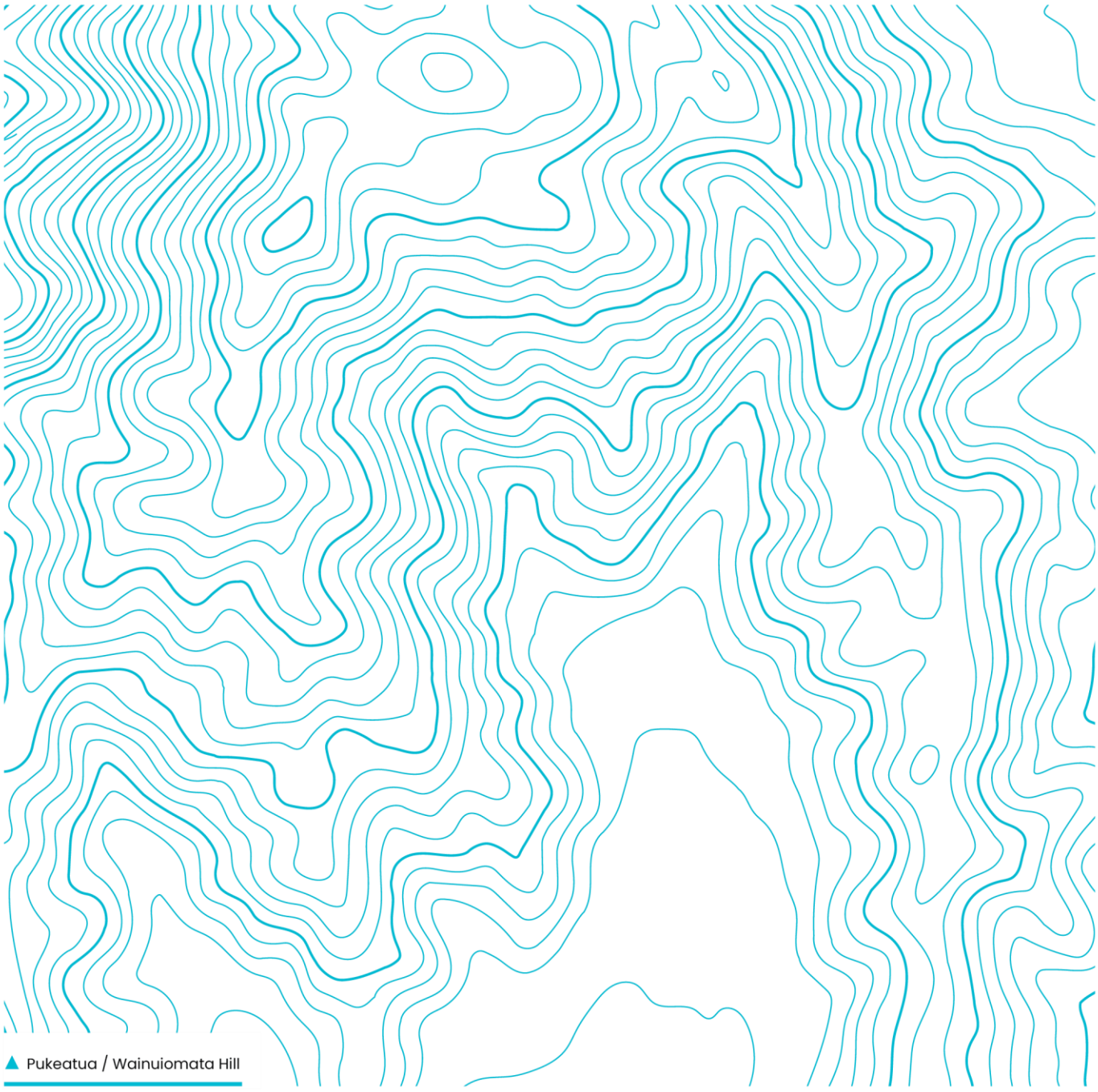
Section 32 Evaluation
NATURAL HAZARDS AND COASTAL HAZARDS



▲ Pukeatua / Wainuiomata Hill

1 Contents

1 Contents 2

2 Overview and Purpose 5

3 Statutory and Policy Context 11

3.1 Resource Management Act 1991 11

3.1.1 Section 5 – Purpose and Principles 11

3.1.2 Section 6 – Matters of National Importance 11

3.1.3 Section 7 – Other Matters 12

3.1.4 Section 8 – Treaty of Waitangi 12

3.1.5 Section 31 - Functions of Territorial Authorities under this Act 12

3.1.6 Sections 106 13

3.2 National Policy Statements and the New Zealand Coastal Policy Statement 14

3.2.1 New Zealand Coastal Policy Statement 14

3.2.2 NPS on Urban Development 2020 17

3.3 National Environmental Standards 19

3.3.1 NES for Telecommunication Facilities 19

3.3.2 NES for Freshwater 20

3.4 National environmental standards 20

3.4.1 NES for Telecommunication Facilities 20

3.4.2 NES for Freshwater 20

3.5 National Planning Standards 20

3.6 Regional Policy Statement for the Wellington Region 21

3.6.1 Proposed Change 1 to the RPS 24

3.7 Natural Resources Plan for the Wellington Region 31

3.7.1 Proposed NRP Change 1 35

3.8 Iwi management plans 35
3.9 Hutt City Council plans, policies, and strategies 36
3.10 District plans of adjacent territorial authorities 37
3.11 Other statutory and non-statutory plan, policies, and strategies 40
3.12 Other Legislation or Regulations 42
3.13 Statutory Acknowledgements 45
4 Resource management issues 47
4.1 Introduction to resource management issues 47
4.2 Evidence base 49
4.2.1 Existing approach of City of Lower Hutt District Plan 52
4.2.2 Analysis of other District Plans 58
4.2.3 National guidance documents 58
4.2.4 Advice from mana whenua 62
4.2.5 Stakeholder and community engagement 63
4.3 Summary of issues analysis 63
5 Scale and significance assessment 67
6 Proposed District Plan objectives and provisions 72
6.1 Overall Approach 72
6.1.1 Step 1 – Hazard Sensitivity Classification 72
6.1.2 Step 2 – Hazard Ranking 74
6.1.3 Step 3 – Rule Matrix 76
6.2 Proposed Provisions 76
6.2.1 Natural Hazards and Coastal Hazards – Objectives, Policies and Rules 76
6.3 Proposed provisions in other chapters 78
6.3.1 Subdivision 78
6.3.2 Earthworks 79
6.3.3 Infrastructure 79
7 Evaluation of objectives 80

7.1 Evaluation of Objectives NH-O1, NH-O2, CH-O1 and CH-O2 80
7.2 Evaluation of Objectives NH-O3 and CH-O3 85
7.3 Evaluation of Objectives NH-O4, NH-O5, CH-O4 and CH-05 89
8 Evaluation of policies and rules 96
8.1 Evaluation of provisions to implement Objectives NH-O1, NH-O2, CH-O1 and CH-O2 98
8.2 Evaluation of provisions to implement Objectives NH-O3 and CH-O3 106
8.3 Evaluation of provisions to implement Objectives NH-O4, NH-O4, CH-O5 and CH-O5 112
9 Summary 121

2 Overview and Purpose

(1) Hutt City Council is reviewing the City of Lower Hutt District Plan. This is a full review of the District Plan, including the approach to natural and coastal hazards.

(2) This report is a record of the review with regard to natural and coastal hazards, and includes an evaluation of the objectives and provisions of the Natural Hazards chapter of the proposed District Plan as well as the coastal hazard provisions of the Coastal Environment chapter of the proposed District Plan, in accordance with the requirements of s32 of the Resource Management Act 1991.

(3) This report sits as one of a package of reports for the proposed Plan and should be read alongside the General report for matters common to all topics.

Natural and Coastal Hazards

(4) The current Operative District Plan (ODP) only assesses the following natural hazards:

- Fault Rupture (Wellington Fault);
- Flooding (residential and commercial zones only);
- Coastal Inundation (residential and commercial zones only); and
- Tsunami (residential and commercial zones only).

(5) The provisions pertaining to the Fault Location Area have been in the District Plan since 2004. The provisions and mapping pertaining to flooding, coastal inundation and tsunami were introduced in 2023 as part of the Plan Change 56 – Enabling Intensification in Residential and Commercial Areas. However, due to the limited scope of this plan change, the hazard provisions that were introduced largely only relate to residential and commercial activities. As such, there are a number of activities and zones (industrial activities for example) which are not captured by the framework that was introduced in 2023.

(6) Since the District Plan was first made operative in 2004 there have been a number of legislative and non-legislative changes that have increased awareness of natural hazards and of the need to undertake land use planning to reduce the risk to people and property from natural hazard events. These changes include:

- The inclusions of the management of significant natural hazard risk as a Matter of National Importance under s6(h) of the RMA;
- The amendment of s106 of the RMA, including its expansion to apply to significant natural hazard risks when considering applications for subdivision;
- The New Zealand Coastal Policy Statement 2010, which requires the management of coastal hazard risk;
- The Regional Policy Statement for the Wellington Region 2013, which requires a risk-based approach to the management of natural hazards; and
- The development of several non-statutory guidance documents on natural hazard topics including climate change impacts on sea level rise, tsunami, and risk-based planning.

(7) Planning is required for natural hazards as inappropriate subdivision, use and development within areas susceptible to natural hazards has the potential to directly affect the health and safety of people and communities during a natural hazard event. Similarly, communities and individuals can take a long time to recover from natural hazards (months or years depending on the scale of the event), which has significant impacts on their social and economic well-being. The management of natural hazard risk is therefore an important matter of consideration for District Plans to provide for people's social, economic and cultural well-being, as well as for their health and safety.

(8) The Proposed District Plan (PDP) framework for natural and coastal hazards seeks to manage the significant natural hazard risk associated with the following natural and coastal hazards:

- Fault Rupture
- Slope Stability

- Flooding
- Liquefaction
- Tsunami Inundation
- Coastal Inundation (including sea level rise).

(9) The natural and coastal hazards identified above that are affected by climate changes (sea level rise and flooding) have been mapped considering climate change predictions, including increased rainfall and higher sea levels. The climate change scenarios used have been based on the best practice guidance that is currently available. The proposed provisions seek to control, manage, and restrict development within the various natural hazard overlays (including those that incorporate climate change within their respective models). In this regard, the natural hazard and coastal hazard provisions are responding to climate change.

(10) It is also recognised that Lower Hutt is currently experiencing co-seismic subsidence as a result of the plate boundaries being locked under the Wellington region. The effect of this is that experienced sea level rise is occurring at an accelerated rate as the ground levels within the region are also subsiding. The sea level rise mapping has taken into account this co-seismic subsidence, through the inclusion of Vertical Land Movements assumptions within the Sea Level Rise model, when determining the extent of inundation from these hazards.

Scope of this Report

(11) This s32 report focuses on the provisions managing the risk from natural hazards in the Natural Hazards chapter and from coastal hazards in the Coastal Environment chapter.

(12) Other relevant provisions relating to Infrastructure, Renewable Electricity Generation, Subdivision and Earthworks within natural and coastal hazard overlays are contained in the respective chapters and addressed in those s32 evaluation reports. This report should also be read in conjunction with the following s32 evaluation reports.

Report	Relationship to this topic
Subdivision (SUB)	The Subdivision chapter contains the overarching policies and all rules relating to subdivision in natural and coastal hazard overlays. The more specific policies are located in the Natural Hazards and Coastal Environment chapters. Because the policies and rules for subdivision in natural and coastal hazard overlays relate primarily to the management of identified risks, the relevant s32 evaluation of these provisions is provided in this report. Nevertheless, the s32 report for the Subdivision chapter is relevant because it addresses the underlying District Plan approach for subdivision in general.
Earthworks (EW)	The Earthworks chapter contains the policies and rules relating to earthworks in natural and coastal hazard overlays. Because the policies and rules for earthworks in natural and coastal hazard overlays relate primarily to the management of identified risks, the relevant s32 evaluation of these provisions is provided in this report. Nevertheless, the s32 report for the Earthworks chapter is relevant because it addresses the underlying District Plan approach for earthworks in general.
Infrastructure (INF)	The Infrastructure chapter contains the policies and rules relating to infrastructure in natural and coastal hazard overlays. Because the policies and rules for infrastructure in natural and coastal hazard overlays relate primarily to the management of identified risks, the relevant s32 evaluation of these provisions is provided in this report. Nevertheless, the s32 report for the Infrastructure chapter is relevant because it addresses the underlying District Plan approach for infrastructure in general.
Renewable Electricity Generation (REG)	The Renewable Electricity Generation chapter contains any policies and rules relating to infrastructure in natural and coastal hazard overlays. Because the policies and rules for renewable electricity generation in natural and coastal hazard overlays relate primarily to the management of identified risks, the relevant s32 evaluation of these provisions is provided in this report. Nevertheless, the s32 report

	for the Renewable Electricity Generation chapter is relevant because it addresses the underlying District Plan approach for renewable electricity generation in general.
Coastal Environment (CE)	The objectives, policies, and rules pertaining to coastal hazards are located in the Coastal Environment chapter, however the proposed provisions are evaluated in this s32 report.
Three Waters (THW)	The Three Waters chapter addresses the capacity demand on the Three Waters network (including stormwater) and contains provisions pertaining to hydraulic neutrality, which ensures that new development does not increase the risks from flooding. Therefore, the s32 evaluation report for the Three Waters chapter is of relevance.

(13) The table below shows the location of provisions relating to the Natural Hazards and Coastal Hazards.

	Objectives	**Policies**	**Rules**
Natural Hazards – general provisions	NH Chapter	NH Chapter	NH Chapter
Coastal Hazards – general provisions	CE Chapter	CE Chapter	CE Chapter
Subdivision in NH and CH overlays	SUB, NH and CE Chapters	SUB, NH and CE Chapter	SUB Chapter
Earthworks in NH and CH overlays	EW Chapter	EW Chapter	EW Chapter
Infrastructure in NH and CH overlays	INF Chapter	INF Chapter	INF Chapter

Renewable Electricity Generation in NH and CH overlays	REG Chapter	REG Chapter	REG Chapter

Strategic Direction

(14) The following objectives in the Strategic Direction chapter of the Proposed District Plan are the most relevant to this topic.

Strategic Direction Objectives	
Climate Change and Natural Hazards	
CCSD-O2	**Natural Hazards**
The risk to people, communities, and property from natural hazards, and from the potential effects of climate change on natural hazards, is avoided or minimised to acceptable levels.	
Urban Form and Development	
UFD-O2	**Outcomes for Well-Functioning Urban Environments**
Urban development supports the creation of liveable, well-functioning urban environments that are: a. Safe and well-designed b. Walkable and connected by public transport and sustainable travel choices, including micro-mobility modes c. Serviced by the necessary infrastructure appropriate to the intensity, scale and function of the development d. Connected to open space and the natural environment e. Ecologically sensitive f. Close to employment opportunities g. Resilient to the impacts of natural hazards and climate change h. Respectful of and integrated with the city's historic heritage i. Adaptable over time and responsive to their evolving, more intensive surrounding context.	

3 Statutory and Policy Context

(15) The following sections discuss the national, regional and local policy framework that are particularly relevant to the statutory and policy context for natural hazards for the District Plan Review.

3.1 Resource Management Act 1991

3.1.1 Section 5 – Purpose and Principles

(16) The purpose of the RMA is set out in Section 5. The purpose is to promote the sustainable management of natural and physical resources.

(17) Under s5(2) of the Act, sustainable management means:

> *managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while—*
>
> *(a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
>
> *(b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
>
> *(c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.*

3.1.2 Section 6 – Matters of National Importance

(18) Section 6 of the RMA sets out matters of national importance that all persons exercising functions and powers under the Act shall *recognise and provide for* in achieving the purpose of the RMA. The relevant s6 matters for natural hazards are:

Section	Relevant Matter
6(h)	*The management of significant risks from natural hazards.* Councils are obligated to recognise and provide for the management of the significant risks of natural hazards.

3.1.3 Section 7 – Other Matters

(19) Section 7 of the RMA sets out other matters that all persons exercising functions and powers under it shall *have particular regard to* in achieving the purpose of the RMA. The relevant s7 matters for natural hazards are:

Section	Relevant Matter
7(i)	*The effects of climate change* Climate change exacerbates the risk of natural hazards, in particular increased rainfall and flooding events and higher sea levels.

3.1.4 Section 8 – Treaty of Waitangi

(20) Section 8 of the RMA requires Council to *take into account* the principles of the Treaty of Waitangi when exercising functions and powers under the Act.

(21) Council works in partnership with Taranaki Whānui ki te Upoko o te Ika (Port Nicholson Block Settlement Trust), Wellington Tenths Trust, Palmerston North Māori Reserve Trust, Te Rūnanganui o Te Āti Awa ki Te Upoko o Te Ika a Māui Incorporated and Te Rūnanga o Toa Rangatira Incorporated to actively provide for and protect their interests and develop provisions to recognise and provide opportunities for tangata whenua to exercise kaitiakitanga.

3.1.5 Section 31 - Functions of Territorial Authorities under this Act

(22) Section 31 lists the functions of territorial authorities. The following are of relevance for natural hazards:

- The establishment, implementation, 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 (s31(a)).

- The establishment, implementation, and review of objectives, policies, and methods to ensure that there is sufficient development capacity in respect of housing and business land to meet the expected demands of the district (s31(aa)).
- The control of any actual or potential effects of the use, development, or protection of land, including for the purpose of the avoidance or mitigation of natural hazards (s31(b)(i)).

3.1.6 Sections 106

(23) Section 106 pertains to the consideration of subdivision applications and states:

(1) A consent authority may refuse to grant a subdivision consent, or may grant a subdivision consent subject to conditions, if it considers that—

(a) there is a significant risk from natural hazards

(1A) For the purpose of subsection (1)(a), an assessment of the risk from natural hazards requires a combined assessment of—

(a) the likelihood of natural hazards occurring (whether individually or in combination); and

(b) the material damage to land in respect of which the consent is sought, other land, or structures that would result from natural hazards; and

(c) any likely subsequent use of the land in respect of which the consent is sought that would accelerate, worsen, or result in material damage of the kind referred to in paragraph (b).

(2) Conditions under subsection (1) must be—

(a) For the purposes of avoiding, remedying, or mitigating the effects referred to in subsection (1); and

(b) of a type that could be imposed under section 108.

(24) The proposed natural hazard and coastal hazards provisions will assist with the consideration of subdivision applications against s 106 as they will provide guidance around what is considered to be acceptable risk.

3.2 National Policy Statements and the New Zealand Coastal Policy Statement

(25) Sections 75(3)(a) and 75(3)(b) of the RMA require district plans to give effect to any National Policy Statement and the New Zealand Coastal Policy Statement.

(26) The relevant national policy statements and New Zealand Coastal Policy Statement area discussed below.

3.2.1 New Zealand Coastal Policy Statement

(27) The New Zealand Coastal Policy Statement 2010 (NZCPS) requires coastal hazards to be planned for and for the implementation of provisions to ensure that there is no increase in risk from coastal hazards. The NZCPS also requires the impacts of climate change on coastal hazards to be considered.

