

Coastal Adaptation Study Consultation



Summary of Online Feedback

12 October to 27 November 2020

The Alexandrina coastline is of significant cultural, social, environmental and economic value to the local community, Ngarrindjeri nation and visitors to the region.

The Coastal Adaptation Study aims to understand how people, the natural environment and built assets might be impacted by rising sea levels so that Council and other stakeholders, such as State Government and private landowners, can plan for the future.

From 12 October to 27 November 2020 Council engaged with members of the community about the findings of the study and to hear how the impacts of climate change might affect our coast into the future, and to learn about the possible adaptation options for Alexandrina's coastline.

As part of this consultation, an online feedback form was available on Alexandrina's Mysay page mysay.alexandrina.sa.gov.au/CA. We were interested in the community feedback on how Council and community might work together over coming years to adapt to the impacts of sea level rise and coastal erosion, relating to the range of options that have been identified in the draft reports and that were presented at the community webinars.

This report provides a summary of the feedback received through the online feedback form or through emails and/or hard copies submitted by the end of the consultation period.

Format of the feedback form

The online feedback form consisted of five questions relating to the study and Alexandrina's coastline, and some question relating to the person (i.e. age brackets, status of residence, and township or locality).

The survey was anonymous and was open for the full consultation period (12 October to 27 November 2020).

Summary of feedback received

23 feedback forms were submitted by the end of the consultation period (close of business 27 November 2020). 20 online forms and three additional responses were received either as hard copy or emailed to Council.

Most of the respondents value the coast because of its natural beauty, while some enjoy the consistent weather, the opportunity to drive on the beaches, and as a relaxing place to be with great neighbours.

Nine people responded that they did not observe any areas of the Alexandrina coastline been impacted in the past by erosion and/or flooding, while seven

observed changes that included erosion of dunes, beach access and stormwater outlets; overtopping of Beacon 19 road; sand accretion and loss; and changes at the Murray Mouth and the marina amongst others.

In regards to what Council, the community and stakeholders should do over the coming years to adapt to coastal hazard, responses included the ongoing monitoring of hot spots; engaging residents, NGOs, and citizen science; protection and revegetation of natural dune areas; limiting development on foreshore areas; including coastal hazards into planning decisions by Council and residents; discussions with affected landholders and drafting a master plan for Horseshoe Bay; as well as stormwater management and increased funding from all levels of government. Some cautioned against over reactions while keeping an open mind, and if seawalls or other engineered structures are built to protect assets, impacts on surrounding coastline and amenity should be assessed to ensure the community are aware of both positives and negatives of each option proposed.

Overall, the majority of respondents support and approve Council being proactive in understanding how our coastline might be impacted by sea level rise, flooding and coastal

erosion. Some commented on the lack of the River Murray past the barrages being included in the coastal adaptation study and the importance to protect and improve the health and water levels of the Murray River, Murray mouth and Coorong area.

Feedback responses

Comments and answers provided on the feedback forms are listed below.

What do you value most about Alexandrina's coast?

- "Most important = retention of natural areas in coastal zone such as Goolwa Dune System, Tokuremoar Reserve/Newell Ave Reserve and Ratalang Basham Beach Conservation Reserve - for their biodiversity, climate buffer and natural beauty/views Quiet beach access points with minimal infrastructure (other than that required to protect the dunes) such as the key holes at eastern end of Goolwa Beach such as Gordon St and Treleaven > for beach walking, swimming, surfing Quiet, family friendly swimming beach at Chicken Run, Ratalang Coastal walking paths in Middleton/Port Elliot i.e. from Middleton Point through to Ratalang and from Horseshoe Bay to Knights Beach.
- The surf followed by the different types of coastline - open beaches, protected coves, rocky outcrops etc. Also like that there is a clear beach and foreshore (for the most part) with minimal or discrete human constructs distracting from the natural beauty.
- Natural beauty, dunes, waves, beach.
- Although the coast has been highly modified since colonisation, the coastal fringe is still where many of us can feel close to the natural environment, and feel a sense of spaciousness. It is where so many residents and visitors exercise also. I very much value the stretches of coast that remain undeveloped, such as Ratalang/Basham Beach, Watsons Gap, and Tokuremoar for example. These are highly valuable and precious areas in a world of potentially rampant

development! I value the fact that the coastal fringe is by and large not 'owned' by anyone, and that we can access it and also take responsibility for its health as well as our own! It's a beautiful place and I have valued the many opportunities to care for it over the years and share this work with other individuals and groups.

