



5.8 Local Implementation Plan: Central Coast Council LGA

A summary of the actions within the Central Coast Council Local Implementation Plan are provided in Table 5-7. Maps depicting relevant actions are provided in Appendix B.

Table 5-7 Action Table – The Central Coast Council Local Implementation Plan

CMP Strategy	S4 ID	Functional Zone	Locality	Action Name	Action Description	Lead	Support	Priority (Score)	Timing	Performance Criteria
Strategy 2: Monitoring, Evaluation, and Reporting	S2.CCC.A	Broken Bay	Broken Bay Beaches	Develop and implement a Broken Bay Coastal Monitoring Program	The coastal monitoring program would use progressive monitoring techniques to collect essential information about coastal processes and hazards to improve the management of our beaches. It would include beach surveys to monitor changes in sand volumes, risk exposure, dune condition and beach amenity. The data collected would allow annual Beach Health Reports to be developed and better inform future coastal hazard studies and investigations. Beach usage should be included in the monitoring to better understand current demand and locations requiring further investment in the future.	CCC	DCCEEW	High (30)	Within 1-4 years	Monitoring undertaken and recorded. Collected data is of tangible benefit from a risk and asset management perspective.
Strategy 2: Monitoring, Evaluation, and Reporting	S2.CCC.B	Broken Bay Brisbane Water	Broken Bay Brisbane Water	Develop and implement a program for regular and ongoing monitoring of public coastal assets and infrastructure	This action involves the development and implementation of a monitoring program designed to assess and track the condition of various coastal assets and infrastructure, including: > Coastal protection structures (revetments, seawalls, training walls) > Recreational assets including viewing platforms & coastal access tracks > Stormwater outlets. > Sewer and water infrastructure The program should be integrated into Councils broader asset management program - and should be consistent with the asset monitoring undertaken as part of the Open Coast Beaches CMP.	CCC	N/A	High (24)	Within 1-4 years	Monitoring undertaken and recorded. Collected data is of tangible benefit from a risk and asset management perspective.
Strategy 2: Monitoring, Evaluation, and Reporting	S2.CCC.C	Broken Bay Brisbane Water	Green Point Creek Ettalong Creek Pearl Beach Lagoon	Install permanent water level gauges at key locations within Brisbane Water and Broken Bay	There is currently no permanent water level gauge at a number of key locations within Brisbane Water and Broken Bay. This has resulted in an absence of recorded water level data that can assist in understanding localised impacts of coastal and catchment flooding on the numerous foreshore communities across the waterways and their catchment. This information will be particularly important over future time frames as the impacts of Sea Level Rise become more severe. This action therefore involves the installation of a permanent water level gauges at the following locations: > Green Point Creek > Ettalong Creek > Pearl Beach Lagoon The exact positions of the gauges should be determined in consultation with the State Government, based on an assessment of strategic locations that can achieve the objectives outlined above, whilst maintaining a practical location for installation and maintenance. Furthermore, water level data can be transmitted and published through the MHL web page, and this will help to manage and mitigate estuarine flood risk by providing publicly available water levels in real time.	CCC	DCCEEW	Medium (10)	Within 4-8 years	Gauge implemented and maintained, and data considered to be of tangible benefit for coastal management by Council.
Strategy 3: Resilience, Planning, and Adaptation	S3.CCC.A	Brisbane Water	Brisbane Water	Environmental Conservation zoning for coastal wetland areas	Analysis undertaken in the CMP has identified a number of locations around the Brisbane Water foreshore and waterways where land containing important coastal wetlands mapped under the NSW Hazards and Resilience State Environmental Planning Policy (RH SEPP) is currently not zoned as a "conservation zones" in the Local Environment Plan. This action would therefore involve Council investigating land use planning options for improved coastal and environmental management – including potential rezoning of RHSEPP Mapped coast wetland areas to a C2 (Environmental Conservation). The purpose of a LEP zoning amendment would be to protect and preserve the environmental values of these wetlands for future generations, and to help enhance the resilience of these wetlands to future sea level rise by allowing for upslope migration pathways. The scope of this undertaking should consider the findings of the Central Coast Council Wetland Refugia Study (WRL, 2023)	CCC	DPHI- Planning and Assessment	Medium (8)	Within 4-8 years	LEP Zoning Amendment completed.
