

8. Coastal Hazards Plan Change

Reference Te Tohutoro: 22/219251

Report of Te Pou Matua: Mark Rushworth, Principal Advisor, Planning, Planning & Consents
Mark Stevenson, Manager Planning, Planning & Consents

General Manager Jane Davis, General Manager, Infrastructure, Planning & Regulatory
Pouwhakarae: Services

1. Purpose of the Report Te Pūtake Pūrongo

- 1.1 The purpose of this report is to seek the Urban Development and Transport Committee's approval to undertake city-wide pre-notification engagement on the proposed Coastal Hazards Plan Change (PC12).
- 1.2 The decisions in this report are of high significance in relation to the Christchurch City Council's Significance and Engagement Policy due to the impacts of coastal hazards management on low-lying inland and coastal communities. The level of significance is evident from reports that estimate the value of property (private and Council-owned) subject to the impacts of coastal hazards, and has been articulated in previous Council/Committee reports on this topic.
- 1.3 This report and the attachments were developed with the oversight and endorsement of the Coastal Hazards Working Group (CHWG), which is comprised of elected members from Council and Environment Canterbury, and two Papatipu Rūnanga representatives.

2. Officer Recommendations Ngā Tūtohu

That the Urban Development and Transport Committee:

1. **Approve** the release of the draft Coastal Hazards plan change for community engagement.
2. **Note** that this pre-notification engagement period coincides with the decision to undertake pre-notification engagement on a suite of plan changes, associated with the National Policy Statement on Urban Development (NPS-UD), also being considered by the Urban Development & Transport Committee on 31 March 2022.

3. Reason for Report Recommendations Ngā Take mō te Whakatau

- 3.1 Christchurch is more exposed to coastal hazards than other metropolitan areas in NZ, including Auckland and Wellington. Across the Christchurch District, approximately 25,000 properties are exposed to coastal hazards risks over the next 120 years. NIWA estimates that with 1m of sea level rise, the replacement value of buildings is approximately \$6.7 billion, the majority of which are residential properties.
- 3.2 As a region, Canterbury has around \$1 billion of local government owned infrastructure exposed to coastal hazards, the majority of which is in Christchurch. As sea levels rise, Canterbury has the most public infrastructure exposed to coastal hazards in New Zealand.
- 3.3 The Council has a statutory duty to complete the review of the District Plan, following the withdrawal of the coastal hazard provisions from the District Plan Review. We also have a statutory duty, as part of that review, to ensure that the District Plan gives effect to the national and regional direction in the New Zealand Coastal Policy Statement and the Regional Policy Statement.

- 3.4 The District Plan review had intended to introduce coastal hazards provisions into the Plan however, following submissions at the time, an Order in Council directed that the proposed provisions be removed and that this matter be addressed separately. As a consequence the current District Plan does not define the full extent of areas at risk of coastal hazards and only manages some activities. Legacy provisions from the Christchurch City Plan and Banks Peninsula District Plan still apply, but these are also limited in their scope. For example, the City Plan has rules only for an area 20m from around the high tide mark, and the Banks Peninsula Plan only considers the risk of coastal hazards for subdivision, not development. As such, there is a risk of new development within communities being exposed to the impact of coastal hazards that will become more prevalent in the future. These gaps do not enable the effective management of the risks, and development could occur without appropriate controls. The District Plan therefore needs to be updated.
- 3.5 Evidence gathered from recent technical studies including the Coastal Hazards Assessment 2021 (T+T) and Risk Based Coastal Hazard Analysis for Land-use Planning 2021 (Jacobs) provide up to date information on the nature and extent of coastal hazards and the associated risks. These studies have both been made publically available and can be accessed via the Council's web site.

4. Alternative Options Considered Ētahi atu Kōwhiringa

Plan change options

- 4.1 The Committee must progress the draft plan change because if the Committee opts not to proceed with a plan change, the Council would not have performed its statutory duty to review the District Plan. In addition, the District Plan would not implement national and regional direction to the extent required, which would not enable the effective management of the risks. Development could occur without appropriate controls, exposing people and wider communities to flooding and erosion.
- 4.2 Major reforms of the Resource Management Act (RMA) are underway. Consideration has been given to whether this would merit delaying progress of a Coastal Hazards Plan Change. Advice from the Ministry for the Environment is that the existing national planning framework, including New Zealand Coastal Policy Statement, will be consolidated and carried forward into the new legislative framework and, as such, it is anticipated that national direction will still require Councils to manage the effects associated with hazards. Until the new legislation is in place there is still a requirement to give effect to the RMA. Work undertaken now will be able to inform the development of future plans, and ensure that current obligations are met.
- 4.3 As part of the evaluation of the need for and approach to the proposed Coastal Hazards Plan Change, consideration has been given to the key issues and options. These are set out in the attached papers. These will form part of the consultation package providing an overview of the analysis undertaken.

Option not to carry out public engagement

- 4.4 On 7 October 2021, the Council approved a three stage approach to community engagement, comprising the Issues & Options paper, a draft Plan Change and the Notified Plan Change (21/535428 - UDATC/2021/00018).
- 4.5 The Coastal Hazards Plan Change could be developed by Council without soliciting community feedback. However, this would present the following risks:
- 4.5.1 Lack of community buy-in for the Council's proposed approach.

- 4.5.2 An absence of testing of the approach could result in issues being raised in the formal stage of the plan change, adding costs to the process for Council, stakeholders, and the community, even where changes may be appropriate.

5. Detail Te Whakamahuki

Engagement to date

- 5.1 Extensive community engagement took place on an Issues and Options Discussion Paper³ during the period October – December 2021. This was conducted alongside engagement on the Coastal Adaptation Framework⁴ to enable a more comprehensive and joined-up, city-wide discussion on Coastal Hazards. As part of the engagement, views were sought and obtained from Ngā Papatipu Rūnanga.
- 5.2 A total of 55 submissions and 35 form submissions (or pro-formas) were received on the issues and options paper, covering a range of topics.
- 5.3 A consultation report setting out the themes and issues raised in response to the Issues and Options paper for the plan change is attached to this report. Consideration has been given to the submissions received and responses are included within the consultation report.
- 5.4 The CHWG heard deputations from 11 submitters on 4 February 2022. Having considered the summary of submissions at its meeting on 17 February 2022, the Coastal Hazards Working Group endorsed the ‘Risk Based’ approach, which:
- ... involves managing activities according to the level of risk in that location, acknowledging the uncertainty (of when land may be affected by rising sea levels) and the vulnerability of the activity to risk. It reflects the approach taken to other hazards in the District Plan, and is consistent with international risk management best practice. It recognises that the level of risk is not the same in every location and that a range of restrictions should therefore apply to reflect the circumstances in different areas.⁵*
- 5.5 The consultation report will form part of the package of material for community engagement on the draft Plan Change.
- 5.6 Responses from the engagement have been taken into consideration in determining how best to develop plan provisions.

Proposed approach to the Plan Change

- 5.7 Technical assessments have been undertaken to develop a better understanding of coastal hazards and the different levels of risk for coastal inundation and erosion. These include the Coastal Hazards Assessment 2021 (T+T) and the Risk Based Coastal Hazard Analysis for Land-use Planning report 2021 (Jacobs). This has enabled the risk profiles to be mapped, and plan provisions developed to correspond to the level of risk. The effects of rising groundwater and tsunami have also been considered.
- 5.8 The Risk Based approach provides a balance between managing the effects of Coastal Hazards and enabling communities to meet their reasonably foreseeable needs.

³ Christchurch City Council, Coastal Hazards District Plan Change – issues and options discussion paper, available at <https://ccc.govt.nz/assets/Documents/The-Council/Plans-Strategies-Policies-Bylaws/Plans/district-plan/Proposed-changes/2021/PC12-Coastal-Hazards/Coastal-Hazards-Plan-Change-Issues-and-Options-Discussion-Paper.pdf>

⁴ Christchurch City Council, Coastal Adaptation Framework, available at <https://ccc.govt.nz/assets/Documents/Consultation/2021/10-October/Coastal-Adaptation-Framework.pdf>

⁵ Christchurch City Council, Coastal Hazards District Plan Change – Issues and options discussion paper, p. 9

- 5.9 The draft Plan Change attached to this report includes new Objectives, Policies and Rules to better manage subdivision, development and land use in areas of potential coastal hazards. This will help to ensure that people, property, infrastructure and the environment are not exposed to increased risk of social, environmental and economic harm.
- 5.10 With the introduction of new coastal hazards provisions, it will be possible to remove some of the District Plan's existing methods and the legacy provisions that only provide limited controls in the affected areas. This will help to simplify the Plan and contribute to its operational efficiency and effectiveness.

Planned engagement

- 5.11 It is proposed that engagement on this draft plan change is carried out at the same time as the broader suite of plan changes related to growth and land use (including the intensification provisions) that are required to give effect to the National Policy Statement on Urban Development (NPS-UD) and the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021. These plan changes are the subject of another report to the 31 March 2022 Urban Development & Transport Committee, and it is our intention that the planned engagement is progressed as a package.
- 5.12 Engagement on the draft Coastal Hazards plan change will help develop the preferred approach, and will ensure the community has a further opportunity to shape how coastal hazards are managed prior to formal notification of the plan change.

6. Policy Framework Implications Ngā Hīraunga ā- Kaupapa here

Strategic Alignment Te Rautaki Tīaroaro

- 6.1 This report supports the [Council's Long Term Plan \(2021 - 2031\)](#):
- 6.1.1 Activity: Strategic Planning, Future Development and Regeneration
- Level of Service: 9.5.1.1 Guidance on where and how the city grows through the District Plan. - Maintain operative District Plan, including monitoring outcomes to inform changes, and giving effect to national and regional policy statements.
- 6.2 This report is also aligned with the Council's Strategic Priorities, specifically 'Meeting the challenge of climate change through every means available'.

Policy Consistency Te Whai Kaupapa here

- 6.3 This report is consistent with Council's Plans and Policies. The Coastal Hazards Plan Change falls under Programmes 2 and 3 of Kia tūroa te Ao | Ōtautahi Christchurch Climate Resilience Strategy⁶:
- Programme 2: Understanding the local effects of climate change
 - Programme 3: Proactive climate planning with communities.

Impact on Mana Whenua Ngā Whai Take Mana Whenua

- 6.4 The decision to undertake pre-notification engagement on the draft Plan Change does not involve a significant decision in relation to ancestral land or a body of water or other elements of intrinsic value. Notwithstanding this, the Plan Change will be significant to Mana Whenua,

⁶ Christchurch City Council, Kia tūroa te Ao | Ōtautahi Christchurch Climate Resilience Strategy 2021, available at <https://ccc.govt.nz/assets/Documents/Environment/Climate-Change/Otautahi-Christchurch-Climate-Resilience-Strategy.pdf>

and we have engaged with runanga on the Issues and Options paper and will continue to do so through the development of the draft Plan Change.

Climate Change Impact Considerations Ngā Whai Whakaaro mā te Āhuarangi

- 6.5 The primary purpose of this is Plan Change is to enable the Council and its communities to plan for the impacts of climate change.
- 6.6 As above, this report and the Plan Change is consistent with the Kia tūroa te Ao | Ōtautahi Christchurch Climate Resilience Strategy. It is also consistent with the Council's declaration of a Climate Emergency in 2019.

Accessibility Considerations Ngā Whai Whakaaro mā te Hunga Hauā

- 6.7 We are aware of the need to engage a wide range of communities through our pre-notification engagement on the draft Plan.

7. Resource Implications Ngā Hīraunga Rauemi

Capex/Opex Ngā Utu Whakahaere

- 7.1 Cost to Implement – The cost of carrying out pre-notification engagement on the draft Plan Change can be met from operational budgets. By bringing together the different plan changes as one suite for public engagement, we will find efficiencies in the costs.
- 7.2 Maintenance/Ongoing costs – There will be limited ongoing costs that are directly attributable to the decision to undertake pre-notification engagement. There will be further costs associated with the notification of the Plan Change and the subsequent Hearings Process. Again, by joining up this process with the NPS-UD related plan changes, we will find cost efficiencies.
- 7.3 Funding Source - Funding for our programme of Plan Changes has been sought through the Annual Plan 2022/23.

8. Legal Implications Ngā Hīraunga ā-Ture

Statutory power to undertake proposals in the report Te Manatū Whakahaere Kaupapa

- 8.1 The Resource Management Act 1991 (RMA) sets out the legal requirements for preparing and changing a District Plan (S73). Section 74 requires that a territorial authority must prepare and change its district plan in accordance with the New Zealand Coastal Policy Statement, amongst other things. Section 75 requires that a district plan must give effect to the New Zealand coastal policy statement; and regional policy statement, amongst other higher order documents.

Other Legal Implications Ētahi atu Hīraunga-ā-Ture

- 8.2 The RMA requires the Council to review its District Plan each 10 years (s79). The Order in Council that separated out the coastal hazards plan change from the rest of the District Plan Review required the Council to commence a review of the coastal hazard provisions under the standard RMA process “as soon as reasonably practicable” (cl.5A(2) of the Order in Council). It is consistent with that requirement to avoid any unnecessary delay in proceeding with the plan change.
- 8.3 The Legal Services Unit has reviewed this report.





9. Risk Management Implications Ngā Hīraunga Tūraru

- 9.1 The proposed engagement is the latest round of engagement in an ongoing conversation with our community about how we can plan for climate change impacts. This provides an

opportunity for the community to provide their feedback and to inform the direction of the plan change. Notwithstanding this, there is a risk that the community do not consider they have had sufficient opportunity to participate.

- 9.2 Technical work is still ongoing to assess and interpret the latest hazard and climate change data, including in relation to points raised in submissions on the Issues and Options paper. Updates and refinement to the risk area mapping will not be available for the draft plan change, but will be completed before the Notified Plan Change is completed. The draft plan change documentation has made clear the limitations of the current data and the intention to improve this prior to notification.
- 9.3 Coastal hazards represent one of the qualifying matters that can apply limitations to intensification. It is important that the linkages between these two plan changes are identified and that a co-ordinated approach is developed. If the Coastal Hazards plan change is not progressed at the same time as the plan change to give effect to the NPS-UD and the Resource Management (Enabling Housing Supply) Act there is a risk of development occurring in location that are not suitable for intensification and without adequate controls.

Attachments Ngā Tāpirihanga

No.	Title	Page
A 	PC12 Coastal Hazards - Plan Change 12 - March 2022 <i>(Under Separate Cover)</i>	
B 	PC12 Coastal Hazards - Issues Table - March 2022 <i>(Under Separate Cover)</i>	
C 	PC12 Coastal Hazards - Evaluation of Options Table - March 2022 <i>(Under Separate Cover)</i>	
D 	PC12 Coastal Hazards - Issues and Options Paper Consultation Report <i>(Under Separate Cover)</i>	

Additional background information may be noted in the below table:

Document Name	Location / File Link
Coastal Hazards Issues & Options discussion paper	https://ccc.govt.nz/assets/Documents/The-Council/Plans-Strategies-Policies-Bylaws/Plans/district-plan/Proposed-changes/2021/PC12-Coastal-Hazards/Coastal-Hazards-Plan-Change-Issues-and-Options-Discussion-Paper.pdf

Confirmation of Statutory Compliance Te Whakatūtutanga ā-Ture

Compliance with Statutory Decision-making Requirements (ss 76 - 81 Local Government Act 2002).

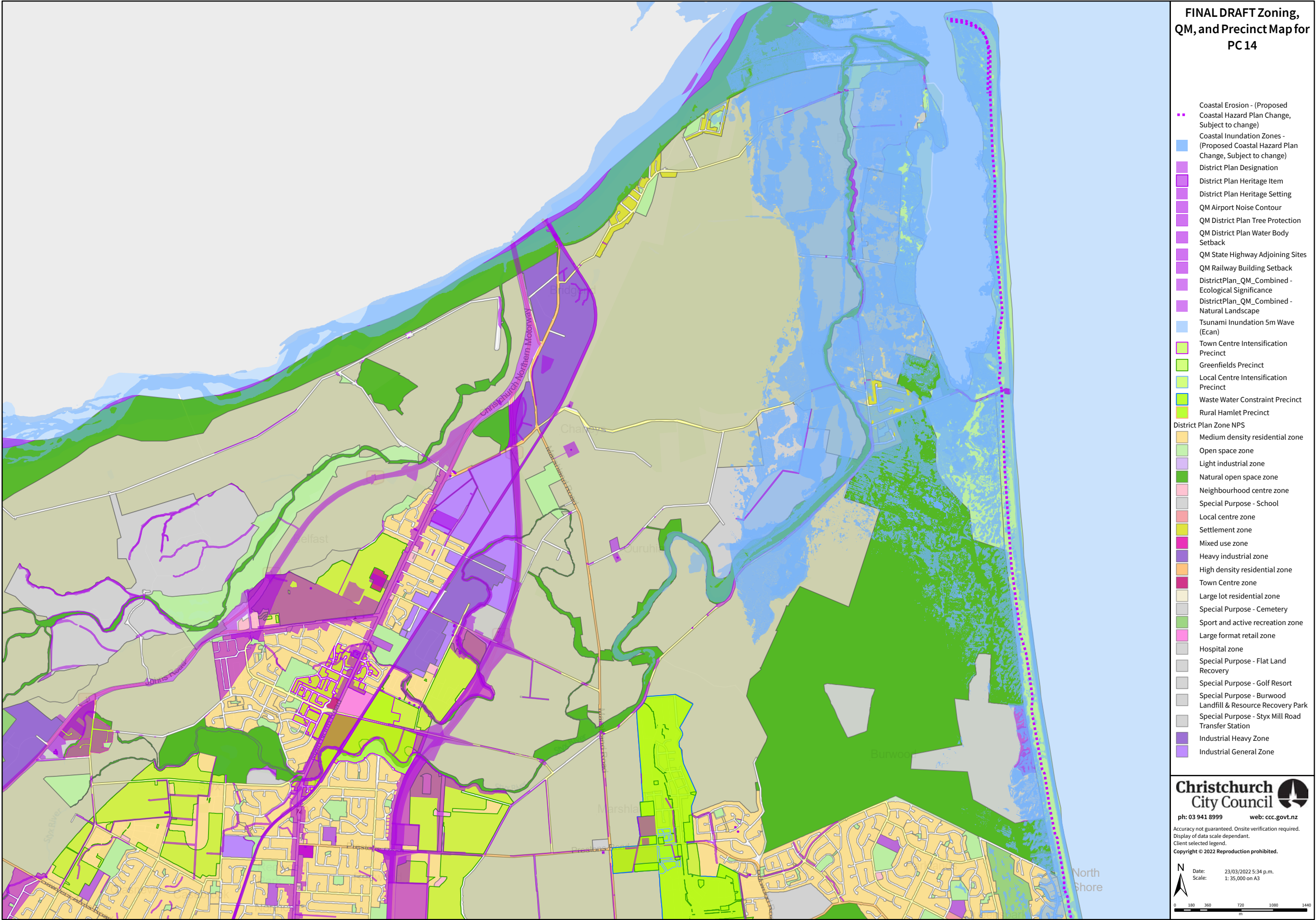
(a) This report contains:

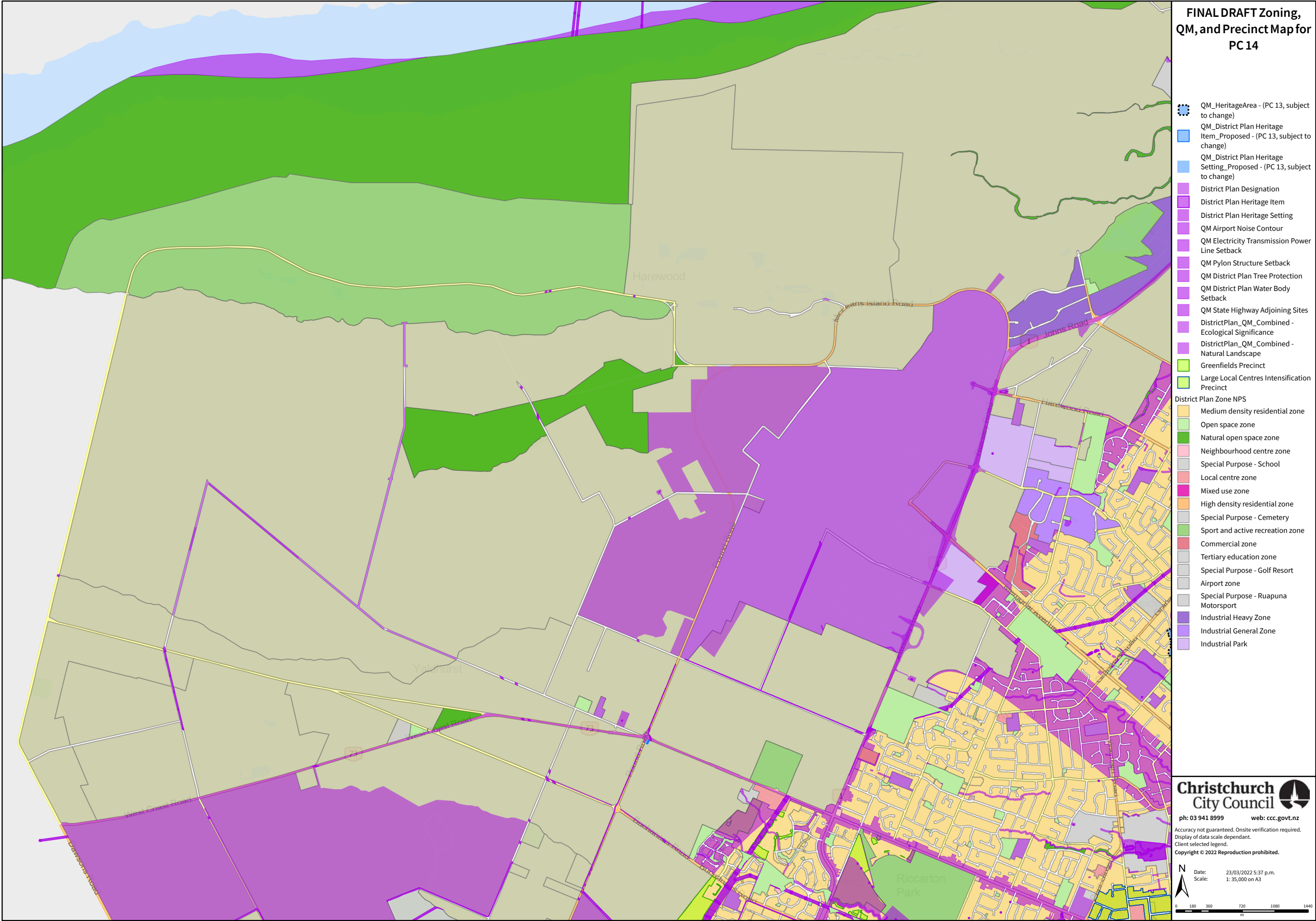
- (i) sufficient information about all reasonably practicable options identified and assessed in terms of their advantages and disadvantages; and
- (ii) adequate consideration of the views and preferences of affected and interested persons bearing in mind any proposed or previous community engagement.

