10</sup>
  - (c) Mainpower to include reference to operation and functional need in clause 3<sup>11</sup>
  - (d) Federated Farmers to include reference to critical infrastructure in the title of the policy<sup>12</sup>
43. Except for the amendments sought by Transpower, Mr Willis recommended amendments in response to the two other submissions in his s42A report which we agree with his reasoning for. Following evidence from Ms MacLeod for Transpower which we asked to be responded to, Mr Willis recommended further amendments to Clause 2, which we accept as being a more accurate reflection of RPS policy 11.3.4. We have recommended a further amendment to the title of the policy to simply refer to infrastructure and critical infrastructure, with the detail being best left to the body of the policy.

## 6. NH-P18 and NH-MD1 – fire and ice hazards

### Overview

44. The Panel's recommended amendments to NH-MD1, over and above the amendments recommended by the report author, is summarised below:

Provision	Panel recommendations
NH-MD1	Remove reference to wildfire in clause 8

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<sup>9</sup> 195.59

<sup>10</sup> 210.7

<sup>11</sup> 249.172

<sup>12</sup> 414.93

### **Amendments and reasons**

45. The submissions we consider here are:
- (a) the request by Federated Farmers to delete NH-P18 because of the impact that these setbacks can have on the use of productive land and reduced ability to limit reverse sensitivity effects and that it is unfair to ignore plantation and carbon forestry<sup>13</sup>.
  - (b) The request by Horticulture NZ to delete NH-R7, as a more nuanced approach to fire risk is required<sup>14</sup>.
46. Mr Willis initially recommended that the Federated Farmers submission to delete the policy be rejected as the reasons provided were not sufficient. He also recommended that NH-R7 be amended to delete reference to woodlots in clause 1 relating to fire risk. However, following questions from the Panel, Mr Willis recommended that it would be appropriate to delete reference to fire risks from the policy and the setbacks from the associated Rule NH-R7, as the setback requirements in the GRUZ chapter could already be relied upon to address this risk. We agree with Mr Willis's reasons and recommendations. We also agree with Horticulture NZ that shelterbelts are dissimilar to woodlots in respect to fire risk, and it is not appropriate to require the proposed setback from property boundaries. We have also recommended an amendment to NH-MD1 to remove reference to wildfire, as a consequential amendment.
47. We note that both submitters sought deletion of the entire rule (and policy in respect to Federated Farmers). We did not consider that to be appropriate given that there was no duplication of the ice-hazard clause with the GRUZ provisions, and the clause only relates to a few specific roads. We therefore recommend that these submissions be accepted in part.

## **7. NH-P19**

### **Overview**

48. The Panel has no recommended amendments in response to the submissions, beyond those recommended by the s42A report author.

### **Reasons**

49. The submission we consider here is by Environment Canterbury to better reflect a risk-based approach<sup>15</sup>. We agree with Mr Willis's recommended amendments and his reasons to amend the policy. In addition to his reasons, we also find that the amendments will assist the Council in assessing any subdivision applications under s106 RMA involving other natural hazards.

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<sup>13</sup> 414.96

<sup>14</sup> 295.90

<sup>15</sup> 316.76

50. We note that we agree with the officer’s reasons to reject the submissions by CA and GJ McKeever, John Stevenson, Chloe Chair and Mark McKitterick and Keith Godwin<sup>16</sup>.

## 8. New Policy

### Overview

51. We do not recommend the inclusion of any new policy.

### Amendments and reasons

52. Fulton Hogan sought a new policy that would provide for activities that enhance the community’s ability to recover from natural hazard events<sup>17</sup>. Fulton Hogan tabled evidence which we considered in our deliberations, alongside Mr Willis’s recommendation that the submission be rejected. We generally concur with Mr Willis’s reasons. In addition, we agree with the submitter that NH-P16 does not address activities that support the community’s ability to recover from natural hazard events and is rather focused on land use change and relocation. However, we consider that the provision for activities is otherwise addressed through the Zone chapters. Further, the submitter is seeking a new “provide for” policy and has not proposed any rules that would implement this policy in the chapter. Without that understanding, we recommend that this submission be rejected.

## 9. NH-R1 to NH-R3

### Overview

53. The Panel’s recommended amendments to NH-R1 to NH-R3, over and above the amendments recommended by the report author, is summarised below:

Provisions	Panel recommendations
NH-R1, NH-R2 and NH-R3	Change the reference from “an existing consent notice” to “an existing resource consent decision”
NH-R3	Change title of the rule to “building additions to existing natural hazard sensitive activities”

### Amendments and reasons

54. Environment Canterbury<sup>18</sup> sought initially that the clauses that referenced consent notices be deleted. Ms Mitten supported Mr Willis’s s42A recommended amendment to change “consent notice” to “consent decision”. We generally recommend this amendment is accepted, but with the addition of “resource” between “existing” and “consent” to make it even clearer.

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<sup>16</sup> 111.77, 162.78, 256.75 and 418.83

<sup>17</sup> 41.22

<sup>18</sup> 316.77

55. Kāinga Ora<sup>19</sup> sought that the rule be amended for readability. Mr Willis recommended amendments to simplify the rule, which Ms Dale for Kāinga Ora supported, but further requested in evidence that the title of the rule be amended to “natural hazard sensitive activities – building additions”. We agree with Ms Dale that the title is complex and should be simplified. We generally accept Ms Dale’s recommended redrafting, with a re-ordering of the location of “building additions”, as providing the necessary clarity.

## 10. New NH-R4 and NH-R17– floodwater displacement

### Overview

56. The Panel’s recommended amendments to new rules NH-R4 and NH-R17, over and above the amendments recommended by the report author, is summarised below:

Provisions	Panel recommendations
NH-R4	Change clause b to an advice note, making it clear that the rule does not apply to land disturbance
NH-R18	Change clause b to an advice note, making it clear that the rule does not apply to land disturbance.

### Amendments and reasons

57. Through its submissions, Environment Canterbury<sup>20</sup> sought that:
- (a) Where the rules referenced overland flow paths, they be amended to flood assessment overlays.
  - (b) The rules that addressed the raising of land should be amended to capture all activities that have the potential to cause offsite effects, and not just infrastructure; and the permitted rule should only apply to activities that do not have adverse effects beyond the site.
58. Waka Kotahi NZ Transport Agency<sup>21</sup> sought clarification of the basis of the 0.25m threshold for earthworks set in NH-R6. This submitter did not provide evidence in respect to their submission or the s42A report.
59. These submissions related to NH-R4 and NH-R17 and NH-MD5 and consequential amendments to NH-R1, NH-R2, NH-R3, NH-R5, NH-R6, NH-R17 and NH-R18. These submissions were the subject of considerable discussion through the s42A reports, responses to preliminary questions, evidence, discussions between experts and the right of reply reports. Following iterations through the s42A report, evidence and the reply report, Council report authors and the Environment Canterbury experts reached agreement of the need for a new rule that would apply to all activities that would

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<sup>19</sup> 325.125

<sup>20</sup> 316.79, 316.80, 316.86 and 316.87

<sup>21</sup> 275.23

displace floodwaters and the deletion of clauses that reference overland flow paths in NH-R1 to NH-R3.

60. We agree with Mr Willis and Ms Mitten that the Chapter as notified did not address the effects of floodwater displacement that was not associated with infrastructure, which we agree was a significant oversight. We agree that a single rule to address flood displacement is appropriate. In our preliminary questions and at the hearing, we questioned the vires and “implementability” of the proposed new clause, compared to the certainty of the clause as notified. Mr Willis advised that a similar rule/clause is contained in the Selwyn and Kaikoura District Plans, and as such has been accepted by other Panels as being appropriate. While we are not necessarily comfortable with the vires, both expert planners supported the new clause, and we received no evidence to the contrary. We concur that it is appropriate that the rule is precluded from public, but not limited, notification. We also concur with the recommended new matters of discretion.
61. We have recommended minor amendments to the recommended new rule so that it does not include clause b, and rather clause b is applied as an advice note, making it clear that the rule does not apply to land disturbance. We consider that this is a more effective approach than the rule as proposed in the reply report. Given our concerns relating the vires of these two conditions, we recommend that the Council gives careful consideration to reviewing this approach through a future plan change process.

## **11. New NH-R5 and NH-R16 – Infrastructure**

### **Overview**

62. The Panel’s recommended amendments to new NH-R5 and NH-R16 (NH-R6 and NH-R17 as notified), over and above the amendments recommended by the report author, is summarised below:

Provisions	Panel recommendations
New NH-R5 (old NH-R6)	Amend the title of the rule so that it is clear that it excludes roads.
New NH-R16 (old NH-R17)	Amend the title of the rule so that it is clear that it excludes roads.

### **Amendments and reasons**

63. The submissions we are addressing here are the requests from:
- (a) Environment Canterbury<sup>22</sup> that the rules that addressed the raising of land should be amended to capture all activities that have the potential to cause offsite effects, and not just infrastructure; and the permitted rule should only apply to activities that do not have adverse effects beyond the site.

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<sup>22</sup> 316.79, 316.80, 316.86 and 316.87



- (b) Transpower<sup>23</sup> that the footprint restriction applies per structure.
- (c) Mainpower<sup>24</sup> that the footprint minimum area is increased to 13m<sup>2</sup> and more than 3m above ground level.
- (d) Waka Kotahi NZ Transport Agency<sup>25</sup> that the requirement for a flood assessment certificate be reconsidered for critical infrastructure.

64. These submissions were also the subject of considerable discussion through the s42A reports, responses to preliminary questions, evidence, discussions between experts and the right of reply reports. Following iterations through the s42A report, response to preliminary questions, evidence and the reply report, as consequential amendments to the new NH-R4 which covers aboveground earthworks, buildings and structures, Mr Willis recommended deleting NH-R4 as notified and NH-R5, as they would be encapsulated in the new NH-R4. He also recommended that as infrastructure would be captured by the new NH-R4, that NH-R6 be retained to apply to critical infrastructure, excluding roads, as these would either not be damaged to the same extent as other infrastructure (flooding) or are unable to be designed to withstand it (faults).
65. We agree with the recommended amendments as set out in the reply report and find that they will be more efficient and effective. We have recommended a minor amendment to the title of the rule, so it clearly excludes roads. We recommend that these submissions be accepted in part.

## 12. New NH-R7 – NH-R9 – Community scale natural hazard mitigation works

### Overview

66. The Panel's recommended amendments to new rules NH-R7 to NH-R9 (NH-R8 to NH-R10 as notified), and consequential amendments to the Activity Rules section and NH-MD2, and to other related rules within the PDP, over and above the amendments recommended by the report author, is summarised below:

Provisions	Panel recommendations
NH-R7	No amendment
NH-R8	Introduce a new permitted activity relating to sites and areas of significance to Māori and the Wāhi Tapu and Taonga Overlays, where any upgrading works are on land previously disturbed by earthworks, and to no greater in depth. Minor amendments to the wording are recommended by the Panel.

<sup>23</sup> 195.61

<sup>24</sup> 249.175

<sup>25</sup> 275.33

NH-R9	Include reference to NH-MD2 in the new restricted discretionary rule
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### **Amendments and reasons**

67. The submissions we are addressing here are the requests from Environment Canterbury<sup>26</sup> to ensure the effective operation and maintenance of established flood schemes administered by local authorities within all zones. They sought that the rules in other chapters be consolidated into the Natural Hazards chapter and duplication removed.
68. Again, there was considerable discussion on these submissions through the s42A report, evidence and reply reports. Ms Irvine for Environment Canterbury put substantial effort to demonstrate how the permitted pathways for these works in the NH chapter would be largely unachievable due to rules in other chapters. Following discussions at the hearing and our questions to Mr Willis, he recommended more substantive changes to ensure that the NH chapter provided a “one stop shop” for community scale flood protection works, which we consider to be appropriate, and we recommend be accepted. In doing so, he recommended new permitted activity and restricted discretionary activity rules relating to sites and areas of significance to Māori and the Wāhi Tapu and Taonga Overlays, which we agree with. In order to ensure clarity and better implementation, we have amended the wording in the permitted activity rule. We have also introduced NH-MD2 – natural hazard mitigation works as being relevant to the restricted discretionary activity rule, as it would otherwise only be limited to the SASM related matters of discretion which is not appropriate for the activity proposed.
69. We note that the NH s42A report did not address the requested amendments to the ECO Chapter. These requested amendments were addressed in section 3.3 of the ECO s42A report, and we accept and agree with the report author’s recommended amendments.