Strategy 3: Resilience, Planning, and Adaptation	S3.CCC.B	Brisbane Water	Hardys Bay	Implement the Hardys Bay Foreshore Master Plan	Implement the Foreshore Master Plan (FMP) for Hardys Bay. The FMP would include the following elements: > Provision of recreational amenity and foreshore access > Drainage upgrades > Landscaping and green space design > Habitat restoration and vegetation plans	CCC	N/A	High (24)	Within 1-4 years	Masterplan designed and implemented. Improved recreational amenity, environmental values,



CMP Strategy	S4 ID	Functional Zone	Locality	Action Name	Action Description	Lead	Support	Priority (Score)	Timing	Performance Criteria
					> Protection of Indigenous cultural heritage > Addressing siltation issues at the at the boat ramp, and the potential relocation of the Pretty Beach pool such that it will be suitable for swimming under all tidal conditions and is not subject to sediment build-up. Note that erosion control and shoreline stabilization measures for Hardy Bay and Pretty Beach foreshore areas are described by, and covered in CMP Actions S6.CCC.G, S6.CCC.I, and S6.CCC.J - and those actions will integrate with this Master Plan.					and foreshore resilience.
Strategy 3: Resilience, Planning, and Adaptation	S3.CCC.C	Brisbane Water	Phegans Bay	Implement the Phegans Bay Waterfront Foreshore Master Plan	Council was approached by the Phegans Bay community with concerns that the condition of the foreshore was deteriorating and that if not addressed infrastructure, including Phegans Bay Road, would be compromised. The site was subsequently assessed as a high priority for investigation and a commitment was made to work with the community to develop a masterplan outlining upgrades required to improve the amenity, access, safety and environmental integrity of the site. The FMP would include the following elements: > Provision of recreational amenity and foreshore access > Landscaping and green space design > Habitat restoration and vegetation plans > Protection of Indigenous cultural heritage Council is currently preparing the draft masterplan, and it will be place it on public exhibition for further feedback before finalising it for Council adoption. Note that erosion control and shoreline stabilization measures for Phegans Bay are described by, and covered in CMP Actions S6.CCC.E - and that action will integrate with this Master Plan.	CCC	N/A	High (24)	Within 1-4 years	Masterplan designed and implemented. Improved recreational amenity, environmental values, and foreshore resilience.
Strategy 3: Resilience, Planning, and Adaptation	S3.CCC.D	Brisbane Water	Brisbane Water	Undertake a Planning Proposal to update RH SEPP Coastal Wetlands Mapping for Brisbane Water	Undertake a planning proposal to update the Coastal Wetland Mapping for Brisbane Water in the NSW Resilience and Hazards State Environmental Planning Policy (RH SEPP). This update would be based on the mapping provided in the Brisbane Waters Coastal Wetland Mapping study (ELA, 2022). The Planning Proposal may be submitted in conjunction with the planning proposal for the CVA (see Action S3.CMP.01), and/or it may be submitted in conjunction with a proposal for updates to CMA mapping for areas within the Central Coast LGA subject to a CMP.	CCC	DPHI- Planning and Assessment	High (27)	Within 1-4 years	Planning Proposal completed and RH SEPP Mapping Updated
Strategy 3: Resilience, Planning, and Adaptation	S3.CCC.E	Brisbane Water	LGA Wide	Review and update Council's Development Control Plan	Review and update Councils DCP to maintain consistency with the goals and objectives of the CMP. This would include review and update of: > Chapter 2.12 Waterfront Structures > Chapter 2.17 Character and Scenic Quality > 3.1 Floodplain Management and Water Cycle Management > 3.2 Coastal Hazard Management > 3.3 On-Site Sewage Management > 3.4 Water Catchment Areas > 3.5 Tree and Vegetation Management > 3.6 Heritage Conservation > 3.7 Geotechnical Requirements	CCC	DPHI- Planning and Assessment	High (24)	Within 1-4 years	DCP updated.
Strategy 3: Resilience, Planning, and Adaptation	S3.CCC.F	Entire HNRS	LGA Wide	Compliance auditing of private development encroachment onto public land	Initiate a thorough compliance auditing process to address the issue of private development encroachment onto public land along the Brisbane Water, Lower Hawkesbury River and Broken Bay foreshores. This auditing will encompass a range of activities, including detailed desktop assessments utilizing aerial imagery to identify instances of encroachment. The aim is to ensure that all private developments adhere to established regulations and do not unlawfully extend onto public land. This process will involve cross-referencing current property boundaries with historical records and conducting on-site inspections where necessary. By undertaking this comprehensive audit, we aim to safeguard public spaces, protect natural resources, and uphold the integrity of our coastal environments for the benefit of the community.	CCC	N/A	Low (7)	Opportunistic, within 8-10 Years	Auditing undertaken over CMP 10 year lifecycle.
Strategy 3: Resilience, Planning, and Adaptation	S3.CCC.G	Entire HNRS	LGA Wide	Investigate opportunities to purchase saltmarsh areas for incorporation into Council's reserve system.	The purpose of this action is investigate opportunities for acquiring saltmarsh areas to integrate into Council's reserve system - thereby enhancing environmental protection, biodiversity conservation, and providing a future adaptation pathway for these wetland ecosystems to mitigate sea level rise impacts. This would be in alignment with Councils Wetland Management Policy, specifically > Policy 5.1 Council will investigate options for protecting or acquiring wetlands on private land. > Policy 5.2 Where possible Council will acquire wetlands in accordance with a priority	CCC	N/A	Low (6)	Opportunistic, within 8-10 Years	Study completed.



