To the Planning Team, Tasman District Council

Name of submitter: Sarah-Jayne McCurrach

Organisation: Natural Hazards Commission Toka Tū Ake

Email: resilience@naturalhazards.govt.nz

Date: 02 May 2025

Thank you for the opportunity to submit on Urban Growth Plan Change 81 (PC81).

About the Natural Hazards Commission Toka Tū Ake (NHC)

The Natural Hazards Commission Toka Tū Ake (NHC) is a Crown Entity responsible for providing residential property owners with a current contract of fire insurance for their residential property with insurance against damage from natural hazards covered by the Natural Hazards Insurance Act 2023 (NHI Act). NHC provides limited cover for:

- building and land damage from earthquakes, landslides, tsunami, volcanic and hydrothermal activity, and fire following these hazards, and
- land damage only from storm or flood, and fire following these hazards.

Why NHC is providing this submission

NHC's primary objective is to *'reduce the impact of natural hazards on people, property, and the community'*. To achieve this objective, NHC's functions, as set out in the NHI Act, include: to facilitate research and education, and to contribute to the sharing of information, knowledge, and expertise (with the Crown, public and private entities, and the public generally), including in relation to:

- natural hazards and their impacts,
- community resilience to natural hazards, and
- planning for, and recovering from, natural hazards.

As NHC is the 'first loss' insurer for residential damage resulting from natural hazards listed in the NHI Act, NHC carries financial risk on behalf of the Crown. We also see the impacts of natural hazards in the insurance claims we receive. This means that NHC has leading insights and a strong interest in reducing risk from, and building resilience to, natural hazards across New Zealand.

Our investments in research and education about natural hazards enable us to use and translate this information to support evidence-based, policy and planning. Our focus is on ensuring long-term resilience by encouraging building in areas that will remain safe and sustainable for future generations. Developing in zones at high risk from natural hazards exposes future owners to complex and potentially hazardous situations, which could compromise the longevity and safety of these developments.

Climate change is also increasing the occurrence and severity of natural hazards covered by the NHC Scheme. Therefore, we support clear, risk-based policy frameworks that reduce natural hazard risks,

allow for resilient and sustainable land use planning to manage risk, and support community education and resilience towards natural hazards.

When we make submissions on council strategies and plans, our submissions relate to the suitability of the land proposed for development *without* mitigations. We do not submit on any individual planned or proposed developments. It is up to councils to decide whether the risks to land can be managed, and whether the appropriate mitigations and management strategies are in place for individual consent applications.

Our advice and recommendations are not intended to impede development, but to highlight the importance of careful and precautionary choices to ensure resilient and sustainable communities in the future. Our goal is to support councils to ask the right questions and make risk informed decisions.

Therefore, our advice to councils is to consider the risks and impacts on communities the district plan may create for the future. We encourage councils to ensure that they are satisfied that:

- Natural hazard risk has been assessed on a multi-hazard basis, over multiple timeframes, to at least 50, or preferably 100, years into the future, and using multiple climate change scenarios.
- Risks are mitigated to tolerable levels for the community and council. For example, is 'nuisance flooding' tolerable if it is ongoing?
- New developments do not create any new or further risks for neighbouring suburbs – now, or in the future.
- There is a plan for managing any residual risks after mitigation.
- 'Status quo' of risk and risk tolerance are acceptable where long-term decisions are being made, i.e., an existing community being flood- or liquefaction-prone is not justification for a new development having the same risks.

We advise councils to engage with private insurers to assess their tolerance for providing insurance to locations, risks, and developments if there is any doubt. Insurability should be a key consideration when thinking about the risks and impacts on communities that are being created for the future.

Tasman District is at risk from many natural hazards, including seismic hazards like liquefaction, earthquake shaking, and fault rupture, coastal hazards, flood, landslides, and wildfire. Climate change is predicted to increase sea level, and both the intensity of rainfall events and the intensity and length of drought in Tasman District in the next 20 years. This means that the risks from flooding, landslides, liquefaction, coastal hazards and wildfire are likely to increase in the near future. As such it is important to factor in areas at risk from natural hazards when considering appropriate areas to intensify development. Medium density residential zoning in an area which is at risk from natural hazards exposes more people and property to these hazards, and increases the cost of response and recovery in the wake of a natural hazard event. Once an area has been zoned for medium density development, the existing use rights established make it difficult to 'down zone' in the future. This is particularly relevant in Tasman District as incipient sea-level rise is likely to impact coastal settlements.

NHC encourages territorial authorities to use risk-based frameworks in district plans to reduce risk and increase resilience to natural hazards. PC81 contains provisions that we support in this regard, and we have provided suggestions in other areas that could be improved.

We welcome the opportunity to discuss our submission with council officers and provide further assistance, if this would be helpful. Please feel free to contact us at any time.

