9 Hazards

This Chapter includes two sub-chapters: *natural hazard*s and *contaminated land*. The *natural hazard*s sub-chapter is further broken up by hazard (flood, earthquake and fire) with introduction, policies and methods following each other.

9.1 Natural Hazards

The primary Objective (set out in Chapter 2) that this sub-chapter implements, is Objective 2.5 - Natural Hazards. The following objectives are also relevant to this sub-chapter:

- 2.1 Tāngata Whenua
- 2.2 Ecology and Biodiversity
- 2.3 Development Management
- 2.8 Strong Communities

9.1.1 Introduction

Publicly and privately initiated *development* must be undertaken in a manner that achieves the objective for *natural hazards*. The *Council* has adopted a precautionary and *risk* based approach to hazard management. The approach includes avoiding new *development* in areas subject to high *risk* from hazards, if the hazard cannot be mitigated, and allowing a greater level of *development*, especially if the hazard can be mitigated, in areas subject to lower *risk* from hazards or where the hazard has a low probability or long recurrence interval. The approach takes into account the *effect*s of climate change and considers relocation of existing *development* subject to hazards worsened by climate change *effect*s.

9.1.2 General Natural Hazard Policies

These policies apply to all *natural hazards* (excluding coastal hazards) in addition to more specific policies in this sub-chapter. There are no particular rules aligned with the general policies, rather the rules that follow in subsequent sections of this sub-chapter give effect to these specific policies.

Policy 9.1 – Identify Hazards

The extent of flooding and *seismic hazards* will be identified on the District Plan Maps.

Note: The extent of flood and *seismic hazard* areas has been modelled to identify development control areas, which are identified on the District Plan Maps to provide certainty to *property* owners. The identification of *natural hazards* is an ongoing activity carried out by District and Regional Councils as part of the monitoring of the environment. As more research is undertaken and the information about *natural hazards* changes, new hazard areas may be identified and existing areas refined. This redefined information may be shown on the *Council's* GIS system. Although the GIS maps are not used to determine status under the District Plan, they are useful for the most up to date flood hazard information and may be used under Section 106 of the RMA or the Building Act.

Policy 9.2 – Risk Based Approach

A *risk* based, all hazards approach will be taken to *subdivision*, land use, and *development* within areas subject to the following *natural hazards*:

a) **flood hazards;**
b) **earthquake hazards; and**
c) **fire hazards.**

Hazard categories will be developed for flood and *seismic* hazards to guide decision making and help minimise potential harm to people and damage to property due to these hazards, while allowing appropriate use.

Policy 9.3 – Managing Activities in Natural Hazard Prone Areas

In areas identified on the District Plan Maps, new *subdivision*, use and *development* will be managed in a way that avoids increasing *risks* from *natural hazards*. *Subdivision*, use and *development* will be allowed only where it can be shown that any potential increase in *risk* exposure on or beyond the land itself has been avoided, remedied or mitigated.

Policy 9.4 – Precautionary Approach

A precautionary approach will be taken to the management of *risks* from hazards that may impact on *subdivision*, use and *development*, where there is uncertainty about the potential *effects* and where the *effects* are potentially significantly adverse.

Policy 9.5 – Protect via Natural Buffers

Natural features that have the *effect* of reducing hazard *risk* by buffering *development* from the *effects* of *natural hazards* will be protected through:

a) ***development* controls, including the use of minimum setbacks, from rivers and streams for new and relocated *buildings*; and**
b) **undertaking and encouraging restoration of such natural features.**

Policy 9.6 – Public Open Space

The potential to mitigate *natural hazards* and climate change impacts will be considered in relation to the provision, acquisition and *development* of new land for public *open spaces* and reserves.

Policy 9.7 – Emergency Management

Preparation for the *effects* of *natural hazard* events will be encouraged through emergency management programmes and procedures, and voluntary action.

9.2 Flood Hazards

9.2.1 Introduction

The District's physical landscape presents varying levels of flood *risk* to settlements (particularly on the coastal plain). During high rainfall events flooding can occur within minutes of the event and can result in significant damage. Property and *structures* located in the *river* and *stream corridor*, *flood storage area*s and *overflow path*s (including *residual overflow paths*) are more susceptible to damage from flooding. *Buildings* in *ponding* and *shallow surface flow* areas are also susceptible to damage from flooding. New *development* within the *river corridor*, *stream corridor*, *flood storage area*s, and *overflow path*s can cause additional adverse *effect*s to *existing development*. *Buildings* and *earthworks* in *ponding* and *shallow surface flow* areas, and *fill control areas* can push flooding onto additional *properties* or increase the depth of flooding on other *properties*. Furthermore, *development* within *river* and *stream corridors* can adversely affect the structural integrity of existing flood mitigation *structures* and works and increase the potential for damage and loss of life.

The form and location of development of the District's settlements in the past has included the *building* of flood mitigation works in major rivers and streams to mitigate the adverse *effect*s of flooding and erosion on *existing development*. However, complete reliance on structural defences to protect the District from flooding is an unsustainable option. This is because the protection structures will need to be built bigger and stronger as climate change *effect*s are felt more acutely and any *structure* may fail if the flood event exceeds the design specifications.

Land within the floodplain is under increasing pressure for new activities and *development*. Where *subdivision* or *development* is proposed on land subject to flooding, there is a need to ensure the *risk*s from flooding are taken into consideration in the assessment of any *resource consent*. Where a *development* proposal relates to the *river/stream corridor*, *flood storage*, and *overflow path*s (including *residual overflow paths*), as areas most at risk from fast flowing water and debris increasing the level of damage during the flood event, the onus is on the applicant to ensure there will be no additional hazard on-site or off-site as a result of any proposed *development*. *Ponding* (including *residual ponding*) *shallow surface flow* and *fill control areas* are also recognised as requiring specific controls, but floodwaters in these areas are less likely to cause erosion as they are slower moving. However, damage from floodwaters in *ponding, residual ponding, shallow surface flow* and *fill control area*s is likely to be caused by floodwaters entering *buildings* (and also mud, sewage and debris in floodwaters).

The *Council* supports the use of a combination of methods (including physical works where appropriate, the District Plan rules, Land Information Memoranda and building consents) to avoid, remedy or mitigate the potential hazard caused by flooding. The District Plan contains information on *flood hazard categories* (mapped) and descriptions including direct and residual flood *risks* related to the estimated *1% AEP* flood event and *development* controls.

1% AEP flood event
The estimated *1% AEP* flood event is shown as *flood hazard categories* on the District Plan Maps. It shows the areas where flood waters would go in a flood event. This event has a 1% probability of happening in any one year. It should be recognised that there can be events greater than the *1% AEP* flood event or that flood defences can fail. These areas have been identified as residual hazard *risk* areas. The *Council* and the

Greater Wellington Regional Council have a responsibility to inform people of this greater *risk* from hazards.

