Toka Tū Ake EQC Submission on the Te Tai o Poutini Combined West Coast District Plan 09/08/2022				
To : info@ttpp.nz Submitter name: Toka Tū Ake EQC Contact person: Contact email: resilience@eqc.govt.nz				
Plan Section	**Provision**	**Support/ Oppose**	**Reasons**	**Decision Sought**
Strategic Direction	CR - O1	Support	We support building resilience in the recognition that adaptation to climate change is necessary for increased resilience of West Coast communities	No Change
Strategic Direction	CR - O2	Support	We support building resilience in west coast communities and we support efforts to increase the resilience of critical infrastructure, and protect functionality during and after an adverse event	No Change
Strategic Direction	CR - O3	Support	We support the development of critical infrastructure away from natural hazards	No Change
Strategic Direction	CR - O4	Support	We support the development of self-sufficient critical infrastructure which is resilient to natural hazards and the effects of climate change	No Change
Strategic Direction	TRM - O1	Amend	The West Coast region has a high number of visitors each year and tourism is increasingly important to the economy of the West Coast. Many high-volume tourist areas are places at high risk from natural hazards, for example Franz-Josef and Fox glaciers along the Alpine Fault, and coastal regions which are at risk from flooding, coastal inundation and tsunami. Vulnerability of road networks may additionally strand visitors in isolated communities in the wake of a natural hazard event, which puts additional strain on residents and additional demand on critical infrastructure. It is important that tourism developments recognise and minimise the risks from natural hazards, particularly areas which are expected to host large volumes of people, or which may be isolated in a natural hazard event.	Add: "9. Recognise the risk of natural hazards whereby new developments are located in less hazardous locations", as in UFD - O1
Strategic Direction	UFD - O1	Support in part	We support the strategic objective to situate new developments in less hazardous locations	Add "and intensification", and, "and to avoid intensification in higher hazard areas": We support the strategic objective to situate

				new developments *and intensification* in less hazardous locations, *and to avoid intensification in higher hazard areas*
Energy	ENG - P2	Support in part	We support the building of community resilience and reduction of greenhouse gas emissions by "a. Maintaining or increasing security of renewable electricity supply by diversifying the type and/or location of electricity generation; b. Maintaining or increasing renewable electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions;" "f. Facilitation and use of renewable energy; “and "h. Meeting New Zealand/Aotearoa me Te Waipounamu's climate change obligations."	No change
Infrastructure	INF - O4	Support	We support considering natural hazard mitigation and the effects of climate change in infrastructure development	No change
Infrastructure	INF - P2	Support	We support the management of infrastructure and utilities in a way which considers resilience to natural hazards and climate change.	No change
Infrastructure	INF - P4	Support	We support the treatment and safe disposal of stormwater that does not result in increased flooding and erosion risk, and connection to the stormwater system where available.	No change
Infrastructure	INF - P5	Support	We support the development of infrastructure which minimises stormwater runoff, thus reducing flooding risk.	No change
Infrastructure	INF - R16	Support	We support the councils' consideration of flood hazard management in matters of discretion for waste, storm and reticulated water system connections	No change
Infrastructure	INF - R19	Support	We support the councils' consideration of resilience to natural hazards and climate change in matters of discretion for meteorological facilities	No change
Infrastructure	INF - R21	Support	We support the councils' consideration of natural hazard as in matters of discretion for community wastewater facilities	No change

Infrastructure	INF - R21	Support	We support the councils' consideration of natural hazard as in matters of discretion for community wastewater facilities	No change
Transport	TRN - R7	Support	We support the councils' consideration of flood hazard mitigation in matters of discretion for transport	No Change
Transport	TRN - R8	Support	We support the councils' consideration of flood hazard mitigation in matters of discretion for transport	No Change
Transport	TRN - R9	Support	We support the councils' consideration of flood hazard mitigation in matters of discretion for transport	No Change
Hazardous Substances	HS - P2	Amend	We support the location of major hazard facilities away from areas subject to natural hazard risk. It is our opinion that other (i.e. less than major) hazardous facilities should also be located away from areas at risk of natural hazards. Additionally, to avoid inconsistent interpretation of the policy it is important to define the level of hazard deemed "significant" by the TTPP.	Include hazardous facilities within the policy, and define what constitutes a significant natural hazard
Hazardous Substances	Natural Hazards	Amend	The West Coast region has a number of active onshore and offshore faults around Westport and Buller which are not included on the TTPP planning map. The risk posed by these faults can be seen in recent history. The Inangahua fault ruptured in 1968 with a magnitude 7.1 earthquake, causing widespread damage to roads, railways and communities, and the deaths of three people. The negative consequences of 'over-restricting' development are vastly outweighed by the potential damage to life and property risked by allowing building of residencies and sensitive infrastructure close to active fault traces. Further, the plan contains no mapping of liquefaction (examples for Canterbury districts can be found here: https://www.ecan.govt.nz/data/document-library/?ids=3715885,1702192,1812002,1561273,301760,445572,476320,576970,737496), no rules regarding development on potentially liquefiable land, despite some land in the area being known to be liquefiable. Appropriate foundation design can mitigate a great deal of damage and disruption, and there are now national guidelines regarding how to treat ground or design foundations to mitigate this hazard. Additionally, the Flood Severe and Flood Susceptibility overlays are inconsistent with flood hazard mapping across the rest of New Zealand. The Flood Severe hazard overlay is determined as the area in which 1% AEP flood waters are	Add all active faults in the region to planning maps, including exclusion zones. Amend Flood Severe hazard overlay to areas where flood waters in a 1% AEP flood are expected to be above 1 m, consistent with flood mapping in other NZ territorial authorities. Include potentially liquefiable land in maps. Set rules for building on liquefiable land that are consistent with MBIE guidance on liquefiable land.

