# **Summer Survey Report**

June 2020



Te Ara Tapātai o Hinekirikiri Tīkapa Moana: Te Tara o Te Ika-ā-Māui

Report prepared as part of the Thames-Coromandel District Council Shoreline Management Planning Project





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## 1 Background

In April 2019 Thames-Coromandel District Council embarked upon a three year journey to develop Shoreline Management Plans (SMPs) to devise a path for the sustainable management of the coastal environment. SMPs will be developed in accordance with the latest Ministry for the Environment Guidance (MfE, 2017) and will define the characteristics of coastal hazards experienced on the Coromandel Peninsula, the risks those hazards may pose to communities across social, cultural, economic and natural environment domains, and will identify appropriate actions to address those risks. The SMPs will be dynamic and take heed of not only immediate risks, but risks that may arise over time as our climate, coastal environments and communities change.

It is increasingly apparent that appropriate community engagement plays a pivotal role in developing acceptable and robust solutions to coastal risk problems over the short and the long-term (Becker et al., 2017). Social science methods like surveys can provide different perspectives and additional evidence to support both technical studies and more traditional forms of public consultation. Surveys are also useful in that they are an effective mechanism to obtain both quantitative and qualitative information and often detailed insights into community views, perceptions and preferences. In addition, in setting goals for long-term coastal planning and adaptation - it is beneficial to understand the perspectives of the community, including what people value about the coast (Becker et al, 2007).

To support the SMP project in the Thames-Coromandel District and help gauge broad community understanding of the coast, an online public survey was designed and run over the 2019/20 summer period.

This survey was designed to be complementary to the overarching SMP project and help guide and support detailed technical studies on coastal hazards, vulnerability and risk, and inform the evaluation of different coastal adaptation options. The survey differs to a social impact assessment in that it does not go into detail about lived values (Graham et al, 2014) or the impacts of coastal hazards on compartments or management areas. It instead seeks to capture a broad cross-section of community views beyond the views of those most exposed to coastal hazards and provide an additional platform from which to engage a wider cross-section of community.

## 1.1 Previous studies

This study contributes to a growing body of social science research within the Coromandel area, and the Waikato Region about community understanding and coastal management or adaptation (e.g. Dahm, 2003; Thompson, 2003; Dennis et al., 2005; Horvath-Hallett, 2005; Stewart et al., 2005, 2007, 2011; Blackett and Hume, 2006; Blackett et al, 2010; Schneider et al, 2017; Schneider and Glavovic, 2019). A number of surveys have also been undertaken in the broader New Zealand coastal management context (Johnston et al, 2003; Stewart et al, 2005, 2007, 2011; Becker et al, 2017).

This analysis and summary does not make comparisons with previous surveys. However, Rouse et al (2017) summarise the findings of previous surveys in New Zealand and note:

- 1. Climate change and SLR are generally viewed as temporally distant threats that will impact on coastal communities and property through coastal erosion, flooding and drainage issues.
- 2. Risks are more keenly felt by those who are already experiencing them. Those who live further away from the beach, or have not experienced an event, do not think they will be affected in the near future.
- 3. Views on management options tend towards hard engineering solutions, with the exception of areas where beach renourishment or dune replanting have already demonstrated benefits. Support for managed retreat appears to be highly variable across the country.
- 4. There is a high level of geographical variation in perception and views of risks and coastal management options, indicating that each community is unique and should be approached as such.

## 2 This Survey

A twenty (20) question survey instrument was developed using Google Forms. Anticipated completion time for respondents was estimated at between 10-15 minutes.

A copy of the survey is provided as Appendix A to this report.

## 2.1 Aim

The aim of the survey was to gauge community understanding of coastal hazards, their values, perceptions of the drivers and potential impacts of coastal hazards, and to identify community information preferences to inform future iterations of Council's Communications and Engagement Strategy (CES) for the SMP Project.

## 2.2 Design

The survey was designed to complement the collaborative Dynamic Adaptive Pathways Planning (DAPP) process that forms the backbone of the SMP Project, and also to reach a wider audience than those directly involved in the Coastal Panels. Additional reach was seen as necessary due to the significant number of absentee homeowners in the District, but also as a method of engaging a broader cross-section of the community as early as possible.