- Amenity, specifically surfing.
- Beaches and coastal dunes. Native flora and fauna (marine and coastal).
- The natural and clean nature of the beaches with the remnant vegetated sand dunes (where they remain in place).
- The entire coastline and the ecosystems that are within them, these should be protected as best they can be so that future generations can enjoy them.
- The natural beauty, easy access, constant physical change and the fact the majority of Australia don't know about and therefore don't use and abuse the facilities.
- The clean beaches for walking and surfing and drive on access to the Murray Mouth. The pathways through the dunes are terrific for keeping dunes vegetated.
- Pristine, untouched, natural beauty.
- Being able to drive on the beach.
- Consistent weather.
- Clean beaches and a healthy Coorong.
- Key words: unique, clean, pristine, unspoiled.
- Great relaxing place to be, great neighbours.
- Its diversity [beaches, rocky headlands, dunes] it's relative non-exploitation for commercial 'development', its ability to be many positive things for most people year round.
- I have fond childhood memories visiting the beautiful beaches and coastline within Alexandrina coastline as a child and I've been lucky to have worked in the Coast and Marine Management field

as part of my work with Coast and Marine Branch, Department for Environment and Water for over 20 years and have been involved in a wide range of research from monitoring sand movements along the coast, Seagrass and Reef Health to coastal development assessment. Over the years I've worked with regional staff, Council and community on working through solutions to coastal management issues around the State including the Alexandrina coastline and increasingly so on coastal adaptation due to climate change and sea level rise.

Have you observed any areas of the Alexandrina coastline that have been impacted in the past by erosion and/or flooding during king tide or storm events?

- Yes: 7
- No: 9

Please explain what you have observed

- "Overtopping of Beacon 19 road Success of dune fencing at Goolwa Beach in protecting foredune Storm damage at Horseshoe Bay > Commodore Reserve Damage to beach access points at Chiton.
- Erosion near the stormwater outlet at Chapman Road.
- Sand does come and go to some extent, but due to erosion, land clearing, and housing development, there are few options for replenishment. This is most obvious East of Middleton Creek. Tidal surges are also significant at Ratalang/Basham Beach which is an underrated area in term of the level of energy that impacts the beach and dunes; and also Horseshoe Bay. Anywhere in fact where there is no outcrop of sandstone or granite.
- Observed erosion along Middleton beach/cliffs.
- Severe erosion of dunes and embankments.
- Murray Mouth, Hindmarsh Island Marina.
- Steps to beach at Goolwa impacted. Goolwa beach big tide impacts dunes.

- Horseshoe Bay, Knights Beach & the Fisherman's Bay areas have all suffered damage/erosion on various occasions in the last 50 years of my recollections [I first came to Port Elliot as a resident in 1967].
- Over the years I have worked on a number of coastal mgt related issues within the Alexandrina Council including advice on previous attempts at drift net fencing and the construction of a sand sausage and reveg as more soft options for managing coastal erosion within Horseshoe Bay in the immediate term and have a working relationship of assessing coastal development referred to the Coast Protection Board at a number of settlements particularly low lying settlements of Hindmarsh Island. Much of my business has involved development assessment taking into account future impacts of flooding and erosion risk and adaptation to climate change due to sea level rise as well as coastal environmental impact assessment and I have witnessed many changes to the coastal environment over the years. In the past, I have worked in liaison with Alexandrina Council and consultants over the Goolwa master plan, on 'Resilient Hills and Coasts' and now as part of the Coastal Adaptation Study and understand the significant work that has gone into identifying 'at risk' areas and identifying potential solutions to these mgt and development issues into the future.

Is there anything else you think Council, the community and/or other key stakeholders such as State Government should do over the coming years to adapt to sea level rise, flooding and coastal erosion? Please elaborate.

- "Continue to prioritise protection/ revegetation of natural dune areas to greatest extent possible, including:
 - » expansion of dune buffer in front of Goolwa Beach Carpark
 - » charge for vehicle access to Goolwa Beach and reinvest funds in environmental and cultural heritage management of dunes
 - » regular monitoring of coastal recession i.e. 5 yearly?
 - » advocate to State/Federal

