

11. Natural Hazards

11.1 Introduction¹

¹ **NH cl.16:** A number of clause 16 amendments have been made to the content of 11.1.1 and 11.1.2, as marked. These are intended to clarify drafting and better explain the natural hazards provisions. They do not change the effect of provisions.

11.1.1 Dunedin's natural hazard risks

Under the Resource Management Act 1991 (RMA), the DCC is responsible for managing land use and subdivision to avoid or mitigate the risks from natural hazards. The DCC is also required to keep records of natural hazards. {NH cl.16}

Communities in and around Dunedin are susceptible to a variety of natural hazards, including flooding from rivers alluvial fans, {NH 908.57} and from the sea due to storm events, tsunamis and sea level rise, land instability and earthquakes.

A large storm event could easily cause the Taieri River to flood, as well as several smaller rivers and alluvial fans {NH 908.57}. This issue is particularly acute on low-lying flood plains, where streams exit valleys (in the case of alluvial fans) {NH 908.57} and in coastal areas. Coastal storm surges may also result in flooding of certain areas.

Land instability can affect buildings built on steep sections and large storm events can contribute to land instability. Earthquakes can also {NH cl.16} contribute to land instability and cause liquefaction. Finally, sea level rise as a result of climate change poses some risk to Dunedin, particularly in low-lying coastal communities.

Under the Resource Management Act 1991, Council is responsible for managing land use and subdivision to avoid or mitigate the risks from natural hazards. Council is also required to keep records of natural hazards. {NH cl.16}

The effects of natural hazards vary in terms of both their likelihood and consequence. Some natural hazards such as flooding may occur relatively frequently and may damage property, whereas natural hazards such as tsunami occur infrequently, but when they do occur they pose serious risk to life.

This Plan manages natural hazards through policies and rules attached to different overlays (overlay zones and mapped areas). The rules vary according to the type of natural hazard, the risk it poses and the sensitivity of the activity proposed. {NH cl.16} The mapping of the overlay zones and mapped areas is based on the best available information at the time of any plan change, however, inevitably due to the scale of areas covered by the research and modelling that was used to produce the maps, they may not be 100% accurate at the site level and there may be site-specific variations. {NH 360.219}

Not all natural hazards defined in the RMA are identified or managed in this Plan. {NH 308.13} Other natural hazards Dunedin may be vulnerable to include snow, ice, drought, strong winds, and fire. These natural hazards are primarily {NH 945.27} managed outside the natural hazard provisions of the Plan. For example, the risks from snow and strong winds are managed through the Building Act 2004, and other mitigation measures are taken by the DCC Transportation team. The District Plan does, however, include requirements for water supply access and suitable access for fire appliances for fire fighting purposes. These rules and their related objectives and policies sit within the Public Health and Safety section of the Plan. {NH 945.27}

The Second Generation Plan (2GP) identifies natural hazards through overlays and mapped areas, and aims to reduce the effects of natural hazards through rules according to the type of natural hazard, the risk it poses and the sensitivity of the activity proposed. {NH cl.16}

11.1.2 Guidance on risk

Land use, subdivision, and development needs to be managed to minimise Dunedin's vulnerability to natural hazards.

In response to the issues, the 2GP proposes to manage the risks from natural hazards based on considering the overall risk from the hazard in terms of both likelihood and consequence. This The approach used in this Plan {NH cl.16} aims to strike a balance between enabling people to utilise their property without putting them or their {NH cl.16} important assets at risk if an event was to occur. The key priority in managing the risks from natural hazards is the protection of people including from {NH cl.16} loss of life, injury, the risk of being cut off from Civil Defence assistance, or the failure of key infrastructure required to ensure the health and safety of communities (such as wastewater treatment systems). After this, the focus is on risk to property, such as loss of, or damage to, buildings.

In the context of the natural hazards provisions, risk refers to the likelihood of a natural hazard event occurring, in combination with the potential adverse consequences of that event, as set out in Table 11.1 below sets out how the combination of likelihood and consequence is combined to produce a risk assessment of low, moderate, or high {NH 360.219}. This approach is based on guidance provided by MfE the Ministry for the Environment {NH cl.16} (*Preparing for Future Flooding: A guide for local government in New Zealand, 2010*) and GNS Science (*Risk-based Land Use Planning for Natural Hazard Risk Reduction, 2013*). The degree of risk is influenced by the magnitude of a natural hazard event, and the type of consequences to human safety, property, or the environment arising from the event either on-site or further afield.

The likelihood of a natural hazard event occurring is placed in the context of the operational life of buildings, infrastructure and long-term land-use activities. {NH cl.16} For most natural hazard events, it is difficult to determine exact probabilities of occurrence, and likelihood estimates are indicatively applied, rather than based on any direct scientific basis specifically modelled {NH cl.16}. The consequences of a natural hazard event occurring is placed are considered {NH cl.16} in the context of health and safety, costs of damage to the built environment, and social and economic impacts on the wider community.

In Table 11.1 likelihood is expressed as an Annual Exceedance Probability (AEP). AEP is a percentage chance of an event occurring in any given year. For example, a 1 in 50 year event can also be expressed as a 2% AEP and means that there is a 2% chance of an event that size occurring in any given year. {NH cl.16}

For the purposes of the natural hazards provisions, the sensitivity of land use activities is classified according to the health and safety implications of the {NH cl.16} land use. The land-use sensitivity This helps to inform manage {NH cl.16} the consequences that may occur as a result of a natural hazard event. This sensitivity classification draws from, and broadly corresponds to, the building importance levels defined in the Building Amendment Regulations 2012 1992 (Schedule 1: The building code) {NH cl.16}.

Site specific investigation will identify local variation in the risk level specified in this Plan. {NH 360.219} Risk can also {NH 360.219} be reduced through mitigation measures including site design and layout, material used, and the design of buildings and structures. This means that while in a certain area there is a potential for a high risk (for example on a site in a Hazard 1 Overlay Zone), this risk can sometimes be reduced to a low risk, under the right circumstances. {NH 360.219} While these measures should be taken into account when assessing risk, the effectiveness and appropriateness of these mitigation measures, including the residual risk in the event these mitigation measures fail, should also be considered. The resource consent process is used to determine the actual risk of a particular proposal at a specific location, and whether it can meet the policy test of being 'no more than low'. This assessment will also include the potential off-site risks (e.g. diversion of floodwater creating or exacerbating risk). It will also consider the residual risk in the event any proposed mitigation measures should fail. {NH 360.219}

Table 11.1 Risk Guidance

Likelihood	Minor consequences	Moderate consequences	Major consequences
Very likely (less than 1:50 (1 in 50 year event) or annual exceedance probability (AEP) 2% or more)	Low to {NH 308.231} Moderate risk	Moderate to {NH 308.231} High risk	High risk
Moderately likely ¹ (1:50 - 1:200 or AEP range 0.5% to 2%)	Low risk	Moderate risk	High risk
Unlikely (1:200 - 1:500 or AEP range 0.2% to 0.5%)	Low risk	Low risk	Moderate risk
Very unlikely (1:500 to 1:2500 or AEP range 0.04% to 0.2%)	Very low risk	Low risk	Moderate risk
Extremely unlikely (more than 1: 2500 or AEP 0.04% or less)	Very low risk	Very low risk	Low risk

¹ Where likelihood is unknown or poorly established, use 'moderately likely'.

11.1.3 Hazard provisions sensitivity classification

For the purpose of the hazard provisions, activities are categorised as natural hazards sensitive activities, natural hazards potentially sensitive activities or natural hazards **{PO cl.16}** least sensitive activities as follows:

Table 11.2 Hazard sensitivity

Hazard provisions sensitivity classification	Land-use activities <u>Activities</u> {NH cl.16}
<u>Natural hazards sensitive</u> Sensitive {PO cl.16} activities	<ul style="list-style-type: none"> • Cemeteries • Crematoriums • Registered health practitioners • Early childhood education • Emergency services {NH 945.5} • Hospital • Landfills • Marae-related activities • Prisons or detention centres {CP cl.16} • Residential activities (excluding working from home that do not involve additional people on-site) • Schools • Service stations {NH 634.3} • Visitor accommodation

Hazard provisions sensitivity classification	Land-use activities Activities {NH cl.16}
<p><u>Natural hazards potentially sensitive</u> Potentially sensitive {PO cl.16} activities</p>	<ul style="list-style-type: none"> • Airport • Campus • Community and leisure (excluding marae-related activities) • Commercial activities (excluding visitor accommodation, registered health practitioners, service stations, {NH 634.3} commercial advertising) • Factory farming <u>Intensive farming</u> {RU 1090.3} • Industrial activities • Invermay/Hercus • Major recreation facility • Mining • <u>NZ Marine Studies Centre</u> {MF 308.283} • Port • Rural tourism - large scale • Rural research - <u>large scale</u> which requires a building {NH cl.16} • <u>Scheduled mining activity</u> {CP 874.2 and others} • Sport and recreation • Taieri Aerodrome • All other commercial, community, industrial and major facility activities {NH cl.16}

Hazard provisions sensitivity classification	Land-use activities <u>Activities {NH cl.16}</u>
<u>Natural hazards least sensitive</u> Least sensitive {PO cl.16} activities	<u>All other activities not specifically listed above as natural hazards sensitive activities or natural hazards potentially sensitive activities.</u> <ul style="list-style-type: none"> • Commercial advertising • Conservation • Domestic animal boarding and breeding • Dunedin Botanic Garden • Farming • Forestry • Grazing • Mineral exploration • Mineral prospecting • Public amenities • Rural ancillary retail • Rural tourism – small scale • Temporary activities • Working from home • All other rural activities {NH 1088.51}

¹ **NH cl.16:** This amendment is required so that the table uses the correct name for this activity, as set out in activity status tables. This does not change the effect of provisions.