## **13. NH-S1 and NH-S2 – Flood and Coastal Flood Assessment Certificates**

### **Overview**

70. The Panel’s recommended amendments to NH-S1 and NH-S2, over and above the amendments recommended by the report author, is summarised below:

Provisions	Panel recommendations
NH-S1 and NH-S2	Make a minor grammatical change to the Advisory Notes to refer to the District Plan instead of the plan.

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<sup>26</sup> 316.81, 316.82 and 316.83

### **Amendments and reasons**

71. The Panel notes that we agree with the amendments to these two standards, as set out in Mr Willis's s42A report, response to preliminary questions and reply report, for the reasons articulated by Mr Willis. We consider that these amendments will make the standards more certain and able to be administered and will appropriately take into account the effects of climate change when assessing natural hazard risk. This implements new Objective NH-O5.

## **14. NH-MD1 and NH-MD4**

### **Overview**

72. The Panel's recommended amendments to NH-MD1 and NH-MD3, over and above the amendments recommended by the report author, is summarised below:

Provisions	Panel recommendations
NH-MD1 and NH-MD4	Do not amend clause 7

### **Amendments and reasons**

73. Environment Canterbury sought deletion of clause 7 of both NH-MD1 and NH-MD4<sup>27</sup>. Mr Willis recommended amendments to the clause to replace positive with negative and reduction to increase. We consider that the consideration of positive effects is valid under s104(1)(a) of the RMA, and that there are more than adequate criteria for considering the negative effects of an application. We therefore recommend this submission be rejected.

## **15. NH-MD3**

### **Overview**

74. The Panel's recommended amendments to NH-MD3, over and above the amendments recommended by the report author, is summarised below:

Provisions	Panel recommendations
NH-MD3	Amend clause 4 to include "anticipated"

### **Amendments and reasons**

75. The Panel agrees with the recommended amendments to clauses 2, 6, 7 and 9 and the deletion of NH-MD3 for the reasons expressed by Mr Willis in his s42A report, preliminary responses to questions and Reply Report.

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<sup>27</sup> 316.90

76. Transpower<sup>28</sup> sought the deletion of clause 4 in its entirety through both its submission and in Ms MacLeod's evidence. Ms MacLeod was of the view that as drafted, the clause relates to after an event and is inconsistent with RPS Policy 11.3.4, which only refers to during an event. In her view clause 3 provides suitable consideration for during and after an event. She also considered it problematic how this would be addressed through a resource consent application and noted that the Civil Defence and Emergency Management Act already imposes obligations on lifeline utilities. Mr Willis's view was that he considered clause 4 was a relevant matter to consider through a consent process.
77. We generally prefer Mr Willis's evidence, given the requirements on Policy 11.3.4. However, we also agree with Ms MacLeod that this would be problematic to demonstrate through a consent process. Accordingly, we have recommended including "anticipated", so that the exact time to reinstate critical infrastructure does not need to be an absolute requirement. We therefore recommend this submission be accepted in part.

## **16. Other matters and consequential changes**

78. There was one other consequential change that we identified. In recommending amendments to NH-P2, NH-P3 and NH-P4, the Panel Noted that the chapeau referred to "high flood hazard and high coastal flood hazard urban environments", instead of "areas". We recommend amending this reference as a Clause 16 minor amendment.

## **17. Conclusion**

79. For the reasons summarised above, we recommend the adoption of a set of changes to the PDP provisions relating to Part 2: District-Wide Matters – NH – Natural Hazards. Our recommended amendments are shown in Appendix 2.
80. Overall, we find that these changes will ensure the PDP better achieves the statutory requirements, national and regional direction, and our recommended Strategic Directions, and will improve its useability.

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<sup>28</sup> 195.65

**Appendix 1: Submitter attendance and tabled evidence for Natural Hazards - Hearing Stream 3**

<b>Attendee</b>	<b>Speaker</b>	<b>Submitter No.</b>
Transpower New Zealand Ltd	<ul style="list-style-type: none"> <li>• Ainsley McLeod</li> </ul>	195, FS92
Environment Canterbury	<ul style="list-style-type: none"> <li>• Joanne Mitten</li> <li>• Jolene Irvine</li> <li>• Nicholas Griffiths</li> <li>• Kate Dickson (Legal)</li> </ul>	316, FS105
Kainga Ora	<ul style="list-style-type: none"> <li>• Clare Dale</li> <li>• Legal Submission (Bal Matheson)</li> </ul>	325, FS88
MainPower New Zealand Ltd	<ul style="list-style-type: none"> <li>• Mark Appleman</li> <li>• Melanie Foote</li> </ul>	249, FS58
<b>Tabled Evidence</b>		
Chorus New Zealand Limited (Chorus), Spark New Zealand Trading Limited (Spark), Connexa Limited (Connexa), One New Zealand Group Limited (One NZ and Forty South)	<ul style="list-style-type: none"> <li>• Chris Horne</li> </ul>	62, FS95
Hort NZ	<ul style="list-style-type: none"> <li>• Sarah Cameron</li> </ul>	295, FS47
Fulton Hogan	<ul style="list-style-type: none"> <li>• Helen Caley</li> </ul>	41, FS118
Fire and Emergency New Zealand	<ul style="list-style-type: none"> <li>• Lydia Shirley</li> </ul>	303
KiwiRail Holdings Ltd	<ul style="list-style-type: none"> <li>• Sheena McGuire</li> </ul>	373, FS99
Federated Farmers	<ul style="list-style-type: none"> <li>• John Hume and Karl Dean</li> </ul>	414, FS83

**Appendix 2:** Recommended amendments to the Proposed Plan - Tracked from notified version  
(provisions not consequentially renumbered)

# NH - Matepā māhorahora - Natural Hazards

## Introduction

The District is susceptible to a wide range of natural hazards, including flooding, fault rupture, liquefaction, tsunami, slope instability, and sea water inundation from storm surges.

When natural hazards occur, they can result in damage to property and infrastructure, and lead to a loss of human life. It is therefore important to identify areas impacted by natural hazards and to restrict or manage subdivision, use and development, including infrastructure, relative to the natural hazard risk posed. This is in order to reduce the risk of damage to property and infrastructure and the potential for loss of human life.

The District Plan focuses on the following natural hazards as they are the hazards that present the greatest risk to life, property and infrastructure, and whose future effects can be addressed through appropriate measures:

- Flooding, including from sea water storm surges coupled with sea level rise;
- Fault rupture; and
- Liquefaction.

Where ~~freshwater~~ flooding may occur, a certification process enables a site specific assessment based on up-to-date modelling. ~~The approach to freshwater flood management in Kaiapoi involves the use of identified fixed minimum floor levels. The minimum fixed floor levels are shown on the planning map and have been determined from delineating areas or basins within Kaiapoi, with reference to different flood hazards and risks associated with pump failure.~~<sup>1</sup>

The main coastal hazard affecting the District is sea water inundation, which occurs through the Waimakariri River and Ashley River/Rakahuri channels. The sea water inundation extends beyond the mapped Coastal Environment inland. Because of this, and the fact that the sea water inundation extent in the District is affected by concurrent freshwater flows present in the rivers, coastal hazards are located within the Natural Hazards Chapter, rather than as a separate coastal hazard contained in the Coastal Environment Chapter. Areas potentially subject to sea water inundation are identified by the Coastal Flood Assessment Overlay.

Flooding and sea level rise are influenced by climate change. It is predicted that rainfall events will become more intense, storm events will become more common and the sea level will rise. The development of the flood assessment and coastal flood assessment overlays incorporate current climate change predictions. For the Waimakariri District, the modelling has been based on the climate change scenario of RCP 8.5, with 1m of sea level rise over the next 100 years.

Modelling indicates that the District is not susceptible to coastal erosion over the next 100 years, even when accounting for climate change, and as such the District Plan does not contain provisions for this hazard.

Slope stability is addressed through the earthworks provisions. These require appropriate measures and are incorporated into earthworks design to maintain stability of sloping sites.

The District is also susceptible to natural hazards such as tsunami, severe winds, and ground shaking from earthquakes. These hazards are primarily managed by other statutory instruments or processes including the Building Act 2004, Civil Defence Emergency Management Act 2002 and the Local Government Act 1974.

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<sup>1</sup> Environment Canterbury [316.52].

A risk-based approach is taken which factors in the need to allow people and communities to use their property and undertake activities, while also ensuring that life or significant assets are not harmed or lost as a result of a natural hazard event. ~~The RPS recognises that for existing urban areas the community has already accepted some natural hazards risk in order to support the ongoing development of the District's existing towns. The RPS accordingly requires development in high hazard areas in these locations to be either avoided or mitigated.~~<sup>2</sup> The District Plan maps do not identify high ~~flood~~<sup>3</sup> hazard areas ~~or high coastal flood hazard areas~~<sup>4</sup>, rather these are identified through the flood assessment certificate process. This enables the most up-to-date technical information to be used. However, as a guide, areas that are potentially high hazard can be identified through the Waimakariri District Natural Hazards Interactive Viewer. This interactive viewer does not form part of the District Plan.

The provisions in this chapter are consistent with the matters in Part 2 - District Wide Matters - Strategic Directions and give effect to matters in Part 2 - District Wide Matters - Urban Form and Development.

### Other potentially relevant District Plan provisions

As well as the provisions in this chapter, other District Plan chapters that contain provisions that may also be relevant to natural hazards include:

- Earthworks: this chapter contains provisions for earthworks occurring within a natural hazard overlay.
- Subdivision: this chapter contains provisions for subdivision being undertaken within a natural hazard overlay.
- Special Purpose Zone (Kāinga Nohoanga): how the natural hazards provisions apply in the Special Purpose Zone (Kāinga Nohoanga) is set out in Appendices SPZ(KN)-APP1 to SPZ(KN)-APP5 of that chapter.
- Any other District wide matter that may affect or relate to the site.
- Zones: the zone chapters contain provisions about what activities are anticipated to occur in the zones.

### Objectives

#### NH-O1

#### Risk from natural hazards

New subdivision, land use and development other than infrastructure<sup>5</sup>:

- ~~1. manages natural hazard risk, including coastal hazards, in the existing urban environment to ensure that any increased risk to people and property is low;~~<sup>6</sup>  
~~21~~ is avoided in the Ashley Fault Avoidance Overlay and high hazard areas ~~for flooding~~<sup>7</sup> outside of the urban hazard area<sup>8</sup> ~~environment~~ where the risk to life and property are unacceptable; ~~and~~
2. avoids or mitigates natural hazard risk in the existing urban hazard area<sup>9</sup> to ensure that any increased risk to life and property from natural hazards is acceptable; and<sup>10</sup>

<sup>2</sup> Environment Canterbury [316.50].

<sup>3</sup> Environment Canterbury [316.50].

<sup>4</sup> Environment Canterbury [316.50].

<sup>5</sup> Summerset Retirement Village [207.10] and Environment Canterbury [316.57]

<sup>6</sup> Environment Canterbury [316.57].

<sup>7</sup> Environment Canterbury [316.54].

<sup>8</sup> Environment Canterbury [316.8 and 316.13] and Christchurch City Council [360.9, 360.10 and 360.11]

<sup>9</sup> Environment Canterbury [316.8 and 316.13] and Christchurch City Council [360.9, 360.10 and 360.11]

<sup>10</sup> Environment Canterbury [316.57].



