

Attachment A:

EXPERT CONFERENCING Natural Hazards and Airports

Dated: 10 September, 2024

Key:

Text in **red** is the Council's s42A Amendments to PC29 based on submissions as contained in the 19th August Addendum.

Text in **green** is the agreed amendments within the JWS to introduce Airport specific amendments into PC29).

INSERT: CHAPTER 2 – MEANING OF WORDS

Flood tolerant activities (for the purposes of the AP30 provisions)

Means the following:

- Informal recreation and leisure
- Organised sports and recreation including park fields structures
- car parking and loading areas; and
- In the Inundation Overlay only, durable non-habitable buildings designed and operated to accommodate the effects of flooding as associated with the 1%AEP event level, where:
 - (a) construction materials, linings, and any stored items are designed to withstand or tolerate the impact of flood inundation where located below the 1%AEP event level; and
 - (b) any exposed electrical services are located above the 1%AEP event level.

INSERT: CHAPTER 3 – ADMINISTRATION

AD14 Nelson Airport natural hazard rules

The rules in Appendix 31 Nelson Airport Natural Hazard Rules impose restrictions on: the storage of hazardous substances, buildings, fencing, network utilities, earthworks and / or flood mitigation and protection works where located within any of the following Overlays:

- Inundation Overlay
- High Flood Hazard Overlay
- Flood Hazard Overlay
- Liquefaction Hazard Overlay

INSERT: CHAPTER 5 – DO5 NATURAL HAZARDS

DO2.2.19 Nelson Airport activities in Flood Areas and the Liquefaction Hazard Overlay in Appendix 30

Provide for the operation, maintenance, upgrading and construction of infrastructure associated with the Nelson Airport in areas subject to natural hazards:

- (a) Where:
 - i. activities are functionally or operationally required to locate in hazard areas, or it is not reasonably practicable that it be relocated elsewhere; and
 - ii. in all hazard areas risks to people, property and the environment are mitigated to the extent practicable.
- (b) Recognising the role of the Airport to maintain its integrity and function and to operate during natural hazard events.

Reasons

- DO2.2.19.i Nelson Airport is an existing asset, and is identified as a Lifeline Utility within the Civil Defence Emergency Management Act 2002. Such infrastructure is necessary to ensure support and provide resilience to the Nelson community in the event of a natural hazard event.
- DO2.2.19ii. Infrastructure associated with the Airport should therefore be designed to maintain, as far as is practicable, its integrity and function during natural hazard events. This requires recognition that there will be functional and operational requirements for Airport infrastructure to be located in areas subject to natural hazards, albeit as subject to appropriately managing risk.

DO2.1 natural hazards: all zones except General Residential Zone, Medium Density Residential Zone, ~~High Density Residential Zone~~, Inner City Residential Zone, ~~Industrial Zone~~ and Suburban Commercial Zone ~~and Nelson Airport~~.

An environment within which adverse effects of natural hazards on people, property, and the environment are avoided or mitigated.

DO2.2 natural hazards:General Residential Zone, Medium Density Residential Zone, ~~High Density Residential Zone~~, Inner City Residential Zone, ~~Industrial Zone~~ and Suburban Commercial Zone ~~and Nelson Airport~~.

Risks to Whakatū Nelson's people, property and infrastructure from natural hazards, including the effects of climate change, are recognised and managed and significant risk is avoided.

DO2.2.6 flood hazard: hard protection structures

Support the use of hard protection structures for flood mitigation purposes in preference to natural features and processes only where:

1. there is no ~~practicable~~ natural defence option ~~and / or is appropriate having regard to the functional and/or operational need for Nationally and/or Regionally Significant Infrastructure to locate within Flood Areas; and~~
2. the hard protection structure does not create or exacerbate flooding upstream or downstream, or otherwise increase flood hazards or erosion ~~and;~~
3. the hard protection structure is located, designed, built and maintained to withstand ~~reasonably foreseeable~~ natural processes and the effects of climate change; ~~and~~
4. ~~Is appropriate having regard to the functional and/or operational need for Nationally and/or Regionally Significant Infrastructure to locate within Flood Areas; and~~
5. significant adverse effects, including on the natural character and processes of the river and coastal environment, are avoided or mitigated.

DO2.2.7 flood hazard: activities and development

Enable activities and development in the Flood hazard, flood and inundation overlays where the activity, ~~including through mitigation~~ does not increase significant risks of adverse effects from flood hazards to people, property, infrastructure and the natural environment.