² **NH 634.3:** Service stations are now included as a commercial activity in the potentially sensitive category.

11.1.4 Hazard overlays

Dunedin's hazard prone areas are managed through six ~~eight~~ **{NH908.57 and NH 908.37}** overlay zones, and two mapped areas (swales and dune systems). Initial assessments have established that risk (as defined in the guidance above) within the hazard overlay zones is as follows:

Table 11.3 Potential Risk {NH 788.1 and others} within hazard overlay zones

Hazard overlay zones	Risk (in accordance with the guidance on defining risk in Table 11.1 above)
<u>Hazard 1A (flood) Overlay Zone {NH 908.37}</u>	High
Hazard 1 (flood) Overlay Zone	
Hazard 1 (land instability) Overlay Zone	
Hazard 2 (flood) Overlay Zone	Moderate
Hazard 2 (land instability) Overlay Zone	
Hazard 3 (flood) Overlay Zone	Low
Hazard 3 (coastal) Overlay Zone	
<u>Hazard 3 (alluvial fan) Overlay Zone {NH 908.57}</u>	

**Note that the level of risk is a broad assessment of potential risk. Potential risk may vary from site to site and within sites, and actual risk is dependent on the location and design of activities. {NH 788.1 and others}*

At this stage, no areas have been identified as being exposed to a high or moderate risk from coastal hazards (Hazard 1 or 2 overlay zones), but however **{NH cl.16}** areas may be included in these categories on the basis of future assessments.

While no areas have been identified as being exposed to a low risk of land instability (as hazard 3 overlay zones), many sites in Dunedin could fit within this category, but risk is managed primarily through the earthworks provisions, and Building Act 2004 requirements (e.g. foundation design).

Assessments of risk have been done on a catchment, landslide, or area-wide basis, often as a desk-top assessment drawing on previous on-the-ground investigations and observations, and should be used as a starting point only. Local, site specific assessments are recommended. Where site specific assessments have been carried out and these have been provided to the DCC or Otago Regional Council, these may be available through the ~~DCC Hazard Information Management System~~ from the DCC by a Land Information Memorandum or Hazard Information Report request {NH cl.16}, or the Otago Regional Council online Otago Natural Hazards Database.

It is acknowledged that risk can be influenced by site or area specific factors, such as topography, elevation, soil make-up and other factors. Factors such as these should always be taken into account when assessing risk in relation to a particular proposal.

In addition, swales and undeveloped parts of dune systems are identified as mapped areas. Swales form part of the natural drainage system of the Taieri and can act to convey floodwater away from development. In these areas development is considered to be inappropriate, due to the role these features play in mitigating the effects of natural hazard events. Dune systems buffer land from coastal processes.

11.2 Objectives and Policies

Objective 11.2.1	
<u>Land use and development is located and designed in a way that ensures that {NH 908.3} the risk from natural hazards, including climate change, is minimised, is no more than low. {NH 908.3} in the short to long term.</u>	
Policy 11.2.1.1	<p>In the hazard 1 overlay zones <u>Hazard 1 (flood) Overlay Zone, {NH 73.4}</u> avoid the establishment of <u>{NH 908.3} natural hazards sensitive activities and natural hazards potentially sensitive activities unless: {NH 908.37 and others}</u></p> <ul style="list-style-type: none"> a. <u>sensitive activities; and {NH 634.74}</u> b. <u>potentially sensitive activities that are not permitted in the underlying zone; {NH 634.74}</u> a. <u>unless the risk from natural hazards is avoided, or is no more than low; and {NH 634.74}</u> b. <u>the activity has a critical operational need to locate within the Hazard 1 (flood) Overlay Zone and locating outside it is not practicable. {NH 634.74}</u>
Policy 11.2.1.2 {NH 634.74}	<p>In the hazard 1 overlay zones, only allow the establishment of potentially sensitive activities that are otherwise permitted in the underlying zone, where all of the following are met:</p> <ul style="list-style-type: none"> a. <u>the activity has a critical operational need to locate within the hazard 1 overlay zones and locating outside the hazard 1 overlay zones is not practicable; and</u> b. <u>the scale, location and design of the activity or other factors means risk is avoided, or is no more than low. {NH 634.74}</u>
Policy 11.2.1.Y {NH 908.37 and others}	<u>In the Hazard 1A (flood) Overlay Zone, avoid natural hazards sensitive activities.</u>
Policy 11.2.1.Z {NH 908.37 and others}	<p><u>In the Hazard 1A (flood) Overlay Zone, avoid natural hazards potentially sensitive activities, unless:</u></p> <ul style="list-style-type: none"> a. <u>the risk from natural hazards is avoided, or is no more than low; and</u> b. <u>the activity has a critical operational need to locate within the Hazard 1A (flood) Overlay Zone and locating outside it is not practicable.</u>
Policy 11.2.1.3	<u>In the hazard 1, hazard 1A {NH 908.37} and 2 (flood) {NH 73.4} overlay zones, only allow new buildings, and additions and alterations to buildings, where the scale, location and design of the building or other factors mean risk is avoided, or is no more than low.</u>
Policy 11.2.1.4	<p>In the hazard 1 and hazard 1A (flood) Overlay Zones {NH 908.37}, require outdoor storage to be designed, managed, and located so that:</p> <ul style="list-style-type: none"> a. <u>potentially dangerous materials will not be mobilised in a flood; and</u> b. <u>materials will not obstruct or impede flood water.</u>
Policy 11.2.1.5	<p>In the hazard 2 overlay zones <u>Hazard 2 (flood) Overlay Zone {NH 73.4}</u>, only allow the establishment of <u>{NH 908.3} natural hazards {PO cl.16} sensitive activities and natural hazards potentially sensitive activities {NH 634.74}</u> where:</p> <ul style="list-style-type: none"> a. <u>the activity has a critical operational need to locate within the Hazard 2 (flood) Overlay Zone and risk is minimised as far as practicable; or {NH 634.74}</u> b. <u>the scale, location and design of the activity or other factors means risk is avoided, or is no more than low.</u>

Objective 11.2.1

Land use and development is located and designed in a way that ensures that **{NH 908.3}** the risk from natural hazards, including climate change, is minimised, is no more than low. **{NH 908.3}** in the short to long term.

