



COASTAL CONVERSATIONS

AMBERLEY BEACH ENGAGEMENT DOCUMENT

BACKGROUND

In 2020 Hurunui District Council (HDC) started a project assessing the current coastal hazards that affect the Amberley Beach community and how these hazards might change over a 30-, 50- and 100-year period.

The project has four phases:

- What is happening?
- What matters most?
- What can we do about it?
- How can we implement the strategy?

A summary of the project is included within. Once complete the project will inform a Coastal Adaptation Plan for Amberley Beach which will set out how the community will adapt to the changing risk.

PURPOSE

At the meeting on 27 October 2022 Council shared a Draft Adaptive Planning Pathway and a Proposal for Managed Retreat.

This engagement document provides further information on these and seeks your feedback. This is your future and your opinion is important.



HAVE YOUR SAY

Comments due 20 January 2023

Email to coastal@hurunui.govt.nz

Post to PO Box 13, Amberley 7410

Deliver to the Council Offices at 66 Carters Road, Amberley

Any questions email Monique at coastal@hurunui.govt.nz

PHASE ONE: WHAT IS HAPPENING?

Amberley Beach is currently at risk of coastal inundation (flooding), coastal erosion, rising groundwater, fluvial (river) and pluvial (rainfall) flooding. We need to consider how we can adapt to the risk these hazards pose.

Flooding

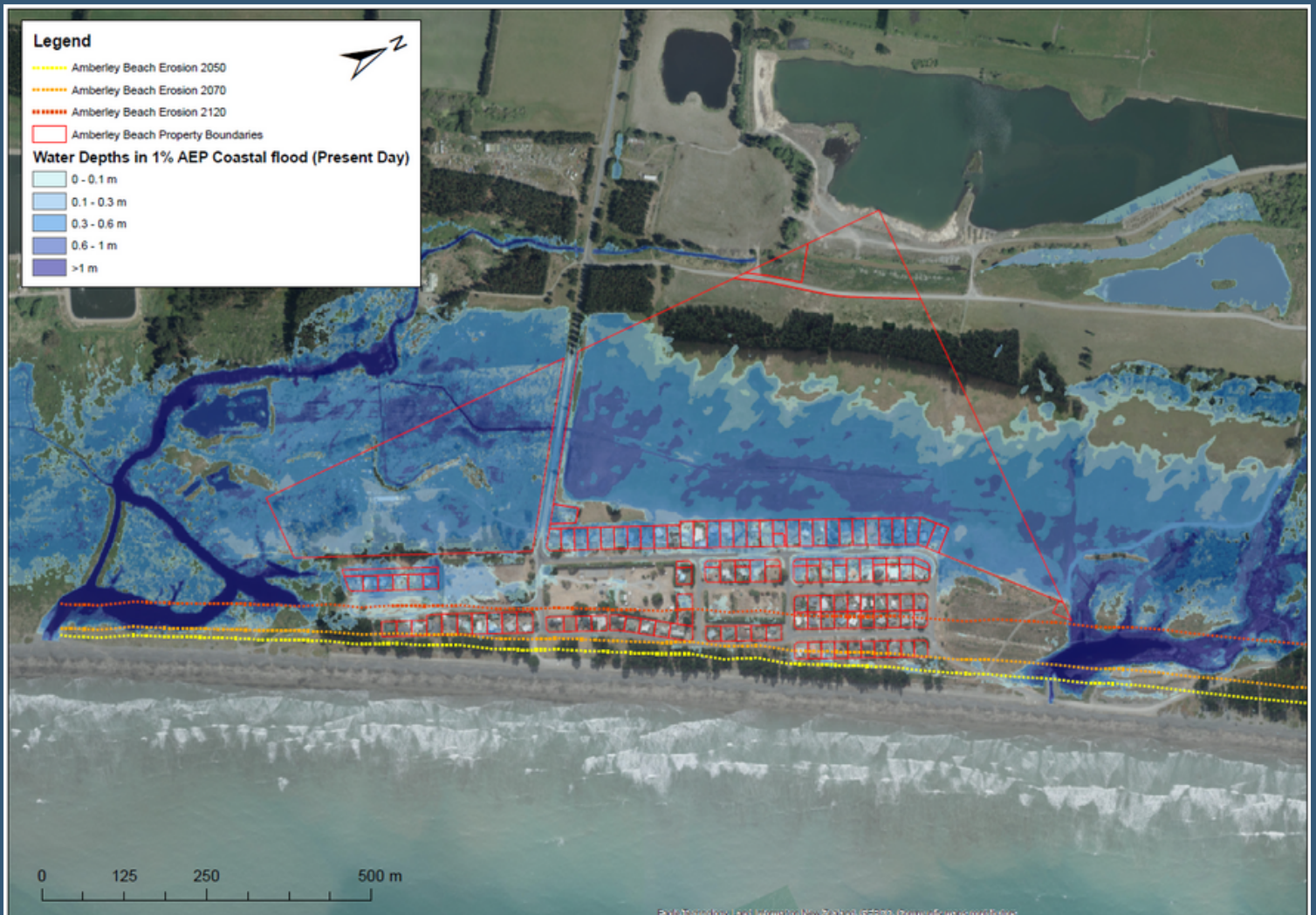
The map below shows the water depths in a present day 1% AEP coastal flood. A 1% AEP event means there is a 1% chance of that event happening in any year (also referred to as a 1 in 100-year event). Sea level rise will increase the frequency of these events and by 2120 we can expect events of this size every year.

