

# Cape to Cape Resilience Project

## Community engagement: Adaptation actions



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From late March to late April this year, we asked people who live in or visit Inverloch, Venus Bay and nearby communities to share their feedback on coastal hazards, coastal management and adaptation ideas. This update provides an overview of the online engagement outcomes from EngageVic.

### What were we asking?

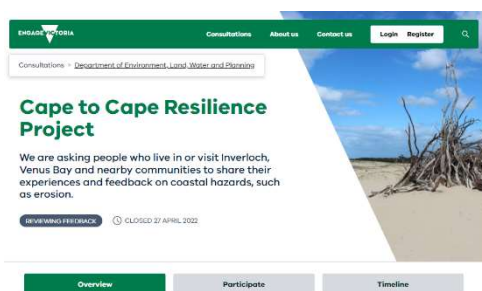
To help inform the discussion on ways to adapt to and manage coastal hazards in the future, the survey explored a range of questions relating to possible coastal adaptation actions for the Cape to Cape region.

We asked people to:

- Share their preferences between different adaptation actions used in coastal management
- Contribute ideas to build resilience, adapt to change and help retain what they value into the future

People were also given the opportunity to view the coastal hazard map both online, and in person at our pop-up sessions, to see where actions may be needed.

We've heard a range of perspectives from many people and we thank everyone who contributed through the survey.



### Coastal hazard adaptations actions survey

Please take our 15-minute survey to provide us with your perspectives on:

- Coastal hazard adaptation actions
- Your experiences or observations of coastal adaptation
- Your thoughts on adaptation for Inverloch and the Cape to Cape region

Your responses will help inform the discussion on ways to adapt to and manage coastal hazards in the future.

### Who did we hear from?

We had a total of 658 visitors to the website and 65 surveys completed.

### What we heard

Findings from the survey have been summarised under the following themes:

- Demographics
- Coastal hazard impacts
- Role of the individual in adaptation
- Adaptation actions

The next pages describe some of the themes for feedback under these groups.

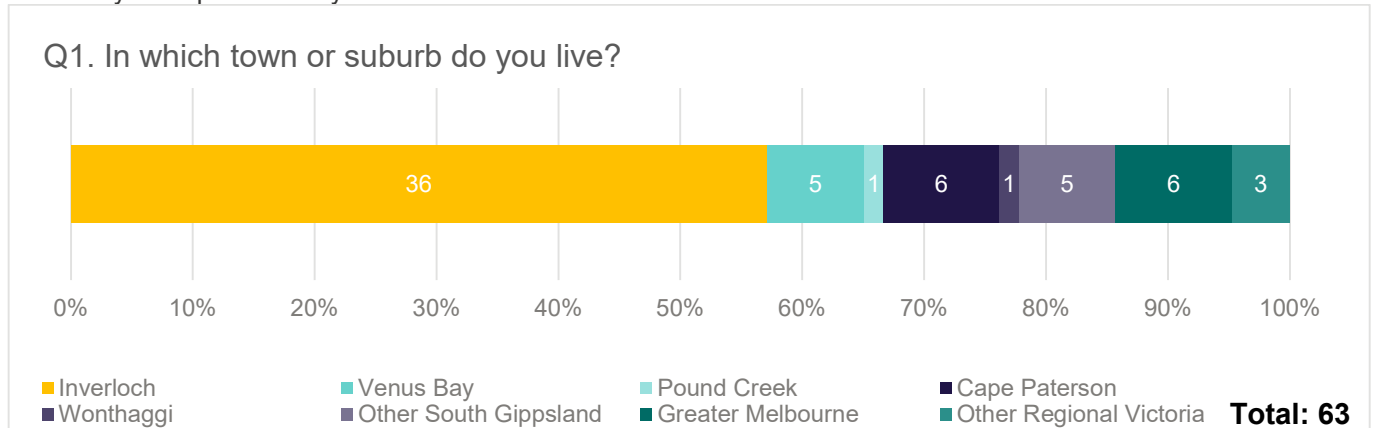
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# Cape to Cape Resilience Project

## Demographics

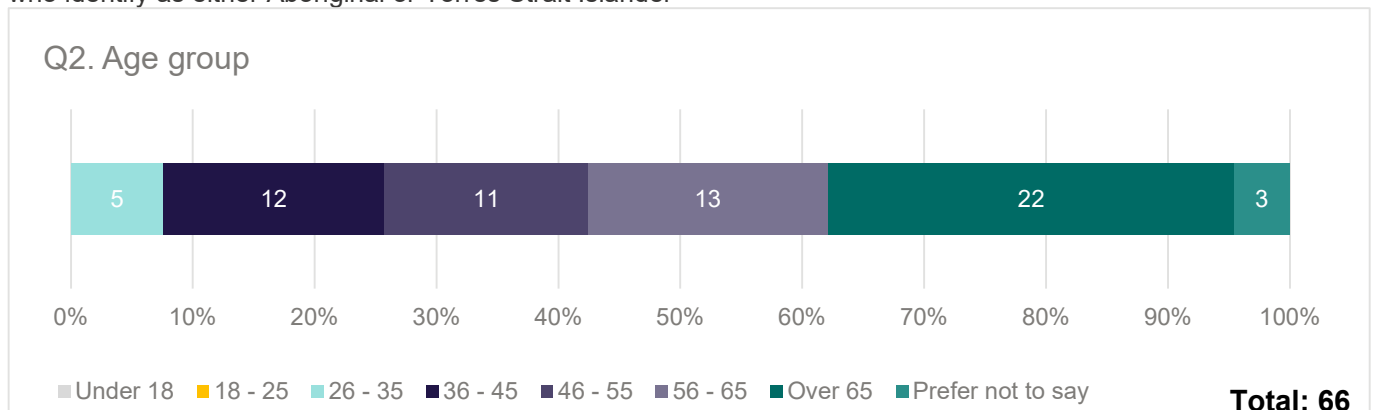
### Most respondents were from Inverloch or the Cape to Cape Region

Over three quarters of respondents were from the Cape to Cape area. Some also had holiday homes in the area, while they lived permanently elsewhere.



