

**BEFORE INDEPENDENT HEARING COMMISSIONERS
IN CHRISTCHURCH**

TE MAHERE Ā-ROHE I TŪTOHUA MŌ TE TĀONE O ŌTAUTAHI

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of the hearing of submissions on Plan Change 14 (Housing and Business Choice) to the Christchurch District Plan

**STATEMENT OF PRIMARY EVIDENCE OF REBECCA ANNE FOY ON BEHALF
OF CHRISTCHURCH CITY COUNCIL**

**SOCIAL IMPACTS – QUALIFYING MATTERS FOR COASTAL HAZARDS AND
TSUNAMI MANAGEMENT AND HOUSING INTENSIFICATION POLICIES**

Dated: 11 August 2023

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EXECUTIVE SUMMARY

1. My full name is **Rebecca Anne Foy**. I am a Director of Formative, an independent consultancy that has operated for two years, specialising in social, economic, and urban form issues.
2. I have prepared this statement of evidence on behalf of the Christchurch City Council (the **Council**) in respect of Plan Change 14 to the Christchurch District Plan (the **District Plan; PC14**) and matters arising from the submissions and further submissions.
3. My evidence primarily focusses on the likely effects on social wellbeing that will arise from the proposed changes to the District Plan regarding Qualifying Matters for Coastal Hazards and Tsunami Management. I am the author of the Social Impact Assessment that addresses these matters and is included as part of the S32AA assessment¹. I have also been asked to provide a brief opinion on the likely social effects of housing intensification policies.

QUALIFYING MATTERS FOR COASTAL HAZARDS AND TSUNAMI MANAGEMENT

4. The key outcomes that will arise from the proposed management of new buildings and subdivisions in coastal areas that are likely to be subject to significant coastal hazards in the future (medium and high-risk management areas) will be to curtail the level of new activity occurring in those areas thereby limiting the number of people, households, businesses, and community organisations that will be impacted by coastal hazards.
5. There are a range of positive and negative social wellbeing outcomes that will arise from PC14, and I have categorised these according to seven social wellbeing elements. **Table 1** provides a summary of the social wellbeing outcomes identified in my assessment.

Table 1: PC14 coastal hazard management likely social wellbeing outcomes

Social Wellbeing Element	Positive outcomes	Negative outcomes
Health and Safety	<ul style="list-style-type: none">• Fewer injuries, illnesses, and fatalities during coastal hazards.	<ul style="list-style-type: none">• Increased levels of stress for property owners who will be

¹ Formative/Rebecca Foy, (7 August 2023). Coastal Hazards PC14 SIA Final.

Social Wellbeing Element	Positive outcomes	Negative outcomes
	<ul style="list-style-type: none"> • Fewer people requiring assistance during coastal hazards, reducing costs associated with rescue efforts and ongoing health requirements. • Mapping of areas likely to be affected provides clear guidance about places that may be affected in the future. 	<ul style="list-style-type: none"> unable to leverage off developing their properties. • Increased levels of stress for owners of properties identified as being subject to medium- and high-risk coastal hazards. • If speculative activity occurs prior to PC14 decisions, new people may unknowingly take on properties which are subject to restrictions and hazards.
Livelihoods	<ul style="list-style-type: none"> • Fewer new buildings exposed to high levels of coastal risk. • Fewer private landowners and community members impacted by insurance issues and incurring property damage. • Fewer businesses incurring interruption costs. • Potential for land competition to drive up property values in the surrounding communities on land that is not constrained by the development restrictions. • Better outcomes for household incomes due to fewer community members being unable to work for short periods. • Increased protection for people not familiar with the communities and the potential for coastal hazard threats from being affected by the likely financial costs 	<ul style="list-style-type: none"> • Lost opportunities for existing property owners to gain wealth from developing and subdividing properties. • Property values are likely to decrease or not increase as significantly due to PC14 mapping identifying at risk properties. • Additional building costs – resource consent, higher floor levels, building materials. • Uncertainty about whether development proposals would be accepted by Council. • Potential for property owners to try to seek compensation for the loss of land values due to the planning restrictions applied by Council, including legal costs. • More demand and competition for lower risk properties may price some low-income households and

Social Wellbeing Element	Positive outcomes	Negative outcomes
	<p>associated with purchasing new homes and subdivided land that may be at risk.</p> <ul style="list-style-type: none"> • Less financial risk to the Council and their insurers from being liable for issuing resource consents in locations exposed to significant coastal hazards. • Less financial risk for NZ taxpayers having to provide compensation if local authorities are unable to cover the costs associated with clean up and restoration. 	<p>low-value businesses out of communities.</p>
Social equity	<ul style="list-style-type: none"> • Council will manage what is built in medium and high risk areas and can ensure that facilities housing vulnerable populations are not developed in areas that are most at risk of coastal hazards. 	<ul style="list-style-type: none"> • Nil
Urban Form	<ul style="list-style-type: none"> • More resilient communities with new commercial and residential activity located in areas away from the highest risks. 	<ul style="list-style-type: none"> • Fewer new people may lead to less investment into transport routes, schools, and community facilities. • Residential communities that will be most affected by medium hazard provisions include New Brighton, Woolston, Sumner-Clifton Hill, Southshore, Aranui and Redcliffs-Mount Pleasant.² • Residential communities that will be most affected by high-hazard provisions include: Southshore, New

² The spatial extent of these communities is defined in my Coastal Hazards PC14 SIA Report.