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					program. Acquisition of wetlands would be in accordance with Council Policy A5.02 Land and Property Transactions.					
Strategy 5: Estuary & Waterway Health	S5.CCC.A	Brisbane Water	Brisbane Water	Water Quality Improvement Plan for Brisbane Water	The Water Quality Improvement Plan (WQIP) for Brisbane Water aims to enhance and protect the water quality of the Brisbane Water estuary and its catchment areas. The plan will outline the actions, responsibilities, and timelines for achieving sustainable water quality improvements. The WQIP will include: > Collation and review of existing water quality data, details on current point source loads to the estuaries, catchment land use data and existing environmental values/water quality objectives > Identify opportunities to collaborate with key stakeholders including the oyster industry and commercial & tourism operators > Catchment Audits: Undertake detailed audits of each sub-catchment across Brisbane Water > Water Quality Assessment and Modelling: Comparisons to be made between actual water quality across Brisbane Water and the identified waterway objectives by way of an effects-based assessment. Where modelling tools are available, these tools will be applied at this stage to enhance the rigour of the assessments. > Management Options: Development of a suite of potential management responses, and evaluate the options based on cost effectiveness and risk treatment. This includes investigation of the use of constructed wetlands, sediment, and detention basins and other WSUD options to minimise the effect of freshwater and sediment inflows, with particular reference to areas of high biodiversity value around entrances to creeks. Consideration should be given to both current and future meteorological conditions. > Action Plan: Define the roles and responsibilities, costs, and timeframes for implementation of the action plan.	CCC	DCCEEW	High (30)	Within 1-4 years	Study completed.
Strategy 5: Estuary & Waterway Health	S5.CCC.B	Brisbane Water	Woy Woy	Investigate the feasibility of Naturalisation of the Austin Butler Drainage Channel	Undertake a feasibility study into the naturalisation the Concrete Drain section of Austin Butler Drainage Channel. The naturalisation project would involve: > Replacing the concrete banks with native wetland vegetation - thereby increasing the number and diversity of native plants and vegetation > Expanding the salt marsh around the creek and creating intertidal rock pools within the channel where possible. The project would improve waterway health through the creation of a wetland to naturally treat and remove pollutants from the water before it enters Brisbane Water The feasibility study would consider: > Impacts of naturalisation on local flood levels. > Impacts of naturalisation on serviceability of drainage infrastructure > Costs/benefits of naturalisation The feasibility study should also investigate other options to improve water quality outcomes from the Austin Butler drain network. This could include installing, biofiltration/sediment/gross pollutant infrastructure where appropriate.	CCC	DCCEEW	Low (5)	Opportunistic, within 8-10 Years	Study completed.
Strategy 5: Estuary & Waterway Health	S5.CCC.C	Entire HNRS	Estuary-Wide	Implement a wetland monitoring, management and restoration program	This would include the development of an LGA wide wetland management strategy for Central Coast Council. This initiative aims to enhance ecosystem health, improve biodiversity, and bolster the resilience of the region's wetlands in the face of climate change and urbanisation. Upon completion of the strategy, this action would include implementation of wetland restoration works in priority locations across the CMP study area. These activities are considered 'Environmental protection works' (EPW) for mapped coastal wetlands and littoral rainforest in accordance with the R&H SEPP, and the Standard Instrument - Principal Local Environmental Plan (2006 EPI 155a). Note that the "works" component of this Action links would be implemented through Action S5.CMP.A. Figure B-1 provides an overview of the potential works areas as identified by the Partner Councils. Figures B-2 onwards provides more local, site specific mapping. These maps include overlays of R&H SEPP Coastal Wetlands and Littoral Rainforest layers, so that areas subject to EPWs are clearly identified. An important component of the wetland management strategy is monitoring. The monitoring program would utilise both physical on-ground monitoring techniques such as floristic surveys as well as remote sensing techniques looking at changes in the wetlands over time in response to climate change.	CCC	DCCEEW	High (27)	Within 1-4 years	Program designed. Restoration works successfully implemented. Monitoring undertaken and show improvement in riparian condition over time.



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Strategy 5: Estuary & Waterway Health	S5.CCC.D	Brisbane Water	Davistown	Green and Golden Bell Frog Key Population Management Plan	The objective of this action is to protect and enhance the Green and Golden Bell Frog (GGBF) populations within the coastal management zones of the Hawkesbury CMP (Davistown), ensuring their long-term viability in the face of estuarine dynamics, human activities, and climate change impacts such as sea level rise. The plan will: > Assess current population health, habitat condition, and key threats. > Identify priority areas for habitat protection, restoration, and connectivity. > Develop adaptive management strategies to mitigate the impacts of estuarine change and sea level rise. > Provide recommendations for water quality management, habitat enhancement, and invasive species control. > Establish monitoring protocols to track population trends and habitat changes over time. > Engage with relevant stakeholders, including local councils, research institutions, environmental groups, and government agencies, to coordinate conservation efforts.	CCC	DCCEEW	High (24)	Within 1-4 years	Plan developed.