Hazard categories and definitions
Flood hazard categories (shown on the District Plan Maps) are based on the *1% AEP* extent. The purpose of the hazard categories is to describe the varying hazard across the floodplain.

There are two types of flood hazard identified on the District Plan Maps:

- Direct flood hazard

The direct flood hazard affects areas that are not protected from flooding by flood protection *structures* (such as stopbanks or floodwalls) built to the *1% AEP* flood event standard. A direct flood hazard can also occur where *existing* structural protection, built to less than the *1% AEP* standard, is vulnerable and likely to fail in a *1% AEP* flood event.

- Residual flood hazard

The residual flood hazard is the additional or 'left over' hazard due to possible breaching and overtopping of flood protection *structures* (such as stopbanks or flood works) built to the *1% AEP* flood event standard. An additional residual flood hazard can occur due to blockage and subsequent failure of overland flow paths. These can be blocked by unconsented building works/debris fencing/stored building materials/vehicle storage etc.

There are nine *flood hazard categories* these are listed in the table below.

Table 9.1 Flood hazard categories

Flood Hazard Category	Description
River corridor	This is the minimum area able to contain a flood of up to the *1% AEP* event magnitude and enable flood water to pass safely to the sea. It includes flood and erosion prone land immediately adjacent to the river where the *risk* to people and *development* is significant.
Stream corridor	This is the minimum area able to contain a flood of up to a *1% AEP* event magnitude and enable flood water to safely pass to the stream confluence or the sea. It includes flood and erosion prone land immediately adjacent to the stream.
Overflow path	*Overflow path*s generally occur in lower-lying areas on the floodplain which act as channels for flood waters. They can be natural, or artificially formed, and are often characterised by fast flowing water during a flood event. An *overflow path* is a direct hazard.
Residual overflow path	A *residual overflow path* is a residual flood hazard for areas which are protected from flooding by structural measures, such as stopbanks or floodwalls, constructed to the *1% AEP* flood standard. The residual hazard is in the event of a failure or overtopping of the flood protection *structure.*
Ponding	These are areas where slower-moving flood waters could pond either during or after a flood event. A *Ponding* Area may be affected by a direct flood *risk*. *Ponding* can be associated with rivers and streams as well as the piped stormwater network. *Ponding* is a direct risk.

Residual ponding areas	*Residual ponding areas* related to a residual flood risk for areas which are protected from flooding by structural measures, such as stopbanks or floodwalls, constructed to the *1% AEP* flood standard. The residual *risk* is in the event of a failure or overtopping of the flood protection *structure*.
Shallow surface flow areas	These are floodplain areas, typically on steeper catchments, where shallow moving flood waters could occur during a flood event. A *shallow surface flow area* is subject to a direct flood *risk*. This hazard is associated with high intensity rainfall that overwhelms the primary drainage paths resulting in shallow flows across the ground surface.
Flood storage areas	Land that provides flood water storage either during or after a flood event. *Flood Storage Area*s are located on local streams only. They include land that has been identified as flood prone where loss of storage due to mitigating measures, or filling, will cause flooding elsewhere. Any proposal for development of these areas (including filling) will need to provide compensatory storage below set *ponding* levels.
***Fill control* areas**	*Fill control areas* are undrained "crater" type catchments where filling will raise the level of flooding on the property and on adjoining land.

District Plan Maps identify the extent of these nine *flood hazard categories* for the Ōtaki, Waikanae, Paraparaumu and Raumati floodplains. The *Council* also maintains Flood Extent Maps on GIS that are more regularly updated, although these maps are not used to determine status under the District Plan, they are useful for the most up to date flood hazard information and may be used under section 106 of the RMA or the Building Act.

9.2.2 Flood Hazards Policies

Policy 9.8 – Flood Mapping

Flood hazard categories **are mapped using the *1% AEP* flood modelling scenario. The extents and categories consider projected climate change and precautionary freeboard to minimise *risks*. Residual *risks* are also mapped where flood mitigation *structures* are present.**

Policy 9.9 – Flood Hazard Categories

The *flood hazard categories* have been developed using the following criteria:

a) **depth and speed of floodwaters;**
b) **the threat to life;**
c) **difficulty and danger of evacuating people;**
d) **the potential damage to property; and**
e) **the potential for social disruption.**

Policy 9.10 – Flood and Erosion Free Building Areas

All new lots must have flood and erosion-free *building* areas based on *1% AEP* flood modelling.

Policy 9.11 – Flood Risk Levels

A higher level of control on *subdivision*, use and *development* will be applied within *river corridors, stream corridors, overflow paths and residual overflow paths* areas. A generally lesser level of restriction on *subdivision,* use and *development* will be applied in *ponding, residual ponding, shallow surface flow, flood storage and fill control areas.*

Policy 9.12 – High Hazard Flood Areas

Development in the *river corridor, stream corridor, overflow path, and residual overflow path areas* will be avoided unless the *1% AEP* hazard can be mitigated on-site to avoid damage to property or harm to people, and the following criteria are met:

a) **no increase in flood flow or level on adjoining *properties* or other parts of the floodplain;**
b) **no reduction in storage capacity on-site; and**
c) **all flow corridors or *overflow paths* are kept clear to allow flood waters to flow freely at all times.**

Policy 9.13 – Ponding, Residual Ponding, Shallow Surface Flow, Flood Storage and Fill Control Areas

When assessing applications for *subdivision,* use or *development* within a *ponding*, *residual ponding, shallow surface flow, flood storage* or *fill control area,* consider the following:

a) **the *effect*s of the *development* on existing flood mitigation *structures*;**
b) **the *effect*s of the *development* on the flood hazard – in particular flood levels and flow;**
c) **whether the *development* redirects floodwater onto adjoining *properties* or other parts of the floodplain;**
d) **whether access to the *site* will adversely affect the flood hazard;**
e) **the extent to which buildings can be located on areas of the *property* not subject to flooding; and**
f) **whether any *subdivision* or *development* will or may result in damage to property or harm to people.**

Policy 9.13a – Flood Hazard Management Activities

Recognise the importance of flood hazard management activities (including gravel extraction) in the *River Corridor* to the reduction of flood hazard *risk.*

9.2.3 Flood Hazards Rules and Standards

The following rules for flood hazards apply to all *zones*.

Rules and Standards – Flood Hazards

Introduction: Applicability of Rules in Tables 9A.1 – 9A.6

The rules in Tables 9A.1 to 9A.6 shall apply to all land and activities in all *zones* except:

a) the Otaki South Precinct where the development is in accordance with the *structure plan* in Appendix 6.5.