Properties on Grierson Avenue also currently experience ponding from rainfall and river flooding. This is exacerbated by high groundwater which both limits the opportunities for water to drain and at times can cause flooding as the groundwater breaks the surface.

Erosion

The properties along Chamberlain Avenue are at risk of coastal erosion. The yellow, orange, and red lines show the projected shoreline positions in 2050, 2070 and 2120.

For more information visit www.hurunui.govt.nz/coastal

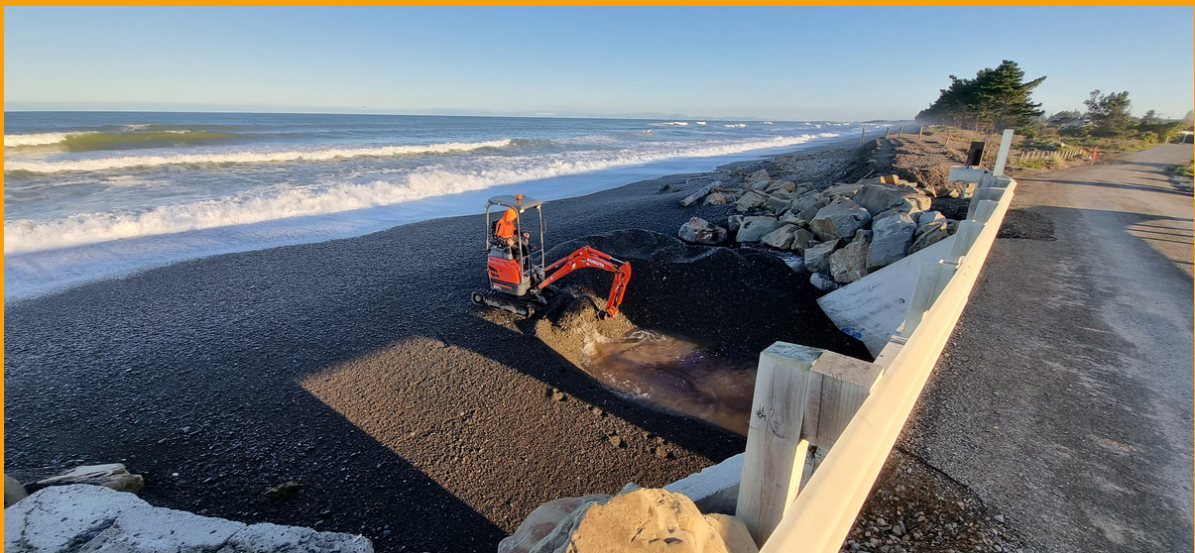


PHASE TWO: WHAT MATTERS MOST?