Social Wellbeing Element	Positive outcomes	Negative outcomes
		<p>Brighton, Sumner-Clifton Hill and Aranui.</p> <ul style="list-style-type: none"> • There will be a loss of commercially feasible commercial capacity of 475,314m² in the coastal inundation zone. • Development in the following shopping centres will be impacted: New Brighton, Ferrymead, Woolston, Sumner, Redcliffs, Wainoni Pak’N Save, North Beach, South New Brighton, Pine-Caspian, and McCormacks Bay. • There will be less critical mass to support new businesses in some areas. • Development in the following General Industrial areas will be impacted: Bower Avenue, Tanner Street, Curries Road, and Ferry Road. • Approximately nine schools will need to work with Council to ensure further buildings are designed to mitigate coastal hazard risks.
Connectivity	<ul style="list-style-type: none"> • More resilient communities with access to goods and services and community facilities less impacted by future coastal hazard events. 	<ul style="list-style-type: none"> • Smaller population base for businesses and community facilities to serve those communities may mean that they are less sustainable. • People may need to travel further to access goods and services and employment.
Cohesiveness	<ul style="list-style-type: none"> • Social connections can form through community groups being developed to 	<ul style="list-style-type: none"> • There is likely to be sentiments of reduced trust in Council by those who feel

Social Wellbeing Element	Positive outcomes	Negative outcomes
	<p>understand the impacts of PC14 better.</p> <ul style="list-style-type: none"> Community members feel assured that Council is protecting them from the adverse effects of coastal hazards. 	<p>the decisions have adversely affected them.</p> <ul style="list-style-type: none"> Reductions in social cohesiveness in some places, if people need to access employment and services located in safer centres (outside their existing communities).
Environment	<ul style="list-style-type: none"> Potential for new open space areas to be developed in areas of planned reduced development. 	<ul style="list-style-type: none"> The built environment of the affected communities is likely to become a snapshot in time with new buildings reflecting recent building designs, technologies, and trends significantly curtailed. The character of the area will diverge from the character of other areas in the city. Visual character of the area may become degraded as property owners choose not to invest in properties. There may be flow-on effects for other businesses and community groups choosing to locate elsewhere.

6. The PC14 Qualifying Matters for Coastal Hazards and Tsunami Management are aligned with national planning directions, in particular the National Adaptation Plan, Coastal Hazards and Climate Change Guidance for Local Government³, the New Zealand Coastal Policy Statement (**NZCPS**) and the Canterbury Regional Coastal Environment Plan 2005. There are significant social wellbeing benefits from ensuring people and property are not exposed to coastal hazards. There are some unavoidable

³ Ministry for the Environment, 2017. Coastal Hazards and Climate Change – Guidance for Local Government.

negative social wellbeing outcomes, but with careful management by the Council some of the negative effects can be reduced.

7. In my opinion, the Qualifying Matters for Coastal Hazards and Tsunami Management will help individuals and communities to provide for their social, economic, and cultural wellbeing and health and safety by reducing the number of people, and buildings that will be exposed to significant effects from coastal hazards in the future.
8. Some social wellbeing effects from the qualifying matters will be likely to adversely affect how well some community's function. This will apply especially to communities with many properties impacted by the qualifying matters, such as Southshore, New Brighton, Sumner-Clifton Hill, Aranui, Woolston, and Redcliffs-Mount Pleasant., However reducing the numbers of people and properties exposed to harm will in my opinion lead to better overall social outcomes in RMA terms than potentially exposing greater numbers of people and property to loss and damage.
9. Overall, PC14 with the qualifying matter will in my opinion promote greater resilience to the effects of climate change in accordance with NPS-UD Objective 8(b).

SOCIAL EFFECTS OF HOUSING INTENSIFICATION POLICIES

10. Council asked me to peer review the draft report prepared by the Monitoring and Research Team titled "Social Impacts of Housing Intensification" (August 2023) appended to **Ms Sarah Oliver's** Section 42A report which considers the likely social effects arising from housing intensification in response to submissions that raised concerns that Council had not previously undertaken this research.
11. There are positive and negative effects that may arise from housing intensification policies. Overall, a more compact urban form, with higher residential densities, has the potential to bring a wider range of residential choices and lifestyle opportunities for residents and could enable better access to social infrastructure, goods and services, employment and education that is more easily supported by public transport and active modes. There are however some negative effects that can arise from housing intensification that may be able to be reduced through planning tools including building design rules, targeted and equitable investment, community engagement and local area planning.

12. In my opinion, the scope and findings of the assessment have appropriately considered the range of social effects that are likely to occur from housing intensification and have been considered in the context of community feedback collected during regular Council administered surveys.

INTRODUCTION

13. My full name is **Rebecca Anne Foy**. I am a Director of Formative, an independent consultancy that has operated for two years, specialising in social, economic, and urban form issues. Prior to this, I was an Associate Director of Market Economics Limited for three years and was employed there for 20 years.
14. I have applied these specialties in studies throughout New Zealand, across most sectors, including natural hazards, freshwater, urban transformation, housing, retail, transport, urban and rural form, land demand, commercial and service demand, and local government.
15. My evidence primarily focusses on the likely effects on social wellbeing that will arise from the proposed changes to the District Plan regarding Qualifying Matters for Coastal Hazards and Tsunami Management. I am the author of the Social Impact Assessment that addresses these matters and is included as part of the S32AA assessment⁴.
16. Council has also asked me to peer review the Council prepared draft report on the likely social impacts of housing intensification.⁵
17. In preparing this evidence I have:
- (a) Reviewed the following documents:
 - (i) PC14.
 - (ii) Christchurch City Council, 2023. S32 and S77 assessment of qualifying matters part 1.
 - (iii) Christchurch City Council, 2022. Draft Proposed Plan Change 12.

⁴ Formative/Rebecca Foy (7 August 2023). Coastal Hazards PC14 SIA Final.