			expected to be at least 2m deep or moving at 2m/s. Most other territorial authorities in New Zealand, including those with high flooding risk, categorise the highest flood hazard as deeper than 1m and 1m/s. Flood depths between 1 and 2m are very hazardous to life and property, and the largely exclusionary Flood Severe zone being limited to 2m depths creates the possibility that development of sensitive activities can occur in inappropriate areas where flood waters may up to 2m deep. In addition there is no consideration of areas prone to liquefaction. Lake seiche is defined in some lakes generated by faults. It should be noted that lake seiche can occur with ground shaking alone, and lake tsunamis can be generated by landsides falling into lake, not just by fault movement on the lakebed. Some areas are subject to multiple hazards, including flood related hazards (coastal and/or fluvial), tsunami and land instability. The combination of these hazards make response to some hazard events especially tricky (e.g. the "long or strong get gone" tsunami messaging for areas that have a narrow flat coast with a very steep, sudden rise/cliffs which may also generate rockfall with ground shaking- which makes local source tsunami evacuation very difficult.) Punakaiki is an example of this. We suggest that an appropriate management method for areas subject to multiple hazards includes their identification and then managing them by taking a multi-hazard, precautionary approach limiting future development or sensitive/ post emergency response activities within the area.	
Hazardous Substances	NH - O1	Support	We support a regionally consistent, risk-based approach to natural hazard management for the West Coast Region	No Change
Hazardous Substances	NH - O2	Support	We support the reduction of risk from natural hazards and promoting community resilience and wellbeing.	No Change
Hazardous Substances	NH - O3	Support in part	To avoid inconsistent interpretation of the objective it is important to define the level of hazard deemed "significant" by the TTPP	Define what constitutes a significant natural hazard
Hazardous Substances	NH - O4	Support	We support the protection of natural features which reduce the impact of natural hazards on communities.	No Change
Hazardous Substances	NH - O5	Support	It is important to factor in the current and future impacts of climate change on natural hazard risk. We support incorporating these effects into long-term natural hazard management and risk reduction.	No Change

Hazardous Substances	NH - O6	Support	It is important to ensure that natural hazard risk reduction measures do not increase risk or cause negative effects in other areas or in the future.	No Change
Hazardous Substances	NH - P1	Support in part	To avoid inconsistent interpretation of the policy it is important to define the level of hazard deemed "significant" by the TTPP	Define what constitutes a significant natural hazard
Hazardous Substances	NH - P2	Support in part	To avoid inconsistent interpretation of the policy it is important to define the level of hazard deemed "significant" by the TTPP	Define what constitutes a significant natural hazard
Hazardous Substances	NH - P4	Support	We support the consideration of climate change and changing environmental conditions in management of natural hazard risk	No change
Hazardous Substances	NH - P5	Support	We support the consideration of managed retreat in minimising the risk posed to communities by natural hazards.	No Change
Hazardous Substances	NH - P6	Support in part	The current mapping of exclusion zones around the Alpine Fault does not include areas of diffuse or off fault deformation in between fault strands, as is recommended in the MFE Active Fault Guidelines. As such, allowing residential buildings within 50m of the fault, commercial and industrial buildings within 150 m, and community, educational, and health facilities within 200 m, may allow for these sensitive activities within an area of the Alpine Fault zone at risk from ground deformation in the event of an earthquake. We suggest the Earthquake Hazard overlay be simplified to include the area between strands and splays (this would actually not affect a great area) to ensure the perverse outcome of building in a complex, very active fault zone is avoided.	We support this policy in principle, but only if avoidance zones around faults are amended to include areas of distributed and off-fault deformation, areas between fault strands and splays, and areas where the fault trace is uncertain.
Hazardous Substances	NH - P7	Support	We consider it appropriate for unoccupied structures to be built in the Earthquake Hazard Overlays, as long as they are not used for sensitive activities (i.e., infrastructure such as roadside power boxes or substations)	No Change
Hazardous Substances	NH - P8	Support	We support the avoidance of critical response, health, community, educational, and hazardous facilities within the Coastal Tsunami Hazard Overlay	No Change
Hazardous Substances	NH - P9	Support	We support restricting development of sensitive activities within areas at risk from natural hazards.	No Change
Hazardous Substances	NH - P10	Support	We support restricting development of sensitive activities within areas at risk from natural hazards.	No Change
Hazardous Substances	NH - P11	Support	We support restricting development of sensitive activities within areas at risk from natural hazards.	No Change

