PART 2 – DISTRICT-WIDE MATTERS / HAZARDS AND RISKS / NATURAL HAZARDS

Natural hazards

Overview

The district is affected by natural hazards. These are natural processes that become a hazard when they affect people, property, infrastructure or the wider environment.

Natural hazards include those that occur frequently such as flooding, coastal erosion and inundation, and land instability; and those natural hazards that occur less frequently including wildfires, tsunami, high winds and droughts. Flooding is the most common natural hazard faced by the district, while many of the district's settlements are also adjacent to the coast which exposes them to coastal hazard risks. Natural hazards are often driven by climatic conditions, for example extreme rainfall events (flooding/land instability) or severe drought (wildfire). Coastal erosion and inundation are also most likely to occur during storm events.

The risk of natural hazards is likely to increase in the future as a result of climate change. Rainfall in Northland is predicted to reduce overall and droughts are likely to increase in intensity and duration. However, tropical cyclones will likely be stronger and cause more damage as a result of heavy rain and strong winds. Sea level rise will increase the risk and extent of coastal erosion and inundation affecting properties, roads and other infrastructure.

The effects of natural hazard events range from general nuisance to creating significant damage to, or loss of, property and infrastructure such as roads, bridges and pipelines. In extreme cases, natural hazards can result in loss of life. The risk that natural hazards pose is made up of a number of factors including:

- the nature, magnitude and extent of the hazard;
- the anticipated frequency or probability of the hazard event occurring; and
- the exposure and vulnerability of people, property and the environment to the hazard.

There is a tension between managing the risk to people and property from natural hazards and enabling reasonable use and development of private land. Plan controls on land use and subdivision are focused on managing the risk of flooding, coastal erosion and inundation (located in the Coastal Environment Chapter), land instability and wildfire as follows:

River Flood~~ing~~ Hazards

Within areas of flooding~~, coastal erosion and coastal inundation~~ mapped by the Northland Regional Council and included in the District Plan maps as follows:
River Flood Hazard Areas

- 1 in 10 Year River Flood Hazard Area — the area potentially susceptible to river flooding in a 10% Annual Exceedance Probability (AER) / 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.

Coastal Hazards

The coastal hazard rules are located in the Coastal Environment chapter in accordance with the National Planning Standards, while the provisions for other natural hazards are within this chapter. The Natural Hazards chapter consolidates all of the objectives and policies related to natural hazards, including coastal hazards.

Within areas of coastal erosion and coastal inundation mapped by the Northland Regional Council and included in the District Plan maps as follows:
Coastal Hazard Areas (including High Risk Coastal Hazard Area comprising of Coastal Flood Zone 1 ~~CFZ1~~ and Coastal Erosion Zone 1~~CEZ1~~)

- Coastal Flood Zone 1 (CFHZ1) — extent of the 50-year ARI static water level at 2080 including 0.6 m sea level rise (RCP8.5M).
- Coastal Flood Zone 2 (CFHZ2) — extent of the 100-year ARI static water level at ~~2080~~ 2130 including 1.2 m sea level rise (RCP8.5M).
- Coastal Flood Zone 3 (CFHZ3) — extent of the 100-year ARI static water level at ~~2080~~ 2130 including 1.5 m sea level rise (RCP8.5H+).
- Coastal Erosion Zone 1 (CEHZ1)— an area potentially susceptible to coastal erosion (66% probability) by 2080 with 0.33 m sea level rise from 2019 — (RCP 8.5M).
- Coastal Erosion Zone 2 (CEHZ2) — an area potentially susceptible to coastal erosion (5% probability) by 2130 with 0.85 m sea level rise from 2019 — (RCP 8.5M).
- Coastal Erosion Zone 3 (CEHZ3) — an area potentially susceptible to coastal erosion (5% probability) by 2130 with 1.17 m sea level rise from 2019 — (RCP 8.5H+).

