

Appendix 3: Coastal Accommodation Business (CABs) Survey

This survey questionnaire targeted Coastal Accommodation Businesses and consists of questions tailored to people who work for, manage or own accommodation businesses.

Section 1:

First we need to know a little bit about you, your business and your relationship with the coast

1. What is your gender?

- Male
- Female
- Identify as other

2. What age group do you fall into?

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65-74
- 75 years and older

3. Do you belong to a community or other group that has an interest in the coast? (e.g. Surf Lifesaving, community action group, State Emergency Service)

- Yes (please specify)
- No

4. What type of coastal accommodation are you involved with:

- Holiday/caravan park
- Camp ground
- Motel
- Hotel
- Resort
- Other (please specify)

5. What is your relationship to this coastal accommodation business? (select closest answer)

- Owner
- Manager
- Shift manager
- Employee
- Other (please specify).....

6. How many years (approximately) have you been working for this accommodation business or in the coastal accommodation industry in general

- Less than 1 year
- 1 – 5 years
- 5 – 10 years
- 10 – 20 years
- 20+ years

7. What is the postcode of your coastal accommodation business?

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7a. Is your accommodation business located within a national park?

- Yes
- No

8. Approximately how far is your accommodation from the nearest coastal water:

- Adjacent to it
- Less than 100 m
- 100 m – 500 m
- 500m - 1 km
- 1 – 5km
- 5 + km

9. What type of coastal waters is your accommodation closest to:

- Ocean beaches (*please answer question 9a*)
- Cliffs/headlands
- An estuary e.g. lagoon, tidal inlet or harbour (*please answer 9b*)
- Rock platform
- Wetlands
- Other

9a. These beaches are:

- In an urban, heavily populated area
- In a more regional, moderately populated area
- In a natural environment (little or no development)

9b. This estuary is:

- In an urban, heavily populated area
- In a more regional, moderately populated area
- In a natural environment (little or no development)

10. How many years (approximately) has this business been at this location?

- Less than 1 year
- 1 – 5 years
- 5 – 10 years
- 10 – 20 years
- 20+ years
- Don't know

11. Has this business property ever been directly affected by any of the following?

a) Coastal erosion (loss of land or sand) caused by daily wave and tidal effects	Yes	No
b) Coastal erosion caused by extreme high tides	Yes	No
c) Coastal erosion caused by storm waves	Yes	No
d) Coastal flooding caused by extreme high tides	Yes	No
e) Coastal flooding caused by storm waves	Yes	No

(If yes to any of the above, please continue to **question 12**)

(If no to all of the above, please go to **question 13**)

Question 12

12a. How often do events like this occur?

- More than once a year
- Roughly once a year
- Once every 1 – 2 years
- Once every 3 – 5 years

- Once every 5 – 10 years
- Less than once every 10 years
- Don't know

12b. When was the last time an event like this occurred?

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12c. Please describe the event, including any damage caused to the property

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Question 13

13. In 20 years time, do you think that your business will be able to operate on the coastline the same way as it does now?

- Yes
- No
- Don't know

14. What do you think is the biggest threat to your accommodation business in relation to the future use of the coast (please comment)

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Section 2: Coastal Hazards

15. How much of a risk do you think the following hazards will pose to your business/the business you work at within the next 20 years? (1 = extremely low, 10 = extremely high)

a) Bushfires	1	2	3	4	5	6	7	8	9	10
b) Drought	1	2	3	4	5	6	7	8	9	10
c) Heatwaves	1	2	3	4	5	6	7	8	9	10
d) Severe coastal storms (e.g. cyclones)	1	2	3	4	5	6	7	8	9	10
e) Cliff collapse	1	2	3	4	5	6	7	8	9	10
f) Flooding	1	2	3	4	5	6	7	8	9	10
g) Sea level rise	1	2	3	4	5	6	7	8	9	10
h) Coastal erosion	1	2	3	4	5	6	7	8	9	10

16. Which statement best describes what you think about climate change and sea level rise?

- It's not happening
- It is happening (Please answer question 16a)

- Unsure (Please answer question 16a)

16a. Which statement best reflects your opinion about sea level rise and climate change

- It isn't a problem for the NSW coast
- It's occurring so slowly that it's not really a problem in NSW at the moment
- It's already having negative impacts on the NSW coast
- It will definitely have an effect on the NSW coast within the next 50 years
- Other (please specify).....