Strategy 6: Coastal Hazard Resilience	S6.CCC.A	Brisbane Water	Green Point	Coastal Protection Works at Bayside Drive Reserve	The Brisbane Water Foreshore Prioritisation Tool helps plan and prioritize restoration and stabilisation work along the foreshore. It is regularly updated as conditions and priorities change. In this location, the tool recommends stabilisation using low height native vegetation and ecofeatures to create a 'living foreshore' across key area of the Bayside Drive Reserve Foreshore. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access. Scope of Works: > Foreshore survey (if/where required) > Preparation of an engineering design report and detailed design by suitably qualified engineers – specifying key design parameters. > This living shoreline would include a step-type rock bench structure that incorporates a bench of estuarine vegetation such as salt marsh or mangroves. This may be similar to what has been recently constructed at Davistown Rd, Yattalunga. References: > Figure B-23 provides the location and indicative extent of the proposed CPW. > Figure C-3 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations. Approvals Pathway: The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation.	CCC	DCCEEW	High (24)	Within 1-4 years	Design prepared and works completed. Improved foreshore resilience to coastal hazards.
Strategy 6: Coastal Hazard Resilience	S6.CCC.B	Brisbane Water	Green Point	Coastal Protection Works at Edgewater Avenue Reserve	The Brisbane Water Foreshore Prioritisation Tool helps plan and prioritize restoration and stabilisation work along the foreshore. It is regularly updated as conditions and priorities change. In this location, the tool recommends stabilisation using geotextile sand containers (GSC). As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access. Scope of Works: > Foreshore survey (if/where required) > Preparation of an engineering design report and detailed design by suitably qualified engineers – specifying key design parameters. > Construction of GSC protection works in accordance with the approved detailed design, including site preparation, placement of GSCs to specified alignment and levels, and completion of ancillary works such as reinstatement of adjoining foreshore areas and access paths. References: > Figure B-23 provides the location and indicative extent of the proposed CPW. > Figure C-1 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations. Approvals Pathway:	CCC	DCCEEW	High (24)	Within 1-4 years	Design prepared and works completed. Improved foreshore resilience to coastal hazards.



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					The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation.					
Strategy 6: Coastal Hazard Resilience	S6.CCC.C	Brisbane Water	Davistown	Coastal Protection Works at Illoura Reserve	The Brisbane Water Foreshore Prioritisation Tool helps plan and prioritize restoration and stabilisation work along the foreshore. It is regularly updated as conditions and priorities change. In this location (from Lintern Street to Pyang Avenue), the tool recommends stabilisation using a geotextile sand container structure. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be “activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters”. These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access. Scope of Works: > Foreshore survey (if/where required) > Preparation of an engineering design report and detailed design by suitably qualified engineers – specifying key design parameters. > Construction of GSC protection works in accordance with the approved detailed design, including site preparation, placement of GSCs to specified alignment and levels, and completion of ancillary works such as reinstatement of adjoining foreshore areas and access paths. References: > Figure B-21 provides the location and indicative extent of the proposed CPW. > Figure C-1 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations. Approvals Pathway: The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation.	CCC	DCCEEW	Medium (12)	Within 4-8 years	Design prepared and works completed. Improved foreshore resilience to coastal hazards.
Strategy 6: Coastal Hazard Resilience	S6.CCC.D	Brisbane Water	Koolewong	Coastal Protection Works at Lara Street	The Brisbane Water Foreshore Prioritisation Tool helps plan and prioritize restoration and stabilisation work along the foreshore. It is regularly updated as conditions and priorities change. In this location, the tool recommends stabilisation through repair and renewal of the existing rock armoured seawall and inclusion of “living shoreline” elements which could include inter-tidal/sub-tidal oyster reefs and planting of mangroves where appropriate. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be “activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters”. These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access. Scope of Works: > Foreshore survey (if/where required) > Preparation of an engineering repair design report and detailed design by suitably qualified engineers – specifying key design parameters. > The works will comprise the repair of the structure of a make-safe / functional condition - through the placement of additional rock armour units on the structure in locations where it has experienced significant armour unit loss, core exposure, and loss of crest height and width. The objective would be to extend the life of the structure by another 50+ years. The renewal will ensure long-term protection against coastal hazards and improve the overall safety and resilience of the infrastructure. References: > Figure B-22 provides the location and indicative extent of the proposed CPW. > Figure C-10 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations. Approvals Pathway: The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation.	CCC	DCCEEW	Medium (16)	Within 4-8 years	Design prepared and works completed. Improved foreshore resilience to coastal hazards.