⁵ Christchurch City Council Monitoring and Research Team (August 2023). Social Impacts of Housing Intensification Draft Report.

- (iv) Tonkin and Taylor, September 2021. Coastal Hazard Assessment for Christchurch District – Summary Report.
 - (v) Jacobs, 2021. Coastal Hazards Plan Change – Analysis/Technical Advice. Risk Based Coastal Hazard Analysis for Land Use Planning.
 - (vi) National Policy Statement on Urban Development (**NPS-UD**)
 - (vii) New Zealand Coastal Policy Statement 2010 (**NZCPS**)
 - (viii) Canterbury Regional Policy Statement (**CRPS**).
 - (ix) The draft evidence of **Mr Derek Todd** on coastal erosion, **Mr Damian Debski** on coastal inundation and **Dr Emily Lane** on tsunami inundation.
- (b) Other data sources and information I have referenced in the preparation of this evidence includes:
- (i) Statistics NZ Census of Population and Dwellings, 2006, 2013, 2018.
 - (ii) Statistics NZ Business Demography, 2021.
 - (iii) New Zealand Index of Multiple Deprivation, 2018.

18. I am authorised to provide this evidence on behalf of the Council.

QUALIFICATIONS AND EXPERIENCE

19. I hold the qualification of Master of Arts (in Geography) from the University of Auckland.

20. I have 22 years' consulting and project experience, working for commercial and public sector clients. I specialise in social impact assessment, understanding the form and function of urban economies, and the evaluation of outcomes and effects.

21. I am a member of the New Zealand Association for Impact Assessment, the International Association for Impact Assessment, and the Resource Management Law Association.

CODE OF CONDUCT

22. While this is a Council hearing, I have read the Code of Conduct for Expert Witnesses (contained in the 2023 Practice Note) and agree to comply with it. Except where I state I rely on the evidence of another person, I confirm that the issues addressed in this statement of evidence are within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from my expressed opinions.

SCOPE OF EVIDENCE

23. Social wellbeing and effects on people and communities' ability to provide for their social, economic, and cultural well-being and health and safety is an important aspect of Part 2 of the RMA. The s32 and s77 planning report covers the key considerations in legislation and policy documents that are relevant to my evidence, including the RMA, the NPS-UD, the NZCPS and the CRPS.
24. The National Climate Adaptation Plan (2022) sets out strategies, policies, and proposals for managing future development in areas prone to risk by adapting to the changing climate and its effects. The plan has been developed to enable better risk-informed decisions, target climate resilient development in the right places, establish a range of adaptation options including managed retreat, and embed climate resilience across government policy.
25. There is considerable uncertainty about the magnitude and rate at which sea level changes will occur, however it is widely recognised that the frequency and scale of impacts will increase over time.
26. My statement of evidence:
- (a) Addresses the likely positive and negative social effects that may arise from PC14 with respect to Qualifying matter (s6(h)) Coastal Hazards, Inundation, Erosion and Tsunami Risk Management areas which is new to the plan.
 - (b) Responds to social wellbeing matters that have arisen in submissions in response to Qualifying matter (s6(h)).
 - (c) Reviews the likely social effects of housing intensification at a high-level.

PLAN CHANGE 14

Qualifying matters for coastal hazards and tsunami management

27. PC14 introduces qualifying matter s6(h) Coastal Hazards, Inundation, Erosion and Tsunami Risk Management areas which is new to the plan. **Ms Sarah Oliver's** Section 42A report outlines the key differences between the coastal hazard provisions considered in PC12 and PC14. PC14 applies to residential intensification and PC12 covers proposed changes to both existing and future residential and non-residential activities.
28. PC14 adopts a risk-based approach when considering the likely effects of coastal hazards. As explained in Mr Todd's evidence, this considers various scales of coastal hazards and the likelihood of an event occurring, including the effects it would be likely to cause for people and property.
29. The proposed changes are supported by relevant hazard provisions in the NPSUD 2020, NZCPS, and CRPS, and Chapter 3 Strategic Directions of the DP which proposes to "set a clear direction on the use and development of land for the purpose of avoiding or mitigating natural hazards.
30. Intensification of urban zones is proposed to be managed through qualifying matters in PC14 where properties are likely to be subjected to high or medium levels of risk from coastal inundation, coastal erosion, and tsunami hazards in the future.⁶ All residential development and redevelopment within designated hazard areas will require a resource consent.
31. New buildings will not be permitted in High Risk and Tsunami Management Areas, though there are provisions for assessing accessory buildings, and extensions and additions to, and replacements of existing buildings. Subdivision for residential activities would be non-complying in High Risk and Tsunami Management Areas.
32. There are 10,195 properties subject to the Coastal Hazard qualifying matters (6,397 medium-risk and 3,798 high-risk). There is overlap between the two management areas. In total, there are 24,444 properties subject to the Tsunami Management Area.
33. Approximately 95% of the properties impacted by the medium-risk provisions are residential, with a further 3.5% zoned for business activity,

⁶ 5.4A Rules – Qualifying Matter Coastal Hazard Management Areas and Qualifying Matter Tsunami Management Area

and all other properties zoned for a range of other uses (schools, open space, rural for example). The communities with the most affected properties include New Brighton (1,539), Woolston (1,182), Sumner-Clifton Hill (1,037), Southshore (867) and Aranui (656).