Land Instability

Land that is susceptible to instability hazards. Land is identified at subdivision through the application of geological information, slope and other criteria in the definition of “land susceptible to instability” in the Definitions.

Wildfire

Ensuring adequate water supplies are available for firefighting purposes, appropriate setbacks from vegetation and suitable access for firefighting ~~in new subdivisions~~.

However, due to the widespread nature of natural hazards in the Far North District, consideration of natural hazard risks may be required outside of these areas. For example, consideration of the risks from natural hazards is a component of all subdivision applications.

A precautionary approach is required to manage natural hazard risks. This reflects the direction provided by national and regional policy statements, the imperfect knowledge available on natural hazards, the potentially significant costs and consequences that result from a major hazard event and that it is often difficult and more expensive to mitigate hazard risk after subdivision and land use development has occurred. Plan controls are also generally more stringent for those activities that are more vulnerable to the effects of natural hazards — primarily residential activities, including care facilities (including day-care centres), retirement villages and marae.

Council must also provide the ability to adapt to our changing environment and knowledge and take opportunities to reduce the risks of hazards on existing buildings, structures and infrastructure where these arise.

Council has responsibilities under the RMA, the NZCPS and the NRPS to manage natural hazard risk to provide for the health and safety of our communities and the infrastructure that serves them. This is achieved through a range of approaches including:

- avoiding or controlling land use and subdivision in areas of identified natural hazard risk;
- incorporating ways to mitigate risks in the design and layout of subdivision and development;
- progressively responding and adapting to long term changes in climate and sea level; and
- building the community's understanding of natural hazards and its preparedness to respond to natural hazard events (often called resilience).

There are also a range of non-statutory methods for managing the effects of natural hazards, including measures put in place by emergency management groups such as Civil Defence. These include education, warning systems and emergency preparedness.

Note:
The mapping of hazard areas in the District Plan maps is based on the most-up-to date Northland Regional Council mapping when the District Plan was notified. A person may provide a more detailed site-specific assessment prepared by a suitably qualified and experienced engineer to confirm the extent, depth and flow characteristics of the river flood hazard and may also refer to any more recent mapping undertaken by the Northland Regional Council.

Objectives	
NH-O1	The risks from natural hazards to people, ~~infrastructure and~~ property, infrastructure and the environment are managed, including taking into account the likely long-term effects of climate change, to ensure the health, safety and resilience of communities.
NH-O2	Land use and subdivision does not increase the risk from natural hazards or risks are mitigated, and existing risks are reduced where there are practicable opportunities to do so.
NH-O3	New infrastructure is located outside of identified natural hazard areas unless: a. it has a functional or operational need to be located in that area; b. it is designed to maintain its integrity and function, as far as practicable during a natural hazard event; and c. adverse effects resulting from that location on other people, property and the environment are mitigated.
NH-O4	Natural defences, such as natural systems and features, and existing structural mitigation assets are protected to maintain their functionality and integrity and used in preference to new structural mitigation assets to manage natural hazard risk.
Policies	
General	
NH-P1	Map or define areas that are known to be subject to the following natural hazards, taking into account accepted estimates of climate change and sea level rise: a. flooding; b. coastal erosion; c. coastal inundation; and d. land instability.
NH-P2	Consider the following matters, where relevant, when assessing natural hazard risk for land use and subdivision: ~~Manage land use and subdivision so that natural hazard risk is not increased or is mitigated, giving~~

