

Annotations used in this mark up

Annotation:	Meaning
<u>Blue strikethrough and underlining</u>	Amendments respond to submissions which generally seek to simplify the PDP, reduce its length and make it easier to understand. See 136-1 & 2 NZ Wind Energy Association, 138-1 B Coe, 446-1 A Darragh, 548-1 M Cox, 581-1 Norm Antcliff, 715-5 Sharif Family Trust.
<u>Black strikethrough and underlining</u>	Amendments made in response to decisions requested in submissions Or Clause 16(2) of Schedule 1 of the RMA which states: "A local authority may make an amendment, without using the process in this schedule, to its proposed policy statement or plan to alter any information, where such an alteration is of minor effect, or may correct any minor errors." These amendments have not been specifically requested in submissions, and may not be consequential on amendments resulting from submissions.
<u>Green strikethrough and underlining</u>	Identifies erosion and slope stability provisions which are proposed to be withdrawn. This is as recommended in report by Opus dated December 2014 'Erosion Susceptibility - review of submissions' which identified that the data used for erosion susceptibility mapping in the PDP is not suitable for use in this context. Opus recommended removal of the related policies and rules from the PDP.

Table of Contents

9 Hazards	3
9.1 Natural hazards	3
9.1.1 Introduction	3
9.1.2 General Natural Hazard Policies	3
9.1.3 All Hazards (Natural and Human Induced) Rules and Standards	6
9.1.4 Natural Hazard Subdivision Rules and Standards [Rule deleted]	9
9.2 Flood hazards	10
9.2.1 Introduction	10
9.2.2 Flood Hazards Policies	12
9.2.3 Flood Hazards Rules and Standards	15
9.3 Earthquake hazards.....	27

9.3.1	Introduction	27
9.3.2	Earthquake Hazards Policies	29
9.3.3	Earthquake Hazards Rules and Standards	32
9.4	Erosion and Slope Stability	45
9.4.1	Introduction	45
9.4.2	Erosion and Slope Stability Policies	45
9.4.3	Erosion and Slope Stability Rules and Standards	47
9.5	Fire Hazards	51
9.5.1	Fire Hazard Introduction	51
9.5.2	Fire Hazard Policy	51
9.5.3	Fire Hazard Rules and Standards	52
9.6	Man-made Hazards: Contaminated Land	53
9.6.1	Introduction	53
9.6.2	(Hazardous Substances Policies was withdrawn 30 October 2014)	53
9.6.3	Contaminated and Potentially Contaminated Land	53
9.6.3	Contaminated Land Policies	55
9.6.	Contaminated Land Rules and Standards	58

The following amendments, which fit within the ambit of Clause 16(2) of Schedule 1 of the RMA, have been made throughout:

Previous wording	Replacement wording
1 in 100 year	1% Annual Exceedance Probability (AEP)

Comment [SR1]: Cl 16(2), Sched 1, RMA

Other notes

- Consequential changes have been made in this chapter in response to amendments to the definition of site, and the introduction of new defined terms for property and lot.
- As part of its overall district plan review programme, the Council is continuing to work to develop new provisions relating to hazardous substances and facilities. In due course, the Council will be consulting on and then notifying new provisions to replace the proposed provisions that were withdrawn on 30 October 2014. Until those new provisions are operative, the Operative District Plan's provisions relating to hazardous substances and facilities will continue to apply

9 Hazards

This chapter includes two sub-sub-chapters: *natural hazards* and *man-made hazards*, (*contaminated land*). The *natural hazards* sub-chapter is further broken up by hazard, (flood, *erosion*, earthquake and fire) with introduction, policies and methods following each other. [A summary of the rules for all hazard provisions \(man-made and natural\) in this chapter can be found on page 9-6 of this chapter.](#)

Comment [KD2]: CI 16(2), Sched 1, RMA

Comment [KD3]: 441-48 GWRC

Comment [KD4]: CI 16(2), Sched 1, RMA

Comment [KJD5]: Summary table at 9.1.3 deleted in response to submissions which generally seek to simplify the PDP, reduce its length and make it easier to understand. See 136-1 & 2 NZ Wind Energy Association, 138-1 B Coe, 446-1 A Darragh, 548-1 M Cox, 581-1 Norm Antcliff, 715-5 Sharif Family Trust.

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 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 *risk* cannot be mitigated, and allowing a greater level of *development*, especially if the *risk* can be mitigated, in areas subject to lower *risk* or where the hazard has a low probability or long recurrence interval. The approach takes into account the effects of climate change and considers relocation of existing *development* subject to hazards worsened by climate change effects.

9.1.2 General Natural Hazard Policies

These policies apply to all *natural hazards* in addition to more specific policies in this chapter.

Policy 9.1 – Identify Hazards

The extent of flooding, and seismic, slope instability and erosion hazards in the District will be identified on the District Plan Maps.

Comment [SR6]: 441-29 GWRC

Comment [KD7]: CI 16(2), Sched 1, RMA

Explanation

Hazard risks have been identified in technical reports. The extent of flood, earthquake fault rupture, river erosion and slope instability hazard areas has been modelled to identify development control areas, which are identified on the district planning 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. It is important that, where updated information becomes available about the nature and extent of natural hazard development controls, this is reflected on the planning maps.

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;
- d) ~~slope instability and erosion; and~~

Hazard risk-categories will be developed for flood, and earthquake ~~and erosion~~ hazards to guide decision making and help minimising ~~minimise the potential risk of loss of life~~ harm to people and damage to property due to these hazards events, while allowing appropriate use in lower risk areas.

Reference

Objective
2.5

Comment [KD8]: Cl 16(2), Sched 1, RMA

Comment [KJD9]: 441-S GWRC, 202-RR DOC

Comment [KD10]: Cl 16(2), Sched 1, RMA

Comment [KD11]: 762-08 L Johnston

Explanation

The District Plan manages risk through hazard categories. These categories take into account the probability of the hazard and risk of loss of life or property consequence of allowing development in areas prone to hazard risk. The risk-based categories are explained in hazard specific sections. The District Plan identifies where risks from natural hazards are most significant, manages subdivision and development within these high risk areas, and manages effects in lower risk areas to avoid exposure to increased levels of risk from natural hazards.

Policy 9.3 – Hazard prone areas

New *subdivision* and land use and *development* activities will be located to avoid highly natural hazards prone areas, identified on the District Plan Maps.

~~Where a modelled risk can be removed, through mitigation, to allow development on part of a site property, may be allowed where modelled risk can be removed through mitigation, and any mitigation must demonstrate that the activities and development do will not exacerbate the adverse effects of natural hazards for other people and properties including residual risks.~~

Reference

Objective
2.5

Comment [SR12]: Responds to 441-T GWRC

Comment [KJD13]: 441-T GWRC

Comment [KJD14]: Cl 16(2), Sched 1, RMA. Reworded for greater clarity.

Explanation

The approach to minimising the adverse effects of natural hazards is to avoid subdivision and development in high risk hazard prone areas. The District Plan recognises that certain land use activities can take place in hazard areas. Mitigation measures need to be employed to reduce risk from the hazard(s) provided the mitigation measures do not exacerbate the effects of natural hazard on other properties. The onus is on the applicant to ensure there will be no additional hazard risk on or off site as a result of any proposed activity or development.

The modelling of hazard risks is based on a likely hazard event such as the 1 in 100-year flood or a 1 in 500-year tsunami risk and mitigation of the modelled event does not mean that the property is at no risk in the future as a larger event than the modelled event may occur.

Policy 9.4 – Precautionary approach

A precautionary approach will be taken to *subdivision* and *development* where there is uncertainty about the potential effects of a hazard and where the effects are potentially significantly adverse, until further detailed information on the extent and nature of the hazard becomes available.

Reference

Objective
2.5

Comment [KD15]: 202-VV DOC

Explanation

~~A precautionary approach needs to be taken where there is uncertainty about the hazard timing and effects, such as hazards affected by climate change effects, or little information available about a hazard such as liquefaction potential.~~

~~In relation to hazard provisions and mapping in this plan the precautionary approach has been considered when undertaking the hazard modelling and creating development restrictions to mitigate hazard risk.~~

~~A precautionary approach is applied where further site specific investigations may identify that the activity proposed is appropriate to the natural hazard risks on the site. This approach will be taken to natural hazards that are present in the district but are not mapped in the district plan maps as there is poor information about the scale and extent of the hazard risks for those hazards. This includes potential liquefaction risk, and fire risk.~~

Policy 9.5 – Protect via natural buffers

Natural features which that have the effect of reducing hazard risk by buffering development from 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 the restoration of such natural systems features.

Reference

Objective
2.5 & 2

Comment [KD16]: CI 16(2), Sched 1, RMA

Comment [KD17]: 202-WW DOC

Explanation

~~Wetlands can act as a sponge to reduce stormwater and/or flood effects. These natural areas absorb the impacts of erosion, or inundation. Protection, including restoration, of natural features is vital for their effective functioning as a buffer against natural hazards.~~

~~Past use and development including hard engineering structures in some areas has degraded the effective 'buffering' potential of natural dunes and wetlands, by encroaching on them. The potential for flooding to be considerably accentuated by climate change effects further emphasises the importance of restoring and maintaining natural buffers.~~

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.

Reference

Objectives
2.5 & 2.18

Explanation

Open Space areas can play a major role in the mitigation of the effects associated with natural hazards, for example stormwater attenuation, detention and secondary flowpaths. These opportunities should be developed on an as-needed basis—both by acquiring new open space areas, and by developing existing areas—in order to make the district more resilient to the impacts from natural hazards and global climate change.

Policy 9.7 – Emergency management
Preparation for the effects of *natural hazard* events and avoidance or mitigation of hazards will be encouraged through emergency management programmes and procedures, and voluntary action.

Reference

Objectives 2.5, 2.18 & 2.8
Comment [KD18]: 441-28 GWRC

Explanation

Increasing awareness of natural hazards assists with community preparedness. The policy promotes emergency management programmes and procedures, and voluntary action in line with the Civil Defence Emergency Management Act 2002. Emergency management initiatives include a range of measures across the four R's of risk reduction, readiness, response, and recovery. Voluntary actions include providing flood hazard information to the public, and providing flood mitigation and risk management advice for land development and building.

9.1.3 All Hazards (Natural and Human Induced) Rules and Standards

Comment [SR19]: Summary table at 9.1.3 deleted in response to submissions which generally seek to simplify the PDP, reduce its length and make it easier to understand. See 136-1 & 2 NZ Wind Energy Association, 138-1 B Coe, 446-1 A Darragh, 548-1 M Cox, 581-1 Norm Antcliff, 715-5 Sharif Family Trust. It is noted that the text states 'the following table is intended to be a guide only and does not form part of the District Plan'.

Summary table

The following table is intended as a guide only and does not form part of the District Plan. Refer to specified rules for detailed requirements. Pe refers to Permitted Activities, C to Controlled Activities, RD to Discretionary Activities (Restricted), D to Discretionary Activities (Unrestricted), NC to Non-Complying and Pr to Prohibited Activities.

