



**Proposed Plan Change 42:  
Mangaroa and Pinehaven Flood  
Hazard Extents  
Council Hearing Report**

**File Number:** 351/12-046  
**To:** Hearing Commissioner  
**From:** Brett Osborne

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## Introduction

1. This report analyses and makes recommendations on submissions received on Plan Change 42 Mangaroa and Pinehaven Flood Hazard Extents (the Plan Change).
2. The purpose of this plan change is to address the risk from flooding associated with the Pinehaven Stream and the Mangaroa River. Both of these water bodies have had flood hazard maps prepared for a 1 in 100-year flood event.
3. The Flood Hazard Extent for the Pinehaven Stream is supported by the Pinehaven Floodplain Management Plan. In this plan, the Flood Hazard Extent and flood risks are identified, as well as potential structural and non-structural approaches to address this risk. This plan was developed collaboratively over the period 2009 to 2014 between Greater Wellington Regional Council (GWRC), UHCC and the community.
4. The Mangaroa River does not have a specific Flood Management Plan.
5. The current District Plan objectives, policies and rules do not recognise the identified Flood Hazard Extent and associated risk to development for either the Mangaroa River or the Pinehaven Stream. Consequently, further development undertaken in accordance with the existing District Plan provisions within either of these Flood Hazard Extents could unacceptably increase the risk to people and property from flooding.
6. The Plan Change intends to update the following parts of the District Plan:
  - o Chapter 1 (Introduction)
  - o Chapter 2 (Definitions)
  - o Chapter 9 (Subdivision and Earthworks) – objectives and policies
  - o Chapter 14 (Natural Hazards) - objectives policies
  - o Chapter 16 (Utilities) – objectives and policies
  - o Chapter 17 (Hazardous Substances) – policies
  - o Chapter 18 (Residential) – subdivision rules
  - o Chapter 19 (Rural) – subdivision rules
  - o Chapter 20 (Business) – subdivision rules
  - o Chapter 23 (Earthworks) – rules
  - o Chapter 30 (Utilities) – rules
  - o Chapter 33 (Natural Hazards) – rules
  - o Chapter 34 (Hazardous Substances) – rules
  - o The Planning Maps to show the location of the Flood Hazard Extents; and
  - o Consequential amendments.
7. It is important to note that the update to the chapters has changed slightly from what was notified. Since Plan Change 42 was notified, Plan Change 43 has been notified and Council has made its decision on this plan change. This plan change was largely administrative in that it updated the introduction chapter and combined chapters 1, 2, 3 and 35 into two chapters. Given the advance nature of Plan Change 43 and the very low risk of appeals, the revised layout of the introductory chapters have been used for the purposes of this hearing.
8. Although this report is intended as a stand-alone document, a more in-depth understanding of the Plan Change, (including the process undertaken, related issues and

the submissions received) can be gained from the following documents, available from the Councils website<sup>1</sup>;

- the Section 32 Report and associated Plan Change documents as publicly notified in March 2017
- the Summary of Decisions Requested (Summary of Submissions and Further Submissions)
- the full set of submissions received.

## Statement of Experience

9. This report has been prepared by Brett Osborne and James Beban.

### Brett Osborne

10. I am an independent planning consultant. My qualifications are a Bachelor of Social Sciences (Resources and Environmental Planning) (Hons) and a Post Graduate Diploma Resources and Environmental Planning from the University of Waikato. I am a full member of the New Zealand Planning Institute (NZPI). I have over 17 years' experience in planning both within New Zealand and the United Kingdom and specialise in processing resource consent applications and preparing plan changes for territorial authorities in accordance with Schedule 1 of the RMA.

### James Gary Beban

11. I am an independent planning consultant at Urban Edge Planning Ltd. I have a Bachelor of Sciences (Hons) in Physical Geography. I have over 14 years' experience as a Resource Management Planner, with over 9 years' experience as a Senior Planner. I am involved in a wide variety of Resource Management Act policy work, including the preparation of a number of Plan Changes. I also prepare and process a wide variety of resource consent applications.
12. We confirm that we have read the Code of Conduct for expert witnesses in the Environment Court Practice Note 2014 and that we have complied with it when preparing this evidence. Other than when we state that we are relying on the advice of another person, this evidence is within our area of expertise. We have not omitted to consider material facts known to us that might alter or detract from the opinions that we express.

## Plan Change Background

13. This section of the report provides the background information on both catchments and the processes undertaken to date. For ease of reading, this background section has been broken up into two parts: the Mangaroa River and the Pinehaven Stream.

### Mangaroa River

14. The Mangaroa River drains a catchment of 103km<sup>2</sup> (10,300 hectares) and is approximately 20km long. The catchment runs from headwaters near Russells Road to its confluence with the Hutt River. The Mangaroa catchment lies on the eastern side of the

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<sup>1</sup> <https://upperhuttcity.com/planning/pc-42-mangaroa-pinehaven-flood-hazard-extents/>

Hutt River catchment and borders the Wainiuomata and Orongorongo catchments to the south and the Pakuratahi catchment to the northeast. The catchment is surrounded by numerous narrow, steep-sided valleys which converge and flow onto the Mangaroa River floodplain and drain to the north-east.

15. The land use within the catchment is comprised of semi-rural development that is predominantly confined to the floodplain. This includes a mix of agricultural land, numerous lifestyle blocks and the small rural settlement of Mangaroa in the lower reaches of the catchment. This small settlement includes Mangaroa School, a local church, and several large non-residential buildings. Development within the catchment is typically low density. However, there is an area of suburban development at the lower end of the catchment near State Highway 2 and the confluence with the Hutt River. The valley sides above the Mangaroa floodplain are typically undeveloped, steep, and covered in a mixture of native vegetation, regenerating scrub, or exotic pine.
16. The Mangaroa River is a typical rural river with natural banks and winds its way through the floodplain in a northerly direction before turning west to converge with the Hutt River. No physical flood protection measures confine the channel, although there are a number of culvert structures, service crossings, and potential obstructions along its length.

#### Mangaroa Floodplain Planning Process

17. In 2006 GWRC published the *Mangaroa River Flood Hazard Assessment*, which focussed specifically on identifying those areas at risk from flooding and erosion hazards within the catchment. The *Mangaroa River Flood Hazard Assessment* provided an analysis of the existing hazards associated with the Mangaroa River to assist in the preparation of planning and policy controls for the Mangaroa Valley.
18. To implement the *Mangaroa River Flood Hazard Assessment*, UHCC prepared and notified Plan Change 15 in October 2012. As well as introduce new provisions for the Mangaroa Catchment based on the modelling undertaken, Plan Change 15 also sought to update and strengthen the existing provisions relating to the Hutt River (as recommended in the *Hutt River Flood Management Plan*). Hearings on Plan Change 15 were held in May 2013, with submissions generally focussed on four key areas; property values, modelling, consultation, and the proposed provisions. Overall, the hearing commissioner's report recommended that Plan Change 15 be granted.
19. Following the Commissioner's recommendation, the Council determined in September 2013 to undertake an independent review of the modelling results that informed the identification of the flood hazard in the Mangaroa catchment (Minute 351/12-015 refers). It was intended that once the review had been undertaken, Plan Change 15 would be reheard. The independent assessment was completed and the flood hazard modelling was updated to confirm the extent of the flood hazard and inundation depths for a 1 in 100-year flood event. The modelling also included the effects of climate change, blockage of structures across the river corridor and freeboard allocation.
20. However, due to the updates and the time taken for the independent review, it was recommended that Plan Change 15 be withdrawn<sup>2</sup> as there was no formal Schedule 1 process under the RMA to enable the hearing to be reconvened. Furthermore, the

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<sup>2</sup> The withdrawal of Plan Change 15 was confirmed by public notice on 2 March 2016.

review and changes had exceeded the two year timeframe for determining the plan change under the RMA. However, at the same time a new flood hazard plan change for the Pinehaven catchment was commenced which presented an opportunity to incorporate the updated Managroa flood hazard maps into the new policy framework and thus achieve a consistency in the policy and rule frameworks addressing flood hazards in these catchments.

21. As with Plan Change 15, the new Plan Change 42 seeks to introduce provisions into the District Plan to address the hazard risk associated with the Mangaroa River. However, the objectives, policies and rules proposed in this plan change have been updated and are therefore different than those originally proposed in Plan Change 15.

#### Pinehaven Stream

22. Pinehaven Stream drains a catchment of approximately 4.5km<sup>2</sup> (450 hectares) on the eastern side of the Hutt Valley. The catchment runs from the Pinehaven Hills down to Hulls Creek. The upper catchment generally comprises steep pine-clad valleys with low density residential development established along the valley floors. The lower catchment is largely established with the residential suburb of Pinehaven and Silverstream with the stream becoming highly modified in the lower reaches with sections containing bridges, culverts and constructed channels.

#### Pinehaven Floodplain Planning Process

23. Pinehaven was affected by significant flooding events in 2004, 2005 and 2009 which flooded streets and properties alongside the Pinehaven Stream. As a result, UHCC and GWRC formed a partnership and began engaging with the community as part of a process to understand the issue and its causes, and to work through options to address the flood hazard.
24. A Floodplain Planning Process was commenced to address the flood risk issues within Pinehaven. This process incorporated the following three distinct phases, culminating in the final *Pinehaven Floodplain Management Plan (PFMP)*:
  - Phase One: clarified the importance of defining and establishing the scale and significance of the flood risk to the community, and involved collecting information to determine the scale of the issue.
  - Phase Two: involved identifying and selecting the management options, which were compared and assessed against each other. Phase two involved both a series of engagements with the community and stakeholders, and technical workshops involving a Project Steering Group made up of representatives from UHCC and GWRC.
  - Phase Three: culminated in the PFMP which established the Flood Hazard Extent through flood maps. The PFMP recommended a number of structural and non-structural options to cumulatively address the flood hazard and achieve the overall purpose of reducing the risk to the community from future flood events.

25. The Project Steering Group selected the following objectives to guide the development of the PFMP:
- Objective 1 - An integrated long-term structural upgrade option to meet the UHCC target level of service for streams: provision of a 25 year channel capacity combined with the protection of building floor levels from inundation in a 100-year storm event (including the predicted mid-range impacts of climate change)
  - Objective 2 - Preventing channel blockages and introducing the following non-structural planning controls to help prevent increases in flood risk from further development in the catchment:
    - Zone and control flood hazards
    - Zone and control important secondary overflow paths
    - Implement hydraulic neutrality or other measures to manage runoff for new development
    - Implement source control measures for new buildings, such as attenuation of peak flows in the catchment using onsite rainwater tanks
    - Enforcement of private stream crossings to address associated flooding.
26. Hydraulic modelling was undertaken to establish the Flood Hazard Extent, inundation depths and features such as overflow paths associated with a 1 in 100-year flood event. The modelling also incorporated the effects of climate change (as forecast to 2090), blockage of structures across the stream, and freeboard allocation. The identified flood extent of a 1 in 100-year event encompasses some 546 residential zoned properties and 25 commercial business zoned properties within Pinehaven.
27. The hydraulic modelling results confirmed that much of the Pinehaven Stream channel has less than a 1 in 5-year flood flow capacity. The numerous bridges and culverts further constrain the stream and are significant contributors to flooding. There is also a high potential for blockages in the narrow vegetated stream channel and the intakes of culverts or bridges. The modelling showed that, in places, blockages significantly increased the extent of flooding. In addition, the modelling identified that changes in the upper sub-catchment area (predominantly undeveloped rural zoned land) would increase the flood risk to the downstream community.
28. The FMP identified that some of the existing flood risk in Pinehaven can be managed through structural upgrades, maintenance and emergency response measures. However physical works are only able to manage part of the flood risk in the catchment. The planned channel upgrades would mitigate the hazard risks from a 1 in 25-year flood event. This is well below GWRC's desired level of protection where residential floor levels would be above the 1 in 100-year flood level.
29. The Project Steering Group's preferred option was a combination of structural upgrades and non-structural or regulatory measures. This approach would see improvements to the capacity of the existing stream channel together with a plan change to address the flood risk area within the operative District Plan. This combined option was selected in 2012 following technical investigations, the multi-criteria analysis, and feedback from the Pinehaven community and affected private property owners in the area. The preferred option was then updated in 2013 to allow for an



improved construction methodology for channel improvements that would reduce the impact on the stream channel.

30. The proposed Plan Change is the principal tool to achieve Objective 2 of the PFMP (2015). This plan change will introduce a variety of non-structural planning provisions to control development and activities in order to avoid, remedy, or mitigate flood risk to people and property within the identified Flood Hazard Extent.
31. The PFMP was formally adopted on 29 June 2016 following a process of notification, submissions, independent expert reviews, and hearings. Accordingly, the flood modelling informing the PFMP is now confirmed as fit-for-purpose and therefore able to inform this plan change.

#### Consultation process

32. Section 4 of the section 32 report provides a detailed summary of the consultation that was undertaken prior to the notification of the Plan Change. This consultation can be summarised as follows:
  - UHCC elected member workshops: A workshop was held in November 2015 to inform the proposed Plan Changes for both the Mangaroa River and the Pinehaven Stream Flood Hazard Zones. A subsequent workshop was held on 20th December 2016 to update the status of the plan change and the combining of the two catchments under a single plan change approach.
  - Letters were sent to the identified Clause 3 parties<sup>3</sup> in February, March and December 2016.
  - On 2 March 2016, Plan Change 15 (which related to the Mangaroa Flood Hazard Extent) was withdrawn. As part of this process, a letter was sent to all submitters informing them that the plan change was withdrawn and that it would be replaced with a new plan change. Submitters on Plan Change 15 were invited to contact the Council if they had any questions that required clarification.
  - Meetings were held with GWRC and Wellington Water on 7 March 2016 to discuss their feedback on the draft provisions of the Pinehaven and Mangaroa Plan Change. Following consideration of the feedback received, minor changes were made to the Plan Change.
  - In May 2016 a series of meetings were held with the community to address the way in which the flood model data was being illustrated on the flood maps as part of the PFMP adoption.
  - In March 2017, the Schedule 1 process under the Resource Management Act 1991 (RMA) commenced. The Council doubled the minimum statutory submission period of 20 working days to 40 working days to provide an extended timeframe for people to review the plan change and make a submission. This included letters being sent to all parties within an identified Flood Hazard Extent and a public notice being placed in the Upper Hutt Leader. Further submissions were called for on 24 May 2017.
  - Two public open days were advertised and held:
    - Pinehaven Progressive Association Hall on 11<sup>th</sup> April 2017; and,
    - Mangaroa School Hall on 12<sup>th</sup> April 2017.

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<sup>3</sup> These parties are identified in section 4.6 of the section 32 report for this plan change.

- In July 2017, a pre-hearing meeting was held with Transpower and PowerCo. This meeting was positive and assisted in resolving many of the matters raised in their respective submissions. Both submitters have advised they wish to review the section 42A recommendation and will then confirm an update of their positions.
  - In July 2017, a pre-hearing meeting with held with GWRC to discuss flood hazard mapping and submission points. This meeting resulted in amended flood hazard extents for the proposed flood hazard maps. These amendments are detailed later within this report. The revised maps are attached as **Appendices 4 & 5**.
33. Consultation was also undertaken with the Pinehaven community, and representatives from Rangitāne, Wellington Tenth Trust, and Te Atiawa in developing the draft PFMP. While the process associated with PFMP is separate to that of the Plan Change process, it has relevance in that the Pinehaven community were involved in the development of the solutions which have informed this Plan Change. Further details of the PFMP process can be found in the section 32 report for this plan change.

