

SHOALHAVEN CITY COUNCIL

Responses to Submissions for Public Exhibition

St Georges Basin/Sussex Inlet, Swan Lake and Berrara Creek Coastal Management Program



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Synopsis

This report provides a summary of the submissions received from the community on the St Georges Basin/Sussex Inlet, Swan Lake and Berrara Creek Coastal Management Program, and outlines how these are to be incorporated in the final CMP.

Acknowledgement

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PROJECT 311015-00158 - CS-REP-011: Responses to Submissions for Public Exhibition - St Georges Basin/Sussex Inlet, Swan Lake and Berrara Creek Coastal Management Program

Rev	Description	Originator	Reviewer	Worley Approver	Revision Date	Customer Approver	Approval Date
Rev A	A Draft				25 March 2025		
		CA					
Rev () Final				26 March 2025		
		CA	NS, BW	CA			
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Table of contents

1 4		or contents	
1.	Intr	oduction	
	1.1	Legislative Requirements	5
2.	Pub	lic Exhibition Details	
	2.1	Response Metrics	6
3.	Sub	mission Details	7
4.	Refe	erences	20
		f tables	
Tab	le 2-1	: Summary of engagement during the exhibition period	6
Tab	le 3-1	: Submissions received, with response on how issue has been considered in the final CMP	8



1. Introduction

This report provides a summary of the submissions received during the public exhibition of the Draft St Georges Basin/Sussex Inlet, Swan Lake and Berrara Creek Coastal Management Program (CMP) Stage 4 report, and outlines how these are to be considered in the final CMP document. Public exhibition of the CMP was open from 17 February to 17 March 2025.

1.1 Legislative Requirements

The Coastal Management Act 2016 (CM Act) requires local councils to consult with the community and stakeholders before adopting a Coastal Management Program (CMP). Section 16 of the CM Act requires that:

- (1) Before adopting a coastal management program, a local council must consult on the draft program with—
- (a) the community, and
- (b) if the local council's local government area contains—
 - (i) land within the coastal vulnerability area, any local council whose local government area contains land within the same coastal sediment compartment (as specified in Schedule 1), and
 - (ii) an estuary that is within 2 or more local government areas (as specified in Schedule 1), the other local councils, and
 - (c) other public authorities if the coastal management program—
 - (i) proposes actions or activities to be carried out by that public authority, or
 - (ii) proposes specific emergency actions or activities to be carried out by a public authority
 - under the coastal zone emergency action subplan, or
 - (iii) relates to, affects or impacts on any land or assets owned or managed by that public authority.
- (2) Consultation under this section is to be undertaken in accordance with the relevant provisions of the coastal management manual.
- (3) A failure to comply with this section does not invalidate a coastal management program.

Part A of the NSW Coastal Management Manual (CM Manual) includes statutory provisions and mandatory requirements relating to community and stakeholder engagement. These include:

A draft CMP must be exhibited for public inspection at the main offices of the councils of all local government areas within the area to which the CMP applies, during the ordinary hours of those offices, for a period of not less than 28 calendar days before it is adopted. This mandatory requirement does not prevent community consultation, or other consultation, in other ways.



2. Public Exhibition Details

The Draft CMP was placed on public exhibition from 17 February to 17 March 2025 (28 calendar days). The public exhibition involved:

- Providing the document electronically on the Shoalhaven City Council Get Involved webpage for the project: https://getinvolved.shoalhaven.nsw.gov.au/sussexinlet-stgeorgesbasin-berrara-swanlake-cmp and on Councils website ('Documents on Exhibition' page)
- Invitation to complete an Online Survey (via the Get Involved webpage) or via email to coastal.management@shoalhaven.nsw.gov.au
- Distribution of physical flyers and notices to local businesses and community venues within the CMP Study Area
- Advertisement of the public exhibition period via Council's social media accounts

Submissions were received via the online survey, as well as directly through emails.

2.1 Response Metrics

The key engagement metrics for the exhibition period are provided in Table 2-1.

Table 2-1: Summary of engagement during the exhibition period

Engagement Metric	Outcome
Visits to the project "Get Involved Page"	701
CMP Document views/downloads	34
Submissions received	13

The majority of survey respondents were over 65 years of age. Half (50%) of all respondents were local residents, with 30% being property owners within the CMP Study Area but residing outside the local area.



3. Submission Details

The Project Team would like to take the opportunity to thank the local community for their input throughout the CMP process.

