Whangarei District Council

Natural Hazards

Proposed Plan Change 1 - Natural Hazards

Contents

Plan Change 1 – Natural Hazards seeks to amend the district plan by:

- 1. Deleting the operative Natural Hazards.
- 2. Insert into Part 2: District Wide Matters, under the Hazards and Risks section, the Natural Hazards chapter which will contain:
 - General objectives, policies and rules managing the risks associated with natural hazards
 - Hazard specific policies relating to land instability, mining subsidence, flooding, coastal erosion and coastal flooding hazards
 - Hazard specific rules for land instability, mining subsidence and flooding
- 3. Amend the Definitions chapter by:
 - Inserting a new definition for vulnerable activities to cover land use activities which are more susceptible to the effects of natural hazards or are less able to respond to, or recover from, a natural hazard event.
 - Inserting new definitions for individual natural hazard types.
- 4. Amend the Subdivision chapter by:
 - Inserting an objective and policy relating to the management of risks from natural hazards.
 - Inserting rules which manage subdivision in areas subject to natural hazards.
- 5. Amend the Earthworks chapter by:
 - Inserting an objective and policy which relates to managing the risk associated with earthworks in areas susceptible to land instability.
 - Inserting a rule to manage earthworks in areas susceptible to land instability.
- 6. Amend the Coastal Environment chapter by:
 - Inserting rules which manage coastal hazards.
- 7. Amend the Referenced Documents chapter by
 - deleting referenced documents relating to Coastal Hazard Identification
- 8. Amend the District Growth and Development chapter by:
 - Amending the objectives and policies in relation to natural hazards.
- 9. Amend the Urban Form and Development chapter by:
 - Inserting consistent terminology in relation to natural hazards
- 10. Amend the Port Nikau Development Area Chapter by:
 - Including a requirement that developments comply with natural hazard provisions.
- 11. Amend the District Plan maps by inserting maps for Coastal Erosion, Coastal Flooding, Flooding, Land instability, and updated Mining Subsidence Maps.

Whangarei District Council

Natural Hazards

Issues

Risk-based approach

Much of Whangarei District is subject to various <u>natural hazards</u>. The actual impact of any natural hazard event is dependent on the level of risk and exposure of the local community to the hazard, and the way this risk influences development and settlement patterns in a geographical area. Natural hazard risk is accelerating due to climate change. District plan provisions are required to manage activities in order to limit the exposure of people, property and the environment to significant risk from natural hazards.

The overarching resource management issues for natural hazard risk management are:

- The district plan must adopt a risk-based approach to managing <u>natural hazards</u> to enable better risk-informed decisions.
- The need to lay the foundations for a range of adaptation options including managed retreat.
- The need to protect and enhance natural defences and buffers such as dune systems and riparian margins in recognition of their important role in reducing the impacts from natural hazards.
- The need to provide for regionally significant and critical <u>infrastructure</u> within natural hazard zones without compromising <u>infrastructure</u> resilience.

In addition to general <u>land</u> that may be subject to hazards, the Natural Hazards chapter specifically distinguishes <u>land</u> subject to high-risk <u>natural hazards</u>. In these areas a higher level of scrutiny and <u>site</u> assessment is required by the plan.

High-risk natural hazards in this plan include:

- Coastal Erosion Hazard Areas 0 and 1 (CEHZ0 and CEHZ1)
- Coastal Flood Hazard Areas 0 and 1 (CFHZ0 and CFHZ1)
- High-risk Flood Hazard (1 in 10-year flood areas)
- Mining Subsidence Hazard Area 1

River Flooding

Flooding occurs when natural and artificial drainage systems cannot cope with a particular rainfall event. Flooding is generally accepted as having the highest risk potential within the Whangarei District.

The high rainfall intensities and the occurrence of tropical storms in the District expose many areas to flooding hazards. Traditional residential development has centred around the alluvial plains and the coastal foreshore, where the probability of flooding is high. Development in the district should seek to minimise exposure to flood hazards.

In November 2021 the Northland Regional Council published maps that show parts of the district that are at risk from flooding. The flooding maps set out two scenarios:

• The "High-risk Flood Hazard" area refers to <u>land</u> mapped as susceptible to flooding in a 1 in 10-year flood event. This <u>land</u> has at least a ten percent chance of <u>river</u> flooding occurring annually so is considered high risk. In the 10-year areas, flood depths in 100-year events can



be very deep with significant flow velocity, meaning the risks are very high. Most types of built development in the 10-year flood hazard areas are therefore not sustainable due to repeated risk to life, health and property from both floodwater and debris.

• The "Flood Hazard Area" refers to the <u>land</u> mapped as susceptible to flooding a 1 in 100-year flood event. This <u>land</u> that has at least a one percent chance in any year of being inundated due to high <u>river</u> flows so is considered to have a lower level of risk than the 1 in 10-year Flood Hazard Area. This <u>land</u> would require a larger flood event to cause flooding to the area identified.

The Northland Regional Policy Statement (NRPS) requires district councils to incorporate the new November 2021 flood hazard maps into district plans and to include provisions which manage <u>land</u> use and <u>subdivision</u> in the 10-year and 100-year Flood Hazard Areas.

Coastal Hazards

Coastal erosion is a natural process that occurs when waves, wind and water currents wear away the shoreline. Coastal flooding results from inundation caused by storm tides and wave setup. The interaction of these natural coastal processes with human activities, buildings, structures and other aspects of the environment can result in coastal hazards. These hazards pose a significant risk to a number of communities and settlements within the district's coastal environment, adversely affecting the health, wellbeing and safety of people and communities, as well as the local economy and natural environment values. As sea level rises coastal hazards will increasingly impact the district's coastal margins.

In April 2021 he Northland Regional Council published new maps of areas subject to coastal erosion and coastal flooding under the 50-year sea level rise projection, the 100-year medium sea level rise projection and 100-year high projection sea level rise. These areas have been identified in the District Plan Hazard Maps as Coastal Erosion Hazard Areas (CEHA) or Coastal Flood Hazard Areas (CFHA).

The coastal erosion maps set out the following three scenarios:

- Current day (CEHA0): areas currently susceptible to coastal erosion following the failure of an
 erosion protection structure, with no allowance for sea level rise; this zone is only mapped
 where erosion protection structures are in place.
- 50-year projection (CEHA1): areas likely at risk of coastal erosion over the next 50 years, with a projected sea-level rise of 0.6m by 2080.
- 100-year medium projection (CEHA2): areas potentially at risk of coastal erosion over the next 100 years, with a projected sea-level rise of 1.2m by 2130.
- 100-year high projection (CEHA3): areas potentially at risk of coastal erosion over the next 100 years, with a projected sea-level rise of 1.5m by 2130.

The coastal flooding maps set out the following three scenarios:

- Current day (CFHA0): areas currently susceptible to coastal flooding in a 1-in-100-year storm event with no allowance for sea level rise.
- 50-year projection (CFHA1): areas susceptible to coastal flooding in a 1-in-50-year storm event, with a projected sea-level rise of 0.6m by 2080.
- 100-year medium projection (CFHA2): areas susceptible to coastal flooding in a 1-in-100-year storm event, with a projected sea-level rise of 1.2m by 2130.
- 100-year high projection (CFHA3): areas susceptible to coastal flooding in a 1-in 100-year storm event, with a projected sea-level rise of 1.5m by 2130.



The Northland Regional Policy Statement (NRPS) requires district councils to incorporate the NRC's coastal hazard maps into district plans and to include district plan provisions which manage land use and subdivision in the 10-year and 100-year medium projection sea-level rise scenarios. No coastal hazards rules are included in this district plan for land affected by the 100-year high projection sea level rise (CFHA3 and CEHA3). Instead those high projection sea level rise areas provide a useful contribution to an understanding of the potential long-term effects of climate change within the Whangarei district that may impact on resource consent applications in coastal hazard areas. As the science of climate change and sea level projections is a constantly changing area, in the future the NRC's maps for coastal hazards may change which would lead to the updating of the district plan coastal hazard maps through a plan change process.

Land instability

Due to its climatic conditions, geology, soil type, and ground <u>water</u> levels Whangārei District has widespread areas of <u>land</u> instability throughout the district. Landslides can have significant consequences on people, property, the environment and <u>infrastructure</u>, and their likelihood depends on existing <u>land</u> conditions, activities which weaken slope stability, and triggering events.

The relevant resource management issues for managing <u>land</u> instability risk are:

- Susceptibility to instability hazard events can be exacerbated by <u>land</u> use activities such as <u>earthworks</u>, excessive weight loading, excavation, and <u>vegetation clearance</u>. Due to the level of risk and uncertainty, robust geotechnical investigation is essential prior to <u>subdivision</u> and development.
- Decisions on how to manage the risks of <u>land</u> instability hazard events can affect not only the subject <u>site</u> but also neighbouring properties and the wider <u>environment</u>. Risk assessment is a key means of identifying and understanding risks.
- The stability of historically stable slopes may be affected by natural factors, such as <u>water</u> saturation, natural weathering, and erosion. The main trigger for these has often been intense or prolonged rainfall, being one of the <u>effects</u> of climate change already being experienced in Northland. Consideration of long-term <u>effects</u> of climate change on <u>land</u> instability is critical for managing the risks to people, property and the <u>environment</u>.

The Planning Maps identify areas of low, moderate, and high susceptibility to <u>land</u> instability hazards. These maps consider different factors which can contribute to <u>land</u> instability hazard events to give an indication of where landslides are more likely to occur. The identified areas of low, moderate, and high susceptibility to <u>land</u> instability hazards correspond to the defined characteristics of each zone and the recommended level of geotechnical assessment required to support the development of a <u>site</u> within each zone.

Identifying areas susceptible to <u>land</u> instability through the district plan provides a basis to require geotechnical investigation and risk assessments. Areas susceptible to <u>land</u> instability are defined as:

Area of moderate susceptibility to land instability hazards

means <u>land</u> which exhibits evidence of past slippage or erosion and could be subject to inundation from landslide debris and slope deformation. These areas are identified in an overlay to the Planning Maps.

Area of high susceptibility to land instability hazards

means <u>land</u> which appears to be either subject to erosion or slippage or is likely to be subject to erosion or slippage within the next 100 years, based on geomorphic evidence and/or the



combination of geology and slope angle. These areas are identified in an overlay to the Planning Maps.

Mining Subsidence Hazards

Coal mining was formerly a major industry in Northland with major coalfields being located at Kamo and Hikurangi. The Planning Maps identify areas in Kamo and Hikurangi that are susceptible to subsidence due to past coal mining activities undertaken in the area. The Mining Hazard Areas have been mapped and split into different categories (Mining Subsidence Hazard Areas 1, 2 and 3) based on the level of risk, with Mining Hazard Area 1 having the highest level of risk.

The relevant resource management issues for managing mining subsidence hazard risk are:

- Hazards such as subsidence and sink holes can arise from the existence of old mines.
 Identification of Mining Subsidence Hazard Areas on planning maps is needed to identify known areas of risk
- The <u>effects</u> of mining subsidence hazards can result in property damage, risk to human health
 and safety, and adverse <u>effects</u> on the <u>environment</u>. <u>Subdivision</u>, <u>land</u> use and development in
 Mining Subsidence Hazard Areas must approached with caution to avoid further increasing
 risk.
- Mining Subsidence Hazard Area 1 is considered high risk. Proposals for any further development in this area must undergo full and robust assessment.