#### **Summary of Proposed Plan Change 42**

34. The purpose of the Plan Change is to implement the planning measures required to address the flooding risk associated with the Pinehaven Stream and the Mangaroa River. These planning measures seek to:
- provide for the functioning of the Pinehaven Stream and Mangaroa River Floodplains
  - avoid development in high-hazard areas and incorporate mitigation measures into developments and subdivision in lower-hazard areas to ensure that the impact of flood events on people and property within the identified Flood Hazard Extents are either mitigated or avoided, and
  - ensure development and activities within the Flood Hazard Extents do not exacerbate the impact of flood events on people and property.
35. The proposed plan change amends existing provisions and introduces new objectives, policies and rules to manage land use and subdivision activities. These provisions recognize and specifically address flood risk within the identified Flood Hazard Extents for the Pinehaven Stream and the Mangaroa River. While the catchments are distinctly different, the provisions were drafted concurrently and share the same policy framework, which recognises high- and low-risk hazards and is tailored to address the key risks and main activities within each catchment. While the provisions are catchment-based, the consistent policy approach makes the consolidation of both catchments into a single plan change appropriate.
36. The Plan Change proposes to amend and update the following parts of the District Plan:
- Chapter 1 – Introduction Chapter
  - Chapter 2 - Definitions
  - Chapter 9 (Subdivision and Earthworks) – objectives and policies
  - Chapter 14 (Natural Hazards) - objectives policies
  - Chapter 16 (Utilities) – objectives and policies
  - Chapter 17 (Hazardous Substances) – policies

- Chapter 18 (Residential) – subdivision rules
  - Chapter 19 (Rural) – subdivision rules
  - Chapter 20 (Business) – subdivision rules
  - Chapter 23 (Earthworks) – rules
  - Chapter 30 (Utilities) – rules
  - Chapter 33 (Natural Hazards) – rules
  - Chapter 34 (Hazardous Substances) – rules
  - The Planning Maps to show the location of the Flood Hazard Extents; and
  - Consequential amendments.
37. Overall, the Plan Change ensures that the proposed District Plan provisions (namely the proposed objectives, policies, and rules):
- comply with the Council’s statutory responsibilities both in terms of Section 31 of the RMA and in terms of giving effect to the Greater Wellington Regional Council’s Regional Policy Statement (“RPS”)
  - have been tested in terms of section 32 of the RMA and the provisions selected are considered the best way of meeting the purpose of the RMA
  - apply to the defined and modelled Flood Hazard Extents, avoiding development in the high hazard areas and incorporating mitigation measures for development in lower risk areas.
38. **Appendix 1** to this report provides a consolidated summary of the objectives, policies and rules that are proposed as part of this Plan Change (this list includes the suggested changes to the objectives, policies and rules as a result of submissions).

## Statutory Consideration

### Part 4 of the RMA: Functions, powers and duties

39. Section 31 of the RMA identifies functions of territorial authorities for the purpose of giving effect to the RMA. In particular:
- Section 31(1)(a) requires the establishment and review of objectives, policies, and methods to achieve integrated management of the effects of the use, development, or protection of land and associated natural and physical resources of the district.
  - Section 31(1)(b)(i) specifically requires territorial authorities to control any actual or potential effects associated with of the use, development, or protection of land for the purpose of avoidance or mitigation of natural hazards.
40. Section 32 of the RMA provides for the consideration of alternatives, benefits, and costs and requires that an evaluation must be carried out and that the evaluation must:
- “(a) examine the extent to which each objective is the most appropriate way to achieve the purpose of this Act; and*
- (b) examine whether, having regard to their efficiency and effectiveness, the policies, rules, or other methods are the most appropriate for achieving the objectives by –*
- (i) identifying other reasonably practicable options for achieving the objectives; and*
  - (ii) assessing the efficiency and effectiveness of the provisions in achieving the objectives; and*
  - (iii) summarising the reasons for deciding on the provisions; and*

*(c) contain a level of detail that corresponds to the scale and significance of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the proposal.*

An assessment under s32(1)(b)(ii) must:

*"(a) Identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions, including the opportunities for –*

*(i) Economic growth that are anticipated to be provided or reduced; and*

*(ii) Employment that are anticipated to be provided or reduced; and*

*(b) If practicable, quantify the benefits and costs referred to in paragraph (a); and (c) Assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matters of the provisions." If the proposal will amend an existing plan provision, the examination under s32(1)(b) must relate to –*

*1. "The provisions and objectives of the amending proposal; and*

*2. The objectives of the existing proposal to the extent that those objectives –*

*(i) Are relevant to the objectives of the amending proposal; and*

*(ii) Would remain if the amending proposal were to take effect."*

#### **Part 5 of the RMA: Standards, policy statements, and plans**

41. Section 74 of the RMA states that the Council shall prepare and change the District Plan in accordance with its functions under s31, the provisions of Part 2 and its duty under s32. When preparing or changing a plan, a territorial authority is required to have regard to *"any management plans and strategies prepared under other Acts"* [RMA s74(2)(b)(i)]. I consider that the proposals are consistent with the following relevant plans prepared under the Local Government Act 2002:
- UHCC Land Use Strategy 2016 – 2043
  - The Civil Defence Emergency Management Plan
  - the Sustainability Strategy 2012 – 2022.
42. Under s74(2A) a territorial authority: *"must take into account any relevant planning document recognised by an iwi authority and lodged with the territorial authority, to the extent that its content has a bearing on the resource management issues of a region"*. There are no relevant iwi management plans.
43. Section 75(3) of the RMA requires that district plans must give effect to –
- (a) "any national policy statement; and*  
*(b) any New Zealand coastal policy statement; and*  
*(c) any regional policy statement" and under s75(4), district plans must not be inconsistent with – " (b) a regional plan for any matter specified in section 30(1)".*
44. The NZ Coastal Policy Statement does not apply to this proposal.
45. The National Policy Statement for Urban Development Capacity is a relevant consideration for this proposal. As outlined in the section 32 report while the proposal would limit some housing supply, the proposal is not considered to be contrary to the outcomes this National Policy Statement is seeking to achieve.

46. The proposed plan change has been prepared in response to the RPS requirements pertaining to natural hazards. In particular, the proposed Plan Change maps the flood hazard for a 1 in 100-year flood, taking a risk-based approach to the management of natural hazards, and accounting for climate change. The proposed plan change is considered to be consistent with the RPS. Further analysis of the consistency of the proposal with the RPS is outlined in the section 32 report.

#### **Part 2 of the RMA: Purpose and principles**

47. Part 2 of the Resource Management Act 1991 outlines the purposes and principles of the Act. Section 5 sets out the purpose of the RMA, which is to promote the sustainable management of natural and physical resources.

##### Section 5 of the Act

48. This proposal is considered to be consistent with Section 5 of the Act. The Flood Hazard Extent identifies the area of inundation for a 1 in 100-year flood event for the Mangaroa River and Pinehaven Stream. It also identifies the high-hazard components of the Flood Hazard Extent, such as the overflow paths and the river corridor. The proposed objectives, policies and rules seek to avoid or discourage development within the high-hazard areas. Development within the lower-hazard areas is less restricted, instead requiring preventative measures to minimize potential risk from future flood events.
49. It is acknowledged that the Plan Change will limit some private property rights. However, the proposed District Plan provisions will manage the use and development of resources while sustaining their potential to meet the reasonably foreseeable needs of future generations by ensuring future development is not at an unreasonable risk from flooding. The provisions will also enable the community to provide for their social and cultural well-being, and health and safety, through the application of preventative measures such as requiring floor levels of buildings to be positioned above the 1 in 100-year flood event level.
50. Providing for the functioning of the floodplains during flood events will minimize the flood risk to the community. The plan change provisions propose to manage the impact of the built environment within the identified areas in a way that will enable the floodplains to function. Ensuring development does not impede the flow of flood waters will assist with mitigating the effect of flood events on the community and is consistent with the purpose and principles of section 5 of the RMA.
51. In recognition of the existing relationship between the floodplains and the built environment, the proposed plan change allows for some permitted development that will not significantly increase the risk to life or property or increase the flood hazard. This will ensure that property owners are still able to undertake some development without the need to obtain resource consent, thereby enabling private property owners to provide for their own economic, social, and cultural well-being, while avoiding any discernible increase in flooding risk.
52. The proposed provisions support flood mitigation works in recognition of the benefit they have to the function of the floodplain and the reduction of risk to the community. This is consistent with the purpose of section 5, through protecting the physical resources in a way that enables people and the community to provide for their social and cultural well-being, and health and safety.

53. The proposed plan change also addresses hydraulic neutrality within the upper sub-catchment of the Pinehaven Stream, where development could result in increased run-off during storm events and exacerbate the flood risk to the existing Pinehaven community downstream. Requiring hydraulic neutrality is consistent with section 5, as it ensures development will be managed in a way that enables people to provide for their social and economic well-being while also providing for the health and safety of the downstream community within this Flood Hazard Extent.

#### Section 6 of the Act

54. Section 6 of the Act identifies matters of National Importance that must be recognised and provided for. The section 6 matters that are applicable to this proposal are:
- 6(a): *"the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development"*
  - 6(d): *"the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers",* and
  - 6(e): *"the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga".*
55. Overall, the proposed objectives, policies, and rules are consistent with Section 6 of the Act.

#### *Section 6(a):*

56. The Mangaroa Flood Hazard Extent comprises the flat floodplain of the Mangaroa and Whitemans Valleys. Although the floodplain has been modified over time, it still retains a degree of natural character. The proposed plan change provisions are consistent with s6(a) in that they do not propose to change the natural character of the Mangaroa River and its margins. The provisions also seek to avoid inappropriate development, use and subdivision in the Mangaroa Flood Hazard Extent.
57. The Pinehaven Stream is a typical urban stream in that the channel is well defined and has many bridge and culvert structures, and service crossings along its length. There are also significant sections of the stream length that are culverted. As such, the natural character has been heavily modified over time to that of an urbanized natural character. The proposed plan change provisions are consistent with s6(a) in that they seek to protect the stream corridor by restricting further structures within the channel and avoiding inappropriate development and subdivision.

#### *Section 6(d):*

58. Existing access along the Mangaroa River is limited, as the channel passes through many private rural properties. However, sections of the river do pass through public reserve land (for example, near the confluence of the Mangaroa and Hutt Rivers) and there are a series of Esplanade Strips and Reserves that provide access to the Mangaroa River. The proposed plan change does not seek to change the ability for Council to require Esplanade Strips, Reserves or land to be vested as reserve and this is recognised by the wording of the proposed subdivision rules (which relate to the location of building platforms) and through retaining the ability to create reserve lots

as a Controlled Activity. As such, the current level of public access to the river is maintained, which is consistent with s6(d).

59. Existing access along the Pinehaven Stream is limited; a consequence of its narrow and highly modified channel, which passes through many private suburban properties. However, sections of the stream also pass through public reserve land (such as Pinehaven Reserve and Willow Park). The current level of public access to the stream will be maintained in order to remain consistent with s6(d).

*Section 6(e):*

60. The proposed regulatory measures will not restrict the existing relationship of Maori and their culture and traditions with either the Pinehaven Stream of the Mangaroa River, and therefore is consistent with s6(e).

Section 7 of the Act

61. Section 7 of the RMA identifies the other matters that are required to be taken into account during decision-making. The Section 7 matters that are applicable to this proposal are:

- 7(b): "*the efficient use and development of natural and physical resources*"
- 7(f): "*maintenance and enhancement of the quality of the environment*"
- 7(i): "*the effects of climate change*".

62. The proposed plan change is considered to be consistent with these subsections.

*Section 7(b)*

63. The plan ensures that activities and development within the catchments are undertaken in a manner that is efficient by recognising and providing for flood risk to minimize potential effects. To date the development within the floodplains has involved little consideration of the flood risk and examples of inappropriate development have occurred, resulting in inefficient use of resources.

*Section 7(f)*

64. The proposed provisions will be consistent with these subsections and accordingly maintain the quality of the environment.

*Section 7(i)*

65. The plan change incorporates the effects of climate change within the flood modelling to identify the extent of the flood area and therefore is consistent with 7(i).

Section 8 of the Act

66. Section 8 of the RMA requires that applications take into account the principles of the Treaty of Waitangi. As part of the consultation process, local iwi were invited to provide feedback on the plan change. The Wellington Tenth Trust, the Port Nicholson Settlement Trust, Orongomai Marae, and Te Rūnanga o Toa Rangātira Inc. were all notified of the Plan Change (in respect of their rohe). None of these parties commented on the Plan Change.

## **Submissions**

67. The submission period for this Plan Change opened on 8 March 2017 and closed on 8 May 2017. Further submissions opened on 24 May 2017 and closed 8 June 2017.

68. In total 25 submissions were received. The submitter number is based upon the order they were received.

Submitter number	Submitter name
1	Allison Tindale
2	Royal Forest & Bird Protection Society of New Zealand Incorporated (Upper Hutt Branch)
3	Ian Stewart
4	Darryl Longstaffe
5	Melanie Brown
6	Kim Williams
7	Powerco Limited
8	Charles & Lynese Baines
9	Vaughn Allan
10	Jonathan Mackey
11	Nicola Robinson
12	Save Our Hills (Upper Hutt) Incorporated (President)
13	Lindsay Forbes
14	Alexander Ross
15	Geoff Workman
16	Susan Pattinson
17	John Moynihan
18	Jenene Moynihan



Submitter number	Submitter name
19	Upper Hutt Town and Country Association
20	Save Our Hills (Upper Hutt) Incorporated (Member)
21	Greater Wellington Regional Council (GWRC)
22	Jeff & Noeline Berkett (late submission)
23	Alan Jefferies
24	Transpower New Zealand Limited (late submission)
25	Duigald Myers (late submission)

69. Two late submissions, addressed in more detail below, were received from

- Transpower New Zealand Limited (Submission 24)
- Duigald Myers (Submission 25)

70. PowerCo and Save Our Hills made the following further submissions:

Submitter Number	Submitter name
PC01	Powerco
SOH 01, SOH 02, SOH 03, SOH 04	Save our Hills

71. Copies of all submissions and further submissions for the Plan Change are attached as **Appendix 2**.

### Late Submissions

72. Two late submissions were received on the Plan Change. Submissions 24 and 25 by Transpower New Zealand Limited and Duigald Myers. The Transpower submission was received after 5pm on 8 May 2017 and the Duigald Myers was received on 9 May 2017 (one working day after close of the submission period).

73. Under Section 37 of the RMA, Council has the power to waive or extend time limits. Council can decide to waive the failure to comply with a timeframe only after taking into account:

- the interests of any person who, in its opinion, may be directly affected by the waiver;

- the interests of the community in achieving adequate assessment of the effects of the Plan Change; and
  - its duty under Section 21 of the RMA to avoid unreasonable delay.
74. In considering whether to accept or reject the late submissions 24 and 25, the Commissioner may wish to take into account the following:
- The Plan Change process has not been held up in any way to date by these submissions. The late submissions were included in the summary of submissions, hence there was an opportunity for further submissions on the issues raised.
75. This report recommends that the late submissions by Transpower New Zealand Limited and Duigald Myers are accepted.

### Legal issues

76. The submissions from PowerCo (7) and Alan Jefferies (23) include a question over the Council's ability<sup>4</sup> to impose rules within the area identified as the 'stream corridor' and 'river corridor'<sup>5</sup>, as they consider this may be outside the jurisdiction of UHCC as a territorial authority and instead fall within the jurisdiction of Greater Wellington Regional Council. Mr Jefferies (23) asserts that the term "river corridor" is in fact "unlawful" on the basis it is the same as the RMA definition for the bed of a river. Accordingly, Council has sought legal advice on the issue of jurisdiction.
77. For the purposes of this plan change, the term 'river corridor' or 'stream corridor' is used to describe a high hazard area which includes the physical stream and an area of erosion prone land along either side of the water course. As such, this identified corridor comprises an area more than just the physical channel (or bed of the river) of the Mangaroa River and Pinehaven Stream and is not used interchangeably with the RMA definition for the bed of a stream or river.
78. Putting aside the question of jurisdiction within the 'bed of a river', it is worth noting that the council can control activities such as earthworks on land outside the 'bed of a river' as it would anywhere else within the district. Therefore, the question is whether council has jurisdiction to control activities within the bed of the river.
79. To address the question of jurisdiction, the Council has obtained a legal opinion (attached as **Appendix 3**) which confirms that it is possible for a district plan to control earthworks within the bed of a stream or river. This is because a river or stream bed falls within the wider definition of "land" within the RMA, which is the same definition as that within the district plan. As such, the term 'river corridor' is not unlawful and the council as a territorial authority is able to exercise control over activities within the bed of a river through rules in the District Plan in accordance with its functions under s31 of the RMA.
80. In the case of this plan change, the purpose of controlling activities within the bed of a river is to discourage development and inappropriate earthworks within the high hazard risk areas of the Flood Hazard Extent (being the Stream and River Corridors). This is intended to achieve integrated management of the effects of the use, development or protection of land and physical resource as well as control any actual or potential effects of the use, development or protection of land.

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<sup>4</sup> Under the council's responsibilities defined by the Resource Management Act 1991.

<sup>5</sup> As defined in the proposed plan change.

81. The scope of the earthworks provisions as raised by PowerCo (7) within the 'river corridor' and 'stream corridor' is clarified further within the analysis of the submission points later in this report.