The submissions received during the public exhibition period are outlined in Table 3-1. These submissions, together with a response as to how it will be considered in the final CMP document, have been provided "word for word" in this document, but with the removal of personally identifiable material for privacy purposes. Where applicable, proposed changes to the CMP have been noted against each comment.



Table 3-1: Submissions received, with response on how issue has been considered in the final CMP

Submission No.	Details	Project Team Response	Report update status
1	Focus on heritage,/cultural, environmental, and safety issues is excellent A v detailed report with much that re-inforces the existing positives and makes suggestions as to how to enhance these and suggestions of what lse can be undertaken	Comment noted	No update proposed
2	The document is generally good and carefully thought through. My comments are about Swan Lake and keeping it pretty and low-key as a natural area. 1. The proposed Swan Lake swim platform - this could be fine, but pls make it low-key and sympathetic to the low-key natural environment. 2. The enhanced/widened boat ramp - as modest as possible please. If this is too big it will just attract more and bigger boats. 3. Vegetation is covered only generally here, but it is related. Pls aim to keep native vegetation wherever possible and link to BushCare or weed control/removal.	The Project Team has developed the CMP Management Actions for Swan Lake, keeping in mind the natural values of the area. 1. The management action relating to the swim platform was not included in the draft CMP as it had little support from the community during Stage 3. Opportunities for recreational amenity at Swan Lake have been considered through the development of other management actions for Swan Lake including management actions BN07 and BN08. 2. The comments on the enhanced boat ramp are noted – enhancements would be aimed at improving the useability and safety of the existing ramp. Details on the design of the boat ramp would be ascertained as part of the design process for the boat ramp upgrade. 3. Native vegetation has been recognised in the CMP as particularly important, with specific environmental protection works recommended as part of Estuary-wide action EW-E04, which includes support of volunteer-based rehabilitation initiatives such as Bushcare/Parkcare/Dunecare. Weed removal is one activity described under Action EW-E04, with specific locations for this action identified within Swan Lake mapped in the CMP maps in Appendix A.	No update proposed
3	What a convoluted, verbose, document. Full implementation a ridiculous time in the future. Not going to waste any more of my time on this waste of time report. Typical bureaucracy	It is acknowledged that the full document is lengthy and contains a lot of complex detail which may make it difficult for the local community to digest. However, the document structure is mandated by the NSW Government through the <i>Coastal Management Act</i> 2016 and Coastal Management Manual, and the inclusion of the detail in the format provided is a requirement for	No update proposed



Submission No.	Details	Project Team Response	Report update status
		the CMP to gain certification. The CMP is the culmination of a process that has involved extensive community consultation, technical studies and collaboration with Agencies responsible for coastal management, with the details of all this work summarised for the CMP report. The Executive Summary (8 pages) may be more digestible, as it has been designed to provide a succinct summary of the CMP process for the community, and may be read as a stand-alone document together with the proposed management actions for each estuary. Note that Action EW-C08 specifies the development of a communications and execution plan for Stage 5 of the CMP. This would present information on Council's website and in community engagement activities that shows: • The purpose of the CMP • The CMP background and an overview of the NSW Coastal Management Framework • Key CMP information and links to relevant materials, including reports available for public consumption • The status of CMP Actions, with details of the action and recent updates/progress • Information pertaining to upcoming community consultation events, and avenues for engagement • Links to relevant materials such as the NSW Coastal Management Framework, and the Marine Estate Management Strategy. • How estuarine systems function and how integrated management responses benefit local communities	
4	I am trained to read documents like this, but a 345 page document filled with industry jargon is too much for your average LGA resident. I would think people would more want a bullet point (separate document) on hard actions intended to be followed on what timeline. I think this paper, although thorough, speaks a lot of idle industry chatter and find it interesting that this study commenced in 2019. A lot of change happens in 5 years and I question the productivity of collating this data and set it against actions that will come out of it. I am interested in the qualifications of the coastal and estuary officer, I may apply and have a background in quality and safety management. Erosion issues associated with	Comment noted and acknowledged regarding the length and complexity of this document. It is acknowledged that the full document is lengthy and contains a lot of complex detail which may make it difficult for the local community to digest. However, the document structure is mandated by the NSW Government through the Coastal Management Act 2016 and Coastal Management Manual, and the inclusion of the detail in the format provided is a requirement for the CMP to gain certification. To summarise the detail of the issues explored in the CMP, an Executive Summary (8 pages) has been included. This is designed to provide a succinct summary of the CMP process for the community, and may be read as a stand-alone	No update proposed