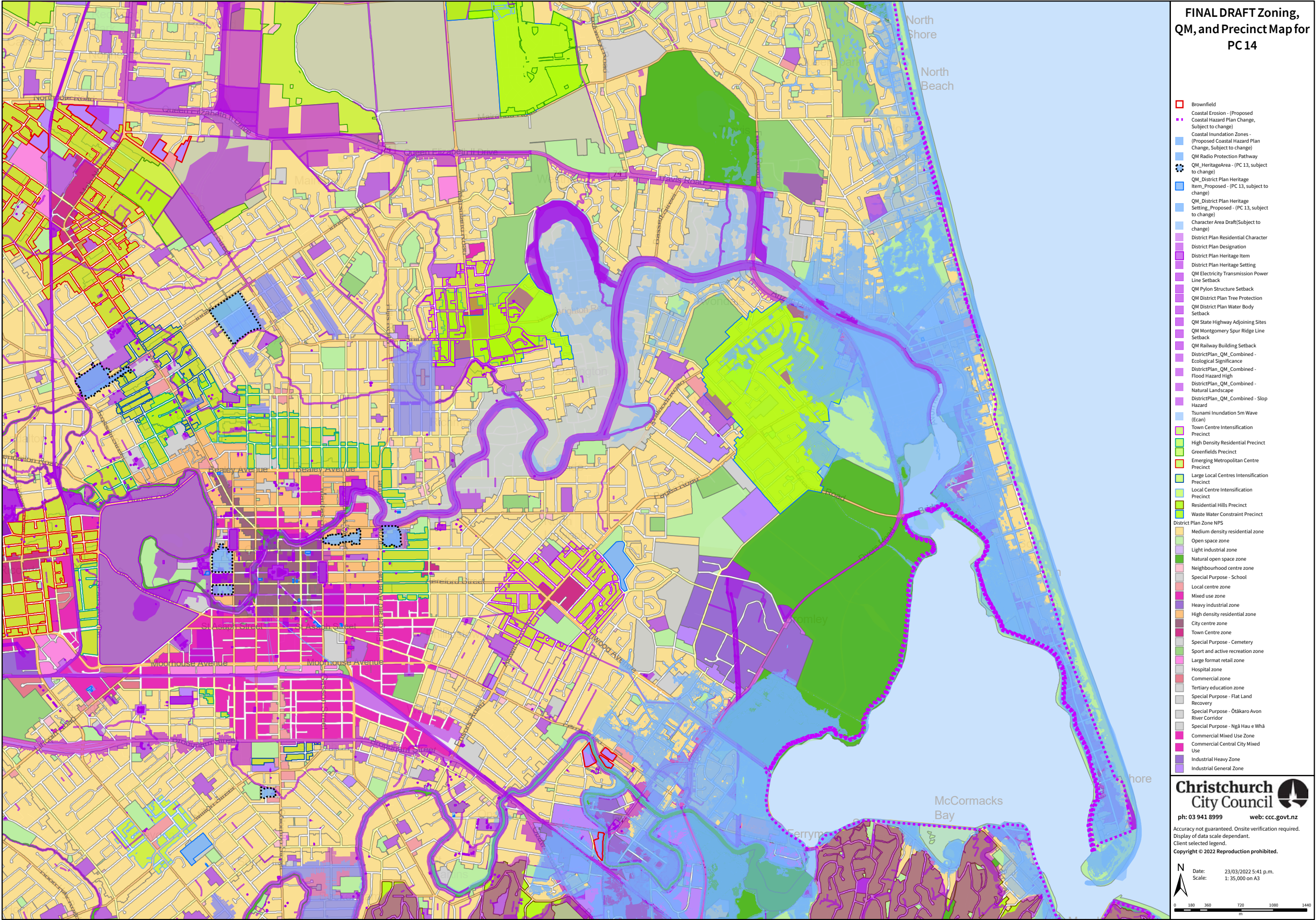
(b) The information reflects the level of significance of the matters covered by the report, as determined in accordance with the Council's significance and engagement policy.

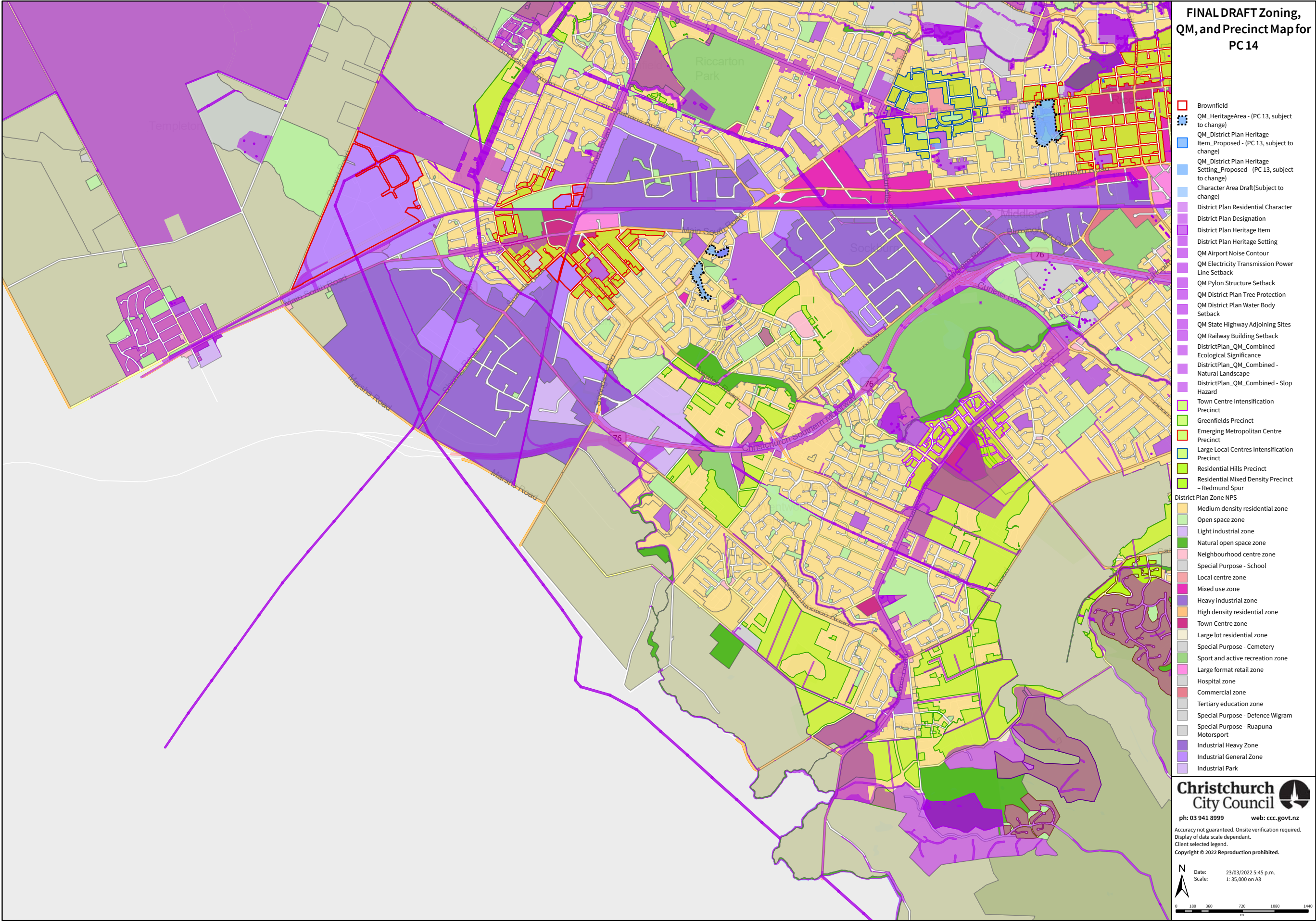
Signatories Ngā Kaiwaitohu

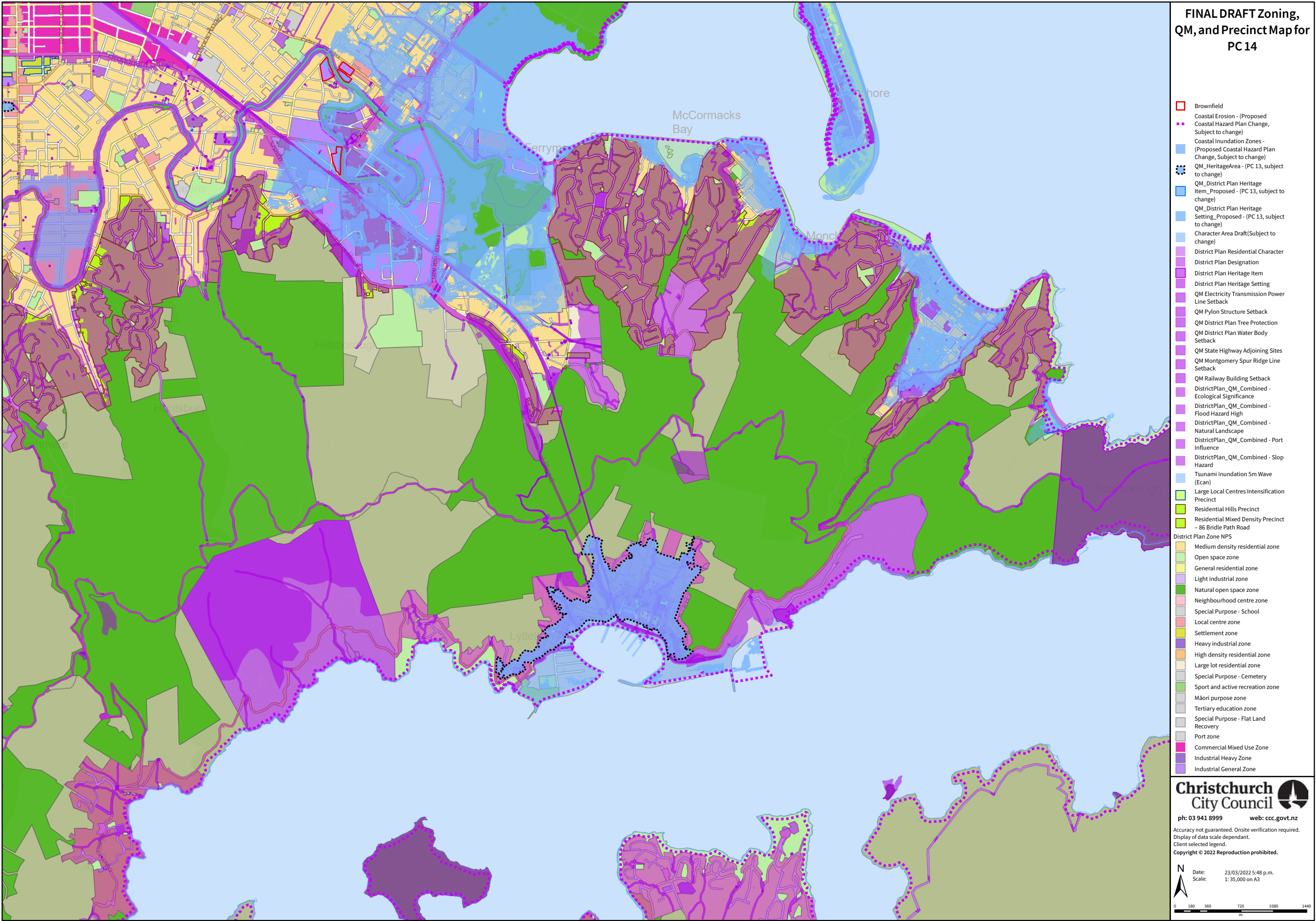
Authors	Jasmine Mouat - Senior Policy Analyst Mark Rushworth - Principal Advisor Planning Mark Stevenson - Team Leader City Planning Adair Bruorton - Programme Manager Brittany Ratka - Policy Planner
Approved By	Brent Pizzey - Senior Legal Counsel Mark Stevenson - Team Leader City Planning John Higgins - Head of Planning & Consents Jane Davis - General Manager Infrastructure, Planning & Regulatory Services












TRIM: 19/239131, last updated 1/4/2021

	<p>Resource Management Act 1991</p> <p>Christchurch District Plan</p> <p>Proposed Plan Change</p>	<p>12</p>
<p>NOTE: The rule amendments proposed in this draft Plan Change have no legal effect until the Council's decision approving the Change is publicly notified (s 86B).</p> <p style="text-align: center;">COASTAL HAZARDS</p> <p>Explanation</p> <p>The purpose of Plan Change 12 is to amend Chapter 5 (Natural Hazards) of the District Plan to manage the development, subdivision and use of land within areas of potential coastal hazards that include inundation, erosion, rising ground water and tsunami.</p> <p>Christchurch is one of the most exposed districts to potential coastal hazards, and the impacts of global warming will exacerbate the risk.</p> <p>Coastal hazards were included as part of the notified District Plan review. However, the Canterbury Earthquake (Christchurch Replacement District Plan) Order in Council 2015 recognised that coastal hazards were not a recovery matter that required an expedited process. The amendment removed coastal hazard provisions from the District Plan review and directed that the Council address this separately.</p> <p>The District Plan currently relies on the more generic Natural Hazards objective 3.3.6 an associated, policies in 5.2.2.1, with provisions managing development, subdivision and land use within areas identified as Flood Management Areas (FMA), and High Flood Hazard Management Areas (HFHMA), including the Residential Unit Overlay (RUO). There are also some legacy provisions from the Christchurch City Plan and Banks Peninsula District Plan.</p> <p>The plan change will take a risk based approach and introduce new:</p> <ul style="list-style-type: none"> • Objective and Policies; • Rules and methods; and • Mapping overlays that identify areas of potential coastal hazard risk. <p>The Plan Change proposes the following amendments:</p> <ol style="list-style-type: none"> Amend Chapter 5 Natural Hazards introducing a new Objective 5.2.1.2 – Coastal Hazards Amend Chapter 5 Natural Hazards introducing new Policies: <ul style="list-style-type: none"> • 5.2.2.5.1 – Risk based approach to Coastal Hazards • 5.2.2.5.2 – Avoid increasing risk from Coastal Hazards • 5.2.2.5.3 – Managing subdivision, development and land use in Coastal Hazards areas • 5.2.2.5.4 – Adaptation, alteration and maintenance of existing buildings and properties within areas of Coastal Hazards • 5.2.2.5.5 – Innovative forms of development and design within Coastal Hazards areas • 5.2.2.5.6 – Hazard sensitive activities • 5.2.2.5.7 – Protection from Coastal Hazards 		

- d. Amend Chapter 5 Natural Hazards, introducing new sections 5.9 Rules – Coastal Inundation, and 5.10 Rules Coastal Erosion that include Activity Status, Matters of Control and Matters of Discretion.
- e. Amend the Planning Maps to include overlays for Coastal Inundation risk (very low, low, medium & high) and Coastal Erosion risk (Low, High-Medium).
- f. Amend Chapter 2 Abbreviations and Definitions – Definitions List inserting new definitions;
- g. Removal of FMA, HFHMA, RUO overlays within the Coastal Hazards areas.
- h. Removal of the Christchurch City Plan and Banks Peninsula District Plan legacy coastal hazards provisions that remain operative following the District Plan review, as notified on 23 November 2015.

There will also be a number of other minor consequential changes.

The draft Plan Change has used the latest information available to inform the development of provisions. This includes the Coastal Hazards Assessment 2021 (T+T) and the Risk Based Coastal Hazards Analysis for Land-use Planning study 2021 (Jacobs).

The mapping data is derived from the 2021 Risk Based Coastal Hazard Analysis for Land-use Planning study (Jacobs). It has been developed at an areas based scale, to establish the concept of the risk based approach for district planning purposes. It does not provide a property specific level of assessment. This is preliminary data that is subject to further review and refinement. Updates to the mapping data will be undertaken in the first half of 2022, prior to notification of the Coastal Hazards Plan Change.

Date Publicly Notified: DD Month YYYY

Date Operative: DD Month YYYY

Council Decision Notified: DD Month YYYY

File No: PL/DP/X

Plan Details: Chapter XX, Planning Map XX

TRIM No: FOLDER19/830

DISTRICT PLAN AMENDMENTS

Amend the District Plan as follows:

Introduce the following new sections to Chapter 5 Natural Hazards:

Objectives & Policies:

Objective 5.2.1.2 – Coastal Hazards.

- a. Development, subdivision and land use does not increase the risk of coastal inundation, coastal erosion, rising groundwater or tsunami causing physical, social, economic or environmental harm.
- b. Existing communities potentially affected by coastal hazards are able to continue to develop and use land, natural and physical resources where the risk of adverse effects from coastal hazards is not increased and the level of risk can be managed to an acceptable level.

Policy 5.2.2.5 Policies for Coastal Hazards

5.2.2.5.1. Risk based approach to Coastal Hazards

A. Map areas for coastal hazards based on:

Coastal inundation risk category	Flood depth based on 60 cm of sea level rise (higher certainty)	Flood depths based on 1.2m of sea level rise (less certainty – higher consequence)
Very low	Dry	$d < 0.5\text{m}$
Low	$d < 0.5\text{m}$	$0.5\text{m} < d < 1.1\text{m}$
Medium	$0.5\text{m} < d < 1.1\text{m}$	$d > 1.1\text{m}$
High	$d > 1.1\text{m}$	$d > 1.7\text{m}$

d represents the depth of coastal flooding in a flood event, which factors in the sea level amount considered i.e. 60cm of sea level rise does not equate to 60 cm of flooding.

Coastal erosion	Risk Category
Otautahi Christchurch urban area open coast	a. High Hazard Zone covering the whole current beach-dune width
	b. Low Hard Zone to a lowland limit defined by the 10% probability erosion distance with 1.2 m SLR by 2130 and an additional area required for “future healthy beach factors”.
Ihutai Avon-Heathcote Estuary	a. High-Medium Hazard Zone to a landward limit defined by the 66% probability erosion



	distance with 0.6 m SLR by 2080, which for consistency is to be 45 m wide
	b. Low Hazard Zone to a lowland limit defined by the 10% probability erosion distance with 1.2 m SLR by 2130, which for consistency is to be 20 m wide.
Banks Peninsula beaches and bays	High-Medium Hazard Zone: a) For Probabilistic assessment cells, the 10% probability of erosion distance for 1.2 m SLR by 2130 b) For deterministic assessment cells, the limit of the areas susceptible to coastal erosion (ASCE) from the 1.5 m SLR by 2130 scenario, which has an assumed probability of 1-5%.
Banks Peninsula coastal cliffs	High-Medium Hazard Zone for the coastal cliffs of the Banks Peninsula, Lyttelton Harbour and Akaroa Harbour; a single Banks Peninsula Cliff Erosion Zone of 20-30 m width as defined by the generic T+T cliff erosion setback in the Coastal Hazards Assessment 2021
Hard Edges	High-Medium Hazard Zone for assessment cells along the southern shore of the Avon-Heathcote estuary, Sumner Beach, Lyttelton Port and Akaroa township where there are land reclamation and substantial hard protection structures; a single High Hazard Erosion Zone hazard zone with a generic width in the order of 20 m.

- B. Apply controls over the development, subdivision and use of land that are proportionate to the level of risk from coastal hazards.

5.2.2.5.2. Avoid increasing risk from Coastal Hazards

Within areas of coastal hazards avoid development, subdivision and land use that would increase the risk of social, environmental and economic harm from coastal hazards unless:

- i. it is dependent on a coastal location, and
- ii. there are no other reasonable alternatives available, and
- iii. the benefits of the proposed development out-weigh the potential harm, and
- iv. the adverse effects from coastal hazards and the development on people, property, infrastructure, the environment and cultural values are mitigated to the fullest extent practicable.

5.2.2.5.3. Managing subdivision, development and land use in Coastal Hazards areas

Subject to policy 5.2.2.5.2, any subdivision, development and land use within coastal hazards areas shall:

- A. be located in the lowest risk category possible;
- B. not rely on mitigation provided by private coastal management works outside the site;
- C. be designed, constructed and located to avoid harm, or where this is not possible, effects are mitigated to an acceptable level and harm to people, property, infrastructure and the environment is minimised;
- D. ensure outcomes are compatible with the anticipated environmental characteristics of the area and its cultural values;
- E. identify an appropriate risk based trigger point when it will be necessary to:
 - i. review use of the site, or
 - ii. remove or relocate the development or activity;
- F. provide for appropriate remediation of the site subsequent to the removal, relocation or cessation of the activity. This shall have particular regard to an adaptation plan for the area, or where no adaptation plan exists, be in keeping with the local environment at the time.

5.2.2.5.4. Adaptation, alteration and maintenance of existing buildings and properties within areas of Coastal Hazards

Provide for maintenance, replacement, adaptation and alteration of existing structures, and associated earthworks within areas affected by coastal hazards, subject to criteria A – F in Policy 5.2.2.5.3.



5.2.2.5.5. Innovative forms of development and design within Coastal Hazards areas

Innovative forms of design and methods of construction to address coastal hazards risk are encouraged where they avoid an increased risk of harm or provide enhanced mitigation of adverse effects.

5.2.2.5.6. Hazard sensitive activities

- A. Activities and development that provide accommodation or services for users that are more vulnerable to the adverse effects of coastal hazards than the general population shall be avoided within areas of coastal hazards, unless within areas of low or very low risk, there is an identified need that cannot be met elsewhere and mitigation based on an evaluation of the vulnerability of users is provided to an acceptable level.
- B. The evaluation of the vulnerability of users shall include considerations of:
 - i. the level of exposure of occupants and users to risks from coastal hazards;
 - ii. the operational period and practices for the activity;
 - iii. the nature and number of users, their mobility and ability to safely evacuate; and
 - iv. the potential level of social and economic harm and risk to life.

5.2.2.5.7. Protection from Coastal Hazards

- A. Development, subdivision and land use shall avoid causing harm to the integrity of existing:
- i. coastal management works, and
 - ii. natural features, including dune systems and coastal wetlands that provide defence from coastal hazards.
- unless they form part of a planned renewal, replacement or adaptation process.
- B. Coastal management works to manage the effects of coastal hazards on people, property, infrastructure and the environment shall:
- i. prioritise natural and nature based options over hard engineering solutions; and
 - ii. have particular regard to the implementation methods in a relevant Coastal Adaptation Plan for the area.

5.7.4 Additional information requirements for resource consent applications within Coastal Hazard areas

All resource consent applications within:

- A. areas of Medium and High coastal inundation hazard risk, and
- B. areas of Low and Medium/High coastal erosion hazard risk

shall be accompanied by a detailed site specific risk assessment that is commensurate with the level of risk, and includes allowance for the effects of climate change.

Rules:

Chapter 2 Abbreviations and Definitions

Definitions List:

Coastal Hazards comprise coastal inundation, coastal erosion, rising groundwater and tsunamis. They are influenced by climate change and sea level rise.

Coastal Management Works: means activities or development intended to mitigate the risk of coastal hazards on adjacent land.

Hazard sensitive activities means the following activities that provide accommodation or services for users that are more vulnerable to the adverse effects of hazards than the general population due to their more complex needs.

- i. Education activities, including pre-school facilities;
- ii. Health care activities providing physical and mental health services, or health-related welfare services, for people by registered health practitioners (approved under the [Health Practitioners Competence Assurance Act 2003](#));
- iii. Elderly and disability care services and residential accommodation; and
- iv. Any other activity in which users are more vulnerable to the adverse effects of hazards than the general population and less capable of taking action to provide for their safety in the event of a hazard occurring.

Strategic/Critical Coastal Infrastructure means strategic and critical infrastructure that by its nature requires a coastal location.