(28) The most relevant objectives and policies are:

New Zealand Coastal Policy Statement	
Objective 5	*To ensure that coastal hazard risks taking account of climate change, are managed by*: • *Locating new development away from areas prone to such risks;* • *Considering responses, including managed retreat, for existing development in this situation; and* • *Protecting or restoring natural defences to coastal hazards.* This objective sets the outcomes that are required when formulating District Plan provisions to address coastal hazards.
Policy 24 – Identification	*(1) Identify areas in the coastal environment that are potentially affected by coastal hazards (including tsunami), giving priority to*

of coastal hazards	*the identification of areas at high risk of being affected. Hazard risks, over at least 100 years, are to be assessed having regard to:* *(a) physical drivers and processes that cause coastal change including sea level rise;* *(b) short-term and long-term natural dynamic fluctuations of erosion and accretion;* *(c) geomorphological character;* *(d) the potential for inundation of the coastal environment, taking into account potential sources, inundation pathways and overland extent;* *(e) cumulative effects of sea level rise, storm surge and wave height under storm conditions;* *(f) influences that humans have had or are having on the coast;* *(g) the extent and permanence of built development; and* *(h) the effects of climate change on:* *(i) matters (a) to (g) above;* *(ii) storm frequency, intensity and surges; and* *(iii) coastal sediment dynamics;* *taking into account national guidance and the best available information on the likely effects of climate change on the region or district.* This policy outlines the process and the matters that require consideration when identifying coastal hazards, and prioritise the identification of high hazard areas.
Policy 26 - Natural defences against	*(1) Provide where appropriate for the protection, restoration or enhancement of natural defences that protect coastal land uses, or sites of significant biodiversity, cultural or historic heritage or geological value, from coastal hazards.*

coastal hazards	*(2) Recognise that such natural defences include beaches, estuaries, wetlands, intertidal areas, coastal vegetation, dunes and barrier islands.* This policy seeks to ensure that natural defences that protect coastal land use activities are protected, restored or enhanced, if appropriate.
Policy 27 - Strategies for protecting significant existing development from coastal hazard risk	*(1) In areas of significant existing development likely to be affected by coastal hazards, the range of options for reducing coastal hazard risk that should be assessed includes*: *(a) promoting and identifying long-term sustainable risk reduction approaches including the relocation or removal of existing development or structures at risk;* *(b) identifying the consequences of potential strategic options relative to the option of 'do-nothing';* *(c) recognising that hard protection structures may be the only practical means to protect existing infrastructure of national or regional importance, to sustain the potential of built physical resources to meet the reasonably foreseeable needs of future generations;* *(d) recognising and considering the environmental and social costs of permitting hard protection structures to protect private property; and* *(e) identifying and planning for transition mechanisms and timeframes for moving to more sustainable approaches.* *(2) In evaluating options under (1)*: *(a) focus on approaches to risk management that reduce the need for hard protection structures and similar engineering interventions;* *(b) take into account the nature of the coastal hazard risk and how it might change over at least a 100-year timeframe, including the expected effects of climate change; and*

	(c) evaluate the likely costs and benefits of any proposed coastal hazard risk reduction options. *(3) Where hard protection structures are considered to be necessary, ensure that the form and location of any structures are designed to minimise adverse effects on the coastal environment.* *(4) Hard protection structures, where considered necessary to protect private assets, should not be located on public land if there is no significant public or environmental benefit in doing so.* This policy sets out the matters that needs to be considered when assessing the options to reduce coastal hazard risk, including when it is appropriate to use hard engineering structures.

3.2.2 NPS on Urban Development 2020

(29) The NPS on Urban Development 2020 (NPS-UD) aims to support well-functioning urban environments to provide for current and future community well-being. Under the NPS-UD, Hutt City is within a Tier 1 urban environment, where RMA plans must provide opportunities for land development to meet housing and business needs, supported by adequate development capacity.

(30) The NPS-UD is relevant to the Natural Hazards chapter and the Coastal Hazards provisions, as it requires for the health and safety of communities to be provided for as well as ensuring that future development is resilient to the effects of climate change. The relevant provisions are outlined in the following table:

NPS on Urban Development 2020	
Objective 1	*New Zealand has well-functioning urban environments that enable all people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future.*
Objective 8	*New Zealand's urban environments*: *(a) support reductions in greenhouse gas emissions; and*

	(b) are resilient to the current and future effects of climate change.
Policy 1	*Planning decisions contribute to well-functioning urban environments, which are urban environments that, as a minimum*: *(a) have or enable a variety of homes that*: *(i) meet the needs, in terms of type, price, and location, of different households; and* *(ii) enable Māori to express their cultural traditions and norms; and* *(b) have or enable a variety of sites that are suitable for different business sectors in terms of location and site size; and* *(c) have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport; and* *(d) support, and limit as much as possible adverse impacts on, the competitive operation of land and development markets; and* *(e) support reductions in greenhouse gas emissions; and* *(f) are resilient to the likely current and future effects of climate change.*
Policy 4	*Regional policy statements and district plans applying to tier 1 urban environments modify the relevant building height or density requirements under Policy 3 only to the extent necessary (as specified in sub part 6) to accommodate a qualifying matter in that area.*
Policy 6	*When making planning decisions that affect urban environments, decision-makers have particular regard to the following matters*:

	(a) the planned urban built form anticipated by those RMA planning documents that have given effect to this National Policy Statement *(b) that the planned urban built form in those RMA planning documents may involve significant changes to an area, and those changes:* *(i) may detract from amenity values appreciated by some people but improve amenity values appreciated by other people, communities, and future generations, including by providing increased and varied housing densities and types; and* *(ii) are not, of themselves, an adverse effect* *(c) the benefits of urban development that are consistent with well-functioning urban environments (as described in Policy 1)* *(d) any relevant contribution that will be made to meeting the requirements of this National Policy Statement to provide or realise development capacity* *(e) the likely current and future effects of climate change*

3.3 National Environmental Standards

(31) National Environmental Standards (NES) are regulations made under s43 of the RMA, and effectively function like rules in a district or regional plan. A district plan can only be more lenient or strict than a national environmental standard if the standard specifically provides for it.

(32) The following NES are relevant for Natural Hazards and Coastal Hazards.

3.3.1 NES for Telecommunication Facilities

(33) Section 57 of the NES for Telecommunication Facilities 2016 (NES-TF) states that a territorial authority cannot make a natural hazard rule that applies to an identified regulated activity. The regulated activities are identified within Part 4 of the NESTF. The proposed provisions within this plan change are

consistent with the requirements of the NESTF and does not impose control over the identified regulated activities.

3.3.2 NES for Freshwater

(34) Regulation 51 of the NES for Freshwater 2020 (NES-FW) permits natural hazard mitigation work around wetlands. However, this regulation only applies to Regional Council functions (as identified under Regulation 5) and does not affect territorial authorities.

3.4 National environmental standards

(35) National Environmental Standards are regulations made under s43 of the RMA, and effectively function like rules in a district or regional plan.

(36) The following NES are relevant for Natural Hazards and Coastal Hazards.

3.4.1 NES for Telecommunication Facilities

(37) Section 57 of the NES for Telecommunication Facilities 2016 (NES-TF) states that a territorial authority cannot make a natural hazard rule that applies to an identified regulated activity. The regulated activities are identified within Part 4 of the NESTF. The proposed provisions within this plan change are consistent with the requirements of the NESTF and does not impose control over the identified regulated activities.

3.4.2 NES for Freshwater

(38) Regulation 51 of the NES for Freshwater 2020 (NES-FW) permits natural hazard mitigation work around wetlands. However, this regulation only applies to Regional Council functions (as identified under Regulation 5) and does not affect territorial authorities.

3.5 National Planning Standards

(39) Section 75(3)(ba) requires district plans to give effect to national planning standards.

(40) The National Planning Standards require that, if provisions relating to natural hazards are addressed in a District Plan, they must be located in the Natural

Hazards chapter, except for coastal hazards. The provisions for coastal hazards must be located in the Coastal Environment chapter. The Natural Hazards chapter and the Coastal Environment chapter must both be located in Part 2 – District-Wide Matters of the District Plan.

(41) Hutt City is affected by a range of both natural hazards and coastal hazards and therefore the required provisions to address these hazards have been included in the District Plan.

3.6 Regional Policy Statement for the Wellington Region

(42) Section 75(3)(c) of the RMA requires district plans to give effect to any regional policy statement.

(43) The Regional Policy Statement for the Wellington Region ('the RPS') identifies the significant resource management issues for the region and outlines the policies and methods required to achieve the integrated sustainable management of the region's natural and physical resources.

(44) The table below identifies the relevant provisions and resource management topics for natural and coastal hazards contained in the RPS.

Regional Policy Statement for the Wellington Region	
Objective 19	*The risks and consequences to people, communities, their businesses, property and infrastructure from natural hazards and climate change effects are reduced.* Objective 19 requires that District Plans must include provisions to manage the risk from natural hazards.
Objective 20	*Hazard mitigation measures, structural works and other activities do not increase the risk and consequences of natural hazard events.* Objective 20 requires that hazard mitigation works be limited in certain areas. When hazard mitigation works are provided for, the consenting framework needs to consider potential changes to the natural hazard risk, including the risk to neighbouring properties from the works.

Objective 21	*Communities are more resilient to natural hazards, including the impacts of climate change, and people are better prepared for the consequences of natural hazard events.* Objective 21 means that the proposed provisions need to improve community resilience and account for climate change. It is recognised that resilience can be improved by a number of factors including allowing for hazard mitigation works, requiring developments to avoid or mitigate the risk from natural hazards, improving infrastructure resilience, maintaining natural features that protect against natural hazards, etc.
Policy 29 - Avoiding inappropriate subdivision and development in areas at high risk from natural hazards – district and regional plans	*Regional and district plans shall:* *(a) identify areas at high risk from natural hazards; and* *(b) include polices and rules to avoid inappropriate subdivision and development in those areas.* This means that when developing the framework for the District Plan, development and subdivision within the high hazard areas are limited to only those that are appropriate.
Policy 51 - Minimising the risks and consequences of natural hazards – consideration	*When considering an application for a resource consent, notice of requirement, or a change, variation or review to a district or regional plan, the risk and consequences of natural hazards on people, communities, their property and infrastructure shall be minimised, and/or in determining whether an activity is inappropriate particular regard shall be given to:* *(a) the frequency and magnitude of the range of natural hazards that may adversely affect the proposal or development, including residual risk;*

	(b) the potential for climate change and sea level rise to increase the frequency or magnitude of a hazard event; *(c) whether the location of the development will foreseeably require hazard mitigation works in the future;* *(d) the potential for injury or loss of life, social disruption and emergency management and civil defence implications – such as access routes to and from the site;* *(e) any risks and consequences beyond the development site;* *(f) the impact of the proposed development on any natural features that act as a buffer, and where development should not interfere with their ability to reduce the risks of natural hazards;* *(g) avoiding inappropriate subdivision and development in areas at high risk from natural hazards;* *(h) the potential need for hazard adaptation and mitigation measures in moderate risk areas; and* *(i) the need to locate habitable floor areas and access routes above the 1:100 year flood level, in identified flood hazard areas.* The matters that regard should be had to, as outlined in Policy 51, provide a framework of the matters that a risk-based approach to the management of development and natural hazards needs to address.
Policy 52 - Minimising adverse effects of hazard mitigation measures – consideration	*When considering an application for a resource consent, notice of requirement, or a change, variation or review of a district or regional plan, for hazard mitigation measures, particular regard shall be given to*: *(a) the need for structural protection works or hard engineering methods;* *(b) whether non-structural or soft engineering methods are a more appropriate option;* *(c) avoiding structural protection works or hard engineering methods unless it is necessary to protect existing development or property from unacceptable risk and the works form part of a long-term*

	hazard management strategy that represents the best practicable option for the future; *(d) the cumulative effects of isolated structural protection works; and* *(e) residual risk remaining after mitigation works are in place,* *so that they reduce and do not increase the risks of natural hazards.* Policy 52 provides a framework of the matters that need to be considered when developing a framework for the consideration of structural (hard engineering) and non-structural (green infrastructure) measures for natural hazards.

3.6.1 Proposed Change 1 to the RPS

(45) Under section 74(2)(a)(i), the Council is required to have regard to any proposed regional policy statement.

(46) On 19 August 2022 Greater Wellington Regional Council notified Proposed RPS Change 1.

(47) The purpose of Proposed RPS Change 1 is to implement national direction relating to urban development and freshwater, to strengthen provisions relating to indigenous ecosystems and, of particular relevance to this plan change, to respond to the climate emergency. As part of this change, the natural hazard objective and policies were also updated to reflect current practice.

(48) The table below lists the decision version of the changes which are relevant for natural hazards and coastal hazards. It is noted that Proposed RPS Change 1 is currently going through the appeal phase and that some of the provisions below are affected by appeals.

Provision	Proposed RPS Change 1 – Decision Version
3.1A Climate Change (New Chapter)	
Objective CC.1	*The Wellington Region is a low-emission and climate-resilient region, where climate change mitigation and climate change adaptation are an integral part of:* *(a) sustainable air, land, freshwater, and coastal management,* *(b) well-functioning urban areas and rural areas, and* *(c) the planning and delivery of infrastructure (including regionally significant infrastructure).*
Objective CC.4	*Nature-based solutions are an integral part of climate change mitigation and climate change adaptation, improving the health, well-being and resilience of people and communities, indigenous biodiversity, and natural and physical resources.*
Objective CC.6	*Resource management and adaptation planning increases the resilience of communities, infrastructure and the natural environment to the short, medium, and long-term effects of climate change.*
Objective CC.7	*People and businesses understand the current and predicted future effects of climate change, how these may impact them, how to respond to the challenges of climate change, and are actively involved in appropriate climate change mitigation and climate change adaptation responses.*
Objective CC.8	*Mana whenua / tangata whenua are empowered to achieve climate-resilience in their communities.*
Policy CC.4	***Climate responsive development*** *District plans shall include objectives, policies, rules and/or non-regulatory methods to require development and infrastructure to be located, designed, and constructed in ways that provide for climate*

	change mitigation, climate change adaptation and climate-resilience, prioritising the use of nature-based solutions and informed by mātauranga Māori. *This includes, as appropriate to the scale and context of the activity:* *(a) requiring provision of urban green space, particularly canopy trees, to reduce urban heat and reduce stormwater flowrates:* *(i) prioritising the use of appropriate indigenous species, and* *(ii) contributing to achieving a wider target of 10 percent tree canopy cover at a suburb-scale by 2030, and 30 percent cover by 2050,* *(b) requiring methods to increase water resilience, including harvesting of water at a domestic and/or community-scale for non-potable uses (for example by requiring rain tanks, rainwater reuse tanks, and setting targets for urban roof area rainwater collection),* *(c) requiring that significant adverse effects on the climate change mitigation, climate change adaptation and climate-resilience functions and values of an ecosystem shall be avoided, and other adverse effects on these functions and values shall be avoided, minimised, or remedied,* *(d) promoting efficient use of water and energy in buildings and infrastructure, and* *(e) promoting appropriate design of buildings and infrastructure so they are able to withstand the predicted future higher temperatures, intensity and duration of rainfall and wind over their anticipated life span.*
Policy CC.7	***Protecting, restoring, and enhancing ecosystems and habitats that provide nature-based solutions to climate change*** *District and regional plans shall include objectives, policies, rules and/or methods that provide for nature-based solutions to climate change to be part of development and infrastructure planning and design.*

Policy CC.14	***Climate-responsive development*** *When considering an application for a resource consent, notice of requirement, or a change, variation or review of a district plan, require that development and infrastructure is located, designed and constructed in ways that provide for climate change mitigation, climate change adaptation and climate-resilience prioritising the use of nature-based solutions and informed by mātauranga Māori. This includes as appropriate to the scale and context of the activity:* *(a) providing urban green space, particularly canopy trees, to reduce urban heat and reduce stormwater flowrates:* *i. prioritising the use of appropriate indigenous species, and* *ii. contributing to achieving a wider target of 10 percent tree canopy cover at a suburb-scale by 2030, and 30 percent cover by 2050; and* *(b) methods to increase water resilience, including by requiring harvesting of water at a domestic and/or community-scale for non-potable uses (for example by requiring rain tanks, rainwater re-use tanks, and setting targets for urban roof area rainwater collection); and* *(c) avoiding significant adverse effects on the climate change mitigation, climate change adaptation and climate-resilience functions and values of an ecosystem, and avoiding, minimising, or remedying other adverse effects on these functions and values; and* *(d) promoting efficient use of water and energy in buildings and infrastructure; and* *(e) promoting appropriate design of buildings and infrastructure so they are able to withstand the predicted future higher temperatures, intensity and duration of rainfall and wind over their anticipated life span.*

3.8 Natural Hazards	
Objective 19	*The risks to people, communities, business, property, and infrastructure from natural hazards and the effects of climate change are avoided or minimised.*
Objective 20	*Natural hazard mitigation measures and climate change adaptation activities minimise the risks from natural hazards, and impacts on, Te Mana o te Wai, taonga species, sites of significance to mana whenua / tangata whenua, natural processes, indigenous ecosystems and biodiversity.*
Objective 21	*The resilience of our communities, infrastructure and the natural environment to natural hazards is improved, including to the short, medium, and long-term effects of climate change and sea level rise, and people are better prepared for the consequences of natural hazard events.*
Policy 29	***Managing subdivision, use and development in areas at risk from natural hazards*** *Regional and district plans shall manage subdivision, use and development in areas at risk from natural hazards as follows*: *(a) identify areas potentially affected by natural hazards; and* *(b) use a risk-based approach to assess the consequences to new or existing subdivision, use and development from natural hazard and climate change impacts over at least a 100 year planning horizon which identifies the hazards or risks as being low, medium or high; and* *(c) include hazard overlays, objectives, polices and rules to manage new and existing subdivision, use and development in those areas where the hazards or risks are assessed as low to medium in order to minimise or not increase the risks from natural hazards; and* *(d) include hazard overlays, objectives, polices and rules to avoid new and minimise or not increase the risks to existing subdivision, use*

	and development and hazard sensitive activities in areas where the hazards or risks are assessed as high, unless there is a functional or operational need to be located in these areas.
Policy 51	***Avoiding or minimising the risks and consequences of natural hazards*** *When considering an application for a resource consent, notice of requirement, or a change, variation or review to a district or regional plan, the risk and consequences of natural hazards on people, communities, their property and infrastructure shall be avoided or minimised, and/or in determining whether an activity is inappropriate particular regard shall be given to*: *(a) the likelihood and consequences of the range of natural hazards that may adversely affect subdivision, use or development, including those that may be exacerbated by climate change and sea level rise; and* *(b) whether the location of the subdivision, use or development will foreseeably require hazard mitigation works in the future; and* *(c) the potential for injury or loss of life, social and economic disruption and civil defence emergency management implications – such as access routes to and from the site; and* *(d) whether the subdivision, use or development causes any change in the risks and consequences from natural hazards in areas beyond the application site; and* *(e) minimising effects of the subdivision, use or development on any natural features that may act as a buffer to reduce the impacts from natural hazards; and* *(f) avoiding subdivision, use or development and hazard sensitive activities where the hazards and risks are assessed as high, unless there is a functional or operational need to be located in these areas; and* *(g) appropriate hazard risk management and/or adaptation measures for subdivision, use or development in areas where the hazards*

	and risks are assessed as low to moderate, including an assessment of residual risk; and *(h) the allowance for floodwater conveyancing in identified overland flow paths and stream corridors; and* *(i) the need to locate floor levels of habitable buildings and buildings used as places of employment above the 1% annual exceedance probability (1:100 year) flood level, in identified flood hazard areas; and* *(h) whether Te Ao Māori or mātauranga Māori provides a broader understanding of the hazards and risk management options.*
Policy 52	***Avoiding or minimising adverse effects of hazard mitigation measures*** *When considering an application for a resource consent, notice of requirement, or a change, variation or review of a district or regional plan, for hazard mitigation measures, particular regard shall be given to:* *(a) whether-nature-based solutions, Mātauranga Māori, soft engineering options provide a more appropriate solution; and* *(b) avoiding hard engineering methods unless it is necessary to protect existing development, regionally significant infrastructure or property from unacceptable risk and the works form part of a hazard risk management strategy that represents the best practicable option for the future; and* *(c) the long-term viability of maintaining a hard engineering approach with particular regard to changing risks from natural hazards over time due to climate change; and* *(d) adverse effects on Te Mana o te Wai, mahinga kai, taonga species, natural processes, and the indigenous ecosystems and biodiversity; and* *(e) sites of significance to mana whenua / tangata whenua, including those identified in a planning document recognised by an iwi authority and lodged with a local authority or scheduled in a district or regional plan; and*

	(f) any change in natural hazard risk to nearby areas as a result of changes to natural processes from the hazard mitigation works; and *(g) the cumulative effects of isolated hard engineering-works; and* *(h) any residual risk remaining after mitigation works are in place, so that they minimise or do not increase the risks from natural hazards.*

(49) The new objectives and policies for Climate Change specifically require the consideration of climate change and the incorporation of appropriate mitigation measures and adaptation responses.