	3. <del>outside of the urban environment, in all other instances,</del> <sup>11</sup> is undertaken to ensure natural hazard risk, <del>including coastal hazard risk,</del> <sup>12</sup> to <del>people</del> <sup>13</sup> life <sup>13</sup> and property is avoided or mitigated and the ability of communities to recover from natural hazard events is not reduced.
NH-O2	<b>Infrastructure <u>and critical infrastructure</u></b> <sup>14</sup> in natural hazard overlays For infrastructure <u>and critical infrastructure</u> <sup>15</sup> within natural hazard overlays: <ol style="list-style-type: none"> <li>1. existing infrastructure, <u>including critical infrastructure,</u><sup>16</sup> can be upgraded, maintained and replaced;</li> <li>2. new <del>non-critical</del> infrastructure, <u>excluding critical infrastructure</u><sup>17</sup> does not increase the risk to life or property from natural hazard, including coastal hazard, events and is designed to maintain its integrity and ongoing function during and after natural hazard events, or is easily replaced;</li> <li>3. <u>new</u><sup>18</sup> critical infrastructure is avoided in high <del>flood</del> hazard areas <u>and high coastal flood hazard areas,</u><sup>19</sup> unless there is a functional need or operational need for the location or route.</li> </ol>
NH-O3	<b>Natural hazard mitigation</b> Adverse effects on people, property, infrastructure and the environment resulting from methods used to manage natural hazards are avoided or, where avoidance is not possible, mitigated.
NH-O4	<b>Natural <u>defences features</u></b> <sup>20</sup> Natural <u>defences features</u> and systems are maintained to reduce the susceptibility of people, communities and property and infrastructure from natural hazard events.
NH-O5	<b><u>Climate change</u></b> <u>The effects of climate change, and its influence on sea levels and the frequency and severity of natural hazards, are recognised and provided for when assessing natural hazard risk.</u> <sup>21</sup>
<b>Policies</b>	
NH-P1	<b>Identification of natural hazards and a risk-based approach</b> Identify natural hazards, including coastal hazards, through the use of overlays and assess the risk for the management of subdivision, use and development within the overlays based on: <ol style="list-style-type: none"> <li>1. the sensitivity of the building occupation to loss of life, damage to property from a natural hazard and the ability for communities to recover after a natural hazard event; and</li> <li>2. the level of hazard presented to people and property from a natural hazard, recognising that climate change will alter the frequency and severity of some natural hazard events.</li> </ol>
NH-P2	<b>Activities in high hazard areas for flooding within urban areas</b>

<sup>11</sup> Environment Canterbury [316.57].<sup>12</sup> Environment Canterbury [316.57].<sup>13</sup> Environment Canterbury [316.7].<sup>14</sup> Federated Farmers [414.93].<sup>15</sup> Federated Farmers [414.93].<sup>16</sup> Federated Farmers [414.93].<sup>17</sup> RMA Schedule 1 Clause 16(2).<sup>18</sup> RMA Schedule1 Clause 16(2).<sup>19</sup> Environment Canterbury [316.54].<sup>20</sup> Environment Canterbury [316.60].<sup>21</sup> Environment Canterbury [316.61].

	<p><del>Manage</del> Avoid or mitigate adverse effects arising from<sup>22</sup> subdivision, use and development for natural hazard sensitive activities within high flood hazard <del>and high coastal flood hazard</del><sup>23</sup> <del>urban environments areas</del><sup>24</sup> to ensure that:</p> <ol style="list-style-type: none"> <li>1. minimum floor levels are incorporated into the design of development to ensure the risk to life and potential for building damage from flooding is mitigated; and</li> <li>2. the <del>increase in</del><sup>25</sup> risk <del>from flooding to on</del> surrounding properties is <del>not significantly increased no more than minor</del><sup>26</sup> and the net flood storage capacity is not reduced; and</li> <li>3. the conveyance of flood waters is not impeded; or</li> <li>4. the nature of the activity means the risk to life and potential for building damage from flooding is low.</li> </ol>
NH-P3	<p><b>Activities in high hazard areas for flooding outside of urban areas</b></p> <p>Avoid subdivision, use and development for natural hazard sensitive activities outside <del>urban environments</del> <del>urban hazard areas</del><sup>27</sup> in high flood hazard <del>and high coastal flood hazard</del><sup>28</sup> <del>urban environments areas</del><sup>29</sup> unless:</p> <ol style="list-style-type: none"> <li>1. the activity incorporates mitigation measures so that the risk to life, and building damage is low;</li> <li>2. the <del>increase in</del><sup>30</sup> risk from flooding <del>to on</del> surrounding properties is <del>not significantly increased; no more than minor</del><sup>31</sup>;</li> <li>3. the conveyance of flood waters is not impeded; and</li> <li>4. the activity does not require new or upgraded community scale natural hazard mitigation works.</li> </ol>
NH-P4	<p><b>Activities outside of high hazard areas for flooding</b></p> <p>Provide for subdivision, use and development associated with natural hazard sensitive activities outside of high flood hazard <del>and high coastal flood hazard</del><sup>32</sup> <del>urban environments areas</del><sup>33</sup> where it can be demonstrated that:</p> <ol style="list-style-type: none"> <li>1. the nature of the activity means the risk to life and potential for building damage from flooding is low; or</li> <li>2. minimum floor levels are incorporated into the design of development to ensure building floor levels are located above the flood level so that the risk to life and potential for building damage from flooding is <del>mitigated avoided</del><sup>34</sup>; and</li> <li>3. the <del>increase in</del><sup>35</sup> risk from flooding <del>to on</del> surrounding properties is <del>not significantly increased no more than minor</del><sup>36</sup> and the net flood storage capacity is not reduced; and</li> <li>4. the <del>ability for the</del><sup>37</sup> conveyancing of flood waters is not impeded.</li> </ol>
NH-P5	<p><b>Activities within the Fault Awareness Overlay and Ashley Fault Avoidance Overlay</b></p> <p>For activities within fault overlays:</p>

<sup>22</sup> Environment Canterbury [316.63].

<sup>23</sup> Environment Canterbury [316.54].

<sup>24</sup> RMA Schedule 1 Clause 16(2).

<sup>25</sup> Environment Canterbury [316.49].

<sup>26</sup> Environment Canterbury [316.49].

<sup>27</sup> Environment Canterbury [316.8 and 316.13] and Christchurch City Council [360.9, 360.10 and 360.11]

<sup>28</sup> Environment Canterbury [316.54].

<sup>29</sup> RMA Schedule 1 Clause 16(2).

<sup>30</sup> Environment Canterbury [316.49].

<sup>31</sup> Environment Canterbury [316.49].

<sup>32</sup> Environment Canterbury [316.54].

<sup>33</sup> RMA Schedule 1 Clause 16(2)..

<sup>34</sup> Environment Canterbury [316.63].

<sup>35</sup> Environment Canterbury [316.49].

<sup>36</sup> Environment Canterbury [316.49].

<sup>37</sup> Environment Canterbury [316.49].

	<ol style="list-style-type: none"> <li>1. only allow subdivision, use and development for natural hazard sensitive activities in the Ashley Fault Avoidance Overlay where the risk to life or property is low; and</li> <li>2. manage subdivision in the Fault Awareness Overlay so that the risk to life and property is low.</li> </ol>
<b>NH-P6</b>	<b>Subdivision within the Liquefaction Hazard Overlay</b> Manage subdivision within the Liquefaction Hazard Overlay to ensure that the risk to life and property is low.
<b>NH-P7</b>	<b>Additions to existing natural hazard sensitive activities</b> Provide for additions to buildings for existing natural hazard sensitive activities where it can be demonstrated that: <ol style="list-style-type: none"> <li>1. the additions provide for the continued use of the existing building; and</li> <li>2. the change in on site risk from the building additions to life and property is low; and</li> <li>3. the <del>increase in</del><sup>38</sup> risk from the natural hazard <del>to on</del> surrounding properties and people is <del>not significantly increased no more than minor</del>.<sup>39</sup></li> </ol>
<b>NH-P8</b>	<b>Subdivision, use and development other than for any natural hazard sensitive activities</b> Allow for subdivision, use and development associated with activities that are not natural hazard sensitive activities within all natural hazard overlays as there is a low risk to life and property.
<b>NH-P9</b>	<del>Community scale n</del> <b>Natural hazard mitigation works</b> <sup>40</sup> Natural hazard mitigation works: <ol style="list-style-type: none"> <li>1. undertaken by the Crown, the Regional Council or the District Council are enabled where community scale natural hazard mitigation works are necessary to protect existing communities from natural hazard risk which cannot reasonably be avoided, and any adverse effects on the values of any identified <del>SNA</del><sup>41</sup> ONL, ONF, SAL, scheduled natural character areas, the coastal environment, and Sites and Areas of Significance to Māori are mitigated; or</li> <li>2. not undertaken by the Crown, the Regional Council or the District Council, will only be acceptable where: <ol style="list-style-type: none"> <li>a. the natural hazard risk cannot reasonably be avoided;</li> <li>b. any adverse effects of those works on the values of any areas identified as <del>SNA</del><sup>42</sup> ONL, ONF, SAL, scheduled natural character areas and the coastal environment, and on sites and areas of significance to Māori are avoided, remedied or mitigated <del>in accordance with the provisions in those chapters</del><sup>43</sup>;</li> <li>c. the mitigation works do not transfer or create unacceptable hazard risk to other people, property, infrastructure or the natural environment; and</li> <li>d. the mitigation works do not <del>involve the construction of private flood mitigation measures such as stopbanks, or floodwalls to protect new hazard sensitive activities as these works could</del><sup>44</sup> result in significant residual risk to life or property if they fail.</li> </ol> </li> </ol>
<b>NH-P10</b>	<b>Maintenance and operation of existing infrastructure</b> <del>Allow for</del> <b>Enable</b> <sup>45</sup> the operation, maintenance, replacement, minor upgrading, repair and removal of all existing infrastructure in identified natural hazard overlays.

<sup>38</sup> Environment Canterbury [316.49].<sup>39</sup> Environment Canterbury [316.68].<sup>40</sup> Ministry of Education [277.28].<sup>41</sup> Department of Conservation [419.58].<sup>42</sup> Department of Conservation [419.58].<sup>43</sup> Environment Canterbury [316.82].<sup>44</sup> Ministry of Education [277.28].<sup>45</sup> Transpower [195.57].

NH-P11	<p><b>New below ground infrastructure and upgrading of infrastructure outside of high hazard areas</b></p> <p>Provide for new and upgrading of existing below ground infrastructure outside of high <del>flood</del> hazard <del>and high-coastal flood hazard</del><sup>46</sup> areas, where:</p> <ol style="list-style-type: none"> <li>1. if located within a flood assessment or coastal flood assessment overlay, the original ground level is reinstated at completion of the works;</li> <li>2. it does not increase the risk to life or property from natural hazard events;</li> <li>3. it does not result in a reduction in the ability of people and communities to recover from a natural hazard event; and</li> <li>4. it is designed to maintain reasonable and safe operation during and after a natural hazard event.</li> </ol>
NH-P12	<p><b>New below ground infrastructure and upgrading of infrastructure within high <del>flood</del><sup>47</sup> hazard areas</b></p> <p>Provide for the installation of new and upgrading of existing below ground infrastructure in high <del>flood</del> hazard <del>or high-coastal flood hazard</del><sup>48</sup> areas where:</p> <ol style="list-style-type: none"> <li>1. the infrastructure does not exacerbate the natural hazard risk or transfer the risk to another site;</li> <li>2. the conveyance of flood waters is not impeded;</li> <li>3. there is a functional need or operational need for the infrastructure to be located in a high <del>flood</del> hazard <del>or high-coastal flood hazard</del><sup>49</sup> area <del>and there are no practical alternatives</del><sup>50</sup>; and</li> <li>4. the location and design of the infrastructure address relevant natural hazard risk and appropriate measures have been incorporated into the design to provide for the continued operation.</li> </ol>
NH-P13	<p><b>New above ground critical infrastructure and upgrading of critical infrastructure within high <del>flood</del> hazard areas</b></p> <p>Only allow for the new and upgrading of existing above ground critical infrastructure in high <del>flood</del> hazard <del>or high-coastal flood hazard</del><sup>51</sup> areas where:</p> <ol style="list-style-type: none"> <li>1. there is a functional need or operational need for that location, <u>including as a result of the linear nature of some infrastructure</u>,<sup>52</sup> and there are no <del>practical</del> <u>reasonable</u><sup>53</sup> alternatives;</li> <li>2. the location and design of the infrastructure address relevant natural hazard risk and appropriate measures have been incorporated into the design to provide for the continued operation; and</li> <li>3. the infrastructure does not exacerbate the natural hazard risk or transfer the risk to another site.</li> </ol>
NH-P14	<p><b>New <del>infrastructure</del> and upgrading of infrastructure <u>and critical infrastructure</u><sup>54</sup> within fault overlays</b></p> <p>Within the fault overlays:</p> <ol style="list-style-type: none"> <li>1. provide for new and upgrading of existing <del>non-critical</del> infrastructure, <u>excluding critical infrastructure</u><sup>55</sup> below and above ground in the Ashley Fault Avoidance Overlay where: <ol style="list-style-type: none"> <li>a. it does not increase the risk to life or property from a natural hazard event; and</li> </ol> </li> </ol>

<sup>46</sup> Environment Canterbury [316.54].<sup>47</sup> Environment Canterbury [316.54].<sup>48</sup> Environment Canterbury [316.54].<sup>49</sup> Environment Canterbury [316.54].<sup>50</sup> Waimakariri Irrigation Limited [210.6].<sup>51</sup> Environment Canterbury [316.54].<sup>52</sup> Waka Kotahi [275.22].<sup>53</sup> Transpower [195.58].<sup>54</sup> Federated Farmers [414.93].<sup>55</sup> RMA Schedule 1 Clause 16(2).