### **Hazard Map Amendments (Flood Hazard Extents and Pinehaven Catchment Overlay)**

82. As part of the plan change process, changes have been made to both the flood hazard extents and the Pinehaven Catchment Overlay maps. These changes relate to submission points and are described below:

#### Flood Hazard Extents

83. The flood hazard extent maps notified under this plan change were the same flood hazard maps as denoted in the PFMP and the *Mangaroa Hydraulic Modelling Report* (GWRC, 2015). However, a number of submissions<sup>6</sup> received on this plan change challenged the accuracy of the flood maps. The Save our Hills submission (#12) specifically opposes the inclusion of areas in the hazard extents where the modelling predicts flood waters of 100mm or less on the grounds that the risk is insignificant and does not represent a hazard to people or property. Submission #12 requests this initial depth is removed from the flood hazard extent.
84. The flood hazard maps representing the extent of the flood hazard include *all* flood water above ground level. Therefore the proposed planning provisions would apply equally to all areas within the flood extent regardless of the depth. Expert evidence from Mr Kyle Christensen and Mr Michael Law support the removal of the areas comprising less than 100mm as they are likely to represent a very low or insignificant risk to people and property because of the limited flood water depth. Accordingly, such low risk is not considered to require regulatory intervention as part of this plan change.
85. It is also noted that where the water is shallow (less than 100mm), the potential effect of inundation to property can be addressed through other mechanisms or legislation (for example the Building Act 2004 and associated Building Code). This is due to the risk to people and property from shallow flooding hazards being extremely low. On this basis, the flood hazard map extents have been updated to exclude all modelled flood hazard depths less than 100mm in depth. This has resulted in a reduction of the 'footprint' of the Flood Hazard Extent in some areas of the Pinehaven catchment. For consistency, the same amendment has been made to the Mangaroa Flood Hazard Extent.
86. The difference between the notified maps and the proposed hazard maps can be seen in **Appendix 4**. The proposed Hazard Maps (Part 5 of the District Plan) have been amended accordingly and attached to the report as **Appendix 5** (Part 5 Hazard Maps)<sup>7</sup>.
87. It should be noted that the proposed plan change is not changing the hazard maps contained in either the PFMP or the *Mangaroa Hydraulic Report* (2015). Those identified flood hazard extents are accurate as confirmed by the expert evidence of Mr Kyle Christensen and Mr Michael Law. However, the amendment to the

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<sup>6</sup> Including submissions 2, 4, 5, 6, 8, 11, 12, 15, 16, 17, 18, 19, 20, 22, 23 & 25.

<sup>7</sup> The updated shape files of the amended Flood Hazard Extent will also be added to the Councils public GIS viewer.

Hazard Maps on which the plan change provisions relate is considered practicable due to the low hazard risk to people and property which can be adequately addressed through the Building Consent process. For these reasons regulatory intervention is not considered necessary.

#### Pinehaven Catchment Overlay

88. A number of small changes have been made to rationalise the boundaries of the Pinehaven Catchment Overlay, particularly where the overlay only passes through a small portion of the site. These changes have been made by Mr Kyle Christensen to ensure the changes are correct from a hydraulic engineering perspective.
89. The reason for the change is the proposed subdivision rules that relate to sites that are situated in the Pinehaven Catchment Overlay. Without the proposed changes, if just a small portion of the site was situated within the Pinehaven Catchment Overlay, then the applicant would have to demonstrate hydraulic neutrality for the whole subdivision, including areas outside the Pinehaven Catchment Overlay. This is beyond the intent of the Pinehaven Catchment Overlay as the District Plan intends to only address activities and hydraulic neutrality within the overlay boundary.

#### Submission evaluation

90. This report is considering 25 submissions (at the time of the preparing this report), with two further submissions. The submissions received have been summarised both by submitter in order of receipt, and by the proposed amendments and provisions to which they specifically relate. The summary of submissions is attached as **Appendix 6**.
91. For efficiency and in accordance with Clause 10(3) of the First Schedule of the RMA, the following evaluation has been undertaken on both an issues- and provisions-based approach, as opposed to a submission-by-submission approach.
92. To assist with addressing the submission points, expert evidence has been sought from suitably experienced and qualified hydrological engineers. Mr Kyle Christensen has provided evidence regarding the Mangaroa catchment, while Mr Michael Law has provided evidence in relation to the Pinehaven catchment. References to their evidence are included in the following analysis of submissions. A full copy of their evidence is attached as **Appendix 7**.
93. The following evaluation should be read in conjunction with the summaries of submissions and the submissions themselves. Where I concur with the relief sought and rationale for that relief, I have noted my agreement and provided my recommendation. Where I have undertaken further evaluation of the relief sought in a submission(s), my evaluation and recommendations are set out in this section of the report.
94. Where I recommend changes to the Proposed Plan Change provisions, these are shown in **Appendix 8**. Proposed new or amended text is double-underlined and highlighted. Text recommended to be deleted in response to submissions is ~~double struckthrough and highlighted~~.

#### **Analysis of submissions and recommendations**

95. The evaluation of submissions is structured as follows:
  - General support
  - Concerns over the accuracy of the maps/ changes to the maps

- Section 32
- Amendments to the identified Resource Management Issues
- Amendments to definitions
- Amendments to objectives
- Amendments to policies
- Amendments to rules
- Amendments to Environmental Results
- Consultation
- Hydraulic neutrality / Southern Growth Area
- Extent of the Plan Change
- Other Matters.

### **General Support**

96. **Submissions:** Allison Tindale (1) supports the inclusion of the identified Flood Hazard Extents into the District Plan and considers the provisions to be compatible with principles of good planning, as well as the RMA and the RPS. The submitter supports the inclusion of the two-tiered approach (i.e. more restrictive provisions in high-hazard areas and less restrictive provisions in lower-hazard areas). The submitter attached the current flood policies for Wales for consideration.
97. **Analysis:** This submission supports the Plan Change as it is currently drafted. This report recommends some changes are made in response to other submissions. However, on the whole, the recommended changes do not deviate significantly from the underlying policy intent and principles of the Plan Change as notified.
98. **Recommendation:** This report recommends that the submission of Allison Tindale (1) is accepted insofar as the policy intent and principles of the Plan Change remains unchanged and is adopted as notified.
99. **Submission:** Ian Douglas Stewart (3) supports the Plan Change as notified and requests the Council generally approve it as notified. A further submission from Save Our Hills (SOH 2) submits in opposition to this general support.
100. **Analysis:** This submission supports the intent of the Plan Change as it is currently drafted. This report does recommend some changes to the District Plan provisions as they were notified. However, the overall intent and environmental outcomes remain unchanged.
101. The further submission by Save Our Hills (SOH 2) opposes this support on the grounds UHCC and GWRC have failed to genuinely engage with the community and address their concerns. However, it is noted the Council doubled the statutory submission period for this plan change to provide the community more time to review and make submissions. In addition public open sessions were held in Pinehaven and Mangaroa to answer any questions from the community.
102. **Recommendation:** This report recommends that the submission of Ian Douglas Stewart (3) is accepted insofar as the policy intent and principles of the Plan Change remains unchanged and is adopted as notified. It is recommended the further submission from Save Our Hills (SOH 2) is rejected.
103. **Submission:** PowerCo (7) submits in full support for Objective 16.3.5 and Policies 14.4.4 and 16.4.18.

104. **Analysis:** This submission supports Policies 14.4.4 and 16.4.18 as they are currently drafted.
105. **Recommendation:** This report recommends that the submission of PowerCo (7) in relation to this matter is accepted, though noting that the wording of some of the supported objectives and policies has been amended in relation to other submissions received.
106. **Submission:** Vaughn Allan (9) supports the Council proceeding with Option 3, identified in Section 32 report, which allows for the establishment of provisions to manage development and activities in the Pinehaven and Mangaroa Flood Hazard Extents. However, the submitter considers the following changes are required:
- Fixed fee for resource consent applications, and
  - Having specifics around how landowners can undertake certain activities on their property.
107. **Analysis:** It is not appropriate for a fixed fee to be provided for the processing of resource consent applications. The only fixed fee for resource consent applications that Council has relates to protected trees and urban tree groups. This is in recognition of the public benefit that these trees and vegetation make to the local environment, often at the expense of private property rights. While there is an element of wider public good associated with the proposed objectives, policies and rules relating to the Pinehaven and Mangaroa Flood Hazard extents, there is also considerable private benefit from ensuring that future development is not at risk from flooding.
108. It is also recognised that the plan change process does not set the fees for the resource consent process. These fees are set under the Local Government Act 2002 as part of the Annual Plan process. If the submitter considers that it is appropriate to provide fixed fees for resource consent applications in the identified Flood Hazard Extents, then they can seek this as part of the Annual Plan process. As such, it is considered that it is not appropriate and outside the scope of this plan change to provide fixed fee consents for development in the identified flood hazard extents.
109. The proposed rule framework identifies permitted activities and the associated standards for development and earthworks within the flood hazard extents. The proposed rules are based on the relevance to the flood hazard risk and provide specific direction on what activities landowners can undertake on their site. As such, this submission supports the intent of the Plan Change as it is currently drafted.
110. **Recommendation:** This report recommends that the submission of Vaughn Allan (9) is accepted insofar as it supports the option identified in the Section 32 as the best approach to managing development in the identified Flood Hazard Extents. However, it is recommended that the submission point regarding fixed resource consent fees is rejected.
111. **Submission:** Greater Wellington Regional Council (21) support the Plan Change as notified, as they consider that it gives effects to the RPS by identifying areas at high risk of natural hazards and introduces objectives, policies and rules to manage land-use and subdivision activities to address this flood risk. The submitter also considers that the proposed planning measures will reduce the flood risk from future development in the Pinehaven catchment, which is essential in ensuring that the proposed structural improvements continue to be effective in achieving the reductions in flood risk to the community. The submitter also supports the wording of proposed Policy 9.4.8. A further

submission from Save Our Hills (SOH 1) opposes this submission on points 1.3, 3.2, 3.3 & 3.5 on the basis there are no published flood maps for Pinehaven.

112. **Analysis:** The submission from GWRC (21) supports the intent of the Plan Change as it is currently drafted. This report does recommend some changes to the District Plan provisions as they were notified. However, the overall intent and environmental outcomes remain unchanged. With respect to the further submission from Save Our Hills (SOH 1), the flood maps for Pinehaven are available on the GWRC website which includes the background to the Floodplain Management Plan process which involved community engagement and decision making in addressing the flood hazard risk and includes the separate maps of the hazard data layers used to create the flood map which was adopted by GWRC in 2016.
113. **Recommendation:** This report recommends that the submission of Greater Wellington Regional Council (21) is accepted insofar as the policy intent and principles of the Plan Change remains unchanged and is adopted as notified. It is recommended the further submission by Save Our Hills (SOH 1) is rejected.
114. **Submission:** Transpower NZ Limited (24) submits in full support for proposed objective 16.3 and policies 14.4.4, 16.4.18, and 16.4.19.
115. **Analysis:** This submission supports objective 16.3 and policies 14.4.4, 16.4.18, and 16.4.19 as they are currently drafted.
116. **Recommendation:** This report recommends that the submission of Transpower NZ Limited (24) in relation to this matter is accepted, though noting that the wording of some of the supported objectives and policies has been amended in relation to other submissions received.

#### **Questions of the accuracy of the Flood Hazard Maps**

117. **Submission:** Forest and Bird (2) raises concerns about the quality of the data provided, that it should be withdrawn until more time is provided to consider the flood maps and the potential flood impacts. The submitter would like the flood maps from the GWRC 2016 audit to be used and separate flood risks areas to be identified to provide better information to all parties. A further submission from Save Our Hills (SOH 4) supports this submission in respect to the concerns the community have are not addressed.
118. **Analysis:** The evidence by Mr Christensen responds to the concerns regarding accuracy of the modelling and advises that he has undertaken a detailed peer review of the hydrological and hydraulic modelling that has been used to generate the flood maps. The initial peer review identified several matters that required addressing, which were subsequently addressed through updates to the model as outlined in Mr Christensen's evidence. Having reviewed the updated model from Jacobs (dated November 2015), Mr Christensen confirms the hydrological and hydraulic model for the Mangaroa catchment meets the expected industry standards and is fit for purpose to generate flood hazard maps.
119. The evidence from Mr Michael Law also confirms that a detailed peer review of the hydraulic modelling used to generate maps for Pinehaven was undertaken. Some issues were identified but these were subsequently addressed to the satisfaction of Mr Law, who advises that the model is fit for purpose to generate flood hazard maps.
120. In terms of the request for more time to consider the plan change, it is noted the Council doubled the minimum statutory submission period for this plan change to provide

additional time to submitters. The flood hazard maps from the flood model as adopted in 2016 have been used to inform this plan change. However the final maps for the purposes of the plan change (Part 5 Hazard Maps) differ in how they are illustrated due to the different intents of the maps (mapping absolute flood risk vs identifying where regulatory measures should apply).

121. **Recommendation:** This report recommends that the submission of Forest and Bird (2) and further submission by Save Our Hills (SOH 4) are rejected insofar that it relates to the above matter.
122. **Submission:** Darryl Longstaffe (4) considers that the flood maps are not accurate in particular:
- There are no descriptions of the flood depths
  - There is no clarity around the term "Ponding Area"
  - The maps do not conform to the topography of the area
  - The GWRC subcatchment calculations show lower volumes of water in the area than the 1 in 100-year flood maps
  - There needs to be an independent audit of the maps.
123. **Analysis:** The proposed plan change definition for Ponding Areas identifies these on the Hazard Maps as "still or slow moving water during a flood event." Site specific flood depth information can be obtained from GWRC, but for the purposes of the plan change it is important to identify the Flood Hazard Extent and category of flood hazard feature (e.g. Ponding, Overflow Path or Stream Corridor) so that the applicable provisions and standards within the plan change can be applied. This includes whether the activity is permitted or if a resource consent is required.
124. The expert evidence of Mr Michael Law has confirmed the hydrological and hydraulic modelling is considered fit for purpose in order to inform the proposed plan change provisions. As such, no further audit is considered necessary.
125. **Recommendation:** This report recommends that the submission of Darryl Longstaffe (4) is rejected insofar that it relates to the above matter.
126. **Submission:** Melanie Brown (5) considers that there are issues with the 1 in 100-year Flood Hazard Maps and does not want the Plan Change to proceed until these are addressed.
127. **Analysis:** Expert evidence from Mr Michael Law confirms the method to identify the relevant flood hazards is in accordance with established industry standards and the hydrological modelling is considered fit for purpose in order to inform the proposed plan change provisions.
128. **Recommendation:** This report recommends that the submission of Melanie Brown (5) is rejected insofar that it relates to the above matter.
129. **Submission:** Kim Williams (6) raises concerns regarding the accuracy and quality of the Flood Hazard Maps and that they do not show the flood and erosion area in detail.
130. **Analysis:** The evidence by Mr Christensen responds to the concerns regarding accuracy of the modelling and advises he has undertaken a detailed peer review of the hydrological and hydraulic modelling that has been used to generate the flood maps. Mr Christensen advises the model was initially peer reviewed and required adjustments. The model was subsequently updated and the final report was submitted in November 2015. Having reviewed the updated model, Mr Christensen confirms the hydrological and



hydraulic model meets the expected industry standards and is fit for purpose to generate flood hazard maps.

131. Mr Christensen also clarifies the erosion hazard lines were determined<sup>8</sup> using a risk based approach to identify the appropriate setback distance and advises this is an accepted method to determine erosion setback.
132. The Hazards Maps within Part 5 of the District Plan use the flood hazard maps produced from the flood model for Mangaroa, as peer reviewed by Mr Christensen and confirmed fit for purpose. The associated GIS 'shape files' have been used by the Upper Hutt City Council GIS team in order to accurately add the flood hazard layer to the District Plan Hazard Maps. These shape files have also been added to the public GIS map viewer on the Council's website to allow analysis at a property specific level in relation to the flood hazard layer.
133. The methods to identify the relevant flood hazards are therefore considered in accordance with established industry standards and fit for purpose to inform the proposed plan change provisions. Furthermore, they can be accurately viewed through the Upper Hutt City Council's public GIS map viewer.
134. **Recommendation:** This report recommends that the submission of Kim Williams (6) is rejected insofar as it relates to the above matter.
135. **Submissions:** Charles and Lynese (8), Nicola Robinson (11), Geoff Workman (15) Susan Pattinson (16), and Kyle McLennan (20) raise concerns about the Flood Hazard Maps for Pinehaven being based on unsubstantiated data and may be overstated.
136. **Analysis:** Expert evidence from Mr Michael Law confirms the method to identify the relevant flood hazards is in accordance with established industry standards and the hydrological modelling is considered fit for purpose in order to inform the proposed plan change provisions. The previous issue identified within the audit for future development during the PFMP process was addressed and the subsequent review of that update confirmed the issue was satisfactorily resolved.
137. **Recommendation:** This report recommends that the submissions of Charles and Lynese (8), Nicola Robinson (11), Geoff Workman (15) Susan Pattinson (16), and Kyle McLennan (20) are rejected insofar as it relates to the above matter.
138. **Submission:** Save Our Hills (12) considers that the method used to display the flood hazard extent overstates the flood hazard risk and includes flooding that has an "insignificant" risk to life and property. Save Our Hills (12) considers that the flood hazard information should be presented in a format that is consistent with other Councils around the country, making direct reference to a graph that excludes the initial 100mm flood water depth as 'insignificant'<sup>9</sup>. Save Our Hills (12) also wants the flood maps to be independently audited to make sure they are fit for purpose and addresses previous concerns raised in an earlier audit.
139. **Analysis:** The flood hazard extent as notified includes all flood water above ground level and accordingly would be subject to the proposed provisions of this plan change

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<sup>8</sup> The methodology is detailed in the Mangaroa Flood Hazard Assessment – Erosion Hazard Report GW/FP-G-06/64, Rev A, dated 29 May 2006 by SKM.

