



**SUBMISSION BY POWERCO LIMITED ON PROPOSED PLAN CHANGE 42
(MANGAROA AND PINEHAVEN FLOOD HAZARD EXTENTS) TO THE UPPER
HUTT DISTRICT PLAN**

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A. INTRODUCTION

1. Powerco Limited (*Powerco*) is New Zealand's second largest gas and electricity distribution company and has experience with energy distribution in New Zealand spanning more than a century. The Powerco network spreads across the upper and lower central North Island servicing over 400,000 consumers. This represents 46% of the gas connections and 16% of the electricity connections in New Zealand. These consumers are served through Powerco assets including over 30,000 kilometres of electricity lines (including overhead lines and underground cables) and over 6,200 kilometres of gas pipelines.
2. Powerco has an extensive network of gas distribution infrastructure within the Pinehaven Stream catchment, which is affected by Plan Change 42 (*the Plan Change*), as illustrated at **Annexure A**. The infrastructure predominantly consists of underground low-medium pressure (25-210kPa) gas distribution pipelines and necessary associated aboveground assets.
3. Under the Resource Management Act 1991 (*RMA*), Powerco's gas distribution infrastructure is a significant physical resource that must be sustainably managed, and any adverse effects on that infrastructure must be avoided, remedied or mitigated.
4. Reliable and constant energy supply is critical to sustaining New Zealand's economy, population and way of life as the demand for energy is constantly increasing. Powerco faces an increasing number of constraints, in terms of providing a secure and reliable supply of energy (both gas and electricity) to meet increasing demand and population growth.
5. It is necessary that the planning documents that guide development within Upper Hutt City adequately provide for the core strategic infrastructure that is required to support growth and which contributes to the social, economic and cultural wellbeing of communities. Unless these issues are appropriately addressed the sustainable management purpose of the RMA will not be achieved.
6. The Plan Change seeks to introduce flood and erosion hazard information for the Mangaroa River and Pinehaven Catchment to the Hutt City Council District Plan (*the District Plan*). The proposed rules seek to manage development within Flood Hazard Extents and ensure that future development does not increase risk by compromising the function of flood plains to convey flood water. Powerco supports the general intent of the Plan Change but seeks that an

appropriate balance is achieved between recognising and providing for the safety of people and buildings and the timely, efficient, effective and affordable provision and operation of infrastructure.

7. Powerco's gas network is recognised in the Regional Policy Statement (*RPS*) as regionally significant infrastructure. It is, therefore, appropriate, given the regional significance of Powerco's network, that its management is comprehensively addressed in the District Plan.

B. THE SPECIFIC PROVISIONS OF THE PLAN CHANGE THAT POWERCO'S SUBMISSION RELATES TO ARE SUMMARISED AS FOLLOWS:

8. The submission relates specifically to the following parts of the Plan Change:

- Chapter 9 – Subdivision and Earthworks (Objectives and Policies)
- Chapter 23 – Rules for Earthworks
- Chapter 16 – Utilities (Objectives and Policies)
- Chapter 30 – Rules for Utilities
- Chapter 14 – Natural Hazards (Objectives and Policies)
- Chapter 33 – Rules for Flooding and Fault Band Hazards
- Chapter 35 – Definitions
- Plan Change 42 Maps

9. The specific provisions submitted on, the rationale for Powerco's submission on each of these matters, and the relief sought is contained in the following schedules. In addition, in giving effect to the specific outcomes set out in the following schedules, the following general relief is sought:

- (a) Recognise and provide for the ongoing operation, maintenance, upgrade and development of Powerco's gas distribution networks;
- (b) Address the relevant provisions in section 5-8 of the RMA, including with respect to the sustainable management of Powerco's assets as a physical resource;
- (c) Implement the statutory tests in section 32 and the requirements in the First Schedule RMA;

- (d) Address the relevant statutory functions of the Council, including achieving the integrated management of the effect of the use, development or protection of land and associated natural and physical resources of the district;
- (e) Address the considerations identified by the Environment Court for planning instruments in decisions such as Long Bay-Okura Great Park Society Inc v North Shore City Council (and subsequent case law);
- (f) Give effect to the objectives and policies of the RPS;
- (g) Ensure that the provisions of the Plan Change do not impose any unnecessary constraints on Powerco's ability to operate, maintain, upgrade and develop its gas distribution network within areas subject to natural hazards; and
- (h) Make any alternative or consequential relief as required to give effect to the issues raised in this submission.