Activities/Uses	Rule	Pe	C	RD	D	NC	Pr
All natural hazards							
Subdivision of or development on land subject to two or more high risk natural hazard categories	9A.5.1					•	
Flood hazards							
Buildings in any zone which meet separation from waterbodies standards	9B.1.1	•					
Buildings in ponding and residual ponding hazard areas meeting standards	9B.1.2	•					
Buildings in ponding and residual ponding hazard areas not meeting standards	9B.4.1				•		
Buildings in any overflow path, residual overflow paths or flood erosion area	9B.5.2					•	
Development in the stream corridor or River	9B.1.6					•	

Activities/Uses	Rule	Pe	C	RD	D	NC	Pr
<i>corridor</i>							
Minor additions within any overflow path, residual overflow path or flood erosion area	9B.1.6	•					
Development and earthworks within any flood storage, ponding or fill control area meeting standards.	9B.2.1		•				
Development within any flood storage, ponding or fill control area not meeting standards.	9B.4.1				•		
Fences in flood hazard areas meeting standards	9B.1.4	•					
Fences in river corridor or stream corridor a flood hazard areas not meeting standards	9B.2.2		•				
Fences not meeting standards	9B.4.1				•		
Flood protection measures in the Open Space – Conservation and Scenic zone and River corridor zones	9B.1.5	•					
Damage or destruction of flood mitigation structures	9B.6.1						•
Earthworks in flood hazard areas (except flood storage and fill control) which meet standards and gravel extraction in the River Corridor)	9B.1.3 9B.1.7	•					
Earthworks in flood hazard areas which do not meet permitted activity standards in flood areas	9B.4.1 9B.4.3 9B.4.4 9B.4.5				•		
Earthworks within 20 metres of a waterbody, including wetlands and coastal water.	9B.4.5				•		
Subdivision in ponding and residual ponding areas subject to standards	9B.3.2			•			
Subdivision of land in any overflow path, residual overflow path or flood erosion area	9B.4.2				•		
Subdivision in any stream or river corridor	9B.5.3					•	
Network utilities in ponding areas subject to standards	9B.3.1			•			
Network utilities in an overflow or residual overflow path	9B.5.1					•	
Building in the river corridor or stream corridor	9B.5.4					•	
Earthquake hazards							
Development and buildings within Fault Avoidance Areas subject to standards	9C.1.1	•		•		•	
Development and buildings within Fault Avoidance Areas which exceeds permitted standards or is identified as higher-risk development	9C.3.2 9C.5.1			•	•	•	
Subdivision in the Fault Avoidance Areas subject to standards	9C.3.1 9C.4.1			•	•		
Subdivision of land with peat or sandy soils.	9C.3.3			•			
New network utilities within Fault Avoidance Areas	9C.5.2					•	
Erosion and slope stability							
Subdivision and buildings on land with high erosion susceptibility subject to standards.	9D.3.1 9D.3.2			•			
Extension to a habitable building on land	9D.1.1	•					

Activities/Uses	Rule	Pe	C	RD	D	NC	Pr
with high erosion susceptibility subject to standards.							
Extension to a <i>habitable building</i> on land with high erosion susceptibility which does not meet the permitted activity standards.	9D.3.3			◆			
Earthworks on land with a slope greater than 25 degrees and having high erosion susceptibility	9D.3.4			◆			
Fire Hazards							
<i>Habitable building</i> located within the rural zone subject to standards	7A.1	◆					
Plantation forestry subject to standards	7A.1 to 7A.4 and 8.1 to 8.4	◆	◆		◆		
Rural subdivision subject to standards	7A.2 and 7A.3		◆	◆			
Subdivision and <i>development</i> not meeting standards	7A.				◆		
Man Made Hazards							
Soil disturbance or sampling, removal or replacement of an underground fuel storage system, or change of land use, subject to permitted activity standards	9E.1.3 9E.1.4 9E.1.5 9E.1.6	◆					
Soil disturbance or sampling, removal or replacement of an underground fuel storage system, or change of land use, subject to controlled activity standards	9E.2.2		◆				
Soil disturbance or sampling, removal or replacement of an underground fuel storage system, or change of land use, not meeting controlled activity standards 9E.2.2.2 and 9E.2.2.3.	9E.3.1			◆			
Subdivision of contaminated or potentially contaminated land	9E.3.2			◆			
Any activity not controlled under clause (1) of the controlled activity rules	9E.4.2				◆		

9.1.4 Natural Hazard Subdivision Rules and Standards [Rule deleted]

Rules and standards – All natural hazards

~~Rule 9A.5 Non-Complying Activities~~

~~The following activities are non-complying activities.~~

~~Non-Complying Activities~~

- ~~1. Subdivision of or development on land subject to two or more of the following natural hazards areas (identified on natural hazard maps):~~
 - ~~a) well defined fault avoidance area;~~
 - ~~b) well defined extension fault avoidance area;~~
 - ~~c) high erosion susceptibility;~~
 - ~~d) overflow path flood hazard area;~~
 - ~~e) residual overflow path flood hazard area;~~
 - ~~f) flood storage hazard area;~~
 - ~~g) ponding flood hazard area;~~
 - ~~h) fill control flood hazard area;~~
 - ~~i) river corridor or stream corridor.~~

~~Reference~~

~~Policies 9.1, 9.2, 9.3, 9.4 & 9.5~~

Comment [SR20]: 92-117 Winstone Aggregates, 191-50 Landlink Ltd, 208-45 Transpower, 218-67 Coastlands Shoppingtown Ltd, 263-25 Maypole Environmental Ltd.

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 erosion areas, flood storage areas and overflow paths* (including *residual overflow paths*) are more susceptible to damage from flooding. Buildings in ponding areas are also susceptible to damage from flooding. New development within the *river corridor, stream corridor, flood storage areas, and overflow paths* can cause additional adverse effects to existing *development*. *Buildings and earthworks in ponding areas, and fill control areas* can push flooding onto additional properties or increasing the depth of flooding on other properties. Furthermore, *development within river and stream corridors* ~~these areas~~ can adversely affect the structural integrity of existing flood mitigation structures and works and increase the potential for damage and loss of life. The Council recognises the contribution of the gravel extraction to the flood and hazard management and mitigation.

Comment [KJD21]: Cl 16(2), Sched 1, RMA - no flood erosion areas are identified in the PDP

Comment [KD22]: 441-32 GWRC

Comment [KD23]: Cl 16(2), Sched 1, RMA

Comment [KD24]: Responds to 92-118

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 effects 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 effects 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 *risks* from flooding are taken into consideration in the assessment of any resource consent. Where a *development* proposal relates to the *river/stream corridor, flood erosion areas, flood storage, and overflow paths* (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*) 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.

Comment [KJD25]: Cl 16(2), Sched 1, RMA - there are no flood erosion areas in the PDP

Comment [KD26]: Cl 16(2), Sched 1, RMA

The ~~Kāpiti Coast District 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 hazard categories (mapped) and descriptions including direct and residual flood *risks* related to the estimated *1% AEP in 100-yr* flood event and development controls. However, damage from floodwaters in *ponding, residual ponding and fill control* areas is likely to be caused by floodwaters entering buildings (and also mud, sewage and debris in floodwaters).

Comment [KD27]: Cl 16(2), Sched 1, RMA

Comment [KJD28]: Corrects minor error, Cl 16(2), Sched 1, RMA

Comment [KD29]: 441-33 GWRC

1% AEP in 100-year flood event

The estimated *1% AEP in 100-yr* flood event is shown as flood categories on the ~~planning~~ 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 in 100-yr~~ flood event or that flood defences can fail. These areas have been identified as residual risk areas. The Kāpiti Coast District Council and the Greater Wellington Regional Council have a responsibility to inform people of this greater risk.

Hazard categories and definitions

Hazard categories (shown on the ~~planning District Plan maps~~) are based on the ~~1% AEP in 100-yr~~ extent. The purpose of the hazard categories is to describe the varying hazard across the floodplain. ~~The flood hazard is determined by taking the following into account:~~

~~The depth and speed of flood waters;~~

~~The threat to life;~~

~~The difficulty and danger of evacuating people and their property; and~~

~~The potential for damage to property and social disruption.~~

Comment [KJD30]: See 136-1 & 2 NZ Wind Energy Association, 138-1 B Coe, 446-1 A Darragh, 548-1 M Cox, 581-1 Norm Antcliff, 715-5 Sharif Family Trust.
In this case, the content is already contained in Policy 9.9 and in the definition of Flood Hazard categories (contained in Chapter 1)

There are two types of flood *risk* identified ~~in~~ on the ~~Natural Hazard District Plan~~ Maps:

- **Direct flood *risk***
The direct flood *risk* affects areas that are not protected from flooding by flood protection structures (such as stopbanks or floodwalls) built to the ~~1% AEP in 100-yr~~ flood event standard. A direct flood *risk* can also occur where existing structural protection, built to less than the ~~1% AEP in 100-yr~~ standard, is vulnerable and likely to fail in a ~~1% AEP in 100-yr~~ flood event.
- **Residual flood *risk***
The residual flood *risk* is the additional or 'left over' *risk* due to possible breaching and overtopping of flood protection structures (such as stopbanks or flood works) built to the ~~1% AEP in 100-yr~~ flood event standard. An additional residual flood *risk* 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~~ eight 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 in 100-yr 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 <i>risk</i> to people and development is significant.
Stream corridor	This is the minimum area able to contain a flood of up to a 1% AEP in 100-yr 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.
Flood erosion Area	Land adjacent to the River corridor that could potentially be eroded in flood events. The margin of the Flood erosion area is approximately 40 metres from the natural banks of the Ōtaki or Waikanae Rivers, yet may be less than 40 metres where the following features are present: <ul style="list-style-type: none"> • Permanent structural works such as bank edge protection and stopbanks, built to the 1 in 100-yr flood event standard. • Bank edge or river berm geology that is relatively more erosion resistant.
Overflow path	Overflow paths generally occur in lower-lying areas on the floodplain which act as channels for flood waters. They can be natural, or artificially

Comment [KJD31]: Cl 16(2), Sched 1, RMA - deleted as this flood hazard is not identified on the natural hazard maps

Flood Hazard Category	Description
	formed, and are often characterised by fast flowing water during a flood event. An overflow path is a direct <u>flood risk</u>
Residual overflow path	A <i>residual overflow path</i> is a residual flood <i>risk</i> for areas which are protected from flooding by structural measures, such as stopbanks or floodwalls, constructed to the <u>1% AEP in 100-yr</u> flood standard. The residual <u>flood risk associated with a residual overflow path</u> is in the event of a failure or overtopping of the flood protection structure
Ponding	These are floodplain areas where slower-moving flood waters could pond either during or after a flood event. A <i>Ponding Area</i> may is affected by a direct flood <i>risk</i> . 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 <i>risk</i> for areas which are protected from flooding by structural measures, such as stopbanks or floodwalls, constructed to the <u>1% AEP in 100-yr</u> flood standard. The residual <u>flood risk</u> is in the event of a failure or overtopping of the flood protection structure.
Flood storage areas	Land that provides flood water storage either during or after a flood event. Flood Storage Areas 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 <i>ponding</i> levels.
Fill control areas	<i>Fill control</i> areas are undrained “crater” type catchments where filling will raise the level of flooding on the property and on adjoining land.

Comment [KD32]: Cl 16(2), Sched 1, RMA

Table 9.1 Flood hazard categories

Comment [KJD33]: Cl 16(2), Sched 1, RMA

Natural Hazard District Plan Maps ([Planning Maps](#)) identify the extent of [these eight flood hazard categories areas \(river corridor, stream corridor, overflow path, residual overflow path, ponding areas, residual ponding areas, flood erosion areas, flood storage areas, and fill control areas](#) for the Ōtaki, Waikanae, Paraparaumu and Raumati floodplains.

Comment [KD34]: See 136-1 & 2 NZ Wind Energy Association, 138-1 B Coe, 446-1 A Darragh, 548-1 M Cox, 581-1 Norm Antcliff, 715-5 Sharif Family Trust.
In this case the existing wording is repetitive and the amendments clarify its relationship to the preceding table.

9.2.2 Flood Hazards Policies

Policy 9.8 – Flood Mapping

Flood hazard extents are mapped using the 1% AEP in 100-year flood modelling scenario has been used to generate flood map extents. The extents and categories include consideration of projected climate change and precautionary freeboard to minimise risks. Residual risks will also be mapped where flood mitigation structures are present.

Reference

Ob 2.5 **Comment [KD35]:** Cl 16(2), Sched 1, RMA

Policy 9.9 – Flood risk hazard categories

The flood risk hazard categories have been developed using the following criteria:
a) depth and speed of floodwaters;

Re **Comment [SR36]:** Cl 16(2), Sched 1, RMA

Objective 2.5

Policy 9.9 – Flood risk hazard categories

- 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.

Re **Comment [SR36]:** Cl 16(2), Sched 1, RMA

Policy 9.10 – Flood and erosion free building sites

All newly created lots must have flood and erosion-free building sites based on 1% AEP in 100-year flood modelling.