<sup>9</sup> Reference to Hamilton City Council guidance on determining risk levels based on flood depth and velocity thresholds as attached to submission #12.

regardless of the depth. Expert evidence from Mr Michael Law and Mr Kyle Christensen support the approach of removing the areas comprising less than 100mm from the flood extent on the basis these areas represent a very low or insignificant risk to people and property due to limited flood water depth. Furthermore, the requirements of the Building Act and associated Building Code control minimum floor levels above ground that would adequately address the risk of inundation to property in areas prone to flooding less than 100mm depth.

140. For these reasons it is not considered necessary to require regulatory intervention to control effects of water depth less than 100mm when the risk is so low and can be otherwise addressed through alternative mechanisms.
141. On this basis, the flood maps informing the flood hazard extent have been amended to remove areas of less than 100mm. These amended maps have been used to update the proposed Hazard Maps supporting the plan change (attached to this report as **Appendix 5**). This approach is considered consistent with that made by other councils in relation to flood hazards and addresses the concern regarding the inclusion of insignificant risk areas as raised in the submission.
142. Evidence from Mr Michael Law confirms that previous concerns from an earlier audit of the flood model have been satisfactorily addressed and that the flood maps are fit for purpose. As such another audit is not considered necessary.
143. **Recommendation:** This report recommends that the submission of Save Our Hills (12) is partially accepted insofar as it relates to removing the flood depth less than 100mm from the flood hazard extent. Updated Hazard Maps have been attached to this report as **Appendix 5**. However, in regard to the request for an independent audit, this report recommends that the submission be rejected for the above reasons.
144. **Submission:** Save Our Hills (12) considers that the overstated flood hazard maps allow for additional runoff from future the development of Guildford Block (despite the requirement to be hydraulically neutral) and therefore result in increased risk to people and property in the lower catchment.
145. **Analysis:** The flood hazard maps have been amended to remove flood water less than 100mm deep as requested by Save Our Hills (12), thereby addressing the concern that the maps are 'overstated'. Furthermore, expert evidence from Mr Mike Law has advised the proposed provisions will suitably address the run-off effects and downstream flooding risk from any development in the upper catchment serving Pinehaven Stream. As such it is not considered there would any increased risk to people and property as stated, nor would the application of the hydraulic neutrality provisions be undermined.
146. **Recommendation:** This report recommends that the submission of Save Our Hills (12) is rejected insofar as it relates to the above matter.
147. **Submission:** Alexander Ross (14) requests the 1 in 100-year flood extent and the freeboard are differentiated on the maps, or for the maps to be scrapped.
148. **Analysis:** The evidence from Mr Kyle Christensen addresses the methodology undertaken to create the Flood Hazard Maps and how the application of freeboard is applied.
149. Mr Christensen advises freeboard is used to provide an allowance for uncertainties in the hydraulic model and lists examples of these in his evidence referring to the full details of all the sensitivity scenarios described within *Mangaroa River Flood Hazard Assessment (Rev. F)* (Jacobs, 2015). Mr Christensen advises the initial conservative freeboard level

(that being an addition above the modelled flood depth) of between 0.5m to 0.8m was reduced to 0.3m. Mr Christensen advises this depth is considered an appropriate allowance for freeboard accuracy.

150. Mr Christensen also confirms the method to identify the relevant flood hazard extent is in accordance with established industry standards and the hydrological and hydraulic modelling to identify the 1 in 100-year level is considered fit for purpose in order to inform the proposed plan change provisions.
151. Based on Mr Christensen's advice, it is clear the freeboard allowance as incorporated in the model is best practice and forms part of the overall modelled flood hazard and therefore the anticipated hazard risk to people and property. On this basis it is not considered necessary to separate the freeboard from the flood hazard extent for the purposes of the proposed plan change as it form a valid component of the identified flood hazard area.
152. **Recommendation:** This report recommends that the submission of Alexander Ross (14) is rejected insofar as it relates to the above matter.
153. **Submission:** John Moynihan (17) submits that the maps on his property in the Mangaroa Valley are incorrect as they do not consider:
- the height of land above the riverbank
  - existing Flood Protection work, and
  - water that drains from Black Creek and Mangaroa Valley.
154. **Analysis:** The evidence by Mr Christensen responds to the concerns regarding accuracy of the modelling. He advises he has undertaken a detailed peer review of the hydrological and hydraulic modelling that has been used to generate the flood maps. Mr Christensen advises the model was initially peer reviewed and required adjustments including:
- incorporating more accurate ground level survey data
  - extending the Black Creek channel within the model based on new survey information
  - redefining channel alignment, and
  - increasing model resolution.
155. These issues were subsequently updated and the final report was submitted in November 2015. Having reviewed the updated model, Mr Christensen confirms the hydrological and hydraulic model meets the expected industry standards and is fit for purpose to generate flood hazard maps.
156. The methods to identify the relevant flood hazards are therefore considered in accordance with established industry standards and fit for purpose to inform the proposed plan change provisions. Furthermore, they can be accurately viewed through the Upper Hutt City Council's public GIS map viewer.
157. **Recommendation:** This report recommends that the submission of John Moynihan (17) is rejected insofar as it relates to the above matter.
158. **Submission:** Jenene Moynihan (18) considers that that there is confusion around the location of overland flow and ponding areas and the Erosion Hazard Lines on properties.

159. **Analysis:** The evidence from Mr Christensen clarifies the erosion hazard lines were determined<sup>10</sup> using a risk-based approach that assessed the river bank height, whether erosion had been observed, the type of material, and whether structures were at risk. This process was used to identify three categories of risk: extreme, high, and medium. The appropriate setback was based on the multiplier of the risk + 15m. Mr Christensen advises this is an accepted method to determine erosion setback.
160. Mr Christensen also outlined the methodology to determine the categories of flood hazard risk, clarifying that it is industry practice to use the depth and velocity of flood water to determine the hazard risk. This resulted in three categories comprising high, medium, and low hazard areas, as set out in Mr Christensen's evidence. These are identified on the Hazard Maps covering Mangaroa and identified within the map key.
161. Overall, Mr Christensen advises that the hydrological modelling undertaken for the Mangaroa catchment is considered fit for purpose and that the flood maps can be relied on.
162. **Recommendation:** The methods to identify the relevant flood hazards are in accordance with established industry standards and the hydrological modelling is considered fit for purpose in order to inform the proposed plan change provisions. As such, this report recommends that the submission of Jenene Moynihan (18) is rejected insofar as it relates to the above matter.
163. **Submission:** Upper Hutt Town and Country Association (19) consider that the flood maps need changing because:
- they are not clear and their accuracy is unknown
  - they do not demonstrate water speed or depth
  - there are no hazard maps
  - the flood hazard covers areas that are shallow and slow moving which do not represent a hazard
  - it is unclear why part of the high-level Erosion Hazard Areas could also be low-level
  - there is no provision in the plan change to address shifting river channels, and
  - the maps need to be independently audited.
164. A further submission by Save Our Hills (SOH 3) supports the points in this submission as identified above (with the exception of the shifting river channels and erosion hazard areas) and agrees with the submissions request to withdraw the plan change, particularly in respect to the Pinehaven Stream catchment.
165. **Analysis:** The evidence by Mr Christensen responds to the concerns regarding accuracy of the modelling and advises he has undertaken a detailed peer review of the hydrological and hydraulic modelling that has been used to generate the flood maps. Having reviewed *Mangaroa River Flood Hazard Assessment (Rev. F)* (Jacobs, 2015), Mr Christensen confirms the hydrological and hydraulic model for the Mangaroa catchment meets the expected industry standards and is fit for purpose to generate flood hazard maps.
166. The evidence from Mr Michael Law also confirms a detailed peer review of the hydraulic modelling used to generate maps for Pinehaven was undertaken. Some issues were

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<sup>10</sup> The methodology is detailed in the Mangaroa Flood Hazard Assessment – Erosion Hazard Report GW/FP-G-06/64, Rev A, dated 29 May 2006 by SKM.

identified and subsequently addressed to the satisfaction of Mr Law, who advises that the model is confirmed as fit for purpose to generate flood hazard maps.

167. Mr Christensen also outlined the methodology to determine the categories of flood hazard risk, clarifying that it is industry practice to use the depth and velocity of flood water to determine the hazard risk, as set out in his evidence. It is not considered necessary to include this technical level within the plan change provisions, as they are identified within the supporting flood model reports.
168. The flood hazard extent as notified includes all flood water above ground level and therefore included shallow areas comprised of less than 100mm of flood water. Expert evidence from Mr Michael Law and Mr Kyle Christensen supports the approach of removing these shallow areas from the flood extent on the basis these areas represent a very low or insignificant risk to people and property and can be addressed through the Building Act and Building Code requirements.
169. On this basis, the flood maps informing the flood hazard extent have been amended to remove areas of less than 100mm. These amended maps have been used to update the proposed Hazard Maps supporting the plan change (attached to this report as **Appendix 5**).
170. The Erosion Hazard Areas are generally categorised as high-risk within the plan change. The policy framework generally seeks to avoid activities in the high-risk areas yet provide for mitigation in the lower-risk areas. The plan change provisions recognise that following a site specific analysis, the risk of erosion could be determined as lower within the Erosion Hazard Area. As such, the plan change provisions (both the policy framework and rules<sup>11</sup>) have incorporated the ability to undertake site specific analysis for this purpose. Therefore the definition is merely reflecting this by acknowledging some areas may be found to have a lower risk. The evidence from Mr Christensen supports the information required by the proposed provisions and this approach to site specific analysis as an approach method to determine risk.
171. District Plan provisions are required to be reviewed every ten years under the RMA. The natural shifting of the river or stream channels to any significant degree is unlikely to occur within this statutory timeframe of the district plan. In any event, future updates to the flood model can account for such changes over time and can be incorporated into the district plan.
172. Evidence from Mr Michael Law confirms that previous concerns from an earlier audit of the flood model have been satisfactorily addressed and that the flood maps are fit for purpose. As such another audit is not considered necessary.
173. **Recommendation:** This report recommends that the submission of Upper Hutt Town and Country Association (19) is partially rejected insofar as it relates to the above matters regarding hazard map accuracy, water depth and velocity, clarity of the erosion hazard area, and the need for a further audit. It is recommended the submission be partially accepted insofar as it relates to the shallow flood depths as the relief via the amended hazard maps has removed flood water less than 100mm deep. For the same reasons it is recommended the further submission to withdraw the plan change by Save Our Hills (SOH 3) is rejected.

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<sup>11</sup> See Rule 23.21 Restricted Discretionary Activity for earthworks within the Erosion Hazard Area where a site specific report is required.

174. **Submission:** Jeff and Noeline Berkett (22) consider that there are errors in the flood hazard maps based on their extensive experience of farming in Mangaroa Valley.
175. **Analysis:** The evidence by Mr Christensen responds to the concerns regarding accuracy of the modelling and advises he has undertaken a detailed peer review of the hydrological and hydraulic modelling that has been used to generate the flood maps. Mr Christensen advises he identified initial issues which were subsequently updated and the final report was submitted in November 2015. Having reviewed the updated model Mr Christensen confirms the hydrological and hydraulic model meets the expected industry standards and is fit for purpose to generate flood hazard maps.
176. Mr Christensen also notes that the difference between what has been historically observed and what the model predicts does not amount to errors in the flood hazard maps. Mr Christensen advises it is not expected that property owners would have experienced flooding to the extent shown on the hazard maps, as they are based on a large flood event (100 year return period) with an allowance for 100 years of climate change. If the flooding observed by property owners had occurred then it would suggest the maps were inaccurate, as the maps are predicting the results of a large-scale event with allowance for climate change.
177. This highlights an important distinction between the purpose of the flood hazard extent shown on the maps (which is to predict and plan ahead with appropriate provisions within the district plan to manage land-use and subdivision activities) and the extent of previous flood events within the catchment.
178. On this basis, the method to identify the relevant flood hazard extent is therefore in accordance with established industry standards and fit for purpose to inform the proposed plan change provisions.
179. **Recommendation:** This report recommends that the submission of Jeff and Noeline Berkett (22) is rejected insofar as it relates to the above matter.
180. **Submission:** Alan Jefferies (23) raises concerns about the accuracy of the Flood Hazard Maps and he considers that they are unnecessary. The submitter also considers that the Erosion Hazard Line is “farcical”.
181. **Analysis:** In response to the concerns regarding accuracy of the modelling, Mr Christensen advises he has undertaken a detailed peer review of the hydrological and hydraulic modelling that has been used to generate the flood maps. Having reviewed *Mangaroa River Flood Hazard Assessment (Rev. F)* (Jacobs, 2015) Mr Christensen confirms the hydrological and hydraulic model meets the expected industry standards and is fit for purpose to generate flood hazard maps.
182. The evidence from Mr Christensen clarifies the erosion hazard lines were determined<sup>12</sup> using a risk-based approach that assessed: the river bank height, whether erosion had been observed, the type of material and whether structures were at risk. This process was used to identify three categories of risk: extreme, high, and medium from which the appropriate setback was based on using a multiplier of the risk + 15m. Mr Christensen advises this is an accepted method to determine erosion setback.

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<sup>12</sup> The methodology is detailed in the Mangaroa Flood Hazard Assessment – Erosion Hazard Report GW/FP-G-06/64, Rev A, dated 29 May 2006 by SKM.

183. On this basis, the method to identify the relevant flood hazard extent is therefore in accordance with established industry standards and fit for purpose to inform the proposed plan change provisions. Equally the method to determine the erosion hazard line is also appropriate.
184. **Recommendation:** This report recommends that the submission of Alan Jefferies (23) is rejected insofar as it relates to the above matter.
185. **Submissions:** T Duigald and H Myers (25) raises concerns about the accuracy of the Flood Hazard Maps and considers that the inundation area around their property at 33A Elmslie Road is too large.
186. **Analysis:** The evidence from Mr Michael Law confirms a detailed peer review of the hydraulic modelling used to generate maps for Pinehaven was undertaken. Some issues were identified and subsequently addressed to the satisfaction of Mr Law who advises that the model is confirmed as fit for purpose to generate flood hazard maps.
187. The flood hazard extent as notified includes all flood water above ground level and therefore included shallow areas comprising less than 100mm. Expert evidence from Mr Michael Law and Mr Kyle Christensen support the approach of removing these shallow areas from the flood extent on the basis these areas represent a very low or insignificant risk to people and property and can be addressed through the Building Act and Building Code requirements.
188. On this basis, the flood maps informing the flood hazard extent have been amended to remove areas of less than 100mm. These amended maps have been used to update the proposed Hazard Maps supporting the plan change (attached to this report as **Appendix 5**). The amendments have resulted in reductions to the flood footprint and it is noted the flood hazard extent has reduced marginally with regard to 33A Elmslie Road.
189. **Recommendation:** This report recommends that the submission of T Duigald and H Myers (25) is rejected insofar as it relates to the above matter of accuracy, noting that the amended Hazard Maps have resulted in a consequential reduction in the flood extent on this property.

### **Section 32**

190. **Submissions:** Upper Hutt Town and Country Association (19) and Vaughn Allan (9) raise a number of suggested amendments or corrections to the section 32 analysis as outlined in their submission.
191. A further submission by Save Our Hills (SOH 3) supports the points raised in the submission by Upper Hutt Town and Country Association (19), particularly those made in relation to sections 3.14, 3.18, 3.20, 4, 6.27, 6.28, 6.71 and 10.30 in respect to the section 32 report, in which the Upper Hutt Town and Country Association (19) raise concern with changes to the upper catchment, southern growth area, community concerns, difference in high and low hazard risk areas and property prices.
192. **Analysis:** The issues identified with the section 32 analysis fall broadly into a number of categories including:
- minor edits/corrections
  - disagreement on points
  - suggested changes to rationalise
  - suggested changes to objectives, policies and rules, and

- not considering the Guildford Block development appropriately.

193. The changes sought to the section 32 report include:

- changes to support the proposed amendments to issues, objectives, policies and rules, and
- changes to address various other matters.

194. In relation to the first category of suggested changes to the section 32 report it is considered that the analysis that relates to the requested changes to the respective issue, objective, policy or rule undertaken later in this report also addresses the requested change to the section 32 report and therefore will not be duplicated here.