C. POWERCO WISHES TO BE HEARD IN SUPPORT OF THIS SUBMISSION

D. IF OTHERS MAKE A SIMILAR SUBMISSION, POWERCO WOULD BE PREPARED TO CONSIDER PRESENTING A JOINT CASE AT ANY HEARING.

E. POWERCO COULD NOT GAIN AN ADVANTAGE IN TRADE COMPETITION THROUGH THIS SUBMISSION.

F. POWERCO IS DIRECTLY AFFECTED BY AN EFFECT OF THE SUBJECT MATTER OF THE SUBMISSION THAT—

- (i) ADVERSELY AFFECTS THE ENVIRONMENT; AND**
- (ii) DOES NOT RELATE TO TRADE COMPETITION OR THE EFFECTS OF TRADE COMPETITION.**

Signature of person authorised to sign on behalf of Powerco Limited



Kahlia Thomas

Graduate Planner

Dated this 8th day of May 2017

SCHEDULE 1 - EARTHWORKS

A. The specific part of the Plan Change that is subject of Schedule 1 of this submission is:

- The Activity Table in Chapter 23, which is supported subject to the introduction of new rules and a new permitted activity standard specifically addressing earthworks for network utilities
- Objective 9.3.3, which is supported subject to amendment
- Policy 9.4.6, which is supported subject to amendment

B. Reason for Submission:

Activity Table in Chapter 23

- 1.1 The Plan Change proposes to introduce new rules to the activity table in Chapter 23 to manage earthworks within Flood Hazard Extents. The provisions apply generally to any earthworks and introduce restricted-discretionary, discretionary and non-complying activity statuses at various locations within the Flood Hazard Extents.
- 1.2 Earthworks are frequently required for the maintenance, upgrade and development of network utilities, particularly underground utilities. In particular, it is noted that both the District Plan and Plan Change (rule 30.8a) permit and encourage the location of network utilities underground, which will always involve some earthworks. Network utilities are not subject to their own earthworks provisions in the District Plan or Plan Change, and as such the proposed earthworks rules in Chapter 23 apply to earthworks ancillary to the maintenance, upgrade and development of network utilities. Consequently, the need to obtain resource consent is inappropriately triggered for activities which are otherwise permitted.
- 1.3 Powerco seeks that new provisions be introduced to the Plan Change to specifically manage earthworks for the maintenance, upgrade and development of network utilities. The provisions should be more permissive to recognise that underground network utilities are permitted and encouraged in both the District Plan and the Plan Change. Earthworks are usually necessary for the maintenance, upgrade and development of underground network utilities, and such earthworks can be appropriately managed to ensure that the risks and

adverse effects associated with a flood event are not exacerbated. It is considered appropriate that earthworks for network utilities be a permitted activity in Flood Hazard extents and Overflow Paths, subject to the ground being reinstated to its original level upon completion of works. Powerco accepts that some level of control may be appropriate for earthworks associated with network utilities within Erosion Hazard Areas and considers a restricted discretionary activity status would be appropriate.

- 1.4 The rules also seek to control earthworks within the stream / river corridor of the Pinehaven Stream and Mangaroa River as a non-complying activity. Pursuant to Section 13 of the RMA, activities in, on or under the beds of lakes and rivers are controlled by regional plans. As such, Powerco queries whether the Upper Hutt City Council has jurisdiction to include these rules in the Plan Change.
- 1.5 Powerco also considers that the rules are uncertain as the definition of 'stream corridor' included in the plan change applies to *'the area defined on the District Plan Part 5 Hazard Maps comprising the open stream channel'*. The Hazard Maps that form part of the Plan Change do not, however, distinguish between the open stream channel and sections of the stream that are piped or culverted, meaning there is potential for uncertainty around the extent of the area subject to the rules. If the Council does have jurisdiction to control earthworks 'within the stream corridor' then the definition of 'stream corridor' should be amended to clarify the extent of the area subject to the rules.
- 1.6 Further, Powerco considers that certain earthworks associated with the maintenance, upgrade and development of utilities can be appropriately undertaken within the stream corridor without affecting the stream channel or exacerbating flood risk. For example, as illustrated on the hazards maps that form part of the Plan Change and Powerco's asset maps at Attachment A to this submission, there are a number of situations where streams are culverted under the road and utilities (such as Powerco's gas distribution assets) are located within the stream corridor above the culvert. In this event, earthworks associated with the maintenance, upgrade or development of utilities could be undertaken with no effect on the stream channel or its flood carrying capacity. Further, earthworks associated with the thrusting of utility connections under a stream corridor can be undertaken with no adverse effect on flood hazards. As such, if Council has the jurisdiction to include a rule controlling earthworks within the stream corridor, Powerco seeks amendments to permit earthworks associated with the maintenance, upgrade and development of network utilities where they