Strategy 6: Coastal	S6.CCC.E	Broken Bay	Phegans Bay	Coastal Protection Works at Phegans Bay Road	The Brisbane Water Foreshore Prioritisation Tool helps plan and prioritize restoration and stabilisation work along the foreshore. It is regularly updated as conditions and priorities change. In this location, the tool recommends the implementation of a “living shoreline” across	CCC	DCCEEW, DPHI-Crown Lands,	Medium (12)	Within 4-8 years	Design prepared and works completed. Improved foreshore



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Hazard Resilience					the 380 m stretch of foreshore located west of the Phegans Bay Road. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be “activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters”. These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access. Scope of Works: > Foreshore survey (if/where required) > Preparation of an engineering design report and detailed design by suitably qualified engineers – specifying key design parameters. > This living shoreline would include a step-type rock bench structure that incorporates a bench of estuarine vegetation such as salt marsh or mangroves. This may be similar to what has been constructed at Davistown Rd, Yattalunga. References: > Figure B-22 provides the location and indicative extent of the proposed CPW. > Figure C-3 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations. Approvals Pathway: The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. This area is covered by the Phegans Bay Foreshore Masterplan and the objectives of that plan should also be considered in the restoration if this foreshore (see Action S3.CC.C).					resilience to coastal hazards.
Strategy 6: Coastal Hazard Resilience	S6.CCC.F	Brisbane Water	Booker Bay	Coastal Protection Works at Rip Road Reserve	Rip Road Reserve was identified as a high priority site for foreshore stabilisation due to significant active erosion and the presence of important Aboriginal cultural heritage items. Detailed site investigations and designs of the foreshore stabilisation works have been prepared (RHDHV, 2020) for composite seawall structure. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be “activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters”. These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access. Scope of Works: > Construction of the approved design, as per RHDHV (2020). The design includes two components: A sandstone block seawall to protect the Aboriginal shell midden, and a sloped revetment to protect the foreshore of the reserve further to the west. References: > Figure B-21 provides the location and indicative extent of the proposed CPW. > Figure C-13 provides a concept design cross-section from RHDHV (2020). Approvals Pathway: The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation.	CCC	DCCEEW	High (24)	Within 1-4 years	Design prepared and works completed. Improved foreshore resilience to coastal hazards.
Strategy 6: Coastal Hazard Resilience	S6.CCC.G	Brisbane Water	Hardys Bay	Coastal Protection Works at the Hardys Bay extension wharf	Erosion along the foreshore near the Hardys Bay extension wharf (at 25-19 Hardys Bay Pde) is putting key infrastructure at risk, including Hardys Bay Parade, which in some areas is less than one metre from the eroded scarp. The Brisbane Water Foreshore Prioritisation Tool helps plan and prioritize restoration and stabilisation work along the foreshore. It is regularly updated as conditions and priorities change. In this location, the tool recommends stabilisation through repair and renewal of the existing rip rap seawall - focussing on the stretch approximately 50 metres on either side of the wharf. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be “activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters”. These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access. Scope of Works: > Foreshore survey (if/where required) > Preparation of an engineering repair design report and detailed design by suitably qualified	CCC	DCCEEW	Medium (21)	Within 4-8 years	Design prepared and works completed. Improved foreshore resilience to coastal hazards.



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					engineers – specifying key design parameters. > Repairs work will comprise the placement of additional rock armour units, and the repacking of existing rock armour units to improve interlocking and stability, and to stabilise existing areas of core/backfill exposure. References: > Figure B-19 provides the location and indicative extent of the proposed CPW. > Figure C-11 provides a repair concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations. Approvals Pathway: The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. This area is covered by the Hardys Bay Foreshore Masterplan and the objectives of that plan should also be considered in the restoration if this foreshore (see Action S3.CC.B).					
Strategy 6: Coastal Hazard Resilience	S6.CCC.H	Brisbane Water	Hardys Bay	Investigate the potential inclusion of RSL Creek and Mudflat Creek in the Central Coast Council Priority Creek Program	As part of the Central Coast Council's Priority Creek Program, high-priority creeks across the LGA are actively managed to help maintain adopted flood planning levels and reduce the risk of flooding to nearby developments. This work includes creek stabilisation, repair projects, and the ongoing management of sediment, debris, and vegetation build-up. This action proposes an initial investigation to assess whether RSL Creek and Mudflat Creek should be added to the program. The investigation would consider flood risk, environmental health, maintenance needs, and alignment with program objectives. Recommendations would inform future decisions regarding the inclusion of these creeks in the program.	CCC	N/A	Medium (14)	Within 4-8 years	Study completed.
