Coastal Hazards Adaptation Planning





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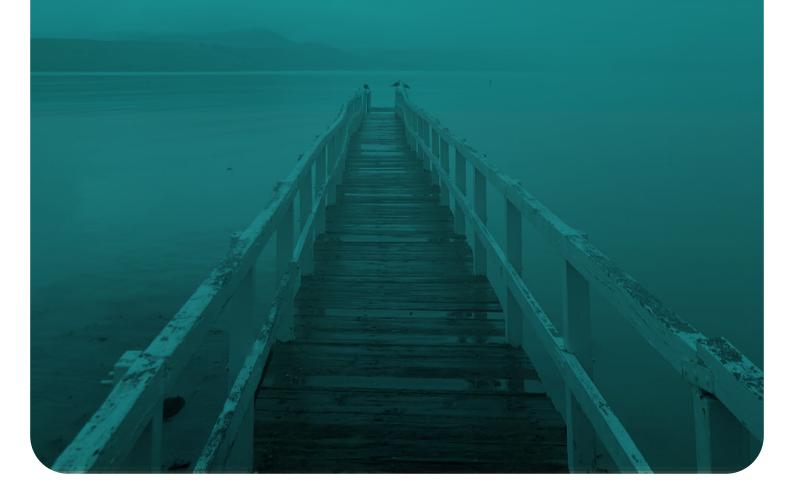
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Christchurch City Council sought the opinions of people in the Whakaraupō Lyttelton Harbour and Koukourarata Port Levy areas to better understand local values and priorities in relation to the coastal environment now and in the future.

This information is being used by the Council and the Whakaraupō Lyttelton Harbour and Koukourarata Port Levy Coastal Panel to develop adaptation plans that respond to the current and future risks of increased coastal flooding, coastal erosion and rising groundwater caused by sea level rise.

The consultation ran for the 8 weeks to 20 December 2022, and drew feedback from 294 respondents.



Summary points

- Respondents place a high value on the natural features in their areas, and wish to see these protected and regenerated into the future.
- Respondents desire continued access to the open and natural spaces in their areas. People did not want access to hills, bays, or the sea restricted by land use changes, inundation, being 'built out', or erosion.
- Respondents fear loss of the lifestyle that they value, through loss of views, restricted access to recreation places, or the erosion of community connectivity.
- Respondents understand that incidences of coastal hazards may increase. While there were a range of opinions as to how to adapt to coastal issues, there was broad agreement that the issues are pressing, and that planning and decisive action should be taken.

Key findings



Flora and fauna

People spoke in large numbers about the area's natural features, which they admire for both their visual appeal, and for the ecological benefits of having healthy habitats for wildlife and protecting the coast from erosion. They want to see measures taken to protect and regenerate the natural environment.



Recreation value

Respondents place a high value on the recreational opportunities in the area, commenting on the coastal tracks and walkways in great numbers. On- or nearwater activities like swimming, kayaking, and boating were popular, as were parks and reserves.



Assets

Jetties, coastal pathways, and parks and reserves were the local assets most often considered important by respondents.



Coastal hazards

People want to see proactive rather than reactive measures taken to protect property and infrastructure from the effects of erosion and sea level rise. While they accept the need for engineered solutions for the most part, people support solutions that are as natural as possible (such as planting). This is part of a broader ambition for thriving flora and wildlife around the coast, as outlined above.



Most valued

The things most valued by respondents varied depending on their location. Respondents with a connection to the Governors Bay, Diamond Harbour and Cass Bay were more likely to value coastal walkways, while those who were connected with Lyttelton were most likely to value the flora, fauna, hills, harbour views, and other natural features of their area. For those with a connection to Koukourarata Port Levy, peace and tranquility was the most often cited valued aspect.



Young people

Young people were more likely to comment on the natural features of the area, as well as things like jetties and water health or cleanliness/ rubbish than older age brackets, and less likely to discuss infrastructure or issues relating to transport or housing.



I value the wharf and the native birds around this area. I love kingfishers and fantails which often roam around my house.

~ Port Levy

I love the community, walkways and being able to wander down to the beach. Also the marina area walkways.

~ Lyttelton

I love kayaking out in harbour. The Cass Bay to white gates track. Birdlife. The sea views.