are located within the road corridor and ground levels are reinstated to those existing prior to the works; or where they are associated with thrusting below the stream channel.

Objective 9.3.3

- 1.7 Objective 9.3.3 seeks to control earthworks within Flood Hazard Extents. Powerco supports the intent of the objective, however the explanation wording appears to state that all earthworks within high hazard areas are to be avoided. It reads:

“Where earthworks are proposed within the Flood Hazard Extent or Erosion Hazard Area, the natural hazard constraints should be considered and areas subject to high hazards are avoided.”

- 1.8 This is contrary to the objective itself, which seeks to ensure that the function of the floodplain is not reduced and unacceptable flood risk to people and property is avoided or mitigated, but does not necessarily require the complete avoidance of earthworks within high hazard areas. Some earthworks within those areas may be necessary and appropriate, for example, to access underground utilities for maintenance purposes, or to undertake flood protection works. Underground network utilities are a permitted activity and by necessity involve some earthworks. Further, natural hazard risk associated with such earthworks can be appropriately managed, for example, by ensuring that ground levels are reinstated to original levels. The explanation statement for Objective 9.3.3 should be amended to allow for necessary earthworks which are appropriately managed. This could be achieved by adding the statement “or earthworks managed to protect the integrity of the high hazard area” at the end.

Policy 9.4.6

- 1.9 Policy 9.4.6 is to “limit earthworks in the high hazard areas...” Powerco supports the intent of this policy. However, the explanation statement states that “earthworks in high hazard areas are inappropriate...” This appears to state that all earthworks in high hazard areas are inappropriate. However, as discussed above in paragraph 1.8, some earthworks may be necessary, and can be managed appropriately to avoid increasing natural hazard risk in high hazard areas. The explanation wording should be amended to provide that not all earthworks are inappropriate. This can be achieved by adding the word “generally” before “inappropriate”.

RELIEF SOUGHT – EARTHWORKS

(Additions are underlined with deletions in ~~strikethrough~~)

1.1 Introduce new permitted activities to the Activities Table in Chapter 23 which specifically relate to earthworks for network utilities, as follows:

Earthworks within the Pinehaven Flood Hazard Extent

...

Earthworks for the maintenance and 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

Earthworks within the Mangaroo Flood Hazard Area

...

Earthworks for the maintenance and upgrading of existing network utilities, and earthworks for the installation of new network utilities in the Mangaroo Flood Hazard Extent and Overflow Paths, which meet the standards under rule 23.12 – P

1.2 Introduce a new permitted activity standard to Chapter 3 relating to the new rules sought for earthworks for network utilities in 1.1 above, as follows:

23.12 The ground must be reinstated to its' original ground-level upon completing earthworks for the maintenance, upgrading and installation of network utilities within Flood Hazard Extents and Overflow Paths.

1.3 Introduce new restricted discretionary activities to the Activities Table in Chapter 23 which specifically relate to earthworks for network utilities, as follows:

Earthworks within the Pinehaven Flood Hazard Extent

...

Earthworks for the maintenance, upgrading and installation of network utilities within Erosion

Hazard Areas – RD

Earthworks within the Mangaroa Flood Hazard Area

...