Reference
Objective
2.5

Policy 9.11 – Flood risk levels

A higher level of control on *subdivision and development* will be applied within direct and residual high risk flooding areas. These are areas identified as the river and stream corridors, overflow paths, residual overflow paths, and flood storage, and flood erosion areas, and a generally lesser level of restriction in lower risk areas including ponding, residual ponding and fill control areas and residual ponding.

Reference
Ob **Comment [KD37]:** Responds to 441-2.5 36 GWRC

Comment [KJD38]: Cl 16(2), Sched 1, RMA. Flood erosion areas are not identified in the PDP.

Policy 9.12 – High hazard flood areas

Development in the *river and stream corridor, overflow path, flood erosion and flood storage* areas will be avoided unless the 1% AEP in 100-year risk can be completely 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 sites 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.

Reference
Ob **Comment [KJD39]:** Cl 16(2), Sched 2.5 1, RMA - there are no flood erosion areas in the PDP

Comment [KD40]: 441-37 GWRC

Policy 9.13 – Ponding, residual ponding, and fill control areas

When assessing applications for *subdivision or development* within a *ponding, residual ponding or fill control* area consider the following:

- a) the effects of the development on existing flood mitigation structures;

Reference
Ob **Comment [KD41]:** Cl 16(2), Sched 2.5 1, RMA

Policy 9.13 – Ponding, residual ponding, and fill control areas

Reference

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

Explanation

The above two policies promote a higher level of restriction in high risk flood areas. The high risk flood areas are the river and stream corridor, overflow path (including residual overflow path), flood erosion and flood storage areas. The risks of flooding and erosion to the community are much greater in these high risk flood areas; therefore it is appropriate that district plan rules reflect a higher level of restriction than for lower risk areas. In high flood risk areas the onus is on the applicant to show that there will be no additional hazard, on-site and off site, as a result of any proposed development.

Policy 9.13A – Flood protection and mitigation

Enable flood protection and mitigation measures, including gravel extraction, which contribute to flood management for Waikanae and Otaki Rivers.

Re **Comment [SR42]:** 92-118 Winstone
Aggregates

Objective
2.5

9.2.3 Flood Hazards Rules and Standards

The following rules for flood hazards apply to all zones.

Rules and Standards – Flood hazards

Comment [KD43]: Cl 16(2), Sched 1, RMA

Rule 9B.0 Applicability of Rules 9B.1A– 9B6

Comment [SR44]: Consequential change

Rules 9B.1A to 9B.5 shall apply to all land and activities in all Zones unless otherwise specified.

Notes: [1] Notwithstanding the activity category defined by Rules 9B.1 to 9B.5 for any activity, attention is also drawn to the rules:

[a] in Chapters 3, 9, 11 and 12 which apply to matters which apply across all zones in the District – for example, ~~transport~~ carparking, vehicle access, traffic generation, signs; and

Comment [KJD45]: Responds to 451-105 & 106 R Crozier & J Allin

[ab] in Chapters 5, 6, 7 and 8 that apply to specific land use Zones in the District – for example the Rural Plains Zone and the Open Space (Recreation) Zone.

Comment [KJD46]: Cl 16(2), Sched 1, RMA

The rules in these chapters may identify the activity as (or result in the activity being) a different activity category than expressed below. Additional clarity on activity category determination is provided in Chapter 1 (Section 1.1).

Rule 9B.1A Standards

The following standards apply to the activities listed in this table. These standards apply in addition to any other standard that is otherwise specified for the activity within this Plan.

Comment [SR47]: Relocation of standards from Rule 9B.1.2 for separation from waterbodies responds to Crozier & J Allin; 314-2 W Wyatt; 378-4 Coastal Ratepayers United (CRU); 394-2 R Reeve; 545-2 Hilary Peterson Family Trust; 631-6 M Alexander. Also responds to those submissions generally seeking that the PDP be simplified and made easier to understand (clarifies the activity needs to meet all other permitted activity standards; addresses the issue of some rules actually being standards).

Activity	Standards	
1. Any <i>building</i> or structure in any zone.	<p>Separation from Waterbodies (Streams, Lakes and Rivers)</p> <p>1. Buildings shall not be sited within the <i>River Corridor</i> or <i>Stream Corridor Hazard Area as shown on the Natural Hazard Planning Maps</i>;</p> <p>2. For the unsurveyed stream corridor and other water-bodies, including ephemeral and intermittent rivers or streams watercourses (except lakes), the minimum setback for any building or structure (other than a bridge or culvert structure for which a consent is required from the Regional Council) from the natural banks of any waterbody greater than 3 metres wide shall be 10 metres; and</p>	

Comment [KD48]: Cl 16(2), Sched 1, RMA. NB. Waterbodies is a defined term.

Rule 9B.1A Standards

The following standards apply to the activities listed in this table. These standards apply in addition to any other standard that is otherwise specified for the activity within this Plan.

Activity	Standards	
	3. For streams/drains less than 3 metres wide, the minimum setback shall be 5 metres where the average width of the stream or waterbody is measured as an average within the site property; and 4. Buildings shall not be sited within 5 metres of a lake.	

Comment [SR47]: Relocation of standards from Rule 9B.1.2 for separation from waterbodies responds to Crozier & J Allin; 314-2 W Wyatt; 378-4 Coastal Ratepayers United (CRU); 394-2 R Reeve; 545-2 Hilary Peterson Family Trust; 631-6 M Alexander. Also responds to those submissions generally seeking that the PDP be simplified and made easier to understand (clarifies the activity needs to meet all other permitted activity standards; addresses the issue of some rules actually being standards).

Rule 9B.1 Permitted Activities

The following activities are permitted activities, provided that they comply with all corresponding permitted activity standards and all relevant permitted activity standards in other chapters (unless otherwise specified).

Permitted Activities	Standards	Reference
1. Any activities which are not specified as a Permitted, Controlled, Restricted Discretionary, Discretionary, or Non Complying or Prohibited activity and complies with all permitted activity standards in this chapter.	1. The activity must comply with all permitted activity standards in Rule 9B.1A and 9B.1.	All relevant policies in this chapter.
2. Any building or structure in any zone.	1. Separation from Waterbodies (Streams, Lakes and Rivers) a) Buildings shall not be sited within the River Corridor or Stream Corridor Hazard Area as shown on the Natural Hazard Planning Maps: i. for the unsurveyed stream corridor and other water bodies including ephemeral and intermittent watercourses (except lakes) the minimum setback for any building or structure (other than a bridge or culvert structure for which a consent is required from the Regional Council) from the natural banks of any waterbody	Policies 9.3, 9.4, 9.8, 9.9, 9.11, 9.12

Comment [SR49]: Responds to 451-105 & 106 R Crozier & J Allin

Comment [KD50]: Cl 16(2), Sched 1, RMA

Comment [KD51]: Relocated to Rule 9B.1.2

Rule 9B.1 Permitted Activities

The following activities are **permitted** activities, provided that they comply with all corresponding permitted activity standards and all relevant permitted activity standards in other chapters (unless otherwise specified).

Permitted Activities	Standards	Reference
	<p>greater than 3 metres wide shall be 10 metres; and</p> <p>ii. for streams/drains less than 3 metres wide shall be 5 metres where the average width of the stream or waterbody is measured as an average within the site.</p> <p>b) Buildings shall not be sited within 5 metres of a lake.</p>	
3. New or relocated <i>buildings</i> in <i>ponding</i> and <i>residual ponding</i> hazard areas.	1. The building floor level of any new or relocated <i>building</i> in the <i>ponding</i> or <i>residual ponding</i> hazard area shall be constructed above the <u>1% AEP</u> in 100 year flood event level.	Policies 9.3, 9.4, 9.8, 9.9, 9.11, 9.12
4. <i>Earthworks</i> , except where associated with the matters listed below:	1. In an <i>overflow path</i> or <i>residual overflow path</i> (excluding fill that is addressed in Rule 9B.4.3):	Policies 9.3, 9.4, 9.8, 9.9, 9.11 & 9.12
a) This rule does not apply to limit <i>earthworks</i> associated with:	a) shall not involve the disturbance of more than 10m ³ of land in any 10 year period;	
i. the maintenance of a watercourse or stormwater control; and	b) shall not alter the existing ground level by more than 0.5 metres, measured vertically; and	
ii. flood protection works covered by a designation;	c) The <i>earthworks</i> shall not impede the flow of floodwaters.	
iii. to maintenance activities within the legal road; and	2. In <i>ponding</i> areas (excluding <i>residual ponding</i> areas):	
iv. private <i>farm tracks</i> which are ancillary to permitted farming activities and are not within an <i>outstanding natural landscape</i>	a) shall <u>not</u> involve the disturbance of more than 20m ³ (volume) of land in any 10 year period;	
	b) shall not alter the existing ground level by more than 1.0 metre, measured vertically.	
	3. In a <i>Stream corridor</i> or <i>River corridor</i> (excluding fill that is addressed in Rule 9B.4.2):	
	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;	
	b) All works must be carried out by <u>Greater Wellington Regional Council</u> , Kāpiti Coast District Council, the Department of Conservation or their nominated contractors.	

Comment [SR49]: Responds to 451-105 & 106 R Crozier & J Allin

Comment [KJD53]: 441-39 GWRC

Comment [KJD54]: CI 16(2), Sched 1, RMA. The residual ponding area as flood return period well above the 1%AEP so this standard is not required.

Comment [KD52]: CI 16(2), Sched 1, RMA

Comment [KD55]: CI 16(2), Sched 1, RMA

Comment [KD56]: Responds to 229-7 G & S Moller, 451-114 R Crozier & J Allin.

Comment [KJD57]: CI 16(2), Sched 1, RMA

Comment [SR59]: CI 16(2), Sched 1, RMA

Rule 9B.1 Permitted Activities

The following activities are **permitted** activities, provided that they comply with all corresponding permitted activity standards and all relevant permitted activity standards in other chapters (unless otherwise specified).

Comment [SR49]: Responds to 451-105 & 106 R Crozier & J Allin

Permitted Activities	Standards	Reference
<p>shown on the planning maps; and</p> <p>v. <i>residual ponding</i> areas where the earthworks permitted activity standards for <i>earthworks</i> in the relevant zone are complied with (see chapter 3 for policies and rules on <i>earthworks</i>).</p> <p>b) <i>earthworks</i> subject to rule 9B.2.1 (ie within a <i>flood storage or fill control area</i>) and 9B.4.</p>		
<p>5. Fences in any flood hazard area, except the river corridor or stream corridor.</p>	<p>1. Fences in <u>an overflow path, or residual overflow path</u> shall be post and wire and shall not impede the free flow of flood waters.</p>	<p>Policies 9.3, 9.4, 9.8, 9.9, 9.11 & 9.12</p>
<p>6. Flood protection, erosion control and <i>natural hazard</i> mitigation measures including associated structures in the <i>Open Space</i>, Conservation and Scenic Zones, and flood mitigation works in the <i>River Corridor</i> for the management of the</p>	<p>1. All works must be carried out by Wellington Regional Council, Kāpiti Coast District Council, the Department of Conservation or their nominated contractors.</p>	<p>Policies 9.3, 9.4, 9.8, 9.9, 9.11 & 9.12</p>

Comment [KJD58]: This rule has been deleted.

Comment [KD60]: Cl 16(2), Sched 1, RMA

Comment [KD61]: Cl 16(2), Sched 1, RMA A similar rule existed in the Open Space zones and has now been relocated here.

Rule 9B.1 Permitted Activities

The following activities are **permitted** activities, provided that they comply with all corresponding permitted activity standards and all relevant permitted activity standards in other chapters (unless otherwise specified).