There are other rules within the District Plan that may also apply to sites and activities. Section 1.1 in Chapter 1 sets out how to use the Plan and identify other rules that may also apply to a site or activity.

Table 9A.1. Permitted Activities
The following activities are **permitted** activities, provided that they comply with all corresponding permitted activity standards in this table, and all relevant rules and permitted activity standards in other Chapters (unless otherwise specified).

Permitted Activities	Standards
1. Any activity not specified as a *permitted, controlled, restricted discretionary, discretionary, non-complying* or *prohibited activity* in Tables 9A.1 to 9A.6.	1. The activity complies with all *permitted activity* standards in Table 9A.1 Permitted Activities. Note: See Rule 9A.1.2 for separation of *buildings* and *structures* from *waterbodies* standards, and Tables 11B.1-11B.5 in relation to water and stormwater rules for all *development*.
2. Any *building* or *structure* in any zone.	1. Separation from *water bodies* a) *Buildings* shall not be sited within the *river* corridor or *stream corridor* (unless they are *permitted activities* under Rule 9A.1.7): i. For the *stream corridor* and other *water bodies,* including ephemeral and intermittent rivers or streams (except lakes) the minimum setback for any *building* or *structure* (other than a bridge or culvert structure for

Table 9A.1. Permitted Activities
The following activities are **permitted** activities, provided that they comply with all corresponding permitted activity standards in this table, and all relevant rules and permitted activity standards in other Chapters (unless otherwise specified).

Permitted Activities	Standards
	which a *resource consent* is required from the Regional Council) from the natural banks of any *water body* greater than 3 metres wide shall be 10 metres; ii. For streams/drains less than 3 metres wide, the minimum setback must be 5 metres where the average width of the stream or *water body* is measured as an average within the *property*. b) Buildings must not be sited within 5 metres of a lake.
3. New or relocated buildings in *ponding, residual ponding* and *shallow surface flow areas*.	1. The *building floor level* of any new or relocated *building* in the *ponding, shallow surface flow* or *residual ponding area* shall be constructed above the *1% AEP* flood event level.
4. *Earthworks* except where associated with the matters listed below: a) the maintenance of a watercourse or stormwater control; b) activities permitted under Rule 9A.1.6; c) maintenance activities within the *legal road*; d) private *farm tracks* which are *ancillary* to permitted *farming* activities and are not within an *outstanding natural features and landscapes*; e) *residual ponding areas* where the *earthworks permitted activity*	1. In an *overflow path* or *residual overflow path* (excluding fill which is addressed in Rule 9A.3.3), *earthworks*: a) shall not involve the disturbance of more than $10m^3$ of land in any 10 year period; b) shall not alter the original ground level by more than 0.5 metres, measured vertically; and c) shall not impede the flow of floodwaters. 2. In *ponding* areas (excluding *residual ponding areas*) and *shallow surface flow* areas, *earthworks*: a) shall not involve the disturbance of more than $20m^3$ (volume) of land in any 10 year period; and b) shall not alter the *original ground level* by more than 1.0 metre, measured vertically. 3. In a *Stream corridor* or *River corridor* (excluding fill which is addressed in Rule 9A.4.3), *earthworks*: a) shall not exceed $10m^3$ in any 10 year period. This standard applies whether in relation to a particular work or as a total or cumulative; and b) must be carried out by Wellington Regional Council, Kapiti Coast District Council, the Department of Conservation or their nominated contractors. Note: Any works carried out within the bed of lakes and rivers are within the jurisdiction of Wellington Regional Council and are not covered in this District Plan.

Table 9A.1. Permitted Activities
The following activities are **permitted** activities, provided that they comply with all corresponding permitted activity standards in this table, and all relevant rules and permitted activity standards in other Chapters (unless otherwise specified).

Permitted Activities	Standards
standards for the relevant zone are complied with (see Chapter 3 for rules on *earthworks*); f) *earthworks* subject to Rule 9A.2.1 (i.e. within a *flood storage* or *fill control area*).	
5. Fences in any flood hazard area.	1. Fences in the *river corridor*, *stream corridor*, an *overflow path* or *residual overflow path* shall be post and wire and shall not impede the free flow of flood waters.
6. Flood protection, erosion control and *natural hazard* mitigation measures including associated *structures* in the *Open Space Zones,* and the *Stream* or *River Corridor*.	1. All works must be carried out by Wellington Regional Council, Kapiti Coast District Council, the Department of Conservation or their nominated contractors. Note: Any works carried out within the bed of lakes and rivers are within the jurisdiction of Wellington Regional Council and are not covered in this District Plan.
7. Gravel extraction activities in the *River Corridor* on land outside of the beds of any lake or river.	1. All works must be carried out by Wellington Regional Council, Kapiti Coast District Council, the Department of Conservation or their nominated contractors. 2. Mobile plants for processing extracted materials and associated temporary *buildings* shall not be located on any site for longer than any 12 month period. Note: Any gravel extraction carried out within the bed of a lake or river requires *resource consent* from the Wellington Regional Council.

Table 9A.2 Controlled Activities
The following activities are **controlled** activities**,** provided that they comply with all corresponding controlled activity standards in this table, and all relevant rules and standards in other Chapters (unless otherwise specified).

Controlled Activities	Standards	Matters over which Council reserves control
1. *Development* and *earthworks* within any *flood storage* or *fill control area*.	1. Equivalent compensatory storage or another solution to achieve *hydraulic neutrality* shall be created. 2. *Development* proposals shall be accompanied by sufficient hydraulic modelling of relevant streams to fully test consequences of the activity. 3. The *building floor level* of any new or relocated *building* shall be constructed above the *1% AEP* flood event level.	1. Future management of the *flood storage* or *fill control area*. 2. *Natural hazard effects*. 3. *Nuisance effects* including dust. 4. Location and design of *buildings* and *structures*. 5. Suitability of access.

Table 9A.3 Restricted Discretionary Activities
The following activities are **restricted discretionary** activities, provided that they comply with all corresponding restricted discretionary activity standards in this table, and all relevant rules and standards in other Chapters (unless otherwise specified).

