

Report on submissions and further submissions on the
Proposed Waikato District Plan

Hearing 27B:
Natural Hazards: General Submissions

Appendix 3: Cascade table

Natural Hazards and Climate Change

The strategic objectives dealing with urban environment and rural environment are relevant to the natural hazards chapter, where these chapters also manage the location and design of structures and influence the management of natural hazard risk.

Proposed Objectives 15.2.1, 15.2.2 and 15.2.3 and the policies and methods that implement them, including the rules dealing with flood risk, defended areas, high risk coastal hazards, and coastal sensitivity areas are all intended to work together to manage the risks from natural hazards as an integrated whole.

This report only deals with proposed Objectives 15.2.1 and 15.2.2.

Cascade:

Objective	Policy	Rule
<p>1.12.8 Strategic Objectives (recommended for relocation into Chapter 15)</p> <p>1.12.8 (d.) Objective - Natural Hazards and Climate Change The choice, location and design of development in the district takes into account the risks from natural hazards and potential impacts of climate change.</p>	All policies in Chapter 15	All rules in Chapter 15

<p>Objective 15.2.1 - Resilience to natural hazard risk</p> <p>A resilient community where the risks from natural hazards on people, property, infrastructure and the environment from subdivision, use and development of land are avoided or appropriately mitigated.</p>	<p>Policy 15.2.1.1 - New development in areas at significant risk from natural hazards</p> <p>a. Avoid new subdivision, use and development where they will increase the risk to people's safety, well-being and property in the following areas identified as being at significant risk from natural hazards:</p> <ul style="list-style-type: none"> i. High Risk Flood Area; ii. High Risk Coastal <u>Hazard</u> (Inundation) Area; iii. High Risk Coastal <u>Hazard</u> (Erosion) Area. 	<p><i>Recommended combined rule 15.7 and 15.8 into 15.7A <u>Coastal Sensitivity Areas</u>, together with recommendations in section 42 report prepared by Ms Nicolson</i></p> <p><i>Effects on people, property and the environment may be considered in discretionary and non-complying activity rules</i></p> <p><i>In matters of discretion: e.g. 22.4.1.2 General subdivision</i></p> <p>RDI</p> <p>(a) Subdivision must comply with all of the following conditions:</p> <ul style="list-style-type: none"> (i) ... (v) ... <p>(b) Council's discretion is restricted to the following matters:</p> <ul style="list-style-type: none"> (i) subdivision layout and design including dimensions, shape and orientation of the proposed lot; (ii) effects on rural character and amenity values; (iii) effects on landscape values; (iv) potential for reverse sensitivity effects; (v) extent of earthworks including earthworks for the location of building platforms and accessways.; (vi) natural hazards risk, including liquefaction risk and fire risk (refer to Chapter 15).
--	--	---

	<p>Policy 15.2.1.2 - Changes to existing land use activities and development in areas at significant risk from natural hazards</p> <p>a. In areas of High Risk Flood, High Risk Coastal Hazard (Erosion) and High Risk Coastal Hazard (Inundation), ensure that when changes to existing land use activities and development occur, a range of risk reduction options are assessed, and development that would increase risk to people's safety, well-being and property is avoided.</p> <p>Policy 15.2.1.3 - New emergency services and hospitals in areas at significant risk from natural hazards</p> <p>a. Avoid locating new emergency service facilities and hospitals in areas which are at significant risk from natural hazards, including High Risk Flood, High Risk Coastal Hazard (Inundation) and High Risk Coastal Hazard (Erosion), unless, considering engineering and technical constraints or functional and operational requirements, they cannot be reasonably located elsewhere and will not increase the risk to or vulnerability of people or communities.</p> <p>Policy 15.2.1.4 - New <u>and upgrading of</u> infrastructure and utilities in areas subject to significant risk from natural hazards</p>	
--	--	--

	<p>a. Enable the construction of new infrastructure and utilities in areas at significant risk from natural hazards, including High Risk Flood, High Risk Coastal Hazard (Inundation) and High Risk Coastal Hazard (Erosion) areas only where:</p> <ul style="list-style-type: none"> i. the infrastructure and utilities are technically, functionally or operationally required to locate in areas subject to natural hazards, or it is not reasonably practicable to be located elsewhere; and ii. any increased risks to people, property and the environment are mitigated to the extent practicable; and iii. the infrastructure and utilities are designed, maintained and managed, including provision of hazard mitigation works where appropriate, to function to the extent practicable during and after natural hazard events. <p><u>(b) Enable upgrading of infrastructure and utilities in the areas mentioned in (a), where (a)(i), (ii) and (iii) are complied with.”</u></p> <p>Policy 15.2.1.5 - Existing infrastructure and utilities in all areas subject to natural hazards</p> <p>a. Provide for the operation, maintenance and <u>minor</u></p>	
--	--	--