Objectives

Objectives	
NH-O1 – Hazard Risk	The risks associated with <u>natural hazards</u> and their impacts on people, property, <u>infrastructure</u> and the <u>environment</u> are appropriately identified, assessed and managed.
NH-O2 – New development	Avoid inappropriate subdivision, land use and development, particularly vulnerable activities, in areas subject to natural hazard risk.
NH-O3 – Existing Developed Areas	In existing developed areas, build resilience to potential impacts from natural hazards and avoid locating vulnerable activities in areas of high hazard risk.
NH-O4 –Regionally Significant Infrastructure and Critical Infrastructure	Infrastructure, particularly regionally significant infrastructure and critical infrastructure, is only provided for in areas that may be susceptible to natural hazards where there is a functional need or operational need to locate in the area and where risks to people, property and the environment are mitigated as far as practicable.
NH-O5 – Natural Buffers and Defences	Existing natural buffers and natural defences against <u>natural hazards</u> are maintained, protected, restored and enhanced, and new development does not compromise existing natural buffers and natural defences.
NH-O6- Climate Change	The potential <u>effects</u> , including long-term <u>effects</u> , of climate change are taken into account when managing <u>subdivision</u> , <u>land</u> use and development.



General Policies

These policies apply to all <u>land</u> subject to <u>natural hazards</u>.

Policies	
NH-P1 – Risk Identification	To identify and manage <u>land</u> that may be subject to hazards, including flooding, coastal inundation/flooding, coastal erosion, <u>land</u> instability and mining subsidence hazards.
NH-P2 – Risk	To manage natural hazard risk to an appropriate level giving consideration to:
Management	 The nature, frequency and scale of the natural hazard(s) present within the site.
	 The existing and potential risks and adverse <u>effects</u> to people, property, <u>infrastructure</u> and the <u>environment</u> within and beyond the <u>site</u>.
	 The location and design of <u>land</u> use and development, including safe <u>access</u> to <u>building</u> platforms.
	 The nature, scale, location and design of <u>earthworks</u> and <u>vegetation</u> <u>clearance</u> activities.
	5. The proposed use of the site, including location of vulnerable activities.
	6. The ability to adapt to long term changes in natural hazards.
NH-P3 – Risk Assessment	To require assessment of natural hazard risk prior to <u>subdivision</u> , use and development of <u>land</u> , to inform decision making on the appropriateness of the proposed activity. The risk assessment must include consideration of:
	 The likelihood and consequences of a natural hazard event. Uncertain or dynamic nature of <u>natural hazards</u> present within the <u>site</u>. The type of activity being undertaken and the consequences of a natural hazard event in relation to the activity.
	 4. Any increase of natural hazard risk within the <u>site</u> and surrounding area, transfer of risk to other sites, or creation of new natural hazard risk. 5. Any measures to avoid, mitigate or reduce risk.
	A higher level of scrutiny and <u>site</u> assessment by a <u>suitably qualified and experienced person</u> is required where activities and development are proposed to be located on <u>land</u> subject to high risk <u>natural hazards</u> .
NH-P4 - Risk Reduction	To support risk reduction by:
	 Directing <u>vulnerable activities</u> to locations outside of <u>land</u> subject to high risk <u>natural hazards</u>. Locating <u>subdivision</u>, use and development so that hazard risk is not
	transferred to, or increased for other properties.
	 Requiring measures to reduce the risk from natural hazard events to people, property, and the <u>environment</u>.
NH-P5 – Climate Change	To ensure that the potential <u>effects</u> , including long-term <u>effects</u> , of climate change, including sea level rise, <u>river</u> flooding, drought and others, are considered when assessing natural hazard risks.



NH-P6 – Tsunami Hazards	To require subdivisions in areas at risk of coastal flooding/inundation to be designed to facilitate safe and efficient evacuation in the event of a tsunami, including through:
	1. Installation of tsunami sirens in appropriate locations where practicable.
	2. Transport network design that accounts for evacuation routes.
NH-P7 — Infrastructure	To provide for the establishment of new infrastructure, on land susceptible to natural hazards, where: 1. There is a functional need or operational need to locate in a hazard susceptible area and there is no reasonable alternative; and 2. The infrastructure has been designed with consideration given to its resilience, integrity and function during a natural hazard event; and
	 Risks to people, property and the <u>environment</u> are minimised to the greatest extent practicable; and
	 Consideration has been given to the ability to respond and adapt to long term <u>effects</u> such as climate change.
NH-P8 – Adaptive planning	To support an adaptive planning approach to managing the risks from natural hazards , by ensuring that capability for climate change adaptation is considered at the resource consenting stage.

Flooding Policies

Policies	
NH-P9 – New Subdivision, Land Use and Development	To ensure that the location and design of new <u>subdivision</u> and development on <u>land</u> subject to flood hazards does not increase the risk of adverse <u>effects</u> on people, property, and the <u>environment</u> including by:
	 Subdivision plans identifying building platforms that will not be subject to inundation or material damage in a 100-year flood event.
	 Built development within the 10-year flood hazard area is of the type and design that is not subject to <u>material damage</u> in a 100- year flood event.
	 New built development containing <u>vulnerable activities</u> achieves a minimum freeboard above a 100-year flood event.
	 Commercial and industrial <u>buildings</u> are of the type/design that are not subject to <u>material damage</u> in a 100-year flood event.
NH-P10– Existing Developed Areas	To minimise flood hazard risk in existing developed areas through redevelopment or changes in land use that reduce the vulnerability to adverse effects from flood hazards including by:
	 Requiring alterations to existing buildings to achieve a minimum freeboard above a 100 year flood event.
	Redevelopment incorporating flood resilient design.
	 Managing the risk for <u>vulnerable activities</u> by avoiding intensification of existing vulnerable activities on sites subject to flooding in a 100 year flood event; and encouraging the re-location of vulnerable activities to locations outside of areas subject to flooding in 10 and 100 year flood events.



NH-P11– Vulnerability	To recognise that there are some land uses and development, such as non – habitable buildings and rural land uses, that are resilient to the adverse effects of flooding events and can be carried out in flood hazard areas.
NH-P12– Defences	To avoid activities that modify, reduce, remove, or otherwise compromise existing defences against flood hazards and enable appropriate hazard mitigation measures to be created to protect existing development.

Coastal Flooding and Coastal Erosion policies

Policies	
NH-P13— New Subdivision, Land Use and Development	To ensure that the location and design of new greenfield <u>subdivision</u> , <u>land</u> <u>use</u> and development within coastal hazard areas does not increase the risk of adverse <u>effects</u> from coastal hazards on people, property and the <u>environment</u> , <u>and</u> takes into account the potential long term <u>effects</u> of climate change on greenfield <u>subdivision</u> and <u>land</u> use change in areas potentially affected by a high projection scenario by
	 Requiring <u>subdivision</u> plans to identify and locate <u>building</u> platforms, <u>access</u> and services outside of coastal hazard areas. Limiting new uses and development within CEHA0, CEHA1, CFHA0 and CFHA1.
NH-P14— Existing Developed Areas	 To minimise coastal hazard risk in areas with existing development and land use by: Requiring all subdivision plans to identify building platforms, with safe access, that are located outside coastal hazard areas. Managing the intensification of existing development, in particular residential and other vulnerable activities, within areas at risk from coastal hazards. Providing for setbacks for coastal hazard areas, including increased setbacks when doing additions to existing buildings located in CEHAs. Requiring the finished floor level for new habitable buildings and alterations and modifications to existing habitable buildings to be 500mm above the maximum water level in a 1% AEP flood event plus a 1.2m sea level rise. Requiring the finished floor level for new non-habitable buildings or major structures to be 300mm above the maximum water level in a 1% AEP flood event plus a 1.2m sea rise. Designing for relocatable or recoverable structures when altering or modifying existing buildings. Encouraging managed retreat by relocation, removal or abandonment of structures in CEHAs.



NH-P15 Vulnerability	To recognise that there are some <u>land</u> uses and development such as non-habitable buildings and rural <u>land</u> uses that are resilient to the adverse <u>effects</u> of coastal hazards and can be carried out in coastal hazard areas.
NH-P16 Natural Defences	To provide for the protection, restoration and enhancement of natural defences against coastal hazards including planting and dune restoration projects, and beach replenishment and nourishment.
NH-P17– Hard Protection Structures	To ensure that new <u>subdivision</u> , <u>land</u> use and development, and redevelopment are located and designed in a way that avoids the need for new or upgraded <u>hard protection structures</u> .
NH-P18— Appropriate Hard Protection Structures	To recognise that hard protection <u>structures</u> located landward of mean high <u>water</u> springs may be the best practicable option to protect existing development against coastal hazards in the following circumstances:
	 The level of hazard risk reduction that the proposed <u>structure</u> is seeking to achieve is appropriate and cannot reasonably be achieved through non-structural options; or
	 The <u>structure</u> is the most appropriate method having regard to the entire area potentially affected by the hazard, and the work forms part of a long-term hazard management strategy that represents the best practicable option for the future; and
	 It can be demonstrated that the benefits of mitigation outweigh the adverse <u>effects</u> on the <u>environment.</u>
NH-P19– Hard Protection Structures Location and Design	To ensure that, where hard protection structures are the best practicable option to protect existing development in accordance with CH-P6, they are located and designed to avoid, remedy or mitigate adverse effects on the environment . This includes:
	 Locating <u>structures</u> as far landward of mean high-water springs as practicable to retain as much natural beach buffer as possible. Requiring that <u>structures</u> to protect private assets are not located on public <u>land</u> unless there is significant public or environmental benefit in doing so.
	 3. Ensuring <u>structures</u> are designed to minimise adverse <u>effects</u> on the <u>environment</u> including <u>effects</u> on natural character, ecology, landscape, cultural values, and <u>amenity values</u>. 4. Ensuring <u>effects</u> on public <u>access</u>, <u>cultural values</u>, and recreational values are avoided as far as practicable and otherwise mitigated.

Land Instability Risk policies

Policies		
NH-P20 -	– Mapping	To identify the degree of susceptibility to <u>land</u> instability hazard events across the District by mapping areas with moderate or high susceptibility to <u>land</u> instability hazards based on:



	1. Topography and slope;
	2. Underlying geological characteristics; and
	3. Historical landslide events.
NH-P21 – Remediation and Mitigation Works	To ensure that remediation and mitigation works are undertaken when they are necessary to minimise <u>land</u> instability hazards:

Mining Subsidence Risk policies

Policies	
NH-P22- Mapping of Mining Subsidence Hazard Areas	To identify areas as Mining Subsidence Hazard Areas where the land is susceptible to subsidence based on the existing geology and extent of past coal mining activities.
NH-P23– Buildings and structures	To ensure that any buildings and <u>structures</u> are suitable to the <u>Mining</u> <u>Hazard Area</u> category and do not increase the likelihood of subsidence by giving consideration to:
	The design, location and construction of <u>buildings</u> and <u>major structures</u> in relation to:
	 The potential to create new or exacerbate existing mining subsidence hazards.
	b. The risk of subsidence within the site and surrounding sites.
	 The vulnerability of occupants or users of the <u>site</u> where the intended use is a <u>vulnerable activity</u>.
	2. The functional need or operational need for the <u>activity</u> to locate within <u>Mining Subsidence Hazard Area 1</u> .
	3. The extent to which <u>hazardous substances</u> will be exposed to a mining subsidence hazard.