government for holistic climate adaptation planning for CLLMM region

- » ensure all infrastructure proposals in coastal zone incorporate climate risk assessment Horseshoe Bay proactively plan to move bowling club to alternative location once current lease expires, create more open space, don't fill with carparks State Government > ensure planning system integrates coastal inundation & erosion mapping to minimise development in hazard prone areas.
- Limit housing in the foreshore areas like the little enclave near Knights beach.
- Important for planning decisions by Councils and residents.
- Goolwa to Wellington Lap's and Goolwa Coastcare Groups fencing of the front of the foredune along Goolwa Beach to Tokuremoar reserve undertaken via the coastal program and installed by Ngarrindjeri Ruwe under a contract approx 6 years ago and want to offer my insight regarding this.
- This fencing (posts and ringlock) has resulted in the build up of at least 3m of new foredune as a result of restricted pedestrian access and the accretion of sand, regeneration of foredune plants like *Atriplex cinerea* (which were not doing so prior due to human foot traffic) and *Spinifex hirsuta* and the capturing and holding back of sea weed, etc on the high tides behind the ringlock fence.
 - » This approach is a relatively cheap and important means of increasing the width of the dunes without using drift fencing (with shade cloth or similar) which in the past has resulted in fence failure, erosion of beach and an unsightly inappropriate plastic mess (e.g. Horseshoe Bay and many metro beaches).
 - » The fence in question is now well buried which was the objective (to rebuild dune) and suggest as a collective that we put a new one up along the same stretch to achieve the same result again, to help improve storm surge resilience and sea level rise mitigation.

It has also most definitely improved the condition of the foredune and helped highlight the importance of protecting this dune system by having a visible barrier.

- Slow storm-water down. So many ephemeral water courses have been lost along this coast, having not been recognised as such by previous decision makers. While it may not be possible to restore them all, some channelling, redirection, ponding and filtering of storm water would definitely be possible. Tokuremoar still functions as it should; and Ratalang/Basham Beach has been modelled to assist with this. The Beyond development has prioritised storm-water collection really well. Increased housing development causes increased run off, so storm-water collection and filtering should be a prerequisite, as well as remediating existing water courses such as Crockery Creek and Middleton Creek. Avoid front-line coastal development where ever possible. Revegetate and protect dune systems and cliffs.
- Monitor changes, especially hot spots - regularly update community of known/ increasing/ likely risks - not allow development in vulnerable/at risk locations - if building seawalls or other engineered structures to protect assets, consider impact on surrounding coastline and amenity and ensure community are aware of both positives and negatives of each option proposed
- Action recommendations from the study, based on their needs. Implement monitoring as recommended in the study.
- These are some things that should be done:
 - » Ensure that the Planning and Design Code does not permit development along the dunes. Continue the work to plug the gaps in the dunes at Ratalang/Basham Beach.
 - » Engage the community as citizen scientists to monitor sea level rise at relevant locations as recommended in the Coastal Adaptation Study.
 - » Enter into discussions with the Pt Elliot Bowling Club concerning the drivers for

- relocation and generally consider drafting a master plan with the community for the redevelopment of the Horseshoe Bay carpark, lawned area, toilets and foreshore path - in line with the recommendations in the Study (note I have focussed on my local area).
- » Reduce incursions into the dunes that break them down (reduce the beach access points) and encourage the revitalisation of the community groups that used to revegetate/ maintain the endemic vegetation and root out the Gazanias in the dunes and maintain fencing, such as coastcare organisations (I understand some of these groups folded when members became aged and were not able to attract younger members).
 - » Engage the community - attract and mentor voluntary community leaders to form groups for citizen science and coastcare along our coasts to support Council's work (Clayton Bay Nursery & Environment Group that has carried out significant planting along the foreshores of the lake could be a model - -and there are bound to be others) or work through Coastcare or Foreshore Improvement Associations. It is hard to do this in Covid times, but the Council needs to work with and support some committed thought leaders in the communities who can harness community energy, who in turn can use their local knowledge and experience have input into coastal planning.
 - More funding from all levels of government and establish community groups to assist with the works.
 - Stay attuned to changes and be prepared for early intervention if required.
 - State Government need to do more to ensure the health of the Murray River is maintained and water levels improved so that the Murray mouth and Coorong area is protected.
 - Bigger water catchment areas and sustainable storm water usage.
 - No.
 - No.
 - I would urge that we keep an open mind and not over-react, just approve sensible precautions which can be enhanced in the future if / when needed.
 - Stop using/selling coal.
 - 1. The need for the community to pressure Council & SA Gov't. on producing the new Master Plan for Port Elliot quickly, ensuring that the mitigation outcomes revealed by this study are highlighted & firm proposals & timescales are built into the Plan. Our aiming point should be 2040 to have completed all the works required to meet the 2050-2100 expected sea level rises & storm peaks.
 - » 2. Having said the above, we should remain mindful of the need for the Plan to include those outstanding problems we see in our long term aims for the township behind the seawalls, & not get blinded by the climate change problems on our coastline.
 - » 3. I was very pleasantly surprised to see the repair work already underway in Ratalang with regard to dune breaches - well done to those with the foresight to already accept that change is with us, & to those involved in undertaking the work in recognition that the time to get started is already behind us.
 - I live in Fenchuch St, and according to some information, including the Coastal Risk Australia map viewer, highest tide in 2100 will inundate much of my neighbourhood. I am very interested in the plans Council is making for the future protection of assets in the area.
 - Faxed feedback:
 - » Most of these settlements were all put in below 1956 flood level.
 - » 1 Why wouldn't a 1 in 100 flood come in the 'back way'... roads etc. and flood houses? Are ratepayers being asked to pay for structures on leasehold land? Will this cover insurance claims on Council and State Planning?
 - » Where is Council's Kungan Yarnin Agreement in all of this?
 - » Is there Ground Water data in this planning more recent than 2012? e.g. Mundoo Septic Public toilets installation breaching the aquifer of ground water? This should be taken into account if upgrades are required.
 - Well done to Integrated Coasts and Alexandrina Staff and Council for rolling out a series of very informative workshops and products to the public. The plans are comprehensive, well researched. Integrated Coasts have developed the plans in liaison with Coast and Marine Branch, DEW staff and the plans reflect best current SA Coast Protection Board Policies on coastal hazards and sea level rise policy. The Coastal Adaptation Plans identify hotspots for onground works and have already proven to be valuable in prioritise and identify hotspots for action as well as attracting funding to roll these workshops and key actions identified in the plans. Alexandrina were successful in being awarded a Securing our Coasts Regional Council's Works Program Grant from the Board in 2019/2020 Grant to support the Workshops as well as second grant to complete the first stages of the Bashams-Ratalang coastal adaptation strategy, to close off and rehabilitate low areas in the dunes at risk of breaching due to future storm events and sea level rise. We look forward to continuing to work with Alexandrina Council and community to assist in identifying potential options and solutions for coastal adaptation to climate change.