	<p>upgrading of existing infrastructure and utilities in all areas subject to natural hazards.</p>	
<p>Objective 15.2.2 - Awareness of natural hazard risks</p> <p>A well-informed community that:</p> <ul style="list-style-type: none"> a. is aware of, and understands, which natural hazards affect the district; and b. is able to effectively and efficiently respond to, and recover from, natural hazard events. 	<p>Policy 15.2.2.1 - Natural hazard risk information</p> <ul style="list-style-type: none"> a. Enable people to be informed and have access to information on the natural hazards affecting their properties and surrounding area, including through: <ul style="list-style-type: none"> i. provision of Land Information Memoranda; ii. natural hazard technical information, risk registers and mapping on the Council's website, the Waikato Regional Council Hazards Portal, this district plan and accompanying planning maps; iii. education, provision of information and community engagement; and iv. alignment with the work of other agencies including iwi and the Waikato Regional Council. <p>Policy 15.2.2.2 - Awareness of Community Response Plans</p> <ul style="list-style-type: none"> a. Improve response to and recovery from natural hazard events by encouraging community awareness and use of information and methods contained in 	

	Community Response Plans.	
--	---------------------------	--

Climate change

Note: Objective 1.12.8 was added to Chapter 1 PWDP by Variation 2. The three other objectives and the policies and rules are in Chapter 15. All the climate change policies respond to all the objectives to some extent. Rules mentioning climate change all relate to the effects of climate change on of natural hazards. All rules mentioning climate change do so as matters of discretion for restricted discretionary activities. Rule 15.7.2 (building in coastal sensitivity areas) is given as a representative example.

Objective	Policy	Rule
<p>1.12.8 Objective - Natural Hazards and Climate Change (a) The choice, location and design of development in the district takes into account the risks from natural hazards and potential impacts of climate change.</p> <p>Objective 15.2.1 - Resilience to natural hazard risk A resilient community where the risks from natural hazards on people, property, infrastructure and the environment from subdivision, use and development of land are avoided or appropriately mitigated.</p> <p>Objective 15.2.2 - Awareness of natural hazard risks A well-informed community that: (a) is aware of, and understands, which natural hazards affect the district; and (b) is able to effectively and efficiently respond to, and recover from, natural hazard events.</p>	<p>Policy 15.2.3.1 – Effects of climate change on new subdivision and development – (a) Ensure that adequate allowances are made for the projected effects of climate change in the design and location of new subdivision and development throughout the district, including undertaking assessments where relevant that provide for:</p> <p>(i) the projected increase in rainfall intensity, as determined by national guidance, but being in the event of a temperature rise of³ not less than 2.3°C by 2120;</p> <p>(ii) the projected increase in sea level, where relevant, as determined by national guidance <u>and the best available information</u>⁴, but being not less than 1m by 2120;</p> <p>(iii) in respect to new urban zoning, stress testing under the RCP 8.5 scenario for rainfall [1]</p>	<p>15.7.2 Restricted Discretionary Activities RDI: Construction of a new building or additions to an existing building not provided for in Rule 15.7.1 P1-P3 and not listed in Rule 15.7.3 D1.</p> <p>Discretion is restricted to: (a) The ability to manage coastal hazard risk through appropriate building materials, structural or design work, engineering solutions or other appropriate mitigation measures, including the ability to relocate the building; (b) The application of mitigation through natural features and buffers where appropriate; (c) The ability to impose time limits or triggers to determine when the building and services to be removed or relocated; (d) The degree to which coastal hazard risk, including the effects of climate change over a period to 2120, has been assessed in a site specific coastal hazard risk assessment; (e)</p>

³ Director General of Department of Conservation [2108.12]