Submission No.	Details	Project Team Response	Report update status
	boating education - I would like to see a greater presence from marine officers in the St Georges Basin / Sussex Area. Many boat drivers do not associate the concepts of boat speed, boat wash and boat plane together, resulting in increased erosion rates against the river edges. Once again, I would be interested in a possible career change into a marine officer patrolling, educating and mentoring the people of my local area. A last point - I am not sure what of weed control is taking place but we are seeing the slow invasion of a weed named Formosa Lily from South Nowra, through Sussex inlet and associated areas. This weed is not listed on the priority list but will quickly reproduce to become outside of control soon. I am happy to discuss this feedback at length if you wish to contact me.	document together with the proposed management actions for each estuary, to make this more digestible for the local community. Note that Action EW-C08 specifies the development od a communications and execution plan for Stage 5 of the CMP. This would present information on Council's website and in community engagement activities that shows: • The purpose of the CMP • The CMP background and an overview of the NSW Coastal Management Framework • Key CMP information and links to relevant materials, including reports available for public consumption • The status of CMP Actions, with details of the action and recent updates/progress • Information pertaining to upcoming community consultation events, and avenues for engagement • Links to relevant materials such as the NSW Coastal Management Framework, and the Marine Estate Management Strategy. • How estuarine systems function and how integrated management responses benefit local communities Comment regarding a greater presence of marine officers in the St Georges Basin/Sussex Inlet area and erosion issues associated with boating education is noted. While boating safety and education is in the remit of Transport for NSW rather than Council, there is an Estuary-Wide action in the CMP "EW-BNO2 Support and promote LGA-wide boating education measures targeting both local and visiting recreational boaters", which would be led by Council with support from Transport for NSW. The issue of boater education was identified early in the CMP process, and is discussed in detail in the supporting Stage 2 Boating Study (Advisian 2022a). Regarding weed control, Council through management action EW-EO4 will undertake works within identified coastal and estuarine reserves within the CMP study area. The environmental protection works, wetland protection works, erosion protection works, pest control and fencing and will be informed by Council staff monitoring, and reporting on the condition of the relevant reserves. Weed control activities will be dependent on the species	



Submission No.	Details	Project Team Response	Report update status
		present in each area, however, feedback regarding the Formosa Lily is noted.	
5	Great plan!	Comment noted.	No update proposed
6	I have a dwelling at Berrara Rd Berrara. I would like to discuss the proposed works in front of Berrara Waters and the small inlet leading up to Berrara Rd Berrara. We currently access the Berrara Creek via this inlet at high tide and when the creek is closed to the sea, using paddle boards, canoes and a tinnie. This inlet is navigable at these times. I have observed the constant changes that have occurred in this area over the last 25 years and note they appear to be cyclical. Bush fires have a big impact from deposition of logs, branches, burnt debris etc. High tides deposit seaweed from time to time. When the creek is open to the sea there can be high tide swell and wind surges generated in bad weather usually associated with strong southerlies which generate small waves along the northern edges of the creek and small inlet. This does not occur when the creek is closed to the sea. Erosion appears to occur at these times when the creek is open to the sea. The creek has been open to the sea for about the last 4 years which is by far the longest it has been open in those 25 years. Usually, the creek is closed to the sea more often than it is open. I put this down to higher rainfall over recent times and expect the creek will again close when we have a drier period. I see that it is proposed to place rock protection to the interface between the creek and reserve in front of Berrara Waters and to add some planting. I request that this be done in a sympathetic way as to not reduce access to the creek area and for any vegetation to be similar to that which you would find in sand dune protection. Being low level and not impacting on existing view corridors. It would be important that any works are supported by the local community and not in conflict with the amenity and emotional wellbeing of those who cherish and choose to frequent the area for the current amenity it provides. Also, any rock work needs to consist of elements large enough such that they cannot be dislodged by wave action or human intervention. 25 ye	The Project Team notes the comment regarding the erosion that occurs when the creek is open to the sea, under southerly winds, swells and high ocean water levels. It is correct in that the creek tends to be open when there are prolonged periods of wet weather, such as has occurred between 2021 and 2024. The creek entrance is sensitive to climate cycles that occur at interdecadal scales, such as the ENSO (El Nino Southern Oscillation), with creek tending to be closed during drier El Nino years, and open during the wetter La Nina years. One of the CMP actions (Action E05) includes documenting and monitoring the entrance openings and closures of Berrara Creek, so Council can better understand how the natural system operates. The comment regarding the detail of the erosion protection works at Berrara Waters is noted (action reference FE17 and FE18). The detail of these works has not yet been finalised, however they will need careful design to ensure that they are resilient against wave action and that they are sympathetic to the local amenity and access to the creek foreshore and waterway navigation. The comments relating to bait pumping on the sand flats during holiday periods are also noted will be passed on to DPIRD Fisheries, as regulating fishing is beyond the scope of the CMP. DPIRD Fisheries regulates this activity, with limits on where this activity can take place, with it not permitted in intertidal protection areas. Bait pumping must be done in a way that does not damage the environment or surrounding areas. There is an action in the CMP that relates to collaboration and information sharing on projects to improve estuarine health, between Council, government agencies and educational institutions, EW-C09,	No update proposed