Yours sincerely,

Sarah-Jayne McCurrach,

Head of Risk Reduction, NHC

Form 5, Clause 6 of Schedule 1, Resource Management Act 1991

Natural Hazards Commission Toka Tū Ake Submission on Urban Growth Plan Change 81

To: Tasman District Council

Via Council submission email: environmentplan@tasman.govt.nz

Submitter: Natural Hazards Commission Toka Tū Ake (NHC)

---

1. This is a submission on the following:

The Urban Growth Plan Change 81 notified in March 2025.

2. NHC could not gain an advantage in trade competition through this submission.

3. NHC does not wish to be heard in support of this submission.

4. This document and the Appendices attached is the NHC submission. This submission relates to Urban Growth Plan Change 81 in its entirety.

5. The submission from NHC is:

NHC supports, is neutral, and opposes the Plan Change 81 to the extent outlined in this submission.

a) **Location of proposed Medium Density Residential Zones** - While we acknowledge the need to accommodate growth, we also know that an effective way to reduce natural hazard risk is to decrease or limit the level of exposure of residential properties to areas of known natural hazards. Therefore, we *oppose* the Motueka Medium Density Residential Zone, and we recommend that in future plan changes pertaining to natural hazards, rules and policies for hazard risk management are included for the Richmond, Brightwater, Wakefield, and Tākaka Medium Density Residential Zones to reduce natural hazard risk and the impacts to people and property in future events.

b) **Controls and matters of discretion** - We support controls and matters of discretion as they relate to stormwater management for subdivision and land uses in the Medium Density Residential Zone. However, we recommend providing additional controls and matters of discretion that can reduce risk from other natural hazards that the proposed Medium Density Residential Zones are exposed to including liquefaction, flooding, and tsunami inundation.

c) **Medium Density Residential Design Matrix** - We recommend including an additional category for natural hazard risk reduction to ensure that any development in the Medium Density Residential Zones can reduce the impacts to people and property in future natural hazard events.

Provided at Appendix 1 is a table containing submission points that address the above, and other matters of relevance.

6. NHC seeks the following decision from the local authority:

That the specific amendments, additions or retentions which are sought as specifically outlined in Appendix 1, are accepted and adopted into Plan Change 81, including such further, alternative, additional, or consequential relief as may be necessary to fully achieve the relief sought in this submission.

Date:	02/05/2025
Address for service:	Natural Hazards Commission Toka Tū Ake PO Box 790, Wellington 6140
Contact person:	Sarah-Jayne McCurrach, Head of Risk Reduction
Email:	resilience@naturalhazards.govt.nz

Appendix 1

Provision	Description	Support/ Oppose/ Amend	Reasoning	Requested Action
General	Richmond Medium Density Residential Zone	Amend	We support the proposed Medium Density Residential Zone in Richmond. However, some of the areas have higher exposure to natural hazards and cumulative natural hazards. To address this, we recommend removing some of the Intensive Development Precincts and including specific rules and policies for natural hazard risk management. Areas that are within the tsunami evacuation zone (T-112a, T-112b, T-22b, and T-115a) should not be allocated as Intensive Development Precincts, to reduce the overall levels of risk from tsunami in these areas. Rules and policies should also be included to ensure that safe tsunami evacuation routes are prioritised and incorporated within all new development. An approach for this could be adapted from Wellington City Council - "there is the ability to access safe evacuation routes for occupants of the building in case of a tsunami[1]" In locations that are susceptible to liquefaction (T-112a, T-112b, and T-115a), rules and policies, developed as per the Guidance for Potentially Liquefaction-prone Land[2], should be included to reduce the impact to people and property in future events. [1]Wellington City Council. District Plan, Coastal Environments.	That the following amendments be made: • Remove the Intensive Development Precincts for areas within the tsunami evacuation zone. • Include rules and policies for tsunami evacuation routes in the Richmond Medium Density Residential Zone. • Include rules and policies for managing liquefaction risk in the Richmond Medium Density Residential Zone.

			[2]MBIE/MfE Planning and engineering guidance for potentially liquefaction-prone land.	
General	Brightwater Medium Density Residential Zone	Amend	We support adopting a Brightwater Medium Density Residential Zone. However, we recommend that the Council does not zone Medium Density Development in High Flood Areas and that the Council incorporates additional rules and policies for managing flood risk. Some areas within the Brightwater Medium Residential Zone are exposed to flood hazard depths of 0.7-1m (according to the Council's modelling of 1% AEP and 2% AEP events), which can be unsafe for children, the elderly, and small vehicles[1] and as a result, Medium Density Residential Development should be avoided in these areas. We recommend that the Council adopts an approach to avoid development in High Flood Areas within the Brightwater Medium Density Residential Zone. To define High Flood Areas, we recommend an approach similar to Wellington City Council[2] and Christchurch City Council[3] whereby the Councils have defined different flood hazard levels according to pre-defined and agreed thresholds. Additional rules and policies for flood management, such as specifying minimum floor levels, can then be based on these flood hazard levels. [1]Australian Institute for Disaster Resilience. Flood Hazard Guidance. [2]Wellington City Council. District Plan, Natural Hazards [3]Christchurch City Council. District Plan, Natural Hazards	That the following amendments be made: • The Council defines High Flood Areas. • Medium Density Residential Zoning is removed in High Flood Areas. • Include rules and policies for managing flood risk in the Brightwater Medium Density Residential Zone.

