

An aerial photograph of a park area. On the left, there is a large body of water with a concrete pier extending into it. A paved road runs horizontally across the middle of the image, crossing the pier. To the right of the road, there is a parking lot with several cars, a building, and a playground. The area is surrounded by lush green trees and grass. The entire image is framed by a blue border.

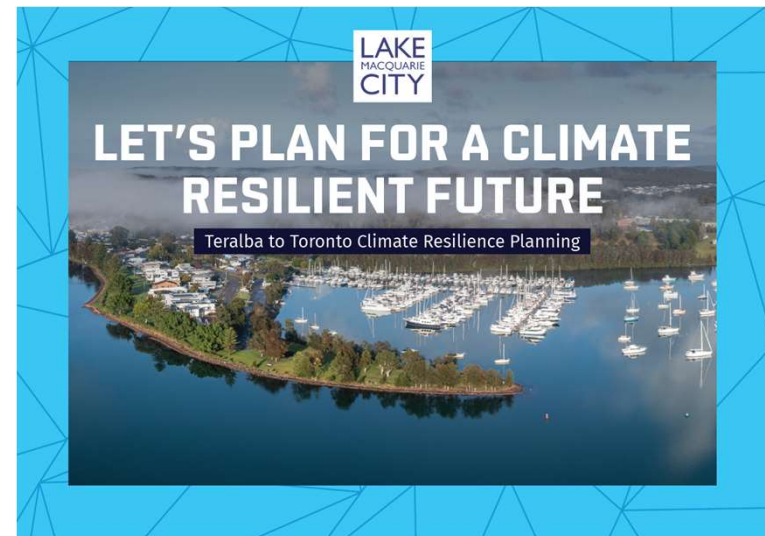
LAKE  
MACQUARIE  
CITY

# Information Pack Climate Resilience Planning - Teralba to Toronto

Locally-led adaptation

## Aims

1. Provide background to this work and outline progress to date
2. Seek community and stakeholder input on current and upcoming initiatives



## Please reflect on the following questions

1. What is a climate resilient community?
2. What more can we do to promote build climate resilience in lakeside suburbs between Teralba and Toronto?
3. How can the community become involved?



## Definitions

### Adaptation

The process of adjusting to actual or expected changes in climate to reduce or avoid climate impacts, or exploit beneficial opportunities.

### Resilience

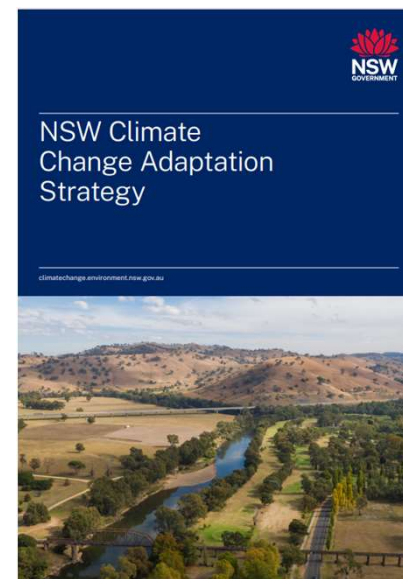
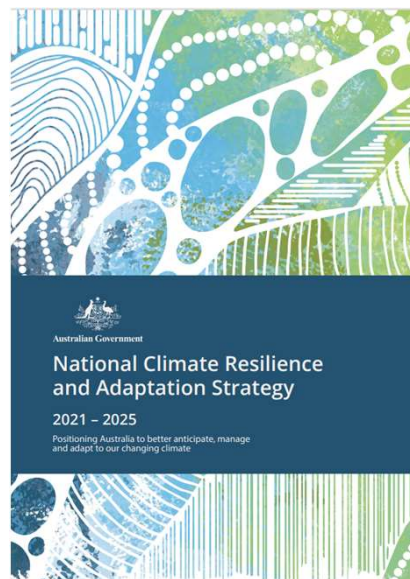
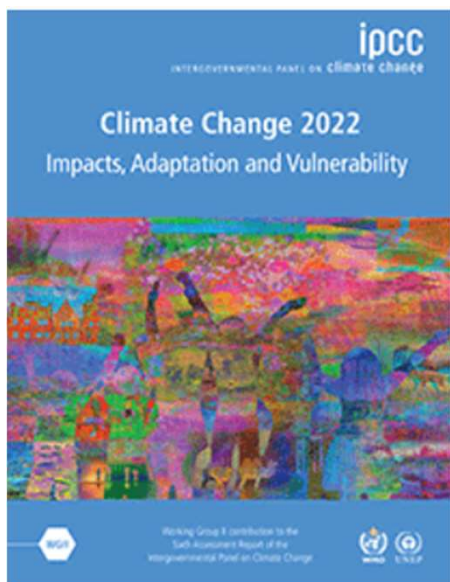
The capacity of communities, environments and economies to cope with a hazardous event or disturbance, while maintaining their essential functions and structure.