Advantages and disadvantages of surveys are discussed in the MfE guidance (2017), extract reproduced here:

Surveys	Postal, internet-based or telephone surveys can be undertaken to ask participants about their values, what they value and their objectives for addressing coastal hazards and climate change impacts.
	Advantages: Can obtain information from a large number of participants at a wide scale (eg, regional); raise awareness of the issues; obtain input from a range of participants. Low cost. Identify key issues that are critical at a regional scale.
	Disadvantages: Low levels of detail on specifics (superficial data), response rates can be low and represent particular demographics, little opportunity for learning, discussion or interactions. Risks missing key information.

#### Figure 1 Advantages and disadvantages of surveys. Source: MfE, 2017.

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A mixed-methods (quantitative and qualitative) survey was used to canvas the public in a general sense about:

- the values they attach to the coast,
- their favourite places and the places they feel most connected to (their turangawaewae),
- their perceptions of coastal hazards (flooding and erosion) and how they might change over time,
- what threats they perceive to the coastal environment, and
- their previous and preferred sources of information.

The design of this survey recognises that values-based approaches are useful to inform public decision-making and can help:

- understanding of climate change and coastal hazard impacts,
- identify groups of people who might be most disadvantaged by adaptation or failure to adapt, and
- guide adaptation policies towards preservation of important lifestyle attributes in the community.

Further, questions in this survey around coastal values were designed to be directly comparable to similar questions asked by other researchers (including Becker et al., 2017; Graham et al., 2014; and Ramm, 2018), so informing further research. The author's experience with the MyCoastNSW

study (Attard et al, 2019) also provided a useful benchmark for survey design, with the intent being that the current survey be useful for further research, analysis and comparison wherever possible.

## 2.3 Dissemination

The survey was hosted on Coastal Management Collective's Google Forms platform with a link provided through Council's website at <u>www.tcdc.govt.nz/coastal</u>. A press release was developed announcing the survey and it was advertised on social media, via a project newsletter sent out to existing email contacts and via community groups.

The survey was live online for just over two months, between 13 December 2019 to 21 February 2020.

## **3 Results**

A total of 905 unique responses were received.

The following section presents descriptive results from the survey. Data were analysed using Microsoft Excel software.

## 3.1 Demographics

## 3.1.1 Ethnicity

 The overwhelming majority of survey respondents identified as being of New Zealand European origin (87.5%), with the next largest group being those who identified as Māori (5.4%). This compares to 83.1% European, 29.9% Māori and 3.3% Asian self-identifying in the 2018 census.

## 3.1.2 Gender

• The gender distribution of survey respondents approximates that recorded in the Thames-Coromandel District from 2018 New Zealand census data (reported as female 51.1%, male 48.9%). Caution must be exercised here though as respondents may have come from outside the District.

## SUMMER SURVEY GENDER



Figure 2 Survey respondents by gender



AGE GROUP & GENDER OF SUMMER SURVEY RESPONDENTS VERSUS 2018 CENSUS THAMES-COROMANDEL DISTRICT PROFILE

Figure 3 Survey respondents by age group and gender compared to 2018 census data for Thames-Coromandel District

- Respondents make up a slightly older cohort of respondents as compared to the age distribution identified in the 2018 census. The above graph illustrates a slight but consistent trend for women to be more engaged in responding to the survey than men, apart from a greater number of males responding in the over 65 year age groups (retirees).
- Significantly, over 55 year olds make up nearly two thirds (61.5%) of all survey respondents. This is comparable to the ageing profile of the Thames-Coromandel District as a whole.
- In comparison to the age and gender distribution from the 2018 New Zealand census, survey respondents can be described as on average slightly older, with younger age groups under-represented.

## 3.2 How you live



*Figure 4 Survey respondents identifying as residents, homeowners or on holiday* 

- Property owners and residents made up the overwhelming majority of respondents. Holiday-makers represented only 12.2% of survey respondents despite the survey occurring over the peak holiday season.
- Over a quarter (27.6%) of respondents declared ownership of property in the Coromandel but lived elsewhere, representing a significant absentee owner stakeholder group.