Policy 11.2.1.6 {NH 634.74}	In the hazard 2 overlay zones, only allow the establishment of potentially sensitive activities that are not otherwise permitted in the zone, where all of the following are met: a. the activity has a critical operational need to locate within the hazard 2 overlay zones and locating outside the hazard 2 overlay zones is not practicable; and b. the scale, location and design of the activity or other factors means risk is avoided, or is no more than low. {NH 634.74}
Policy 11.2.1.7	Only allow large quantities of hazardous substances in hazard 1, hazard 1A {NH 908.37} and 2 overlay zones where they are stored in a manner that ensures risk from natural hazards is avoided, or is no more than low.
Policy 11.2.1.8 {NH 917.27 and others}	In the hazard 1 and 2 (flood) and hazard 3 (coastal or flood) overlay zones, require new buildings intended for sensitive activities to have a floor level that mitigates risk from flooding (including coastal flooding) and rising groundwater so that risk is no more than low.
Policy 11.2.1.9	In the hazard Hazard {NH cl.16} 3 (coastal) Overlay Zone, require new buildings to be used for sensitive activities containing residential activity on the ground floor {NH 737.9} to be relocatable so that as coastal hazards, including sea level rise, become more severe, these buildings can be relocated, unless site constraints mean this is not practicable. {NH 737.9 and others}
Policy 11.2.1.10	Avoid development activities, and public amenities and temporary activities {TA 583.9} in a swale mapped area unless they will not obstruct or impede water in a flood hazard event, and not, or {NH cl.16} cause water to be diverted out of a swale, during a flood hazard event {NH cl.16} .
Policy 11.2.1.11	Avoid buildings and structures (except for relocatable surf life saving clubs) {NH cl.16} within the dune system mapped area unless: a. they have an operational need to locate there; {NH 690.12} b. there is no risk that development will cause, exacerbate, or be at risk from coastal erosion; and {NH cl.16} c. the risk from natural hazards is no more than low {NH 908.3} .
Policy 11.2.1.12	In all hazard overlay zones, the swale mapped area , and the dune system mapped area or in any other area that the DCC has good cause to suspect may be at risk from a natural hazard {NH 634.69} (including but not limited to a geologically sensitive mapped area (GSA)) {NH cl.16} , only allow earthworks - large scale or subdivision activities {NH 634.69} where: a. the risk from natural hazards including on any future land use or development, {NH 634.69} will be avoided, or is no more than low; b. they will not have adverse effects on land instability nor create, exacerbate, or transfer risk from natural hazards; {NH cl.16} c. they will not have adverse effects on the stability or buffering capacity of dune systems; and {NH cl.16} d. they will not obstruct or impede flood water, unless part of approved natural hazard mitigation activities. {NH cl.16}

Objective 11.2.1

Land use and development is located and designed in a way that ensures that **{NH 908.3}** The risk from natural hazards, including climate change, is minimised, is no more than low. **{NH 908.3}** in the short to long term.

Policy 11.2.1.13	<p>In the hazard 3 (coastal) Overlay Zone, where hazards may worsen over time due to climate change, only allow subdivision activities that will only result in a minimal increase in development potential for sensitive activities or potentially sensitive activities.</p> <p>In all hazard overlay zones, the swale mapped area, the dune system mapped area, or in any other area that the DCC has information to suspect there may be risk from a natural hazard, only allow subdivision activities where there is a reasonable level of certainty that any future land use or development will meet policies 11.2.1.1 - 11.2.1.12. {NH 634.69 and 949.25}</p>
Policy 11.2.1.14 {NH cl.16³}	<p>Only allow earthworks in a dune system mapped area where they will not:</p> <ul style="list-style-type: none">a. have adverse effects on the stability or buffering capacity of dune systems; andb. create, exacerbate, or transfer risk from natural hazards.
Policy 11.2.1.15 {NH cl.16³}	<p>Only allow earthworks in a swale mapped area and earthworks – large scale in hazard (flood) overlay zones, where they will not:</p> <ul style="list-style-type: none">a. obstruct or impede flood water, unless part of an approved natural hazard mitigation activity; andb. create, exacerbate, or transfer risk from natural hazards.
Policy 11.2.1.16 {NH cl.16³}	<p>Only allow earthworks – large scale in a land instability overlay zone where they will not have adverse effects on land instability nor create, exacerbate, or transfer risk from natural hazards.</p>
Policy 11.2.1.17	<p>Limit vegetation clearance in hazard (land instability) overlay zones, the dune system mapped area, and along the banks of water bodies, to a scale and type that ensures any resultant risk from erosion or land instability is avoided, or is no more than low.</p>
Policy 11.2.1.18 {NH 317.6³}	<p>In all hazard overlay zones, only allow new roads or additions or alterations to existing roads, where they are located and designed so that risk from natural hazards is avoided, or is no more than low.</p>
Policy 11.2.1.19	<p>Require buildings, and structures, storage and use of hazardous substances, network utility activities, and earthworks - large scale {NH cl.16³} to be set back an adequate distance from water bodies an adequate distance to ensure that the risk from natural hazards {NH cl.16³}, including from erosion and flooding, is avoided, or is no more than low.</p>
Policy 11.2.1.20	<p>Only allow natural hazard mitigation earthworks and natural hazard {HazMit cl.16³} mitigation structures where:</p> <ul style="list-style-type: none">a. the option of doing nothing is not the best practicable option; andb. it will reduce risk overall and not transfer, exacerbate, or create a new risk somewhere else. {HazMit 308.16³}

¹ **NH cl.16:** As a clause 16 amendment, this content has been moved from policies 11.2.1.14, 11.2.1.15 and 11.2.1.16. This does not result in a substantive change to the effect of provisions.

² **NH cl.16:** As a clause 16 amendment, this content is being moved to Policy 11.2.1.12. This does not result in a substantive change to the effect of provisions.

³ **NH cl.16:** As a clause 16 amendment, geologically sensitive areas are not part of this Plan, and are included in the data map for information purposes only. This does not result in a substantive change to the effect of provisions.

Rules

Rule 11.3 Natural Hazards Performance Standards {Was "Hazard Overlay Zones Development Standards" - NH cl.16}

11.3.1 Hazard Exclusion Areas

11.3.1.1 Swale mapped area

- a. New buildings and structures, additions and alterations, ~~and public amenities, and buildings and structures associated with temporary activities {TA 583.9}~~ must not be located inside the boundaries of a **swale mapped area**, except:
 - i. buildings or structures less than 36m² in a residential zone {NH cl.16} or the Rural Centre Zone; and
 - ii. post and wire fences or other fences where 80% of the surface area will permit the unobstructed passage of water.
- b. Other development activities, including outdoor storage, must not obstruct or impede water in a manner that may cause water to be diverted out of a **swale mapped area**.
- c. Activities that contravene the performance standard for **swale mapped areas** are non-complying activities, except in a residential zone {NH cl.16} or the Rural Centre Zone ~~or temporary activities {TA 583.9}~~, in which case they are restricted discretionary activities {NH cl.16}.

11.3.1.2 Dune system mapped area

- a. New buildings and structures, and additions and alterations, must not be located inside the boundaries of a **dune system mapped area**, except for buildings or structures used for {NH cl.16}:
 - i. ~~relocatable buildings intended for~~ {NH 360.239 and 961.1} surf life saving; and
 - ii. ~~natural hazard mitigation activities;~~ {NH cl.16}
 - iii. conservation activity or public access that is provided for in a conservation management strategy, conservation management plan or reserve management plan; and {NH 588.21}
 - iv. wildlife conservation {NH 690.12}
- b. Activities that contravene this performance standard are a non-complying activities {NH cl.16}.

¹ **NH cl.16:** The exemption at Rule 11.3.1.2.a.ii has been deleted on the basis that it is superfluous; natural hazard mitigation activities are not subject to rules applying to "buildings and structures" or "additions and alterations". This does not change the effect of provisions.

11.3.2 Maximum Area of Vegetation Clearance in the Hazard Overlay Zones

¹ **NatEnv cl.16:** Rule 11.3.2 has been reformatted and reworded for clarity, and for consistency with the formatting of other vegetation clearance performance standards (rules 10.3.2.A, 10.3.2.3, 10.3.2.4 and 10.3.2.1). This does not result in a substantive change to the effect of provisions.

1. In the Hazard 1 (land instability) or Hazard 2 (land instability) Overlay Zones, the maximum area of vegetation clearance is 50m² per site, per year, except that, on sites that are located within rural zones, more than one area up to 50m² may be cleared if one of the following situations apply:
 - a. the area to be cleared is located at least 400m from any other area of vegetation clearance on the same site; or
 - b. the area to be cleared is located within 400m of another area of vegetation clearance on the same site, but the other area is not located within the same Hazard 1 (land instability) or Hazard 2 (land instability)