	<p>b. it does not result in a reduction in the ability of people and communities to recover from a natural hazard event;</p> <p>2. <del>only allow avoid</del><sup>56</sup> new and upgrading of existing critical infrastructure below and above ground in the Ashley Fault Avoidance Overlay <del>unless where there is no reasonable alternative, in which case</del> the infrastructure <del>must be is</del> designed to<sup>57</sup>:</p> <p>a. maintain, as far as practicable, its integrity and ongoing operation during and after natural hazard events; or</p> <p>b. be able to be reinstated in a timely manner;</p> <p>3. enable small scale critical infrastructure and other infrastructure in the Fault Awareness Overlay, while ensuring that larger critical infrastructure does not increase the risk to life or property from natural hazard events unless:</p> <p><del>a. there is an operational or functional need or</del><sup>58</sup> there is no reasonable alternative, in which case the infrastructure must:</p> <p><del>a.</del> be designed to maintain, as far as practicable, its integrity and ongoing operation during and after natural hazard events; or</p> <p>b. be able to be reinstated in a timely manner.</p>
NH-P15	<p><b>Natural features providing natural hazard resilience</b></p> <p>Protect natural features which assist in avoiding or reducing the impacts from natural hazards, <del>such as natural ponding areas, wetlands, water body margins and riparian margins, dunes, berms and beaches</del><sup>59</sup> from inappropriate subdivision, use and development and restore, maintain or enhance the functioning of these features.</p>
NH-P16	<p><b><del>Redevelopment Land use change</del><sup>60</sup> and relocation in coastal hazard and natural hazard overlays</b></p> <p>Encourage <del>redevelopment, or</del><sup>61</sup> changes in land use where that would reduce the risk of adverse effects from natural hazards, including managed retreat and designing for relocation or recoverability from natural hazard events.</p>
NH-P17	<p><b>Hard engineering natural hazard mitigation within the coastal environment</b></p> <p>Only allow hard engineering natural hazard mitigation within the coastal environment that reduces the risk of natural hazards when:</p> <p>1. soft engineering measures would not provide an appropriate level of protection and it can be demonstrated that there are no other reasonable alternatives;</p> <p>2. the construction of hard engineering measures will not increase the risk from coastal hazards on adjacent properties that are not protected by the hard engineering measures;</p> <p>3. where managed retreat has not been adopted and there is an immediate risk to life or property from the natural hazard; <del>and</del></p> <p>4. it avoids the modification or alteration of natural <del>defences features</del><sup>62</sup> and systems in a way that would compromise their function as natural defences; <del>and</del></p> <p><del>5. significant adverse effects on natural defences and systems from those measures are avoided, and any other adverse effects are avoided, remedied or mitigated.</del><sup>63</sup></p>
NH-P18	<p><b><del>Fire and ice hazards risks</del><sup>64</sup></b></p>

<sup>56</sup> Transpower [195.59].

<sup>57</sup> Transpower [195.59].

<sup>58</sup> Transpower [195.59].

<sup>59</sup> CA & GJ McKeever [111.72], John Stevenson [162.75] Chloe Chai and Mark McKitterick [256.72] and Keith Godwin [418.79].

<sup>60</sup> Environment Canterbury [316.74].

<sup>61</sup> Environment Canterbury [316.74].

<sup>62</sup> CA & GJ McKeever [111.72], John Stevenson [162.75] Chloe Chai and Mark McKitterick [256.72] and Keith Godwin [418.79].

<sup>63</sup> Environment Canterbury [316.75].

<sup>64</sup> Federated Farmers [414.96].

	Manage <del>wildfire and</del> <sup>65</sup> vehicle crash risk on roads affected by ice hazard through restrictions on the planting of woodlots and shelterbelts.
<b>NH-P19</b>	<b>Other natural hazards</b> Encourage the consideration of <u>a risk-based approach for</u> <sup>66</sup> other natural hazards as part of subdivision, use and development <u>to achieve an acceptable level of risk, and where there is uncertainty in the likelihood or consequences of a natural hazard event, encourage the adoption of a precautionary approach.</u> <sup>67</sup>

## Activity Rules

### How to interpret and apply the rules

1. Some sites may have more than one overlay applying. The rules of all the applicable overlays apply.
- ~~2. For rules that refer to the Kaiapoi Fixed Minimum Finished Floor Level Overlay, the minimum floor level is specified in the planning map.<sup>68</sup>~~
3. Rules that refer to a Flood Assessment Certificate or Coastal Flood Assessment Certificate require a certificate to be obtained from the District Council to determine compliance with the rule. The alternative is to apply for resource consent as set out in the rule.
4. The District Council will issue a certificate, upon application, in accordance with the published Council guidance on the matter.
5. Certificates are valid for three years from the date of issue. If a land use consent is required, the five year period provided under the RMA to give effect to the resource consent overrides the three year certificate lifespan.
6. The Flood Assessment Certificate and Coastal Flood Assessment Certificate specify circumstances when required minimum building floor levels or land levels will not be provided.
7. The AEP flood event risk level, minimum floor levels and overland flow path locations are to be determined by reference to:
  - a. the most up to date models, maps and data held by the District Council and the Regional Council; and
  - b. any information held by, or provided to, the District Council or the Regional Council that relates to flood risk for the specific land.

8. The rules in the following District Wide chapters do not apply to community scale natural hazard mitigation activities addressed in rules NH-R7, NH-R8 and NH-R9:<sup>69</sup>

- a. CE - Coastal Environment;
- b. ECO – Ecosystems and Indigenous Biodiversity, with the exception of ECO-R1 and ECO-R2 which apply to NH-R9;
- c. NATC – Natural Character;
- d. SASM – Sites and Areas of Significance to Maori;
- e. NFL – Natural Features and Landscapes; and
- f. EW – Earthworks.

9. The flooding rules in this chapter only apply if an activity is proposed on a portion of a site that is identified as being subject to flooding or within a Flood Assessment Overlay, as opposed to

<sup>65</sup> Federated Farmers [414.96].

<sup>66</sup> Environment Canterbury [316.76].

<sup>67</sup> Environment Canterbury [316.76].

<sup>68</sup> Environment Canterbury [316.52].

<sup>69</sup> Environment Canterbury [316.82].



being proposed on a site that has flooding or the Flood Assessment Overlay located elsewhere on the site.<sup>70</sup>

## Non-Coastal Hazards

NH-R1	Natural hazard sensitive activities	
<b>Urban Flood Assessment Overlay</b> <b>Kaiapoi Fixed Minimum Finished Floor Level Overlay<sup>71</sup></b>	<b>Activity status: PER</b> Where: <ol style="list-style-type: none"> <li>the building is erected to the level specified in an existing <u>resource consent notice decision</u><sup>72</sup> that is less than five years old; or</li> <li>the building:               <ol style="list-style-type: none"> <li>does not exceed the permitted building coverage for the zone; and                   <ol style="list-style-type: none"> <li><del>if located within the Kaiapoi Fixed Minimum Finished Floor Level Overlay, the building has a finished floor level equal to or higher than the minimum finished floor level shown on the planning map; or</del></li> <li><del>if not located within the Kaiapoi Fixed Minimum Finished Floor Level Overlay,</del><sup>73</sup></li> </ol> </li> <li><u>the building has a finished floor level equal to or higher than the minimum finished floor level as stated in a Flood Assessment Certificate issued in accordance with NH-S1;</u><sup>74</sup> and</li> <li><del>is not located within an overland flow path as stated in a Flood Assessment Certificate issued in accordance with NH-S1.</del><sup>74</sup></li> </ol> </li> </ol>	<b>Activity status where compliance is not achieved: RDIS</b> <b>Matters of discretion are restricted to:</b> NH-MD1 - Natural hazards general matters <b>Notification</b> An application for a restricted discretionary activity under this rule is precluded from being publicly notified, but may be limited notified.
NH-R2	Natural hazard sensitive activities	
<b>Non-Urban Flood Assessment Overlay</b> <b>Rural Zones<sup>75</sup></b>	<b>Activity status: PER</b> Where: <ol style="list-style-type: none"> <li>the building is erected to the level specified in an existing <u>resource consent notice decision</u><sup>77</sup> that is less than five years old; or</li> </ol>	<b>Activity status where compliance with NH-R2 (1), NH-R2 (2)(b), <del>NH-R2 (2)(c)</del> and NH-R2 (3) is not achieved: RDIS</b> <b>Matters of discretion are restricted to:</b> NH-MD1 - Natural hazards general matters

<sup>70</sup> RMA Schedule 1 clause 16(2)

<sup>71</sup> Environment Canterbury [316.52].

<sup>72</sup> Environment Canterbury [316.77].

<sup>73</sup> Environment Canterbury [316.52].

<sup>74</sup> Environment Canterbury [316.79].

<sup>75</sup> Environment Canterbury [316.78].

<sup>77</sup> Environment Canterbury [316.77].

<p><b>Special Purpose Zone (Rangiora Airfield)<sup>76</sup></b></p>	<p>2. <del>if located within the Non-Urban Flood Assessment Overlay,<sup>78</sup> the building:</del></p> <ul style="list-style-type: none"> <li>a. <del>is not located on a site within a high flood<sup>79</sup> hazard area as stated in a Flood Assessment Certificate issued in accordance with NH-S1; and</del></li> <li>b. <del>has a finished floor level equal to or higher than the minimum finished floor level as stated in a Flood Assessment Certificate issued in accordance with NH-S1;<sup>80</sup> and</del></li> <li>c. <del>is not located within an overland flow path as stated in a Flood Assessment Certificate issued in accordance with NH-S1; or<sup>80</sup></del></li> </ul> <p>3. <del>if the activity is a residential unit or a minor residential unit and is located outside of the Non-Urban Flood Assessment Overlay and located within Rural Zones it has a finished floor level that is either:</del></p> <ul style="list-style-type: none"> <li>i. <del>400mm above the natural ground level; or</del></li> <li>ii. <del>is equal to or higher than the minimum finished floor level as stated in a Flood Assessment Certificate issued in accordance with NH-S1.<sup>81</sup></del></li> </ul>	<p><b>Activity status where compliance with NH-R2 (2)(a) is not achieved: NC Notification</b></p> <p>An application for a restricted discretionary activity under this rule is precluded from being publicly notified, but may be limited notified.</p>
<p><b>NH-R3</b></p>	<p><b>Natural hazard sensitive addition to existing natural hazard sensitive activities</b></p>	
<p><b>Urban Flood Assessment Overlay Kaiapoi Fixed Minimum Finished Floor Level Overlay<sup>82</sup> Non-Urban Flood Assessment Overlay Ashley Fault</b></p>	<p><b>Activity status: PER</b></p> <p>Where:</p> <ul style="list-style-type: none"> <li>1. the addition to a building does not result in a new or additional natural hazard sensitive activity establishing on the site; and</li> <li>2. the addition: <ul style="list-style-type: none"> <li>a. is not located within the Ashley Fault Avoidance Overlay; or</li> <li>b. is erected to the level specified in an existing <del>subdivision resource consent notice decision or on an approved</del></li> </ul> </li> </ul>	<p><b>Activity status where compliance is not achieved: RDIS</b></p> <p><b>Matters of discretion are restricted to:</b></p> <p>NH-MD1 - Natural hazards general matters</p> <p><b>Notification</b></p> <p>An application for a restricted discretionary activity under this rule is precluded from being publicly notified, but may be limited notified.</p>

<sup>76</sup> Daniel Smith [10.1].

<sup>78</sup> Environment Canterbury [316.78].

<sup>79</sup> Environment Canterbury [316.54].

<sup>80</sup> Environment Canterbury [316.79].

<sup>81</sup> Environment Canterbury [316.78].

<sup>82</sup> Environment Canterbury [316.52].



<p><b>Avoidance Overlay</b>  <b>Rural Zones</b><sup>83</sup>  <b>Special Purpose Zone (Rangiora Airfield)</b><sup>84</sup></p>	<p><del>subdivision consent plan</del><sup>85</sup> that is less than five years old; or</p> <p>e. <del>if located in the Kaiapoi Fixed Minimum Finished Floor Level Overlay, any building footprint addition has a finished floor level equal to or higher than the minimum finished floor level shown on the planning map; or</del><sup>86</sup></p> <p><del>cd. if located within the Non-urban Flood Assessment Overlay, the addition is located on a site outside of a high hazard area as stated in a Flood Assessment Certificate issued in accordance with NH-S1.</del><sup>87</sup></p> <p>d. if located within any Flood Assessment Overlay, the <del>building footprint</del> addition is:</p> <ul style="list-style-type: none"> <li><del>i. located on a site outside of a high flood hazard area as stated in a Flood Assessment Certificate issued in accordance with NH-S1; and</del><sup>88</sup></li> <li><del>ii. is not located within an overland flow path as stated in a Flood Assessment Certificate issued in accordance with NH-S1; and</del><sup>89</sup></li> <li><del>iii. has a finished floor level equal to or higher than the minimum finished floor level as stated in a Flood Assessment Certificate issued in accordance with NH-S1; or</del></li> </ul> <p><del>e. if the activity is a residential unit or a minor residential unit and is located outside of the Non-Urban Flood Assessment Overlay and located within Rural Zones it has a finished floor level that is either:</del></p>	
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<sup>83</sup> Environment Canterbury [316.78].