INSERT: CHAPTER 10 INDUSTRIAL ZONE RULES

Amend the Industrial text as introduced by PC29:

INr.60A, Flood Areas except Flood Paths or Floodways Storage of a hazardous substance Rule INr.60A does not apply to Nelson Airport see Appendix 31.	INr.60A.1 In Flood Areas, except Flood Path or Floodway, the aboveground storage and use of a hazardous....	INr.60A.2 not applicable	INr.60A.3 Activities that <u>contravene a permitted condition</u> are restricted discretionary....
INr.60B Flood Areas except Flood Paths and Floodways Building and below ground swimming pools. Rule INr.60B does not apply to Nelson Airport see Appendix 31.	XXX	XXX	XXX
INr.60C Flood Areas except Flood Paths or Floodways Fence, wall, retaining wall, outside storage. Rule INr.60C does not apply to Nelson Airport see Appendix 31.	XXX	XXX	XXX
INr.60D Flood Areas except Flood Paths or Floodways overlays Network utility. Rule INr.60D does not apply to Nelson Airport see Appendix 31.	XXX	XXX	XXX
INr.60E Flood Area except Flood Path or Floodways Earthworks. Rule INr.60E does not apply to Nelson Airport see Appendix 31.	XXX	XXX	XXX
INr.60F Flood Areas except Flood Paths and Floodways Flood mitigation and protection works. Rule INr.60F does not apply to Nelson Airport see Appendix 31	XXX	XXX	XXX
....	...	...	...
INr.72A Liquefaction Hazard Overlay Building or network utility. Rule INr.72A does not apply to Nelson Airport see Appendix 31	XXX	XXX	XXX

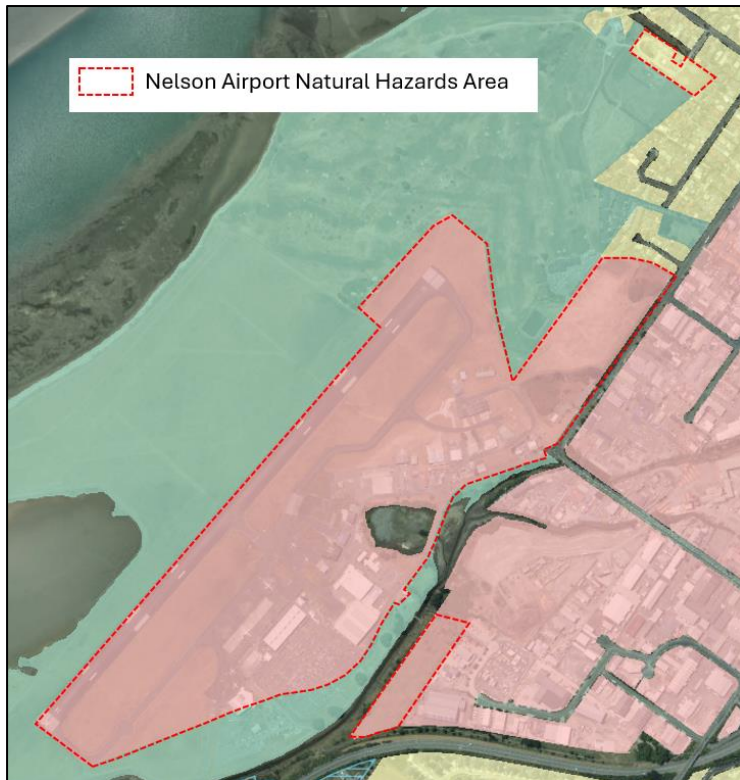
INSERT: APPENDIX 31: NELSON AIRPORT NATURAL HAZARD RULES

AP31

Overview

This appendix prescribes the natural hazard rules as they relate to land as identified in the Nelson Airport Natural Hazards Area as below.

Nelson Airport Natural Hazards Area



Contents of Nelson Airport Natural Hazards Area rule table

<u>APr31r.1</u>	Flood Areas: Storage of a hazardous substances
<u>APr31r.2</u>	Flood Areas: Buildings
<u>APr31r.3</u>	Flood Areas: Fencing
<u>APr31r.4</u>	Flood Areas: Network Utilities
<u>APr31r.5</u>	Flood Areas: Earthworks
<u>APr31r.6</u>	Flood Areas: Flood mitigation and protection works
<u>APr31r.7</u>	Liquefaction Hazard Overlay - Building or network utility