Amberley Beach is important to everyone for different reasons. Once we understand what these values are, we can use them to build a decision-making framework – effectively those values become the lens in which we look through when assessing various options. They help ensure that what is important to you remains the priority.

The following objectives were developed from the feedback received:

- Ensure houses are kept free from water and remain insurable and serviceable.
- Retain the small-town community feel whereby residents can feel safe and close to the natural environment.
- Secure and safe access is provided to and from Amberley Beach 24/7.



PHASE THREE: WHAT CAN WE DO ABOUT IT?

A long list of options was developed which was narrowed down to a short list of options. The short listed options were included in the Coastal Adaptation Explorer which we used in our September workshop.

The Coastal Adaptation Explorer allowed those in the workshop to turn on various options and get real time feedback on the costs, benefits and effectiveness of an option or combination of options.

From the workshop we developed a Draft Adaptive Planning Pathway which we are seeking feedback on.



Amberley Beach
COASTAL ADAPTATION EXPLORER

Choose Erosion and Flood Management Options

- Epoch: 2020 2050 2070 2120
- Avoid Development: [Orange dots]
- Bund Maintenance: [Yellow dots]
- Bund Relocation: [Yellow dots]
- Concrete Wall: [Orange dots]
- Inundation Bund: [Orange dots]
- Maintain District Plan: [Orange dots]
- Managed Retreat: [Green dots]
- Raising Floors: [Orange dots]
- Relocatable Dwellings: [Green dots]
- Rock Revetment: [Yellow dots]
- Waterproofed Buildings: [Yellow dots]

Choose a Future Scenario

- How Will You Measure Success? [Dropdown]
- Climate Change Scenario [Dropdown]

Location

Option Pathway Summary

- Total Cost of Options: \$50.3M
- Damage Avoided: \$40.7M
- Buildings Protected from Flooding: 126
- Buildings Protected from Erosion: 45
- Roads Protected: 0%
- Total Benefit: \$-9.6M**

Multiple Criteria

- Ecology
- Landscape
- Cultural Heritage
- Social & Cultural Wellbeing
- Public Access & Recreation
- Legal Risk
- Coastal Erosion Risk
- Coastal Flooding Risk
- Adaptability

