

3.4 NATURAL HAZARDS

3.4.1 ISSUE - Threat to People and Property

Natural hazards, particularly flooding and earthquakes, are a potential threat to people and property within the District.

Explanation

Communities are at risk from a variety of natural hazards. When assessing the "risk" of natural hazards, two aspects are considered. Firstly, the nature of the hazard. For example, an earthquake may occur infrequently but cause widespread damage; whereas, a river flood may be frequent but cause damage to a localised area. Secondly, the vulnerability of the community to a particular hazard. For example, intensive development in a floodable area increases the vulnerability of the community to a flood.

The communities in Central Hawke's Bay are at most risk from earthquakes or flooding. Other natural hazards include erosion, volcanic and geothermal activity, landslip, subsidence, sedimentation, wind, drought and fire. There is also a potential for erosion and/or inundation from high seas or from a tsunami along the coast.

3.4.1.1 Objective

Avoid loss of life, and minimise damage to assets or infrastructure, or disruption to the community of the District, from natural hazards.

3.4.1.2 Policies

- 1. To advise and inform the community of the potential risk of natural hazards.*
- 2. To monitor in association with the Regional Council the degree to which the long term trends in land use practices and patterns, and natural processes that may increase the vulnerability of communities to natural hazards.*
- 3. To ensure buildings are constructed appropriately to avoid or mitigate the risks associated with flooding, earthquake and fire, and hazards at the coast.*
- 4. To ensure that through the consent process any proposed developments have an adequate assessment completed to identify any natural hazards and the methods used to avoid or mitigate a hazard risk.*
- 5. To require the Council's consent for subdivision within any area identified in the Plan as being at risk from a natural hazard including the coast and to require a landuse consent for buildings located near faultlines identified in the Plan, so as to minimise the likelihood of damage to future assets.*
- 6. To permit coastal protection works in areas threatened by coastal hazards, only where they are the best practicable option for the future and avoid adverse environmental effects as far as practicable.*

3.4.1.3 Implementation Methods

To achieve policies 1 - 5 through:

1. the provision of rules on subdivision to control development on or near faultlines and in areas at risk from flooding, coastal erosion, and inundation from the sea;
2. advising and informing the community of potential natural hazards and how to be prepared for civil defence emergencies; and in conjunction with the Hawke's Bay Regional Council, ensuring that emergency response procedures are in place to mitigate the effects of a natural hazard;
3. collecting information during the resource or building consent process, and any other information obtained through research, is included on the Council's natural hazards register;
4. liaising with the Hawke's Bay Regional Council so that a co-ordinated monitoring approach measures long term trends in land use practices and patterns and how this may increase the vulnerability of communities to natural hazards such as flooding, coastal erosion and inundation from the sea, fire, tsunamis, and earthquakes; and,
5. ensuring Council staff take adequate consideration of appropriate earthquake and fire hazard standards during the building consent process.

3.4.1.4 Explanation and Reasons

To minimise loss of life, damage to assets and disruption to the community, on-going research will be required to identify the extent and frequency of natural hazards and methods to mitigate risk to the community. Council is not involved in primary research of this nature but is in a position to collate information and advise and inform the community of new findings. A natural hazards register is continually updated informing the community of the known hazard potentials of a given area. This is used both in the consent processes under the Resource Management Act 1991 and the Building Act 1991.

A co-ordinated approach with the Regional Council is needed to monitor how the long term trends in land use practices and patterns may increase the vulnerability of communities to natural hazards. Emergency response plans need to be refined to help the community in times of a disaster.

The Plan does not control building construction in areas vulnerable to flooding, erosion, earthquakes and fire unless the building is located over a faultline. The Building Act 1991 addresses such matters. However, subdivision is controlled by the Plan generally and conditions may be imposed on a subdivision consent to avoid, remedy or mitigate any potential adverse effects from known natural hazards.

River Flooding

The Hawke's Bay Regional Council has identified areas that may be at risk from flooding as shown on the Planning Maps. The Regional Council is continuing investigations to determine the degree and extent of flood risk to land in the District. It is accepted that the risk of flooding in the areas identified would vary depending on factors such as stopbank failure and the topography of downstream land. These details would need to be further examined by an applicant seeking to subdivide.

There is an area in Waipukurau that is subject to stormwater flooding after heavy rain and is shown on Planning Maps 31 and 34. Buildings altered or constructed in this area are recommended to meet minimum floor levels set out in the Building Act 1991. Detailed information is available from the Council.

Stopbanks within the Ruataniwha Plains are built to withstand floods with a 1% annual exceedance probability. Other flood mitigation measures are concerned with localised flooding or ponding and are built according to the standard necessary.

Faultlines

The Institute of Geological and Nuclear Sciences has identified 22 known active faults in the Hawke's Bay Region that are capable of producing very strong earthquakes. Five of these known faults, including the Waipukurau-Poukawa fault, are capable of producing levels of earthquake shaking similar to the Napier earthquake of 1931. The Planning Maps identify the known active faults.

Coastal Hazards

Coastal hazards, in particular erosion, can pose a risk to life and property. Coastal erosion occurs either slowly over time or instantaneously as the result of a storm or high seas. Engineered coastal protection works should only be undertaken when they are the best practicable option. Natural features such as beaches and dunes should be maintained or, where possible, enhanced to provide protection from coastal hazards.

3.4.2 Environmental Results Anticipated

- The collation and provision of clear information outlining the natural hazards risks to all sites with potential to be adversely affected by natural hazard occurrences in the District.
- The implementation of emergency response procedures, in conjunction with the Regional Council, whenever there is a significant risk to people and property from natural hazards in the District.
- The location of new subdivision and subsequent development away from areas at high risk from natural hazards, including hazards at the coast.
- Adverse effects on communities are minimised and loss of life avoided for any natural hazard event.
- New coastal hazard protection works are only built if they are the best practicable option providing adverse effects are avoided.
- The protection or management of dunes or other natural features as a means of avoiding or mitigating the risk of coastal erosion or inundation from the sea.

Note: Rules that apply to natural hazards are contained in Part 9 - Subdivision.