Restricted Discretionary Activities	Standards	Matters over which Council will restrict its discretion
1. Any activity listed as a *permitted activity* in Table 9A.1 or a *controlled activity* in Table 9A.2 which does not comply with one or more of the associated standards, unless otherwise specified.		1. Consideration of the *effects* of the standard not met. 2. Measures to avoid, remedy or mitigate adverse *effects* 3. Cumulative *effects*
2. *Subdivision* where any part of the land contains *flood storage, ponding, residual ponding or shallow surface flow areas*.	1. Each *lot* shall have a *building* area located outside any *river* or *stream corridor*, *overflow path* or *residual overflow path*. 2. Each *building* area shall be located above the estimated *1% AEP* flood event level. 3. *Formed vehicle access* does not adversely affect the *1% AEP* flood hazard *risk* on other *properties* in the same flood catchment. 4. Compliance with all other relevant *subdivision* rules and standards in other chapters.	1. The design and layout of the *subdivision*. 2. *Council's* Subdivision and Development Principles and Requirements 2012. 3. The imposition of *financial contributions* in accordance with Chapter 12 of this Plan. 4. The location of any *building* platform or area relative to the *natural hazards*, *historic heritage* features*, ecological sites, outstanding natural features and landscapes, and geological sites*. 5. The location and design of any servicing of the *subdivision*. 6. The extent and *effects* of *earthworks*.
3. In an *overflow path*, or *residual overflow path*, fill *earthworks*, or *earthworks* which do not comply with one or more of the		1. The *effect* of the *earthworks* on the effective functioning of the *overflow path, residual overflow path* or *ponding* or *shallow surface flow* area. 2. The avoidance or mitigation of adverse *effects* on the effective

Table 9A.3 Restricted Discretionary Activities
The following activities are **restricted discretionary** activities, provided that they comply with all corresponding restricted discretionary activity standards in this table, and all relevant rules and standards in other Chapters (unless otherwise specified).

Restricted Discretionary Activities	Standards	Matters over which Council will restrict its discretion
permitted activity standards under Rule 9A.1.4.		functioning of the *overflow path, residual overflow path* or *ponding* or *shallow surface flow* area.
4. In a *ponding* or *shallow surface flow* area, *earthworks* which do not comply with one or more of the *permitted activity* standards under Rule 9A.1.4.		1. The *effect* of the *earthworks* on the effective functioning of the *overflow path, residual overflow path* or *ponding* or *shallow surface flow* area. 2. The avoidance or mitigation of adverse *effects* on the effective functioning of the *overflow path, residual overflow path* or *ponding* or *shallow surface flow* area.
5. *Additions* to existing *buildings* in any *overflow path* or *residual overflow path*.		1. The *effect* of the *addition* on the effective functioning of the *overflow path or residual overflow path*. 2. The ability of the design, placement and construction of the *addition* to achieve *hydraulic neutrality.* 3. The avoidance or mitigation of adverse *effects* on the effective functioning of the *overflow path or residual overflow*. 4. Whether the potential *risk* to the health and safety of people, and property from *flood hazards* can be avoided or mitigated.
6. *Buildings* and plant associated with gravel extraction within the *River Corridor* that will be located on site for over 12 months.	1. Proposals shall be accompanied by sufficient hydraulic modelling of the relevant river to fully test consequences of the *building* or plant.	1. *Effects* of *buildings* and plant in relation to *hydraulic neutrality*. 2. *Effects* of *buildings* and plant on the recreational use of, and *amenity values* of the river. 3. *Natural hazard effects*.

Table 9A.4 Discretionary Activities
The following activities are **discretionary** activities.

Discretionary Activities
1. Any activity listed as a *restricted discretionary activity* in Rules 9A.3.2 – 9A.3.6 that does not comply with one or more of the associated standards, unless otherwise specified.
2. *Subdivision* where any part of the land contains an *overflow path* or *residual overflow path* and any *subdivision* which does not comply with any of the *restricted discretionary activity* standards under Rule 9A.3.2.
3. In any a *stream corridor,* or *river corridor,* fill *earthworks,* or *earthworks* that do not comply with one or more of the *permitted activity* standards in Rule 9A.1.4.
4. *Subdivision* of land located partly within the *River Corridor* or *Stream Corridor* where each lot has *building sites* which are: a) located outside any *river* or *stream corridor*, *overflow path* or *residual overflow path*; and b) located above the estimated *1% AEP* flood event level. c) *formed vehicle access* which does not adversely affect the flood hazard risk on other properties in the same flood catchment.

Table 9A.5 Non-Complying Activities The following activities are **non-complying** activities
Non-Complying Activities
1. *Subdivision* of land located partly within the River Corridor or Stream Corridor that does not meet the requirements of Rule 9A.4.4.
2. New or relocated *building* in any *overflow path* or *residual overflow path*. **Note:** This does not apply to additions to existing *habitable building*s which are *restricted discretionary activity* under Rule 9A.3.5 or *structures* permitted under Rule 9A.1.6. **Note 2:** Assessment of sites where earthworks have occurred that have redefined the flood hazards on the site will consider the latest information available in addition to the Flood Hazard Maps.
3. *Subdivision* of land located wholly within the *stream corridor* or *river corridor.*
4. The construction, placement or erection of any *building* in the *river corridor* or *stream corridor* except where related to gravel extraction activities and permitted by Rule 9A.1.7 or provided for as a *restricted discretionary activity* under Rule 9A.3.6, or *structures* permitted under Rule 9A.1.6.

Table 9A.6 Prohibited Activities The following activities are **prohibited** activities
Prohibited Activities
1. Except as provided for by Rule 9A.1.6 damage or destruction of flood mitigation *structures* or work (including any planting) in the *Open Space – Conservation and Scenic Zone* and *River Corridor.*
2. Landfills in the *River Corridor*.

9.3 Earthquake Hazards

9.3.1 Introduction

The District is subject to most earthquake hazards including strong ground shaking, *liquefaction*, fault rupture and earthquake induced slope failure.

Fault Rupture
A fault rupture has the potential to cause significant damage to *buildings*, *structures* and life without warning. A large earthquake could cause a fault rupture which may result in significant vertical and/or horizontal movement of land. It is likely that *buildings* or *structures* sited over a fault would suffer considerable damage. Therefore, it is important to avoid new *buildings* and *development* being sited directly over a fault trace where, based on the level of risk, it is reasonable to do so.

A *risk* based approach assesses the risk posed by the fault hazard in conjunction with the type of *development* being sought and then translates that *risk* into District Plan provisions either allowing or restricting activities. *Risk* is assessed on the basis of three factors being: the hazard, elements at *risk*, and *vulnerability*.

In the instance of a fault rupture hazard, the elements at *risk* are either individual buildings or *subdivisions*. The vulnerability is determined by the Recurrence Interval Class (RIC) and *Fault Complexity* areas (i.e. how defined the fault trace is – *Well-Defined, Well-Defined Extension, Distributed, Uncertain-Constrained or Uncertain Poorly Constrained*).

The appropriateness of a *subdivision* and the location and design of proposed *buildings* can only be assessed when further *site* specific geotechnical investigations are undertaken for areas where buildings are to be proposed within a *Fault Avoidance Area*. The geotechnical information will need to be supplied by the applicants to show that the *building* is not located on the fault trace and/or fault rupture deformation and that the *building* or *building* areas are set back from that trace a suitable distance. If this cannot be achieved for whatever reason, then consideration will be given to the *risks* associated with each fault and the physical limitations of the *site*.