Overlay Zone. {NH 312.5}

2. This standard does not apply to vegetation clearance as part of any of the following:
 - a. the erection, maintenance or alteration of fences (including gates) **{NatEnv cl.16}**;
 - b. the maintenance (but not extension) of existing network utilities, irrigation infrastructure, tracks, drains, structures, fire breaks **{NH 355.10}** or roads;
 - c. the construction of tracks up to 2m in width;
 - d. clearance of areas that, within the last 10 years, have been cultivated or clear of vegetation; or **{NH 355.10}**
 - e. removal of pest plant species **{NH 951.60}** listed in Appendix 10B **{NH 908.3}**, or of grasses or plant species with a root depth of less than 30cm **{NH 312.9}**, provided that the area is replanted within 3 months. **{NH 951.60}**
3. For the purposes of this standard:
 - a. the area to be cleared will be measured from stems at ground level; **{NH 908.3}** and
 - b. the time period will be measured as the total clearance over any calendar year.
4. Vegetation clearance must not occur in the **dune system mapped area** except vegetation clearance as part of any of the following is exempt from this standard:
 - a. planting of indigenous species ~~that is as~~ **{NatEnv cl.16}** part of a conservation activity;
 - b. the maintenance or alteration of fences (including gates);
 - c. the maintenance (but not extension) of existing network **{NH 457.59}** utilities, irrigation infrastructure, **{NH 355.10}** tracks, drains, structures, fire breaks **{NH 355.10}** or roads;
 - d. vegetation clearance that is consistent with or **{NatEnv 949.15}** provided for as part of a conservation management strategy, conservation management plan, reserve management plan or covenant established under the Conservation Act 1987 or any other Act specified in the First Schedule of the Conservation Act 1987; or
 - e. removal of pest plant species **{NH 951.60}** listed in Appendix 10B **{NH 908.3}**, or of grasses or plant species with a root depth of less than 30cm **{NH 312.9}**, provided that the area is replanted within 3 months. **{NH 951.60}**
5. Activities that contravene this performance standard are restricted discretionary activities.**{PO cl.16}**

11.3.3 Minimum Floor Level {Confirmed for deletion - NH 917.27}

1. In the Hazard 3 (coastal) Overlay Zone, new buildings to be used for sensitive activities (including residential buildings) must have a floor level that is greater than the following: **{NH 917.27, 947.53 and others}**

Coastal Minimum Floor Level area {NH 917.27, 947.53 and others}		Levels in metres (in terms of the Otago Metric Datum (OMD), where current mean level of the sea is approximately 100.10 OMD) {NH 917.27, 947.53 and others}
a.	Karitane and Waikouaiti (Area A)	102.65m
b.	Warrington, Blueskin Bay, Pūrākaunui, Long Beach, Otago Harbour, South Dunedin (Area B)	102.60m
c.	Tomahawk, Brighton, South Coast, Papanui and Hoopers Inlets (Area C)	102.90m

2. In the Hazard 2 (flood) and Hazard 3 (flood) overlay zones, new buildings to be used for sensitive activities (including residential buildings) must have a floor level that is equal to or greater than the floor level shown on the **Flood Minimum Floor Level Map**, or if not shown on that map, at least 500mm above ground level.
3. Buildings that do not have people regularly present (for example, garages, carports, and sheds) are exempt from the performance standard for minimum floor levels in Rules 11.3.3.1 and 11.3.3.2.
4. In the Hazard 2 (flood) overlay zones, new buildings or additions and alterations to buildings must not include basements or floors that are below ground level. **{NH 917.27, 947.53 and others}**

Note 11.3A – General advice {NH 917.27, 947.53 and others}

1. Please note that minimum floor levels are based on a larger scale, often catchment wide, analysis of flood levels. They have been identified to reduce the risk from floodwaters, however a flood event may occur which could exceed the specified minimum floor level and which may result in damage. They do not avoid all risk to safety, particularly in relation to access or egress from a site; and they do not avoid all risk of damage to property.
2. All building and development are at the owner's risk own risk and the DCC does not accept any liability in regards to the specified minimum floor levels.
3. *Plan users are advised to read the report Dunedin City Council, Minimum Floor Levels for Flood Vulnerable Areas (GHD, March 2015) to understand the methodology, level of certainty and limitations associated with the specified minimum floor levels.*
4. *A site specific assessment of flood levels and their probabilities is advised before undertaking development.*

11.3.4 Relocatable Buildings

1. In the hazard 3 (coastal) overlay zone, new buildings to be used for sensitive activities (including residential buildings) containing residential activity on the ground floor **{NH 360.239 and NH 961.1}** must be relocatable.
2. Buildings that do not have people regularly present (for example, garages, carports, and sheds) are exempt from the performance standard for relocatable buildings. **{NH 360.239 and NH 961.1}**
3. Activities that contravene this performance standard are restricted discretionary activities.**{PO cl.16}**

Note 11.3B.4A - General advice

1. Relocatable buildings may not avoid all risks from natural hazards, particularly in the long term.
2. Development in hazard prone areas, including in the identified hazard overlay zones, are at an owner's risk and the DCC does not accept any liability in regards to development and risk from natural hazards.

11.3.5 Outdoor Storage {Was "Outdoor Storage Standard" - NH cl.16}

1. In a Hazard 1 (flood) Overlay Zone the hazard 1 (flood) and hazard 1A (flood) overlay zones, {NH 908.37} materials and goods must be stored in a way that prevents:
 - a. potentially dangerous materials being mobilised in the event of a flood; or
 - b. any materials or goods from obstructing or impeding water in a manner that may cause water to be diverted to another site.
2. Activities that contravene this performance standard are restricted discretionary activities.{PO cl.16}

Note 11.3.5A - Other requirements outside of the District Plan {NH 917.27, 947.53 and others}

1. Minimum floor levels are required by the New Zealand Building Code to safeguard people from injury or illness and other property from damage caused by surface water. These are implemented through the building consent process. Surface water is defined in the Building Code as "all naturally occurring water, other than sub-surface water, which results from rainfall on the site or water flowing onto the site, including that flowing from a drain, stream, river, lake or sea" (Schedule 1, Building Regulations 1992). {NH 917.27, 947.53 and others}

Rule 11.4 Assessment of Restricted Discretionary Activities (Performance Standard Contraventions)

Rule 11.4.1 Introduction

1. Restricted discretionary activities will be assessed in accordance with section 104 and 104C of the RMA, meaning only those matters to which Council has restricted its discretion will be considered, and Council may grant or refuse the application, and, if granted, may impose conditions with respect to matters over which it has restricted its discretion.
2. Rule 11.4.2:
 - a. lists the matters Council will restrict its discretion to; and
 - b. provides guidance on how consent applications will be assessed, including:
 - i. relevant objectives and policies, with respect to s104(1)(b)(vi);
 - ii. potential circumstances that may support a consent application;
 - iii. general assessment guidance; and
 - iv. conditions that may be imposed.

11.4.2 Assessment of development performance standard contraventions

Performance standard	Matters of discretion	Guidance on the assessment of resource consents
1.	All performance standard contraventions	<p><i>Potential circumstances that may support a consent application include:</i></p> <ol style="list-style-type: none"> The risks from natural hazards will be no more than low when assessed against the guidance provided in Table 11.1, taking into account site or area specific factors, including the elevation of the site or the topography of the area. <p><i>General assessment guidance:</i></p> <ol style="list-style-type: none"> Where more than one standard is contravened, the combined effects of the contraventions will be considered. In balancing consideration of the objectives and policies related to reducing risk and those related to general amenity (for example height or setbacks), greater weight will usually be placed on reducing risk. <u>In assessing the risks from natural hazards, Council will consider:</u> <ol style="list-style-type: none"> <u>how the risk from natural hazards may worsen over time due to climate change {NH 908.62}; and</u> <u>the policies of the New Zealand Coastal Policy Statement 2010 in terms of acceptable levels of risk. {NH 949.25 and NH 949.26}</u> In assessing the appropriateness of alternative mitigation measures: <ol style="list-style-type: none"> consideration will be given to its <u>their {NH cl.16}</u> potential effectiveness, in the short to longer term; preference will be given to non-structural solutions, over engineering or structural solutions, where practicable; mitigation measures that rely on significant capital investment or requirements for ongoing maintenance by the DCC or Otago Regional Council will generally not be seen as appropriate; and any mitigation measures that may result in more than negligible adverse effects on biodiversity <u>values {NH cl.16}</u>, more than minor adverse effects on access to the coast, or significant effects on amenity or natural coastal sedimentation processes, will generally not be seen as appropriate.

