

DISTRICT-WIDE MATTERS

# NH – Natural Hazards

## Flood Channel Zones

### Introduction

The term natural hazards covers situations where water, air and ground movement have the potential to adversely affect human life and property. They can also have adverse effects upon structural assets and the natural values of areas. The hazards most relevant to the Manawātū District are flooding, earthquakes, land slippage, coastal erosion/deposition and tsunamis (tidal waves). Events such as storms, tornadoes, and volcanic ash showers may also happen, but land use planning could do little to reduce their effects. The potential threats to the Manawātū District are outlined more fully in the *Council’s* Civil Defence Plan.

The first way of reducing adverse effects on people, property and natural values from hazard events is to reduce the severity of the event itself, for example by planting stream catchments to reduce the speed of water runoff. The second is to avoid damage by keeping residents and development away from the hazard. The third method is to try and modify the effects of the hazard, e.g. by constructing stopbanks to confine floodwaters.

When it comes to hazard avoidance, the level of risk determines the amount of development which is “acceptable”. For example most people would agree that houses should not be built in places which flood every year, but the risk may be acceptable on a property which is flooded every two hundred years.

### Objectives

NH-01	To reduce the potential impact of natural hazard events, where these events represent a significant risk to human health and safety, to natural values or to property due to their potential severity and likelihood of occurrence.
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<b>NH-O2</b>	To avoid development which would adversely affect people’s health and safety including by placing unnecessary demands upon response agencies, including Civil Defence, during and after a hazard event.
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Refer also: SUB-O6, SUB-O8

## Policies

<b>NH-P1</b>	To help improve the level of knowledge about the District’s natural hazards, particularly amongst those at risk.
<b>NH-P2</b>	To take the potential effects of tsunamis, coastal erosion / deposition processes, and the possibility of sea level rise into account when planning for the beach settlements and coastal areas.
<b>NH-P3</b>	To identify areas which are especially prone to damage from earthquakes, and consider special standards for <i>buildings</i> in these areas.
<b>NH-P4</b>	To help reduce the severity of flooding and land erosion events.
<b>NH-P5</b>	To prevent construction of <i>residential units</i> in areas subject to deep and/or fast-flowing floodwaters.
<b>NH-P6</b>	To ensure that all <i>buildings</i> which are potentially affected by 100 year flood events (i.e. those with a 1% probability of happening in any given year) do not significantly impede or divert the flow of flood waters.
<b>NH-P7</b>	To ensure that <i>residential units</i> which are potentially affected by 100 year flood events are designed so that floodwaters do not enter them.
<b>NH-P8</b>	To ensure that each new subdivided allotment has at least one <i>building site</i> (including effluent disposal area and suitable vehicular access) which is not prone to natural hazards, unless <i>Council</i> is satisfied that no <i>residential unit</i> will be required on the allotment. (SUB-P16).
<b>NH-P9</b>	To require that the stability of new <i>buildings</i> in areas which are potentially susceptible to land movement is investigated and assessed.

# Rules

NB – Words in italics have a specific definition contained in the Definitions chapter. Some of the activities listed below, particularly those marked <sup>MWRC</sup>, may also require consent from the *Regional Council*.

## Permitted Activities (PER)

The following are *permitted activities* in the Flood Channel Zone provided that they comply with NH-ST1 to NH-ST11.

NH-R1	Reserves	
NH-R2	<i>Farming</i>	
NH-R3	Mineral exploration, prospecting or extraction activities, provided that the amount of material does not exceed 1,000 cubic metres per calendar year.	
NH-R4	Extraction of more than 1,000 cubic metres of sand and/or gravel per year from a river beach, provided the <i>site</i> of the extraction is further than 500 metres from the nearest <i>residential unit</i> <sup>MWRC</sup>	
NH-R5	<i>Pig Farming</i> , provided the activity does not involve:	
	NH-R5.1	More than two breeding sows, of which no more than 10 of the progeny can be retained beyond the weaner stage of eight weeks of age, or
	NH-R5.2	More than 12 growing pigs only, up to the bacon weight age
NH-R6	<i>Signs</i> which comply with SIGN-R1, SIGN-R2, SIGN-ST1 to SIGN-ST3.	
NH-R7	Formation of vehicle crossings onto roads.  <b>NB:</b> Consent from the <i>road</i> controlling authority is required for vehicle crossings onto Limited Access Roads	
NH-R8	<i>Earthworks</i> ancillary to <i>permitted activities</i> or to approved <i>controlled, restricted discretionary or discretionary activities</i>	
NH-R9	Planting, tending or removing shelter belts	