	~~consideration to the following~~: a. the nature, frequency and scale of the natural hazard; b. not increasing natural hazard risk to other people, property, infrastructure and the environment beyond the site; c. the location of building platforms and vehicle access; d. the use of the site, including by vulnerable activities; e. the location and types of buildings or structures, their design to mitigate the effects and risks of natural hazards, and the ability to adapt to long term changes in natural hazards; f. earthworks, including excavation and fill; g. location and design of infrastructure; h. activities that involve the use and storage of hazardous substances; i. aligning with emergency management approaches and requirements; j. whether mitigation results in transference of natural hazard risk to other locations or exacerbates the natural hazard; ~~and~~ k. reduction of risk relating to existing activities~~.~~; and l. whether the activity has a functional need or operational need to be within an identified natural hazard area and there is no practicable alternative location for the activity.
NH-P3	Take a precautionary approach to the management of natural hazard risk associated with land use and subdivision.
NH-P4	Manage land use and subdivision so that the functionality and long-term integrity of existing structural mitigation assets are not compromised or degraded.
NH-P5	Require an assessment of risk prior to land use and subdivision in areas that are subject to identified natural hazards, including consideration of the following: a. the nature, frequency and scale of the natural hazard; b. the temporary or permanent nature of any adverse effect; c. the type of activity being undertaken and its vulnerability to an event, including the effects of climate change; d. the consequences of a natural hazard event in relation to the activity; e. any potential to increase existing risk or creation of a new risk to people, property, infrastructure and the environment within and beyond the site and how this will be mitigated; f. the design, location and construction of buildings, structures and infrastructure to manage and mitigate the effects and risk of natural hazards including the ability to respond and adapt to changing hazards; g. the subdivision/site layout and management, including ability to access and exit the site during a natural hazard event; and ~~.~~ h. the use of natural features and natural buffers to manage adverse effects.
River flood hazard	
NH-P6	Manage land use and subdivision in river flood hazard areas to protect the subject site and its development, and other property, by requiring: a. subdivision applications to identify building platforms that will not be subject to inundation and material damage (including erosion) in a 1 in 100 year flood event; b. a minimum freeboard for all buildings designed to accommodate vulnerable activities of at least 500mm above the 1 in 100 year flood event and at least 300mm above the 1 in 100 year flood event for other new buildings; c. commercial and industrial buildings to be constructed so they will not be subject to material damage in a 1 in 100 year flood event; d. buildings within a 1 in 10 Year River Flood Hazard Area to be designed to avoid material damage in a 1 in 100 year flood event; e. storage and containment of hazardous substances so that the integrity of the storage method will not be compromised in a 1 in 100 year flood event; f. earthworks (other than earthworks associated with flood control works) do not divert flood flow onto surrounding properties and do not reduce flood plain storage capacity within a 1 in 10 Year River Flood Hazard area; g. the capacity and function of overland flow paths to convey stormwater flows safely and without causing damage to property or the environment is retained, unless sufficient capacity is provided by an alternative method; and h. the provision of safe vehicle access within the site.
Coastal hazard	
NH-P7	Manage new land use and subdivision in coastal hazard areas so that: a. new subdivision avoids locating building platforms within High Risk Coastal Hazard areas and building platforms should be located outside other coastal hazard areas where alternative locations are available and it is practicable to do so; b. new buildings containing vulnerable activities are not located within High Risk Coastal Hazard areas unless:

	i. there is no other suitable location available on the existing site; ii. hazard risks can be mitigated without the need for hard protection structures. c. where a building or building platform is located with a coastal hazard area, it should be designed and constructed such that: i. the building platform will not be subject to inundation and / or material damage (including erosion) over a 100-year timeframe; and either ii. the finished floor level of any building accommodating a vulnerable activity must be at least 500mm above the maximum water level in a 1 percent AEP flood event plus 1m sea level rise; or iii. the finished floor level of any other building must be at least 300mm above the maximum water level in a 1 percent AEP flood event plus 1m sea level rise. d. hazard risk is not transferred to, or increased on, other properties; e. buildings, building platforms, access and services are located and designed to minimise the need for hard protection structures; f. safe vehicle access within the site is provided; and g. services are located and designed to minimise the risk of natural hazards.
Land instability	
NH-P8	Locate and design subdivision and land use to avoid land susceptible to land instability, or if this is not practicable, mitigate risks and effects to people, buildings, structures, property and the environment.
Wildfire	
NH-P9	Manage land use and subdivision <u>for vulnerable activities</u> that may be susceptible to wildfire risk by requiring: a. setbacks from any contiguous scrub or shrubland, woodlot or forestry; b. access for emergency vehicles; and c. sufficient accessible water supply for firefighting purposes.
Infrastructure	
NH-P10	Provide for the operation, maintenance, and ~~minor~~ upgrading of existing infrastructure in identified natural hazard areas.
NH-P11	Allow the establishment of new infrastructure in identified natural hazard areas where: a. there is a functional or operational need to locate in the hazard area and there is no practicable alternative; b. it has been designed to maintain its resilience, integrity and function during a natural hazard event recognising that some hazard events may be of a scale that results in temporary disruption to the function of that infrastructure; c. risks to other people, property, infrastructure and the environment are mitigated; and d. consideration has been given to the ability to respond and adapt to long term effects such as sea level rise and climate change.
Defences against hazards	
NH-P12	Protect existing natural systems and features that buffer or protect development from the adverse effects of natural hazards by: a. avoiding the modification, alteration or loss of natural systems and features that compromises their function, including as a defence against long term effects such as sea level rise and climate change; and b. promoting restoration and enhancement of such natural systems and features.
NH-P13	Consider new hard protection structures to protect existing development and existing and new infrastructure only where: a. natural systems and features will not provide adequate protection from the natural hazard; b. the design is suitable for the location and does not transfer the risk and effects of natural hazards to other locations; c. any hard protection structures considered necessary to protect private assets are not located on public land unless there is significant public or environmental benefit in doing so; d. alternative responses to the hazard (including soft protection measures, restoration or enhancement of natural defences against coastal hazards and abandonment of assets) are demonstrated to be impractical or have significantly greater adverse effects on the environment; and e. they are the only practical means to protect: i. existing infrastructure or new infrastructure that has a functional or operational need to be in the location; or ii. existing settlements of vulnerable activities.
NH-P14	Enable the upgrading and maintenance of existing regional and district council flood management schemes and manage the development of new schemes where they are required to minimise the risks to people, property,

	infrastructure and the environment from natural hazard events.
Rules	

Notes:

1. **There may be rules in other District-Wide Matters and the underlying zone in Part 3 - Area Specific Matters that apply to a proposed activity, in addition to the rules in this chapter. These other rules may be more stringent than the rules in this chapter. Ensure that the underlying zone chapter and other relevant District-Wide Matters chapters are also referred to, in addition to this chapter, to determine whether resource consent is required under other rules in the District Plan. Refer to the how the plan works chapter to determine the activity status of a proposed activity where resource consent is required under multiple rules.**
2. **Any application for a land use resource consent in relation to an area ~~site~~ that is potentially affected by natural hazards must be accompanied by a report prepared by a suitably qualified and experienced engineer that addresses the matters identified in the relevant ~~objectives, policies,~~ performance standards and matters of ~~control/~~discretion. Any application for a subdivision consent must additionally include an assessment of whether the area~~site~~ includes an area of land susceptible to instability.**
3. **Coastal hazard rules are located in the Coastal Environment Chapter.**
4. **The natural hazards rules in this chapter and the coastal hazard rules in the Coastal Environment Chapter do not apply to telecommunication facilities that are regulated activities under the Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2016 (NES-TF).**