(50) The proposed changes to the objectives for Natural Hazards expand the consideration of hazard risk to include the potential effect on the natural environment, rather than limiting it to just people, communities, infrastructure and property.

(51) The supporting policies put greater emphasis on a risk-based approach and the management of subdivision, use and development in natural hazard areas, depending on the sensitivity of the proposed activity and the level of the hazard risk.

3.7 Natural Resources Plan for the Wellington Region

(52) Section 74(2)(a)(ii) requires territorial authorities, when preparing or changing a district plan, to have regard to any proposed regional plan of its region in regard to any matter of regional significance or for which the regional council has primary responsibility under Part 4 of the Act.

(53) The following provisions of the NRP are of relevance to this topic:

Natural Resources Plan for the Wellington Region	
Objectives	
Objective 15 Natural Hazards	*The hazard risk and residual hazard risk, from natural hazards and adverse effects of climate change, on people, the community, the environment and infrastructure are acceptable.*
Objective 16 Natural Hazards	*Inappropriate use and development in high hazard areas is avoided.*
Policies	
Policy P16	***Flood protection activities*** *The use, maintenance and ongoing operation of existing catchment based flood and erosion risk management activities to manage the hazard risk of flooding to people, property, infrastructure and communities are provided for.*
Policy P17	***New flood protection and erosion control*** *The social, cultural, economic and environmental benefits of new catchment based flood and erosion risk management activities are recognised.*
Policy P25	***High hazard areas*** *Use and development, including hazard mitigation methods, in on or over high hazard areas shall be managed to ensure that:* *(a) they have a functional need or operational requirement or there is no practicable alternative to be so located, and* *(b) an overall increase in risk of social, environmental and economic harm is avoided, and* *(c) the hazard risk and/or residual hazard risk to the development, assessed using a risk-based approach, is acceptable or as low as*

	reasonably practicable, recognising that in some instances an increase in risk to the development may be appropriate, and *(d) the development does not cause or exacerbate hazard risk in other areas, and unless effects are avoided, remedied or mitigated in accordance with a hazard risk management strategy, and* *(e) adverse effects on natural processes (coastal, riverine and lake processes) are avoided, remedied, or mitigated, and* *(f) natural cycles of erosion and accretion and the potential for natural features to fluctuate in position over time, including movements due to climate change and sea level rise over at least the next 100 years, are taken into account.*
Policy P26	***Diversion of flood waters in a floodplain*** *The diversion of flood waters from any river or lake resulting from earthworks or the erection, placement or extension of a structure within stopbanks or through the creation of new stopbanks shall be managed to ensure*: *(a) any increase in hazard risk or residual hazard risk in other areas as a result of the diversion is avoided or mitigated, and* *(b) any adverse effects on natural processes are avoided, remedied, or mitigated, and* *(c) natural cycles of erosion and accretion and the potential for natural features to fluctuate in position over time, including movements due to climate change over at least the next 100 years, are taken into account.*
Policy P27	***Hazard mitigation measures*** *Hard hazard engineering mitigation and protection methods shall be discouraged except where it is necessary to protect*: *(a) existing, or upgrades to, infrastructure including Regionally Significant Infrastructure, or*

	(b) new Regionally Significant Infrastructure, or *(c) significant existing development, and* *in respect of (a), (b) and (c):* *(d) there is no reasonable or practicable alternatives to mitigate hazard risk and residual hazard risk, and* *(e) the mitigation and protection methods are suitably located and designed, and where appropriate certified by a qualified, professional engineer, and* *(f) the use of soft engineering options are incorporated and used, where appropriate,* *and either:* *(g) any adverse effects are no more than minor, or* *(h) where the environmental effects are more than minor the works form part of a hazard risk management strategy.*
Policy P28	***Effects of climate change*** *Particular regard shall be given to the potential for climate change* *(a) to threaten biodiversity, aquatic ecosystem health and mahinga kai, or* *(b) to cause or exacerbate natural hazard events over at least the next 100 years that could adversely affect use and development* *including as a result of:* *(c) coastal erosion and inundation (storm surge), and* *(d) river and lake flooding and erosion, aggradation, decreased minimum flows, and* *(e) stormwater ponding and impeded drainage, and* *(f) relative sea level rise, reliable scientific data for the Wellington region.*

Policy P29	***Natural buffers*** *Provide for the restoration or enhancement of natural features such as beaches, dunes or wetlands that buffer development from natural hazards and ensure the adverse effects of use and development on them are avoided, remedied, or mitigated.*

3.7.1 Proposed NRP Change 1

(54) Under section 74(2)(a)(ii) of the RMA, the Council is required to have regard to any proposed regional plan in regard to any matter of regional significance or for which the regional council has primary responsibility under Part 4 of the Act.

(55) On 30 October 2023 Greater Wellington Regional Council notified Proposed NRP Change 1.

(56) The purpose of Proposed NRP Change 1 is the implementation of regulatory and non-regulatory recommendations from the Whaitua Implementation Programmes (Te Awarua-o-Porirua (TAoP) and Te Whanganui-a-Tara (TWT) Implementation Programmes). It also includes other regulatory amendments to rules relating to air quality, beds of lakes and rivers, and new sites with significant biodiversity values.

(57) No changes as part of Proposed NRP Change 1 relate to natural or coastal hazards. However, it would introduce new maps that identify erosion risk areas for pasture, plantation forestry and woody vegetation and related policies and rules.

3.8 Iwi management plans

(58) Section 74(2A) requires territorial authorities, when preparing or changing a district plan, to 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 the district.

(59) However, no iwi management plans have been lodged with Hutt City Council.

3.9 Hutt City Council plans, policies, and strategies

(60) Section 74(2)(b)(i) of the RMA requires that when preparing or changing a District Plan, a territorial authority shall have regard to any management plans and strategies prepared under other Acts.

(61) In addition, there are other plans, policies and strategies of Council that, while not directly prepared under a specific Act, should be considered as part of the District Plan Review as they set Council's intentions on some matters that need to be addressed through the District Plan Review.

(62) The following Council plans, policies and strategies are relevant for Natural Hazards and Coastal Hazards:

Plan / Policy / Strategy	Relevant Provisions
Infrastructure Strategy 2024-2034	The Infrastructure Strategy lists the inundation risk from an increased risk of climate-induced high rainfall events and sea level rise as one of the main challenges. One of the identified measures to address these challenges is to make sure that infrastructure investment mitigates the effects of a changing climate. The key infrastructure investments include the seismic strengthening of the Cuba Street overbridge, stormwater improvements in Petone, Black Creek stormwater improvements and Tupua Horo Nuku (Eastern Bays Shared Path). The Infrastructure Strategy recognises and addresses ***Infrastructure in the context of the changing climate*** *and* ***The multiple effects of a changing climate and natural hazards.*** It states that the changing climate is increasingly creating challenges and issues for infrastructure networks throughout Aotearoa New Zealand and that since Lower Hutt is located on a floodplain close to

	the inter-tidal zone, large parts of the city are vulnerable to natural hazards. It outlines the potential adverse effects of climate change, intense storms, heavy rainfall, flooding, prolonged dry periods and potential earthquakes on infrastructure such as roads and the three waters network and the consequential threats to residents' health and well-being.

3.10 District plans of adjacent territorial authorities

(63) Section 74(2)(c) of the RMA requires territorial authorities, when preparing or changing a district plan, to *have regard to* the extent to which the district plan needs to be consistent with the plans or proposed plans of adjacent territorial authorities.

(64) The approach of district plans of other territorial authorities in the Wellington region are discussed below:

Plan	Relevant Provisions

Wellington City Council - Proposed District Plan (operative in part)	• Contains Natural Hazard chapter and Coastal Environment chapter that includes Coastal Hazards provisions
	  ○ Part 2 – District-Wide Matters/Hazards and Risks/Natural Hazards
	  ○ Part 2 – District-Wide Matters/General District-Wide Matters/Coastal Environment
	• Applies risk-based approach.
	• Identifies areas susceptible to natural hazards and introduces objectives, policies and rules to avoid or manage subdivision, use, and development, relative to the natural hazard risk posed, to reduce the potential for damage to property and the potential for loss of human life.
	• Focuses on
	  ○ Flooding;
	  ○ Fault rupture;

	○ Liquefaction; ○ Coastal inundation, including from sea level rise; and ○ Tsunami • Introduces a hazard ranking for each of the identified natural hazards (low, medium, high). • Allocates a sensitivity rating to buildings and activities (less hazard sensitive activities, potentially hazard sensitive activities, hazard sensitive activities).
Porirua City Council – Proposed District Plan (operative in part)	• Contains Natural Hazard chapter and Coastal Environment chapter that includes Coastal Hazards provisions ○ Part 2 – District-Wide Matters/Hazards and Risks/Natural Hazards ○ Part 2 – District-Wide Matters/General District-Wide Matters/Coastal Environment • Applies risk-based approach. • Identifies areas susceptible to natural hazards and introduces objectives, policies and rules to restrict or manage subdivision, use, and development, including infrastructure, relative to the natural hazard risk posed in order to reduce the damage to property and infrastructure and the potential for loss of human life. • Focuses on ○ Flooding; ○ Fault rupture; ○ Tsunami; ○ Coastal erosion; and ○ Coastal inundation • Introduces a hazard ranking for each of the identified natural hazards (low, medium, high). • Allocates a sensitivity rating to buildings and activities (less hazard sensitive activities, potentially hazard sensitive activities, hazard sensitive activities).
Upper Hutt City Council - Operative District Plan	• Contains Natural Hazard chapter (no coast, therefore no Coastal Environment chapter and no Coastal Hazards provisions) ○ Part 2 – District-Wide Matters/Hazards and Risks/Natural Hazards • Operative District Plan addresses seismic hazards and flood hazards.

	• PC47 Review of the Natural Hazards chapter
	  ○ Notified in October 2022, decision notified in October 2024, appeal period closes on 15 November.
	  ○ Applies risk-based approach.
	  ○ Focus on Wellington Fault, Mangaroa Peatlands and Areas of High Slope Hazard.
	  ○ Manages subdivision, use and development within the Wellington Fault, and High Slope Hazard Overlays.
	  ○ Manages subdivision within the Mangaroa Peat Overlay.

Kāpiti Coast District Council - Operative District Plan	• Contains Natural Hazard chapter and Coastal Environment chapter that includes limited Coastal Hazards provisions
	  ○ Part 2 – District-Wide Matters/Hazards and Risks/Natural Hazards
	  ○ Part 2 – District-Wide Matters/General District-Wide Matters/Coastal Environment
	• NH chapter addresses:
	  ○ NH-FLOOD – Flooding Hazards
	  ○ NH-EQ – Earthquake Hazards
	  ○ NH-FIRE – Fire Hazards
	• Applies precautionary and risk based approach to hazard management.
	• CH chapter contains only very limited coastal hazard provisions:
	  ○ As a result of the withdrawal of coastal hazard provisions from the Proposed District Plan in 2014 and 2017, there are specific coastal hazard-related provisions in the District Plan 1999 that remain operative and in force until they are replaced through a Schedule 1 of the Resource Management Act 1991 process.

South Wairarapa District Council – Proposed Combined District Plan	• Contains Natural Hazard chapter and Coastal Environment chapter that includes Coastal Hazards provisions
	  ○ Part 2 – District-Wide Matters/Hazards and Risks/Natural Hazards
	  ○ Part 2 – District-Wide Matters/General District-Wide Matters/Coastal Environment
	• Applies risk-based approach.

	• Contains provisions relating to the following hazards, as they present the greatest risk to people, property, and infrastructure, and their effects can be managed through appropriate land use planning:
	  ○ Flooding;
	  ○ Fault rupture;
	  ○ Liquefaction;
	  ○ Coastal inundation (including tsunami); and
	  ○ Coastal erosion.
	• Categorises hazards according to their potential risk to people and property (low, moderate, high).
	• Categorises buildings and activities according to the potential consequences to life and property as a result of those activities occurring within a natural hazard area (less hazard sensitive activities, potentially hazard sensitive activities, hazard sensitive activities).
	
	Coastal Hazards
	
	• Identifies Foreshore Protection Area (where knowledge is lacking about coastal processes and where the risks from coastal hazards are likely to be high) and requires precautionary approach.

3.11 Other statutory and non-statutory plan, policies, and strategies

(65) In addition to Hutt City Council's plans, policies and strategies (discussed above), there are regional and national plans, policies and strategies that, while not mandatory considerations for the District Plan Review, should still be considered as they form part of the management regime for natural and physical resources in the district, and considering these documents can aid integrated management.

(66) The following other statutory and non-statutory plans, policies and strategies are relevant for Natural Hazards.

Plan / Policy / Strategy	Relevant Provisions
Wellington Regional Emergency Management Group Plan 2019 – 2024 **Wellington Emergency Management Office**	• Recognises that risk reduction (which is one of the for R's under the Civil Defence and Emergency Management Act 2002) is primarily achieved through the RMA processes. • One of the key actions under the Risk Reduction component of the Group Plan is: *'Take into account hazards and risks in land use planning practices and ensure relevant risk reduction policies are consistent with the Regional Policy Statement (RPS).'*
Wellington Region Natural Hazards Management Strategy **Greater Wellington Regional Council**	The Wellington Regional Natural Hazards Management Strategy sets a regional approach to the management of natural hazards. The purpose of this document is to help create a region resilient to the impacts from natural hazard events through a focus on the reduction component of the 4 R's (reduction, readiness, response, recovery) of the Civil Defence Emergency Management Act. It provides a framework that allows councils, key stakeholders and the community to develop consistent responses to natural hazards (including sea level rise, flooding, storms). It encourages robust and consistent natural hazard policy approaches across district and regional plans and encourages a risk-based approach to enable progressive risk reduction over time. The key objectives of this strategy are as follows: • Our natural hazards and risks are well understood • Our planning takes a long-term risk-based approach • Consistent approaches are applied to natural hazard risk reduction • We have an agreed set of priorities to reduce risks from natural hazards.
Wairarapa-Wellington-	The FDS is a spatial plan that describes a long-term vision for how the region will grow, change and respond to key urban development

Horowhenua Future Development Strategy	challenges and opportunities in a way that gets the best outcomes and maximises the benefits across the region. It is a requirements under the NPS-UD. The objectives of the FDS include increasing housing supply, affordability and choice; enabling growth that protects and enhances the quality of the natural environment and accounts for a transition to a low/no carbon future; encouraging sustainable, resilient and affordable settlement patterns/urban forms that make efficient use of existing infrastructure and resources; build climate change resilience and avoid increasing the impacts and risks from natural hazards.

3.12 Other Legislation or Regulations

(67) In addition to the RMA, other legislation and regulations can be relevant considerations for a district plan, particularly where management of an issue is addressed through multiple pieces of legislation and regulatory bodies.

(68) Natural hazards are managed in New Zealand under a number of statutes. The primary pieces of legislation considered most relevant to local government processes are the Civil Defence Emergency Management Act 2002 (CDEM Act), the RMA, the Building Act 2004 and the Local Government Act 2002 (LGA). Figure 1 below sets out the relationship between the different pieces of legislation.

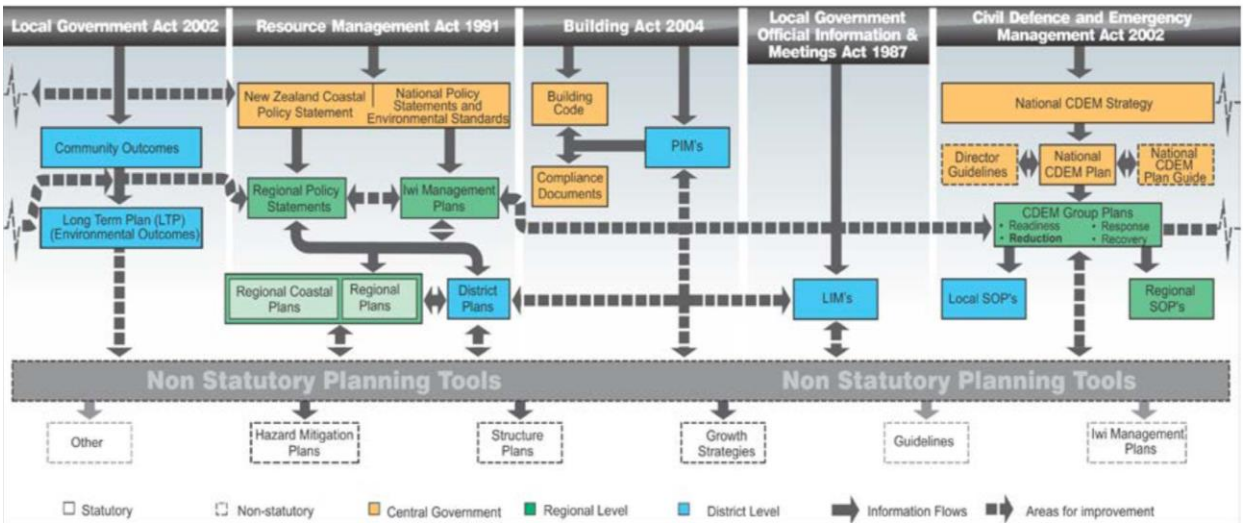


Figure 1: Legislative tools available for managing natural hazards in New Zealand (Saunders, 2017)

(69) The table below outlines how these pieces of legislation manage natural hazard risk at a local government level (it is noted that the table below also includes the Climate Change Response (Zero Carbon) Amendment Act 2019, which is not included in Figure 1 - this piece of legislation has been included in the table as it is the current key legislation that manages climate change in New Zealand, even though most of its focus is at a Central Government level). Each of these different pieces of legislation has its own distinct role to play in natural hazard risk management, and they all rely on the RMA to assist with the management of natural hazard risk through controlling the location of different land use activities. While the four pieces of legislation below play an important role in managing natural hazard risk, their roles complement the RMA process as opposed to duplicating or overriding district plan provisions.