<b>NH-R10</b>	Within the Flood Channel <i>Zone 2</i> only, planting, tending and harvesting forests, woodlots, or specialised tree crops. <sup>MWRC</sup>
<b>NH-R11</b>	<p>Clearance, modification or harvesting of <i>indigenous vegetation</i> if it qualifies as a permitted activity under HH-APP4. <sup>MWRC</sup></p> <p><b>NB:</b> This rule shall not apply to the heritage places listed in HH-APP1 or HH-APP2. Rules on the modification of these places are instead contained in the HH – Historic Heritage chapter.</p>

## Controlled Activities (CON)

The following shall be *controlled activities* in the Flood Channel 1 *Zone* and Flood Channel 2 *Zone*, provided they comply with the standards in NH-ST1 to NH-ST11 below.

<b>NH-R12</b>	<i>Accessory buildings</i> <sup>MWRC</sup>
<b>NH-R13</b>	<i>Farm buildings</i> <sup>MWRC</sup>
<b>NH-R14</b>	Other <i>buildings</i> ancillary to the primary permitted use of the <i>site</i> <sup>MWRC</sup>
<b>NH-R15</b>	<i>Milking sheds</i>
<b>NH-R16</b>	<i>Pens housing animals.</i>

## Reservation of Control (RC)

The matters over which *Council* has reserved its control and in respect of which conditions may be imposed are set out in NH-RC1 to NH-RC2:

<b>NH-RC1</b>	<i>Relocated buildings</i> – Refer to matters of control provided for in REL-R1.
<b>NH-RC2</b>	<p><i>Buildings</i> on Land Subject to Inundation and <i>Buildings</i> in the Flood Channel <i>Zones</i>. (GRZ-R14 to GRZ-R19, NH-R12 to NH-R16)</p> <p>(<i>Building</i> consent may be granted subject to Section 36 of the <i>Building Act</i> 1991).</p>

	<b>NH-RC2.1</b>	The design, construction, and location of <i>buildings</i> having regard to their potential effect on flood water flows.
	<b>NH-RC2.2</b>	The minimum floor level of <i>buildings</i> . <i>Non-accessory buildings</i> should be designed so as not to be entered by a 100-year flood (i.e. a flood event with a 1% annual probability of occurring).
	<b>NH-RC2.3</b>	The location and design of vehicular access to the <i>building</i> .

## Standards for Permitted and Controlled Activities –

For the Flood Channel Zone, the *permitted* and *controlled activities* specified above must comply with the following standards:

<b>NH-ST1</b>	<b>Height</b>	
	<b>NH-ST1.1</b>	Maximum <i>height</i> – 10m
	<b>NH-ST1.2</b>	No part of any <i>building</i> shall exceed a <i>height</i> equal to 3.0 metres plus three quarters of the shortest horizontal distance between that part of the <i>building</i> and the nearest <i>site</i> boundary. (Refer Figure 16)