Earthworks for the maintenance, upgrading and installation of network utilities within Erosion Hazard Areas – RD

1.4 EITHER, delete rules seeking to control earthworks within the stream / river corridor of the Pinehaven Stream and Mangaroa River on the basis that this is a regional council function, as follows:

Earthworks within the Pinehaven Flood Hazard Extent

Earthworks within the Pinehaven Flood Hazard Extent (excluding those associated with flood protection works), which are within the overflow path ~~or stream corridor~~ –NC

Earthworks within the Mangaroa Flood Hazard Area

Earthworks within the River Corridor of the Mangaroa Flood Hazard Extent. NC

OR if the Council can demonstrate that it does have jurisdiction to include these rules, insert new rules permitting earthworks associated with the maintenance, upgrade and installation of network utilities within the stream / river corridor of the Pinehaven Stream and Mangaroa River where they are located within the road corridor and ground levels are reinstated to those existing prior to the works; or where they are associated with thrusting below the stream / river channel. This could be achieved by making the following amendments, or to the same effect, along with consequential changes to the existing rules applying to earthworks in the stream corridor:

Earthworks within the Pinehaven Flood Hazard Extent

Earthworks associated with the maintenance, upgrade or installation of network utilities within the 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.*

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

Earthworks within the Mangaroo Flood Hazard Area

Earthworks associated with the maintenance, upgrade or installation of network utilities within the river corridor of the Mangaroo 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.*

Earthworks within the River Corridor of the Mangaroo Flood Hazard Extent (excluding those associated with network utilities that are otherwise provided for). NC

1.5 Amend the definition of Stream Corridor to clarify that the stream corridor comprises only the open stream channel and not culverted or piped sections of stream within the area defined on the Hazard Maps. This could be achieved by amending the definition along the following lines:

Stream Corridor

The area comprising the open stream channel within the area defined on the District Plan Part 5 Hazard Maps ~~comprising the open stream channel.~~

1.6 Amend the explanation statement for Objective 9.3.3 to allow for necessary earthworks which are appropriately managed, as follows:

[Objective] To control earthworks within identified Flood Hazard Extents and Erosion Hazard Areas to ensure that the function of the floodplain is not reduced and unacceptable flood risk to people and property is avoided or mitigated.

[Explanation] Earthworks can result in unacceptable risk for future development or obstruct or divert flood flow paths. Where earthworks are proposed within the Flood

Hazard Extent or Erosion Hazard Area, 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.

1.7 Amend the explanation statement for Policy 9.4.6 to provide that not all earthworks within high hazard areas are inappropriate, as follows:

[Policy] Limit earthworks in the high hazard areas within identified Flood Hazard Extents and Erosion Hazard Areas to avoid an increase in risk from flood hazards to people and property.

[Explanation] 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, which can increase the risk to surrounding properties. To maintain the function of the floodplain it is important that the passage of flood waters is not impeded or blocked.

SCHEDULE 2 - UTILITIES

A. The specific part of the Plan Change that is subject of Schedule 2 of this submission is:

- Rule 30.8a and matters of discretion at 30.13, which are supported subject to amendment
- Issue 16.2.1, which is supported subject to amendment
- Objective 16.3.5, which is supported
- Policy 16.4.18, which is supported
- Policy 16.4.19, which is supported subject to amendment
- Anticipated Environmental Result at 16.6, which is supported subject to amendment

B. Reason for Submission:

Rule 30.8a

- 2.1 Rule 30.8a provides for network utilities crossing a stream or river within flood hazard extents as permitted if the structures are underground or positioned above the 1 in 100-year flood level (and excludes cabinets). Powerco supports that underground utilities are permitted as it recognises that they are unlikely to affect the function of floodplains during a flood event.
- 2.2 The Council's s32 report (refer paras 11.48 to 11.52) recognises that network utilities are unlikely to contribute to potential blockages in the river corridor where they utilise an existing river crossing such as a bridge, and therefore, encourages utilities to make use of existing crossings. Rule 30.8a, however, makes no reference to the use of existing river crossings and instead requires utilities to be positioned above the 1 in 100 year flood level. While the intent is supported, the hazards maps that form part of the Plan Change, along with Powerco's asset maps at Attachment A to this submission, illustrate that there are numerous roads that cross river or stream corridors, and which act as overflow paths or are otherwise located within the identified flood hazard extent i.e. below the 1 in 100 year flood level. The rule does not, therefore, provide for utility structures to use existing bridge crossings in all circumstances, as some of these are located below the 1 in 100 year flood level. Rule 30.8a should, therefore, be amended to provide for utilities attached to existing river crossings as a permitted activity, consistent with the analysis in the Council's s32 report.