Submission No.	Details	Project Team Response	Report update status
	the creek by people, which was a noticeable hazard. Over the last 25 years the area has recovered and become sandy, the water clearer and safer. In addition, I request that any proposed works do not diminish the current navigation within the Berrara Creek and the small inlet leading to Berrara Rd, as this area is used and enjoyed by locals and visitors for boating and is a natural setting within the urban surrounds. I also note that during holiday periods there is extensive bait pumping being carried out on the sand flat areas of the Creek with associated disturbance to the creek bottom. I am not aware if this is an issue that the Management Study is aware of or has concerns with, however I draw it to your attention to it. I hope you give due consideration to the above concerns, and I advise that I am only too happy to discuss these matters further if you so desire. We all love Berrara Creek and want it to remain the way it is for its beauty and the enjoyment that all who visit the area gain from its setting and amenity. We would hate to see any works that would seek to diminish this amenity or reduce or exclude access to the Creek for locals and visitors. Regards		
7	The riverbank outside my property is collapsing into the river and has been slowly deteriorating for many years there was some restoration work done many years ago on the riverbank up river from my property but aside from removing some logs in front of my place. which were actually holding the bank together with a promise of returning to fix it, nothing has happened! It is becoming quite dangerous for people using it, Fishermen, children playing ball and the ball having to be retrieved and people just walking down to enjoy the river viewit looks disgustingit needs repairing, I would gladly do it myself but it's not mine to meddle with which I have been told by Council representatives on a few occasionsThe address is at River Road, Sussex Inlet	The section of bank referred to has been specifically recognised as suffering from erosion (refer Stage 2 Foreshore Erosion Assessment report, Advisian 2023), the erosion here is being caused by the long-term migration of the bends in the river channel. The CMP recognises that a long-term solution is needed for managing erosion at this site, refer to Management Action FE14 in the CMP. This action outlines specifically to undertake necessary investigations, detailed designs and implement stabilisation works to reduce erosion and improve public access and environmental values upstream of the Nielson Lane boat ramp, Sussex Inlet. This will consider the entire foreshore area upstream of the boat ramp, up to the River Road bridge. Careful design would be needed to allow continued recreational access to the foreshore while being sympathetic to the natural environment and addressing the root cause of the erosion here. Initially, short-term options to stabilise the bank would be considered to address the erosion as part of Stage 1 of the management action, until such	No update proposed



