

Impacts of extreme weather events and climate change on coastal recreation and public safety

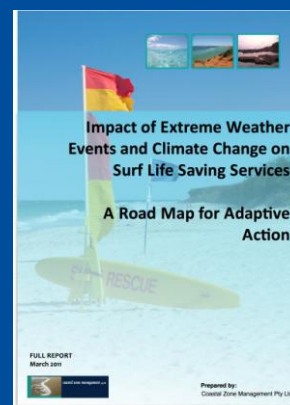
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Overview

- Background
- Aim/Objectives
- Target
- Method
- Results
- Discussion
- Conclusion
- Acknowledgements
- References



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➤ Impacts on coastal safety – Wave event damage



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➤ Impacts on coastal safety – Scarping and hazards

Shifty sand cliffs a growing danger



Emily and Caitlin Hudson with Charise MacCallum at Main Beach

by Steve Spirakis

SANDY cliffs up to 3m high could collapse and bury unsuspecting beachgoers, lifeguards have warned.

Dangerous cliffs from Main Beach to The Spit formed during wild weather last summer. They have exacerbated further by recent high tides.

With Queensland, Victoria and now NSW enjoying school holidays, lifeguards are concerned unsuspecting tourists may disturb unstable sand faces.

"They (the hills) don't take much to collapse so we are warning parents especially to keep their kids from burrowing or digging or climbing over the steeper cliffs," said Gold Coast Surf Lifesaving coordinator Stuart Hughes.

"The worst case scenario is that one could collapse and bury someone and there wouldn't be anyone around to help."

Hudson's, Michele Hudson was amazed at how much of Main Beach had vanished when she visited yesterday with her children, Caitlin, Emily and Jack.

"It makes you wonder where everyone will go in summer," said Mrs Hudson.



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➤ Impacts on coastal safety – Beach amenity and safety advisory



What is a reasonable response and by whom?

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➤ Impact on the surf lifesaver
What is a reasonable response?

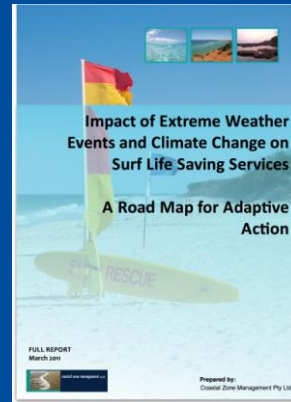


The equipment, training and support systems need to be appropriate for the response.

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Research

What are the impacts of extreme weather events and climate change on surf lifesaving infrastructure and services and what should be a Road Map for proactive attention to these impacts?



Adaptation / Mitigation

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Aims / Objectives

- To investigate the impacts of extreme weather events and climate change.
- To engage with the frontline lifesavers and lifesaving clubs for current impacts, issues and suggestions for the future.
- To develop a Road Map for proactive attention to the impacts of extreme weather events and climate change on surf lifesaving services.

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Targets

- Changes to beaches and beach users
- Change in hazards and beach use / Access to and size of beaches
- Impacts to surf lifesavers and the surf lifesaving (SLS) built environment
- When and how do surf lifesavers serve?
- Damage to infrastructure / Impact on service provision
- Impacts on SLS as a result of regulatory changes
- Change in planning laws with sea level rise benchmark / Protection of property and impacts

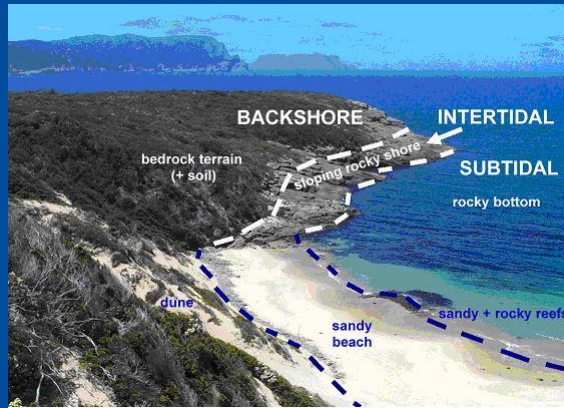
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Methods

- Information from stakeholders including:
 - the surf lifesavers
 - surf lifesaving club officers
- Understand the leadership, management, funding and decision making within SLS
- Literature search
- Case studies
- Spatial mapping

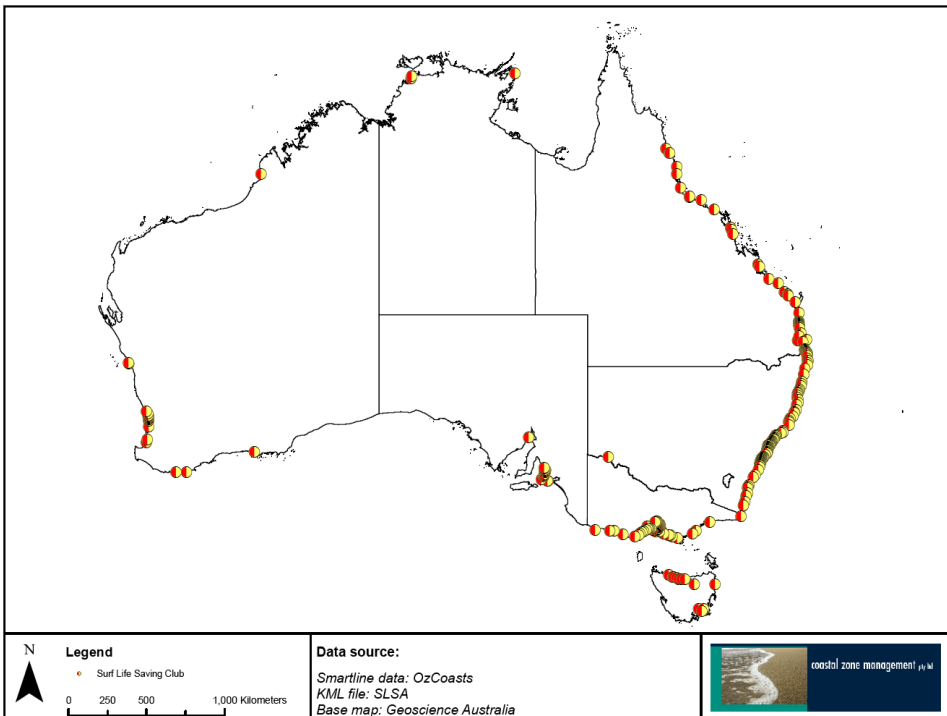
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Smartline Map



Smartline Coastal Geomorphic Map is a detailed map of the coastal landform types

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Discussion

- The value of Australia's beaches socially, economically through available research indicates a huge contribution.
- What is the impact on the loss of the value and access to beach in some/many areas?
- SLS is the second largest user of Australia's coastline after the community. Without the surf lifesavers a further 568¹ people could die annually.
- Adaptation is possible and a Road Map will assist SLS, however it needs all levels of SLS and of government to respond in harmony.

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Conclusions

- SLSA now has a way forward in its planned adaptation to CC. It has:
 - A problem-solution mapping tool
 - Overarching strategies for CC adaptation
 - A CC adaptation Road Map
- The implementation of the research outputs in liaison and partnership with key internal and external stakeholders will enable SLSA to better adapt and to continue to provide its safety services well into the 21st century and beyond.

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Acknowledgements

- Surf Life Saving Australia (SLSA)
- Surf Life Saving Clubs
- Coastal Zone Management (Australia) Pty. Ltd. (CZM)

References

1. Valuing an Australian Icon – Allen Consulting 2005.
2. Addressing the impacts of climate change – A Road Map for Surf Life Saving Australia; CZM 2011

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