<sup>84</sup> Daniel Smith [10.1].

<sup>85</sup> Environment Canterbury [316.77].

<sup>86</sup> Environment Canterbury [316.52].

<sup>87</sup> Summerset [207.13].

<sup>88</sup> Summerset [207.13].

<sup>89</sup> Environment Canterbury [316.79].

	<p>i. <del>400mm above the natural ground level; or</del></p> <p>ii. <del>is equal to or higher than the minimum finished floor level as stated in a Flood Assessment Certificate issued in accordance with NH-S1.</del> <sup>90</sup></p>	
<b>NH-R4<sup>91</sup></b>	<b><u>Above ground earthworks, buildings and new structures</u></b>	
<b><u>Urban Flood Assessment Overlay</u></b>  <b><u>Non-Urban Flood Assessment Overlay</u></b>	<p><b><u>Activity status: PER</u></b></p> <p><b><u>Where:</u></b></p> <p>1. <u>the above ground earthworks, buildings and new structures:</u></p> <p>a. <u>will not increase flooding on another property through the diversion or displacement of floodwaters; or</u></p> <p>b. <u>meets the definition of land disturbance.</u></p> <p><u>Advice note: to avoid confusion, buildings and structures still need to meet the other provisions in this chapter.</u></p>	<p><b><u>Activity status where compliance is not achieved: RDIS</u></b></p> <p><b><u>Matters of discretion are restricted to:</u></b></p> <p><u>NH-MD5 - Floodwaters displacement and flowpath disruption</u></p> <p><b><u>Notification</u></b></p> <p><u>An application for a restricted discretionary activity under this rule is precluded from being publicly notified, but may be limited notified.</u></p>
<b>NH-R4<sup>92</sup></b>	<b><u>Below ground infrastructure and critical infrastructure</u></b>	
<b><u>Urban Flood Assessment Overlay</u></b> <b><u>Kaiapoi Fixed Minimum Finished Floor Level Overlay</u></b> <b><u>Non-Urban Flood Assessment Overlay</u></b>	<p><b><u>Activity status: PER</u></b></p> <p><b><u>Where:</u></b></p> <p>1. <u>the profile, contour or height of the land is not permanently raised by more than 0.25m when compared to natural ground level.</u></p>	<p><b><u>Activity status where compliance is not achieved: RDIS</u></b></p> <p><b><u>Matters of discretion are restricted to:</u></b></p> <p><u>NH-MD3—Natural hazards and infrastructure</u></p> <p><b><u>Notification</u></b></p> <p><u>An application for a restricted discretionary activity under this rule is precluded from being publicly notified, but may be limited notified.</u></p>

<sup>90</sup> Environment Canterbury [316.78].<sup>91</sup> Environment Canterbury [316.79]<sup>92</sup> Environment Canterbury [316.79]

	<b>Advisory Note</b> • This rule applies in addition to EI-R1 to EI-R56.	
<b>NH-R5<sup>93</sup></b>	<b>Above ground infrastructure that is not critical infrastructure</b>	
<b>Urban Flood Assessment Overlay</b> <b>Kaiapoi Fixed Minimum Finished Floor Level Overlay</b> <b>Non-Urban Flood Assessment Overlay</b>	<b>Activity status: PER</b> Where: 1. the profile, contour or height of the land is not permanently raised by more than 0.25m when compared to natural ground level; and 2. new infrastructure or an extension to existing infrastructure: a. has a footprint of less than 10m <sup>2</sup> ; or b. is not located within an overland flow path as stated in a Flood Assessment Certificate issued in accordance with NH-S1; or c. is limited to a customer connection.	<b>Activity status where compliance is not achieved: RDIS</b> <b>Matters of discretion are restricted to:</b> NH-MD3—Natural hazards and infrastructure <b>Notification</b> An application for a restricted discretionary activity under this rule is precluded from being publicly notified, but may be limited notified.
	<b>Advisory Note</b> • This rule applies in addition to EI-R1 to EI-R56.	
<b>NH-R6<sup>5</sup></b>	<b>Above ground critical infrastructure, <u>excluding roads</u><sup>94</sup></b> <u>This rule does not apply to roads.</u> <sup>95</sup>	
<b>Fault Awareness Overlay</b> <b>Urban Flood Assessment Overlay</b> <b>Kaiapoi Fixed Minimum Finished Floor Level Overlay<sup>96</sup></b> <b>Non-Urban Flood Assessment Overlay</b>	<b>Activity status: PER</b> Where: 1. if located with the Fault Awareness Overlay, new <b>critical infrastructure</b> or <b>an extension to existing upgraded critical</b> <sup>97</sup> infrastructure has a footprint of less than 100m <sup>2</sup> <b>per structure</b> <sup>98</sup> ; and 2. if located within a Flood Assessment Overlay <b>or the Kaiapoi Fixed Minimum Finished Floor Level</b>	<b>Activity status where compliance is not achieved: RDIS</b> <b>Matters of discretion are restricted to:</b> NH-MD3 - Natural hazards and infrastructure <b>Notification</b> An application for a restricted discretionary activity under this rule is precluded from being publicly notified, but may be limited notified.

<sup>93</sup> Environment Canterbury [316.79]<sup>94</sup> Waka Kotahi [275.23].<sup>95</sup> Waka Kotahi [275.23].<sup>96</sup> Environment Canterbury [316.52].<sup>97</sup> RMA Schedule 1 clause 16(2)<sup>98</sup> Transpower [195.61].

	<p><del>Overlay</del><sup>99</sup> <u>new or upgraded critical infrastructure</u><sup>100</sup>:</p> <p><del>a. the profile, contour or height of the land is not permanently raised by more than 0.25m when compared to natural ground level; and</del><sup>101</sup></p> <p><del>ab. the infrastructure is located on a site outside of a</del><sup>102</sup> <u>high flood</u><sup>103</sup> hazard area as stated in a Flood Assessment Certificate issued in accordance with NH-S1; <del>or and</del></p> <p><del>bc. new infrastructure or an extension to existing infrastructure:</del></p> <p><del>i. has a footprint of less than 103m<sup>2</sup> per structure attached to the ground</del><sup>104</sup>; or</p> <p><del>ii. c is located 3m or more</del><sup>105</sup> above ground level, <del>excluding any support base, towers or poles, at an elevation higher than the minimum finished floor level as stated in a Flood Assessment Certificate issued in accordance with NH-S1;</del><sup>106</sup> or</p> <p><del>iii. d has a finished floor level equal to or higher than the minimum finished floor level as stated</del></p>	
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<sup>99</sup> Environment Canterbury [316.52].

<sup>100</sup> RMA Schedule 1 clause 16(2)

<sup>101</sup> Environment Canterbury [316.79].

<sup>102</sup> RMA Schedule 1 clause 16(2)

<sup>103</sup> Environment Canterbury [316.54].

<sup>104</sup> Transpower [195.61] and MainPower [249.176].

<sup>105</sup> MainPower [249.176].

<sup>106</sup> MainPower [249.176].

	<p>in a Flood Assessment Certificate issued in accordance with NH-S1;<sup>107</sup> and</p> <p><del>d. new buildings, or extensions to existing buildings that increase the footprint of the</del></p> <p><del>existing infrastructure, are not located within an overland flow path as stated in a Flood Assessment Certificate issued in accordance with NH-S1.<sup>107</sup></del></p>	
	<b>Advisory Note</b> <ul style="list-style-type: none"> <li>This rule applies in addition to EI-R1 to EI-R56.</li> </ul>	
<b>NH-R76</b>	<b>Woodlots and shelterbelts</b>	
<b>Rural Zones</b>	<p><b>Activity status: PER</b></p> <p>Where:</p> <p><del>1. any woodlot or shelterbelt shall comply with the following fire hazard setback distances, measured from the outside extent of the canopy at the time of planting:</del></p> <p><del>a. 30m from any boundary of any adjoining site; and</del></p> <p><del>b. 10m from any road.<sup>108</sup></del></p> <p><del>12.</del> any woodlot or shelterbelt established on the north side of South Eyre Road, Tram Road, Oxford Road, or Birch Hill Road shall comply with the following ice hazard height and setback distances:</p> <p>a. trees adjoining the road boundary shall be maintained at a height of no greater than 3m;</p> <p>b. trees capable of growing up to 6m in height shall be setback 5m from the road boundary; and</p> <p>c. trees capable of growing 8m in height or higher shall be setback 15m from the road boundary.</p>	<p><b>Activity status where compliance is not achieved: RDIS</b></p> <p><b>Matters of discretion are restricted to:</b></p> <p>NH-MD1 - Natural hazards general matters</p> <p><b>Notification</b></p> <p>An application for a restricted discretionary activity under this rule is precluded from being publicly notified, but may be limited notified.</p>

<sup>107</sup> Environment Canterbury [316.79].

<sup>108</sup> Federated Farmers [414.96] and Horticulture NZ [295.90].

<b>NH-R<del>87</del></b>	<b>Maintenance of existing community scale natural hazard mitigation works</b>	
<b>All Zones</b>	<b>Activity status: PER</b>	<b>Activity status where compliance is not achieved: N/A</b>
<b>NH-R<del>98</del></b>	<b>Upgrading existing community scale natural hazard mitigation works</b>	
	<i>The rule does not apply to the planting of vegetation as part of natural hazard mitigation works.</i>	
<b>All Zones</b>	<b>Activity status: PER</b>	<b>Activity status where compliance is not achieved: N/A</b>
<b><u>SASM</u></b> <b><u>Wāhi Tapu Overlay</u></b> <b><u>Wāhi Taonga Overlay</u></b> <b><u>Ngā Tūrangā Tūpuna Overlay</u></b>	<b><u>Activity status: PER<sup>109</sup></u></b> <b><u>Where:</u></b> 1. <u>the upgrading works and any other associated activities:</u> a. <u>are located on land that has previously been disturbed by earthworks; and</u> b. <u>any earthworks are of no greater depth than the depth previously disturbed.</u>	<b><u>Activity status where compliance is not achieved: RDIS</u></b> <u>Matters of discretion are restricted to:</u> <u>SASM-MD1 - Wāhi tapu and wāhi taonga</u> <u>SASM-MD2 - Ngā tūrangā tūpuna</u> <u>SASM-MD3 - Ngā wai</u> <u>Notification</u> <u>An application for a restricted discretionary activity under this rule is precluded from being publicly notified, but may be limited notified only to Te Ngāi Tūāhuriri Rūnanga and HNZPT, in respect of sites on the New Zealand Heritage List Rārangī Kōrero, where the consent authority considers this is required, absent their written approval.<sup>110</sup></u>
<b>Ashley River / Rakahuri Saltwater Creek Estuary ONF Waimakariri River ONF Ashley River / Rakahuri SAL</b>	<b>Activity status: RDIS</b> <b>Matters of discretion are restricted to:</b> NH-MD2 - Natural hazard mitigation works	<b>Activity status where compliance is not achieved: N/A</b>
<b>NH-R<del>409</del></b>	<b>Construction of new community scale natural hazard mitigation works</b>	
	<i>The rule does not apply to the planting of vegetation as part of natural hazard mitigation works.</i>	

<sup>109</sup> Environment Canterbury [316.81].

<sup>110</sup> Environment Canterbury [316.81].