195. In relation to the other suggested changes, the section 32 report prepared for the plan change meets the statutory requirements under section 32 of the RMA. These other suggested changes to the section 32 report have been considered and, as they do not impact on the wording of the proposed objectives, policies or rules, no changes to the section 32 report are required.

196. **Recommendation:** This report recommends that the submissions of Vaughn Allan (9) and the Upper Hutt Town and Country Association (19) are rejected insofar that it applies to the above matter. For the same reasons, it is recommended the further submission by Save Our Hills (SOH 3) is also rejected.

#### **Amendments to the identified Background and Resource Management Issues**

197. **Submission:** PowerCo (7) proposes the following amendment to paragraph 10 of the Background of Chapter 16.

*16. 1 ... The provisions in this Chapter apply to network utilities throughout all zones of the City. The underlying zone objectives, policies and rules do not apply to network utilities, including roads, unless specifically referred to. City wide rules, such as those relating to earthworks, notable trees, ~~flooding and fault band hazards~~, the Southern Hills Overlay and Protected Ridgelines, historic heritage and hazardous substances will still apply. However the rules relating to network utilities in identified flood extents are contained in this Chapter and will prevail over those in Chapter 33 Flooding and Fault Band Hazards.*

198. **Analysis:** The proposed changes as being sought by the submitter is to ensure that there is effectively not a double consideration of the provisions pertaining to utilities, through the consideration of the objectives, policies, and rules in Chapters 16 (Network Utilities - Policies) and 30 (Network Utilities - Rules), and the consideration of the rules in Chapter 33 (Natural Hazards).

199. The current structure of the District Plan ensures that all provisions pertaining to network utilities are considered through either Chapters 16, 23 (Earthworks) and 30. The proposed plan change does not seek to change this structure of the District Plan. However, it acknowledged that as the plan is currently drafted this is not clear and is best addressed through a change to the proposed rule table (Chapter 33.1) as opposed to changing the background contained in Chapter 16.

200. **Recommendation:** This report recommends that the submission of PowerCo (7) is rejected in relation to the above matter, as it is dealt with in paragraph 201 below.

201. **Submission:** Vaughn Allan (9) requests the following changes to the identified Resource Management Issues:



- *Issue 9.2.4 Explanation:* ... subdivision within a Flood Hazard Extent should **avoid restrict** high hazard areas and ensure ...
- *Issue 9.2.7:* ...the suitability of the proposed lot for future development needs to be considered to **avoid restrict** creating new lots in high hazards areas and ensure...

202. **Analysis:** The applicant has suggested changes to these Resource Management Issues to align with their suggested changes to the proposed objectives, policies and rules. Policy 29 of the RPS requires the avoidance of inappropriate subdivision and development in areas at high risk from natural hazards. The proposed Resource Management Issues deliberately uses the word 'avoid', ensuring that it is consistent with Policy 29 of the RPS. The word avoid is also used as it aligns with the proposed wording of the objectives and policies.

203. The term "restrict" is not as strong as avoid and implies that some form of development may be undertaken in this area. This is not the intent that the objective, policy and rule framework is seeking to achieve. As such, changing the word from avoid to restrict is not supported.

204. **Recommendation:** This report recommends that the submission of Vaughn Allan (9) is rejected insofar that it applies to the above matter.

205. **Submission:** Transpower NZ Limited (24) proposing the following amendment to paragraph 4 of the explanation of the Resource Management Issue 16.2.1:

*16.2.1 Balancing the national, regional and local benefits of network utilities with effects on the local environment.*

*... Network utilities and their on-going functioning can be affected by flood hazards. It is also possible for network utilities to increase the impact of flood hazards, particularly where linear infrastructure crosses stream or river corridors. The effect of flood hazards on new network utilities and the impact **of new network utilities on the flood hazards needs to be avoided or mitigated.***

206. **Analysis:** The purpose of this amendment is to highlight the possibility for flood hazards to impact network utilities and that network utilities can increase the impact of flood hazards. This amendment does not change the intent of the explanation.

207. **Recommendation:** This report recommends that the submission of Transpower NZ Limited (24) is accepted in relation to the above matter and that the following change is made to the explanation wording of the Resource Management Issue 16.2.1:

*16.2.1 Balancing the national, regional and local benefits of network utilities with effects on the local environment.*

*... Network utilities and their on-going functioning can be affected by flood hazards. It is also possible for network utilities to increase the impact of flood hazards, particularly where linear infrastructure crosses stream or river corridors. The effect of flood hazards on new network utilities and the impact **of new network utilities on the flood hazards needs to be avoided or mitigated.***

### Amendments to Definitions

208. **Submission:** Alan Jefferies (23) raises concerns regarding the definitions of “River Corridor”, “Ponding Area”, and “Overflow Path”, and considers that these definitions are unnecessary.
209. PowerCo made a further submission (PC01) in support of Alan Jefferies’ (23) concern regarding the definition of river corridor and the question of jurisdiction of UHCC to impose controls within the bed of a river.
210. **Analysis:** The matter regarding the definition of “River Corridor” and UHCC’s jurisdiction to impose rules controlling works within the bed of a river is addressed in Section 76 of this report. In summary the Council has obtained a legal opinion (see **Appendix 3**) which confirms that it is possible for a district plan to control earthworks within the bed of a stream or river. This is because a river or stream bed falls within the wider definition of “land” within the RMA, which is the same definition as that within the District Plan.
211. As such, the council as a territorial authority is able to exercise control over activities within the bed of a river through rules in the District Plan in accordance with its functions under section 31 of the RMA. It is noted that the context for PowerCo’s concern with the definition was the implication that earthworks associated with network utilities within the stream/river corridor would require resource consent as a Non-Complying Activity. The matter of earthworks and network utilities within the stream/river corridor is addressed separately within this report.
212. The definitions for “Ponding Area” and “Overflow Path” relate to the way in which the flood hazard maps identify different flood hazard risk areas. The proposed definitions relate to these different flood hazard risk areas. Evidence from Mr Christensen has confirmed the importance of differentiating between hazard areas so that planning provisions can address the different levels of risk. Mr Christensen clarified three categories of risk were identified based on the depth and velocity of flood water (high, medium, or low). Mr Christensen has confirmed these have been appropriately attributed to each hazard category and are consistent with definitions provided in best practice guidelines in his opinion. As such, it is considered appropriate that the proposed definitions remain unchanged.
213. **Recommendation:** This report recommends that the submission of Alan Jefferies (23) is rejected in relation to this matter. The further submission by PowerCo (PC01) on the definition of river corridor is addressed separately within this report and in particular the matters regarding how earthworks are addressed within the river and stream corridor. Accordingly it is recommended the further submission insofar as it relates to the matter of the river corridor is rejected.
214. **Submission:** PowerCo (7) raises a concern that the proposed definition of “stream corridor” within the plan change does not distinguish between the open stream channel and sections that are piped or culverted. They suggest that this results in uncertainty around the extent of the area subject to the proposed rules and therefore request the definition of “stream corridor” be amended to clarify the extent of the stream corridor.
215. **Analysis:** The notified Plan Change defines “stream corridor” as *“the area defined on the District Plan Part 5 Hazard Maps including the open stream channel.”* It is acknowledged that this could lead to uncertainty, as sections of the stream corridor shown on the hazard maps do include piped sections, with the purpose being to identify the high hazard risk areas within the flood extent. It is noted the context for this issue is related to PowerCo’s

concern over the proposed earthworks controls within the stream corridor, which PowerCo state unnecessarily constrain associated utility installation where earthworks across piped sections of the stream corridor (in particular those sections within the road reserve) could be undertaken with no impact on the flood hazard risk.

216. **Recommendation:** It is recommended that the submission point by PowerCo be accepted in part by amending the definition for “stream corridor”, but not as proposed by PowerCo. Instead it is recommended to amend by deleting the reference to ‘open stream channel’ to read as “*The area defined on the District Plan Part 5 Hazard Maps including the open stream channel.*” This will provide clarity and ensure the high hazard area is appropriately identified as that shown on the proposed Hazard Maps.
217. For similar reasons the definition of “River Corridor” should also be amended to avoid confusion and achieve consistency with the wording for stream corridor.
218. **Submission:** Transpower (24) submits that the definitions chapter, as used for the proposed strikethrough changes, does not contain the definition of “Network Utility Structure”, which was imposed as part of Plan Change 38 (Network Utilities). They seek for this term to be reinserted.
219. **Analysis:** The definitions chapter that was notified was slightly outdated and was missing the definitions that were inserted as part of Plan Change 38. This was an unintended change and has been rectified.
220. **Recommendation:** This report recommends that this submission point of Transpower (24) is accepted.

### **Amendments to Objectives**

221. **Submission:** Vaughn Allan (9) suggests the following change to the proposed objectives, supporting explanations.
- Objective 9.3.2: *To control subdivision within identified Flood Hazard Extents and Erosion Hazard Area to ensure the risk from flood hazards to building platforms and access in high hazard areas are ~~avoided-restricted~~ and the flood risk to people and property can be appropriately mitigated in the lower hazard areas.*
  - Objective 9.3.2 explanation: *Where subdivision is proposed within a Flood Hazard Extent, the natural hazard constraints will be considered, with development ~~avoided-restricted in~~ the high hazard areas...*
222. **Analysis:** Policy 29 of the RPS requires the avoidance of “*inappropriate subdivision and development in areas at high risk from natural hazards*”. Proposed objective 9.3.2 deliberately uses the word ‘avoid’ to ensure that it is consistent with Policy 29 of the RPS. It also sets the framework to ensure that development is generally avoided in high-hazard areas, as the flood hazard presents a threat to life and property. The term “restrict” is not as strong as avoid and implies that some form of development may be undertaken in this area. This is not the intent that the objective, policy or rule framework is seeking to achieve.
223. **Recommendation:** This report recommends that the submission of Vaughn Allan (9) is rejected in relation to the above matters.
224. **Submission:** PowerCo (7) supports the intent of Proposed Objective 9.3.3. However they suggest the following change to the wording of the explanation.

... the natural hazard constraints should be considered and areas subject to high hazards are avoided **or earthworks managed to protect the integrity of the high hazard area.**

225. The purpose of this change is to ensure that the explanation better aligns with the intent of the proposed policy.

226. **Analysis:** Objective 9.3.3 seeks to control earthworks in the identified flood hazard extents. While earthworks are generally discouraged in high-hazard areas, the proposed rule framework does not prohibit the undertaking of earthworks. It is considered that the suggested amendment provides greater clarity around the parameters that must be met for earthworks to be undertaken in the high-hazard areas.

227. **Recommendation:** This report recommends that this submission point of PowerCo (7) is accepted and the following change is made to the explanation of Objective 9.3.3.

... the natural hazard constraints should be considered and areas subject to high hazards are avoided **or earthworks managed to protect the integrity of the high hazard area.**

228. **Submission:** Transpower NZ Limited (24) proposes the following amendments to proposed objectives 14.3.2 and 16.3.4.

- Objective 14.3.2 explanation: amend paragraph 2 as follows:  
*High hazard areas within the Flood Hazard Extent comprise the stream and river corridor, overflow paths and the Erosion Hazard Area. These are characterised by areas of moving flood water which may also be deep or fast and includes areas most at risk to erosion during a flood event. These are identified on the Hazard Maps. Subdivision and **inappropriate** development within high hazard areas should be avoided given the threat these areas represent to people and property.*
- Objective 16.3.4: EITHER amend the explanation as follows:  
*To manage any adverse effects on the environment resulting from the design, location, construction, operation, upgrading and maintenance of network utilities. This Objective recognises that the construction, operation, upgrade and maintenance of network utilities can adversely affect the environment and amenity, and seeks to manage potential adverse effects, particularly through design and location. This recognises that some network utilities are relatively large, visually prominent and capable of generating significant effects on the environment. They may also have adverse effects on public health and safety, **as well as flood hazard considerations.** Adverse effects may only occur at the time of construction or installation of the utility, but in some instances may continue throughout its operation or during maintenance and / or upgrade works. For new lineal infrastructure, adverse effects are often best able to be mitigated through the route selection process. However, in some cases, it might not be entirely possible to avoid, remedy or mitigate all adverse effects associated with a network utility, meaning there may be some level of residual adverse effect on the surrounding environment. In such circumstances, there is a need to consider both the benefits the network utility will provide and the significance of the adverse effects on the surrounding environment.*

**OR** amend Objective 16.3.5 as follows:

To ensure the continued operation of network utilities, **and the development and operation of new network utilities** in flood hazard extents and to maintain the function of the floodplain to convey flood waters.

229. **Analysis:** The suggested change to the explanation of Objective 14.3.2 is to recognise that not all development in the flood hazard extents is inappropriate. In particular, the submitters seeks recognition that network utility structures which may need to be located in the flood hazard extent for operational reasons may not have a detrimental effect on the function of the floodplain.
230. The current structure of the District Plan ensures that all provisions pertaining to network utilities are considered through Chapters 16 (Network Utilities - Policies), 23 (Earthworks - Rules), and 30 (Network Utilities - Rules). The proposed plan change does not seek to change this structure of the District Plan.
231. However, the proposed change to the explanation (of 14.3.2) would have wider implications, as it is not limited to just network utility activities and thus it could result in a wider range of development, beyond just infrastructure works, also being considered appropriate in the flood hazard extents.
232. On this basis, it is considered that the proposed change to the explanation of Objective 14.3.2 would likely have unintended consequences through potentially enabling some forms of development in high-hazard areas that is inconsistent with the policy framework. As such, the requested amendment is not supported. Instead it is considered that the recognition should be captured within the proposed objectives, policies and rules of Chapters 16, 23, and 30 as a more appropriate location to ensure that the relevant effects from, and on, network utilities from flooding are considered and addressed.
233. The suggested changes to objective 16.3.4 or 16.3.5 are intended to ensure that the new infrastructure in the Flood Hazard Extents is recognised. Objective 16.3.5 as it is currently worded largely relates to existing infrastructure and not new infrastructure. However, the intent of Objective 16.3.5 is to ensure that both existing and future infrastructure can continue to exist in the identified flood hazard extents, provided the function of the floodplain is maintained. This view is supported by the proposed rule framework. In particular, rule 30.8a provides for network utility structures to be located underground or above the 1 in 100-year flood level in order promote network resilience and avoid adverse effects on the function of the floodplain or increasing risk to people and property.
234. Considering the requested changes by the submitter, it is considered changing Objective 16.3.5 results in a more explicit and clear outcome, as opposed to changing the explanation under Objective 16.3.4. It is for this reason the requested change to Objective 16.3.5 is supported. As such, the new suggested wording for Objective 16.3.5 is as follows:
- Objective 16.3.5: To ensure the continued operation of network utilities, **and the development and operation of new network utilities in** flood hazard extents and to maintain the function of the floodplain to convey flood waters.
235. **Recommendation:** This report recommends that the submission of Transpower (24) is accepted in relation to this matter and that the following change is made to Objective 16.3.5:

*Objective 16.3.5: To ensure the continued operation of network utilities, **and the development and operation of new network utilities** in flood hazard extents and to maintain the function of the floodplain to convey flood waters.*

236. This report recommends that the submission of Transpower (24) is rejected in relation to the requested change to Objective 14.3.2.

#### **Amendments to Policies**

237. **Submission:** PowerCo (7) supports the intent of Proposed Policy 9.4.6. However they suggest the following change to the wording of the explanation:

*Policy 9.4.6: Earthworks in high hazard areas are **generally** inappropriate and can result in the diversion of flood waters, blocking of water flow, or reduce bank stability...*

238. The purpose of this change is to ensure that the explanation better aligns with the intent of the proposed policy.

239. **Analysis:** Policy 9.4.6 seeks to control earthworks in the identified flood hazard extents. While earthworks are generally discouraged in the high hazard areas, the proposed rule framework does not prohibit the undertaking of earthworks. It is considered that the suggested amendment to the explanation provides greater clarity around the parameters that must be met for earthworks to be undertaken in the high-hazard areas.

240. **Recommendation:** This report recommends that this submission point of PowerCo (7) is accepted and the following change is made to the explanation of Policy 9.4.6:

*Policy 9.4.6: Earthworks in high hazard areas are **generally** inappropriate and can result in the diversion of flood waters, blocking of water flow, or reduce bank stability...*

241. **Submitter:** PowerCo (7) seeks to amend Policy 14.4.3 as follows:

- *Policy 14.4.3: Avoid, **to the extent practicable**, development within high hazard areas of identified Flood Hazard Extents and Erosion Hazard Areas.*
- *Policy 14.4.3 Explanation: ... The policy provides directive for careful consideration of development within the high hazard areas, with a strong directive to avoid development in these high hazard area. **However, it is recognised that due to the functional and operational constraints and requirements of infrastructure, there may be some situations in which network utilities are required to traverse high hazard areas.***

242. **Analysis:** The suggested change to the policy wording and explanation of Policy 14.4.3 is to recognise that not all development in the identified flood hazard extents is inappropriate. This is particularly the case for network utility structures, which may have to be located in the flood hazard extent for operational reasons.