Chapter 5 Natural Hazards

5.9 Rules – Coastal Hazards

5.9.1 Activity status for Coastal Hazards inundation areas

- The activities listed below have the activity status listed within each Coastal Hazard risk area, and are subject to any activity status, rules and any standards specified elsewhere in the District Plan for that activity.
- In relation to **controlled activities**, discretion to impose conditions is restricted to the matters over which control is reserved as set out in Rule 5.9.4 as applicable.
- In relation to **restricted discretionary activities**, discretion to grant or decline consent and impose conditions is restricted to the matters of discretion set out in Rule 5.9.5.
- Where subdivision is specified, a subdivision consent is also required under the provisions of Chapter 8.

Table 5.9.1.a

Key: P = Permitted; RD = Restricted Discretionary; D = Discretionary; NC = Non-complying; PR = Prohibited.

Inundation		Risk Area				Activity Specific Standards (permitted activities only)
Activity		Very Low	Low	Medium	High	
a.	Subdivision	RD1	RD2	NC1	NC2	Nil
b.	Building not otherwise included in this table	P1	C1	D1	NC3	a. Minimum floor levels shall be the level specified in the Minimum Floor Level Certificate (refer to Rule 5.9.2); and b. The maximum ground floor area of all buildings on the site shall be 200m ² in total.
c.	Replacement residential unit	P2	P3	C2	RD3	a. Minimum floor levels shall be the level specified in

						<p>the Minimum Floor Level Certificate (refer to Rule 5.9.2); and</p> <p>b. The ground floor area of the replacement residential unit shall not be greater than the ground floor area of the existing residential unit; and</p> <p>c. The residential unit on the site shall be located in a position on the site that is no lower than the existing building.</p>
d.	Accessory buildings	P4	P5	C3	RD4	<p>a. Minimum floor levels shall be the level specified in the Minimum Floor Level Certificate (refer to Rule 5.9.2); and</p> <p>b. The maximum ground floor area of all buildings on the site shall be 200m² in total; and</p> <p>c. The residential unit shall be located in a position on the site that is no lower than the existing building.</p>
e.	Additions/extensions to buildings that increase the building footprint at ground level	P6	P7	C4	RD5	<p>a. Minimum floor levels shall be the level specified in the Minimum</p>



						Floor Level Certificate (refer to Rule 5.9.2); and b. The maximum ground floor area of all buildings on the site shall be 200m ² in total.
f.	Strategic/Critical coastal Infrastructure	C5	C6	RD6	RD7	Nil
g.	Critical Infrastructure – new	C7	RD8	RD9	RD10	Nil
h.	Infrastructure and utilities – new	C8	RD11	D2	NC4	Nil
i.	Repair and maintenance of infrastructure, utilities and buildings.	P8	P9	P10	P11	Nil
j.	Coastal management works - new	C9	C10	RD12	RD13	Nil
k.	Coastal management works – maintenance (excluding upgrades)	P12	P13	P14	P15	Nil
l.	Outdoor storage area and warehousing and distribution activities	C11	RD14	D3	NC5 (except Lyttelton Port) D4 (Lyttelton Port)	Nil
m.	Temporary outdoor storage	P16	P17	C12	D5	Nil
n.	Hazard sensitive activities	RD15	RD16	NC6	NC7	Nil
o.	Recreation facilities (excluding recreation activities)	C13	RD17	D6	NC8	Nil
p.	Recreation activities (excluding buildings and structures used for recreation activities)	P18	P19	P20	P21	Nil

q.	Fences	P22	P23	P24	P25	Shall consist of no greater than 20% solid structure.
r.	Signage	P26	P27	P28	P29	Nil
s.	Demolition of buildings (excluding seawalls and other coastal management work)	C14	C15	C16	C17	Nil
t.	Demolition of seawalls and other coastal management work	C18	C19	D7	D9	Nil
u.	Earthworks and retaining structures	RD18	RD19	RD20	D8	Refer to 8.9.2.1 for the permitted activity standards.
v.	All activities not listed above	C20	C21	RD21	NC9	Nil

e. Any resource consent application arising from C1-21, or RD1-21 set out in Rule 5.9.1 above shall not be limited or publicly notified.

5.9.2 Minimum floor level certificate

a. For P1 – P7 in Table 5.9.1a, new buildings or additions to existing buildings within the Coastal Hazards inundation area shall have a floor level that is greater than or equal to that specified in a Minimum Floor Level Certificate. The Council will issue a Minimum Floor Level Certificate (which will be valid for 2 years from the date of issue) which specifies the design floor level for a building calculated as the highest of the following:

- (i) Christchurch City Council's most up to date estimate of a 200 year flood level from any source, including tidal sources, and including 1.2m sea level rise plus 400mm freeboard as set by Christchurch City Council flood modelling and any relevant field information; or
- (ii) 12.7 meters above Christchurch City Council Datum

5.9.3 Activity status for non-compliance with standards in Coastal Hazards inundation areas

Activities that fail to meet Activity Specific Standards for P1 – P29 Rule 5.9.1 shall be Restricted Discretionary Activities.

5.9.4 Coastal Hazards Inundation Areas Matters of Control C1 – C21:

Areas of Control		Control criteria
a.	Buildings and structures	The <ul style="list-style-type: none"> a) number and size of building and structures; b) siting of buildings and structures; and c) building materials

		with regard to the level of mitigation of the potential adverse effects from inundation and tsunami.
b.	Floor levels	Setting of minimum floor levels to mitigate the effects of inundation.
c.	Earthworks	The <ul style="list-style-type: none"> a) timing, scale and location of earthworks; and b) method of earthworks to mitigate the effects of inundation and avoids the transfer of risk to another site.
d.	Fences	Design of the fence to mitigate the effects of inundation on and off the site.
e.	Outdoor storage areas and warehousing and distribution activities	The location, size, duration, layout, and design of storage areas to mitigate the effects of inundation, including the risk of pollution and damage from spillage or movement of goods and material.
f.	Activity and use – vulnerability of occupants/users	The use, design and operational practices to adequately mitigate the risk to vulnerable users, including children, the elderly, and people with physical or mental disabilities.
g.	Stormwater management	The proposed stormwater management for the site to: <ul style="list-style-type: none"> a) take into account the effects of sea level rise; b) mitigate the effects on water quality; c) mitigate increased run off to areas outside the site boundary to the greatest extent reasonable; and d) avoids the transfer of risk to another site
h.	Rising groundwater	Mitigation of the effects of rising groundwater and effects of the activity on groundwater.
i.	Coastal management work	Natural and nature based options shall be prioritised over hard engineering solutions.
j.	Amenity	The proposal is consistent with the anticipated amenity of the surrounding environment in terms of visual amenity, landscape context and character, views, outlook, overlooking and privacy.

5.9.5 Coastal Hazards Inundation Areas Matters of Discretion RD1 – RD21:

Matters of Discretion		Assessment matters
a.	Suitability of site for intended use	Whether the development or use of the site can adequately mitigate the adverse effects of coastal

		inundation and tsunami on people, property, infrastructure and the environment.
b.	Buildings and structures	<p>Whether the:</p> <ul style="list-style-type: none"> a) number and size of building and structures; b) siting of buildings and structures; and c) building materials <p>are appropriate for the site considering the risk of coastal hazards, and provide appropriate mitigation to the potential adverse effects from inundation and tsunami.</p> <p>The extent to which the proposal utilises innovative forms of design or methods that adequately mitigate coastal hazards risk.</p>
c.	Floor levels	Whether the proposed floor levels will mitigate the effects of inundation including with sea level rise.
d.	Earthworks	<p>Whether the:</p> <ul style="list-style-type: none"> a) timing, scale and location of earthworks; and b) method of earthworks <p>are appropriate to mitigate the effects of inundation, and avoids the transfers risk to another site.</p>
e.	Fences:	<p>Whether the:</p> <ul style="list-style-type: none"> a) design of the fence mitigates the adverse effects of inundation within the site; and b) avoids the transfer of risk to another site.
f.	Outdoor storage areas and warehousing and distribution activities	Whether the location, size, layout, duration, and design of storage areas mitigates the effects of inundation and tsunami, including the risk of pollution and damage from spillage or movement of goods and material.
g.	Activity and use – vulnerability of occupants/users	Whether the use, design and operational practices adequately mitigate the inundation and tsunami risk to vulnerable users, including children, the elderly, and disabled people.
h.	Stormwater management	<p>Whether the proposed stormwater management for the site:</p> <ul style="list-style-type: none"> a) can take into account the effects of sea level rise; b) can mitigate the effects on water quality; and

		c) mitigate increased run off to areas outside the site boundary to the greatest extent reasonable.
i.	Rising groundwater	Whether there is adequate mitigation to address the effects of rising groundwater and effects of the activity on groundwater.
j	Time limits and trigger points	Whether there is adequate provision for the timely relocation or removal of buildings and structures, or cessation of activity, and remediation of the site and mechanisms to ensure this occurs.
k.	Adaptation	Whether an adaptation plan has been prepared to manage coastal hazards in the area, and whether the use of the site is consistent with that plan.
l.	Infrastructure	<p>a. Where critical infrastructure is involved, whether the infrastructure is designed in a way to continue to operate safely, taking into account the inundation and tsunami hazard risk at the site.</p> <p>b. For all infrastructure:</p> <p>i. the extent to which there are benefits associated with that infrastructure;</p> <p>ii. whether there is a functional or operational requirement for that location; and</p> <p>iii. whether there are any practical alternatives.</p>
m.	Innovative development	Whether the proposal utilises innovative forms of design or methods, and to what extent the design or methods adequately mitigate coastal hazards risk.
n.	Hazard sensitive activities	<p>Whether there is a need for the activity in the area, and the availability of suitable alternative locations with a lower level of risk.</p> <p>Whether an evaluation of the vulnerability of users has been undertaken and contains sufficient detail including potential methods of mitigating risk.</p>
o.	Coastal management work	Whether the proposal prioritises natural and nature based options over hard engineering solutions.
p.	Flood protection	Whether off site coastal management works provide reliable and appropriate mitigation.
q.	Amenity	The degree to which the proposal is consistent with the anticipated amenity of the surrounding environment in terms of visual amenity, landscape context and character, views, outlook, overlooking and privacy.

5.9.6 Activity Status for Coastal Erosion areas

- The activities listed below have the activity status listed within each Coastal Hazard Erosion risk area, and are subject to any activity status, rules and any standards specified elsewhere in the District Plan for that activity.
- In relation to controlled activities, discretion to impose conditions is restricted to the matters over which control is reserved as set out in Rule 5.9.7.
- In relation to restricted discretionary activities, discretion to grant or decline consent and impose conditions is restricted to the matters of discretion set out in Rule 5.9.8
- Where subdivision is specified, a subdivision consent is also required under the provisions of Chapter 8.

Table 5.9.6a

Key: P = Permitted; RD = Restricted Discretionary; D = Discretionary; NC = Non-complying; PR = Prohibited.

Coastal Erosion		Risk Area	
Activity		Low	High-Medium / Single zone
a.	Subdivision	NC1	NC2
b.	Building not otherwise included in this table	D1	NC3
c.	Replacement residential unit	C1	RD1
d.	Accessory buildings	C2	RD2
e.	Additions and extensions to buildings	C3	NC4
f.	Strategic and Critical coastal Infrastructure	RD4	RD5
g.	Critical Infrastructure - new	RD6	RD7
h.	Infrastructure and utilities - new	D4	NC5
i.	Repair and maintenance of infrastructure, utilities and buildings.	P1	P2
j.	Coastal management works - new	RD8	RD9

k.	Coastal management works – maintenance (excluding upgrades)	P3	P4
l.	Outdoor storage area and warehousing and distribution activities	D5	NC6
m.	Temporary outdoor storage area	C4	D6
n.	Hazards sensitive activities	NC7	NC8
o.	Recreation facilities	D7	NC9
p.	Recreation activities (excluding buildings and structures used for recreation activities)	P5	P6
q.	Fences	P7	P8
r.	Earthworks and retaining structures	RD10	D8
s.	Signage	P9	P10
t.	Demolition of buildings (excluding seawalls and other coastal management work)	C5	C6
u.	Demolition of seawalls and other coastal management work	D9	D10
v.	All activities not listed above	RD11	NC9

e. Any resource consent application arising from C1-6, or RD1-11 set out in Rule 5.9.6 above shall not be limited or publicly notified.

5.9.7 Coastal Hazards Erosion Areas Matters of Control C1 – C6:

Areas of Control		Control criteria
a.	Buildings and structures	The <ul style="list-style-type: none"> a) number and size of building and structures; and b) siting of buildings and structures with regard to the level of mitigation of potential adverse effects from erosion.
b.	Earthworks	The <ul style="list-style-type: none"> a) timing, scale, duration, and location of earthworks; and

		<p>b) method of earthworks</p> <p>to mitigate the effects of erosion and avoid the transfer of risk to another site.</p>
c.	Outdoor storage areas and warehousing and distribution activities	The location, size, duration, layout, and design of storage areas to mitigate the effects of erosion including the risk of pollution and damage from spillage or movement of goods and material.
d.	Activity and use – vulnerability of occupants/users	The use, design and operational practices to adequately mitigate the risk to vulnerable users, including children, the elderly, and people with physical or mental disabilities.
e.	Stormwater management	<p>The proposed stormwater management for the site to:</p> <ul style="list-style-type: none"> a) mitigate the effects of erosion; b) mitigate increased run off to areas outside the site boundary to the greatest extent reasonable; c) avoid discharge of contaminants into the environment; and d) avoid the transfer of risk to another site
f.	Rising groundwater	Mitigation of the effects of rising groundwater and the effects of the activity on groundwater.
g.	Level of risk	The proposal is located within the area of least risk on the site.
h.	Reduced risk	Any new assessment undertaken by a suitably qualified person/s which confirms that the land is either subject to a lesser degree of risk or no risk of erosion.
i.	Adaptation	An adaptation plan has been prepared to manage coastal hazards, and the use of the site is consistent with that plan.
j.	Innovative development	The proposal utilises innovative forms of design or methods, and the design or methods adequately mitigate coastal hazards risk.
k.	Coastal management work	Natural and nature based options shall be prioritised over hard engineering solutions.
l.	Amenity	The proposal is consistent with the anticipated amenity of the surrounding environment in terms of visual amenity, landscape context and character, views, outlook, overlooking and privacy.

5.9.8 Coastal Hazards Erosion Areas Matters of Discretion RD1 – RD11:

Matters of Discretion		Assessment matters
a.	Suitability of site	Whether the development or use of the site can adequately mitigate the adverse effects of coastal erosion on people, property, infrastructure and the environment.
b.	Buildings and structures	Whether the <ul style="list-style-type: none"> a) number and size of building and structures; and b) siting of buildings and structure are appropriate for the site considering the risk of erosion and if they provide appropriate mitigation to the potential adverse effects from erosion.
c.	Earthworks	Whether the: <ul style="list-style-type: none"> a) timing, duration, scale and location of earthworks; and b) method of earthworks are appropriate to mitigate the effects of erosion, and avoids the transfer of risk to another site.
d.	Outdoor storage areas and warehousing and distribution activities	Whether the location, size, layout, duration and design of storage areas mitigates the effects of erosion, including the risk of pollution and damage from spillage or movement of goods and material.
e.	Activity and use – vulnerability of occupants/users	Whether the use, design and operational practices adequately mitigate the risk of erosion to vulnerable users, including children, the elderly, and disabled people.
f.	Stormwater management	Whether the proposed stormwater management for the site: <ul style="list-style-type: none"> a) can mitigate the effects of erosion; b) avoids discharge of contaminants into the environment; and c) mitigate increased run off to areas outside the site boundary to the greatest extent reasonable.
g.	Rising groundwater	Whether there is adequate mitigation to address the effects of rising groundwater and effects of the activity on groundwater.

h.	Time limits and trigger points for mitigation	Whether there is provision for the timely relocation or removal of buildings and structures, or cessation of activity and remediation of the site and mechanisms to ensure this occurs.
i.	Level of risk	Whether the proposal is located within the area of least risk at the site.
j.	Transfer of risk	Whether the proposal increases the likelihood or transfers or creates erosion risk beyond the site, or reduces the stability of adjoining land or undermines the ability of adjoining landowners to develop their land in future.
k.	Reduced risk	Whether there is a new assessment undertaken by a suitably qualified person/s which confirms that the land is either subject to a lesser degree of risk or no risk of erosion.
l.	Adaptation	Whether an adaptation plan has been prepared to manage coastal hazards, and whether the use of the site is consistent with that plan.
m.	Infrastructure	<p>a. Where critical infrastructure is involved, whether the infrastructure is designed in a way to continue to operate safely, taking into account the erosion hazard risk at the site.</p> <p>b. For all infrastructure:</p> <p>i. the extent of benefits associated with that infrastructure;</p> <p>ii. whether there is a functional or operational requirement for that location; and</p> <p>iii. whether there are any practical alternatives.</p>
n.	Innovative development	Whether the proposal utilises innovative forms of design or methods, and to what extent the design or methods adequately mitigate coastal hazards risk.
o.	Coastal management work	Whether the proposal prioritises natural and nature based options over hard engineering solutions.
p.	Hazard sensitive activities	<p>Whether there is a need for the activity in the area, and the availability of suitable alternative locations with a lower level of risk.</p> <p>Whether an evaluation of the vulnerability of users has been undertaken and contains sufficient detail including potential methods of mitigating risk.</p>
q.	Flood protection	Whether off site coastal management works provide reliable and appropriate mitigation.

r.	Amenity	The degree to which the proposal is consistent with the anticipated amenity of the surrounding environment in terms of visual amenity, landscape context and character, views, outlook, overlooking and privacy.
----	---------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Planning Maps

Amend Planning Map Legend and Planning Maps introducing Coastal Hazards Inundation and Erosion risk areas as shown on the web viewer:

Inundation:

<https://gis.ccc.govt.nz/portal/apps/webappviewer/index.html?id=ae428b7c5b624f629b2a6c506db1bf0b>

Erosion:

<https://gis.ccc.govt.nz/portal/apps/webappviewer/index.html?id=35fc899707cf43f2a3e10dab1ea40263>.

Note:

The mapping data for the draft Plan Change is derived from the 2021 Risk Based Coastal Hazard Analysis for Land-use Planning study (Jacobs). It has been developed at an area based scale, to establish the concept of the risk based approach for district planning purposes. It does not provide a property specific level of assessment. This is preliminary data that is subject to further review and refinement. Updates to the mapping data will be undertaken in the first half of 2022, prior to notification of the Coastal Hazards Plan Change.

Issues identified	Issue Description – Outcomes/ effects for communities and the environment	Source of information/Evidence	Provisions giving rise to the issue	Statutory framework
The District Plan does not give effect to national and regional policy direction	<p>The Council has statutory responsibilities to implement national and regional direction in the New Zealand Coastal Policy Statement (NZCPS) and the Regional Policy Statement (RPS) which define how subdivision, land use activities and development should be managed in areas at risk from coastal hazards. The District Plan provisions currently do not give full effect to the NZCPS or RPS insofar that the use and development of land is not managed in some areas that are at risk of coastal hazards and there is an absence of controls on some activities. For example, the City Plan has rules only for an area 20m from Mean High Water Springs (MHWS), and the Banks Peninsula District Plan only considers the risk of coastal hazards for subdivision, not development. This gap in the District Plan could give rise to potential for harm to people and property and could result in economic and social costs. A further consequence is uncertainty for landowners on the use and development of their land as the coastal hazard risk is not identified in affected areas and there is no Council direction on managing this risk. Communities are therefore unable to make informed decisions.</p>	<ul style="list-style-type: none">• New data in the form of the Tonkin + Taylor Coastal Hazard Assessment is available on sea level rise and climate change which are key drivers for changing coastal hazard risk. This report identifies the future extent and magnitude of areas potentially at risk of coastal erosion and coastal flooding across the district. It also identifies low-lying land that could be susceptible to rising groundwater for a range of different sea level rise scenarios and storm events.• An identification of different levels of risk was based on work by Jacobs with input from Council planners and technical specialists. It draws on data in the Coastal Hazards Assessment to define a range of ‘thresholds’ for different levels of risk, using different scenarios. To account for climate change and the impact of sea level rise, Jacobs and Council staff selected 60cm sea level rise by 2080 and 1.2m sea level rise by 2130 as the most appropriate to apply to both erosion and coastal flooding hazard scenarios assessment.• A number of studies have been undertaken that model the effects of different tsunami scenarios, with most assuming a worst-case scenario of a 1 in 2,500 event.• Issues raised by resource consent planners in processing consent applications.	<p>The current District Plan provisions were developed prior to the NZCPS and the RPS. Consequently, those provisions do not define the full extent of areas at risk of coastal hazards, and only manage some activities. Parts of the City Plan and Banks Peninsula District Plan remain operative and contain restrictions on filling, excavation and building within 20m of MHWS (City Plan only) and subdivision. These provisions are neither comprehensive nor up-to-date.</p> <p>The Council has previously notified possible changes to the District Plan on coastal hazards as part of the District Plan review in July 2015. However, the government (at the request of the Council) amended the Canterbury Earthquake (Christchurch Replacement District Plan) Order in Council in 2015 to recognise that coastal hazards were not a recovery matter that required a fast-tracked process. The amendment removed coastal hazard provisions from the District Plan review and directed that the Council address that separately.</p>	<p>The District Plan does not give effect to Policy 24 of the NZCPS. This policy requires identification of areas in the coastal environment that are potentially affected by coastal hazards (including tsunami), giving priority to the identification of areas at high risk of being affected. Hazard risks, over at least 100 years, are to be assessed.</p> <p>Furthermore the District Plan does not give effect to Policy 25 of the NZCPS which directs that councils avoid increasing the risk of social, environmental and economic harm from coastal hazards, in areas potentially affected by coastal hazards over at least the next 100 years.</p> <p>The RPS requires in Objective 11.2.1 that new subdivision, use and development of land which increases the risk of natural hazards to people, property and infrastructure is avoided or, where avoidance is not possible, mitigation measures minimise such risks.</p> <p>The District Plan must not be inconsistent with the Canterbury Regional Coastal Environment Plan (RCEP) 2005. Method 9.6 indicates that the City Council has responsibility to identify areas likely to be subject to coastal erosion and sea water inundation including the cumulative effects of sea level rise over the next 100 years through the provisions of their district plans and include objectives, policies and methods to control the use of land within those areas.</p>
There is a risk of communities being exposed to the impact of coastal hazards that will become more prevalent in the future	<p>The District Plan does not currently have up-to-date and comprehensive provisions that manage areas exposed to identified coastal hazards. The consequence is that land use activities and development will continue to occur in areas exposed to coastal hazards without appropriate ways to manage the risk. This means there is a high likelihood that people and communities are exposed to harm/adverse effects at some time in the future.</p> <p>The District Plan does not currently enable people and communities in areas susceptible to coastal hazards to provide for their social, economic and cultural well-being and their health and safety through subdivision,</p>			

	<p>use and development. Options for better enabling communities to adapt and live with the changing hazards are not specifically identified in the District Plan. In areas exposed to the risk of harm, depths of coastal flooding pose a risk to life. In addition, there is uncertainty for landowners with no clearly defined extent of areas exposed. Assets in these areas will become increasingly exposed to damage, and some may become uninsurable. There will likely be increased costs of recovery, together with reduced productivity and associated impacts on economic growth for both property/business owners and the district. Furthermore, the potential harm to future residents and visitors could be significant. This will also increase social costs as people and communities recover from natural hazard events that have adversely impacted them.</p>			
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	--	--