Figure 5 Accommodation types for holiday-makers

• Of the 12.2% of holidaymakers, a mix of accommodation types was identified, with a majority of respondents staying in short-term holiday homes (such as those booked through AirBnB, Book-a-Bach, or BatchCare) and private residences.



Figure 6 Survey respondents living arrangements

• Respondents that owned property or resided in the District were asked about their living arrangements, and specifically whether they were renting, living in their own home or living with family. Of those groups, the vast majority are residing in their own home or a family home in the District, with only 9% of respondents renting.

## 3.3 Where you live



#### DISTRICT RESIDENTS PROXIMITY TO MEAN HIGH WATER

Figure 7 Residents self-assed proximity to mean high water



Figure 8 Absentee property owners self-assessed proximity to mean high water

• The above two graphs identify a pattern of respondents identifying as residents living in close proximity (less than 500m) to the water's edge. This pattern is more pronounced among absentee homeowners.

## 3.4 Coastal values

- Respondents were asked to rank the importance of some pre-selected values that relate to the coastal environment (see also Becker et al, 2017).
- When asked what they valued about the Coromandel coast, most respondents thought that the following values were all very important: natural/undeveloped coastal character (66%), appearance of the coast (61%), scenic values when looking out to sea (57%), easy access onto the coast (51%).
- Most other values were still considered important to very important.
- Protection of cultural/spiritual and family/whānau connections did not rank as highly as some of the other values.



### A SNAPSHOT OF THE IMPORTANCE OF COASTAL VALUES

Figure 9 Snapshot assessment of coastal values respondents felt were either most important, or least important, or somewhere in between.



■ 1 (least importance) ■ 2 ■ 3 ■ 4 ■ 5 (most importance)

Figure 10 Snapshot assessment of coastal values respondents felt were either most important, or least important, or somewhere in between.

## 3.4.1 Use and visitation



## FREQUENCY OF VISITS TO THE COROMANDEL COAST

Figure 11 Respondents frequency of visits to the coast

• Only one respondent had never visited the Coromandel coast. 37% of respondents indicated they visited every day or nearly every day.



## 3.4.2 Activities in the coastal environment

PREFERRED ACTIVITIES IN THE COASTAL ENVIRONMENT

Figure 12 Respondents preferred activities undertaken while at the coast

When at the coast, respondents reported that sedentary activities like enjoying the view, connecting with nature and relaxing/sunbathing were highly valued. Bathing/swimming, exercise and hiking/bushwalking were also preferred.

## 3.5 Threats to the coast



Figure 13 Commonly identified threats to the coast

- Freeform paragraph answers to this question provided a diversity of results. However, thematic analysis revealed some common threads in respondents' concerns.
- Climate change, global warming, sea level rise, and erosion were recognised as significant threats to the Coromandel coastal environment. Development, population, access, pollution were also recognised as key threats to the coastal environment.
- The above word cloud should be interpreted with caution as no analysis has been undertaken of the valence of a particular phrase e.g. whether a respondent had positive (+) or negative (-) concerns about topics like development or climate change.

## 3.6 Coastal hazards and risk

• Respondents were shown pictures of coastal erosion and coastal flooding in order to provide a base level of understanding (see photographs below). The photos were chosen from other areas around the world so as not to induce any local bias.



Figure 14 An example of Coastal flooding in Stone Harbor, New Jersey, USA as photographed by Zeke Orzech (8 February 2016). http://www.newsworks.org/index.php/local/down-the-shore/90847-nws-low-end-major-tidal-floodingpossible-tomorrow-morning



Figure 15 An example of coastal erosion showing the soft eroding cliffs at Ulrome in the East Riding of Yorkshire, UK. Photograph taken by Neil McLaughlin, East Riding of Yorkshire Council (12 May 2008). http://www.channelcoast.org/gallery/viewphoto/cliffs/soft\_cliffs/1384



#### LEVELS OF ENGAGEMENT RELATING TO COASTAL HAZARDS

#### Figure 16 A snapshot of respondents awareness of and engagement with coastal hazards.

- After being shown the photos of the coastal hazards of erosion and flooding respondents were then asked about their levels of awareness and engagement relating to coastal hazards. A significant majority of respondents reported thinking a lot about coastal hazards (dark trendline above), with a slightly weaker trend exhibited when respondents were asked in relation to their propensity to talk with others about coastal hazards.
- The lighter trend line points to a lack of advocacy about coastal hazards by respondents.