General Rules

Notes:

- 1. Any application for a <u>land</u> use resource consent in relation to a <u>site</u> that is potentially affected by <u>natural hazards</u> must be accompanied by a report prepared by a <u>suitably qualified and experienced</u> <u>person</u> that addresses the matters identified in the relevant objectives, policies, performance standards and matters of control/discretion.
- 2. Coastal hazard rules are located in the Coastal Environment Chapter.



NH-R1	Any activity requiring a restricted discretionary activity consent in this chapter
All Zones and Development Areas	 Any restricted discretionary activity in this chapter shall not require the written consent of affected persons and shall not be notified or limited-notified unless Council decides that special circumstances exist under section 95A(4) of the Resource Management <u>Act</u> 1991.
NH-R2	Any Activity Not Otherwise Listed in This Chapter
All Zones and Development Areas	Activity Status: Permitted Where: 1. Resource consent is not required under any rule of the District Plan; and 2. The activity is not prohibited under any rule of the District Plan.

NH-R3	Minor Buildings and General Public Amenities
All Zones and Development Areas	Activity Status: Permitted Note: 1. <u>Minor buildings</u> and <u>General Public Amenities</u> are exempt from rules NH-R5 – NH-R18.
NH-R4	Operation, Maintenance, and Minor Upgrading of Existing Infrastructure
All Zones and Development Areas	Activity Status: Permitted Note: 1. This rule includes any earthworks associated with the above activities.

NH-R5	Non habitable Buildings and Major Structures in 100 year flood hazard and areas of moderate or high susceptibility to land instability hazards			
All Zones and Development Areas	Activity Sta Where: 1.	atus: Permitted The <u>building</u> or <u>major structure</u>	acl	tivity Status when compliance not hieved: Restricted Discretionary
		is <u>non-habitable</u> and:	Ma	atters of discretion:
		 a. Has a gross floor area less than 30m²; or b. Is associated with farming 	1.	The scale, bulk, location and form of the <u>building</u> or <u>structure</u> .
		and located within the Rural Production Zone, with a gross floor area less than 100m²; or	2.	The risk of adverse <u>effects</u> on people, property and the <u>environment</u> including risk to public health and safety and any cumulative <u>effects</u> .



c. Is an <u>artificial crop</u>
<u>protection structure</u>, <u>crop</u>
<u>support structure</u> or a frost
protection fan.

 Any exacerbation of the flood hazard or creation of a new hazard as a result of the <u>building</u> or <u>structure</u>.

In areas of moderate or high susceptibility to <u>land</u> instability hazards:

Matters of discretion:

- Effects on the stability of <u>land</u> and <u>structures</u>, and the potential to create new or exacerbate existing <u>land</u> instability hazards.
- The functional need or operational need for <u>infrastructure</u> to locate within areas of high susceptibility to <u>land</u> instability hazards.
- The extent to which <u>hazardous</u> <u>substances</u> will be exposed to <u>land</u> instability hazards.
- Recommendations, proposed conditions, and remediation or mitigation measures of the geotechnical survey and the <u>site</u> suitability report.

Note:

- 1. Non-notification rule in NH-R2 applies
- 2. Applications shall comply with relevant information requirements.

NH-R6	Changes in use to accommodate a vulnerable activity within existing buildings	
All Zones and Development Areas	Activity Status: Permitted Where: 1. A <u>building</u> is not located in either: a. 10-year flood areas; or b. <u>Mining Subsidence Hazard Area 1</u>	Activity Status when compliance not achieved: Discretionary



NH-R7	New infrastructure	
All Zones and Development Areas	Activity status: Restricted discretionary Where:	Activity Status when compliance not achieved: Discretionary
	 A report which has been prepared by a suitably qualified and experienced person, is provided to the Council which confirms and demonstrates that: The infrastructure has been designed to maintain its integrity and functionality in a natural hazard event; and The infrastructure will not exacerbate natural hazards onsite or on other properties Matters of discretion: The functional and/or operational need to locate within a hazard area. Other practicable alternative locations. Any exacerbation of the hazard or creation of a new land instability hazard as a result of the infrastructure. The degree to which the infrastructure can maintain its integrity and function during a natural hazard event. Evacuation routes and the ability to maintain emergency access. The extent to which hazardous substances will be exposed to risk from natural hazards. Impacts on landscape and cultural values, and on public access. Recommendations of the site suitability report prepared by a suitably qualified and experienced person in accordance with the information requirements NH-RQ1-3 Note: Non-notification rule in NH-R2 applies 	
	Applications shall comply with relevant information requirements.	



Flooding Rules

NH-R8	Alterations and Modification of Buildings and Major Structures within 10 and 100-year Flood Hazard Area		
All Zones and Development Areas	Activity Status: Permitted Where: 1. There is no increase to the gross floor area. 2. No part of the building or major structure is enclosed in a manner that alters or diverts an overland flow path and causes flooding of another property.	 Activity Status when compliance not achieved: Restricted Discretionary Matters of discretion: 1. The scale, bulk, location and form of the building or major structure. 2. The risk of adverse effects on people, property and the environment including risk to public health and safety and any cumulative effects. 3. Any exacerbation of the flood hazard or creation of a new hazard as a result of the alteration to the building or major structure. 4. For buildings that contain vulnerable activities, the provision of direct, safe access above flood levels from the building to land that is clear of the flood hazard. Notes: Non-notification rule in NH-R2 applies Applications shall comply with information requirement NH-REQ1 	

NH-R9	Fences and Walls in Flood Hazard Areas		
All Zones and Development Areas	Activity Status: Permitted Where: 1. A fence or wall is constructed with materials to allow for the passage of flood waters by using: a. Post and wire; or b. Wire mesh fences; or c. Railings where at least 70% of the surface area of the fence is not solid; or d. Solid fences and walls with an opening of sufficient size at flood level that can	Activity Status when compliance not achieved: Restricted Discretionary Matters of discretion: 1. The design of the fence or wall. 2. The effects on flood depth and velocity from the blocking or channelling of water.	



3. The <u>effects</u> of the flood hazard within the <u>site</u> and

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	<u>producinty</u> (KEI) nood now.	on other properties upstream or downstream of the site. Notes: 1. Non-notification rule in NH-R2 applies 2. Applications shall comply with information requirement NH-REQ1
NH-R10	New Buildings or Major Structures and extensions or of existing buildings in 100-year Flood Hazard Area	alterations that increase the GFA
All Zones	Activity Status: Restricted Discretionary	Activity Status when
and Development	Where:	compliance not achieved: Discretionary
Areas	 For <u>buildings</u> or <u>major structures</u> that accommodate a <u>vulnerable activity</u>: 	·
	 A minimum freeboard of 500mm above the 100-year flood event is achieved. 	
	b. There is safe <u>access</u> from the <u>building</u> to <u>land</u> that is clear of the flood hazard where the depth of flood <u>waters</u> in a 1 in 100-year flood event does not exceed 200mm above <u>ground level</u> .	
	For buildings or major structures that will not accommodate a vulnerable activity:	
	a. Are not subject to material damage in a 100-year flood event.	
	 The <u>building</u> or <u>major structure</u> does not alter or divert an <u>overland flow path</u> and cause flooding of another property. 	
	Matters of discretion:	
	 The scale, bulk, location and form of the <u>building</u> or <u>major structure</u>. 	
	 The risk of adverse <u>effects</u> on people, property and the <u>environment</u> including risk to public health and safety and any cumulative <u>effects</u>. 	

convey the 1% <u>annual exceedance</u> <u>probability (AEP) flood flow.</u>



3.	The nature of the activity being undertaken and
	its vulnerability to the potential effects of
	flooding.

- Whether there is a functional need or operational need for the <u>building</u>, <u>major</u> <u>structure</u> or activity to be located within the <u>Flood Hazard Area</u>.
- 5. The proposed use of, necessity for, and design of engineering solutions (soft or hard) to mitigate the hazard.
- 6. The use of the <u>building</u> or <u>major structure</u>, including the <u>storage</u> and use of <u>hazardous</u> <u>substance</u>s, and any management/ mitigation requirements associated with that use;

Notes:

- 1. Non-notification rule in NH-R2 applies
- 2. Applications shall comply with information requirement NH-REQ1

NH-R11	New Buildings or Major Structures or extensions or alterations that increase the GFA of existing buildings in 10 year Flood Hazard Area.		
All Zones and Development Areas	Activity Status: Restricted Discretionary Where: 1. The <u>building</u> or <u>major structure</u> does not accommodate a <u>vulnerable activity</u> .	Activity Status when compliance not achieved: Non-complying	
	 The <u>building</u> or <u>major structure</u> does not alter or divert an <u>overland flow path</u> and cause flooding of another property. 		
	 The <u>building</u> will not be subject to <u>material damage</u> in a 100-year flood event. 		
	4. The major structure will not be subject to damage in a 100 year flood event that would render it unusable or unable to be used safely for its intended purpose.		
	Matters of discretion:		
	 The scale, bulk, location and form of the <u>building</u> or <u>major structure</u>. 		
	The risk to people and property from the flood hazard.		
	 The nature of the activity being undertaken and its vulnerability to the potential <u>effects</u> of flooding. 		



- 4. Whether there is a functional need or operational need for the <u>building</u>, <u>major structure</u> or activity to be located within the Flood Hazard Area.
- 5. The proposed use of, necessity for and design of engineering solutions (soft or hard) to mitigate the hazard.
- The use of the <u>building</u>, including the <u>storage</u> and use of <u>hazardous substances</u>, and any management/ mitigation requirements associated with that use.

Notes:

- 1. Non-notification rule in NH-R2 applies
- 2. Applications shall comply with information requirement NH-REQ1

Land Instability

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		_

Clearance of Exotic and Indigenous Vegetation (excluding pasture) in Areas of Moderate Or High Susceptibility To Land Instability Hazards.