Evaluation of options for the plan change including the proposed objective and policies

Table 1: Evaluation of approach to the plan change

Issue 1 - The District Plan does not give effect to national and regional policy direction

Issue 2 - There is a risk of communities being exposed to the impact of coastal hazards that will become more prevalent in the future

#	Evaluation of Options			
	Option 1 – (Preferred option) Risk-based approach	Option 2 – Do minimum	Option 3 – Avoidance of risk of harm across District	Option 4 – Avoid outside urban area, risk based approach within rural areas
	<p>Benefits</p> <p>Option 1 is enabling of development where there is a lower level of risk, providing certainty of opportunities for subdivision, land use and development.</p> <p>It also provides certainty for landowners by clearly defining the extent of areas exposed and enabling landowners to plan, even if the risk is deemed high.</p> <p>This option strikes a balance between enabling land use and development so that people and communities can provide for their well-being, health and safety, while ensuring that coastal hazard risks are</p>	<p>Benefits</p> <p>Option 2 provides flexibility for landowners where resource consent is currently not required, consistent with the status quo. In doing so, there is a reduced level of regulation compared with the other options.</p> <p>It provides certainty for those in areas subject to risks of coastal hazards by increasing awareness of the risk.</p> <p>Costs</p> <p>Option 2 does not manage the risk posed by coastal hazards for all subdivision, land use and development. While it will reduce the costs of recovery</p>	<p>Benefits</p> <p>Option 3 provides for resilience by restricting subdivision, land use and development, and in doing so, avoiding an increased risk of harm. In defining the extent of areas exposed, it provides certainty for communities while increasing awareness of the risks of hazards. It gives people a level of confidence that Council is acting to address the risks of climate change.</p> <p>Option 3 will have reduced economic and social costs of recovery (including repair and rebuilding) from future events relative to the status quo,</p>	<p>Benefits</p> <p>This option supports an outcome of urban growth being located away from areas at risk of coastal hazards. In doing so, it provides confidence to communities that Council is acting to address the risks as well as providing certainty in defining areas exposed to hazards. In urban areas, this option is consistent with option 1.</p> <p>Costs</p> <p>This option would have the same costs for rural landowners as option 3. Option 4 would not provide an equitable approach for land owners and developers across the district, increasing the</p>

#	Evaluation of Options			
	Option 1 – (Preferred option) Risk-based approach	Option 2 – Do minimum	Option 3 – Avoidance of risk of harm across District	Option 4 – Avoid outside urban area, risk based approach within rural areas
	<p>addressed to avoid increasing the risk of harm. In managing the risk of harm, there are reduced economic and social costs of recovery (including repair and rebuilding) from future events relative to the status quo, allowing communities to recover faster.</p> <p>Costs</p> <p>This option has the potential to increase compliance costs relative to the status quo, due to, controls on subdivision, land use and development that do not exist at present.</p> <p>Methods to mitigate the risk may result in additional costs of development e.g. higher floor levels.</p> <p>This option limits or precludes development opportunities in areas defined as having a medium and high risk of harm. This may reduce investment and</p>	<p>relative to the status quo, it will continue to result in harm to communities in the absence of comprehensive management of the risks. This will contribute to costs from repair and rebuilding. There are additional compliance costs with floor level requirements introduced where they may not apply at present and additional matters of discretion for restricted discretionary activities.</p> <p>Efficiency</p> <p>Option 2 is not comprehensive in only managing risks where resource consent is already required. It is therefore not responsive to the risk of hazards where activities are otherwise enabled by the District Plan. As a consequence, there may be inefficiencies arising e.g. investment in land and buildings that may be exposed to a risk in the short-term.</p>	<p>allowing communities to recover faster.</p> <p>Costs</p> <p>Option 3 would introduce a high level of additional regulatory burden, with costs associated with a consenting process. While resource consent may be obtained, this option may reduce the potential for subdivision, land use and development across all areas identified as prone to coastal hazards. This would lead to reduced levels of investment and property values, contributing to reduced levels of amenity.</p> <p>Efficiency</p> <p>Option 3 fails to recognise differing levels of risk across the District and unnecessarily restricts subdivision, land use and development even where there are changes in risk e.g. sea levels not rising at the rate anticipated. This will result in the</p>	<p>regulatory burden for rural communities more than urban areas. In not having regard to the different levels of risk, it places a burden on landowners wishing to use or develop their land. Even if consent may be obtained, it necessitates a consenting process.</p> <p>Efficiency</p> <p>Option 4 uses the spatial extent of the urban area to determine the approach for managing risks, which does not have regard to varying levels of risk in rural areas. It is therefore a blunt approach that is not responsive to the nature or extent of risk and places greater restrictions in areas that are less populous and where there is a lower level of development. Like option 3, it will result in the inefficient use of resources, particularly in rural areas, as land is left vacant or under-utilised due to unnecessary restrictions. It will</p>

#	Evaluation of Options			
	Option 1 – (Preferred option) Risk-based approach	Option 2 – Do minimum	Option 3 – Avoidance of risk of harm across District	Option 4 – Avoid outside urban area, risk based approach within rural areas
	<p>property values, leading to a reduced level of amenity.</p> <p>Efficiency</p> <p>Option 1 enables a nuanced approach to managing risk, with restrictions varying according to levels of risk¹. It allows communities to make informed decisions that avoid increasing risk and in doing so, to utilise resources including land and buildings more efficiently. For example, a decision can be made to not invest in improvements to a property if there is a risk of flooding in the short-term. Conversely, a longer term risk enables a landowner to utilise their land in the short to medium term, and in doing so, this contributes to the efficient use of resources.</p>	<p>The option includes the identification of areas of risk. In doing so, people and communities are better informed of risks and can respond as they see fit where there is not a requirement for resource consent.</p> <p>Effectiveness</p> <p>Option 2 enables the risks of coastal hazards to be managed where resource consent is otherwise required. However, it does not adequately manage all subdivision, land use and development in areas at risk, and could result in harm to people, the environment and the economy. It therefore does not give effect to Objective 5 and Policy 25 of the NZCPS or Objective 11.2.2 of the RPS. While introducing additional matters of discretion for</p>	<p>inefficient use of resources as land is left vacant or under-utilised due to unnecessary restrictions. It will also result in greater compliance costs associated with resource consent processes, which may not be necessary in all instances.</p> <p>Effectiveness</p> <p>Option 3 reduces the risk of exposure of subdivision, land use and development by seeking the avoidance of harm from coastal hazards, contributing to Objective 5 of the NZCPS of locating new development away from areas prone to such risks. It also gives effect to Objective 11.2.2 of the CRPS by avoiding development which increases risk of natural hazards. This contributes to improved resilience.</p>	<p>also result in greater compliance costs</p> <p>Effectiveness</p> <p>Option 4 reduces the risk of exposure, similar to option 3, in rural areas. In doing so, it will avoid urban expansion into rural areas that may not be suitable for development. However, it could harm the ability of rural communities to meet their social and economic needs, which is not in accordance with Objective 5 of the NZCPS, nor Objective 3.3.1 of the District Plan that seeks to enable the community to meet their immediate and longer-term needs.</p> <p>Option 4 provides measured flexibility to enable new</p>

¹ The categorisation of areas at risk has regard to changing sea levels. It does this by defining areas with a lower level of risk where coastal flooding / erosion is not anticipated to occur in the short term.

#	Evaluation of Options			
	Option 1 – (Preferred option) Risk-based approach	Option 2 – Do minimum	Option 3 – Avoidance of risk of harm across District	Option 4 – Avoid outside urban area, risk based approach within rural areas
	<p>On this basis and the preceding identification of benefits and costs, the benefits of this option are considered to outweigh the costs.</p> <p>Effectiveness</p> <p>Option 1 manages subdivision, land use and development in a way that an increased risk of harm or damage is avoided, having regard to the level of risk. In doing so, it gives effect to Objective 5 and policy 25 of the New Zealand Coastal Policy Statement (NZCPS), the former seeking that new development is located away from areas prone to coastal hazard risks. In areas exposed to a high risk of harm, for instance, where depths of coastal flooding pose a risk to life, this option seeks to avoid development that will increase that risk. Conversely, this option enables subdivision, land use and</p>	<p>restricted discretionary activities, it is more permissive than the other options and similar to the status quo. In doing so, it is more consistent with Objective 3.2.2 of the District Plan that seeks to minimise transaction costs and reliance on resource consent processes.</p> <p>Risk of acting, not acting</p> <p>Coastal hazard risk is based on the most up to date information. It is acknowledged there are uncertainties around sea level rise. The risk of acting based on the information available is considered to be low.</p> <p>By not managing subdivision, land use and development in areas at risks of coastal hazards, there is a risk of inappropriate development occurring in these areas and being subject to unacceptable risk.</p>	<p>Option 3 restricts people and communities in how they use their property in seeking to avoid subdivision, land use and development that increases any level of risk of harm. This is inconsistent with Objective 3.3.2 of the District Plan of minimising transaction costs and reliance on resource consent processes. It also does not enable people to provide for their social and economic well-being to the extent of other options, which is not in accordance with Objective 5 of the NZCPS, nor Objective 3.3.1 of the District Plan that seeks to enable the community to meet their immediate and longer-term needs.</p> <p>Risk of acting, not acting</p> <p>Coastal hazard risk is based on the most up to date information. It is acknowledged there are uncertainties around sea level rise. The risk of acting based on</p>	<p>activities within established urban areas at risk subject to appropriate mitigation. It is therefore as effective as Option 1 in the urban area. In doing so, it gives effect to Objective 5 and policy 25 of the New Zealand Coastal Policy Statement (NZCPS), the former seeking that new development is located away from areas prone to coastal hazard risks.</p> <p>Risk of acting, not acting</p> <p>Coastal hazard risk is based on most up to date information. It is acknowledged there are uncertainties around sea level rise. The risk of acting based on the information available is considered to be low.</p> <p>By not managing subdivision, land use and development in areas at risks of coastal hazards it would create the risk of inappropriate development occurring in these areas and</p>

#	Evaluation of Options			
	Option 1 – (Preferred option) Risk-based approach	Option 2 – Do minimum	Option 3 – Avoidance of risk of harm across District	Option 4 – Avoid outside urban area, risk based approach within rural areas
	<p>development in areas of risk where the effects of coastal hazards can be adequately managed.</p> <p>In areas of lower risk, this option provides for the ongoing use of land and development until such time that the risk emerges i.e. sea levels reach a defined point. In doing so, it enables people to provide for their social and economic well-being in accordance with section 5 of the Resource Management Act and Objective 5 of the NZCPS.</p> <p>As outlined above, option 1 seeks to avoid increasing risk of social, economic, cultural and environmental harm and it is therefore consistent with and gives effect to the NZCPS (Objective 5 and policy 25), RPS (Objective 11.2.1) and Objective 3.3.6 of the District Plan.</p> <p>Risk of acting, not acting</p>		<p>the information available is considered to be low.</p> <p>By not managing subdivision, land use and development in areas at risks of coastal hazards it would create the risk of inappropriate development occurring in these areas and being subject to unacceptable risk.</p>	<p>being subject to unacceptable risk.</p>

#	Evaluation of Options			
	Option 1 – (Preferred option) Risk-based approach	Option 2 – Do minimum	Option 3 – Avoidance of risk of harm across District	Option 4 – Avoid outside urban area, risk based approach within rural areas
	<p>Coastal hazard risk is based on most up to date information. It is acknowledged there are uncertainties around sea level rise. The risk of acting based on the information available is considered to be low.</p> <p>By not managing subdivision, land use and development in areas at risks of coastal hazards it would create the risk of inappropriate development occurring in these areas and being subject to unacceptable risk.</p>			

Table 2: Evaluation of proposed objective and alternative - Most appropriate way to achieve the purpose of the Act

#	Evaluation of Options	
	Option 1 – (Preferred option) Risk-based approach	Option 2 – Alternative – Status quo (rely on strategic objective 3.3.6 with no specific coastal hazards objective)
	<p>Objective 5.2.1.2 – Coastal Hazards</p> <ul style="list-style-type: none"> a. Development, subdivision and land use does not increase the risk of coastal inundation, coastal erosion, rising groundwater or tsunami causing physical, social, economic or environmental harm. b. Existing communities potentially affected by coastal hazards are able to continue to develop and use land, natural and physical resources where the risk of adverse effects from coastal hazards is not increased and the level of risk can be managed to an acceptable level. 	<p>Objective 3.3.6- Natural Hazards.</p> <ul style="list-style-type: none"> a. New subdivision, use and development (other than new critical infrastructure or strategic infrastructure to which paragraph b. applies): <ul style="list-style-type: none"> i. is to be avoided in areas where the risks from natural hazards to people, property and infrastructure are assessed as being unacceptable; and ii. in all other areas, is undertaken in a manner that ensures the risks of natural hazards to people, property and infrastructure are appropriately mitigated. b. New critical infrastructure or strategic infrastructure may be located in areas where the risks of natural hazards to people, property and infrastructure are otherwise assessed as being unacceptable, but only where: <ul style="list-style-type: none"> i. there is no reasonable alternative; and ii. the strategic infrastructure or critical infrastructure has been designed to maintain, as far as practicable, its integrity and form during natural hazard events; and iii. the natural hazard risks to people, property and infrastructure are appropriately mitigated. c. There is increased public awareness of the range and scale of natural hazard events that can affect Christchurch District. d. The repair of earthquake damaged land is facilitated as part of the recovery.

Resource Management Act s.5	<p>This objective seeks a balance that enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while managing coastal hazard effects consistent with s5(2).</p> <p>The second clause in the objective also enables people to continue to develop and use natural and physical resources where the risk of adverse effects from coastal hazards is not increased and the level of risk can be managed to an acceptable level which provides for social and economic well-being consistent with s5(2).</p>	Objective 3.3.6, while broadly consistent with s5(2), does not specifically seek to address the effects of coastal hazards and associated impacts of climate change. Coastal hazards including increasing sea level rise have the potential to adversely affect the wellbeing, health and safety of people and communities.
Resource Management Act s.6	More fully recognises and provides for the management of significant risks from natural hazards, consistent with s6(h).	The objective does not fully recognise and provide for the matter of national importance relating to management of significant risks from coastal hazards.
Resource Management Act s.7	More clearly has particular regard to the effects of climate change consistent with s7(i).	The objective does not have particular regard to the effects of climate change in the context of coastal hazards and is therefore not fully addressed.
Resource Management Act s.31	More clearly aligns with s31(1)(b)(i) as it provides for the avoidance and mitigation of natural hazards, in particular coastal hazards.	The objective does not accord with s31(1)(b)(i) as coastal hazards risk is not fully addressed to the extent of the preferred option.
New Zealand Coastal Policy Statement (NZCPS)	More fully in line with Objective 5 and Policy 25 of the NZCPS. The new objective will ensure development does not increase the risk of coastal hazards.	The objective does not give effect to Policy 25 of the NZCPS direction to avoid increasing the risk of social, environmental and economic harm from coastal hazards. Regarding Objective 5, Objective 3.3.6 does not fully address the effects of climate change.

Canterbury Regional Policy Statement (RPS)	<p>The RPS requires (in Objective 11.2.1) new subdivision, use and development of land which increases the risk of natural hazards to people, property and infrastructure to be avoided or, where avoidance is not possible, mitigation measures minimise such risks. RPS policies 11.3.1 and 11.3.2 also requires 'avoidance' with some exceptions.</p> <p>The objective is consistent with the RPS as it manages coastal hazard risk on people, property, infrastructure and the environment and ensures development does not increase the risk of coastal hazards.</p>	Objective 3.3.6 does not give effect to, and protect people from coastal hazard risk and the effects of climate change and sea-level rise to the extent of the preferred option.
Chapter 3 of District Plan (Objective 3.3.6)	This objective is risk based and aligns with Strategic Objective 3.3.6. The new objective seeks that new development does not increase risk from coastal hazards and Objective 3.3.6 seeks that unacceptable risk from natural hazards is avoided.	This option is to rely on Strategic Objective 3.3.6.
Conclusion	Option 1 – Objective 5.2.1.2 more fully gives effect to the Act, the NZCPS and the RPS. Given the specific direction in the Act, the NZCPS and the RPS, it is concluded that Option 1 is the most appropriate way to achieve the purpose of the Act.	

Table 3: Evaluation of options for provisions (Policies, Methods)

Issue 1 - The District Plan does not give effect to national and regional policy direction

Issue 2 - There is a risk of communities being exposed to the impact of coastal hazards that will become more prevalent in the future

#	Provision	Evaluation of Options	
		Option 1 – (Preferred option) Risk-based approach	Option 2 – Alternative
	<p><u>Policy 5.2.2.5 Policies for Coastal Hazards</u></p> <p><u>5.2.2.5.1. Risk based approach to Coastal Hazards</u></p> <p>A. Map areas for coastal hazards based on: ...</p> <p>B. Apply controls over the development, subdivision and use of land that are proportionate to the level of risk from coastal hazards.</p>	<p>Benefits</p> <p>This policy provides certainty for land owners as it requires identification of affected areas, enabling them to make informed decisions.</p> <p>The risk based approach could provide social and economic benefits as it allows development where appropriate.</p> <p>Costs</p> <p>This policy would result in reduced use/development rights, increased consent costs and time and potentially reduced property values, particularly in higher risk areas.</p> <p>Efficiency</p> <p>Meets intent of the objective 5.2.1.2 and benefits outweigh costs. The proposed policy identifies areas susceptible to coastal hazards and in doing so, it allows communities to make informed decisions that avoid increasing risk and in doing so, to utilise resources including land and buildings more efficiently.</p>	<p>Consideration has also been given to the following alternatives:</p> <ul style="list-style-type: none"> a) No policy b) A policy that addresses risk across the area affected by coastal hazards without differentiation of areas according to the level of risk <p>Having no policy on risk identification would not be as effective or efficient given areas susceptible to coastal hazards would not be identified (as required in the NZCPS) and therefore coastal hazards would not be adequately managed.</p> <p>Having a policy with one level of risk area would allow for a more uniform approach to managing risk, however it would not be as responsive to circumstances as the risk based approach. It would still give effect to the NZCPS and RPS if a restrictive approach was taken. Conversely, a more enabling approach across the area would not avoid an increased risk of harm and would therefore not give effect to the NZCPS and RPS.</p>

#	Provision	Evaluation of Options	
		Option 1 – (Preferred option) Risk-based approach	Option 2 – Alternative
		<p>Effectiveness</p> <p>This policy ensures coastal hazards are identified and mapped, consistent with NZCPS (Policy 24). In line with the new objective.</p> <p>Risk of acting, not acting</p> <p>Low risk in acting with some uncertainties given nature of coastal hazards for which there will always be a degree of uncertainty.</p> <p>Not acting would result in inappropriate subdivision and development in areas at risk of coastal hazards.</p>	<p>The benefits of the above alternative changes to the provisions have been considered and on balance are outweighed by the costs. It is deemed to be less efficient and effective than the proposal for the reasons explained above.</p> <p>The risks associated with not implementing Option 2 alternatives are considered low for the same reasons as Option 1.</p>
	<p><u>5.2.2.5.2.Avoid increasing risk from Coastal Hazards</u></p> <p>Within areas of coastal hazards avoid development, subdivision and land use that would increase the risk of social, environmental and economic harm from coastal hazards unless:</p> <ul style="list-style-type: none"> i. it is dependent on a coastal location, and ii. there are no other reasonable alternatives available, and iii. the benefits of the proposed development out-weigh the potential harm, and 	<p>Benefits</p> <p>This policy provides more certainty for land owners in affected areas and provides scope for development, subdivision and land use where the criteria are met.</p> <p>Minimises economic and social effects by ensuring inappropriate development does not occur and risk is not increased.</p> <p>Costs</p> <p>This policy would result in reduced use/development rights, increased consent costs and time as well as likely reduced property values.</p>	<p>An alternative of the status quo would be to have no specific policy on coastal hazards. This would reduce certainty for land owners while also increasing the risk of inappropriate development in at risk areas. This would not be well aligned with the objective as it would result in less restrictions on building development at risk of coastal hazards.</p> <p>Costs of the status quo would outweigh the benefits as articulated for option 2 in Table 1.</p>

#	Provision	Evaluation of Options	
		Option 1 – (Preferred option) Risk-based approach	Option 2 – Alternative
	iv. the adverse effects from coastal hazards and the development on people, property, infrastructure, the environment and cultural values are mitigated to the fullest extent practicable.	<p>Efficiency</p> <p>Meets intent of objective 5.2.1.2 and benefits outweigh costs. The policy appropriately restricts development to ensure development does not increase the risk of harm in areas susceptible to coastal hazards.</p> <p>Effectiveness</p> <p>This policy ensures increased risk from potential coastal hazards is avoided or mitigated to the fullest extent practicable in certain circumstances, consistent with direction in the NZCPS (Policy 25) and RPS (Objective 11.2.1). This policy is also in line with new objective 5.2.1.2.</p> <p>Risk of acting, not acting</p> <p>There is low risk in acting with some uncertainties. Given the nature of coastal hazards, there will always be a degree of uncertainty regarding sea level rise.</p> <p>Not acting would result in inappropriate subdivision and development in areas at risk of coastal hazards.</p>	
	<p><u>5.2.2.5.3. Managing subdivision, development and land use in Coastal Hazards areas</u></p> <p>Subject to policy 5.2.2.5.2, any subdivision, development and land use within coastal hazards areas shall:</p>	<p>Benefits</p> <p>Provides certainty for land owners directing what is acceptable in affected areas.</p> <p>Manages risk to people and property in affected areas.</p>	<p>An alternative would be to rely on the status quo. This would mean no clear direction on development in hazard areas, resulting in an increased risk of harm. In doing so, costs would outweigh the benefits as articulated for option 2 in Table 1.</p>

#	Provision	Evaluation of Options	
		Option 1 – (Preferred option) Risk-based approach	Option 2 – Alternative
	<p>A. be located in the lowest risk category possible;</p> <p>B. not rely on mitigation provided by private coastal management works outside the site;</p> <p>C. be designed, constructed and located to avoid harm, or where this is not possible effects are mitigated to an acceptable level and harm to people, property, infrastructure and the environment is minimised;</p> <p>D. ensure outcomes are compatible with the anticipated environmental characteristics of the area and its cultural values;</p> <p>E. identify an appropriate risk based trigger point when it will be necessary to:</p> <ol style="list-style-type: none"> review use of the site, or remove or relocate the development or activity; <p>F. provide for appropriate remediation of the site subsequent to the removal, relocation or cessation of the activity. This shall be have particular regard to an</p>	<p>Allows for appropriate development providing social and economic benefits (as opposed to completely avoiding development in these areas).</p> <p>Costs</p> <p>This policy would result in reduced use/development rights and increased consent costs and time. In addition reduced property values is another potential cost.</p> <p>Efficiency</p> <p>Meets intent of objective 5.2.1.2 and benefits outweigh costs. The policy appropriately restricts development to ensure adverse effects are minimised in areas susceptible to coastal hazards.</p> <p>Effectiveness</p> <p>The policy ensures subdivision, new development and change of use does not unduly increase coastal hazard risk to people and property, giving effect to the NZCPS and RPS.</p> <p>Risk of acting, not acting</p> <p>Low risk in acting with some uncertainties given the nature of coastal hazards for which there will always be a degree of uncertainty.</p>	