Legislation / Regulation	Relevant Provisions
Building Act 2004	While the RMA is focused on ensuring that the use of land sufficiently avoids or mitigates the potential effects of natural hazards, the Building Act concerns itself with ensuring that any building constructed is safe and fit for purpose, including consideration of the risks from natural hazards, through compliance with the Building Code regulations. Section 71 of the Building Act requires that territorial authorities (TAs) refuse consent for the construction of a building or major alterations on land that is subject to natural hazards where the proposed works will accelerate, worsen, or create a hazard on that land or any other property, unless the TA considers adequate mitigation measures are taken to protect the land, building, or other property. However, s72 does allow building consent authorities to grant building consent for land subject to natural hazards with no mitigation when it is determined that the proposed works will not accelerate, worsen, or create a hazard, and it is considered reasonable to grant a waiver or modification of the Building Code. In these situations, the property owner takes on the risk which is recorded on the title of the property through procedures under s 73 of the Building Act. The Building Code regulations established under the Building Act set certain performance requirements for new buildings, for example that

	surface water must not enter houses in a 1 in 50 year (2% AEP) flood event (Clause E1.3.2). In addition, s31 provides for the preparation of Project Information Memoranda (PIM) when requested from the TA. While not compulsory, a PIM will identify any special feature of the land, which includes susceptibility to natural hazards, such as the potential for erosion, slippage, or flooding.
Civil Defence Emergency Management Act 2002	The Civil Defence Emergency Management (CDEM) Act provides the framework under which natural hazards are to be managed, and sets out the duties, responsibilities, and powers of central and local government, lifeline utilities, and emergency services. It establishes an 'all-hazards' approach that seeks to achieve the sustainable management of hazard risk through the '4 R's' of reduction, readiness, response, and recovery. The CDEM Act, which is administered by the Ministry of Civil Defence and Emergency Management (MCDEM), requires the formation of a number of regional CDEM Groups[1] and each must prepare a CDEM Group Plan that details how the risks that threaten their region will be managed. It is generally expected that the risk reduction component of the CDEM Group plans will be achieved through land use planning measures under the RMA.
Local Government Act 2002	The Local Government Act (LGA) provides the obligations and powers of local government and the general legal framework under which they must operate. Section 10 states that the purpose of the LGA is the promotion of social, economic, environmental, and cultural well-being. Section 145(b) gives local authorities powers to make bylaws for the purpose of protecting, promoting, and maintaining public health and safety.

[1] CDEM Groups are made up of representatives from territorial authorities, regional council, emergency services and lifeline utilities.

	Under s 149, regional councils have the power to make bylaws for flood protection and flood control works.
Climate Change Response (Zero Carbon) Amendment Act 2019	The Climate Change Response (Zero Carbon) Amendment Act 2019 provides a framework by which New Zealand can develop and implement climate change policies that: • contribute to the global effort under the Paris Agreement to limit the global average temperature increase to 1.5° Celsius above pre-industrial levels; and • allow New Zealand to prepare for, and adapt to, the effects of climate change. The changes do four key things: • set a new domestic greenhouse gas emissions reduction target for New Zealand to: o reduce net emissions of all greenhouse gases (except biogenic methane) to zero by 2050 o reduce emissions of biogenic methane to 24–47 per cent below 2017 levels by 2050, including to 10 per cent below 2017 levels by 2030; • establish a system of emissions budgets to act as stepping stones towards the long-term target; • require the Government to develop and implement policies for climate change adaptation and mitigation; and • establish a new, independent Climate Change Commission to provide expert advice and monitoring to help keep successive governments on track to meeting long-term goals.

3.13 Statutory Acknowledgements

(70) The operative District Plan contains, as an addendum, the relevant provisions and statutory acknowledgement areas as identified by the Port Nicholson Block (Taranaki Whānui ki Te Upoko o Te Ika) Claims Settlement Act 2009 and the Ngāti Toa Rangatira Claims Settlement Act 2014. The information provided in the addendum is for the purpose of public information only and does not form part of the District Plan.

(71) A statutory acknowledgement is a formal acknowledgement by the Crown of the mana of tangata whenua over a specified area. It recognises the particular cultural, spiritual, historical and traditional association of an iwi with the site, which is identified as a statutory area.

Statutory Area	**Location**
Taranaki Whānui ki Te Upoko o Te Ika - Port Nicholson Block	
COASTAL MARINE AREA	As shown on SO 408070
HUTT RIVER	As shown on SO 408071
WAIWHETU STREAM	As shown on SO 408072
WELLINGTON HARBOUR	As shown on SO 408073
RIVERSIDE DRIVE MARGINAL STRIP	As shown on SO 408074
SEAVIEW MARGINAL STRIP	As shown on SO 408075
RIMUTAKA FOREST PARK	As shown on SO 408079
WAINUIOMATA SCENIC RESERVE	As shown on SO 408080
TURAKIRAE HEAD SCIENTIFIC RESERVE	As shown on SO 408081
Ngāti Toa Rangatira	
HUTT RIVER AND ITS TRIBUTARIES	As shown on Deed Plan OTS-068-45
COOK STRAIT	As shown on Deed Plan OTS-068-38
WELLINGTON HARBOUR (PORT NICHOLSON)	As shown on Deed Plan OTS-068-40

4 Resource management issues

4.1 Introduction to resource management issues

(72) Hutt City is affected by a wide range of natural hazards. The impacts of these hazards vary, with some hazards having the potential to have significant impacts on the City and other hazards less of an impact. At the start of the District Plan review, an assessment was made of the various natural hazards and their impacts on the City. This assessment concluded that the following hazards present the greatest risk to life and or property within the City and were the hazards best addressed through the District Plan review:

- Fault Rupture;
- Flooding;
- Liquefaction;
- Slope Stability;
- Tsunami Inundation; and
- Coastal Inundation (including sea level rise).

Fault Rupture

(73) There is one major faultline within the Hutt Valley, being the Wellington Fault, which requires a planning response. While there are other faults with varying return periods, the Wellington Fault has the shortest time between rupture, with the rupture time of the fault line increasing the further west the fault is located.

(74) The Wellington Fault crosses through the main urban area of Wellington City and runs along the northwestern edge of the Wellington Harbour before passing through the western side of Lower Hutt's valley floor.

Flooding

(75) This is the most widespread hazard to affect the City, with the majority of the suburbs being impacted by this hazard is some form. Flood modelling has

been undertaken across the City for the 1:100 year rainfall event, assuming an increased in rainfall and 1.59m of sea level rise. The flood modelling that has been undertaken identifies the following:

- High Hazard Areas (Stream Corridors);
- Medium Hazard Areas (Overland Flowpaths); and
- Low Hazard Areas (Ponding).

Liquefaction

(76) Large areas on the valley floor have been identified as being at risk from liquefaction. This is particularly so on the southern and central part of the Valley Floor and Wainuiomata.

Slope Stability

(77) The Hutt Valley has slopes that are prone to failure in heavy rainfall and seismic events. The Slope Assessment Overlay identifies those area susceptible to failure as well as their associated runout extents within the urban area of Hutt City.

Tsunami Inundation

(78) The NZCPS requires the risk from coastal hazards with at least a 1:100 year return period to be managed. As a result, a series of probabilistic tsunami scenarios were mapped for the following return periods:

- 1:100 years;
- 1:500 years; and
- 1:1000 years.

(79) Due to the sudden onset of the tsunami hazard (which can include limited warning time) and the potential impacts on properties and life, it was considered appropriate to consider further impacts from a range of scenarios. This modelling shows that the majority of the coastal regions are impacted by this hazard.

Coastal Inundation (including sea level rise)

(80) The NZCPS requires the risk from coastal hazards with at least a 1:100 year return period to be managed, including sea level rise. As a result, a series of sea level rise maps were produced for the coastal communities. The sea level

rise was based on the MfE guidance (Coastal Hazards and Climate Change: A Guidance Manual for Local Government in New Zealand 2017). This hazard was selected as, while it is occurring over a long-time frame, it is currently happening now and will continue into the future. As such, coastal communities need to start factoring this into future planning decisions now, so that the risk from this hazard does not increase with time.

Other Hazards

(81) These are not the only hazards that impact the City. Other hazards include:

- fire; and
- ground shaking from earthquakes.

(82) In relation to fire, this hazard is best addressed through the response provisions under the CDEM Group Plan that has been prepared under the CDEM Act 2002.

(83) Ground shaking is addressed through the Building Code of the Building Act 2004. As such, any further district plan provisions around this hazard would be a duplication of the considerations under the Building Act 2004 and would not be an effective or efficient response to this hazard.

4.2 Evidence base

(84) The Council has reviewed the operative District Plan, commissioned technical advice and assistance from various internal and external experts and utilised this review and expert advice, along with internal workshops and community feedback, to assist with developing the proposed District Plan, including for the identification of resource management issues.

(85) The following expert advice has been received in relation to natural and coastal hazards:

Title	Author	Brief synopsis
Western Hills Stormwater Catchment – Model Build Report	Wellington Water	This is the flood model report for the Western Hills. It contains the assumptions, modelling information, geographic extent and the inputs used to create the flood hazard model for this area.

Black Creek Stormwater Catchment – Model Build Report	Stantec	This is the flood model report for the Black Creek. It contains the assumptions, modelling information, geographic extent and the inputs used to create the flood hazard model for this area.
Eastern Lower Hutt Stormwater Catchment – Model Build Report	Stantec	This is the flood model report for the Eastern Lower Hutt. It contains the assumptions, modelling information, geographic extent and the inputs used to create the flood hazard model for this area.
Petone Stormwater Catchment – Model Build Report	Stantec	This is the flood model report for the Petone. It contains the assumptions, modelling information, geographic extent and the inputs used to create the flood hazard model for this area.
Stokes Valley Stormwater Catchment – Model Build Report	Stantec	This is the flood model report for the Stokes Valley. It contains the assumptions, modelling information, geographic extent and the inputs used to create the flood hazard model for this area.
East Harbour Stormwater Catchment – Model Build Report	Wellington Water	This is the flood model report for the East Harbour. It contains the assumptions, modelling information, geographic extent and the inputs used to create the flood hazard model for this area.
Flood Hazard Handover Memo	Stantec	This method outlines the methodology for create the Flood Hazard Planning Maps including the classification of Low, Medium and High Hazard Areas/
Coastal inundation and sea level rise assessment for Hutt City District	NIWA	This study looks at the sea level rise scenarios for the Hutt Valley and the associated inundation and includes projected changes to Mean Sea Level (MSL) from climate change and vertical land motion (VLM) over a 100- planning timeframe to the year 2130.Future impacts from RSLR have been assessed

June 2023		based on the SSP2-4.5 median, SSP5-8.5 median and SSP5-8.5 H+ projections.
Hutt City Probabilistic Tsunami Hazard Maps **November 2021**	GNS	This report provides probabilistic tsunami hazard scenarios for the Hutt Valley for the following likelihoods: • 1:100 years • 1:500 years • 1:1000 years
Slope Failure Susceptibility Assessment. Hutt City Council District Plan Review. Report No. GER 2021/36	WSP	The report identifies those areas of the Hutt Valley that are susceptible to slope failure.
Landslide Susceptibility Zones for District Plan. Hutt City District Plan Review	WSP	This report built on the 2021 susceptibility report and provided more detailed information including: • Identified and mapped areas susceptible to landslide debris impacts at a scale of 1:5,000. These zones were combined with slope failure susceptibility data to create a landslide susceptibility overlay. Detailed maps of the individual runout and failure zones, and combined landslide failure and runout zones are included in Appendix A and B at a scale of 1:15,000.

4.2.1 Existing approach of City of Lower Hutt District Plan

(86) The ODP contains a Natural Hazards chapter (Chapter 14H). The current Natural Hazards chapter addresses the following Natural Hazards and Coastal Hazards:

- Fault Rupture Hazards (Wellington Fault)
- Flood Hazards based on a 1% Annual Exceedance Probability Flood including effects of climate change, including:
    - Stream corridor
    - Overland Flow
    - Inundation Areas, flooding, tsunami and coastal inundation.
- Tsunami Hazards, including the effects of climate change:
    - Low Tsunami Hazard (0.1% AEP tsunami event including 1m sea level rise)
    - Medium Tsunami Hazard (0.2% AEP tsunami event including 1m sea level rise)
    - High Tsunami Hazard (1% AEP tsunami event including 1m sea level rise)
- Coastal Inundation Hazard, including the effects of climate change and Vertical Land Movement
    - High Coastal inundation Hazard (1% AEP storm event at existing sea level)
    - Medium Coastal inundation Hazard (1.49m Relative Sea Level Rise, 1% AEP storm tide and wave setup (the average raised elevation of sea level at the shore caused by breaking waves)

(87) The single objective of the Natural Hazards chapter is

> ***Objective 14H 1.1 Risk from Natural Hazards***
>
> *To avoid, reduce or not increase the risk to people, property, and infrastructure from natural hazards and coastal hazards.*

(88) To achieve this objective chapter 14H contains the following policies and rules.

Chapter 14H Natural Hazards	
Policy	**Summary**
Policy 14H 1.1	*Levels of Risk* Outlines the risk based approach and the level of acceptable subdivision, use and development in low, medium and high hazard areas.
Policy 14H 1.2	*Structures and Buildings within the Wellington Fault Rupture Hazard Overlay* Provides policy guidance for new buildings and structures within the Wellington Fault Rupture Hazard Overlay.
Policy 14H 1.3	*Additions to Buildings in an identified Inundation Area of the Flood Hazard Overlay* Provides for additions in inundation areas where effects can be mitigated and the overall risk is reduced or not increased.
Policy 14H 1.4	*Additions to Buildings within the Overland Flowpaths and Stream Corridors of the Flood Hazard Overlays* Only allows for additions in overland flowpaths and stream corridors where effects can be mitigated, the overall risk is reduced or not increased and the flowpaths/corridors are unimpeded.
Policy 14H 1.5	*New residential units, commercial activities or retail activities within the identified Inundation Areas of the Flood Hazard Overlays* Provides for new residential, commercial and retail activities in inundation areas where effects can be mitigated and the overall risk is reduced or not increased.

Policy 14H 1.6	*New residential units, commercial activities or retail activities within the Overland Flowpaths of the Flood Hazard Overlays* Requires the management of new residential, commercial and retail activities in overland flowpaths to ensure effects are being mitigated, the overall risk is reduced or not increased and the flowpaths are unimpeded.
Policy 14H 1.7	*New residential units, commercial activities or retail activities within the Stream Corridors of the Flood Hazard Overlays* Requires the avoidance of new residential, commercial and retail activities in stream corridors unless effects are being mitigated, the overall risk is reduced or not increased and the corridors are unimpeded.
Policy 14H 1.8	*Additions to buildings within the Medium Coastal Hazard Area and High Coastal Hazard Area* Enables additions within medium and high coastal hazard areas where the risk is low.
Policy 14H 1.9	*New residential units within the Low Coastal Hazard Areas* Provides for new residential, commercial and retail activities in low coastal hazard areas where the overall risk is reduced or not increased and safe evacuation can be achieved.
Policy 14H 1.10	*New residential units, commercial activities or retail activities in the Medium Coastal Hazard Area* Requires the management of new residential, commercial and retail activities in medium coastal hazard areas to ensure the overall risk is reduced or not increased and safe evacuation can be achieved.
Policy 14H 1.11	*New commercial activities or retail activities in the High Coastal Hazard Area* Limits new commercial and retail activities in high coastal hazard areas to ensure effects are being mitigated, the overall risk is reduced or not

	increased, safe evacuation can be achieved and there is no adverse effect on natural protection systems.
Policy 14H 1.11A	*Residential units in the High Coastal Hazard Area* Requires the avoidance of new residential units in high coastal hazard areas unless effects are being mitigated, the overall risk is reduced or not increased, safe evacuation can be achieved and there is no adverse effect on natural protection systems.
Policy 14H 1.12	*Subdivision, Use and Development in the Petone Commercial Activity Area and Suburban Mixed Use Activity Area which will not be occupied by members of the public and within the Coastal Hazards Overlays* Provides specific guidance for when certain activities within the Petone Commercial Activity Area and Suburban Mixed Use Activity Area and within Coastal Hazard Overlays are acceptable.
Policy 14H 1.13	*Subdivision, Use and Development in the Petone Commercial Activity Area and Suburban Mixed Use Activity Area which will be occupied by members of the public and within the Coastal Hazards Overlays* Requires the management of certain activities within the Petone Commercial Activity Area and Suburban Mixed Use Activity Area and within Coastal Hazard Overlays to ensure the overall risk is reduced or not increased and safe evacuation can be achieved.
Rule	**Summary**
Rule 14H 2.1	*Structures and buildings within the Wellington Fault Rupture Hazard Overlay* Are permitted in very limited circumstances and elevate to restricted discretionary.
Rule 14H 2.2	*Additions to residential buildings in the Inundation Area, Overland Flow Path or Stream Corridor Flood Hazard Overlays*

	Are permitted, restricted discretionary, discretionary or non-complying depending on the underlying hazard classification.
Rule 14H 2.3	*New residential units, commercial activities or retail activities in the Inundation Area of the Flood Hazard Overlay* Are permitted subject to meeting floor level requirements and elevate to restricted discretionary.
Rule 14H 2.4	*New residential units, commercial activities or retail activities that are within the Overland Flowpaths of the Flood Hazard Overlay* Are restricted discretionary activities.
Rule 14H 2.5	*New residential units, commercial activities or retail activities that are within the Stream Corridors of the Flood Hazard Overlay* Are non-complying activities.
Rule 14H 2.6	*Additions to Buildings within the Coastal Hazard Overlays* Are permitted depending on the underlying hazard classification, the intended use and the size of the addition and elevate to restricted discretionary.
Rule 14H 2.7	*New residential units in the Low Coastal Hazard Area* Are permitted for up to 3 units per site and restricted discretionary for 4 or more units per site.
Rule 14H 2.8	*New residential units in the Medium Coastal Hazard Area* Are permitted for up to 2 units per site and restricted discretionary for 3 or more units per site.
Rule 14H 2.9	*New residential units in the High Coastal Hazard Area* Are permitted for up to one unit per site and non-complying for 2 or more units per site.

Rule 14H 2.10	*Commercial activities or retail activities that are within the Petone Commercial Activity Area and Suburban Mixed Use Activity Area and within the Medium or High Coastal Hazard Overlays* Are permitted subject to maximum occupancy and elevate to restricted discretionary.
Rule 14H 2.11	*Other Matters* Requires all permitted and restricted discretionary activities to comply with other relevant permitted activity conditions.