<b>All Zones</b>	<b>Activity status: PER</b> Where: 1. the works are limited to soft engineering natural hazard mitigation; <del>and</del> <del>2. the works are not located within a site and area of significance to Māori (refer also to Rule SASM-R5).<sup>111</sup></del>	<b>Activity status where compliance is not achieved: RDIS</b> <b>Matters of discretion are restricted to:</b> NH-MD2 - Natural hazard mitigation works
<b>Ashley River / Rakahuri Saltwater Creek Estuary ONF Waimakariri River ONF Ashley River / Rakahuri SAL</b>	<b>Activity status: RDIS</b> <b>Matters of discretion are restricted to:</b> NH-MD2 - Natural hazard mitigation works	<b>Activity status where compliance is not achieved: N/A</b>
<u><b>SASM Wāhi Tapu Overlay Wāhi Taonga Overlay Ngā Tūrangā Tūpuna Overlay Ngā Wai Overlay<sup>112</sup></b></u>	<u><b>Activity status: RDIS<sup>113</sup></b></u> <u><b>Matters of discretion are restricted to:</b></u> <u>NH-MD2 – Natural Hazard mitigation works</u> <u>SASM-MD1 - Wāhi tapu and wāhi taonga</u> <u>SASM-MD2 - Ngā tūrangā tūpuna</u> <u>SASM-MD3 - Ngā wai</u>  <u>Notification</u>  <u>An application for a restricted discretionary activity under this rule is precluded from being publicly notified, but may be limited notified only to Te Ngāi Tūāhuriri Rūnanga and HNZPT, in respect of sites on the New Zealand Heritage List Rārangī Kōrero, where the consent authority considers this is required, absent their written approval.<sup>114</sup></u>	<u><b>Activity status where compliance is not achieved: N/A</b></u>

<sup>111</sup> Environment Canterbury [316.81].

<sup>112</sup> Environment Canterbury [316.81].

<sup>113</sup> Environment Canterbury [316.81].

<sup>114</sup> Environment Canterbury [316.81].

<b>NH-R1<del>40</del></b>	<b>New and upgrading of above and below ground existing infrastructure that is not critical infrastructure</b>	
	<i>This rule shall not apply to customer connections.</i>	
<b>Ashley Fault Avoidance Overlay</b>	<b>Activity status: RDIS</b> <b>Matters of discretion are restricted to:</b> NH-MD3 - Natural hazards and infrastructure	<b>Activity status where compliance is not achieved: N/A</b>
<b>NH-R1<del>21</del></b>	<b>Natural hazard sensitive activities</b>	
<b>Ashley Fault Avoidance Overlay</b>	<b>Activity status: DIS</b>	<b>Activity status where compliance is not achieved: N/A</b>
<b>NH-R1<del>32</del></b>	<b>Upgrading of existing or construction of new non-community scale natural hazard mitigation works for flood mitigation</b>	
	<i>The rule does not apply to the planting of vegetation as part of natural hazard mitigation works.</i>	
<b>Urban Flood Assessment Overlay</b> <b>Kaiapoi Fixed Minimum Finished Floor Level Overlay<sup>115</sup></b> <b>Non-Urban Flood Assessment Overlay</b>	<b>Activity status: DIS</b>	<b>Activity status where compliance is not achieved: N/A</b>
<b>NH-R1<del>43</del></b>	<b>New and upgrading of above and below ground critical infrastructure</b>	
<b>Ashley Fault Avoidance Overlay</b>	<b>Activity status: <del>DIS</del> RDIS<sup>116</sup></b> Where: 1. the critical infrastructure involves any of the following: a. electricity substations, networks, and transmission and distribution installations, including the National Grid and the electricity distribution network; b. supply and treatment of water for public supply; c. stormwater and sewage treatment and disposal systems;	<b>Activity status where compliance is not achieved: NC</b>

<sup>115</sup> Environment Canterbury [316.52].<sup>116</sup> Transpower [195.62].



	<p>d. radiocommunication and telecommunication installations and networks;</p> <p>e. strategic road and rail networks;</p> <p>f. petroleum storage and supply facilities;</p> <p><b><u>Matters of discretion are restricted to:</u></b></p> <p><b><u>NH-MD3 - Natural hazards and infrastructure</u></b><sup>117</sup></p>	
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### Coastal Hazards

NH-R154	Natural hazard sensitive activities within <del>the urban environment</del> <b>urban hazard areas</b> <sup>118</sup>	
<b>Coastal Flood Assessment Overlay</b>	<p><b>Activity status: PER</b> Where:</p> <ol style="list-style-type: none"> <li>the building is erected to the level specified in an existing <del>subdivision resource</del> consent <del>decision notice or on an approved subdivision consent plan that was approved after 1 January 2021, and is less than five years old</del><sup>119</sup>; or</li> <li>the building:               <ol style="list-style-type: none"> <li>does not exceed the permitted building coverage for the zone; and</li> <li>has a finished floor level equal to or higher than the minimum finished floor level as stated in a Flood Assessment Certificate issued in accordance with NH-S1.</li> </ol> </li> </ol>	<p><b>Activity status where compliance is not achieved: RDIS</b> <b>Matters of discretion are restricted to:</b> NH-MD4 - Natural hazards coastal matters</p>
	<p><b>Advisory Note</b></p> <ul style="list-style-type: none"> <li>Further information on hazards including technical reports and hazard maps identifying areas potentially subject to freshwater flooding, seawater inundation</li> </ul>	

<sup>117</sup> Transpower [195.62].

<sup>118</sup> Environment Canterbury [316.8 and 316.13] and Christchurch City Council [360.9, 360.10 and 360.11]

<sup>119</sup> Environment Canterbury [316.77].

	flooding and areas that are potentially high hazard <del>flooding</del> <sup>120</sup> areas can be found on the Waimakariri District Natural Hazards Interactive Viewer. This further information does not form part of the District Plan.	
<b>NH-R165</b>	<b>Natural hazard sensitive activities outside <del>the urban environment</del> <u>urban hazard areas</u></b> <sup>121</sup>	
<b>Coastal Flood Assessment Overlay</b>	<b>Activity status: PER</b> Where: <ol style="list-style-type: none"> <li>the building is erected to the level specified in an existing <del>subdivision consent notice decision or on an approved subdivision consent plan</del><sup>122</sup> that was approved after 1 January 2021, and is less than five years old; or</li> <li>the building is identified as being subject to <del>0.29m</del> <u>0.3m</u><sup>123</sup> or less of coastal flooding as stated in a Coastal Flood Assessment Certificate and has finished floor level equal to or higher than the minimum finished floor level as stated in a Coastal Flood Assessment Certificate issued in accordance with NH-S2.</li> </ol>	<b>Activity status where compliance is not achieved: RDIS (see NH-R165 (3))</b>
<b>Coastal Flood Assessment Overlay</b>	<b>Activity status: RDIS</b> Where: <ol style="list-style-type: none"> <li>the building is identified as being subject to <del>between 0.3m and 0.99m</del> <u>more than 0.3m and less than 1m</u><sup>124</sup> of coastal flooding as stated in a Coastal Flood Assessment Certificate and is to be erected on raised land or utilises a combination of raised land and a raised floor level equal to or higher than the minimum requirements stated in a Coastal Flood</li> </ol>	<b>Activity status where compliance is not achieved: NC</b>

<sup>120</sup> Environment Canterbury [316.54].

<sup>121</sup> Environment Canterbury [316.8 and 316.13] and Christchurch City Council [360.9, 360.10 and 360.11]

<sup>122</sup> Environment Canterbury [316.77].

<sup>123</sup> RMA Schedule 1 Clause 16(2) amendment.

<sup>124</sup> RMA Schedule 1 Clause 16(2) amendment.

	<p>Assessment Certificate issued in accordance with NH-S2.</p> <p><b>Matters of discretion are restricted to:</b></p> <p>NH-MD4 - Natural hazards coastal matters</p>	
	<p><b>Advisory Note</b></p> <ul style="list-style-type: none"> <li>Further information on hazards including technical reports and hazard maps identifying areas potentially subject to freshwater flooding, seawater inundation flooding and areas that are potentially high hazard <b>flooded</b> areas can be found on the Waimakariri District Natural Hazards Interactive Viewer. This further information does not form part of the District Plan.</li> </ul>	
<b>NH-R17<del>6</del></b>	<b>Above ground critical infrastructure <u>excluding roads</u><sup>125</sup></b>	
<b>Coastal Flood Assessment Overlay</b>	<p><b>Activity status: PER</b></p> <p>Where:</p> <p><del>1. the profile, contour or height of the land is not permanently raised by more than 0.25m when compared to natural ground level;<sup>126</sup> and</del></p> <p><del>a. new infrastructure or an extension to existing infrastructure has a footprint of less than 10m<sup>2</sup>; or<sup>127</sup></del></p> <p><del>1b.</del> any new building that is identified as being subject to <del>0.29m</del> <u>0.3m</u><sup>128</sup> or less of coastal flooding as stated in a Coastal Flood Assessment Certificate and has finished floor level equal to or higher than the minimum finished floor level as stated in a Coastal Flood Assessment Certificate issued in accordance with NH-S2; or</p> <p><del>2e.</del> if not a building, new <u>or upgraded critical</u><sup>129</sup></p>	<p><b>Activity status where compliance is not achieved: for <del>NH-R17 (1)</del>, <del>NH-R17 (1)(a)</del> and <del>NH-R17 (1)(c)</del>: RDIS</b></p> <p><b>Matters of discretion are restricted to:</b></p> <p>NH-MD3 - Natural hazards and infrastructure</p> <p><b>Activity status where compliance is not achieved for NH-R17 (1)(<del>b</del>): RDIS (see NH-R17 (<del>2</del>))</b></p>

<sup>125</sup> Waka Kotahi [275.23].

<sup>126</sup> Environment Canterbury [316.79].

<sup>127</sup> MainPower [249.178] and Transpower [195.63].

<sup>128</sup> RMA Schedule 1 Clause 16(2) amendment.

<sup>129</sup> RMA Schedule 1 Clause 16(2) amendment.

	<p>infrastructure, <del>excluding any support base, towers or poles,</del> is located <u>3m or more above ground level or has a footprint of less than 13m<sup>2</sup> per structure attached to the ground.</u> <del>above ground level at an elevation higher than the minimum floor level as stated in a</del></p> <p><del>Coastal Flood Assessment Certificate issued in accordance with NH-S2.</del><sup>130</sup></p>	
<b>Coastal Flood Assessment Overlay</b>	<p><b>Activity status: RDIS</b> Where:</p> <p><u>23.</u> any building that is identified as being subject to <del>between 0.3m and 0.99m</del> <u>more than 0.3m and less than 1m</u><sup>131</sup> of coastal flooding, as stated in a Coastal Flood Assessment Certificate, is erected on raised land or utilises a combination of raised land and a raised floor level equal to or higher than the minimum requirements stated in a Coastal Flood Assessment Certificate issued in accordance with NH-S2.</p> <p><b>Matters of discretion are restricted to:</b> NH-MD4 - Natural hazards coastal matters</p>	<p><b>Activity status where compliance is not achieved: NC</b></p> <p><u>i. Any National Grid building that does not contain a habitable room: RDIS</u><sup>132</sup></p> <p><u>Matters of discretion are restricted to:</u> <u>NH-MD3 - Natural hazards and infrastructure</u></p> <p><u>ii. Any other building: NC</u></p>
<b>NH-R18</b> <sup>133</sup>	<b><del>Below ground infrastructure and critical infrastructure</del></b>	
<b>Coastal Flood</b>	<p><b>Activity status: PER</b> Where:</p>	<p><b>Activity status where compliance is not achieved: RDIS</b> <b>Matters of discretion are restricted to:</b></p>

<sup>130</sup> MainPower [249.178] and Transpower [195.63].

<sup>131</sup> RMA Schedule 1 Clause 16(2) amendment.

<sup>132</sup> Transpower [195.63].

<sup>133</sup> Environment Canterbury [316.79].

<b>Assessment Overlay</b>	1. the profile, contour or height of the land is not permanently raised by more than 0.25m when compared to natural ground level.	<del>NH-MD4—Natural hazards coastal matters</del>
<b>NH-R17</b> <sup>134</sup>	<b>Above ground earthworks, buildings and new structures</b>	
<b>Coastal Flood Assessment Overlay</b>	<p><b>Activity status: PER</b> <b>Where:</b></p> <p>1. the above ground earthworks, buildings and new structures: a. will not increase flooding on another property through the diversion or displacement of floodwaters; or b. meets the definition of land disturbance.</p> <p><u>Advice note:</u> to avoid confusion, buildings and structures still need to meet the other provisions in this chapter.</p>	<p><b>Activity status where compliance is not achieved: RDIS</b></p> <p><b>Matters of discretion are restricted to:</b> <u>NH-MD5 - Floodwaters displacement and flowpath disruption</u></p> <p><b>Notification</b> <u>An application for a restricted discretionary activity under this rule is precluded from being publicly notified, but may be limited notified.</u></p>
<b>NH-R198</b>	<b>Construction of new community scale natural hazard mitigation works involving hard engineering natural hazard mitigation</b>	
	<i>The rule does not apply to the planting of vegetation as part of natural hazard mitigation works.</i>	
<b>Coastal Flood Assessment Overlay</b>	<b>Activity status: DIS</b>	<b>Activity status where compliance is not achieved: N/A</b>
<b>NH-R2019</b>	<b>Upgrading of existing or construction of new non-community scale natural hazard mitigation works for coastal flood hazard mitigation</b>	
	<i>The rule does not apply to the planting of vegetation as part of natural hazard mitigation works.</i>	
<b>Coastal Flood Assessment Overlay</b>	<b>Activity Status: NC</b>	<b>Activity status where compliance is not achieved: N/A</b>

## Natural Hazard Standards

<sup>134</sup> Environment Canterbury [316.79].