Submission No.	Details	Project Team Response	Report update status
		time as a longer-term solution can be fully designed and implemented (Stage 2 of the action).	
8	Thank you for the opportunity to comment on the abovementioned draft document We would like to make particular mention of ID 102 Tidal Inundation and Sea Level Rise Estuary Swan Lake Location Swan Lake Rather than raise all the paths and walkways, why not lower the trigger levels for entrance intervention at Swan Lake. Currently the high water level which seems to be occurring more often has been causing increased erosion around the periphery of the lake and considerable die-back of the trees located within the high water level area. The suggestion to raise the culvert level between Dyball Reserve Carpark shared User pathway adjacent to Swan Lake should not include raising the invert level of the culvert as this will further increase flooding risk to The Springs Cottages	Regarding the comments on Action I02 at Swan Lake, separate to this CMP, Council has prepared a draft revised Swan Lake Entrance Management Policy (EMP) and Review of Environmental Factors (REF), which will be exhibited by Council outside of the CMP process. The revised EMP discusses the rationale for the setting of trigger levels for intervention at the Swan Lake entrance, with the long term aim to keep the lake operating as naturally as possible without intervention, which can cause a range of other impacts. For further information, please refer to the Stage 2 Swan Lake and Berrara Creek Entrance Management Review Report (Advisian 2022) and CMP Management Action E01. The suggestion to raise the culvert does not include raising the invert level; rather a larger culvert with the same invert level could be installed to ensure that flows are not trapped, that there is still access over the culvert when water levels are high, and that there is no increase in flood risk to the Springs Cottages. Key to this management action is consultation with the owners of the Cottages regarding the changes to the trigger levels for entrance intervention at Swan Lake, working with them to understand their access limitations and requirements during high lake levels and to ensure continued access is available without increasing flood risk.	No update proposed
9	We own a Chalet (in Berrara Rd) in Berrara and we are located adjacent to small tributary off Berrara Creek. The banks of the tributary have experienced significant erosion and the ground level between our Chalet and the tributary has dropped around 500mm over the past 10-15 years. Two piers have dropped approximately 150mm due to the erosion.the Draft Plan does not cover this erosion and the damage to nearby infrastructure. We ask Council visit the area and amend the plan as immediate action is required to limit further damage to our Chalet and must be completed before we can arrange for the piers to be replaced.	The comments regarding the erosion within the small inlet adjacent to the main channel of Berrara Creek are noted. The erosion at the Berrara Chalets along the main creek has been documented in the Stage 2 Foreshore Erosion Study (Advisian 2023). Foreshore erosion protection works have been recommended at the site (Action FE18); these would be expanded as required as part of the design process to include mitigation of the erosion facing the inlet also. Note that the erosion protection works relate to the foreshore land only, rather than the caravan park or chalets.	No update proposed
10	The document is very comprehensive and informative. The only beach on St Georges Basin is Palm Beach at Sanctuary Point. It is very popular and very safe for swimming.	The comment regarding Palm Beach at St Georges Basin is noted. Palm Beach has been recognised as suffering from a moderate risk of erosion and inundation (refer Stage 2 Foreshore Erosion	No update proposed



Submission No.	Details	Project Team Response	Report update status
	Shoalhaven Council has spent money on various projects in the 63 years that I have been living adjacent to Palm Beach but it is poorly maintained and often ignored. I could only find one reference to Palm Beach in the document. I have watched this beach deteriorate from a pristine stretch of water and sand with no sea weed to a filthy, putrid and at times a total disaster. The beach is very exposed to fierce southerly winds that often generate waves well over a metre resulting in severe erosion of the beach. I have seen the car park covered in times of high tide and heavy rain. Many of the trees that lined the foreshore have been removed by storms over the years. The frequent use of the waterway by numerous jet skis exacerbates the erosion problem. There needs to be an urgent program to rehabilitate the beach and to provide protection to prevent further erosion. There also needs to be laws introduced to prevent jet skis in the vicinity of Palm Beach from both a safety and environmental aspect. I am happy to provide any further information if required.	Assessment Report, Advisian 2023) – when lake levels are high, this can expose the back of the beach to southerly winds and erosion. Following a storm event, the beach may be impacted by natural build up of seagrass wrack. The Stage 2 foreshore erosion assessment recognised erosion at Palm Beach caused by: • wind waves from southerly winds across the Basin, particularly when water levels within the Basin are high • Destabilisation and undercutting of the banks due to the presence of weeds and damage to foreshore vegetation • Incorporation of unstable fill into the banks • Public access leading to trampling of vegetation by foot traffic, and dragging of small craft over the banks leading to destabilisation of the bank, as well as ad-hoc storage of private craft. Council manages foreshore reserves, including Palm Beach, in accordance with its Foreshore Reserves Policy (POL23/24). Amongst other things, the policy discusses the management of seagrass wrack on estuary foreshore beaches, which is part of the natural cycle of the estuary. Removal of any naturally deposited organic material will require Council to assess the impacts on infrastructure/utilities, public safety, and the environment, and will require adherence to the applicable legislation and conditions of executed agency licenses/permits. Removal of seaweed, seagrass wrack, and/or other deposits of natural materials from foreshore reserves and intertidal zones is subject to the provisions of NSW DPIRD Fisheries regulations. Despite the occasional buildup of seagrass wrack on the foreshore, water quality at Palm Beach and within St Georges Basin generally is very good (refer Stage 2 Water Quality and Estuary Health Study, Advisian 2023a). For the foreshore west of Palm Beach itself (site MP01), refer to Management Action FE06 within the CMP. This action involves the installation of a cobble beach in short sections where root zones of large trees have been undermined. Most of the length of this bank can be managed by riparian vegetation, no-mow zones	