Figure 17 Self-rated preparedness of respondents for dealing with emergencies originating from the sea.

- On request from Thames-Coromandel Civil Defence and Emergency Services, respondents were also asked about their readiness to deal with an emergency coming
- from the sea. More than half of respondents felt relatively prepared or as prepared as they can be.

## 3.8 Sea level rise and climate change



#### **OPINION ON SEA LEVEL RISE AND CLIMATE CHANGE**

Figure 18 Respondents opinions on sea level rise, climate change, its impacts and their timing.

• More than two thirds of respondents recognised that sea level rise is already having an impact on the Coromandel coast or will definitely have an impact on the Coromandel coast in the next 50 years. However only one third (33%) of respondents were worried about sea level rise and its present negative impacts on the Coromandel coast.



#### **FUTURE SEA LEVEL RISE & THE COROMANDEL**

■ 1 (strongly disagree) ■ 2 ■ 3 ■ 4 ■ 5 (strongly agree)

Figure 19 Opinions on sea level rise and where and who it will impact. From left to right: A. Sea level rise will mostly affect other countries, B. The Coromandel coast will be affected by sea level rise, C. The coast I most frequently visit will feel the effects of sea level rise, D. Sea level rise will impact me and my whānau.

- There is broad recognition across the District that sea level rise will affect the Coromandel coast (see A and B above). There is also strong recognition from respondents that sea level rise will impact upon their favourite coast. However, the level of agreement for whether sea level rise will directly affect respondents and their families is less pronounced, indicating a slight perception that 'others' may be more affected.
- Respondents were shown a picture of the impacts of the 2018 storm on the Thames Coast Road/State Highway 25.



Figure 20 Storm damage on State Highway 25 along the Thames Coast from the January 2018 storm.

- They were then asked about the perceptions on the frequency and severity of coastal storms like that happening in the future. The majority of respondents thought that storms like this (see above) were going to be both more frequent and more damaging.
- This gives an indication of how respondents saw changes in risk over time, with most likely aware of how sea level rise and climate change can influence the occurrence of damaging storms.

## FREQUENCY OF DAMAGING STORMS IN THE FUTURE





### SEVERITY OF STORMS IN THE FUTURE



Figure 21 Respondents opinions on how climate change and sea level rise will affect the frequency of damaging storms.



Figure 22 Respondents opinions on how climate change and sea level rise will affect the severity of future storms.

## 3.9 Information preferences

- More than half of respondents identified as having received previous information about coastal hazards via the news media, or from local council or government. Relatively few respondents had never received any information about coastal hazards.
- It is also notable that personal and direct experience of coastal hazards was identified as a previous source of information by almost 40% of respondents.
- When asked how they preferred to receive information, respondents highlighted preferences for information to be packaged with their rates notices, via a newsletter or via the traditional print media and social media. Disseminating information through existing community groups (like CoastCare or Civil Defence and Emergency Management's Community Response Groups) was also slightly favoured.



## SOURCES OF PREVIOUS INFORMATION ON COASTAL HAZARDS

Figure 23 Where respondents had received previous information on coastal hazard and risk from.

#### PREFERRED METHODS TO BE INFORMED



Figure 24 Methods preferred by respondents for receiving new information on coastal hazards.

- We also asked respondents what specific topics they might like to know more about. Priority topics identified by respondents in this survey included: solutions, the key players/roles in coastal management, and the local impacts of climate change. Over a third of all respondents wanted to know more about coastal storms, sea level rise and king tides. Interestingly, insurance wasn't a topic of great relative interest.
- These results can be used to inform the direction and focus of future communications activities.