Hazardous Substances	NH - P12	Support	We support the thorough consideration of all aspects and impacts of natural hazard risk when assessing activities and development in areas at risk from natural hazard.	No Change
Hazardous Substances	NH - P13	Oppose in part	We support requiring flood mitigation, including for sea level rise, for developments within the Westport Hazard Overlay. However, we consider that further restrictions on subdivision, use and development within the Westport Hazard Overlay are appropriate, to limit population densification and development of vulnerable activities within the hazard overlay, and encourage development of Westport in areas that are less at risk from natural hazards. We encourage awareness that a stopbank is built to mitigate a design flood. Floods larger than that will overtop the bank and cause flooding (as was seen in the2021 Ashburton floods). Increasing the number of people and buildings behind the stopbank increases the exposure to larger-than-design floods. This can bring perverse outcomes.	Further limit subdivision, use, and development within the Westport Hazard Overlay, so as not to allow at least vulnerable activities such as community, health, education, critical response and hazardous facilities within the hazard overlay, and encourage the development of Westport into less hazardous areas. Building a stop bank does not mean everything behind there is safe from all flooding. Increasing development behind a stopbank increases risk hugely when a larger-than-design event occurs- which will happen at some point (re 2021 Ashburton flood).
Hazardous Substances	NH - P14	Oppose in part	We support requiring flood mitigation, including for sea level rise, for developments within the Hokitika Coastal Hazard Overlay. However, we consider that further restrictions on subdivision, use and development within the Hokitika Coastal Hazard Overlay are appropriate, to limit population densification and development of vulnerable activities within the hazard overlay, and encourage development of Westport in areas that are less at risk from natural hazards.	Further limit subdivision, use, and development within the Hokitika Coastal Hazard Overlay, so as not to allow vulnerable activities such as community, health, education, critical response and hazardous facilities within the hazard overlay, and encourage the development of Hokitika into less hazardous areas.

Hazardous Substances	NH- R1	Oppose	Buildings should not be rebuilt within the flood susceptibility hazard overlay without the freeboard required for new buildings in NH-R10. It is not appropriate to rebuild structures used for sensitive activities within the flood hazard severe overlay, or within the 20m earthquake hazard zone. It is not appropriate to rebuild critical response facilities, health facilities, or hazardous facilities within any natural hazard overlay, as this continues to expose these facilities to natural hazard risk and may impact their continued function in the wake of a natural hazard event.	Amend NH-R1 to prohibit reconstruction of buildings used for sensitive activities within the Flood Severe and Earthquake 20m zone, and prohibit reconstruction of buildings used for critical response, health, community, education or hazardous facilities within any natural hazard overlay. Require buildings reconstructed within the Flood Susceptibility Overlay to have the same finished floor level above the 1% AEP flood level as a new building in the same category.
Hazardous Substances	Rules - Flood Severe Overlay and Flood Susceptibility Overlay	Support in part	We support the categorisation of flood hazard into two overlays, with the most restrictions being applied within the highest category of flood risk. However, as previously stated, it is preferred that the highest flood risk category includes all areas which are expected to have >1m flood depths in a 1% AEP flood, rather than >2m as in the TTPP. In addition to this, the lower-risk flood hazard category in the TTPP is poorly defined and not well explained, being the extent of areas which are at risk of flooding that is not as severe as the Flood Severe category.	Include further explanation of what Flood Severe and Flood Susceptibility mean in terms of likelihood of flooding in the plan or Section 32 report. The preferred nomenclature for flood hazard is using %AEP (annual exceedance probability), and to distinguish between flood ponding areas and flood stream/overland flow paths for lower and higher flood hazard, respectively, As overland flow paths have greater velocity than ponding areas, which results in greater risks to life safety and property.

Hazardous Substances	NH - R8	Oppose in part	We support the requirement of a finished floor level 300mm above the 1% AEP flood event in the Flood Susceptibility Overlay for commercial and industrial activities. However, we do not support permitting these structures within the Flood Severe Overlay. Permitting commercial and industrial activities within an area which is expected to have water depths and speeds of above 2m or 2m/s puts people in danger in their workplaces. If there is truly no alternative location, the 300mm floor level should be applied and we suggest flood early warning systems and evacuation plans are mandated for all occupied buildings in the Flood Severe overlay. We advocate, though for disallowing such development as preferable. We suggest it is appropriate to relocate critical response facilities out of at least the flood severe area and preferably the flood susceptibility area, unless their location is a critical part of their purpose/function. Otherwise responders will be put in danger as they enter the facility at the time of worst exposure to flooding.	New commercial and industrial buildings and additions and alterations to existing buildings for critical response facilities are not permitted in the flood severe overlay
Hazardous Substances	NH - R10	Support in part	We support the requirement of a finished floor level of 500mm above the 1% AEP flood event within the Flood Susceptibility Zone. However as previously stated it is preferred that the lower flood risk category (flood susceptibility) is amended to include areas which are expected to have <1m flood depths in a 1% AEP flood, rather than <2m as in the TTPP.	No Change
Hazardous Substances	NH - R11	Oppose in part	We consider that critical response facilities should only be situated within areas at risk from natural hazards when they have a functional need to be there, and that alternative solutions should be sought where possible.	No Change
Hazardous Substances	NH - R12	Oppose in part	We support restricting new commercial and industrial buildings within the flood susceptibility overlay, however, commercial and industrial activities should be avoided within the Flood Severe Overlay, as these activities within an area which is expected to have water depths and speeds of above 2m or 2m/s puts people in danger in their workplaces. If they are located within the Flood Severe overlay, flood early warning systems and evacuation plans should be mandated.	New commercial and industrial buildings within the flood severe overlay should be non-complying or prohibited.
Hazardous Substances	NH - R14	Support	We support the avoidance of sensitive activities within the flood severe overlay	No change
Hazardous Substances	Permitted Activities -	Amend	The TTPP maps and associated section 32 report describe the exclusion zone around fault traces as 20 m either side of the mapped fault trace. This does	Incorporate uncertainty and distributed fault deformation into

