

Lower Shoalhaven River Coastal Management Program

Response to Submissions Report

Introduction

This Response to Submissions (RTS) report summarises and addresses comments received during the public exhibition period for the Lower Shoalhaven River Coastal Management Program (CMP). The public exhibition period was held from 4 November 2025 to 10 February 2025, providing an essential opportunity for community and stakeholder feedback on the draft CMP.

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 requirements 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.

Public Exhibition Details

The Draft CMP was placed on public exhibition from 4 November 2024 to 10 February 2025 – a total of 99 calendar days (over 14 weeks), which is 71 days more than what is legislatively required. The public exhibition process was comprised of:

- Provision of the document electronically on the Shoalhaven City Council Get Involved webpage for the project: <https://getinvolved.shoalhaven.nsw.gov.au/lower-shoalhaven-river-cmp>, and the Documents on Exhibition section of the Council website. During public exhibition, over 990 people visited the project page, 157 people downloaded the CMP and over 50 people completed the survey.

- Two community information sessions were held within the Shoalhaven Local Government Area (LGA) during November 2024. Approximately 15 attendees were at the Nowra session, and approximately 20 attendees were at the Shoalhaven Heads session.

Additional engagement strategies used during the public exhibition phase included pamphlet distribution, posts and updates on the Get Involved page and social media, direct emails to the Council's community and stakeholder participation lists, and the creation of an "explainer video" that summarised the CMP outcomes.

Submission Methods

Submissions were received through various methods, ensuring comprehensive community engagement. These included:

- Drop-in sessions at local community centres
- Formal written submissions via letters and emails
- Direct communication with council representatives and consultants
- Submission via an online survey on [Get Involved](#) or through the 'Documents on Exhibition' on Council's website

Key Topics of Concern and Generalised Responses

Entrance Management and Flood Mitigation

Concern: Numerous submissions highlighted concerns over river entrance management, particularly the need for more frequent or permanent openings and the lowering of trigger levels to manage flooding and water quality issues effectively.

Response: Flood risk is addressed in the Floodplain Risk Management Program and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors (REF) undertaken to support Council's Entrance Management Policy (EMP)). Potential mitigation measures to reduce flood risk are being considered as part of the Lower Shoalhaven River Floodplain Risk Management Study & Plan (FRMSP) which is underway. A review of the EMP trigger levels and preparation of a draft Shoalhaven River EMP and REF was completed in early 2025 separate from the CMP and Floodplain Risk Management program. Water quality issues as minimised as the estuary is flushed twice daily with tides via the permanent Crookhaven Heads entrance.

Foreshore Erosion and Stabilisation

Concern: Foreshore erosion and the effectiveness of existing stabilisation measures were significant concerns, particularly around Berry's Canal and Shoalhaven Heads.

Response: The CMP outlines specific adaptation strategies such as living shoreline projects and bank stabilisation, supported by targeted actions for monitoring, maintaining, and enhancing foreshore protection works. This includes several bank stabilisation projects on Council owned land consisting of engineered bank works that incorporate natural habitat features, as well as some support for maintaining existing foreshore protection works. Submissions received during public exhibition have led to an additional site at Orient Point being included in this suite of actions. Community and private landholder involvement is encouraged, with funding opportunities identified to support these initiatives.

Environmental Protection and Biodiversity

Concern: Several submissions emphasised the importance of protecting coastal wetlands, habitats, and native biodiversity. Concerns were raised about insufficient recognition and conservation of certain highly valued natural areas within the CMP.

Response: The CMP includes various actions supporting environmental protection and enhancement, such as habitat restoration, community education initiatives, and increased ecological monitoring. Within the CMP, the implementation of environmental protection works applies broadly to riparian and estuarine areas within the CMP study area, as well as at key locations such as Coastal Wetlands and Littoral Rainforest areas. The CMP will clarify and strengthen these actions where appropriate, highlighting the value of coastal ecosystems.

Recreational Amenity and Community Access

Concern: Community concerns were raised regarding the condition and accessibility of recreational facilities, including boat ramps and beaches.

Response: The CMP acknowledges these concerns, proposing actions to review and upgrade key recreational infrastructure. Additionally, ongoing maintenance and monitoring programs aim to enhance community access and recreational opportunities along the foreshore.

General Plan Comprehensiveness and Clarity

Concern: Some submissions expressed concerns about the clarity, comprehensiveness, and communication of the CMP objectives and proposed actions.

Response: The CMP has been developed through extensive research and consultation, balancing diverse stakeholder views, legislative requirements, and technical assessments. However, feedback has been valuable, and where necessary, the CMP will be amended to enhance clarity, particularly in describing specific actions and their intended outcomes.

Key Changes to the CMP

Following the public exhibition period, several changes have been made to the CMP. These are described in more detail in the Final CMP, and include:

- **New Action BE_43i** – In response to the comments around bank and stormwater erosion at Orient Point Foreshore Reserve, this site has been included in the suite of bank stabilisation actions for works on public land.
- **New Action BOAT_43** – To assist with the management of boating facility assets, a new action has been added to install and manage small watercraft storage facilities at key locations.
- **Clarifying action descriptions** – several submissions have identified opportunities to make the intention and scope of certain actions clearer in the CMP. This helps to point out connections between related actions, strengthen the intent to better support community values, and ensure that the proposed management responses align with identified risks and priorities. These refinements improve transparency and clarity, making it easier for stakeholders to understand how actions contribute to broader coastal and estuary management objectives, and will support grant applications and funding requests in the future.
- **Adjustments to the business plan** – including increasing budget allocated for certain actions.

Conclusion

All submissions have been thoroughly reviewed and considered. Detailed individual responses are included in the submissions register appended to this report. The feedback provided by the community and stakeholders has been instrumental in refining the CMP, ensuring it effectively addresses the challenges and opportunities within the Lower Shoalhaven River coastal zone.

From Submissions		Response	Report Update Status
Comment ID	Comments		
1	Only answer to minimise flooding	Flood risk is generally addressed in the Floodplain Risk Management Framework and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).	No update to CMP required.
2	Waterfront properties experience “unnecessary” flooding due to poor trigger levels for opening Shoalhaven Heads. When the heads are eventually opened significant inundation has already occurred. A far better permanent solution (and less expensive in the long term) would be to permanently open the heads.	Flood risk is generally addressed in the Floodplain Risk Management Framework and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).	No update to CMP required.
3	In relation to boat_40, it would be useful to mention in signage and educational material the legal responsibility boat users have in regard to other waterway users safety such as swimmers, kayakers and snorkellers. Specifically, users of Jetskis that can travel at over 110kph, go from 0-100kph in 3.5 seconds and weight over 350kg. It would also be useful and potentially act as a deterrent to reckless jetski use, to provide a number that dangerous and illegal behaviour can be reported to.	The CMP includes Action ENV_62, which establishes a comprehensive estuary management and ecosystem education program. This action aims to increase public awareness on key coastal and estuarine issues, covering topics such as bank erosion, water quality, <u>responsible boating</u> , entrance management, and habitat conservation. The program, including educational signage for safe boating, will be developed in consultation with stakeholders to ensure broad community engagement and effective information delivery. It is noted that TfNSW are the authority responsible for marine safety such as regulating navigation along the river.	No update to CMP required.
4	Lower trigger levels and, ideally, a permanent opening of Shoalhaven Heads is crucial for effective flood mitigation and improved water quality for recreational and aquaculture industry users of the river, as well as residents of the LGA. We will continue to advocate for this and work with stakeholders for as long as possible to achieve these goals.	Flood risk is generally addressed in the Floodplain Risk Management Framework and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).	No update to CMP required.
5	The opening of Shoalhaven heads would greatly benefit all residents of the surrounding areas and to greatly reduce the effects of flooding and the damages that it can cause to people and their properties.	Flood risk is generally addressed in the Floodplain Risk Management Framework and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).	No update to CMP required.
6	I would like to suggest that Shoalhaven Heads be opened the day previously before a weather event when it is safe rather than waiting till it is not safe and then not opening the heads at all ,Until such time that it can be constructed to stay open permanently. The heads being open makes 100mm difference in flood levels at Coraltree Lodge Boat ramp For some Shoalhaven residents this is the difference between flooding or not flooding so wake up and do the right thing	Flood risk is generally addressed in the Floodplain Risk Management Framework and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).	No update to CMP required.

From Submissions		Response	Report Update Status
Comment ID	Comments		
7	<p>This is a very long document and takes into account all the different stake holders and many different issues. Well done!</p> <p>However, I feel that there are two issues that have not been addressed sufficiently:</p> <p>1. Bank stabilisation along the whole waterway. I have read the plans for specific council owned areas to be stabilised, but I think the plan needs to be broader. My particular concern is the Zoo, which is a very important business for our area, but where bank erosion is a serious problem (note that I do not have any stake in the zoo, but I love to go there with my grand-children!). Even with very large trees along the bank, the erosion continues (and some of those trees have collapsed into the water. We want people to be able to enjoy their water skiing and wake-boarding, but we also want our commercial assets to be protected. Is there some way that there could be a joint Council/ Owner agreement and plan to protect those banks from further destruction? At the current rate of erosion, will we even have land left for a zoo by 2050?</p> <p>2. The CMP talks about public access to the river, but I don't think that it goes far enough. I believe that we should be planning now for a combined bike/pedestrian footpath to be constructed from Bomaderry to Shoalhaven Heads. At strategic sites along the route there could be picnic tables and play equipment so families could enjoy our beautiful river. Even just an occasional park bench to sit and rest and watch the pelicans, would be helpful. I understand that this would be expensive and the Council is broke, but if we don't at least plan, it will never happen and our river will continue to be under-utilised. The river should be a major draw card for tourists, but the number of access points is limited with little opportunity to stay and enjoy the water. Are we really going to ignore this for the next 10 years?</p>	<ol style="list-style-type: none"> 1. The CMP prioritises bank stabilisation, with over \$15 million allocated to targeted works across the Lower Shoalhaven. The approach focuses on high-risk sites, using a combination of engineering and nature-based solutions. 2. While the CMP includes actions for Council-managed land, stabilisation on private property typically falls under the responsibility of the landowners. However, Action BE-38 supports collaboration with private landholders, providing guidance on best practices and potential funding opportunities. Council encourages property owners, including the zoo, to engage with agencies such as Local Land Services (LLS) and DPIRD Fisheries for support in implementing bank stabilisation measures. 3. Long-term bank protection will require ongoing coordination between landowners, Council, and relevant agencies to ensure sustainable management. 4. Delivering an active transport link between Bomaderry to Shoalhaven Heads is out of scope for the CMP and is included in Council's Active Transport Strategy. However, the CMP is generally supportive of improving access along and to the coastal zone. This support may be realised by Council collaborating with relevant agencies to ensure that proposed paths in the coastal zone are consistent with coastal hazard risk management, environmental protection, and community needs. This may include providing input on design considerations, and funding opportunities, as well as identifying where additional studies or approvals may be required to address potential environmental or coastal process impacts. While the CMP does not directly facilitate capital works, it will support planning and coordination efforts that enable the delivery of active transport infrastructure in a way that is compatible with the long-term sustainability of the coastal zone. The Shoalhaven Active Transport Strategy (inc. the updates to The Pedestrian Access and Mobility Plan and Bike Plan) has just been finalised (Jan 2025) and details of these plans can be viewed on the GI project page: https://getinvolved.shoalhaven.nsw.gov.au/active-transport-strategy-pamp-bike-plan-update 	<p>A</p> <p>Detailed description for CTF_16 has been clarified to include support for active transport links in the coastal zone</p>
8	<p>Birdlife: Given the importance of areas in the Lower Shoalhaven for shorebirds, we believe there is a disappointing lack of reference to them in the draft plan. The draft plan acknowledges that the area includes significant shorebird habitat areas, and these are among areas that are being impacted by a range of activities (Table 2-3 on Key Coastal Management Threats). However, there is no reference to shorebirds in any of the environmental actions.</p> <p>In general, the environmental actions appear to have a strong emphasis on vegetation – e.g. Action ENV-32 and ENV-39. With ENV-32, we recommend this be expanded to include mapping for habitat areas for threatened species, including birds. ENV-39 would be strengthened if the references to restricting access to sensitive areas specifically mentioned migratory shorebird foraging, roosting and nesting areas.</p> <p>Exclusion zones are routinely set up across the Shoalhaven for nesting shorebirds, such as pied oystercatcher, hooded plover and little tern. So specific reference to this in the CMP should not be controversial.</p> <p>We are pleased to see that the CMP supports ongoing Council collaboration in projects and research on shorebirds (Action ECON-14).</p> <p>Finally, we think it is important that the Entrance Management Policy for the Shoalhaven River (CTF-20) recognises the importance of the area for shorebirds and that they need to be taken into account in decision-making for entrance opening works. However, the wording in the draft plan (in Appendix C) is vague and non-specific. Simply saying that decision makers need to 'consider the presence of protected migratory shorebirds' provides little specific guidance. It may be more helpful to indicate that routine maintenance/preparation work should avoid sites/times when migratory birds are present (and nesting in particular). But we also recognise that a balance needs to be struck between environmental considerations and the need to protect life and property, particularly during severe weather events.</p>	<p>The CMP acknowledges the importance of shorebird habitat in the Lower Shoalhaven and supports ongoing collaboration on shorebird conservation through Action ECON-14. While the environmental actions focus on vegetation management, they also aim to protect broader ecological values, including habitat for migratory shorebirds.</p> <p>Shorebird habitat is regularly considered through legal mechanisms such as the BC Act, EP&A Act, and the relevant REFs. In relation to entrance management works, this will be addressed through the associated REF.</p> <p>The CMP balances shorebird conservation with flood risk management and will continue to integrate environmental considerations in decision-making.</p>	<p>No update to CMP required.</p>

From Submissions		Response	Report Update Status
Comment ID	Comments		
9	More direction/work needs done on the artificial opening of the Shoalhaven River at Shoalhaven Heads. Early opening of the river avoids flooding of houses and roadway.	Entrance management for flood mitigation, including opening frequency and sediment management, falls within the Floodplain Risk Management Study and Plan, not the CMP. The CMP supports proactive coastal entrance management where it aligns with environmental and coastal processes, but decisions regarding flood mitigation are addressed under the Floodplain Risk Management Framework.	No update to CMP required.
10	Adelaide st Greenwell point. We flood every time we have heavy rain and large tides	<p>Flood risk is generally addressed in the Floodplain Risk Management Framework and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).</p> <p>The CMP acknowledges that flooding at Greenwell Point will worsen over time due to sea level rise. Action CTF_08 includes the development of a climate change adaptation strategy to identify thresholds and triggers for action, ensuring that residential properties, infrastructure, and commercial areas are better prepared for increasing inundation risks.</p> <p>Road closures during coastal flooding events are addressed in Council's Local Emergency Flood Plan and the Coastal Zone Emergency Action Subplan (CZEAS). Adaptation planning will explore strategies to improve resilience in affected areas. Council will continue working with relevant agencies to assess and implement flood management solutions within the broader floodplain risk management framework.</p>	No update to CMP required.
11	It's really not clear on the actions that are proposed by location... lots of detail on the research which is great. But I still have no idea of what will be done to help the flooding of the area. Such as the correct management of the notch at the heads, this has proven time and time again to have lessened the impact, yet minimal council support ahead of a flood.	Flood risk is generally addressed in the Floodplain Risk Management Framework and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).	No update to CMP required.
12	Detailed feedback provided on the following: 1) erosion 2) flooding 3) sewerage overflows 4) water quality 5) tourism and amenities 6) miscellaneous items	See response to comments 76.1 – 76.65	
13	The draft CMP document does not address a majority of community concerns and has included quite a number of items that were never discussed at any of the formal CMP committee meetings.	<p>The draft CMP has been developed through an extensive consultation process, incorporating feedback from community engagement sessions, stakeholder meetings, and technical assessments. While not all individual concerns can be fully addressed within the scope of the CMP, the plan prioritises actions based on environmental, social, and economic needs, aligning with legislative requirements.</p> <p>The public exhibition period has provided an opportunity for community feedback to further refine the proposed actions in the CMP. All actions have been informed by technical assessments, stakeholder input, and community consultation. Feedback received during this process is being carefully considered and is shaping how these actions are addressed in the final CMP to ensure they align with community priorities while meeting legislative and environmental requirements.</p>	
14	A written submission from Birdlife Shoalhaven has been emailed to the coastal management team.	See response to comment 8.	No update to CMP required.