Five *active fault* traces[1] have been identified and mapped within the District Plan, and they are as follows:

- Ohariu Fault - the Ohariu Fault is traced from offshore of the south coast of Wellington, through Porirua, and north of Waikanae. It is primarily a right lateral strike-slip fault (west side moves north relative to east side). The Ohariu Fault has an estimated average recurrence interval of surface rupture of 1300 to 3800 years. The fault most recently ruptured approximately 1000 years ago. It is expected that an individual surface rupture, associated with a 7.5 Richter Scale magnitude earthquake, along the fault could generate 3 – 5 metres of right-lateral displacement at the ground surface, with a lesser and variable amount of vertical displacement.

- Northern Ohariu Fault - the Northern Ohariu Fault has an estimated average recurrence interval of surface rupture of between 2000 to 4200 years. The fault most recently ruptured approximately 300 – 1000 years ago. It is expected that

[1] The information on the five *active fault*s has been provided by the Institute of Geological and Nuclear Sciences in their report: Earthquake Fault Trace Survey Kāpiti Coast District dated August 2003, and their updated report August 2007.

an individual surface rupture along the fault could generate 3 – 4 metres of right-lateral displacement at the ground surface.

- Gibbs Fault – the activity and location of the Gibbs Fault is less well constrained than both the Ohariu and Northern Ohariu faults. The Gibbs Fault has a recurrence interval of between 3500 – 5000 years and is thought capable of generating earthquakes in the order of 6.7 – 6.8 (+/- 0.25) Richter Scale magnitude.

- Ōtaki Forks Fault - the average recurrence and timing of faults on the Ōtaki Forks Fault is unknown. However, a 3500 – 5000 year recurrence interval has been estimated and the potential surface rupture has been estimated to be approximately 1 metre.

- Southeast Reikorangi Fault – there is the least information on this fault. It is estimated that the recurrence interval of this fault is 5000 – 10,000 years.

Liquefaction
There is potential for *liquefaction* to result in land subsidence across the District during a large distant earthquake event. Future observed *liquefaction* events in these areas may be associated with loose sand deposits within the floodplain deposits. There is also potential for lateral spread of the Waikanae and Ōtaki river banks.

During a large earthquake on the Wellington Fault or one of the faults in the District, the likelihood of *liquefaction* is more varied than a distant earthquake event and will depend on the ground conditions at a particular site.

Slope Failure
The Kāpiti area has significant earthquake induced slope failure hazards particularly in the southern and southeastern parts of the District. For example between Pukerua Bay and Paekākāriki, the terrain is steep and slopes have a very high susceptibility to slope failure which could sever transport links to Wellington.

Tsunami
The District is considered to have a very low level *risk* from a damaging or catastrophic tsunami. The Kāpiti Coast has the lowest *risk* in the Wellington Region of a major or catastrophic tsunami, with earthquakes near the Solomon Islands posing the highest degree of risk. The risk for the Kāpiti Coast has been modelled using a distant Pacific sourced 500 year event which results in a wave *height* of 2.5 – 3 metres. This has been included in tsunami evacuation areas which are not part of this Plan.

While tsunami is acknowledged as a *natural hazard* for the District, the *Council* has not adopted District Plan regulations to control the hazard or *risk* specifically with a tsunami event. The method considered most appropriate for reducing the impact of this hazard is an early warning system and the civil defence plans for emergency response procedures. The provision of information by the civil defence emergency management office also assists community awareness and preparedness.

9.3.2 Earthquake Hazards Policies

Policy 9.14 – Activities within a Fault Avoidance Area

When assessing applications for *subdivision*, use and *development* located within a *Fault Avoidance Area*, a *risk* management approach will be adopted and *Council* will consider a range of matters that seek to reduce the *risk* of *building* failure and loss of life from a fault rupture hazard, including:

a) **geotechnical information provided by a suitably qualified person demonstrating that any *building* is not located on a fault trace or fault trace deformation and maintains a reasonable setback distance in accordance with any geotechnical recommendations;**
b) **the intensity of the *subdivision* and nature of future *development* of the lot(s), including building design and construction techniques, and the likelihood of building failure or loss of life if the fault ruptured within 50 years; and**
c) **with the exception of BIC Type 2c, 3 and 4 buildings (see Table 9.2: *Building Importance Category*), it is not necessary to avoid or mitigate potential *effects* along the Southeast Reikorangi Fault; and excluding the *Well-Defined* and *Well-Defined Extensions Areas*, along the Gibbs and Ōtaki Forks faults.**

The *risk* management approach takes into account Recurrence Interval Classes (RIC), *Building Importance Categories* (BIC) and *Fault Complexity*.

Policy 9.15 – Avoid High Density and High Risk Uses in Fault Avoidance Areas

Higher density and higher *risk* uses such as *commercial* and *industrial activities*, community *buildings* and multi-unit housing (*BIC* type 3 and 4 in Table 9.1) will be located to avoid *Fault Avoidance Areas* where they are identified in the Risk Management Approach.

Policy 9.16 – Liquefaction Prone Land

When assessing applications for *subdivisions* which are located on sandy, alluvial or peat soils, a *risk* management approach shall be adopted and *Council* will consider a range of matters that seek to reduce the *risk* to people and property, including:

a) **geotechnical information from a suitably qualified person on *liquefaction* provided with any *subdivision* or *development* application;**
b) **the intensity of the *subdivision* and nature of future *development* of the lot, including building design and construction techniques; and**
c) **the risk to people and property posed by the *liquefaction* hazard and the extent to which the activity could increase the *risk* posed by the *natural hazard*.**

These investigations may result in identifying that some *lots* are not suitable for *development* and any such proposal would be declined.

Policy 9.17 – Tsunami

Residents will be warned to evacuate high *risk* areas prior to an anticipated distant source tsunami event and recommended to self evacuate in the event of a local earthquake. There will be no regulatory controls placed on *development* in high *risk* areas for tsunami in this Plan.

9.3.3 Earthquake Hazards Rules and Standards

The following rules for fault hazards and *liquefaction* apply to all *zones*. The rules for earthquake hazards need to be read in conjunction with **Table 9.2:** Building Importance Category Table set out after the earthquake hazard rules.

Rules and Standards – Earthquake Hazards

Introduction: Applicability of Rules in Tables 9B.1 – 9B.5

The rules in Tables 9B.1 to 9B.5 shall apply to all land and activities in all *Zones* unless otherwise specified. There may be other rules within the District Plan that also apply to sites and activities within these Zones. Section 1.1 in Chapter 1 sets out how to use the Plan and identify other rules that may also apply to a *site* or activity.