	All Earthquake Hazard Overlays		not take into account any uncertainty about the location of the fault, or the risk of distributed deformation at the surface. The MfE guidelines for planning around active faults state that uncertainty, fault complexity and distributed deformation should be included in fault avoidance zones.	earthquake hazard (fault avoidance) zones, as directed by the MfE guidelines for planning around active faults. We support at the very least simplification of the zone to include the land between adjacent strands and splays of the fault to avoid building "between faults"- i.e. in the middle of a complex fault zone. As a preference MfE fault guidelines should be followed.
Hazardous Substances	NH - R16	Support	We support the avoidance of sensitive activities within the earthquake hazard overlays	No change
Hazardous Substances	NH - R17	Support	We support the avoidance of sensitive activities within the earthquake hazard overlays	No change
Hazardous Substances	NH - R18	Amend	Occupied buildings' is not defined, and it is not clear if these buildings are the same as 'residential buildings', as only 'habitable room', 'unoccupied building', and 'residential building' are included in definitions. Consistency in terminology is important if these rules are to be applied consistently. We also suggest relocation of any existing critical response facilities out of the earthquake hazard zone.	Define 'occupied building'
Hazardous Substances	NH - R19	Amend	Occupied buildings' is not defined, and it is not clear if these buildings are the same as 'residential buildings', as only 'habitable room', 'unoccupied building', and 'residential building' are included in definitions. Consistency in terminology is important if these rules are to be applied consistently	Define 'occupied building'
Hazardous Substances	NH - R20	Amend	Occupied buildings' is not defined, and it is not clear if these buildings are the same as 'residential buildings', as only 'habitable room', 'unoccupied building', and 'residential building' are included in definitions. Consistency in terminology is important if these rules are to be applied consistently. Relocation of any existing critical response facilities out of the earthquake hazard zone would be ideal.	Define 'occupied building'

Hazardous Substances	NH - R21	Support in part	While we support NH-R21 in principle, we consider that the current Earthquake Hazard Overlays are insufficient, as they do not take into account areas of distributed and off-fault deformation, and areas of uncertainty. As written, the rules allow for development of sensitive activities within areas which may suffer severe ground deformation during a rupture of the Alpine fault. Specifying CPEngGeo or CPEng with geotechnical engineering qualifications would ensure that life safety risk assessments are done by suitably qualified professionals.	Amendment of the Earthquake Hazard Zone to incorporate uncertainty and distributed fault deformation into earthquake hazard (fault avoidance) zones, as directed by the MfE guidelines for planning around active faults.
Hazardous Substances	NH - R22	Support in part	While we support NH-R22 in principle, we consider that the current Earthquake Hazard Overlays are insufficient, as they do not take into account areas of distributed and off-fault deformation, and areas of uncertainty. As written, the rules allow for development of sensitive activities within areas which may suffer severe ground deformation during a rupture of the Alpine fault. At the very least we would like to see simplification of the overlay to include areas between splays and strands of the fault to avoid development in a complex fault zone. MfE guidance should be followed.	Amendment of the Earthquake Hazard Zone to incorporate uncertainty and distributed fault deformation into earthquake hazard (fault avoidance) zones, as directed by the MfE guidelines for planning around active faults.
Hazardous Substances	NH - R23	Support	We support the avoidance of community, education, and health facilities within the Earthquake Hazard Overlays	No change
Hazardous Substances	NH - R24	Amend	Occupied buildings' is not defined, and it is not clear if these buildings are the same as 'residential buildings', as only 'habitable room', 'unoccupied building', and 'residential building' are included in definitions. Consistency in terminology is important if these rules are to be applied consistently. Relocation of any existing critical response facilities out of the earthquake hazard zone would be ideal.	Define 'occupied building'
Hazardous Substances	NH - R25	Amend	While we support NH-R25 in principle, we consider that the current Earthquake Hazard Overlays are insufficient, as they do not take into account areas of distributed and off-fault deformation, and areas of uncertainty. As written, the rules allow for development of sensitive activities within areas which may suffer severe ground deformation during a rupture of the Alpine fault. Specifying CPEngGeo or CPEng with geotechnical engineering qualifications would ensure that life safety risk assessments are done by suitably qualified professionals.	Amendment of the Earthquake Hazard Zone to incorporate uncertainty and distributed fault deformation into earthquake hazard (fault avoidance) zones, as directed by the MfE guidelines for planning around active faults.