**NH-S1 Flood Assessment Certificate**

1. The District Council will issue a Flood Assessment Certificate (which will be valid for three years from the date of issue) that specifies:
  - a. whether the activity is located on a site that is within a high ~~flood~~<sup>135</sup> hazard area; and
  - b. whether the activity is located within an overland flow path; and
  - c. where the activity is located on land that is within the Urban Flood Assessment Overlay, the minimum finished floor level in accordance with (e); or
  - d. where the activity is located on land that is within the Non-Urban Flood Assessment Overlay and is located on land that is outside of a high ~~flood~~<sup>136</sup> hazard area, the minimum finished floor level in accordance with (e); and
  - e. the minimum finished floor level shall be calculated as the highest of the following:
    - i. flooding predicted to occur in a 0.5% AEP (1 in 200-year) Localised Rainfall Event plus up to 500mm freeboard (including allowances for climate change)<sup>137</sup>; or
    - ii. flooding predicted to occur in a 0.5% AEP (1 in 200-year) Ashley River/Rakahuri Breakout Event concurrent with a 5% AEP (1 in 20-year) Localised Rainfall Event plus up to 500mm freeboard (including allowances for climate change)<sup>138</sup>; or
    - iii. flooding predicted to occur in a 0.5~~4~~% AEP (1 in 200~~4200~~-year) Storm Surge Event concurrent with a 5% AEP (1 in 20-year) River Flow Event with an allowance for sea level rise ~~based on an RCP8.5 climate change scenario~~<sup>139</sup>, plus up to 500mm freeboard.

2. Freeboard will be applied as follows:

- a. Low Hazard - 400mm freeboard

**Activity status where compliance is not achieved: N/A**

<sup>135</sup> Environment Canterbury [316.54].

<sup>136</sup> Environment Canterbury [316.54].

<sup>137</sup> Environment Canterbury [316.61].

<sup>138</sup> Environment Canterbury [316.61].

<sup>139</sup> Environment Canterbury [316.61].

b. Medium to High Hazard - 500mm freeboard<sup>140</sup>

### Advisory Notes

- An application form and guidance on how to obtain a Flood Assessment Certificate are available on the District Council's website.
- Certificates are valid for three years from the date of issue. If a land use consent is required, the five year period provided under the RMA to give effect to the resource consent overrides the three year Certificate lifespan.
- Under NH-S1 the District Council will not provide a required minimum floor level for high flood<sup>141</sup> hazard areas within the Non-Urban Environment Hazard Area<sup>142</sup> Flood Assessment Area. A resource consent will be required in this situation.
- Further information on hazards including technical reports and hazard maps identifying areas potentially subject to freshwater flooding, sea water inundation flooding and areas that are potentially a high hazard area can be found at the Waimakariri District Natural Hazards Interactive Viewer. This further information does not form part of the District Plan.
- The AEP flood event risk level, minimum floor levels and overland flow path locations are to be determined by reference to:
  - The most up to date models, maps and data held by the District Council and the Regional Council; and
  - Any information held by, or provided to, the District Council or the Regional Council that relates to flood risk for the specific land.
- The inclusion of climate change allowances should always be based on the latest government advice and the latest available data. A 100 year horizon should be used wherever possible and if forecast values do not extend to 100 years then the longest available horizon should be used. The climate change or emissions scenario should align with the latest government advice. Note that emissions scenario RCP8.5 was used in 2021 to develop the current iteration of the District Plan.<sup>143</sup>

### NH-S2 Coastal Flood Assessment Certificate

- The District Council will issue a Coastal Flood Assessment Certificate (which will be valid for three years from the date of issue) for a site within the Coastal Flood Assessment Overlay that specifies:
  - a. whether the activity is located on a site that is likely to be affected by sea water storm surge flooding; and
  - b. whether the activity is located on a site that is within a high coastal-flood hazard area<sup>144</sup>; and
  - c. where the activity is located on a site that is within the Non-Urban Flood Assessment Overlay and is outside of a high coastal-flood<sup>145</sup> hazard area and (a) is met, the minimum land level in

**Activity status where compliance is not achieved: N/A**

<sup>140</sup> Environment Canterbury [316.88].

<sup>141</sup> Environment Canterbury [316.54].

<sup>142</sup> Environment Canterbury [316.8 and 316.13] and Christchurch City Council [360.9, 360.10 and 360.11]

<sup>143</sup> Environment Canterbury [316.61].

<sup>144</sup> Environment Canterbury [316.54].

<sup>145</sup> Environment Canterbury [316.54].

- accordance with (d), or the minimum land and finished floor level combination in accordance with (e);
- d. the minimum land level shall equal:
- i. the flooding level predicted to occur in a 0.54% AEP (1 in ~~4200~~<sup>146</sup>-year) Storm Surge Event concurrent with a 5% AEP (1 in 20-year) River Flow Event with an allowance for sea level rise of 1m based on an RCP8.5 climate change scenario<sup>147</sup>;
- e. the minimum land and floor level combination shall equal:
- i. land filled to be within 300mm of the required land level under (d); and
  - ii. a floor level that meets the minimum level specified in NH-S1.

### Advisory Notes

- NH-S2 only applies for natural hazard sensitive activities outside urban hazard areas under NH-R15 and above ground critical infrastructure under NH-R16.<sup>148 149</sup>
- An application form and guidance on how to obtain a Flood Assessment Certificate are available on the District Council's website.
- Certificates are valid for three years from the date of issue. If a land use consent is required, the five year period provided under the RMA to give effect to the resource consent overrides the three year Certificate lifespan.
- Under NH-S2 the District Council will not provide a required minimum floor/land level for high coastal flood<sup>150</sup> hazard areas within the Non-Urban Flood Assessment Area. A resource consent will be required in this situation.
- Further information on hazards including technical reports and hazard maps identifying areas potentially subject to freshwater flooding, sea water inundation flooding and areas that are potentially high hazard floodings<sup>151</sup> areas can be found on the Waimakariri District Natural Hazards Interactive Viewer. This further information does not form part of the District Plan.
- The AEP flood event risk level, minimum floor levels and overland flow path locations are to be determined by reference to:
  - The most up to date models, maps and data held by the District Council and the Regional Council; and
  - Any information held by, or provided to, the District Council or Regional Council that relates to flood risk for the specific land.
- Freeboard will be applied as follows:
  - a. Low Hazard - 400mm freeboard
  - b. Medium to High Hazard - 500mm freeboard<sup>152</sup>

<sup>146</sup> Environment Canterbury [316.88].

<sup>147</sup> Environment Canterbury [316.61].

<sup>148</sup> RMA Schedule 1 Clause 16(2) amendment.

<sup>149</sup> Environment Canterbury [316.8 and 316.13] and Christchurch City Council [360.9, 360.10 and 360.11]

<sup>150</sup> Environment Canterbury [316.54].

<sup>151</sup> Environment Canterbury [316.54].

<sup>152</sup> Environment Canterbury [316.88].



- The inclusion of climate change allowances should always be based on the latest government advice and the latest available data. A 100 year horizon should be used wherever possible and if forecast values do not extend to 100 years then the longest available horizon should be used. The climate change or emissions scenario should align with the latest government advice. Note that emissions scenario RCP8.5 was used in 2021 to develop the current iteration of the District Plan.<sup>153</sup>

## Matters of Discretion

NH-MD1	<p><b>Natural hazards general matters</b></p> <ol style="list-style-type: none"> <li>1. <u>The extent to which the <del>The setting of</del> minimum floor levels <del>are not achieved by the proposal and the effect of the lower levels, and the effects of</del></u><sup>154</sup> minimum land levels and the predicted sea water and other inundation that will occur on the site.</li> <li>2. <del>The frequency at which any proposed building or addition is predicted to be damaged and the</del> extent of damage likely to occur in such an event, including taking into account:             <ol style="list-style-type: none"> <li>a. <u>the building material and design proposed;</u></li> <li>b. <u>the anticipated life of the building;</u></li> <li>c. <u>the proposed use of the building, including whether it is a retail, commercial or industrial activity or has a low staff occupancy rate, that would lessen the adverse effects of it being damaged in a natural hazard event;</u></li> <li>d. <u>whether the building is relocatable; and</u></li> <li>e. <u>for redevelopments, the extent to which overall risk will change as a result of the proposal.</u><sup>155</sup></li> </ol> </li> <li>3. The extent to which site access will be compromised in a natural hazard event and any alternative access provided.</li> <li>4. The extent to which the proposal causes flood water displacement or flow path disruption onto other sites.</li> <li>5. The extent to which any flood mitigation measures are proposed, their effectiveness and environmental effects, and any benefits to the wider area associated with flood management.</li> <li>6. The extent to which the proposal relies on Council infrastructure and the risks to that infrastructure from natural hazards, including taking into account maintenance and repair costs that might fall on the wider community.</li> <li>7. The extent to which there are any positive effects from a reduction in floor levels in relation to neighbouring buildings or the streetscape.</li> <li>8. In relation to <del>wildfire and</del><sup>156</sup> ice, the degree of risk posed to life and property due to the non-compliance.</li> <li>9. In relation to tsunami risk, the nature of the proposed activity and the ease of evacuation.</li> </ol>	<p><b>Natural I</b></p> <ol style="list-style-type: none"> <li>2. The wat</li> <li>3. The dan</li> <li>taki the to w</li> <li>4. The any</li> <li>5. The distr</li> <li>6. The and mar</li> <li>7. The that and</li> <li>8. The rela</li> <li>9. In r non</li> <li>10. In eva</li> </ol>
NH-MD2	<p><b>Natural hazard mitigation works</b></p> <ol style="list-style-type: none"> <li>1. The extent to which the natural hazard risk cannot be avoided.</li> <li>2. Any adverse effects of those works on the natural and built environment and on the cultural and spiritual values of Ngāi Tūāhuriri, including any matters specified in CE-MD1, ECO-MD1, NATC-MD3, NATC-MD4, NATC-MD5, NATC-MD6 and CE-MD1, <del>SASM MD1, SASM MD2 and SASM MD3.</del><sup>157</sup></li> <li>3. Any adverse effects on the values of any identified ONL, ONF or SAL including any matters specified in NFL-MD1.</li> </ol>	

<sup>153</sup> Environment Canterbury [316.61].

<sup>154</sup> Summerset [207.14].

<sup>155</sup> Summerset [207.14].

<sup>156</sup> Federated Farmers [414.96] and Horticulture NZ [295.90]

<sup>157</sup> Environment Canterbury [316.81].

	<p>4. The extent to which the mitigation works transfer, or create, unacceptable hazard risk to other people, property, infrastructure, or the natural environment.</p>
<b>NH-MD3</b>	<p><b>Natural hazards and infrastructure</b></p> <ol style="list-style-type: none"> <li>Any increase in the risk to life or property from natural hazard events.</li> <li><del>Any negative effects</del><sup>158</sup> on the ability of people and communities to recover from a natural hazard event.</li> <li>The extent to which the infrastructure will suffer damage in a hazard event and whether the infrastructure is designed to maintain reasonable and safe operation during and after a natural hazard event.</li> <li>The <u>anticipated</u> time taken to reinstate critical infrastructure following a natural hazard event.</li> <li>The extent to which the infrastructure exacerbates the natural hazard risk or transfers the risk to another site.</li> <li><del>The ability for flood water conveyance to be maintained.</del><sup>159</sup></li> <li><del>7.</del> The extent to which there is a functional need and operational need for that location and there are no <del>practical reasonable</del><sup>160</sup> alternatives.</li> <li><del>8.</del> The extent to which any mitigation measures are proposed, their effectiveness and environmental effects, and any benefits to the wider area associated with hazard management.</li> <li><del>9.</del> The <u>positive</u> benefits <del>derived from the installation of the</del> infrastructure.<sup>161</sup></li> <li><del>10. Any effects on cultural values.</del><sup>162</sup></li> </ol>
<b>NH-MD4</b>	<p><b>Natural hazards coastal matters</b></p> <ol style="list-style-type: none"> <li>The frequency at which any proposed building or addition is predicted to be damaged and the extent of damage likely to occur in such an event, taking into account: <ol style="list-style-type: none"> <li>proposed land and floor levels;</li> <li>the building material and design proposed;</li> <li>the certainty of the modelling; and</li> <li>the time frame over which sea level rise inundation is predicted to occur.</li> </ol> </li> <li>The extent to which the building is readily relocatable and when inundation is predicted to occur as a result of sea level rise, including the use of 'trigger' decision-points that take into account actual sea level rise and how such triggers will provide advance warning of the need to relocate the building, and proposals to manage residual risk.</li> <li>The extent to which site access will be compromised in a coastal hazards event and any alternative access provided.</li> <li>The extent to which any coastal flooding mitigation measures are proposed, their effectiveness and environmental effects, including displacement onto surrounding sites and disruption of flow paths and any benefits to the wider area associated with flood management.</li> <li>The extent to which the proposal relies on Council infrastructure and the risks to that infrastructure from coastal hazards, including taking into account maintenance and repair costs that might fall on the wider community.</li> <li>Whether there are any positive effects from a reduction in floor or land levels in relation to accessibility, the height of the existing building, neighbouring buildings or the streetscape <del>or the financial viability of the development.</del><sup>163</sup></li> </ol>

<sup>158</sup> Transpower [195.65].

