

## To the Planning Team, Hamilton City Council

Name of submitter: Sarah-Jayne McCurrach, Head of Risk Reduction

Organisation: Natural Hazards Commission Toka Tū Ake

Email: [resilience@naturalhazards.govt.nz](mailto:resilience@naturalhazards.govt.nz)

Date: 14 April 2025

Thank you for the opportunity to submit further on Plan Change 14 - Flooding (PC14).

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).

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.

Hamilton is exposed to a range of different natural hazards including earthquakes, liquefaction, volcanic ashfall, landslides and erosion, and flooding. A number of active faults run through the Waikato region, and 17% of Hamilton's urban area is built on liquefaction-prone unconsolidated material<sup>1</sup>. Flash floods and flooding from the Waikato River are of particular concern for Hamilton with several properties being exposed to these types of flooding.

NHC encourages territorial authorities to use risk-based frameworks in district plans to reduce risk and increase resilience to natural hazards. In alignment with our original submission, we support some submissions on PC14 in this regard, and we have identified some submissions that we oppose.

Our comments on these submissions can be found in the attached Further Submission Table.

We welcome the opportunity to discuss our further submission with council officers. Please feel free to contact us at any time.

Yours sincerely,



Sarah-Jayne McCurrach,

Head of Risk Reduction, NHC

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<sup>1</sup> An overview of natural hazards for the Hamilton City Council. Waikato Regional Council technical report 2014/04. <https://www.waikatoregion.govt.nz/services/publications/tr201404/>

## Form 6, Clause 8 of Schedule 1, Resource Management Act 1991

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### Natural Hazards Commission Toka Tū Ake Further Submission on Hamilton City Council Plan Change 14 - Flooding

**To:** Hamilton City Council

Via Council submission email: [planchange14@hcc.govt.nz](mailto:planchange14@hcc.govt.nz)

**Submitter:** Natural Hazards Commission Toka Tū Ake (NHC)

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

The Hamilton City Council Plan Change 14 – Flooding.

**2. NHC is a person who has an interest in the proposal that is greater than the interest the general public has.**

As NHC is the ‘first loss’ insurer for residential damage resulting from natural hazards listed in the NHI Act, NHC carries significant financial risk on behalf of the Crown. This is one of the reasons NHC has a strong interest in reducing risk from, and building resilience to, natural hazards across New Zealand

**3. NHC supports, is neutral, or opposes the submissions of original submitters to the extent outlined in this submission.**

**4. NHC does not wish to be heard in support of this further submission.**

Date: 14/04/2025

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PO Box 790,  
Wellington  
6140

Contact person: Sarah-Jayne McCurrach, Head of Risk Reduction

Email: [resilience@naturalhazards.govt.nz](mailto:resilience@naturalhazards.govt.nz)

## Further Submissions Table

Original Submitter	Submission Number	Description	Support/ Oppose	Reasoning	Requested Action
Bruce Wallace Surveyors Ltd	25.2	Amend Standard 23.7.2(s) as follows:  Any vacant <b>residential</b> lot subdivision in the General Residential Zone must include a 165m <sup>2</sup> building platform which is able to accommodate a 12.5m diameter circle clear of <b>any</b> identified <b>medium and high Flood</b> Hazard Area.	<b>Oppose</b>	We oppose excluding Low Flood Hazard Areas from this provision. Low Flood Hazard Areas will still experience flooding in a 1% AEP flood event. Flood waters within the Low Flood Hazard Area can still be up to 0.5m and have a velocity of 1m/s, which is unsafe for small vehicles and can be considered unsafe for children and the elderly <sup>1</sup> . Therefore, a building platform should be clear of all Flood Hazard Areas to reduce the impacts of flooding on people and property.  <a href="#"><sup>1</sup>Australian Institute of Disaster Resilience. Flood Hazard Guidelines.</a>	We seek that this submission be disallowed.
Bruce Wallace Surveyors Ltd	25.3	Under Rule 23.7.3(t) include the word ‘residential’ in relation to “Any vacant lot”. Also identify that the provision only relates to vacant allotments created for sensitive, residential, land use and exclude the low-risk flood hazard areas.	<b>Oppose in part</b>	We oppose excluding Low Flood Hazard Areas from this provision. Low Flood Hazard Areas will still experience flooding in a 1% AEP flood event. Flood waters within the Low Flood Hazard Area can still be up to 0.5m and have a velocity of 1m/s, which is unsafe for small vehicles and can be considered unsafe for children and the elderly <sup>1</sup> . Therefore, a building platform should be clear of all Flood Hazard Areas to reduce the impacts of flooding on people and property.  <a href="#"><sup>1</sup>Australian Institute of Disaster Resilience. Flood Hazard Guidelines.</a>	We seek that this submission be disallowed.
Bruce Wallace Surveyors Ltd	25.5	Seeks that the policy [22.2.1g] explicitly acknowledge that non-habitable space within	<b>Oppose</b>	We oppose explicitly acknowledging that all non-habitable spaces within dwellings are resilient to the adverse effects of flooding. There are many uses and developments that are vulnerable to	We seek that this submission be disallowed.