General	Wakefield Medium Density Residential Zone	Amend	We support adopting a Wakefield Medium Density Residential Zone. However, we recommend that the Council does not zone Medium Density Development in High Flood Areas, and that the Council incorporates additional rules and policies for managing flood risk. Some areas within the Wakefield Medium Density Residential Zone are exposed to flood hazard depths of 0.5-0.7m (according to the Council's modelling of 1% AEP and 2% AEP events), which can be unsafe for small vehicles[1] and as a result, Medium Density Residential Development should be avoided in these areas. We recommend that the Council adopts an approach to avoid development in High Flood Areas within the Wakefield Medium Density Residential Zone. To define High Flood Areas, we recommend the approach adopted by Wellington City Council[2] and Christchurch City Council[3] whereby the Councils have defined different flood hazard levels according to pre-defined and agreed thresholds. Additional rules and policies for flood management, such as specifying minimum floor levels, can then be based on these flood hazard levels. [1]Australian Institute for Disaster Resilience. Flood Hazard Guidance. [2]Wellington City Council. District Plan, Natural Hazards [3]Christchurch City Council. District Plan, Natural Hazards	That the following amendments be made: • The Council defines High Flood Areas. • Medium Density Residential Zoning is removed in High Flood Areas. • Include rules and policies for managing flood risk in the Wakefield Medium Density Residential Zone.
General	Motueka Medium Density Residential Zone	Oppose	We recommend removing the Motueka Medium Density Residential Zone or relocating it to a less hazard prone area. The current proposed zone is in a liquefaction prone area, tsunami evacuation zone,	That the Motueka Medium Density Residential Zone be removed.

			and exposed to flood hazard. However, our greatest concern with increasing development in this proposed zone is the modelling for coastal hazards under different sea level rise scenarios. Current modelling displayed on the Tasman Coastal Hazards Viewer shows that under a 1.0m and 1.5m sea level rise scenario the 1% AEP storm tide will begin to inundate the area currently proposed as medium density residential, and under a 2m sea level rise scenario the entire area is inundated by the 1% AEP storm tide. Additionally, under the 2m sea level rise scenario the mean high water springs level reaches the proposed Medium Density Residential Development area. Zoning this area for Medium Density Residential Development would put more people and property at risk from coastal hazards than would be there otherwise. Additionally, once an area has been zoned to allow for higher intensity development it is very difficult to 'down-zone' in the future when the hazard worsens, due to existing use rights. As such, we do not consider the proposed Motueka Medium Density Residential Zone an area considers natural hazard risk reduction and sustainable development.	
General	Tākaka Medium Density Residential Zone	Support	We support the proposed Tākaka Medium Density Residential Zone being located in an area in Tākaka with relatively lower levels of flood hazard (according to the Council's modelling of 1% AEP and 2% AEP events). However, we recommend including more natural hazard risk reduction and mitigation rules and policies to reduce the impacts to people and property in future events. This is because the	That the following amendments be made: • Include rules and policies for managing liquefaction risk in the Tākaka Medium Density Residential Zone. • Include rules and policies for tsunami evacuation routes in the

			proposed Tākaka Medium Density Residential Zone is also exposed to liquefaction and tsunami hazards. In locations that are susceptible to liquefaction there should be clear rules and policies developed in line with the Guidance for Potentially Liquefaction-prone Land[1] to reduce the impact to people and property in future events. Rules and policies should also be included to ensure that safe tsunami evacuation routes are prioritised and incorporated within all new development. An approach for this could be adapted from Wellington City Council - "there is the ability to access safe evacuation routes for occupants of the building in case of a tsunami[2]" We also recommend a clear approach to manage flood risk in the Tākaka Medium Density Residential Zone to enable safe development that can reduce the impacts to people and property in future events. We recommend the approach adopted by Wellington City Council[3] and Christchurch City Council[4] whereby the Councils have defined different flood hazard levels (based on thresholds) and then development is restricted based on the level of expected consequence for certain activities in flood areas. Rules and policies are also provided for floor heights and stormwater to effectively manage flood risk. [1]MBIE/MfE Planning and engineering guidance for potentially liquefaction-prone land. [2]Wellington City Council. District Plan, Coastal Environments.	Tākaka Medium Density Residential Zone. • Define High Flood Areas and include rules and policies for managing flood risk in the Tākaka Medium Density Residential Zone.