Properties at Risk of Erosion

Epoch	Do Nothing	With Options
2020	0	0
2050	0	0
2070	15	15
2120	45	45

Properties at Risk of Flooding

Epoch	Do Nothing	With Options
2020	120	85
2050	130	130
2070	130	130
2120	130	130

Critical Roads at Risk

Epoch	Do Nothing	With Options
2020	0%	0%
2050	5%	5%
2070	15%	10%
2120	45%	50%

DRAFT ADAPTIVE PLANNING PATHWAY FOR AMBERLEY BEACH

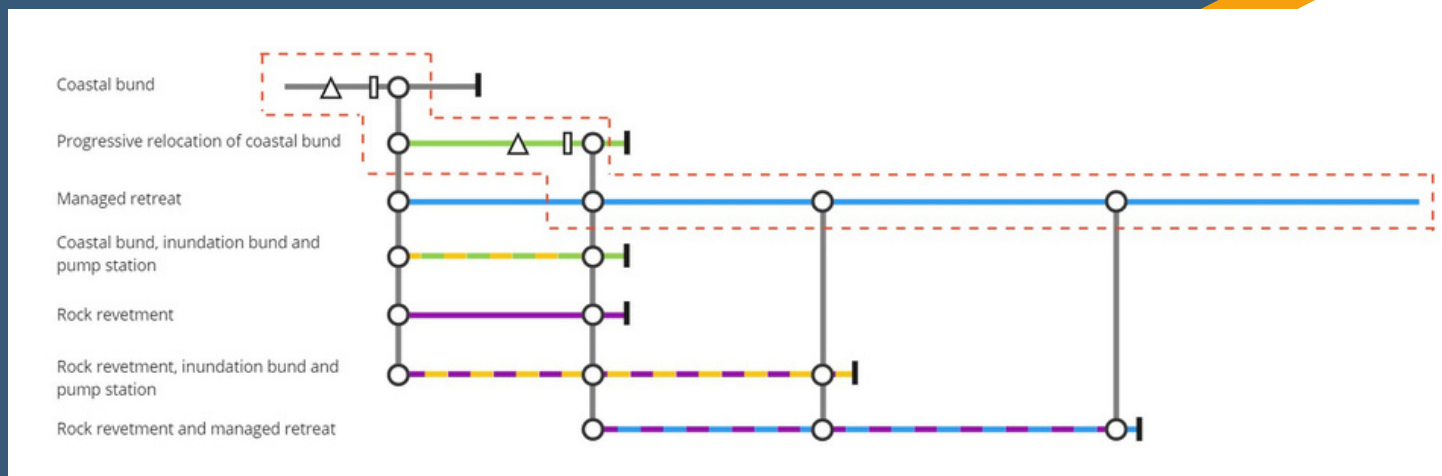
What is an adaptive plan?

An adaptive plan allows us to prepare for the future despite the future being uncertain. We have adopted a dynamic adaptive pathway planning approach. This has several benefits:

- A preferred course of action is identified now to help guide future investment decisions. Other options are left on the table for future decision-makers to ensure new information can be appropriately considered.

- The plan is trigger-based not time-based. This means we don't implement an action until it is required.
- It sets agreed signals and triggers so we can monitor the change that is occurring and have an agreed point on when to act.

The diagram below shows the Draft Adaptive Planning Pathway for Amberley Beach. The red dotted line shows the preferred pathway.



Stepping through the plan:

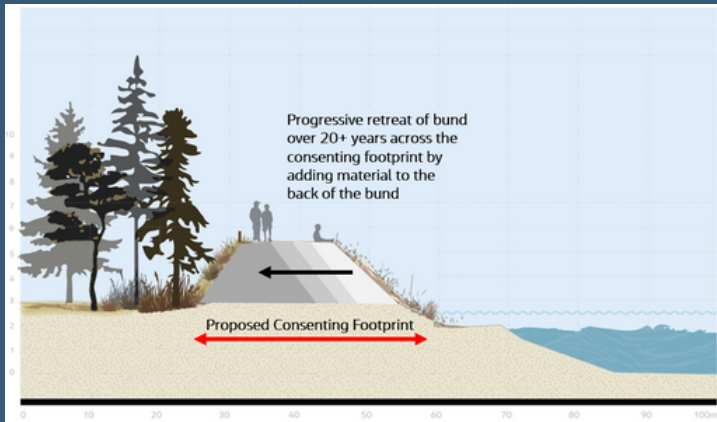
Currently the coastal bund provides protection from coastal inundation and is slowing down the rate of erosion. The resource consent expires in 2023. A new application has been lodged which will allow for the progressive relocation of the bund. This was an agreed action from 2021.

A bund is anticipated to be effective for another 20-30 years. At this point those in the workshop agreed that managed retreat was the next step. However, there is still the

option to protect the settlement. This could involve rock revetment (or similar hard protection) to protect the coastal properties from inundation and erosion along with an inundation bund to protect the landward properties from multi-source flooding. This would put the settlement in a basin and require some form of pump to remove water when/if it breached either bund. Protection options do not address the risk from rising groundwater.