Strategy 6: Coastal Hazard Resilience	S6.CCC.I	Brisbane Water	Hardys Bay	Coastal Protection Works at Araluen Drive Reserve	The Brisbane Water Foreshore Prioritisation Tool helps plan and prioritize restoration and stabilisation work along the foreshore. It is regularly updated as conditions and priorities change. In this location, the tool recommends the implementation of a "living shoreline" across the 360 m stretch of foreshore located west of the Hardys Bay public wharf. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access. Scope of Works: > Foreshore survey (if/where required) > Preparation of an engineering design report and detailed design by suitably qualified engineers – specifying key design parameters. > This living shoreline would include a step-type rock bench structure that incorporates a bench of estuarine vegetation such as salt marsh or mangroves. This may be similar to what has been constructed at Davistown Rd, Yattalunga. References: > Figure B-19 provides the location and indicative extent of the proposed CPW. > Figure C-3 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations. Approvals Pathway: The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. This area is covered by the Hardys Bay Foreshore Masterplan and the objectives of that plan should also be considered in the restoration if this foreshore (see Action S3.CC.02).	CCC	DCCEEW	High (24)	Within 1-4 years	Design prepared and works completed. Improved foreshore resilience to coastal hazards.
Strategy 6: Coastal Hazard Resilience	S6.CCC.J	Brisbane Water	Pretty Beach	Coastal Protection Works at Pretty Beach Road	The Brisbane Water Foreshore Prioritisation Tool helps plan and prioritize restoration and stabilisation work along the foreshore. It is regularly updated as conditions and priorities change. In this location, the tool recommends stabilisation through the implementation of a "living shoreline" across the 620-metre stretch of foreshore along Pretty Beach Road. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the	CCC	DCCEEW	High (24)	Within 1-4 years	Design prepared and works completed. Improved foreshore resilience to coastal hazards.



CMP Strategy	S4 ID	Functional Zone	Locality	Action Name	Action Description	Lead	Support	Priority (Score)	Timing	Performance Criteria
					resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access. Scope of Works: > Foreshore survey (if/where required) > Preparation of an engineering design report and detailed design by suitably qualified engineers – specifying key design parameters. > This living shoreline would include a step-type rock bench structure that incorporates a bench of estuarine vegetation such as salt marsh or mangroves. This may be similar to what has been constructed at Davistown Rd, Yattalunga. References: > Figure B-19 provides the location and indicative extent of the proposed CPW. > Figure C-3 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations. Approvals Pathway: The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation. This area is covered by the Hardys Bay Foreshore Masterplan (S3.CCC.B) and the objectives of that plan should also be considered in the restoration if this foreshore - along with flood mitigation (inundation and overland flooding), which is key considerations in the design process.					
Strategy 6: Coastal Hazard Resilience	S6.CCC.K	Brisbane Water	Wagstaffe	Coastal Protection Works at Wagstaffe Wharf	The Brisbane Water Foreshore Prioritisation Tool helps plan and prioritize restoration and stabilisation work along the foreshore. It is regularly updated as conditions and priorities change. In this location (at the end of Mulhall Street), the tool recommends stabilisation works to protect the wastewater pump station south of the wharf - using a geotextile sand container structure. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be “activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters”. These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access. Scope of Works: > Foreshore survey (if/where required) > Preparation of an engineering design report and detailed design by suitably qualified engineers – specifying key design parameters. > Construction of GSC protection works in accordance with the approved detailed design, including site preparation, placement of GSCs to specified alignment and levels, and completion of ancillary works such as reinstatement of adjoining foreshore areas and access paths. References: > Figure B-19 provides the location and indicative extent of the proposed CPW. > Figure C-1 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations. Approvals Pathway: The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation.	CCC	DCCEEW	Medium (14)	Within 4-8 years	Design prepared and works completed. Improved foreshore resilience to coastal hazards.
Strategy 6: Coastal Hazard Resilience	S6.CCC.L	Brisbane Water	Ettalong	Repair and renewal of the Lance Webb Reserve Coastal Protection Works	Asset condition inspections by Central Coast Council have indicated that the Lance Webb Reserve Seawall is in a relatively poor structural condition. A repair and renewal project will be undertaken to maintain the function of the structure, extend the functional life, and adapt it for future sea level rise impacts. The objective of this repair would be to return the structure to a “make safe” condition, and extend the life of the structure by another 50+ years. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be “activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters”. These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access. Scope of Works:	CCC	DCCEEW	High (27)	Within 1-4 years	Design prepared and works completed. Improved foreshore resilience to coastal hazards.