			[3]Wellington City Council. District Plan, Natural Hazards [4]Christchurch City Council. District Plan, Natural Hazards	
6.4A.3.4 Land for residential activities	Provide for medium density and intensive housing within the walkable catchment of centres and within identified greenfield areas (including Outline Development Plan locations)…	Amend	NHC consider it important that Medium Density Residential Developments are not zoned within areas that are at high risk from natural hazards. Zoning these areas for Medium Density Residential Development will put more people and property at risk from natural hazards than would be there otherwise. Additionally, once an area has been zoned to allow for higher intensity development it is very difficult to 'down-zone' in the future when the hazard worsens, due to existing use rights.	That the following amendment be made: • Provide for medium density and intensive housing within the walkable catchment of centres and within identified greenfield areas (including Outline Development Plan locations), while: (g) avoiding intensifying development in areas that are at high risk from natural hazards.
6.8.3.23A Richmond	To avoid the long-term industrial use of land that is at risk of exposure to inundation, coastal hazards and sea level rise in the long term	Support	We support avoiding long-term industrial use in areas at risk from coastal hazards and sea level rise. Industrial activities in areas at risk from coastal hazards not only expose workers, but can increase the hazard itself, as industrial materials and pollutants can be washed into the water inundating the area.	That the provision be retained
6.16.3.3A	To manage subdivision and development of residential land in the Brightwater Development Area between Pitfure Stream, State Highway 6, and Lord Rutherford Road to avoid significant flood hazard risks on the site and beyond the site, and possible dam break hazard in the Brightwater Development Area	Support	We support the addition of dam break hazards to considerations for management of residential land. Dam break hazard can be challenging to manage as the resulting flooding can be rapid onset and have little warning. Therefore, including the hazard within policies can contribute to reducing the impacts to people and property in future events.	That the provision be retained

	between Katania Heights Road and the Brightwater Deviation State Highway.			
6.17.1.2	Addressing flood hazard risk on low-lying land adjacent to the Wai-iti River and the Pitfure Jenkins, Gossey and Eighty-Eight Valley streams, and possible dam break hazard in the north-eastern section of the Wakefield Development Area.	Support	We support the addition of dam break hazards to considerations for management of residential land. Dam break hazard can be challenging to manage as the resulting flooding can be rapid onset and have little warning. Therefore, including the hazard within the issues outlined for Wakefield can contribute to reducing the impacts to people and property in future events.	That the provision be retained
6.17.3.2A	To manage subdivision and development of residential land in the Wakefield Development Area between Pitfure Road, Edward Street, and Higgins Road to avoid significant flood hazard risks on and beyond the site, and to manage dam break hazard risk in the north-eastern corner of the Development Area.	Support	We support the addition of dam break hazards to considerations for management of residential land. Dam break hazard can be challenging to manage as the resulting flooding can be rapid onset and have little warning. Therefore, including the hazard within policies can contribute to reducing the impacts to people and property in future events.	That the provision be retained
16.3.3.3 Restricted Discretionary Subdivision (Residential Zone – Compact Density Specific Locations)	Stormwater Management (19B) In the Wakefield Development Area and in the Brightwater Development Area between Katania Heights Road and the Brightwater Deviation SH, manage flood risk on and beyond the site, and dam break hazard risks	Amend	We support having development as a restricted discretionary activity if it complies with the conditions about managing flood risk and dam break hazard risks. However, we recommend providing clearer provisions about what and how flood risk needs to be managed. For example, the Council could specify that these risks must be at an acceptable level and then provide a metric and/or definition to define an acceptable level of risk. This approach will avoid confusion and ensure consistent application of rules and policies. NHC has developed a Risk Tolerance Methodology[1] that is designed to integrate a risk tolerance assessment into existing risk management	That the following amendments be made: • Use agreed risk threshold terminology to clarify the Council's expectations for management of flood risk and dam break flood hazard. • Include specific provisions for dam break flood hazard including safe evacuation routes and warning systems.

			approaches. This methodology could be used by the Council to develop a metric and/or definition to determine agreed risk threshold terminology. We also recommend providing a specific condition within this provision to ensure evacuation routes (for dam break flood hazard) and a warning system are included and maintained within developments. This is because dam break flood hazard can be challenging to manage as the resulting flooding can be rapid onset and have little warning. In Wakefield peak outflows may occur within 10-15min of breach initiation[2], indicating that with appropriate planning provisions safe evacuation is likely. The condition for evacuation could be adapted from Wellington City Council - "there is the ability to access evacuation routes for occupants of the building from the coastal hazard[3]". [1]NHC Toka Tū Ake Risk Tolerance Methodology. [2]Tonkin + Taylor (2017). Plan Change 65 Dambreak Assessment. [3]Wellington City Council. District Plan, Coastal Environments.	
16.3.3A.1 Restricted Discretionary Subdivision – Intensive Development	Stormwater Management (5) Any matter necessary to manage stormwater run-off, including low impact design solutions where appropriate. (6) Legal mechanisms for the sharing of stormwater detention systems.	Support	We support subdivision for intensive development being a restricted discretionary activity if it complies to these stormwater management provisions. Effective stormwater management is essential to manage flood risk and reduce the impacts to people and property in future flood events.	That the provision be retained.

