Helping the community understand coastal flood risk

Developing the Community Coastal Flood Emergency Plan with the Goolwa and Mundoo Channel community

SA Coastal Councils Forum – 8 November 2024







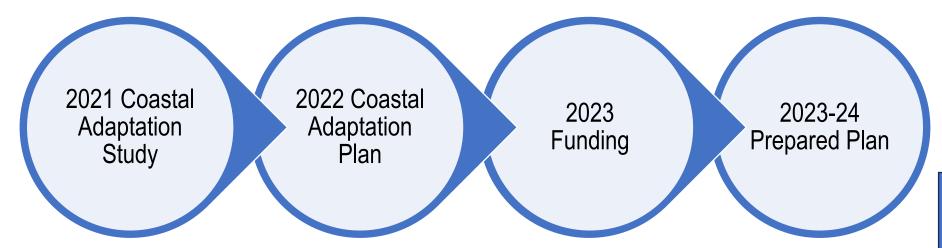


Background





Communicate flood risk to community, discuss adaptation options and develop Flood Emergency Plans



Low-lying areas of the Mundoo
Channel and Goolwa Channel at
potentially higher risk from
flooding
and/or erosion

Secured joint Council and Coast Protection Grant funding

LG role is to support our communities to be prepared for emergencies and encourage shared responsibility







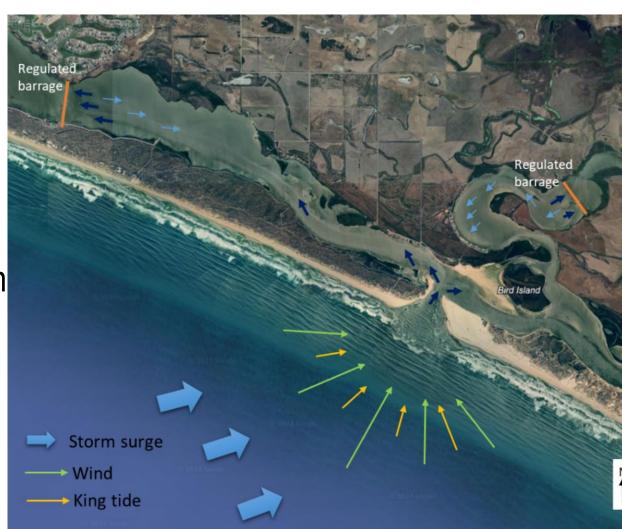
Photo: Coast Protection Board

Why does it flood along the channels?





- High tides
- Storm events
- Topography most of community is less than 2m AHD
- Barrage regulation in some situations during high tides and storm events, water pushes into barrages which is pushed back to the channel
- Width of Murray Mouth
- Sea level rise



Current exposure – storm surge event





Storm surge

Cell SF1 and SF2

Mundoo Channel

Current risk:

1 in 100-year event risk

Assessment

Flooding of private property

The current 1 in 100-year ARI event risk set by Coast Protection Board for Mundoo Channel is:

Storm surge 1.55m AHD

Wave setup 0.20

Total risk 1.75m AHD

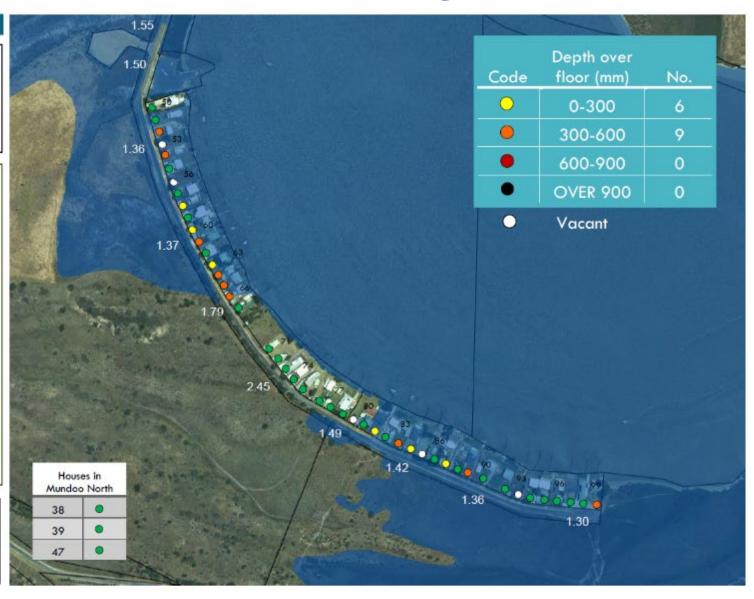
If this event occurred:

- 6 houses would have water up to 300mm over floor level
- 9 houses would have water lever between 300mm and 600mm.



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Future (2050) exposure – 1 in 100yr storm event





Storm surge

Cell SF1 and SF2

Mundoo Channel

2050 risk:

1 in 100-year event risk

Assessment

Access and Egress

The 1 in 100-year ARI event risk set by Coast Protection Board for 2050:

Storm surge Wave set-up Risk

1.55m AHD. 0.20m 1.75m AHD

Plus 0.3m SLR <u>0.30m</u> Total risk <u>2.05m AHD</u>

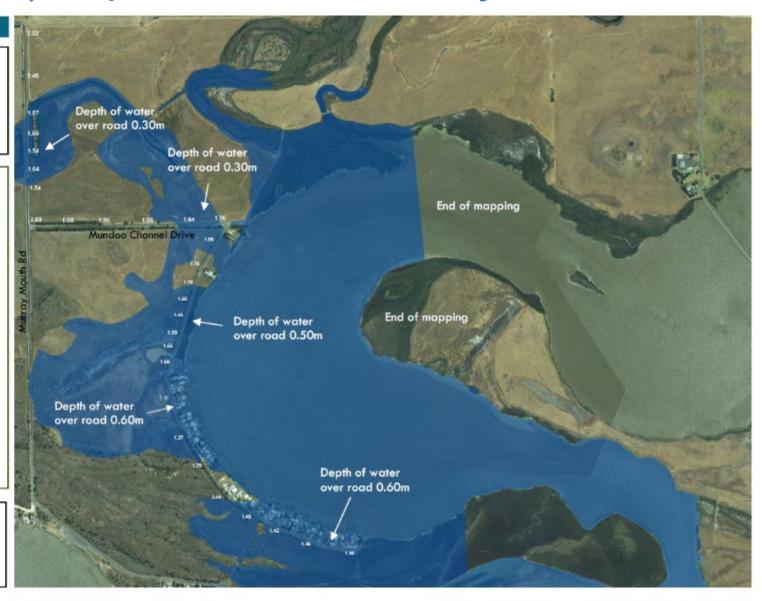
Modelling at shoreline is 2.05m, modelling inland is 1.85m AHD.

Access and Egress is unlikely to be available to vehicles, especially within the settlement.



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Community Coastal Flood Emergency Plan

for the Goolwa and Mundoo Channel Communities













Stay safe when it floods



Goolwa Channel and Mundoo Channel communities' coastal location and low elevation mean they are at risk of flooding. Flooding is more likely when an elevated high tide (or king tide) and storm surge occur at the same time. Flooding may lead to roads being closed and electricity supply being disconnected.

Emergency contact details

For all life-threatening emergencies call **000** For emergency assistance from the SES call **132 5000**

Other useful contacts

Alexandrina Council: 8555 7000 SA Power Networks (faults & emergencies): 13 13 66 SA Water: 1300 729 283 Goolwa Police Station: 8555 2018 Health advice from HealthDirect: 1800 022 222



the weather

Preparing RFFORF

Know your property's flood risk Check your house and property are 'flood ready' Keep an eye and ear on

Prepare a Household Emergency Management Plan and evacuation kit Communicate with your neighbours.



Staying safe DURING

Decide if you will stay or go Secure your property and valuables Avoid driving and walking through flood waters

through flood waters
DO NOT touch electrical
equipment if it is wet
Communicate with your
neighbours.



Recovering AFTER

Take care when returning home

Inspect your home, property, septic, power and water supplies Be careful of snakes, spiders and other vermin Check on your neighbours.

Key features of project





Bring community along

- 3 workshops to build knowledge and seek input
- Consult on draft plan
- Inform final plan

Project Reference Group

- Representation (residents, council staff, Elected Members, SES)
- Input on approach
- Word of mouth

Technical information

- Simple to understand technical information
- Expert input (coastal engineer, SES)

Tailored

 Tailored to the unique characteristics of the community

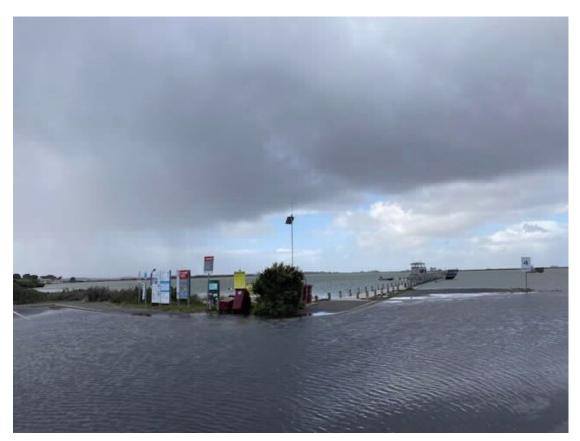
Clear scope

- Is a plan to support community preparedness
- Risk is current. First step is to ensure people are ready now.

Workshop 1

- ALEXANDRINA
- URPS

- Co-presented with coastal engineer.
- Build awareness of risk current and future
- Understand characteristics of the community and environment
- Share history of flood experiences
- Introduce to what emergency management plan will contain and how it will help them



What we heard at Workshop 1



Key features of the community and settlements

- peaceful and close to nature
- few permanent residents and older demographic
- some houses raised but many are not and some houses are "run down"
- low lying
- isolated
- poor mobile reception and power interruptions
- one road in

What we heard at Workshop 1





Experiences with flooding

- Lack of access when road was flooded
- Mundoo (1980's) encircled house
- Goolwa Channel Road totally submerged in 70's
- Jetty covered with water in storm surge
- Mundoo Channel sheds inundated
- Quick exiting of surge waters



Photo: B Wright

What we heard at Workshop 1



Workshop 2



- Co-presented with SES
- The role of the SES
- The conditions that lead to flooding
- The risks that could happen if it floods explored with participants
- What we can do as individuals and a community before, during and after floods
- Heard concerns about lack of formal warnings, less mobile residents

Workshop 3



- Presented the draft Community Coastal Flood Emergency Management Plan
- Opportunity for questions and feedback
- Talking about Household Emergency Management Planning
- Created a list of items outside the scope of the plan that Council can continue to advocate for: flood warnings, built adaptation options, sand bagging station, community flood group.

Community participation and feedback



- 60 community members participated in the in-person engagement
- Pre-project survey
 - 10 of 31 respondents had experienced flood
 - 19 had a plan for what they would do but only 1 had this written down
- Post-project survey
 - attendees had increased understanding of flood risk
 - majority respondents would prepare or respond differently, including checking their sheds, checking insurance, sourcing a stand-along power source and monitoring local conditions

Community feedback and learnings



- What was most interesting or useful?
 - understanding role of council and the SES
 - discussions with fellow residents
 - having a list of things to think about
 - making sure other people are safe
- Community really appreciated project and opportunity to be involved







Photo: B Wright