243. The current structure of the District Plan ensures that all provisions pertaining to network utilities are considered through either Chapters 16, 23, and 30. The proposed plan change does not seek to change this structure of the District Plan.

244. The proposed change to the policy and explanation would have wider implications, as it is not network utility specific and could imply that development other than infrastructure works are appropriate in the high-hazard areas of the Flood Hazard Extent. On this basis, it is considered that the proposed change to the policy wording and explanation of Policy 14.4.3 would have potential unintended consequences by potentially enabling some

forms of development in the high-hazard areas. As such, the requested amendment is not supported. Rather it is considered that the proposed objectives, policies and rules of Chapters 16, 23, and 30 are appropriate to ensure that the relevant effects from, and on, network utilities from flooding are considered and addressed.

245. **Recommendation:** This report recommends that the submission of PowerCo (7) in relation to this matter is rejected.

246. **Submitter:** PowerCo (7) seeks to amend Policy 14.4.5 to as follows:

*Policy 14.4.5: Enable planned flood mitigation works with identified Flood Hazard Extents that decrease the flood risk to people and property or maintain the function of the floodplain, whilst managing adverse effects on existing infrastructure.*

247. **Analysis:** The purpose of this requested change is to ensure that flood mitigation works take into account the location and placement of existing infrastructure in the local area.

248. Policy 14.4.5 seeks to enable flood mitigation works, as it recognises the benefits that these works provide. It is expected that when these works are undertaken, consultation would be undertaken with parties whose assets are affected by the work, including infrastructure providers. It is considered that it is not the District Plan's role to ensure that these discussions are undertaken, and that appropriate measures are agreed. As such, it is considered that the proposed requested change to Policy 14.4.5 is not appropriate.

249. **Recommendation:** This report recommends that the submission of PowerCo (7) in relation to this matter is rejected.

250. **Submitter:** PowerCo (7) seeks to amend policy 14.4.8 as follows:

*Policy 14.4.8: Within the Mangaroa River Flood Hazard Extent enable access to dwellings above 1:100 year level where located within the lower hazard areas and avoid access to dwellings when located in high hazard areas.*

251. **Analysis:** The purpose for this requested change is to clarify that it is only access to dwellings that are required to be above the 1 in 100-year flood hazard extent. Policy 14.4.8 is intended to ensure that it is access to dwellings that are above the 1 in 100-year flood hazard extents in accordance with the RPS requirements.

252. The proposed change to provide clarity is supported, although simply adding "dwellings" could still result in confusion over the focus of the policy intent (which is the height of the access, not the dwelling). Therefore in order to provide greater clarity for the same purpose as sought by the submitter, the following wording is proposed:

*Policy 14.4.8: Within the Mangaroa River Flood Hazard Extent enable access to dwellings positioned above 1:100 year level to serve dwellings where located within the lower hazard areas and avoid locating access to dwellings when located within high hazard areas to serve dwellings.*

253. **Recommendation:** This report recommends that the submission of PowerCo (7) in relation to this matter is accepted and the policy is amended as follows:

*Policy 14.4.8: Within the Mangaroa River Flood Hazard Extent enable access to dwellings above 1:100 year level where located within the lower hazard areas and avoid access to dwellings when located in high hazard areas.*

254. **Submitter:** PowerCo (7) seeks to amend proposed Policy 16.4.19 to as follows:



*Policy 16.4.19: To ~~control manage~~ the ~~design and~~ location of network utilities in identified Flood Hazard Extents to ensure their ~~resilience to the effects of~~ ~~operation is not compromised during a~~ flood events*

255. The purpose of these amendments is to recognise that it is not always possible to build infrastructure outside of flood hazard extents. The proposed amendments to the policy would encourage the construction of infrastructure that is resilient to natural hazards, when they are located in the Flood Hazard Extent.

256. **Analysis:** It is recognised that it is not always possible to locate infrastructure outside of the Flood Hazard Extents. The proposed amendments provide clarification that both the location and design of infrastructure are appropriate responses to ensuring its on-going functionality after a flood event.

257. **Recommendation:** This report recommends that the submission of PowerCo (7) in relation to this matter is accepted and the following change to Policy 16.4.19 is made:

*To ~~control manage~~ the ~~design and~~ location of network utilities in identified Flood Hazard Extents to ensure their ~~resilience to the effects of~~ ~~operation is not compromised during a~~ flood events*

258. **Submission:** Vaughn Allan (9) suggests the following change to the proposed policies and supporting explanations:

- *Policy 9.3.3 explanation: ... The natural hazard constraints should be considered and areas subject to high hazards are ~~avoided restricted~~*
- *Policy 9.4.4: To ~~avoid restrict~~ subdivision where building platform would be located within high hazard areas of the identified Flood Hazard Extents and Erosion Hazard Areas.*
- *Policy 9.4.4 explanation: .... High hazard areas of the Flood Hazard Extents or Erosion Hazard Areas are ~~avoided restricted~~ ..*
- *Policy 14.4.3: ~~Avoid restrict~~ development within high hazard areas of the identified Flood Hazard Extents and Erosion Hazard Areas.*

259. **Submitter:** Transpower NZ Limited (24) seeks the following amendment to proposed policy 14.4.3:

*Policy 14.4.3: Avoid ~~inappropriate~~ development within high hazard areas of identified Flood Hazard Extents and Erosion Hazard Areas.*

*The high hazard areas present a threat to people and property as they can contain both fast and deep flowing water in a 1 in 100-year flood event, or are at risk of bank collapse which has the potential to damage buildings and threaten lives.*

*The policy provides directive for careful consideration of development within the high hazard areas, with a strong directive to avoid ~~inappropriate~~ development in these high hazard areas.*

260. **Analysis** Policy 14.4.3 sets the general approach to managing development in high-hazard areas. Transpower NZ Limited seeks to change this policy as they consider it overly directive and that it may prevent the location of infrastructure in high-hazard areas.

261. While Policy 14.4.3 sets the overall intent of development in the high-hazard areas, the objectives and policies pertaining to utilities are contained in Chapter 16. If policy 14.4.3 is altered as proposed, it has wider implications beyond utilities, as it changes the overall intent of the policy and could result in other development forms being supported in the



high-hazard areas. This policy change is therefore not considered appropriate and Network Utilities should instead rely on the objective and policy direction provided in Chapter 16.

262. **Recommendation:** This report recommends that the submission of Transpower NZ Limited (24) is rejected in relation to this matter.

### Changes to rules

263. **Submission:** Jonathan Mackey (10) submits the rules under Chapters 23.1, 23.21, and 33.1 need to be amended in order to exempt future development on vacant lots from the Erosion Hazard Area provisions at 43 Mt Marua Drive. These lots were approved by a subdivision prior to the notification of the plan change. The submitter states an expectation for development on those lots has been set by the approved subdivision, and therefore the new provisions should not be applied, as the erosion hazard line requirement unduly restricts the ability to build.
264. The submitter also considers that the proposed Erosion Hazard Line should be amended to take into account the topography of 43 Mt Marua Drive.
265. **Analysis:** The submission seeks an exemption from the proposed plan provisions insofar as it relates to the future development potential of 43 Mt Marua Drive. The reason is based on the expectation for development of the lots through the approved subdivision and amendment of the erosion hazard line.
266. The site at 43 Mt Marua Drive was granted subdivision consent<sup>13</sup> in 2012 for six freehold lots and associated earthworks for vehicle access and building platforms. A subsequent variation<sup>14</sup> to the lot layout was approved in 2015 resulting in the subject lot (Lot 202) referred to in the submission as 43 Mt Marua Drive. This application included a site specific erosion hazard line which significantly reduced the area of the lot subject to the erosion hazard area and also identified a dedicated building platform outside the identified erosion hazard line. Since that time, s.223 and s.224 certification have been approved by the Council and new titles have issued. The Council also issued a building consent for 43 Mt Marua Drive on 23 June 2017. Accordingly, the consent holder is able to give effect to the building consent and has identified a building platform located outside the site specific erosion hazard line for the new dwelling.
267. On this basis, the submitter can proceed to construct the proposed dwelling under the current approvals. However, should the proposed plan change provisions be made operative within the District Plan, any future development would be subject to the new requirements. This would require resource consent (as a Restricted Discretionary Activity) for the construction of any new dwelling, additions and alterations to an existing dwelling or construction of an accessory building. This would include the need to provide a site specific erosion hazard assessment, which the submitter has already obtained.
268. These requirements in relation to future development are consistent with the requirements for any other landowner with property in the Erosion Hazard Line and will enable appropriate consideration of future development proposals at the time of the application. This is consistent with the objective and policy framework of the plan change (to manage hazard risk) and is therefore not considered to result in an undue restriction of

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<sup>13</sup> UHCC consent reference 1210048 granted 30 July 2012.

<sup>14</sup> UHCC consent reference 1210048VAR granted 30 March 2015.

the development potential at 43 Mt Marua Drive or undermine the reasonable expectation for development of that site as created through the approved subdivision.

269. The submission also seeks amendment of the Erosion Hazard Area within the proposed Hazard Maps in order to reflect the site specific alignment identified within the 2012 subdivision consent. However, this presents a significant challenge as it would result in a discontinued Erosion Hazard Line on the planning maps, creating a “gap” between the site specific line and the Erosion Hazard Lines on the proposed Hazard Maps. Therefore, it is considered the proposed erosion hazard line should remain as proposed on the Hazard Maps in order to preserve the integrity of the proposed Erosion Hazard Area through avoiding gaps in relation to land around this property that have not been assessed.

270. Given the above factors, it is our opinion that the ability to develop is not unduly restricted and we recommend not amending the position of the Erosion Hazard Line on 43 Mt Marua Road as part of this Plan Change.

271. **Recommendation:** This report recommends that the submission of Jonathan Mackey (10) is rejected.

272. **Submitter:** Vaugh Allan (9) seeks the following change to the rule table under Chapter 18.2:

Subdivision within the Pinehaven Flood Hazard Extent which creates any undeveloped lots that do not contain a dwelling, and does not; <ul style="list-style-type: none"><li>• comply with the requirements of Rules 18.5, or;</li><li>• meet the standard of the Rule 18.37</li></ul>	<b>NC</b> <b>RD</b>
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273. **Analysis:** The purpose of this rule is to ensure that subdivision within the Pinehaven Flood Hazard Extents do not:

- create a significant increase in the risk through the establishment of a number of undersized lots, or
- result in the creation of building platforms in the identified high-hazard areas.

274. The Non-Complying Activity status allows for Council to consider all effects where either of these thresholds are not met. It also discourages the establishment of these activities through the RMA section 104D tests that apply to Non-Complying Activities. It is considered that the proposed Restricted Discretionary Activity Status, as suggested by the submitter, is not appropriate as this lower activity status implies that development in these areas is more acceptable and would mean that the consent is not subject to the tests under section 104D. This in turn could lead to an increase in risk from inappropriate development occurring in the Pinehaven Flood Hazard extent. The Non-Complying Activity Status is therefore found to be the most appropriate, as it would ensure that the environmental effects resulting from these standards not being met are appropriately considered.

275. **Recommendation:** This report recommends that the submission of Vaugh Allan (9) is rejected in relation to the above matter.

276. **Submission:** Vaugh Allan (9) seeks the following change to the proposed Non-Complying Activity earthworks rule:

Earthworks within the Pinehaven Flood Hazard Extent (excluding those associated with flood protection works), which are within the overflow path or stream corridor.	<b>NC</b> <b>RD</b>
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277. **Analysis:** The submitter is seeking that earthworks in Overflow Path and Stream Corridor are Restricted Discretionary Activities as opposed to Non-Complying Activities. The Overflow Path and Stream Corridor are identified as high-hazard areas in the plan change. Given the highly urbanised nature of the Pinehaven catchment, earthworks in these areas have the ability to divert flood waters onto neighbouring properties, thereby increasing the associated risk. The Non-Complying Activity status allows for Council to consider all potential effects of earthworks in the Overflow Path and the Stream Corridor, and also discourages the undertaking of earthworks through the virtue of the Section 104D tests that apply to Non-Complying Activities.

278. The proposed Restricted Discretionary Activity Status is not considered appropriate, as this lower activity status implies that earthworks in these areas are more acceptable, and would mean that the consent is not subject to the tests under RMA section 104D. This in turn could lead to an increase in risk from inappropriate earthworks occurring in the Pinehaven Flood Hazard extent. It is considered that the Non-Complying Activity status is the most appropriate to ensure that the effects from earthworks in these areas are appropriately considered.

279. **Recommendation:** This report recommends that the submission of Vaugh Allan (9) is rejected in relation to the above matter.

280. **Submission:** Vaugh Allan (9) seeks the following changes to the earthworks rule:

- Rule 23.1:

Earthworks within the ponding area of the Pinehaven Flood Hazard Extent which are directly required for the building platform associated with the alteration and addition to existing buildings, including new accessory buildings, and are less than <b>20m<sup>2</sup> 100m<sup>2</sup></b> in area.	<b>P</b>
All earthworks not associated with permitted building extensions (up to <b>20m<sup>2</sup> 100m<sup>2</sup></b> ) or flood mitigation works within the ponding area of the Pinehaven Flood Hazard Extent.	<b>RD</b>

- Rule 23.15: *Within the ponding area of the Pinehaven Flood Hazard Extent, earthworks directly required for the building platform associated with the alteration and addition to existing buildings, including new accessory buildings, are a permitted activity provided they are **20m<sup>2</sup> 100m<sup>2</sup>** or less in area.*

*Earthworks must be directly associated with the building platform of the proposed extension or alteration or new accessory building provided for as a permitted activity under Rule 33.2, and cannot exceed **20m<sup>2</sup> 100m<sup>2</sup>** in area. The earthworks must not be within the stream corridor or an overflow path.*

- Rule 23.19: *All earthworks not associated with permitted building extensions (up to **20m<sup>2</sup> 100m<sup>2</sup>**) or flood mitigation works within the ponding area of the Pinehaven Flood Hazard Extent.*

281. **Analysis:** The submitter is seeking that earthworks in the Pinehaven Flood Hazard Extent are increased to 100m<sup>2</sup> to support building extensions. Under the proposed rules, additions to dwellings up to 20m<sup>2</sup> are a permitted activity (subject to meeting the required standards and terms). The proposed 20m<sup>2</sup> earthworks are intended to support the construction of these additions. Larger earthworks are not proposed as a permitted activity in the Pinehaven Flood Hazard extent, as this catchment is highly constrained by existing urban development and there is the potential for inappropriate earthworks to divert floodwaters onto surrounding properties and increase their associated flood risk. The proposed provisions ensure there is an appropriate degree of control over earthworks in the Pinehaven Flood Hazard extent to ensure that the risk to neighbouring properties do not change as a result of these works.

282. **Recommendation:** This report recommends that the submission of Vaugh Allan (9) is rejected in relation to the above matter.

283. **Submitter:** Vaugh Allan (9) seeks the following change to the rules under Chapter 33:

- *Rule 33.2:* Within the ponding area of the Pinehaven Flood Hazard Extent the alteration and addition to existing buildings, or construction of accessory buildings are a Permitted Activity provided the gross floor area is less than ~~20m<sup>2</sup>~~ 100m<sup>2</sup> and the proposal complies with the relevant zone standards for permitted activities.
  - Additions and alterations are not below the floor level of the existing building, and do not exceed ~~20m<sup>2</sup>~~ 100m<sup>2</sup> in area.
  - Must not be within the stream corridor or overflow path.
  - Only one addition to the existing building following the date of notification of this plan change.
- *Rule 33.6:* Within the ponding area of the Pinehaven Flood Hazard Extent the construction of new buildings, or alteration and addition to existing buildings, including accessory buildings over ~~20m<sup>2</sup>~~ 100m<sup>2</sup>, which are not Permitted Activities, are a Restricted Discretionary Activity.

284. **Analysis:** The submitter is seeking that earthworks in the Pinehaven Flood Hazard Extent are increased from 20m<sup>2</sup> to 100m<sup>2</sup>. Under the proposed rules, additions to dwellings up to 20m<sup>2</sup> are a permitted activity (subject to meeting the required standards and terms). This limit was chosen as it strikes a balance between allowing for people to undertake works to improve the liveability of their dwelling, while also ensuring that the risk from flooding is appropriately controlled. Larger additions are not proposed as a permitted activity in the Pinehaven Flood Hazard extent as this catchment is highly constrained by existing urban development and there is the potential these works to block or divert floodwaters onto surrounding properties and increase their associated flood risk. The proposed provisions ensure there is an appropriate degree of control over additions in the Pinehaven Flood Hazard extent to ensure that the risk to neighbouring properties do not change as a result of these works.