NH-R1	**Maintenance, repair or upgrading of existing infrastructure, including structural mitigation assets**	
~~1 in 100 Year~~ River Flood hazard areas	**Activity status: Permitted** **Where:** **PER-1** Any increase of footprint of the above ground infrastructure does not exceed 10m^2. ~~There is no increase to the footprint of any above ground infrastructure.~~ **PER-2** Any works to maintain, repair or upgrade infrastructure do not alter or divert an overland flow path. **PER-3** Ground is reinstated to the equivalent state that existed prior to the works.	**Activity status where compliance with PER-1 is not achieved: Restricted Discretionary (refer Rule NH-R9)** **Activity status where compliance with PER-2 or PER-3 is not achieved: Restricted Discretionary.** **Matters of discretion are limited to:** a. the effects of the activity on overland flow paths and flooding on surrounding sites
NH-R2	**Extensions and alterations to existing buildings or structures**	
~~1 in 100 Year~~ River Flood hazard areas	**Activity status: Permitted** **Where:** **PER-1** There is no increase to the GFA of the building or footprint of the structure that results in the building or structure exceeding the limits for new buildings or structures and relocated buildings in NH-R3- PER 1 and new buildings or structures and relocated buildings ancillary to farming activities in NH-R4 PER 1. **PER-2** No part of the building or structure is enclosed in a manner that alters or diverts an overland flow path or reduces flood plain storage.	**Activity status where compliance with PER-1 or PER-2 not achieved: Restricted Discretionary (refer Rule NH-R7 for buildings and Rule NH-R9 for structures other than buildings)**
NH-R3	**New buildings or structures and relocated buildings**	
~~1 in 100 Year~~ River Flood hazard areas	**Activity status: Permitted** **Where:** **PER-1** The building or structure and relocated buildings is one of	**Activity status where compliance with PER-1, ~~or~~ PER-2, or PER-3 is not achieved: Restricted Discretionary (refer Rule NH-R7 for new buildings and Rule NH-R9 for new structures other than buildings)**

	the following: 1. above ground buildings or structures with a GFA or footprint of 10m^2 or less; or 2. deck less than 30m^2 and less than 1m in height; or 3. boardwalks or stairs that are less than 500mm above ground level and located within a public reserve or legal road. **PER-2** The building or structure and relocated building is not located within or does not alter or divert an overland flow path. **PER-3** The structure is a telecommunications pole, including any attached antennas, ancillary equipment or line.	
NH-R4	**New buildings or structures and relocated buildings (excluding buildings used for a residential activity) ancillary to farming activity**	
~~1 in 100 Year~~ River Flood hazard areas	**Activity status: Permitted** **Where:** **PER-1** The building or structure has a GFA or footprint that is less than 11~~0~~0m^2. **PER-2** The building or structure is not located within the 1 in 10 Year River Flood Hazard Area. **PER-3** The building or structure does not alter or divert an overland flow path.	**Activity status where compliance with PER-1 or PER-2 or PER-3 is not achieved: Restricted Discretionary** **Matters of discretion are restricted to:** a. the effects of flood hazards on the integrity of the building or structure to the extent that such effects are not appropriately managed by the building consent process under the Building Act 2004; b. the effects of the building or structure on overland flow paths and flooding on surrounding sites; and c. the extent to which the risk to people and property from the flood hazard is avoided or managed.
NH-R5	**Wild fire - Buildings used for a vulnerable activity (excluding accessory buildings)**	
All zones	**Activity status: Permitted** **Where:** **PER-1** Any building used for a vulnerable activity (excluding accessory buildings) either: 1. is located on a site that has access to a fire hydrant where reticulated water supply is available; or 2. provides for water supply ~~and access to water supplies~~ for fire fighting purposes in accordance with the minimum water storage for non-reticulated water supply specified in Table 2 of ~~in compliance with the~~ SNZ PAS 4509:2008 New Zealand Fire Service Firefighting Water Supplies Code of Practice. **PER-2** Any building used for a vulnerable activity (excluding accessory buildings) that is not located within an urban zone is set back at least 20m from the dripline of any contiguous scrub or shrubland, woodlot or forestry.	**Activity status where compliance not achieved with PER-1 or PER-2: Restricted Discretionary** **Matters of discretion are restricted to:** a. The availability of water for fire-fighting; b. The scale of the extension or alteration; c. Alternative options for the location of the extension or alteration; d. The use of building materials to reduce fire risk; e. The extent and type of vegetation present; and f. The nature and density of any planting to reduce fire risk, including use of low flammability species.