34. Approximately 93% of the properties impacted by the high-risk provisions are residential, with a further 2% zoned for business activity, and all other properties zoned for a range of other uses (schools, open space, rural for example). The communities with the most affected properties include Southshore (1,082), New Brighton (976), Sumner-Clifton Hill (703), and Aranui (437).
35. Approximately 73% of the properties impacted by the Tsunami Management Area provisions are residential, with a further 20% zoned for Specific Purpose (excluding education), and 5% zoned for business activity. The communities with the most affected properties include Shirley-Dallington (2,937), New Brighton (2,764), Woolston (2,687), Philipstown-Ensors (2,441), Avondale-Avonside (2,426), and Aranui (2,139).

Housing intensification

36. PC14 has been developed in response to the NPS-UD guidelines that require opportunities for intensive development in the urban areas of major NZ cities. This will include high density zones, with buildings of at least six storeys within walkable catchments around the centres of Hornby, Papanui, and Riccarton. Building heights of 20 metres will be enabled with 1.2kms of the Central City. Outside these areas houses of up to 14 metres high may be constructed without the need for a resource consent in high density residential zones.
37. Council has proposed a range of Qualifying Matters⁷ to protect areas that are unsuitable for intensive development from having higher residential intensification. Although the geographic extent of PC14 is Christchurch's urban areas, the housing intensification measures do not apply to all of Christchurch due to the Qualifying Matters.

⁷ Matters of National Importance, Public Open Space Areas, Residential Character Areas, Electricity Transmission Corridors, Airport Noise Contours, Electricity Distribution Corridors, Lyttelton Port Influence Overlay, NZ Rail Network Interface Sites, Radio Communication Pathways for the Justice and Emergency Services Precinct, Vacuum Sewer Wastewater Constraint Areas, Sunlight Access, Low Public Transport Accessibility, Industrial Interface, Riccarton Bush Interface, Tsunami Management Area, Ōtākaro Avon River Corridor, Fitzgerald Avenue Geotechnical Constraint, Outline Development Features, Key Transport Corridors – City Spine, and Coastal Inundation, Coastal Erosion, and Tsunami Hazards.

SOCIAL IMPACT ASSESSMENT PRINCIPLES

38. The SIA process provides information to decision makers and affected people when planning for change. It includes analysis of the intended and unintended consequences of resource use and planning decisions on people and communities.
39. Social impacts refer to changes to individuals and communities resulting from proposed changes that will alter the day-to-day way in which they live, work, play, relate to each other, organise to meet their needs, and generally participate as members of society.
40. People respond differently to risks based on their own experiences and appetite for risk/making trade-offs, and for this reason a continuum of impacts can be experienced by individuals where one person may experience significant impacts and another may be much less affected by the same issue.
41. The key steps for undertaking an SIA are:
 - (a) Understanding the key elements of the likely changes.
 - (b) Understanding the social baseline or current situation, including understanding important values in the community. The social baseline describes the social conditions, community, and way of life before any effects of the proposed changes.
 - (c) Estimating the likely social wellbeing effects by comparing the current and future situation after PC14 comes into effect.
 - (d) Making recommendations about social impact management in terms of which aspects can be monitored and managed in the future to avoid, remedy, or mitigate potential social impacts.
42. The social wellbeing indicators I have assessed are health and safety, livelihoods, social equity, urban form, access, cohesiveness, and environment. These are derived from previous SIAs and available frameworks.⁸

⁸ As identified in guidelines provided by the International Association for Impact Assessment, the NZ Association for Impact Assessment and Treasury's Living Standards Framework.

SUMMARY OF SOCIAL BASELINE

43. My SIA report described the social areas of influence for this assessment of the qualifying matters for coastal hazards and tsunamis. This includes the directly affected properties, the surrounding communities (including households, businesses, and social organisations), and wider areas where visitors to the affected communities come from to shop, visit friends and family and undertake recreational activities.
44. My SIA report summarises the population size, number of households, the scale of recent growth and documents demographic trends. The study area subject to coastal hazard qualifying matters is geographically large, and there are many different household types, businesses and social organisations operating within those communities, as discussed in detail in my assessment.
45. My SIA report also considers the social values which are prevalent in the coastal communities and more widely in Christchurch. It is important to recognise that Christchurch residents have already experienced the effects of natural hazards during and after the 2010 and 2011 earthquakes.
46. In some coastal and riverside communities, there has already been re-zoning of areas that were subject to liquefaction and were unable to be repaired without incurring significant cost. These experiences will shape responses to PC14.

ESTIMATING THE EFFECTS FOR EACH SOCIAL WELLBEING INDICATOR

47. My assessment for each wellbeing element considers four groups of impacts: intended positive, intended negative, unintended positive and unintended negative. My evidence describes the nature of the likely impacts from planning decisions which seek to avoid the consequences of coastal hazards for the community (who is affected, and how, duration and timing of impacts (short and long term), and the extent of social impacts (number of people, their characteristics and the areas affected) for PC14.

ASSESSMENT OF HEALTH AND SAFETY WELLBEING OUTCOMES

48. Health and safety outcomes relate to people's ability to live healthy and safe lives, including the associated effects on physical and mental health.