	(7) The physical and legal protection of primary and secondary stormwater flow paths and indicative reserves. (8) Any mandatory or good practice matters of chapter 5 of the Nelson Tasman Land Development Manual 2019 necessary to ensure the efficient and effective provision of stormwater network reticulation.			
16.3.3A.2 Restricted Discretionary Activity Subdivision (Medium Density Residential Zone – Standard Density)	Stormwater (e) EITHER: Stormwater from every allotment is discharged to a Council-maintained stormwater drainage network that has the capacity to receive the additional stormwater. OR XXX. (f) All stormwater drainage features that form part of the stormwater drainage network are physically and legally protected from future development that may adversely affect the efficient functioning of the network	Amend	We support subdivision for intensive development being a restricted discretionary activity if it complies to these stormwater management provisions. Effective stormwater management is essential to manage flood risk and reduce the impacts to people and property in future flood events. We recommend providing clear and complete provisions for (e) to avoid confusion and ensure the consistent application of rules and policies.	That the following amendment be made: The provision for (e) is completed.
16.3.3A.2 Restricted Discretionary Activity Subdivision (Medium Density Residential Zone – Standard Density)	Stormwater Management (21) Any matter necessary to manage stormwater run-off, including low impact design solutions where appropriate. (22) The physical and legal protection of primary and secondary stormwater flow paths and indicative reserves.	Support	We support subdivision for intensive development being a restricted discretionary activity if it complies to these stormwater management provisions. Effective stormwater management is essential to manage flood risk and reduce the impacts to people and property in future flood events.	That the provision be retained.

	(23) Any mandatory or good practice matters of chapter 5 of the Nelson Tasman Land Development Manual necessary to ensure the efficient and effective provision of stormwater network reticulation.			
17.1.3.1A Permitted Activities (building construction or alteration – dwellings on small site areas in the Wakefield Development Area)	Construction or alteration of a dwelling in the Wakefield Development Area that is either: • a first dwelling on a site that has a net area of less than 450 square metres, or • two dwellings on a site that has a net area of 600 square metres or greater, is a permitted activity, and may be undertaken without a resource consent, if all development on the site complies with the following conditions:	Amend	We oppose all building construction and alteration being a permitted activity in the Wakefield Development Area. The Wakefield Development area is exposed to inundation from dam break flood hazard[1]. This can cause a rapid onset flooding that requires evacuation with little warning. Therefore, we recommend limiting permitted activities to alterations that don't alter the floor area by more than 25m^2 and don't include a new habitable room and changing all other alterations and buildings construction to be restricted discretionary. This will reduce the impacts to people and property in future natural hazard events. [1]Tonkin + Taylor (2017). Plan Change 65 Dambreak Assessment.	That the following amendment be made: 17.1.3.1A <u>Restricted Discretionary</u> ~~Permitted~~ Activities (building construction or alteration – dwellings on small site areas in the Wakefield Development Area) Construction or alteration of a dwelling in the Wakefield Development Area that is~~ either~~: • <u>not less than 25m^2 and a habitable room, and</u> • a first dwelling on a site that has a net area of less than 450 square metres, or • two dwellings on a site that has a net area of 600 square metres or greater, is a permitted activity, and may be undertaken without a resource consent, if all development on the site complies with the following conditions:
17.1.3.1A Permitted Activities (building construction or alteration – dwellings on small site areas	Setbacks from a river (k) Buildings are set back at least: (i) 3 metres from the top of the bank of any river with a bed less than 1.5 metres in width;	Amend	We support having conditions that are able to reduce exposure to flood hazards, as this can be an effective way to reduce the impacts to people and property in future flood events. However, we recommend providing setbacks (and any other flood mitigation provisions such as minimum floor levels) based on flood modelling, rather than the size of a riverbed. Using flood modelling to understand	That the following amendment be made: Flood modelling is used to determine building setbacks.

in the Wakefield Development Area)	(ii) 8 metres from the top of the bank of any river with a bed between 1.5 metres and 5 metres; (iii) 20 metres from the top of the bank of any river with a bed between 5 and 20 metres in width		potential flood behaviour and subsequent management and mitigation options is recommended in guidance produced by the Australian Institute for Disaster Resilience[1]. Tasman District Council also has flood modelling data presented in their online hazard viewer and dam break flood modelling that could be used to inform policy for avoiding flood hazard. [1]Australian Institute for Disaster Resilience. Managing the Floodplain: A guide to best practice in flood risk management in Australia.	
17.1.3.1A Permitted Activities (building construction or alteration – dwellings on small site areas in the Wakefield development area)	Stormwater (p) All buildings comply with Permitted Activity standard 17.1.3.1(z)	Amend	Standard 17.1.3.1(z) is not contained within the Plan Change 81 Schedule of Amendments. We are unable to comment on the suitability of this provision without being able to understand 17.1.3.1(z).	That the following amendment be made: Standard 17.1.3.1(z) is contained within Plan Change 81 Schedule of Amendments.
17.1A Medium Density Residential Zone Rules	17.1A Medium Density Residential Zone Rules	Amend	We note that the number 17.1A applies to the rules for Daylight Admission Angles as well as the Medium Density Residential Zone Rules. We recommend correcting the numbering to avoid confusion and ensure consistent application of rules and policies.	That the following amendment be made: The numbering for 17.1A is corrected.
17.1A.2.1 Permitted Activities (Land Use – General)	Stormwater (n) (i) EITHER All stormwater from buildings and impervious surfaces is discharged to a Council-maintained stormwater drainage network that has	Support	We support general land use activities being a permitted activity in the Medium Density Residential Zone if it complies to these stormwater management provisions. Effective stormwater management is essential to manage flood risk and reduce the	That the provision be retained.