285. **Recommendation:** This report recommends that the submission of Vaugh Allan (9) is rejected in relation to the above matter.

286. **Submitter:** PowerCo (7) seeks one of the following changes to the proposed earthworks provisions in Chapter 23 of the District Plan:

- Either:

<b><u>Earthworks within the Pinehaven Flood Hazard Extent</u></b>	
Earthworks within the Pinehaven Flood Hazard Extent (excluding those associated with flood protection works, which are within the overflow path or stream corridor).	NC
<b><u>Earthworks within the Mangarooa Flood Hazard Area</u></b>	
• <del>Earthworks within the River Corridor of the Mangarooa Flood Hazard Extent</del>	<del>NC</del>

- Or insert new rules that state:

<b><u>Earthworks within the Pinehaven Flood Hazard Extent</u></b>	
<del>Earthworks for the maintenance, upgrading of existing network utilities, and earthworks for the installation of new network utilities in the Pinehaven Flood Hazard Extent and Overflow Paths, which meet the standards under Rule 23.12 – P</del>	<del>P</del>
<b><u>Earthworks within the Mangarooa Flood Hazard Area</u></b>	
<del>Earthworks for the maintenance, upgrading of existing network utilities, and earthworks for the installation of new network utilities in the Mangarooa Flood Hazard Extent and Overflow Paths, which meet the standards under Rule 23.12 – P</del>	<del>P</del>

These rules would be supported by a new permitted activity standard that stated:

~~23.12: The ground must be reinstated to its original ground-level upon completing earthworks for the maintenance, upgrading and installing network utilities within Flood Hazard Extents.~~

- Or insert new rules into table 23.1 that state:

<b><u>Earthworks within the Pinehaven Flood Hazard Extent</u></b>	
<del>Earthworks associated with the maintenance, upgrade or installation of network utilities within the overflow path and stream corridor of the Pinehaven Flood Hazard Extent where: a) Earthworks are located within the road corridor and ground levels are reinstated to those existing prior to the works; or b) Earthworks are associated with the installation of underground utilities using directional drilling or thrusting techniques.</del>	<del>P</del>
Earthworks within the Pinehaven Flood Hazard Extent (excluding those associated with flood protection works and network utilities that are otherwise provided for), which are within the overflow path or stream corridor.	NC

<b>Earthworks within the Mangaroa Flood Hazard Area</b>	
<p><u>Earthworks associated with the maintenance, upgrade or installation of network utilities within the overflow path and stream corridor of the Mangaroa River Flood Hazard Extent where:</u></p> <p>a) <u>Earthworks are located within the road corridor and ground levels are reinstated to those existing prior to the works; or</u></p> <p>b) <u>Earthworks are associated with the installation of underground utilities using directional drilling or thrusting techniques.</u></p>	<b>P</b>
<ul style="list-style-type: none"> <li>Earthworks within the River Corridor of the Mangaroa Flood Hazard Extent <u>(excluding those associated with network utilities that are otherwise provided)</u></li> </ul>	<b>NC</b>

287. The purpose of this change is to allow for some earthworks to be undertaken associated with the installation, upgrading, and maintenance of infrastructure, where these earthworks will not increase the risk from flooding due to either the installation technique, or the ground level being reinstated to the original level.

288. A pre-hearing discussion with PowerCo (7) established the context for this proposed amendment was the installation or maintenance of infrastructure within the road reserve corridor where it crossed the identified Stream Corridor. The amendments sought recognition of the low-level of impact such works would have on the function of the floodplain and the risk to people and property.

289. In relation to the requested amendment by PowerCo (7), Transpower NZ Limited (24) seeks a similar change through either of the following:

- Clarification that the following rules in Table 23.1 (as proposed by the plan change) do not apply to utilities:

<b>Earthworks within the Pinehaven Flood Hazard Extent</b>	
Earthworks within the Pinehaven Flood Hazard Extent (excluding those associated with flood protection works, which are within the overflow path or stream corridor).	<b>NC</b>
<b>Earthworks within the Mangaroa Flood Hazard Area</b>	
<ul style="list-style-type: none"> <li>Earthworks within the River Corridor of the Mangaroa Flood Hazard Extent</li> </ul>	<b>NC</b>

- Or if they do apply to utilities, then Transpower NZ Limited (24) requested the activity status be reduced to either Restricted Discretionary or Discretionary Activity.

290. The purpose of this change is to ensure that network utility structures which are either Restricted Discretionary or Discretionary Activities are not elevated to non-complying activity status through the virtue of the proposed earthworks. PowerCo (7) made a further submission (PC01) supporting this point but requesting the status be changed to a Permitted Activity as per their submission.

291. **Analysis:** The proposed rules as notified sought to ensure that all earthworks in the Stream Corridor required resource consent as a non-complying activity, due to this being a high-risk area. This included earthworks associated with the installation of infrastructure, regardless of whether they altered the ground level or not.
292. Following the receipt of the submissions, it is now recognised that some earthworks associated with infrastructure are appropriate in the Flood Hazard Extent, provided they do not increase the risk from flooding. This is particularly relevant for Pinehaven, where the road corridor passes over the stream, yet is identified within the “Stream Corridor”. In that case such earthworks would be non-complying activities. On this basis, the proposed amendments suggested by PowerCo (7) are considered the most appropriate and transparent way of defining the appropriate permitted earthworks within all aspects of the identified Flood Hazard Extents.
293. In relation to Transpower NZ Limited’s submission (24), the proposed earthworks provisions do apply to network utilities. Given the high-risk area of the Stream Corridor, it is considered that it is not appropriate to make all earthworks a Restricted Discretionary or Discretionary Activity as a way to allow for the installation of network utilities. It is considered that the new proposed permitted activity as proposed by PowerCo (7) above is a more appropriate approach for ensuring that a suitable level of earthworks can be undertaken as a permitted activity without increasing the flood risk on the surrounding properties.
294. **Recommendation:** This report recommends that the submission of Powerco (7) is accepted in relation to the above matter and the new Permitted Activities (applying to Pinehaven and Mangaroa, respectively) and associated amendments are made to Table 23.1 and standard 23.17 as follows:

<b>Earthworks within the Pinehaven Flood Hazard Extent</b>	
<u>Earthworks associated with the maintenance, upgrade or installation of network utilities within the ponding area, overflow path, or river corridor of the Pinehaven Flood Hazard Extent where earthworks are located within the legal road reserve, and complies with standards under Rule 23.17.</u>	<b>P</b>
Earthworks within the Pinehaven Flood Hazard Extent (excluding those associated with flood protection works <u>and network utilities that are otherwise provided for as permitted activities</u> ), which are within the overflow path or stream corridor.	<b>NC</b>
<b>Earthworks within the Mangaroa Flood Hazard Area</b>	
<u>Earthworks associated with the maintenance, upgrade or installation of network utilities within the overflow path or river corridor of the Mangaroa Flood Hazard Extent where earthworks are located within the legal road reserve, and complies with the standards under Rule 23.17.</u>	<b>P</b>
<u>Earthworks within the River Corridor of the Mangaroa Flood Hazard Extent (excluding those associated with network utilities that are otherwise provided for as permitted activities)</u>	<b>NC</b>

**23.17**

Earthworks associated with the maintenance, upgrade or installation of network utilities within the identified Pinehaven and Mangaroa Flood Hazard Extents where earthworks are located within the legal road reserve.

### Standards

- Ground levels are reinstated to those existing prior to the works; or
- Earthworks are associated with the installation of underground utilities using directional drilling or thrusting techniques.

295. It is recommended that the submission of Transpower NZ Limited (24) in relation to the above matter is rejected as it is addressed through the recommendation in paragraph 294 of this report.

296. **Submitter:** PowerCo (7) seeks the following changes to the proposed rule 30.8(a):

*Rule 30.8(a): Network utility structures (excluding cabinets and electricity support structures) crossing a stream or river within an identified flood hazard area must be underground, attached to an existing river crossing or positioned above the 1 in 100-year flood level.*

297. The purpose of this change is to allow the installation of network utilities, where they do not increase the flood hazard risk. PowerCo infrastructure crosses the identified Stream and River Corridors and Overflow Paths on existing bridges or within the road corridor in a number of places. The flood hazard of these existing structures is defined by their lowest point. PowerCo seeks to be able to continue to install infrastructure on these bridges and road crossings, providing they do not increase the flood hazard risk.

298. PowerCo also seeks extend the exception applied to telecommunication cabinets to their own electricity cabinets.

299. Transpower (24) is neutral on proposed Rule 30.8a. However, they would oppose the rule if it created the expectation of undergrounding of their services, or imposed on the standard of any restricted discretionary or discretionary activity.

300. **Analysis:** Proposed Rule 30.8(a) sought to allow for the installation of network utility structures that do no increase the risk of flooding. Following the receipt of the submissions, we concur with the views of PowerCo (7) that in addition to the matters identified in proposed Rule 30.8(a) as notified, there is the ability to install infrastructure on existing crossings, providing the installed infrastructure is not closer to the stream level and does not increase the flood hazard when compared to the existing situation.

301. PowerCo (7) would like for their electricity cabinets to be excluded in the same way as telecommunication cabinets. Under the National Environmental Standard for Telecommunication Facilities 2016, Councils are unable to impose rules that limit the location of telecommunication cabinets in natural hazard zones (Regulation 57). This restriction only applies to telecommunication cabinets and not any other above ground infrastructure.

302. Given the uncertainty associated with the size of potential future electricity cabinets, and the potential for these structures to block or impede flood flows, it is considered that it is not appropriate for these structures to also be a permitted activity.

303. In relation to Transpower NZ Limited's submission (24), the proposed rule does not create an expectation of undergrounding of their services. To assist with clarifying this position,



the rule has been broken into bullet points which clearly identify the relevant tests for a network utility structure to be a permitted activity.

304. **Recommendation:** It is recommended that the submission of Powerco (7) is accepted in part, in that it allows for networks utilities to utilise existing crossings, where they do not increase the flood risk. It is recommended that the request for electricity cabinets to be excluded from the rule is rejected.

305. It is recommended that the proposed submission from Transpower (24) is accepted.

306. The proposed amended wording for the rule of 30.8 (a) is as follows:

**Network utility structures (excluding cabinets) that**

- **cross a stream or river; and**

- **are within an identified flood hazard area;**

**must either**

- **be located underground; or, positioned above the 1 in 100-year flood level (except when attached to existing lawfully established crossing structures such as bridges in which case the Network Utility Structure must not be fixed or positioned any closer to the stream bed or river bed than the lowest point of the existing crossing structure.**

307. **Submitter:** PowerCo (7) seeks the following changes to the proposed matters of discretion under Rule 30.13(a):

- Except in the case of cabinets, **and electricity support structures** where located within an identified Flood Hazard Extent:

- ~~Whether~~ **The extent to which** the utility or network utility structure will be adversely impacted during a flood event;
- Where proposed to cross a river or stream, **the extent to which** ~~whether~~ the Network Utility Structure will adversely contribute to blockages or obstructing flood flows;
- ~~Whether~~ **The extent to which** the utility will adversely impact the flood hazard area, exacerbating the effect on people and property on adjacent sites and/or adversely affect the function of the flood hazard extent.

308. The purpose of this change is to allow the installation of network utilities where they do not increase the flood hazard risk. PowerCo's infrastructure crosses the identified Stream and River Corridor and Overflow Paths on existing bridges or within the road corridor in a number of places. The flood hazard of these existing structures is defined by their lowest point. PowerCo seeks to be able to continue to install infrastructure on these bridges and road crossings, providing they do not increase the flood hazard risk.

309. Transpower NZ Limited (24) also seeks a change to Rule 30.13(a), as follows:

- Except in the case of cabinets, where located within an identified Flood Hazard Extent:
  - Whether the utility or network utility structure will be adversely impacted during a flood event;
  - Where proposed to cross a river or stream, whether the Network Utility Structure will adversely contribute to blockages or obstructing flood flows;
  - Whether the utility will adversely impact the flood hazard area, exacerbating the effect on people and property on adjacent sites and/or adversely affect the function of the flood hazard extent.

- The extent to which locating the Network Utility Structure within the Flood Hazard Extent will provide and local, regional or national benefit.

310. PowerCo (7) made a further submission (PC01) on Transpower NZ Ltd (23) submission, supporting the addition sought to recognise the local, regional and national benefits of network utility structures.

311. **Analysis:** The proposed matters of discretion under Rule 30.13(a) sought to allow for the appropriate consideration of the effect of infrastructure on the flood hazard and conversely the effect of the flooding on the infrastructure. In this regard, the proposed matters of discretion as notified set this test very low. Essentially, the word ‘whether’ suggests that the presence or absence of a flooding impact will be the deciding factor in considering the appropriateness of establishing a network utility in a flood hazard extent, irrespective of the scale of the impact. As raised in the PowerCo (7) submission, this is not the intent of these matters of discretion. It is intended that it is the scale of the impact that determines whether it is appropriate to locate a network utility in a flood hazard extent. It is for these this reason the Council concurs with the recommended rule change by PowerCo (7) in regard to this matter.

312. In relation to Transpower (24) submission, the proposed amendment would ensure that the matters of consideration reflect the National Policy Statement for Electricity Transmission. The pre-hearing meeting with both submitters confirmed agreement on the suggested wording by PowerCo and Transpower NZ Ltd.

313. **Recommendation:** This report recommends that the submissions of Powerco (7) and Transpower (24) are accepted in relation to this matter. It is recommended that the wording of the proposed matters of discretion under Rule 30.13(a) are amended to as follows:

- Except in the case of cabinets, where located within an identified Flood Hazard Extent:
  - ~~Whether~~ The extent to which the utility or network utility structure will be adversely impacted during a flood event;
  - Where proposed to cross a river or stream, the extent to which ~~whether~~ the Network Utility Structure will adversely contribute to blockages or obstructing flood flows;
  - ~~Whether~~ The extent to which the utility will adversely impact the flood hazard area, exacerbating the effect on people and property on adjacent sites and/or adversely affect the function of the flood hazard extent.
  - The extent to which locating the Network Utility Structure within the Flood Hazard Extent will provide and local, regional or national benefit.

314. **Submitter:** PowerCo (7) seeks following change to rule in Table 33.1:

Any building, structure or fence <u>(excluding network utilities)</u> within the stream corridor of the Pinehaven Flood Hazard Extent (except where provided for under the rule for driveways and bridges as a Controlled Activity).	NC
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315. PowerCo also seeks the following change to the provisions under Chapter 30.1A:

Chapter	City-wide provisions
23	Earthworks and Indigenous Vegetation Clearance

26	Heritage Features
27	Notable Trees
28	Southern Hills Overlay Area and Protected Ridgelines
32	Noise and Vibration
33	Flooding and Fault Band Hazards
34	Hazardous Substances and Contaminated Land

316. Transpower NZ Ltd (24) seeks clarification that the following rule in Table 33.1 does not apply to network utilities:

Any building, structure or fence within the stream corridor of the Pinehaven Flood Hazard Extent (except where provided for under the rule for driveways and bridges as a Controlled Activity).	<b>NC</b>
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317. PowerCo (7) also submitted on this matter, seeking confirmation that the Non-Complying Activity status does not include network utility structures. PowerCo (7) supports the intent of the Transpower NZ Ltd (24) submission to clarify the application of the rule to network utilities. However, the proposed discretionary/restricted discretionary activity status sought by Transpower NZ Ltd (24) is opposed in preference the relief sought in the Powerco (7) submission to exempt utilities from the rule on the basis that they are managed through Chapter 30 Rules for Utilities.

318. **Analysis:** It was clarified through pre-hearing discussions with the submitters that one of the key issues was avoiding unnecessary duplication of provisions in the plan change when assessing network utility activities within the flood hazard extent. This is due to the District Plan having existing specific provisions for network utilities through objectives, policies and rules in Chapters 16 and 30. If the proposed new provisions did not recognise this, then a duplication of provisions could arise where the network utilities would also be subject to the provisions intended to capture general development and activities within the rules proposed for Chapter 33 (which applies at a district or city wide level) as well as within Chapters 23 and 30.