(89) In summary, the existing District Plan addresses the following natural hazards:

- Flood Hazards
- Fault rupture provisions
- Tsunami; and
- Coastal Inundation.

(90) The flood hazards, tsunami and coastal inundation provisions take a risk-based approach to natural hazards, and were introduced to the District Plan in 2023 as part of the Plan Change 56. However, despite these provisions being fairly new, changes are proposed as part of the proposed District Plan. These changes are mostly required in response to updated hazard data and to address unintended implementation issues:

- The flood maps have been updated to reflect the latest guidance, where 1.59m of sea level rise needs to be used in modelling. The mapping of the low, medium and high hazard areas has also changed.
- Changes in provisions that respond to the new flood hazard maps and ensure that there is a limited pathway for residential apartments in the new high hazard flood extents.
- Better manage the conversion of existing buildings that contain activities potentially sensitive to hazards in coastal hazard areas to avoid unintended consequences (e.g. managing changing tenancies in the Jackson Street commercial area).

- Ensure that the regionally significant commercial and industrial activities and development is still able to occur in the Metropolitan Centre Zone in Petone, the Seaview Marina and the Seaview Industrial Zone. This recognises that it is virtually impossible to relocate these activities within the short term, and that there will need to be a wider strategic consideration of where these activities should locate. Therefore, the District Plan still needs to allow for some reasonable use and development in these areas in the meantime.
- Some of the objective and policy wording are proposed to be amended so that, in certain situations, the risk needs to be minimised rather than avoided. This sets a lower threshold and is a particularly important outcome for new buildings in the Seaview Marina, Seaview Industrial Zone and the Metropolitan Centre Zone in Petone.
- Some of the provisions have been changed to better align with the latest versions of the provisions of the Wellington City Council District Plan, which have been tested through the hearing process in July 2023.

4.2.2 Analysis of other District Plans

(91) The approach of the district plans of other territorial authorities in the Wellington region are outlined in Section 3.10 above.

(92) In summary, all Councils take a risk-based approach to the management of the risks from coastal and natural hazards. All operative and proposed district plans include Natural Hazards chapters and Coastal Hazards provisions that are located in the Coastal Environment chapters (except for Upper Hutt due to lack of a coast).

(93) The main differences relate to the types of natural hazards addressed and the degree of regulation.

4.2.3 National guidance documents

(94) The following national guidance documents are considered relevant to this topic.

Document	Date	Author	Summary
Risk management - Principles and guidelines AS/NZS ISO 31000:2009 and **SA/SNZ HB 436:2013 Risk management guidelines — Companion to AS/NZS 31000:2009**	2009 2013	Standards Australia Standards New Zealand Standards Australia Limited/ Standards New Zealand	All Hazards - This is the national guidance around the management of risk.
Risk-based land use planning for natural hazard risk reduction	2013	GNS Science	All Hazards - This provides the basis for taking a risk-based approach to the management of natural hazards.
Preparing for future flooding: A guide for local government in New Zealand	2010	Ministry for the Environment	Flooding - This provides guidance on estimating the impacts of climate change on flood and options to manage the risk from flooding.
Coastal Hazards and Climate Change: A Guidance Manual for Local Government in New Zealand	2008 Updated 2017	Ministry for the Environment	This document provides non-statutory guidance on addressing sea level rise as a result of climate change. This includes the differing sea level scenarios that should be considered and the need for detailed consultation with the community.
Climate change effects and impact assessment: A	2008	Ministry for the Environment	Coastal hazards / Flooding - This is a non-statutory guidance document that provides guidance on the natural

Guidance Manual for Local Government in New Zealand - 2nd Edition			hazards that arise or whose effects are worsened by climate change.
Managing Flood Risk – A Process Standard. Standards New Zealand NZS 9401:2008	2008	Standards New Zealand	Flooding - This standard sets out a process for managing flood risk within New Zealand.
New Zealand's next top model: Integrating tsunami inundation modelling into land use planning	2019	GNS Science	This is non-statutory guidance around the management of tsunami hazards. It provides guidance on the level of modelling required for land use planning, management approaches to tsunami, and potential mitigation measures.
Planning for development of land on or close to active faults: A guideline to assist resource management planners in New Zealand	2003	Ministry for the Environment	This document provides guidelines to consider when planning for development close to faults that will have relevance to hazards policy development in District Plans. The guidelines recommend a risk-based approach, based on risk management standard AS/NZS 4360:1999 (latterly AS/NZS ISO 31000:2009). The risk-based approach combines the key elements of: • Fault recurrence interval; • Fault Complexity; and • Building Importance Category.

			The guidance recommends that for land use planning purposes, faults should be mapped and classified at a minimum scale of 1:10,000.
Climate Change Guidance Note	2013	Quality Planning Website	Climate change - This is non-statutory guidance. The aim of this Guidance Note is to: Promote understanding about the effects of climate change; and Provide best practice information on how to assess the significance of, and respond where necessary to, the effects of climate change. A particular focus is how this can be done within local authorities' existing risk assessment, policymaking, and decision-making processes. The Guidance Note covers: An overview of how particular regard may be given to the effects of climate change; Information on expected climate change effects in New Zealand; and Advice on methods for considering and addressing climate change effects under the RMA.
Planning and Engineering Guidance for Potentially Liquefaction Prone Land – Resource	2017	MBIE, MfE and EQC	This document provides guidance for a risk-based process to manage liquefaction-related risk in land use planning and development decision-making.

Management Act and Building Act perspectives			The guidance examines adverse effects from earthquake-induced liquefaction, with a focus on identifying if the liquefaction is likely to be consequential to land, buildings, and infrastructure. This links in to the broader consideration of natural hazards provided by the RMA, relating to the effects on life, property, and other aspects of the environment. The guidance includes a methodology for mapping areas suspectable to liquefaction as well as providing direction on how to manage this hazard.
Planning for the Wellington Region under the NPS-UD	2021	GNS Science	Provide guidance on how the implement the NPS-UD in the context of the Wellington Region. This includes providing guidance on where it may be appropriate to limit development due to natural hazard risk. The guidance seeks to define what constitutes significant hazard risk for all the various natural hazards that impact Wellington.

4.2.4 Advice from mana whenua

(95) Under Clause 4A of Schedule 1 of the RMA local authorities are required to:

- Provide a copy of any draft policy statement or plan to any iwi authority previously consulted under clause 3 of Schedule 1 prior to notification;
- Allow adequate time and opportunity for those iwi authorities to consider the draft and to supply advice; and
- Have particular regard to any advice received before notifying the plan.

(96) As an extension of this, s32(4A) requires evaluation reports prepared in relation to a proposed plan to include a summary of:

- All advice received from iwi authorities concerning the proposal; and
- The response to that advice, including any proposed provisions intended to give effect to the advice.

(97) While Council has engaged with Mana Whenua as part of the District Plan Review, no advice has been received in relation to natural hazards.

4.2.5 Stakeholder and community engagement

(98) In late 2023 the Draft District Plan (DDP) was released for public feedback. The feedback and suggestions received were taken into consideration and informed the proposed provisions.

(99) The feedback received on the Natural Hazards and Coastal Hazards provision of the Draft District Plan can generally be separated into two categories – feedback on the proposed provisions and feedback on the extent of identified hazards in relation to individual properties.

(100) Feedback relating to the risk based approach and the proposed provisions is generally positive and supportive, while proposing some amendments.

(101) However, feedback relating to the identification and extent of natural and coastal hazards is generally more critical and questions the underlying science and the impact of the mapping on property values and insurance costs.

4.3 Summary of issues analysis

(102) Based on the research, analysis and consultation outlined above the following issues have been identified.

Issue 1: There are significant risks from a wide variety of natural hazards on existing individuals, communities, businesses, property, and infrastructure

(103) There are a variety of natural and coastal hazard risks in the Hutt Valley, including tsunami, liquefaction, sea level rise, slope stability, flooding, and fault rupture.

(104) Historically, the majority of these hazards have been poorly understood and have not been mapped. to. Mapping helps to determine the impact of these hazards on the community and shows that there is varying susceptibility to natural hazards within the community, ranging from low or no hazard areas to high hazard areas.

(105) The community has experienced impacts from previous natural hazard events, including flooding, coastal inundation, and ground shaking from earthquakes.

(106) If further development is undertaken in areas susceptible to significant natural hazards, people and property could be exposed to greater risk.

(107) Council has a responsibility to address all significant natural hazard risks to people and property (s6 of the RMA, NZCPS, RPS, and Regional Hazard Management Strategy).

(108) Climate change will make some hazards worse in frequency and intensity e.g. flooding.

(109) The current provisions have largely been introduced or amended through recent PC56 and are focused on certain activities and zones due to the limited scope of PC56.

Issue 2: Growth in the district needs to recognise and respond to natural hazard risk Pressure for future growth areas may overlap and conflict with areas at risk from natural hazards.

(110) Growth should be manged to ensure that people, property, and infrastructure are not located in areas that have an unacceptable natural hazard risk.

(111) Historically, infrastructure may have been placed in locations with unacceptable natural hazard risk and/or not been designed to take into account and respond to the risk.

(112) Growth needs to take into account the natural hazard risk and, where possible, be designed to appropriately mitigate or avoid the hazard risk.

(113) Infill development in established areas may be increasing the natural hazard risk to people and property, especially through flooding and coastal inundation.

(114) Hard engineering mitigation may increase residual risk and shift the impact to adjacent areas.

Issue 3: The consequences from coastal hazards are increasing with time due to climate change and sea level rise, and coastal areas of the city are increasingly at risk from these coastal hazards.

(115) Existing properties and developments are at risk from increasing coastal hazards due to climate change.

(116) New development is still being undertaken in areas that are at risk from coastal hazards.

(117) The risk from coastal hazards around coastlines varies. The more exposed coasts are at greater risk from sea level rise.

(118) Several communities rely on existing hard engineering mitigation structures to reduce the effects from coastal hazards.

(119) Coastal areas are desired living environments. However, it is not always appropriate or safe for all coastal areas to be developed.

(120) Natural buffer systems are degraded or lost over time. The ones that still exist are being reduced through natural processes.

(121) Hard engineering mitigation (especially in coastal margins) may increase residual risk and shift the impact to adjacent areas.

Issue 4: Earthworks can increase the risk from natural hazards

(122) Unmanaged earthworks can have adverse effects on health and safety and natural hazards.

(123) On steeper sites, unmanaged earthworks can undermine the stability of a slope or increase existing slope instabilities.

(124) If located within a flood hazard area, unmanaged earthworks can increase the flooding risk.

(125) Earthworks can be used as a natural hazards mitigation measure (stopbanks) and as such need to be enabled in some areas, while managed or avoided in others.

Issue 5: Significant industrial and commercial areas are located within areas at risk from natural and coastal hazards

(126) Portions of the General Industrial and Heavy Industrial zones in Seaview and the Metropolitan Centre Zone in Petone are affected by natural and coastal hazard overlays. These industrial and commercial areas cannot be relocated in the short to medium term.

(127) The areas have significant economic, social, and cultural benefits and as such their continued operation and limited expansion need to be provided for.

(128) The Seaview Marina Zone needs to be located in the coastal environment by its very nature and function and there will always be risk for development in this zone, especially from coastal hazards.

(129) However, for all of the above areas there still needs to be some consideration of the natural hazard risk to ensure that developments incorporate measures to reduce the risk to life and property.

5 Scale and significance assessment

(130) In writing this evaluation report we must provide a level of detail that corresponds to the scale and significance of the environmental, economic, social, and cultural effects anticipated from the implementation of the proposal.

(131) In assessing that scale and significance we have had regard to:

Criteria	Scale / Significance	Comments
Basis for change	High	Council is undertaking a full review of the District Plan to meet its statutory requirements and to ensure the plan is addressing resource management issues appropriately. This includes the appropriate implementation of s6(h) of the RMA, current National Policy Statements and the National Planning Standards, the NZCPS and the Regional Policy Statement as well as having regard to Council's plans and strategies. Overall, the current approach only partially gives effect to s 6(h) of the Act, the NZCPS, and the RPS. Therefore it does not fully meet the Council's functions and responsibilities under s31(1)(a) of the Act.
Addresses a resource management issue	High	The management of Significant Natural Hazard risk, (s6(h)) is a matter of national importance under the RMA and is also a requirement of the NZCPS and the RPS. Historically, the Council has not taken a risk-based approach to the management of natural hazard and development has occurred in areas that are at risk from a range of natural hazards. The current approach in the

		District Plan is only partially giving effect to s6(h) of the Act, the NZCPS and the RPS.
Degree of shift from the status quo	Medium	The existing District Plan provisions do not fully meet Council's statutory obligations. Historically they only cover a limited range of natural hazards and any recent updates introduced as part of the PC56 process only apply to specific activities and zones. The proposed natural and coastal hazard provisions take a more holistic approach to the consideration and management of natural hazard risk and address the relevant hazards, in order to give effect to higher order direction. The proposed provisions are intended to provide a clearer direction around the management of natural hazard risk, particularly in terms of ensuring that future development does not significantly increase the risk, when compared to the existing situation.
Who and how many will be affected / geographical scale of effects	High	The proposed Natural Hazard and Coastal Hazard Overlays affect a significant number of properties within Hutt City and as such the proposed provisions (which relate to the overlays) will also affect a number of properties. For many properties within the identified overlays, it will be the first time that development has to take into account and respond to natural hazard risks. This will be controversial as the timeframes and intervals for natural hazards can be large and many of the property owners and occupiers may not have experienced the impact of the natural hazard(s) and therefore do not agree with the need to control development in respect of the natural hazard(s). During community consultation as part of the Draft District Plan, a number of members of the community considered that mapping the natural or coastal hazards

		may have an impact on property values or the ability to obtain insurance and therefore these overlays should not be mapped by the Council. If the proposed provisions are not appropriately targeted, there is the potential for significant economic and social implications. These include: • Inappropriate development in natural hazards areas may result in the need for publicly funded (local government) infrastructure to mitigate the natural hazard risk. This can have cost implications in terms of rate increases and taking funding away from other projects; and • The insurance market in New Zealand has been changing since the Canterbury Earthquake sequence, with many insurers moving to a risk-based insurance scheme. It is feasible that inappropriate development in natural hazard zones may not be able to obtain insurance. This has implications ranging from being able to obtain bank funding to purchase a property (banks generally require insurance for mortgages) through to significant effects on personal financial position if the development is damaged or destroyed by a natural hazard.
Degree of impact on or interest from iwi / Māori	High	The proposed natural hazard and coastal hazard provisions have the potential to impact iwi and Māori in a number of ways. Limiting the development rights on land owned or occupied by iwi; Since settlements were often congregated around coastal areas and rivers, sites of significance to iwi and Māori could be adversely impacted over time from natural and coastal hazards, particularly those influenced by climate change. As such, there is the

		potential for these sites to be damaged or lost over time; and Some local iwi members may live in areas at risk from natural and coastal hazards. In many instances the residential units they may occupy may not have been designed to reduce the impacts from natural or coastal hazards. The PDP introduces a framework to reduce the impacts over time through the requirement to include mitigation measures into future developments. This will have resulting social, economic, and cultural benefits for future occupants (including iwi) over time.
Timing and duration of effects	Medium	Timing and duration of effects vary by type and scale of activity, but effects from some activities will be ongoing. Once the proposed provisions become operative, they will have ongoing effects until reviewed as part of the Council's statutory requirements to undertake a plan review.
Type of effects	High	Some properties will suffer opportunity costs as a result of not being able to be developed further than what the existing situation is, due to the natural hazards that affect the site; There will be increased costs for some developments as a result of needing to introduce mitigation to reduce the impacts from natural hazards; The provisions may have a secondary effect of pushing development towards those properties not located in a natural hazard or coastal hazard overlay due to the more enabling framework outside the overlays. This may have indirect flow on effects in terms of changes in character, amenity and infrastructure demand in areas not affected by hazard overlays; and

		The nature of the above effects are largely unavoidable due to Council's obligation to respond to s6(h) of the RMA.
Degree of risk and uncertainty	Medium	Whilst the provisions have been set up to provide certainty through a well-understood approach, there remains a degree of risk arising from: • Community reaction to the provisions; • Challenges to the scientific assumptions associated with the mapping of the natural hazard and coastal hazard overlays; and • Economic factors outside of the District Plan, such as a natural hazard event or changing insurance markets which may override or introduce new approaches to the management of natural hazard risk beyond those identified in the District Plan. The above risks have been partially addressed by Council's extensive community engagement during plan preparation and the development of the Natural Hazard and Coastal Hazard Overlays.

(132) Overall, the scale and significance of the proposed provisions are considered to be **high** for the following reasons:

- The existing provisions in the operative District Plan do not meet the statutory requirements of the RMA, the NZCPS and the RPS;
- The proposed Natural and Coastal Hazard overlays and provisions will affect a significant number of properties; and
- The proposed provisions will introduce a range of regulatory controls and restrictions, narrowing the scope of permitted activities and thereby generate an increased requirement for resource consent in areas affected by overlays.

6 Proposed District Plan objectives and provisions

6.1 Overall Approach

(133) In summary, the proposed approach consists of the following three steps which culminate in the proposed provisions:

- Step 1 – Sensitivity classification of activities
- Step 2 – Ranking of Natural Hazards
- Step 3 – Development of a rule framework and matrix

6.1.1 Step 1 – Hazard Sensitivity Classification

(134) The identification and classification of activities is based on the sensitivity and vulnerability to natural hazards with particular focus on the potential risk to life and the potential damage to buildings and structures used for that activity. This step used the Building Importance Category under the Building Code as a starting point to determine whether an activity should be categorised as:

- An activity most sensitive to hazards;
- An activity potentially sensitive to hazards; or
- An activity least sensitive to hazards.

(135) The Building Importance Category recognises that buildings that contain certain activities need to be constructed to a higher standard. Using the Building Importance Categories, those buildings and activities that need to be constructed to a higher standard (e.g. emergency facilities) are classified as hazard sensitive activities, whereas buildings and activities that can be constructed to a lower standard (e.g. accessory buildings) are categorised as less hazard sensitive activities. This approach is based on the Ministry for the Environment's planning guidance for development of land on or close to active faults (Kerr et al., 2003). A planning lens was then applied to the categorisation of activities to ensure that they aligned with the non-statutory

natural hazards and that no unintended outcomes would be achieved in terms of risk to life, vulnerability of the activity, and property. An example of this is residential units which have been elevated to hazard sensitive activities due to the potential risk to life and property from this activity form being established in hazard overlays. The proposed categorisation of activities in terms of their sensitivity is set out in the Table below.

Sensitivity Classification	**Activities / Facilities / Buildings**
Activities most sensitive to natural hazards	• residential activity, • retirement village, • supported residential care facility, • marae, • healthcare activity, • educational facility, • childcare services, • community facility, • emergency services facility, • hazardous facility or major hazardous facility, • custodial corrections facility, • visitor accommodation, or • place of assembly.
Activities potentially sensitive to natural hazards	• active recreation activity, • building associated with primary production (excluding residential units, minor residential units, residential activities or buildings identified as activities least sensitive to natural hazards), • commercial activity, • conservation activity, • cultivation activity, • customary activity, • customary harvesting, • entertainment facility, • food and beverage activity, • industrial activity,

	• major sports facility, • office activity, • sports facility, • primary production activity, • quarrying activity, • rural activity, or • rural industry, but excludes any activities most sensitive to natural hazards and activities least sensitive to natural hazards.
Activities least sensitive to natural hazards	• accessory building used for non-habitable purposes, • building associated with marina operations (above MHWS), • passive recreation activity, • parks facility, or • plantation forest or plantation forestry.