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		<p>dwellings are resilient to the adverse effects of flooding.</p>		<p>the effects of natural hazards and flooding such as schools, childcare facilities, community centres, and health care services. Impacts to many of these uses and developments during natural hazard events, including flooding, can increase the severity of impact on communities and affect the speed of recovery<sup>1</sup>. Therefore, it is important to ensure that all possible uses and developments that are vulnerable to flooding (including habitable areas) can be acknowledged to reduce the impacts to people and property in future flood events.</p> <p><a href="#"><sup>1</sup>National Emergency Management Agency. Recovery Preparedness and Management. Director's Guideline for Civil Defence Emergency Management Groups [DGL 24/20].</a></p>	
<p>Bruce Wallace Surveyors Ltd</p>	<p>25.6</p>	<p>Policy 22.2.1d be redrafted to explicitly indicate that only <b>habitable</b> areas are vulnerable to flooding events.</p>	<p><b>Oppose</b></p>	<p>We oppose explicitly acknowledging that only habitable areas are vulnerable to flood events. There are many uses and developments that are vulnerable to the effects of natural hazards and flooding such as schools, childcare facilities, community centres, and health care services. Impacts to many of these uses and developments during natural hazard events, including flooding, can increase the severity of impact on communities and affect the speed of recovery<sup>1</sup>. Therefore, it is important to ensure that all possible uses and developments that are vulnerable to flooding (including habitable areas) can be acknowledged to reduce the impacts to people and property in future flood events.</p> <p><a href="#"><sup>1</sup>National Emergency Management Agency. Recovery Preparedness and Management.</a></p>	<p>We seek that this submission be disallowed.</p>

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				<a href="#">Director's Guideline for Civil Defence Emergency Management Groups [DGL 24/20].</a>	
Bruce Wallace Surveyors Ltd	25.7	Seeks that the term 'tolerable' is defined in the plan change provisions via an advice note.	<b>Support</b>	<p>We support the Council providing a definition for what they deem as a "tolerable level" to avoid confusion and ensure consistent application of rules and policies.</p> <p>NHC has developed a Risk Tolerance Methodology<sup>1</sup> 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 to determine "tolerable" levels of risk.</p> <p><a href="#">1NHC Toka Tū Ake Risk Tolerance Methodology</a></p>	We seek that this submission be allowed.
Bruce Wallace Surveyors Ltd	25.10	Amend 22.5.6e as follows: e. Any proposed development or activity within a 1% AEP rainfall event flood extent for a vulnerable activity listed in Table 22.3 must, <b>if possible</b> , connect via a safe access route...	<b>Oppose</b>	<p>We oppose removing the requirement to have safe access ways for vulnerable activities proposed in a 1% AEP flood extent. The vulnerable activities listed in Table 22.3 contain activities that have a lower threshold for being impacted and/or are more likely to be impacted in a flood event. For example, the listed vulnerable activities include childcare facilities and retirement villages, and the Low Flood Hazard Area can still be unsafe for small vehicles, children, and the elderly<sup>1</sup>. Therefore, all vulnerable activities proposed in a 1% AEP rainfall flood event need to have a safe access route, to reduce the impact on people and property in future flood events.</p> <p><a href="#">1Australian Institute for Disaster Resilience. Flood Hazard Guidance.</a></p>	We seek that this submission be disallowed.

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Transpower New Zealand Limited	26.24	<p>Retain the activity statuses of lifeline utilities which are electricity infrastructure at ground level as:</p> <ul style="list-style-type: none"> <li>• A Discretionary Activity in Medium Flood Hazard Areas;</li> <li>• A Permitted Activity in Low Flood Hazard Areas</li> <li>• A Restricted Discretionary Activity in Depression Areas;</li> <li>• A Permitted Activity in Overland Flow Paths; and</li> <li>• A Permitted Activity in Flood Extent Areas.</li> </ul>	<b>Oppose</b>	<p>We oppose retaining lifeline utilities which are ground level electricity infrastructure as a permitted activity in Overland Flow Paths, unless there is an operational or functional need for them to be located there. Overland Flow Paths represent low points in terrain where surface runoff will flow, which means that infrastructure located at ground level in these areas will be exposed to higher levels of flood hazard and so will have high level of risk. Therefore, to reduce the impacts to people and property in future flood events, electricity infrastructure at ground level should be a restricted discretionary activity in Overland Flow Paths.</p>	We seek that this submission be disallowed.
Woolworths New Zealand Limited	27.4	<p>Amend rule 22.5.6e as follows:</p> <p>e. Any proposed development or activity within a 1% AEP rainfall event flood extent for a vulnerable activity listed in Table 22.3 must connect via a safe access route for pedestrians or vehicles to a road or public open space <del>that is free of flood waters</del> during a 1% AEP rainfall event. An access route will be considered safe during such an event if it will be subject to no more than 0.3m depth of flooding and 1.0 m/s flood velocity.</p> <p>OR</p>	<b>Oppose</b>	<p>We oppose removing the requirement to have safe access routes for vulnerable activities located within a 1% AEP flood extent. The vulnerable activities listed in Table 22.3 contain activities that have a lower threshold for being impacted and/or are more likely to be impacted in a flood event. For example, the listed vulnerable activities include childcare facilities and retirement villages, and the Low Flood Hazard Area can still be unsafe for small vehicles, children, and the elderly<sup>1</sup>. Therefore, all vulnerable activities proposed in a 1% AEP rainfall flood event need to have a safe access route to reduce the impact on people and property in future flood events.</p> <p><sup>1</sup><a href="#">Australian Institute for Disaster Resilience. Flood Hazard Guidance.</a></p>	We seek that this submission be disallowed.