17. How much do you think sea level will change in the next 20-50 years?

- Don't know
- It won't change
- It will fall
- It will rise somewhere between 1-25cm
- It will rise somewhere between 50 cm to 1 m
- It will rise by more than 1 m

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

(1= strongly disagree, 2= disagree, 3= neither agree/disagree, 4= agree, 5= strongly agree)

Sea level rise will mostly affect other countries	1	2	3	4	5
The NSW coast will be affected by sea level rise	1	2	3	4	5
The coast I most frequently visit will feel the effects of sea level rise	1	2	3	4	5
Sea level rise is a direct threat to the future of my business/the business in which I work	1	2	3	4	5

19. This photograph is an example of coastal inundation. Which of the following do you consider to be main causes of 'coastal inundation'? Select all that apply



- I don't know
- Heavy rain
- High tides
- King tides
- Storm surges
- Sea level rise
- Overflowing estuaries or lagoons
- Overflowing storm water drains

20. In NSW, which type of coasts do you think are MOST susceptible to damage caused by coastal inundation? Please rank your top 3 (e.g. 1,2,3)

Don't know		Dunes	
Beaches in developed areas (cities, towns)		Lagoons	
Beaches in less populated or natural areas		Rock platforms	
Shorelines of estuaries in developed areas (cities, towns)		Harbours and ports	
Shorelines of natural, undeveloped estuaries		Mangroves, salt marshes	
Cliffs and headlands			

21. Generally speaking, do you think the chance of coastal inundation occurring in NSW will decrease, stay about the same, or increase over the next 20 years?

- Increase
- Stay about the same
- Decrease
- Don't know

In the next series of questions, *coastal erosion* refers to the natural removal of sand or sediments from a shoreline (i.e. beach, estuary, lagoon).



Abc.net.au (2015)

22. In NSW, which type of coasts do you think are MOST susceptible to coastal erosion? Please rank your top 3 (e.g. 1,2,3)

Don't know		Dunes	
Beaches in developed areas (cities, towns)		Lagoons	
Beaches in less populated or natural areas		Rock platforms	
Shorelines of estuaries in developed areas (cities, towns)		Harbours and ports	

Shorelines of natural, undeveloped estuaries		Mangroves, salt marshes	
Cliffs and headlands			

23. Generally speaking, do you think the chance of coastal erosion occurring in NSW will decrease, stay about the same, or increase over the next 20 years?

- Increase
- Stay about the same
- Decrease
- Don't know

In early June 2016, the NSW coast experienced a major coastal storm that lasted several days, generating large and powerful waves that impacted the coast, with heavy rainfall. Significant damage to property, erosion on almost all beaches facing the ocean and with areas of coastal inundation.



Figure 1 This figure shows severe coastal erosion at Collaroy-Narrabeen Beach (June 2016).

24. How often do you think storms like this occur?

- About once every 100 years
- About once every 50 years
- About once every 20 years
- About once every 5 years
- About once per year
- More than once per year
- Not sure

25. In the future, do you think damaging storms like this will:

- Occur more often
- Occur less often
- Happen about the same amount as they always have
- Don't know

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

- More damaging
- About the same

- Less damaging
- Don't know

27. Do you feel the future of your business is directly threatened by the impacts of coastal storms?

- Yes
- No
- Unsure

28. In terms of your business, how concerned would you be about the following impacts of a storm like this?

(1= not at all concerned, 10 = very concerned)

a) Reduced quality of surf breaks

1	2	3	4	5	6	7	8	9	10
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b) Loss of life or injury

1	2	3	4	5	6	7	8	9	10
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c) Reduced public access to the coast

1	2	3	4	5	6	7	8	9	10
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d) Damage to private land and property

1	2	3	4	5	6	7	8	9	10
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e) Interruption to electricity supply, water or other utilities

1	2	3	4	5	6	7	8	9	10
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f) Road closures

1	2	3	4	5	6	7	8	9	10
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g) Loss of sand from the beach

1	2	3	4	5	6	7	8	9	10
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h) Damage to plants and animals

1	2	3	4	5	6	7	8	9	10
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h) Pollution (e.g. overflowing drains, debris on the beach)

1	2	3	4	5	6	7	8	9	10
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**29. Generally speaking, when damage occurs, who should pay for clean-up and repair?
(Please rank your top 3, e.g. 1,2,3)**

No one, nature in unpredictable	
The owners of properties that were damaged	
The local council where the damage occurred	
State government	
Federal government	
Insurance companies	
Other (specify).....	

Section 3: Coastal Management

To prevent similar damage in the future, councils are required to consider natural, or soft, solutions, before they consider human-made constructions, or hard solutions.