(136) The sensitivity table allows for the consideration of the change in risk as a result of differing activities establishing themselves within a hazard area. This means that, if a new sensitive activity relocates into an existing building with an identified natural hazard overlay, then the potential risk to that activity from being present in the hazard area would need to be considered.

6.1.2 Step 2 – Hazard Ranking

(137) The second step mapped and ranked the hazard return periods to determine if they represented a low, medium, or high hazard. The differing hazard areas are identified in the table below.

Natural Hazard Overlay	**Hazard Ranking**
Fault Location Area	High
Stream Corridor (1% AEP flood event + 1.59m sea level rise)	
Wellington Fault Induced subsidence	Medium

Overland Flowpath (1% AEP flood event + 1.59m sea level rise)	
Slope Assessment Overlay	
Liquefaction Hazard Overlay	Low
Inundation Area (1% AEP flood event + 1.59m sea level rise)	
Coastal Hazard Overlay	**Hazard Ranking**
Tsunami (1% AEP scenario inundation extent + 1m sea level rise)	High
High Coastal Inundation Hazard Overlay (1% AEP storm tide and wave setup)	
Tsunami (0.2% AEP scenario inundation extent + 1m sea level rise)	Medium
Medium Coastal Inundation Hazard Overlay (1% AEP storm tide and wave setup + 1.59m relative sea level rise)	
Tsunami (0.1% AEP scenario inundation extent + 1m Sea Level Rise)	Low

(138) These hazard rankings have been informed by a range of documentation including:

- Non-Statutory Guidance (for example MfE guidance of planning for development of land on or close to active faults);
- Experts' advice (e.g. flood engineers, coastal hazard specialists) regarding flood hazard categories and sea level rise; and
- Higher order documentation (for example the NZCPS identifies properties at risk from coastal hazards with a 1:100 return period are considered to be high hazard areas).

6.1.3 Step 3 – Rule Matrix

(139) The rule matrix combines the sensitivity of the activity with the hazard ranking and allocates an appropriate activity status – being more permissive for less sensitive activities and less severe hazards and becoming more restrictive with increasing sensitivity the activity and increasing severity of the hazard. The table below shows the proposed activity status for different activities in different hazards overlays.

	Hazard Ranking		
	Low	Medium	High
Activities least sensitive to natural hazards			
Activities potentially sensitive to natural hazards			
Activities most sensitive to natural hazards			

Colour	Activity Status
	Permitted
	Controlled
	Restricted Discretionary
	Discretionary
	Non-Complying

(140) The table above is a generalised guidance table and some of the proposed provisions for certain activities and hazards vary from this generalised approach due to hazard-specific or activity-specific reasons.

6.2 Proposed Provisions

6.2.1 Natural Hazards and Coastal Hazards – Objectives, Policies and Rules

(141) The proposed objectives, policies and rules seek to ensure the below outcomes are achieved.

- Avoid development for activities most sensitive to natural hazards in the High Hazard Area (Non-Complying Activity). To be able to get through the gateway tests, an applicant would need to demonstrate

that the risk to life and property (including to neighbouring properties) from the natural hazard is low. There may be site specific reasons or specific design reasons which may make it appropriate for an activity most sensitive to natural hazards in the High Hazard Area. However, it is expected that this would be the exception as opposed to the norm.

- Discourage development for activities most sensitive to hazards and activities potentially sensitive to hazards in the High Hazard Area unless appropriate mitigation measures are incorporated into the proposal (Discretionary Activity). Within a resource consent process, an applicant would need to demonstrate that the risk to life and property (including to neighbouring properties) from the natural hazard is low. There would be more instances as to where this could be acceptable due to the mitigation measures proposed, hence allowing for this to proceed through a Discretionary Activity pathway as opposed to Restricted Discretionary Activity pathway.
- Generally, allow, subject to mitigation measures, activities most sensitive to natural hazards in the Low Hazard Area and activities potential sensitive to natural hazards in the Medium Hazard Area (Restricted Discretionary Activity). The matters of discretion are largely limited to making sure that the applicant implements mitigation measures to address the risk to life and property from the natural hazard. This could include mitigation measures that would not be acceptable if these activities were attempted to be established in the higher hazard areas such as minimum floor levels, green infrastructure solutions, relocatable dwellings etc.
- Allow for activities least sensitive to natural hazards in all Hazard Areas (Low, Medium and High) and activities potentially sensitive to natural hazards in the Low Hazard Area (Permitted or Controlled Activity).

(142) Small scale additions to buildings for activities most sensitive to natural hazards and activities potentially sensitive to natural hazards are provided for in all Hazard Areas, subject to mitigation measures to reduce the potential damage, and the risk to life and surrounding properties is low and will not be increased by the proposal.

(143) With liquefaction, it is acknowledged that this is a high hazard. However, this hazard is largely addressed through the Building Code. To prevent a

duplication of the consideration of this hazard, the proposed District Plan largely does not introduce objectives, policies, or rules to address the risk associated with this hazard. The exception to this relates to emergency facilities. The reason for this is because emergency facilities require functioning access routes to ensure that they can operate after a large earthquake. Given liquefaction can damage access routes, it is considered prudent that some consideration is given of the appropriateness of emergency facilities within the mapped Liquefaction Hazard Overlay through a land use process.

(144) The provisions for subdivision in Natural and Coastal Hazard Overlays take a similar approach as the provisions regulating land use activities. The activity status of the subdivision is generally determined by the location of the building platform. If the building platform is located in a Natural Hazard or Coastal Hazard Overlay, then the natural hazard or coastal hazard provisions are triggered. The activity status of the subdivisions is determined by the following factors:

- The intended activity on the building platform as provided for by the resource consent application or, if no activity is proposed as part of the application, by the role and function of the zone; and
- The hazard area that the building platform is located within.

6.3 Proposed provisions in other chapters

6.3.1 Subdivision

(145) The Subdivision (SUB) chapter contains the overarching policies relating to subdivision in natural and coastal hazard overlays and the rules that apply to subdivision of land affected by natural hazards. The policies of the Natural Hazards chapter and the Coastal Environment chapter contain further and more detailed guidance and are referenced in the subdivision chapter. All subdivision rules for natural and coastal hazard overlays only apply where the subdivision results in building platforms within the respective hazard overlay.

6.3.2 Earthworks

(146) The provisions relating to Earthworks in Natural and Coastal Hazard Overlays are contained in the Earthworks chapter.

6.3.3 Infrastructure

(147) The provisions relating to Infrastructure in Natural and Coastal Hazard Overlays are contained in the Infrastructure chapter.

7 Evaluation of objectives

(148) This section is the evaluation of objectives, as required through s32(1)(a) of the RMA.

(149) An objective is a statement of what is to be achieved through the resolution of a particular resource management issue. A district plan objective should set out a desired end state to be achieved through the implementation of policies and rules.

(150) Under s75(1)(a) of the Resource Management Act, a district plan must state the objectives for the district.

(151) Under s32(1)(a) of the Resource Management Act, an evaluation report required under the Act must examine the extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of the RMA. The purpose of the RMA, as stated in s5(1) of the Act, is to promote the sustainable management of natural and physical resources.

7.1 Evaluation of Objectives NH-O1, NH-O2, CH-O1 and CH-O2

Evaluation of Objectives NH-O1, NH-O2, CH-O1 and CH-O2
NH-O1 Risk from Natural Hazards in High Hazard Areas of the Natural Hazard Overlays Subdivision, use and development within the High Hazard Areas of the Natural Hazards Overlays reduce or avoid increasing the existing risk from natural hazards to people, buildings and infrastructure. **NH-O2 Risk from natural hazards in Low and Medium Hazard Areas of the Natural Hazard Overlays** Subdivision, use and development within the Low and Medium Hazard Areas of the Natural Hazard Overlays minimise the risk from natural hazards to people, buildings and infrastructure. **CH-O1 Risk from Coastal Hazards in High Hazard Areas of the Coastal Hazard Overlays**

Subdivision, use and development within the High Hazard Areas of the Coastal Hazards Overlays reduce or avoid increasing the existing risk from coastal hazards to people, buildings and infrastructure. **CH-O2Risk from Coastal Hazards in Low and Medium Hazard Areas of the Coastal Hazard Overlays** Subdivision, use and development within the Low and Medium Hazard Areas of the Coastal Hazard Overlays minimise the risk from coastal hazards to people, buildings and infrastructure.	
Relevance	
Addresses a relevant resource management issue	Yes – the proposed objective addresses the relevant resource management issues for natural hazards identified in section 4.3 above. The proposed objectives give effect to Part II of the RMA: • Section 5, as it provides for the sustainable management of the City by ensuring developments are designed to either avoid or mitigate the impacts of the natural hazard, which in turn provides for the social, economic and cultural well-being of the local community as well as their health and safety. • Section 6(h) - as it sets the risk outcomes that are sought to be achieved from future development in the natural hazard and coastal hazard overlays. • Section 7(i) – the flood maps and coastal hazard maps have taken climate change into account.
Assists the Council to undertake its functions under s31 RMA	Yes - The proposed objectives are encompassing as they apply to a variety of natural hazards, and address the risks from natural hazards, thereby giving greater effect to s 31(b)(i) than the existing situation.
Gives effect to higher level documents	Yes - the higher order documents (s6(h) of the RMA, NZCPS and RPS) require a risk-based approach to the management of natural hazards (as previously identified). The proposed

	objectives take a risk-based approach to the management of natural hazards and set the level of acceptable risk to be achieved from future development within High Hazard Areas.
Usefulness	
Guides decision-making	Yes – the proposed objectives outline the risk outcomes sought for development within the Natural Hazards and Coastal Hazards Overlays, which will guide decision making when considering a resource consent application under s104.
Reasonableness	
Will not impose unjustifiably high costs on the community/parts of the community	Yes - the proposed objectives will impose additional costs on the community as there will be opportunity costs (as some sites will not be able to be developed further). However, this needs to be balanced against changing insurance markets (where developments in high-risk areas may not be able to obtain insurance in the future) and the costs associated with disrupted communities as a result of damage from natural hazard events. Overall, the proposed objectives will not give rise to unjustifiability high costs on the community, though some properties will be more impacted than others.
Acceptable level of uncertainty and risk	Yes – the objectives provide for a clearer regulatory framework for the management of the subdivision, use, and development within the Natural Hazard and Coastal Hazard Overlays. This provides the community, developers, and stakeholders with greater direction and clarity on how change will be managed and what outcomes need to be met for development to proceed.
Achievability	
Consistent with identified tangata	There has been community feedback on the need to plan for natural hazards and climate change and to manage the risk

whenua and community outcomes	from future events. The proposed objectives meet these expectations.
Realistically able to be achieved within the Council's powers and resources	Land use planning decisions reflect one of the fundamental tools that councils have available to manage the risks associated with natural hazards and are a fundamental consideration under the RMA. As such, the proposed objective can be realistically achieved within Council's power, skills, and resources

Other Potential Objectives:

Operative District Plan Objectives - Status Quo

Objective 14H 1.1 Risk from Natural Hazards - To avoid, reduce or not increase the risk to people, property, and infrastructure from natural hazards and coastal hazards.

The current objective partially gives effect to higher order direction, in that it seeks to ensure that the risk to people, property and infrastructure is reduced from the impacts of natural hazards. However, the existing objective sets a high threshold to achieve, in that the risk either needs to be avoided, reduced or maintained the same. This objective does not align with the associated policies and rules, in that these provisions allow for development within natural hazard and coastal hazard overlays. Development by its nature tends to increase the risk (even if it is residual risk), and in this regard sets a very high cost on the community, and has a degree of uncertainty. In particular, the objective can be read that, if a development does not avoid, reduce or not increase the existing risk, then it would not be consistent with the outcome sought under this objective. To achieve this outcome, there is the potential for a lot of development to not proceed simply because it can meet this high-test threshold. For these reasons, the existing objective is not preferred and a new set of objectives which outline the different approaches to development in the High Hazard Areas and the Medium and Low Hazard Areas are preferred.

Alternative Objectives

The following variation of the proposed objectives has been considered:

Introduce Objectives that only require the consideration of risk

NH-O1 - Subdivision, use and development in the Natural Hazard Overlays considers the risk to people, property and infrastructure

CE-O5 - Subdivision, use and development in the Coastal Hazard Overlays considers the risk to people, property and infrastructure

These proposed alternative objectives do not give effect to higher order direction, as it only requires the consideration of natural hazards risk, as opposed to development seeking to reduce or minimise the risk. The outcomes of the alternative objectives are unclear in that they do not identify to what level the risks from developing in areas impacted by natural hazards need to be managed and do not provide clarity to applicants or councils alike.

The alternative objectives impose high costs on the community as there would be debate within the resource consent process as to whether a development sufficiently considers natural hazard and coastal hazard risks. This could result in some developments being processed without appropriate mitigation measures to fully address the resulting risk.

Summary

Having assessed the status quo, the proposed objectives, and the reasonable alternatives, it is considered that the proposed objectives are the most appropriate way to achieve the purpose of the Act and to give effect to higher order direction. The proposed objectives take a risk-based approach to the management of development and natural hazards, and set the outcomes that are expected from development within the Natural Hazard Overlays. The proposed objectives set the same outcomes for coastal hazards and non-coastal natural hazards and use wording that is consistent with s 6(h) of the RMA, NZCPS, and RPS. The objectives also support the Council to carry out its functions under s 31(1)(a) and s 31(1)(aa) of the Act.

The proposed objectives build on the strategic direction by setting the thresholds that development within the Natural Hazard and Coastal Hazard Overlays need to achieve.

It is considered that neither the alternative objectives nor the status quo achieve the same consistency with higher order documentation as the proposed objectives. As such, both the status quo and the alternative objectives are considered to not be the most appropriate options to give effect to the RMA.

7.2 Evaluation of Objectives NH-O3 and CH-O3

Evaluation of Objectives NH-O3 and CH-O3	
NH-O3 Subdivision, use and development in the General Industrial Zone and Heavy Industrial Zone in Seaview, Metropolitan Centre Zone in Petone and Seaview Marina Zone and within Medium and High Coastal Hazard Areas Provide for subdivision, use and development in the General Industrial Zone and Heavy Industrial Zone in Seaview, Metropolitan Centre Zone in Petone and Seaview Marina Zone while also ensuring development and use in this area minimises the risk from flood hazards to people, buildings and infrastructure. **CH-O3 Subdivision, use and development in the General Industrial Zone and Heavy Industrial Zone in Seaview, Metropolitan Centre Zone in Petone and Seaview Marina Zone and within Medium and High Coastal Hazard Areas** Provide for subdivision, use and development in the General Industrial Zone and Heavy Industrial Zone in Seaview, the Metropolitan Centre Zone in Petone and the Seaview Marina Zone while also ensuring development and use in this area minimises the risk from coastal hazards to people, buildings and infrastructure.	
Relevance	
Addresses a relevant resource management issue	This objective responds to a relevant issue under Section 4.3. The proposed objective provides for the continued development of the General Industrial Zone and Heavy Industrial Zone in Seaview, Metropolitan Centre Zone in Petone and Seaview Marina Zone while also ensuring that future development takes into accounts the risks associated with future natural hazards and coastal hazards.
Assists the Council to undertake its functions under s31 RMA	Yes - s 31(b)(i) – The proposed objectives ensure that the risks from natural hazards are still addressed within the General Industrial Zone and Heavy Industrial Zone in Seaview, Metropolitan Centre Zone in Petone and Seaview Marina Zone,

	while also ensuring that the economic and social importance of these zones are recognised.
Gives effect to higher level documents	Yes – s 6(h) of the Act requires the management of Significant Natural Hazard risk and Policy 27 of the NZCPS outlines the process for the consideration of areas with significant development. The proposed objective is considered consistent with this higher order direction as new future buildings and subdivision still need to consider and reduce the natural hazard risk. However, the threshold for this assessment is lower than what would otherwise apply to area within the high hazard overlays for coastal hazards and natural hazards.
Usefulness	
Guides decision-making	Yes – outlines the outcomes sought for subdivision, use, and development within the General Industrial Zone and Heavy Industrial Zone in Seaview, Metropolitan Centre Zone in Petone and Seaview Marina Zone and the Coastal Hazards Overlays, which will guide decision making when considering a resource consent application under s 104.
Reasonableness	
Will not impose unjustifiably high costs on the community/parts of the community	The proposed objectives will impose additional costs on the community and developers as developments will need to incorporate mitigation measures to ensure that the impacts from coastal hazards and natural hazards are reduced. However, this needs to be balanced in the consideration of changing insurance markets and the costs associated with disrupted communities as a result of damage from natural hazard events. Overall, it is considered that the proposed objectives will not give rise to an unjustifiability high cost on the community or developers, though some properties will be more impacted than others.

Acceptable level of uncertainty and risk	Yes – the objective provides for a clearer regulatory framework for the management of the subdivision, use, and development within the Coastal Hazard Overlays. This provides the community, developers, and stakeholders with greater direction and clarity on how change will be managed and what outcomes need to be met for development to proceed.
Achievability	
Consistent with identified tangata whenua and community outcomes	Yes – consultation with the community as part of the draft District Plan has identified the need for greater certainty within certain areas of the City to allow for continued development.
Realistically able to be achieved within the Council's powers, skills and resources	The objective is able to be achieved within the Council's powers, skills, and resources.
Other Potential Objectives:	
Operative District Plan Objectives - Status Quo There is currently no objective related to these zones in the District Plan (however there is a policy direction in relation to enabling more development within the Petone Commercial Zone). The lack of an objective towards these areas means that any development would be considered against the general objectives and policies pertaining to natural and coastal hazards (Proposed Objectives NH-O1, NH-O2, CH-O1 and CH-O2). As large areas of Seaview, and Seaview Marina, and to a lesser extent, the Metropolitan Centre Zone within Petone are within High Hazard Areas, there would be a need for any new development to reduce the existing risk to people, buildings and infrastructure. This is a high threshold for new development, and due to the existing risk profiles in these areas, it would be unlikely that any new development could reduce the existing risk. This has the potential to have significant social, economic and cultural impacts, as it could prevent new development from occurring in these areas. Such an approach with impact the availability of business land within the City and would have	

implications from an NPS-UD perspective. Furthermore, industrial land and commercial land by its nature is not easy to create, so there are no viable options at this time to replace the lost commercial and industrial land through rezoned land within the City. As such, it is considered that the Status Quo has an unacceptably high social, economic and cultural costs and would result in a high level of uncertainty for future development within these areas

Alternative Objectives

The approach of not introducing a specific objective for the identified areas has been considered but was not pursued for the reasons outlined above.