Permitted Activities	Standards	Reference
Waikanae and Ōtaki Rivers.		
7. Minor <i>additions</i> to existing <i>habitable buildings</i> in any <i>overflow path</i> , or <i>residual overflow path</i> or <i>flood erosion area</i> .	1. <i>Additions</i> do not exceed 15% of the total floor space of the existing room or 20m ² of the total floor space of the building, whichever is lesser.	Policies 9.3, 9.4, 9.8, 9.9, 9.11 & 9.12
8. Gravel extraction activities in the <i>River Corridor</i> .	<p>1. All works must be carried out by Wellington Regional Council, Kāpiti Coast District Council, the Department of Conservation or their nominated contractors.</p> <p>2. Mobile plants for processing extracted materials and associated temporary <i>buildings</i> shall not be located on any site for longer than any 12 month period.</p>	Policies 9.3, 9.4, 9.8, 9.9, 9.11 & 9.12

Comment [SR49]: Responds to 451-105 & 106 R Crozier & J Allin

Comment [KJD63]: CI 16(2), Sched 1, RMA

Comment [KJD62]: CI 16(2), Sched 1, RMA - there are no flood erosion areas in the PDP

Rule 9B.2 Controlled Activities

The following activities are **controlled** activities, provided that they comply with all corresponding controlled standards (unless otherwise specified).

Controlled Activities	Standards	Matters over which Council reserves control	Reference
1. <i>Development and earthworks within any flood storage or fill control area.</i>	<ol style="list-style-type: none"> 1. Equivalent compensatory storage or another solution to achieve <i>hydraulic neutrality</i> shall be created. 2. <i>Development</i> proposals shall be accompanied by detailed and extensive hydraulic modelling of relevant streams to fully test consequences of the activity. 3. The <u>building floor level</u> of any new or relocated <i>building</i> shall be constructed above the <u>1% AEP in 100 year</u> flood event level. 	<ol style="list-style-type: none"> 1. Future management of the <i>flood storage</i> or <i>fill control</i> area. 2. <i>Natural hazard</i> effects. 3. <i>Nuisance effects</i> including dust. 4. <u>Location</u> and design of buildings and structures. 5. Suitability of access. 	Policies 9.3, 9.4, 9.8, 9.9, 9.11 & 9.12
2. <u>Fences in a river corridor or stream corridor; or fences in an overflow path or residual overflow path that are not post and wire.</u>	<ol style="list-style-type: none"> 1. Any fence shall not impede the free flow of flood waters. 	<ol style="list-style-type: none"> 1. The materials from which the fence(s) is constructed 2. The avoidance or mitigation of the potential adverse effects of flooding including the design of the fence to prevent debris entrapment. 	Policies 9.3, 9.4, 9.8, 9.9, 9.11 & 9.12

Comment [KJD64]: Cl 16(2), Sched 1, RMA. Matches with the defined term.

Comment [KD65]: Responds to 441-40 GWRC

Rule 9B.3 Restricted Discretionary Activities

The following activities are **restricted discretionary** activities, provided that they comply with all corresponding restricted discretionary standards (unless otherwise specified).

Restricted Discretionary Activities	Standards	Matters over which Council will restrict its discretion	Reference
New network utilities either above ground or underground within ponding areas.	1. Complies with the relevant permitted and controlled activity standards in the network utilities chapter.	1. The degree to which the network utility structure and/or building will obstruct or provide pathways for flooding. 2. Measures to mitigate any effect of a potential flood event.	Policies 9.3, 9.4, 9.8, 9.9, 9.11 & 9.12
2. Subdivision in where any part of the land contains ponding and or residual ponding areas.	1. Each lot shall have a building site located outside any river or stream corridor, overflow path, or residual overflow path or flood erosion area. 2. Each building site shall be located above the estimated <u>1% AEP</u> in 100 year flood event level. 3. <i>Formed vehicle access</i> should not adversely affect the flood hazard risk on other properties in the same flood catchment.	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 imposition of conditions in accordance with sections 108 and 220 of the Resource Management Act. 5. <i>Vehicle access</i> points onto legal road including the State Highway Network and any effects on the transport network. 6. The location of any building site relative to the <i>natural hazards, historic heritage features, and sensitive natural features ecological sites, outstanding natural landscapes, and geological sites.</i>	Policies 9.3, 9.4, 9.8, 9.9, 9.11, & 9.12

Comment [KD66]: Provision moved to Ch 11 Infrastructure

Comment [KJD67]: Cl 16(2), Sched 1, RMA

Comment [KJD68]: Cl 16(2), Sched 1, RMA - there are no flood erosion areas in the PDP

Comment [KJD69]: Cl 16(2), Sched 1, RMA

Rule 9B.3 Restricted Discretionary Activities

The following activities are **restricted discretionary** activities, provided that they comply with all corresponding restricted discretionary standards (unless otherwise specified).

Restricted Discretionary Activities	Standards	Matters over which Council will restrict its discretion	Reference
		7. The location of building platforms. 8. The location and design of any servicing of the subdivision. 9. The extent and effects of <i>earthworks</i> .	
3. <u>In an <i>overflow path</i>, or <i>residual overflow path</i>, fill <i>earthworks</i>, or <i>earthworks</i> which do not comply with one or more of the permitted activity standards under Rule 9B.1.4.</u> <u>This rule does not apply to <i>earthworks</i> associated with the matters listed in (a)(i) to (vi) of Rule 9B.1.4.</u>		1. <u>The effect of the <i>earthworks</i> on the effective functioning of the <i>overflow path</i>, <i>residual overflow path</i> or <i>ponding area</i>.</u> 2. <u>The avoidance or mitigation of adverse effects on the effective functioning of the <i>overflow path</i>, <i>residual overflow path</i> or <i>ponding area</i>.</u>	
4. <u>In a <i>ponding area</i>, <i>earthworks</i> which do not comply with one or more of the permitted activity standards under Rule 9B.1.4.</u> <u>This rule does not apply to <i>earthworks</i> associated with the matters listed in (a)(i) to</u>		1. <u>The effect of the <i>earthworks</i> on the effective functioning of the <i>overflow path</i>, <i>residual overflow path</i> or <i>ponding area</i>.</u> 2. <u>The avoidance or mitigation of adverse effects on the effective functioning of the <i>overflow path</i>, <i>residual overflow path</i> or <i>ponding area</i>.</u>	

Comment [KD70]: Responds to 218-69 Coastlands.

Comment [KJD71]: Responds to 218-69 Coastlands

Rule 9B.3 Restricted Discretionary Activities

The following activities are **restricted discretionary** activities, provided that they comply with all corresponding restricted discretionary standards (unless otherwise specified).

Restricted Discretionary Activities	Standards	Matters over which Council will restrict its discretion	Reference
<u>(vi) of Rule 9B.1.4.</u>			

Rule 9B.4 Discretionary Activities

The following activities are discretionary activities.

Discretionary Activities	Assessment Criteria	Reference
1. Any activity subject to Rules 9B.1A-9B.6 which does not comply with one or more of the permitted activity standards under Rules 9B.1A or 9B.1 or controlled activity standards under Rule 9B.2 and is not identified as a <u>restricted discretionary</u> , non-complying or prohibited activity.	1. Consistency with the relevant Plan policies, including (but not limited to) all policies in this Chapter.	All policies in this chapter
1. Subdivision of where any part of the land located within any contains an overflow path, or residual overflow path or flood erosion area and any subdivision which does not comply with any one or more of the restricted discretionary activity standards under Rule 9B.3.2.	1. Consistency with the relevant Plan Policies, including (but not limited to): a) Hazards Policies 9.10, 9.11, 9.12 and 9.13.	Policies 9.10, 9.11 & 9.12
2. In any <i>stream corridor</i> or <i>river corridor</i> fill <i>earthworks</i> or <i>earthworks</i> that do not comply with one or more of the permitted activity standards in Rule 9B.1.4.	1. Consistency with the relevant Plan Policies, including (but not limited to): a) Hazards Policies 9.3, 9.4, 9.11 and 9.12. 2. Application of the mapped flood extents of Policy 9.8 and the flood risk assessment criteria of Policy 9.9.	Policies 9.3, 9.4, 9.8, 9.9, 9.11 & 9.12

Comment [KD72]: Deletion of assessment criteria responds to 134-2 Hope Centre Church

Comment [KD73]: Consequential amendment due to other amendments responding to 218-69 Coastlands.

Comment [KD74]: Cl 16(2), Sched 1, RMA. Also renumber to correct numbering error

Comment [KD75]: Cl 16(2), Sched 1, RMA - there are no flood erosion areas in the PDP

Comment [KD76]: Cl 16(2), Sched 1, RMA

Rule 9B.4 Discretionary Activities

The following activities are discretionary activities.

Discretionary Activities	Assessment Criteria	Reference
3. In any overflow path or residual overflow path fill earthworks or earthworks that do not comply with the permitted activity standards in Rule 9B.1.	1. Consistency with the relevant Plan Policies, including (but not limited to): a) Hazards Policies 9.3, 9.4, 9.11 and 9.12.	Policies 9.3, 9.4, 9.11 & 9.12
4. Earthworks within 20 metres of a waterbody, and the coastal marine area.	1. Consistency with the relevant Plan Policies, including (but not limited to): a) Natural Environment Policies 3.5, 3.8, 3.10, 3.18 and 3.20.	Policies 3.5, 3.8, 3.10, 3.18 & 3.20
5. Gravel extraction activities in the River Corridor, which does not meet the permitted activity standards for earthworks.	1. Consistency with the relevant Plan Policies, including (but not limited to): a) Natural Environment Policies 3.5, 3.8, 3.10, 3.18 and 3.20.	Policies 3.5, 3.8, 3.10, 3.18 & 3.20
6. <u>Subdivision of land located partly within the river corridor and / or stream corridor</u>		

Comment [KJD72]: Deletion of assessment criteria responds to 134-2 Hope Centre Church

Comment [KD77]: Responds to 218-69 Coastlands (see new RD provisions)

Comment [KD78]: Duplicates rule in Ch 3 which has been amended following consistency review with GWRC.

Comment [KJD79]: Consequential on amendments the definition of earthworks in Ch 1 so that it exempts extractive industries (such as gravel extraction)

Comment [KD80]: Responds to 319-24 Waikanae Christian Holiday Park Inc (El Rancho), 380-29 B, S & T Mansell, 416-24 H & L Wells, 425-21 Lutz Brothers Ltd & CE Lutz

Rule 9B.5 Non Complying ActivitiesThe following activities are **non complying** activities

Non Complying Activities	Reference
1. New network utilities within an overflow path or residual overflow path.	Policies 9.2, 9.3, 9.4, 9.9 & 9.12
2. New or relocated <i>building</i> in any <i>overflow path</i> , <u>or</u> <i>residual overflow path</i> or flood erosion area. Exemption: Extensions to existing habitable buildings where they do not exceed 15% of the total floor space of the existing room or 20m ² , whichever is lesser. Note: This does not apply to minor additions to existing habitable buildings permitted by Rule 9B.1.7	Policies 9.2, 9.3, 9.4, 9.9 & 9.12
3. <u>Subdivision of land located completely within the Stream corridor and / or River corridor.</u>	Policies 9.2, 9.3, 9.4, 9.9 & 9.12
4. The construction, placement or erection of any <i>building</i> in the <i>River corridor</i> or <i>stream corridor</i> <u>except where permitted for gravel extraction activities by Rule 9B.1.8.</u>	Policies 9.2, 9.3, 9.4, 9.9 & 9.12

Comment [KD81]: CI 16(2), Sched 1, RMA - there are no flood erosion areas in the PDP

Comment [KD82]: Corrects minor error, CI 16(2), Sched 1, RMA

Comment [KD83]: Responds to 319-24 Waikanae Christian Holiday Park Inc (El Rancho), 380-29 B, S & T Mansell, 416-24 H & L Wells (see new subdivision provision added to Rule 9B.4)

Comment [KD84]: 92-126 Winstone Aggregates

Rule 9B.6 Prohibited ActivitiesThe following activities are **prohibited** activities

Prohibited Activities	Reference
1. Except as provided for by Rule 9B.1.5-6 damage or destruction of flood mitigation structures or work (including any planting) in the <i>Open Space – Conservation and Scenic Zone</i> and <i>River Corridor</i> .	Policies 9.2, 9.3, 9.4, 9.9, 9.12 & 11.13
2. Landfills in the <i>River Corridor</i> .	Policies 9.4, 9.2 & 9.7

Comment [KD85]: CI 16(2), Sched 1, RMA

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*).

Comment [KD86]: CI 16(2), Sched 1, RMA

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 showing that the building is not located on the fault trace and/or fault rupture deformation and that the *building* or building sites are set back from that trace a suitable distance. If this cannot be achieved for whatever reasons, then consideration will be given to the *risks* associated with each fault and the physical limitations of the site.