		Further amendments to recognise the realities of roads and open space for flood hazard purposes where flood depth may be more than 0.3m and 1.0m/s flood velocity, which is outside of an owner or developer's control.			
Metlifecare Limited	28.3	It is appropriate to support natural hazard protection works or structures, however giving priority to these over structural solutions may not be the most appropriate response and outcome.	<b>Oppose</b>	<p>We oppose removing the provision to give priority to non-structural solutions. Non-structural solutions can include land use planning and floodplain vegetation management<sup>1</sup>. These are more sustainable in the long-term, cheaper to maintain, and can bring additional benefits to the community<sup>2</sup>. Provision 22.2.1a(iv) still allows for structural solutions to be implemented, however, they should not be prioritised as they can create residual risk. Residual risk (risk after risk reduction measures have been put in place) is often created with structural solutions as it is possible for events to exceed the design standards of structural options<sup>1,2</sup>. For example, during Cyclone Gabrielle stop banks were overtopped and burst in the Hawke's Bay resulting in damaging impacts for the exposed properties<sup>3</sup>. Climate change, which will increase the frequency and intensity of rainfall events, will also affect the amount of residual risk that needs to be managed over time<sup>2</sup>.</p> <p><a href="#">1Australian Institute for Disaster Resilience. Managing the Floodplain: A guide to best practice in flood risk management in Australia.</a></p>	We seek that this submission be disallowed.

				<a href="#"><sup>2</sup>Ministry for the Environment. Preparing for future flooding: A guide for local government in New Zealand.</a> <a href="#"><sup>3</sup>Bush International Consulting. Hawke's Bay Civil Defence and Emergency Management Group Response to Cyclone Gabrielle. Independent external review for Hawke's Bay Civil Defence and Emergency Management Group.</a>	
Metlifecare Limited	28.18	Standard 22.5.6. Amend the note to recognise that this is subject to the scale of the building relative to the location and scale of the Flood Hazard Area and/or topography of the site.	<b>Oppose</b>	We oppose allowing differing freeboard requirements based on the scale of the building relative to the scale of the Flood Hazard Area. The Flood Hazard Areas are indicative of where flooding of a certain level is likely to occur during a 1% AEP event. However, it is possible that flooding could still occur in areas outside of what has been mapped and in events larger than a 1% AEP (such as 0.5% AEP event). Therefore, to effectively reduce the impacts to people and property the freeboard levels should be determined by sensitivity of the activity to the impacts of flooding (as per provision 22.5.6c(i-iii)), not the scale of building relative to the Flood Hazard Area.	We seek that this submission be disallowed.
Stride Investment Management Limited	29.3	Amend Policy 22.2.1a(iv). It is appropriate to support natural hazard protection works or structures, however giving priority to these over structural solutions may not be the most appropriate response and outcome.	<b>Oppose</b>	We oppose removing the provision to give priority to non-structural solutions. Non-structural solutions can include land use planning and floodplain vegetation management <sup>1</sup> . These are more sustainable in the long-term, cheaper to maintain, and can bring additional benefits to the community <sup>2</sup> . Provision 22.2.1a(iv) still allows for structural solutions to be implemented, however, they should not be prioritised as they can create residual risk.	We seek that this submission be disallowed.



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				<p>Residual risk (risk after risk reduction measures have been put in place) is often created with structural solutions as it is possible for events to exceed the design standards of structural options<sup>1,2</sup>. For example, during Cyclone Gabrielle stop banks were overtopped and burst in the Hawke's Bay resulting in damaging impacts for the exposed properties<sup>3</sup>. Climate change, which will increase the frequency and intensity of rainfall events, will also affect the amount of residual risk that needs to be managed over time<sup>2</sup>.</p> <p><a href="#">1Australian Institute for Disaster Resilience. Managing the Floodplain: A guide to best practice in flood risk management in Australia.</a></p> <p><a href="#">2Ministry for the Environment. Preparing for future flooding: A guide for local government in New Zealand.</a></p> <p><a href="#">3Bush International Consulting. Hawke's Bay Civil Defence and Emergency Management Group Response to Cyclone Gabrielle. Independent external review for Hawke's Bay Civil Defence and Emergency Management Group.</a></p>	
Stride Investment Management Limited	29.11	Amend retail activities within a Medium Flood Hazard Area to Restricted Discretionary.	<b>Support</b>	We support changing retail activities to being restricted discretionary in Medium Flood Hazard Area as this activity status will be able to reduce the impacts to people and property in future flood events.	We seek that this submission be allowed.
Stride Investment	29.18	Standard 22.5.6. Amend the note to recognise that this is subject to the scale of the building relative to the location	<b>Oppose</b>	We oppose allowing differing freeboard requirements based on the scale of the building relative to the scale of the Flood Hazard Area. The Flood Hazard Areas are indicative of where	We seek that this submission be disallowed.