49. Planning decisions seek to appropriately reduce or remove risks to life, health and injuries for individuals, households, and communities during coastal hazard events. The impacts of sustaining injuries and becoming physically unwell (such as due to poor sanitation) can be both short term and immediate, or longer term as people take time to recover. Coastal hazards can also lead to short or long-term effects on mental wellbeing due to stress, grief, and loss.
50. Effects on individual's physical and mental health⁹ can arise due to the financial costs incurred from damage, and loss, to property, the inability to earn a living while unwell, and costs associated with medical treatment.
51. High levels of chronic stress can lead to other chronic diseases and medical events such as heart attacks and strokes.
52. Once one or more coastal hazard events have occurred, anxiety may increase for those individuals who have observed or experienced the potential effects. There is also likely to be increased stress levels as people begin to acknowledge that insurance is unlikely to be available or that the costs of insurance is much higher. This will put pressure on household incomes as costs for property damage will need to be covered from household earnings or savings. Some households may be stuck in a state of limbo, unable to decide whether to stay in place and adapt to the changing environment or retreat.
53. Christchurch residents have already experienced effects on their mental health from the 2010 and 2011 earthquakes, the red zoning, and on-going insurance and property repair issues. Therefore effects from coastal hazards are likely to lead to compounding negative mental wellbeing effects.
54. Positive outcomes arising from PC14 are likely to include:
 - (a) Fewer people being exposed to coastal hazards, which is likely to lead to lower rates of fatalities, injuries, and diseases than if intensification were enabled in places where coastal hazards are likely to occur.

⁹ For example, fatigue, confusion, anxiety, depression, impaired concentration, gastrointestinal upsets, changes to sleep patterns and appetite and substance abuse.

- (b) Fewer people living in areas likely to be affected by coastal hazards will reduce the number of people affected by mental well-being issues.
 - (c) With fewer people requiring assistance during coastal hazard events, the costs associated with rescue and rebuild efforts and ongoing health requirements will be lower.
 - (d) The provision of detailed information to residents and property owners, and while there is still uncertainty about the timing and scale of coastal hazard events, the information helps to provide clarity about where issues may arise through the zoning rules and maps.
55. Negative outcomes arising from PC14 are likely to include:
- (a) Short to medium-term effects on mental wellbeing arising from stress related to the what-ifs and concerns about impacts on property values and the ability to on-sell or redevelop properties as envisaged. For the property owners whose property rights have been curtailed there is likely to be frustration and angst as people have their future aspirations and earnings limited by the proposed planning restrictions.
 - (b) Some property owners may choose to relocate (retreat), introducing a new group of people who are less aware of the issues or potentially less able to financially cope with the impacts. This could create social tension if properties are not well-maintained and fall into disrepair, which may lead to on-going stress for existing residents.

ASSESSMENT OF LIVELIHOOD WELLBEING OUTCOMES

56. Effects on livelihoods relate to people's and households' access to places of work, business opportunities, investments (including homes), and incomes, including businesses' ability to establish and operate in markets and the resulting patterns of employment and incomes.
57. Coastal hazards can negatively impact people's livelihoods through re-distribution of income and wealth from the increased costs of insuring properties and belongings, repairing and replacing damaged properties and buildings/structures, expensive modifications required to mitigate hazard damage, impacting where businesses can locate, supply chain effects, and loss of local employment in businesses located in hazard zones.

58. Funds may be diverted away from other household transactions after coastal hazards, including repairing property damage, loss of rental incomes, and higher insurance payments, or unexpected costs such as legal services, temporary accommodation, paid-care, funerals, insurance excesses and disputes.
59. Once properties have been identified as being at risk from coastal hazards, their values may decline or increase slower due to the potential risks. This is likely to occur through planning maps and/or adding notations to Land Information Memoranda associated with each property.
60. There could also be additional costs to property owners associated with resource consent applications, building higher floor levels, and using specific materials. This will present a degree of uncertainty about whether proposed changes would be worth pursuing and may lead to thoughts that play on the minds of owners leading to mixed levels of stress.
61. Some residents may choose to seek legal recompense from local or central government. PC14 in identifying and appropriately managing risk will avoid or require mitigation measures to reduce risk and the likelihood of consents where property owners are unlikely to obtain insurance or will probably experience significant property damage if / when the hazard occurs being granted will be reduced.
62. Business activity (including visitor accommodation) can be interrupted either immediately for a short time after a coastal hazard or permanently, including from loss of access to services that enable businesses to operate safely, including electricity, telecommunications, three waters, fuel and from damage to buildings. These impacts can be measured in terms of lost working days, permanent job losses, and reduced sales and production volumes. Other localised losses can arise if customers choose to access goods and services from other providers during the period of interruption and then never return to the original businesses. PC14 will limit the number of new businesses that will be exposed to business interruptions caused by coastal hazards.
63. Positive outcomes arising from PC14 are likely to include:
 - (a) The number of buildings that will be exposed to coastal hazards and any issues accessing insurance cover, as well as the costs of loss of,

and damage to, property, including irreplaceable belongings, will be limited to those which are currently present or replaced.

- (b) Fewer people living in, and businesses operating from, affected areas means that impacts on incomes and earning potentials will be reduced. Cost savings will be able to be directed towards savings or other investments. There will be less time taken away from employment due to undertaking repairs and clean-up of properties after hazard events, meaning households are financially better off in the long-term.
- (c) Reduced business interruptions during coastal hazard events due to fewer new businesses being able to locate in affected areas.
- (d) Potential for land competition to drive up the property values in the surrounding communities on properties that are not constrained by the planning restrictions.
- (e) Increased protection for people not familiar with the communities and the potential for coastal hazard threats from being affected by the likely financial costs associated with purchasing new homes and subdivided land that may be at risk.
- (f) Less financial risk to the ratepayers of Christchurch City Council, and their insurers, from being potentially liable for issuing resource consents in locations subject to risks from, and the effects of, identified hazards and where property owners are unable to obtain insurance and are likely to experience significant property damage due to ongoing or sporadic coastal hazard events.
- (g) Less financial risk to central government (and NZ taxpayers) needing to provide compensation if local authorities are unable to covers the costs associated with clean up and restoration.

64. Negative outcomes arising from PC14 are likely to include:

- (a) There is significant wealth to be gained from being able to subdivide or build additional dwellings on properties, and this opportunity will be foregone or much more restricted.
- (b) Property values are likely to decline slightly or remain stable rather than increase due to the lower development potential on land. Though

property values are also likely to drop due to recognised exposure to natural hazards.