Five *active fault* traces¹ have been identified and mapped within the District Plan and District Plan Maps, and they are as follows:

Comment [KD87]: CI 16(2), Sched 1, RMA

- 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

¹ The information on the five active faults 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.

most recently ruptured approximately 300-1000 years ago. It is expected that 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.

~~(The information on the five active faults 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.)~~

Comment [KD88]: Relocated to footnote.

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.

Comment [KD89]: CI 16(2), Sched 1, RMA

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 *subdivisions*, land uses and *developments* which are located within a *Fault Avoidance Area*, a *risk* management approach has been ~~will be~~ adopted and Council will consider a range of matters that seek to reduce the *risk* ~~to~~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; and
- b) The intensity of the *subdivision* and nature of future *development* of the ~~site~~lot(s), including building design and construction techniques, and the likelihood of building failure and/or loss of life if the fault ruptured ~~in~~ a-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*.

Reference

Objective
2.5

Comment [KD90]: CI 16(2), Sched 1, RMA

Explanation

The Southeast Reikorangi Fault has a very long Recurrence Interval Class of between 5000 years and 10000 years, therefore the likelihood of a rupture on this fault and the location of the fault in rural hill country areas where there is limited development potential mean that the risk is low. Therefore it does not warrant avoidance or mitigation of effects with the exception of BIC Type 2c, 3 and 4 buildings.

The Gibbs and Ōtaki Forks faults have a Recurrence Interval Class (between 3500 years to 5000 years) and where the fault avoidance area is identified as Well-Defined or Well-Defined Extension avoiding building over the fault trace or fault trace deformation could result in severe consequences. However, where along the Gibbs and Ōtaki Forks faults it is identified as Distributed, Uncertain Constrained or Uncertain Poorly Constrained, the likelihood based on the Recurrence Interval Class is sufficiently low to make further geotechnical investigations unnecessary.

Across all faults, including the Southeast Reikorangi Fault, construction of BIC Type 2c, 3 and 4 buildings is restricted because the nature of these buildings means that the risk associated with these elements are greatly increased.

Table 9.1: Recurrence intervals for Ohariu, Northern Ohariu, Gibbs, South-East Reikorangi and Ōtaki Forks Faults.

FAULT COMPLEXITY	RECURRENCE INTERVAL CLASS II	RECURRENCE INTERVAL CLASS III	RECURRENCE INTERVAL CLASS IV
	Ohariu Fault and Northern Ohariu Fault	Gibbs Fault and Ōtaki Forks Fault	South-East Reikorangi Fault

	2000yrs – 3500yrs	3500yrs – 5000yrs	5000yrs – 10000yrs
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Note: The information has been modified from a table prepared by GNS, 'Earthquake Fault Trace Survey, Kāpiti Coast District' 2003, however the resource consent categories have been modified as a result of submissions received by Kāpiti Coast District Council on Plan Change 61.

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 categories type 3 and 4 in Table 9.2*) will be located to avoid *Fault Avoidance Areas* where they are identified in the *Risk Management Approach*.

Reference

Objectives
2.5 & 2

Comment [KD91]: CI 16(2), Sched 1, RMA

Explanation

Due to the potential for larger numbers of people to congregate or work in community facilities, multi-unit housing, commercial areas or similar uses, these types of facilities should not be located within the Fault Avoidance Areas. *Industrial buildings and buildings* used for the storage of *hazardous substances* entail unacceptable risks to people and to the environment if located on the fault trace.

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:

- Geotechnical information ~~provided by~~ from a suitably qualified person on *liquefaction* provided with any *subdivision* or *development* application;
- The intensity of the *subdivision* and nature of future *development* of the site ~~lot~~, including building design and construction techniques;
- 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 sites ~~lots~~ are not suitable for *development* and any such proposal would be declined.

Reference

Objective
2.5

Comment [KD92]: CI 16(2), Sched 1, RMA

Explanation

The risk of liquefaction in the district is currently poorly understood. GNS is currently undertaking a study of these risks. Any person wanting to undertake subdivision, which creates additional lots on land with sandy, alluvial or peat soils will need to undertake a site specific investigation to determine actual liquefaction susceptibility risks and provide that information as part of the subdivision consent application.

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.

Reference

Objective
2.5

Comment [KD93]: CI 16(2), Sched 1, RMA

Explanation

~~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.~~

9.3.3 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** the Building Importance Table set out after the earthquake hazard rules.

Comment [KJD94]: CI 16(2), Sched 1, RMA

Rules and standards – Earthquake hazards

Rule 9C.0 Applicability of Rules 9C.1 – 9C.6

Rules 9C.1 to 9C.6 shall apply to all land and activities in all *Zones* unless otherwise specified.

Notes: [1] Notwithstanding the activity category defined by Rules 9C.1 to 9C.6 for any activity, attention is also drawn to the rules:

- [a] in Chapters 3, 9, 11 and 12 which apply to matters which apply across all *zones* in the District – for example, transport, carparking, vehicle access, traffic generation, signs; and
- [ab] in Chapters 5, 6, 7 and 8 that apply to specific land use *Zones* in the District – for example the Rural Plains Zone and the Open Space (Recreation) Zone.

The rules in these chapters may identify the activity as (or result in the activity being) a different activity category than expressed below. Additional clarity on activity category determination is provided in Chapter 1 (Section 1.1).

Comment [KJD95]: Responds to 451-105 & 106 R Crozier & J Allin

Rule 9C.1 Permitted Activities

The following activities are **permitted** activities, provided that they comply with all corresponding permitted activity standards and all relevant permitted activity standards in other chapters (unless otherwise specified).

Comment [SR96]: Responds to 451-105 & 106 R Crozier & J Allin

Permitted Activities	Standards	Reference
1. Any activities which are not specified as a Permitted, Controlled, Restricted Discretionary, Discretionary or Non Complying activity and complies with all permitted	1. The activity must comply with all permitted activity standards in Rule 9C.1	All relevant policies in this chapter.

Comment [KD97]: CI 16(2), Sched 1, RMA

Rule 9C.1 Permitted Activities

The following activities are **permitted** activities, provided that they comply with all corresponding permitted activity standards and all relevant permitted activity standards in other chapters (unless otherwise specified).

Permitted Activities	Standards	Reference
activity standards in this chapter.		
2. Buildings within <i>Fault Avoidance Areas</i> (as identified on the Natural Hazard Maps). Note: Refer to the Table 9.2 Building Importance Category and Table 9.3 Risk Based Matrix and Building Importance Category Table 9C below.	<p>2. Within <i>Well-Defined</i> and <i>Well Defined Extension</i> areas for Ohariu and Northern Ohariu faults: Buildings that are defined as <i>Building Importance Category (BIC) Type 1</i>; that comply with the permitted activity standards for the zone.</p> <p>3. Within <i>Well-Defined</i> and <i>Well Defined Extension</i> areas for the Gibbs and Ōtaki Forks faults: Structures that are defined as <i>BIC Type 1 and 2a</i>; that comply with the permitted activity standards for the zone.</p> <p>4. Within <i>Well-Defined</i> and <i>Well Defined Extension</i> areas for the Southeast Reikorangi Fault: Structures that are defined as <i>BIC Type 1, 2a and 2b</i>; that comply with the permitted activity standards for the zone.</p> <p>5. Within <i>Distributed, Uncertain-Constrained</i> and <i>Uncertain-Poorly Constrained</i> areas for the Ohariu and Northern Ohariu faults: Structures that are defined as <i>BIC Type 1 and 2a</i>.</p> <p>6. Within <i>Distributed, Uncertain-Constrained</i> and <i>Uncertain-Poorly Constrained</i> areas for the Gibbs, Ōtaki Forks and Southeast Reikorangi faults: Structures that are defined as <i>BIC Type 1, 2a and 2b</i>.</p>	<p>Policies 9.2, 9.3, 9.4, 9.14 & 9.15</p>

Comment [SR96]: Responds to 451-105 & 106 R Crozier & J Allin

Comment [KD98]: Corrects minor error, CI 16(2), Sched 1, RMA. The definition of Fault Avoidance Area refers to the fact that these are identified on the planning maps

Comment [KJD99]: CI 16(2), Sched 1, RMA

Rule 9C.3 Restricted Discretionary Activities

The following activities are **restricted discretionary** activities, provided that they comply with all corresponding restricted discretionary standards (unless otherwise specified).

Restricted Discretionary Activities	Standards	Matters over which Council will restrict its discretion	Reference	
<p>1. Subdivision proposing <u>additional developable lots where any part of the land is in the Fault Avoidance Area which creates additional developable lots</u></p> <p>Criteria for Notification The written approval of persons <u>will not be necessary and applications will not be served or notified.</u></p>	<p>1. Each lot shall be capable of providing a 200m² building site, which has a minimum horizontal dimension of 12 metres in any direction, clear of the identified Fault Avoidance Area (as shown in the Natural Hazards Maps), where the allotment lot is not a reserve or access lot.</p> <p>2. Building sites do not have to be clear of <i>the Fault Avoidance Areas</i> within the <i>Distributed, Uncertain-Constrained, and Uncertain-Poorly Constrained</i> Areas of the Gibbs and Ōtaki Forks faults and no geotechnical information will be required.</p> <p>3. The entire Southeast Reikorangi Fault, is excluded from this provision. (i.e. <i>zone</i> provisions apply).</p> <p>Criteria for Notification When assessing a resource consent application within the Fault Avoidance Areas, the effects associated with matters arising from the Fault Trace rules, shall be considered without the need to obtain the written approval of affected persons and need not be publicly notified.</p>	<p>1. The design and layout of the <i>subdivision, earthworks</i> and the location of any building site relative to the <i>Fault Avoidance Area</i>.</p> <p>2. Council's Subdivision and Development Principles and Requirements 2012.</p> <p>3. The imposition of financial contributions in accordance with Chapter 12 of this Plan.</p> <p>4. The imposition of conditions in accordance with sections 108 and 220 of the Resource Management Act.</p> <p>5. <i>Vehicle access</i> points onto legal road including the State Highway Network and any effects on the transport network.</p> <p>6. The location of any nominated building site relative to the <i>natural hazards, historic heritage features and sensitive natural features ecological sites, outstanding natural landscapes, and geological sites</i>.</p>	<p>Policies 9.2, 9.3, 9.4, 9.14 & 9.15</p>	<p>Comment [KJD100]: CI 16(2), Sched 1, RMA</p> <p>Comment [KD102]: CI 16(2), Sched 1, RMA</p> <p>Comment [KJD101]: CI 16(2), Sched 1, RMA</p> <p>Comment [KJD104]: CI 16(2), Sched 1, RMA</p> <p>Comment [KJD103]: CI 16(2), Sched 1, RMA</p>
<p>2. Buildings within Fault Avoidance Areas Building within <i>Fault</i></p>	<p>1. Geotechnical information shall be provided by a suitably qualified person demonstrating that the building is not located on a fault trace</p>	<p>1. The location of any building site relative to the location and depth of fault traces.</p>	<p>Policies 9.2, 9.3, 9.4, 9.14 and 9.15</p>	<p>Comment [KD105]: CI 16(2), Sched 1, RMA</p>

Rule 9C.3 Restricted Discretionary Activities

The following activities are **restricted discretionary** activities, provided that they comply with all corresponding restricted discretionary standards (unless otherwise specified).