~ Cass Bay

A sense of community – both small communities within Whakaraupō and the whole harbour itself. A strong sense of identifying – with the harbour and with Banks Peninsula. ~ Governors Bay

The easy connection to nature. Good for dog walking. Beautiful views... Wild swimming in the sea at Purau. Good amenities close by.

~ Diamond Harbour

I love walking down to the beach and the gentle lapping of the waves. There is a wide range of bird life and Purau is amazing to swim and kayaking and so many more reasons.

~ Purau

What people value about their area

People were asked what they value about their area

What people valued most varied depending on the location they were most connected to, however the themes below were recurring across all areas.

The natural environment

- Bird life, native vegetation and regenerating bush
- The natural character and unspoilt views of the harbour and hills
- Being close to the sea, and being able to access the coast via beaches and jetties

Community and culture

- Strong sense of community
- Peaceful atmosphere and relaxed lifestyle
- · Family, whānau, whakapapa, and the family home
- Amenities such as community centres, halls, marae, and pools
- Deep connection to the harbour and land
- · Supermarkets, cafes and pubs

Maori values and heritage

- Whakapapa, people and future generations
- Rāpaki marae
- · Mahinga kai and clean water
- · Connection to whenua and moana
- · Māori history and stories

Recreation

- Coastal walkways and hill tracks
- Swimming at clean, safe beaches, and from jetties
- Wharves and jetties Diamond Harbour, Purau, Port Levy
- · Kayaking, paddleboarding and waka ama
- Parks and reserves Orton Bradley Park, Allandale Reserve, Stoddart Point
- Boating and sailing boat ramps and the yacht club

Transport and traffic

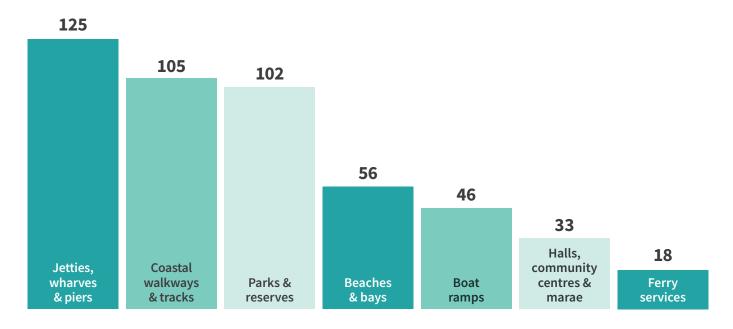
- Proximity and connectivity to Christchurch City
- The Lyttelton-Diamond Harbour ferry
- Road access to Christchurch, and between towns and locations

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What community assets people value

Assets valued by respondents

People most often mentioned jetties/wharves in their answers, and around 100 each said they value coastal walkways and parks or reserves (like Orton Bradley Park).



- People value the jetties to look at, to swim from, and to board boats and fish from. The Diamond Harbour, Purau, Church Bay, Quail Island, and Governors Bay jetties were all mentioned.
- The parks and reserves in the region are much loved. People talked about Orton Bradley Park, Allandale Reserve, and Godley Head.
- The walkways and tracks along the coast and hills were talked about by more than 100 people. They value that they can go for a walk amidst native bush and birdlife, and that they can see ocean and harbour views.



Purau and Diamond Harbour jetties and beaches.

Quail Island jetty and facilities.

All the local reserve lands.

Paths/tracks away from busy roads.

The lovely coastal path that goes right around to Pony Point.

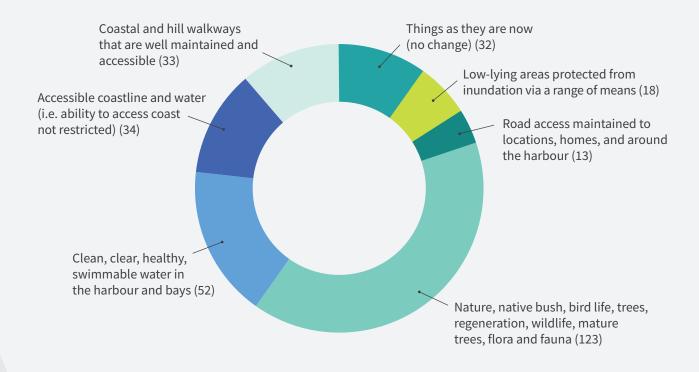
Allandale Reserve track. Jetty. Cliff track.