#	Provision	Evaluation of Options	
		Option 1 – (Preferred option) Risk-based approach	Option 2 – Alternative
	adaptation plan for the area, or where no adaptation plan exists be in keeping with the local environment at the time.	The risk of not acting is inappropriate development will occur in at risk areas.	
	<p><u>5.2.2.5.4. Adaptation, alteration and maintenance of existing buildings and properties within areas of Coastal Hazards</u></p> <p>Provide for maintenance, replacement, adaptation and alteration of existing structures, and associated earthworks within areas affected by coastal hazards, subject to criteria A – F in Policy 5.2.2.5.3.</p>	<p>Benefits</p> <p>This policy provides for economic, and social well-being by allowing for adaptation, alteration and maintenance of existing buildings and properties while managing the risk of coastal hazards.</p> <p>This policy provides certainty and clear direction for property owners.</p> <p>Reduced social and economic cost as coastal hazards mitigated on existing properties.</p> <p>Costs</p> <p>Increased consenting requirements/compliance costs.</p> <p>Efficiency</p> <p>Benefits outweigh costs on the basis that the policy provides for development while avoiding an increase in the risk of harm. In line with the coastal hazards objective.</p> <p>Effectiveness</p> <p>This policy allows for coastal hazard risk to be appropriately managed and development appropriate to</p>	<p>An alternative would be to rely on the status quo. There would be no clear direction on adaptation, alterations and maintenance of existing development, potentially impeding social and economic well-being, and/or could result in inappropriate development in areas at risk of coastal hazards. Not as in line with the objective.</p>

#	Provision	Evaluation of Options	
		Option 1 – (Preferred option) Risk-based approach	Option 2 – Alternative
		<p>the level of risk, consistent with direction in the NZCPS (Policy 25) and RPS (Objective 11.2.1).</p> <p>Risk of acting, not acting</p> <p>There is minimal risk in acting with data uncertainties.</p> <p>The risk in not acting is that there could be inappropriate development that is at risk from coastal hazards.</p>	
	<p><u>5.2.2.5.5. Innovative forms of development and design within Coastal Hazards areas</u></p> <p>Innovative forms of design and methods of construction to address coastal hazards risk are encouraged where they avoid an increased risk of harm or provide enhanced mitigation of adverse effects.</p>	<p>Benefits</p> <p>Encouraging innovative forms of development could result in increased resilience of development and other structures helping to minimise coastal hazard risk to people and property.</p> <p>Costs</p> <p>There could be economic costs associated with innovative development, possibly not being accessible to everyone.</p> <p>Efficiency</p> <p>The benefits outweigh the costs on the basis that it facilitates more flexibility in how communities adapt and enables mitigation that may otherwise not be anticipated.</p> <p>Effectiveness</p>	<p>An alternative would be the status quo of no policy. This could result in less design flexibility, an unduly complex consenting process for innovative forms of development, and less resilience to coastal hazard risk.</p>

#	Provision	Evaluation of Options	
		Option 1 – (Preferred option) Risk-based approach	Option 2 – Alternative
		<p>This policy assists in increasing resilience to coastal hazards and is in line with the objective.</p> <p>Risk of acting, not acting</p> <p>There is minimal risk in acting.</p> <p>The risk in not acting could result in a more challenging consent process for innovative development.</p>	
	<p><u>5.2.2.5.6. Hazard sensitive activities</u></p> <p>A. Activities and development that provide accommodation or services for users that are more vulnerable to the adverse effects of coastal hazards than the general population shall be avoided within areas of coastal hazards, unless within areas of low or very low risk there is an identified need that cannot be met elsewhere and mitigation based on an evaluation of the vulnerability of users is provided to an acceptable level.</p> <p>B. The evaluation of the vulnerability of users shall include considerations of:</p> <p>i. the level of exposure of occupants and users to risks from coastal hazards;</p>	<p>Benefits</p> <p>Minimises coastal hazard risk to people who are more vulnerable to coastal hazards.</p> <p>Certainty for developers and the community that vulnerable activities and development is not anticipated in the most at risk areas.</p> <p>Costs</p> <p>Restricts certain types of new development in medium and high risk areas which could have social and economic costs.</p> <p>Efficiency</p> <p>This policy will help minimise risk by ensuring vulnerable activities are appropriately located.</p> <p>Effectiveness</p>	<p>An alternative would be the status quo of no policy. Vulnerable activities would be treated the same as other activities and it could result in inappropriate development in at risk areas.</p>

#	Provision	Evaluation of Options	
		Option 1 – (Preferred option) Risk-based approach	Option 2 – Alternative
	<ul style="list-style-type: none"> ii. the operational period and practices for the activity; iii. the nature and number of users, their mobility and ability to safely evacuate; and iv. the potential level of social and economic harm and risk to life. 	<p>This policy assists in minimising coastal hazard risk to more vulnerable persons, consistent with Objective 5.2.1.2.</p> <p>Risk of acting, not acting</p> <p>There is minimal risk in acting with data uncertainties.</p> <p>The risk in not acting is that inappropriate new hazard sensitive activities and development could occur in areas at risk from coastal hazards.</p>	
	<p>5.2.2.5.7. Protection from Coastal Hazards</p> <p>A. Development, subdivision and land use shall avoid causing harm to the integrity of existing:</p> <ul style="list-style-type: none"> i. coastal management works, and ii. natural features, including dune systems and coastal wetlands that provide defence from coastal hazards. <p>unless they form part of a planned renewal, replacement or adaptation process.</p> <p>B. Coastal management works to manage the effects of coastal hazards on people, property, infrastructure and the environment shall:</p>	<p>Benefits</p> <p>This policy provides direction on protection from potential coastal hazards allowing for a consistent approach to managing these hazards.</p> <p>Encouraging nature based mitigation would result in environmental benefits and possibly cultural benefits as well as providing amenity value.</p> <p>Social and economic benefits as existing coastal management works are protected.</p> <p>Potentially reduced environmental costs by prioritising nature based protection.</p> <p>Costs</p> <p>More difficult consenting avenue to remove existing protection structures.</p>	<p>An alternative would be the status quo of no policy. This would mean there is no direction encouraging natural solutions over hard engineering and no weighting to Coastal Adaptation Plans. This would be less effective in implementing the NZCPS and would have more costs in terms of environmental impacts.</p>

#	Provision	Evaluation of Options	
		Option 1 – (Preferred option) Risk-based approach	Option 2 – Alternative
	i. prioritise natural and nature based options over hard engineering solutions; and have particular regard to the implementation methods in a relevant Coastal Adaptation Plan for the area.	<p>Efficiency</p> <p>The policy seeks to avoid harm to coastal management works and natural features that serve the benefit for the community of providing protection. The benefits are therefore deemed to outweigh the costs. The policy is also effective in implementing objective 5.2.1.2.</p> <p>Effectiveness</p> <p>This policy is consistent with the NZCPS direction to discourage hard protection structures and promote the use of alternatives to them, including natural defences.</p> <p>This policy is more restrictive in that it seeks to prioritise natural and nature based options whereas the NZCPS promotes alternatives including but not exclusively natural defences.</p> <p>Risk of acting, not acting</p> <p>Not acting could result in an inconsistent approach to managing/mitigating coastal hazards, and adverse effects on ecosystems, people and property.</p>	

CONSULTATION ANALYSIS:

ISSUES AND OPTIONS PAPER FOR THE COASTAL HAZARDS DISTRICT PLAN CHANGE

Introduction

Engagement on the Coastal Adaptation Framework, and the Issues and Options Paper for the Coastal Hazards Plan Change initially ran for five weeks, from 8 October – 15 November. However, following feedback from the community the engagement period was extended a further three weeks until 6 December 2021 to give groups and individuals more time to consider their feedback.

Engagement and communication tactics

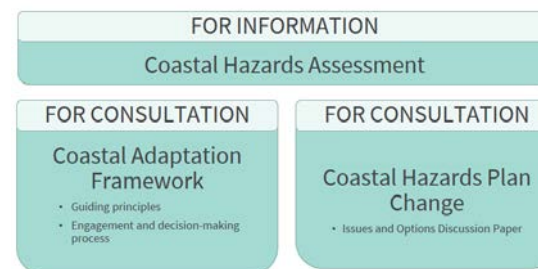
Engagement on the Coastal Adaptation Framework and the Issues and Options Paper for the Coastal Hazards Plan Change was wrapped up into a wider Coastal Hazards Conversation which included the release, for information, of an updated Coastal Hazards Assessment.

To introduce the coastal hazards conversation, we sent out an email to more than 200 stakeholders, groups and individuals when the Coastal Hazards Assessment was released. The release of the Assessment was timed to coincide with the release of the Coastal Adaptation Framework and the Issues and Options Paper on the Urban Development and Transport Committee agenda.

On 8 October, when engagement launched for the Coastal Adaptation Framework and the Issues and Options Paper, a newsletter was sent out to the same database and a follow-up email was then sent to specific community groups with a particular interest in coastal hazards.

In the lead-up and during the engagement period we held more than 40 briefings, meetings and drop-ins, reaching more than 450 people. Meetings attended by the project group but organised by community groups for their residents and members were particularly well-attended, and we would like to acknowledge and thank those groups for the invitations to attend.

Over the course of the engagement period we promoted the coastal conversation more than 20 times via social media. Our Facebook posts reached more than 59,000 people, with 1,716 Active responses (likes, shares and comments). We also had six stories on Newsline, as well as articles in The Press, the Akaroa Mail, the Star, Bay Harbour News, and an interview on Radio New Zealand.



Submissions

We received 101 submissions on the Coastal Adaptation Framework and 90 submissions on the Issues and Options Paper. These totals include:

- 25 pro formas organised by the Waimairi Beach Residents' Association which provided feedback both the Coastal Adaptation Framework and the Issues and Options Paper.
- 10 pro formas organised by the North Beach Residents Association which provided feedback on both the Coastal Adaptation Framework and the Issues and Options Paper.
- 7 submissions endorsing the Southshore Residents' Association which provided feedback on both the Coastal Adaptation Framework and the Issues and Options Paper.

The majority of feedback was from residents in coastal communities – in particular, from residents living in the Pegasus Open Coast area (Brooklands, Waimairi, North Beach, New Brighton, South New Brighton and Southshore).

With the Coastal Adaptation Framework we also saw a high number of submissions from children and young people – including students from the University of Canterbury, and a joint submission from students from Banks Avenue School, Chisnallwood Intermediate, Governors Bay School, Haeata Community Campus, and Lyttelton Primary School.

We heard from the Waitai Coastal-Burwood and Waikura Linwood-Central-Heathcote Community Board, and the following organisations, residents' associations and community networks:

- Christchurch Coastal Residents United (CCRU)
- Avon Heathcote Ihutai Estuary Trust
- South Brighton Residents Association (SBRA)
- Waimairi Beach Residents Association (WBRA)
- North Beach Residents Association (NBRA)
- Southshore Residents Association (SSRA)
- New Brighton Pier and Foreshore Society
- Brighton Observatory of Environment and Economics (BOEE)
- Flourish Kia Puawai

- Orion
- Lyttelton Port Company
- Boffa Miskell

Overarching themes across both engagements

Across both engagements there were some common themes around process and expectations.

There was a strong feedback from a number of submitters in the Pegasus Open Coast area that the period of engagement was too short, and there was insufficient time to consider all the information and to make informed comments. This was a particular theme in the feedback from residents' associations, who felt that they did not have enough time to canvas the views of their residents properly. In response to this feedback we extended the engagement period for a further three weeks, at the end of which time the residents' associations we heard from (Waimairi, North Beach and Southshore) either submitted pro formas or had feedback specifically endorsing their submissions. This would suggest that, over the eight week period, they had been able to complete, at least to some degree, wider engagement with their local residents.

Another overarching theme across both engagements was an issue of trust and confidence in the Council. Again, this feedback was almost exclusively from submitters in the Pegasus Open Coast area. Submitters referenced previous processes and experiences with the Council as undermining trust in the current process. Some submitters specifically mentioned their concern at slow progress on the project to address earthquake-related issues to the estuary edge in Southshore and South New Brighton. In addition, the inability to review and challenge the technical information, and the lack of community involvement in the early planning stages of both documents were also cited as reasons for mistrust in the current process.

"Community involvement has been denied and models and data have not been made available for review, all of which leads to the familiar closed-door scenario and feelings of mistrust with Council."

A further theme across both engagements was the perception that coastal communities have been unfairly singled out and that other areas of the city are not given as much scrutiny or have as many restrictions.

"Let's be honest, Southshore has been mercilessly spotlighted, over-analysed, over-consulted and at times over-regulated. It would be fair to say that many in Southshore have consultation fatigue."

Coastal Hazards Plan Change: submissions analysis and proposed provisional responses

Engagement process and other overarching issues

Issue	Comment	Provisional Response
Insufficient time for community engagement. Request pause in process.	Some submitters argued that the engagement period has been too short for communities to process the Coastal Hazards Plan Change Issues and options paper given the complexities and significance of this programme of work (David East, Kim Money, Brian Sandle, Rachel Puentener, Stewart McNeice, Megan Roulston, Marie Graham, Nick Yuki, Jan and Tim Sintes, SSRA, Brighton Observatory of Environment and Economics (BOEE), CCRU and Federated Farmers New Zealand (FFNZ)).	The Council acknowledge the concerns raised regarding the length of time for community consultation on the issues and options paper (and technical information).
	The 34 pro forma submissions from North Beach and Waimairi Beach Residents Association members also sought a longer engagement period.	An initial five week engagement phase of 8 October – 15 November was extended to an eight week engagement phase, which closed on 6 December. It is acknowledged some consider this extension should have been longer.
	Some submitters acknowledged the extension to the timeline but some felt even longer was required.	There will be further opportunities for the community to provide input into the plan change prior to notification as well as after formal notification of the plan change.
	Josiah Thompson sought additional time to consult with communities on what they consider an acceptable risk.	Looking ahead, the Coastal Hazards Plan Change needs to align with other Plan Changes, notably the NPS-UD Intensification PC, the risk being that there are multiple conversations about related issues, including the appropriateness of intensification in areas affected by coastal hazards.
	However, some submitters acknowledged the value of Council engaging early in the process of developing the Coastal Adaptation Framework and noted their appreciation for what they perceived as a new approach (Meg Roulston, BOEE, Rachel Puentener).	

	<p>BOEE questioned why this work is being undertaken now given the reform.</p> <p>SSRA requested a pause in engagement until reports from independent experts are commissioned.</p> <p>Some submitters request that Council resolve process/technical concerns first before going ahead with the plan change. “Until the above submission comments with requested actions and our coastal communities have been empowered and resourced to engage our own independent experts to work with CCC’s chosen experts and to also be able to peer review any reports and technical data being used by Council in these processes, then this request to choose one of your options is premature and unacceptable”. (Kim Money).</p>	
Council need to raise awareness of accreting beach	One submitter comments that public awareness should be raised regarding the coastline south of the Waimakariri River being an accreting beach (Kim Money).	<p>Section 2.7 of the Tonkin & Taylor report provides information on sediment supply. This is publically available and was identified in the community engagement for the CAF and Issues and Options.</p> <p>In the next stages of engagement on the plan change, consideration will be given to how this is communicated.</p>
Community well-being	One submitter considers “our communities well-being needs to be top priority through this process” (Kim Money).	Staff recognise the importance of supporting communities and their well-being, particularly given the current COVID environment. This will be considered in planning for engagement.

		With regard to the impacts of regulation on communities, the Council has and will continue to consider the social effects of the preferred option and alternatives to it as part of a s32 assessment.
Co-creation	The SSRA and FFNZ suggest a co-creation/co-design approach. SSRA suggest that after the submissions are received an interim process of community appointed experts and CCC gather to look at the summary of submissions and find a middle ground to suggest a plan change document that satisfies legal requirements. FFNZ consider that co-design approach with all community parties will help create an integrated multi-faceted approach that addresses specific concerns.	<p>Council staff welcome further feedback during the course of preparing the provisions.</p> <p>While a co-design approach can have merit, there is a diversity of interested people and organisations with different views that may not be adequately reflected in a panel of experts. Even if a middle-ground could be found, the District Plan provisions will need to conform with the RMA and give effect to the New Zealand Coastal Policy Statement (NZCPS) and Canterbury Regional Policy Statement (CRPS).</p> <p>There are opportunities for a more collaborative approach through the Coastal Hazards Adaptation Planning Programme.</p>
Already lack of trust in Council – Southshore earthquake legacy	Some submitters commented that there is already a lack of community trust in Council due to the handling of the Southshore Estuary Edge Earthquake Repair as well as the non-functioning stormwater system (Kim Money, Megan Roulston, Jan Burney, Marie Graham, Nick Yuki, Andrew Evamy, Jan and Tim Sintes, and New Brighton Peer & Foreshore Society).	<p>The approach to the plan change is to engage early on a preferred direction and thereafter, to provide opportunities for feedback on a draft before the statutory process. Through this process, we will seek to build confidence and help communities understand the rationale for the plan change.</p> <p>On 9 May 2019 Council [CNCL/2019/00074]:</p> <p>3. Agrees to split the Regeneration Strategy project into two projects:</p>

		<p>a. Earthquake legacy repairs. b. An adaptation strategy.</p> <p>This decision was informed by feedback from the Southshore and South New Brighton communities. Accordingly, Council staff have progressed these projects separately.</p> <p>On 12 November 2020 Council [CNCL/2020/00138] resolved to allocate funding of \$10.5m in the 2021-31 Long Term Plan for the completion of earthquake legacy works “subject to design and consenting”.</p> <p>This project is continuing to be driven by Council.</p> <p>It is an unavoidable reality that significant and lengthy process work is required before on the ground delivery can occur. The consenting steps are statutory and are therefore required of Council. These steps were clearly outlined to the Southshore Residents Association AGM in late 2020.</p> <ul style="list-style-type: none">- Funding of \$12.5m was allocated in the 2021-31 long Term Plan.- A dedicated Project Manager has been appointed and Jacobs have been commissioned to deliver Preliminary Design.- The Resource Consent is on track to be submitted by the end of June 2022.- Allowing for a year for the Resource Consent it will be followed by Detailed Design with a planned start on site for the main works in January 2024.
--	--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

		<ul style="list-style-type: none"> - During Preliminary Design Council will be identifying opportunities for early works that can be undertaken prior to receiving full Resource Consent. <p>Management of stormwater is of high priority for Council. In low-lying parts of the city adjacent to the coastline and rivers there are significant geographic challenges that require additional monitoring and support from Council.</p> <p>Southshore has a well-maintained storm-water infrastructure that copes well until there is a combination of high tide and heavy rain. In these weather events, storm-water ponds on streets because there is little gradient for water to channel towards drainage systems. Temporary street flooding is a practical and preferable design solution to water pooling on private properties and is a common practice in cities worldwide.</p> <p>These challenges are not confined to Southshore and are an early indication of the challenges ahead as sea levels rise.</p>
Southshore (SS) over-consulted and overregulated	Some submitters consider Southshore has been “mercilessly spotlighted, over-analysed, over-consulted and at times over-regulated” (David East, Jan Burney, Andrew Evamy, Jan & Tim Sintes, SouthShore Residents Association (SSRA)).	<p>It is acknowledged that there is consultation/planning fatigue experienced by some in the Southshore community.</p> <p>The Council wants to ensure that there is an opportunity for those affected by proposed changes to have their say</p>

		<p>and the approach for the plan change is to engage early, drawing on lessons from the District Plan.</p> <p>With regard to concerns of over-regulation, there is a statutory requirement to address coastal hazards (and other natural hazards) in the District Plan.</p> <p>The District Plan addresses a range of natural hazards that are distributed across the city, not just the coastal communities. Note a map is being developed that sets out the hazard controls across the district.</p>
--	--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Impacts of regulation

Issue	Comment	Provisional Response
Communities constrained	A number of submitters raise concern that changes to the District plan will unduly restrict development which will impact on coastal communities. (David East, Kim Money, Waimairi Beach RA, North Beach RA, Rachel Puentener, Diane Douglas, Megan Roulston, Marie Graham, Nick Yuki, Andrew Evamy, Jan and Tim Sintes, SouthShore residents association (SSRA), Kerrie Kenneally, Karina Hay, Kathryn Snook, Marion Smart, and Waitai Coastal-Burwood Community Board).	<p>Council staff are recommending a Risk Based approach, which endeavours to provide flexibility for land use and development to occur where it is safe to do so i.e. the risks are appropriately managed.</p> <p>The plan change will need to give effect to NZCPS and Canterbury RPS, which requires the avoidance of harm from coastal hazards. Therefore, a restrictive approach may be necessary, namely in areas of high risk.</p> <p>Through the evaluation of the preferred option and alternatives to it, Council will consider the benefits and</p>

		costs and weighing these up to determine their effectiveness and efficiency.
Insurance concerns	One submitter requests the community is given access to minutes of any meetings between Council and insurance (Kim Money).	Council will consider this further as a request under the Local Government Official Information and Meetings Act.
Compensation	Some submitters query whether compensation will be provided if a change to the district plan devalues land and restricts development (Megan Roulston, Nick Yuki, Kathryn Snook, Marion Smart).	Further advice will be provided at a future date.

Technical report

Note that feedback was not sought on the Jacobs report during the engagement period.

Issue	Comment	Provisional Response
Need opportunity for public to scrutinise technical reports	Some submitters are concerned that the community has had no opportunity to ask questions, discuss and provide feedback on the technical reports from Jacobs and Tonkin + Taylor (Richard Dalman, North Beach RA, Kim Money, Rachel Puentener, CCRU and SSRA).	The Council has endeavoured to act in an open and collaborative manner in the development and publication of the CHA.
Requests peer review	One submitter considers it “is a reasonable expectation that potentially impacted residents and communities are given the opportunity to scrutinise the reports and the experts explain their science to those affected by it” (Richard Dalton). Some submitters (David East, Waimari Beach RA, North Beach RA, New Brighton Peer & Foreshore Society) request peer review/s of technical reports, the level of risk (David East) and testing of the modelling (David East and Waimari Beach RA).	With this front of mind, the methods, full technical report and peer reviewer comments are all available publicly as well as a public report, online portal, videos and accompanying fact sheets. MfE guidance acknowledges that there is unlikely to ever be complete agreement on the science. However, Council’s inclusion of multiple scenarios within the modelling allows for adaptive planning and recognises the inherent uncertainty in any modelling that estimate future climate conditions.