Restricted Discretionary Activities	Standards	Matters over which Council will restrict its discretion	Reference
<p><i>Avoidance Areas</i> that:</p> <p>a) Do not comply with the permitted activity standards; or</p> <p>b) Are identified as a restricted discretionary activity in the Table 9.3 Risk Based Matrix, Table 9.3 and Table 9.2 Building Importance Category Table 9.2.</p>	and/or fault trace deformation. The information shall identify the location and depth of the Fault Trace in respect of any building platform. The information shall be recorded using Geographical Positioning Satellite (GPS) Information System.	2. The location and design of buildings to mitigate effects from a fault rupture hazard.	
	2. Within <i>Well-Defined</i> and <i>Well-Defined Extension</i> Areas for the Ohariu and Northern Ohariu faults: Structures that are defined as <i>BIC</i> Type 2a and 2b.	4. The manner in which the topography, land features of the <i>site-property</i> and access to <i>infrastructure</i> affect the ability to locate the building site.	
	3. Within <i>Well-Defined</i> and <i>Well-Defined Extension</i> Areas for the Gibbs and Ōtaki Forks faults: Structures that are defined as <i>BIC</i> Type 2b.	5. In respect to <i>BIC</i> Type 2c buildings; the nature, scale and use of those buildings.	
	4. Within <i>Distributed, Uncertain-Constrained</i> and <i>Uncertain-Poorly Constrained</i> Areas for Ohariu and Northern Ohariu faults: Structures that are defined as <i>BIC</i> Type 2b.		
	5. Within all <i>Fault Avoidance Areas</i> for all faults: Structures that are defined as <i>BIC</i> Type 2c.		
3. <u>Subdivision</u> of land with peat or sand soils. <u>This rule does not apply to boundary adjustments.</u>	1. Geotechnical information shall be provided by a suitably qualified and experienced person (to building consent level) on <i>liquefaction risk</i> .	1. The outcomes of the geotechnical investigation on <i>liquefaction risk</i> .	Policies 9.4 & 9.16
	2. Proposed building areas with a minimum	2. Whether the potential <i>risk</i> to the health and safety of people, and property from	

Comment [KD106]: CI 16(2), Sched 1, RMA

Comment [KD107]: CI 16(2), Sched 1, RMA

Comment [KD108]: 440-58 KCDC Seeks to add cross reference in the rules for subdivision in all zone chapters.

Comment [KD109]: Responds to 550.47 Cuttriss Consultants Ltd

Rule 9C.3 Restricted Discretionary Activities

The following activities are **restricted discretionary** activities, provided that they comply with all corresponding restricted discretionary standards (unless otherwise specified).

Restricted Discretionary Activities	Standards	Matters over which Council will restrict its discretion	Reference
	dimension of 20 metres shall be identified for each lot.	<p><i>liquefaction</i> can be avoided or mitigated.</p> <p>3. The design and layout of the subdivision including <i>earthworks</i>, servicing and the location of any building platforms.</p> <p>4. Council's Subdivision and Development Principles and Requirements 2012.</p> <p>5. The imposition of financial contributions in accordance with Chapter 12 of this Plan.</p> <p>6. The imposition of conditions in accordance with sections 108 and 220 of the Resource Management Act.</p> <p>7. <i>Vehicle access</i> points onto legal road including the State Highway Network and any effects on the transport network.</p> <p>8. The location of any nominated building site relative to the <i>natural hazards</i>, heritage features, <i>ecological sites</i>, <i>outstanding natural landscapes</i>, and <i>geological sites</i> and <i>sensitive natural features</i>.</p>	
4. Any new <i>building</i> defined as <i>BIC</i> Type 2c, 3 and 4 located on land with sand or	1. Geotechnical information shall be provided by a suitably qualified and experienced person (to building consent level) on <i>liquefaction</i> .	1. The outcomes of the geotechnical investigation on <i>liquefaction</i> by a suitably qualified and experienced person.	Policies 9.4 & 9.16

Comment [KD110]: CI 16(2), Sched 1, RMA

Rule 9C.3 Restricted Discretionary Activities

The following activities are **restricted discretionary** activities, provided that they comply with all corresponding restricted discretionary standards (unless otherwise specified).

Restricted Discretionary Activities	Standards	Matters over which Council will restrict its discretion	Reference
peat soils.		<ol style="list-style-type: none"> 2. Whether the potential <i>risk</i> to the health and safety of the people and property from <i>liquefaction</i> can be avoided or mitigated. 3. The design and location of the <i>building</i>. 	

Rule 9C.4 Discretionary Activities The following activities are discretionary activities		
Discretionary Activities	Assessment Criteria	Reference
1. Subdivision within Fault Avoidance Areas Subdivision of where any part of the land identified as being is within the <i>Fault Avoidance Area</i> for all of the Ohariu and Northern Ohariu faults, and or within the <i>Well-Defined</i> and <i>Well-Defined Extension Areas</i> for the Gibbs and Ōtaki Forks faults (see Natural Hazards District Plan Maps for detail); and where a 200m ² building site, which has a minimum dimension of 12 metres, is not provided clear of the identified <i>Fault Avoidance Area</i> and where the <i>subdivision</i> would otherwise be a restricted discretionary activity under Rule 9C.3.1.	1. The location of any building site relative to the location and depth of fault traces. 2. The manner in which the topography, land features of the site and access to <i>infrastructure</i> affect the ability to locate the building site. 3. For the Rural Zone, in respect to BIC Type 2c buildings; the nature, scale and use of those buildings. 4. The adequacy of geotechnical information shall be provided by a suitably qualified person demonstrating that any building is not located on the fault trace and/or fault rupture deformation. The information shall include the location and depth of the Fault Trace in respect of any building platform, recorded using Geographical Positioning Satellite (GPS) Information Systems. 5. The location and design of buildings to mitigate effects from a fault rupture hazard. 6. The level of <i>risk</i> posed by the fault trace rupturing. 7. Identification on a survey plan of any 'Building Exclusion Zones' where no part of a building may be located.	Policies 9.2, 9.3, 9.4, 9.14 & 9.15
Note: Refer to the Table 9.2 Building Importance Category and Table 9.3 Risk Based Matrix and Building Importance Category Table 9C below.	Criteria for Notification (Rural Zone) When assessing a resource consent application within the <i>Fault Avoidance Areas</i> , the effects associated with matters arising from the <i>Fault</i> rules, shall be considered without the need to obtain the written approval of affected persons and need not be publicly notified.	
Criteria for Notification The written approval of persons		

Comment [KD111]: 440-57 KCDC

Comment [KJD112]: CI 16(2), Sched 1, RMA

Comment [KD115]: CI 16(2), Sched 1, RMA

Comment [KJD113]: CI 16(2), Sched 1, RMA

Comment [KJD114]: CI 16(2), Sched 1, RMA

Rule 9C.4 Discretionary Activities

The following activities are **discretionary** activities

Discretionary Activities	Assessment Criteria	Reference
<u>will not be necessary and applications will not be served or notified.</u>		

Rule 9C.5 Non Complying Activities The following are non complying activities	
Non-Complying Activities	Reference
1. The location of structures defined as <i>BIC</i> Type 3 and Type 4 and any Type 1, 2a, 2b, 2c structure associated with a Type 3 and/or Type 4 structure or activity within the <i>Fault Avoidance Areas</i> (refer to the <u>Table 9.3 Risk Based Matrix and Table 9.2 Building Importance Category Table</u> below).	Policies 9.2, 9.3, 9.4, 9.14 & 9.15
2. Network utilities within <i>Fault Avoidance Areas</i>.	Policies 9.2, 9.3, 9.4, 9.14 & 9.15

Comment [KJD116]: CI 16(2), Sched 1, RMA

Comment [KJD117]: Moved to Ch 11 Infrastructure

Table 9.2: Building Importance Category (BIC) and Representative Examples (as modified from source GNS, 'Earthquake Fault Trace Survey Kāpiti Coast District, 2003')

Comment [KD118]: Cl 16(2), Sched 1, RMA - duplicates note below the table

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 site <u>property</u>).	<ul style="list-style-type: none"> • 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 residential construction <300m ² .	<ul style="list-style-type: none"> • Timber framed single-storey dwellings <300m² • 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.	<ul style="list-style-type: none"> • Timber framed with multiple storeys • Timber framed houses with area >300m² • Houses outside the scope of NZS 3604 "Timber Framed Buildings"
2c	Normal Structures (including structures not in other categories).	<ul style="list-style-type: none"> • 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 <i>risks</i> to people in crowds.	<ul style="list-style-type: none"> • Public assembly buildings. • Theatres and cinemas <1000m² • 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 disaster functions.	<ul style="list-style-type: none"> • Major infrastructure facilities • 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 site – 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 defined in Table 9.2 and adapted 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*.

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 site – 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 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 Erosion and Slope Stability

Comment [SR119]: Erosion and slope stability section proposed to be withdrawn

9.4.1 Introduction

Landslips pose a significant risk not only to existing properties within the district but also to regional and nationally significant infrastructure including transport routes such as SH4 and the rail corridor. In the southern and southeastern parts of the district the terrain is steep and slopes have a very high susceptibility to slope failure. Predictions of changing weather patterns from climate change suggest that there could be more frequent and intense rainstorm events which may cause more damage to erosion prone land and increase risk to people and property. The erosion prone land within the district is shown on the Natural Hazard Planning maps. The erosion susceptibility mapping was undertaken in a study for the Ministry for the Environment. The maps show erosion risk categories from very high to no risk.

9.4.2 Erosion and Slope Stability Policies

Policy 9-18 – Erosion Risk Assessment

When assessing applications for subdivisions and developments which are located on land which has a moderate or high erosion risk, a risk management approach will be taken and Council will consider a range of matters that seek to reduce the risk to people and property, including:

- a) geotechnical information provided by a suitably qualified person on slope stability provided with any subdivision or development application;
- b) engineering information for mitigation or remediation works if practicable;
- c) the intensity of the subdivision and nature of future development of the site;
- d) any measures proposed to avoid or mitigate any potential effects on slope stability including the retirement and planting of steeper land.
- e) the extent to which any subdivision or building will, or may, result in damage to property or harm to people.
- f) the activity or any subsequent use of the land and the potential of those activities to increase erosion or instability or result in material damage to any structure or building on that land or any other land.

Reference

Objective
2-5

Explanation

The areas of moderate or high erosion prone land are illustrated on the district planning maps. People wanting to undertake subdivision or development on land which has a moderate to high susceptibility to erosion will be required to provide a geotechnical assessment as part of their subdivision or land use consent application. Subdivision and development will not be undertaken on land where there is an erosion risk that cannot be remediated.

Policy 9-19 — Erosion Risk Avoidance

Subdivision and development on land identified in the District Plan maps as having moderate or high erosion risk will be avoided, unless a comprehensive engineering and geotechnical report demonstrates that the land is sufficiently stable for the subdivision or development activities proposed.

Reference

Objective
2-5

Explanation

Areas prone to erosion have been identified in the District Plan Natural Hazard maps. These areas are steep hill country areas where little development is anticipated. These areas are commonly used for forestry activities and less commonly for pastoral farming and rural living.

9.4.3 Erosion and Slope Stability Rules and Standards

The following rules for erosion and slope stability apply to all zones. The erosion-prone land within the district is illustrated on the Natural Hazard Maps and is based on an assessment undertaken by the Ministry for the Environment which takes into account a number of factors including slope, soil type and exposure to weather patterns.

Rules and standards – Erosion and slope stability

Rule 9D.0 – Applicability of Rules 9D.1 – 9D.3

Rules 9D.1 to 9D.3 shall apply to all land and activities in all Zones unless otherwise specified.

Notes: — [1] — Notwithstanding the activity category defined by Rules 9D.1 to 9D.3 for any activity, attention is also drawn to the rules:

- [a] — in Chapters 3, 9, 11 and 12 which apply to matters which apply across all zones in the District — for example, transport and hazardous substances; and
- [a] — in Chapters 5, 6, 7 and 8 that apply to specific land use Zones in the District — for example the Rural Plains Zone and the Open Space (Recreation) Zone.

The rules in these chapters may identify the activity as (or result in the activity being) a different activity category than expressed below. Additional clarity on activity category determination is provided in Chapter 1 (Section 1.1).

Rule 9D.1 – Permitted Activities

The following activities are permitted activities, provided that they comply with all corresponding permitted standards (unless otherwise specified):

Permitted Activities	Standards	Reference
1. Any activities which are not specified as Permitted, Controlled, Restricted Discretionary, Discretionary or Non-Complying activity and complies with all permitted activity standards		All relevant policies in this chapter

Rule 9D.1. Permitted Activities

The following activities are permitted activities, provided that they comply with all corresponding permitted standards (unless otherwise specified).