319. The current structure of the District Plan ensures that all provisions pertaining to network utilities are considered through either Chapters 16 (policies), 23 (earthworks) and 30 (Network Utilities). The proposed plan change does not seek to change this structure of the District Plan. However, it acknowledged that as the plan is currently drafted this is not clear. To address this matter it is proposed to add the following note to the bottom of Table 33.1:

<b>Note:</b>
<b>Network Utility Structures are addressed through the provisions within Chapter 16 and 30. For the avoidance of doubt any Network Utility Structure activity undertaken by a network utility operator within the Flood Hazard Extent subject to the provisions of Chapter 16 and 30, will prevail over the provisions of Chapter 14 and 33.</b>

320. This approach of excluding Network Utilities from rules through a note is not new to the District Plan (for example Chapter 27a has a similar exclusion). It is considered that the proposed objectives, policies and rules of Chapters 16, 23 and 30 are appropriate to ensure that the relevant effects from, and on, network utilities from flooding are considered and addressed.
321. **Recommendation:** This report recommends that the intent of the submissions of Powerco (7) and Transpower (24) are accepted in relation to this matter. It is recommended that the following note is added to the bottom of Table 33.1

<b>Note:</b>
Network Utility Structures are addressed through the provisions within Chapter 16 and 30. For the avoidance of doubt any Network Utility Structure activity undertaken by a network utility operator within the Flood Hazard Extent subject to the provisions of Chapter 16 and 30, will prevail over the provisions of Chapter 14 and 33.

### Amendments to Anticipated Environmental Results

322. **Submission:** PowerCo (7) requests the following change to Anticipated Environmental Result 16.6:

*Anticipated Environmental Result 16.6: The avoidance of the potential for networks utilities to increase increasing flood hazard risk or impacting on flood hazard structures.*

323. **Analysis:** The purpose of the requested change is to ensure that the Anticipated Environmental Result only applies to new network utilities as opposed to existing network utility structures.
324. It is intended that the proposed Anticipated Environmental Result applies to the consideration of new network utilities. It is considered that the proposed amendment to the Anticipated Environmental Result provides this clarification.
325. **Recommendation:** This report recommends that the submission of PowerCo (7) in relation to the above point is accepted and the proposed Anticipated Environmental Result under chapter 16.6 is amended as follows:

*Anticipated Environmental Result 16.6: The avoidance of the potential for networks utilities to increase increasing flood hazard risk or impacting on flood hazard structures,*

### Consultation

326. **Submission:** Darryl Longstaff (4) submits that the Council has not adequately engaged with the community regarding this plan change and have not responded to questions that have been asked of them. Jenene Moynihan (18) submits that the plan change did not follow correct public process and inadequate information was provided.
327. **Analysis:** UHCC undertook public consultation in 2016 and 2017 which involved Council discussing the proposal with a wide range of stakeholders, including the Pinehaven Community. Section 4 of the s32 report provides a detailed summary of the consultation that was undertaken prior to the notification of the Plan Change. Furthermore, the Plan Change has met the consultation requirements of Schedule 1 of the RMA.

328. Given the above information, it is considered that Council has met, and exceeded, its statutory requirements in relation to consultation with the local community.
329. **Recommendation:** This report recommends that the submissions of Darryl Longstaff (4), Jenene Moynihan (18) are rejected.

#### **Hydraulic neutrality / Southern Growth Area**

330. **Submission:** Forest and Bird (2) would like to see hydraulic neutrality provisions in both Mangaroa and Pinehaven, especially in relation to the Guildford Timber Land.
331. **Analysis:** The proposed plan change introduces hydraulic neutrality provisions to the Pinehaven Catchment. These provisions apply to the identified Pinehaven Catchment Overlay (which includes portions of the Southern Growth Area (Guildford Block)). This is identified in the proposed policy and rule frameworks addressing land-use and subdivision activities.
332. In the case of land-use activities, the linkage is addressed through Objective 14.3.2, Policy 14.4.7 and Rule 33.9 (Restricted Discretionary Activity). In the case of subdivision the linkage is through Objective 9.3.4, Policy 9.4.10 and (because the subdivision provisions are zone-based) through Rule 18.38 within Chapter 18 (Residential Zone), and Rule 19.28 in Chapter 19 (Rural Zone).
333. Chapter 1 of the District Plan identifies the information requirements that need to be met for developments to be hydraulically neutral as outlined below:

*Specific information accompanying applications for subdivision or development within the Pinehaven Catchment Overlay*

*Provision of a report by a suitably qualified and experienced person assessing the ability for the site to achieve hydraulic neutrality including;*

*Either;*

- Full catchment hydrological and hydraulic analysis using the GWRC baseline information to demonstrate hydraulic neutrality for the 1 in 10 year and 1 in 100 year flood event including climate change. This would include;*
- Existing pre-development situation calibrated to GWRC baseline information;*
- Design of mitigation infrastructure;*
- Future development scenario model with mitigation infrastructure to demonstrate no increase in downstream flood flows at any point in the catchment.*

*Or -*

- Site Based Assessment, which would include;*
- Hydrological analysis for existing pre-development scenario;*
- Post-development scenario to mitigate design flows to 80% of pre-development flows for 1 in 10 and 1 in 100 year event including climate change.*

*Note 1: The full catchment approach would generally only be expected for large comprehensive developments.*

*Note 2: Reducing floods flow to 80% of the pre-development flood flows is to mitigate risks associated with changing the timing and coincidence of peak and recession flows from*

*sub-catchments which, without mitigation could result in net increases in downstream peak flows.*

*Note 3: The 2012 Wellington Regional Standard for Water Services and the Wellington Regional Hydrological Guidelines shall be applied to the hydrological analysis.*

334. These provisions recognise that two different scales of development could occur in the Pinehaven Catchment (i.e small scale infill development or larger scale development such as the proposed Southern Growth Area) and requires a report that responds to this scale.
335. It is considered that the proposed policies, rules, and information requirements pertaining to hydraulic neutrality are appropriate and ensure that further development in the Pinehaven Stream catchment does not increase the degree of flooding in the Pinehaven Catchment.
336. Expert evidence from Mr Kyle Christensen confirms there is no need to apply hydraulic neutrality provisions for the Mangaroa Catchment for the following reasons:
- This water body is significantly less sensitive to changes in flows from impervious surfaces given the scale of the river channel; and,
  - This catchment is rural and therefore is unlikely to have the level of development and impervious surfaces to generate sufficient run-off.
337. **Recommendation:** This report recommends that the submission of Forest and Bird (2) is partially accepted in that it recognises the need for hydraulic neutrality in the Pinehaven Catchment. However, the report recommends declining the need to introduce these provisions into the Mangaroa Catchment.
338. **Submissions:** Vaughn Allan (9) submits that the proposed plan change has not taken into account development along the Pinehaven Hills to the Silverstream Spur and the increased runoff that would result from this development. Nicola Robinson (11) submits that an independent expert needs to investigate the run-off that would occur from any future housing on the Pinehaven/Silverstream spur and how this would affect the residents.
339. **Analysis:** The nature of any future housing in the Southern Growth Area is an unknown and is dependent on a future plan change and resource consent process. To ensure that the flood risk does not increase as a result of any future development (if it was to proceed), new policies, rules, and information requirements are proposed as part of this plan change to ensure future development achieves hydraulic neutrality.
340. The area subject to the hydraulic neutrality provisions is identified by the Pinehaven Catchment Overlay which incorporates the upper catchment area of Pinehaven. The means required to achieve hydraulic neutrality will be specific to the development size, form, and extent of the given site, and are therefore appropriately identified in a report that is provided at the time of development, as opposed to part of this plan change. Regardless, the Councils hydrologist Mr Mike Law has advised the proposed provisions will suitably address the run-off effects and downstream flooding risk from any development in the upper catchment serving Pinehaven Stream.
341. **Recommendation:** This report recommends that the submissions of Vaughn Allan (9) and Nicola Robinson (11) are rejected.

342. **Submission:** Save Our Hills (12) submits that the plan change does not address the risk to people and property that could arise from future development on the hills around Blue Mountains, Pinehaven, and Silverstream, including the Guildford Land. The submitter would also like the benchmark data for Pinehaven Stream to be published in the District Plan and asserts that incorporating the “insignificant” floodwater depth within the identified flood hazard extent for Pinehaven allows “additional run-off” from future development above the stream that would be undetected by the proposed hydraulic neutrality provisions.
343. **Analysis:** The proposed plan change includes hydraulic neutrality provisions for the identified Pinehaven Catchment Overlay which incorporates the upper catchment boundary of Pinehaven. Any buildings or subdivision proposed within the Pinehaven Catchment Overlay requires resource consent. The standards require a report to be provided that meets minimum information requirements identified in Chapter 1.8 and must demonstrate how hydraulic neutrality from any potential development would be achieved.
344. It is considered that the proposed policies, rules, and information requirements pertaining to hydraulic neutrality are appropriate and ensure that further development in the Pinehaven Stream catchment does not increase the degree of flooding risk to people and property in the lower portion of the catchment. The Councils hydrologist, Mr Michael Law, has provided expert advice confirming the hydraulic neutrality provision would ensure the downstream flood hazard risk is not increased through additional run-off.
345. The benchmark flows for the Pinehaven Stream are available from Greater Wellington Regional Council and can be requested from a Flood Engineer. This approach represents current practice of where the detailed data around flood depths or stream flows has been produced for Greater Wellington Regional Council, then it can be requested from this party (as opposed to the information be duplicated in a District Plan). The requirement to use the baseline data is referenced in the information requirements for the hydraulic neutrality report as outlined above and therefore no “gap” is created by excluding the baseline information within the District Plan.
346. **Recommendation:** This report recommends that this submission point of Save Our Hills (12) is rejected.
347. **Submission:** Upper Hutt Town and Country Association (19) seeks to have the benchmark data for Pinehaven Stream to be published in the District Plan.
348. **Analysis:** As identified in the preceding paragraph, the benchmark flows for the Pinehaven Stream are available from Greater Wellington Regional Council and can be requested from a Flood Engineer. This approach represents current practice of where the detailed data around flood depths or stream flows has been produced for Greater Wellington Regional Council, then it can be requested from this party (as opposed to the information be duplicated in a District Plan).
349. **Recommendation:** This report recommends that this submission point of Upper Hutt Town and Country Association (19) is rejected.

#### **Extent of the Plan Change**

350. **Submissions:** Kim Williams (6) and John Moynihan (17) submit that the plan change has a limited focus and does not apply to other areas of Upper Hutt that are at risk of flooding.

351. **Analysis:** The proposed plan change seeks to introduce objectives, policies, and rules to address the risk associated with the Pinehaven Stream and Mangaroa River Flood Hazard Extents. The scope of the plan change is limited to these two catchments as these are the areas where Council have the 1 in 100-year Flood Hazard Extents mapped to the required standard which shows that there is a risk to people and property (both to existing and potential future development). The proposed plan change does not prevent the inclusion of other flood hazard extents as they are mapped (though these would be subject to their own Schedule 1 plan change process).
352. **Recommendation:** That the submission of Kim Williams (6) in relation to the above matter is rejected.

### Other matters

353. **Submission:** Lindsay Forbes (13) submits that for the Pinehaven Stream, the Council should quantify what infrastructure measures will be put in place to address the flood risk, the timeframes for these measures, and clarify whether these measures will remove the 1 in 100-year flood risk, and if not, why not.
354. **Analysis:** The Pinehaven Stream has the PFMP. This management plan outlines the structural and non-structure responses to address the flood risk associated with this stream. Due to the constrained nature of the stream by existing development it is not possible to provide structural protection (or capacity) to accommodate a 1 in 100-year flood event. The proposed structural works would only cater to the 1 in 25-year flood event. The proposed non-structural works (including the provisions proposed in this plan change) are therefore required to ensure that the risks from flood events greater than 1 in 25-years (and up to 1 in 100-years) are appropriately addressed.
355. The proposed structural works would be undertaken following the completion of this plan change and the Notice of Requirement process to create a designation over the Pinehaven Stream. It is our understanding that the Notice of Requirement will be lodged next year.
356. **Recommendation:** That the submission of Lindsay Forbes (13) in relation to the above matter is rejected.
357. **Submission:** Lindsay Forbes (13) submits that the residential zone rules should be scrapped as they are not adhered to. He uses the Height Control Planes as an example.
358. **Analysis:** The proposed plan change does not seek to change the bulk and location rules for the Residential Zone. As such, the requested change is beyond the scope of the plan change.
359. **Recommendation:** That the submission of Lindsay Forbes (13) in relation to the above matter is rejected.
360. **Submission:** Jenene Moynihan (18) submits that the proposed plan change will adversely affect property values.
361. **Analysis:** Effects of a plan change on property values is not a relevant environmental effect that can be taken into account. Regardless of this, a report has been prepared by Jigsaw Consultancy regarding the effects of the proposed plan change on property values (**Appendix 9**). This report concludes that the proposed plan change is unlikely to adversely affect property values.



362. **Recommendation:** That the submission of Jenene Moynihan (18) in relation to the above matter is rejected.
363. **Submission:** Save Our Hills (12) submits that the flood maps are overstated and that these will adversely affect property values.
364. **Analysis:** As identified in the preceding paragraph, the effect on property values is not a relevant environmental effect that can be taken into account. However, regardless of this, the expert evidence from Mr Michael Law confirms the method to identify the relevant flood hazards and the hydrological modelling is considered fit for purpose in order to inform the hazard maps and proposed plan change provisions. It is therefore considered that the flood maps do not overstate the flood risk.
365. **Recommendation:** This report recommends that this submission point of Save Our Hills (12) is rejected.
366. **Submission:** Upper Hutt Town and Country Associate (19) submits that the flood maps should not be included on LIM reports. A further submission by Save Our Hills (SOH 3) supports this submission point.
367. **Analysis:** The LIM process is controlled by the Local Government Official Information Meetings Act 1987. This Act sets out the following requirements for Council.

*Section 44A(2) The matters which shall be included in that memorandum are—*

*(a) information identifying each (if any) special feature or characteristic of the land concerned, including but not limited to potential erosion, avulsion, falling debris, subsidence, slippage, alluvion, or inundation, or likely presence of hazardous contaminants, being a feature or characteristic that—*

*(i) is known to the territorial authority; but*

*(ii) is not apparent from the district scheme under the Town and Country Planning Act 1977 or a district plan under the Resource Management Act 1991:*

368. The process of including information with LIMs is one undertaken outside the RMA and is therefore considered outside the scope of this plan change.
369. **Recommendation:** This report recommends that this submission point of Upper Hutt Town and Country Associate (19) and Save Our Hills (SOH 3) is rejected.

### **Consequential Changes**

370. While not raised in the submissions a number of consequential amendments have been made to the plan change. These amendments are included in the strikethrough (**Appendix 8**).
371. Other consequential amendments include:
- The removal of the term designated building setback areas from Issue 14.2.2 as there are no specific designated building setback areas included in the plan change;
  - Addition to the explanatory text for Policy 16.4.18. This provides context to the permitted activity rule (Rule 30.8a) which provides for network utility structures to cross the stream/river corridor. The text supports the ability to use existing structures subject to not increasing the flood hazard risk.
  - Amendment to definition of "River Corridor" in order to be consistent with the proposed change (via submission point) to "Stream Corridor".

- Reference in Table 19.1 to the Non-Complying Activity Rule for subdivision within the Pinehaven Catchment Overlay to "19.27a" corrected to 19.28.
- Amendment to Chapter 23 (Earthworks) by correcting the Permitted Activity Rule in Table 23.1 to read "23.2 – 23.17" to capture the additional permitted activity standards.
- For the same reason, correct the Restricted Discretionary Activity Rule in Table 23.1 to refer to the standards in "23.2 – 23.17". It is also proposed to clarify how this rule applies by adding the statement: "(unless specifically identified as a Discretionary or Non-Complying Activity)"
- The insertion of a new permitted activity standard at 23.17 necessitates a consequential change to the numbering of the existing standards (23.17 – 23.22). This does not result in any further conflicts with references to these standards by the balance rules in table 23.1.
- Adding a heading to Rule 23.15 and bullet pointing the relevant standards that apply to this rule;
- Adding a standards heading and clarification wording to Rule 23.16
- Update the Discretionary and Non-Complying Activity earthworks rules in table 23.1

### **Decisions on submissions**

372. Council is required to issue decisions on submissions. For the reasons outlined in this report, I recommend that the decisions requested by the submitters be rejected, accepted, or accepted in part.
373. For the reasons provided within this report, I consider the proposed Plan Change to be consistent with Part 2 of the Act and therefore recommend the plan change can be approved by the Commissioner with the suggested amendments.

Report Prepared by:

Brett Osborne and James Beban

Approved for Release



Richard Harbord  
 Director, Planning and Regulatory Services  
 1<sup>st</sup> September 2017

**Appendix 1: Objectives, Policies and Rules – Summary of Proposed Changes**

**Appendix 2: Submissions and further submissions**

**Appendix 3: Legal Opinion – Earthworks within a River Bed**

**Appendix 4: Flood Hazard Extent (Updated PDF Maps)**

**Appendix 5: Part 5 Hazard Maps (Updated)**

Appendix 6: Summary of Submissions



**Appendix 7: Expert Evidence – Hydrological**

**Appendix 8: Proposed Changes to District Plan Text ('Strikethrough')**

**Appendix 9: Property Valuation Advice**