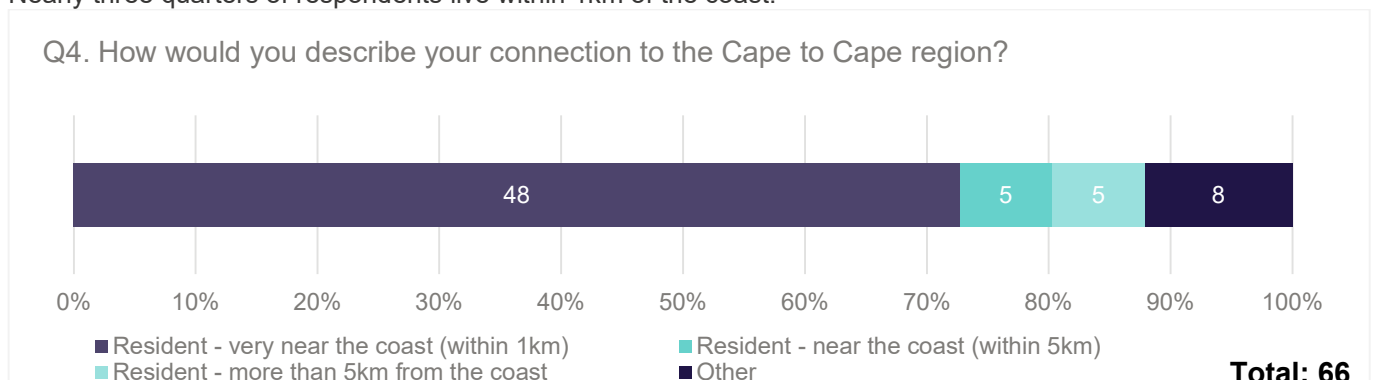
### Respondents were generally older community members

Over half of respondents were over 55, with no representation of people under 25. There were also no respondents who identify as either Aboriginal or Torres Strait Islander



### Most respondents live very near the coast

Nearly three quarters of respondents live within 1km of the coast.

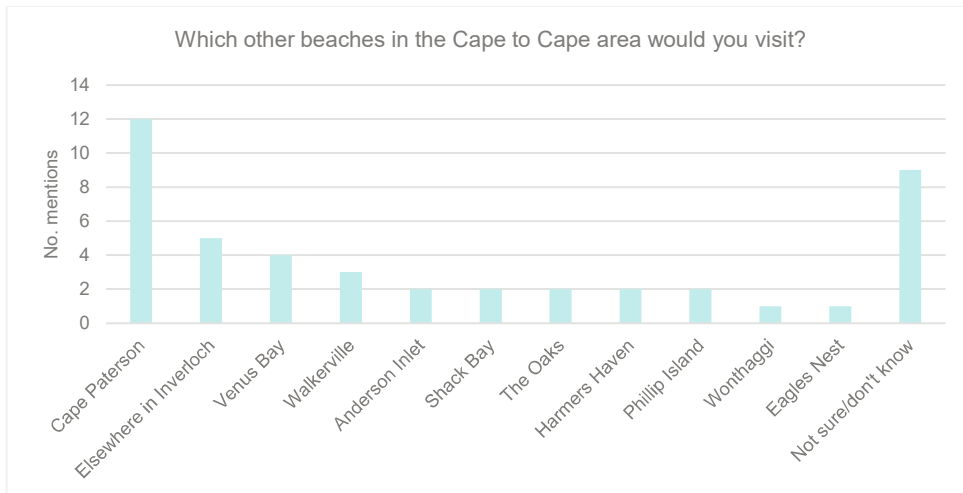
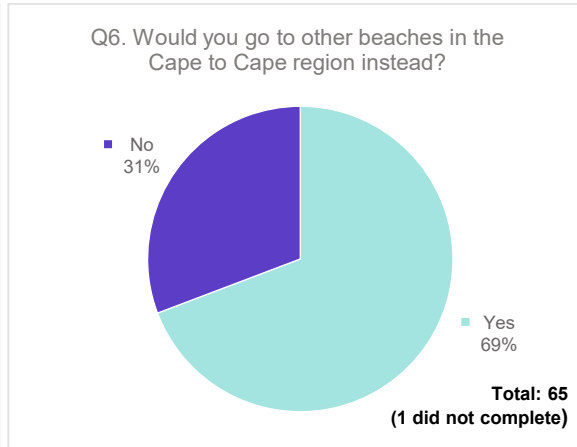
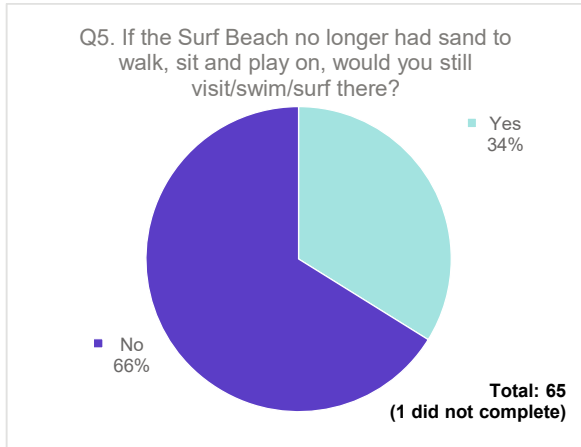


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## Coastal hazard impacts

Most people said that if the surf beach no longer had sand, they wouldn't visit, but would visit other beaches nearby