From Submissions		Response	Report Update Status
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15	Opening the cut at Shoalhaven Heads permanently will help our oyster farming community immensely.	<p>Flood risk is generally addressed in the Floodplain Risk Management Framework and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).</p> <p>In addition, the CMP includes several actions that may benefit the oyster industry, such as water quality improvement initiatives (ENV_42 and ENV_43), stormwater and catchment management development controls (ENV_51), and septic system performance assessments (ENV_44), all aimed at improving estuarine health and supporting sustainable aquaculture. Other broader scale options that would support the oyster industry include ENV_58 which aims to reduce acid and blackwater runoff from drained floodplain areas.</p>	No update to CMP required.
16	Keeping The Heads open is really important to ensure evenly distributed flow of flood water. Greenwell Point in particular experiences increased flooding when The Heads is closed. With sea levels rising and substantial data to support this as shown by the UOW student who completed his Masters Research project on our local areas a few years ago I think it important to be proactive rather than reactivate.	<p>Flood risk is generally addressed in the Floodplain Risk Management Framework and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).</p> <p>An object of the Coastal Management Act is to consider future risk around climate change, like Sea Level Rise, and this is highly considered within the CMP process and resulting document. Action CTF_08 specifically identifies Greenwell Point as an area where long term adaptation planning is required to ensure a coordinated response to rising sea levels.</p>	No update to CMP required.
17	No comments as yet because we haven't read it as we are away overseas. We will not, unfortunately, be home for the information sessions but are very interested as the river & flooding vitally affects us.	The exhibition period has been extended to provide sufficient time for the public to consider the report and provide informed submissions. Public exhibition was extended 71 days beyond what is legislatively required.	No update to CMP required.
18	The heads should be open permanently, our place floods every time we have heavy rain	Flood risk is generally addressed in the Floodplain Risk Management Framework and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).	No update to CMP required.
19	<p>The lower Shoalhaven River is suffering from siltation that is increasing steadily. The only outlet is via the cutting to Greenwell Point. The resulting inadequate flow causing shallowing and the formation of sand bars and sand islands. These islands are an impediment to navigation. If a permanent opening at Shoalhaven Heads were to be created and maintained the ensuing increased tidal flow would lessen siltation and likely increase the general depth and health of the river. A healthier river would enhance recreational fishing and attract more anglers, hence more tourist dollars for the Shire.</p> <p>Permanently opening the river mouth would greatly negate seasonal flooding and therefore millions of dollars would be saved in flood damage to infrastructure, farming and businesses as well as damage to residential property.</p> <p>Although costly this action would return the investment many times over benefiting all INCLUDING THE COUNCIL'S financial situation on an ongoing basis.</p> <p>THINK LONG TERM BENEFIT NOT SHORT TERM Band-Aid solutions that have to be constantly repeated.</p>	<p>A permanent entrance at Shoalhaven Heads was not recommended in the CMP due to significant environmental, engineering, and regulatory challenges. Maintaining an open entrance would require continuous dredging and structural intervention, leading to high costs, increased erosion risks, and potential adverse impacts on estuarine health.</p> <p>The CMP supports proactive entrance management for flood mitigation.</p>	No update to CMP required.
20	The email contains images of potential protection design for works at Greenwell Point. The images consist of sandstone blocks, and the note, "The simple, inexpensive solution to erosion of Greenwell Point foreshore"	The CMP does not support immediate upgrade of the protection works for most of Greenwell Point in recognition of the current suitability of their design. The CMP supports ongoing maintenance of these current structures, with future upgrades to be considered through actions such as CTF_08. Your preference for sandstone blocks is acknowledged and will be considered in future works.	No update to CMP required.

From Submissions		Response	Report Update Status
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21	A permanent opening of the river to sea. A permanent rock wall out to sea to fix the problem with flooding. I know that it will be very expensive. State and Federal governments funding would be required. Please put this to both state and federal.	Flood risk is generally addressed in the Floodplain Risk Management Framework and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).	No update to CMP required.
22	There does not appear to be any plan for flood mitigation for the Shoalhaven river, nor does there appear to be any plan to ensure the river at Shoalhaven Heads remains permanently open to the sea where the river originally flowed to the sea and was artificially closed. Where is the concern for the residents' homes from flooding where these homes adjoin the river front. The current rules that determine when the opening at the Heads is open inadequately protects these homes from floods. These rules must be reviewed and a plan implemented to have the opening at Shoalhaven Heads permanently open. The current plan does not address any of these issues.	However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).	No update to CMP required.
23	Endorse fully need to provide restaurants / cafe options / seating areas / toilets / boardwalks/ footpaths, with parking close by. Many country towns we have visited have value added to their river / foreshore locations by providing similar facilities and Shoalhaven River at Nowra has the potential to provide similar facilities but is sadly lacking.	Broader foreshore development initiatives, such as cafes, footpaths, and other visitor infrastructure, fall outside the scope of the CMP. However, feedback on the potential for enhanced public amenities along the Shoalhaven River at Nowra is noted and may be relevant for consideration in future strategic planning or local government initiatives focused on tourism and public space improvements.	No update to CMP required.
24	As a regular kayaker on the lower Shoalhaven river I am acutely aware of the wake created by powerboats especially wakeboarding boats. I strongly support the submission by Shoalhaven Riverwatch, especially the need to regulate powerboat traffic to minimise bank erosion and safety for other users.	Transport for NSW (TfNSW) are the regulatory agency responsible for implementing maritime safety. In this area, TfNSW has indicated that its preferred approach to managing wake impacts is through education and awareness rather than introducing new regulatory controls. In response, the CMP includes actions focused on education and safety campaigns to raise awareness of wake-related erosion and potential risks to other water users. Additionally, the CMP features bank stabilisation works aimed at mitigating the impacts of wave action and erosion in high-risk areas. These combined approaches seek to address concerns while working within the existing regulatory framework.	No update to CMP required.
25	I would like to see Shoalhaven Heads kept open permanently to (a) reduce impacts of flooding on low lying properties and oyster farms, and (b) improve the water quality in the Lower Shoalhaven River by preventing buildup of stagnant algae rich water in Berry's Bay. This has been much requested for at least 20 years but it never happens - just more reports and plans.	<p>A permanent opening at Shoalhaven Heads is not supported in the CMP due to environmental, engineering, and regulatory constraints. Entrance management for flood mitigation is considered within the Floodplain Risk Management Study and Plan, which assesses the effectiveness and impacts of different opening strategies.</p> <p>While the CMP acknowledges the needs of the oyster farming industry, maintaining a permanently open entrance would have significant consequences for estuary health, sediment transport, and habitat stability. Instead, the CMP supports entrance management where it can be demonstrated to provide clear flood mitigation benefits while balancing environmental and coastal process considerations.</p> <p>In addition, the CMP includes several actions that directly support the oyster industry, such as water quality improvement initiatives (ENV_42 and ENV_43), stormwater and catchment management development controls (ENV_51), and septic system performance assessments (ENV_44), all aimed at improving estuarine health and supporting sustainable aquaculture. Other broader scale options that would support the oyster industry include ENV_58 which aims to reduce acid and blackwater runoff from drained floodplain areas.</p>	No update to CMP required.
26	Shoalhaven heads should be left open to reduce the impact of flooding	Flood risk is generally addressed in the Floodplain Risk Management Framework and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).	No update to CMP required.
27	Feedback period: Public Exhibition period is during summer which is not ideal for river works as it's their busiest time of year	The exhibition period has been extended to provide sufficient time for the public to consider the report and provide informed submissions. Public exhibition was extended 71 days beyond what is legislatively required.	No update to CMP required.

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Comment ID	Comments		
28	<p>Bank erosion: He has a farm and was concerned about bank erosion on his property, in particular a section of bank along Bomaderry Creek near Nowra bridge is eroding. He has previously undertaken projects with LLS, Riverwatch and Landcare. He has done fencing, revegetation and mangrove planting projects in the past.</p> <p>He said that when the new Nowra bridge was built some flows were diverted and sections of creek banks slumped on his property. Apparently, LLS (I think it was Jason) meet him on site and discussed recommendations earlier this year and were going to get back to him if there were any funding opportunities available. He was interested to see if there were any grants he could apply for to do bank rehabilitation works on his property.</p>	<p>The CMP framework does not support providing public funds to private land owners for the purposes of bank protection on private property. However, the CMP acknowledges bank erosion issues on private land and includes Action BE-38, which supports private landholder involvement in bank stabilisation and restoration. This action encourages collaboration with stakeholders such as Local Land Services (LLS), Riverwatch, and Landcare, aligning with ongoing efforts like fencing, revegetation, and sediment management.</p> <p>As part of BE-38, the CMP promotes educational initiatives, funding awareness, and priority restoration works, including areas near Bomaderry Creek and Nowra Bridge. Landholders are encouraged to engage with LLS and other relevant agencies to explore available funding and grant opportunities for rehabilitation projects.</p>	No update to CMP required.
29	<p>Surf club: The entrance needs to be opened more often to mitigate flooding of low lying property. Also, beach scraping in front of the SLSC causes the entrance to close quickly because the sand gets washed south and deposited in the entrance area. Sand bags would be better to keep sand on the beach instead of it migrating into the river. He has observed that sand is moving from north to south.</p> <p>Boating: concrete doesn't go into water far enough for the Shoalhaven Heads boat ramps. Boating infrastructure is not very good.</p> <p>Mangroves: not supportive of BE_46. It's a nice sandy area that would be a shame to ruin. There are so many mangroves around the lower Shoalhaven River that it doesn't need a living shoreline to promote even more. Instead, the existing permit to pull mangroves should be renewed and mangroves should be removed along River Rd and in front of the caravan park.</p>	<p>However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy). In terms of the movement of sand here, the dominant alongshore sediment transport direction is from the south to north.</p> <p>The CMP acknowledges concerns about boating infrastructure at Shoalhaven Heads. Action BOAT_37 and BOAT_38 outline a plan for reviewing and upgrading facilities, including improving access where feasible.</p> <p>The CMP's living shoreline approach is based on coastal protection and habitat resilience. It supports a design that will enhance ecological function while also improving recreational amenity by incorporating water access for swimming, soft boating and other recreational activities. While mangrove expansion is a natural process, the action does not promote unrestricted growth but focuses on erosion control and ecological balance. The need for managed mangrove removal will be considered through existing regulatory processes, but removal for amenity alone is not supported under current environmental guidelines.</p>	No update to CMP required.
30	<p>Bank erosion at Orient Point: Long time residents of the area. They have observed increased siltation in Berry's Reserve, along with increased velocity and scouring. The growth of sand bars has been observed over the years as well. Orient Point itself is a high impact, high velocity area on the foreshore. 10m of recession along the foreshore has been observed by the residents and they believe this is increasing.</p> <p>Don't believe the groynes are working that well. They noted accretion and erosion is being observed within each groyne. They are concerned about inundation, however acknowledge that not much can be done about that. They noted that the stormwater drain is cutting into the reserve.</p>	<p>The CMP acknowledges erosion concerns at Orient Point, and Action BE_43i has been included to support bank stabilisation works along the Orient Point Foreshore Reserve near the groynes. This action aims to enhance shoreline stability and upgrade stormwater assets while considering environmental, recreational, and community values.</p>	BE_43i has been added to the CMP to address this issue.
31	<p>A permanent opening of the River at Shoalhaven Heads and the closing of Berries Canal would direct a stronger flow of water towards the main entrance. The Shoalhaven River is the only large river system on the East Coast of Australia without a permanent entrance. Thank You</p>	<p>Flood risk is generally addressed in the Floodplain Risk Management Framework and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).</p>	No update to CMP required.

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32	<p>Every time we have heavy rain, my property floods. The drainage system doesn't work. The Heads needs to be opened indefinitely, ready for flash flooding. I have lost 1 car in the 2016 floods, fridges, lawn mowers, washing machines and many other personal items over the years due to floods. Every time it floods my wife and I become very anxious and stress, that we have to go through it again! Our insurances have risen because of it. We don't even have flood insurance cover, as most won't cover us or the prices are way out of our range.</p> <p>We pay rates, but we are not provided with curb and guttering or a safe drainage system.</p> <p>Our road, (Fraser Avenue) is the first to flood in Greenwell pt, and it needs to be closed off at both ends, as people go joy riding for a sticky beak through it, which creates waves, which smash into our yard, creating more damage. Please do something to help the residents of Greenwell pt.</p>	<p>Flood risk is generally addressed in the Floodplain Risk Management Framework, and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).</p> <p>The CMP acknowledges that flooding at Greenwell Point will worsen over time due to sea level rise. Action CTF_08 includes the development of a climate change adaptation strategy to identify thresholds and triggers for action, ensuring that residential properties, infrastructure, and commercial areas are better prepared for increasing inundation risks.</p> <p>Road closures during coastal flooding events are addressed in Council's Local Emergency Flood Plan and the Coastal Zone Emergency Action Subplan (CZEAS). Adaptation planning will explore strategies to improve resilience in affected areas. Council will continue working with relevant agencies to assess and implement flood management solutions within the broader floodplain risk management framework.</p>	No update to CMP required.
33	The lower river area at Shoalhaven Heads needs to be permanently opened to the sea, using whatever methods deemed appropriate to prevent siltage build-up inside the opening.	The Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).	No update to CMP required.
34	The need for a permanent opening to the sea at Shoalhaven Heads needs to be addressed for the health and long term viability of the river. I feel it is a matter of money over common sense especially with the removal of mangroves near River Road boat ramp. Planning to spend \$1million dollars on boardwalks etc instead of \$250 for a permit to remove new growth is ridiculous.	<p>Flood risk is generally addressed in the Floodplain Risk Management Framework and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).</p> <p>After further consideration, the living shoreline action is being re-crafted as a less expensive option that will still serve to activate the area for multiple benefits including recreational amenity, environmental values, and public access. This cost reduction considers that this site requires less capital works than the Wagonga Inlet project that the draft budget was based on.</p>	No update to CMP required.

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35	<p>Following up on our conversation last week (or maybe the week before) I just want to touch base with you and make a few comments about consultation processes.</p> <p>I have really enjoyed being part of this committee and being able to see the process unfold.</p> <p>Many years ago (maybe 15 plus) my husband and I went to a coastal management consultation evening conducted by external facilitators at the School of Arts. We encouraged some friends and neighbours to attend also.</p> <p>As the evening progressed and we were asked for input—plenty of butchers paper and post-it-notes—one friend just kept saying “you guys are the experts— you tell us what needs doing”. I understood the exercise was about getting priorities from the community etc but for him the process was a waste of time. Maybe its an Australian cultural thing—we are comfortable with relying on government to do what's best for us most of the time. Why ask us?</p> <p>Anyway I've never forgotten my friend's comments.</p> <p>I again attended consultations 5 years ago when the next wave of consultations mandated by the current legislation began and the butcher's paper etc came out again. Same process. New consultants. The attendees were more engaged than the first time maybe because there were a large group from River Watch there (at my table) who had a specific focus and were across the issues.</p> <p>The issues from the point of view of the general community do not always coincide with the issues from the point of view of the professionals: Mainly because the community view is narrow and informed by their own experience and self interest but the professional view is broad and informed presumably by study and the bigger picture.</p> <p>So when I read through the documents produced by the consultants and your team it is hard for me to challenge anything that is being presented. I can see and appreciate the detailed processes that have been followed and the efforts that have been made to consult with the community and take on board community concerns and suggestions. The document is a beautiful work, covering everything it is supposed to do and providing a roadmap for the future management of this part of our coastline. Similarly the plans for the rest of the Shoalhaven coastline which I have also read.</p> <p>You guys have done well.</p> <p>I can see and appreciate you have followed the complex pathway the state government has proscribed at enormous expense to arrive at the plan. There is nothing in the plan that I can constructively comment upon.</p> <p>I look at the costs associated with the implementation of the plan and think to myself that most of this will never happen. Much of it is a wish list repeated up and down the coast. And this no doubt is happening in many areas of governance not just coastal management.</p> <p>Sorry for the long rant.</p>	Your feedback is acknowledged and appreciated.	No update to CMP required.

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36	<p>In regards to map RG-01-10F BE-45, two areas for bank stabilisation have been identified – one smaller section (identified ARC linkage site) at Orient Point and a larger section extending from near Roseby Park to Crookhaven Heads.</p> <p>Can you please outline what is meant by the ARC linkage as this is a rock outcrop and not in need of bank stabilisation.</p> <p>The identified extent of bank stabilisation seems to miss the main section of shoreline erosion occurring near the groynes located at the public reserve / park in this area. This erosion is occurring resultant form boat wake, flooding and stormwater runoff.</p> <p>How has the area near Roseby Cemetery been identified as requiring shoreline stabilisation? There is no visible sign of shoreline erosion occurring in this section of bank nor any erosion occurring towards Crookhaven Heads, especially given this is all located on rock shelf.</p> <p>Please consider investigating the shoreline erosion occurring at the public reserve at Orient Point.</p>	<p>Reference to the ARC linkage have been removed. These were related to an earlier grant related to enhancing habitat connectivity across the entire area.</p> <p>The CMP acknowledges erosion concerns at Orient Point, and Action BE_43i has been included to support bank stabilisation works along the Orient Point Foreshore Reserve near the groynes. This action aims to enhance shoreline stability while considering environmental, recreational, and community values.</p> <p>The area near Roseby Cemetery is included (action BE_45) as an effort to build on the earlier grant and enhance the habitat connectivity of that stretch of foreshore.</p>	<p>BE_43i has been added to the CMP to address this issue.</p> <p>Reference to ARC linkage site has been removed.</p>
37	<p>Riparian revegetation and mangrove rehabilitation at Greenwell Point: expressed lack of support for the works occurring at Crookhaven Drive Reserve Greenwell Point. Expressed support for the maintenance of the existing rock wall, emphasising that this should be the key focus of the management action. Expressed concern regarding the height the mangroves may reach. Expressed concern with limiting access point to the foreshore through the fencing and riparian revetment works, however also expressed concern for having too many access points to the foreshore. Noted that there is a 'navigation channel' that runs adjacent to the foreshore and is concerned that the mangroves may encroach into this channel.</p>	<p>The CMP acknowledges foreshore erosion concerns at this site, and Action BE-43f is being updated to reflect ongoing works funded by a DPIRD Fisheries grant. These works are focused on improving fish habitat, water quality, and include nature-based solutions to improve bank stabilisation. The riparian fencing works have been mindful to retain access to the foreshore at strategic locations through formalised access points, while keeping access at the western, sandy end of the foreshore unrestricted.</p> <p>Monitoring of existing controls along the foreshore will be undertaken as part of action BE_43f. Future improvements to the rock wall will depend on monitoring outcomes, determining asset ownership, and funding availability. Maintenance on existing controls is considered as part of this action.</p> <p>Concerns about access, view impacts, and sedimentation have been noted. Following this feedback, riparian fencing heights have been decreased to reduce visual impacts, and low-lying native vegetation will be planted along the foreshore.</p> <p>The informal channel will not be impacted by the mangroves. It is noted that mangroves will only exist in the intertidal zone and as such will not impede on navigation.</p>	<p>No update to CMP required.</p>
38	<p>I am the president of the Nowra Water Dragons dragon boat club, we are based in the old Sea Scout Hall in Paringa Park and use the ramp marked Paringa Park Rowing Club Boat Ramp on a regular basis (at least 3 times a week - weather permitting). We are particularly interested in BOAT_37 and BOAT_38. We have worked, often with the Rowing Club, on a number of occasions to clean up the mud and silt deposited on the ramp after flood events - which appear to be occurring more frequently. The gravel of the beach could be topped up - as the wire gabion cages are rusting and protruding and beginning to become a trip hazard. I am unable to attend the information sessions that have just been announced, but do want to remain informed about any proposals that will affect this ramp and the ability of our club to train.</p>	<p>Your feedback is acknowledged and appreciated. Council will ensure your organisation is involved in the implementation of BOAT_37 and BOAT_38.</p>	<p>No update to CMP required.</p>
39	<p>We have resided in the Greenwell point area for over 16 years our house being directly opposite the river on Crookhaven drive. We have witnessed many storm /floods in this time one that did enter our home ...I had contacted the council on many occasions regarding the heads being opened to reduce the flooding in our area and have been told they are monitoring the situation. However this monitoring is always to late to fix the water problem. The heads entrance should be opened permanently to give the residents of Greenwell point and the Nowra community peace of mind when we get inundated with the too often recurring rain systems. There is a definite change in the overall weather now...council you must do everything possible to look after your rate payers and the community.</p>	<p>Flood risk is generally addressed in the Floodplain Risk Management Framework, and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).</p>	<p>No update to CMP required.</p>