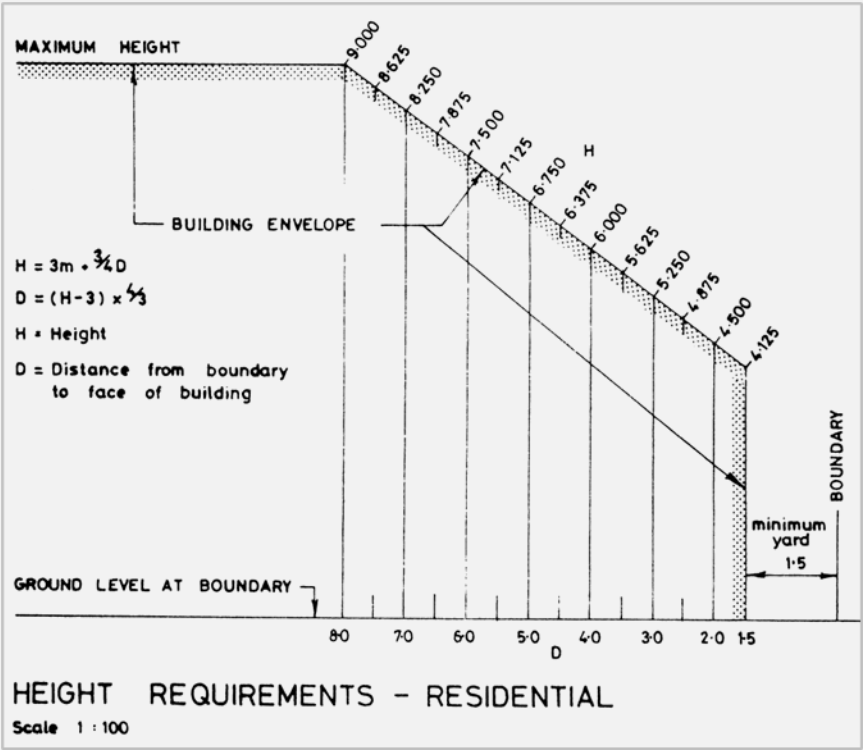


Figure 16 Height Requirements – Residential

**NH-ST1.3** No part of any *building*, structure, *mast*, tree or other object shall penetrate any of the climb surfaces, transitional surfaces, horizontal surfaces or conical surfaces associated with Palmerston North Airport or Feilding Aerodrome. These surfaces are shown in GRUZ-APP2. Where two or more surfaces intersect, the lower shall apply.

**NH-ST2** Floor Area - Maximum *gross floor area* – 55m<sup>2</sup>

**NH-ST3** Yards

**NH-ST3.1** Accessory buildings - Front yards 10m; Other yards 1.5m

**NH-ST3.2** Milking sheds and pens housing animals (either permanently or temporarily), including pig farming:

**NH-ST3.2.a** From any General Residential Zone or Settlement Zone – 100m

**NH-ST3.2.b** Front yards – 10m

**NH-ST3.2.c** Other yards – 30m

	NH-ST3.3	All other <i>buildings</i> (including <i>Farm buildings</i> )	
		NH-ST3.3.a	Front <i>yards</i> – 10m
		NH-ST3.3.b	Other <i>yards</i> – 5m
	NH-ST3.4	<i>Buildings</i> shall be kept at least 10m clear of the top edge of any public drain or watercourse.	
NH-ST4	Visibility at Railway Crossings - Compliance with TR-ST1 and TR-APP5.		
NH-ST5	Access - Compliance with TR-ST1.		
NH-ST6	Farm Loading Ramps -		
	NH-ST6.1	Farm loading ramps shall be designed so that vehicles using the ramp do not have to reverse onto or off an arterial route, or park on any part of the carriageway of any arterial route while loading or unloading.	
	NH-ST6.2	The minimum sight distance from any farm loading ramp which is designed so that vehicles using it have to park on any part of a non-arterial route, shall be 110m. If this sight distance is not available, the landowner shall provide advance warning to approaching traffic that the loading or unloading is taking place.	
NH-ST7	Noise - Compliance with NOISE-R1.		
NH-ST8	Shelter Belts and Tree Planting		
	NH-ST8.1	Without the written consent of the adjoining landowner concerned, no shelter belt, woodlot or tree plantation shall be permitted to grow to over 4 metres in <i>height</i> :	
		NH-ST8.1.a	Within 5m of any <i>northerly boundary</i> of the <i>site</i> , or within 10m of any other boundary of the <i>site</i> except a <i>road</i> boundary, or
		NH-ST8.1.b	Within 30m of any rural <i>residential unit</i> on another property, or
	NH-ST8.1.c	Within 30m of any property zoned General Residential or Settlement.	

	NH-ST8.2	Without the consent of the roading authority, no vegetation which might obstruct vehicle lines shall be permitted to grow within 30 metres of the centre of any intersection.	
	NH-ST8.3	No plantation forest shall be permitted to grow within 50 metres of the edge of any <i>wetland</i> listed in HH-APP1, if that <i>wetland</i> is in the coastal area shown on the planning maps.	
NH-ST9	Fencing of Properties		
	NH-ST9.1	Where any activity involves keeping male entire adult cattle or male entire horses in a paddock or enclosure which adjoins another property, those boundaries shall have a live electric wire in addition to, or attached to, the boundary fence, e.g. on outriggers. For the purposes of this rule “adult cattle” are defined as those which are at least one year old.	
	NH-ST9.2	The rule shall not apply to <i>road</i> boundaries or to situations where the adjoining landowner concerned has given their written consent to a different standard or fence (or to no fence) being provided.	
NH-ST10	Roading Impacts		
	NH-ST10.1	Suitable areas shall be provided on the <i>site</i> for stockpiling, logging and loading operations associated with forest harvesting. No such operations shall be undertaken on the <i>road</i> reserve without the consent of the roading authority. No stockpiling areas shall be located within the Flood Channel <i>Zones</i> .	
	NH-ST10.2	No activity shall result in the generation of heavy traffic movements which involve:	
		NH-ST10.2.a	The weight of the loads concerned exceeding any weight restrictions on the bridge or culverts which are to be used
	NH-ST10.2.b	The length of the loads concerned requiring the vehicle to utilise the <i>road</i> shoulder, water table or <i>road</i> verge when negotiating bends	