### Mitigation

The action we take to limit changes in global climate caused by human activities.

# Governance Frameworks

|               |          |       |
|---------------|----------|-------|
| International | National | State |
|---------------|----------|-------|






# Governance Frameworks - Local



## Lake Macquarie City Council Delivery Program and Operational Plan

*“Commence Stage 2 (options analysis) of the Fennell, Edmunds and Kooroora Bays Climate Resilience Plan, including a community options assessment”.*

**STRATEGY 5.4.2**  
**ADAPT OUR CITY TO A CHANGING CLIMATE**

| ACTION 2022-2023   | QUADRUPLE BOTTOM LINE     |
|--|---------------------------|
|  Complete building optimisation analytics program at Swansea Multi-Purpose Centre           | Environmental             |
|  Complete new battery and diesel generator backup system at Council's Works Depot, Boolaroo | Economic<br>Environmental |
|  Implement the energy resilience program city-wide  | Environmental             |
| Commence stage 2 of Fennell, Edmunds and Kooroora Bays Climate Resilience Plan, including a community options assessment   | Environmental             |



Our climate resilience planning is focussing on the nine lakeside suburbs between Teralba and Toronto





Teralba  
Booragul  
Marmong Point

Woodrising  
Bolton Point  
Fennell Bay

Fassifern  
Blackalls Park  
Toronto

# Climate related risks and impacts ...

The Bureau of Meteorology, CSIRO and NSW Government agencies predict an increase in climate related risks over the coming decades:

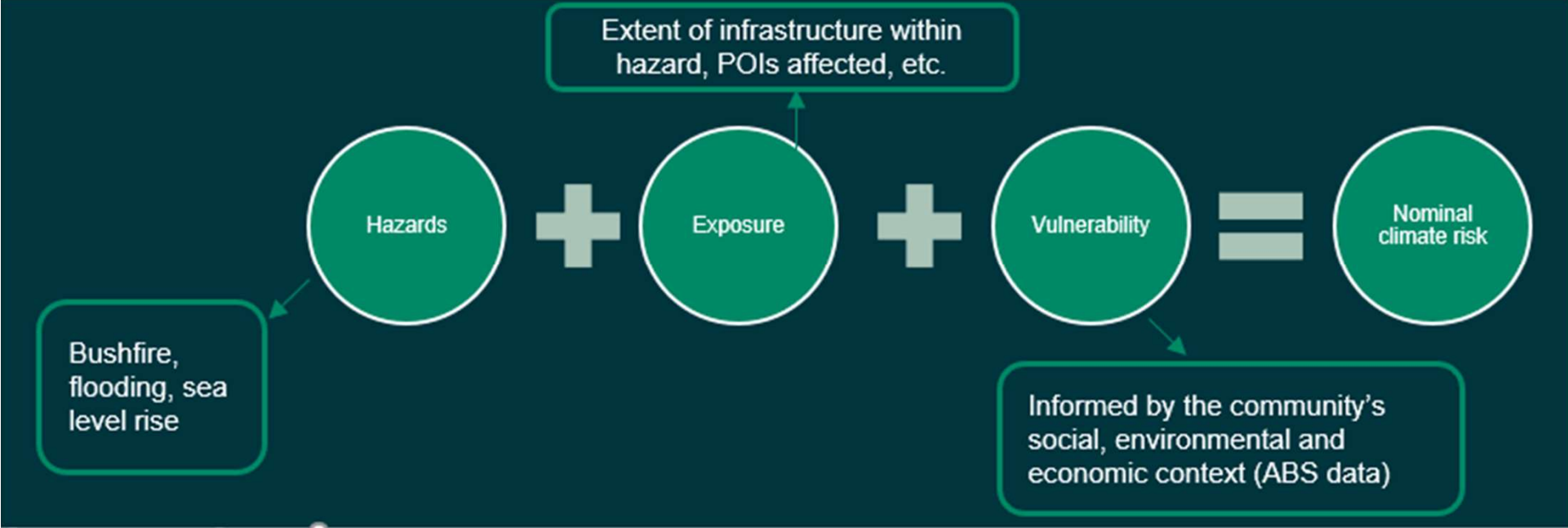
-  Rising sea and lake levels
-  Changes in bushfire regime
-  Urban heat island effects including an increase the number of days over 35°C
-  More frequent and intense storm events