Tracks accessing the beaches and the hills.

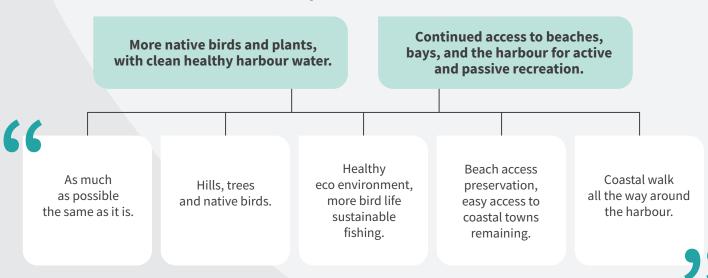
What people want to see

People were asked how they wanted the coast to look in 100 years

People most often talked about the natural features of the area, like trees, plants and birdlife.



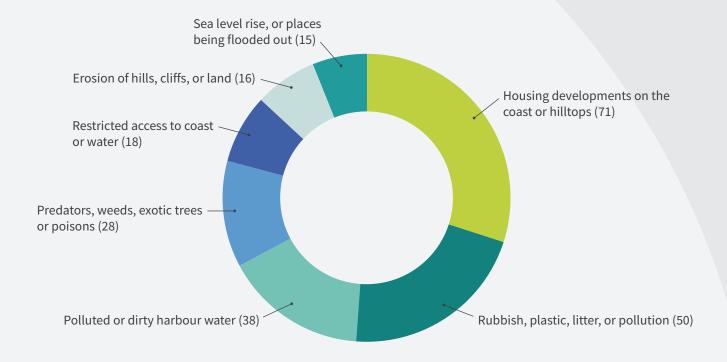
People want to see...



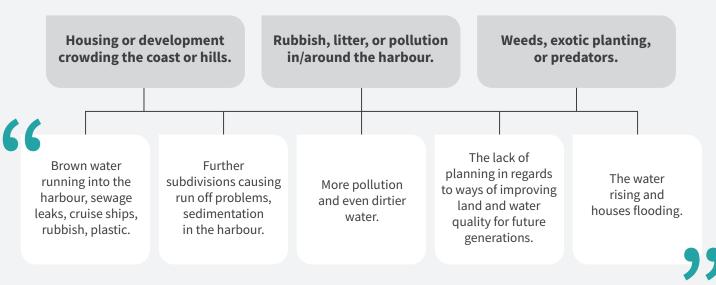
What people don't want to see

People were asked how they didn't want the coast to look in 100 years

People most often talked about not wanting to see housing developments, or overdevelopment.



People don't want to see...



Adapting to coastal hazards

People were asked to comment about adapting to coastal hazards

There were multiple perspectives on how coastal hazards should be managed.

People want to see...

Roads, coastal areas, homes, and community assets remain usable in the face of increased incidence of hazards like coastal flooding

> Native planting or other soft engineering solutions to protect the coastline.

People don't want to see...

Sea walls used as the default coastal protection measure.

Houses continuing to be built close to the coast.

Costly outcomes from not acting sooner (e.g. insurance premiums rising, or the need for future complex hard-engineering solutions).

- People wanted to see adaptation strategies in place but had different ideas about how this could or should happen.
- People feared that access to their homes or other locations around the harbour would be limited if roads were flooded or inundated by water. Most of these comments indicated that people wanted roads to remain usable, though they did not specify how this should be done.
- Nature based (soft engineered) solutions like planting or managed retreat were generally preferred over hardengineered solutions (like seawalls).
- Respondents were worried about ongoing housing development on the coast and what this might mean if sea levels rise and erosion or incidences of flooding increasing.



Engineered structures should be very carefully considered before implementing. The design life and decommissioning, the types of materials, potential local effects of structures on further erosion, sea life etc.



Need to start building new roading protection now. Design a new route around Teddington now.



I don't want money spent on assets that will be affected by sea level rises... Areas that are to be compromised need to be identified now and restrictions placed on those sites now.



I don't think building should be consented for any areas that are likely to be affected by sea level rise. The result will cause enormous expenditure on pay outs for remediation and relocation.



Need to spend money now on shore protection rather than increased funds later when it is too late.