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Management Limited		and scale of the Flood Hazard Area and/or topography of the site.		flooding of a certain level is likely to occur during a 1% AEP event. However, it is possible that flooding could still occur in areas outside of what has been mapped and in events larger than a 1% AEP (such as 0.5% AEP event). Therefore, to effectively reduce the impacts to people and property the freeboard levels should be determined by sensitivity of the activity to the impacts of flooding (as per provision 22.5.6c(i-iii)), not the scale of building relative to the Flood Hazard Area.	
Southern Cross Healthcare Limited	30.13	Amend Policy 22.2.1(j) to limit it to High Flood Hazard Areas.	<b>Oppose</b>	We oppose removing restrictions and constraints for regionally significant infrastructure and essential services within Low and Medium Flood Hazard Areas. Assets located within Low Flood Hazard Areas and Medium Flood Hazard Areas can still be damaged and experience disruption in flood events. Therefore, to maintain levels of service and reduce the impacts to people and property in future flood events, regionally significant infrastructure and essential services should avoid all Flood Hazard Areas.	We seek that this submission be disallowed.
Southern Cross Healthcare Limited	30.14	Amendment sought to change Hospital land use activity status within a Medium Flood Hazard Area to Discretionary Activity status.	<b>Support</b>	We support hospital land use activities being a discretionary activity as this will support reducing the impacts to people and property in future flood events. This activity status allows the Council to assess the level of flood risk and mitigations in place while still giving them authority to prevent development if the flood risk is deemed too high, as per agreed risk-threshold terminology (submission points 48.23 & 48.24).	We seek that this submission be allowed.

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Horotiu Farms Limited and Te Awa Lakes Unincorporated Joint Venture Limited	32.1	<p>PC14 introduces unnecessary restrictions and uncertainty for landowners. Clear, certain and efficient provisions are required. RMA planning documents should not worsen housing affordability or delivery.</p> <p>The submitter seeks that the Plan Change be either withdrawn, or approved with:</p> <ul style="list-style-type: none"> <li>a) amendments to address the submitter concerns set out above.</li> <li>b) such further other relief or other consequential amendments as considered appropriate and necessary to address the concerns set out above.</li> </ul>	<b>Oppose</b>	<p>We oppose this plan change being withdrawn. Plan Change 14 provides valuable rules and provisions for managing and reducing flood risk within Hamilton. Flooding can cause damage to property, damage and disruption to infrastructure, as well as loss of life and injuries<sup>1</sup>. Hamilton is exposed to different types of flood hazard including flash floods and river flooding (from the Waikato River), with the highest levels of exposure coming from flash flooding<sup>2</sup>. Climate change projections indicate that rainfall events will become more frequent and intense, which will impact floods in Hamilton<sup>3</sup>. Therefore, it is important to have rules in place to manage flood risk and reduce the impacts to people and property in future flood events.</p> <p><a href="#">1National Emergency Management Agency. Consistent messages for CDEM; Flood.</a></p> <p><a href="#">2Plan Change 14 – Flooding. Appendix 4 Technical Report – Flooding.</a></p> <p><a href="#">3An overview of natural hazards for the Hamilton City Council. Waikato Regional Council Technical Report 2014/04</a></p>	We seek that this submission be disallowed.
Horotiu Farms Limited and Te Awa Lakes Unincorporated Joint Venture Limited	32.2	<p>The plan change is not the most appropriate way of achieving the objectives of the District Plan or the purpose of the RMA.</p> <p>The submitter seeks that the Plan Change be either withdrawn, or approved with:</p>	<b>Oppose</b>	<p>We oppose this plan change being withdrawn. Plan Change 14 provides valuable rules and provisions for managing and reducing flood risk within Hamilton. Flooding can cause damage to property, damage and disruption to infrastructure, as well as loss of life and injuries<sup>1</sup>. Hamilton is exposed to different types of flood hazard including flash floods and river flooding (from the Waikato River), with the highest levels of exposure coming from flash flooding<sup>2</sup>. Climate</p>	We seek that this submission be disallowed.

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		<p>a) amendments to address the submitter concerns set out above.</p> <p>b) such further other relief or other consequential amendments as considered appropriate and necessary to address the concerns set out above.</p>		<p>change projections indicate that rainfall events will become more frequent and intense, which will impact floods in Hamilton<sup>3</sup>. Therefore, it is important to have rules in place to manage flood risk and reduce the impacts to people and property in future flood events.</p> <p><a href="#">1National Emergency Management Agency. Consistent messages for CDEM; Flood.</a></p> <p><a href="#">2Plan Change 14 – Flooding. Appendix 4 Technical Report – Flooding.</a></p> <p><a href="#">3An overview of natural hazards for the Hamilton City Council. Waikato Regional Council Technical Report 2014/04</a></p>	
Horotiu Farms Limited and Te Awa Lakes Unincorporated Joint Venture Limited	32.3	<p>The objectives and policies call for a “no risk” or to reducing “existing risk” to flood hazards. This approach will not enable people and communities to provide for their social, economic and cultural wellbeing and for their health and safety. This is not consistent with the sustainable management purpose of the RMA.</p> <p>Delete Objective 22.2.1.ii and Policy 22.2.1a.ii</p> <p>Amend Policy 22.2.1a.v to refer to managing the effects of natural hazards, rather than avoiding or mitigating.</p>	<b>Oppose</b>	<p>We oppose removing wording about avoiding and mitigating natural hazard risk. In some cases, natural hazard risk is so high that it cannot be effectively managed to reduce the impacts on people and property. In these cases, it is more appropriate to avoid or mitigate the risk, which will reduce impacts in future events and can contribute to the social, economic, and cultural well-being of communities<sup>1</sup>.</p> <p><a href="#">1National Emergency Management Agency. National Disaster Resilience Strategy.</a></p>	We seek that this submission be disallowed.