Summary

Having assessed the alternative option and the proposed objective, it is considered that the proposed objective is the most efficient and effective way as it allows for the activities and new development within the General Industrial Zone and Heavy Industrial Zone in Seaview, Metropolitan Centre Zone in Petone and Seaview Marina Zone to continue to be provided for. The proposed objective is consistent with higher order direction and would still ensure that the risk from developing in these areas is not increased.

It is considered that the alternative approaches would result in a significant level of uncertainty for the property owners and would potentially result in these areas being unable to develop in the future. This would have significant economic and social impacts. As such, the alternative approach is not considered to be the most appropriate option to give effect to the RMA and would hinder the ability for Council to meet higher order direction.

7.3 Evaluation of Objectives NH-O4, NH-O5, CH-O4 and CH-05

Evaluation of Objectives	
NH-O4 Planned Natural Hazard Mitigation Works Risk to people, buildings and infrastructure from flood hazards is reduced through mitigation works. **NH-O5 Natural Systems and Features** Natural systems and features that reduce the susceptibility of people, buildings and infrastructure from damage from natural hazards are created, retained or enhanced. **CH-O4 Measures to reduce damage from sea level rise, coastal inundation and coastal erosion** Green infrastructure is the primary method used to reduce damage from sea level rise, coastal inundation, and coastal erosion. **CH-O5 Natural Systems and Features** Natural systems and features that reduce the susceptibility of people, buildings and infrastructure from damage from coastal hazards are created, retained or enhanced.	
Relevance	
Addresses a relevant resource management issue	The proposed objectives address the relevant resource management issues for natural and coastal hazards identified in section 4.3 above. The consequences from coastal hazards are increasing with time due to climate change and sea level rise. As these consequences increase there is an increased demand for hazard mitigation works to protect property and infrastructure. The objectives provide guidance to the preferred mitigation measures to address the consequences from coastal hazards. The proposed objectives also give effect to Part II of the Act: Section 5 as it provides for the sustainable management of the City by retaining existing natural systems, which reduce the

	impacts from natural hazards. Retaining these systems provides for the social, economic and cultural well-being of the local community as well as their health and safety. Section 6(h) through retaining and allowing for the enhancement of natural features that assist with reducing the risk to people and property from natural hazards. The retention of these natural features is an important tool in the management of natural hazard risk.
Assists the Council to undertake its functions under s31 RMA	Section 31(b)(i) identifies that a function of territorial authorities is: *the control of any actual or potential effects of the use, development, or protection of land, including for the purpose of—* *the avoidance or mitigation of natural hazards* The ability to undertake flood mitigation works allows for the Council to assist with the mitigation of natural hazards. The retention and improvement of natural features are important options to mitigate some of the impacts from natural hazards. Green infrastructure measures are a solution to mitigate natural hazard risks within the coastal environment, especially given a number of hard engineering measures can worsen the impacts from coastal hazards over time.
Gives effect to higher level documents	The higher order document (NZCPS Policy 26)), seeks to protect, restore, or enhance natural defences that provide for protection from coastal hazards. The objectives give effect to this policy. Higher order documents, such as the NZCPS and RPS also encourage the use of green infrastructure and discourages the use of hard engineering. The proposed objective responds to this higher order direction.

	The objectives also give effect to s 6(h) as natural defences are an important component in the management of significant natural hazard risk.
Usefulness	
Guides decision-making	The objective sets out the parameters for flood mitigation measures and ensures that it only relates to planned mitigation measures undertaken by local and central government agencies. This is to ensure this objective is not used to support private flood mitigation works such as stopbanks or flood walls. The objectives outline the outcomes sought for hard engineering and green infrastructure and for existing natural features and systems within the Natural and Coastal Hazards Overlays, which will guide decision making when considering a resource consent application under s104.
Reasonableness	
Will not impose unjustifiably high costs on the community/parts of the community	The proposed objectives will not impose unjustifiably high costs on the community. The proposed objectives recognise that planned mitigation works will occur in the future to reduce the risk to existing development from flood hazards. This does not transfer any costs onto the community and potentially reduces costs by allowing for these mitigation works to occur. Natural features are often also identified under other documents (for example dunes are identified in the NZCPS) as needing to be retained or improved. As such, there is a strong directive within other planning documents to retain these features. The proposed objectives add to the considerations that already exist within the other planning documents to ensure that their role in terms of natural hazard mitigation is also assessed within the resource consent process.

	The discouragement of hard engineering measures for private properties means that some beach front properties will have to use green infrastructure solutions, which in the long term may not be sufficient to fully mitigate the risk from sea level rise and coastal erosion, meaning other options will need to be used or considered at that future stage. However, this is balanced by hard engineering having the potential to increase erosion beyond the extent of the hard engineering measure, or resulting in the loss of natural features. As such, there can be significant public costs arising from limited private benefit. On balance, the proposed objective is giving effect to higher order direction and therefore it is not imposing unjustifiability high costs on sectors of the community.
Acceptable level of uncertainty and risk	The objectives are clear, with little uncertainty. They will support planned flood mitigation measures by local and central government that will reduce the risk to existing properties and infrastructure. It is considered that the proposed objectives do not create an unacceptable level of risk. Most mitigation works only apply in limited circumstances are often subject to other legislative processes under the Local Government Act and Public Works Act (if applicable). They clearly direct for green infrastructure measures to be undertaken in accordance with higher order guidance. The proposed objectives are unlikely to affect a significant number of properties as most properties within the Coastal Hazards Overlays are highly modified with little or no natural features. It is considered that the risk of not retaining natural features that have a natural hazard mitigation function is greater than retaining these features.
Achievability	
Consistent with identified tangata	The public engagement process identified a desire for coastal mitigation works to be undertaken. Allowing for mitigation

whenua and community outcomes	works will assist in reducing the risk from natural and coastal hazards. Natural features often have cultural and spiritual values and are also often valued by the community.
Realistically able to be achieved within the Council's powers, skills and resources	The objectives mostly relate to works undertaken by local or central government. Flood mitigation works are clearly identifiable and therefore, given these factors, the objective is able to be achieved within the Council's powers, skills and resources. The objectives also identify the preference for green infrastructure works over hard engineering. These different engineering measures are clearly identifiable and therefore, the objectives can be achieved within the Council's powers, skills, and resources. Natural features are often easily identifiable on site and on aerial photography, and can be retained through a range of RMA (conditions) or non-RMA (covenants) tools.
Other Potential Objectives:	
Operative District Plan Objectives - Status Quo The operative District Plan does not have any objectives addressing the provision of flood mitigation structures or pertaining to green infrastructure as the primary method used to reduce damage from sea level rise, coastal inundation, and coastal erosion. While it is a valid approach to not provide for flood hazard mitigation measures, this needs to be balanced with the social, economic and cultural benefits that come from these works. The Hutt Valley is a large flood plain and is prone to flooding. The proposed objective provides direction for planning flood mitigation works to ensure that these works can occur, and the resulting social, economic and cultural benefits are realised. By having no objectives on this matter, it means there is no guidance available to Council when assessing flood mitigation works, which are an important mitigation measure for existing properties that have not been designed to consider the flood risk. As such, flood mitigation measures would be assessed in the absence of guidance, which means their consenting pathways would be less clear, with the potential for these works to be obstructed, and additional costs borne through the consent process.	

This could result in unnecessary delays for the implementation of these flood mitigation measures.

The NZCPS and the RPS prefers green infrastructure or nature-based solutions over hard engineering measures. The lack of objectives within the District Plan therefore does not give effect to this higher order direction, and as a result there is a lack of clarity around the type of coastal mitigation measures that should be prioritised. As a result of this higher order direction, Council has little discretion to omit an objective that prioritises green infrastructure measures over hard engineering solutions.

The lack of an objective on this matter may result in hard engineering measures being implemented, which may result in the loss of public spaces (beaches) or increased erosion at the edges of the hard engineering measure. As such, there is the potential that the lack of an objective may result in significant private and public costs. It is recognised that a lack of objectives may benefit some private owners who are able to install hard engineering measures.

The status quo also does not have any objectives in relation to the role of natural systems and features in reducing the susceptibility of people, buildings and infrastructure to damage from natural hazards. The NZCPS requires the retention of natural systems and features within the Coastal Environment and therefore the status quo does not give effect to this aspect of higher order direction. It is also recognised that the lack of direction on this matter ensures there is uncertainty around how natural systems and features should be considered, when assessing potential developments.

Alternative Objective

The approach of not introducing specific objectives relating to planned natural hazard mitigation works, natural systems and features and green infrastructure has been considered but was not pursued for the reasons outlined above.

Summary

Having assessed the status quo and the proposed objectives, it is considered that the proposed objectives are the most efficient and effective way to address the issue of planned flood mitigation works and the use of engineering solutions and natural features to address existing impacts from coastal hazards.

It is considered that the status quo provides an unacceptable level of risk as the Plan would be silent on coastal engineering measures and natural features, thereby

potentially allowing for ad-hoc hard engineering measures (which could have significant impacts on the wider community). As such, the status quo is not considered to be appropriate to give effect to the RMA and would hinder the ability for Council to meet higher order direction.

8 Evaluation of policies and rules

(152) Policies and rules implement, or give effect to, the objectives of a plan.

(153) Policies of a district plan are the course of action to achieve or implement the plan's objective (i.e. the path to be followed to achieve a certain, specified, environmental outcome). Rules of a district plan implement the plan's policies, and have the force and effect of a regulation.

(154) Under s32(1)(b) of the Resource Management Act, an evaluation report required under the Act must examine whether the provisions in the proposal are the most appropriate way to achieve 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.*

(155) Under s32(2) of the Resource Management Act, the assessment of the efficiency and effectiveness of the provisions 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 matter of the provisions.

Quantification of benefits and costs

(156) Section 32(2)(b) requires that, where practicable, the benefits and costs of a proposal are to be quantified.

(157) Based on the assessment of the scale and significance of the proposed provisions above, specific quantification of the benefits and costs in this report could be beneficial. However, specific quantification of the benefits and costs beyond the information and evidence outlined in this report is not readily available or practicable at a detailed level. As such, a qualitative approach has been undertaken when considering the potential costs and benefits associated with this proposal and, where relevant, in the assessment of policies, rules and other methods contained in this report.

Risk of acting / not acting if information is uncertain or insufficient

(158) As part of the assessment of the efficiency and effectiveness of provisions, section 32(2)(c) of the RMA requires an assessment of the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions.

(159) For the proposed Natural Hazards chapter and coastal hazards parts of the Coastal Environment chapter, there is certain and sufficient information on which to base the proposed policies and methods as:

- Expert assessments show that there are a number of natural hazards that affect the City and that some of the potential impacts represent a significant risk to life and property.
- The expert assessments also show that for each natural hazard, the severity of the hazard varies within each overlay.

- Higher order guidance (s 6(h), NZCPS and RPS) provides direction on how natural hazard risk needs to be managed and addressed within District Plans. The proposed provisions are consistent with this higher order direction.
- The proposed provisions allow Council to undertake its function under s 31(b)(i) of the RMA.
- New Zealand has experienced a significant number of large natural hazard events in the last decade (Christchurch Earthquake Sequence, Kaikoura Earthquake, Gisborne Floods, Dunedin Floods, West Coast Floods and Southland Floods). There have been significant social and economic costs from these events. Some of these costs could have been avoided if there had been better recognition of natural hazard risks when some of the impacted communities were developed. The proposed provisions seek to ensure that future development is undertaken such that these future social and economic costs do not continue to increase; and

8.1 Evaluation of provisions to implement Objectives NH-O1, NH-O2, CH-O1 and CH-O2

NH-O1 Risk from Natural Hazards in High Hazard Areas of the Natural Hazard Overlays **NH-O2 Risk from natural hazards in Low and Medium Hazard Areas of the Natural Hazard Overlays** **CH-O1 Risk from Coastal Hazards in High Hazard Areas of the Coastal Hazard Overlays** **CH-O2 Risk from Coastal Hazards in Low and Medium Hazard Areas of the Coastal Hazard Overlays**	
Policies	
NH–P1 Risk-Based Approach	CH–P1 Risk-Based Approach
NH–P2 Levels of Risk	CH–P2 Levels of Risk
NH–P3 Natural Systems and Features	CH–P3 Natural systems and features
NH–P4 Natural Hazard Mitigation	CH–P4 Coastal hazard mitigation works

NH–P5 Green Infrastructure NH–P6 Additions to existing buildings and structures within the Fault Location Area NH–P7 Subdivision, use and development within the Fault Location Area NH–P8 Additions to existing buildings and structures in the Flood Hazard Overlays NH–P9 Subdivision, use and development in the Flood Hazard Overlays NH–P10 Residential Apartments in the Medium Flood Hazard Overlay and High Flood Hazard Overlay NH–P11 Subdivision, Use and Development in the Liquefaction Hazard Overlay NH-P12 Subdivision in the Slope Assessment Overlay	CH–P5 Coastal hazard mitigation works involving green infrastructure CH–P6 Hard engineering coastal hazards mitigation works CH–P7 Additions to existing buildings and structures within the Coastal Hazard Overlays CH–P8 Subdivision, Use and Development within the Coastal Hazard Overlays SUB-P23 Subdivision of Land Affected by Natural Hazards EW-P5 Earthworks within Flood Hazard Overlays EW-P8 Earthworks in the Slope Assessment Overlay
Rules	
NH-R1 to NH-R17 CH-R1 to CH-R9	SUB-R13 to SUB-R21 EW-R5 and EW-R8
Efficiency and effectiveness	
Costs	**Benefits**
Environmental • No environmental costs have been identified.	**Environmental** No environment benefits have been identified.

Economic
• There will be increased costs to developments as a result of the need to incorporate mitigation measures into some development forms. These costs may not be significant in the context of the overall development costs as many of the proposed measures would include matters such as:
  ○ Increased floor heights.
  ○ Setting buildings back from high and medium hazards areas.
  ○ Having buildings that are relocatable.
• These measures are easily able to be incorporated into developments at the time of construction, without presenting significant additional costs.
• There will be a greater requirement to go through the resource consent process when compared to the status quo. As such, there will be the direct costs associated with this process.
• For some property owners there will be an opportunity cost from not being able to develop their property due the hazards present on the site. These opportunity costs could be significant.
	Economic
	• Reducing the damage to future properties and developments from natural hazard events as a result of incorporated mitigation measures.
	• Likely ability to retain insurance cover for future properties as they have been designed to mitigate the risks from natural hazards;
	• Reduced costs to recover from natural hazards (such as clean-up, repairing damage, loss of productivity).
	• Communities that experience less damage in a natural hazard event can recover faster. This ensures significantly reduced economic impacts from a natural hazard event, as the loss of productivity and employment opportunities are not as large or significant.
	• Lower costs in responding to future natural hazard events – including sea level rise and climate change induced flooding. This may maintain insurance premiums and stabilise rates increases (which would otherwise increase to pay for disaster response).
	• Dwelling prices may retain their values as insurance policies are kept.

• Within some of the commercial and business zones there could be costs associated with lost employment and reduced economic growth due to the high hazard areas passing through these areas and, in some cases, development not being able to proceed due to the risk to life and property from the natural hazard. • Linked with the proposed objectives, policies, and rules are hazard maps within the District Plan. For many parties this will be the first time this information will be readily accessible. There may be increased pressure on Hutt City Council to reduce the extents of the Natural Hazard Overlays through the construction of engineering measures. This may result in increased rates through the City to pay for these additional costs. **Social** • No social costs have been identified. **Cultural** • The proposed provisions may impact on tangata whenua aspirations to further develop their land which may be located within a Coastal or Natural Hazard Overlay. The proposed provision may also increase costs where development is possible.	**Social** • The risk from natural hazard events will not increase when compared to the existing situation. This will reduce the potential for future social costs such as stress, strain on mental health, illness, and loss of workdays. • The construction of buildings that respond to the natural hazard risk will make them less susceptible to damage during a natural hazard event and thereby increase the safety of the occupants, and reduce the social impacts that come from natural hazard events. • Often lower social economic groups are located in areas that are susceptible to natural hazards. This sector of society has the least ability to recover from natural hazard events due to their limited resources. The proposed provisions will ensure that future housing that is intended to accommodate lower social economic groups is designed to take into account natural hazard risk. This will have the indirect benefit of ensuring that this sector of society is not disproportionally affected by future natural hazard events. **Cultural** • The proposed provisions may reduce the risk to sites of cultural significance.

Effectiveness and efficiency summary

The proposed provisions are considered to be the most effective in achieving the proposed objectives because:

- They give effect to higher order direction (s 6(h), NZCPS and RPS), which the proposed objectives also respond to;
- The proposed provisions relate to the natural hazards that have the potential to have the greatest impact on Hutt City;
- They take a nuanced approach to the management of natural hazard risk and development, where the activity status of the consent and the resulting direction provided within the policy is directly relative to the risk presented by the development;
- The proposed provisions take a consistent approach across the various natural hazards. This approach is also consistent between differing development typologies. This means that subdivisions for the purposes of accommodating residential dwellings in Natural Hazard Overlays will need to go through the same considerations as constructing a second dwelling (i.e. there is no loophole to work around the provisions); and
- The proposed policies and rules will ensure there is no continued increase in the natural hazard risk experienced by Hutt City Council from either discouraging development in high hazard areas or requiring mitigation measures to address the risk from the natural hazard.

The proposed provisions are considered to be the most efficient in achieving the proposed objectives because:

- They give effect to higher order direction (s 6(h), NZCPS and RPS) through a clear, transparent, and consistent framework that is located within the District Plan;
- While the proposed provisions will result in some additional economic costs, it is considered that the resulting benefits to future occupants and the recovery of the City following a natural hazard event outweigh these costs. It is also noted that the additional costs to a development to incorporate mitigation measures into the design are often considerably less than the costs that result from damage (or repeated damage) from a natural hazard event;

- The proposed provisions would assist with the transfer of costs for addressing natural hazard risk from future property owners and local and central government onto developers at the time the developments are undertaken;
- It is recognised that there are potential significant cultural costs to be borne by the local tanga whenua community due to lost development potential of cultural land. Careful consideration was given to whether an alternative framework was required to allow for the cultural aspirations of these communities to be met. However, this was decided against due to the higher order direction and that being more permissive in the Natural Hazard Overlays could put life and future developments at considerable risk, which would result in worse outcomes for these communities in the longer term. However, the proposal aligns with the higher order direction and further, being more permissive in the Natural Hazard Overlays could put life and future developments at considerable risk, resulting in worse outcomes for these communities in the longer term.

Other reasonably practicable options for achieving the objective

Status Quo

The provisions (policies and rules) are considered to not be the most effective means for achieving the objectives for the following reasons:

- They do not give effect to higher order direction (s6(h), NZCPS and RPS);
- They only apply to a limited number of natural hazards (flooding and seismic hazards) and do not address all the key natural hazards that affect the City;
- A significant amount of development can occur in areas prone to natural hazards without the need for resource consent. As such, the overall risk from natural hazards to the City is increasing overtime; and

- Council is having to rely on other pieces of legislation (e.g. Building Act 2004 and CDEM Act 2002) to try and address the risks associated with natural hazards. However, this is less efficient than addressing the natural hazard risk at resource consent stage and it means not all relevant natural hazards are being addressed.