NH-R6	**Wild fire - extensions and alterations to buildings used for a vulnerable activity (excluding accessory buildings) that increase the GFA**	
All zones	**Activity status: Permitted** **Where:** **PER-1** Extensions or alterations that increase the GFA of a building used for a vulnerable activity (excluding accessory buildings) either: 1. are located on a site that has access to a fire hydrant where reticulated water supply is available; or 2. provide for water supply ~~and access to water supplies~~ for fire fighting purposes in accordance with the minimum water storage for non-reticulated water supply specified in Table 2 of ~~compliance with the~~ SNZ PAS 4509:2008 New Zealand Fire Service Firefighting Water Supplies Code of Practice. **PER-2** Extensions or alterations that increase the GFA of a building used for a vulnerable activity (excluding accessory buildings) that is not located within an urban zone are set back at least 20m from the dripline of any contiguous scrub or shrubland, woodlot or forestry.	**Activity status where compliance not achieved with PER-1 or PER 2: Restricted Discretionary** **Matters of discretion are restricted to:** a. The availability of water for fire-fighting; b. The scale of the extension or alteration; c. Alternative options for the location of the extension or alteration; d. The use of building materials to reduce fire risk; and e. The extent and type of vegetation present. f. The nature and density of any planting to reduce fire risk, including use of low flammability species.
NH-R7	**New buildings, and extensions, and relocated buildings or alterations that increase the GFA of existing buildings (excluding buildings ancillary to farming activity)**	
~~1 in 100 Year~~ River Flood hazard areas	**Activity status: Restricted discretionary** **Where:** **RDIS-1** New buildings for vulnerable activities, and extensions, and relocated buildings and alterations to existing buildings, for vulnerable activities are not located in a 1 in 10-year River Flood Hazard Area ~~The new building, extension or alteration is not located in the 1 in 10 Year River Flood Hazard Area and is or will be used for a vulnerable activity.~~ **RDIS-2** The finished floor level of: 1. any new building or extension and relocated building or alteration to an existing building that will accommodate vulnerable activities must be at least 500mm above the maximum water level in a 1 in 100 year flood event; 2. any extension or alteration that increases the GFA of a building that accommodates vulnerable activities must be at least 500mm above the maximum water level in a 1 in 100 year flood event; and 3. all other new buildings, or extensions or alterations to existing buildings, must be at least 300mm above the maximum water level in a 1 in 100 year flood event. **RDIS-3** The new, extended or altered building does not divert ~~divert~~ an overland flow path onto other properties. **RIDS-4** The building complies with standard:	**Activity status where compliance with RDIS-2, RDIS-3 or RDIS-4 is not achieved: Discretionary** **Activity status where compliance with RDIS-1 is not achieved: Non-complying (refer Rule NH-R12)**

	NH-S1 Information requirements **Matters of discretion are limited to:** a. the effects of flood hazards on the integrity of the building to the extent that such effects are not appropriately managed by the building consent process under the Building Act 2004; b. whether the works are likely to accelerate, worsen or result in material damage to that land, other land or any building or structure through inundation; c. the effects of the development, including earthworks, on overland flow paths and flood depths, velocity or frequency within the site or on surrounding sites; d. the ability to relocate the building or structure or adapt to the flood hazard over time or in response to direct effects of the hazard; e. the extent to which the risk to people and property from the flood hazard is avoided or managed; f. the nature of the activity being undertaken and its vulnerability to the potential effects of flooding; g. provision of safe access and egress to the building or structure during a flood event; h. whether there is a functional or operational need for the building, structure or activity to be located within the flood hazard area; i. the proposed use of, necessity for and design of engineering solutions (soft or hard) to mitigate the hazard; j. the resilience of the buildings or structures to the effects of the hazard; and k. the methods provided to manage activities and uses within the site, including safe egress from buildings or structures or the site and the management of people and property during a flood event.	
NH-R8	**Changes in use to accommodate vulnerable activity within existing buildings**	
~~1 in 100 Year~~ River flood hazard areas	**Activity status: Restricted discretionary** **Where:** **RDIS-1** The finished floor level of existing building that will accommodate vulnerable activities is at least 500mm above the maximum water level in a 1 in 100 year flood event. **RDIS-2** The change of use complies with standard: NH-S1 Information requirements. **Matters of discretion are restricted to:** 1. the nature and severity of the flood risk; 2. the potential effects on the vulnerable activity, including on people and property, and mitigation of these effects; 3. the resilience of the buildings to the effects of the hazard; and 4. the methods provided to manage activities and uses within the site, including safe egress from buildings and the site and the management of people and property during a flood event.	**Activity status where compliance not achieved <u>with RDIS-1 or RDIS-2</u>: Discretionary**