		Amend Policy 22.2.1e to refer to managing natural hazard risk.			
Horotiu Farms Limited and Te Awa Lakes Unincorporated Joint Venture Limited	32.5	<p>The plan change imposes costs on the community which have not been considered and assessed.</p> <p>The submitter seeks that the Plan Change be either withdrawn, or approved with:</p> <ul style="list-style-type: none"> <li>a) amendments to address the submitter concerns set out above.</li> <li>b) such further other relief or other consequential amendments as considered appropriate and necessary to address the concerns set out above</li> </ul>	<b>Oppose</b>	<p>We oppose this plan change being withdrawn. Plan Change 14 provides valuable rules and provisions for managing and reducing flood risk within Hamilton. Flooding can cause damage to property, damage and disruption to infrastructure, as well as loss of life and injuries<sup>1</sup>. Hamilton is exposed to different types of flood hazard including flash floods and river flooding (from the Waikato River), with the highest levels of exposure coming from flash flooding<sup>2</sup>. Climate change projections indicate that rainfall events will become more frequent and intense, which will impact floods in Hamilton<sup>3</sup>. Therefore, it is important to have rules in place to manage flood risk and reduce the impacts to people and property in future flood events.</p> <p>Appendix 3 of the s32 Report<sup>4</sup> clearly outlines the costs and benefits to the provisions and highlights that the benefits for reducing flood risk outweigh any costs. Research from the United States<sup>5</sup> has also shown that every \$1 invested in resilience and disaster preparedness can save \$13 in economic impact, damage, and clean-up costs after the event, which highlights the importance of implementing reduction policies even if there is an initial cost to communities.</p> <p><a href="#">1National Emergency Management Agency. Consistent messages for CDEM; Flood.</a></p> <p><a href="#">2Plan Change 14 – Flooding. Appendix 4 Technical Report – Flooding.</a></p>	

				<p><sup>3</sup><a href="#">An overview of natural hazards for the Hamilton City Council. Waikato Regional Council Technical Report 2014/04</a></p> <p><sup>4</sup><a href="#">Plan Change 14 – Flooding. Appendix 3 evaluation of objectives, policies and rules.</a></p> <p><sup>5</sup><a href="#">U.S. Chamber of Commerce. The preparedness payoff: The economic benefits of investing in climate resilience.</a></p>	
Horotiu Farms Limited and Te Awa Lakes Unincorporated Joint Venture Limited	32.6	<p>The plan change is inconsistent with the RPS planning framework which has objectives to avoid or mitigate flooding by managing risk for people's safety and the protection of property, and lifeline opportunities. Instead of managing risk, the plan change focuses on avoiding risk without quantification of the increase of the underlying risk.</p> <p>The submitter seeks that the Plan Change be either withdrawn, or approved with:</p> <ul style="list-style-type: none"> <li>a) amendments to address the submitter concerns set out above.</li> <li>b) such further other relief or other consequential amendments as considered appropriate and necessary to address</li> </ul>	<b>Oppose</b>	<p>We oppose this plan change being withdrawn. The Waikato Regional Policy Statement<sup>1</sup> has clear objectives and policies that require natural hazard risk to be at an acceptable level. In some cases, flood risk can be so high that reducing it to an acceptable level requires avoidance and/or mitigation, which are both provided for in Plan Change 14.</p> <p>Plan Change 14 provides valuable rules and provisions for managing and reducing flood risk within Hamilton. Flooding can cause damage to property, damage and disruption to infrastructure, as well as loss of life and injuries<sup>2</sup>. Hamilton is exposed to different types of flood hazard including flash floods and river flooding (from the Waikato River), with the highest levels of exposure coming from flash flooding<sup>3</sup>. Climate change projections indicate that rainfall events will become more frequent and intense, which will impact floods in Hamilton<sup>4</sup>. Therefore, it is important to have rules in place to manage flood risk and reduce the impacts to people and property in future flood events.</p> <p><sup>1</sup><a href="#">Waikato Regional Policy Statement.</a></p>	We seek that this submission be disallowed.

		the concerns set out above		<p><sup>2</sup><a href="#">National Emergency Management Agency. Consistent messages for CDEM; Flood.</a></p> <p><sup>3</sup><a href="#">Plan Change 14 – Flooding. Appendix 4 Technical Report – Flooding.</a></p> <p><sup>4</sup><a href="#">An overview of natural hazards for the Hamilton City Council. Waikato Regional Council Technical Report 2014/04</a></p>	
Horotiu Farms Limited and Te Awa Lakes Unincorporated Joint Venture Limited	32.8	Retain statutory planning maps to identify the hazard areas.	<b>Support</b>	We support retaining statutory planning maps to identify hazard areas. This ensures that they will have to be consulted on for any changes and will maintain natural justice by ensuring affected parties can be heard when the hazard maps change. Requiring consultation for updating hazard maps also provides a mechanism for assessing the rigour of the information included in the maps.	We seek that this submission be allowed.
Horotiu Farms Limited and Te Awa Lakes Unincorporated Joint Venture Limited	32.13	Amend rule 22.5.6 to be consistent with the Building Act.	<b>Oppose</b>	<p>We oppose amending this rule to reduce the freeboard requirement to be the same as in the Building Act. The Building Act requires that during a 2% AEP event no surface water enters a building<sup>1</sup>. However, increasing the Freeboard to above a 1% AEP in Flood Hazard Areas can provide extra resilience for buildings and reduce the impacts to people and property in future flood events.</p> <p>Using at least 1% AEP is becoming standard across the country with many other councils (such as Wellington City Council, Auckland Council, and Whangarei District Council) adopting minimum floor levels for a 1% AEP flood event. Planning for a 1% AEP event also</p>	We seek that this submission be disallowed.