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40	Flood risk is a real consideration in this area. I know of people who avoid property in this area for that reason. I feel this prevents the area from thriving. The residents and land owners deserve peace of mind that our properties will not be damaged. I get very anxious with heavy rain events as so many other owners, which could easily be avoided, by taking relatively cheap and easy measures.	Flood risk is generally addressed in the Floodplain Risk Management Framework, and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).	No update to CMP required.
41	We have lived in our residence 50 % of the time for 9 years now in Hay Ave. Our property has flooded 8 times. The difference between the river mouth being opened at the time of the flood is substantial. We have experienced 4 floods ranging from 300mm to 800mm and four floods with less impact from 10mm-200mm. The latter being with the heads open. The higher the rainfall the greater the time it takes to recede. It is evident to me that minimal damage occurs when the heads are open.	Flood risk is generally addressed in the Floodplain Risk Management Framework, and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).	No update to CMP required.
42	as a priority, it needs to achieve a permanent opening of the river. I have experienced eight floods, most of which are not recorded by council. When the entrance is open, the flood impact is significantly lower.	Flood risk is generally addressed in the Floodplain Risk Management Framework, and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).	No update to CMP required.
43	<p>I am appalled at the draft product after 3 years of development. I live in Shoalhaven Heads, and I am very disappointed in the content within the plan for items around Shoalhaven Heads.</p> <p>We have been told via the CCB by councillors that the community needs to let the CMP team know what community items are required.</p> <p>If items are not included within the CMP at the time of publication, those community items will not be included in =budgeting or inclusion in work programs.</p> <p>The Heads community was mobilised to attend community information sessions to provide feedback of items to be included within the CMP.</p> <p>The draft document does not reflect community requests and the document has been 'doctored' by council staff to reduce the amount of works and to change other items to reflect designs that are not welcomed by the community. I am an advocate for boating facilities within the Lower Shoalhaven. There are 14 boat ramps in this area. Most ramps are not compliant with NSW Maritime and NSW Govt Guidelines for the provision of boat ramps. I note with the draft that there are only 3 items relation to boat infrastructure, 2 being studies (more reports!) and 1 education program. The total budget for 10 yrs is \$700k. \$700k for 14 ramps and installation of new facilities is a joke..... This is very disappointing as the Shoalhaven is the most under resourced waterways in NSW. Being only 2 hrs from Sydney, there is a very big opportunity to expand the tourism attraction for the river and to boast the local business economy.</p> <p>Come on Shoalhaven Council, lift your game!</p>	<p>The CMP has been developed through extensive community consultation and technical studies to ensure a balanced, evidence-based approach to managing coastal issues, including boating infrastructure.</p> <p>Recognising the importance of boating facilities, the CMP includes Action BOAT_37, BOAT_38 and BOAT_40, which provide for:</p> <ul style="list-style-type: none"> - Review and upgrade of existing boat ramp infrastructure to improve usability and compliance with NSW guidelines. - Assessment of asset condition and resulting improvements where they are most needed. - Boating education programs to support responsible use and navigation safety. <p>While funding is limited, the CMP provides a framework to seek additional investment and ensure that boating infrastructure remains a key consideration in future planning and grant opportunities. The CMP identifies the Boating Infrastructure and Dredging Scheme as a key potential funding source. Funding streams within that scheme include:</p> <ul style="list-style-type: none"> • Boating Infrastructure for Communities Grants Program • Boating Infrastructure Maintenance Grants Program • Boating Infrastructure Emergency Repair Pool Scheme <p>The CMP does not replace Council's role in maintaining and upgrading boat ramps but ensures a strategic approach to coastal and estuarine asset management. Importantly, the grants can be applied for at any point in time throughout the lifecycle of the CMP, when the funding opportunities are open for application. The competitiveness of applications will rely heavily on the strategy being proposed for these assets holistically across the Shoalhaven, and the suite of CMPs across the LGA are a great supporting document for such grant applications.</p>	The budget for BOAT_38 has been increased.
44	It always was open when I was young	Flood risk is generally addressed in the Floodplain Risk Management Framework, and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).	No update to CMP required.

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45	<p>1) Coastal Swamp</p> <p>2) Flood Mitigation Drain exiting near Council Caravan Park</p> <p>3) Sand fans from numerous storm water and flood mitigation drains along River Road</p> <p>4) River Road Channel is moving closer to the high bank</p> <p>5) Clearance of flood debris from the riverfront following floods</p> <p>6) Maintain public access to the river while keeping a small area free of mangroves</p> <p>7) Boating</p> <p>8) Water Quality</p> <p>9) Dredging of silts at the entrance that are not being scoured by floods</p> <p>10) Entrance management for flooding (EMP)</p> <p>11) Enhance public access points along the foreshore</p> <p>12) River erosion upstream and in Berry's Canal</p> <p>13) Costings related to Shoalhaven Heads erosion, access, and tourism</p> <p>14) Stormwater Drains</p>	See response to comments 77.1-77.14	
46	I mentioned it previously many times and also in your community meetings. It seems illogical that the erosion at Burrier is being neglected in this management program as it obviously effects downstream within your area. I've mentioned this many times but seems to be ignored.	Unfortunately, the site at Burrier is not within the mapped coastal zone under the Resilience and Hazards SEPP, and therefore legislatively cannot be considered an action under the CMP. However, based on submissions received, the site is still being referred to in the CMP, highlighting the impact it has on estuary health. This will ensure the CMP supports this action, while noting it is not a formal action in the CMP	The Burrier erosion site has been specifically noted in the CMP – in the detailed description of the suite of bank stabilisation works on public land (BE_43).
47	By the time the water level is currently recorded the river has already rise and flooded our oyster farms and most of Greenwell point houses. We take months to recover from that loosing sales due the river being closed for months.	<p>A permanent opening at Shoalhaven Heads is not supported in the CMP due to environmental, engineering, and regulatory constraints. Entrance management for flood mitigation is considered within the Floodplain Risk Management Study and Plan, which assesses the effectiveness and impacts of different opening strategies.</p> <p>While the CMP acknowledges the needs of the oyster farming industry, maintaining a permanently open entrance would have significant consequences for estuary health, sediment transport, and habitat stability. Instead, the CMP supports entrance management where it can be demonstrated to provide clear benefits while balancing environmental and coastal process considerations.</p> <p>In addition, the CMP includes several actions that directly support the oyster industry, such as water quality improvement initiatives (ENV_42), stormwater and catchment management development controls (ENV_51), and septic system performance assessments (ENV_44), all aimed at improving estuarine health and supporting sustainable aquaculture. Other broader scale options that would support the oyster industry include ENV_58 which aims to reduce acid and blackwater runoff from drained floodplain areas.</p>	No update to CMP required.
48	We need this open to save our homes in Greenwell Point.	<p>Flood risk is generally addressed in the Floodplain Risk Management Framework, and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).</p> <p>An object of the act is to consider future risk around climate change, like SLR, and this is highly considered within the CMP process and resulting document. Action CTF_08 specifically identifies Greenwell Point as an area where long term adaptation planning is required to ensure a coordinated response to rising sea levels.</p>	No update to CMP required.

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49	Please refer to the Riverwatch letter dated 18 August 2024 to The Manager Environmental Services at Shoalhaven City Council outlining our serious concerns about the report on the Lower Shoalhaven River.	<p>The CMP recognises the concerns around bank erosion and the impact of boating activity. Bank restoration is a key focus, with multiple actions dedicated to stabilisation efforts throughout the Lower Shoalhaven. The plan incorporates a range of approaches, including nature-based solutions and engineering interventions, ensuring that restoration efforts are tailored to site-specific conditions.</p> <p>Council has advocated for more restrictive boating rules to mitigate erosion, particularly from wakeboarding activities. Transport for NSW (TfNSW) are the regulatory agency responsible for implementing maritime safety. In this area, TfNSW has indicated that its preferred approach is to support educational campaigns rather than introduce additional restrictions. Action ENV_62 includes an estuary education program that will target responsible boating behaviour to reduce environmental impacts.</p>	No update to CMP required.
50	Attached is my update for your consideration on the erosion that has occurred on the foreshore of orient point reserve from 29/11/2024 until today 10/2/2025	<p>A new action, BE-43i has been included in the CMP addressing the bank erosion at Orient Point Foreshore Reserve. This action is included in the business plan and a detailed description is provided in Appendix C.</p>	BE_43i has been added to the CMP to address this issue.
51	<p>Bank erosion: Erosion is occurring along the council reserve on the northern side of Orient Point. The residents brought some photos along to show the issue. Erosion is occurring between the groins placed perpendicular to the foreshore. There is also a bare grass stormwater drain running through the site that could also be causing issues. The groins are in poor condition and there is bank erosion in the middle and deposition adjacent to the groins.</p> <p>They mentioned the ongoing issue of erosion of Berry's Canal and siltation downstream in the channel. The foreshore area at Orient Point is opposite Berry's Canal entrance and impacted by high velocity flows.</p> <p>One of the residents has lived in the area since 1960s and has observed ongoing bank erosion over this time with several metres lost. The groins were installed along the foreshore in about 2014/15 by Shoalhaven Council, but this hasn't stopped the erosion, the creek bank has scoured out in the middle section between the groins with erosion still active. They have observed mangroves seedlings starting to grow between the groins, but these are then always washed away by the next flood as velocities are high.</p> <p>They are concerned about ongoing erosion and risk of inundation at the site. There is also a sewer main running through the reserve which could become at risk.</p> <p>They would like the CMP to consider a better engineering solution for the area, with some appropriately designed bank protection rock work. They are concerned that the current rock groins were not well designed and do not seem to be effective. Apparently, the groins were initially meant to be longer but this wasn't possible due to site constraints. They noted that several metres of bank has been lost since the groins were installed.</p> <p>Wake from boats also contributes to erosion in the area. They noted that over the time they have lived in the area, larger boats are becoming more common, and wake can be an issue at high tide.</p> <p>They noted that erosion was more of a risk at this site than other areas where works were proposed in the CMP.</p> <p>Shoalhaven heads entrance management: They would like to see improved management of the entrance opening at Shoalhaven Heads as they believed this impacted on flood water levels. They would like to see entrance management also consider Tallowa dam water levels and whether the dam was going to spill. There should also be improved considerations of weather conditions and modelling of different scenarios.</p> <p>Development: Concerns were raised in general about the impacts of ongoing development and creation of more hard surfaces and the impacts this has on stormwater. They are concerned that there is not appropriate consideration of stormwater and incorporation of detention basins. New DAs need stronger development controls for stormwater management.</p>	<p>Bank erosion: The CMP acknowledges erosion concerns at Orient Point, and Action BE_43i has been included to support bank stabilisation works along the Orient Point Foreshore Reserve near the groynes. This action aims to enhance shoreline stability while considering environmental, recreational, and community values.</p> <p>Shoalhaven heads entrance management: The Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).</p> <p>Development: The CMP includes Action ENV_51, which focuses on improving development controls for water quality and stormwater management. This ensures that future developments incorporate best-practice stormwater treatment to minimise impacts on estuarine health.</p>	BE_43i has been added to the CMP to address this issue.

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52	Flooding in the area as the cost of insurance and the state of the river	Flood risk is generally addressed in the Floodplain Risk Management Framework and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).	No update to CMP required.
53	BE.43F: Channel is only about 6 metres wide. At right of map given to residents is a small bay with lots of mangroves but this area is eroding badly and on the corner where on the map is access ways at right are quite steep. Needs another garbage bin at other end of reserve. Fix the rock wall. Mangroves have not helped erosion on right corner in bay. Rock bags would be better.	The CMP acknowledges foreshore erosion concerns at this site, and Action BE-43f is being updated to reflect ongoing works funded by a DPIRD Fisheries grant. These works are focused on improving fish habitat, water quality, and include nature-based solutions to improve bank stabilisation. The riparian fencing works have been mindful to retain access to the foreshore at strategic locations through formalised access points, while keeping access at the western, sandy end of the foreshore unrestricted. Riparian revegetation has been shifted further east to provide additional bank stabilisation support at the corner you have referenced. Future improvements to the rock wall will depend on monitoring outcomes and funding availability. While the rock wall structure appears aged, there is no immediate need for reconstruction. Maintenance on the existing structure is considered as part of this action. While this channel is not a TfNSW recognised navigation channel, the potential impact of the mangroves on this channel will be monitored.	Action BE-43f has been updated to reflect ongoing works funded by a DPIRD Fisheries grant
54	Open the Shoalhaven river, keep it open with 2 concrete block groynes like (lake Illawarra). Not only will the river flourish, people will flock here. Shoalhaven heads is already beautiful, imagine with an open entrance. Lake Illawarra went from a smelly lake to a pristine area that resembles foster/Tuncurry.	Flood risk is generally addressed in the Floodplain Risk Management Framework, and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).	No update to CMP required.
55	CMP process: Felt that the CMP was not taking a holistic approach and that some actions were more like band aid solutions. This was generally related to concerns about changes to the morphology of the river. They mentioned areas of the river where sand bars were getting larger – near Comerong Point and where the sediment drops out after it flows through Berry's canal towards Crookhaven entrance. They thought than instead of rock revetments to protect eroding banks council should consider whether it was feasible to dredge and reuse sand from sand bars within the river. They thought this option could be more effective/less expensive than rock protection works. They suggested nourishment should be considered along the creek bank near Bolong Road as the rock protection works have been failing.	The CMP takes a holistic, evidence-based approach to managing river morphology and erosion. Sediment dynamics, including sand bar formation and deposition near Comerong Point and Crookhaven entrance, are complex and influenced by natural estuarine processes. Rock protection works are suggested for stabilising high-risk erosion areas, but the CMP also includes beach nourishment and nature-based solutions where appropriate.	No update to CMP required.
56	Crookhaven Heads Aboriginal Site: Has lived in the area for a long time and believes that the rock structure at Crookhaven head entrance is an Aboriginal fish trap. Note. This is the area where there is a living shoreline proposed, so if this is correct we would not want to impact on this structure.	This has been brought to the attention of local Aboriginal community leaders and will be investigated as part of the planning for BE_45	Incorporate this information into BE-45 and this submission
57	Water quality and urban run-off: Has oyster leases at Shoalhaven Heads and is concerned over water quality issues from the creek that drains through the urban area at Shoalhaven heads as this impacts on whether she can harvest the oysters. Would like to see mitigation of water quality issues from here. Had previously suggested to council that they could divert some of the flow into another drain that drained into the dunes.	The CMP includes Action ENV_51, which focuses on improving development controls for water quality and stormwater management. This ensures that future developments incorporate best-practice stormwater treatment to minimise impacts on estuarine health.	Shoalwater comment
58	Mangroves: Is supportive of the living shoreline action. Is currently a community member involved in the removal of mangrove saplings from the foreshore, however doesn't think the area is inviting recreationally and is supportive of a living shoreline like the Wagonga Inlet one.	Support for action BE_46 is acknowledged. After further consideration, and based on feedback during public exhibition, the living shoreline action is being re-crafted as a less expensive option that will still serve to activate the area for multiple benefits including recreational amenity, environmental values, and public access. This cost reduction considers that this site requires less capital works than the Wagonga Inlet project that the draft budget was based on.	The budget and scope associated with BE_46 has been reduced based on further consideration of the site and in response to community submissions.