PROTECTION OPTIONS

COASTAL BUND



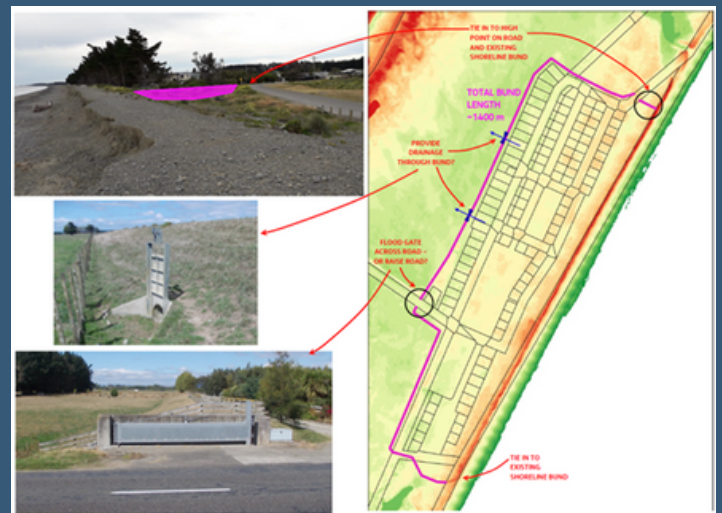
A coastal bund currently separates the settlement from the sea. A consent application has been lodged to progressively relocate this inland. The bund has been successful at preventing coastal inundation and has helped limit the rate of erosion. The bund looks more natural than hard protection options and is easier to consent.

Over time the bund will be exposed to greater wave attack and likely to require more frequent maintenance.

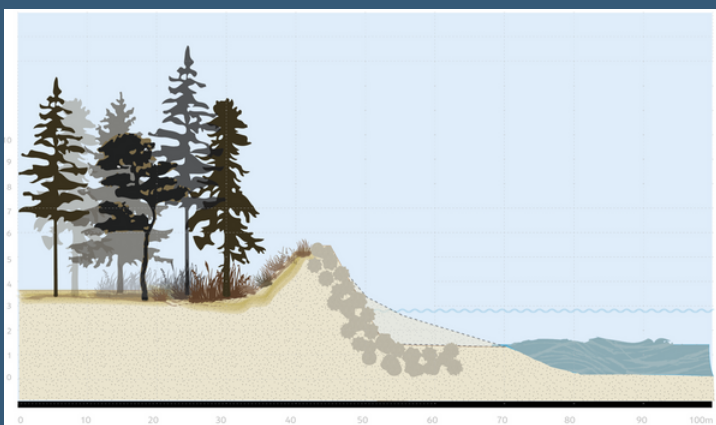
INUNDATION BUND

An inundation bund could be constructed around the settlement to prevent floodwaters entering the settlement. This would have the adverse effect of trapping any water that overtopped the bund requiring a pump to remove this water.

The bund could be planted to look more natural.



ROCK REVETMENT



Rock revetment is a form of hard protection that involves the strategic placement of large rocks to provide protection from inundation and erosion. The rocks are placed on a slope and the irregular face of the rocks helps to dissipate wave energy.

This option is expensive but highly durable. It is harder to consent than soft engineering options but looks more natural than concrete structures.



MANAGED RETREAT

Managed retreat is an approach to reduce or eliminate exposure to intolerable risk. It enables people to relocate assets, activities and sites of cultural significance, away from areas at risk from climate change and natural hazards. There are two common approaches: a buyout or a land swap.

Buyouts usually involve a government agency acquiring at risk land to reduce the exposure to risk. The dwellings can then be demolished, and the land reserved as public space or leased for temporary use.

Land swaps involve property owners of high-risk land being offered the opportunity to swap their title for a similar parcel of lower risk land. The original sections are then used as reserve land or in some situations can provide space for coastal renourishment works to protect the remaining development. Land swaps can enable communities to relocate to a lower risk area together.

Who pays?

Insurance Companies look to manage the risk in their portfolio and when the risk becomes too great they increase premiums, increase excesses or stop insuring altogether. So while they will pay out after an event they are unlikely to contribute to proactive retreat.

Central government is currently preparing a Climate Adaptation Bill. This will provide some guidance around managed retreat but is unlikely to include funding.

Council's money is primarily gathered through rates. We don't have enough money to fund retreat but are willing to use the tools we have to help facilitate retreat.