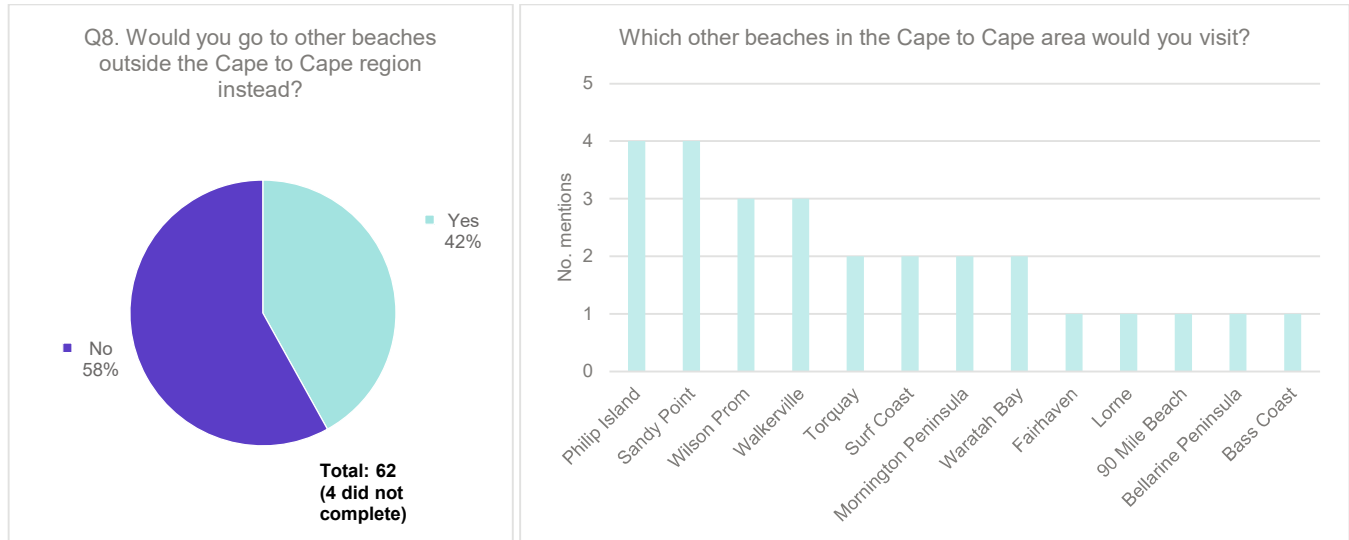
Two thirds of people said that if the surf beach no longer had sand, they wouldn't visit. However, two thirds also said they would visit another beach in the Cape to Cape region. The most popular alternative beaches were Cape Paterson, Venus Bay or elsewhere along the Inverloch foreshore. Some people said they weren't sure and they'd go to wherever had a sandy beach at the time.



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Of those that said they would go to beaches outside the Cape to Cape region, most people would still go to the South Gippsland region

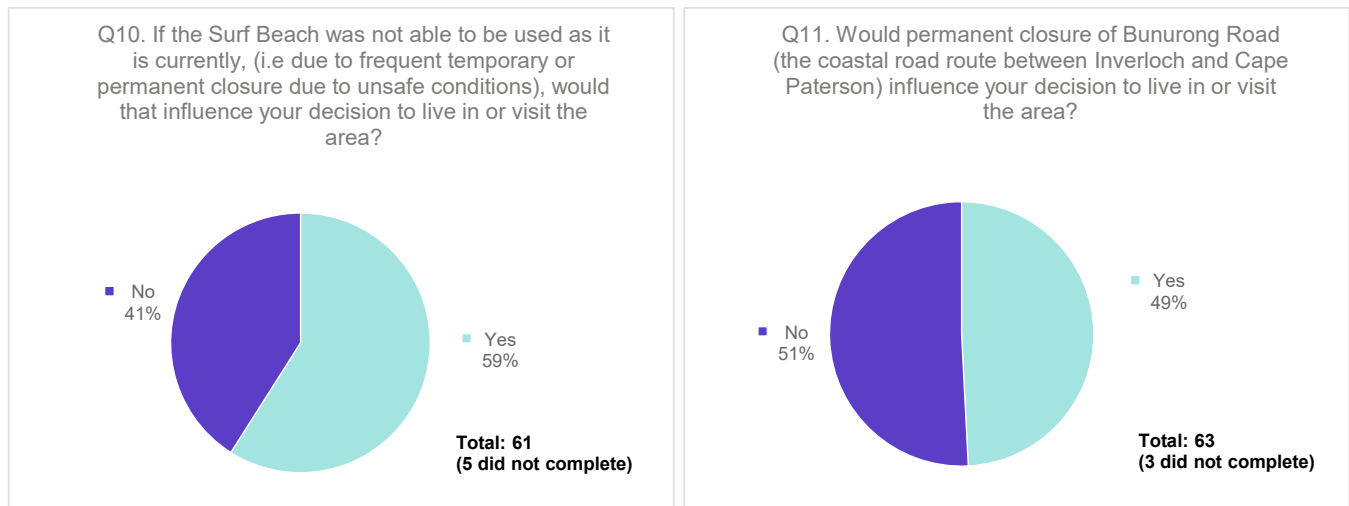
Other popular beaches that people would go to outside the Cape to Cape region included Phillip Island, Sandy Point, Wilsons Prom and Walkerville.



The availability of the surf beach and access through Bunurong Road influences people’s decision to visit or live in the area

Nearly 60% of people said that if the Surf Beach was not able to be used it would influence their decision to live in or visit the area.

Around half of people said permanent closure of Bunurong Road would influence their decision to live in or visit the area.



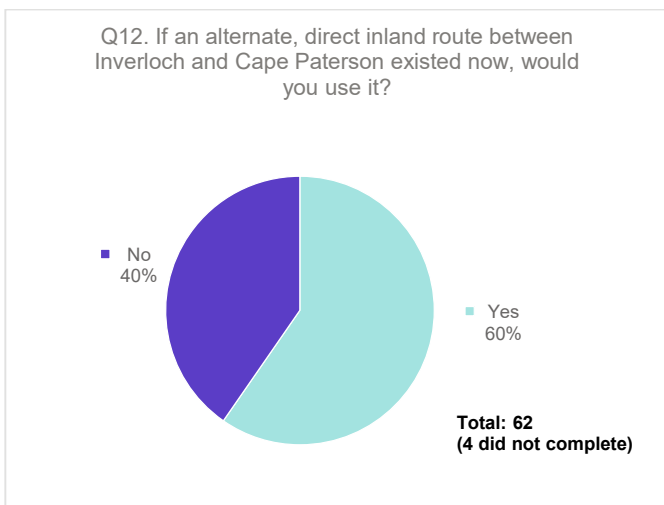
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## Most people are happy to utilise an inland route between Inverloch and Cape Paterson

60% of people said they would use an alternative direct inland route between Inverloch and Cape Paterson if one existed now. The main reasons for this preference were the time it would save and provision for a safer route, particularly for cyclists. Some people also noted that an inland route would probably have less impact on the sensitive coastal environments.