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59	<p>Boat ramps: Concern about condition of Hay Avenue boat ramp. At low tide can see erosion around the boat ramp.</p> <p>We discussed there would be a review of all the boat ramps but they felt some immediate maintenance was needed.</p> <p>Need for more education/parking control around peak holiday season. At the boat ramp near the Caravan park at Shoalhaven Heads people are not very considerate of other users and take up greater areas than needed when parking so there's no room for others to park.</p>	<p>The CMP acknowledges concerns about boating infrastructure at Shoalhaven Heads. Action BOAT_37 and BOAT_38 outline a plan for reviewing and upgrading facilities, including improving access where feasible.</p> <p>The CMP includes Action ENV_62, which establishes a comprehensive estuary management and ecosystem education program. This action aims to increase public awareness on key coastal and estuarine issues, covering topics such as bank erosion, water quality, responsible boating, entrance management, and habitat conservation. The program will be developed in consultation with stakeholders to ensure broad community engagement and effective information delivery.</p>	No update to CMP required.
60	Boat ramps: Concern over boating infrastructure including boat ramps. Suggested that the action in the CMP (Boat 48) should include more detail on what is actually going to be done for individual assets.	Additional detail on specific upgrades to existing boat ramps is provided in the Stage 2 Study - Boating Study (Rhelm, 2023) which is referenced in all boating related actions.	No update to CMP required.
61	Boat ramps: Concern over Hay Avenue boat ramp - this one is in poor condition	The CMP acknowledges concerns about boating infrastructure at Shoalhaven Heads. Action BOAT_37 and BOAT_38 outline a plan for reviewing and upgrading facilities, including improving access where feasible.	No update to CMP required.
62	Boat ramps: Discussed that there would be consideration of all boat ramp and upgrades/rationalisation. Wharf Road boat ramp should not be a primary boat ramp as this one is near oyster leases and could have water quality impacts, etc on this.	The CMP acknowledges concerns about boating infrastructure at Shoalhaven Heads. Action BOAT_37 and BOAT_38 outline a plan for reviewing and upgrading facilities, including improving access where feasible, and considering a range of factors including reducing environmental impact of boating infrastructure.	No update to CMP required.
63	<p>Entrance management: Concern over management of the entrance and difficulties in opening before flooding events. Mentioned a flood event in 2020 when there was an attempt to open the entrance but due to tide conditions/ocean conditions it did not scour on first attempt until the following low tide. Understands that it's not always safe for staff to open the entrance as it may be night time, etc. but feels that's whether the entrance is open does make a difference to flood levels. Was watching the gauge levels at Shoalhaven Heads and Greenwell Point during this event and said it was 400mm higher at the Heads when the entrance was closed.</p> <p>Suggested that Council should also consider if the dam is overtopping. There was a large rainfall event in 2020...(maybe 400mm in 2 days?) and Tallowa dam was also overtopping.</p> <p>Said there are a lot of low lying properties around Greenwell Point, used to be small holiday homes but people have developed them and added extensions. Was interested to see the study of the property levels as had seen council out surveying.</p> <p>Interested in seeing the information on modelling of different entrance conditions on flood levels when this is completed. We talked about breakwalls and permanent entrances and examples of issues arising from this at Lake Illawarra.</p>	The Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).	No update to CMP required.
64	Greenwell Point action: Generally supportive of the actions proposed around Greenwell Point. Felt the climate adaption strategy was probably not an issue during their lifetime but not against the action. Mostly interested in changes to water levels depending on whether or not Shoalhaven Heads are open (see above comment)	<p>Your feedback is acknowledged and appreciated.</p> <p>However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).</p>	No update to CMP required.
65	Creek/ riparian condition: Concern that the creek that runs through Shoalhaven Heads, under the main road near Tall Timbers, is overgrown with weeds and debris. Suggests this needs maintenance as it over flows onto the road. Discussed that it sounds more like a general maintenance issue rather than a CMP issue.	Maintenance of flood gates and the associated drainage structures is provided for in action CTF_16a. The drain at Shoalhaven Heads has been identified as a priority location of maintenance.	No update to CMP required.
66	Living shoreline at Shoalhaven Heads: Discussed the living shoreline idea and looked at pictures with the boardwalk example from Narooma. Thought this sounded like a good idea for the area.	Support for action BE_46 is acknowledged. After further consideration, the living shoreline action is being re-crafted as a less expensive option that will still serve to activate the area for multiple benefits including recreational amenity, environmental values, and public access. This cost reduction considers that this site requires less capital works than the Wagonga Inlet project that the draft budget was based on.	The budget and scope associated with BE_46 has been reduced based on further consideration of the site and in response to community submissions.

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67	CMP process: 2 residents said they would like an extension to the timeframe for comments. It is a very busy time of year for oyster farmers getting ready for pre xmas harvest and said they would not have time to look through the large CMP document.	The exhibition period has been extended to provide sufficient time for the public to consider the report and provide informed submissions. Public exhibition was extended 71 days beyond what is legislatively required.	No update to CMP required.
68	CMP process: Make sure there are no acronyms on the display materials or that they are explained. There were some acronyms – HHWS, SLR, ARI.	Display materials were for the engagement activities supporting public exhibition. Acronyms in the reports have been explained and summarised in an Acronyms table.	No update to CMP required.
69	Need to consult with Marine Rescue for boat ramp rationalisation - a Marine Rescue Rep attended and mentioned that the helicopter pad is next to Crookhaven entrance and this used for emergency response. This boat ramp should be prioritised and needs improvements so it is accessible at low tide.	The importance of consulting Marine Rescue regarding boat ramp rationalisation is acknowledged. The specific need to ensure accessibility at low tide, particularly for emergency response purposes near the Crookhaven entrance, will be considered further. Coordination with Marine Rescue and relevant agencies will be important to ensure that emergency access requirements are prioritised in future planning and funding opportunities.	Marine Rescue has been added as a supporting agency for action BOAT_37.
70	Moss Vale rezoning for subdivision. Resident had concerns over this development and lack of appropriate evacuation options (the report he read says the area can't be evacuated during a flood) and inadequate storm water controls. He was concerned there was not enough funds raised from developers to support appropriate stormwater controls.	The concerns regarding evacuation options and stormwater controls for the Moss Vale rezoning are noted. Flood evacuation planning is guided by the Floodplain Risk Management Framework, which ensures that development proposals consider flood risk, emergency access, and evacuation feasibility. Any rezoning or subdivision approval must align with these requirements and the recommendations of relevant flood studies. Stormwater management is addressed through development controls that require appropriate drainage infrastructure and mitigation measures to manage runoff. Developer contributions are typically allocated to fund necessary infrastructure upgrades, and Council ensures that stormwater controls meet regulatory standards before approving developments. Feedback on these concerns will be considered as part of ongoing planning processes.	No update to CMP required.
71	Moss Vale rezoning for subdivision: Resident had concerns over this development and lack of appropriate evacuation options (the report he read says the area can't be evacuated during a flood) and inadequate storm water controls. He was concerned there was not enough funds raised from developers to support appropriate stormwater controls.	The CMP includes Action ENV_51, which focuses on improving development controls for water quality and stormwater management. This ensures that future developments incorporate best-practice stormwater treatment to minimise impacts on estuarine health. Concerns about flooding from new developments are best addressed through the Floodplain Risk Management framework, which assesses flood risks and guides appropriate land use planning. Council will continue to apply floodplain management principles to ensure new developments do not worsen flood risk.	No update to CMP required.
72	Supportive of the living shoreline action (BE_46) if it includes options for swimming and soft craft access. Considers the action to be a perfect compromise between some Community members support of the removal of mangroves, and the environmental / recreational values of the area.	Support for action BE_46 is acknowledged and appreciated. After further consideration, and based on feedback during public exhibition, the living shoreline action is being re-crafted as a less expensive option that will still serve to activate the area for multiple benefits including recreational amenity, environmental values, and public access. Options for swimming and soft craft access will be considered in the implementation of the design of this action. This cost reduction considers that this site requires less capital works than the Wagonga Inlet project that the draft budget was based on.	The budget and scope associated with BE_46 has been reduced based on further consideration of the site and in response to community submissions.
73	I support opening the river for environmental flow and flood mitigation	Flood risk is generally addressed in the Floodplain Risk Management Framework, and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).	No update to CMP required.

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74	<p>as this is the only narrow channel boats can use it would be a hazard to navigation if mangroves are established.</p> <p>Mangroves would also impact on river views.</p> <p>Rockwall needs repair first.</p> <p>Consider mangroves further west where the stormwater drains. Thats where they naturally occurred but got pulled out.</p>	<p>The CMP acknowledges foreshore erosion concerns at this site, and Action BE-43f is being updated to reflect ongoing works funded by a DPIRD Fisheries grant. These works are focused on improving fish habitat, water quality, and include nature-based solutions to improve bank stabilisation. The riparian fencing works have been mindful to retain access to the foreshore at strategic locations through formalised access points, while keeping access at the western, sandy end of the foreshore unrestricted.</p> <p>Future improvements to the rock wall will depend on monitoring outcomes and funding availability. While the rock wall structure appears aged, there is no immediate need for reconstruction. Maintenance on the existing structure is considered as part of this action.</p> <p>Concerns about access, view impacts, and sedimentation have been noted. Following this feedback, riparian fencing heights have been decreased to reduce visual impacts, and low-lying native vegetation will be planted along the foreshore.</p> <p>The informal channel will not be impacted by the mangroves. It is noted that mangroves exist in the intertidal zone and as such will not impede on navigation.</p>	Action BE-43f has been updated to reflect ongoing works funded by a DPIRD Fisheries grant
75	Keep the heads open	Flood risk is generally addressed in the Floodplain Risk Management Framework, and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).	No update to CMP required.

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76.1	Monitor/maintain existing foreshore protection structures at Greenwell Point	Regular monitoring and maintenance of these structures may cost more than \$11.7k/year especially repairing major flood damage. Not mentioned at any CMP meetings(?)	BE-17	<p>This action was identified to address a recognised need to maintain foreshore protection assets due to the critical role they play in managing erosion and flooding. The allocated budget has been determined with input from experienced coastal engineers and covers routine maintenance, not full replacement or upgrades.</p> <p>Should the structures fail over the life of the CMP, additional funding would be sought in response.</p>	No update to CMP required.
76.2	Support private land stabilisation/restoration	\$50k is nowhere near enough to cover all those areas of private land especially when funds of \$10.7 million has been allocated to only four (4) Council managed land areas. SCC areas not mentioned at any meetings?	BE-38, BE-43a, BE-43b, BE-43c, Photo	<p>The \$50k allocation is funding for Council to support and facilitate small-scale private land stabilisation, for example, where private works align with planned works on Council land. The \$10.7M is for Council-managed assets and includes all stages of the action included investigation, design, construction and maintenance. Broader funding remains the responsibility of private landowners, but additional support opportunities are provided in the CMP including working with LLS.</p> <p>SCC areas have been identified in Stage 2 and have been presented to the committee.</p>	No update to CMP required.
76.3	Berry's Canal Adaptation Strategy. Bank stabilization and adaptive plans.	Are we spending \$120k to advise all stakeholders that Council wont try do anything besides hold workshops & forums to tell them to adapt because they will continue being subjected to unavoidable land loss? Potential retreat scenarios? It makes sense that reducing the volume of water going down Berry's canal will definitely assist in reducing the current damage. Wouldn't a permanent opening at Shoalhaven Heads mitigate or at the very least reduce erosion at Berry's Canal? Refer to Nittin & Cox 1986 Report for solutions.	BE-42	<p>A permanent opening at Shoalhaven Heads is not recommended in the CMP due to environmental, engineering, and regulatory challenges. Adaptation planning for Berry's Canal is therefore required. This action supports a coordinated approach for both public and private landowners, including assessing land loss risks, developing site-specific adaptation plans, and integrating outcomes into asset management plans. This action includes stakeholder engagement, community education, and long-term strategy development to manage land loss effectively.</p>	No update to CMP required.
76.4	Boating education measures to reduce impacts of bank erosion.	Additional recreational craft boating speed limit signage and compliance by TfNSW may be a better way to spend \$50k. In order to obtain a boat licence a person needs to know all about speed limits, signage etc, so all we are doing is giving water craft drivers a refresher course. Council has advised that the Dept. of Transport for NSW is not interested in providing either increased signage or compliance?	Boat-40	<p>This action enhances existing education and awareness programs for boaters, focusing on the impacts of boat wakes on bank erosion and responsible boating behaviour. It includes promoting existing TfNSW educational materials, supporting their Boating Safety Officers' activities, and exploring additional signage at boat ramps.</p> <p>TfNSW remains responsible for enforcement, signage, and navigational aids. The CMP action aligns with their existing programs and does not duplicate compliance efforts.</p>	No update to CMP required.
76.5	Nil inclusion in the CMP	An effective Plan of MGMT needs to be initiated when proposed upstream works may cause excessive flooding and erosion downstream as highlighted by the damage caused by the recent Nowra Bridge works. Not considered for inclusion into the CMP.	CTF-18	<p>For all major works, the environmental legislative approval process requires an assessment of potential erosion and flooding implications, with mitigation measures identified as part of the project's environmental management plan. Any erosion or flooding impacts from the bridge works fall under the responsibility of the project's proponent and relevant approval authorities. Council will continue to monitor downstream conditions and liaise with agencies where required.</p>	No update to CMP required.
76.6	Support private land bank stabilization and restoration	River bank erosion causing bank and vegetation degradation needs to be urgently placed on a higher priority than it currently stands. The community is losing land and vegetation at an alarming rate with extremely little or no action taken except being told to adapt. Maintenance dredging could be used to replenish.	BE-36, BE-38 & 42	<p>The CMP prioritises bank stabilisation and riparian vegetation enhancement, with a significant portion of the budget allocated to these actions. These approaches provide long-term erosion control while maintaining natural estuarine function. Maintenance dredging is not included as a stabilisation measure due to potential unintended consequences, including increased erosion in adjacent areas, disruption to aquatic habitats, and the high cost of ongoing sediment management.</p> <p>However, maintenance dredging in front of boat ramps is noted in action BOAT_38. Additional wording has been added to support beneficial re-use of this sediment if feasible, noting that it is only small volumes.</p>	Additional wording has been added to support beneficial re-use of this sediment if feasible, noting that it is only small volumes.

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76.7	Nil inclusion in the CMP	<p>Shoalhaven Heads River Rd channel is moving closer to the high bank causing erosion and major tree loss. The Council suggested beach nourishment will not solve the issue and be swept away in the next flood. The 2021 'Shoalhaven Heads channel dredging and beach nourishment' report by Royal Haskoning DHV was not carried out by council? Also, the study (pg 47 & 48) suggests that the current channel is suitable under most conditions (i.e., when its calm). What happens when you venture out in calm conditions and a storm hits and you're trying to get back to the boat ramp at low tide with a couple of wet and frightened grandkids in the boat? Public safety? Not considered for inclusion in the CMP but needs to be.</p>	BE-43e/BE-44 recommends beach nourishment only. Pg-47 & 48	<p>The recommended management approach to address the erosion includes beach nourishment, stabilisation, and revegetation, consistent with best practice guidance from WRL (2022, 2017). These actions aim to slow erosion, maintain foreshore stability, and minimise ongoing sediment transport that could impact navigation. The CMP also provides for this nourishment to be completed twice during the 10 year life of the CMP in recognition of the temporary nature of nourishment activities.</p> <p>It is important to note that the Royal HaskoningDHV (RHDHV) report from 2021 was the first step in a staged process to determine the feasibility of dredging the navigation channel adjacent to River Road, Shoalhaven Heads. The work completed by Royal HaskoningDHV considered several factors for the management of this foreshore in a holistic manner, identifying potential benefits, such as improved navigation and foreshore amenity, and concluded that a pre-dredging feasibility study was required to further investigate the possibility of dredging and the relevant environmental approvals pathway.</p> <p>As a result of recommendations from RHDHV (2021), Council engaged Advisian to undertake a coastal and maritime engineering investigation. This involved a more detailed navigation assessment and evaluation of the feasibility of multiple dredging and nourishment options to improve boating safety, access and recreational amenity.</p> <p>The Advisian report (2024) presents a qualitative multicriteria assessment of options for maintaining the channel including maintaining the current channel ('do nothing'), and several scenarios to achieve a deeper channel in some areas, with and without beach nourishment of the foreshore. The assessment determined that in most weather conditions, the channel was safe to use for vessels up to 8m in length, indicating there was no requirement to dredge the channel to improve navigability. The report notes that the current channel would restrict navigation access for 8 m vessels during low tide conditions with an open and scoured entrance, and during a storm with a 20-year return interval, however, navigation would not be impeded on for vessels less than 6 m in length. In the unlikely event that these physical conditions all coincide, and a boat user is recreating on the waterway an 8m vessel could use the nearby Hay Avenue / Wharf Road Boat ramps as alternative safe access points.</p> <p>Furthermore, consultation with NSW State Government agencies during the pre-dredging feasibility study determined that due to the absence of a navigation/safety risk during normal estuarine conditions, the unlikely scenario of an 8m vessel navigating the channel in significant storm conditions, and the negative impacts on the environment (seagrass), these agencies would not support dredging within the Lower Shoalhaven River, adjacent to River Road, Shoalhaven Heads, in line with relevant legislation and associated environmental planning instruments.</p> <p>For these reasons, the "do nothing" option is the recommended approach in the Advisian report (2024), and this recommendation has been carried forward into the CMP.</p> <p>Action BOAT_38 and ECON_14 supports ongoing monitoring of navigation channels, and continued collaboration with the relevant State Government Agencies on boating safety and navigation. Ongoing monitoring will occur throughout the lifecycle of the CMP, and if navigational channels are determined to be unsafe, then the channel may be subject to maintenance dredging.</p>	No update to CMP required.