11.4.2 Assessment of development performance standard contraventions

Performance standard		Matters of discretion	Guidance on the assessment of resource consents
2.	Hazard exclusion areas (<u>Rule 11.3.1.1</u>) swale mapped area (<u>residential zones and Rural Centre Zone only</u>) {NH cl.16}	a. Risk from natural hazards	<p><i>Relevant objectives and policies:</i></p> <ol style="list-style-type: none"> Objective 11.2.1 Development activities, <u>and</u> public amenities and temporary activities {TA 583.9} in a swale mapped area do not obstruct or impede water during a flood hazard event, <u>and not</u> , <u>or</u> {NH cl.16} cause water to be diverted out of a swale, <u>during a flood hazard event</u> {NH cl.16}. (Policy 11.2.1.10). <p><i>Potential circumstances that may support a consent application include:</i></p> <ol style="list-style-type: none"> An assessment by a suitably qualified person has established that the development will not obstruct or impede water in a flood hazard event, and not cause water to be diverted out of the swale.
3.	In a hazard overlay zone : {NH cl.16} <ul style="list-style-type: none"> Hazardous substances quantity limits and storage requirements (Rule 9.3.4) 	a. Risk from natural hazards	<p><i>Relevant objectives and policies:</i></p> <ol style="list-style-type: none"> Objective 11.2.1 Hazardous substances in hazard 1, <u>hazard 1A</u> {NH 908.37} and 2 <u>Overlay Zones</u> are stored in a manner that ensures the risk from natural hazards is avoided, or is no more than low (Policy 11.2.1.7). <p><i>Potential circumstances that may support a consent application include:</i></p> <ol style="list-style-type: none"> An assessment by a suitably qualified person has established an appropriate manner of storage.
4. {NH 917.27, NH 947.53 and others}	Minimum floor level	a. Risk from natural hazards	<p><i>Relevant objectives and policies:</i></p> <ol style="list-style-type: none"> Objective 11.2.1 New buildings intended for sensitive activities have a floor level that mitigates risk from flooding (including coastal flooding) and rising groundwater so that the risk is no more than low (Policy 11.2.1.8). <p><i>Potential circumstances that may support a consent application include:</i></p> <ol style="list-style-type: none"> A site-specific assessment by a suitably qualified person has established an appropriate alternative minimum floor level. The building is in the hazard 3 (coastal) Overlay Zone and has an appropriate alternative minimum floor level that will mitigate risks from flooding in the short term; and the building is easily relocatable, so that as coastal hazards, including sea level rise, become more severe, the building can be relocated.

11.4.2 Assessment of development performance standard contraventions

Performance standard		Matters of discretion	Guidance on the assessment of resource consents
5.	Maximum area of vegetation clearance <u>in the hazard overlay zones</u> {NatEnv cl.16}	a. Risk from natural hazards	<p><i>Relevant objectives and policies:</i></p> <ul style="list-style-type: none"> i. Objective 11.2.1 ii. In a Hazard 1 (land instability) or Hazard 2 (land instability) Overlay Zone, or dune system mapped area, the scale and type of vegetation clearance will ensure the risk from erosion or land instability is avoided, or is no more than low (Policy 11.2.1.17). <p><i>Potential circumstances that may support a consent application include:</i></p> <ul style="list-style-type: none"> iii. A report by a suitably qualified person confirms that the risk from the vegetation clearance will be no more than low. iv. The area is to be replanted in a <u>with</u> {NH cl.16} species that will have equal or greater positive effects in terms of land stability and erosion control.
6.	Outdoor storage standard {NH cl.16}	a. Risk from natural hazards	<p><i>Relevant objectives and policies:</i></p> <ul style="list-style-type: none"> i. Objective 11.2.1 ii. In the hazard 1 <u>and 1A</u> (flood) Overlay Zones, {NH 908.37} outdoor storage is designed, managed, and located so that potentially dangerous materials will not be mobilised in a flood; and materials will not obstruct or impede flood water (Policy 11.2.1.4).
7.	Relocatable buildings	a. Risk from natural hazards	<p><i>Relevant objectives and policies:</i></p> <ul style="list-style-type: none"> i. Objective 11.2.1 ii. In the Hazard 3 (coastal) Overlay Zone, new buildings to be used for sensitive activities are relocatable so that as coastal hazards, including sea level rise, become more severe, these buildings can be relocated <u>containing residential activity on the ground floor are relocatable, unless site constraints mean this is not practicable</u> {NH 737.9 and others} (Policy 11.2.1.9).

11.4.2 Assessment of development performance standard contraventions

Performance standard		Matters of discretion	Guidance on the assessment of resource consents
8.	Setback from coast and water bodies (Rule 10.3.3)	a. Risk from natural hazards	<p><i>Relevant objectives and policies:</i></p> <ul style="list-style-type: none"> i. Objective 11.2.1 ii. <u>New buildings, and structures, storage and use of hazardous substances, network utility activities, and earthworks - large scale {NH cl.16}</u> are set back <u>an adequate distance</u> from water bodies <u>an adequate distance</u> so that the risk <u>from natural hazards {NH cl.16}</u>, including from erosion and flooding, is avoided, or is no more than low (Policy 11.2.1.19). <p><i>Potential circumstances that may support a consent application include:</i></p> <ul style="list-style-type: none"> iii. A site specific assessment by a suitably qualified person has established an appropriate alternative setback.

Rule 11.5 Assessment of Restricted Discretionary Activities

Rule 11.5.1 Introduction

1. Restricted discretionary activities will be assessed in accordance with section 104 and 104C of the RMA, meaning only those matters to which Council has restricted its discretion will be considered, and Council may grant or refuse the application, and, if granted, may impose conditions with respect to matters over which it has restricted its discretion.
2. Rule 11.5.2:
 - a. lists the matters Council will restrict its discretion to; and
 - b. provides guidance on how a consent application will be assessed, including:
 - i. relevant objectives and policies, with respect to s104(1)(b)(vi);
 - ii. potential circumstances that may support a consent application;
 - iii. general assessment guidance; and
 - iv. conditions that may be imposed.

11.5.2 Assessment of all restricted discretionary activities

Activity		Matters of discretion	Guidance on the assessment of resource consents
1.	All restricted discretionary activities	a. Risk from natural hazards	<p><i>General assessment guidance:</i></p> <p>i. In assessing the risks from natural hazards, Council will consider:</p> <ol style="list-style-type: none"> existing hazards assessment reports on the DCC's <u>hazard Hazard {NH cl.16}</u> Information Management System; the Otago Regional Council's Otago Natural Hazards Database; any new hazard assessment or engineers' reports provided as part of an application; and site or area specific factors, including the elevation of the site or topography and geology of the area, including if it is in a geologically sensitive mapped area (GSA) {NH cl.16³}; risk to activities proposed on a site, as well as risk that is created, transferred, or exacerbated on other sites; and <u>cumulative effects of natural hazards, including from multiple hazards with different risks; and {NH 908.59}</u> <u>how the risk from natural hazards may worsen over time due to climate change. {NH 908.62}</u> <p>ii. The creation, transference or exacerbation of risk off-site by the proposed activity, or future proposed activities, for example risk from redirected floodwaters, or risk from landslide on another site will generally not be seen as appropriate.</p> <p>iii. <u>In assessing risk, Council will also consider the policies of the New Zealand Coastal Policy Statement 2010 in terms of acceptable levels of risk. {NH 949.25 and NH 949.26}</u></p> <p>iv. In assessing the appropriateness of mitigation measures (other than those prescribed in performance standards):</p> <ol style="list-style-type: none"> consideration will be given to its potential effectiveness, in the short to long term; preference will be given to non-structural solutions, over engineering or structural solutions, where practicable; mitigation measures that rely on significant capital investment or requirements for ongoing maintenance by the DCC or Otago Regional Council will generally not be seen as appropriate; and any mitigation measures that may result in more than negligible adverse effects on biodiversity <u>values {NH cl.16}</u>, more than minor effects on access to the coast,

11.5.2 Assessment of all restricted discretionary activities

Activity		Matters of discretion	Guidance on the assessment of resource consents
			<p>or significant effects on amenity or natural coastal sedimentation processes, will generally not be seen as appropriate.</p> <p><i>Potential circumstances that may support a consent application include:</i></p> <ul style="list-style-type: none"> v. The risk from natural hazards will be no more than low when assessed against the guidance provided in Table 11.1. vi. In the Hazard 2 (land instability) Overlay Zone, a report by a suitably qualified person confirms that the risks to the development, or resulting from the development, will be no more than low. vii. Measures are proposed (including legal instruments), that will avoid DCC or the community from being subject to claims for protection, compensation, reinstatement, or rectification of buildings or structures intended for <u>natural hazards</u> {PO cl.16} sensitive activities, or <u>natural hazards</u> {PO cl.16} potentially sensitive activities, undertaken in hazard overlay zones. viii. The availability of clear, practicable and safe evacuation routes and/or alternate means of maintaining access during a natural hazard event that will be equally available to future owners, occupiers, or operators. <p><i>Conditions that may be imposed include:</i></p> <ul style="list-style-type: none"> ix. Building platforms registered against the title by way of consent notice.