#### PREFERRED TOPICS OF INTEREST

Figure 25 Priority topic areas that respondents would like to know more about.

## **5** Recommendations

- The results presented in this report are statistically descriptive and while this provides an overall picture of the sample group and their preferences, it does not identify causality between variables or how variables may or may not be related. Further detailed analysis would be required to unpack these results further.
- **Future research** and analysis could also be undertaken to compare the results of this survey to the results of previous studies (where relevant see references below) to give additional insight. For example, this may provide new perspectives into change in values over time, or help elucidate any difference or consistency of values and perceptions between places. While caution should be exercised, commonalities/themes may be exposed by such work illustrating broader insights that could be applicable elsewhere.
- Further **detailed work unpacking coastal values** is considered essential for the next phase of the SMP Project and will help in objective setting for dynamic adaptive pathways planning.
- Respondents identifying as Māori are significantly underrepresented in the survey. It is strongly recommended that other methods of engagement are employed to provide a greater understanding of the importance of Māori coastal values and Te Ao Māori as a priority.
- **Youth** were also underrepresented in survey respondents and alternative, targeted methods of engagement could be tailored to enhance participation for this cohort.
- At key locations identified as being at risk, it is recommended that **kanohi ki te kanohi** (or face-to-face) conversations occur with key community members and key informants/stakeholders to delve further into the detail around values, coastal hazards and risks, and solutions. It is envisaged this will be possible via structured processes through Coastal Panels. This will be important for exploring the lived values and local objectives relevant for each SMP area.
- Specifically as an integral part of the next Phase of the SMP Project (over the next 12 months) a **follow up survey on coastal adaptation solutions** is recommended to be undertaken. Previous studies e.g. in Tairua and Whangapoua (Becker et al, 2007; Dahm, 2003) have shown strong support for more natural methods of coastal management such as the use of sand dunes (as buffers) both in the short and long term, while there was also support for management approaches such as managed retreat and beach nourishment (Becker et al, 2007). However that study is 13 years old and may not necessarily reflect the views of the current community. More recent work was undertaken in the Hawkes Bay (Becker et al, 2017) as part of the National Science Challenge sponsored work to inform the Hawkes Bay 2120 Strategy. This work identified a correlation between residents in closer proximity to the coast (and therefore direct exposure to coastal hazards) with a preference for more immediate protection works.

• Other studies have investigated where people perceive **responsibility and liability for funding coastal adaptation solutions** rests (Dahm, 2003; Stewart et al., 2011; Becker et al., 2017). This is an important area for future work as funding mechanisms, cost sharing and cost distribution are common barriers to the implementation of plans (identified as one of three key challenges in MfE and HBRC, 2020).

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## **Appendix A - Summer Survey**

## Our Coromandel Coast: 2019-20 Summer Survey

#### Hi there,

Over the next two years Thames-Coromandel District Council is developing Shoreline Management Plans around the entire Coromandel coast. When complete, the Plans will identify approaches to sustainably managing the coast where it is under pressure from natural events like coastal erosion and coastal flooding.

This survey will ask you questions about your knowledge and understanding of those events, seek to identify how and why the coast is important to you, and uncover the best way we can stay in touch with you. Your opinions will greatly assist in the development of the Shoreline Management Plans.

#### Instructions:

There are 20 questions. You may leave questions blank if you do not wish to answer them, but we encourage you to provide as much information as you can for any open-answer style questions. This survey should take you no more than 15 minutes to complete and will provide invaluable data for the future management of our coast.

#### Declaration by the participant:

- I provide my consent for the information collected about me to be used to inform the development of the Thames-Coromandel District Council Shoreline Management Plans (only);

- I freely agree to participate in this survey and understand that I am able to stop/withdraw at any time I may choose.

To accept these declarations please click next (below) and proceed to the survey.

Note: if you are completing this survey on a mobile device, it may read better in landscape mode.

Thank you. \*Required





#### **Personal Questions**

1. Which of the following applies to you? \*

## Mark only one oval.



🔵 Female

Identify as gender diverse

2. What age group do you belong to? \*

Mark only one oval.