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76.8	Nil inclusion in the CMP	Sand fans from Council's stormwater drains along S/Heads River Rd are causing erosion and filling the navigation channel. Sand scraping has been recommended by MHL. The community needs this action to be included in the CMP.	Nil	<p>Operationally this isn't supported due to the small amount of sediment that would be recovered, at a relatively significant cost.</p> <p>Additionally, Council has assessed the viability of dredging of the sand fans at the stormwater drainage outlets along the Shoalhaven River through consideration of technical studies and legal permissibility under the relevant NSW legislation, including but not limited to, the Fisheries Management Act 1994 and Crown Land Management Act 2016. As the stormwater outlets along the foreshore are not considered canals and the sediment build-up is not preventing effective discharge from these outlets, dredging of this channel could only be sought for the purposes of navigation</p> <p>Action BOAT_38 supports ongoing monitoring of navigation channels. Ongoing monitoring will occur and if the sand fans encroach upon and impede navigation, then the channel may be subject to maintenance dredging as the justification will be clearer.</p>	No update to CMP required.
76.9	Implement Entrance MGMT Policy at Shoalhaven Heads	The community totally disagrees with the Council/Rhlem version of the EMP and spending \$250k on something the community doesn't want sounds a little counterproductive. Both Council and Rhlem have failed to listen to the community who have lived and learned through past events. Trigger levels and securing a workable EMP are the main points of contention. There is no flexibility in the existing plan. Past data demonstrates that an open entrance at the start of flood means lower levels and less damage.	CTF-01, CTF-02, CTF-06, CTF-12, CTF-15, CTF-17	<p>The \$250k allocation in the CMP is for the implementation of the updated Entrance Management Policy (EMP), not its development. The updated EMP is still being developed, with details to be confirmed as part of the Floodplain Risk Management Study and Plan. The CMP supports entrance management for flood mitigation, ensuring Council has the resources to open the entrance when trigger levels are met. Without this funding, Council would not be able to respond (operationally) when required.</p> <p>We understand the community's concerns about flooding and the desire for an open entrance at the start of a flood. Past experiences suggest this may help reduce water levels; however, entrance openings must be managed carefully to ensure they are effective and supported by regulatory authorities. The Floodplain Risk Management Study will use best practice flood modelling to assess flood risk and guide decision-making, ensuring that entrance management remains an effective tool for flood mitigation.</p>	No update to CMP required.
76.10	Enhance urban stormwater treatment through infrastructure development and water sensitive urban design.	There are future proposed developments being currently assessed by Council which the community are positive will attribute to increased flooding. According to locals, these developments will require careful reassessment, with one such proposed development being the 'Moss Vale Rd development' which feeds directly into Abernathy's Creek, which in the past has flooded both Manildra and the surrounding properties numerous times.. Also Councils proposed remediation of the concrete culvert at Manildra (Tender 77628E) will reduce flow and possibly increase flooding.	ENV-42, ENV-51, Tender 77628E, CTF-09	<p>The CMP includes Action ENV_51, which focuses on improving development controls for water quality and stormwater management. This ensures that future developments incorporate best-practice stormwater treatment to minimise impacts on estuarine health.</p> <p>Concerns about flooding from new developments are best addressed through the Floodplain Risk Management framework, which assesses flood risks and guides appropriate land use planning. Council will continue to apply floodplain management principles to ensure new developments do not worsen flood risk.</p>	No update to CMP required.
76.11	Nil inclusion in the CMP	The community requests that urgent maintenance works need to be initiated on flood mitigation drains, which in a Council survey were found to be in poor condition and requiring maintenance which has not been carried out by Council's City Services Directorate. This action was brought to Council's attention back in February 2024. Shoalhaven Heads flood mitigation drain is a prime example which failed the Councils survey, with 30% deemed to be poor to very poor with other areas being Coolangatta, Pyree and Numba.	Email to Council, CTF-05 (Should be part of CTF-16a)	<p>The CMP includes Action CTF-16a, which identifies the need to review and maintain floodgates and drainage infrastructure. The Shoalhaven Heads flood mitigation drain is expected to be addressed under this action, with Council assessing and prioritising maintenance needs through asset management planning and systems.</p>	No update to CMP required.
76.12	Climate change adaptation strategy at Greenwell Point	Plan only, no works.	CTF-08	SLR impacts are not yet a pressing issue for Greenwell Point but will become more significant over time. This strategy ensures a proactive approach to future adaptation, guiding long-term management and funding opportunities beyond the CMP's 10-year timeframe.	No update to CMP required.
76.13	Maintain planning controls to reduce future coastal hazard impacts	Implement/maintain planning controls, including appropriate zoning and assessment in proposed developments.	CTF-09	The action description includes "Implement".	No update to CMP required.

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76.14	Review/update all asset MGMT Plans	I was led to believe that this action was carried out as part of Council's normal operating procedures? \$425k	CTF-16	The budget for this action is initially to support Council to develop/ update the asset management plans, and then to implement it with \$40,000 allocated each year. This has been included as an estimate, but by nature, asset maintenance would have variable costs each year. The idea is that this will improve Council's financial planning and lead to better outcomes from the services the assets provide. Budget may be used to engage external resources to support specific works where specialised advice is required.	No update to CMP required.
76.15	Review/update floodgate and associated drainage infrastructure Asset MGMT Plans	I would have thought that this action was covered under CTF-16 which covers ALL assets.	CTF-16a	This is a sub-action, directly related to CTF_16 but with additional asset specific detail to help develop and implement the assets maintenance. An additional \$15,000 per year has been allocated specifically for this asset class.	No update to CMP required.
76.16	Develop/implement program for coastal assets/infrastructure monitoring	This one does flood gates as well as other items covered under CTF-16 & CTF-16a? Programming only, no maintenance mentioned.	ECO-08	This is focused on developing a monitoring program to inform the asset management and maintenance.	No update to CMP required.
76.17	Update Council Plans of MGMT for locations in the coastal zone to support the objectives of the CMP	Update relevant Plans of MGMT for seven (7) areas. Why is Shoalhaven Heads not included in this action?	ENV-21	PoMs are developed for Council owned land, or council managed Crown Land. The public land in Shoalhaven Heads is covered under the Generic Council Managed Crown Lands PoM. Hence, Shoalhaven Heads is included.	No update to CMP required.
76.18	Nil inclusion in the CMP	Ensure that all the crossovers between the Floodplain MGMT Plan (still to be delivered) and the Coastal MGMT programs are included into the Lower Shoalhaven CMP. The community is concerned with all the flooding issues affecting Shoalhaven Heads and multiple other areas which are far from resolved. The CMP cannot be finalised until the Flooding issues are resolved and integrated into the CMP	Nil	There are many other issues addressed in the CMP and delaying it to wait for the FRMSP would delay important action. The two plans also address different issues, although there is definitely overlap, especially with entrance management. The CMP is structured to automatically support implementation of the FRMSP Entrance management recommendations, which will be evidenced based and exhibited to the community for comment through a separate public exhibition phase.	No update to CMP required.
76.19	Nil inclusion in the CMP	The flood mitigation drain near the Council caravan park is causing erosion and degradation. The community suggestions were to extend the drain pipes or do regular maintenance. Both actions rejected by Council.	CTF-16a, ENV-58	Regular maintenance will be supported by action CTF_16a. ENV_58 is more for floodplain adaptation via floodgate removal, not likely to be occurring in Shoalhaven Heads.	No update to CMP required.
76.20	Breakwall at Shoalhaven Heads	The community want a permanently open entrance at Shoalhaven Heads. Council and Rhelm have decided to use the Lake Illawarra Entrance Works as an example as to why the entrance at Shoalhaven Heads should not be opened. The reasons are due to the perceived impacts as follows:	CTF-01	Shoalhaven City Council referenced the Lake Illawarra permanent entrance opening as a case study in the Draft CMP specifically to highlight the complex and costly implications associated with establishing and maintaining such a significant intervention. Lake Illawarra's entrance management experience provides relevant insight into potential hydrodynamic and sedimentation issues, infrastructure requirements, ongoing maintenance demands, and associated financial costs. It exemplifies how permanent structural interventions, though beneficial in certain contexts, necessitate considerable and sustained investment, management commitment, and the possibility of unintended environmental impacts.	No update to CMP required.
76.21	Alteration of tidal and flow regimes	When Lake Illawarra was closed which was most of the time, there was No tidal or flow regimes and all you could smell was rotting seagrasses, there were no prawns, depleted fish stocks, algal blooms, fish kills swimming wasn't recommended. The Lake Illawarra Authority spent a considerable amount of money removing rotting seagrasses from the shoreline following community complaints.. Also with the Lake closed there were quite a number of flooding issues with the Lake having to be mechanically opened quite a number of times. This has all been turned around since the Lake was permanently opened	-	The Water Research Laboratory (WRL) Technical Report (2015) "Management Options for Improving Flows of the Shoalhaven River at Shoalhaven Heads" considered various environmental processes likely impacted by a permanent entrance opening at Shoalhaven Heads. The report thoroughly assessed several critical factors, including tidal and flow regimes, sedimentation and erosion dynamics, ecological habitat implications, and water quality. Key findings from the WRL (2015) report include:	
76.22	Destruction of valuable estuarine habitat	What habitat are we talking about? When the Lake was closed there was no estuarine habitat with the sand stretching from the Windang Bridge all the way to Windang Island, approximately 800 metres. Now with a permanent entrance with breakwalls you have an enhanced and diverse fish habitat with sea grasses, barnacles, and other marine creatures all the way to Windang Island.	-		

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76.23	Dramatic changes in sedimentation and erosion trends, threatening navigation and foreshore development	<p>With any open entrance you have the possibility of erosion and sedimentation; however, this can be managed with a comprehensive maintenance program. It is now possible to navigate through the entrance, and foreshore development has thrived with playgrounds, fishing jetties, groynes, picnic shelters, bike paths, and car parks, etc. The Lake Illawarra Entrance is a favourite tourist destination. The difference between Lake Illawarra and the Shoalhaven is the marked difference in water levels and the ocean.</p> <p>These being +0.073m at Windang and -0.091m at Greenwell Point (at 8:15pm 19/1/2025). The difference in water levels between Lake Illawarra and the ocean results in fast flowing tidal water which results in sediment transport and erosion again fixed with regular maintenance. An open entrance at Shoalhaven Heads</p> <p>wouldn't have the same tidal exchange. Also Lake Illawarra has only one (1) entrance whereas the Shoalhaven would have the flow shared between two openings.</p> <p>It's pretty obvious that an open entrance at Shoalhaven Heads would be a win-win for both the environment (Council) and the community. With increased tidal exchange resulting in clean water as well as the added bonus of a reduced flow and therefore reduced erosion at Berry's canal.</p>	-	<ul style="list-style-type: none"> Hydrodynamic complexity: Shoalhaven Heads differs significantly from Lake Illawarra due to the presence of Berry's Canal, which significantly diverts river flow to the Crookhaven River. This diversion means maintaining a permanently open entrance at Shoalhaven Heads would be particularly challenging without substantial ongoing management. Sedimentation and erosion: Establishing a permanent opening would lead to altered sediment transport processes, necessitating extensive and ongoing dredging programs, training walls, or groynes. Previous investigations and estimates provided by WRL identified these interventions as highly costly, with estimates exceeding \$33 million in initial infrastructure alone, excluding ongoing maintenance. Ecological habitat impacts: The WRL report identified that the natural variability of intermittent entrance openings supports a robust estuarine ecosystem at Shoalhaven Heads. Permanent opening could disrupt existing habitats, negatively impacting biodiversity and ecological resilience. Water quality considerations: The report evaluated water quality dynamics, concluding that existing tidal flushing regimes at Shoalhaven Heads generally provide acceptable water quality, with limited benefit from increased tidal exchange that a permanent opening would offer. <p>Overall, the WRL (2015) assessment concluded clearly that establishing a permanently open entrance at Shoalhaven Heads is not a feasible or sustainable management response, given the substantial costs, ongoing maintenance commitments, and potential ecological disruptions involved. Instead, an adaptive and strategic approach to entrance management that balances flood mitigation, ecological health, and water quality was recommended as the most prudent long-term strategy. This is currently being addressed by Council through its Entrance Management Policy review.</p>	
76.24	Suggested Man Made Drain Remediation	It's unclear as to the exact time the drain was constructed; however, it was initially designed to drain the water from Coolangatta Mountain and Coomonderry Swamp so the township of Shoalhaven Heads could be developed. Obviously, the township has developed into a bustling community and is now a lot larger than the drain was originally designed to deal with.	-	<p>Flooding Flooding risk is generally addressed in the Floodplain Risk Management Framework and is outside the scope of the CMP.</p> <p>Water Quality Considerations</p>	No update to CMP required.
76.25	Suggested Man Made Drain Remediation	Compounding the problem, the drain is being overrun and choked with vegetation, causing its cross-sectional area to be greatly diminished.	-	<p>The drain lacks stormwater treatment infrastructure (e.g., Gross Pollutant Traps), but most adjacent land is privately owned, making large-scale interventions challenging.</p> <p>Sewerage and Stormwater Management</p>	
76.26	Suggested Man Made Drain Remediation	The current situation is that besides the flooding issues, it's a source of poor water quality within the estuary. Stormwater from Scott St, Jerry Bailey Rd, and several caravan parks flow into the drain without any water quality infrastructure such as GPTs in place.	-	<p>Reports of dark water, odours, and oily films may be caused by natural processes (e.g., hydrogen sulfide and bacterial activity) rather than pollution.</p> <p>Sewerage and Stormwater Management</p>	
76.27	Suggested Man Made Drain Remediation	There have also been a couple of documented sewerage overflows from the Shoalhaven Water Sewerage treatment plant, which has been built adjacent to the drain.	-	<p>There have been no recorded sewage overflows from the Shoalhaven Heads Sewage Treatment Plant in the past two years. However, flooding near Hay Avenue has caused occasional inundation of the sewage network. This, alongside potential for sewerage overflows, will continue to be managed by Shoalhaven Water through their licence requirements with the EPA and their Regulatory and Assurance Framework from DCCEEW. Shoalhaven Water also works with their regulators to identify and manage risks to sewer overflows. With these systems and processes in place Shoalhaven Water aims to have nil sewer overflows during dry weather and to minimise sewer overflow during wet weather events.</p>	
76.28	Suggested Man Made Drain Remediation	The flooding from sustained rain events causes issues with Jerry Bailey Rd, Shoalhaven Heads Rd, several caravan parks, Bolong Rd, and the large paddock on the corner of Bolong and Shoalhaven Heads Roads. The road closures due to the flooding are more prolonged than in the past, and it took 4-5 months for the paddock to drain.	-	<p>Shoalhaven Water has several programs aimed at minimising sewer overflow including sewer relining, emergency storage, pump replacement program and improvements to their major treatment facilities. These programs are all aimed at ensuring sewer overflows are minimised. In addition, Shoalhaven Water has completed hydraulic modelling to inform strategic improvements to the network</p>	
76.29	Suggested Man Made Drain Remediation	The recently completed drainage repair works in Scott St also highlight the amount of sediment present in our drains, which will eventually end up in the drain, compounding the problems.	-		
76.30	Suggested Man Made Drain Remediation	During a recent flooding event, the water draining through the flood gates was observed to be very dark, if not black in colour, had an effluent smell, and there was evidence of grease and oils.	-		

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76.31	Suggested Man Made Drain Remediation	As you are aware, there isn't a great amount of water circulation at Shoalhaven Heads, so a lot of the pollution tends to stick around.	-	however in large rainfall events the system becomes overloaded and, in some areas, completely inundated due to high water levels from flooding particularly in coastal areas. This will continue to be managed by Shoalhaven Water.	
76.32	Suggested Man Made Drain Remediation	To cut a long story short, the water is not discharging in a timely manner and is causing pollution worries for the Shoalhaven Heads Community, which is highly dependent on tourism.	-	Asset Maintenance	
76.33	Suggested Man Made Drain Remediation	Obviously, a study of the situation is required so that an effort can be made to rectify the current problems.	-	Action CTF_16a in the CMP supports ongoing maintenance of the flood gates and associated drainage, ensuring this site remains a priority in Council's broader maintenance programs.	
76.34	Suggested Man Made Drain Remediation	There are possibly a few sources of funding, with one being identified from DPI as follows: 'www.dpi.nsw.gov.au/fishing/habitat/rehabilitation/ahr-grants-program'. Look under 'Habitat Action Grants'. I believe this program has closed for 2023.	-	A recent Public Works Authority (PWA) audit and on-ground inspections (Feb 2024) confirmed: <ul style="list-style-type: none"> Some restrictions exist, but the drain is not entirely choked with vegetation. Tidal gates are functioning as designed and are not contributing to drainage delays. Prolonged flooding in 2022 resulted from exceptional rainfall, not major blockages. 	
76.35	Suggested Man Made Drain Remediation	I would greatly appreciate someone from Council getting back to me on the status of this project, which means a great deal to the people of Shoalhaven Heads.	-	Next Steps <ul style="list-style-type: none"> Continued ongoing monitoring and maintenance of the 3.3 km of Shoalhaven Heads drains as part of Council's broader flood mitigation program will occur. Budget bids for drainage improvements based on PWA audit findings Advocacy will take place for improved stormwater management on private land where feasible. Implementation of CTF_16a within the CMP will support drainage system maintenance, such as this drain. 	
76.36	Nil inclusion	Investigations and a plan to implement changes is urgently required to resolve all the **Sewerage overflows from Shoalhaven Water infrastructure** into the Shoalhaven River, especially causing unacceptable levels of pollution especially during high rainfall events.	Photos	ENV_44 provides for continued implementation of Council's septic performance assessment and regulation. Sewerage overflows will continue to be managed by Shoalhaven Water through their licence requirements with the EPA and their Regulatory and Assurance Framework from DCCEEW. Shoalhaven Water also works with their regulators to identify and manage risks to sewer overflows. With these systems and processes in place Shoalhaven Water aims to have nil sewer overflows during dry weather and to minimise sewer overflow during wet weather events. Shoalhaven Water has several programs aimed at minimising sewer overflow including sewer relining, emergency storage, pump replacement program and improvements to their major treatment facilities. These programs are all aimed at ensuring sewer overflows are minimised. In addition, Shoalhaven Water has completed hydraulic modelling to inform strategic improvements to the network however in large rainfall events the system becomes overloaded and, in some areas, completely inundated due to high water levels from flooding particularly in coastal areas. This will continue to be managed by Shoalhaven Water.	No update to CMP required.
76.37	Continue septic system performance assessments and regulation	A study is required to investigate and manage sewerage flows from septic tanks directly into the Shoalhaven River at Shoalhaven Heads.	ENV-44	See comment above for response from Shoalwater.	No update to CMP required.
76.38	Nil inclusion	Substandard water quality events, which are frequently causing the shutting down of the local oyster industry, indicate that the current status quo regarding sewerage overflows and other pollutants need to change and urgently requires review and intervention. **This action has not been included in the CMP.**	Nil	See comment above for response from Shoalwater.	No update to CMP required.