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				<p>aligns with guidance from the Australian Institute of Disaster Resilience<sup>2</sup>.</p> <p><a href="#"><sup>1</sup>Ministry of Business, Innovation and Employment. Guidance: Natural hazards provisions.</a></p> <p><a href="#"><sup>2</sup>Australian Institute for Disaster Resilience. Managing the floodplain: A guide to best practice flood risk management in Australia.</a></p>	
Horotiu Farms Limited and Te Awa Lakes Unincorporated Joint Venture Limited	32.14	Amend Policy 23.2 1.a.vii to remove reference to “not create new flood hazards”.	<b>Oppose</b>	We oppose removing the reference to “not create new flood hazards”. Subdivision within the Low and Medium Flood Hazard Areas should not create or exacerbate flooding, as properties in these areas can still be damaged in flood events. To reduce the impacts to people and property new flood hazards must not be created in the Low and Medium Flood Hazard Areas.	We seek that this submission be disallowed.
Fonterra Limited	33.1	The submitter seeks that the provisions of PC14 are amended to make it clear that any changes to the Flood Viewer Maps are required to go through a Schedule 1 RMA process.	<b>Support</b>	We support retaining statutory planning maps to identify hazard areas. This ensures that they will have to be consulted on for any changes and will maintain natural justice by ensuring affected parties can be heard when the hazard maps change. Requiring consultation for updating hazard maps also provides a mechanism for assessing the scientific rigour of the information included in the maps.	We seek that this submission be allowed.
Kainga Ora - Homes and Communities	34.1	The interactive maps, as a non-statutory layer, provide for better management of land use in relation to flood hazards, as flood hazards are dynamic and change over time. This is reflected in the potential for the	<b>Oppose</b>	We oppose providing interactive maps as a non-statutory layer to identify natural hazards. Retaining statutory planning maps to identify hazards ensures that they will have to be consulted on for any changes. This will maintain natural justice by ensuring affected parties can be heard when the hazard maps change. Requiring consultation for updating hazard maps	We seek that this submission be disallowed.



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		<p>spatial extent of flood hazards to change from</p> <ul style="list-style-type: none"> <li>a) mitigation of flood hazards, such as large-scale infrastructure improvements,</li> <li>b) climate change and natural hazard events, and</li> <li>c) the quality of information available at any given time.</li> </ul> <p>Include the provisions as notified, to the extent they are consistent with the overall submission and relief sought by Kāinga Ora.</p>		also provides a mechanism for assessing the rigour of the information included in the maps.	
Kainga Ora - Homes and Communities	34.15, 34.16	<p>Kāinga Ora supports the definition as notified and the consequential amendment to remove reference to the Planning Maps within the definition, reflective of the exclusion of the flood hazard mapping from the statutory maps.</p> <p>Include the provision as notified, to the extent they are consistent with the overall submission and relief sought by Kāinga Ora.</p>	<b>Oppose</b>	<p>We oppose changes in definitions that require planning maps to be removed from the statutory maps. Retaining statutory planning maps to identify hazards ensures that they will have to be consulted on for any changes. This will maintain natural justice by ensuring affected parties can be heard when the hazard maps change. Requiring consultation for updating hazard maps also provides a mechanism for assessing the rigour of the information included in the maps.</p>	We seek that this submission be disallowed.
Kainga Ora - Homes and Communities	34.17, 34.18	<p>Provide a difference between the definition of Medium and High Flood Hazard Area for Waikato River flooding through</p>	<b>Support</b>	<p>We support clear definitions for Medium and High Flood Hazard Areas for Waikato River</p>	We seek that this submission be allowed.

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		amendments to this element of the definition.		flooding to avoid confusion and ensure consistent application of rules and policies.	
Hamilton City Council	47.5	Amend 22.5.2a. to include 'Overland Flow Paths'.	<b>Support</b>	We support including a specific reference to Overland Flows Paths to avoid confusion and ensure consistent application of rules and policies.	We seek that this submission be allowed.
Hamilton City Council	47.8	Amend 22.5.5a to include a wider range of activities, including but not limited to driveways, or introduce a new standard related to Overland Flow Paths.	<b>Support</b>	We support including more provisions for other activities that could be located in Overland Flow Paths. Overland Flow Paths represent low points in terrain where surface runoff will flow, which means that assets in these areas will be exposed to higher levels of flood hazard and so will have high level of risk. Therefore, to reduce the impacts to people and property in future flood events there needs to be clear rules and provisions for activities in Overland Flow Paths.	We seek that this submission be allowed.
Waikato Regional Council	48.2	The submitter supports the proposal to have the flood mapping sit outside of the district plan as this allows for the maps to be kept up to date with changing information.  No specific relief sought.	<b>Oppose</b>	We oppose providing interactive maps as a non-statutory layer to identify natural hazards. Retaining statutory planning maps to identify hazards ensures that they will have to be consulted on for any changes. This will maintain natural justice by ensuring affected parties can be heard when the hazard maps change. Requiring consultation for updating hazard maps also provides a mechanism for assessing the rigour of the information included in the maps.	We seek that this submission be disallowed.
Waikato Regional Council	48.3	Amend definition for 'Depression Area' to include all features of the land and whether they serve a specific function in the management of stormwater.	<b>Support</b>	We support amending the definition for "Depression Area" to avoid confusion and ensure the consistent application of rules and policies.	We seek that this submission be allowed.