*These could impact our local community:*

-  Damage public and private assets including our homes, community facilities, roads, drainage and other infrastructure
-  Threaten valuable ecosystems including our unique plant and animal communities
-  Pressure food and water security and the cost of living
-  Effect personal safety and wellbeing



# Building our understanding of climate related risks and impacts



## Summary of projected (2050) sea level rise impacts for lakeside suburbs between Teralba and Toronto

Lake levels are projected to rise 0.4m by 2050 and 0.9m by 2100 (relative to 1990 lake levels).

We analysed how a large storm event (1% AEP – similar to 1 in 100 year event) might impact on our lakeside suburbs in 2050.

Significant inundation of properties, public and private assets will occur as a result of climate change.

### Assets at risk with the nine suburbs include:

- Sports fields
- Jetties and wharves
- Boat ramps
- Marmong Cove Marina
- Headlands and foreshore reserves
- Parks and playgrounds
- Caravan Park
- Swimming pool
- Public and private buildings



Roads within hazard extent  
**17km**



Buildings within hazard extent  
**565**



Points of interest within hazard extent  
**40**



Cycleways within hazard extent  
**87km**

## Snapshot of assets impacted by bushfire, flooding, and sea level rise across the 9 suburbs

| <b>Assets exposed or impacted</b>  | <b>Bushfire<br/>(current risk)</b> | <b>Flooding<br/>(current 1%<br/>event)</b> | <b>Sea level rise<br/>(2050 1%<br/>Event)</b> |
|--|------------------------------------|--|---|
| <b>Council roads (km)</b>  | 100                                | 15   | 17  |
| <b>Public and private buildings</b>  | 2,051                              | 251  | 565   |
| <b>Points of interest: Facilities incl.<br/>schools, hospitals, aged care etc.</b> | 51                                 | 12   | 40  |
| <b>Cycleways/shared pathways (km)</b>  | 110                                | 63   | 87  |
| <b>Water mains (km)</b>  | -                                  | 12   | 163   |

# Community and stakeholder engagement framework for Climate Resilient Teralba to Toronto

**Shape Lake Mac**

**Phase One:**  
High level feedback on hazards and options  
(2021 – 2023)

**Phase Two:**  
Design and testing phase with community  
(2023 – 2024)

**Phase Three:**  
Public exhibition of draft plan  
(2024)



**Sustainability Engagement**

Emergency preparedness and disaster risk reduction activities

# Phase 1 engagement approach

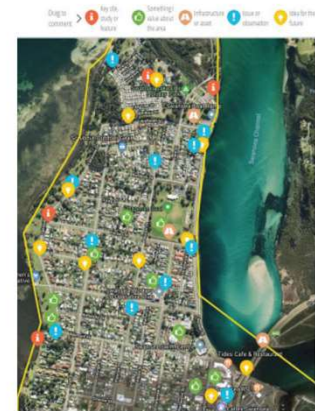
- Postcard, poster, newsletter distribution with library and community group and facility focus
- Online and hard copy survey and interactive map
- Shape Lake Mac site, social media and e-news channels
- Links with Council's Youth Advisory Council and Red Cross Community Youth Teams pilot project
- Pop-up engagement sessions aligned Sustainability Engagement and other community activities