- Under 18
- 18-24
- 25-34
- 35-44
- 45-54

$\square$	) 5	55-64
$\square$	) 6	55-74
$\square$	7 (	75-84
$\square$	) ह	35+

3. What ethnicity are you? \*

Mark only	one	oval.
-----------	-----	-------

	opean		
Māori			
Asian			
O Pacific			
Other:			

4. Do you belong to a community group, association, club or other group that has an interest in the Coromandel coast? If so, please state:

5. Which of the following describes you best: \*

## Mark only one oval.

I am usually resident in the Thames-Coromandel District Skip to question 7

I own property in the District but live elsewhere Skip to question 9

\_\_\_\_ I holiday here Skip to question 6

Other:

## Holiday accommodation

6. If on holiday here, which of the following best describes the accommodation you are staying

in:	
Mark	only one oval.
$\bigcirc$	Short-term private holiday home e.g. AirBnB, Book-a-bach
$\bigcirc$	Staying at a campground
$\bigcirc$	Staying in a hotel/motel
$\bigcirc$	Freedom camper or NZMCA member
$\bigcirc$	) Other:

J

,

, ,

, .

Skip to question 10

Yo	our home
7.	Thinking about your home in the Coromandel, are you:
	The owner, or part-owner
	<ul> <li>Renting</li> <li>Part of a timeshare</li> </ul>
	() Other:

8. Thinking about your home in the Coromandel, approximately how far is it from the waters edge (the high tide mark)?

Mark only one oval.

- \_\_\_\_\_ waterfront
- less than 500m
- 🔵 between 500m-1km
- \_\_\_\_\_ 1-5km
- \_\_\_\_\_ 5-10km
- \_\_\_\_\_ 10-50km
- \_\_\_\_ More than 50km

Skip to question 10

Your property

9. Thinking about your property in the Coromandel, approximately how far is it from the waters edge (the high tide mark)?

Mark only	one oval.
-----------	-----------

waterfront
less than 500m
between 500m-1km
1-5km
5-10km
10-50km
More than 50km

Skip to question 10

What's important to you

- 10. On the Coromandel Peninsula, what place do you feel most connected to/your tūrangawaewae?
- 11. On the Coromandel Peninsula, what is your single-most favourite coastal location? (If the same place as above, please leave blank) \*
- 12. Generally speaking, what do you value about the coast (beach, harbour, estuary) in the Thames-Coromandel District? \*

Mark only one oval per row.

	1 (Least important)	2	3 (Neutral)	4	5 (Most important)
Appearance of the coast	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Good recreational facilities in general (boat ramps, reserves, etc.)	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
A dry, sandy beach at high tide levels for recreational activities and other uses, such as sun bathing, sports, activities with children	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Easy access onto the coast	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Healthy natural environment		$\bigcirc$	$\bigcirc$	$\bigcirc$	

Walking access along the full length of the beach/coast at high tide	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Maintaining cultural and/or spiritual connections		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Maintaining personal or family/whanau connections	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Protecting places of historic and/or cultural significance	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Retaining some natural / undeveloped coastal character	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Protection of scenic values	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	

13. In a typical year, how often do you visit a coastal location in the Coromandel (e.g. beach, harbour, estuary)? \*

Mark only one oval.

- Every day (or close to it)
- At least once a week
- At least once a month
- A few times a year
- Once a year
- Never

## 14. What activity do you mostly use the coast for? Tick all that apply

## Tick all that apply.

	Column 1
I work there	
Bathing / swimming	
Surfing / boardriding	
Snorkelling / diving	
Relaxing / sun bathing	
Fishing	
Gathering shellfish or kai moana	
Conservation activities (e.g. dune planting, bird watching)	
Shopping / eating / socialising	
Playing with children	
Boating / sailing	
Exercise e.g. walking, jogging, fitness group	
Enjoying the view	
Hiking or bushwalking	
Dog walking	
Connecting with nature	

15. What do you think is the biggest threat to your future use of the coast? \*

Skip to question 16

Coastal hazards and risk

## This is a picture of coastal flooding



This is a picture of coastal erosion



#### 16. Tick the box in each row which best describes you: \*

Mark only one oval per row.