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76.39	Use (ONLY) available resources, including financial and human, considering what is reasonable, feasible, and achievable within resource constraints. Also supplementing from other programs.	**This is one of the most important items affecting the entire community.** Far fewer sites proposed "reduced from 35+ down to five sites. No objectives based on existing/potential high-risk inflow points. Appears Council/Rhelm are aiming for **bare minimum** to meet State Government requirements. **Industrial discharges are NOT adequately covered** or not covered at all. Council sampling frequency is seasonal, with DCCEEW picking up the all-important Summer sampling "reporting issues? (signs etc). Will DCCEEW advise the public when results dictate, i.e., signage etc.? One parameter for sampling should be >10mm for rainfall event-based sampling. Enact CMPs MER program \$000 allowed. Out of 35+ sampling sites, there are only 20 sites with data five (5) of these sites have readings well above allowable limits. One is 38x the limit for Faecal Coliforms; 129x for Enterococcus, and 3x for Thermotolerant Coliforms.	ENV-43 Pg. C47-51, Photos - sewerage	The proposed study has been designed to track relevant parameters related to estuary health and public safety. The 35+ sites that have data on the Aqua Portal are not consistently monitored, with some sites not having been visited for many years. Industrial discharges are licensed by the EPA with associated monitoring requirements. Additionally, oyster leases are also subject to strict monitoring requirements for food safety reasons. Council's role is to fill the gaps related to estuary health and recreational safety at key locations. It is also important to consider the numerous other waterways that council is responsible for, and to design the monitoring program accordingly to ensure it is actually implemented consistently to best achieve useful outcomes.	No update to CMP required.
76.40	Additional Water Quality Actions	The Hay Ave illegal boat maintenance facility requires signage/policing. No commitment to finding an alternative area. Pollution directly impacts oyster leases.	Councils Aqua Data, Photos	Boat_37 and BOAT_38 will look at alternative areas for boat maintenance and provide a program to upgrade the network of boat ramps in the Shoalhaven and throughout the LGA. Immediate action can be to install signage at this area about enforcement against illegal boat maintenance and the negative water quality impacts.	No update to CMP required.
76.41	Install one trash rack at Shoalhaven Heads Coastal Swamp near Holiday Haven	Only one additional trash rack for Shoalhaven Heads is not sufficient considering the number of stormwater outlets. Also, it appears that the location has been misunderstood by the consultant, with the community requesting a MGMT plan including weed removal and protection.	ENV-42b	The location of this trash rack was determined using a comprehensive constraints analysis to ascertain appropriate sites. The ecological and tourism value of the Coastal Swamp north of the Holiday Haven Caravan Park is acknowledged. The CMP seeks to support these values through action ENV_39 which allows for environmental protection works such as weed management (including supporting community groups). Additionally, action ENV_21 can support these values by ensuring the PoMs support these works in the Council Managed Crown Land such as the parcel where the Holiday Park and Coastal Swamp are.	Wording of ENV_21 has been amended to more clearly to support environmental protection works on Council Managed Crown Lands, such as the coastal swamp near Holiday Haven.
76.42	Inclusion of additional Beachwatch sites	These are Shoalhaven Heads, Greenwell Point "\$100k.	ENV-09	And at The Grotto near Nowra.	No update to CMP required.
76.43	Nil inclusion	There is nothing mentioned in the CMP about addressing the current sewerage spillages from the Shoalhaven Water infrastructure. There needs to be a study, assessment, and implementation in order to reduce spills. Action by Shoal Water.	Nil mention, Photos		No update to CMP required.
76.44	Continue septic system assessments/regulation	Action involves continuation of program \$000?	ENV-44	This is considered standard operations and therefore no additional budget has been allocated beyond Council Staff Time.	No update to CMP required.
76.45	Develop/implement water quality controls into future development	Features pollutant reduction targets for future developments, inclusion of stormwater quality improvement devices (SQUIDS) \$000?	ENV-51	This is considered standard operations and therefore no additional budget has been allocated beyond Council Staff Time.	No update to CMP required.
76.46	Wetland at Terara	**Investigation/design only "\$75k.** What about other areas of the Coastal Zone, such as Shoalhaven Heads, Bomaderry Creek, etc.? The community has been discussing the possibility of a wetland at Shoalhaven Heads to assist with water quality issues.	ENV-42a	This site was based on an extensive constraints analysis which is described in the Stage 2 report.	No update to CMP required.
76.47	Support multi-stakeholder projects to implement actions in priority subcatchments	Consultation/engagement including educational materials \$000?	ENV-58	These large scale, multi stakeholder, private landholder projects are a focus of State Government initiatives. Council's role in supporting these projects is outlined in the project description. Inclusion in the CMP demonstrates council's support of the adaptation planning in the floodplain to support environmental benefits and a coordinated economic transition in response to SLR.	No update to CMP required.
76.48	Beach nourishment at rock wall Shoalhaven Heads	There is \$225k allocated for this action but it fails to advise on the timing regarding commencement. It also makes a lot of sense to potentially save a lot of money in cartage and utilize the sand scrapings from the adjacent sand fans?	BE-44	The business plan indicates that this action is to be implemented within 4-7 years, or earlier in response to a large erosion event.	No update to CMP required.
76.49	Install living shoreline at Crookhaven Heads	Not discussed at any official CMP meeting "\$2.4m	BE-45	This was included to build on an existing grant for works in the area.	No update to CMP required.

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76.50	Install living shoreline at Shoalhaven Heads	Shoreline cancelled? 5-year permit application approved for mangrove removal. **The community request for the permit to be embedded into CMP.**	BE-46, CS-03	The CMP process does not support the removal of mangroves. After further consideration, the living shoreline action is being re-crafted as a less expensive option that will still serve to activate the area for multiple benefits including recreational amenity, environmental values, and public access. This cost reduction considers that this site requires less capital works than the Wagonga Inlet project that the draft budget was based on.	The budget and scope associated with BE_46 has been reduced based on further consideration of the site and in response to community submissions.
76.51	Develop program for regular monitoring of coastal assets	Program only.	Econ-08	Yes, responsive action to monitoring outcomes is covered in CTF_16 and CTF_16a	No update to CMP required.
76.52	Implementation of the Domestic Waterfront Structures strategy	Community education \$000?	ENV-41	This is considered standard operations and therefore no additional budget has been allocated beyond Council/Agency Staff Time.	No update to CMP required.
76.53	Removal of derelict domestic structures	Nil \$000 allocated.	ENV-41a	This is considered standard operations and therefore no additional budget has been allocated beyond Council/Agency Staff Time.	No update to CMP required.
76.54	Continued compliance with unauthorized vegetation harm/waterfront works	**Aren't these normal Council operations? \$000 allocated.**	ENV-41b	This is considered standard operations and therefore no additional budget has been allocated beyond Council/Agency Staff Time.	No update to CMP required.
76.55	Clear flood debris from Shoalhaven Heads, Greenwell Point, and Orient Point	Debris removal continues to be frustrating for communities and subject to managing to obtain permits, only being deemed necessary at council's discretion, also based on public safety and recreational amenity. Why isn't floating debris a public safety concern when a watercraft can hit partially submerged debris at 4 knots and sustain damage that could sink the watercraft? **Action on this is taking way too long. Only \$100k/10 years for the whole estuary?**	REC-03	This action has been crafted to balance the requirements of Fisheries policy and regulation with the public health and safety and community goals.	No update to CMP required.
76.56	Improve public foreshore access to include all ability levels	Subject to funding. \$285K allocated over 10 years. Which areas are going to be targeted? Assessment cost and how much will be left for actual works?	REC-04	Targeted areas will be determined during the assessment stage of this action in consultation with relevant stakeholders.	The budget allocated to this action has been increased in recognition of the extent of capital works that would be associated with improving access at identified locations..
76.57	Boat ramp and facilities consolidation	Review and enhancing existing facilities only.	Boat-37	This action could potentially support new boat ramps, but more likely upgrading of existing assets.	No update to CMP required.
76.58	Boat ramp facility upgrade and asset MGMT program	**Program will only deliver \$55k/year spread over all the boat ramps.** Mentions maintenance dredging and facilities upgrade **funding is insufficient.**	Boat-38		The budget allocated to this action has been increased in recognition of the extent of associated capital works.
76.59	Boating education program	Enhancing existing programs \$50k.	Boat-40	Yes	No update to CMP required.
76.60	Oyster reef restoration	Suggested bank restoration/stabilization works and habitat enhancement work. So much can happen following floods etc., so isn't waiting 10 years for a review a little too long? How about an event-based review? **There are \$000 against this action?**	ENV-63, ENV-64	This action is supported by Fisheries as the lead agency and is in line with Marine Estate Management Strategy. Monitoring of bank works undertaken under the CMP will be subject to the monitoring supported by actions ENV_39, ENV_43 and ENV_64.	No update to CMP required.

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76.61	Review Councils coastal MGMT planning policies every 10 years	The community would like to see the CMP reviewed intermittently as required and certainly within 5 years. **Floods can cause major changes in a relatively short time.** Should there be any changes required in the CMP, a plan should be in place to adjust the program to suit. \$000?	ECON-06	CMP reviews will be undertaken regularly as part of ENV_31. This action notes 10 year CMP review as a minimum. The CM Act (Section 18(1)) and CM Manual requires Council to ensure that the CMP is reviewed at least once every 10 years. However, it should be noted that it may be reviewed and/or updated sooner for any reason, including if there are significant new circumstances which need to be considered.	No update to CMP required.
76.62	Nil inclusion in the CMP	Council will need to develop a **Program of Works** for all proposed works with the process being transparent to allow communities to plan their growth accordingly.	Nil	The CMP is essentially this. When integrated into Council's operational plan and broader IP&R framework, more specific details will be available to the community. This is also supported by action ENV_31, which enables the CMP monitoring, evaluation and reporting program.	No update to CMP required.
76.63	Nil inclusion in the CMP	Maintenance dredging at Shoalhaven Heads, which the community wants and as required in other parts of the estuary.	Nil	Maintenance dredging near boat ramps and in navigational channels is considered in BOAT_38.	No update to CMP required.
76.64	Implement environmental protection works to enhance ecological communities.	The action describes **acquisition and protection of key locations**, support of volunteer-based rehabilitation initiatives, continuation of existing council programs for pest control and weed management, installation of interpretive signage, rehabilitation works in damaged vegetated areas, restoration of riparian vegetation areas, continued estuarine macrophyte mapping, and establishment of a monitoring and evaluation framework. **How is \$500k going to cover all that, especially the acquisition part?**	ENV-39	This element of action ENV_39 (acquisition and protection of key locations) has been moved to ENV_58. This is a more appropriate action to address potential acquisition of land as it is related to multi-stakeholder, long term floodplain adaptation.	This element of action ENV_39 has been moved to ENV_58.
76.65	Nil inclusion in the CMP	The community wants the Coastal Swamp at Shoalhaven Heads to have a Maintenance Management Plan for weed removal and the protection of the ecological communities.	Nil	This location is on Council Managed Crown Land and is addressed in the relevant Plan of Management. The wording of ENV_21 has been revised to clearly support incorporating environmental protection works into forthcoming PoM updates.	ENV_21 has been amended to more clearly support environmental protection works on Council Managed Crown Lands, such as the coastal swamp near Holiday Haven.

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77.1	Coastal Swamp This is a sensitive and important ecological environment near Council Caravan Park – Holiday Haven	Deficient	One “Trash Rack” ENV_42b to stop rubbish from the street drainage system	Location not understood by consultant. Required for this location: 1) Management Plan for the site to include removal of weeds and protection (can be done by dune care volunteers) 2) Potential for tourism overlooked – this is a bird attracting site (funds from the living shoreline may be redirected to a boardwalk around the coastal swamp)	The location of this trash rack was determined using a comprehensive constraints analysis to ascertain appropriate sites. The ecological and tourism value of the Coastal Swamp north of the Holiday Haven Caravan Park is acknowledged. The CMP seeks to support these values through action ENV_39 which allows for environmental protection works such as weed management (including supporting community groups). Additionally, action ENV_21 can support these values by ensuring the PoMs support these works in the Council Managed Crown Land such as the parcel where the Holiday Park and Coastal Swamp are.	ENV_21 has been amended to more clearly to support environmental protection works on Council Managed Crown Lands, such as the coastal swamp near Holiday Haven.
77.2	Flood Mitigation Drain exiting near Council Caravan Park – Holiday Haven – causing erosion and degraded – suggested options were to extend the drain or do maintenance at regular interval e.g. sand scaping of the sand. Both suggestions rejected.	No	“it is unfeasible to extend the stormwater outlets into the channel while maintaining the hydraulic gradient needed to facilitate drainage”.	No other option offered – ongoing issue thrown into the too hard basket. The recent near flood has eroded Councils sand and plantings approach. The River Road channel continues to erode as the channel is too close to the riverbank with no natural build up process and dredging ruled out by Council.	The location of this drain is within the footprint that is subject to beach nourishment. Asset condition will be investigated and documented as part of ECON_08, CTF_16a supports regular maintenance and upgrade (if needed) of this asset. Risk assessments undertaken through the CMP process have indicated that this asset is not particularly vulnerable to SLR.	No update to CMP required.
77.3	Sand fans from numerous storm water and flood mitigation drains along River Road – causing erosion and filling the navigation channel	No	“review and update all asset management plans (AMPs), relevant to the coastal zone within the CMP study area”	This matter has been raised numerous times at the SHET with the suggestion of Sand Scraping to remove the excess sand and restore the erosion. The response in the CMP is another review and another plan.	Operationally this isn't supported due to the small amount of sediment we would recover. Additionally, Council has assessed the viability of dredging of the sand fans at the stormwater drainage outlets along the Shoalhaven River through consideration of technical studies and legal permissibility under the relevant NSW legislation, including but not limited to, the Fisheries Management Act 1994 and Crown Land Management Act 2016. As the stormwater outlets along the foreshore are not considered canals and the sediment build-up is not preventing effective discharge from these outlets, dredging of this channel could only be sought for the purposes of navigation Action BOAT_38 supports ongoing monitoring of navigation channels. Ongoing monitoring will occur, and if the sand fans encroach upon and impede navigation, then the channel may be subject to maintenance dredging.	No update to CMP required.

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77.4	River Road Channel is moving closer to the high bank causing erosion and serious tree loss. This will result in riverbank slump with near future floods. There is no natural sand build up process (2021 report Royal HaskoningDV)	Deficient Beach nourishment from sand brought in from the beach will not solve this issue.	“moving the channel at the expense of impacting seagrass will not be supported by agencies. It is also unlikely to reduce the risk posed by erosion and flooding along River Road” BE_43e and BE_44 recommend beach nourishment from sand taken from the beach.	The current response means the trees along riverbank (46 trees were lost in one flood) are being sacrificed while the bank is eroding. There is now no low bank left, and the steep bank will be the next to go. This will result in high cost to repair and asset loss to Council. The statement “will not be supported by agencies” is inappropriate when the risk profile of the unstable bank is factored in. The 2021 “Shoalhaven Heads Channel Dredging and Beach Nourishment” by Royal HaskoningDHV was largely ignored by Council and another report sought which focused solely on navigation of boats.	There are several actions, which when implemented concurrently seek to address this concern. Firstly, the nourishment actions (BE_43e and BE_44) will provide medium term erosion protection. The temporary nature of nourishment is addressed by budgeting for 2 rounds of nourishment within the 10 year CMP lifecycle. BOAT_37 provides for maintenance dredging near boat ramps and in existing navigation channels. This action can be used to address potential channel infilling that may impeded on safe navigation. The small volume of sediment that might be won from this could be used for nourishment (subject to detailed investigation) It is noted that the Lower Shoalhaven River Dredging Feasibility and Navigation Assessment (Advisian, 2023) was developed as a recommendation of the RHDHV 2021 report which set the scope for additional investigation to determine the viability of dredging the channel.	No update to CMP required.
77.5	Clearance of flood debris from the riverfront following floods	Yes	Rec_03 Removal activity will occur when Council determines there is a risk to public safety and recreational amenity and will need to comply with Council and DPIRD Fisheries policy, with permits to be obtained where/when required.	The recent experience, following the June 2024 flood gives little confidence that this action will be done in a timely manner. The debris from the June 2024 flood is still on the riverfront in December 2024. The estimate of cost over the 10 years of \$100k is a small cost to maintain recreation and tourism amenity.	This action has been crafted to balance the requirements of Fisheries policy and regulation with public health and safety, and community goals.	No update to CMP required.
77.6	Maintain public access to the river by keeping a small area free of mangroves to allow shallow water access for all ability. Many aspects of the Living Shoreline are already in place at the location e.g. pontoon, pathway etc. the Jetty and bird posts were planned as part of the upgrade to the parking near the toilet block at the end of River Road, with the jetty coming off the park. The project ran out of funds and the jetty and bird posts were not installed.	No	BE_46 The CMP proposed spending \$1.96m to deliver a “living shoreline” which would deny safe water access by allowing the mangroves to grow.	The permit to remove the mangroves should be included in the CMP. This is an activity which has been carried out over the past 5 years by volunteers at little cost to council (Bushcare supervision only). Removal of the mangroves is supported by Riverwatch and the Native Botanic Garden. Council is now applying for the permit outside the CMP process.	The CMP process does not support the removal of mangroves. After further consideration, the living shoreline action is being re-crafted as a less expensive option that will still serve to activate the area for multiple benefits including recreational amenity, environmental values, and public access. This cost reduction considers that this site requires less capital works than the Wagonga Inlet project that the draft budget was based on.	The budget and scope associated with BE_46 has been reduced based on further consideration of the site and in response to community submissions.
77.7	Boating	Deficient	Boat_37 Boat_38 Develop a plan	A spend of \$450k on this very important activity does not compare to the \$1.96m on the project “living shoreline” disregards the communities demonstrated use of the river.	After further consideration, the living shoreline action is being re-crafted as a less expensive option that will still serve to activate the area for multiple benefits including recreational amenity, environmental values, and public access. This cost reduction considers that this site requires less capital works than the Wagonga Inlet project that the draft budget was based on.	The budget and scope associated with BE_46 has been reduced based on further consideration of the site and in response to community submissions.