- 2.3 Powerco supports that cabinets are excluded from the standard, and therefore permitted, as due to the small scale of such facilities they are unlikely to contribute to any potential blockages of the floodplain during a flood event or otherwise exacerbate flood effects (i.e. by displacing or diverting flood waters). For the same reason, Powerco considers electricity support structures should be excluded from the standard. Rule 30.8a should be amended accordingly.
- 2.4 In addition, Powerco notes that the Council’s s32 report advises (at para 11.51) that *‘the existing rules only control “Network Utilities”, which are separately defined and do not capture lateral service connections’*. Powerco supports this approach but does not consider this is clearly explained in the existing provisions. As such, Powerco seeks a consequential amendment to clarify the Council’s interpretation that the utilities provisions do not apply to lateral service connections. Powerco considers this would be best achieved by way of amendment to the definition of ‘network utilities’ or by the inclusion of an explanatory note following Activity table 30.1 to clarify that the plan does not control lateral service connections.
- 2.5 The matters of discretion at 30.13 relate to activities which do not meet permitted activity standard 30.8a. In accordance with the changes sought above, electricity support structures and utilities attached to existing river crossings need to be excluded along with cabinets. Further, the proposed wording “whether” suggests that the presence or absence of an impact will be a deciding factor in considering the appropriateness of a utility, irrespective of the scale of such an impact. It would be more appropriate for Council’s discretion to be restricted to “the extent” of an impact, not whether or not there is an impact. This would enable consideration of the resilience of a utility to natural hazard events and the ability for matters such as design and location to appropriately mitigate adverse effects. As such, Powerco seeks that the words “whether” are replaced with “the extent to which...” For example, the first bullet point would read *“The extent to which the utility or network utility structure will be adversely impacted during a flood event”*.

Issue 16.2.1

- 2.6 The Plan Change proposes to add a paragraph to the explanation statement for Issue 16.2.1, including the statement that it is *“possible for network utilities to increase the impact of flood hazards, particularly where linear infrastructure crosses stream or river corridors.”* The

proposed wording appears to suggest that linear infrastructure crossing stream or river corridors will in most cases increase the impact of flood hazards. However, as discussed in paragraph 2.2 and acknowledged in the Council's s32 report, linear infrastructure can be designed and located in such a way that the impact of flood hazards is not increased (i.e. by attaching an aerial crossing to an existing bridge or locating it underground). The explanation should be amended to clarify how linear infrastructure can affect flood hazards, and to therefore recognise that not all types of linear infrastructure will increase the impact of flood hazards. This could be achieved by amending the explanation wording to state *"for example, when linear infrastructure that crosses a stream or river corridor has not been designed or located to take into account the 1:100 year flood level it can create blockages or restrict flood flows..."*

Objective 16.3.5

- 2.7 Objective 16.3.5 is *"to ensure the continued operation of network utilities in flood hazard extents and to maintain the function of the floodplain to convey flood waters"*. Powerco supports Objective 16.3.5 as it is considered to provide an appropriate balance between managing network utilities and managing natural hazards. Powerco also supports that the explanation statement refers to the design of utility structures, as design is an important consideration (beyond location) when seeking to ensure that flood hazards are not increased by structures such as network utilities. Powerco seeks that Objective 16.3.5 is retained as proposed in the Plan Change.

Policy 16.4.18

- 2.8 Policy 16.4.18 seeks to require network utility structures which cross streams within Flood Hazard Extents to be *"installed in a way to avoid contributing to blockages or restricting flood flows or compromising flood mitigation works"*. Powerco supports Policy 16.4.18 as it recognises that network utilities may often be required to cross streams, and that they can be designed and installed in such a way that does not increase the risk of flood hazards. Policy 16.4.18 should be retained as proposed.