- (c) Increased development costs for property owners due to the need to gain resource consents, building higher floor levels and using specific materials.
- (d) A degree of uncertainty about whether proposals would be cost effective and worth pursuing.
- (e) Potential for property owners to try to seek compensation for the loss of land values due to the planning restrictions applied by Council.
- (f) More demand and competition for lower risk properties may price some low-income households and low-value businesses out of those lower risk communities.

ASSESSMENT OF SOCIAL EQUITY OUTCOMES

- 65. Social equity relates to the distribution of positive or negative effects on different types of households and social groups, including vulnerable people and Māori.
- 66. Positive outcomes arising from PC14 are likely to include that new community facilities or businesses for vulnerable people are unlikely to be developed in affected areas - i.e. schools, social housing, community housing for disabled and mentally unwell populations, and retirement homes.
- 67. There are unlikely to be any negative impacts on social equity from PC14, though I note that research to understand the demographic composition of affected households has not been undertaken, which may reveal certain segments of the community are more impacted than others.

ASSESSMENT OF URBAN FORM OUTCOMES

- 68. Urban form refers to the way places and cities are laid out in relation to land use activities and topography. Urban form includes the location, cost, and density of housing, commercial, industrial, other business activity, social infrastructure, and multi-modal transport routes.

69. A range of land uses within communities and access to neighbourhood centres can add to the attractiveness and liveability of locations for specific activities and build a sense of place.
70. Positive outcomes arising from PC14 are likely to include resilience to disruption caused by large-scale coastal hazards and there will be benefits from having commercial and residential activity located away from areas that are likely to be impacted by medium-high risks.
71. Negative outcomes arising from PC14 are likely to include:
- (a) New businesses and services will be less sustainable in the community as the population remains stable but is unlikely to increase significantly as capacity is reduced in some areas.
 - (b) It is estimated by Property Economics that there will be a loss of potential feasible commercial capacity of 475,314m² in the coastal inundation zone.¹⁰
 - (c) While development will still be enabled in parts of the affected communities, it will become much more costly to develop in medium and high-risk areas. This may have flow-on effects on investment into transport routes, schools, and community facilities, and may make areas unattractive for living in comparison to other Christchurch locations which are not as affected. There will be opportunities for Council to understand the communities' aspirations and work together on local area plans to mitigate these effects.
 - (d) Residential communities that will be most affected by medium hazard provisions include New Brighton, Woolston, Sumner-Clifton Hill, Southshore, Aranui and Redcliffs-Mount Pleasant.
 - (e) Residential communities that will be most affected by high-hazard provisions include: Southshore, New Brighton, Sumner-Clifton Hill and Aranui.
- (a) Development in the following shopping centres will be impacted: New Brighton, Ferrymead, Woolston, Sumner, Redcliffs, Wainoni Pak'N Save, North Beach, South New Brighton, Pine-Caspian, and McCormacks Bay.

¹⁰ Table 7 s32 and s77 report.

- (f) Development in the following General Industrial areas will be impacted: Bower Avenue, Tanner Street, Curries Road, and Ferry Road.
- (g) Approximately nine schools will need to work with Council to ensure further buildings are designed to mitigate coastal hazard risks.

ASSESSMENT OF ACCESS OUTCOMES

- 72. Access outcomes relate to the ability to obtain goods, services (health, education, training), employment, and consumption (retail, business activity), and social life by being able to move around urban communities by different modes. Connectivity contributes to the efficient functioning of urban areas and enhances access to commercial and residential activities, liveability, and sustainable neighbourhoods.
- 73. If businesses are temporarily displaced in a coastal hazard event, this can lead to a lack of availability of goods and services and employment for the surrounding community.
- 74. Positive outcomes arising from PC14 are likely to include that social infrastructure and business activity will be focused in areas that are less likely to be affected by coastal hazards, which will ensure better accessibility during and after coastal hazard events leading to better resilience.
- 75. Negative outcomes arising from PC14 are likely to include:
 - (a) New social infrastructure and businesses will be unlikely to establish to serve the existing community within hazard areas if they are not supported by an appropriate critical mass of residents.
 - (b) People may need to travel further to access goods, services, and employment, including social infrastructure such as community halls and schools.

ASSESSMENT OF COHESIVENESS OUTCOMES

- 76. Cohesiveness relates to the ability of people to form inclusive and cohesive social and cultural relationships in spatially defined places and to participate in decision-making. The cohesiveness of communities reflects a sense of belonging and place, physical connectedness and accessibility, and the ability to establish and maintain social relationships.

77. When plan changes are implemented, there can also be effects on social cohesiveness, such as stress and social division over limits to new building activity, with residents appealing decisions and becoming frustrated by the decisions that are made and the financial consequences. When the combined effect of planning decisions results in fewer homes and people in an area then the effects are likely to undermine community life and social capital.
78. Positive outcomes arising from PC14 are likely to include:
- (a) Community groups of affected citizens may form for those parties wanting to understand the impacts of PC14 better. This will provide social connections that may be useful when coastal hazard events occur.
 - (b) Some community members may feel that Council is acting to protect them from the adverse effects of coastal hazards.
79. Negative outcomes arising from PC14 are likely to include:
- (a) Residents, property owners and users may feel a reduced level of trust in leadership and decision makers if they feel adversely affected by the decisions made.
 - (b) If people need to access employment and services located in safer centres (outside their existing communities) social cohesiveness in some places is likely to reduce.