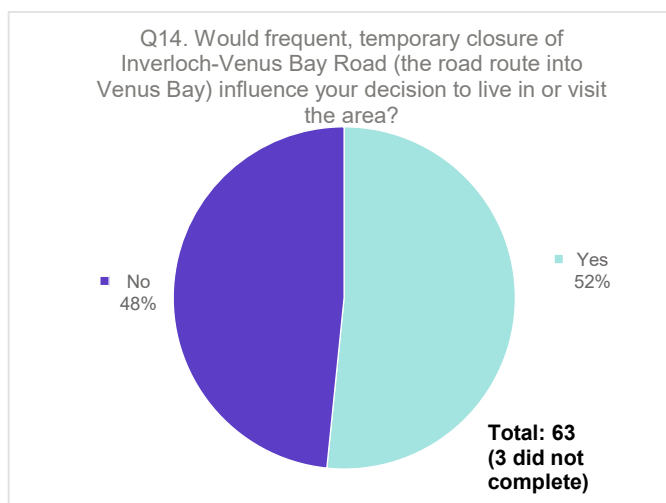
Of the 40% of people who said they wouldn't use the road, most of the reasons given were because they enjoyed the views, vistas and coastal experience of the coastal road. Some also access the beaches and coastal attractions along the road, such as Eagles Nest, some citing access to properties as well.

Some people conceded that whilst they enjoy the coastal road at the moment, they may consider using an alternative route in the future if the current road was no longer viable.



## People were split on whether temporary closure of Inverloch Venus-Bay Road would influence their decision to live in or visit the area

People were split around 50:50 on whether a temporary closure of the road would influence their decision to live in or visit the area.



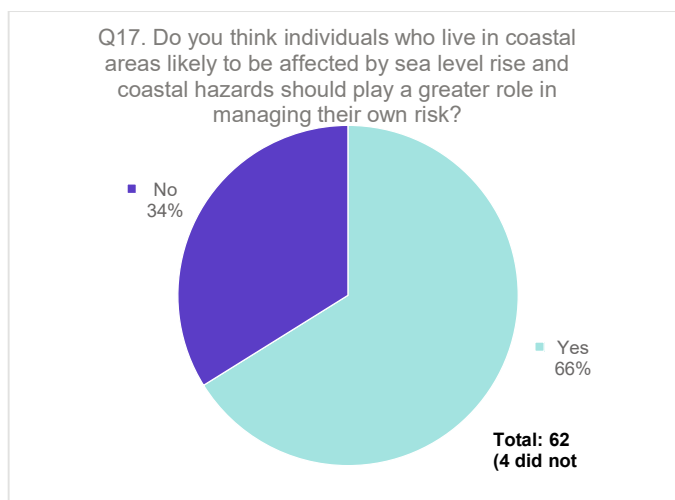
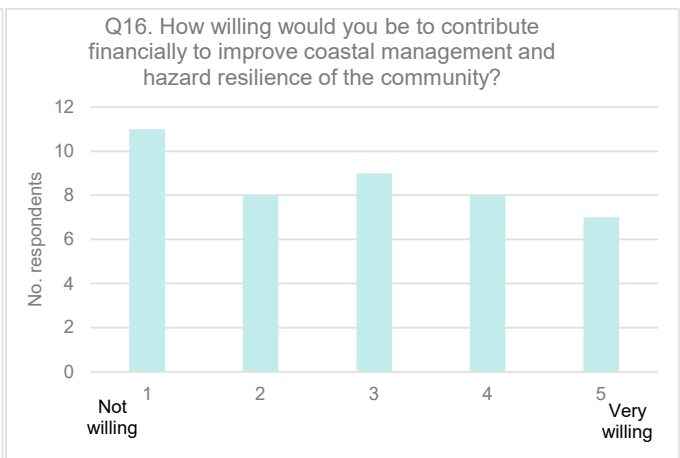
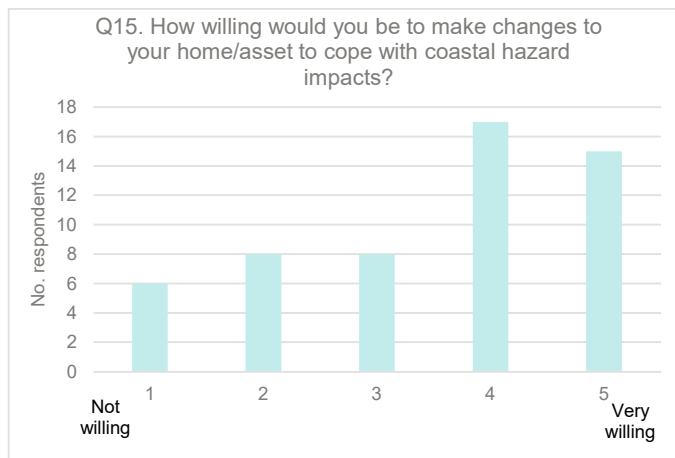
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## Role of the individual in adaptation

People were generally willing to make changes to their own home/asset to cope with coastal hazards, but were split on whether they'd be willing to financially contribute to improve coastal management and hazard resilience for the rest of the community

Nearly 60% of people said they were willing or very willing to make changes to their home/asset to cope with coastal hazard impacts. However, when it came to contributing financially to improve coastal management and hazard resilience of the community, people were split, with a quarter not willing to contribute.

Similarly, two thirds of people believe that individuals who live in coastal areas likely to be affected by sea level rise and coastal hazards should play a greater role in managing their own risk.