30. Which coastal management options do you think are the best way to manage damage by coastal inundation? Please rank your top 3 (e.g. 1,2,3)

Do nothing, leave it alone		Build houses higher and stronger	
Add sand to the beach, often called beach nourishment		Build an artificial reef offshore, beyond the breaking waves	
Relocate any buildings or infrastructure that are at risk some distance inland		Maintain a sand dune through revegetation	
Build a long, narrow pile of ricks sticking out from the beach (often called a groyne)		Government purchase of any land directly at risk of future flooding	
Build a wall, or place rocks, along the back of the beach, in front of the houses (often called a seawall)			

31. Which coastal management options do you think are the best way to manage coastal erosion? Please rank your top 3 (e.g. 1,2,3)

Do nothing, leave it alone		Build houses higher and stronger	
Add sand to the beach, often called beach nourishment		Build an artificial reef offshore, beyond the breaking waves	
Relocate any buildings or infrastructure that are at risk some distance inland		Maintain a sand dune through revegetation	

Build a long, narrow pile of ricks sticking out from the beach (often called a groyne		Government purchase of any land directly at risk of future flooding	
Build a wall, or place rocks, along the back of the beach, in front of the houses (often called a seawall)			

32. Is your accommodation business presently protected by any coastal protection works?

- Yes (go to question 32)
- No (go to question 33)
- Don't know

33. What type of protection is in place?

- Managed sand dunes
- Seawall (a wall, or rocks, built along the back of the beach)
- Groyne or jetty (a wall, or rocks, extending from the shore out into the water)
- Importing sand from elsewhere and adding it to the beach (beach nourishment)
- Other (please specify).....

34. Are you presently satisfied with the level of coastal protection in place to protect your business?

- Yes
- No
- Don't know

35. In Australia, coastal local governments are largely responsible for managing coastal areas. How confident are you that your local Government (local council) will make appropriate decisions to protect your accommodation business from hazards such as coastal erosion and coastal flooding caused by storm surges or high tides?

[Scale: 1 = no confidence; 10 = full confidence]

1	2	3	4	5	6	7	8	9	10
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Section 4: Talking about coastal hazards

In this section, we'd like to know where you get information about sea level rise, coastal erosion, coastal flooding and coastal storms.

36. Do you have information about the following available for your customers?

Coastal erosion	Yes	No
Coastal flooding caused by storm waves	Yes	No
Coastal flooding caused by high tides	Yes	No
Tsunami	Yes	No
General beach safety	Yes	No

37. What form of information do you provide to your customers about coastal hazards? (Select all that apply)

We don't provide information about coastal hazards		Links to dedicated websites	
Local council or government pamphlets		Links to information on social media (i.e. Facebook, twitter)	

Posters around the accommodation site		Created our own information guides	
Surf Life Saving information i.e. beach safety		Emergency Services leaflet	
Folded card/fridge magnet		Other (specify).....	

38. Has your business ever previously received information about the following:

Coastal erosion	Yes	No
Coastal flooding caused by storm waves	Yes	No
Coastal flooding caused by high tides	Yes	No
Tsunami	Yes	No
General beach safety	Yes	No

39. From where have you previously received this information? (Select all that apply)

I have never received any information		Dedicated websites, YouTube videos	
Local council or government		Social media (i.e. Facebook, twitter)	
Insurance company		School / university	
Surf Life Saving		Community group	
Emergency Services		Other (specify).....	
Royal Life Saving			

40. If it was provided to you, would you be willing to supply information about any of the following to your customers?

Coastal erosion	Yes	No
Coastal flooding caused by storm waves	Yes	No
Coastal flooding caused by high tides	Yes	No
Tsunami	Yes	No
General beach safety	Yes	No

40a. If no, why not?

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40b. If yes, what form of information would you prefer? (tick all that apply)

Information posters around the accommodation site		Links to dedicated websites	
Links to information on social media (i.e. Facebook, twitter)		Local council or government pamphlets	

Emergency Services leaflet		Create our own information guides	
Incorporate information into booking correspondence		Surf Life Saving information	
Folded card/fridge magnet		Other (specify).....	

41. In relation to your business, which topics would you like to know more about? (select all that apply)

None, I don't want any information		Extreme high tides	
Actions I can take to reduce coastal hazard risk to my business		Sea level rise	
Who to contact in case of an emergency related to coastal erosion or coastal flooding		Coastal storms	
How coastal hazards work (like erosion and inundation)		Insurance availability	
The impacts of climate change on my coast		Solutions e.g seawalls, beach nourishment, managed retreat	
General coastal safety/beach safety		Other (specify).....	

42. Do you have anything else you would like to add about coastal erosion, coastal inundation, coastal storms or sea level rise, as it relates to your business?

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43. Would you be happy to be involved in any further discussions with us, including group discussions or interviews?

- Yes
- No

END OF SURVEY

Thank you for taking part in our survey. If you would like to receive information from UNSW regarding the outcomes of this research, please contact Anna Attard at a.attard@unsw.edu.au