Many **property owners** have limited ability to fund retreat without support.

Therefore how can we raise the money to assist in funding retreat?

PHASE FOUR: HOW CAN WE IMPLEMENT THE STRATEGY?

A PROPOSAL FOR MANAGED RETREAT

Council could look to land bank. The best time to purchase land is yesterday and the next best time is today. Council could look to purchase alternative land now for the settlement to relocate to when required. A targeted rate could be introduced at the next Annual Plan or Long Term Plan process. The land can be rezoned through the next District Plan Review. The land can be subdivided, and services installed closer to the time the land is required.

How can we make this affordable?

Council could purchase enough land to create extra lots. If we created an extra 90 lots the cost to the Amberley Beach property owners would be about \$1 per day for the next 30 years or a one-off payment of around \$11,000. This means that for around \$11,000 property owners would own a new section valued at around \$250,000 in today's money. Land prices tend to increase over time and therefore the value of this land is likely to increase.

How would the new land work?

A share of the new land would be tied to the existing property title. If you sell your Amberley Beach property you would be selling both the existing property and a share in the new land. This should help maintain property values allowing those who wish to sell do so while maintaining their equity.

Based on this model every existing owner would be entitled to an equal share of the new

land. Sections could be drawn at random or potentially the most desirable sections could cost a little more to help offset the cost of the other sections.

We don't need to design the new subdivision now. The makeup of Amberley Beach will change over the next 20 years and those moving to the new land might not currently live at Amberley Beach.

When it is time to move, the equity in the section can be used to help secure a mortgage to build a dwelling or the section can be sold. Any relocatable structures can be moved to the new land. The proposal assumes that at some point the whole settlement will need to relocate.

Benefits

- Each property owner would own a new section valued at around \$220,000 in today's money for a \$11,000 investment.
- The approach is reasonably cost neutral for the Council. Property owners pay a small contribution towards the cost of the land and front the development costs.
- New sections are created to support growth in the District.
- If managed retreat is not required, the land can be sold, and the rates collected returned.
- If managed retreat is required sooner the plan can be advanced.
- Planning now enables you to retreat on your terms.

A PROPOSAL FOR MANAGED RETREAT

Does everyone have to agree?

No not necessarily but we will get the best outcome if the community work together on a solution.

I won't be here when the settlement needs to retreat. Why would I want to buy in?

The new section would be tied to your existing section. This means that when you sell your old section the new owner is purchasing both the existing property and your rights in the new section. This will hopefully help protect your equity as property prices at Amberley Beach start to drop. The new section is yours - this means it could be your children who are the ones who build the dwelling in the future.

What happens if retreat isn't required?

Rates are gathered for a particular purpose and can only be spent for this purpose. The purpose of this rate could be to implement the Coastal Adaptation Plan. This would allow for both managed retreat or for the construction of a protection structure. If the money is not required it would need to be returned.

How big will my new section be?

This is up to you. As a guide the District Plan has a minimum lot size of 700m². We would purchase land to provide for this. However, we will need to make a change to the District Plan to provide for the retreat and can propose a different minimum lot size then. There might be some within the settlement who only want small sections and others who would like a larger section.

When will we have to move?

In the January workshop we will discuss what some of the triggers for retreat might be. Retreat is likely to occur over several years and some property owners may wish to relocate sooner for various reasons.

What if I don't want to move?

A collective approach will get the best outcome however there is no plan to force people from their homes. If the majority of the settlement relocate, protection works are likely to be unaffordable to those remaining, this will significantly increase the risk to those properties. This may mean those properties are no longer insurable which may affect mortgages. There will also be a reduced level of service in terms of Council infrastructure. Ultimately it will be up to the individual property owners.

What happens to the old settlement land?

The land could be converted to reserve land providing for camping opportunities and a series of walking and cycling tracks. Alternatively, part of this land could be leased to low exposure activities to help generate income to support development within the new settlement. It will be up to rate payers to determine the future of this land.