		<b>NH-ST10.2.c</b>	The timing of the vehicle movements in relation to prevailing ground conditions resulting in damage to the structural integrity of the <i>road</i> carriageway, or
		<b>NH-ST10.2.d</b>	The frequency of loads and spacing between them resulting in damage to the structural integrity of the <i>road</i> carriageway.
	<p><b>NB:</b> The onus will be on the landowner and operator of the activity to consult with the roading authority at an early stage to determine whether their proposals are compatible with the roading network in terms of the above. <i>Council</i> is not obliged to upgrade any <i>road</i> and may seek contributions from the landowner in such cases (Refer to the FIN – Financial Contributions chapter).</p>		
<b>NH-ST11</b>	<b>Glare</b> - Compliance with TR-ST2.		

## Restricted Discretionary Activities (RDIS)

The following activities are *restricted discretionary activities* in the Flood Channel Zones:

<b>NH-R17</b>	Any <i>permitted activity</i> or <i>controlled activity</i> specified above which does not comply with any of the relevant standards in NH-ST1 – NH-ST11.
<b>NH-R18</b>	Clearance, modification or harvesting of <i>indigenous vegetation</i> if it qualifies as a <i>restricted discretionary activity</i> under HH-APP4.
	<p><b>NB:</b> This rule shall not apply to the heritage places listed in HH-APP1 or HH-APP2 of the Plan. Rules on the modification of these places are instead contained in HH – Historic Heritage Chapter.</p>
<p><b>Matters of Discretion:</b></p> <p>Applications for <i>restricted discretionary activities</i> shall be assessed against the matters set out below:</p>	
<b>NH-MD1</b>	In assessing applications for <i>restricted discretionary activities</i> <i>Council</i> has reserved its control over matters related to the effect of allowing non-compliance with the particular performance standard (or standards) which

	the proposal has failed to meet. Conditions may be imposed to avoid, remedy or mitigate the effects of non-compliance.						
<b>NH-MD2</b>	In assessing applications which have become <i>restricted discretionary activities</i> due to non-compliance with the Plan's performance standards, but which otherwise would have been <i>controlled activities</i> , <i>Council</i> has also reserved its control over the matters in NH-RC1 to NH-RC2 which relate to that type of <i>controlled activity</i> .						
<b>NH-MD3</b>	In assessing applications for clearance, modification or harvesting of <i>indigenous vegetation</i> (GRUZ-R33 and NH-R18) <i>Council</i> has restricted the exercise of its discretion to the potential impact of the proposed activity upon: <table border="1"> <tr> <td><b>NH-MD3.1</b></td><td>Areas of significant <i>indigenous vegetation</i> and significant habitats of indigenous fauna</td></tr> <tr> <td><b>NH-MD3.2</b></td><td>The intrinsic values of ecosystems.</td></tr> </table>	<b>NH-MD3.1</b>	Areas of significant <i>indigenous vegetation</i> and significant habitats of indigenous fauna	<b>NH-MD3.2</b>	The intrinsic values of ecosystems.		
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<b>NH-MD3.2</b>	The intrinsic values of ecosystems.						
<b>NH-MD4</b>	In relation to new <i>buildings</i> within the Inner Control Area or the Outer Control Area (NOISE-APP1) <table border="1"> <tr> <td><b>NH-MD4.1</b></td><td>The degree to which the adverse <i>effects</i> of aircraft noise will be mitigated through <i>building</i> construction methods which meet the noise insulation rating for <i>Schedule P</i>, <i>Schedule Q</i> or <i>Schedule R</i> (NOISE-SCHED1, NOISE-SCHED2 or NOISE-SCHED3) as applicable, including a 5dB safety margin.</td></tr> <tr> <td><b>NH-MD4.2</b></td><td>The health, safety and amenities of occupiers of the <i>building</i> in relation to airport noise.</td></tr> <tr> <td><b>NH-MD4.3</b></td><td>The potential <i>effect</i> of residential or communal use of the <i>building</i> upon the continued operation and efficiency of Palmerston North Airport, by way of pressure for curtailment of aircraft operations.</td></tr> </table>	<b>NH-MD4.1</b>	The degree to which the adverse <i>effects</i> of aircraft noise will be mitigated through <i>building</i> construction methods which meet the noise insulation rating for <i>Schedule P</i> , <i>Schedule Q</i> or <i>Schedule R</i> (NOISE-SCHED1, NOISE-SCHED2 or NOISE-SCHED3) as applicable, including a 5dB safety margin.	<b>NH-MD4.2</b>	The health, safety and amenities of occupiers of the <i>building</i> in relation to airport noise.	<b>NH-MD4.3</b>	The potential <i>effect</i> of residential or communal use of the <i>building</i> upon the continued operation and efficiency of Palmerston North Airport, by way of pressure for curtailment of aircraft operations.
<b>NH-MD4.1</b>	The degree to which the adverse <i>effects</i> of aircraft noise will be mitigated through <i>building</i> construction methods which meet the noise insulation rating for <i>Schedule P</i> , <i>Schedule Q</i> or <i>Schedule R</i> (NOISE-SCHED1, NOISE-SCHED2 or NOISE-SCHED3) as applicable, including a 5dB safety margin.						
<b>NH-MD4.2</b>	The health, safety and amenities of occupiers of the <i>building</i> in relation to airport noise.						
<b>NH-MD4.3</b>	The potential <i>effect</i> of residential or communal use of the <i>building</i> upon the continued operation and efficiency of Palmerston North Airport, by way of pressure for curtailment of aircraft operations.						