Permitted Activities	Standards	Reference
in this chapter.		
2. Any extension to an existing habitable building on land shown as having high erosion susceptibility (as shown on the Natural Hazard maps)	1. The extension shall not exceed 15% of the total floor space of the existing room or 20m ² , whichever is lesser, in any 10-year period.	Policies 9.2, 9.3, 9.4 & 9.18

Rule 9D.3. Restricted Discretionary Activities

The following activities are restricted discretionary activities, provided that they comply with all corresponding restricted discretionary standards (unless otherwise specified):

Restricted Discretionary Activities	Standards	Matters over which Council will restrict its discretion	Reference
<p>Subdivision of land with a slope greater than 25 degrees and having high erosion susceptibility (as shown on the Natural Hazard maps).</p> <p><i>Boundary adjustments where no new lots are created are excluded from this rule.</i></p>	<p>A report from an appropriately qualified and experienced person shall be provided demonstrating that any habitable building, network utility, access, and earthworks required will not be likely to nor contribute to damage to any habitable building, access or network utility or any adjoining property arising from slope instability.</p>	<p>The outcomes of the report into slope instability from an appropriately qualified and experienced person.</p> <p>Any measures proposed to avoid or mitigate any potential effects on slope stability including the retirement and planting of steeper land.</p> <p>The design and layout of the subdivision including earthworks.</p> <p>Council's Subdivision and Development Principles and Requirements 2012.</p> <p>The imposition of financial contributions in accordance with Chapter 1 of this Plan.</p> <p>The imposition of conditions in accordance with sections 108 and 220 of the Resource Management Act.</p> <p>Vehicle access points onto legal road including the State Highway Network and any effects on the transport network.</p> <p>The location of any nominated building site relative to the natural hazards, heritage features and sensitive natural features.</p>	<p>Policies 9.2, 9.3, 9.4, 9.18 & 9.19</p>
<p>Any new or relocated buildings</p>	<p>A report from an appropriately qualified and</p>	<p>The outcomes of the report into slope</p>	<p>Policies 9.2, 9.3,</p>

Rule 9D.3- Restricted Discretionary Activities

The following activities are restricted discretionary activities, provided that they comply with all corresponding restricted discretionary standards (unless otherwise specified):

Restricted Discretionary Activities	Standards	Matters over which Council will restrict its discretion	Reference
on land with a slope greater than 25 degrees or having high erosion susceptibility (as shown on the Natural Hazards maps).	experienced person shall be provided demonstrating that any habitable building, network utility, access, and earthworks required will not be likely to nor contribute to damage to any habitable building, access or network utility or any adjoining property arising from slope instability.	instability from an appropriately qualified and experienced person. Any measures proposed to avoid or mitigate any potential effects on slope stability including the retirement and planting of steeper land.	9.4, 9.18 & 9.19
Any extension to an existing building on land with a slope greater than 25 degrees or any extension to a building on land shown as having high erosion susceptibility which does not comply with permitted activity standard 9D.1.1.1.	A report from an appropriately qualified and experienced person shall be provided demonstrating that any habitable building, network utility, access and earthworks required will not be likely to nor contribute to damage to any habitable building, access or network utility or any adjoining property arising from slope instability.	The outcomes of the report into slope instability from an appropriately qualified and experienced person. Any measures proposed to avoid or mitigate any potential effects on slope stability including the retirement and planting of steeper land. The ability to meet the objectives and policies for the zone and Hazards Chapter. The extent to which the activity could increase the risk posed by the natural hazard.	Policies 9.2, 9.3, 9.4, 9.18 & 9.19
Earthworks (not associated with forestry) on land with a slope greater than 25 degrees and having high erosion susceptibility (as shown on the Natural Hazard maps).		The scale and design of the earthworks. Any potential effects of the earthworks on erosion and slope stability. Any mitigation measures proposed.	Policies 9.2, 9.3, 9.4, 9.18 & 9.19

9.5 Fire Hazards

9.5.1 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 in high risk fire hazard zones, 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 sets a requirement that requires all residential properties in rural areas (developed since 1999) must to have a water tank situated on their property, so that they 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.

Comment [KJD120]: Cl 16(2), Sched 1, RMA. The PDP does not identify high risk fire hazard zones.

Comment [KJD121]: Cl 16(2), Sched 1, RMA

9.5.2 Fire Hazard Policy

Policy 9.21 – Fire hazards

Risks to people and property from fire hazards will be required to be minimised by:

- Requiring *plantation forestry* and forestry harvesting activities in rural and *open space zones* to be designed to enable quick response to fire; and
- Requiring *subdivision and development in rural zones* to provide water for firefighting; and
- Requiring access and adequate fire fighting water supplies to be provided for fire appliances in all zones.

Reference

Object 2.5 **Comment [KJD122]:** Cl 16(2), Sched 1, RMA

Comment [KJD123]: Cl 16(2), Sched 1, RMA

Explanation

~~Fire fighting can be less effective in minimising damage in the district by structures which impede access for fire appliances. In urban areas fire hydrants are provided connected to the pressurised water reticulation system, in rural areas there is generally no reticulation therefore water storage in tanks or dams is required to enable fire fighting.~~

~~There is a high risk of fire occurring in plantation forestry; therefore a fire plan is required prior to commencing a new plantation forestry activity, including harvesting existing plantations.~~

9.5.3 Fire Hazard Rules and Standards

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

9.6 ~~Man-made Hazards: 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~~ is also relevant to this chapter:

- 2.5 Natural Hazards

Comment [SR124]: 441-48 GWRC

Comment [KJD125]: Corrects minor error, Cl 16(2), Sched 1, RMA

9.6.1 Introduction

~~The District Plan adopts measures that minimise the risks to people, property and the natural environment including the risk of future contamination of land. Contaminated land management deals with the clean-up, remediation and reuse of land which is already contaminated, often as a result of past activities.~~

~~These controls are complementary to the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2012, New Zealand Standards, Regulations and Legislation for activities involving dangerous, toxic and explosive substances. They are not a substitution for the site and zone standards of the relevant zone, or any other legislation that deals with hazardous substances, such as Hazardous Substances and New Organisms Act (HSNO), Medicines Act, and Health and Safety in Employment Act or any subsequent legislation. Consent may also be required from Greater Wellington Regional Council.~~

9.6.2 (Hazardous Substances Policies was withdrawn 30 October 2014)

9.6.3 Contaminated and Potentially Contaminated Land

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 the effects of land use, development and protection to prevent or mitigate the adverse effects of the development, subdivision or use of contaminated land (Section 31(4)).

The Council uses Greater 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.

~~HAIL is a list of activities that are considered likely to cause land contamination and therefore provides guidance for identifying potentially contaminated land. HAIL is available at: <http://www.mfe.govt.nz> and at Kāpiti Coast District Council offices.~~

~~Wellington Regional Council's SLUR contains six different classifications relating to contaminated land:~~

- ~~• Verified history of HAIL~~
- ~~• Unverified history of HAIL~~
- ~~• Contamination confirmed~~
- ~~• Contamination acceptable / managed / remediated~~
- ~~• No identified contamination~~
- ~~• Entered into database in error~~

Comment [SR126]: Cl 16(2), Sched 1, RMA - Heading 9.6.1 Introduction, now applies

Comment [KJD127]: Cl 16(2), Sched 1, RMA - amended to better reflect the RMA provisions

Comment [KD128]: See 136-1 & 2 NZ Wind Energy Association, 138-1 B Coe, 446-1 A Darragh, 548-1 M Cox, 581-1 Norm Antcliff, 715-5 Sharif Family Trust. In this case, this is background information which does not need to be provided at this level of detail in the introduction.

These records are used by the Council when assessing applications for resource consents, to ~~managing~~ **manage** the adverse effects resulting from a change in land use or *subdivision of contaminated land*. Typically remediation 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 remedy 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 contaminants rather than remedy these sites at a significant cost.

Comment [KD129]: 440-60 KCDC

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 where necessary, ensuring that the land is remediated or contaminants contained, is recognised in the development of the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations ~~2012~~2011. These controls are mandatory and apply to specific activities which heighten risks to human health on sites which are identified as potentially contaminated, e.g. earthworks or a change from industrial or horticulture to residential use. The National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health does not address environmental impacts.

Comment [KJD130]: Cl 16(2), Sched 1, RMA

~~When resource consent is necessary under the rules in this sub-chapter, the objectives and policies are to be considered in conjunction with the objectives and policy provisions for the plan for the underlying Area.~~

Comment [KJD131]: Cl 16(2), Sched 1, RMA - Deleted as there are no longer any rules in this subchapter.

9.6.3 Contaminated Land Policies

Comment [SR132]: Numbering error needs correction. Previous section also numbered 9.6.3

Policy 9.29 – Identify contaminated and potentially contaminated land

Comment [SR133]: 441-55 GWRC

Reference

Contaminated and potentially contaminated land in the District will be identified, including through the consent or plan change processes, to enable the land to be managed or remediated to eliminate any unacceptable risk to adverse effects on the environment.

Object 2.10

Comment [KD134]: CI 16(2), Sched 1, RMA

Comment [KD135]: 441-55 GWRC

Policy 9.30 – Criteria for Identification

Reference

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

Object 2.10

Comment [KD136]: CI 16(2), Sched 1, RMA

Comment [KJD137]: Consequential on response to 512-15 & 16 The Oil Companies. Also CI 16(2), Sched 1, RMA

Explanation (Policies 9.29 and 9.30)

Not all the contaminated land in the District has been identified. As a guideline for identifying potentially contaminated land, the Council uses the Hazardous Activities and Industries List (HAIL). The HAIL identifies most situations in New Zealand where hazardous substances could cause land contamination and is used to identify sites for inclusion on Greater Wellington Regional Council’s Selected Land Use Register (SLUR). HAIL lists 52 specific land uses that can potentially cause contamination.

Land owners are required to assess the risk posed by land identified as contaminated or potentially contaminated at the time of lodging an application for resource consent or a request for a private change so that the Council can be satisfied that the land is safe for the proposed end land use.

Policy 9.31 – Site Investigations

Reference

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

Object 2.10

Comment [KJD138]: Consequential on response to 512-15 & 16 The Oil Companies

Comment [KD139]: CI 16(2), Sched 1, RMA

Policy 9.32 – Management or Remediation

Any development, subdivision or change in land use on HAIL land, or land identified as contaminated or potentially contaminated land by the Kāpiti Coast District Council or the Wellington Regional Council's SLUR database, that is reasonably likely to increase the risk of exposing people or the environment to contaminants, will be managed or remediated to eliminate any unacceptable risk to adverse effects on the environment by management or remediation of the contaminated land.

Reference

- Object 2.10
- Comment [KJD140]:** Cl 16(2), Sched 1, RMA. Definition of 'potentially contaminated' covers the HAIL and SLUR references.
- Comment [KJD141]:** Cl 16(2), Sched 1, RMA. Reworded to improve clarity.
- Comment [KD142]:** 441-56 GWRC

Explanation (Policies 9.31 and 9.32)

Site investigations will be required when land has been used for an activity which could result in contamination. The investigations are to determine whether the land is contaminated and what level of contamination is present.

Risk is the potential for adverse consequences resulting from a hazard. It quantifies the likelihood that a hazard's potential to cause harm will be realised. Decision-making requires clearly defined criteria about acceptable and unacceptable risk.

The precise level of acceptable risk varies depending on the scale and nature of the contaminant source, its location relative to any potential receptors (ecosystems, plants, animals, people) and the exposure scenario (how the receptors might come into contact with the hazard). The Ministry for the Environment's Contaminated Land Management Guidelines No. 2 – Hierarchy and Application in New Zealand for Environment Guideline Values (updated 2011) was developed to ensure the consistent selection and application of environmental guidelines. The Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 incorporates the Ministry for the Environment's Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health, which includes Soil Guideline Values (SGV_{health}) for 12 contaminants in soil, calculated for five generic land use exposure scenarios at which the exposure is judged to be acceptable because the adverse effects on human health for most people are likely to be no more than minor.

Note: 'Contaminated Land Management Guidelines No. 1 to No. 5' Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health and the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulation 2001 is available from www.mfe.govt.nz or Council Offices.