CMP Strategy	S4 ID	Functional Zone	Locality	Action Name	Action Description	Lead	Support	Priority (Score)	Timing	Performance Criteria
					> Structure Survey and coastal engineering condition inspection: To survey the structure and identify the nature of the required repair and renewal works > Repair and renewal design: To prepare a specific repair design detailing the sizing and quantity of the required armour, and specifying the required grades and levels. > Repair and renewal works: Implementation of the repair design, including a safety in design assessment, construction of the works and development of As-Constructed certification from a suitably qualified engineer for Council records. The works will comprise the repair of the structure of a make-safe / functional condition - through the placement of additional rock armour units on the structure in locations where it has experienced significant armour unit loss, core exposure, and loss of crest height and width. The objective would be to extend the life of the structure by another 50+ years. The renewal will ensure long-term protection against coastal hazards and improve the overall safety and resilience of the infrastructure. References: > Figure B-19 provides the location and indicative extent of the proposed CPW. > Figure C-11 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations. Approvals Pathway: The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation.					
Strategy 6: Coastal Hazard Resilience	S6.CCC.M	Broken Bay	Ettalong	Ettalong Beach Foreshore Stabilisation Investigation	Ettalong Beach has experienced chronic erosion since the 1940s, with ongoing shoreline recession affecting both recreational use and coastal infrastructure. The foreshore is currently protected by the Lance Webb Reserve seawall, which is in poor structural condition (see Action S6.CCC.10), and is periodically nourished through the entrance dredging program. However, the highly dynamic coastal processes at Ettalong Beach have resulted in rapid loss of nourished sand, often leaving the beach in an eroded state. This not only reduces recreational amenity for locals and visitors but also increases the risk of undermining the seawall foundations. This study will investigate long-term stabilisation strategies to maintain a sandy beach state at Ettalong Beach, including: >Assessment of Local Coastal Processes – Development of a morphological conceptual model. > Numerical Modelling of Existing Conditions – Establishing a base case scenario. > Modelling of Potential Stabilisation Options – Testing nourishment volumes and potential groyne field configurations to improve sand retention (including consideration of the existing groynes along Ettalong Beach). > Identification of potential adverse impacts on coastal processes and ecology > Recommendations for Long-Term Foreshore Management – Providing strategic guidance for inclusion in future CMP revisions.	CCC	DCCEEW, DPHI-Crown Lands,	Medium (12)	Within 4-8 years	Study completed.
Strategy 6: Coastal Hazard Resilience	S6.CCC.N	Broken Bay	Umina Beach	Prepare and Implement a Broken Bay Beach Nourishment Framework	Coastal erosion poses a persistent risk to infrastructure, public access, and recreational amenity across the beaches of Broken Bay. While natural sand movement plays a significant role in shaping these beaches, targeted sand nourishment can be a valuable management tool to help maintain beach volume and reduce erosion risk - and is considered to be the preferred form of Coastal Protection Works along Ocean-Umina Beach. At the same time, the NSW Government periodically undertakes dredging works in the Ettalong Channel - generating sand that can be beneficially reused for beach nourishment. However, in the absence of a clear local framework, decisions about where to place dredged sand are often made without full consideration of local erosion risks, beach conditions, or community priorities. This action aims to develop a Beach Nourishment Framework that enables Council to proactively plan, prioritise, and coordinate sand placement across Pearl, Ocean, Umina, and Ettalong Beaches. It would guide local decision-making, support more effective collaboration with State Government agencies, and help maximise the community and environmental benefits of available sand resources.	CCC	DCCEEW, TfNSW	High (24)	Within 1-4 years	Framework prepared.
Strategy 6: Coastal Hazard Resilience	S6.CCC.O	Broken Bay	Umina Beach	Implement the Umina-Ocean Beach Erosion	The Umina-Ocean Beach Erosion Management Strategy (RHDHV, 2019) provides a detailed framework for managing coastal erosion at Umina-Ocean Beach over the long term. This strategy was developed based on extensive technical studies of the complex coastal dynamics of Broken Bay and involved collaboration with State Government Agencies.	CCC	DCCEEW	Medium (10)	As determined by Trigger thresholds	Design prepared and works completed in a timely manner if trigger(s) reached.