Lyttelton

What people talked about the most

Coastal walkways (53)

Flora and fauna (43)

The community (24)

Clean water (22)

Low levels of development (21)

Parks and reserves (20)

Access to water (20)

Beaches and bays (18)

Seeing the hills (10)

No rubbish or pollution (9)

The pool (6)

Community halls or centres (5)

I live near the reserve and the mountains in the top of Lyttleton and I love the walks and all the nature.

What people want for the future

In 100 years they want to see:

Native trees and birds (22)

Healthy, clean water (8)

No changes (6)

Walkways (6)

Access to water (6)

66 Being able to wander and see birds and wildlife.

In 100 years they don't want to see:

Over development (17)

Litter or rubbish (9)

Dirty harbour water (8)

Weeds/loss of natives (7)

Restricted coast access (7)

No climate action (4)

Erosion (4)

- Mass development covering the hillsides.
- 66 Brown water running into the Harbour, sewage leaks, cruise ships, rubbish, plastic.

- People with a connection to Lyttelton did not offer much commentary when asked about adapting to coastal hazards.
- The points made most often (by 4 respondents each) were that climate change and resultant sea level rise are pressing issues, and that managed retreat is inevitable/advisable.
- I think preparing for effects of climate change is the paramount role. Leaving it is too late.
- Regrettably coastal retreat has to begin. We also have to implement strong climate policies now, involving much better public transport and cycleways (including through the tunnel) and native tree planting.

Cass Bay, Corsair Bay & Rāpaki

What people talked about the most

Coastal walkways (41)

Flora and fauna (27)

Clean water (24)

Beauty and views (15)

Parks and reserves (14)

Beaches and bays (12)

Access to coast/water (12)

Low levels of development (9)

Swimming (9)

The community (8)

Clean and tidy (6)

Paddling/kayaking (6)

Boat ramps (5)

The land and sea are our taonga... keep our precious commodity safe for food gathering and water to drink.

What people want for the future

In 100 years they want to see:

Native trees and birds (12)

Healthy, clean water (8)

No changes (8)

Access to water (5)

A natural environment with houses well away from the coast, access to the bays / beaches for swimming.

In 100 years they don't want to see:

Over development (8)

Rubbish or pollution (5)

Dirty harbour water (4)

Erosion (4)

- 66 Pollution, erosion and development.
- **66** Too many man-made structures close to the coast blocking access to the beaches and ruining the aesthetics.

- People with a connection to Cass Bay, Corsair Bay, or Rāpaki did not offer much commentary when asked about adapting to coastal hazards.
- The points made most often (by 4 respondents each) were that:
 - good information, communication, and consultation is required about the risks and potential courses of action/solutions
 - the risks from sea level rise are not so apparent as to warrant major changes or regulations.
- 66 Use natural (adaptive) solutions as far as possible
- Due to the...height of houses above the sea the danger to housing is very slim in Cass Bay if any at all.
- 66 Consider whether relocation is more appropriate rather than protection for some areas.

Governors Bay, Allandale & Teddington

What people talked about the most

Flora and fauna (57)

Governors Bay jetty (30)

Walkways (29)

Clean water (28)

Parks and reserves mainly Allandale Reserve (19)

Beaches and bays (14)

School (11)

Community halls or centres (11)

Access to water (11)

The community (9)

The pool (7)

Governors Bay pub (7)

I live here and love the jetty, Sandy Bay and the coastal walkways. I also sail and kayak on the harbour.

What people want for the future

In 100 years they want to see:

Native trees and birds (25)

Clean harbour water (13)

Coastal walkways (7)

No changes (4)

Road access (3)

Access to the water (3)

The jetty (3)

Erosion managed (3)

In 100 years they don't want to see:

A polluted harbour (9)

Housing development (7)

Houses flooded (5)

No coastal walkways (4)

66 Wouldn't like to see residential housing development in this area.

- **66** The head of the harbour around Allandale would be revegetated with reeds, become a thriving wetland area.
- 66 More native trees on the surrounding hills, better erosion control.
- 66 Roads and houses etc moved before SL rise and new access roads in place.

- Soft engineering solutions were preferred by those who stated they had a connection with these locations, in particular managed retreat (5 respondents). There were no comments made in support of hardengineered solutions.
- People connected to Governors Bay, Allandale, Teddington spoke of their fears of the foreshore flooding and of houses and roading being lost to flooding or sea level rise (10 respondents).
- I don't want to see coastal barriers between the land and the sea, or anything made of concrete.
- There are real issues to highlight and address now, and to make real plans for forecast effects.