Table 9B.1. Permitted Activities
The following activities are **permitted** activities, provided that they comply with all corresponding permitted activity standards in this table, and all relevant rules and permitted activity standards in other Chapters (unless otherwise specified).

Permitted Activities	Standards
1. Any activity not specified as a *permitted, controlled, restricted discretionary, discretionary* or *non-complying activity* in Tables 9B.1 to 9B.5.	1. The activity complies with all *permitted activity* standards in Table 9B.1 Permitted Activities Note: See Rule 9A.1.2 for separation of *buildings* and *structures* from *waterbodies* standards, and Tables 11B.1-11B.5 in relation to water and stormwater rules for all *development*.
2. *Buildings* within *Fault Avoidance Areas*. **Note:** Refer to Table 9.2 *Building Importance Category* and Table 9.3 Risk Based Matrix below.	1. Within *Well-Defined* and *Well Defined Extension* areas for Ohariu and Northern Ohariu faults: *Buildings* that are defined as *Building Importance Category (BIC)* Type 1; that comply with the *permitted activity* standards for the *zone*. 2. Within *Well-Defined* and *Well Defined Extension* areas for the Gibbs and Ōtaki Forks faults: Structures that are defined as *BIC* Type 1 and 2a; that comply with the *permitted activity* standards for the *zone*. 3. Within *Well-Defined* and *Well Defined Extension* areas for the Southeast Reikorangi Fault: *Structures* that are defined as *BIC* Type 1, 2a and 2b*;* that comply with the *permitted activity* standards for the *zone*.

Table 9B.1. Permitted Activities The following activities are **permitted** activities, provided that they comply with all corresponding permitted activity standards in this table, and all relevant rules and permitted activity standards in other Chapters (unless otherwise specified).	
Permitted Activities	**Standards**
	4. Within *Distributed, Uncertain-Constrained* and *Uncertain-Poorly Constrained* areas for the Ohariu and Northern Ohariu faults: *Structures* that are defined as BIC Type 1 and 2a. 5. Within *Distributed, Uncertain-Constrained* and *Uncertain-Poorly Constrained* areas for the Gibbs, Ōtaki Forks and Southeast Reikorangi faults: *Structures* that are defined as BIC Type 1, 2a and 2b.

Table 9B.2. Controlled Activities
The following activities are **controlled** activities**,** provided that they comply with all corresponding controlled activity standards in this table, and all relevant rules and standards in other Chapters (unless otherwise specified).

Controlled Activities	Standards	Matters over which Council reserves control
There are no *controlled activities* in Table 9B		

Table 9B.3. Restricted Discretionary Activities
The following activities are **restricted discretionary** activities, provided that they comply with all corresponding restricted discretionary activity standards in this table, and all relevant rules and standards in other Chapters (unless otherwise specified).

Restricted Discretionary Activities	Standards	Matters over which Council will restrict its discretion
1. *Subdivision* proposing additional developable *lots* where any part of the land is in the *Fault Avoidance Area*. **Criteria for notification** The written approval of persons will not be required and applications under this rule will not be served on any person or notified.	1. Each *lot* must be capable of providing a 200m^2 *building* area, which has a minimum horizontal dimension of 12 metres in any direction, clear of the identified *Fault Avoidance Area*, where the *lot* is not a reserve or access *lot*. 2. *Building* areas do not have to be clear of *the Fault Avoidance Areas* within the *Distributed, Uncertain-Constrained,* and *Uncertain-Poorly Constrained* Areas of the Gibbs and Ōtaki Forks faults and no geotechnical information will be required. 3. The entire Southeast Reikorangi Fault is excluded from this provision. (I.e. *none* provisions apply).	1. The design and layout of the *subdivision*, *earthworks* and the location of any *building* area, relative to the *Fault Avoidance Area*. 2. Council's Subdivision and Development Principles and Requirements 2012. 3. The imposition of *financial contributions* in accordance with Chapter 12 of this Plan. 4. *Vehicle access* onto l*egal road* including the *State Highway Network* and any *effects* on the *transport network*.
2. *Buildings* within *Fault Avoidance Areas* that: a) do not comply with the *permitted activity* standards; or b) are identified as a *restricted discretionary activity* in Table 9.3 Risk Based Matrix and Table 9.2 *Building Importance Category*.	1. Geotechnical information must be provided by a suitably qualified person demonstrating that the *building* is not located on a fault trace or fault trace deformation. The information shall identify the location and depth of the Fault Trace in respect of any *building* platform. The information must be recorded using Geographical Positioning Satellite (GPS) Information System. 2. Within *Well-Defined* and *Well-Defined Extension* Areas for the Ohariu and Northern Ohariu faults: structures that are defined as	1. The location of any *building* area relative to the location and depth of fault traces. 2. The location and design of *buildings* to mitigate *effects* from a fault rupture hazard. 3. The level of *risk* posed by the fault trace rupturing. 4. The manner in which the topography, land features of the *site* and access to *infrastructure* affect the ability to locate the *building* area. 5. In respect to *BIC* Type 2c *buildings;* the nature, scale and use of

Table 9B.3. Restricted Discretionary Activities
The following activities are **restricted discretionary** activities, provided that they comply with all corresponding restricted discretionary activity standards in this table, and all relevant rules and standards in other Chapters (unless otherwise specified).

Restricted Discretionary Activities	Standards	Matters over which Council will restrict its discretion
	BIC Type 2a and 2b. 3. Within *Well-Defined* and *Well-Defined Extension* Areas for the Gibbs and Ōtaki Forks faults: structures that are defined as *BIC* Type 2b. 4. Within *Distributed, Uncertain-Constrained* and *Uncertain-Poorly Constrained* Areas for Ohariu and Northern Ohariu faults: structures that are defined as *BIC* Type 2b. 5. Within all *Fault Avoidance Areas* for all faults structures that are defined as *BIC* Type 2c.	those *buildings*.
3. *Subdivision* (excluding *boundary adjustments* or *subdivision* of land where no additional *lots* are created) of land with peat or sand soils.	1. Geotechnical information must be provided by a suitably qualified and experienced person (to building consent level) on *liquefaction risk*. 2. Proposed *building* areas with a minimum dimension of 20 metres must be identified for each *lot*.	1. The outcomes of the geotechnical investigation on *liquefaction risk*. 2. Whether the potential *risk* to the health and safety of people, and property from *liquefaction* can be avoided or mitigated. 3. The design and layout of the *subdivision* including *earthworks*, servicing and the location of any *building* platforms. 4. *Council's* Subdivision and Development Principles and Requirements 2012. 5. The imposition of *financial contributions* in accordance with Chapter 12 of this Plan.
4. Any new *building* defined as	1. Geotechnical information must be provided	1. The outcomes of the geotechnical investigation on *liquefaction*

Table 9B.3. Restricted Discretionary Activities
The following activities are **restricted discretionary** activities, provided that they comply with all corresponding restricted discretionary activity standards in this table, and all relevant rules and standards in other Chapters (unless otherwise specified).