## Many respondents are personally taking action on climate change in a range of ways

There are numerous ways in which the community is taking action on climate change, some of the responses included:

- Solar power and hot water
- Power and water saving devices (light bulbs, shower heads, etc.)
- Energy saving home upgrades – double glazing, insulation etc.
- Waste and energy saving – recycling, responsible car use, etc.
- Electric vehicles

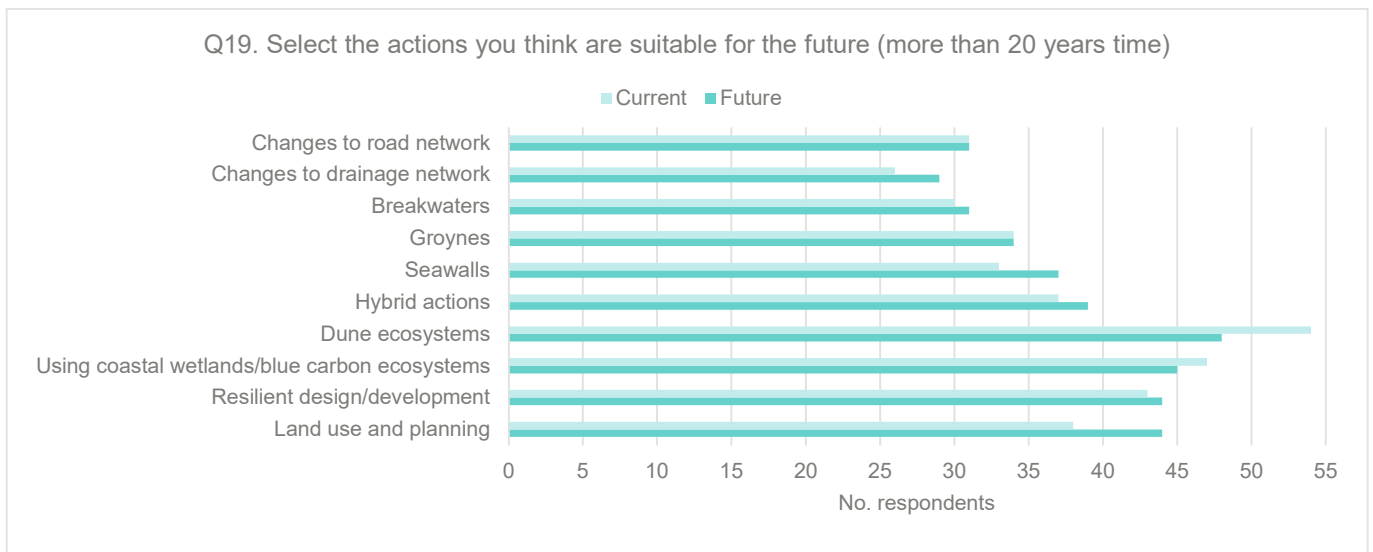
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## Adaptation actions

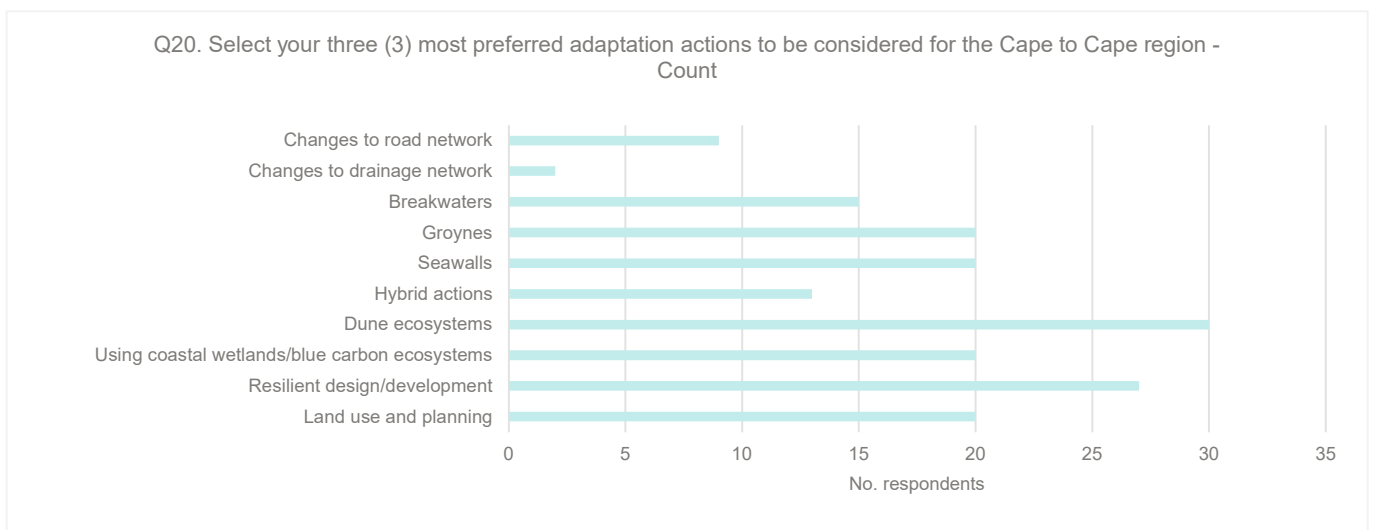
### Dune protection and beach nourishment were seen as the most suitable actions for the region both now and into the future

Dune protection and beach nourishment were seen as suitable, although perhaps becoming less suitable into the future. When thinking into the future (>20 years) land use planning was seen to be more important; given early land use planning can help us avoid coastal hazard risk in the future, opportunities to implement better planning earlier (at present) could prove to be advantageous.

While dune ecosystems and using coastal wetlands / blue carbon ecosystems were largely preferred, the community is split on the most suitable adaptation options.