## HAVE YOUR SAY

- visit a drop-in information session (details to be advised)
- visit [shape.lakemac.com.au/Climate-Resilient-Teralba-to-Toronto](http://shape.lakemac.com.au/Climate-Resilient-Teralba-to-Toronto) to learn more, ask questions, complete our community survey, or share ideas and comments on our interactive map
- email [council@lakemac.nsw.gov.au](mailto:council@lakemac.nsw.gov.au) or telephone 49210333 to ask a question, comment or receive project updates
- if you can't access our online resources, please visit Toronto or Speers Point Libraries for a copy of the community survey or to register your interest.

### Get involved!

Your comments will inform our understanding of climate related risks and help us plan for a more resilient future.



Example of interactive map.



# LET'S PLAN FOR A CLIMATE RESILIENT FUTURE

Teralba to Toronto Climate Resilience Planning



# LET'S PLAN

## Help build climate resilience from Teralba to Toronto

- Understand what a major flood event might look like for lakeside suburbs around Toronto and Teralba now and in 2050 or 2100.
- Explore how a changing climate is likely to influence bushfires, urban heat, food and water security.
- Learn about other climate related impacts for your local area and help identify positive actions we can make.

### Get involved

Help influence and build climate resilience in your community. Feedback closes 5 March 2023.

🌐 [SHAPE.LAKEMAC.COM.AU/TERALBA-TO-TORONTO](https://SHAPE.LAKEMAC.COM.AU/TERALBA-TO-TORONTO)  
📞 4921 0333 @ COUNCIL@LAKEMAC.NSW.GOV.AU



# LET'S PLAN

February 2023

## CREATING A MORE CLIMATE RESILIENT COMMUNITY FROM TERALBA TO TORONTO

### HELP PLAN FOR THE FUTURE

The western side of Lake Macquarie offers a great lifestyle and it's important we all protect and care for our local community, environment and economy.

The Bureau of Meteorology, CSIRO and NSW Government agencies predict an increase in climate related risks over the coming decades:

- 🌊 Rising sea and lake levels
- 🔥 Changes in bushfire regime
- ☀️ Urban heat island effects including an increase the number of days over 35°C
- ☁️ More frequent and intense storm events

### These could impact our local community:

- 🏠 Damage public and private assets including our homes, community facilities, roads, drainage and other infrastructure
- 🌿 Threaten valuable ecosystems including our unique plant and animal communities
- 💰 Pressure food and water security and the cost of living
- 🚑 Effect personal safety and wellbeing

We want to work with residents, businesses and others to develop locally-led climate adaptation planning and more resilient lakeside communities.



### WHERE WILL THIS WORK FOCUS?

|               |              |                |
|---------------|--------------|----------------|
| Teralba       | Woodrising   | Fossilfern     |
| Booragul      | Bolton Point | Blackalls Park |
| Marmong Point | Fennell Bay  | Toronto        |

## Question prompts

1. What is a climate resilient community?
2. What more can we do to promote build climate resilience in lakeside suburbs between Teralba and Toronto?
3. How can the community become involved?



## Get involved



Visit: [shape.lakemac.com.au/teralba-to-toronto](http://shape.lakemac.com.au/teralba-to-toronto)

E-mail: [Council@lakemac.nsw.gov.au](mailto:Council@lakemac.nsw.gov.au) (subject Teralba to Toronto)

Phone: 4921 0333

**Thank you**