Policy 16.4.19

- 2.9 Policy 16.4.19 seeks to *"control the location of network utilities in identified Flood Hazard Extents to ensure their operation is not compromised during a flood event."* Powerco supports the intention to protect network utilities so that they are able to continue to operate during a flood event. However, in controlling the location of new network utilities, it needs to be

recognised that in some cases it may not be practicable to locate the utilities outside of the identified Flood Hazard Extents. This is necessary to maintain consistency with Policy 16.4.8 of the District Plan which reads “*To recognise and provide for the... technical and operational requirements and constraints of network utilities in assessing their location...*” In seeking to protect network utilities, Policy 16.4.19 should encourage the construction of resilient infrastructure. Resilience can be achieved through design, not just avoiding locating within Flood Hazard Extents. It is also unclear whether the policy seeks to control the location of network utilities within Flood Hazard Extents, or to require network utilities to be located outside of Flood Hazard Extents. Policy 16.4.19 should be amended to clarify that network utilities can be protected through both location and design and that the key issue is ensuring the resilience of utilities to flood events.

Anticipated Environmental Result at 16.6

- 2.10 The Plan Change proposes to introduce a new anticipated environmental result to 16.6, being “*the avoidance of network utilities increasing flood hazard risk or impacting on flood hazard structures.*” Powerco supports the intention of the anticipated environmental result but seeks an amendment to clarify that it only relates to new (not existing) network utilities. This can be achieved by adding the words “the potential for”.

RELIEF SOUGHT – UTILITIES

(Additions are underlined with deletions in ~~strikethrough~~)

- 2.1 Amend Rule 30.8a to provide for electricity support structures and utilities attached to existing river crossings as permitted as follows:**

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.

- 2.2 Amend the matters of discretion at 30.13 to exclude electricity support structures (in accordance with relief sought 2.1 above), and to require Council to consider “the extent” of an impact, as opposed to “whether” an impact exists, as follows:**

Council will restrict its discretion to, and may impose conditions on:

...

- 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, ~~whether~~ the extent to which 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.

2.3 Amend the District Plan to clarify the Council's interpretation that the network utilities rules do not capture lateral service connections (refer para 11.51 of the Council's s32 report). This could be achieved by amendment to the definition of 'network utilities' or by the inclusion of an explanatory note following Activity table 30.1 to clarify that the plan does not control lateral service connections.

2.4 Amend the explanation statement for Issue 16.2.1 to specify how linear infrastructure can affect flood hazards, as follows:

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~~ For example, when linear infrastructure that crosses a stream or river corridors has not been designed or located to take into account the 1:100 year flood level, it can create blockages or restrict flood flows. The effect of flood hazards on new network utilities and the impact on the flood hazards needs to be avoided or mitigated.

2.5 Retain Objective 16.3.5 as proposed, as follows:

[Objective] To ensure the continued operation of network utilities in flood hazard extents and to maintain the function of the floodplain to convey flood waters.

[Explanation] Network utilities have the potential to impede or block water during a flood event and increase the risk to surrounding people and properties. This is particularly so, when linear structures cross a river or stream corridor and have not been designed to take into account the 1:100 year flood height. Network utilities play a critical role in the functioning of community. Network utilities that are damaged or destroyed during flood event may slow the ability for the community to recover or worsen the effects from flooding (for example sewerage in floodwaters).

2.6 Retain Policy 16.4.18 as proposed, as follows:

[Policy] Network utility structures crossing streams within identified Flood Hazard Extents must be installed in a way to avoid contributing to blockages or restricting flood flows or compromising flood mitigation works.

[Explanation] This policy ensures that network utility structures that cross river and stream corridors do not contribute to blockages or exacerbate the effects from flooding on people or property. This policy also recognises the need for Network Utility Structures to be designed in a manner that does not compromise flood mitigation works. This is to ensure that the installation of Network Utility Structures does not inadvertently increase the risk to the local community by lowering an existing level of protection that may be provided by the flood mitigation works.

2.7 Amend Policy 16.4.19 to clarify that network utilities can be protected through both location and design, as follows:

[Policy] 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.

[Explanation] It is important that network utilities are able to continue to operate during and after a flood event to help the community respond and recover. This policy ensures directive for the network utilities in Flood Hazard Extents to ensure they are appropriately located and

designed.

2.8 Amend the anticipated environmental result at 16.6 to specify that it only relates to new (not existing) network utilities, as follows:

The avoidance of the potential for network utilities to increase ~~increasing~~ flood hazard risk or ~~impacting~~ on flood hazard structures.