All Zones
and
Development
Areas –
Areas of
Moderate or
High
Susceptibility
to Land
Instability
Hazards

Activity Status: Permitted

Where

Clearance of exotic and indigenous vegetation:

Either:

 Is within a single <u>urban environment</u> allotment;

OR

 Does not exceed a total area of 150m² within each 10-year period from [operative date] within a contiguous area of high or moderate susceptibility to land instability hazards in a site;

OR

- 3. Is associated with:
 - a. Routine <u>maintenance</u> within 7.5m of the <u>eaves</u> of existing <u>buildings</u>:

Activity Status when compliance not achieved: Restricted Discretionary

Matters of discretion:

- The extent to which the vegetation serves to mitigate <u>natural</u> <u>hazards</u>.
- The timing, location, area, scale and nature of vegetation clearance in relation to:
- a) The <u>effects</u> on the stability of <u>land</u> and <u>structures</u>.
- b) The potential to create new or exacerbate existing <u>land</u> instability hazards.



	 i. Including the removal of any tree where any part of the trunk is within the 7.5m distance. ii. Excluding damage to the roots or removal of any tree where the trunk is outside the 7.5m 	 c) The degree of risk of land instability within the site and surrounding sites. 3. The need for any replanting or other mitigation.
b.	distance. Operation, maintenance and repair of existing tracks, lawns, gardens, sports fields and playgrounds fences, drains and other lawfully established activities;	4. The functional need or operational need for infrastructure to locate within areas of high susceptibility to land instability hazards.
C.	Pest plant removal and biosecurity works;	5. The extent to which hazardous substances
d.	Vegetation removal for customary rights;	will be exposed to land instability hazards.
e.	Conservation planting, including planting for ecological restoration purposes;	Note: 1. Non-notification rule in NH-R2 applies
f.	The provision of walking or cycling tracks 4m or less wide and the maximum face height of any cut and/or fill faces does not exceed 0.5m from ground;	2. Applications shall comply with information requirement NH-REQ2
g.	The operation, maintenance, minor upgrading or replacement of existing lawfully established infrastructure;	
h.	Earthworks related to rural production activities in the Rural Production Zone	
i.	Forestry activities in accordance	

NH-R13	Extensions and Alterations to Buildings and Major Structures in areas of moderate or high susceptibility to land instability hazards.		
All Zones and Development	Activity Status: Permitted Where:	Activity Status when compliance not achieved: Restricted Discretionary	

with the National Environmental Standards for Plantation Forestry

Emergency works as defined by section 330 of the Resource Management Act 1991.



Areas –
Areas of
Moderate or
High
Susceptibility
to Instability
Hazards

- The <u>gross floor area</u> does not increase by more than 30m² from what existed at [operative date]; and
- The <u>alteration</u> or modification does not create a new <u>vulnerable activity</u>.

Matters of discretion:

- Effects on the stability of land and structures, and the potential to create new or exacerbate existing land instability hazards.
- 2. The degree of risk of land instability within the site and surrounding sites, including the increased vulnerability to occupants or users of the site where the intended use is a vulnerable activity.
- The functional need or operational need for <u>infrastructure</u> to locate within areas of high susceptibility to <u>land</u> instability hazards.
- The design, location, construction, and <u>maintenance</u> of <u>buildings</u> and <u>major structures</u> so that they are resilient to <u>land</u> instability hazards.
- The extent to which <u>hazardous substances</u> will be exposed to <u>land</u> instability hazards.
- Recommendations, proposed conditions, and remediation or mitigation measures of the geotechnical survey and the <u>site</u> suitability report.

Note:

- 1. Non-notification rule in NH-R2 applies.
- 2. Applications shall comply with information requirement NH-REQ2.



NH-R14	New habitable buildings in areas of moderate or high susceptibility to land instability hazards.
All Zones and Development Areas – Areas of Moderate or High Susceptibility	Activity Status: Restricted Discretionary Where: 1. A report or certificate, which has been prepared by a suitably qualified and person, is provided to the Council in accordance with the information requirements in NH-REQ2.
to Instability Hazards	 Effects on the stability of land and structures, and the potential to create new or exacerbate existing land instability hazards. The degree of risk of land instability within the site and surrounding sites, including the increased vulnerability to occupants or users of the site where the intended use is a vulnerable activity. The functional need or operational need for infrastructure to locate within areas of high susceptibility to land instability hazards. The design, location, construction, and maintenance of buildings and major structures so that they are resilient to land instability hazards. The extent to which hazardous substances will be exposed to land instability hazards. Recommendations, proposed conditions, and remediation or mitigation measures of the geotechnical survey and the site suitability report. Note: Non-notification rule in NH-R2 applies.
	2. Applications shall comply with information requirement NH-REQ2.

Mining Subsidence

NH-R15	Extensions and Alterations to Existing Buildings and Major Structures in Mining Subsidence Hazard Areas 1-3	
All Zones – Mining Subsidence Hazard Areas 1- 3	Activity Status: Permitted Where: 1. There is no increase to the gross floor area of the building or major structure;	Activity Status when compliance not achieved: Restricted Discretionary Matters of discretion: 1. The design, location and construction of buildings and major structures in relation to:



	The potential to create new or exacerbate existing mining subsidence hazards.
	b. The risk of subsidence within the site and surrounding sites, with consideration given to the Mining Subsidence Hazard Area category (e.g. Mining Subsidence Hazard Area 1 – 3).
	c. The vulnerability of occupants or users of the site where the intended use is a vulnerable activity.
2.	The functional need or operational need for the activity to locate within Mining Subsidence Hazard Areas.
3.	The extent to which hazardous substances will be exposed to a mining subsidence hazard.
4.	Recommendations, proposed conditions, and remediation or mitigation measures of the geotechnical survey and the <u>site</u> suitability report.

Note:

- 1. Non-notification rule in NH-R2 applies.
- 2. Applications shall comply with information requirement NH-REQ3.

NH-R16 New Buildings and Major Struct	cures in Mining Subsidence Hazard Areas 2 and 3
Areas 2 and 3 a. The potential to create not b. The risk of subsidence we	onary use of materials in all proposed buildings and major ew or exacerbate existing mining subsidence hazards. ithin the site and surrounding sites, with consideration idence Hazard Area category (e.g. Hazard Areas 2 –



 Recommendations, proposed conditions, and remediation or mitigation measures of the geotechnical survey and the <u>site</u> suitability report.
Note:
1. Non-notification rule in NH-R2 applies.
2. Applications shall comply with information requirement NH-REQ3.

NH-R17	New Buildings and Major Structures in Mining Subsidence Hazard Area 1
All Zones – Mining Subsidence Hazard Area 1	Activity Status: Discretionary

Information requirements

NH-REQ1	Information Requirement - Flood Hazard
All Flood Hazard Areas	For all sites subject to, or potentially subject to flood hazard(s), the applicant shall engage a suitably qualified and experienced person. I to undertake site specific assessment of the flood hazard and risk associated with the proposed development, and to report on the following: a. Desktop review of flood hazard data available, e.g. from Council(s), survey data and owners or witnesses, b. Assess the flood risk associated with the proposed development, considering (where applicable): i. Upstream and downstream flooding, ii. Loss of floodplain storage, iii. Peak flow, iv. Flood extents and elevations, v. Accessibility/escape during inundation, c. Recommendations for mitigation of the identified risk, e.g. minimum floor levels. d. Determination of flood extent and level in 1% Annual Exceedance Probability (AEP) event (+20%) e. What effect it will have on the development and mitigating measures taken to minimise/eliminate effect. f. What effect the development will have on the flooding (displacement/redirection of flooding etc) g. Identification and assessment of overland flow paths and whether development will alter or divert surface stormwater flows. h. Assessment of the potential to exacerbate flood hazard risk on neighbouring properties, and where the assessment shows that risk will be exacerbated; the assessment must outline ways this risk can be minimised.



NH-REQ2	Information Requirement – Site Suitability Report for Activities in Areas of Moderate or High Susceptibility to Land Instability Hazards
All Zones and Development Areas –	Applications for resource consent in areas of moderate or high susceptibility to land instability shall provide a site suitability report prepared by a suitably qualified and person (e.g. Chartered Professional Engineer) which includes (but is not limited to) the following:
Areas of Moderate or High Susceptibility to Land Instability Hazards	 a) Topographic survey (if not already available) or slope profiles. b) A description of the geology and geomorphology of the area, including comment on the areas surrounding the development site. c) Definition of the nature and continuity of the strata over the whole area of susceptibility to land instability hazards which is proposed to be developed (buildings, access and services) and to a depth below which slipping is most unlikely, by means of test pit and/or drilling and/or augering (unless existing)
	 exposures are adequate). d) Assessment of the relative strength and the sensitivity of the soil in each stratum in which, or interface on which, sliding is possible. e) Assessment of likely groundwater levels and piezometric pressures in the strata during extreme infiltration conditions. f) The geotechnical professional's analysis, calculations and opinion as to the stability and suitability of the land for development, including the stability of
	the whole slope (upon which the <u>site</u> may only form a part of) and the <u>effects</u> of the development (such as excavation, filling, removal of vegetation, disposal of <u>stormwater</u> or effluent <u>wastewater</u> into or over the area) on the whole slope. g) Definite conclusions and recommendations on any development restrictions and the preventative (or remedial) measures to be incorporated in the development.
	h) An assessment of land instability hazard risk associated with the proposed development. Note: The report should be informed by the requirements set out by the WDC Engineering Standards for assessments specifically in areas of medium and high susceptibility to land instability hazards.

NH-REQ3	Information Requirement – Site Suitability Report for Activities in Mining Subsidence Hazard Areas
All Zones – Mining Subsidence	Applications for resource consent in mining subsidence hazard areas shall provide a site suitability report prepared within the last 12 months by a suitably qualified and experienced person which includes (but are not limited to) the following:



Hazard Areas

- a) A review of the mine subsidence hazard data available, e.g. from Council mapping, third party reports, etc;
- b) The risk of subsidence within the <u>site</u> and surrounding sites, with consideration given to the Mining Subsidence Hazard Area category (e.g. Mining Subsidence Hazard Areas 1-3).
- c) An assessment of the extent to which the proposed activity and proposed or future <u>structures</u> are geotechnically appropriate to the relevant <u>Mining</u> <u>Subsidence Hazard Area</u>.
- d) The geotechnical professional's opinion as to the subsidence risk of the whole relevant area (upon which the development <u>site</u> may form only part of) and the <u>effects</u> of the development (such as excavation, filling, weight loading of existing and future structure, disposal of <u>stormwater</u> or effluent <u>wastewater</u> into or over the area).
- e) Clear recommendations for the proposed development, including mitigation measures for the subsidence hazard (where applicable).
- f) Within Mining Subsidence Hazard Area 1, an evaluation of the ground conditions, the potential severity of subsidence, and the potential for differential settlement, including where necessary physical investigation of mine workings (e.g. drilling, ground-penetrating radar).

Note:

The report should be informed by the requirements set out by the Engineering Standards for assessments specifically for Mine Subsidence Hazards.

Whangarei District Council

Natural Hazards

Amendments

Amendments to the Definitions Chapter New definitions

Insert the following new definitions:

Vulnerable Activity

means <u>residential activities</u>, <u>care centres</u>, <u>retirement villages</u>, <u>visitor accommodation</u>, marae; and medical facilities where patients and/or staff stay overnight.

Area of High Susceptibility to Land Instability Hazards

means land which appears to be either subject to erosion or slippage or is likely to be subject to erosion or slippage within the next 100 years, based on geomorphic evidence and/or the combination of geology and slope angle. These areas are identified in an overlay to the Planning Maps.

Area of Moderate Susceptibility to Land Instability Hazards

means land which exhibits evidence of past slippage or erosion and could be subject to inundation from landslide debris and slope deformation. These areas are identified in an overlay to the Planning Maps.

Boundary Adjustment

means a subdivision that alters the existing boundaries between adjoining allotments, without altering the number of allotments.