	the capacity to receive the additional stormwater. OR The discharge complies with section 36.4 of this Plan AND (ii) All stormwater drainage features that form part of the stormwater drainage network are physically and legally protected from future development that may adversely affect the efficient functioning of the network.		impacts to people and property in future flood events.	
17.1A.3.1 Permitted Activities (Standard Density Development)	17.1A.3.1 Permitted Activities (Standard Density Development)	Amend	We support having Standard Density Development as a permitted activity in the Medium Density Residential Zone provided it complies with certain conditions. However, we recommend having additional conditions that relate to natural hazard risk management as some areas within the proposed Medium Density Residential Zone are exposed to natural hazards such as liquefaction, tsunami inundation, and flooding. Having conditions about natural hazard risk management that must be complied with, contributes to effective risk reduction and reduces the impact to people and property in future natural hazard events. Any additional conditions should be based on best practice guidance documents[1,2,3,4] and best practice examples from other Councils. For example, Waimakariri District Council[5] has Liquefaction Mitigation Design Standards that	That the following amendment be made: • Additional conditions (developed with best practice guidance documents) are included that facilitate natural hazard risk reduction for liquefaction, tsunami, and flooding. For example, ○ Liquefaction (12) Dwellings must be built to Liquefaction Mitigation Design Standards. These specify that Ground Settlement and Lateral Movement must not exceed 100mm and 250mm, respectively, for a 150-year Earthquake Return Period. ○ Tsunami

			dwellings must be built to in liquefaction prone areas. For tsunami and flood risk management we recommend an approach taken by Wellington City Council[6], whereby they have categorised land uses into less hazard sensitive activities, potentially hazard sensitive activities, and hazard sensitive activities. Consent categories and rules are then applied based on hazard level and the expected level of consequence from different natural hazards. For example, potentially hazard sensitive activities and hazard sensitive activities within high coastal hazard areas (i.e. within tsunami inundation areas) are restricted discretionary activities. Floor levels for potentially hazard activities and hazard sensitive activities must also be raised above a 1% AEP event within an inundation area. [1]Australian Institute for Disaster Resilience. Managing the Floodplain: A guide to best practice in flood risk management in Australia. [2]Minsity for the Environment. Preparing for future flooding: A guide for local government in New Zealand [3]MBIE/MfE Planning and engineering guidance for potentially liquefaction-prone land. [4]GNS Science. Integrating tsunami inundation modelling into risk-based land-use planning: An update of guidance. [5]Waimakariri District Council. District Plan: Natural Hazards	(13) New buildings containing a potentially hazard sensitive activity or a hazard sensitive activity are not within a high coastal hazard area ○ Flooding (14) When located within an inundation area, the finished floor levels for hazard sensitive or potentially hazard sensitive activities are demonstrated to be above the 1% Annual Exceedance Probability Flood level

			[6]Wellington City Council. District Plan: Natural Hazards, Coastal Environment.	
17.1A.3.1 Permitted Activities (Standard Density Development)	(q) Set backs The building is set back at least: (i) 3 metres from the top of the bank of any river with a bed less than 1.5 metres in width; (ii) 8 metres from the top of the bank of any river with a bed between 1.5 metres and 5 metres; (iii) 20 metres from the top of the bank of any river with a bed between 5 and 20 metres in width.	Amend	We support having conditions that can reduce exposure to flood hazards, as this can be an effective way to reduce the impacts to people and property in future flood events. However, we recommend providing setbacks (and any other flood mitigation provisions such as minimum floor levels) based on flood modelling, rather than the size of a riverbed. Using flood modelling to understand potential flood behaviour and subsequent management and mitigation options is recommended in guidance produced by the Australian Institute for Disaster Resilience[1]. Tasman District Council also has flood modelling data presented in their online hazard viewer and dam break flood modelling that could be used to inform policy for avoiding flood hazard. [1]Australian Institute for Disaster Resilience. Managing the Floodplain: A guide to best practice in flood risk management in Australia.	That the following amendment be made: Flood modelling is used to determine building setbacks.
17.1A.3.1 Permitted Activities (Standard Density Development)	Flooding (w) Less than 20% of the site is subject to mapped flooding classified as H1. AND (x) Less than 10% of the site is subject to mapped flooding classified as H2. AND (y) The site is not subject to mapped flooding classified as H3 or greater.	Amend	We support provisions that specify a level of flood hazard that is permitted for developments. However, it is not clear what flood hazard levels H1, H2, and H3 are referring to, therefore, we cannot provide comment as to whether these will be appropriate for reducing the impacts to people and property. We recommend that the Council makes this information available to assess whether the classifications will be able to effectively reduce flood risk for standard density development. We also recommend that the Council clarifies whether this provision is referring to locating building platforms outside of mapped flooding areas or whether this provision relates to an	That the following amendments be made: • The H1, H2, and H3 flooding classifications are made available as part of section 17.1A.3.1. • Clarify what part of a site is required to be outside of a mapped flooding area.