	1 (strongly disagree)	2	3	4	5 (strongly agree)
I think about coastal hazards		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I talk about coastal hazards	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I am active in the community advocating about coastal hazards	$\bigcirc$		$\bigcirc$	$\bigcirc$	$\bigcirc$

17. How prepared do you think you are for an emergency originating from the sea (e.g. tsunami, coastal storm causing coastal flooding and/or erosion)? \*

Unprepared	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	as prepared as I can be
	1	2	3	4	5	
Mark only one	e oval.					

 Which statement best reflects your opinion about sea level rise and climate change? (select ONE) \*

#### Mark only one oval.

- It's not happening
- It isn't a problem for the Coromandel coast
- It's occurring so slowly that it's not really a problem in the Coromandel at the moment
- It's occurring but I personally feel unable to do anything about it
- It's already having negative impacts on the Coromandel coast
- It will definitely have an effect on the Coromandel coast within the next 50 years

## 19. How much do you agree or disagree with each of the following statements about future sea level rise?

Mark only one oval per row.

	1 (strongly disagree)	2	3	4	5 (strongly agree)
Sea level rise will mostly affect other countries		$\bigcirc$	$\bigcirc$	$\bigcirc$	
The Coromandel coast will be affected by sea level rise		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
The coast I most frequently visit will feel the effects of sea level rise	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Sea level rise will impact on me and my whanau				$\bigcirc$	$\bigcirc$

In January 2018, the Firth of Thames experienced a severe coastal storm that caused significant damage to property, roads and state highways, and disruption to coastal communities and holiday-makers.



20. In the future, do you think damaging storms like this will (select one):

#### Mark only one oval.



Bappen about the same amount as they always have

Occur less often

🔵 Don't know

#### 21. In the future, do you think storms like this will be:

#### Mark only one oval.

- O More damaging
- About the same
- Less damaging
- 🔵 Don't know

22. Where have you previously received information about coastal hazards and risks? (select all that apply)

Tick	211	th.	at	20	nh
TICK	all	UI	aι	ap	рту

- I have never received any information about coastal hazards and risks
- Local council or government
   Insurance company
   News media (newspapers/television/online news)
   Documentary (film or TV)

Brochures/pamphlets

- Neighbours, friends, family
- Dedicated websites
- Social media (i.e. Facebook, Instagram, Twitter, YouTube)
- School / university
- Community group
- Books
- Personal/direct experience

Other:

#### 23. Of the following, which topics would you like to know more about? Select all that apply

#### Tick all that apply.

None, I don't want any information
Actions I can take to reduce my own risk in regards to coastal hazards
How can I get involved in coastal management
How coastal hazards work (like erosion and inundation from the sea)
The impacts of climate change on my coast
The key players in coastal management (who does what)
Extreme high tides e.g. king tides
Sea level rise
Coastal storms
Insurance
Solutions e.g. seawalls, heach nourishment, managed retreat

	 y.	ocumano,	 	.,	
Other: 🛾					

24. How would you prefer to receive this information? Select all that apply

 Tick all that apply.

 Through existing community groups e.g. Community Response Groups, CoastCare

 Newsletter

 With my rates notice

 Print media, In my local newspaper

 Documentary (film or tv)

 On social media (Facebook, Twitter, Instagram)

 Through schools

 Dedicated websites, YouTube videos

 Community noticeboard

#### THANK YOU

Thanks for taking the time to participate in this survey. This information will contribute to the development of our Shoreline Management Plans and contribute directly to the future of our Coromandel coast.

If you have any pictures, news clippings, stories or other information you would like to share about your experiences or knowledge of the coastal environment, please visit <u>www.tcdc.govt.nz/coastal</u> or email us at <u>ourcoast@tcdc.govt.nz</u> and tell us all about it.

25. Please provide your full name and email address to go onto our contact list and go into the draw to WIN a \$500 fuel voucher.

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