Suitably Qualified and Experienced Person

a professional who is working within their level of competency and whose level of competency and qualifications corresponds with the scale and type of the project and the overall risk

Instability Hazard Mitigation Works

means engineering works to prevent and control existing land instability hazards and includes the building of rockfall protection structures, the mechanical fixing of rocks in-situ, the re-contouring of slopes and/or land and any necessary on-site geotechnical investigations required as part of the works. Retaining walls, other structures and re-contouring that are associated with a proposed development and are not required to mitigate an existing instability hazard are excluded from this definition.

Material damage

means situations where damage has occurred to the extent that repair or replacement requires a building consent under the Building Act. Damage which would affect the structural integrity of the building is likely to be regarded as material. If the building or significant parts of it were rendered unusable by the damage or could not be safely used for its intended purpose, then such damage would be material.

Coastal Erosion Hazard Areas

means areas susceptible or likely at risk of coastal erosion mapped by the Northland Regional Council in April 2021 and included in the District Plan maps as follows

- Coastal Erosion Area 0 (CEHA0) means areas currently susceptible to coastal erosion following the failure of an erosion protection structure, with no allowance for sea level rise; this zone is only mapped where erosion protection structures are in place.
- Coastal Erosion Hazard Area 1 (CEHA1)
 means areas likely at risk of coastal erosion over the next 50 years, with a projected sea-level rise of
 0.6m by 2080..



- Coastal Erosion Hazard Area 2 (CEHA2)
 means areas potentially at risk of coastal erosion over the next 100 years, with a projected medium
 sea-level rise of 1.2m by 2130.
- Coastal Erosion Hazard Area 3 (CEHA3)
 means areas potentially at risk of coastal erosion over the next 100 years, with a projected high sealevel rise of 1.5m by 2130.

Coastal Flooding Areas

means areas susceptible or likely at risk of coastal flooding mapped by the Northland Regional Council in April 2021 and included in the District Plan maps as follows.

- Coastal Flooding Hazard Area 0 (CFHA0)
 means areas currently susceptible to coastal flooding in a 1-in-100-year storm event with no
 allowance for sea level rise.
- Coastal Flooding Hazard Area 1 (CFHA1)
 means areas susceptible to coastal flooding in a 1-in-50-year storm event, with a projected sea-level
 rise of 0.6m by 2080.
- Coastal Flooding Hazard Area 2 (CFHA2)
 means areas susceptible to coastal flooding in a 1-in-100-year storm event, with a projected medium
 sea-level rise of 1.2m by 2130.
- Coastal Flooding Hazard Area 3 (CFHA3)
 means areas susceptible to coastal flooding in a 1-in-100-year storm event, with a projected high
 sea-level rise of 1.5m by 2130.

Hard Protection Structure

means a seawall, rock revetment, groyne, breakwater, stop-bank, retaining wall or comparable structure that has the primary purpose of protecting an activity from a coastal hazard, including erosion.

Flood Hazard Area

means areas of river flooding mapped by the Northland Regional Council in November 2021 and included in the District Plan maps as follows:

- 1 in 10 Year River Flood Hazard Area the area potentially susceptible to river flooding in a 10% <u>Annual Exceedance Probability (AER)</u> / 10Yr Average Return Interval (ARI) storm event.
- 1 in 100 Year River Flood Hazard Area the area potentially susceptible to river flooding in a 1% AEP / 100Yr ARI storm event plus climate change.

Overland Flow Path

The path taken by surface <u>stormwater</u> crossing a property comprising low points in the terrain (not including <u>rivers</u> and identified <u>water</u> courses), which will accommodate flood flows in a one percent <u>annual</u> <u>exceedance probability</u> rainfall event.

Amended definitions:

The additions are marked in green with underlining and in bold, and any deletions are marked in blue and with strikethrough.



The red underlined words are the existing defined terms in the district plan. Notation in red with underlining does not indicate an amendment to the meaning of these terms through this Plan Change.

Update the naming of <u>Mining Hazard Areas</u>s to Mining Subsidence Hazard Areas for clarity of the nature of the hazard:

Mining Subsidence Hazard Area

means an area which is subject to possible subsidence due to past coal mining activities undertaken on the land.

Mining Subsidence Hazard Area 1

indicates the area where there is a possibility of crown-holing and major subsidence due to there being less than 10.t cover (t being seam thickness).

Mining Subsidence Hazard Area 2

indicates: a. areas where there is up to 100m of cover and "medium" subsidence is possible; and b. areas where there has been 2 seam pillaring and greater than 100m of cover exists.

Mining Subsidence Hazard Area 3

indicates areas where there is greater than 100m of cover. Although this is a low risk zone, it is possible for buildings to be affected by mining.

Amend the definition of Sensitive Environments and Areas to reflect the new defined natural hazard terms being introduced through PC-1:

Sensitive Environments and Areas

Sensitive Environments and Areas means:

- a. High Natural Character Areas.
- b. Outstanding Natural Character Areas.
- c. Outstanding Natural Landscapes.
- d. Outstanding Natural Features.
- e. Flood Hazard Areas.
- f. Coastal Hazard Areas.
- g. Mining Subsidence Hazard Areas.
- h. Sites and Areas of Significance to Māori.
- i. Heritage Buildings, Sites and Objects.
- j. Northpower Critical Electricity Lines.
- k. Areas of High Susceptibility to Land Instability Hazards.

Delete the following definitions:

Coastal Hazard Area means an area of coastal land that is or is likely to be, subject to the effects of natural coastal hazards such as erosion, landslip and flooding over a defined planning horizon.

Coastal Hazard Area 1 means an area of coastal land bounded by the coastline and Coastal Hazard Area 2 that is at relatively high to extreme risk from the effects of coastal hazards, over a planning horizon of 50 years.

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Coastal Hazard Area 2 means an area of coastal land, landward and adjacent to Coastal Hazard Area 1, that is at relatively low to moderate risk from the effects of coastal hazards over a planning horizon of 100 years.

Flood Susceptible Area

means an area which has been assessed as being likely to experience water covering the surface of the land in a 1 in 50 year stormwater flood event. A flood susceptible area does not imply any particular duration or level of flood water but is generally part of a contiguous area of flood susceptibility. It includes areas likely to experience surface water, either ponding or flowing, from heavy rainfall and overflows from rivers, streams, and drainage channels. In areas adjacent to the coast, the flood susceptible area relates to areas which are or are likely to be, subject to permanent or temporary inundation from sea water due to sea level rise, storm tides or tsunami over a planning horizon of 100 years. In the coastal areas there is also the potential for inundation to occur as a result of the combination of stormwater and sea water flood events.

Amendments to the Subdivision Chapter

Insert an objective, a policy and rules into the <u>Subdivision</u> chapter as per below. The deletions are marked in <u>blue and with strikethrough</u>.

The red underlined words are the existing defined terms in the district plan. Notation in red with underlining does not indicate an amendment to the meaning of these terms through this Plan Change.

Objectives	
SUB-O6 – Natural Hazards	Avoid inappropriate subdivision in areas subject to natural hazard risk.

Policies	
SUB-P6 – Natural Hazards	To ensure that the location and design of new <u>subdivision</u> does not increase the risk from, occurrence of, or the adverse <u>effects</u> of <u>natural hazards</u> on people, property and the <u>environment</u> and takes into account the potential long term <u>effects</u> of climate change.

Rules

SUB-R1	Any	Subdivision
	1.	Is subject to all relevant Overlay, Resource Area and District-Wide subdivision and land use rules.
	2.	Is subject to all relevant Matters of Control and Matters of Discretion detailed in the Relationship Between Spatial Layers Chapter.



- 3. In the Ruakaka Equine Zone and Port Nikau Development Area refer to the following for subdivision rules:
 - a. The relevant zone chapter subdivision rules; and
 - b. General subdivision rules in SUB-R2 SUB-R2F
- In the following Zones, shall refer to the relevant zone chapter for subdivision rules (except for SUB-R2 below):
 - a. Ruakaka Equine Zone.
 - b. Marsden Primary Centre.

SUB-R2A
All Zones and Development Areas - Areas of moderate or high susceptibility to land instability hazards

Subdivision of land within or containing an area of moderate or high susceptibility to land instability hazards

Where:

Either

1. Subdivision is undertaken for:

Activity Status: Controlled

- a. Boundary adjustment; or
- The creation of <u>esplanade</u>
 <u>strips</u> or <u>esplanade reserves</u>;
 or
- c. The provision for <u>network</u> utilities.

Matters of control:

- Matters listed in HPW-R9 in the Relationship Between Spatial Layers Chapter.
- 2. The <u>effects</u> of remediating any <u>land</u> instability hazards.
- 3. The potential <u>effects</u> of <u>land</u> instability hazard events on the intended use.
- 4. The potential for the intended use and any works (including earthworks) required as part of the subdivision to create new or exacerbate existing land instability hazards.

Activity Status when compliance not achieved: Restricted Discretionary

Where:

- A <u>site</u> suitability report prepared by a <u>suitably qualified and experienced</u> <u>person</u> which confirms and demonstrates that:
 - a. A minimum 100m² building area within each site is suitable to construct a building either:
 - i. In accordance with NZS 3604/2011; or
 - ii. With specific engineering design of foundations.
 - b. Access to the building area within each site is suitable to construct.

Matters of discretion:

- 1. The nature, frequency and scale of the natural hazard(s) present within the <u>site</u>.
- The <u>effects</u> of remediating any <u>land</u> instability hazards.
- The potential <u>effects</u> of <u>land</u> instability hazard events on the intended use.
- 4. The potential for the intended use and any works (including <u>earthworks</u>) required as part of the <u>subdivision</u> to



- 5. The design and location of any infrastructure and on-site services and their susceptibility to adverse effects from land instability hazard events and potential risks to public health and the environment.
- Recommendations, proposed conditions, and remediation or mitigation measures of the geotechnical survey and the site suitability report.
- create new or exacerbate existing <u>land</u> instability hazards.
- 5. The location and design of <u>building areas</u> and <u>access</u>.
- 6. The ability to adapt to long term changes in natural hazards.
- 7. Safe and efficient evacuation in the event of a tsunami
- 8. The design and location of any infrastructure and on-site services and their susceptibility to adverse effects from land instability hazard events and potential risks to public health and the environment.
- Recommendations, proposed conditions, and remediation or mitigation measures of the geotechnical survey and the <u>site</u> suitability report.

Note:

1. Applications shall comply with information requirement NH-REQ2.

SUB-2B Subdivision of land within or containing Mining Subsidence Hazard Areas 2 or 3 All Zones -Activity Status: Controlled Activity Status when compliance Mining not achieved: Discretionary Where: Subsidence Hazard 1. The site is geotechnically suitable for the Areas 2 and proposed subdivision and potential future uses; and 2. The proposed site works and infrastructure are designed with measures to avoid creating new or exacerbating existing mining subsidence hazards. Matters of control: Matters listed in HPW-R9 in the Relationship Between Spatial Layers Chapter. 2. The risk of subsidence within the site and surrounding sites, with consideration given to the Mining Subsidence Hazard Area category (e.g.

Hazard Areas 2-3).