11.5.2 Assessment of all restricted discretionary activities

Activity		Matters of discretion	Guidance on the assessment of resource consents
2.	<p>In a hazard 1 (flood), 1A (flood) {NH 908.37} or 2 (flood) overlay zone other than the Hazard 1 (land instability) Overlay Zone {NH 73.4 and others}:</p> <ul style="list-style-type: none"> new buildings, and additions and alterations to buildings, which create more than 36m² of new ground floor area in a residential zone, or 60m² of new ground floor area in all other zones other than residential {NH cl.16}. 	a. Risk from natural hazards	<p><i>Relevant objectives and policies:</i></p> <ol style="list-style-type: none"> Objective 11.2.1 The scale, location and design of the building or other factors mean risk is avoided, or is no more than low (Policy 11.2.1.3).
X. { NH 634.74 }	<p>In the Hazard 2 (flood) Overlay Zone:</p> <ul style="list-style-type: none"> natural hazards sensitive activities natural hazards potentially sensitive activities 	a. Risk from natural hazards	<p><i>Relevant objectives and policies:</i></p> <ol style="list-style-type: none"> Objective 11.2.1 The activity has a critical operational need to locate within the overlay zone and risk is minimised as far as practicable; or the scale, location and design of the activity or other factors mean risk is avoided, or is no more than low (Policy 11.2.1.5).

11.5.2 Assessment of all restricted discretionary activities

Activity		Matters of discretion	Guidance on the assessment of resource consents
3. { NH 73.4 and others }	In a Hazard 1 (land instability) Overlay Zone : <ul style="list-style-type: none"> new buildings, and additions and alterations to buildings which create more than 1m² of new ground floor area. 	a. Risk from natural hazards	<i>Relevant objectives and policies:</i> <ol style="list-style-type: none"> Objective 11.2.1 The scale, location, and design of building or other factors mean risk is avoided, or is no more than low (Policy 11.2.1.3).
4. { NH cl.16' }	In a dune system mapped area and swale mapped area : <ul style="list-style-type: none"> Earthworks – large scale that exceed the scale thresholds 	a. Risk from natural hazards	<i>Relevant objectives and policies:</i> <ol style="list-style-type: none"> Objective 11.2.1 Earthworks in a dune system mapped area will not have adverse effects on the stability or buffering capacity of dune systems; and will not create, exacerbate, or transfer risk from natural hazards (Policy 11.2.1.14). Earthworks in a swale mapped area will not obstruct or impede flood water, unless part of an approved natural hazard mitigation activity; nor create, exacerbate, or transfer risk from natural hazards (Policy 11.2.1.15).
5. { NH cl.16' }	Earthworks – large scale that exceed underlying zone scale thresholds for a geologically sensitive mapped area { NH cl.16' }	a. Risk from natural hazards	<i>Relevant objectives and policies:</i> <ol style="list-style-type: none"> Objective 11.2.1 The risk from natural hazards is avoided, or no more than low (Policy 11.2.1.12).
6. { NH cl.16' }	Earthworks – large scale that exceed scale thresholds for hazard (flood) overlay zones	a. Risk from natural hazards	<i>Relevant objectives and policies:</i> <ol style="list-style-type: none"> Objective 11.2.1 Earthworks will not obstruct or impede flood water, unless associated with approved hazard protection structures; nor create, exacerbate, or transfer risk from natural hazards (Policy 11.2.1.15).

11.5.2 Assessment of all restricted discretionary activities

Activity		Matters of discretion	Guidance on the assessment of resource consents
7. {NH cl.16}	Earthworks – large scale that exceed scale thresholds for hazard (land instability) overlay zones	a. Risk from natural hazards	<p><i>Relevant objectives and policies:</i></p> <ul style="list-style-type: none"> i. Objective 11.2.1 ii. Earthworks will not have adverse effects on land stability nor create, exacerbate, or transfer risk from natural hazards (Policy 11.2.1.16).
8. {NH 949.25 and 634.69}	All subdivision activities in a Hazard 3 (coastal) Overlay Zone	a. Risk from natural hazard	<p><i>Relevant objectives and policies:</i></p> <ul style="list-style-type: none"> i. Objective 11.2.1 ii. In the hazard 3 (coastal) Overlay Zone, where hazards may worsen over time due to climate change, subdivision activities will only result in a minimal increase in development potential for sensitive activities or potentially sensitive activities; (Policy 11.2.1.13). <p><i>Additional conditions that may be imposed include:</i></p> <ul style="list-style-type: none"> iii. Restrictions and conditions, including by way of consent notice, restricting future subdivision activities.
Y. {NH cl.16}	Earthworks - large scale (that exceed the scale threshold for a hazard overlay zone or swale or dune system mapped area).	a. Risk from natural hazards	<p><i>Relevant objectives and policies:</i></p> <ul style="list-style-type: none"> i. Objective 11.2.1 ii. The risk from natural hazards, will be avoided, or no more than low (Policy 11.2.1.12). <p><i>General assessment guidance:</i></p> <p>In assessing changes in risk, Council will specifically consider:</p> <ul style="list-style-type: none"> iii. In the dune system mapped area, any adverse effects on the stability or buffering capacity of dune systems that may lead to increased risk from natural hazards; iv. In a flood or alluvial fan overlay zone or the swale mapped area, whether the earthworks will obstruct, impede, or redirect flood water; and v. In a land instability overlay zone, general effects on land instability.
9.	<p>All subdivision activities</p> <ul style="list-style-type: none"> • General subdivision • Cross lease, company lease and unit title subdivision {NH cl.16} 	a. Risk from natural hazards	<p><i>Relevant objectives and policies:</i></p> <ul style="list-style-type: none"> i. Objective 11.2.1 ii. In all hazard overlay zones, the swale mapped area, dune system mapped area, or in any other area that the DCC has information to suspect there may be risk from a natural hazard, or in any other area or areas that the DCC has good cause to suspect may be at risk from a natural hazard, all subdivisions are designed to ensure any future land use or development will occur in a way that ensures the risk from natural hazards is avoided, or is no more than

11.5.2 Assessment of all restricted discretionary activities

Activity	Matters of discretion	Guidance on the assessment of resource consents
		<p>low there is a reasonable level of certainty that any future land use or development will meet policies 11.2.1.1 - 11.2.1.12 (Policy 11.2.1.42-13). {NH 949.25 and 634.69}</p> <p><i>General assessment guidance:</i></p> <p>iii. In assessing the risk from natural hazards, Council will consider the proposed and potential future development or land use that may occur as a result of the subdivision to create, transfer or exacerbate risk off site, including, but not limited to:</p> <ol style="list-style-type: none"> 1. earthworks; 2. new driveways and vehicle tracks, including culverts or driveway crossings or other site development <u>activities</u> {NH cl.16} that may restrict or impede drainage; 3. wastewater disposal systems (public or private); 4. stormwater management; 5. drainage; 6. all buildings, structures and other development , and the risk to them from natural hazards and their potential to create, transfer, or exacerbate risks off site {NH cl.16}; and 7. primary and secondary or {NH cl.16} ancillary land use activities, and their sensitivity. <p><i>Potential circumstances that may support a consent application include:</i></p> <p>iv. The availability of clear, practicable and safe evacuation routes and/or alternate means of maintaining access during a natural hazard event that will be equally available to future owners, occupiers, or operators.</p> <p>v. That resultant sites provide building platforms that will allow buildings associated with <u>natural hazards</u> {PO cl.16} sensitive or <u>natural hazards</u> {PO cl.16} potentially sensitive activities to ensure the risk from natural hazards is avoided, or is no more than low, including through meeting relevant performance standards.</p> <p>vi. Any associated consents for land use and development activities are approved at the same time consents for subdivisions are granted.</p> <p>vii. Confirmation (including certification) by a suitably qualified expert that the site is suitable for the intended use and the conditions on land use or development that are required for the site to be developed safely.</p> <p>viii. Where development of the resultant sites is likely to result in on-site wastewater disposal or storage, the effects of</p>

11.5.2 Assessment of all restricted discretionary activities

Activity		Matters of discretion	Guidance on the assessment of resource consents
			<p>flooding and sea level rise will be such that safe and effective on-site disposal is likely to be practicable in the long term.</p> <p><i>Conditions that may be imposed include:</i></p> <ul style="list-style-type: none"> ix. Building platforms registered against the title by way of consent notice x. Restrictions and conditions, including by way of consent notice, on development activities including: <ul style="list-style-type: none"> 1. minimum floor levels for buildings; {NH 917.27, NH 947.53 and others} 2. stormwater management systems, for example, retention basins to regulate the rate and volume of surface runoff; 3. establishment, enhancement, or retention of vegetation; 4. conditions on the design of earthworks; 5. the type of water and waste services to be used; and 6. the location and design of driveways and vehicle tracks. xi. Restrictions or conditions, including by way of consent notice, on land use activities allowed on the site.

¹ **NH cl.16:** As a clause 16 amendment, this content is being moved to Rule 11.5.2.Y. This does not result in a substantive change to the effect of provisions.