		<p>A peer review of the Jacobs report - Risk Based Coastal Hazard Analysis for Land-use Planning has been commissioned, and this will inform future refinement of the technical work.</p> <p>Comments and feedback on the Jacobs report are welcome during the process for the plan change and Council will continue to make the Jacobs report and any updates to it available.</p>
Concerns with assumptions	Some submitters had concerns with the assumptions and modelling within the technical reports (Richard Dalman, David East, Waimari Beach RA, North Beach RA, Rachel Puentener, New Brighton Pier and Foreshore Society, Megan Roulston, Marie Graham, Nick Yuki, Jan and Tim Sintes, SSRA, Karina Hay, Waitai Coastal-Burwood Community Board, Thomas Kulpe, Vic Allen, Marion Smart, CCRU and Josiah Thompson).	<p>There is further technical work being undertaken/refined. Issues raised in submissions will be taken into account.</p>
Concerns with modelling	<p>Replace AEP/ARI as the basis of risk assessment (Thomas Kulpe).</p> <p>"Develop a common methodology for the flooding hazard - not a very specific one for coastal flooding. Each catchment has its own unique set of parameters that should be recognised " (Thomas Kulpe).</p> <p>Sand accretion from the Waimakariri River should be taken into account as it is likely to extend the time frame before this area becomes high risk. (Mike Currie).</p>	<p>Following receipt of submissions there has been a quality assurance process undertaken by way of a review of the Jacobs report 'Risk Based Coastal Hazard Analysis for Land-use Planning report' 2021.</p> <p>Comments and feedback on the Jacobs report are welcome during the process for the plan change and Council will continue to make the Jacobs report and any updates to it available.</p> <p>Sand accretion has been addressed in the T+T report.</p>
Request map for entire city	One submitter requested coastal hazards mapping be undertaken for the entire city to provide context (Kim Money).	<p>City wide mapping</p> <p>Appears to be beneficial to clarify that there is risk from coastal hazards further inland, which was not re-modelled</p>

		<p>as part of this process. Council intends to achieve by adding a static map of the 2017 CHA coastal hazard risk to the inland area on the coastal hazards online portal.</p> <p>The extent of the area subject to the Coastal Hazards Plan Change is as mapped by Tonkin and Taylor and Jacobs. While coastal hazards extend further inland, the flooding is influenced to a greater extent by rainfall and river sources. Existing flooding overlays in the District Plan that apply to land to the west take account of sea level rise and Council is proposing a plan change to update the extent of flooding overlays that apply to other parts of the city.</p>
Stormwater issues resolved then undertake mapping	One submitter considers stormwater issues should be resolved prior to mapping being undertaken. They also consider that inadequate temporary stopbanks and earthquake damaged drains should not be included in future mapping as no permanent mitigation has been included (Kim Money).	There is further technical work being undertaken/refined. Issues raised in submissions will be taken into account.
Additional analysis	One submitter requests an economic analysis and a social wellbeing analysis (Brian Sandle).	Council staff will consider this further in the course of evaluating the benefits and costs of the preferred option and alternatives to it as part of a s32 assessment.

Options

Issue	Comment	Provisional Response
Views on the four options	<p>Thirty one submitters indicated a preference for one of the four options:</p> <ul style="list-style-type: none"> - 16 submitters preferred Option 1 - 9 submitters preferred Option 2 	The Risk Based Approach (Option1) remains the preferred option. The feedback does not demonstrate the alternatives are more appropriate and the evaluation to date demonstrates that option 1 appropriately avoids an

	<ul style="list-style-type: none"> - 6 submitters preferred Option 3 - 3 submitters preferred Option 4 <p>Two submitters indicated a preference for two options:</p> <ul style="list-style-type: none"> - Preference for Options 1 and 4 (Ian Burn) - Preference for Option 2 now and Option 1 in the future (Vic Allen) <p>Some submissions (including pro-formas) consider none of the four options are appropriate.</p> <p>Option 1 Risk-based approach</p> <p>Reasons for supporting option 1 include:</p> <ul style="list-style-type: none"> - The approach is commensurate with the level of risk posed by coastal hazards and allows for consideration of hazards on an individual/area basis (ECan, Mike Currie, FFNZ, Pat Pritchard, Lyttelton Port Company (LPC)) - “Trigger points make sense rather than set timelines however those trigger points need to be agreed rather than imposed” (Lynda Burdekin) - Staggered approach (Orion) <p>Reasons stated for not supporting option 1 include</p> <ul style="list-style-type: none"> - Option 1 too conservative (Richard Dalton, Eugenio Boidi, Pat McIntosh, Marion Smart) - Option 1 too permissive (Nick Reid, Simon Anderson) <p>Option 2 Do Minimum</p>	<p>increased risk of harm while continuing to enable people to maintain their well-being.</p> <p>Notwithstanding this, further development of the risk based approach will be undertaken drawing on issues raised in submissions and further technical work.</p> <p>With regards the risk of maladaptation (acting to early or too late) signalled by the submitters from the eastern suburbs the MfE Guidance adopted by the Council recommends the use of signals and triggers which are indicators of changes – such as a degree of sea level rise – that indicate when it is optimal to act. These triggers are intended to prevent maladaptation.</p>
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<p>Reasons for supporting option 2 include:</p> <ul style="list-style-type: none"> - The extent and timing of sea level change remains uncertain (Harry Stronach) - “Too many uncertainties at this stage to justify any major change... Option 2 initially, followed by Option 1 later.” (Vic Allen) - “do minimum until the Coastal Adaptation Planning is completed” (Rachel Puentener) - “I believe the existing district plan provisions are working in the right direction and already address the coastal hazards...As they are strict (particularly in the HFMA+ RUO) but not prohibitive rules, they prevent excessive additional risks while also allowing improvements to existing houses to create a safer and more resilient community.” (Eugenio Boidi) - “I believe Option 2 is the most appropriate as this approach best achieves Council’s 2 stated objectives for the Plan Change as well as allow for specific mitigating circumstances relevant to individual sites...” (Richard Dalton) - “This option enables a bolstering of the existing District Plan policies with the introduction of additional matters for discretion and practical methods that will – compared to all other options - have a far less onerous economic, social and mental health impact on land owners whose property is determined as high or medium risk.” (Marion Smart) <p>Option 3 Avoidance of risk across the District</p> <p>Reasons for supporting option 3 include:</p>	
--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

	<ul style="list-style-type: none"> - “Where sea levels are going to rise do not allow new houses. Mitigate where possible as well as with the right planting.” (Joy McLeod). - “I think the Southshore Spit Nature Reserve should be expanded through to Waimari Beach... I'd like to see option three adopted as well as a long term (200~300 years) plan to retreat human habitation from the Pegasus Bay coastline entirely.” (Paul Bagrie). - “Risk-based approach relies on subjective risk analysis for individual plots. This would probably lead to those with the financial and time resources being able to develop land in more vulnerable areas. Sea level rise will affect all coastal areas so we must start to retreat and limit development in these areas NOW.” (Luci Trethewey). - “Building homes and amenities in areas we know will be susceptible to coastal flooding and storms just does not make sense. 20 or 30 years is not enough of a design life to create new infrastructure in this vulnerable areas.” (Nick Reid) <p>Option 4 Avoidance of risk outside the urban area, and a risk based approach in the urban area</p> <p>Reasons for supporting option 4 include:</p> <ul style="list-style-type: none"> - “It is not as beaucratic as some others like option 1. It gets the job done without fuss.” (Marette Wells) - “Option 1 is too permissive and will allow large areas to go to developers. Option 4 is in fact the most mature risk-based approach proposed. While the commentary in Option 1 sounds good, it is only a minor improvement on what we currently have, and allows for mass development in coastal 	<p>Through preparation of the plan change and further technical work, staff will seek to address the issues raised by ECan of alignment with provisions for managing rainfall/ river flooding, as well as the activity status for different activities.</p>
--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<p>hazard zones. Option 4 is a better step, in the right direction to protect communities.” (DC)</p> <p>ECan suggest that “CCC considers reviewing the event frequencies underpinning the four hazard categories to better align with the values used for flooding in the CRPS. We consider that this would better give effect to CRPS Policies 11.3.1 and 11.3.2, and align more closely with the approach taken to freshwater flooding.” ECan also comment they “agree with the general approach taken in Table 2 on Page 9, which indicates potential activity status by risk category. However, we suggest CCC considers raising several of the activity statuses for activities, in particular:</p> <ul style="list-style-type: none"> • We consider an enabling approach is appropriate for the upgrading and maintenance of critical infrastructure in the Very Low and Low risk categories, however a higher level of activity status may be more appropriate for new critical infrastructure in the Very Low and Low risk categories. • Consider using a ‘Restrictive’ approach to new subdivision for housing in the Very Low and Low risk categories. • Consider raising the activity status for new hazard sensitive activities in the Very Low and Low risk categories (for example new dwellings-conventional, health & care facilities, education facilities).” <p>Some submitters (Megan Roulston, Nick Yuki, Richard Griffiths, SSRA, BOEE) comment that coastal hazards are a city wide issue. “River and rainfall dynamics will be affected by climate change through increased precipitation and storm events. In coastal areas the flooding will be affected by sea level rise and erosion will be affected by storm events. Both river and coastal flooding/erosion need to be planned for” (Megan Roulston, Nick Yuki). “The southshore spit and dune system is the most economic and cost effective defence against</p>	<p>The existing provisions for managing the risk of flooding elsewhere in the City take account of sea level rise. In any case, Council is proposing a plan change to update the extent of flooding overlays over other parts of the City and changes to rules to address issues arising.</p> <p>Through preparing plan changes on coastal hazards, and other flooding overlays in parallel, we are looking at alignment/ consistency in approach and assumptions.</p> <p>Staff have been drawing on guidance from the Ministry for the Environment and Department of Conservation in interpretation of the NZCPS as well as seeking legal advice.</p> <p>The Council is initiating the plan change in recognition that there are not sufficient controls to appropriately manage subdivision, use and development and the risks associated</p>
--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<p>storm surge inundation to low lying areas of Christchurch around the Avon and Heathcote rivers and estuary. Flooding issues arise from the entirety of greater christchurch stormwater entering these rivers so thr (sic) entire system must be concidered (sic) as a whole. Coastal areas issues cannot be separated from greater christchurch.” (Richard Griffiths). “Climate change will give harsher storms and pluvial flooding across Christchurch, beyond the coastal hazard zone. Hence we must be talking about specifically coastal hazards” (BOEE). “Christchurch is a low-lying city, and it is evident SLR and climate change will affect the ENTIRE city... where is the mapping indicating the hazards of SLR and climate change city-wide? This only further perpetuates the view of those in the unmapped grey areas that they will be unaffected. Residents from other areas are being asked to weigh in with their views of the coastal area without the contextual information on how the whole city might be affected.” (SSRA)</p> <p>Some submitters consider that there should be no change to current rules.</p> <p>The New Brighton Peer & Foreshore Society (Chair Stewart McNeice) consider the New Zealand Coastal Policy Statement allows for a greater scope of options than has been presented to the community by the Council.</p> <p>Some submitters requested that the earthquake legacy issues (such as the separate estuary edge erosion and flood protection works) be resolved prior to seeking a plan change. Concerns centred around the lead-in time for the erosion and flood protection works to be completed and the impact these perceived delays have had on trust between Council and communities.</p>	<p>with coastal hazards. If it is delayed until after legacy issues are resolved, there is a risk of subdivision, use and development being enabled without appropriate controls.</p> <p>Reference has been made in the submission by LPC to a staged approach allowing time for review of the Regional Policy Statement and Regional Coastal Environment Plan. While this is an option, this would cause further delay to the management of risks and ultimately, the regional planning framework will need to give effect to existing direction in the New Zealand Coastal Policy Statement. The direction in the NZCPS provides confidence of how the City and Regional Councils are to manage the risk of coastal hazards in any case.</p> <p>Council staff will consider this further in the course of evaluating the benefits and costs of the preferred option and alternatives to it as part of a s32 assessment.</p>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<p>The SSRA also raised equity issues where some parts of the city already have protection works but others do not.</p> <p>One submitter (Ian Burn) raised concern that “ under option 1 Council will face pressure and legal challenge from a small number of well-financed groups who will push for resource use which is not in the collective best interest, but which Council's will be unable to to (sic) fight due to the legal costs of doing so. In this context we believe that option 4 will make it harder for such groups to pressure Council in non-urban areas, while retaining the rights of smaller operators to make reasonable changes to their resource use where they already have buildings on property. This comes at the cost however of people wanting to make small reasonable changes to resources on properties in currently non-urban areas which would otherwise have been allowed under 1.”</p> <p>LPC “recommends considering whether the timing is appropriate given other policy and planning instruments (e.g. Regional Coastal Environment Plan and the Resource Management Act) that are currently under review which may influence district planning processes.” In addition LPC comments that should “Option 1 be taken forward, the risk layers utilised need to be clearly defined and any ambiguity or inaccuracy removed. For example, the Coastal Erosion layers show the Port as not containing erosion protection along the entire border and therefore being subject to erosion risk. However, the entire border of LPC’s Port area is armoured with sea walls which are either concrete or rip rap to prevent erosion. A correction to this matter is requested if it is to be used in planning maps and so forth.”</p>	
--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

	<p>SSRA encourage the CCC to consider the cost of regulation to all parties in particular:</p> <ul style="list-style-type: none"> - The costs of regulating if property owners will manage the risk anyway. - There are costs when regulating too hastily, or over-regulation. <p>The costs of regulating when there is significant uncertainty. When the risk is both uncertain and beyond the life of most built structure's regulation runs the risk of unnecessarily imposing costs on the community.</p>	
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

Are there other options we should be considering?

Issue	Comments	Provisional Response
Suggested alternative options	<p>Suggested alternative options put forward include:</p> <ul style="list-style-type: none"> - Option 1 in the future and a 'minimum option' in the interim period will prevent known risks that have been identified to prevent unwanted developments in the meantime. (Orion) - "Risk credit for housing stock that is replaced and provides a risk reduction. Consideration for Social capital is important not just property." (Karina Hay) - "Some improved management of coastal land area eg brooklands sand dunes which are our defence have been slowly eroded over the years from horses that council rent the land at end of street." (Kathryn Snook) - Hard protection structures and natural and nature based solutions (Phillip Ridge) - Nature reserves / wetlands (Paul Bagrie, and Pat McIntosh) 	<p>As above, the Risk Based Approach (Option1) remains the preferred option.</p> <p>The plan change will be prepared, drawing on issues raised in submissions and further technical work while giving effect to the NZCPS and RPS.</p> <p>There are a range of suggestions and we are working through how they align with national and regional direction. For example, the suggestion of "A plan provision that enables CCC to manage risk to an acceptable level (rather than trying to manage all risk) and still allows development to occur as a discretionary activity." does not align with policy 25 of the NZCPS, which anticipates that all risks are managed. However, the risk based approach enables different levels of regulation</p>

	<ul style="list-style-type: none"> - “gradual withdrawal from high risk areas especially from sea rise” (Pat Pritchett) - Investing in significant infrastructure like Holland (Simon Anderson) - ‘Implement measures to discourage population growth in Christchurch’ (Pat McIntosh) - “Intensify housing density in unaffected areas” (Pat McIntosh) - “Actions to slow devastating climate change before its too late” (Joy McLeod) - “undeveloped rural/greenfield areas and established urban areas should be treated differently. In urban areas, alterations and improvements to existing properties in medium and high risk areas should not be prohibited, but actually encouraged, as long as they provide a degree of mitigation of the effects of SLR.” (Eugenio Boidi) - “consider each area individually and look every situation on individual basis Eg- Street by street, property by property instead of looking at everything as whole area wide.” (Kathryn Snook). - Consideration of Aerospace above Kaitorete Spit (Taumutu Rūnanga, Wairewa Rūnanga). - Exemption for papakainga/Māori land (Koukourārata Rūnanga, Te Hapū o Ngāti Wheke/ Rāpaki Rūnanga) - Natural processes to be allowed to occur (Koukourārata Rūnanga) - Major earthworks avoided (Koukourārata Rūnanga) <p>One submitter suggests “pull more from option 1 that allows for improvements to existing properties. This will make them more resilient to the threat...strengthen the limitations in option 4 that prevent new developments outside the current urban limits...put more onus on council to invest in infrastructure that protects against coastal erosion and flooding.” (DC)</p>	<p>according to the level of risk. In doing so, development can be enabled in areas where there is a lower risk.</p> <p>Re hard protection options:</p> <p>Information about ‘hard’ and ‘soft’ engineering options is available in the Catalogue of Coastal Hazard Adaptation Options https://ccc.govt.nz/assets/Documents/Environment/Coast/Catalogue-of-Coastal-Hazard-Adaptation-Options-v3.pdf</p> <p>Through the CHAPP and plan change, Council needs to implement the New Zealand Coastal Policy Statement 2010, which states at Policy 25(e) (Subdivision, use and development in areas of coastal hazard risk states “discourage hard protection structures and promote the use of alternatives to them, including natural defences”.</p> <p>It is noted that Policy 27(c) Strategies for protecting significant existing development from coastal hazards recognises that hard protection may be necessary and the only option for “existing infrastructure of national or regional significance” which applies to such assets as airports, or ports.</p> <p>Policy 27(2a) also requires that any assessments undertaken with regards existing significant development “focus on approaches to risk management that reduce the need for hard protection structures and similar engineering interventions.”</p>
--	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<p>The Waitai Coastal-Burwood Community Board comments that the “Board agrees with the Council’s view that the level of risk is not the same in every location, but would like to include consideration of solutions as well as restrictions included in Option 1 (p. 7) when considering levels of risk (where applicable). The Board supports and emphasises the concept that development and investment should be able to continue in areas of lower risk.”</p> <p>A couple of submitters suggest a “do minimum approach now, while keeping the Residential Unit Overlay (RUO) currently in place for Southshore, New Brighton, Redcliffs and Sumner and looking to use the RUO in other areas where appropriate. ... As we commence the adaptive planning conversations, we will be better placed to make changes to the District Plan in future. We will then know the MfE guidance as it catches up with the current IPCC reports and we will have guidance on how the RMA legislation is overhauled and we know the government direction on adaptation...” (Megan Roulston and Nick Yuki)</p> <p>The SSRA comment that “We would like to see a community that continues to grow in safe way, adapting as needed. We envision homes that are resilient to earthquake and flood, lightweight, easily repaired, perhaps relocatable, innovative. More consistency and flexibility on this can be achieved. We don’t believe flexibility has to be sacrificed to achieve consistency. Existing usage rights apply. These areas are zoned residential. Existing vacant land that has not had a house on is buildable with site appropriate buildings. Encouragement of different housing types- over 60 etc. Risk is not solely evaluated on size and occupancy rate. Existing vacant land is subdividable but limited to a % of the land. Allow existing commercial sites to remain useable as commercial – required for community connection. A plan provision that enables CCC to manage risk</p>	<p>Read together, there is clear guidance within the NZCPS that supports the Council’s principle.</p> <p>Further information on the use of the NZCPS rationale for this principle can be found in the NZCPS 2010 Guidance Note: Coastal Hazards, Department of Conservation https://www.doc.govt.nz/Documents/conservation/marine-and-coastal/coastal-management/guidance/policy-24-to-27.pdf</p> <p>The NPS-UD and RM Enabling Housing Supply Amendment Act 2021 require intensification across the urban environment other than where Qualify Matters would limit this. Coastal Hazards fall within qualifying matters.</p> <p>Policy 25 of the NZCPS addresses subdivision, use, and development in areas potential affected by coastal hazard risk. It seeks to avoid increasing risk of social, environmental and economic harm from coastal hazards. In considering areas potentially affected by coastal hazards it uses a timeframe of at least 100 years.</p>
--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<p>to an acceptable level (rather than trying to manage all risk) and still allows development to occur as a discretionary activity. An opportunity to improve housing stock. For example, an old house that is ground level (high risk/ less resilient) will be encouraged to build new. The new build will be viewed as reducing risk (higher, safer, eco). The owner would get a risk reducing credit. For this risk reduction the owner would be permitted to extend the dwelling by the percentage risk reduction, therefore maintaining same risk, or less than the old house, adapting to family needs and improving the housing stock. Ensure essential services are resilient and appropriate to the area and maintained.”</p> <p>One submitter (Kerrie Kenneally) raises concern that the “options seem to ignore areas which council have now put into 'rural' category and this category (sic) seems to imply that 'rural' means, large blocks of acreage which is able to be utilized for activities other than residential activities. Council has, taken our properties out of urban and consider us rural when there is absolutely no rural activities that can take place on them due to the size of these residential size lots. Council has allowed activities to take place without consent in our area that along with earthquake legacy issues have contributed to the coastal hazards. You MUST look at the issues we have been telling you about for years and stop devaluing our properties and ignoring us in your policies because your policies in the past have not included us due to us apparently being Rural.” Similarly another submitter (Kathryn Snook) comments “we have an added additional issue in that area rezoning put some properties into 'rural' planning map when really, they are residential size sections this may affect the interpretation when a payout is required as happened in the earthquake - redzone for residential NOT those in rural residential”.</p> <p>One submitter (Karina Hay) considers “South shore is presently at the correct level of regulation. Planning should be supporting adaption and</p>	<p>A staged approach suggested by some submitters of adopting Option 2 (do minimum) in the short term followed by a more comprehensive approach (Option 1) at some future date would require two plan changes and delays the introduction of more comprehensive provisions. The first stage could be to introduce policies, rules and changes to the planning maps. The risk is that this could still leave gaps in the level of control/management that can be applied to new subdivision, use and development in areas of Coastal Hazards, particularly in higher risk areas. This is on the basis that Option 2 in the Issues and Options paper proposed some reliance on existing rules where resource consent is already required.</p> <p>It is uncertain when option 1 would be appropriate to introduce, and there is a risk that development enabled in the short to medium term under option 2 results in legacy issues that need to be addressed retrospectively after option 1 is introduced.</p> <p>It is also unlikely that there would be agreement as to when a second phase would be appropriate. It is unlikely that there would be a point in the near future where there is a consensus across all parties on the technical data and levels of control required.</p>
--	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<p>solutions - not looking to restrict now for the uncertain outcome of the next 50years in. Recognise the known societal effects of over precautionary planning. Take an adaptive (solution based) rather than risk-based (restriction) approach.”</p> <p>One submitter (BOEE) comments that “Post King Salmon Supreme Court case under certain conditions, “avoid” can be taken to mean ‘not allow’ or ‘prevent’ in relation to things that would increase the risk of adverse events. This seems to be the way that CCC planners are interpreting their duty under the NZCPS, e.g. not allowing house extensions. The underlying assumption in these “avoid” (prevent) actions is of course that preventing (for example a house extension) is actually the lowest risk pathway and does not increase risk. ... In summary we believe that the CCC interpretation of “avoid” (prevent) from the King Salmon Supreme Court ruling is partial: it does not seem to capture the caveats to which the ruling is subject, the effects of the post King Salmon amendments, or the nature of Natural Hazards in terms of the scale of risk, or timescale of evolving risk. It also is addressing personal risk where the risks requiring attention are property risks. To a degree, the current National Guidance resolves some of the temporal uncertainty issues around new development by the use of trigger-points. This device can also be used for existing developments, but this is something we will address in our submission on the coast adaptation framework/process.”</p> <p>One submitter (Marion Smart) recommends a “blend of Options 1 and 2 could see all so called medium and high risk private residential, commercial and recreation properties move to “Regulated” rather than “Restricted”. The introduction of additional matters for discretion ... would then kick in. This is a sensible way forward that would have a far less onerous economic, social and overall wellbeing impact on land</p>	<p>A staged approach allowing time for review of the Regional Policy Statement and Regional Coastal Environment Plan would cause further delay to the management of risks and ultimately, the regional planning framework will need to give effect to existing direction in the New Zealand Coastal Policy Statement. The direction in the NZCPS provides confidence of how the City and Regional Councils are to manage the risk of coastal hazards in any case.</p>
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<p>owners whose property is determined as high or medium risk but where the risk may never eventuate within the life of a building.”</p> <p>LPC suggest given that “Environment Canterbury is presently in the process of reviewing the Regional Coastal Environment Plan, it may be worthwhile determining the long-term planning once this is completed to prevent short-term land use planning decisions being inconsistent with soon-to-be developed regional policies. LPC considers that there may be a potential alternative option between Option 1 and Option 2. This includes updating the Christchurch District Plan to remain consistent with the present Regional Policy Statement, Regional Coastal Environment Plan and New Zealand Coastal Policy Statement with the new information presented, but not extend beyond that at this stage. This staged approach would allow for the review of the Regional Coastal Environment Plan and Regional Policy Statement; those documents would set the scene for continuing from that point. LPC appreciates that there may be some immediate/shorter-term foreseeable issues, and these may be matters that should be subject to the immediate plan change.”</p> <p>The CCRU comment “A truly adaptive approach does not rely on models and in fact adds protection against a ‘worse than we thought’ scenario unfolding. Under an adaptive approach you extrapolate based on recurrent trends and reassess regularly. Communities agree to stop building or build in adaptable ways in areas that will be uninhabitable in [30, 50, 100] years based on current sea level rise trends. This is reassessed every 10 years as part of the district planning process and zones extended or contracted as appropriate. This approach shares a lot with the current framework but avoids the problem of having to rely on models that will be wrong. Issues with inappropriate developments around the margins can happen in both approaches. CCC needs to consider that avoiding issues at</p>	
--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

	the margins will require such precaution that the cost outweighs the benefit.	
--	-------------------------------------------------------------------------------	--

Are there other types of innovative development e.g. relocatable or amphibious that could be considered suitable within areas of low or medium risk?