⁴ Waikato Regional Council [2102.86],

Objective	Policy	Rule
<p>Objective 15.2.3 Climate Change</p> <p>A well-prepared community that:</p> <p>a) Is resilient able to adapt¹ to the effects of climate change; and</p> <p>b) Has transitioned to development that prioritises lower greenhouse gas emissions.²</p>	<p>and RCP 8.5H+ for sea level rise [2]; and</p> <p>(iv) in respect to the coastal environment, increases in storm surge, waves and <u>wind</u>.⁵</p> <p>Policy 15.2.3.2 - Future land use planning and climate change</p> <p>(a) Increase the ability of the community to adapt to the effects of climate change when undertaking future land use planning by:</p> <p>(i) ensuring the potential environmental and social costs of climate change, including effects on indigenous biodiversity (inland migration), historic heritage, Maaori Sites and Areas of Significance, mahinga kai, public health and safety, public access to the coast and waterway margins, and the built environment are addressed.</p> <p>(ii) encouraging the incorporation of sustainable design measures within new subdivision, landuse and development, including:</p> <p>(A) low impact, stormwater management,</p>	

¹ Kainga Ora Homes and Communities [2094.17]

² Federated Farmers of New Zealand [2173.29]

⁵ Tainui Hapu Environmental Management Committee [2097.1] and Department of Conservation [2108.13]

Objective	Policy	Rule
	<p>urban design and green infrastructure;</p> <p>(B) of relocatable buildings and structures in areas potentially at risk due to sea level rise or increased flood levels;</p> <p>(C) efficient water storage;</p> <p>(D) provision of renewable energy generation; and</p> <p>(E) transferring to activities with lower greenhouse gas emissions.</p> <p>(iii) providing ongoing monitoring of changes to the environment due to climate change; and</p> <p>(iv) facilitating community discussion on adaptive pathways to manage the risks associated with climate change and incorporating them, where appropriate, into the district plan through plan changes.</p> <p>Policy 15.2.3.3 Precautionary approach for dealing with uncertainty</p> <p>(a) In areas throughout the district likely to be affected by climate change over the next 100 years, adopt a</p>	

Objective	Policy	Rule
	<p>precautionary approach towards new subdivision, use and development which may have potentially significant or irreversible adverse effects, but for which there is incomplete or uncertain information.</p> <p>Policy 15.2.3.4 - Provide sufficient setbacks for new development</p> <p>(a) Protect people, property and the environment from the projected adverse effects of climate change, including sea level rise, by providing sufficient setbacks from water bodies and the coast when assessing new development.</p> <p>(b) Ensure that, in establishing development setbacks, adequate consideration is given to:</p> <ul style="list-style-type: none"> (i) the protection of natural ecosystems, including opportunities for the inland migration of coastal habitats; (ii) the vulnerability of the community; (iii) the maintenance and enhancement of public access to the coast and public open space; (iv) the requirements of infrastructure; and (v) natural hazard mitigation provision, including the protection of natural defences.” <p>Policy 15.2.3.5 - Assess the impact of climate change on the level of natural hazard risks.</p>	

Objective	Policy	Rule
	<p>(a) For all new subdivision, use and development requiring rezoning or a resource consent, ensure that account is taken of the projected effects of climate change over the next 100 years when assessing any identified risks from natural hazards, and their effects on people, property, infrastructure and the environment.</p> <p>(b) Ensure that, when assessing the effects of climate change on the level of natural hazard risk in accordance with Policy 15.2.3.5(a) above, the allowances in Policy 15.2.3.1(a)(i)-(iv) are applied.</p> <p>(c) Where the assessment required by Policy 15.2.3.5(a) and Policy 15.2.3.5(b) indicates that natural hazards are likely to be exacerbated by climate change, ensure that subdivision and development are designed and located <u>so that any increased and cumulative risk from natural hazards is managed to acceptable levels and any intolerable risks are avoided or reduced to tolerable or acceptable levels to avoid, or appropriately mitigate, any increased and cumulative risk, including increased risk of flooding, liquefaction, coastal inundation, coastal erosion, slope instability, fire, and drought.</u>⁶</p>	

⁶ Waikato Regional Council [2102.91], Counties Power [FS3021.9] and Mercury NZ Limited [FS3034.153],

Objective	Policy	Rule
<p>Objective 15.2.2 - Awareness of natural hazard risks</p> <p>A well-informed community that:</p> <p>(a) is aware of, and understands, which natural hazards affect the district; and</p> <p>(b) is able to effectively and efficiently respond to, and recover from, natural hazard events</p>		
<p>Objective 15.2.3 Climate Change</p> <p>A well-prepared community that:</p> <p>a) Is <u>resilient able to adapt</u>⁷ to the effects of climate change; and</p> <p>b) Has transitioned to development that prioritises lower greenhouse gas emissions.⁸</p>		

⁷ Kainga Ora Homes and Communities [2094.17]

⁸ Federated Farmers of New Zealand [2173.29]