Hazardous Substances	NH - R26	Amend	While we support NH-R26 in principle, As discussed previously we consider that the current Earthquake Hazard Overlays are insufficient, as they do not take into account areas of distributed and off-fault deformation, and areas of uncertainty. As written, the rules allow for development of sensitive activities within areas which may suffer severe ground deformation during a rupture of the Alpine fault. At the very least, simplification of the overlay to include areas between splays and strands would help avoid building in a complex fault zone.	Amendment of the Earthquake Hazard Zone to incorporate uncertainty and distributed fault deformation into earthquake hazard (fault avoidance) zones, as directed by the MfE guidelines for planning around active faults.
Hazardous Substances	NH - R27	Amend	Occupied buildings' is not defined, and it is not clear if these buildings are the same as 'residential buildings', as only 'habitable room', 'unoccupied building', and 'residential building' are included in definitions. Consistency in terminology is important if these rules are to be applied consistently. Relocation of any existing critical response facilities out of the earthquake hazard zone would be ideal.	Define 'occupied building'
Hazardous Substances	NH - R28	Amend	While we support NH-R28 in principle, we consider that the current Earthquake Hazard Overlays are insufficient, as they do not take into account areas of distributed and off-fault deformation, and areas of uncertainty. As written, the rules allow for development of sensitive activities within areas which may suffer severe ground deformation during a rupture of the Alpine fault. At the very least, simplification of the overlay to include areas between splays and strands would help avoid building in a complex fault zone. Specifying CPEngGeo or CPEng with geotechnical engineering qualifications would ensure that life safety risk assessments are done by suitably qualified professionals.	Amendment of the Earthquake Hazard Zone to incorporate uncertainty and distributed fault deformation into earthquake hazard (fault avoidance) zones, as directed by the MfE guidelines for planning around active faults.
Hazardous Substances	NH - R29	Amend	While we support NH-R29 in principle, we consider that the current Earthquake Hazard Overlays are insufficient, as they do not take into account areas of distributed and off-fault deformation, and areas of uncertainty. As written, the rules allow for development of sensitive activities within areas which may suffer severe ground deformation during a rupture of the Alpine fault.	Amendment of the Earthquake Hazard Zone to incorporate uncertainty and distributed fault deformation into earthquake hazard (fault avoidance) zones, as directed by the MfE guidelines for planning around active faults.
Hazardous Substances	NH - R30	Amend	Occupied buildings' is not defined, and it is not clear if these buildings are the same as 'residential buildings', as only 'habitable room', 'unoccupied	Define 'occupied building'

			building', and 'residential building' are included in definitions. Consistency in terminology is important if these rules are to be applied consistently. Relocation of Critical Response Facilities outside the overlay would be ideal.	
Hazardous Substances	NH - R31	Amend	While we support NH-R31 in principle, we consider that the current Earthquake Hazard Overlays are insufficient, as they do not take into account areas of distributed and off-fault deformation, and areas of uncertainty. As written, the rules allow for development of sensitive activities within areas which may suffer severe ground deformation during a rupture of the Alpine fault. At the very least, simplification of the overlay to include areas between splays and strands would help avoid building in a complex fault zone. Specifying CPEngGeo or CPEng with geotechnical engineering qualifications would ensure that life safety risk assessments are done by suitably qualified professionals.	Amendment of the Earthquake Hazard Zone to incorporate uncertainty and distributed fault deformation into earthquake hazard (fault avoidance) zones, as directed by the MfE guidelines for planning around active faults.
Hazardous Substances	NH - R32	Amend	While we support NH-R32 in principle, we consider that the current Earthquake Hazard Overlays are insufficient, as they do not take into account areas of distributed and off-fault deformation, and areas of uncertainty. As written, the rules allow for development of sensitive activities within areas which may suffer severe ground deformation during a rupture of the Alpine fault. Relocation of Critical Response Facilities outside the overlay would be ideal	Amendment of the Earthquake Hazard Zone to incorporate uncertainty and distributed fault deformation into earthquake hazard (fault avoidance) zones, as directed by the MfE guidelines for planning around active faults.
Hazardous Substances	NH - R33	Support	We support the restriction of development in areas at risk from land instability. Specifying sign off by CPEngGeo or CPEng with geotechnical engineering qualifications would ensure that natural hazard risk assessments are done by suitably qualified professionals.	No Change
Hazardous Substances	NH - R34	Support	We support the restriction of development in areas at risk from land instability	No Change
Hazardous Substances	NH - R36	Support	We support the restriction of development in areas at risk from lake tsunami/seiche waves	No Change
Hazardous Substances	NH - R37	Support	We support the restriction of development in areas at risk from lake tsunami/seiche waves. Care should be taken when selecting a "suitably qualified and experienced natural hazard professional". This is a very specialised field.	No Change