SCHEDULE 3 – NATURAL HAZARDS

A. The specific part of the Plan Change that is subject of Schedule 3 of this submission is:

- Policy 14.4.3, which is supported subject to amendment
- Policy 14.4.4, which is supported
- Policy 14.4.5, which is supported subject to amendment
- Policy 14.4.8, which is supported subject to amendment
- Activities Table 33.1, which is supported subject to amendment
- 16.1 Background and 30.1A City-wide provisions, which are supported subject to amendment

B. Reason for Submission:

Policy 14.4.3

- 3.1 Policy 14.4.3 states *“Avoid development within high hazard areas of identified Flood Hazard Extents and Erosion Hazard Areas.”* This proposed wording requires all development to be avoided within high hazard areas, which is inconsistent with utilities provisions and rules in the Plan Change, such as Objective 16.3.5 and Rule 30.8a, that provide for certain utilities in these areas. Further, there may be some situations in which linear infrastructure must traverse a high hazard area to reach communities on the other side. Policy 14.4.3 should be amended to provide for these activities and to recognise that it may be impracticable to completely avoid locating network utilities within flood hazard extents. This could be achieved by adding *“to the extent practicable”* before *“development”*, and adding a sentence to the end of the explanation statement along the lines of: *“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.”*

Policy 14.4.4

- 3.2 Policy 14.4.4 is to *“control development (including buildings) within the lower hazard areas of identified Flood Hazard Extents and Erosion Hazard Areas by requiring mitigation to minimise the risk to people and property.”* Powerco supports Policy 14.4.4 as it provides an appropriate

balance between managing development and managing natural hazards. It is suitable to allow development within lower hazard areas which involves mitigation to minimise risks. Policy 14.4.4 should be retained as proposed in the Plan Change.

Policy 14.4.5

- 3.3 Policy 14.4.5 seeks to “enable planned flood mitigation works...” Powerco supports the intent, but seeks to ensure that existing network utility infrastructure is protected. For example, there is a risk that underground assets may be damaged while earthworks are undertaken for flood mitigation works. The need to avoid affecting existing network utility infrastructure can be highlighted through adding the phrase “whilst managing adverse effects on existing infrastructure” to the end of the policy.

Policy 14.4.8

- 3.4 Policy 14.4.8 seeks to enable access above the 1 in 100-year level within lower hazard areas and avoid access in high hazard areas. The proposed explanation statement specifies that it relates to access ways and driveways to dwellings. It is not clear from reading the policy alone that the intention is to enable or avoid access *to dwellings*. Policy 14.4.8 should be amended to clarify this by adding the words “to dwellings” after “access”.

Activities Table 33.1

- 3.5 In the Activities Table at 33.1, the following activity is classified as non-complying within the Pinehaven Flood Hazard Extent and Pinehaven Catchment Overlay: *“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)”*. This rule could be inappropriately interpreted to include network utilities (as ‘structures’) which are otherwise permitted. There is no definition of “structure” provided in chapter 35 of the plan, while the definition in the RMA reads “structure means any building, equipment, device, or other facility made by people and which is fixed to the land; and includes any raft”. The plain reading of this definition would include network utilities, however that is evidently not the intention of this rule. This is explained in the Council’s s32 report (refer paras 11.98 – 11.102), which clarifies that the rules controlling utilities within the Pinehaven Flood Hazard Area are contained in Chapter 30 Network Utilities. Network utilities crossing streams or rivers are permitted (provided they are underground or positioned above the 1 in 100-year flood level) under rule 30.8a of the Plan Change. The rule in the Activities Table at 33.1 should be amended to specifically exclude network utilities.

16.1 Background and 30.1A City-wide provisions

- 3.6 In addition, if it is the Council's intention to provide all rules controlling network utilities in flood hazard areas within Chapter 30 Network utilities, rather than Chapter 33 Rules for flooding and fault band hazards, Powerco considers consequential amendments should be made to the plan to clarify this approach. Specifically, amendments should be made to the last paragraph of Section 16.1 Background to Chapter 16 Network Utilities and the table at Chapter 30.1A, which explain the relationship between the utilities provisions and the city-wide provisions in the remainder of the plan.

RELIEF SOUGHT – NATURAL HAZARDS

(Additions are underlined with deletions in ~~strikethrough~~)

3.1 Amend Policy 14.4.3 to recognise that it may often be impracticable to avoid locating network utilities and non-habitable structures within flood hazard extents, as follows:

[Policy] Avoid, to the extent practicable, development within high hazard areas of identified Flood Hazard Extents and Erosion Hazard Areas.