Diamond Harbour, Purau, Charteris Bay & Church Bay

What people talked about the most

Flora and fauna (119)

Coastal walkways (114)

The jetty (91)

Parks and reserves (62)

Water/coast access (57)

Beaches and bays (49)

Healthy harbour/water (44)

Clean and tidy (no rubbish) (43)

Road access (38)

Boat ramps (36)

Aesthetics and views (35)

The community (33)

Low density housing (31)

The ferry (28)

Swimming (22)

Peace and quiet (22)

It's a beautiful tranquil place to live with sea views and access.

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The harbour views – both natural environment and watching others enjoying the harbour.

What people want for the future

In 100 years they want to see:

Native trees and birds (50)

Healthy, clean water and coast (19)

Things to stay the same (14)

Walkways (13)

Good, well-maintained roads (6)

- 66 No houses, a natural and vegetated coastal buffer around more of the coastal edge with more public walking access.
- More plants, birdlife, beach clean ups.

In 100 years they don't want to see:

Rubbish or pollution (28)

Housing developments (26)

Polluted water (17)

Erosion (8)

Road access lost (6)

Sea walls (6)

66 Engineered coastal protection works, excessive development.

- Comments about sea-level rise already happening, and the impacts on certain locations (Teddington, Purau, Charteris Bay) were made by several respondents.
- Managed retreat by way of raising "public and private assets", or refraining from coastal building or development were suggested
- There was slightly more support fon natural, soft-engineered solutions than for sea walls. Roads and homes were the main assets that people sought protection for.
- The problem is huge. It is difficult to see how Teddington flat will avoid inundation.
- 66 Consider no new building consents for coastline low ground elevation structures (no insurance options might achieve the same). Move up the hills, silt traps.

Koukourarata Port Levy

What people talked about the most

The jetty (13)

Flora and fauna (13)

Road access (11)

Water activities (11)

The marae (9)

Access to the beach (7)

School (6)

Peace and quiet (5)

Coastal walkways (4)

Parks and reserves (4)

The community (4)

Functional smooth coastal road and access to Koukourarata. Better road to Pigeon Bay and Akaroa Harbour as alternative route.

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The peace and lack of people. Jumping off the wharf. Walking around the foreshore. Kayaking to Horomaka Island.

What people want for the future

In 100 years they want to see:

Native trees and birds (5)

Healthy, clean water (3)

Road access maintained(3)

Access to the water (3)

- 66 Visual access to our Moana.
- 66 A coastal walkway. More native trees / coastal plants & marine and birdlife.

In 100 years they don't want to see:

Over development (5) Rubbish or pollution (3)

- 66 Development of the coastline with housing and infrastructure.
- 66 Noisy speed boats.

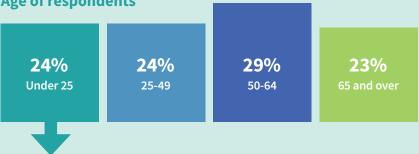
- People with a connection to Koukourarata Port Levy did not offer much commentary when asked about adapting to coastal hazards.
- The most-often made point (by 2 respondents) was that rock walls would be supported "to protect the sea front". However, two others supported soft-engineered solutions (retreat, and reforestation).
- We should also ensure policies deal with the... causes of climate change such as land use, irrigation and water takes, emissions etc.
- Reforestation of the peninsula to mitigate climate change and flooding.

Young people's perspectives



Although it is often difficult to get even numbers across age groups, a lot of young people participated in this community engagement exercise.

Age of respondents



- Young people made more comments in support of jetties and wharves than any other age group.
- They made many more comments condemning pollution, rubbish and litter.
- Young people spoke just as much as every other age group about admiring, and the importance of, native plants and animals.
- They spoke much less than other age groups about community amenities, about the importance of maintaining road access, and about not wating to see overdevelopment.

Litter/pollution was the number one topic of interest for young people.



I value the wharf and the native birds around this area.



I love to jump off Diamond Harbour jetty with my dad. (I don't want to see broken jetties.)



As a young person, I want to see erosion minimised as much as possible.



I love how clean and beautiful Diamond Harbour is. The ocean is nice.



There is a wide range of bird life and Purau is amazing to swim and kayaking and so many more reasons.