Issue	Comment	Provisional Response
Innovative development responses	<p>Types of innovative development suggested include:</p> <ul style="list-style-type: none"> - Relocatable buildings (Lynda Burdekin, Mike Currie, Joy McLeod, DC, Marie Graham, Richard Dalman, Waitai Coastal-Burwood Community Board) - Modular housing (DC) - Amphibious housing (Waitai Coastal-Burwood Community Board) - Tiny/small housing on bigger properties (DC, Joy McLeod) - Providing “more consistency in the planning approach... Solutions don't always have to be restrictions”. (Karina Hay) - “Inundation in our area resulting in flood issues are also due to upstream development not just coastal hazards so better control over developments close to coastal areas” (Kathryn Snook) - “Technologies that address ground water and drainage issues, e.g. backflow valves” (Waitai Coastal-Burwood Community Board) - “Engineering solutions that help us maintain three waters.” (Waitai Coastal-Burwood Community Board) - Identify retreat areas (Thomas Kulpe) - ‘Buildings that are designed to be easily lifted/lowered in future.’ (Vic Allen) 	<p>In preparation of the plan change, staff are drawing on the suggestions raised in submissions and considering how different forms of development can be enabled. This is in recognition that enabling innovative forms of development can be a method to avoid increased risk of harm and in some cases, may be more responsive/ adaptable to the risks e.g. amphibious housing.</p> <p>With regard to the response suggesting the identification of retreat areas, a range of responses need to be considered through adaptation planning for which retreat is one option.</p>

	<ul style="list-style-type: none"> - Use of pump trucks (Amanda Neil) - Seawalls (Simon Anderson, DC) - Indigenous planting (Koukourārata Rūnanga, DC) - Vertical evacuation for communities in tsunami zones (DC) - Alternatives to septic tanks (Koukourarata Runanga) - Houses built over water (Marion Smart) <p>A couple of submitters consider that innovative development should be available in high risk areas (Richard Dalman and Marion Smart).</p> <p>Conversely another submitter does not support innovative development in these areas and considers the environment should be protected (Pat Pritchett).</p> <p>One submitter (Nick Reid) raised concern on whether it is possible to “scale these technologies significantly to be sufficiently affordable” and commented they are doubtful this is the case and instead should focus on increasing density in core areas less susceptible to sea level rise. Similarly, another submitter (Luci Trethewey) comments “these often have a high capital cost and are not accessible for most people. But could be an option for those with the financial means.”</p> <p>One submitter considers “areas of low risk should not need innovative development” (Josiah Thompson).</p> <p>Another submitter suggests including “options that provide mechanisms for people to make their own choices on the level of risk they want to take, will be very important in coastal adaptation work... There are legal instruments that could be used to ensure that the risk is well understood and to confirm the Council is not liable. In terms of</p>	<p>The Council has a responsibility under s31 (Function of territorial authorities under this Act) of the Resource Management Act (Referred to hereafter as the ‘act’) for “(b) the control of any actual or potential effects of the use, development, or protection of land, including for the purpose of- (i) the avoidance or mitigation of natural hazards”.</p> <p>The Council is required to have a District Plan and its purpose is to assist the Council to carry out its functions in order to achieve the purpose of the Act (Section 72 of the Act), including sustainable management of natural and</p>
--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<p>Council services, mitigation measures could be built into the building consent, such as ensuring the flat has an above ground septic tank, power points are above 1.2 metres, etc, and that the Council will not provide services past a certain threshold..." (Rachel Puentener)</p> <p>One submitter suggests allowing "subdivision of rural land to 0.2 ha sections, and take 0.036% of all NZ farm land, that would be 0.00036% of NZ farmland per year when it has already been decreasing at 0.75% per year...The CCC Coastal Hazard Assessment says "25,000 properties that could be at risk from coastal hazards in the next 100 years, most commonly from coastal flooding. " I calculate 25,000 0.2 hectare sections would take up 5,000 hectares. Dairy farm area in North Canterbury is about 199, 288 hectares so 5000 hectares would ... be 2.5% of the dairy farm area... And noting that many places won't be affected as much as Christchurch. 2.5% over 100 years would be very much less annually at 0.0025% than the Minister for Environment wants to decrease dairying... A 0.2 hectare section should be required to to (sic) have 0.1 hectare in indigenous NZ trees/vegetation, vastly improving natural environment on dairying as it is today. It could have a two or three storey house which would not take a great deal of the remaining 0.1 hectare". (Brian Sandle)</p> <p>A couple of submitters comment existing use rights should still apply (Marie Graham, and Megan Roulston).</p> <p>A couple of submitters consider smaller scale improvements that could increase the overall resilience should be encouraged (including altering/raising up or extending low-lying houses with simple and cost-effective standard solutions) (Eugenio Boidi and Megan Roulston).</p>	<p>physical resources (including land) while avoiding, remedy, or mitigating adverse effects of activities on the environment.</p> <p>The District Plan must give effect to national and regional policy direction. Policy 25 of the New Zealand Coastal Policy Statement (NZCPS) directs that councils avoid increasing the risk of social, environmental and economic harm from coastal hazards, in areas potentially affected by coastal hazards over at least the next 100 years. The Regional Policy Statement (RPS) requires in Objective 11.2.1 that new subdivision, use and development of land which increases the risk of natural hazards to people, property and infrastructure is avoided or, where avoidance is not possible, mitigation measures minimise such risks.</p> <p>Existing use rights will not be affected by the plan change.</p>
--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	One submitter suggests building restrictions requiring appropriate housing that are innovative, easily repaired and relocatable if necessary (Megan Roulston).	
--	----------------------------------------------------------------------------------------------------------------------------------------------------------------	--

Are there other types of vulnerable/susceptible development or activity that need to be more carefully managed in areas of risk?

Issue	Comment	Provisional Response
Possible types of vulnerable/susceptible development or activity that need to be more carefully managed in areas of risk	<p>A few submitters offered input on types of vulnerable/susceptible development. Suggestions include:</p> <ul style="list-style-type: none"> - Infrastructure and Council assets (Karina Hay, Waitai Coastal-Burwood Community Board, Thomas Kulpe, Simon Anderson) - “Building public structures such as swimming pools, libraries, playgrounds, etc. in coastal areas subject to coastal erosion and/or flooding should be discontinued as this is not compatible with international risk management best practice” (Mike Currie) - “Anything that might have a negative impact on groundwater - eg. stockpiling of materials” (Rachel Puentener) - Avoid developing on good farmland (Pat Pritchett) - Earlham Street is vulnerable and susceptible to floodwaters and needs more careful management (Amanda Neil) 	In preparation of the plan change, staff are drawing on the comments made in submissions and considering the vulnerability of different activities and the level of regulation appropriate.

	<ul style="list-style-type: none"> - Roads and access in Diamond Harbour where the community is vulnerable to being cut off (Joy McLeod) - “Housing developments in coastal, tidal, flood zones” (DC) - “Further housing like the Halswell developments on marsh lands should be restricted” (DC) - “Those where people are dependent on others for their safety eg aged care facilities, medical facilities, day care centres and primary schools.” (Marion Smart) <p>LPC comments that a “coastal port must remain in the coastal zone, and, in the context of coastal hazards, defence options are required to be utilised. Any policy or planning rules developed must take this into account to prevent perverse outcomes from occurring; particularly for Nationally Significant Infrastructure”.</p> <p>Two submitters consider there are no other types of vulnerable/susceptible development or activity that need to be more carefully managed in areas of risk: “in the issues and options paper, you mention identifying and restricting vulnerable/sensitive activities and used the example of care homes where residents may have restricted mobility and health conditions that limit ability to respond to hazard alerts. I say we are talking about flood and erosion risk predominantly caused by potential sea level rise, NOT sudden onset catastrophic flooding. Maybe your concerns here are more valid in regards to hazards in river suburbs.” (Megan Roulston and Nick Yuki)</p>	<p>The point made that there is time for evacuation are acknowledged and the vulnerability of activities will vary, depending on the nature of the hazard. This will be considered further.</p>
--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

--	--	--

Should the District Plan manage areas at risk of a tsunami?

Issue	Comment	Provisional Response
Inclusion of tsunami in the District Plan	<p>Some submitters consider that the District Plan should manage areas at risk of a tsunami, while other submitters do not think the District plan should manage tsunami risk.</p> <p>Some submitters consider this should be left to Civil Defence and emergency services to handle (FFNZ, Marion Smart and Vic Allen).</p> <p>Submitters consider tsunami to be a rare and unlikely event. “Tsunami risk is uncertain and unpredictable and in most cases there would be plenty of time to evacuate”.</p> <p>One submitter comments that a “significant tsunami could affect all of the “flat” areas of Christchurch whether you live on the coast or Cathedral Square. In reality, many coastal areas are very close to hills eg Redcliffs, Sumner and Banks Peninsular and are therefore better placed for residents to get to safety quickly – more so than most flat areas of Christchurch. Therefore coastal areas should not be separated out as the only areas subject to tsunami impact.” (Richard Dalton)</p> <p>Submitters mention that there are warning systems and evacuation routes in place.</p>	<p>Policy 24 of the NZCPS addresses the need to identify areas of potential coastal hazards, including tsunami.</p> <p>. In addition, Policy 25 of the NZCPS states “<i>In areas potentially affected by coastal hazards over at least the next 100 years: ...</i></p> <p><i>(f) consider the potential effects of tsunami and how to avoid or mitigate them.</i>”</p> <p>Council must give effect to the NZCPS and staff are giving further consideration to the methods to implement this direction within and/or outside the District Plan. Unlike other parts of policy 25, clause (f) provides some flexibility by stating that Councils give <i>consideration</i> to the effects and <i>how</i> to manage those effects.</p> <p>The provisions being developed will reflect this direction and will further consider matters raised by submitters.</p>

	<p>LPC request that “if CCC chose to develop plans for tsunamis, LPC will have input into this process to prevent adverse impacts on its activities which provide for the region”.</p> <p>The CCRU comment that the “DP is too blunt an instrument that would lead to depopulation in very large areas if the same level of precaution was applied to tsunami that is being applied to sea level rise. If tsunamis were modeled on top of sea level rise then an even greater area will be affected...”</p>	
Other views	<p>Other matters relating to tsunamic risk raised by submitters include:</p> <ul style="list-style-type: none"> - District Plan should manage Tsunami risk but only “once hard engineering factors have been factored in” (Phillip Ridge) - Better public awareness of tsunami risk is needed (Waitai Coastal-Burwood Community Board, Pat McIntosh) - There should be high point evacuation zones (such as in the red zone) (Reese Dell) - “Complete the building of stop banks along the Waimakariri River, the Brooklands Lagoon and the east coast” (Amanda Neil) 	

Should we have specific policies and rules on groundwater, or rely on policies and rules for managing coastal flooding?

Issue	Comment	Provisional Response
Specific policies on groundwater	Some submitters consider there should be specific policies and rules on groundwater, while others (Vic Allen and Murette Wells) consider that it should not be separated from coastal flooding rules.	Council has built its current understanding of shallow groundwater through technical investigation. Understanding of potential extent of shallow groundwater

	<p>Submitters consider groundwater cannot be separated from other flooding (Waitai Coastal-Burwood Community Board, Thomas Kulpe).</p> <p>Reasons for support for groundwater policies and rules include: salt water intrusion into drinking water aquifers becomes more likely as sea level rises (Mike Currie); the management and impact of ground water and coastal flooding is different (FFNZ); flooding is a Christchurch issue exacerbated by flooding (Waitai Coastal-Burwood Community Board); high groundwater table is not limited to the coastal area (Thomas Kulpe); Christchurch was built on a swamp (Phillip Ridge); as groundwater rises and associating hazards have unique effects in different areas (Luci Trethewey); and there is need to look after our groundwater and also ensure stormwater does not go into ground water (Pat Pritchett).</p> <p>One submitter indicated that it is not clear what groundwater rules are intending to achieve (Josiah Thompson).</p> <p>Submitters consider groundwater to be a city wide issue.</p> <p>SSRA, BOEE and Vic Allen consider further information is needed before groundwater can accurately be addressed on a planning level.</p> <p>LPC comments that “Specific policies and rules on groundwater may be preferable based on the different technical aspects/regimes associated with this feature.”</p>	<p>and its impacts on land, property and people will continue to build with further data collection and study. Issues with shallow groundwater extend beyond the area influenced by Coastal Hazard. Consideration is being given to separating further study and decision making on district plan and LIM matters from coastal hazard to enable a city-wide approach to be developed.</p>
--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Other views on groundwater management	<p>Other matters relating to groundwater raised by submitters include:</p> <ul style="list-style-type: none"> - Stormwater drainage needs improving (Richard Dalman, Marion Smart and Reese Dell) - “let people on affected properties manage these issues as they arise” (Harry Stronach) - Unequal treatment of non-residential properties (Kerrie Kenneally) - “it's my understanding there are natural springs in the area - I believe one budst (sic) and flooded NB Countdown during the earthquakes. It seems to me coastal inundation isn't the only risk.” (Paul Bagrie) - “Rely on flooding rules” (Marette Wells) - “Areas such as Earlham Street, which has constantly fluctuating levels of ground water due to over filling the Styx River and king/spring tides during times of heavy rainfall, need instant access to pump trucks to alleviate each flooding event within 24 hours” (Amanda Neil) - “We do not optimize safe water for all. Rain water collection, prevention of run off into rivers, creeks and Harbour are needed. Ban chemicals such as Roundup.” (Joy McLeod) 	
---------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

Questions raised

Issue	Quotes	Provisional Response
MfE advice	Richard Dalton – (regarding RCp8.5) Why has the council not followed the advice from Ministry for the Environment? Why do they feel they can ignore this advice? This blatant refusal to follow advice from the Government is consistent with a	The Council, through the proposed plan change is to give effect to the NZCPS and act in accordance with the provisions of sections 5, 6, 7, 8 and 75 of the RMA. In this

	<p>council officer telling me previously that they did not follow the MBIE advice on flood hazards post-earthquakes. The Christchurch City Council is getting a reputation.</p>	<p>regard, Council staff do not consider the preferred option is inconsistent with MfE advice or national direction.</p> <p>Council relies on guidance from the Ministry for the Environment on which sea level rise scenarios to consider for information and planning. This guidance has not yet been updated following the release of the updated IPCC AR6 report (2021). Until national recommendations are updated, Council will continue to follow the current guidance which recommends the use of all 4 scenarios, and RCP8.5 where a single scenario is required to allow for longer term effects and stress testing of possible outcomes.</p> <p>Accordingly the CHA includes the full range of scenarios from low to high.</p> <p>Council has initiated discussions with researchers involved in the NZ SeaRise programme who are updating national projections to account for the latest IPCC data and has not received advice to discard the RCP8.5 or SSP5-8.5 scenarios.</p>
Tidal flooding and sea level rise	<p>Megan Roulston (also Nick Yuki in separate submission) -</p> <p>The risk of flooding in Southshore is a future risk from potential sea level rise. Could this rise cause tidal flooding in extreme events? Yes eventually – but in terms of life risk and safe access this risk could be addressed by appropriate conditions. My lay persons understanding of the nature of the potential flooding is that any flooding would be of low velocity and would develop slowly rather than catastrophically. Therefore risk can be managed with appropriate mitigation measures. The risk is to property –not life. Wellbeing is more negatively impacted when overly onerous planning rules unnecessarily stifle and run down</p>	<p>Sea level rise is not the only coastal flood hazard – severity of risk to life depends on the event.</p> <p>The Jacobs report: Risk Based Coastal Hazard Analysis for Land-use Planning considers factors such as water depth and velocity in determining the level of risk. As has been demonstrated through the advice from Jacobs, flooding of depths exceeding defined thresholds poses a risk to life even if at low velocity.</p>

	currently thriving communities. Children are more negatively affected, through living in stress and through social decline and through the negative economic impacts on their parents.	The Section 32 evaluation will consider the benefits and costs of the preferred option and alternatives, including the social and economic effects on communities affected.
Changing data	<p>Andrew Evamy – "I feel you're relying on low submission rates to push this through - you know the impacted suburbs are tired and over 10 years of fighting for the estuary edge to be repaired.
</p> <p>The data on sea level rise and ground water is constantly changing - how will your policies adapt to constantly changing data - or will it be rigid like other policies? "</p>	<p>Submissions are considered on their merits.</p> <p>As mentioned further above MfE guidance, acknowledges that there is unlikely to ever be complete agreement on the science. However, Council's inclusion of multiple scenarios within the modelling allows for adaptive planning and recognises the inherent uncertainty in any modelling that estimate future climate conditions.</p> <p>With regard to the plan change, Council staff are considering methods that are flexible and responsive to changes in the environment, including sea level rise. An example is enabling development until sea level reaches a defined threshold as opposed to a time based threshold.</p>
Inequitable focus on coastal areas	<p>SSRA - SSRA have concerns about the inequitable focus on coastal areas from a climate change planning perspective. Climate change will increase the number of wildfires. There have been repeated fires in the Port Hills. Do they have a wildfire zone overlay? Do houses in the Port Hills have a LIM notation that say they may be subject to wildfires? Have these houses been required to build with non-combustible materials?</p>	<p>The District Plan addresses a range of natural hazards that are distributed across the city, not just the coastal communities.</p> <p>With regard to the risks from fire, staff have considered methods in the District Plan to manage the risk in response to a recovery plan prepared.</p>
Mapping city-wide	<p>SSRA - Christchurch is a low-lying city, and it is evident SLR and climate change will affect the ENTIRE city. It is disappointing that conversation is solely focused on the coastal areas. We accept that there may be SLR and climate</p>	<p>The District Plan Review introduced/ reviewed a range of provisions addressing natural hazards across the city, including other parts of the city affected by flooding. This includes policies and rules to manage the risk associated</p>

	change hazards specific to the coast, but where is the mapping indicating the hazards of SLR and climate change city-wide?	<p>with flooding from rivers and rainfall, which includes an assumption of 1m of sea level rise.</p> <p>In response to submissions the Canterbury Earthquake (Christchurch Replacement District Plan) Order in Council 2015 recognised that coastal hazards were not a recovery matter that required an expedited process. The amendment removed coastal hazard provisions from the District Plan review and directed that the Council address this separately.</p>
Ongoing data collection	Orion - How often will the data that has been used to determine the level of risk for areas be recollected?	The District Plan needs to be reviewed every 10 years and must give effect to the direction in the NZCPS and RPS. A review of the evidence will be required to inform any future reviews of the plan, including drawing on any new information.
Working with industry/infrastructure providers	Orion - Would council work with industry and infrastructure providers in the areas of risk and within a retreat to provide a smooth transition?	The Council will engage with stakeholders and will consider a range of responses through adaptation planning for which retreat is one option.
How submission influences DP changes	BOEE - Finally, one of the reasons for the existence of BOEE, (and this submission), is to moderate the information and power inequality across the adaptation process, i.e. between councils and communities. These submissions take significant time to produce and have to be fully referenced to be valuable. Accordingly, in the spirit of transparency, we would like to know, consistent with the definition1 of ‘consultation’, how this submission changes the approach and content of the proposed DP changes.	<p>The submissions will be reported to the CHWG and Urban Development and Transport Committee as work on the Plan Change progresses.</p> <p>In development of the plan change the feedback is being considered and staff are drawing on the ideas as well as how to address the issues raised in submissions.</p>
Level of risk clarification	FFNZ - Specifically, regarding the discussion document we would like further clarification of the information provided in table 2 “High Level Activity Status by Risk” (page 9), in terms	This will be considered further in developing the provisions.

	of what is meant by “fencing” as an activity. Is this mean to cover only urban fencing or including the vast tracks of farmland fencing that this would cover? The way the table is currently set up, large amounts of farm fencing would be captured by the restricted/non-complying control level – which is unacceptable to landowners, and an impediment to existing farming activities.	
Areas of risk	<p>Waitai Coastal-Burwood Community Board - • The Board would like more information about how the District Plan Change will relate to current restrictions, specifically:</p> <ul style="list-style-type: none"> o Will the restrictions that are currently in place in areas like Southshore be applied in other areas that are not currently restricted? Or, o Will the areas that already have restrictions become more restricted as a result of the Plan Change? 	<p>The current DP provisions (FMA and HFHMA) do not address coastal hazards risk to the extent that is appropriate to give effect to the NZCPS and RPS. Where possible, the plan change will seek to avoid duplication and streamline existing provisions.</p> <p>The level of restriction is being considered in development of the plan change and a draft plan change will be consulted on to enable further consideration of the approach and feedback from the community.</p>

Confusion over Coastal Hazards Plan Change and Coastal Adaptation Framework

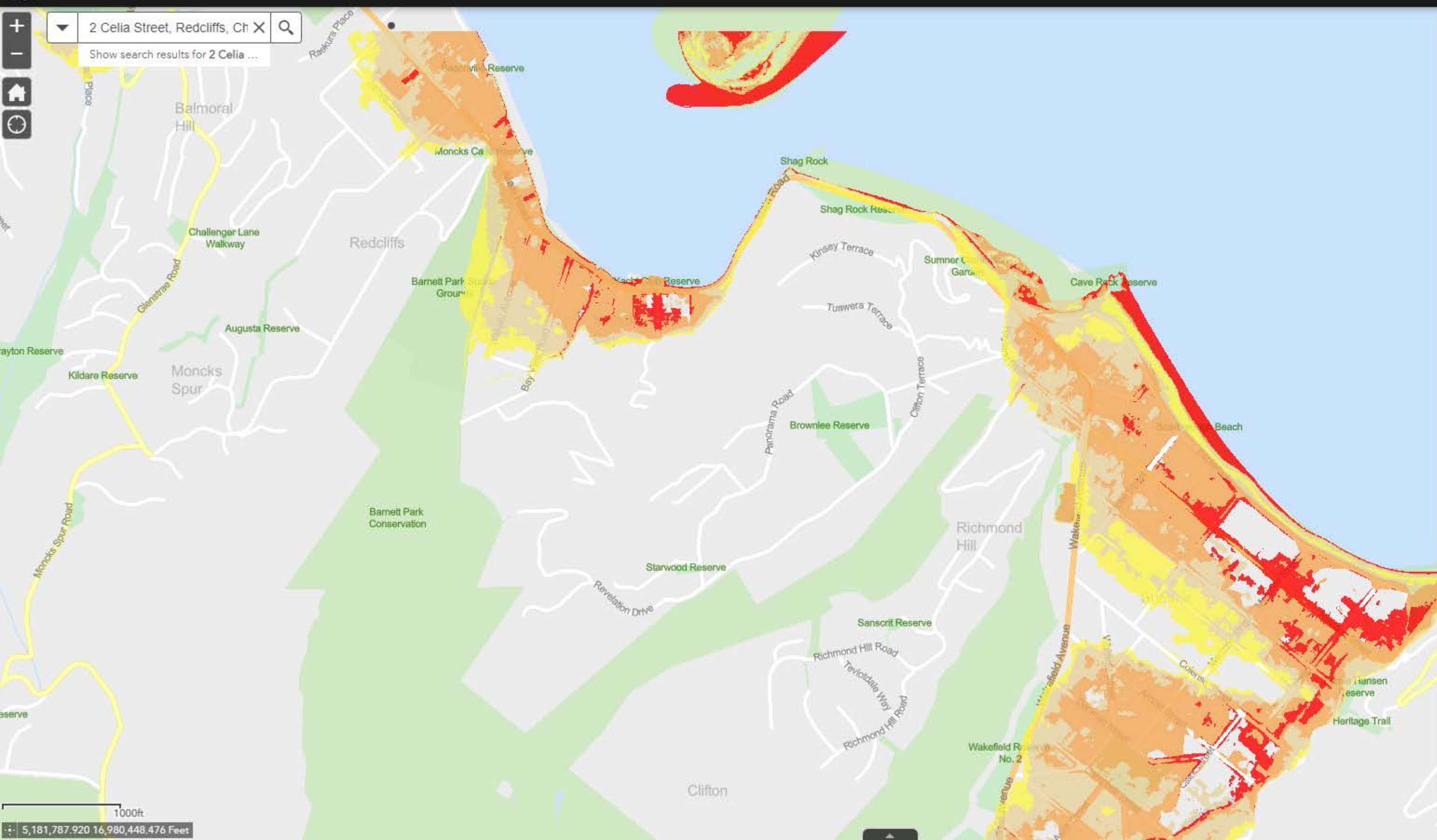
Issue	Comment
CAF & CHPC – Believe guiding principles linked to plan change	<p>David East - The Four options are predicated on the Guiding Principles being agreed upon. “From Principles flows policy and from policy come actions and regulations. Everything flows from the Guiding principles” - As such the options, possible innovative development and consideration of vulnerable / susceptible development cannot be considered until the Guiding principles are agreed, technical papers are adequately assessed, modelling and mapping are agreed by all. For those reasons I am unable to select any of the options and consider that there may be more or hybrid options.</p> <p>North Beach RA - The Four options are predicated on the Guiding Principles being adopted, which we submit need to be reassessed. Consequently, options such as possible innovative development and consideration of vulnerable/susceptible development cannot be</p>

	considered until the Guiding principles are agreed, technical papers are adequately assessed, modelling and mapping are agreed by all. For those reasons we are unable to select any of the options.
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

2 Celia Street, Redcliffs, Ch X

Show search results for 2 Celia ...