Restricted Discretionary Activities	Standards	Matters over which Council will restrict its discretion
BIC Type 2c, 3 and 4 located on land with sand or peat soils.	by a suitably qualified and experienced person (to building consent level) on *liquefaction*.	by a suitably qualified and experienced person. 2. Whether the potential *risk* to the health and safety of the people and property from *liquefaction* can be avoided or mitigated. 3. The design and location of the *building*.

Table 9B.4 Discretionary Activities The following activities are discretionary activities
Discretionary Activities
1. Any activity listed as *restricted discretionary* in Rules 9B.3.2 – 9B.3.4 that does not comply with one or more of the associated standards, unless otherwise specified.
2. *Subdivision* where any part of the land is within the *Fault Avoidance Area* for all of the Ohariu and Northern Ohariu faults, or within the *Well-Defined* and *Well-Defined Extension Areas* for the Gibbs and Ōtaki Forks faults (see District Plan Maps for detail) and where a *building* area, which has a minimum dimension of 12 metres, is not provided clear of the identified *Fault Avoidance Area* and where the *subdivision* would otherwise be a *restricted discretionary activity* under Rule 9B.3.1. **Note:** Refer to Table 9.2 *Building Importance Category* and Table 9.3 Risk Based Matrix below. **Criteria for notification** The written approval of persons will not be required and applications under this rule will not be served on any person or notified.

Table 9B.5 Non-Complying Activities The following are **non-complying** activities
Non-Complying Activities
1. The location of *structures* defined as *BIC Type 3* and *Type 4* and any Type 1, 2a, 2b, 2c *structure* associated with a *Type 3* or *Type 4 structure* or activity within the *Fault Avoidance Areas* (refer to Table 9.3 Risk Based Matrix and Table 9.2 *Building Importance Category* below).

Table 9.2: Building Importance Category (BIC) and Representative Examples

Building Importance Category (BIC)	Description	Examples
1	**Temporary and/or non-habitable *structures* and *additions* to existing dwellings** with low hazard to life and other properties (provided those *additions* do not increase the number of dwellings on the *property*).	• Non-habitable stand-alone *structures* • *Accessory Buildings* • Farm *buildings*, fences • Towers in rural situations • Additions to any dwelling type, including *additions* to *existing* two-storey dwellings
2a	**Timber-Framed** single-storey residential construction <300m^2.	• Timber framed single-storey dwellings <300m^2 • *Minor flats*
2b	**Other Residential Buildings** including timber-framed residential construction with a floor area greater than 300m^2 and/or with multiple storeys, and specific other residential construction.	• Timber framed with multiple storeys • Timber framed houses with area> 300m^2 • Houses outside the scope of NZS 3604 “Timber Framed Buildings”
2c	**Normal Structures** (including *structures* not in other categories).	• Multi-occupancy residential, commercial and industrial *buildings*
3	**Important Structures** that may contain people in crowds or contents of high value to the community or pose *risks* to people in crowds.	• Public assembly *buildings*. • Theatres and cinemas <1000m^2 • Car parking *buildings* • Emergency medical and other emergency facilities not designated as critical post disaster facilities • Airport terminals, railway stations, schools • Museums and art galleries • Municipal *buildings* • Grandstands • *Service Stations* • Hazardous facilities
4	**Critical Structures** with special post	• Major *infrastructure* facilities

Building Importance Category (BIC)	Description	Examples
	disaster functions.	• Air traffic control installations • Designated civilian emergency centres, medical emergency facilities, emergency vehicle garages, fire and police stations

Note:

- *Subdivisions* located within a *Fault Avoidance Area* are controlled by separate rules. Where a *subdivision* has occurred within a *Fault Avoidance Area* and consent notices control the location of or define a *building* area the directions of the consent notices are to be given primacy over these provisions.
- The *Building Importance Categories* of Type 1, 2a, 2b, 3 and 4 are adapted from GNS Science, "Earthquake Fault Trace Survey Kāpiti Coast District," 2003.

Table 9.3: Risk based matrix table for fault hazard for development only for Ohariu, Northern Ohariu, Gibbs, South-East Reikorangi and Ōtaki Forks faults

Fault Complexity	Recurrence Interval Class II Ohariu Fault and Northern Ohariu Fault >2000yrs - ≤ 3500yrs	Recurrence Interval Class III Gibbs Fault and Ōtaki Forks Fault > 3500yrs - ≤5000yrs	Recurrence Interval Class IV South-East Reikorangi Fault >5000yrs - ≤10000yrs
LIVING ZONES			
Well Defined and Well Defined Extension	Type 1: Permitted Type 2a & 2b & 2c: Restricted Discretionary Type 3 & 4: Non-Complying	Type 1 & 2a: Permitted Type 2b & 2c: Restricted Discretionary Type 3 & 4: Non-Complying	Type 1, 2a & 2b: Permitted Type 2c: Restricted Discretionary Type 3 & 4: Non-Complying
Distributed Uncertain-Constrained Uncertain-Poorly Constrained	Type 1 & 2a: Permitted Type 2b & 2c: Restricted Discretionary Type 3 & 4: Non-Complying	Type 1, 2a & 2b: Permitted Type 2c: Restricted Discretionary Type 3 & 4: Non-Complying	Type 1, 2a & 2b: Permitted Type 2c: Restricted Discretionary Type 3 & 4: Non-Complying
RURAL ZONES			
Well Defined and Well Defined Extension	Type 1: Permitted Type 2a & 2b & 2c: Restricted Discretionary Type 3 & 4: Non-Complying	Type 1& 2a: Permitted Type 2b & 2c: Restricted Discretionary Type 3 & 4: Non-Complying	Type 1, 2a & 2b: Permitted Type 2c: Restricted Discretionary Type 3 & 4: Non-Complying
Distributed Uncertain-Constrained Uncertain-Poorly Constrained	Type 1: & 2a: Permitted Type 2b & 2c: Restricted Discretionary Type 3 & 4: Non-Complying	Type 1, 2a & 2b: Permitted Type 2c: Restricted Discretionary Type 3 & 4: Non-Complying	Type 1, 2a & 2b: Permitted Type 2c: Restricted Discretionary Type 3 & 4: Non-Complying

Note:

- *Subdivisions* located within a *Fault Avoidance Area* are controlled by separate rules. Where a *subdivision* has occurred within a *Fault Avoidance Area* and consent notices control the location of a or define a *building* area – the directions of the consent notices are to be given primacy over these provisions
- The information has been modified from table prepared by GNS Science, “Earthquake Fault Trace Survey, Kāpiti Coast District” 2003.
- The *Building Importance Categories* of Type 1, 2a, 2b, 3 and 4 are defined in Table 9.2 and are taken from GNS Science, ”Earthquake Fault Trace Survey Kāpiti Coast District”, 2003.
- The *resource consent* category applies only to the *development* of *buildings*, not to *subdivision*.