Overall, do you support Council being proactive in understanding how our coastline might be impacted by sea level rise, flooding and coastal erosion so that we can all plan for the future? Please elaborate.

- “Well done to Council on undertaking this important study.
- Limit land development in foreshore areas.
- You’d be mad not to be! Keep it up.
- Of course - it will save money in the long run for council and ratepayers.
- It is fantastic to see Council looking forward to what may happen in the future to enable some strategic planning.
- This is part of the Council’s role, in the same way that Council must take the future forecasts into account in planning for the area - in relation to e.g., road networks, park/reserve development, waste collection and disposal, biodiversity retention, sporting facilities, and all forms of economic development and community wellbeing. It concerns the maintenance of the Council assets. Alexandrina’s

coastline is an asset that underpins much of its economic development and is also important for the resident population’s health and wellbeing. The Council must plan, but it cannot plan without understanding the predicted impacts of sea-level rise, etc, on our coasts.

- The opposite to proactive being unprepared and reactive scares me because in that sense it takes so long to react, the damage is done and there is no way back. This is why I am alarmed to read that the Barrages are not part of this study. What “the complex inter-government arrangements” have to do with “assessing the possible impacts of sea level rise on the Barrages’ puzzles me. In fact I see that as a cop-out and a dereliction of duty as the potentially affected properties (other than Ministerial managed water front properties) squarely sit under the responsibility of Alexandrina Council. Surely the proactive move is to include the barrages in the study and then pass the gained knowledge on to other levels of government. We can’t sit back and rely on either State or Federal Departments to do the work for us.

- I don’t know what the council is doing on these issues.
- No. No further than they already are; Have a fear of more restricted access for people dogs, etc.
- Unsure
- Yes.
- I would support a moderate approach but would oppose an overreaction by the alarmists. Do the studies and work on a sane / affordable approach which can potentially be enhanced in the future (say 20 years).
- Unsure - I am yet to attend webinar.
- “Being Pro-active” in my mind means engaging with the problem quickly, finalise plans & long-term outcomes, then demonstrate commitment not by more “consultations” & glossy brochures, but actual tools breaking ground and work commencing.

Other information – statistics

Age group	Residency (multiple answers possible)	Locality / township
<ul style="list-style-type: none"> • 31-44: 4x • 45-60: 7x • 60+: 6x 	<ul style="list-style-type: none"> • Alexandrina residents: 13x • Alexandrina property owners: 9x • Visitor to Alexandrina: 2x 	<ul style="list-style-type: none"> • Hindmarsh Island: 6x • Goolwa Beach: 4x • Middleton: 4x • Goolwa: 1x • Port Elliot: 1x • Chiton: 1x • Aldinga: 1x