Policy 9.33 – Ensure fit for use

The remediation and/or 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.

Reference

- Objective 2.10

Explanation

Land identified as contaminated or potentially contaminated is required to be made safe for its proposed end land use by the land owner as a result of giving effect to a resource consent or private plan change.

Policy 9.34 – Assessment Criteria

~~When considering whether contaminated or potentially contaminated land is safe for its intended use, subdivision or development, Council will have regard to the following:~~

- ~~a) the nature and extent of any contamination of soil or groundwater and the potential sources of contamination;~~
- ~~b) the approach to any proposed remediation, and/or ongoing management of the contamination, including:

 - ~~i. extent of earthworks or removal of materials undertaken, including any method to control the release of contaminants into the environment;~~
 - ~~ii. treatment or disposal methods for contaminated or potentially contaminated materials, soil or water;~~
 - ~~iii. measures employed to prevent or mitigate any adverse effects on human health, water quality, or the downstream receiving environment are appropriate;~~
 - ~~iv. methods to address the risk of the contamination to public health and safety and that of workers involved in site works;~~~~
- ~~c) the extent to which the effects of remediation are acceptable;~~
- ~~d) the suitability of the land for its intended use;~~
- ~~e) whether adequate measures will be taken to ensure the safe operation of the proposal on the land.~~

Refer
Object
2.2 & 2.10

Comment [SR143]: Consequential on response to 512-15 & 16 The Oil Companies. Now reflected in information requirements in Ch 1.

Explanation

The assessment criteria are designed to guide both the applicant and the Council in providing clarity around what is to be assessed when considering resource consents for contaminated land. There are further requirements in relation to effects on human health in the National Environmental Standard for Sources of Human Drinking Water, specifically Regulations 11, 12 and 13 which the council will take into consideration in resource consent conditions.

Note: Reference to the Ministry for the Environment's Contaminated Guidelines No 1 to 5 will assist applicants in achieving compliance with above criteria.

9.6.4 Contaminated Land Rules and Standards

~~The following rules shall apply to activities that involve the disturbance or use of *contaminated or potentially contaminated land*. Consideration shall be given to the relevant rules and conditions for the *zone* in which the activity is to be located. Regard shall be had to all Objectives and Policies which may be relevant to any proposed activity subject to the provisions of these rules.~~

Comment [KD144]: Consequential on amendments below re 512-15 & 16 The Oil Companies

~~The National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health, which the Council is responsible for enforcing, is applicable to this topic. The rules of the NES apply to managing the effects of contaminants in soil on human health. The District Plan rules apply to managing other effects, including the effects of contaminants on eco-systems. The Standard is available at: <http://www.mfe.govt.nz> and at Kāpiti Coast District Council offices.~~

Rules and Standards – Contaminated land

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

Comment [KJD145]: 512-15 & 16 The Oil Companies

~~No rule in any chapter of this Plan that duplicates or conflicts with the NES shall apply. The NES applies in addition to all other rules in any chapter of this Plan applicable to the same areas or sites.~~

Rule 9E.0. Applicability of Rules 9E.1 – 9E.5

Rules 9E.1 to 9E.5 shall apply to all land and activities in all Zones unless otherwise specified.

Notes: [1] ~~Notwithstanding the activity category defined by Rules 9E.1 to 9E.5 for any activity, attention is also drawn to the rules:~~
~~[a] in Chapters 3, 9, 11 and 12 which apply to matters which apply across all zones in the District – for example, transport; and~~
~~[a] in Chapters 5, 6, 7 and 8 that apply to specific land use Zones in the District – for example the Rural Plains Zone and the Open Space (Recreation) Zone.~~

The rules in these chapters may identify the activity as (or result in the activity being) a different activity category than expressed below. Additional clarity on activity category determination is provided in Chapter 1 (Section 1.1).

Rule 9E.1 Permitted Activities

The following activities are ~~permitted~~ activities, provided that they comply with all corresponding permitted standards (unless otherwise specified).

Permitted Activities	Standards	Reference
1. Any activities which are not specified as Permitted, Controlled, Restricted Discretionary, Discretionary or Non-Complying activity and complies with all permitted activity standards in this chapter.		All policies in this chapter
2. [Rule withdrawn 30 October 2014].		

Rule 9E.1 Permitted Activities

The following activities are ~~permitted~~ activities, provided that they comply with all corresponding ~~permitted~~ standards (unless otherwise specified).

Permitted Activities	Standards	Reference
3. Disturbing the soil of contaminated or potentially contaminated land.	<ol style="list-style-type: none"> 1. Controls shall be put in place to minimise any potential adverse environmental effects during the disturbance works. 2. The soil shall be reinstated to an erosion resistant state within 1 month of completing the sampling or subsurface works. 3. Where there is a structure in place designed to contain contaminants the integrity of the structure shall not be compromised. 4. Removed soil shall be disposed at a facility authorised to receive such waste. 5. The volume of soil disturbance shall be less than or equal to 25m³ per 500m². 6. A maximum of 5m³ per 500m² of soil shall be removed from the site per year, excluding soil taken for samples. 7. The duration of soil disturbance shall be no longer than 2 months. 	Policies 11.11 & 11.22
4. Soil sampling of contaminated or potentially contaminated land.	<ol style="list-style-type: none"> 1. Controls shall be put in place to minimise any potential adverse environmental effects during the disturbance works. 2. The soil shall be reinstated to an erosion resistant state within one month of completing the sampling or subsurface works. 3. Soil shall be only removed from the land as samples for the purpose of laboratory analysis. 4. Where there is a structure in place designed to contain contaminants the integrity of the structure shall not be compromised. 	Policies 11.11 & 11.22
5. Removal or replacement of a fuel storage system.	<ol style="list-style-type: none"> 1. The removal, investigation, remediation, validation and management processes shall be undertaken in accordance with the current edition of the Guidelines for Assessing and Managing Petroleum Hydrocarbon Contaminated Sites in New Zealand. 	Policies 11.11 & 11.22

Rule 9E.1 Permitted Activities

The following activities are ~~permitted~~ activities, provided that they comply with all corresponding permitted standards (unless otherwise specified).

Permitted Activities	Standards	Reference
	2. Within 3 months of the activity being completed the Council shall be provided with a copy of the results required by the guidelines. 3. Prior to the activity commencing the Council shall be advised in writing of: a) The location and address of the activity; b) The dates the activity will begin and end; c) The name of the authorised facility where any removed soil will be disposed of. 4. No more than 30m³ of soil per tank shall be disturbed or removed from the site. 5. The duration of the activity shall be no longer than 2 months.	
6. Change of land use of contaminated or potentially contaminated land.	1. A preliminary site investigation of the site has been undertaken confirming that the contamination levels are acceptable for the purposed land use. 2. The report is provided to the Council within 1 month of being completed. 3. The proposed use complies with the relevant rules in the underlying zone.	Policies 11.11 & 11.22

Rule 9E.2 Controlled Activities

The following activities are **controlled** activities, provided that they comply with all corresponding controlled standards (unless otherwise specified).

Controlled Activities	Standards	Matters over which Council reserves control	Reference
4. [Rule withdrawn 30 October 2014].			
2. Removing or replacing fuel storage system, sampling soil, disturbing soil or change of use that does not meet one of the permitted activity standards under Rules 9E.1.3, 9E.1.4, 9E.1.5. and 9E.1.6.	1. A detailed site investigation shall be provided to the Council. 2. The detailed site investigation, including a risk assessment undertaken for all receptors, shall follow the hierarchy of guideline values in the Ministry for the Environment's Contaminated Land Management Guidelines No. 2 – Hierarchy and Application in New Zealand of Environmental Guideline Values. 3. The conditions of the investigation are compiled with.	1. Adequacy of site investigation including: a) Site sampling; b) Laboratory analysis; c) Risk Assessment. 2. Adequacy of Management Practices including: a) A site management plan; b) Monitoring; c) Reporting. 3. The transport, disposal and tracking of soil and other materials taken away in the course of the activity. 4. The timing and nature of the review of the conditions in the resource consent. 5. The duration of the resource consent. 6. Imposition of conditions in accordance with section 102 and 108 of RMA.	Policies 9.29, 9.30, 9.31, 9.32 & 9.33

Rule 9E.3. Restricted Discretionary Activities

The following activities are ~~restricted discretionary activities~~, provided that they comply with all corresponding ~~restricted discretionary standards (unless otherwise specified)~~.

Restricted Discretionary Activities	Standards	Matters over which Council will restrict its discretion	Reference
1. Removing or replacing fuel storage system, sampling soil, disturbing soil, or change of land use that does not meet controlled activity standards 9E.2.2.2 or 9E.2.2.3.	1. A detailed site investigation shall be provided to the Council. 2. The detailed site investigation, including a risk assessment undertaken for all other receptors shall follow the hierarchy of guideline values in the Ministry for the Environment's Contaminated Land Management Guidelines No. 2 – Hierarchy and Application in New Zealand of Environmental Guideline Values. 3. The conditions of the investigation are compiled with.	1. Adequacy of site investigation including: a) Site sampling; b) Laboratory analysis; c) Risk Assessment. 2. Adequacy of Management Practices including: a) A site management plan; b) Monitoring; c) Reporting. 3. Adequacy of the methods of mitigation, remediation or on-going management. 4. Suitability of land for proposed activity. 5. Requirements for and conditions of a financial bond. 6. The transport, disposal and tracking of soil and other materials taken away in the course of the activity. 7. The timing and nature of the review of the conditions in the resource consent. 8. The duration of the resource consent. 9. Imposition of conditions in accordance with section 102 and 108 of RMA.	Policies 9.29, 9.30, 9.31, 9.32 & 9.33

Rule 9E.3. Restricted Discretionary Activities

The following activities are ~~restricted discretionary activities~~, provided that they comply with all corresponding ~~restricted discretionary standards~~ (unless otherwise specified).

Restricted Discretionary Activities	Standards	Matters over which Council will restrict its discretion	Reference
1. Subdivision of contaminated or potentially contaminated land	1. A detailed site investigation shall be provided to the Council. 2. The detailed site investigation, including a risk assessment undertaken for all other receptors shall follow the hierarchy of guideline values in the Ministry for the Environment's Contaminated Land Management Guidelines No. 2 – Hierarchy and Application in New Zealand of Environmental Guideline Values. 3. The conditions of the investigation are compiled with.	1. Adequacy of site investigation including: a) Site sampling; b) Laboratory analysis; c) Risk Assessment. 2. Adequacy of Management Practices including: a) A site management plan; b) Monitoring; c) Reporting. 3. Adequacy of the methods of mitigation, remediation or on-going management. 4. Suitability of land for proposed activity. 5. Requirements for and conditions of a financial bond. 6. The transport, disposal and tracking of soil and other materials taken away in the course of the activity. 7. The timing and nature of the review of the conditions in the resource consent. 8. The duration of the resource consent. 9. Imposition of conditions in accordance with section 102 and 108 of RMA. 10. Imposition of financial contributions in	Policies 9.29, 9.30, 9.31, 9.32 & 9.33

Rule 9E.3. Restricted Discretionary Activities

The following activities are ~~restricted discretionary~~ activities, provided that they comply with all corresponding ~~restricted discretionary~~ standards (unless otherwise specified).

Restricted Discretionary Activities	Standards	Matters over which Council will restrict its discretion	Reference
		accordance with Chapter 12 of the Plan	

9E.4 Discretionary Activities

The following activities are ~~discretionary~~ activities.

Discretionary Activities	Assessment Criteria	Reference
1. [Rule withdrawn 30 October 2014].		
2. Any activity not meeting activity standard 9E.2.2.1.	1. Consistency with the relevant Plan policies, including (but not limited to): <ul style="list-style-type: none"> a) Natural Environment Policies 3.1, 3.3-3.5, 3.8 and 3.12-3.15 b) Coastal Environment Policies 4.3-4.5 c) Hazards Policies 9.3, 9.11, 9.14, 9.16, 9.18, 9.19, and 9.29-9.34 d) Infrastructure Services and Associated Resource Use Policy 11.23. 	Policies 9.29, 9.30, 9.31, 9.32, 9.33 & 9.34