² **NH cl.16:** As a clause 16 amendment, this content has been moved from rules 11.5.2.4, 11.5.2.5, 11.5.2.6 and 11.5.2.7. This does not result in a substantive change to the effect of provisions.

³ **NH cl.16:** Geologically sensitive areas are not part of the Plan, and are included in the data map for information purposes only. Reference to them in assessment rules is therefore incorrect and has been removed under cl.16. There is no substantive change to the provisions.

Rule 11.6 Assessment of Discretionary Activities

Rule 11.6.1 Introduction

1. Discretionary activities will be assessed in accordance with section 104 and 104B of the RMA meaning Council may grant or refuse the application, and, if granted, may impose conditions.
2. Rule 11.6.2 provides guidance on how a consent application for the listed discretionary activities will be assessed, including:
 - a. relevant objectives and policies that will be considered as a priority with respect to s104(1)(b)(vi);
 - b. potential circumstances that may support a consent application;
 - c. general assessment guidance, including any effects that will be considered as a priority; and
 - d. conditions that may be imposed.

11.6.2 Assessment of all discretionary activities

Activity	Guidance on the assessment of resource consents
1. All discretionary activities <u>that are linked to section 11.6, including but not limited to the activities listed below {PO cl. 16}</u>	<p><i>Relevant objectives and policies (priority considerations):</i></p> <ol style="list-style-type: none"> a. Objective 2.2.1 and Objective 11.2.1 <p><i>General assessment guidance:</i></p> <ol style="list-style-type: none"> b. In assessing the risks from natural hazards, Council will consider: <ol style="list-style-type: none"> i. existing hazards assessment reports on the DCC's Hazard Information Management System; ii. the Otago Regional Council's Otago Natural Hazards Database; iii. any new hazard assessment or engineers' reports provided as part of an application; iv. site or area specific factors, including the elevation of the site, or topography and geology of the area; v. the type, nature and scale of the activity, and how this affects its sensitivity to natural hazards; vi. short to long term effects, including effects in combination with other activities; vii. the potential for cumulative adverse effects arising from similar activities occurring as a result of a precedent being set by the granting of a resource consent; viii. risk to activities proposed on a site, as well as risk that is created, transferred, or exacerbated on other sites; and ix. new or changes to land use <u>activities {NH cl.16}</u> and any associated development activities together, as development may not be appropriate given the risk associated with a site, or conditions on development activities may be required to mitigate the risk from natural hazards- x. <u>cumulative effects of natural hazards, including from multiple hazards with different risks; and {NH 908.59}</u> xi. <u>how the risk from natural hazards may worsen over time due</u>

11.6.2 Assessment of all discretionary activities

Activity	Guidance on the assessment of resource consents
	<p><u>to climate change {NH 908.62}</u></p> <p>c. The creation, transference or exacerbation of risk off-site by the proposed activity, or future proposed activities, for example risk from redirected floodwaters, or risk from landslide on another site will generally not be seen as appropriate.</p> <p>d. <u>In assessing risk, Council will also consider the policies of the New Zealand Coastal Policy Statement 2010 in terms of acceptable levels of risk. {NH 949.25 and NH 949.26}</u></p> <p>e. In assessing the appropriateness of mitigation measures (other than those prescribed in performance standards):</p> <ol style="list-style-type: none"> consideration will be given to its potential effectiveness, in the short to longer term; preference will be given to non-structural solutions, over engineering or structural solutions, where practicable; mitigation measures that rely on significant capital investment or requirements for ongoing maintenance by the DCC or Otago Regional Council will generally not be seen as appropriate; and any mitigation measures that may result in more than negligible adverse effects on biodiversity <u>values {NH cl.16}</u>, more than minor effects on access to the coast, or significant effects on amenity or natural coastal sedimentation processes, will generally not be seen as appropriate. <p>f. Mitigation measures relying on minimum floor levels are either:</p> <ol style="list-style-type: none"> based on recommended minimum floor levels specified in recommended minimum floor level areas as shown in the flood minimum floor level mapped area; or are based on a site specific assessment by a suitably qualified hydrologist which establishes an appropriate alternative minimum floor level. {NH 917.27, NH 947.53 and others} <p><i>Potential circumstances that may support a consent application include:</i></p> <p>g. The availability of clear, practicable and safe evacuation routes and/or alternate means of maintaining access during a natural hazard event that will be equally available to future owners, occupiers, or operators.</p> <p>h. Measures are taken (including legal instruments), that will avoid the <u>{NH cl.16}</u> Council or the community from being subject to claims for compensation, reinstatement, or rectification of <u>natural hazards {PO cl.16}</u> sensitive activities, or <u>natural hazards {PO cl.16}</u> potentially sensitive activities, undertaken in hazard overlay zones.</p>

11.6.2 Assessment of all discretionary activities

Activity		Guidance on the assessment of resource consents
		<p>i. In the Hazard 2 (land instability) Overlay Zone, a report by a suitably qualified person confirms that the risk to the activity, or resulting from the activity, will be no more than low.</p> <p>j. For discretionary land use activities, whether any associated buildings or structures meet relevant hazards-related development performance standards, or otherwise achieve the relevant policies for development (see Rule 11.4 for performance standard contraventions).</p> <p><i>Conditions that may be imposed include:</i></p> <p>k. Building platforms registered against the title by way of consent notice.</p>
2.	<ul style="list-style-type: none"> • <u>Natural</u> hazard mitigation earthworks {HazMit cl.16} • <u>Natural</u> hazard mitigation structures {HazMit cl.16} 	<p><i>Relevant objectives and policies (priority considerations):</i></p> <p>a. Objective 11.2.1</p> <p>b. The option of doing nothing is not the best practicable option and it will reduce risk overall and not transfer, exacerbate, or create a new risk somewhere else {HazMit 308.167} (Policy 11.2.1.20).</p>
3. {NH 634.74}	<p>In the hazard 1 overlay zones:</p> <ul style="list-style-type: none"> • potentially sensitive activities permitted in underlying zone 	<p><i>Relevant objectives and policies (priority considerations):</i></p> <p>a. Objective 11.2.1</p> <p>b. The activity has a critical operational need to locate within the hazard 1 overlay zones and locating outside the hazard 1 overlay zones is not practicable (Policy 11.2.1.2.a).</p> <p>c. The scale, location and design of the activity or other factors means risk is avoided, or is no more than low (Policy 11.2.1.2.b).</p>
4. {NH 634.74}	<p>In the hazard 2 overlay zones:</p> <ul style="list-style-type: none"> • potentially sensitive activities not permitted in underlying zone 	<p><i>Relevant objectives and policies (priority considerations):</i></p> <p>a. Objective 11.2.1</p> <p>b. The activity has a critical operational need to locate within the hazard 2 overlay zones and locating outside the hazard 2 overlay zones is not practicable (Policy 11.2.1.6.a).</p> <p>c. The scale, location and design of the activity or other factors means risk is avoided, or is no more than low (Policy 11.2.1.6.b).</p>
5. {NH 634.74}	<p>In the hazard 2 overlay zones:</p> <ul style="list-style-type: none"> • sensitive activities 	<p><i>Relevant objectives and policies (priority considerations):</i></p> <p>a. Objective 11.2.1</p> <p>b. The scale, location and design of the activity or other factors means risk is avoided, or is no more than low (Policy 11.2.1.5).</p>

Rule 11.7 Assessment of Non-complying Activities

Rule 11.7.1 Introduction

1. Non-complying activities will be assessed in accordance with section 104, 104B and 104D of the RMA meaning Council may grant or refuse the application, and, if granted, may impose conditions.
2. Rules 11.7.2 - 11.7.3 provide guidance on how a consent application for the listed non-complying activities will be assessed, including:
 - a. relevant objectives and policies that will be considered as a priority with respect to s104(1)(b)(vi); and
 - b. general assessment guidance, including any effects that will be considered as a priority.