Hazardous Substances	NH - R38	Oppose in part	As with NH-R1, reconstruction of buildings within hazard overlays should be subject to the same rules and policies as new buildings for the same purpose. In this case, we recommend that reconstruction of buildings used for sensitive activities, critical response facilities, or hazardous facilities is avoided within the Coastal Severe Hazard Overlay, and encourage movement of these facilities to areas at lower risk from natural hazards.	Avoid reconstruction of buildings used for sensitive activities within the Coastal Severe Hazard Overlay, and require risk mitigation measures for buildings used for sensitive activities reconstructed within the Coastal Alert Hazard Overlay.
Hazardous Substances	NH - R40	Support in part	If industrial buildings are permitted in the coastal severe overlay, alert systems and evacuation planning should be mandated. Critical Response Facilities should be relocated out of the coastal severe overlay, and preferably the coastal alert overlay.	Add: h Alert systems and evacuation planning
Hazardous Substances	NH - R42	Support	We support the restriction of development in areas at risk from coastal hazards and flooding. If industrial buildings are permitted in the coastal severe overlay, alert systems and evacuation planning should be mandated. Critical Response Facilities should be relocated out of the coastal severe overlay, and preferably the coastal alert overlay.	No Change
Hazardous Substances	NH - R43	Support	We support the restriction of development in areas at risk from coastal hazards	No Change
Hazardous Substances	NH - R44	Support	We support the restriction of development in areas at risk from coastal hazards	No Change
Hazardous Substances	NH - R45	Support	We support the restriction of development in areas at risk from coastal hazards. Identification of a "suitably qualified and experienced person" to undertake a natural hazard risk assessment should be done with care. This could include preparing a list of pre-approved practitioners could be helpful.	No Change
Hazardous Substances	NH - R46	Support	We support the restriction of development in areas at risk from coastal hazards	No Change
Hazardous Substances	NH - R47	Support	We support the restriction of development in areas at risk from tsunami	No Change
Hazardous Substances	NH - R48	Support	We support the restriction of development in areas at risk from tsunami. It would be ideal if critical response facilities were moved outside the tsunami	No Change

			zone. It is dangerous and perverse to be evacuating tsunami affected areas whilst sending responders into them.	
Hazardous Substances	NH - R49	Support	We support the restriction of development in areas at risk from tsunami	No Change
Hazardous Substances	Hokitika Coastal Overlay	Amend	Terminology for the Hokitika Coastal Overlay differs from that of the rest of the West Coast and the Westport Hazard Overlay. This is not consistent with the objective to provide consistent guidelines for natural hazard mitigation across the West Coast region. The preferred nomenclature for flood hazard and coastal inundation is using %AEP (annual exceedance probability).	Use consistent terminology to describe flood hazards and coastal inundation across all areas of the West Coast
Hazardous Substances	NH - R50	Amend	Residual risk exists for buildings within the Hokitika Flood and Coastal Erosion Protection Scheme in the event that the protective structures fail. The TTPP should contain secondary measures to minimise risk within the Protection Scheme in order to protect life and property in the event of failure. We recommend applying the requirement for minimum finished floor levels 500mm above the 100-year ARI coastal inundation level for residential properties and 300mm above the 100-year ARI coastal inundation level for commercial and industrial buildings within the Protection Scheme as well as outside of it.	Also require minimum finished floor levels 500mm above the 100-year ARI coastal inundation level for residential properties and 300mm above the 100-year ARI coastal inundation level for commercial and industrial buildings for all structures within the Hokitika Coastal Hazard Zone.
Hazardous Substances	NH - R51	Support	We support the restriction of development in areas at risk from coastal hazards and flooding	No Change
Hazardous Substances	Westport Hazard Overlay	Oppose in part	Terminology for the Westport Hazard Overlay differs from that of the rest of the West Coast and the Hokitika Coastal Overlay. This is not consistent with the objective to provide consistent guidelines for natural hazard mitigation across the West Coast region. The preferred nomenclature for flood hazard and coastal inundation is using %AEP (annual exceedance probability), and to distinguish between flood ponding areas and flood stream/overland flow paths for lower and higher flood hazard, respectively.	Use consistent terminology to describe flood hazards across all areas of the West Coast
Hazardous Substances	NH - R52	Oppose in part	Residual risk exists for buildings within the Westport Flood and Coastal Erosion Protection Scheme in the event that the protective structures fail. The TTPP should contain secondary measures to minimise risk within the Protection Scheme in order to protect life and property in the event of failure. We recommend applying the requirement for minimum finished floor levels 500mm above the 100-year ARI coastal inundation level for	Require minimum finished floor levels 500mm above the 100-year ARI coastal inundation level for residential properties and 300mm above the 100-year ARI coastal inundation level for

			residential properties and 300mm above the 100-year ARI coastal inundation level for commercial and industrial buildings within the Protection Scheme as well as outside of it.	commercial and industrial buildings for all structures within the Westport Hazard Zone.
Hazardous Substances	NH - R53	Support	We support the restriction of development in areas at risk from coastal hazards and flooding	No Change
Subdivision	SUB - O2	Amend	We support the objective of subdivision which avoids areas at risk from natural hazards, and is resilient to natural hazards. However, it is important to be consistent and specific on the level of natural hazard risk which makes land inappropriate for subdivision. To avoid inconsistent interpretation of the policy it is important to define the level of hazard deemed "significant" by the TTPP	Define what constitutes a 'significant' natural hazard
Subdivision	SUB - O5	support	We support the use of esplanade reserves and strips created through subdivision in contributing to providing natural hazard mitigation	No Change
Subdivision	SUB - P1	Support	We support subdivision which minimises the risk from natural hazards to lives and property	No Change
Subdivision	SUB - P2	Support	we support the requirement that infrastructure ensures treatment and safe disposal of stormwater that does not result in increased flooding and erosion risk; and that adequate water supply for firefighting is required	No Change
Subdivision	SUB - P4	Amend	We consider that the instances described in SUB-P4 pose a level of risk to life and property in which subdivision should be avoided entirely, rather than restricted. Subdividing in these instances not only puts people in the immediate allotment at higher risk from natural hazards, but may increase the risk to surrounding properties. Additionally, to avoid inconsistent interpretation of the policy it is important to define the level of hazard deemed "significant" by the TTPP	Change "Manage significant risks from natural hazards by *restricting* subdivision that:..." to "Manage significant risks from natural hazards by *avoiding* subdivision that:...". Additionally, define what constitutes a significant hazard.
Subdivision	SUB - P6	Support	We support avoiding subdivision which creates new allotments within the Earthquake Hazard Overlays. We suggest that the overlay is simplified to include areas between strands and splays of the Alpine Fault, to include areas that are part of a complex fault zone and have the potential to experience severe deformation in an earthquake.	No Change to Sub P6, but change to overlay

