

Section 2.7 Natural Hazards

The District is prone to a range of natural hazards which can pose risks to people, property, communities, businesses and infrastructure. The intensity, frequency and risk of natural hazards vary and some are likely to be exacerbated over time by climate change.

The location and nature of subdivision, land use and development, including regionally significant infrastructure, must take account of natural hazard risks and avoid or mitigate these risks, where practicable. This includes any change or intensification of developed areas now known to be at risk from natural hazards. Similarly, these activities must not exacerbate natural hazard risks and any associated adverse environmental effects. Areas of the District identified as being at risk from flood and coastal hazards are identified on the District Plan Maps through the Natural Hazard Overlay. The Natural Hazard Overlay incorporates flood inundation and coastal hazard information which has been sourced from the Southland Regional Council. Generally the significance and level of risk can only be identified following a site specific assessment of an area. That applies to areas covered by Natural Hazard Overlays as well as areas that are not.

Objective NHZ.1

Reduce the risk of natural hazards to people, communities, businesses and infrastructure.

Policy NHZ.1

Avoid inappropriate subdivision, land use and development and avoid wherever practicable the placement of regionally significant infrastructure, in areas at significant risk from natural hazards.

Explanation: Careful consideration must be given to activities where significant natural hazard risks exist as it may be appropriate to prevent an activity. The avoidance of inappropriate activities in areas prone to significant natural hazards supports community resilience and safeguards health, safety and socio-economic and cultural wellbeing. It is recognised that there may be some instances where avoidance is not possible or practical and there is no reasonable alternative or situations where adverse effects can be completely mitigated.

Policy NHZ.2

Mitigate the adverse effects of natural hazards, by controlling subdivision, land use and development in natural hazard areas other than those at significant risk from natural hazards.

Explanation: Where natural hazard risks cannot be avoided, activities located within areas prone to natural hazards should adopt appropriate mitigation measures. Often, adverse effects can be mitigated through land use control and the location, nature and design of the activity. This relates to both new and existing subdivision, land use and development. Where natural hazard risks are not fully understood, a precautionary approach should be adopted.

Policy NHZ.3

Recognise the benefits of and allow for the undertaking and establishment of physical protection works to reduce the risk of natural hazards.

Explanation: The establishment of physical protection works may be appropriate where subdivision, land use or development exists in a known natural hazard risk area and that risk cannot be avoided or mitigated. Such works should only be undertaken where all alternatives and opportunities to avoid or mitigate the natural hazard risk, including relocation of the activity, have been exhausted. Careful consideration should be given to the form, location and design of the physical protection works to mitigate any potential adverse effects on the character and amenity of the site and surrounds. New subdivision, land use and development should be located and designed so as to avoid the need for further physical protection works.

Policy NHZ.4

Recognise the benefits of the protection, re-creation and enhancement of natural features and landforms that mitigate the risk of natural hazards.

Explanation: Natural features and landforms have the potential to mitigate natural hazard risks and buffer associated adverse effects. Where possible, they should be protected, re-created and enhanced. The benefits of natural features and landforms should be considered instead of, or in partnership with, any physical protection works proposed. The protection, re-creation and enhancement of natural features and landforms may also safeguard associated biodiversity, cultural, amenity and landscape values.

Policy NHZ.5

Subdivision, land use, development and physical protection works shall not exacerbate the risk of natural hazards.

Explanation: Inappropriate location or design of subdivision, land use, development and physical protection works have the potential to shift or create a risk of natural hazards and associated adverse effects. The exacerbation of natural hazard risks may occur at the site, or elsewhere. Where a natural hazard risk is known, careful consideration should be given to the location and design of these activities to take account of that risk.

Policy NHZ.6

Adopt a precautionary approach in managing the effects of climate change and sea level rise and any associated changes in the scale and frequency of natural hazards, to ensure potential adverse effects are avoided or mitigated.

Explanation: The intensity, frequency and risk of natural hazards are likely to be exacerbated over time by climate change. While scientific and technical uncertainty exists about the natural hazard risks associated with climate change, a precautionary approach will ensure that risks are reduced long term. Central government provides guidance on this and in particular provides projections on likely sea level rises until 2100. Careful consideration should be given to the location of subdivision, land use, development and regionally significant infrastructure to avoid effects associated with climate change, including sea level rise.

Natural Hazard Rules

Rules relating to natural hazards are contained within the Urban Zone, Rural Zone, Industrial Zone, Infrastructure and Subdivision chapters of the District Plan.

Natural Hazard Non-Regulatory Methods

Method NHZ.1

In collaboration with the other relevant agencies and with the community:

- Develop and maintain a record of existing or potential natural hazards (including the nature, location, dynamics, characteristics and climate change).
- Develop approaches for managing existing or potential natural hazards affecting the District.

Method NHZ.2

Make available maps which identify the location of known natural hazard risks.

Guidance Note:

Generally the significance and level of risk can only be identified following a site specific assessment of an area, however, guidance on areas potentially at significant risk that should be considered as part of such a site specific assessment is provided below:

- (a) Areas that have flooded to a depth of more than 100 mm previously (including marine and riverine inundation but excluding urban stormwater inundation in reticulated areas) and for which the likelihood of inundation has not been reduced by flood alleviation works designed to protect the area from floods with a 2% or less Annual Exceedance Probability.
- (b) Spillways, secondary flowpaths and ponding areas.
- (c) Areas immediately downstream of large dams (dams over 3 metres in height and more than 20,000 m³ in volume).
- (d) Unprotected areas less than 800 mm higher than land that has been previously inundated by the sea.
- (e) Areas in close proximity to the coastline that on the basis of past trends and/or the erosive effect of projected sea level rise could erode in the next 100 years.
- (f) Areas prone to slipping, slumping, landslides, landslide runout, avalanche or rock falls.
- (g) Areas subject to multiple hazards (including where none in themselves would constitute a significant risk).
- (h) Geomorphic floodplains of small watercourses whose flood history is unknown.
- (i) Alluvial fans and river deltas especially in steep, fast flowing, dynamic watercourses.
- (j) Areas in close proximity to identified active faults.
- (k) Land adjacent to lakes and less than 1 metre higher than the previous highest lake levels.