[Explanation] 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 development in these high hazard areas. 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.

3.2 Retain Policy 14.4.4 as proposed, as follows:

[Policy] To control development (including buildings) within the lower hazard areas of identified Flood Hazard Extents and Erosion Hazard Areas by requiring mitigation to minimise the risk to people and property.

[Explanation] The policy recognises that there are lower hazard areas within the identified

Flood Hazard Extent and some parts of the Erosion Hazard Areas. The lower hazard areas are characterised by still or slowly moving water and a lower risk of erosion. As such, development within these lower hazard areas can be appropriate provided measures are incorporated to mitigate the risk.

3.3 Amend Policy 14.4.5 to highlight the need to avoid affecting existing network utility infrastructure, as follows:

Enable planned flood mitigation works within 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.

3.4 Amend Policy 14.4.8 to clarify that it applies to dwellings only, as follows:

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

3.5 Amend the rule at Activities Table 33.1 to specifically exclude network utilities, as follows:

Pinehaven Flood Hazard Extent and Pinehaven Catchment Overlay:

...

Any building, structure (excluding network utilities) 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). – NC

3.7 Make consequential amendments to the last paragraph of Section 16.1 Background and Table 30.1A City-wide provisions to clarify that all rules applying to network utilities in flood hazard areas are located within Chapter 30 Network Utilities, rather than Chapter 33 Flooding and

Fault Band Hazards. This could be achieved by making the following amendments, or to the same effect:

16.1 Background

...

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, 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.

...

30.1A City-wide provisions

Each activity shall comply with the relevant permitted activity standards in the City-wide provisions of the Plan as listed below.

<i>Chapter</i>	<i>City-wide provisions</i>
<i>23</i>	<i>Earthworks and Indigenous Vegetation Clearance</i>
<i>26</i>	<i>Heritage Features</i>
<i>27</i>	<i>Notable Trees</i>
<i>28</i>	<i>Southern Hills Overlay Area and Protected Ridgelines</i>
<i>32</i>	<i>Noise and Vibration</i>
<i>33</i>	<i>Flooding and Fault Band Hazards</i>
<i>34</i>	<i>Hazardous Substances and Contaminated Land</i>

SCHEDULE 4 – MAPS AND DEFINITIONS

A. The specific part of the Plan Change that is subject of Schedule 4 of this submission is:

- The definition of “Flood Hazard Extent” in Chapter 35, which is supported subject to amendment of the definition and the District Plan (Part 5) Hazard Maps.

B. Reason for Submission:

- 4.1 The proposed definition of “Flood Hazard Extent” in Chapter 35 of the Plan Change identifies “high hazard areas” and “lower hazard areas”. These high and lower hazard areas are referred to throughout the Plan Change, and are subject to different provisions. Powerco supports the intent to recognise high and low hazard areas as different levels of development are appropriate in areas subject to different levels of risk. However, greater clarity is needed for plan users to distinguish between high hazard areas and low hazard areas. To avoid confusion, these areas should be illustrated on the maps, and the definition amended to refer to the maps.

RELIEF SOUGHT – MAPS AND DEFINITIONS

(Additions are underlined with deletions in ~~strikethrough~~)

- 4.1 Amend the District Plan (Part 5) Hazard Maps** to clearly illustrate the location and extent of both the “high hazard areas” and “low hazard areas” within the flood hazard extents and erosion hazard areas.

- 4.2 Amend the definition of “Flood Hazard Extent” in Chapter 35 to clarify that the High and Lower Hazard Areas are illustrated on the Hazard Maps, as follows:**

Flood Hazard Extent

The area identified within the District Plan (Part 5) Hazard Maps. This identifies the area susceptible to the average flood return interval of 100 years (1 in 100-year flood), incorporating

climate change to 2090. The Flood Hazard Extent comprises a High and Lower Hazard Area;

- High Hazard Area is illustrated on the District Plan (Part 5) Planning Maps and comprises the stream and river corridor, overflow paths and some parts of the Erosion Hazard Area.*
- Lower Hazard Area is illustrated on the District Plan (Part 5) Planning Maps and comprises the ponding area and some parts of the Erosion Hazard Area.*