Subdivision	SUB - P9	Support	We support the widening of the esplanade strip where appropriate to provide extra protection from natural hazards	No Change
Subdivision	Note:	Support in part	We support the inclusion of natural hazards in matters of control for restricted and restricted discretionary activities	No Change
Subdivision	SUB - R3	Support	We support Natural Hazards being included in matters of control	No Change
Subdivision	SUB - R4	Support	We support Natural Hazards being included in matters of control	No Change
Subdivision	SUB - R5	Support	We support exclusion of areas within the Earthquake hazard overlay and areas of Flood Severe, Coastal Severe or Westport Hazard Overlay and the inclusion of Natural hazards or geotechnical constraints as matters of control	No Change
Subdivision	SUB - R6	Amend	We support exclusion of areas within the Earthquake hazard overlay and areas of Flood Severe, Coastal Severe or Westport Hazard Overlay, Any Flood Susceptibility, Flood Plain, Land Instability, Coastal Alert or Coastal Tsunami Hazard Overlay; but suggest the inclusion of Natural hazards or geotechnical constraints as matters of control	suggest the inclusion of Natural hazards or geotechnical constraints as matters of control
Subdivision	SUB - R8		We support exclusion of areas within the Earthquake hazard overlay and areas of Flood Severe, Coastal Severe or Westport Hazard Overlay, Any Flood Susceptibility, Flood Plain, Land Instability, Coastal Alert or Coastal Tsunami Hazard Overlay; but suggest the inclusion of Natural hazards or geotechnical constraints as matters of control	suggest the inclusion of Natural hazards or geotechnical constraints as matters of control
Subdivision	SUB - R12	Amend	It is essential that future growth adequately considers exposure to natural hazards-especially as part of the purpose of these areas are to accommodate future managed retreat form climate change exacerbated natural hazards.	Include natural hazards and geotechnical constraints in matters of discretion
Subdivision	SUB - R13	Support in part	We support discretionary status for subdivision to create allotments in natural hazard zones, however we consider that subdivision should not lead	change "The subdivision will not lead to use of the land within the

			to use of the land for critical response facilities within any natural hazard overlay.	Coastal Tsunami Overlay for critical response facilities;" to "The subdivision will not lead to use of the land within natural hazard overlays for critical response facilities;"
Subdivision	SUB - R20	Support	We support discretionary status for subdivision to create allotments in the Westport Hazard Overlay	No Change
Subdivision	SUB - R21	Support	We support discretionary status for subdivision to create allotments in the Coastal Severe and Flood Severe Natural Hazard Overlays	No Change
Subdivision	SUB - R26	Support	We support Non-complying status for subdivision to create allotments in the 50m, 100m, 150m, and 200m Earthquake Hazard Overlays	No Change
Subdivision	SUB - R28	Support	We support prohibited status for subdivision to create allotments in the 20m Earthquake Hazard Overlay	No Change
Subdivision	SUB - S2	Support	We support the requirement that indicative building platforms be outside of any natural hazard overlays in sites less than 4 ha	No Change
Subdivision	SUB - S4	Support	We support "Where the means of stormwater disposal is to ground, that area shall not be subject to instability, slippage or inundation, or used for the disposal of wastewater.	No Change
Subdivision	SUB - S5	amend	Suggest add requirement that effluent disposal does not cause land instability issues	All allotments must provide the means for disposal of wastewater from all potential land uses that could be established on the respective allotments that does not involve a direct discharge to fresh or coastal water or exacerbate/trigger land instability issues.
Future Urban Zone	FUZ	Support in part	We see that land identified for future urban development is subject to land instability. We recognise the difficulties of avoiding natural hazards in the west coast, and the need to move out of areas prone to coastal and fluvial flooding necessitates moving to higher ground, and here the steepness of	We would like to question whether there is a possibility of moving future urban development a little further from

			that land tends to make it subject to instability issues. However, we note that there are other areas- such as around Shantytown that have no recorded natural hazards and zoned "rural lifestyle."	the current town in order to avoid natural hazards and build a more resilient community. If future urban zones are developed in areas subject to land instability we suggest the council includes in their plans provision for requiring/encouraging/ enabling- or even leading/implementing area- wide/global land stability mitigation measures prior to development rather than allowing an ad-hoc development of potentially unstable slopes. This has the potential to build a much more resilient future urban area and will probably be more cost effective than section-by section stabilising work. Undeveloped land presents a real opportunity to develop in a more resilient way
Future Urban Zone	FUZ overview	Support	We support the identification and management of land for future urban development to ensure it is fit for purpose when the time for development comes.	No Change
Future Urban Zone	FUZ - O2	Support	We support future urban land being made available for managed retreat.	No Change
Future Urban Zone	FUZ -O4	Support in part	We support urbanisation of FUZ sites in a planned manner that accounts appropriately for Natural Hazard exposure in the FUZ zone.	"Urbanisation on sites zoned FUZ - Future Urban Zone occurs in a planned manner either by Plan Change, or by implementation of a Structure Plan where Council resolution identifies that natural