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Waikato Regional Council	48.4	Amend the definition of 'Flood Extent Area' to note that Flood Hazards Areas are included in a 1% AEP rainfall event.	<b>Support</b>	We support amending the definition for "Flood Extent Area" to avoid confusion and ensure consistent application of rules and policies.	We seek that this submission be allowed.
Waikato Regional Council	48.5	Add a definition for 'Floodplain' as previously included in the HCC pre-consultation documents.	<b>Support</b>	We support adding a definition for "Flood Plain" to avoid confusion and ensure consistent application of rules and policies.	We seek that this submission be allowed.
Waikato Regional Council	48.6	Amend definition for 'Freeboard' to provide clarity on where the flood water level is measured from.	<b>Support</b>	We support amending the definition for "Freeboard" to avoid confusion and ensure consistent application of rules and policies.	We seek that this submission be allowed.
Waikato regional Council	48.12, 48.15	<p>Amend Objective 22.2.1 to include threshold-based risk terminology. The Waikato Regional Policy Statement (WRPS) identifies three levels of risk:</p> <ul style="list-style-type: none"> <li>a) intolerable: risk which cannot be justified and risk reduction is essential e.g. residential housing being developed in a primary hazard zone;</li> <li>b) tolerable: risk within a range that a community can live with so as to secure certain net benefits. It is a range of risk that is not regarded as negligible or as something to ignore, but rather as something to be kept</li> </ul>	<b>Support</b>	We support providing definitions for risk thresholds to avoid confusion and ensure consistent application of rules and policies.	We seek that this submission be allowed.

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		<p>under review and reduced if possible; and</p> <p>c) acceptable: risk which is minor, and the cost of further reducing risk is largely disproportionate to the benefits gained e.g. residential housing being developed beyond coastal setbacks.</p> <p>The use of threshold-based risk terminology as outlined in the WRPS allows for a more comprehensive understanding of potential impacts and more consistent understanding of risks across the region</p>			
Waikato Regional Council	48.16	Add a definition to provide clarity around dwellings which can be considered a refuge. For example, if a dwelling needs to be located away from rising flood waters or is the second storey of a dwelling to be considered a refuge.	<b>Support</b>	We support providing a clear definition for the criteria for a dwelling being considered a refuge to avoid confusion and ensure the consistent application of rules and policies.	We seek that this submission be allowed.
Waikato Regional Council	48.23	Wording be added to the purpose section of the Natural Hazards chapter to signal a clear intent to avoid creating new intolerable natural hazard risk.	<b>Support</b>	We support adding additional wording to the purpose section of the Natural Hazards Chapter to clarify the intent to avoid creating new intolerable natural hazard risk. Intolerable levels of risk can be defined as “risk which cannot be justified and risk reduction is essential e.g. residential housing being developed in a primary hazard zone” <sup>1</sup> and should be avoided even in cases where intolerable risk may exist in other	We seek that this submission be allowed.

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				locations as this should not be used as the basis for allowing certain activities or development. <a href="#"><sup>1</sup>Waikato Regional Policy Statement</a>	
Waikato Regional Council	48.24	Prefers the use of threshold-based risk terminology and seeks that this be carried throughout the policy framework, and apply the WRPS definitions of natural hazard risk thresholds consistently throughout the plan change.	<b>Support</b>	We support using clear risk-thresholds based on agreed definitions. This will avoid confusion and ensure the consistent application of rules and policies.	We seek that this submission be allowed.
Waikato Regional Council	48.25	Focus on the dwelling finished floor level in terms of whether a property is deemed to be appropriately managing flood risk, and the liveability of the property (e.g., including amenity and access).	<b>Support</b>	We support focussing on both the dwelling finished floor level and liveability of property, considering both aspects in flood management will allow for the impacts to people and property to be reduced in future flood events.	We seek that this submission be allowed.
PB Consultants Ltd	51.11, 51.12, 51.13	Amend matters of discretion to recognise the increase in risk from the proposed activity, for example assessment of any increases in impermeable surface area and the intensity of the proposed use.	<b>Support</b>	We support amending the matters of discretion to also consider the increase in risk from the proposed activity. Applied in conjunction with risk-threshold terminology, any activity should not increase flood risk to an intolerable level to ensure that the impacts to people and property can be reduced in future flood events. Risk thresholds should be clearly defined to avoid confusion and ensure consistent application of rules and policies. A definition for risk thresholds could be adopted from the Waikato Regional Policy Statement <sup>1</sup> or developed using the NHC Risk Tolerance Methodology <sup>2</sup> . <a href="#"><sup>1</sup>Waikato Regional Policy Statement</a>	We seek that this submission be allowed.

				<a href="#">2NHC Risk Tolerance Methodology.</a>	
PB Consultants Ltd	51.15	Amend 23.7.1aa as follows:  Any vacant lot subdivision in the General Residential Zone must include a 165m2 building platform which is able to accommodate a 12.5m diameter circle clear of any identified Flood Hazard Area, <b><u>Depression Area, Overland Flow Path, and Flood Extent Area.</u></b>	<b>Support</b>	We support ensuring that all flood hazards (including Depressions Areas, Overland Flow Paths, and Flood Extent Areas) identified by Hamilton City Council are included to effectively reduce the impacts to people and property in future flood events.	We seek that this submission be allowed.
PB Consultants Ltd	51.16	Amend 23.7.1bb as follows:  Any vacant lot in the Medium Density or High Density Residential Zone must include a 720m2 building platform which is able to accommodate a 15m x 20m rectangle clear of any identified Flood Hazard Area, <b><u>Depression Area, Overland Flow Path, and Flood Extent Area.</u></b>	<b>Support</b>	We support ensuring that all flood hazards (including Depressions Areas, Overland Flow Paths, and Flood Extent Areas) identified by Hamilton City Council are included to effectively reduce the impacts to people and property in future flood events.	We seek that this submission be allowed.
Empire Corporation Limited	53.2	The submitter states as an investor and developer of property in Hamilton, they are concerned about properties being identified as flood prone without the ability to challenge this through a First Schedule RMA process (eg. District Plan, Plan Change, etc). It is not clear how investors and developers	<b>Support</b>	We support retaining statutory planning maps to identify hazard areas. This ensures that they will have to be consulted on for any changes and will maintain natural justice by ensuring affected parties can be heard when the hazard maps change. Requiring consultation for updating hazard maps also provides a mechanism for assessing the rigour of the information included in the maps.	We seek that this submission be allowed.