NEXT STEPS

JAN

We will hold our next workshop on 26 January 2023. At this session we will report back on the feedback received, hear from the Insurance Council and start to identify what the triggers might be for change.

MAR

Early March we will hold a follow up workshop to refine triggers, work through details of managed retreat including the legal process, requirements of the new land, and what happens to the old land.

APR

Everything is pulled into a Coastal Adaptation Plan for Amberley Beach. This will include:

- A summary of the science informing the plan;
- A summary of the short-listed adaptation options;
- A summary of the process that has been undertaken to reach the agreed outcomes including why an approach is preferred;
- The agreed pathways, signals and triggers; and
- The required actions to implement the Plan.

Feedback will be sought on the Draft Coastal Adaptation Plan. This is your story so it is important we tell it right.

MID-2023

Implementation of Plan.

UPCOMING MEETINGS

ABRRA

7pm Wednesday 7 December
Amberley Beach Community Hall

Hamish and Monique will attend to run through the contents of this document and answer any questions.

Alternatively questions can be emailed to Monique at coastal@hurunui.govt.nz at any time.

Coastal Conversations

7pm Thursday 26 January
Hurunui District Council Chambers

Agenda:

7pm Insurance Council to share a presentation on their work and answer your questions

8pm Identifying Triggers for Change Workshop

The Insurance Council will be presenting via video link. If you have questions for them please email these through.

Amberley Beach Coastal Conversations Feedback Form

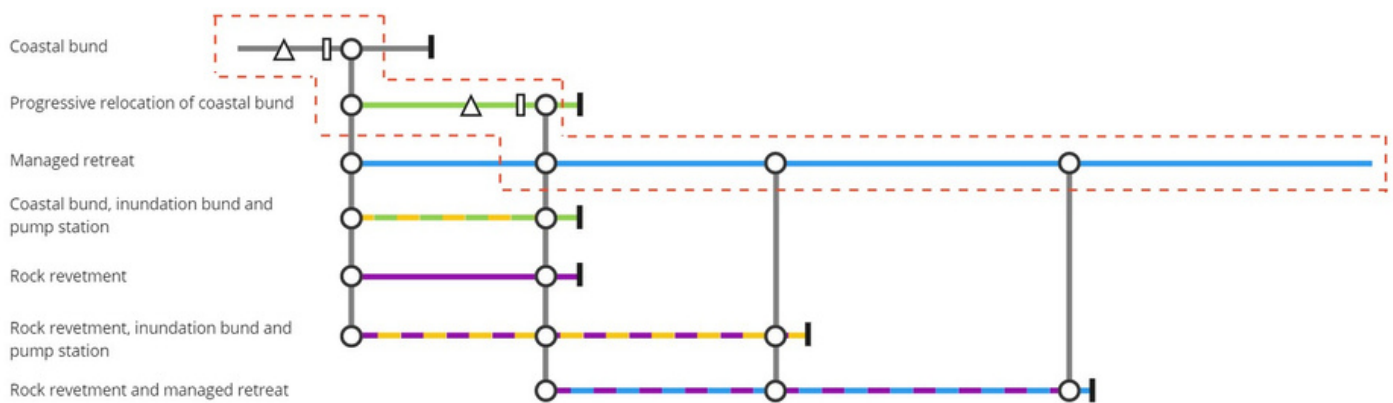
Name:

Address:

Email:

DRAFT Adaptive Planning Pathway

An adaptation plan will set out the long-term actions that need to occur to ensure the things you value most are protected.



Do you agree with the options identified in the Draft Adaptive Planning Pathway?

Do you agree with the proposed preferred pathway?

What changes would you like to see and are there any options you think should be included?

Amberley Beach Coastal Conversations Feedback Form



Proposal for Managed Retreat

Do you support the proposal for managed retreat including Council purchasing land on behalf of the settlement?

What would you do differently? What is your proposal?

What further information would you like on the managed retreat proposal?

Do you have any questions you would like answered by the Insurance Council? What are these?