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		NSW. There is an Estuary-Wide action in the CMP "EW-BN02 Support and promote LGA-wide boating education measures targeting both local and visiting recreational boaters", which would be led by Council with support from Transport for NSW. The issue of boater education was identified early in the CMP process, and is discussed in detail in the supporting Stage 2 Boating Study (Advisian 2022a).	
11	The exhibited plan has been examined and the following comments derived from the documentation of the various strategies Pages 102 – 125 with a concentration of location specific actions on St Georges Basin. (Actions Codes are referenced) EWCO1 Relates to Foreshore Education Councillors especially must be included. They do not necessarily bring any particular expertise to the CMP table and as evidenced in 2025 can be involved in Actions which unnecessarily hamper progress, especially when they have not done 'their homework'. Any commitment to education will necessarily require a professional recognition of appropriate educational techniques (as recommended in the field of Andragogy). Education undertaken by people from outside the professional field of Education may not offer effectiveness. EW-C10 Suggest the Annual Reviews should be exhibited	The CMP Project Team acknowledges the detailed feedback from this submission on the Draft CMP. Please find below responses to specific issues raised: EW-C01 – The suggestion to include Councillors in the development of educational resources for the local community is noted. Councillors are a key stakeholder in the management of our estuaries and coasts, and will be included in the development of educational resources under Council's standard operating procedures It is intended that the resources and educational techniques would be developed or at least guided by personnel with the appropriate qualifications and expertise in communications and adult education. EW-C10 – The suggestion to document the Annual Reviews and solicit feedback from the community is noted. In implementing this action, Council will consider suitable means to communicate the progress of the CMP to the community to provide information. This will also be considered through the implementation of management action EW-C08. EW-C06, EW-C07 and EW-C08 – A cultural awareness and education program, including in schools, is outlined in Action EW-C05. Actions EW-C05, EW-C06 and EW-C07 have been included	The final CMP action EW-C09 wording will be amended to specifically recognise BirdLife Shoalhaven and the volunteers working with NPWS. The final CMP Local Area Plan map for St Georges Basin East will be amended to show the Bherwherre Wetland, with the wetland specifically referred to in the action EW-E04 mapped for that location.
	ENVCO6, CO7 and CO8 Focus education and not just work on Aboriginal Ranger and Ranger programs especially in schools. Care needs to be taken in making and presenting documentation as comprehensible for various stakeholders outside the planning domain.	following consultation with traditional owners to support coastal cultural heritage objectives. Action EW-C08 is designed to provide a communications plan for the CMP that would involve education in coastal management and engaging with the entire community, including in schools.	
	ENVCO9 As this relates to SOS Shorebird Recovery Project, the	EW-C09 –Suggestion is noted and the final CMP action wording will be amended to specifically recognise BirdLife Shoalhaven and the volunteers working with NPWS.	



Submission No.	Details	Project Team Response	Report update status
	volunteers working with NPWS across the Shoalhaven coast need to be specifically recognized and BirdLife Shoalhaven a branch of BirdLIfe Australia [NGO] need to be recognized and named. There is a strong cross-over in personnel between the two groups. EWEO2 SLR certainly is equated or at least projected as synonymous with Climate Change but a characterisation of Climate Change sems not to have been provided. SLR is not the only symptom of Climate Change. In some respects there are many more immediate symptoms and this concept needs development, especially in relation to the education aspect proposed in other Action areas.	EW-E02 – The comment is noted. Action EW-E02 includes the development of a Coastal Vulnerability Area to be included in the State Environmental Planning Policy Resilience and Hazards (RHSEPP). The <i>Coastal Management Act</i> 2016 requires the consideration of future climate change. It is a mandatory requirement of the CMP to consider Climate Change. The Coastal Vulnerability Area in the RHSEPP is based on projected future impacts of climate change. Climate Change (in addition to sea level rise) has been considered throughout the CMP in the Stage 2 Risk Assessment (Advisian 2023c) through identification of areas subject to habitat squeeze, changes to water quality caused by more frequent droughts and bushfires, and changes to estuary geomorphology and hydrodynamics caused by climate change.	
	EWI03 This should include and Action by Council to seek a review and redefinition of the strategies mandated to deal with development site erosion which produced site erosion in storm episodes and subsequent sediment flows to foreshore. These have been seen to be very inadequate in SGB.	In an educational context climate change and its impacts in the estuarine context have been considered in management actionEW-C01, which includes providing educational resources on "Impacts from climate change resulting in increased tidal range, changes to entrance dynamics and changes in macrophyte composition and distribution".	
	EWI04 Include a clear reference to 'tidal inundation' being related to other elements such as storms, esp. ECDLs, flooding, catchment drainage and wind. EWWQ01 Should have a focus on environmental 'hotspots' such as the known Natural Areas. SITE SPECIFIC ACTIONS – ATTENTION TO SGB FE01	EW-I03 – The comments are noted. This Action refers to the NSW Government publication "Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning", which includes a methodology to be mandated into Council's planning controls for ensuring that developments have a "neutral or beneficial effect" on stormwater quality. Under this action, development applications would need to demonstrate how this is achieved for their development to be approved, i.e. specifically including management of erosion and sediment controls relating to all aspects of the development. Note that it is beyond the scope of the CMP to review and redefine the strategies developed in the Risk-based Framework.	
	The environment containing the estuarine section of Tomerong Creek which traverses Sanctuary Point and as it involves the delta of that creek and specifically the Bherwerre Wetland needs specific and special mention in Action Plans. There is a distinctive and ecologically important cluster in that area of Erowal Bay-SGB involving council owned land that is Community Land, an EEC and a Natural Area. The access of	 EW-I04 – Tidal inundation is distinct from coastal inundation, with these concepts and how they impact the Study Area explained in more detail in Section 2.3 of the CMP. EW-WQ01 – Comment noted. Specific locations and frequencies recommended for water quality sampling/monitoring are outlined 	