Map navigation controls: +, -, Home, Refresh



Legend

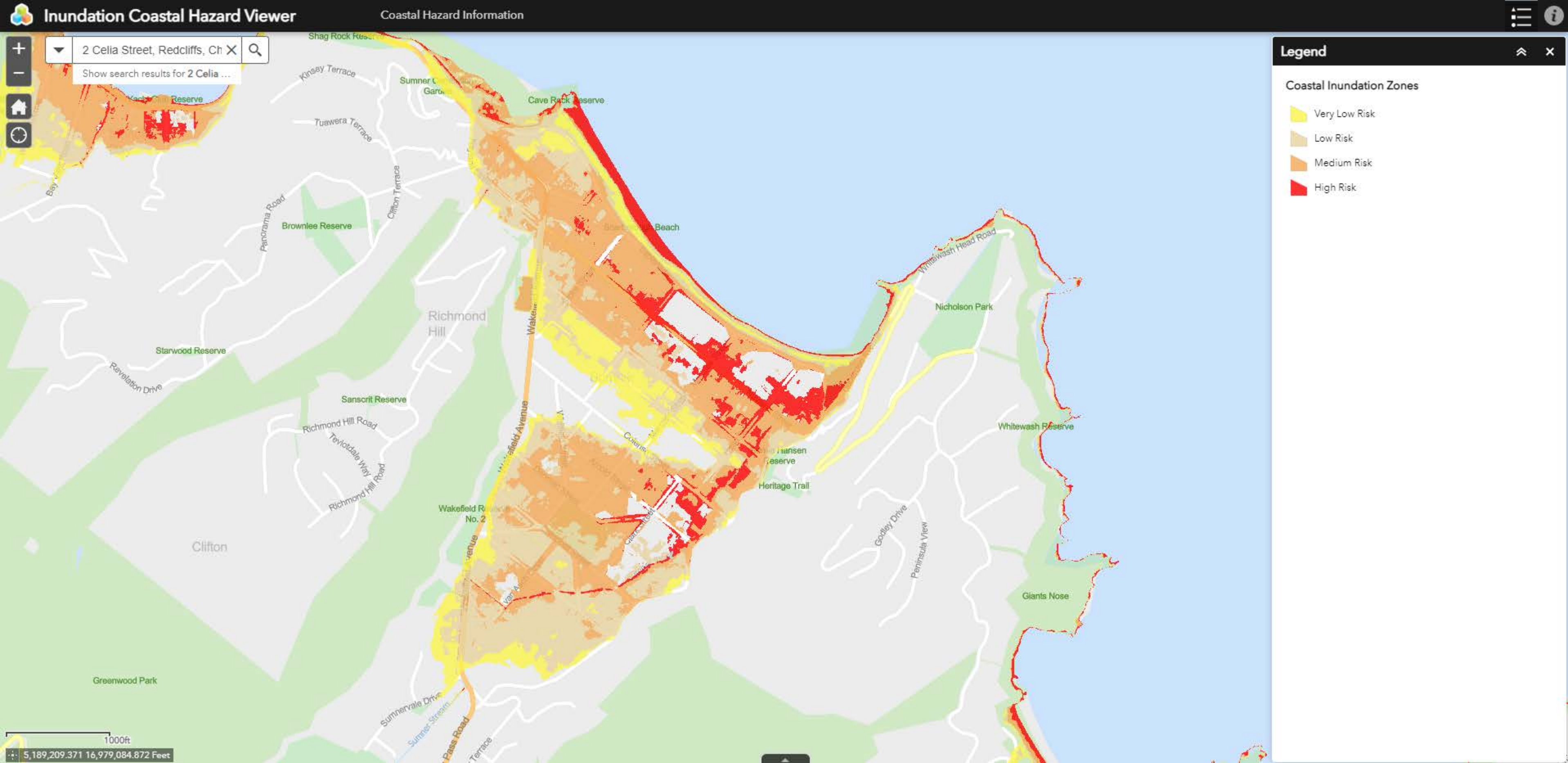
Coastal Inundation Zones

- Very Low Risk
- Low Risk
- Medium Risk
- High Risk



▼ 2 Celia Street, Redcliffs, Ch X

Show search results for 2 Celia ...



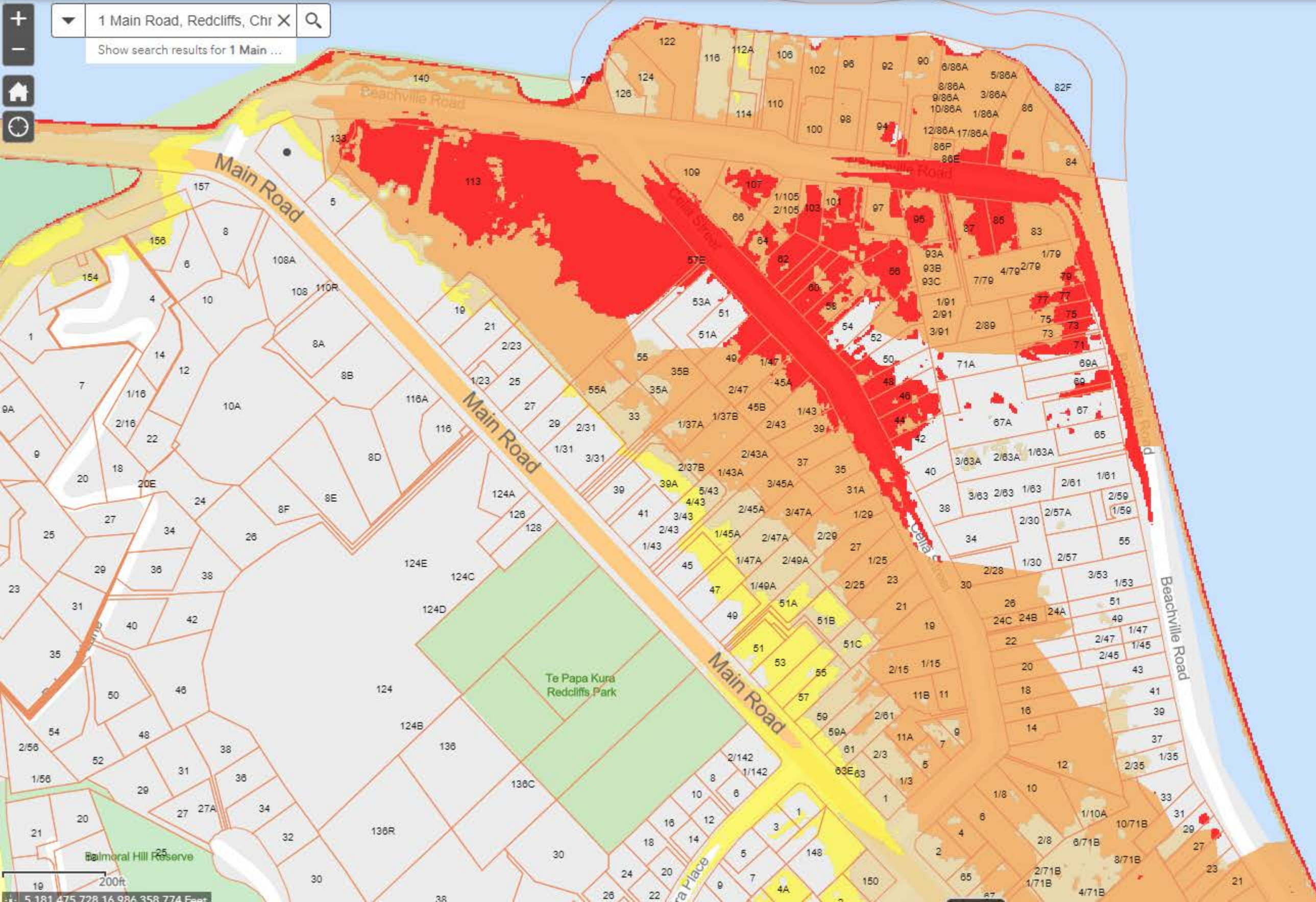
Legend ⌵ ✕

Coastal Inundation Zones

- Very Low Risk
- Low Risk
- Medium Risk
- High Risk

1 Main Road, Redcliffs, Chr X

Show search results for 1 Main ...



Legend

Land Parcel



Coastal Inundation Zones

- Very Low Risk
- Low Risk
- Medium Risk
- High Risk

App State

Click to restore the map extent and layers visibility where you left off.



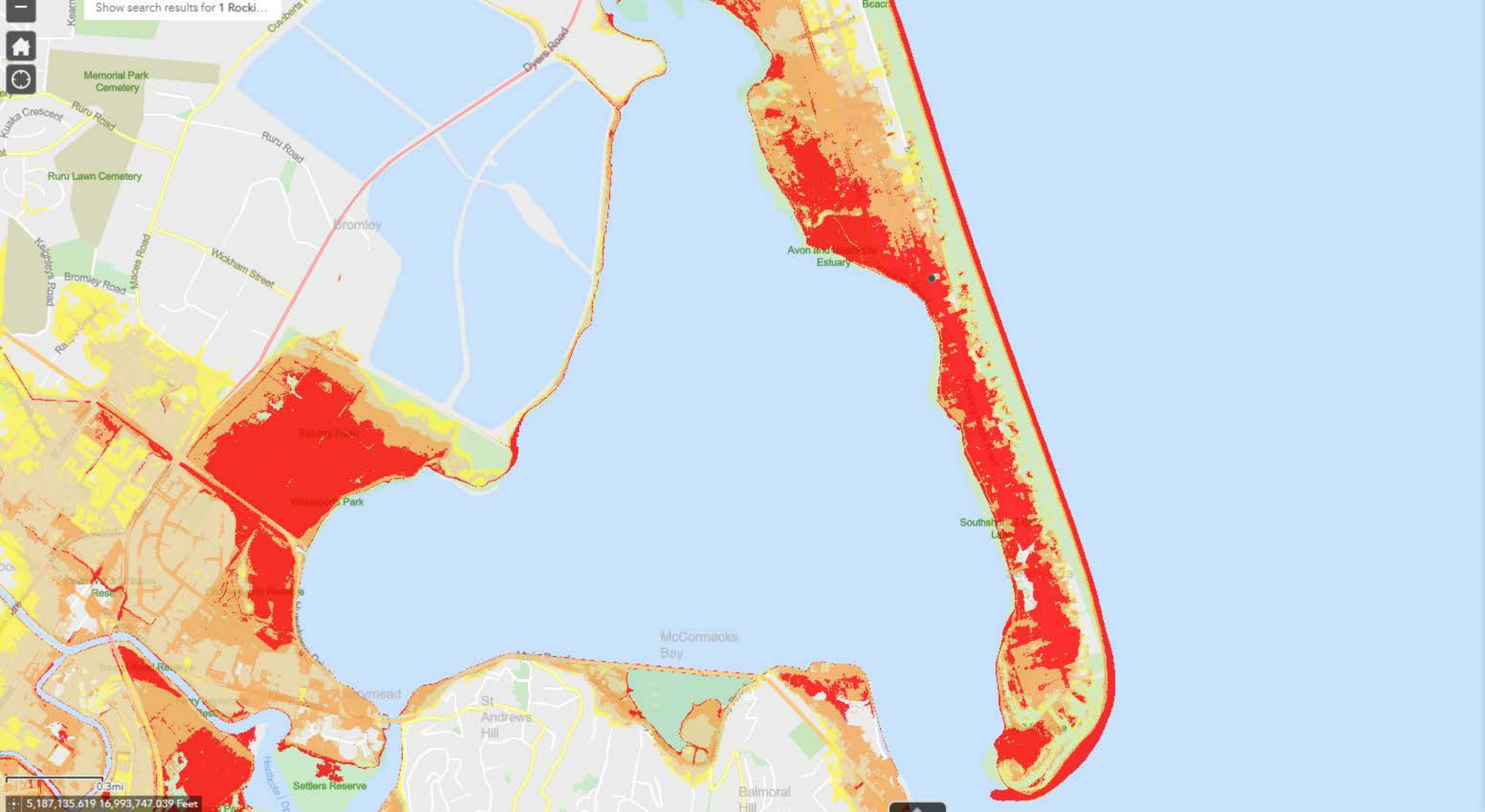
▼ 2 Celia Street, Redcliffs, Ch X 🔍
 Show search results for 2 Celia ...

Legend

Coastal Inundation Zones

- Very Low Risk
- Low Risk
- Medium Risk
- High Risk



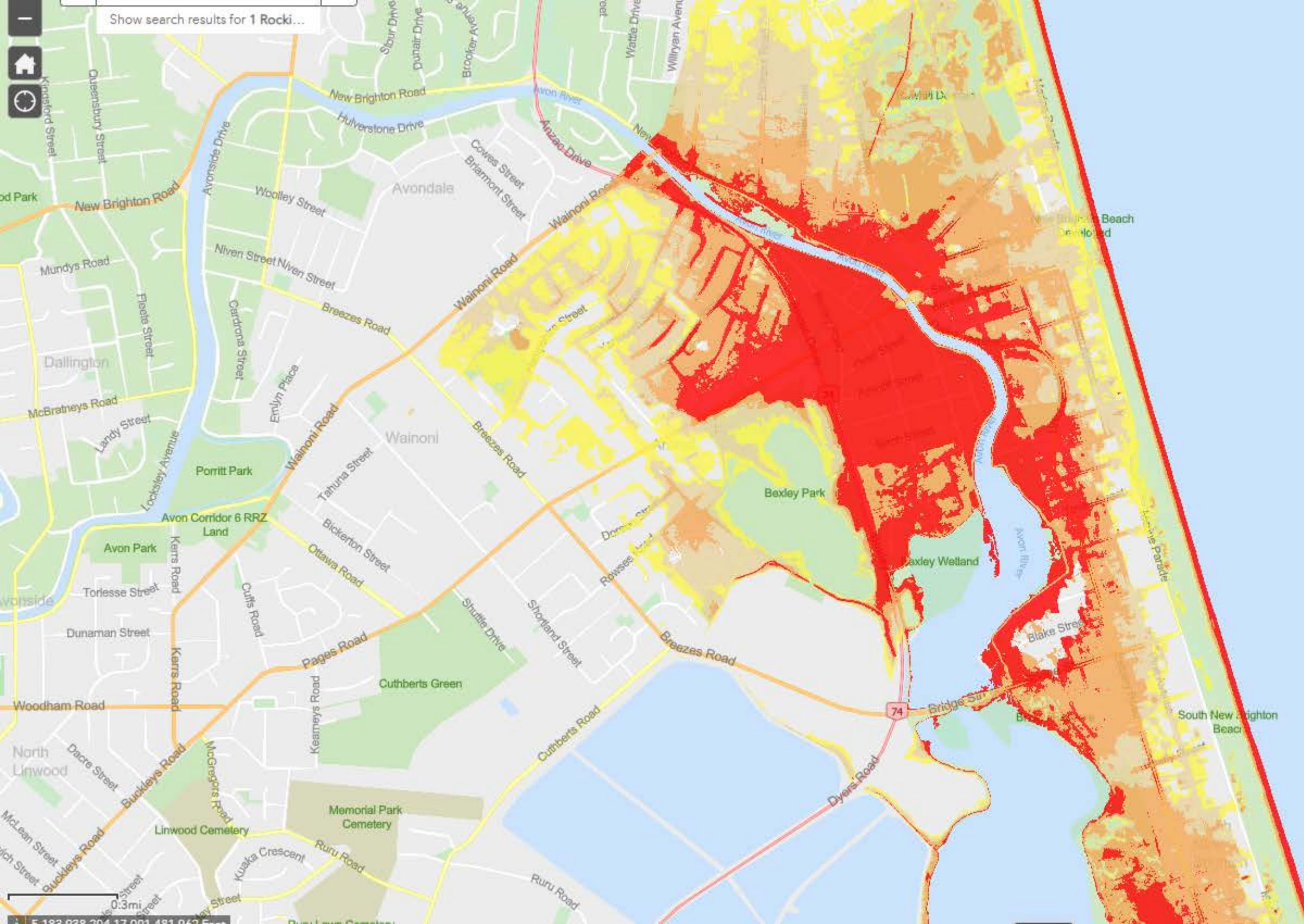


Coastal Inundation Zones

- Very Low Risk
- Low Risk
- Medium Risk
- High Risk

App State

Click to restore the map extent and layers visibility where you left off.



Coastal Inundation Zones

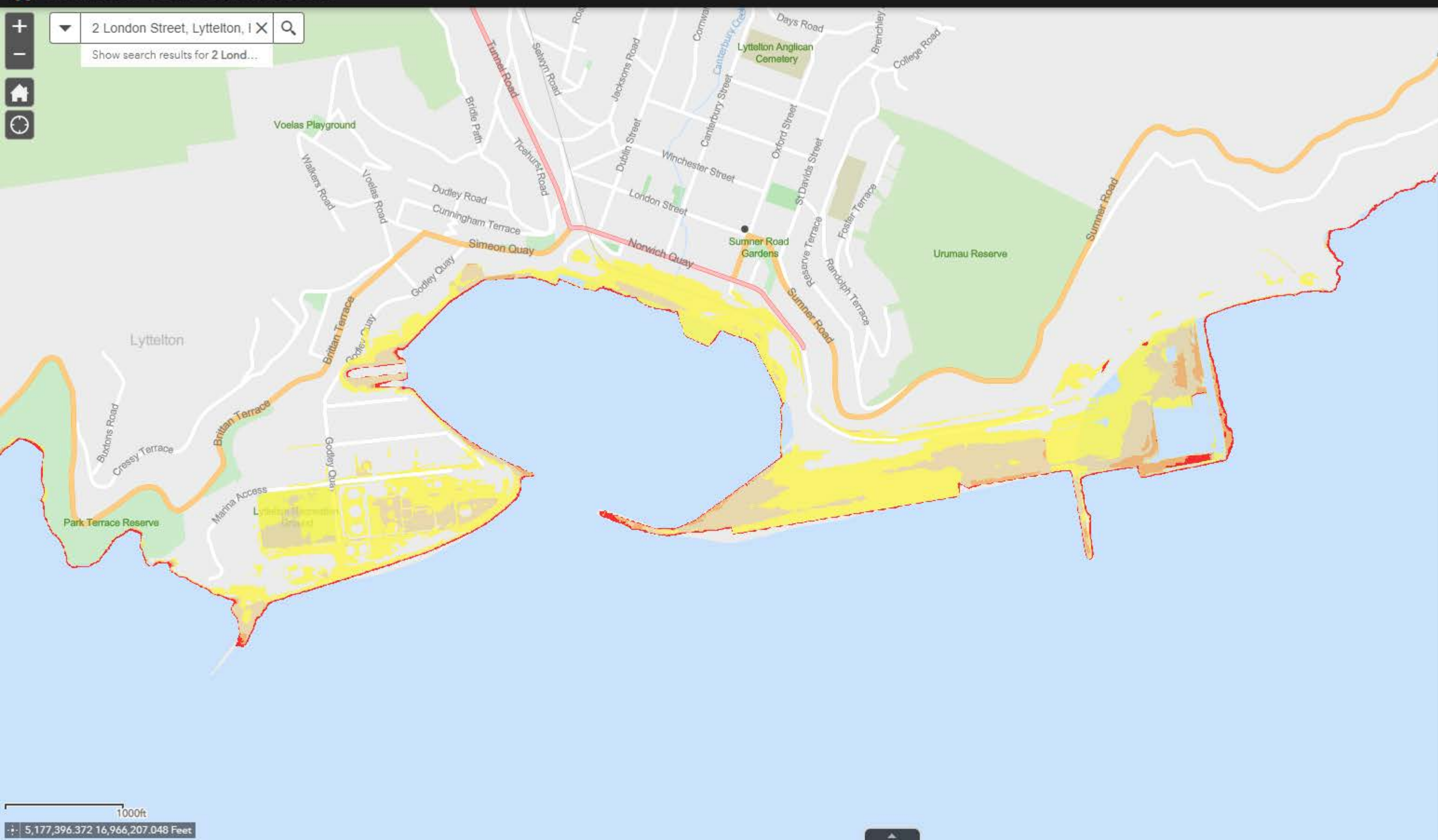
- Very Low Risk
- Low Risk
- Medium Risk
- High Risk

App State

Click to restore the map extent and layers visibility where you left off.

2 London Street, Lyttelton, NZ

Show search results for 2 Lond...



Legend

Coastal Inundation Zones

- Very Low Risk
- Low Risk
- Medium Risk
- High Risk