ASSESSMENT OF ENVIRONMENT OUTCOMES

80. Environment outcomes relate to the consequences of changes to the physical and natural environment for people and communities, and the ability to govern and sustain natural systems in culturally appropriate ways.
81. The character and amenity of the built environment can change significantly once the risk of coastal hazards in an area has been identified and planning decisions have been implemented.
82. The only positive outcome that may arise from PC14 could be the potential for new open spaces to be developed in areas of planned reduced development.
83. Negative outcomes arising from PC14 are likely to include:

- (a) There is potential for buildings and infrastructure to become degraded if investment in properties is restricted.
 - (b) The visual character of the area may become degraded and is less likely to reflect areas (including through building design, technologies, and trends) elsewhere in Christchurch.
 - (c) There will be flow on effects on many businesses and community groups over time, due to people moving out of the area to be in locations that are more attractive to them.
84. New community master planning processes to guide the development of the built environment (including community facilities and social services) in consultation with affected communities will be an important way to mitigate these effects. This may help to avoid impacted communities falling behind in character development compared to the rest of Christchurch City.

SUMMARY OF SOCIAL EFFECTS ASSESSMENT

85. To understand the likely social effects of coastal hazards and other natural hazards it is important to consider the likelihood of an event occurring, the consequences if/when it does occur, and the tolerance of communities to levels of risk, especially that which is inherent to living in New Zealand with its numerous potential natural hazards, now exacerbated by climate change.
86. There are a range of positive and negative social wellbeing effects that may arise from PC14. It is important to recognise that some of the impacted communities have already suffered effects from the 2010 and 2011 earthquakes, and this has placed significant pressure on some people's mental and physical wellbeing. Introducing new restrictions to property rights is likely to reignite some of the negative sentiments that have been expressed about Council and central government due to frustrations with resolving property damage. PC14 is likely to lead to compounding effects, so the negative effects may be felt more significantly than in other areas of Aotearoa.
87. Overall, in my opinion, the Qualifying Matters for Coastal Hazards and Tsunami Management will help individuals and communities to better provide for their social, economic, and cultural wellbeing and health and safety by reducing the number of people living in, and properties, exposed

to coastal hazard events where they are likely to cause significant damage and potentially affect the health and safety of communities.

88. There are potentially some adverse effects that will arise that will make the communities that are affected by large numbers of properties impacted by the planning rules operate less well than if the coastal hazards were not present, such as Southshore, New Brighton, Sumner-Clifton Hill, Aranui, Woolston, and Redcliffs-Mount Pleasant. However, reducing the numbers of people and properties exposed to harm will in my opinion lead to better social outcomes in RMA terms than potentially exposing greater numbers of people and property to loss and damage.
89. Overall, PC14 will promote greater social resilience to the effects of climate change and natural hazards.

RESPONSE TO SUBMISSIONS

90. There were more than 40 submissions on PC14 which present varying views of support and opposition to the Qualifying Matters for Coastal Hazards and Tsunami Management. Many of those relate to the definitions and modelling used to define the spatial extent of the properties that will be subject to the land use, building and subdivision provisions. The evidence of **Mr Todd** (coastal erosion), **Mr Debski** (coastal inundation) and **Dr Lane** (tsunamis) covers the rationale for those definitions. My evidence relies on their evidence to justify applying the provisions to those defined areas.
91. Several submitters¹¹ question the need for the provisions and highlight that unnecessary regulation can have short to medium term negative effects which they believe are unreasonable given the uncertainties associated with climate change. This is an important issue given that the life of the DP is ten years. It is also a hard concept to grapple with given that the probabilities for the risks are often over long periods (more than 100 years).
92. There is strong direction from central government (NPS-UD and the NZCPS) and local government (CRPS and the District Plan) that planning for coastal hazards needs to start ahead of the time that they may occur.
93. There is also a strong social justification in that early planning enables people and communities to better respond to such significant changes and

¹¹ Brighton Observatory of Environment and Economics (53), Mr. Steve Smith (197), Mr. James Carr (519), Mr. Christian Wood (737), LMM Investments (826), North Beach Residents Association (739), and South Shore Residents Association (380)

become involved in planning and preparing for how the future community may look.

94. Preparing for climate change and the necessary planning adaptation measures needs to begin early to allow for a gradual change over time which will have better long-term social effects than sudden shocks and step changes in response to events that have happened.
95. Another consideration is that even though the potential timeframes for these events may be long, it does not mean that the events will not occur. As the evidence of **Mr Derek Todd** states in relation to relative sea level rise while the possibility of which emission path underpinning the different sea level rise scenarios is unknown "*what is certain is that there is much greater certainty that the lower projected magnitude will occur over the assessment timeframe.*"¹²
96. In relation to the likelihood of a tsunami the evidence of Dr Lane is that although it is a 1 in 500 year (0.2% AEP) event, the consequences of tsunamis can be catastrophic for those affected and for the local, and wider, communities.
97. As an example of the types of risk that can happen from low probability events, the Independent Hearings Panel for the Replacement Christchurch District Plan stated:¹³

"[9] The earthquakes of 2010 and 2011 were a sharp reminder of the importance of effectively dealing with natural hazard risk within the CRDP. One hundred and eighty-five lives were lost and many suffered injuries. There was widespread destruction of essential community infrastructure. ..."
98. Those are all the types of effects that PC14 is seeking to avoid or manage by directing future intensive development away from the areas that are most likely to experience risk.
99. There is support for that approach from some submitters.¹⁴ I agree with those submitters that ensuring that the adverse effects of climate change related coastal hazards need to be managed well.

¹² EIC of Mr Todd, at paragraph 35(c).

¹³ Decision 6 Natural Hazards (Part), 17 July 2015.