11.7.2 Assessment of non-complying activities

Activity	Guidance on the assessment of resource consents
<p>1. In the hazard 1 (flood) overlay zones {NH 73.4 and others}:</p> <ul style="list-style-type: none"> • New {NH 908.3} Natural hazards {PO cl.16} potentially sensitive activities not permitted in zone {NH 634.74} • New {NH 908.3} Natural hazards {PO cl.16} sensitive activities <p><u>In the Hazard 1A (flood) Overlay Zone:</u></p> <ul style="list-style-type: none"> • Natural hazards potentially sensitive activities {NH908.37} 	<p><i>Relevant objectives and policies (priority considerations):</i></p> <ol style="list-style-type: none"> a. Objective 2.2.1 b. Objective 11.2.1; Policy 11.2.1.1 c. <u>In the Hazard 1 (flood) Overlay Zone, natural hazards sensitive activities and natural hazards potentially sensitive activities are avoided unless:</u> <ol style="list-style-type: none"> i. <u>the risk from natural hazards is avoided, or is no more than low; and</u> ii. <u>the activity has a critical operational need to locate within the Hazard 1 (flood) Overlay Zone and locating outside it is not practicable (Policy 11.2.1.1).</u> d. <u>In the Hazard 1A (flood) Overlay Zones, natural hazards potentially sensitive activities are avoided unless:</u> <ol style="list-style-type: none"> i. <u>the risk from natural hazards is avoided, or is no more than low; and</u> ii. <u>the activity has a critical operational need to locate within the Hazard 1A (flood) Overlay Zone and locating outside it is not practicable (Policy 11.2.1.Z). {NH 908.37}</u> <p><i>General assessment guidance:</i></p> <ol style="list-style-type: none"> e. <u>In assessing whether the risk is no more than low, Council will consider the guidance provided in Section 11.1.2 and will generally require a report by a suitably qualified person to confirm that the risks to the development, or resulting from the development, will be no more than low. {NH cl.16}</u> f. In assessing the risks from natural hazards, Council will consider: <ol style="list-style-type: none"> i. existing hazards assessment reports on the DCC's Hazard Information Management System; ii. the Otago Regional Council's Otago Natural Hazards Database; iii. any new hazard assessment or engineers' reports provided as part of an application;

11.7.2 Assessment of non-complying activities

Activity	Guidance on the assessment of resource consents
	<ul style="list-style-type: none"> iv. site or area specific factors, including the elevation of the site, or topography and geology of the area; v. the type, nature and scale of the activity, and how this affects its sensitivity to natural hazards; vi. short to long term effects, including effects in combination with other activities; vii. risk to activities proposed on a site, as well as risk that is created, transferred, or exacerbated on other sites; viii. the potential for cumulative adverse effects arising from similar activities occurring as a result of a precedent being set by the granting of a resource consent; and ix. evacuation routes, and/or alternate means of maintaining access during a natural hazard event; x. <u>cumulative effects of natural hazards, including from multiple hazards with different risks.</u> {NH 908.59} xi. The creation, transference or exacerbation of risk off-site by the proposed activity, or future proposed activities, for example risk from redirected floodwaters, or risk from landslide on another site will generally not be seen as appropriate; and {NH cl.16} xii. <u>how the risk from natural hazards may worsen over time due to climate change.</u> {NH 908.62} g. <u>In assessing risk, Council will also consider the policies of the New Zealand Coastal Policy Statement 2010 in terms of acceptable levels of risk.</u> {NH 949.25 and NH 949.26} h. <u>Council will consider whether the proposal could make the DCC or Otago Regional Council subject to claims for protection, compensation, reinstatement, or rectification of buildings or structures intended for natural hazards sensitive activities, or natural hazards potentially sensitive activities, undertaken in hazard overlay zones, and whether a mechanism is proposed to protect the DCC or ORC from these claims.</u> {NH cl.16} i. In assessing the appropriateness of mitigation measures (other than those prescribed in performance standards): <ul style="list-style-type: none"> i. consideration will be given to its potential effectiveness, in the short to longer term; ii. preference will be given to non-structural solutions, over engineering or structural solutions, where practicable; iii. mitigation measures that rely on significant capital investment or requirements for ongoing maintenance by the DCC or Otago Regional Council will generally not be seen as appropriate; and iv. any mitigation measures that may result in more than negligible adverse effects on biodiversity <u>values</u> {NH cl.16}, more than minor

11.7.2 Assessment of non-complying activities

Activity	Guidance on the assessment of resource consents
	<p>effects on access to the coast, or significant effects on amenity or natural coastal sedimentation processes, will generally not be seen as appropriate.</p> <p><i>Potential circumstances that may support a consent application include:</i> {NH cl.16}</p> <p>j. The risk from natural hazards, will be no more than low, when assessed against the guidance provided in Table 11.1.</p> <p>k. A report by a suitably qualified person confirms that the risks to the development, or resulting from the development, will be no more than low.</p> <p>l. Measures are proposed (including legal instruments), that will avoid DCC or the community from being subject to claims for protection, compensation, reinstatement, or rectification of buildings or structures intended for sensitive activities, or potentially sensitive activities, undertaken in hazard overlay zones.</p>

¹ **NH cl.16:** This rule was notified as Rule 11.7.2.1.d, but has been relocated within Rule 11.7.2.1. This does not change the effect of the rule.

11.7.3 Assessment of non-complying performance standard contraventions

Performance standard	Guidance on the assessment of resource consents
1. • Hazard exclusion areas (Rule 11.3.1.1) swale mapped area	<p><i>Relevant objectives and policies (priority considerations):</i></p> <p>a. Objectives 2.2.1</p> <p>b. Objective 11.2.1, policies 11.2.1.10, 11.2.1.11 {NH cl.16}</p> <p>c. Development activities <u>and</u> public amenities <u>and</u> temporary activities {TA 583.9} in a swale mapped area do not obstruct or impede water during a flood hazard event, and not, <u>or</u> {NH cl.16} cause water to be diverted out of a swale, <u>during a flood hazard event</u> {NH cl.16}. (Policy 11.2.1.10).</p>
2. • Hazard exclusion areas (Rule 11.3.1.2) - dune system mapped area	<p><i>Relevant objectives and policies (priority considerations):</i></p> <p>a. Objectives 2.2.1</p> <p>b. Avoid buildings and structures (except for relocatable surf life saving clubs) {NH 73.4 and others} within a dune system mapped area unless:</p> <p>i. <u>they have an operational need to locate there:</u> {NH 690.12}</p> <p>ii. <u>there is no risk that development will cause, exacerbate, or be at they will not increase the risk of from coastal erosion; and</u> {NH 908.3}</p> <p>iii. <u>the risk from natural hazards is no more than low.</u> {NH 908.3} (Policy 11.2.1.11)</p>

Rule 11.8 Notification {Confirmed for deletion - NH cl.16¹}

¹ **NH cl.16:** Rule 11.8 has been removed because section does not have an activity status table. All activities that are managed in this section are subject to the notification rule associated with the activity status table in which they appear (i.e. in a management zone, major facility zone or city-wide activity section). Rule 11.8.3 has been transferred to the notification rule in all section that intersect with, and contain hazard provisions for, a Hazard 1 or 1A (flood) overlay zones, or the swale mapped area. The other elements of Rule 11.8 are already covered in the notification rules in other sections and are, therefore, superfluous.

1. ~~Applications for resource consent for the following activities will be publicly notified in accordance with section 95A(2) of the RMA, unless Council considers special circumstances exist in relation to the application:~~
 1. ~~non-complying activities.~~
2. ~~With respect to resource consent applications for the following activities, manawhenua will be considered an affected person in accordance with section 95B of the RMA where their written approval is not provided:~~
 1. ~~discretionary and non-complying activities in a **wāhi tūpuna mapped area** where the activity is identified as a threat to the **wāhi tūpuna mapped area** in Appendix A4.~~
3. ~~Otago Regional Council will be considered an affected person in accordance with section 95B of the RMA where their written approval is not provided with respect to applications for resource consent in the following locations:~~
 1. ~~Hazard 1 (flood) overlay zones; and~~
 2. ~~**swale mapped areas.**~~
4. ~~In accordance with section 95(B) of the RMA, where an application is not publicly notified, Council will give limited notification of an application to all affected persons.~~
5. ~~All other activities are subject to the normal tests for notification in accordance with sections 95A-95G of the RMA. {NH cl.16}~~

Rule 11.9 Special Information Requirements

1. A report by a suitably qualified person, which addresses the relevant assessment matters of this plan, may be requested by Council for any activity that is subject to:
 1. a hazard overlay zone;
 2. a **dune system mapped area**;
 3. a **swale mapped area**; or
 4. a ~~minimum floor level~~; **{NH 917.27, NH 947.53 and others}**
 5. a ~~geologically sensitive mapped area~~; and **{NH cl.16}**
 6. land that Council has ~~good cause~~ information **{NH 634.69}** on indicating it may be to suspect is **{NH cl.16}** hazard prone.
2. For the purpose of natural hazard risk, a suitably qualified person includes:
 1. Hydrologists;
 2. Geotechnical engineers; and
 3. Geomorphological specialists **{NH cl.16}** (including coastal).

¹ **NH cl.16:** As a clause 16 amendment, geologically sensitive areas are not part of this Plan, and are included in the data map for information purposes only.