From Submission					Response	Report Update Status
Comment ID	Item	Inclusion in CMP	Response from CMP	Comment		
77.8	Water Quality	Deficient	<p>ENV_43 ENV_09- beachwatch</p> <p>In response to community concerns about water quality and the impacts on public health and safety, and based on the findings in the Stage 2 Water quality and monitoring program assessment (Rhelm, 2023d), several locations are to be included as regular Beachwatch sites, with regular water quality monitoring and reporting to communicate the safety of recreational activities to the broader public. These sites include:</p> <ul style="list-style-type: none"> • Shoalhaven Heads • Greenwell Point • The Grotto (Nowra) <p>A detailed description of this action (in combination with Action ENV_43) will be provided in the CMP.</p>	<p>This issue has been a main concern for the community and is not sufficient addressed in the CMP response. \$350k to revise and implement plans is inadequate.</p>	<p>The budget allocated for these actions is based on current costs for similar actions across NSW. It has been reviewed and confirmed by Council and DCCEEW.</p>	No update to CMP required.
77.9	Dredging of silts at the entrance that are not being scoured by floods	No	<p>This action is considered unfeasible as it contradicts government policy regarding dredging. Siltation in channels is part of the natural process and is important for habitat formation in the estuary. Dredging for flood impacts is considered in the Floodplain Risk Management framework.</p>	<p>The Lake Conjola Coastal Management Plan includes a reference to dredging where sands come into the entrance and need to be removed to ensure a workable entrance in times of flooding.</p> <p>The reference to government policy is vague and dismissive.</p>	<p>Dredging at Lake Conjola is recommended as a contingency measure to support entrance management. The contingency measure involves ebb tide channel dredging in the scenario when excavation of a pilot channel directly through the northern spit zone to link with a stranded ebb tide channel is not operationally practicable for emergency response to flooding. This would be impractical due to the significant time required for excavation.</p> <p>The Shoalhaven River system is different. The presence of the permanent entrance at Crookhaven, results in a weak ebb tide at Shoalhaven Heads when open. This means the flood tide and wave energy deposits sand more efficiently. As such, ebb tide dredging would not be effective at retaining an open entrance, as it would in Lake Conjola which only has one entrance.</p>	No update to CMP required.
77.10	Entrance management for flooding (EMP)	Deficient	<p>The current entrance management arrangements were reviewed as part of Stage 2 of the CMP. The review concluded that entrance management for the purpose of flood risk reduction was appropriate and should Continue</p> <p>CTF-20</p>	<p>The EMP is redundant and ineffective in times of flooding. The trigger levels guarantee that the floodplain will flood and stay flooded for an extended period. The consultants' pre-emptive comments before a detailed analysis are of deep concern.</p> <p>"More intensive approaches such as diverting river flow and constructing a permanently trained entrance are not considered feasible because of the widespread and uncertain unintended consequences that would arise throughout the estuary if they were implemented. Other factors such as costs and engineering complexity have also been considered."</p>	<p>A permanent entrance would only be supported by an extensive cost benefit analysis which could be justified if there were enough economic, navigation, and flooding benefits to offset the significant cost, and other associated environmental impacts. The FPRMSP is investigating the flooding implications of a permanent entrance. Pending the outcomes of this study, there may be future scope for additional analysis, however, based on the assessment criteria guided by the CM Act, a permanent entrance is not recommended in the CMP. This may be revisited in light of new information when the CMP is reviewed in approximately 10 years (or sooner, if needed).</p>	No update to CMP required.

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77.11	Enhance public access points along the foreshore	Yes	REC_04	This is a positive action to improve the amenity for the community. \$285k has been estimated, which includes a “comprehensive assessment” so funds for actual works are yet to be identified. This action should be community driven.	Noted.	Wording in the action description has been added highlighting that community consultation will be undertaken during the implementation of this action.
77.12	River erosion upstream and in Berry's canal.	Yes	Various – bank stabilisation and “adaptive” plans	Over \$15million in bank stabilisation works have been included for the river with no funds allocated to removing the silts which are causing much of the erosion. Refer to the report on Berry's canal which notes that despite rock walling the canal will double in size if the Shoalhaven River continues to flood through it. Adaptive plans i.e. “live with it” are not going to address the flooding issues which are demonstrated to have solutions from the 75+ reports on the river.	The bank stabilisation works are intended to, among multiple other benefits, reduce the amount of sediment being washed into the river. Removal of sediments from near the entrance is not considered appropriate nor required.	No update to CMP required.
77.13	Costings The items included which are of direct benefit to Shoalhaven Heads in addressing erosion, access and tourism amount to less than \$.5m even bringing in some benefit from plans and strategies. The major project of the Narooma idea of a living shoreline was not requested by the community and is a force fit on a very small area of the village riverfront.	Deficient		Many items have zero as the cost. Plans and strategies amount to approx. \$3m, Bank Stabilisation \$15.3m, Staffing \$1.5m.	The actions in the CMP that are directly relevant to Shoalhaven Heads (BE_43e, BE_44, CTF_20, ENV_09, ENV_42b), not including the living shoreline action amount to approximately \$1,232,375. The scope and budget for the living shoreline action (BE_46) has been revised in acknowledgement of the difference in scale compared to the Wagonga Inlet project. The intention of this action is to provide multiple benefits to the Shoalhaven Heads community and environment. It will incorporate both ecological and recreational/access features and activate the space for more sustainable recreation. Feedback on this action has been both against and in favour. This has resulted in the action to be kept in the program with the reduced scope and budget. Items with zero cost are considered to be within the normal operating procedure of the lead agency for these actions and are included to show support for the important issues they address and a commitment to continue to implement them.	The budget and scope associated with BE_46 has been reduced based on further consideration of the site and in response to community submissions.
77.14	Stormwater Drains	Deficient	“review and update all asset management plans (AMPs), relevant to the coastal zone within the CMP study area”	This is another area of major concern for the village – the stormwater and flood mitigation systems need urgent attention as they are allowed to erode, flood and pollute the estuary.	The flood mitigation drains in Shoalhaven Heads have been identified as priority sites in the detailed description of action CTF_16a. Council is aware of the poor condition and are prioritising maintenance and repair of these assets (along with others throughout the estuary that are in a similar poor condition).	No update to CMP required.

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78.1	Coastal Swamp: I would like to see a <u>Management Plan</u> developed for the Coastal Swamp at Shoalhaven Heads (located near the Holiday Haven Caravan Park). This is a sensitive and important ecological environment. It is an important water source for local birds and wildlife. A management plan should include protection measures and removal of weeds.	The ecological and tourism value of the Coastal Swamp north of the Holiday Haven Caravan Park is acknowledged. The CMP seeks to support these values through action ENV_39 which allows for environmental protection works such as weed management (including supporting community groups). Additionally, action ENV_21 can support these values by ensuring the PoMs support these works in the Council Managed Crown Land such as the parcel where the Holiday Park and Coastal Swamp are.	ENV_21 has been amended to more clearly support environmental protection works on Council Managed Crown Lands, such as the coastal swamp near Holiday Haven.
78.2	Greater recognition of environmental values and enhanced protection of natural areas at Shoalhaven Heads: Shoalhaven Heads is home to endangered ecological communities (e.g. Bangalay Sand Forest) and many endangered species – including migratory birds such as Eastern Curlews & Godwits, Glossy Black Cockatoos, Greater Gliders and many more. I would like to see greater protection of our environment and more proactive measures to protect it for the future.	The primary action designed to recognise and enhance the environmental values and natural areas at Shoalhaven Heads is BE-46. This action would incorporate habitat features along with recreational and access features to improve the extent and connectivity of foreshore estuarine habitat. Terrestrial biodiversity is supported through action ENV_39 which supports environmental protection works in natural areas including revegetation using native species.	No update to CMP required.
78.3	Planting of more food & habitat trees for our endangered birds (such as casuarinas for the Glossy Blacks – their only food source – these birds lost habitat during the fires & creation of local food sources is important for their future survival). Replacing many of the banksias and other trees that appear to be dying in the area behind the Dunes Track – revitalising this area as it is important for our local birds & wildlife.	Terrestrial biodiversity is supported through action ENV_39 which supports environmental protection works in natural areas including revegetation using native species.	No update to CMP required.
78.4	Restriction of dogs to on-lead only on the beach and in the bush areas around Shoalhaven Heads (including the area surrounding the Dunes Track and Golf Course). Too often I see out of control dogs on the beach and in the bush areas chasing birds and wildlife (including our local Swamp Wallabies). Currently there is a short section on our beach allowing for dogs off leash, but almost <u>everyone</u> ignores this rule and dogs are seen everywhere north of the Surf Club. Many dogs are out of control, and the owners don't seem to be concerned by this. Some out of control dogs have caused injuries to people and other dogs at times including stress to wildlife.	Review and management of responsible pet ownership is a Council process external to the CMP process.	No update to CMP required.
78.5	Restriction of cats to indoors at night (no free roaming cats at night) to protect our wildlife – such as lizards, bandicoots, birds and other wildlife.	Review and management of responsible pet ownership is a Council process external to the CMP process.	No update required
78.6	Protection and recognition of our mudflats and the important habitat and food source they provide to birds including the endangered migratory birds – perhaps including restrictions on the collection of bait by fishermen, harsher penalties for dogs and horses in these areas	ENV_62 supports the protection and recognition of important habitats by provided targeted educational material throughout the estuary.	No update to CMP required.
78.7	Entrance Management for flooding (EMP) - The EMP is redundant and ineffective in times of flooding. The trigger levels guarantee that the floodplain will flood and stay flooded for an extended period. The consultants' pre-emptive comments before a detailed analysis are concerning. A revision of the trigger levels is needed.	The ongoing Floodplain Risk Management Study is undertaking a review of trigger levels with the aim to understand the benefits of lower threshold. This will feed into an updated EMP. The CMP is designed to support the recommendations from that process, and enable proactive entrance management from the coastal management framework perspective.	No update to CMP required.

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79.1	1. With respect, the draft CMP appears to be a 300 page tome of many words and pretty pictures prepared by Rhelm Pty Ltd on behalf of Council but with little or no substance. I can only assume that the costs associated with the preparation of the draft CMP and associated documents may exceed many hundreds of thousands of dollars - and with no concrete results.	<p>The draft CMP is a comprehensive document developed to meet NSW Government requirements for coastal management planning. It provides an evidence-based framework to address key coastal issues, ensuring strategic decision-making and access to State funding for implementation.</p> <p>The CMP process includes technical studies, community consultation, and collaboration with State agencies, which are necessary for developing effective management actions. The investment in the CMP supports long-term coastal resilience and sustainable management, leading to concrete outcomes over time.</p>	No update to CMP required.
79.2	2. In particular, very little is said in the draft CMP about the critical matters of correct flood management including the dredging and permanent opening of the head of the River at the Heads or, in the alternative, the adoption of more sensible and flexible trigger levels (currently 3m at Nowra Bridge and 2m at Shoalhaven Heads) and the maintenance of a dry notch of more sensible height and width at the head of the River at the Heads. Flexibility would be dependent upon high/king tides, weather forecasts and rainfall, river flows etc. Each of these matters are critical to flooding which itself is critical to the health and proper maintenance of the entire area adjacent the River, including not only Shoalhaven Heads but also Greenwell Point etc.	<p>Flood management, including entrance trigger levels, dredging, and flood response, falls under the Floodplain Risk Management framework, which is the appropriate process for assessing and refining flood mitigation strategies. The CMP supports proactive entrance management from a coastal perspective, considering that on balance, it achieves the objectives of the Coastal Management Act. Any changes to entrance management for flood risk reduction will need to be assessed through the Floodplain Risk Management Study and Plan.</p>	No update to CMP required.
79.3	3. It has been indicated that the latter matters are to be dealt with in the Entrance Management Plan (EMP), also to be prepared by Rhelm Pty Ltd. The various and amended draft versions of the EMP as only recently disclosed by Council reveal that the above matters have been also inadequately dealt with in that paper. In any event, the above matters should be dealt with in the CMP as they are integral to the issues the subject of the CMP. To release the draft CMP and presumably that plan in final form before the final form of the EMP is released puts, as it were, the cart before the horse. Put simply, the CMP should deal with the issues of proper flood management of the River and its entrance at the Heads, instead of being the subject of the separate and later EMP.	<p>Flood management, including entrance trigger levels, dredging, and flood response, falls under the Floodplain Risk Management framework, which is the appropriate process for assessing and refining flood mitigation strategies. The CMP supports proactive entrance management from a coastal perspective, considering that on balance, it achieves the objectives of the Coastal Management Act. Any changes to entrance management for flood risk reduction will need to be assessed through the Floodplain Risk Management Study and Plan.</p>	No update to CMP required.
79.4	4. As is reflected in the draft CMP, the current course of the Shoalhaven River is, after the digging of the Berry Canal, artificial. The natural course of that meandering river was through regular openings of the Heads which has been interrupted by the Berry Canal, which itself has been significantly enlarged by river erosion. The problems of Shoalhaven River have been further exacerbated by significant additional run-off from new developments both adjacent the river and from upstream catchment areas.	<p>The artificial nature of the Shoalhaven River is noted and recognised throughout the CMP. Action BE_42 supports the development of a long term adaptation plan in anticipation of continued widening of Berry's Canal.</p> <p>Action ENV_51 focuses on improving development controls for water quality and stormwater management. This ensures that future developments incorporate best-practice stormwater treatment to minimise impacts on estuarine health.</p>	No update to CMP required.
79.5	5. The long term closure of the River at the Heads has had clearly significant adverse effects on the health of the river including reduced river flow, riverbank erosion, flooding, poor water quality, flood wood debris etc. I would add that these adverse effects are not limited to Shoalhaven Heads but include many other lower areas of the river including Greenwell Point etc. They also have a significant adverse economic effects on tourism, oyster farming, boating etc, each of which is vital to the economic and social wellbeing of the wider area.	<p>The CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).</p>	No update to CMP required.
79.6	6. As is evident when the River is open at the Heads, the above adverse effects are almost entirely mitigated (reference is made to the attached table published in the Heads News of November 2024 recording flooding events when the entrance was closed or open etc) and, particular, when the River is open at the Heads (as it was for many months approximately two years ago) the water quality is much improved and floating wood debris is markedly reduced. As a boatowner, I can certainly attest to the latter where much of the wood debris presently floating in the river is partially or wholly hidden and often large in size, causing significant damage to watercraft. In my opinion, it is only a matter of time before a serious boating accident occurs and Council is on clearly notice as to that possibility.	<p>The CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).</p> <p>It is noted that the table published in the Heads News of November 2024 fails to recognise other contributing factors to water levels during flood events such as the volume and distribution of rainfall on the catchment.</p>	No update to CMP required.

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79.7	The attached table in the Heads News clearly evidences that when the Heads are open and the River can discharge directly into the sea, flood events are significantly less frequent and reduced in height and in duration on the rare occasions when occurring.	<p>The CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).</p> <p>It is noted that the table published in the Heads News of November 2024 fails to recognise other contributing factors to water levels during flood events such as the volume and distribution of rainfall on the catchment.</p>	No update to CMP required.
79.8	8. Flooding of the River does not just cause damage and cost to private and public structures (not to mention, in practical terms flood insurance being almost unobtainable), but also public health. During the latest 2024 threatened flood, the warning light alarm at the Hay Ave sewage facility was engaged for at least two days, as I understand it signifying the raw sewage was discharging directly into the River.	<p>Sewerage overflows will continue to be managed by Shoalhaven Water through their licence requirements with the EPA and their Regulatory and Assurance Framework from DCCEEW. Shoalhaven Water also works with their regulators to identify and manage risks to sewer overflows. With these systems and processes in place Shoalhaven Water aims to have nil sewer overflows during dry weather and to minimise sewer overflow during wet weather events. Shoalhaven Water has several programs aimed at minimising sewer overflow including sewer relining, emergency storage, pump replacement program and improvements to their major treatment facilities. These programs are all aimed at ensuring sewer overflows are minimised. In addition, Shoalhaven Water has completed hydraulic modelling to inform strategic improvements to the network however in large rainfall events the system becomes overloaded and, in some areas, completely inundated due to high water levels from flooding particularly in coastal areas. This will continue to be managed by Shoalhaven Water.</p>	No update to CMP required.
79.9	9. Primarily I endorse the permanent opening of the River at the Heads but, in the alternative I also endorse the adoption by Council of sensible trigger levels and the adoption and regular maintenance of sensible height and width of the dry notch at the head of the River. As to the latter, I also endorse the Motion by Robyn Flack, seconded by Phil Guy to mitigate flood damage presented to the Community Forum (as reported in the Heads News dated August 2024), being the adoption of a trigger level at Shoalhaven Heads of 1.5m AHD for mechanical river entrance opening and the maintenance of the dry notch at 1.5m AHD, each for a trial period of five years or three flooding events. Apart from relatively limited costs associated with this option (and which may well be minimal compared to the significant costs to ratepayers of the protracted efforts by Council to prepare the CMP and EMP), the question arises as to why these options would not be tried for the limited time identified in order to assess their efficacy.	<p>Flood management, including entrance trigger levels, dredging, and flood response, falls under the Floodplain Risk Management framework, which is the appropriate process for assessing and refining flood mitigation strategies. The CMP supports proactive entrance management from a coastal perspective, considering that on balance, it achieves the objectives of the Coastal Management Act. Any changes to entrance management for flood risk reduction will need to be assessed through the Floodplain Risk Management Study and Plan.</p>	No update to CMP required.
79.10	10. Reflecting my above comments, I also endorse the comments of Robyn Flack dated 13/12/24 and, in particular Claude Domio dated 5/2/25 to address the manifold problems of the Shoalhaven River.	These submissions have also been considered and responses provided.	No update to CMP required.