¹⁴ Te Mana Ora (145), Ms. Clair Higginson (657), Ms. Cheryl Horrell (11), Summit Road Society (900), Waihoru Spreydon-Cashmere-Heathcote Community Board (804), Environment Canterbury (689), and Toka Tu Ake EQC (377).

100. Council's submission (751) also addresses the confusion about Medium Density zoning or Residential Suburban/Residential Suburban Density Transition zoning that is raised in the Kāinga Ora Homes and Communities (834) and Ōtautahi Community Housing Trust (877) submissions and provides clarity that the intention is for there to be no high density residential in the Tsunami Management Areas. As above, I support the approach in PC14 from a social effects perspective, especially in relation to not locating high density accommodation for vulnerable members of our community in areas where their health and safety is put at risk from coastal hazards, as described in the evidence of **Mr Debski** and **Dr Lane**.
101. There are some helpful suggestions made by those with building and design experience regarding considerations for building designs. Mr. James Carr (519) suggests that designing buildings so that they can be easily relocated (potentially in pieces and from wooden materials) may be a way of providing for housing in climate change at-risk areas allowing for adaptation when required. Plain and Simple Ltd (627) suggest that temporary, modular lightweight housing and buildings could be explored. This provides a social benefit of flexibility but also a future social cost from communities that grow (including requiring public infrastructure and services) and then later need to adapt. PC14 is structured to provide Council with the opportunity to assess resource consents for appropriateness and providing for better and adaptable formats is part of the considerations.

SOCIAL EFFECTS OF HOUSING INTENSIFICATION REPORT

102. Council prepared an internal assessment of the likely social impacts of housing intensification, in response to submissions questioning whether intensification might lead to negative social impacts that had not been researched by Council. I have reviewed the draft report at various stages of the research.
103. There are positive and negative effects that may arise from housing intensification policies. A well-planned compact urban form with higher residential densities has the potential to bring a wider range of residential choices and lifestyle opportunities for residents than more dispersed living environments. Higher density forms can provide better access to social infrastructure, goods and services, employment and education, and are more easily supported by public transport and active modes.

104. A more dispersed urban form also provides housing choice and affordability but is likely to lead to greater reliance on private motor vehicles to access employment, education, goods and services and social infrastructure. There are financial costs of providing infrastructure, such as roads and three waters to larger areas, which will be incurred by ratepayers and households.
105. Achieving good outcomes from housing intensification policies is reliant on planning tools that encourage growth into areas around centres that have good transport links and infrastructure capacity. By providing for capacity throughout the urban area, the MDRS (and PC14 without the proposed Qualifying Matters) may have the following unintended consequences:
- (a) Higher costs for delivering transport and other infrastructure, and delays in achieving critical mass to support those projects.
 - (b) Better housing model choices may not be provided for all parts of society, as the development sector may continue to build current proven models. This may mean that the ageing population continue to live in dwellings that are too large and that homes for multi-generational families are not provided.
 - (c) Building designs may become more uniform, making the character and sense of place in some suburbs and communities less distinctive.
 - (d) There may be social tension created by more people living in closer proximity to one another, with reduced predictability about where higher density development may occur.
 - (e) High density dwellings may be developed in locations that are more susceptible to damage from natural hazards such as flooding, liquefaction and coastal hazards and noise impacts arising from reverse sensitivity from commercial operations (i.e. Christchurch International Airport, Lyttelton Port Company, rail etc.) which are likely to generate negative social impacts.
 - (b) The outcomes of the proposed policies could result in an urban environment that is inconsistent with the policies of the NPS-UD with regards to ensuring well-functioning urban environments.
106. There are likely to be negative social effects if higher residential densities are not designed well. The impacts of poorly designed intensification may

be distributed throughout the city as PC14 and the MDRS are enabling of higher density residential activity in most locations. However overall, the positive effects of higher density environments outweigh the negative social effects. Council will need to be committed to ensuring that higher density living environments are well designed and this will include engaging with communities, developing local area plans, and targeting equitable investment where it is needed.

CONCLUSION

107. The PC14 Qualifying Matters for Coastal Hazards and Tsunami Management are aligned with national, regional and city planning directions and in my opinion appropriately respond to, and reflect, positive overall social benefits.
108. In my opinion, the Qualifying Matters for Coastal Hazards and Tsunami Management will help individuals and communities to provide for their social, economic, and cultural wellbeing and health and safety by reducing the number of people, and buildings that will be exposed to significant effects from coastal hazards in the future.
109. Some social wellbeing effects from the qualifying matters will be likely to adversely affect how well some community's function. This will apply especially to communities with many properties impacted by the qualifying matters, such as Southshore, New Brighton, Sumner-Clifton Hill, Aranui, Woolston, and Redcliffs-Mount Pleasant.
110. However, reducing the numbers of people and properties exposed to harm by not enabling, or managing, residential intensification in those areas will in my opinion lead to better overall social outcomes in RMA terms than exposing greater numbers of people and property to potential loss and damage. Also, with careful management and communication by the Council, and the development of local area plans, some of the negative social effects can be reduced.
111. PC14 with the qualifying matter will in my opinion promote greater resilience to the effects of climate change in accordance with NPS-UD Objective 8(b) and deliver overall better social outcomes for Christchurch.
112. Overall, the positive effects of housing intensification will outweigh the negative social effects. The impacts of poorly designed intensification may be distributed throughout the city as PC14 enables higher density

residential activity in most locations. Council will need to be committed to ensuring that higher density living environments are well designed and this will include engaging with communities, developing local area plans, and targeting equitable investment where it is needed.

Date: 11 August 2023

Rebecca Anne Foy