- The location of <u>building</u> platforms and the <u>effects</u> of cumulative imposed loads on the risk of mining subsidence.
- The design and location of any <u>infrastructure</u> and on-<u>site</u> services and their susceptibility to adverse <u>effects</u> from mining subsidence hazards and potential risks to public health and the <u>environment</u>.
- 5. Mitigation measures to avoid adverse <u>effects</u> on the stability of the mine workings.
- 6. The extent to which the subsidence risk of the whole relevant area was taken into account in the <u>subdivision</u> design.
- Recommendations, proposed conditions, and remediation or mitigation measures of the geotechnical survey and the <u>site</u> suitability report.

Note:

1. Applications shall comply with information requirement NH-REQ3.

SUB-R2C	Subdivision of land within or containing Mining Subsidence Hazard Area 1	
All Zones and Development Areas - m Mining Subsidence Hazard Area 1	 Activity Status: Controlled Where: Subdivision is undertaken for boundary adjustment; and No additional capacity is created for residential units that could be constructed as a permitted activity on the site in accordance with the underlying zone provisions Matters of control: Matters listed in HPW-R9 in the Relationship Between Spatial Layers Chapter. The potential for the intended use and any works (including earthworks) required as part of the subdivision to create new or exacerbate existing mining subsidence hazards. Note:	Activity Status when compliance not achieved: Discretionary



1. Applications shall comply with information requirement NH-REQ3.

SUB-R2D

Subdivision of Land within or containing a Coastal Erosion or Coastal Flooding Hazard Area(s)

All Coastal Hazard Areas

Activity Status: Controlled

Where:

Either

- 1. Subdivision is undertaken for:
 - a. Boundary adjustment; or
 - b. The creation of <u>esplanade strips</u> or <u>esplanade reserves</u>; or
 - c. The provision for <u>network utilities</u>.

OR

 Building platforms are not proposed to be located within the CEHA0, CEHA1, CEHA2, CFHA0, CFHA1 or CFHA2.

Matters of control:

- The design and layout of the <u>subdivision</u>, including <u>infrastructure</u>, servicing and the facilitation of safe and efficient evacuation in the event of a tsunami
- 2. The location of <u>building</u> platforms, and accessways.
- The provision of <u>setbacks</u> and esplanade areas to avoid high risk coastal erosion hazard areas.
- 4. The extent to which sea-level rise has been taken into account in the <u>subdivision</u> design.

Note:

1. Applications shall comply with information requirement CH-REQ1.

Activity Status when compliance not achieved: Discretionary

Where:

- Building platforms are identified on every proposed <u>site</u> and:
 - Are not wholly or partly located within the CFHA0, CFHA1 CEHA0 or CEHA1.
 - b. In CFHA2 finished floor levels for habitable buildings are located 500mm above the maximum water level in a 1% AEP flood event plus a 1.2m sea level rise; or
 - c. In CFHA2 finished floor levels for non-habitable buildings are located 300mm above the maximum water level in a 1% AEP flood event plus a 1.2m sea level rise.

SUB-R2E

Subdivision of land within or containing a Flood Hazard Area(s)



10 and 100 year Flood Hazard Area	Activity Status: Controlled Where: 1. No additional <u>sites</u> are created; or	Activity Status when compliance is not achieved: Refer to SUB-R2F.
Aica	 No additional capacity is created for <u>residential units</u> that could be constructed as a permitted activity on the <u>site</u> in accordance with the underlying zone provisions; or 	
	 Undertaken for the purpose of the creation of <u>esplanade strips</u> or <u>esplanade reserve</u>. Matters of control: 	
	Matters listed in HPW-R9 in the Relationship Between Spatial Layers Chapter.	
	 Where risks of flooding are identified through the site suitability report: The potential effects of flood hazard events on the intended use. The potential for the intended use and any works required as part of the subdivision to create new or exacerbate existing flood hazards. The design and location of any infrastructure and on-site services and their susceptibility to adverse effects from flood hazard events and potential risks to public health and the environment. The location and design of building areas and access. 	
	 Recommendations and proposed conditions and remediation or mitigation measures of the <u>site</u> suitability report and any further information provided through the consent process. 	
	Note:	
	 Applications shall comply with information requirement NH-REQ1. 	

SUB-R2F	Subdivision of Land within or containing a Flood Hazard Area(s)	
All Zones	Activity Status: Restricted Discretionary Where: 1. A <u>site</u> suitability report prepared by a suitably qualified and experience professional confirms and demonstrates that: a. All proposed <u>sites</u> are capable of containing	Activity Status when compliance not achieved with: Noncomplying
	a complying 100m ² building platform that will not be inundated in a 100 year flood event or subject to material damage; and	



- Newly created <u>sites</u> are located and designed so that they do not divert flood flow onto other properties or otherwise result in any increase in flood hazard beyond the <u>site</u>; and
- c. Any private <u>road</u>, <u>right of way</u> or accessway must be located where the depth of flood <u>waters</u> in a 1 in 100-year flood event do not exceed 200mm above <u>ground level</u>.

Matters of discretion:

- Location of suitable and stable <u>building</u> platforms, <u>access</u> and servicing, including on-site <u>wastewater/stormwater</u> disposal where applicable;
- The effects of the hazard on the intended use of the site or sites created by the subdivision and the range of uses permitted under the relevant zone, and the vulnerability of the uses to flood hazard events;
- 3. The degree to which there may be <u>material</u> <u>damage</u>, through inundation or erosion, in a 1 in 100-year flood event;
- The provision of safe access and egress to and within the created sites during a flood event, including consideration of depth and velocity of flood water over private roads and accessways;
- 5. <u>Effects</u> on the functions of floodplains and overland flow paths;
- The <u>effects</u> of potential changes in flood depth, velocity and frequency on other properties, including upstream and downstream from the <u>site</u>; and
- 7. The proposed use of, necessity for and design of engineering solutions (soft or hard) to mitigate the hazard.

Note:

1. Applications shall comply with information requirement NH-REQ1.

Amendments to the Earthworks Chapter

Insert the following new objective (EARTH-03), policy (EARTH-P4) and rules (EARTH -R3-R5) into the Earthworks Chapter



EARTH-03 Earthworks in areas subject to land instability and mining subsidence Earthworks do not create, contribute to or exacerbate land instability or mining subsidence risk onsite or on other property.

Policies		
EARTH-P4 Risk reduction	Manage the risks associated with <u>earthworks</u> in areas subject to <u>land</u> instability mining subsidence hazards giving consideration to:	
	 The nature, frequency and scale of the natural hazard(s) present within the <u>site</u>. 	
	2. The nature, scale, location and design of earthworks.	
	 Any increase of natural hazard risk within the <u>site</u> and surrounding area, transfer of risk to other sites, or creation of new natural hazard risk. 	
	4. Any measures to avoid, mitigate or reduce risk.	

Rules

EARTH-RAA	Any activity requiring a restricted discretionary activity consent in this chapter
All Zones and Development Areas	Any restricted discretionary activity under EARTH-R3 - R5 shall not require the written consent of affected persons and shall not be notified or limited-notified unless Council decides that special circumstances exist under section 95A(4) of the Resource Management Act 1991.

EARTH-R3	Earthworks (other than earthworks associated with subdivision) in areas of moderate or high susceptibility to land instability hazards	
All Zones and Development Areas – areas of moderate or high susceptibility to land instability hazards	Activity Status: Permitted Where: 1. The earthworks meet the specified thresholds: a. Do not exceed a total volume of 30m³ of material disturbed or removed within each 10-year period from [operative date] within a contiguous area of moderate or high susceptibility	Activity Status when compliance not achieved: Restricted Discretionary Matters of discretion: 1. The timing, location, volume, area, scale, design, nature, and monitoring of earthworks in relation to: a. The effects on the stability of land and structures.



- to <u>land</u> instability hazards in a site; and
- b. Do not exceed a total area of 150m² of material disturbed or removed within each 10-year period from [operative date] within a contiguous area of moderate or high susceptibility to land instability hazards in a site; and
- c. The maximum face height of any cut and/or fill faces does not exceed 0.5m from ground level within an area of moderate or high susceptibility to land instability hazards;

OR

- 2. The earthworks are associated with:
 - The construction of new driveways or impermeable areas where cut or fill depths do not exceed 0.3m;
 - The repair and maintenance of existing <u>roads</u>, fences, utility connections, driveways, parking areas, effluent disposal systems, swimming pools, sports fields and playgrounds, walking or cycling tracks, farm tracks;
 - c. A dune restoration project;
 - d. The provision of walking or cycling tracks 4m or less wide and the maximum face <u>height</u> of any cut and/or fill faces does not exceed 0.5m from <u>ground</u> level;
 - The operation, maintenance, <u>minor upgrading</u> or replacement of existing lawfully established infrastructure;

- The potential to create new or exacerbate existing land instability hazards within the <u>site</u> and surrounding <u>sites</u>.
- c. The degree of risk of <u>land</u> instability within the <u>site</u> and surrounding <u>sites</u>.
- The functional or operational need for activities to locate within area of moderate or high susceptibility to <u>land</u> instability hazards.
- The extent to which <u>hazardous</u> <u>substance</u>s will be exposed to <u>land</u> instability hazards.

Note:

- 1. Non-notification rule in EARTH-RAA applies.
- 2. Applications shall comply with information requirement NH-REQ2.



- f. <u>Earthworks</u> related to rural production activities in the Rural Production Zone
- g. Forestry activities in accordance with the National Environmental Standards for <u>Plantation</u> <u>Forestry</u>
- h. Lawfully established mineral extraction activities within a Mining Area; or
- Emergency works as defined by section 330 of the Resource Management <u>Act</u> 1991.

EARTH-R4

Earthworks in Mining Subsidence Hazard Areas 2 and 3

All Zones – Mining Subsidence Hazard Areas 2 and 3

Activity Status: Permitted

Where:

- A report or certificate, which has been prepared by a <u>suitably qualified and</u> <u>experienced person</u> in accordance with the information requirements in <u>NH-REQ3</u>, is provided to the Council which:
 - a. Confirms and demonstrates the <u>site</u> is geotechnically suitable for the proposed <u>earthworks</u>; and
 - b. Identifies measures to be put in place to mitigate the risk to the stability of the mine workings.

OR

- 2. The <u>earthworks</u> are associated with:
 - a. The construction of new driveways or impermeable areas where cut or fill depths do not exceed 0.3m;
 - b. The repair and maintenance of existing <u>roads</u>, fences, utility connections, driveways, parking areas, effluent disposal systems, swimming pools, sports fields and playgrounds, walking or cycling tracks, farm tracks;

Activity Status when compliance not achieved: Restricted Discretionary

Matters of discretion:

- The timing, location, scale, design, nature, and monitoring of <u>earthworks</u> in relation to:
 - The potential to create new or exacerbate existing mining subsidence hazards.
- The risk of subsidence within the <u>site</u> and surrounding <u>sites</u>, with consideration given to the Mining Subsidence Hazard Area category (e.g. Mining Subsidence Hazard Area 1 3).
- The functional need or operational need for <u>infrastructure</u> to be located within <u>Mining Hazard Areas</u>.
- Recommendations, proposed conditions, and remediation or mitigation measures of the geotechnical survey and the <u>site</u> suitability report.