			entire site. Providing this clarification will reduce confusion and ensure the consistent application of rules and policies.	
17.1A.3.2 Restricted Discretionary Activities (Intensive Development)	17.1A.3.2 Restricted Discretionary Activities (Intensive Development)	Amend	We support intensive development within the Medium Residential Zone being a restricted discretionary activity. Intensive development has the potential to increase natural hazard risk by increasing the number of people and dwellings that are exposed to hazards. A restricted discretionary activity status ensures that the Council can still have control on where intensive development is occurring throughout the district. However, we recommend having additional conditions that relate to natural hazard risk management as some areas within the proposed Medium Density Residential Zone are exposed to natural hazards such as liquefaction, tsunami inundation, and flooding. Having conditions about natural hazard risk management that must be complied with contributes to effective risk reduction and reduces the impact to people and property in future natural hazard events. Any additional conditions should be based on best practice guidance documents[1,2,3,4] and best practice examples from other Councils. For example, Waimakariri District Council[5] has Liquefaction Mitigation Design Standards that dwellings must be built to in liquefaction prone areas. For tsunami and flood risk management we recommend an approach taken by Wellington City Council[6], whereby they have categorised land uses into less hazard sensitive activities, potentially	That the following amendment be made: • Additional conditions (developed with best practice guidance documents) are included that facilitate natural hazard risk reduction for liquefaction, tsunami, and flooding. For example, ○ Liquefaction (12) Dwellings must be built to Liquefaction Mitigation Design Standards. These specify that Ground Settlement and Lateral Movement must not exceed 100mm and 250mm respectively for a 150-year Earthquake Return period. ○ Tsunami (13) New buildings containing a potentially hazard sensitive activity or a hazard sensitive activity are not within a high coastal hazard area ○ Flooding (14) When located within an inundation area, the finished floor levels for hazard sensitive or potentially hazard sensitive activities are demonstrated to be above the 1% Annual Exceedance Probability Flood level

			hazard sensitive activities, and hazard sensitive activities. Consent categories and rules are then applied based on hazard level and the expected level of consequence from different natural hazards. For example, potentially hazard sensitive activities and hazard sensitive activities within high coastal hazard areas (i.e. within tsunami inundation areas) are restricted discretionary activities. Floor levels for potentially hazard activities and hazard sensitive activities must also be raised above a 1% AEP event within an inundation area. [1]Australian Institute for Disaster Resilience. Managing the Floodplain: A guide to best practice in flood risk management in Australia. [2]Minsity for the Environment. Preparing for future flooding: A guide for local government in New Zealand [3]MBIE/MfE Planning and engineering guidance for potentially liquefaction-prone land. [4]GNS Science. Integrating tsunami inundation modelling into risk-based land-use planning: An update of guidance. [5]Waimakariri District Council. District Plan: Natural Hazards [6]Wellington City Council. District Plan: Natural Hazards, Coastal Environment.	
17.1A.3.2 Restricted Discretionary Activities	Other setbacks (l) The building is set back at least:	Amend	We support having conditions that can reduce exposure to flood hazards, as this can be an effective way to reduce the impacts to people and property in future flood events. However, we recommend providing setbacks (and any other flood mitigation provisions such as minimum floor levels)	That the following amendment is made: Flood modelling is used to determine building setbacks.