The status quo is not considered to be the most efficient means for achieving the objectives for the following reasons:

- It does not give effect to higher order direction (s 6(h), NZCPS and RPS). This means that the resource consent process must be used to give effect to this higher order documentation. This can result in non-compliances that have no linkages to the higher order documentation, but which elevate the application to Discretionary or higher status to allow for the consideration of the higher order requirements. This is an opaque, unclear process that transfers significant costs onto applicants, is inconsistently applied and results in developments being designed to the lower consenting thresholds (Permitted – Restricted Discretionary Activity status) to prevent this from occurring (even though the overall environmental outcomes may be poorer by designing to a lower activity status);
- While the status quo does have some economic and social benefits, these are often realised by individuals within the short to medium term. When a natural hazard event occurs, there is often a significant transfer of costs from those who undertook the development to the current property owners and the wider community. These costs can be significant and would outweigh the economic benefits derived.
- It is difficult to find natural hazard information that is relevant for the City. Currently, people interested in discovering this information have to approach a number of different organisations to obtain this information (for example Wellington Water and GWRC). For people who are not familiar with these organisations and their roles, it is easy for hazard information to be overlooked which can complicate projects (as they may need to be altered after a detailed design has been undertaken, thereby adding costs to projects).

The status quo is ineffective and inefficient, and does not give effect to higher order direction. The existing provisions allow for a number of developments to occur within areas that are susceptible to natural hazard risk with little consideration of addressing

the resulting risk. As a result, the risk profile to the City from development in areas susceptible to natural hazard overlays is slowly increasing, which has significant potential future economic and social costs, with very little resulting benefits.
Overall evaluation
Having considered the proposed provisions and the status quo, the proposed provisions are the most appropriate way to achieve the objectives. The proposed provisions get more restrictive as the risk from natural hazards increases, thereby ensuring that a nuanced approach to the management of natural hazard risk occurs. The proposed provisions give effect to high order direction and provide a clear framework for the consideration of development within Natural Hazard Overlays. This framework has a number of economic and social benefits which are considered to outweigh the resulting costs. The status quo, however, is ineffective and inefficient, and does not give effect to higher order direction. The existing provisions allow for a number of developments to occur within areas that are susceptible to natural hazard risk with little consideration of addressing the resulting risk. As a result, the risk profile to the City from development in areas susceptible to natural hazard overlays is slowly increasing, which has significant potential future economic and social costs, with very little resulting benefits. It is therefore considered that the status quo is not appropriate to achieve the outcome of the proposed objectives.

8.2 Evaluation of provisions to implement Objectives NH-O3 and CH-O3

NH-O3 Subdivision, use and development in the General Industrial Zone and Heavy Industrial Zone in Seaview, Metropolitan Centre Zone in Petone and Seaview Marina Zone and within Medium and High Natural Hazard Areas **CH-O3 Subdivision, use and development in the General Industrial Zone and Heavy Industrial Zone in Seaview, Metropolitan Centre Zone in Petone and Seaview Marina Zone and within Medium and High Coastal Hazard Areas**	
Policies	
NH-P8 Additions to existing buildings and structures in the Flood Hazard Overlays NH-P9 Subdivision, use and development in the Flood Hazard Overlays	CH-P2 Levels of Risk CH-P8 Subdivision, Use and Development within the Coastal Hazard Overlays
Rules	
NH-R9 NH-R13 NH-R14 CH-R8	CH-R9 SUB-R19 SUB-R20
Efficiency and effectiveness	

Costs	Benefits
Environmental • No environmental costs have been identified. **Economic** • The costs associated with the resource consent process for new buildings within the General Industrial Zone and Heavy Industrial Zone in Seaview, Metropolitan Centre Zone in Petone and Seaview Marina Zone. **Social** • No social costs have been identified. **Cultural** • No cultural costs have been identified.	**Environmental** • No environment benefits have been identified. **Economic** • There will be greater certainty for property owners and developers within the General Industrial Zone and Heavy Industrial Zone in Seaview, Metropolitan Centre Zone in Petone and Seaview Marina Zone in relation to undertaking future investment. This will have resulting economic benefits in terms of increased employment, trade, and commerce. These potential economic benefits are at a regional level and are considered to be significant; • New buildings will still need to be designed to take into account the risks from the natural hazard. This will ensure the long-term resilience of future buildings and means there will be less down time and recovery following a natural hazard event; • There will be less costs associated with any resource consent applications for property owners and developers as a result the more streamlined framework for these activities; and

	• It allows for the infrastructure and associated costs to support the General Industrial Zone and Heavy Industrial Zone in Seaview, Metropolitan Centre Zone in Petone and Seaview Marina Zone continued to be used and utilised, thereby preventing a loss on investment into the future. • It allows for the continued use of the land holdings within the General Industrial Zone and Heavy Industrial Zone in Seaview, Metropolitan Centre Zone in Petone and Seaview Marina Zone. **Social** • It allows for continued future employment and economic growth associated with the General Industrial Zone and Heavy Industrial Zone in Seaview, Metropolitan Centre Zone in Petone and Seaview Marina Zone, which has a number of social benefits for those people employed by businesses within this zone. • It allows for the continued growth of the Metropolitan Centre Zone in Petone and the vibrancy and social activities that are associated with these activities. • The tax revenue generated by these businesses within the General Industrial Zone and Heavy Industrial Zone in Seaview, Metropolitan Centre Zone in Petone and Seaview

	Marina Zone. allow for the provision of future government services, which have a number of social benefits. • risk from natural hazard events will not increase when compared to the existing situation. This will reduce the potential for future social costs such as stress, strain on mental health, illness, and loss of workdays. **Cultural** • There may be development opportunities for land owned by iwi within the identified areas and the proposed framework allows for the development of this land and allow for iwi to provide for their cultural needs.

Effectiveness and efficiency summary

The proposed provisions are considered to be the most effective in achieving the proposed objectives because:

They give effect to higher order direction (s 6(h), NZCPS and RPS), which the proposed objectives also respond to;

They ensure that there is a consenting pathway for the consideration of future development associated with the General Industrial Zone and Heavy Industrial Zone in Seaview, Metropolitan Centre Zone in Petone and Seaview Marina Zone;

Future development will still need to be designed to recognise the risks associated with the relevant natural and coastal hazards, thereby ensuring there is improved resilience for future buildings; and

The proposed provisions have been written to ensure that they are specific to the General Industrial Zone and Heavy Industrial Zone in Seaview, Metropolitan Centre Zone in Petone and Seaview Marina Zone and therefore are effective at targeting buildings

within these zones. The proposed provisions are considered to be the most efficient in achieving the proposed objectives because:

They give effect to higher order direction (s 6(h), NZCPS and RPS) through a clear and transparent framework that is located within the District Plan; and

They provide a more permissive framework for future development associated with the General Industrial Zone and Heavy Industrial Zone in Seaview, Metropolitan Centre Zone in Petone and Seaview Marina Zone, which reduces the costs and timeframes with new buildings in this zone, while allowing for the community and economic benefits to be more effectively realised.

Other reasonably practicable options for achieving the objective

Status Quo

The status quo is considered to not be the most effective means for achieving the objectives for the following reasons:

- It does not give effect to higher order direction (s 6(h), NZCPS and RPS); and
- It would result in significant costs to a range of businesses as a result of the General Industrial Zone and Heavy Industrial Zone in Seaview, Metropolitan Centre Zone in Petone and Seaview Marina Zone being unable to continue operating and redevelop.

The status quo is considered to not be the most efficient means for achieving the objectives for the following reasons:

- It does not give effect to higher order direction (s 6(h), NZCPS and RPS). This means that the resource consent process has to be used to give effect to this higher order documentation. In this instance it would mean that there would be considerable debate around how higher order documentation needs to be given effect through the consent process, as opposed to the consent process providing the pathway that gives effect to higher order direction; and

- It would create significant uncertainty as to whether future development within the General Industrial Zone and Heavy Industrial Zone in Seaview, the Metropolitan Centre Zone in Petone and the Seaview Marina Zone could proceed. In some instances, this certainty would not be realised until the resource consent process concluded. This creates inefficiency for all parties involved.

Alternative Provisions - No carve out for General Industrial Zone and Heavy Industrial Zone in Seaview, Metropolitan Centre Zone in Petone and Seaview Marina Zone

Under the alternative approach the potential for ongoing and further use and development in these zones would be reduced or prevented as a result of the natural and coastal hazards rule framework that would otherwise apply to these areas. This would include a requirement for new development within the high hazard areas to be avoided. Such a threshold would prevent future investment within these established and regionally significant areas.

The alternative approach presents a significant risk to future development to the General Industrial Zone and Heavy Industrial Zone in Seaview, Metropolitan Centre Zone in Petone and Seaview Marina Zone. It would mean that new development would be assessed against the standard rules for development within the Natural Hazard and Coastal Hazard Overlays and for those areas of the General Industrial Zone and Heavy Industrial Zone in Seaview, the Metropolitan Centre Zone in Petone and the Seaview Marina Zone in high hazard areas, this could mean that future development could be significantly curtailed. This approach would be restrictive and the economic and social costs associated with the alternative are unjustifiably high and presents a significant level of risk.

Overall evaluation

Having considered the proposed provisions and the alternative approach, it is considered that the proposed provisions are the most appropriate way to achieve the objectives. The proposed provisions provide a clear framework for the consideration of future development associated with the General Industrial Zone and Heavy Industrial Zone in Seaview, the Metropolitan Centre

Zone in Petone and the Seaview Marina Zone. This framework has economic, environmental, and social benefits which are considered to outweigh the resulting costs. The status quo and the alternative approach are considered to be ineffective and inefficient. It is therefore considered that the alternative approach is not appropriate to achieve the outcome of the proposed objectives.

8.3 Evaluation of provisions to implement Objectives NH-O4, NH-O4, CH-O5 and CH-O5

NH-O4 Planned Hazard Mitigation Works **NH-O5 Natural Systems and Features** **CE-O4 Measures to reduce damage from Sea Level Rise and Coastal Erosion** **CE-O5 Natural Systems and Features**	
Policies	
NH–P15 Natural Systems and Natural Features NH-P16 Natural Hazard Mitigation works CE-P23 Natural Systems and Features NH–P6 Additions to existing buildings and structures within the Fault Location Area	CE-P24 Coastal Hazard Mitigation Works Involving Green Infrastructure CE-P25 Green infrastructure and Planned Mitigation Works CE-P26 Hard Engineering Mitigation Measures EW-P6 Earthworks associated with Natural Hazard Mitigation Works

Rules	
NH-R2 NH-R3 CE-R17	CE-R24 EW-R6 EW-R7
Efficiency and effectiveness	
Costs	**Benefits**
Environmental • No environmental costs have been identified. **Economic** • If the natural features are located on private properties, there may be some economic costs associated with the lost potential to developed land, or the improvement of these natural features to enhance their natural hazard mitigation value. • Increased costs to private property owners who seek to construct sea walls or other hard engineering solutions as these will need to be tested in the resource consent process.	**Environmental** • The proposed provisions ensure the protection of natural features which have associated amenity, ecological and natural character values. • Green infrastructure uses natural products to reduce the impacts of coastal erosion and therefore has less impact on the receiving environment. • Some green infrastructure measures (dune restoration, replanting, etc) have improved the ecological function of the local environment and therefore have a positive environmental benefit. • The framework for hard engineering includes the consideration of the impact of the works on natural processes, thereby ensuring that the impacts of these

• Some measures may not be able to obtain resource consent approval. As such, there could be indirect economic costs from loss of property value and sunk costs in the resource consent process. There are no direct or indirect costs to employment opportunities as a result of the proposed provisions in relation to this matter. • The removal of natural features from a site and some private hard engineering measures may not be able to obtain resource consent approval. As such, there could be indirect economic costs from loss of property value, loss of property from continued erosion and sunk costs in the resource consent process. It is noted that this is not expected to be a significant issue in the Hutt Valley as the vast majority of private properties are separated from the coastline by public roading. **Social** • Applicants may be unable to obtain resource consent for protective engineering works. It is however noted that this is not expected to be a significant issue in the Hutt Valley as the vast majority of private properties are separated from the coastline by public roading.	future works on the natural systems and processes are reduced. **Economic** • There will be less costs associated with the implementation of engineering solutions to replace the removal of natural features that provide this role. • Within the flood hazard extents, there is the potential for private property owners to realise development opportunities on their respective sites following the implementation of flood mitigation works (as the works may have removed or reduced the flood hazard on the property to the extent it can be developed). • There will be less costs associated with the implementation of green infrastructure solutions within the coastal environment as these are provided for within the proposed provisions. • There is greater certainty in terms of the assessment of the resource consent applications through the direction provided for in CE-P16. This reduces the compliance and consent costs for these projects by providing a clear pathway for the assessment of these projects.

Cultural • There may be cost associated with the installation of engineering measures to reduce the damage to sites of cultural significance throughout Lower Hutt. This includes the costs associated with the resource consent process, if hard engineering was the selected option to provide protection. • The proposed provisions may impact on tangata whenua aspirations to further develop their land which may be located within a Coastal or Natural Hazard Overlay. The proposed provision may also increase costs where development is possible.	• Flood mitigation works should be able to be implemented in a more timely fashion, which should reduce the time exposure that existing properties have to flood hazards and the damage experienced in these events. • Reduced insurance costs to those properties within flood hazard extents may be realised earlier if the flood mitigation works are able to be implemented in a faster timeframe. • The provision for green infrastructure measures allow for these to be implemented more rapidly, reducing damage to public and private infrastructure. • The framework should ensure that the rate of beach loss and edge effects from these future works are not accelerated when compared to the existing situation. This reduces the potential development of a feedback cycle, where private properties are being impacted to a greater extent by natural hazard events (as natural buffers have been lost) resulting in greater damage from these events and the need to install large private engineering systems to prevent future damage (which can exasperate the problem and result in a feedback loop). **Social**

	• Allows for the retention of natural features which often have an amenity or recreational value associated with them, which people experience and utilise. • Ensures that properties protected by natural features from the impacts of natural hazards continue to enjoy this protection. Social benefits in the coastal environment: • The rate of land being lost as a result of hard engineering structures should not accelerate (noting that some of the existing legacy hard engineering structures will be contributing to this issue and the District Plan cannot address existing structures). • The ability to implement green infrastructure measures by local and central government agencies will allow for temporary protective measures to be installed rapidly following a coastal hazard event, thereby providing a sense of comfort to adjacent landowners. • Green infrastructure measures have the potential to also provide recreational opportunities (for example, dunes, beach nourishment), which have social benefits. • There is the opportunity for improved protection of private properties from flooding and coastal hazards which have

	direct social benefits for the property owners of the properties that benefit from these works. **Cultural** • Natural features often have cultural and spiritual values and are also often valued by the community. The proposed provisions will allow for the retention and restoration of these features, which will have positive cultural benefits.

Effectiveness and efficiency summary

The proposed provisions are considered to be the most effective in achieving the proposed objectives because:

- They give effect to higher order direction (s 6(h), NZCPS and RPS), which the proposed objectives also respond to.
- They ensure that natural features are retained, which have wider benefits than their natural hazard protective role.
- They ensure planned flood hazard mitigation works that have significant benefit on the existing communities are provided for, thereby reducing the cost and uncertainty with these projects and allowing for the benefits to be more easily realised.
- They ensure planned green infrastructure measures that have significant benefit on the existing communities are provided for, thereby reducing the cost and uncertainty with these projects and allowing for the benefits to be rapidly realised following a coastal erosion event.
- They provide a planning framework that allows for the consideration of the protective role of natural features.
- When green infrastructure measures are the preferred option in the coastal environment, the proposed provisions also provide a framework for the consideration of hard engineering measures. This framework sets tests for both the protection of

regional significant infrastructure as well as private properties. This provides greater certainty to all parties on how applications for hard engineering measures will be considered.

The proposed provisions are considered to be the most efficient in achieving the proposed objectives because:

- They give effect to higher order direction (Section 6(h), NZCPS and RPS) through a clear and transparent framework that is located within the District Plan.
- They ensure that natural features that have a hazard mitigation role are retained and not lost through future development.
- They provide a permissive framework for planned flood mitigation and green infrastructure works which reduces the costs and timeframes with the implementation of these works, while allowing for the community benefits to be more effectively realised.
- They provide a framework for the consideration of hard engineering measures. This consideration also includes the transfer of private cost onto the public realm through beach loss and changes in coastal processes within the resource consent framework, with an outcome sought of ensuring that the transfer of these costs are minimised.

Other reasonably practicable options for achieving the objective

Status Quo

There are no policies or rules pertaining to retaining natural features for the purposes of natural hazard mitigation in the existing District Plan.

The status quo is considered to not be the most effective means for achieving the objectives for the following reasons:

- It does not give effect to higher order direction (s 6(h), NZCPS and RPS);

- The rule framework does not align with the higher order policy direction. As such, there is the potential for natural features and buffer to be removed as a permitted activity.

The status quo is considered to not be the most efficient means for achieving the objectives for the following reasons:

- It does not give effect to higher order direction (Section 6(h), NZCPS and RPS). This means that the resource consent process has to be used to give effect to this higher order documentation. This can result in non-compliances that have no linkages to the higher order documentation, but elevate the application to discretionary or higher status being used as levels to allow for the consideration of the higher order requirements. This is a very opaque, unclear process that transfers significant costs onto applicants, is inconsistently applied and results in developments being designed to the lower consenting thresholds (permitted – restricted discretionary activity status) to prevent this from occurring (even though the overall environmental outcomes may be poorer by designing to a lower activity status); and
- There is a potential transfer of private costs (protecting private properties) onto the public domain through the loss of natural features which currently provide this protection.
- Within the coastal environment there is a potential transfer of private costs (protecting private properties) onto the public domain through the loss of public recreational space (beaches and parks).

Overall the status quo is ineffective and inefficient at delivering flood mitigation and green infrastructure works and for addressing the effects from hard engineering measures. This in turn is resulting in significant costs to a range of parties, with very little resulting benefits. It is therefore considered that the status quo is not appropriate to achieve the outcome of the proposed objectives.

Overall evaluation
• Having considered the proposed provisions and the status quo it is considered that the proposed provisions are the most appropriate way to achieve the objectives. The proposed provisions provide for the protection of existing natural features that reduce the impacts of natural hazards. This framework has a number of economic, environmental, and social benefits which are considered to outweigh the resulting costs. The status quo, however, is ineffective and inefficient at delivering the protection of these natural features. This in turn is resulting in significant costs to a range of parties, with very little resulting benefits. It is therefore considered that the status quo is not appropriate to achieve the outcome of the proposed objectives

9 Summary

(160) This evaluation has been undertaken in accordance with section 32 of the RMA in order to identify the need, the benefits and costs and the appropriateness of the proposal and having regard to its effectiveness and efficiency relative to other means in achieving the purpose of the RMA. The evaluation demonstrates that this proposal is the most appropriate option as it:

- Best gives effect to higher order documents, including section 6 of the RMA, the NPS-FM, the Regional Policy Statement and the National Planning Standards;
- Is the most effective and efficient way to achieve the purpose of the Act and the strategic objectives of the Proposed District Plan; and
- Addresses the identified resource management issues.