Note:

1. Non-notification rule in EARTH-RAA applies.



- The provision of walking or cycling tracks 4m or less wide and the maximum face <u>height</u> of any cut and/or fill faces does not exceed 0.5m from ground level;
- d. The operation, maintenance, minor upgrading or replacement of existing lawfully established infrastructure;
- 2. Applications shall comply with information requirement NH-REQ3.

EARTH-R5

Earthworks in Mining Subsidence Hazard Area 1

All Zones – Mining Subsidence Hazard Areas 1

Activity Status: Permitted

- 1. The <u>earthworks</u> are associated with:
 - The construction of new driveways or impermeable areas where cut or fill depths do not exceed 0.3m;
 - b. The repair and maintenance of existing <u>roads</u>, fences, utility connections, driveways, parking areas, effluent disposal systems, swimming pools, sports fields and playgrounds, walking or cycling tracks, farm tracks;
 - The provision of walking or cycling tracks 4m or less wide and the maximum face <u>height</u> of any cut and/or fill faces does not exceed 0.5m from ground level;
 - d. The operation, maintenance, minor upgrading or replacement of existing lawfully established infrastructure;

Activity Status: Restricted Discretionary

Matters of discretion:

- The timing, location, scale, design, nature, and monitoring of <u>earthworks</u> in relation to:
- 2. The potential to create new or exacerbate existing mining subsidence hazards.
- The risk of subsidence within the <u>site</u> and surrounding <u>sites</u>, with consideration given to the Mining Subsidence Hazard Area category (e.g. 1-3).
- The functional need or operational need for infrastructure to be located within Mining Subsidence Hazard Areas.
- Recommendations, proposed conditions, and remediation or mitigation measures of the geotechnical survey and the <u>site</u> suitability report.

- 1. Non-notification rule in EARTH-RAA applies.
- 2. Applications shall comply with information requirement NH-REQ3.





Amendments to Coastal Environment Chapter

Amend the Coastal Environment Chapter by

- 1. Inserting the following new paragraph in the Issues section after the paragraph beginning with "undeveloped parts..."
 - An additional consideration for development in the coastal <u>environment</u> is that it runs the risk of being adversely affected by coastal hazards such as erosion or flooding. Coastal eros ion is a natural process that occurs when waves, wind and <u>water</u> currents wear away the shoreline. Coastal flooding results from inundation caused by storm tides and wave setup. The interaction of these natural coastal processes with human activities, buildings, <u>structures</u> and other aspects of the <u>environment</u> can result in coastal hazards. These hazards pose a significant risk to a number of communities and settlements within the district's coastal <u>environment</u>, adversely affecting the health, wellbeing and safety of people and communities, as well as the local economy and natural <u>environment</u> values. As sea level rises coastal hazards will increasingly impact the district's coastal margins.
- 2. Amending the following paragraph in the Issues section by inserting the words shown in italics.
 - "Land within the coastal environment requires some additional controls to manage the effects of land use and development on the coastal environment, and to manage the risk of coastal hazards. The Coastal Environment has been identified and is an 'overlay' that applies to land where the coast has a significant influence, and where land use activities can have effects on the coastal marine area. Coastal hazard areas (Coastal Flooding and Coastal Erosion) have also been identified and are overlays that apply to land in some parts of the Coastal Environment. The objectives, policies and rules for the Coastal Environment, and the rules for Coastal Hazards, as set out below, apply in addition to the rules for the underlying zone unless otherwise stated (e.g. Rural ProductionZone, Settlement Zone and General Residential Zones). The objectives and policies for Coastal Hazards are found in the Natural Hazards Chapter which consolidates all of the objectives and policies relating to natural hazards. Those objectives and policies are applicable when assessing applications for sites subject to a Coastal Hazard Overlay."
- 3. Deleting objectives CE-O7 and CE-O8 and policy CE-P20.
- 4. Inserting the following as CE-R1.9 into CE-R1 Application of the Coastal <u>Environment Land</u> Use Rules
 "9. The CE-CEHA and the CE-CFHA rules of this chapter apply to any <u>site</u> or portion of a <u>site</u> subject to a Coastal Erosion Hazard Overlay or a Coastal Flooding Hazard Overlay."
 - 5. Inserting the following new rules at the end of the Coastal Environments chapter

Whangarei District Council

Natural Hazards

CH - Coastal Hazard Area Rules

Rules

CH-R1

The rules below apply where a <u>site</u> is subject to a coastal hazard area (CEHA0, CEHA1, CEHA2, CFHA0, CFHA1, and CFHA2) and are in addition to the other rules in the Coastal Environment Chapter, the Natural Hazards Chapter and underlying zone, unless otherwise stated. In the event of any conflict between activity classification rules then the most restrictive activity classification rule shall apply. No rules apply to that part of a site affected by CEHA3 or CFHA 3).

CH-R2	Any activity requiring a restricted discretionary activity consent in this chapter
All Zones and Development Areas	Any restricted discretionary activity in this chapter shall not require the written consent of affected persons and shall not be notified or limited-notified unless Council decides that special circumstances exist under section 95A(4) of the Resource Management Act 1991.

CH-R3	Minor Buildings and General Public Amenities	
All Zones and Development Areas	Activity Status: Permitted 1. Minor buildings and General Public Amenities are exempt from rules CH-R7 – CH-R12.	

CH-R4	Operation, Maintenance, and Minor Upgrading of Existing Infrastructure
All Zones and Development Areas	Activity Status: Permitted Note: 1. This rule includes any earthworks associated with the above activities.

CH- R5	Non habitable Buildings and Major Structures	
Rural Production Zone	Activity Status: Permitted Where: 1. The <u>building</u> or <u>major structure</u> is <u>non-habitable</u> and:	Activity Status where compliance not achieved: Restricted Discretionary Matters of discretion:



a.	Has a gross floor area less than 30m ²
	or:

- b. Is associated with <u>farming</u> and located within the Rural Production Zone, with a <u>gross floor area</u> less than 100m² or
- c. Is an artificial crop protection <u>structure</u> or frost protection fans.
- 1. The scale, bulk, location and form of the <u>building</u> or <u>structure</u>.
- The risk of adverse <u>effects</u> on people, property and the <u>environment</u> including risk to public health and safety and any cumulative <u>effects</u>.
- Any exacerbation of the coastal hazard or creation of a new hazard as a result of the <u>building</u> or <u>structure</u>.
- 4. The extent to which <u>hazardous</u> <u>substances</u> will be exposed to a coastal hazard risk.

- 1. Non-notification rule in CH-R2 applies
- Applications shall comply with information requirement CH-REQ1

CH -R6	New Infrastructure
All zones and	Activity Status: Restricted Discretionary Matters of discretion:
Development Areas	The functional or operational need of the <u>infrastructure</u> to locate on <u>land</u> subject to the coastal hazard.
	2. The scale, bulk, location and form of the infrastructure.
	 The public benefits associated with the <u>infrastructure</u>, particularly in the case of <u>regionally significant infrastructure</u> and critical <u>infrastructure</u>.
	4. Any <u>reverse sensitivity</u> issues.
	5. The risk of adverse effects on people, property and the environment including:
	a. Risk to public health and safety.
	b. Impacts on landscape and cultural values, and on public access.
	c. Any cumulative <u>effects</u> .
	 Any increase in risk from the coastal hazard or creation of a new hazard as a result of the <u>infrastructure</u>.
	 The extent to which future, long term sea-level rise, including a high projection sea -level rise, and it's potential impacts have been considered in the location and design of the proposed <u>infrastructure</u>.



- 8. The degree to which the <u>infrastructure</u> is likely to be subject to damage from erosion and/or inundation and the degree to which it maintains its integrity and function during a hazard event, particularly in the case of lifeline utilities.
- 9. In the CEHA0 and CEHA1 the extent to which the <u>infrastructure</u> may be able to be relocated or removed from the <u>site</u>.
- 10. Where relevant, and particularly in the case of roading <u>infrastructure</u>, natural hazard risk to vehicular <u>access</u> and evacuation routes and the ability to maintain emergency <u>access</u>.
- 11. The extent to which <u>hazardous substances</u> will be exposed to a coastal hazard risk.

- 1. Non-notification rule in CH-R2 applies
- 2. Applications shall comply with information requirement CH-REQ1

CH-R7	New Buildings and Major Structures in the CEHA1	
All zones and Development Areas	Activity Status: Permitted Where: a. The building or major structure is non-habitable, and b. the gross floor area does not exceed 30m²;	Activity Status where compliance not achieved: Non-Complying Note: 1. Applications shall comply with information requirement CH-REQ1
		with information

CH-R8	Alterations and Modifications to Existing Buildings and Major Structures in the CEHA1	
All zones and Development Areas	Activity Status: Permitted Where 1. The existing gross floor area does not increase by more than 30m² from what existed at [operative date]., and	Activity Status where compliance not achieved: Non-Complying
	 a. The <u>alteration</u> is not located further seaward than the existing <u>building</u> or <u>major structure</u>. b. The <u>alteration</u> or modification does not create a new <u>vulnerable activity</u>. 	Note: 1.Applications shall comply with information requirement CH-REQ1



any management/ mitigation requirements associated with that

use;

Natural Hazards

CH-R9	New Buildings and Major Structures, and Alterati Buildings and Major Structures in the CEHA2	ions and Modifications to Existing
All zones and Development Areas	 Activity Status: Permitted Where: For new buildings and major structures the gross floor area does not exceed 30m². For alterations and modifications to existing buildings and major structures:	Activity Status where compliance not achieved: Restricted Discretionary Matters of discretion: 1. The scale, bulk, location and form of the building or major structure. 2. The risk of adverse effects on people, property and the environment including risk to public health and safety, and any cumulative effects. 3. Any increase in the risk from the coastal hazard or creation of a new hazard as a result of the building or major structure. 4. The extent to which sea-level rise, including a high projection sealevel rise, and its potential impact have been considered in the location and design of the proposed building or major structure. 5. The extent to which the building or major structure is relocatable considering its design and location and access to remove the major structure. 6. The degree to which the building or major structure is likely to be subject to damage from erosion and/or inundation including the risk of material damage. 7. The use of the building or major structure, including the storage and use of hazardous substances, and



been taken into account in the

Natural Hazards

8. The extent to which hazardous substances will be exposed to a coastal hazard risk.

Notes:

1.non-notification rule in CH-R2 applies
2. Applications shall comply with information requirement CH-REQ1

CH-R10 New Buildings and Major Structures in the CFHA	A0 and CFHA1
Activity Status: Permitted Where: The building or major structure is non-habitable, and: a. the gross floor area does not exceed 30m² and b. The finished floor level is 300mm above the maximum water level in a 1% AEP flood event plus a 1.2 m sea level rise.	Activity Status when compliance not achieved: Restricted Discretionary Where: a. The building or major structure is habitable and the finished floor level is 500mm above the maximum water level in a 1% AEP flood event plus a 1.2 m sea level rise; or b. The building or major structure is non-habitable and does not comply with the permitted activity rules. Matters of discretion: 1. The scale, bulk, location and form of the building or major structure. 2. The risk of adverse effects on people, property and the environment including risk to public health and safety and any cumulative effects. 3. Any increase in risk from the coastal hazard or creation of a new hazard as a result of the building or major structure. 4. The extent to which sea-level rise, including a high projection sea-level



location and design of the proposed building or major structure.
5. For <u>buildings</u> or <u>major structures</u> that contain vulnerable activities, the provision of direct, safe <u>access</u> above flood levels from the <u>building</u> to <u>land</u> that is clear of the coastal flood hazard.
6. The use of the <u>building</u> or <u>major</u> <u>structure</u> , including the <u>storage</u> and use of <u>hazardous substances</u> , and any management/ mitigation requirements associated with that use;
7. The extent to which <u>hazardous</u> <u>substances</u> will be exposed to a coastal hazard risk.
Activity Status when, compliance is not achieved, and the activity is not Restricted Discretionary:
Non-complying
Notes:
 Non-notification rule in CH-R2 applies Applications shall comply with information requirement CH-REQ1

CH-R11	Alterations or Modifications to Existing Buildings and Major Structures in the CFHA0, CFHA1, CFHA2	
All zones and Development Areas	Activity Status: Permitted Where: 1. The finished floor level of any alteration or	Activity Status when compliance not achieved: Restricted Discretionary Matters of discretion:
7000	modification for existing habitable buildings is 500mm above the maximum water level in a 1% AEP flood event plus a 1.2m sea level rise and:	 The scale, bulk, location and form of the <u>alteration</u> or modification to the existing <u>building</u> or <u>major</u> <u>structure</u>.
	 a. The <u>alteration</u> or modification does not increase the existing 	The risk of adverse <u>effects</u> on people, property and the



gross floor area of an existing vulnerable activity by more than 30m² from what existed at operative date; and

b. The <u>alteration</u> or modification does not create a new <u>vulnerable activity</u>.