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	power boats for example needs to be banned from the Larmer Ave. Bridge to the mouth of the estuary to SGB. Rectify error in naming of Tomerong Ck. as Cockrow Ck. In this precinct. It is recorded as Tomerong Creek on the Huskisson Topographic map, Google Map and WhereIs Map.	in more detail in the Stage 2 Estuary Health and Water Quality Study (Advisian 2023a). Through the implementation of this management action Council will consider these Stage 2 recommendations to develop a refined surface water quality monitoring program.	
	General Comment Councillors should be invited to reference the CMP Stage 4 planning.	FE01 – Management Action EW-E04 specifically includes environmental protection works for ecologically important areas such as bush regeneration works, wetland protection works, erosion protection works, pest control and fencing and will be undertaken in line with the appropriate approvals pathway. Bherwherre Wetland has now been specifically mapped in the Local Area Plan. The saltmarsh areas in the wetland are recognised as a "Coastal Wetland" in the Resilience and Hazards State Environmental Planning Policy (RH SEPP), which are included in the Local Area Plan map together with the saltmarsh and Bangalay Sand Forest EEC. There is an action mapped on the Local Area Plan for the wetland under EW-E04 to implement no-mow zones at the edge of the wetland where it interfaces with the urban area, and to monitor the health of the saltmarsh and EEC. Council has also undertaken other initiatives at the Bherwherre wetland which are not part of the CMP. For example, Council recently developed a boardwalk at the wetland, outside of the CMP, together with educational signage.	
		Access restrictions to specific areas of waterway by boats, including access to Tomerong Creek by power boats, while recognised as a risk in the Stage 2 Risk Assessment, is managed by Transport for NSW (TfNSW), with this issue being outside the area of control and responsibility of Council. TfNSW is responsible for enforcing boating rules and restrictions, manage navigational aids and signage and undertake community education within the St Georges Basin, Sussex Inlet, Swan Lake and Berrara Creek estuaries to ensure the safety of boat users and reduce impacts to the environment. There is an Estuary-Wide action in the CMP "EW-BNO2 Support and promote LGA-wide boating education measures targeting both local and visiting recreational boaters", which would be led by Council with support from Transport for NSW. The issue of boater education was identified early in the CMP process, and is discussed in detail in the supporting Stage 2 Boating Study (Advisian 2022a).	