<u>Item</u>	<u>Permitted</u>	<u>Controlled</u>	<u>Discretionary/Non- complying/Prohibited</u>
<u>AP31r.1</u> Flood Areas: Storage of a hazardous substances	<u>AP31r.1.1</u> In Flood Areas the above ground storage and use of a hazardous substance is a permitted activity where it is located within the flood plain and located in a manner so as to not be inundated from 1% AEP flood flows	<u>AP31r.1.2</u> not applicable	<u>AP31r.1.3</u> Activities that contravene a permitted condition are restricted discretionary. Discretion is restricted to: i. the extent to which hazardous substances stored in flood hazard areas are protected from flooding, spillage and leakage in the event of a flood hazard; and ii. any additional risk from coastal flooding; and iii. stormwater management; and iv. the potential risk to people, property and the environment; and v. the functional and/or operational need to be located within the hazard area; and vi. the need to locate Nationally and/or Regionally Significant Infrastructure within the hazard area.

AP31r.2 Flood Areas: Buildings	AP31r.2.1 In Flood Areas: a building activity is a permitted activity provided that it is: a. <u>maintenance, reconstruction, repair or alteration to an existing building, where for reconstruction the building is in the same, or substantially the same position on the site it replaces; or</u> b. <u>the establishment of any new building or alteration to an existing building located in the Inundation Overlay where either:</u> i. <u>the new building or alteration to an existing building does not exceed 25m² gross floor area; or</u> ii. <u>the building is designed to accommodate flood tolerant activities up to 250m² gross floor area; or</u> iii. <u>the building has a finished floor level of at least 0.3m above the 1% AEP flood level and compliance with AP30r.2.1b iii is demonstrated by a written statement issued by a Chartered Professional Engineer with experience in flood risk; or</u> c. <u>the establishment of any new building or alteration to an existing building located in the Flood Hazard overlay or High Flood Hazard Overlay where either:</u> i. <u>the new building or alteration to an existing building does not exceed 10m² gross floor area; or</u> ii. <u>the building has:</u> A. <u>a finished floor level of at least 0.3m above the 1% AEP flood level; and</u> B. <u>the building does not impede flood flows so as to exacerbate the flood hazard to other</u>	AP31r.2.2 not applicable	AP31r.2.3 Activities that contravene a permitted condition are restricted discretionary. Discretion is restricted to: i. <u>The extent of any adverse effects of natural hazards on people and property; and</u> ii. <u>floor and/or ground levels; and</u> iii. <u>any additional risk from coastal flooding; and</u> iv. <u>stormwater management; and</u> v. <u>access in a flood event, including ingress and egress; and</u> vi. <u>the intended use of the building, its design and tolerance to flood events; and</u> vii. <u>any exacerbated effects in relation to flooding on or off-site; and</u> viii. <u>the functional and/or operational need to be located within the hazard area; and</u> ix. <u>the need to locate Nationally and/or Regionally Significant Infrastructure within the hazard area.</u>
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	<u>properties upstream or downstream of the site; and</u> C. <u>compliance with AP30r.2.1(c) ii</u> <u>A and B is demonstrated by a written statement issued by a Chartered Professional Engineer with experience in flood risk.</u> <u>This rule excludes:</u> a. <u>Navigational and meteorological facilities and aids;</u> b. <u>Airport lighting structures;</u> c. <u>all open structures without a floor.</u>		
<u>AP31r.3</u> <u>Flood Areas: Fencing</u>	<u>AP31r.3.1</u> <u>In Flood Areas a fence is a permitted activity provided that:</u> a. <u>any fence in the 1% AEP flood flow is designed to allow the passage of flood water where at least 70% of the surface area of the fence is not solid.</u>	<u>AP31r.3.2</u> <u>not applicable</u>	<u>AP31r.3.3</u> <u>Activities that contravene a permitted condition are restricted discretionary.</u> <u>Discretion is restricted to:</u> i. <u>The design of the fence; and</u> ii. <u>The potential impacts on any overland flow path, including obstruction, exacerbated effects in relation to flooding on or off-site, and changes in depth and velocity of flow; and</u> iii. <u>any additional risk from coastal flooding; and</u> iv. <u>stormwater management; and</u> v. <u>the functional and/or operational need to be located within the hazard area; and .</u> vi. <u>the need to locate Nationally and/or Regionally Significant Infrastructure within the hazard area.</u>
<u>AP31r.4</u> <u>Flood Areas: Network Utilities</u>	<u>AP31r.4.1</u> <u>In Flood Areas, any above ground network utility is</u>	<u>AP31r.4.2</u> <u>not applicable</u>	<u>AP31r.4.3</u> <u>Activities that contravene a permitted condition are restricted discretionary.</u>