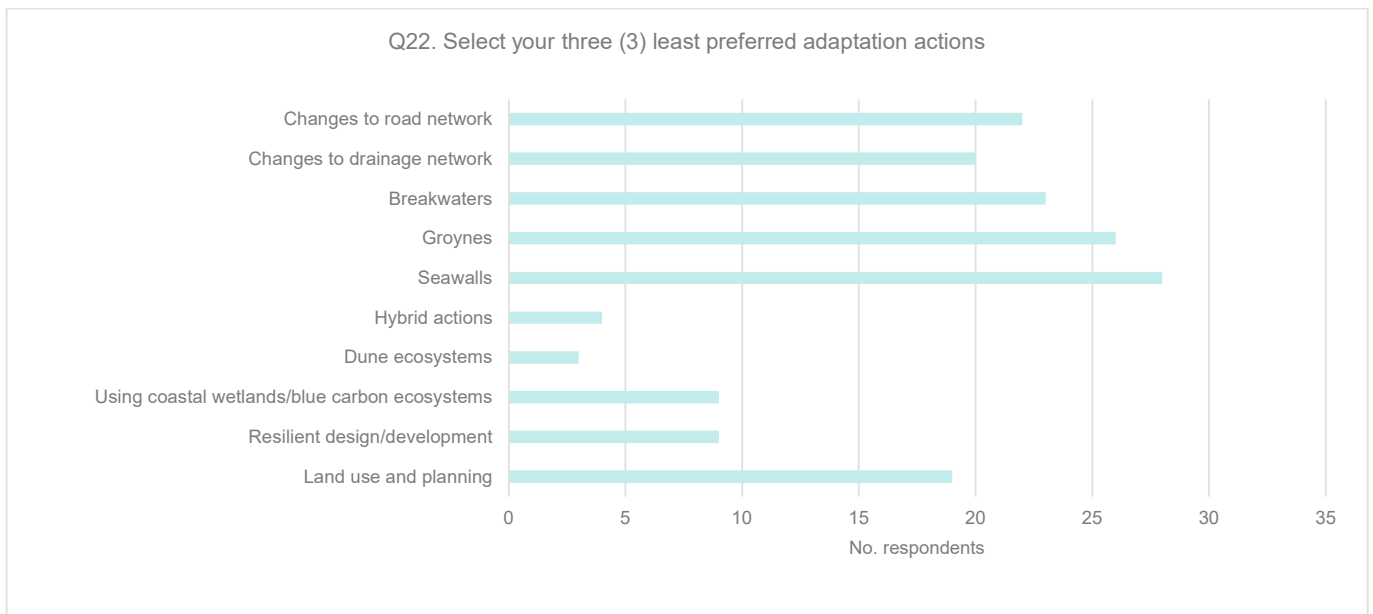
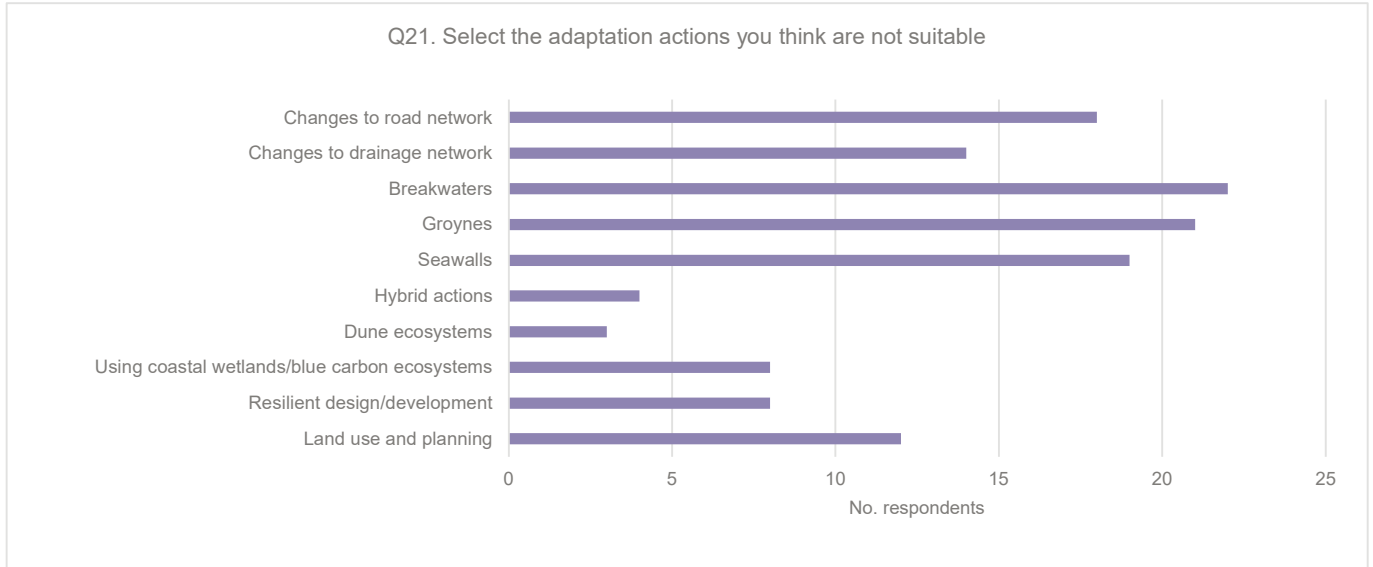


When asked to select their **most preferred option**, respondents had preference for Dune ecosystems and resilient design/development.



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Many people felt that engineered solutions such as breakwaters, groynes and seawalls were not suitable or were generally least preferred.



When asked to comment on other ideas for other adaptation actions, topics raised:

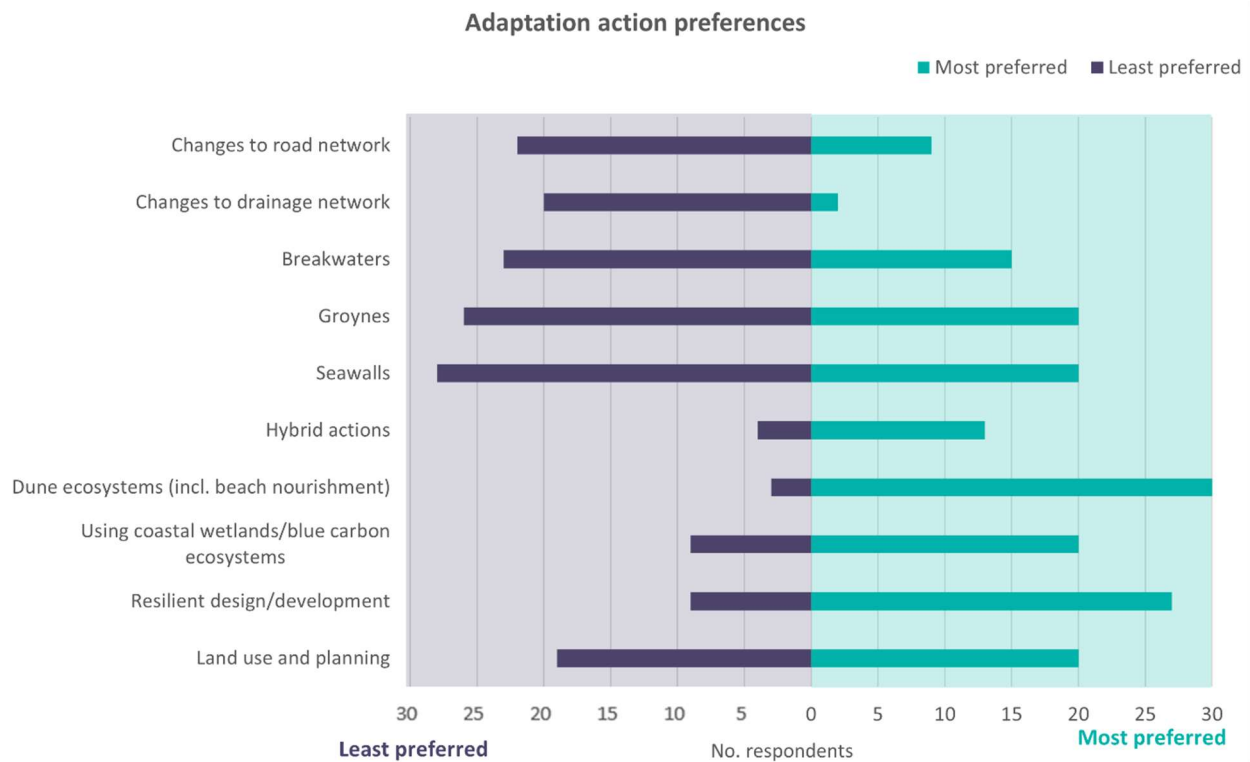
- suggested land buy back
- considered that multiple actions will probably need to be implemented
- looked to options that provide multiple benefits such as potential ability to harness wind and/or wave energy
- considered the cost of options and suggested levees or fees for the community to contribute.



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## Adaptation action preferences are divided

Combining people's most preferred and least preferred adaptation actions, showed that responses were divided, with support and opposition for all action types.



Most support for hard infrastructure such as groynes, breakwaters and seawalls came from local respondents from Inverloch, whereas people from other locations said these were their least preferred options.

## Respondents were given the opportunity to expand on their reasons driving their preferences on adaptation actions

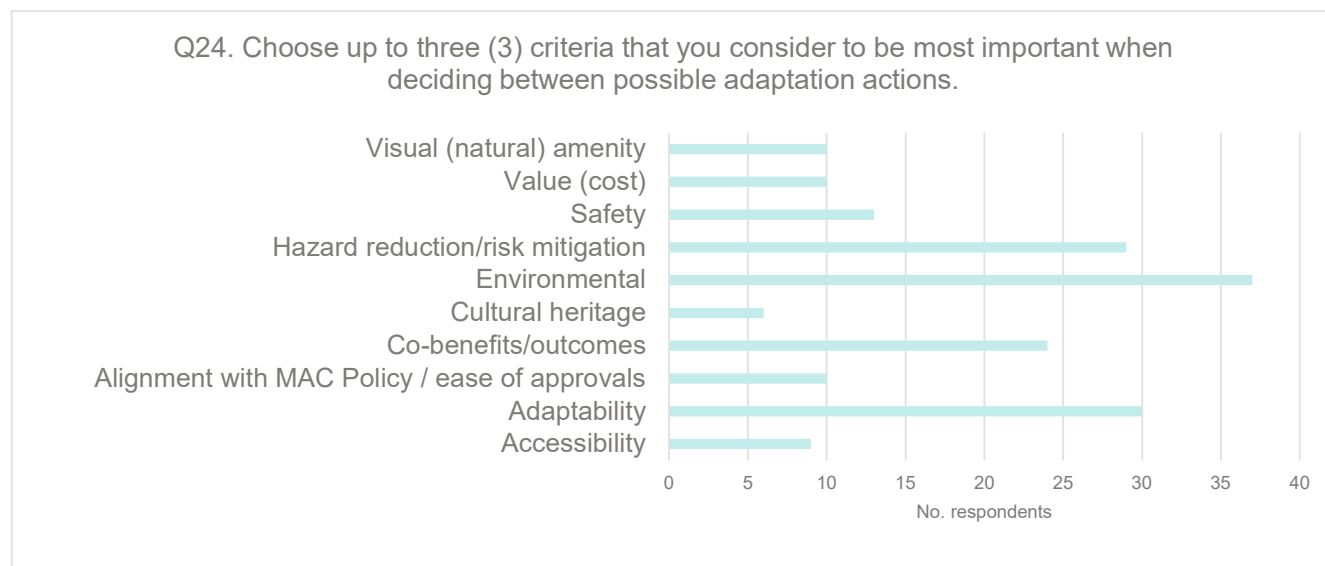
Open-ended responses from respondents provided further context relating to the individual adaptation action preferences. This highlighted some of the positive considerations as well as some of the concerns with different adaptation actions. A summary of these responses is shown in the table on the next page.