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		Mapping has been reviewed, but the labelling error for Tomerong/Cockrow Creek could not be located. It is understood that Cockrow Creek is a tributary of Tomerong Creek. Labels for these can be added if required. General Comment Councillors have been briefed on the CMP throughout its development. Following the finalisation of the CMP, the final CMP will be presented to Council for their consideration and to request that the CMP is adopted. Following this, the CMP will then be prepared for submission to the relevant NSW Minister for certification and then gazettal.	
12	This CMP draft has not addressed the concept of making the estuary flood ready. It is a given that nature will always win when there are suitable conditions to cause the river to flood. However, there is potential to reduce foreshore erosion and to expel flood waters quicker if the estuary is reshaped i.e. channel realignment. Where in this draft CMP is the study that proves or rejects this notion? This proposition was previously posed in Stage 2 of this project, and it suggested an investigation was necessary to determine the possible impacts on the river system and to forecast the potential of reducing the level of foreshore erosion. The reduced flood duration might also have a lesser impact on Council assets. Also in the Stage 2 submission, it was proposed that the introduction of targeted dredging was the way to alter the direction of the river, a secondary benefit of this process is that the product of this dredging can be used in stabilising the adjacent dune at The Haven to Alamein. I note that in this Stage 4 draft that dredging to benefit safe navigation (BN02) has been given an extreme rating with a high priority and complete with costing, this is a good result. On the other hand, dredging for the environment and potential savings to Council assets, did not seem to be important enough to do a full investigation to see if realigning	The purpose of the CMP is not to address flood risk. Flood risk is specifically dealt with by the NSW Floodplain Risk Management Framework. Flood risk and management actions to address flood risk are defined in the St Georges Basin Floodplain Risk Management Study and Plan (refer https://www.shoalhaven.nsw.gov.au/Council/Projects-and-works/Major-projects/St-Georges-Basin-Floodplain-Risk-Management-Study-Plan). Rather, the CMP has been prepared to address coastal hazards as identified in the <i>Coastal Management Act</i> 2016, which includes coastal inundation and tidal inundation (inundation caused inside the estuary by elevated ocean levels) but not flooding caused by catchment flows from upstream. Separate to this CMP, Council has undertaken a Geomorphology Study of Sussex Inlet, which included an analysis of the tidal regime of the Inlet (Advisian 2023b). The analysis found that changes to the entrance bar area undertaken through dredging would have a detrimental impact on the long-term stability of the channel. For example, making the entrance deeper or wider could destabilise the channel, or increase the very small natural tidal range in the upper section of Sussex Inlet and within St Georges Basin, which would have impacts on the natural environment, and could increase risks from tidal inundation and bank erosion throughout the estuary.	No update proposed



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	the channel might deliver some long term benefits. If it wasn't considered important enough to include as an action, then there should at least be a scientific explanation to its omission. Perhaps a study would show that the tidal flow pressures will be reduced along the unstable dune at the Haven and this might help the proposed geotextile groynes (FE12) to be more effective. Apart from the poor coverage of the above subject I am generally pleased with the overall CMP project to date and thank all staff involved for their skill and investment in this lengthy process.	The Stage 2 Boating Study (Advisian 2022a) included an analysis of the channel depths throughout the channel, highlighting areas that were shallow for vessel navigation. Deepening of these areas at locations between Alamein and The Haven is not designed to impact flood mitigation or change tidal flows in the estuary, rather it would mitigate known shallow areas which impact navigation (other than the entrance bar). The Sussex Inlet channel is highly dynamic and its form is very sensitive to flood events, with sand being mobile in the channel under normal tidal conditions. After a flood event, these sand shoals can be removed naturally, until wave action builds them up again over time. The Inlet and entrance bar exists in a delicate balance between the action of ocean waves, flood and tidal flows, and any dredging investigation must be very carefully considered so that this balance is not disturbed. Erosion of the dunes at The Haven was reduced when targeted dredging was carried out in 2017, specifically by placing sand at the base of the dune and attempting to stabilise the sand on the foreshore through the use of a series of small geotextile groynes. The geotextile groynes in themselves would act to reduce the velocity of the flow at the base of the dunes at The Haven, encouraging the channel to push away from the base of the bank and reduce the erosion of the toe of the slope, which could be achieved without dredging. Note the action BN02 includes regular channel survey, and a detailed investigation into dredging feasibility at the locations identified in the Boating Study. Note also that under current legislation, dredging is permissible for navigation purposes, but not for environmental purposes.	



4. References

Advisian (2022) St Georges Basin/Sussex Inlet, Swan Lake and Berrara Creek CMP Swan Lake and Berrara Creek Entrance Management Review. Report no. 311015-00158-CS-REP-004, Sydney: Advisian Pty Ltd.

Advisian (2022a) Stage 2 CMP Boating Study, Report no. 311015-00158-CS-REP-003, A report undertaken as part of the CMP for Shoalhaven City Council by Advisian.

Advisian (2023) Stage 2 CMP Foreshore Erosion Assessment Report. Report no. 311015-00158-CS-REP-002. A report undertaken as part of the CMP for Shoalhaven City Council by Advisian.

Advisian (2023a) St Georges Basin-Sussex Inlet Water Quality and Estuary Health Study, Report no. 311015-00158-ENV-REP-003 for Shoalhaven City Council.

Advisian (2023b) Sussex Inlet Geomorphology Study and Navigation Assessment, Report no. 311015-00207-CS-REP-001 for Shoalhaven City Council.

Advisian (2023c) Stage 2 Risk Assessment report and Risk Register. Report no. 311015-00158-CS-REP-005. A report undertaken as part of the CMP for Shoalhaven City Council by Advisian.