<sup>159</sup> Environment Canterbury [316.79].

<sup>160</sup> Transpower [195.58] and [195.65].

<sup>161</sup> Transpower [195.65].

<sup>162</sup> Transpower [195.65].

<sup>163</sup> Environment Canterbury [316.91].

	7. Whether the site is located within an existing urban area and raised land or floor levels would create an unreasonable burden on the ability to continue to use an existing building and support the local community.
<b><u>NH-MD5</u></b>	<b><u>Floodwaters displacement and flowpath disruption</u></b> <sup>164</sup> <ol style="list-style-type: none"><li>1. <u>The likely extent of flooding on the site;</u></li><li>2. <u>The potential for the activity to exacerbate flooding on any other site; and</u></li><li>3. <u>The extent to which the earthworks, building or new structure impedes the free passage of floodwaters.</u></li></ol>

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<sup>164</sup> Environment Canterbury [316.79].

## Relevant planning map amendments

### Overlay amendments

#### *Liquefaction Hazard Overlay*

Amend the Liquefaction Hazard Overlay so that it only captures the gold coloured 'liquefaction damage is possible' area (i.e. it excludes the green coloured 'liquefaction damage is unlikely' area) and is limited to areas within the Waimakariri district.<sup>165</sup>

#### *Urban and Non-urban Flood Assessment Overlays*

Replace the Urban and Non-Urban Flood Assessment Overlays with the overlays as agreed in the Joint Witness Statement included as Appendix D (this includes an overlay based on the 200-year return period (0.5% AEP)).<sup>166</sup>

#### *Kaiapoi Fixed Minimum Floor Level Overlay*

Delete the Kaiapoi Fixed Minimum Floor Level Overlay and replace it with the Urban Flood Assessment Overlay.<sup>167</sup>

Apply the Urban Flood Assessment Overlay, as applicable, to those areas recommended to be rezoned from Rural to Urban.<sup>168</sup>

## Relevant definitions

### Community scale natural hazard mitigation works

*Community scale natural hazard mitigation works means:*

*a natural hazard mitigation scheme works that serve s multiple properties and is are constructed and administered by the District Council, the Crown, the Regional Council or their nominated contractor or agent.*<sup>169</sup>

### Coastal hazard mitigation works means:

*Any means work and or structure designed to prevent or mitigate coastal hazards, such as coastal erosion and seawater inundation. It includes soft engineering natural hazard mitigation beach re-nourishment, dune replacement, and sand fences, seawalls, groynes, gabions and revetments and hard engineering natural hazard mitigation.*<sup>170</sup>

~~'High coastal flood hazard area'~~  
~~means:~~

- ~~a. land likely to be subject to coastal erosion, including the cumulative effects of sea level rise, over the next 100 years; and~~
- ~~b. land subject to water depth of 1 metre or greater in a 1% AEP (1 in 100-year) storm surge event (excluding tsunami), concurrent with 5% AEP (1 in 20-year) river flow event with a median sea level rise projection over the next 100 years based on an RCP8.5 high emissions scenario.~~<sup>171</sup>

<sup>165</sup> Environment Canterbury [316.53]

<sup>166</sup> Environment Canterbury [316.78]

<sup>167</sup> Environment Canterbury [316.52]

<sup>168</sup> Consequential amendment to Large Lot Residential and Residential Rezoning

<sup>169</sup> Environment Canterbury [316.56]

<sup>170</sup> 199 Johns Road Ltd, Carolina Homes Ltd, Carolina Rental Homes Ltd, Allan Downs Ltd - Claire McKeever [266.177], Department of Conservation [419.8].

<sup>171</sup> Environment Canterbury [316.54]

~~'High flood hazard area'~~  
means:

- a. ~~land where there is inundation by floodwater, and 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.~~<sup>172</sup>

High Hazard Area means:

- a. land likely to be subject to coastal erosion; and or<sup>173</sup>
- b. land where there is inundation by floodwater and 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.

When determining a. and b. above, the cumulative effects of climate change over the next 100 years (based on latest national guidance) and all sources of flooding (including fluvial, pluvial, and coastal) must be accounted for.<sup>174</sup>

Natural feature, in relation to the Natural Hazards Chapter, means:

natural ponding areas, wetlands, water body margins and riparian margins, terraces, dunes, and beaches. It excludes artificial water races and drainage infrastructure such as swales and Stormwater Management Areas.<sup>175</sup>

Natural hazard sensitive activity means:

buildings and conversions of existing buildings<sup>176</sup> which:

- a. contain one or more habitable rooms; ~~and/or~~
- b. ~~contain one or more employees (of at least one full time equivalent)~~ are serviced with a sewage system and connected to a potable water supply; and<sup>177</sup> or
- c. ~~are~~ is a place of assembly;
- except that this shall not apply to:
- i. ~~regionally significant infrastructure or critical~~<sup>178</sup> infrastructure;
- ii. any ~~attached garage or~~<sup>179</sup> detached garage to a residential unit or minor residential unit that is not a habitable room;
- iii. any building with a footprint of less than 25m<sup>2</sup>; ~~or~~
- iv. any building addition in any continuous 10-year period that has a footprint of less than 25m<sup>2</sup>; or
- v. any building with a dirt/gravel or similarly unconstructed floor.<sup>180</sup>

Soft engineering natural hazard mitigation

<sup>172</sup> Environment Canterbury [316.54].

<sup>173</sup> Environment Canterbury [316.54].

<sup>174</sup> Environment Canterbury [316.54].

<sup>175</sup> John Stevenson [162.168], Chloe Chai and Mark McKitterick [256.168], CA and GJ McKeever [111.168] and Keith Goodwin [418.169].

<sup>176</sup> Environment Canterbury [316.77].

<sup>177</sup> Environment Canterbury [316.55].

<sup>178</sup> RMA Schedule 1 Clause 16(2) amendment.

<sup>179</sup> Environment Canterbury [316.55].

<sup>180</sup> Environment Canterbury [316.55].

means the use of natural materials, features and processes, including vegetation to stabilise waterway banks, and absorb wave energy and reduce coastal erosion and inundation, but does not include earth engineered bunds.<sup>181</sup> Soft engineering techniques include planting, beach re-nourishment, beach and bank re-profiling and the restoration of natural features such as dunes, coastal wetlands/saltmarsh and floodplains.

## Upgrading

In relation to the natural hazards chapter, means the replacement, renewal, improvement or realignment of a network utility structure or building, or natural hazards mitigation works that:

- a. is within 5m of the alignment or location of the original structure or building; and
- b. does not increase the footprint of the original structure or building by greater than 10 percent across any continuous 5-year period; or

c does not include works limited to maintenance for community scale natural hazard mitigation works flood schemes, it does not increase the footprint of the original scheme by greater than 10 percent across any continuous 5-year period.

Note: upgrading does not include works limited to maintenance.<sup>182</sup>

## Coastal Environment Chapter

CE-R3 Any building or structure

This rule does not apply to buildings or structures located in existing Residential Zones that are within 20m of identified coastal natural character areas, or the maintenance, repair or replacement of existing flood protection works administered by ECan.<sup>183</sup>

## Earthworks Chapter

~~EW-P2 Earthworks within Flood Assessment Overlays~~<sup>184</sup>

~~Allow earthworks within the Urban Flood Assessment Overlay and Non-Urban Flood Assessment Overlay where:~~

- ~~1. the earthworks do not increase the flooding risk to the site or neighbouring sites through the displacement of flood waters;~~
- ~~2. the earthworks associated with proposed subdivision, development or use do not increase the risk to life or property; and~~
- ~~3. the ability to convey flood waters is not impeded as a result of the earthworks.~~

~~EW-R4-~~

~~Earthworks for community scale natural hazards mitigation works~~

~~Activity status: PER~~

~~Where:~~

~~EW-S1 to EW-S7 are met.~~

~~Activity status where compliance not achieved: DIS~~

~~EW-R5 Earthworks within an overland flow path~~

~~Activity status: PER~~

~~Where:~~

<sup>181</sup> 199 Johns Road Ltd, Carolina Homes Ltd, Carolina Rental Homes Ltd, Allan Downs Ltd [266.16]

<sup>182</sup> Environment Canterbury [316.82].

<sup>183</sup> Environment Canterbury [316.81]

<sup>184</sup> Environment Canterbury [316.81] for all the EW changes

- ~~1. EW-S1 to EW-S7 are met; and~~
- ~~2. the height of any filling does not exceed 0.25m above the ground level at (18 September 2021); or~~
- ~~3. the filling is for a building platform that is located greater than 2m from any site boundary within the Urban Flood Assessment Overlay, or greater than 10m from any site boundary within the Non-Urban Flood Assessment Overlay; or~~
- ~~4. the flood depth in a 0.5% AEP event is less than 100mm.~~

~~Activity status where compliance not achieved: RDIS~~

~~Matters of discretion are restricted to:~~

~~EW-MD4 – Natural hazards~~

~~Advisory Notes~~

~~A Flood Assessment Certificate issued in accordance with NH-S1(b) will identify whether the site is located within an overland flow path.~~

~~The District Council holds publicly available information showing flood modelling for the District.~~<sup>185</sup>

## Natural Character Chapter

### NATC-R2 Planting of non-indigenous vegetation

Activity status: PER

Where:

1. planting is for one of the following purposes:
  - ~~a. erosion or flood control purposes where undertaken by or on behalf of the Regional Council or the District Council or their nominated contractor or agent; or~~<sup>186</sup>

## Natural Features and Landscapes Chapter

### Activity Rules

#### How to interpret and apply the rules

...

~~(2) The rules within this chapter shall not apply to the activities provided for in NH-R8 (the maintenance of existing community scale natural hazard mitigation works), NH-R9 (upgrading existing community scale natural hazard mitigation works) and NH-R10 (construction of new community scale natural hazard mitigation works).~~<sup>187</sup>

### NFL-R5

This rule does not apply to structures and buildings provided for under NFL-R1 to NFL-R4, NFL-R8 ~~or natural hazards mitigation structures for flooding.~~<sup>188</sup>

## Sites and Areas of Significance to Maori Chapter

~~SASM-R5 — Construction of new community scale natural hazard mitigation works~~<sup>189</sup>  
~~This rule applies to Wāhi Tapu/Wāhi Taonga, Ngā Tūrangā Tūpuna and Ngā Wai in SASM-SCHED1.~~

<sup>185</sup> Environment Canterbury [316.81]

<sup>186</sup> Environment Canterbury [316.81]

<sup>187</sup> Environment Canterbury [316.81]

<sup>188</sup> Environment Canterbury [316.81]

<sup>189</sup> Environment Canterbury [316.81]

~~Wāhi Tapu Overlay~~

~~Wāhi Taonga Overlay~~

~~Ngā Tūranga Tūpuna Overlay~~

~~Ngā Wai Overlay~~

~~Activity status: RDIS~~

~~Matters of discretion are restricted to:~~

~~SASM-MD1 – Wāhi tapu and wāhi taonga~~

~~SASM-MD2 – Ngā tūranga tūpuna~~

~~SASM-MD3 – Ngā wai~~

~~Notification~~

~~An application for a restricted discretionary activity under this rule is precluded from being publicly notified, but may be limited notified only to Te Ngāi Tūāhuriri Rūnanga and HNZPT, in respect of sites on the New Zealand Heritage List Rārangi Kōrero, where the consent authority considers this is required, absent their written approval.~~

~~Activity status when compliance not achieved or provided for: N/A~~