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80.1	My expectation for the Lower Shoalhaven CMP was that it would provide an integrated and long-term strategic approach to estuary management. It seems we have developed a similar plan to what we have in the past with site-specific and reactive coastal management. The uncertainty around funding has reduced the capacity to solve strategic issues with integrated holistic planning.	The Lower Shoalhaven River CMP has been developed through a comprehensive and strategic planning process, aligning with the objectives of the NSW Coastal Management Act and the best available scientific assessments. The CMP is not intended to be a static document but provides a framework for ongoing adaptive management that considers environmental, social, and economic values while remaining responsive to new data, funding opportunities, and stakeholder priorities.	No update to CMP required.
80.2	The lack of holistic planning reflects the lack of interconnectedness within the plan of bio-physical forces, such as build up of siltation causing entrance shoaling and the narrowing of channels resulting in bank erosion, hydraulic inefficiency, and a decrease in water quality. Addressing the issue of siltation goes beyond improving navigation, water quality and flood risks, but supports the integrity of the system as a whole including economic, recreational and aesthetic public values.	The CMP recognises the interconnectedness of estuarine processes, including sediment transport, bank erosion, and water quality. While large-scale sediment redistribution or dredging is not included due to feasibility, cost, and environmental considerations, the CMP incorporates multiple actions addressing erosion control, sediment stabilisation, and foreshore rehabilitation. These efforts will contribute to system-wide stability and resilience.	No update to CMP required.
80.3	I feel that the uncertainties around funding have resulted in a programme that does not resolve long term strategic management issues. For example, opportunities for blue carbon initiatives on private and public land to target poor water quality contributors and mitigate risk from undetermined climate drivers have not been adequately considered. Identifying blue carbon opportunities and developing shovel ready projects regardless of the financial implications should be integral to the CMP. Potentially inviting opportunities for philanthropic stakeholders to engage in local and state government partnerships to achieve positive environmental outcomes.	The CMP identifies strategic actions and priorities to guide future investment in estuary management. While immediate funding for all actions is not available at the time of adoption, the CMP provides a structured pathway to leverage state and federal grant programs, private sector partnerships, and other potential sources of funding over the plan's implementation period.	Philanthropic funding opportunities have been mentioned in the Business Plan section of the CMP.
80.4	State government should be accountable for the disconnect between local government coastal zone management planning, financing and state agency priorities. The lack of pro-activity from local Council and State Government to priorities and align strategies is disappointing.	Collaboration across government agencies is fundamental to the CMP. While Council leads the plan's implementation, state and federal agencies, including NSW DPI and TfNSW, have roles in supporting estuarine management. The CMP aligns with existing state planning frameworks, and the actions outlined will facilitate better coordination between different levels of government.	No update to CMP required.
80.5	Given the significance of boating, the need for 'further' investigations as a key management action when implications from boating activities have estuary wide impacts, demonstrates a lack of integrated strategic planning.	The CMP recognises the importance of boating in the Lower Shoalhaven and includes actions such as BOAT_37 and BOAT_38 to improve boating infrastructure and management. However, Council is responsible for managing multiple waterways across the region, and similar boating management actions are also being implemented in other coastal and estuarine areas. While the budget allocation may not meet all expectations, these actions will ensure that boating infrastructure improvements are prioritised strategically across Council's entire waterway network.	No update to CMP required.
80.6	Similarly DPI Safefoods have huge water quality data sets across multiple zones in the lower Shoalhaven. Partnerships with the oysters farmers quality assurance programme could help develop a comprehensive water quality monitoring programme.	The water quality monitoring program as described in action ENV_43 is designed in recognition of Council's role in a network of monitoring programs with different objectives. Council's program, supported by DCCEEW is designed to monitor recreational safety and estuarine health. Other programs, such as the DPI Safefoods program, monitor for potential impacts on food safety. Together these programs provide a more comprehensive understanding than in isolation. Over time, this information will be useful in determining WQ trends, and measuring the impact of development and management.	No update to CMP required.
80.7	Coolangatta Road and Berry Sewerage Plant are missing from the CZEAS 'Key Locations of Risk' this raises concern as to how thorough the consultants engaged were in their investigation.	These assets are not within the hazard extent of the coastal hazards. The CZEAS is strictly limited to addressing only coastal hazards. While these assets maybe impacted by other hazards such as catchment flooding, the Shoalhaven City Flood Emergency Subplan is the appropriate response plan.	No update to CMP required.
80.8	The struggle of not being able to neatly define the Lower Shoalhaven River into one of the four defined social-ecological 'estuary contexts' (ICOL, River Floodplain or coastal lake) means a unique management approach is required.	The CMP acknowledges the unique characteristics of the Lower Shoalhaven River and the associated management challenges. The approach taken in the CMP is tailored to the specific environmental, social, and economic values of the system, ensuring that management actions address the key risks and pressures identified through technical studies and community engagement. The CMP applies a place-based strategy that considers local dynamics, site-specific vulnerabilities, and long-term adaptation needs to support sustainable estuary management.	No update to CMP required.

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80.9	The placement of the living shoreline at Shoalhaven Heads raises questions with regards to the stakeholder engagement process given the feedback from the community identifying this area as a valued recreational space. A holistic approach that identified and categorised the available recreational public access spaces along the Shoalhaven River would have identified Shoalhaven Heads as a key location requiring a unique planning approach.	After further consideration, the living shoreline action is being re-crafted as a less expensive option that will still serve to activate the area for multiple benefits including recreational amenity, environmental values, and public access. This cost reduction considers that this site requires less capital works than the Wagonga Inlet project that the draft budget was based on.	The budget and scope associated with BE_46 has been reduced based on further consideration of the site and in response to community submissions.
80.10	While the CMP captures potential environmental risks, it fails to capture stakeholders day to day lived experience and is inconsistent with the communities' values.	The CMP has been shaped by multiple rounds of stakeholder engagement, technical studies, and agency collaboration. While not all community priorities can be directly incorporated, the plan is designed to provide an adaptive management framework that can respond to emerging issues over time. Ongoing engagement with stakeholders will be a key part of its implementation.	No update to CMP required.
80.11	The unique and complex bio-physical nature of the lower Shoalhaven River requires an integrated long term strategic planning approach which the CMP process has failed to achieve. Shoalhaven City Council should not adopt the lower Shoalhaven River CMP and refer it to the NSW Coastal Council for review.	The CMP is a critical step toward a more strategic and coordinated approach to estuary management. Rather than delaying action, its adoption will allow for structured implementation, refinement based on new data, and continued stakeholder engagement to address the long-term sustainability of the Lower Shoalhaven River. Ministerial review supported by the NSW Coastal Council will determine if the CMP can be certified in accordance with the CM Act.	No update to CMP required.
80.12	In addition to those comments, I'd like to add that I feel the Lower Shoalhaven CMP framework is fundamentally flawed. Given the risk of flooding to the lower Shoalhaven it would seem logical that a flood management strategy would have defining factors in the development of CMP management actions, although neither a flood nor entrance management plan were finalised within a timeframe that could adequately inform outcomes for the CMP.	Flood risk is generally addressed in the Floodplain Risk Management Framework, and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).	No update to CMP required.
80.13	The CMP document is far from user-friendly. I also question the scoring system used to identify areas at risk and public value, as well as how these were presented within the plan. A mapping system (similar to the LEP) showing overlays of the risks and public values, colour coded by priority, would allow the public to better understand the implementation priorities and where the investment is being made and why. Stakeholder engagement in the scoring system may have given it more credibility; as there seems to be inconsistencies when identifying risk.	The CMP has been developed using a structured, evidence-based approach to assess risks and prioritise management actions. The scoring system used to identify areas at risk and public value is based on best-practice coastal and estuarine management frameworks and was informed by technical assessments, agency input, and community feedback. While a mapping system similar to the LEP was not included in the draft CMP, spatial data has been used throughout the process to guide decision-making. The suggestion to improve the visual representation of risk and priority actions through mapping is noted and will be considered for future refinements. Stakeholder engagement has played a key role in shaping the CMP, and all feedback received during the exhibition period is informing the finalisation of the plan.	No update to CMP required.

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81.1	<p>Approvals for land development and major infrastructure projects do not appear to place sufficient emphasis on the impact of climate change and stormwater management. Such future projects will need far greater consideration of the extent of hard surface rainwater run-off collection areas involved in the development and the significant stormwater retention or detention basins that will be needed to minimise the run-off to the Shoalhaven River systems. An example would be the construction of the Gerringong to Nowra freeway. Whilst this is a great piece of roadwork, it has substantially greater stormwater runoff than the old highway. Yet, I am only aware of two small retention basins that were included in this project. Similar issues can be seen with the residential subdivisions and estates that are being developed and planned within the Shoalhaven Regional area.</p>	<p>Large scale approvals and conditions to mitigate impacts are not in scope of the CMP. There are several actions that relate to updating Council's planning policies to address water quality (including stormwater) and coastal hazards such as ENV_51 and CTF_09.</p>	No update to CMP required.
81.2	<p>The process, modelling, and management of the Tallowa Dam level and the opening of the Shoalhaven River at Shoalhaven Heads in relation to forecast severe weather events raise several concerns:</p> <ul style="list-style-type: none"> - The BOM weather forecasts are not used early enough for discharging water from the Tallowa Dam, thereby increasing its ability to hold back water generated by a major weather event. - The river level set point for opening Shoalhaven Heads may be too high. I suggest there may be insufficient consideration of tide levels and storm surge, particularly if a major rainfall event occurs as part of an east coast low weather system. <p>A good example is the April 2016 East Coast low, where, despite heavy rainfall in the Shoalhaven area, river flooding was exacerbated by the storm surge and tides holding back river flow, inundating several low-lying areas, including the Orient Point waterfront reserve. Photos supporting this are shown below.</p>	<p>Flood risk is generally addressed in the Floodplain Risk Management Framework, and is outside the scope of the CMP. However, the Lower Shoalhaven River CMP considers entrance management to be an appropriate action within the coastal zone, where the flood benefits can be adequately shown to be achieved, and the environmental impacts mitigated sufficiently (this is assessed in the Review of Environmental Factors undertaken to support Council's Entrance Management Policy).</p>	No update to CMP required.
81.3	<p>The current rate of riverbank erosion is my greatest concern. Here are a few more points and associated photos in relation to bank erosion:</p> <p>At the western end of the waterfront reserve, where it meets the wetland area, there is an unsealed council service road that provides servicing access to both the waterfront reserve and the sewer pumping station.</p> <p>The riverbank in this area has been completely eroded, and being a very low point, it floods with the slightest increase in the river level. See the photo below, which indicates the level of bank erosion.</p> <p>To prevent further bank erosion in this area, it is suggested that a parking barrier be placed at the end of this road to prevent vehicles from driving onto the bank edge and using the area as a boat ramp for small boat trailers.</p>	<p>Thank you for your submission regarding the ongoing foreshore erosion at the waterfront reserve. We acknowledge the concerns raised about the rapid erosion of the riverbank, the impacts of past engineering works, and the need for a sustainable solution to protect this section of the shoreline.</p> <p>In response to your submission and several others received on this issue, a new action (BE_43i) has been added to the CMP to specifically address foreshore erosion at this location. The detailed information and insights provided in these submissions will be used to inform both the wording of this action and its implementation.</p>	Action (BE_43i) has been added to the CMP to specifically address foreshore erosion at this location
81.4	<p>In front of my house, the reserve rises to the river, a distance of 20 metres. With the current rate of erosion, this hump at the riverbank will be gone in 3–4 years, increasing the risk of flooding substantially.</p> <p>Five (5) metres off my boundary and 15 metres set back from the riverbank is a sewer inspection port for the council sewer line. This is a main sewer line that runs the full length of the Orient Point waterfront reserve and serves as the primary sewer line for most of Orient Point.</p> <p>This sewer line already experiences stormwater ingress, leading to poor toilet flushing and backflow through floor wastes. Many residents along the waterfront reserve have reported these issues, prompting calls to Council's sewerage department during recent heavy rain events in 2024.</p> <p>This council-owned asset is at risk due to the ongoing erosion of the riverbank and inundation from water flowing into the reserve area.</p>	<p>We appreciate the time and effort taken to document these issues and provide photographic evidence, and we look forward to working with the community to develop an effective and sustainable solution.</p>	

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81.5	<p>Groins were constructed along the riverfront reserve in July 2015 using sand, rocks, and geotextile to strengthen the riverbanks.</p> <p>- The following photos show the method used to construct the groins and bank protection. These photos were taken around 22–27 July 2015. During construction, the natural riverbank was destroyed in an attempt to create a sloped beach design.</p> <p>- The rocks used in the bank protection area, as shown in the photos, were small and composed of a clayey/shale-type material. The geotextile was laid, rocks placed on top, and then overlaid with sand. The groins were then constructed at selected locations along the foreshore.</p> <p>- This section of the Orient Point waterfront reserve is a high-velocity impact point for the discharge of floodwaters flowing down the river through the Berry Canal.</p> <p>- While I would like to see the hydrodynamic calculations and design for this riverbank protection scheme, I suspect that they were never completed. The entire design and construction method appears inappropriate, particularly for the high-speed erosion floodwaters that impact the bank.</p> <p>One month after construction was completed (26–27 August 2015), an east coast low and flood occurred.</p> <p>- According to data I obtained, the area experienced approximately 300 mm of rainfall. However, the Greenwell Point Peak River level during this event was 1.30 m AHD, somewhat lower than expected. [See hyperlink below for the report on this flood.](https://s3-ap-southeast-2.amazonaws.com/wwwdata.manly.hydraulics.works/www/publications/floodreport/2015/mhl2397%20NSW%20SOUTH%20COAST%20FLOOD%20SUMMARY%20AUGUST%202015_final.pdf)</p> <p>- The following photos show how the new structure withstood this event. It is evident from the impact of the floods that the design was inadequate.</p> <p>- The floodwaters topped the beach, inclined banks, and caused serious erosion around the groins. Interestingly, as I will discuss later, there was significant riverbank damage midway between the groins.</p> <p>In 2016, one year after the construction of the groins and bank protection work, the NSW coast experienced another east coast low.</p> <p>The following photos show the same area of the riverfront reserve after the peak of the 2016 storm:</p> <ul style="list-style-type: none"> - The driftwood deposition height relative to the properties. - The water level at the council access road. - The receding riverbank from the 2015 construction works. <p>Whilst there has been a small amount of sand aggregation in the corners of the groins, the riverbank sections between the groins have been heavily eroded—faster than ever before. The consequence of this is that the bank is now up to 4–5 metres further back from the works completed in 2015. This is most evident in the photo showing the geotextile applied in 2015, still embedded in the sand, some 4–5 metres forward of the present riverbank position.</p> <p>The following photos, taken in the last week, demonstrate the current state of the riverbank face along the waterfront reserve and in front of Steve Woolley's and my properties. Given the current rate of erosion, it is expected that over the next three months, there will be a collapse and further loss of approximately 500–700 mm of the bank. Immediate action should be taken to address this ongoing erosion.</p> <p>Whilst the groins have worn down due to the use of an incorrect type of stone, the smaller stones used in the bank protection have largely disappeared, leaving the geo-fabric exposed and lying in the sand.</p>	<p>Thank you for your submission regarding the ongoing foreshore erosion at the waterfront reserve. We acknowledge the concerns raised about the rapid erosion of the riverbank, the impacts of past engineering works, and the need for a sustainable solution to protect this section of the shoreline.</p> <p>In response to your submission and several others received on this issue, a new action (BE_43i) has been added to the CMP to specifically address foreshore erosion at this location. The detailed information and insights provided in these submissions will be used to inform both the wording of this action and its implementation.</p> <p>We appreciate the time and effort taken to document these issues and provide photographic evidence, and we look forward to working with the community to develop an effective and sustainable solution.</p>	

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81.6	<p>Another notable change in the river since 2015 is the rapid growth of sandbars. While the Berry Canal is scouring, the downstream section of the river is becoming shallower. The impact of a shallower river is that the water spreads further, exposing the banks to wake, wind waves, and tide action for longer periods.</p> <p>In addition, the groins are being overtapped more frequently, and the resulting foreshore turbulence is generating increased erosion just beyond the groins. My investigations suggest that research into the effectiveness of groins in similar applications indicates that their length, spacing, height, and construction material must be determined through a comprehensive understanding of the site's specific river and sea hydrodynamics.</p> <p>Furthermore, it has generally been found that groins should be constructed in conjunction with an appropriately designed foreshore (or, in this case, riverbank) protection system. This design must account for flows, wave impacts, and water velocities. The mid-groin erosion that is now so evident is frequently noted in international studies where groins have been incorrectly sized and spaced, and where the banks or seashores have lacked adequate structural protection from scour.</p>	Thank you for your submission regarding the ongoing foreshore erosion at the waterfront reserve. We acknowledge the concerns raised about the rapid erosion of the riverbank, the impacts of past engineering works, and the need for a sustainable solution to protect this section of the shoreline.	
81.7	<p>The following photos show the stormwater drain running from Orama Crescent through the children's park and playground area, discharging into the river. The design of this drain's discharge point is inadequate, resulting in significant erosion of the riverfront bank.</p> <p>During flooding events, similar to the council access road at the western end of the reserve, this drain discharge area has become a low point where floodwaters enter the waterfront reserve. Immediate action is required to design a sustainable discharge structure for this drain, fill the eroded areas, and rebuild the riverbank.</p>	<p>In response to your submission and several others received on this issue, a new action (BE_43i) has been added to the CMP to specifically address foreshore erosion at this location. The detailed information and insights provided in these submissions will be used to inform both the wording of this action and its implementation.</p>	
81.8	<p>In closing, it is clear from our recent discussions and the photos presented here that immediate action is required to address the rapid bank erosion caused by poorly designed engineering work undertaken by Shoalhaven Council.</p> <p>A professionally engineered design, tailored specifically for this section of the waterfront reserve, is necessary to remedy the riverbank and stormwater drain issues outlined above.</p>	We appreciate the time and effort taken to document these issues and provide photographic evidence, and we look forward to working with the community to develop an effective and sustainable solution.	
81.9	<p>In our discussion at the CMP forum, we talked about the creation of a new living bank structure. While I do not fully understand the detailed design of such a system, I would like to make the following comments:</p> <p>a) I expect that the majority of residents along this lower section of the waterfront reserve would support a sustainable approach to halting riverbank erosion. Community support for such an initiative could serve as a role model example of Council and the community working together to engineer a solution that is innovative, long-lasting, and effective.</p> <p>b) This area of the reserve is a high-velocity flood zone, and any riverbank structure designed to address the rapid erosion must be capable of withstanding the impact of fast-flowing waters. Simply planting vegetation or stacking driftwood will not be sufficient.</p> <p>c) Given the current rate of erosion and the fact that it is a direct consequence of poor design and engineering works undertaken by the Council, immediate action is required to address the problem.</p>		