## Discretionary Activities (DIS)

The following shall be discretionary activities in the Flood Channel Zones:

<b>NH-R19</b>	Mineral exploration, prospecting or extraction activities. <sup>MWRC</sup>
<b>NH-R20</b>	Crushing, screening or processing sand or gravel. <sup>MWRC</sup>

<b>NH-R21</b>	<i>Residential units</i> in the Flood Channel 2 <i>zone</i> only, except if sited in the Air Noise Area (NOISE-APP1). <sup>MWRC</sup>				
<b>NH-R22</b>	<p><i>Signs</i> on private property which provide advance warning to motorists of retail sales outlets, restaurants or <i>tourist facilities</i> in the General Rural Zone, provided that:</p> <table> <tr> <td><b>NH-R22.1</b></td><td>The <i>signs</i> are located no further than 1km from the same business concerned if both are located on the same <i>road</i></td></tr> <tr> <td><b>NH-R22.2</b></td><td>The <i>signs</i> are located no further than 5km from the business concerned if the business is down a side <i>road</i>.</td></tr> </table>	<b>NH-R22.1</b>	The <i>signs</i> are located no further than 1km from the same business concerned if both are located on the same <i>road</i>	<b>NH-R22.2</b>	The <i>signs</i> are located no further than 5km from the business concerned if the business is down a side <i>road</i> .
<b>NH-R22.1</b>	The <i>signs</i> are located no further than 1km from the same business concerned if both are located on the same <i>road</i>				
<b>NH-R22.2</b>	The <i>signs</i> are located no further than 5km from the business concerned if the business is down a side <i>road</i> .				
<b>NH-R23</b>	Coastal protection / river control structures located within 50m of Mean High Water Springs. <sup>MWRC</sup>				

**Assessment Criteria:**

The criteria by which applications will be assessed are set out in GEN-AC1 to GEN-AC25.

## Non-Complying Activities (NC)

<b>NH-R24</b>	Any activity which is not categorised by this chapters being a <i>permitted, controlled, discretionary, restricted discretionary, or prohibited activity</i> shall be a <i>non-complying activity</i> .
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## Prohibited Activities (PR)

The following shall be prohibited activities in the Flood Channel 2 *Zone*, if sited in the Air Noise Area (Refer NOISE-APP1).

NB: These activities have been expressly prohibited and no resource consent shall be granted.

<b>NH-R25</b>	Veterinary Clinics and Veterinary Hospitals
<b>NH-R26</b>	<i>Residential units</i> and residential accommodation, including relocated <i>residential units</i>
<b>NH-R27</b>	<i>Family flats</i>

<b>NH-R28</b>	Craft Workshops and Studios
<b>NH-R29</b>	<i>Home occupations</i>
<b>NH-R30</b>	Retail sales from craft and workshop studios, <i>home occupations</i> , and farm produce
<b>NH-R31</b>	<i>Education Facilities</i> and Day Care Centres
<b>NH-R32</b>	Cemeteries and Crematoria
<b>NH-R33</b>	Parks, reserves, open space and scenic reserves
<b>NH-R34</b>	Hospitals and homes for the aged
<b>NH-R35</b>	Hotels and Taverns
<b>NH-R36</b>	Lodges, hunting, tour party and recreational bases
<b>NH-R37</b>	Marae
<b>NH-R38</b>	Places of assembly and libraries
<b>NH-R39</b>	Restaurants, reception rooms and <i>tourist facilities</i>
<b>NH-R40</b>	Travellers' accommodation
<b>NH-R41</b>	Communal activities
<b>NH-R42</b>	Motor Caravan Rallies
<b>NH-R43</b>	<i>Motor Caravan Sites</i>