	a permitted activity provided that it is: - a network utility structure, including additions to an existing structure, up to 25m² gross floor area; or - construction of a private road or accessway in the 1% AEP floodplain that does not impede flood flows or exacerbate the flood hazard to other properties upstream or downstream of the site.		Discretion is restricted to: - The extent of any adverse effects on people, property and infrastructure; and - the type of network utility and its vulnerability to flooding; and - any additional risk from coastal flooding; and - stormwater management; and - access in a flood event; and - any exacerbated effects in relation to flooding on or off-site; and - the functional and/or operational need to be located within the hazard area; and - the need to locate Nationally and/or Regionally Significant Infrastructure within the hazard area.
AP31r.5 Flood Areas: Earthworks	AP31r.5.1 In Flood Areas, earthworks are a permitted activity provided that the earthworks: - are related to any construction activity that does not exceed a period of 12 weeks where at the completion of works the finished contour is equivalent to the ground level as at the commencement of the works; or - In the Inundation Overlay is not more than: 200m³ in any calendar year; and - has a maximum cumulative volume of filling and excavation of 1000m³ within any continuous period of 10 calendar years; and / or - In either the Flood Hazard Overlay or High Flood Hazard Overlay is not more than: 10m³ in any calendar year; and - has a maximum cumulative volume of filling and excavation of 50m³ within any continuous period of 10 calendar years.	AP31r.5.2 not applicable	AP31r.5.3 Activities that contravene a permitted condition are restricted discretionary. Discretion is restricted to: - The extent of any adverse effects on people, property and infrastructure; and - the displacement of flood waters beyond the site, exacerbation of the flood hazard and impact on the conveyance function of the flood plain; and - any additional risk from coastal flooding; and - stormwater management; and - mitigation measures to address risk from the flood hazard; and - the purpose of the earthworks in terms of the functional and/or operational need of the activity associated with the earthworks to be located within the hazard area; and - the purpose of the earthworks in terms the need to facilitate or locate Nationally and/or

			<u>Regionally Significant Infrastructure within the hazard area.</u>
<u>AP31r.6</u> <u>Flood Areas: Flood mitigation and protection works</u>	<u>AP31r.6.1</u> <u>In Flood Areas, the operation, maintenance, renewal, repair or minor infrastructure upgrade of existing flood mitigation works undertaken by a network utility operator is a permitted activity.</u>	<u>AP31r.6.2</u> <u>not applicable</u>	<u>AP31r.6.3</u> <u>Activities that contravene a permitted condition are restricted discretionary.</u> <u>Discretion is restricted to:</u> i. <u>The extent to which the structure or works for the structure are located and designed to avoid, remedy or mitigate adverse effects; and</u> ii. <u>the displacement of flood waters beyond the site, exacerbation of the flood hazard and impact on the conveyance function of the flood plain; and</u> iii. <u>any additional risk from coastal flooding; and</u> iv. <u>stormwater management; and</u> v. <u>the adverse effects of the works on the function of natural systems, landscape values ecological values and amenity values; and</u> vi. <u>the purpose of the protection works in terms of the functional and/or operational need of the activity associated with the protection works to be located within the hazard area; and</u> vii. <u>the purpose of the protection works in terms the need to facilitate or locate Nationally and/or Regionally Significant Infrastructure within the hazard area.</u>

AP31r.7 <u>Liquefaction Hazard Overlay - Building or network utility</u>	AP31r.7.1 <u>In the Liquefaction Hazard Overlay a building or network utility is a permitted activity provided that:</u> a. <u>the building or network utility does not contain a habitable space, has a gross floor area less than 36m² and is not more than 4.5m high; or</u> b. <u>it is an addition to an existing building or network utility; or</u> c. <u>the building or network utility occurs on a lot which was created by a subdivision that obtained resource consent, and where the subdivision application included a site-specific assessment of liquefaction for the lot prepared by a suitably qualified and experienced professional Geotechnical Engineer or Engineering Geologist which included recommendations to mitigate the risk from liquefaction hazard.</u>	AP31r.7.2 <u>In the Liquefaction Hazard Overlay a building or a network utility that contravenes a permitted condition is a controlled activity.</u> <u>Control is reserved over:</u> i. <u>the location, scale and design of the buildings, foundations and services as they relate to the liquefaction hazard; and</u> ii. <u>liquefaction hazard remediation methods, including whether these identified methods are appropriate including having regard to provision for ground strengthening, foundation design and provision for resilient services.</u>	AP31r.7.3 <u>Not applicable</u>
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