		will be able to make informed decisions or rely on information on Flood Viewer at various points in time. As a result of this, the additional risks is likely to discourage investment and development in Hamilton.  No specific relief sought			
Property Council New Zealand	54.1	The submitter recommends either retaining flood mapping in the District Plan or developing a dynamic and cost-efficient pathway for property owners to apply to change their flood hazard classification.	<b>Support</b>	We support retaining statutory planning maps to identify hazard areas. This ensures that they will have to be consulted on for any changes and will maintain natural justice by ensuring affected parties can be heard when the hazard maps change. Requiring consultation for updating hazard maps also provides a mechanism for assessing the rigour of the information included in the maps.	We seek that this submission be allowed.
Fuel Companies	57.1	Amend the definition of Hazard Area as follows: <b>Flood</b> Hazard Area Means the land identified as:  a. High Flood Hazard Area b. Medium Flood Hazard Area c. Low Flood Hazard Area d. Depression Flood Hazard Area e. Overland Flow Path f. Waikato Riverbank and Gully Hazard Are	<b>Support</b>	We support providing clear and consistent definitions to avoid confusion and ensure consistent application of rules and policies.	We seek that this submission be allowed.
Fuel Companies	57.2	Amend the definition of High Flood Hazard Area as follows: Means that part of any land	<b>Support</b>	We support making amendments to the definition for High Flood Hazard Area to avoid	We seek that this submission be allowed.

		<p>predicted to be affected by river or surface flooding during a 1% AEP rainfall event when pipes, culverts and the stormwater network in the catchment are fully functioning, <b>and is identified in the following two ways:</b></p> <ol style="list-style-type: none"> <li>1. For Waikato River flooding, a high flood hazard is identified when the depth of flood waters exceeds 1 metre.</li> <li>2. For surface ponding and overland flowpaths, a high flood hazard is identified under any of the following conditions: <ol style="list-style-type: none"> <li>a. The depth of flood waters exceeds 1 metre,</li> <li>b. The speed of flood waters exceeds 2 metres per second,</li> <li>c. The product of flood depth (in metres) and speed (in metres per second) exceeds one.</li> </ol> </li> </ol> <p>Flood water depths less than 0.1 metres are excluded from both classifications</p>		<p>confusion and ensure the consistent application of rules and policies.</p>	
Fuel Companies	57.3	<p>Amend the definition of Low Flood Hazard Area as follows: Means that part of any land</p>	<b>Support</b>	<p>We support making amendments to the definition for Low Flood Hazard Area to avoid</p>	<p>That the submission be allowed.</p>



		<p>affected by river or surface flooding during a 1% AEP rainfall event when pipes, culverts and the stormwater network in the catchment are fully functioning, <b>and for surface ponding and overland flowpaths is identified in the following way:</b></p> <p>For surface ponding and overland flowpaths, a low flood hazard is identified under the following conditions:</p> <ul style="list-style-type: none"> <li>a. The depth of flood waters is equal to or less than 0.5m,</li> <li>b. The speed of flood waters is equal to or less than 1m per second,</li> </ul> <p>Flood water depths less than 0.1 metres are excluded from the classification. Further detail for how this Flood Hazard Area category has been derived is contained in Appendix 11.</p>		<p>confusion and ensure the consistent application of rules and policies.</p>	
Fuel Companies	57.4	<p>Amend the definition of Medium Flood Hazard Area as follows: Means that part of any land predicted to be affected by river or surface flooding during a 1% AEP rainfall event when pipes, culverts and the stormwater network in the catchment are fully functioning, <b>and is</b></p>	<b>Support</b>	<p>We support making amendments to the definition for Medium Flood Hazard Area to avoid confusion and ensure the consistent application of rules and policies.</p>	<p>We seek that this submission be allowed.</p>

		<p><b><u>identified in the following two ways:</u></b></p> <ol style="list-style-type: none"> <li>1. For Waikato River flooding, a medium flood hazard is identified when the depth of flood waters exceeds 1 metre.</li> <li>2. For surface ponding and overland flowpaths, a medium flood hazard is identified under any of the following conditions: <ol style="list-style-type: none"> <li>a. The depth of flood waters is equal to or less than 1m but greater than 0.5m,</li> <li>b. The speed of the flood waters is equal to or less than 2m per second but greater than 1m per second,</li> <li>c. The product of flood depth (in metres) and speed (in metres per second) is less than or equal to one.</li> </ol> </li> </ol> <p>Flood water depths less than 0.1 metres are excluded from both classifications. Further detail for how this Flood Hazard Area category has been derived is contained in Appendix 11.</p>			
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