

Appendix 2: Grouped highest risks for each domain

Summary of key Human Domain risks

Risks	
H1	Risks to Kāi Tahu sites, identity and practices, and non-Kāi Tahu cultural heritage sites, due to climate change.
H2	Risks to community cohesion and resilience from climate change.
H3	Risk to mental wellbeing and health from climate change.
H4	Risk to physical health due to climate change.
H5	Risk to increased inequities and cost of living due to climate change.

Summary of key Governance Domain risks

Risks		Local vs central government influence
G1	Risk that existing planning, decision making, and legislative frameworks are inadequate for responding to long-term climate change risks and result in maladaptive responses, and potential liability.	Combination of local and central influence
G2	Risk of local authorities lacking capacity to effectively respond to climate change.	Local direct influence
G3	Risk that the national, regional and local governance/institutional structures for managing climate change are inadequate.	Combination of local and central influence
G4	Risk that a low level of community awareness and engagement hinders communication of climate risk and uncertainty, and leads to de-prioritisation.	Local direct influence
G5	Risk that climate change will result in increasing damage costs, with insufficient financing for adaptation and risk reduction.	Combination of local and central influence
G6	Risk that public services will be impacted by climate change.	Combination of local and central influence

Summary of key Natural Environment Domain risks

Risks		Risk Rating* (highest per category)		
		Present	2040	2090
N1	Risks to the terrestrial ecosystems from increasing temperatures, changes in rainfall and reduced snow and ice	H	E	E
N2	Risks to the freshwater (rivers and lakes) ecosystems from increasing temperatures and extreme weather events	M	H	E
N3	Risks to the coastal and marine ecosystems from climate change hazards including ocean acidification and marine heatwaves	L	H	E
N4	Risks to coastal, inland and alpine wetland ecosystems from drought, higher temperatures, changes in rainfall and reduced snow and ice	H	E	E
N5	Risks to Otago water quality and quantity from changes in rainfall, higher temperatures, flooding, drought and reduced snow and ice	M	E	E
N6	Risks to native ecosystems posed by increasing threats from invasive plants, pests and disease due to climate change	M	M	E

*Highest risk rating per category and hazard relationship highlighted (L=low, M=medium, H=high, E= extreme). Refer to individual risk discussions for detailed, hazard specific ratings.

Summary of key Economic Domain risks

Risks		Risk Rating* (highest per category)		
		Present	2040	2090
E1	Risks to the livestock farming sector from climate change hazards including drought, increased fire weather, inland flooding, and increased landslides	M	H	E
E2	Risks to horticulture and viticulture from climate change hazards including temperature, drought, changing rainfall patterns and extreme weather	M	H	E
E3	Risks to the forestry sector from climate change hazards including temperature, drought, fire and extreme weather	L	M	E
E4	Risks to the fisheries and aquaculture sector from climate change hazards including marine water temperature and water quality	L	M	E
E5	Risks to primary sector supply chains from climate change hazards including inland flooding, coastal flooding and increased landslides	M	H	E
E6	Risks to cost of doing business from climate change hazards including coastal and inland flooding, landslides, and extreme events	M	H	E
E7	Risks to the tourism sector from climate change hazards including higher temperatures, reduced snow and ice, inland and coastal flooding, landslides and erosion	M	H	E

*Highest risk rating per category and hazard relationship highlighted (L=low, M=medium, H=high, E= extreme). Refer to individual risk discussions for detailed, hazard specific ratings.

Summary of key Built Environment Domain risks

Risks		Risk Rating* (highest per category)		
		Present	2040	2090
B1	Risk to buildings and open spaces from climate change hazards including inland and coastal flooding, coastal erosion, and sea level rise and salinity stress	H	E	E
B2	Risk to flood management schemes from inland and coastal flooding, and sea level rise and salinity stress	M	E	E
B3	Risk to water supply infrastructure and irrigation systems due to drought, fire weather, flooding and sea level rise and salinity stress	H	E	E
B4	Risk to stormwater and wastewater networks from increased temperature, sea level rise and salinity stress, extreme weather events and flooding	H	H	E
B5	Risks to linear transport (roads and rail) from flooding, coastal erosion, extreme weather events and landslides	M	E	E
B6	Risk to airports and ports from flooding and extreme weather events	M	E	E
B7	Risk to solid waste (landfills and contaminated sites) to flooding and sea level rise and salinity stress	M	E	E
B8	Risks to electricity (generation, transmission and distribution) networks from changes in rainfall, extreme weather events and flooding	M	H	E
B9	Risks to telecommunications infrastructure due to sea level rise and salinity stress and extreme weather events	L	M	H

*Highest risk rating per category and hazard relationship highlighted (L=low, M=medium, H=high, E= extreme). Refer to individual risk discussions for detailed, hazard specific ratings.