(Intensive Development)	(i) 3 metres from the top of the bank of any river with a bed less than 1.5 metres in width; (ii) 8 metres from the top of the bank of any river with a bed between 1.5 metres and 5 metres; (iii) 20 metres from the top of the bank of any river with a bed between 5 and 20 metres in width.		based on flood modelling, rather than the size of a riverbed. Using flood modelling to understand potential flood behaviour and subsequent management and mitigation options is recommended in guidance produced by the Australian Institute for Disaster Resilience[1]. Tasman District Council also has flood modelling data presented in their online hazard viewer that could be used to inform policy for avoiding flood hazard. [1]Australian Institute for Disaster Resilience. Managing the Floodplain: A guide to best practice in flood risk management in Australia.	
17.1A.3.2 Restricted discretionary activities (Intensive Development)	Flooding (y) Less than 20% of the site is subject to mapped flooding classified as H1. AND (z) Less than 10% of the site is subject to mapped flooding classified as H2. AND (za) The site is not subject to mapped flooding classified as H3 or greater	Amend	We support provisions that specify a level of flood hazard that is permitted for developments. However, it is not clear what flood hazard levels H1, H2, and H3 are referring to, therefore, we cannot provide comment as to whether these will be appropriate for reducing the impacts to people and property. We recommend that the Council makes this information available to assess whether the classifications will be able to effectively reduce flood risk for standard density development. We also recommend that the Council clarifies whether this provision is referring to locating building platforms outside of mapped flooding areas or whether this provision relates to an entire site. Providing this clarification will reduce confusion and ensure the consistent application of rules and policies.	That the following amendments be made: • The H1, H2, and H3 flooding classifications are made available as part of section 17.1A.3.2. • Clarify what part of a site is required to be outside of a mapped flooding area.
17.1A.3.2 Restricted Discretionary Activities (Intensive Development)	Other setbacks (18) The extent to which the encroachment into setbacks from waterbodies by buildings will increase the likelihood of damage being caused	Amend	We support this matter of discretion as it considers the likelihood of damage being caused by erosion. However, we recommend also including the likelihood of damage being caused by flooding to ensure that the matters of discretion can effectively	That the following amendment be made: (18) The extent to which the encroachment into setbacks from waterbodies by buildings will increase the likelihood of damage being caused to the

Matters of discretion for infringement of conditions	to the building by erosion, the level of risk to occupants, and the effects of the structure on flood flows.		reduce risk and the impacts to people and property in future events.	building by erosion and flooding, the level of risk to occupants, and the effects of the structure on flood flows.
17.1A.3.2 Restricted discretionary activities (Intensive Development) Matters of discretion for infringement of conditions	Flooding (30) The risks to persons and property from flood hazards and measures to avoid, or mitigate effects.	Support	We support this matter of discretion as it will be able to effectively contribute to reducing the impacts to people and property in future flood events.	That the provision be retained.
Schedule 17.1AA: Medium density Residential Design Matrix.	The checklist is a set of acceptable solutions that are optional for Applicants to incorporate but which, if a sufficient number are included within an application, require the Council to grant consent based on relevant urban design considerations having been met. Applicants wishing to use the checklist pathway must complete the checklist as part of their application, with the applicant nominating the matters it has satisfied and with supporting information as relevant included within the application documents. The Council will review this and award points (on a pass / fail basis only). The checklist pathway removes uncertainty regarding urban design outcomes, as	Amend	We support the Council providing a pathway to facilitate development if the outlined solutions are complied with. However, we recommend including an additional category for natural hazard risk to the matrix. This category should incorporate defined and agreed risk-threshold terminology to ensure that natural hazard risk does not reach an unacceptable level (as per a pre-determined Council definition). Defined and agreed risk-threshold terminology is necessary to reduce confusion and ensure the consistent application of rules and policies. NHC has developed a Risk Tolerance Methodology[1] that is designed to integrate a risk tolerance assessment into existing risk management approaches. This methodology could be used by the Council to develop a metric and/or definition to determine agreed risk threshold terminology. [1]NHC Toka Tū Ake Risk Tolerance Methodology.	That the following amendment be made: An additional category for natural hazard risk is added to the Medium Density Residential Design Matrix.

	well as recognising positive outcomes on sites			
17.4A.1.2 Controlled activities	Construction or alteration of a building is a controlled activity, if it complies with the following conditions: (a) The building complies with the conditions (a) to (u) of Rule 17.4.3.1 (b) The building is temporary, relocatable, or readily removable. (c) A condition is placed on any resource consent to the effect that the building must be relocated or removed from the site when Mean Sea Level reaches or exceeds the Schedule 17.4A sea level rise trigger. (d) With any resource consent application, the applicant provides a plan that satisfactorily addresses how the buildings are able, both physically and financially, to be removed from the site. For the purpose of this rule, "readily removable", means that the building is designed to be deconstructed with minimal destructive demolition. For example, it is made with panels which are bolted together and can be unbolted. A resource consent is required and may include conditions on the	Support	We support allowing development if it complies to conditions that will be able to reduce the impacts to people and property in future natural hazard events. The conditions and matters of control in this provision can reduce the effects of flooding and sea level rise now and in the future, by ensuring that planned relocation will be able to occur when the sea level risk trigger is reached.	That the provision be retained.

	following matters over which the Council has reserved control: (1) The nature of the building and its construction. (2) The risk of coastal erosion and flooding and adverse effects on the building and property from present and potential future coastal erosion and flooding hazards. (3) The effects of the proposed activity, including the effects of eventual building relocation and site remediation, on natural character and the coastal environment. (4) The duration of the consent (Section 123 of the Act) and the timing of reviews of conditions and purpose of reviews (Section 128). (5) Financial contributions, bonds and covenants in respect of the performance of conditions, and administrative charges (Section 108).			