				hazard risk thresholds have been met.". We would like to understand the process that will be used to identify risk levels regarding natural hazard risk, identification of levels of risk tolerance/risk thresholds and whether risk tolerance levels have been met, including whether this includes an opportunity for engagement or for external agencies and individuals to submit on the plan. We seek chance to engage on this stage of the process. When developing the Structure Plan for the FUZ, we wonder, is there an opportunity/ possibility of considering and including area-wide land stability mitigation prior to development as part of defining the infrastructure requirements for the FUZ?

To the Planning Team, Te Tai o Poutini Plan (TTPP) Committee

Name of submitter: Jo Horrocks

Organisation: Natural Hazards Commission Toka Tū Ake

Email: resilience@naturalhazards.govt.nz

Date: 12 December 2024

Thank you for the opportunity to submit on Te Tai o Poutini Plan Variation 2 – Coastal Hazards

About NHC Toka Tū Ake

The Natural Hazards Commission Toka Tū Ake is a Crown Entity responsible for providing insurance to residential property owners against the impact of natural hazards (building and land damage from earthquake, hydrothermal activity, landslides, tsunami, volcanic activity, fire following another natural hazard, and land damage from storm or flood).

The contingent liability associated with natural hazard risk in New Zealand is high. NHC carries much of this liability on behalf of the Crown, through its provision of 'first-loss' insurance coverage. NHC therefore, has a strong interest in reducing risk from, and building resilience to, natural hazards in New Zealand. We do this by investing in and facilitating research and education about natural hazards, and using and translating this information, knowledge and understanding to ensure evidence-based, risk-informed policy and planning.

NHC Toka Tū Ake supports clear planning frameworks that reduces natural hazard risks and allows for resilient and sustainable land use planning to manage existing and future risks. A framework that effectively manages these risks will allow communities to become more educated and resilient towards natural hazards and lower the liability for NHC Toka Tū Ake on behalf of the Crown.

Why NHC is submitting on this plan change

New Zealand's natural hazard risk profile is becoming more complex as the effects of climate change become apparent. As a country, we will be exposed to more frequent and more severe weather events as a result. Managing the impacts of climate change and natural hazard risk can, and should, be complementary – mitigating the impacts of one can improve outcomes for both.

The West Coast Region is at risk from multiple natural hazards – earthquakes on the Alpine Fault, flooding, severe weather and coastal hazards. Most large settlements on the West Coast are at serious risk from coastal hazards like tsunami, storm surge inundation, and coastal erosion, all of which will be exacerbated by climate change and sea level rise in the near future.

NHC encourages territorial authorities to use risk-based frameworks based on the best available science in district plans to reduce risk and increase resilience to natural hazards. We support updating the coastal hazard maps in TTPP Variation 2 – Coastal Hazards to reflect new data and

more accurate modelling. Our opinions on coastal hazard provisions are unchanged from our original submission on the TTPP on 09/08/2022.

We welcome the opportunity to discuss the contents of our submission with council officers as required. If you have any questions, please contact me.

Yours sincerely,

Jo Horrocks
Chief Resilience and Research Officer, Natural Hazards Commission

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

Natural Hazards Commission Toka Tū Ake Submission on The Te Tai o Poutini Plan Variation 2 – Coastal Hazards

To:	West Coast Regional Council Via Council submission email: info@ttpp.nz
Submitter:	NHC Toku Tū Ake

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1. **This is a submission on the following:**

The Te Tai o Poutini Plan Variation 2 – Coastal Hazards notified on 27 June 2024.

2. **NHC Toka Tū Ake could not gain an advantage in trade competition through this submission.**

3. **NHC Toka Tū Ake does not wish to be heard in support of this submission.**

4. **This document and the Appendices attached is the NHC Toka Tū Ake submission. This submission relates to TTPP Variation 2 – Coastal Hazards in its entirety.**

5. **The submission of NHC Toka Tū Ake is:**

NHC Toka Tū Ake supports TTPP Variation 2 – Coastal Hazards.

We support using the best available scientific information as the basis of natural hazard maps, zones and provisions.

We consider that updating these maps based on models which use recently collected LiDAR is essential to representing the probable extent of these hazards with the most accuracy possible. As hazard modelling continues to be updated in the future, we recommend that the coastal and other natural hazard maps in Te Tai o Poutini Plan are further updated to reflect newly available science.

6. **NHC Toka Tū Ake 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 TTPP Variation 2 – Coastal Hazards, including such further, alternative, additional, or consequential relief as may be necessary to fully achieve the relief sought in this submission.

Date: 4/12/2024

NOT GOVERNMENT POLICY

Address for service: Natural Hazards Commission Toka Tū Ake
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WELLINGTON 6140

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Email: resilience@naturalhazards.govt.nz