NH-R9	**New structures (excluding buildings) or infrastructure, and extensions or alterations that increase the footprint of an existing structure (excluding buildings) or infrastructure (excluding structural mitigation assets)**	
~~1 in 100~~ River flood hazard areas	**Activity status: Restricted discretionary** **Where:** **RDIS~~PER~~-1** The new structure, infrastructure, extension or alteration and associated works does not divert flood flow onto other properties or result in any increase in flood hazard beyond the site. **RDIS~~PER~~-2** The structure or infrastructure complies with standard: ~~{Link,8652~~,NH-S1 Information requirements. **Matters of discretion are restricted to:** a. the effects of flood hazards on the integrity of the structure or infrastructure to the extent that such effects are not appropriately managed by the building consent process under the Building Act 2004; b. whether the works are likely to accelerate, worsen or result in material damage to that land, other land or any building or structure through inundation; c. the effects of the development, including earthworks, on overland flow paths and flood depths, velocity or frequency within the site or on surrounding sites; d. the ability to relocate the structure or infrastructure or adapt to the flood hazard over time or in response to direct effects of the hazard; e. the extent to which the risk to people and property from the flood hazard is avoided or managed; f. the nature of the activity being undertaken and its vulnerability to the potential effects of flooding; g. provision of safe access and egress to the structure or infrastructure during a flood event; h. whether there is a functional or operational need for the structure or infrastructure to be located within the flood hazard area; i. the proposed use of, necessity for and design of engineering solutions (soft or hard) to mitigate the hazard; j. the resilience of the structure or infrastructure to the effects of the hazard; and k. the methods provided to manage activities and uses within the site, including safe egress from structures or infrastructure, or the site and the management of people and property during a flood event.	**Activity status where compliance not achieved with RDIS-1 or RDIS-2: Discretionary**
NH-R10	**New structural mitigation assets or increasing the footprint of existing structural mitigation assets**	
~~1 in 100~~ River flood hazard areas	**Activity status: Discretionary**	**Activity status where compliance not achieved: Not applicable**
NH-R11	**Activities not otherwise a permitted, restricted discretionary or discretionary activity in a 1 in 100 year river flood hazard area**	

~~**1 in 100**~~ **River flood hazard areas**	**Activity status: Discretionary**	**Activity status where compliance not achieved: Not applicable**
~~**NH-R12**~~	~~**New buildings, extensions or alterations that increase the GFA of existing buildings where the building is used for a vulnerable activity**~~	
~~**1 in 10 year River flood hazard areas**~~	~~**Activity status: Non-complying**~~	~~**Activity status where compliance not achieved: Not applicable**~~
Standards		
NH-S1	**Information requirements**	
All natural hazards	Any application for a resource consent in relation to an area ~~site~~ that is ~~potentially affected by natural hazards~~ located within a mapped River Flood Hazard Area must be accompanied by a report prepared by a suitably qualified and experienced engineer that addresses the matters identified in the relevant ~~objectives, policies,~~ performance standards and matters of ~~control~~/discretion.	**Activity status where compliance not achieved: Not applicable**