9. 4 Fire Hazards

9. 4.1 Fire Hazard Introduction

Fire Hazards
The nature of the Kāpiti Coast climate varies greatly, resulting in the District developing a high fire danger, sometimes earlier than the rest of the Wellington Region. Some areas of the District are more prone to wildfire than others. The coastal dune area is very quick to dry out following periods of low rainfall or sustained northwest winds. The lowland hills of the Tararua Ranges are also being increasingly planted in exotic pine which increases the fire risk. The wildfire hazard (*risk* to life and property) has increased due to increasing *development* in these high *risk* wildfire zones. Climate change projections pose an additional wildfire threat with increased propensity for drought and stronger or more sustained wind events.

The rules and standards for managing fire hazards require all rural properties and commercial forests, to have access *roads* and tracks that are appropriately designed, built, and maintained for entry and exit of fire fighting vehicles. The District Plan also requires that all residential properties in rural areas (developed since 1999) must have a water tank situated on their *property,* so that it can be used for fire fighting purposes. Developers are also required to have water storage tanks specifically for fire fighting purposes strategically placed in any rural area development. These rules and standards relating to fire hazards are set out in the Rural and Open Space chapters of this Plan.

9.4.2 Fire Hazard Policy

Policy 9.18 – Fire Hazards

***Risks* to people and property from fire hazards will be minimised by:**
a) requiring *plantation forestry* and forestry harvesting activities in rural and *open space zones* to be designed to enable quick response to fire;
b) requiring *subdivision, use and development* in rural zones to provide water for firefighting; and
c) requiring access and adequate fire fighting water supplies to be provided for fire appliances in all *zones*.

9.4.3 Fire Hazard Rules and Standards

FIRE HAZARDS – Rules and Standards are integrated into the rules in Chapters 5 (Living Zones), 6 (Working Zones), 7 (Rural Zones) and 8 (Open Space and Private Recreation and Leisure Zones).

9.5 Contaminated Land

The primary objective (set out in Chapter 2) that this sub-chapter implements is Objective 2.10 – *Contaminated Land*. The following objectives are also relevant to this Chapter:

- 2.5 Natural Hazards

9.5.1 Introduction

Both District and Regional Councils have roles in managing *contaminated land*. Under the *RMA* (Section 30(1)(ca)), Regional Councils are charged with the investigation of land to identify and monitor contaminated sites, while District Councils control (avoid remedy or mitigate) the *effect*s of the use *development* or protection of land to prevent or mitigate the adverse *effect*s of the *development*, *subdivision* or use of *contaminated land* (Section 31).

The *Council* uses the Wellington Regional Council's Selected Land Use Register (SLUR) and the Ministry for the Environment's Hazardous Activities and Industries List (HAIL) to primarily identify *contaminated land*, and gather and record information on *contaminated land.*

These records are used by the *Council* when assessing applications for *resource consents*, to manage the adverse *effect*s resulting from a change in land use or *subdivision* of *contaminated land*. Typically some remediation and further investigation of *contaminated land* is undertaken by the site owner and occurs prior to a change in use or when facilities are retired or replaced, e.g. fuel storage tanks. However, it is not practicable to remediate all contaminated sites and many are not likely to undergo remediation unless a change to a more sensitive land use is proposed, e.g. in the short to medium term, it is more practical to manage closed landfills to contain *contaminant*s rather than remedy these sites at a significant cost.

While much of this land has been identified by the Regional Council (in SLUR) and the *Council* through consent (building and resource) and private plan change processes, there remain areas of land within the District that may potentially be contaminated due to past practices and activities. It is the landowner's responsibility to identify, manage and, where necessary, remediate *contaminated land*.

The importance of a nationally consistent methodology for identifying, assessing and managing land where necessary, including ensuring that the land is remediated or *contaminant*s contained, is recognised in the development of the Resource Management (National Environmental Standard for Assessing and Managing *Contaminant*s in Soil to Protect Human Health) Regulations 2011. These controls are mandatory and apply to specific activities on sites which are identified as potentially contaminated, e.g. disturbing the soil, change of use, *subdivision*. The National Environmental Standard for Assessing and Managing *Contaminant*s in Soil to Protect Human Health does not address environmental impacts.

9.5.2 Contaminated Land Policies

Policy 9.19 – Identify Contaminated and Potentially *Contaminated Land*

Contaminated **and** ***potentially contaminated land*** **will be identified, including through the** ***resource consent*** **or plan change processes, to enable the land to be managed or remediated to eliminate any unacceptable risk to the** ***environment*****.**

Policy 9.20 – Criteria for Identification

Contaminated **and** ***potentially contaminated land*** **will be identified where land was used, is presently used, or is likely to have been used for an activity appearing on the Hazardous Activities and Industries List; including having regard to whether the land is identified as contaminated in the information held by the Kapiti Coast District Council or in the Wellington Regional Council's SLUR database.**

Policy 9.21 – Site Investigations

Site investigations of ***contaminated land*** **should be carried out in accordance with national best practice, including the Ministry for the Environment's Contaminated Land Management Guidelines No.1 to No. 5.**

Policy 9.22 – Management or Remediation

Any ***development*****,** ***subdivision*** **or change in land use on** ***contaminated or potentially contaminated land*****, that is reasonably likely to increase the risk of exposing people or the** ***environment*** **to** ***contaminants*****, will eliminate any unacceptable** ***risk*** **to the** ***environment*** **by management or remediation of the** ***contaminated land*****.**

Policy 9.23 – Ensure Fit for Use

The remediation and on-going management of ***contaminated*** **or** ***potentially contaminated land*** **will be undertaken in a manner that is appropriate for any likely future use of that land.**

9.5.3 Contaminated Land Rules and Standards

For areas containing *contaminated* and *potentially contaminated* land as defined under the Resource Management (National Environmental Standard for Assessing and Managing *Contaminant*s in Soil to Protect Human Health) Regulations 2011 (the 'NES'), the NES applies in its entirety.

The NES applies in addition to all other rules in any Chapter of this Plan, however no rule in any Chapter of this Plan that duplicates or conflicts with the NES shall apply.