OR

- The finished floor level of any <u>alteration</u> or modification for existing non-habitable <u>buildings</u> and <u>major structures</u> is 300mm above the maximum <u>water</u> level in a 1% AEP flood event plus a 1.2 m sea level rise and:
 - a. The existing gross floor area does not increase by more than 30m² from what existed at [operative date].
 - b. The <u>alteration</u> or modification does not create a new <u>vulnerable activity</u>.

- <u>environment</u> including risk to public health and safety and any cumulative <u>effects</u>.
- 3. Any increase in risk from the coastal hazard or creation of a new hazard as a result of the <u>alteration</u> or modification to the existing <u>building</u> or <u>major structure</u>.
- 4. The extent to which sea-level rise, including a high projection sealevel rise, and it's impacts have been taken into account in the location and design of the alteration or modification.
- 5. For <u>buildings</u> that contain vulnerable activities, the provision of direct, safe <u>access</u> above flood levels from the <u>building</u> to <u>land</u> that is clear of the coastal flood hazard.
- The use of the <u>building</u> or <u>major</u>
 <u>structure</u>, including the <u>storage</u> and
 use of <u>hazardous substances</u>, and
 any management/ mitigation
 requirements associated with that
 use;
- 7. The extent to which <u>hazardous</u> <u>substances</u> will be exposed to a coastal hazard risk.

- Non-notification rule in CH-R2 applies
- Applications shall comply with information requirement CH-REQ1

CH -R12	New Buildings and Major Structures in the CFHA2	
All zones and Development	Activity Status: Permitted Where:	Activity Status when compliance not achieved: Restricted Discretionary
Areas	 For new <u>buildings</u> and <u>major</u> <u>structures</u>, the <u>gross floor area</u> does not exceed 30m² and: 	Matters of discretion:1. The scale, bulk, location and form of the <u>building</u> or <u>major structure</u>.



- a. The finished floor level for new habitable buildings or major structures is 500mm above the maximum water level in a 1% AEP flood event plus a 1.2 m sea level rise or:
- b. The finished floor level for new non-habitable <u>buildings</u> and <u>major structures</u> is 300mm above the maximum <u>water</u> level in a 1% AEP flood event plus a 1.2 m sea level rise.
- The risk of adverse <u>effects</u> on people, property and the <u>environment</u> including risk to public health and safety and any cumulative <u>effects</u>.
- Any increase in risk from the coastal hazard or creation of a new hazard as a result of the <u>building</u> or <u>major structure</u>.
- 4. The extent to which sea-level rise, including a high projection sealevel rise, and it's potential impacts have been taken into account in the location and design of the proposed building or major structure.
- For <u>buildings</u> that contain vulnerable activities, the provision of direct, safe <u>access</u> above flood levels from the <u>building</u> to <u>land</u> that is clear of the coastal flood hazard.
- The use of the <u>building</u>, including the <u>storage</u> and use of <u>hazardous</u> <u>substances</u>, and any management/ mitigation requirements associated with that use:
- 7. The extent to which <u>hazardous</u> <u>substances</u> will be exposed to a coastal hazard risk.

- 1. Non-notification rule in CH-R2 applies
- Applications shall comply with information requirement CH-REQ1

CH-R13	Changes in use to accommodate a vulnerable activity within existing buildings	
All Zones and Development Areas	Activity Status: Permitted Where: A <u>building</u> is not located in either: a. CEHA0; or b. CEHA1; or c. CFHA0; or	Activity status when compliance not achieved: Discretionary Note: 1.Applications shall comply with information requirement CH-REQ1



d. CFHA1;

CH-R14	New Hard Protection Structures	
All zones and Development Areas	Activity Status: Discretionary Where: 1. The hard protection structure is for the purpose of protecting subdivision or development existing on [operative date]. Notes: 1. Applications shall comply with information requirement CH-REQ1	Activity Status when compliance is not achieved: Non-Complying

CH-R15	New Buildings and Major Structures and Additions to Existing Buildings and major Structures in CEHA0
All zones and Development Areas	Activity Status: Non-complying Notes: 1. Applications shall comply with information requirement CH-REQ1

Information Requirements

	ion Requirements	
CH-REQ1	Rule Requirement	
All Coastal Hazard Areas	 All applications for resource consent required under CH-R6 – R15 shall provide a site suitability report prepared by a suitably qualified and experienced person All reports required under CH-REQ1.1 shall have been be prepared within the last 12 months and shall include (but are not limited to): Identification of the relevant coastal hazards within the site. Assessment of the risks and effects of coastal hazards including: 	
	 i. Inundation; ii. Erosion iii. Storm surge; iv. Wave run-up; v. Tsunami hazards; and vi. Potential material damage. c. Description and assessment of any proposed mitigation measures. 	



- d. Assessment of residual risks and effects.
- e. Consideration of the <u>effects</u> of climate change and sea level rise over at least a 100-year timef rame, including the long term <u>effects</u> under a high projection sea level rise (Note: CEHA3 and CFHA3 areas provide a potential indication of that long term effect).

8. Referenced Documents Chapter

Amend the Referenced Documents Chapter by deleting

- a. Coastal Hazard Identification, and the following referenced documents
 - NRC 1988: Coastal Hazard Identification. Whangārei County. Technical Publication No. 1988/1, March 1988, held by Northland Regional Council.
 - Gibb, J.G. 1998a: Review of Coastal Hazard Zones for Eleven Selected Beaches in Whangārei District, Northland Region. Consultancy Report C.R. 98/4 prepared for and held by Northland Regional Council. July 1998.
 - Gibb, J.G. 1998b: Coastal Hazard Zone Assessment for the One Tree Point -Marsden Bay Area, Whangārei Harbour, Whangārei District. Consultancy Report C.R. 98/3 prepared for and held by Whangārei District Council.
 - Gibb, J.G. 1999: Coastal Hazard Risk Zone Assessment for Pātaua and Matapouri Bay, Whangārei District. Consultancy Report C.R. 99/7 prepared for and held by Whangārei District Council. December 1999.
 - IPCC 1996: Climate Change 1995. The Science of Climate Change. Summary for Policy Makers and Technical Summary of the Working Group 1. Report. Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge. Held by Northland Regional Council.

Amendments to the District Growth and Development chapter

Amend existing DGD-O10 by replacing it with the amended objective below.

The additions are marked in <u>green with underlining and in bold</u>, and any deletions are marked in <u>blue</u> and with strikethrough.

The red underlined words are the existing defined terms in the district plan. Notation in red with underlining does not indicate an amendment to the meaning of these terms through this Plan Change.

Objectives

DGD-O10 – Natural Hazards

Avoid inappropriate new subdivision, land use and development in areas subject to natural hazard risk, and



<u>In existing developed areas</u> minimise the impacts of <u>natural hazard</u> risk including the influence of climate change, on people, property and <u>infrastructure</u>.

Amend existing policy DGD-P3 by replacing it with the amended policy below:

Policies	
DGD-P3 – Natural Hazards	To manage the risk of <u>natural hazards</u> to people, property and <u>infrastructure</u> by:
	 Assessing the risk of coastal and flood hazards on <u>subdivision</u>, use and development over a 100-year timeframe.
	 Avoiding new <u>subdivision</u>, use and development in areas subject to <u>natural hazards</u>.
	 Ensuring measures to mitigate and adapt to the <u>effects</u> of climate change are provided for in development, growth and transport planning.
	 Ensuring that the risks from <u>natural hazards</u> are assessed when zoning new areas of <u>land</u> for more intensive development.
	5. Ensuring all proposals to subdivide or develop land that is subject to natural hazard risk include an assessment that is commensurate with the level of natural hazard risk
	 Avoiding locating regionally significant and critical <u>infrastructure</u> within areas subject to <u>natural</u> hazard zones unless there is a functional or operational need for its location.

Amendments:

Amend the following policies as per the table below:

Rule	Amendment
Rule DGD-P23 – Rural Living Zone; DGD-P25 – Rural Village Zone;	Replace the words "hazard prone area" with "areas subject to natural hazard risk".
DGD-P26 – Rural (Urban Expansion) Zone	Replace the words "significantly hazard prone" with areas "at high risk from natural hazards".



Amendments to the Urban Form and Development chapter

Amend the following policies as per the table below:

Rule	Amendment	
UFD-P10 – Local Centre Zone ;	Replace the words "hazard prone area" with "areas	
UFD-P13 – Residential Zones – clause 1c	subject to natural hazard risk".	
UFD-P13 – Residential Zones – clause 3b and 4c	Replace the words "significantly hazard prone" with areas "at high risk from natural hazards".	

Amendments the Port Nikau Development Area Chapter

Amend existing rule PNDA-R1(2) by including the underlined words as shown below.

The additions are marked in <u>green with underlining and in bold</u>. The red underlined words are the existing defined terms in the district plan. Notation in red with underlining does not indicate an amendment to the meaning of these terms through this Plan Change.

PNDA-R1	Any Activity
	1. Except for (2) and (3) below, the relevant rules of the district wide chapters apply
	unless otherwise stated in the PNDA rules.
	2. The rules of the district wide <u>Subdivision</u> chapter do not apply to the PNDA, <u>except</u>
	for the general subdivision rules in SUB-R2 – SUB-R2F
	3. The following rules and appendices of the district wide Transport Chapter do not
	apply to the Port Nikau Development Area:
	a. TRA-R5.2.
	b. TRA-R12.
	c. TRA-R14.4.
	d. TRA-R15.
	e. TRA-R16.
	f. TRA-R17.
	g. TRA-R18.
	h. TRA Appendix 2D and 2E.