Functional type	Adaptation actions	Positive considerations	Concerns
<b>Land management, planning and design</b>  Use policy, planning instruments, guidance materials, communication, capacity building and strategic processes to enact change.	<b>Land use</b> Access control, planning overlays, planning scheme amendments, rolling easements, land acquisition	<ul style="list-style-type: none"> <li>Land use on dune systems needs to be relevant to the sea.</li> <li>Land buy back is inevitable, we can't afford to attempt to fight the sea</li> <li>It's the only real long term solution and saves money in the future. Educate people now about likely future changes.</li> <li>If we plan now, there will be fewer problems in the future (minimised exposure)</li> <li>The area is overdeveloped which is starting to impact us now, we need to plan for the future.</li> <li>Helps with public education of risks</li> </ul>	<ul style="list-style-type: none"> <li>Want to protect the investment made by existing landholders</li> <li>Property owners should not be penalised for buying a property previously approved.</li> <li>Purchasers buy land based on planning controls at the time, which set long-term expectations of what the land can be used for</li> </ul>
	<b>Resilient design / development</b> Design standards, materials, setbacks	<ul style="list-style-type: none"> <li>May be necessity in response to emergencies</li> <li>Some land should never have been developed, so upgrades/relocation over time is needed</li> </ul>	
<b>Nature-based</b>  Use the creation or restoration of coastal habitats for hazard risk reduction.  This may be achieved through restoration of habitat alone ("soft" approach), or in combination with hard structures that support habitat establishment ("hybrid" approaches).	<b>Coastal wetlands / blue carbon ecosystems</b> Mangroves, seagrass, saltmarsh	<ul style="list-style-type: none"> <li>Provide natural hazard protection</li> <li>Creates more greenspace/habitat</li> <li>Act as carbon sink and refuge for displaced/retreating species</li> </ul>	<ul style="list-style-type: none"> <li>Not effective in high-energy environments</li> </ul>
	<b>Dune ecosystems</b> Dune protection / vegetation, beach nourishment*/scraping	<ul style="list-style-type: none"> <li>Without vegetation, the amenity and environment of the area will be significantly deteriorated.</li> </ul>	
	<b>Hybrid actions</b> Sand fencing	<ul style="list-style-type: none"> <li>All approaches should be used in combination</li> </ul>	
<b>Engineering</b>  Use engineering and design to develop coastal structures, engineered changes to landform, and infrastructure modifications.  Includes both "hard" and "soft" engineering and can be used in conjunction with some nature-based methods.	<b>Beach nourishment*</b> Beach scraping, Cart and place, dredging, sand bypassing	<ul style="list-style-type: none"> <li>Provides hazard protection while retaining natural amenity and sandy beach</li> <li>Sand can be supplied from Anderson Inlet</li> </ul>	<ul style="list-style-type: none"> <li>A 'Band aid' solution that masks natural coastal behaviour and becomes difficult to stop, once started</li> <li>A long-term sand supply is sometimes difficult to find</li> </ul>
	<b>Seawalls</b>	<ul style="list-style-type: none"> <li>Engineering solutions can help protect the remaining foreshore ecosystem or amenity values</li> <li>Can be used as a 'stop-gap' to buy us time to move infrastructure</li> <li>Could be funded by residents at most risk of losing property</li> </ul>	<ul style="list-style-type: none"> <li>Would permanently alter the appearance of the beach</li> <li>Would cause loss of beach – the key feature and identity of Inverloch</li> <li>Would exacerbate erosion issues in another area and redirect wave energy elsewhere. End up having to continuously extend a seawall</li> <li>Would impact visual aesthetic/appeal of the beach</li> </ul>
	<b>Groynes</b>	<ul style="list-style-type: none"> <li>Could augment existing rocky reef</li> <li>Assists with sand retention</li> </ul>	<ul style="list-style-type: none"> <li>Would permanently alter the appearance of the beach</li> <li>Untested, with uncertain impacts on sediment dynamics and could result in unintended consequences</li> <li>Expensive and difficult to remove</li> <li>Visually intrusive</li> </ul>
	<b>Breakwaters</b>	<ul style="list-style-type: none"> <li>Could provide multiple benefits, e.g. create new marine biodiversity/habitat and recreation benefits (surf break)</li> <li>Allow nourishment/recovery of a sandy beach and reduces amenity impacts, retaining tourism</li> <li>Thought to reduce energy reaching coast and reduce erosion</li> </ul>	<ul style="list-style-type: none"> <li>Unknown changes to wave patterns and wave action</li> <li>Significant (and unknown) interference with natural processes</li> <li>Very high cost for benefit that may or may not be realised</li> </ul>
	<b>Drainage network</b> Pipes, valves (size, functionality, network location, materials)	<ul style="list-style-type: none"> <li>Planning now will reduce problems in the future.</li> </ul>	
	<b>Road network</b> Network, material, drainage	<ul style="list-style-type: none"> <li>Road will need to be relocated eventually.</li> <li>Can be achieved and budgeted over time</li> <li>Can be achieved with minimal disruption</li> </ul>	

# Cape to Cape Resilience Project

When deciding on adaptation actions, people felt that the environmental impacts, the level of hazard/risk mitigation and the ability to be adaptable were important considerations.

Nearly half of respondents selected these three criteria as being important. Providing co-benefits/outcomes was also seen as important.



When asked what else would be important to consider, people highlighted the importance of timely action and also felt that protection of private assets should be considered.

## What next?

Combined with our Community Values Study from last year, and further stakeholder discussions, we are compiling all of the feedback we heard from the survey and our in-person community pop-up information sessions in April 2022.

This understanding will be used to help inform the development of a suitable adaptation approach to manage coastal hazards for the Cape to Cape region, now and into the future, as part of Stage 2 of the Cape to Cape Resilience Project.

## How can I get involved?

To ensure you keep up to date with the Cape to Cape Resilience Project and upcoming events and activities:

- Visit the project website at [marineandcoasts.vic.gov.au/coastal-programs/cape-to-cape-resilience-project](http://marineandcoasts.vic.gov.au/coastal-programs/cape-to-cape-resilience-project)
- Sign-up to receive progress updates and notifications – email [capetocape.project@delwp.vic.gov.au](mailto:capetocape.project@delwp.vic.gov.au)
- Read our latest factsheets via the website
- Ask us a question – email [capetocape.project@delwp.vic.gov.au](mailto:capetocape.project@delwp.vic.gov.au)

The State of Victoria Department of Environment, Land, Water and Planning 2022



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ISBN 978-1-76136-014-5 (pdf/online/MS word)

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