CMP Strategy	S4 ID	Functional Zone	Locality	Action Name	Action Description	Lead	Support	Priority (Score)	Timing	Performance Criteria
				Management Strategy	The preferred approach to managing coastal erosion risk at Umina-Ocean Beach is through beach nourishment – as developed through the Broken Bay Beach Nourishment Framework (see Action S6.CCC.N). However, Erosion Management Strategy also includes provision for the future construction of a terminal protection structure (TPS) - if coastal erosion reaches a trigger point where it significantly threatens critical infrastructure along the Esplanade. The strategy outlines a concept design for coastal protection, which features: > A rock-armoured revetment stretching from Kourung Street Boat Ramp to Ocean Beach SLSC and > A stepped concrete seawall in front of the Ocean Beach SLSC (RHDHV, 2019). As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be “activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters”. These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access. Scope of Works: > Development of a trigger for installation of coastal protection works. This should be based on the proximity of observed (or predicted) coastal erosion to key assets and infrastructure – to a point where erosion is believed to place key assets and infrastructure at risk. It is Council's strong preference to maintain a natural dune profile in front of Ocean Beach SLSC for as long as this remains feasible. Council would endeavour to maintain and enhance the existing dune buffer by a combination of vegetation planting and maintenance, beach scraping to enhance beach recovery following storm erosion, and opportunistic beach nourishment campaigns using sand sourced from entrance maintenance dredging. As such, the installation of a TPS in the form of a stepped concrete seawall would only be considered as a last resort option if progressive erosion results in the complete loss of the foredune (RHDHV, 2020). The trigger to undertake the CPWs should also include any major upgrades of The Esplanade and associated foreshore amenities. > Preparation of a detailed engineering design report and detailed design by suitably qualified engineers – specifying key design parameters. Additionally, there will be community engagement to ensure public input and feedback are incorporated into the final design, promoting transparency and local support for the project. > Implementation of the Coastal Monitoring Program (see Action S2.CCC.A) – to determine when triggers for implementation may be reached. This action therefore includes the ongoing implementation of this strategy, which includes developing detailed designs for the coastal protection works – so that the works can be implemented if/when erosion triggers are reached at some point in the future. References: > Figure B-18 provides the location and indicative extent of the proposed CPW. > Figure C-14 and 15 provides a concept design cross-sections for the rock armoured revetment and the stepped concrete seawall respectively. Note that key design parameters would be refined as part of detailed design investigations. Approvals Pathway: The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation.					
Strategy 6: Coastal Hazard Resilience	S6.CCC.P	Broken Bay	Umina Beach	Monitoring and improvement of coastal stormwater outlets	The inspection of all coastal stormwater outlets to identify those at risk from coastal hazards and opportunities where upgrades can be implemented or retrofitted in order to protect assets, reduce erosion from stormwater scour and/or improve public safety. These locations would also be regularly monitored to assess performance and improvements.	CCC	N/A	Medium (14)	Within 4-8 years	Program for inspection of stormwater outlets developed, inspections undertaken and concept designs developed Improved public safety, water quality and amenity Reduced erosion at stormwater outlets



CMP Strategy	S4 ID	Functional Zone	Locality	Action Name	Action Description	Lead	Support	Priority (Score)	Timing	Performance Criteria
										and reduced impact on surrounding assets
Strategy 6: Coastal Hazard Resilience	S6.CCC.Q	Broken Bay	Pearl Beach	Coastal Protection Works at Pearl Beach	This action involves beach nourishment and the restoration and revegetation of 200 m of foreshore along Pearl Beach - from Emerald Ave to Tourmaline Ave. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access. Scope of Works: > Foreshore survey (if/where required) > Preparation of an engineering design report and detailed nourishment design by suitably qualified engineers – specifying key design parameters. > An ongoing program of beach scraping / beach nourishment to surcharge the upper beach profile and the foredune with additional sand > Revegetation and restoration works to extend the vegetated foredune areas landwards by around 10 m. These works would be intended to increase the natural resilience of the foreshore to coastal erosion and inundation. References: > Figure B-17 provides the location and indicative extent of the proposed CPW. > Figure C-8 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations. Approvals Pathway: The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation.	CCC	DCCEEW, DPHI-Crown Lands,	High (24)	Within 1-4 years	Design prepared and works completed. Improved foreshore resilience to coastal hazards.
Strategy 6: Coastal Hazard Resilience	S6.CCC.R	Broken Bay	Patonga	Repair and renewal of Patonga Coastal Protection Works	Undertake the repair and renewal of the Patonga Seawall at the Boat Ramp Reserve - to ensure it effectively protects the coastline, surrounding infrastructure, and community from coastal erosion, storm surges, and rising sea levels. This initiative will address current structural deficiencies and future-proof the seawall to meet the challenges of a changing climate. As per the CM Act, these works would be classified as Coastal Protection Works (CPW), as they are considered to be "activities or works to reduce the impact of coastal hazards on land adjacent to tidal waters". These coastal protection works form part of a strategic program to enhance the resilience and accessibility across the HNRS public foreshore. Beyond stabilising the site, they advance CMP objectives by protecting public assets, safeguarding public open space, and maintaining sustainable waterfront access. Scope of Works: > Structure Survey and coastal engineering condition inspection: To survey the structure and identify the nature of the required repair and renewal works > Repair and renewal design: To prepare a specific repair design - including the required armour materials, grades and levels. > Repair and renewal works: Implementation of the repair design, including a safety in design assessment, construction of the works and development of As-Constructed certification from a suitably qualified engineer for Council records. The works will likely comprise the installation of a filter layer and repacking of re-placement of sandstone block units. The renewal will ensure long-term protection against coastal hazards and improve the overall safety and resilience of the infrastructure. References: > Figure B-16 provides the location and indicative extent of the proposed CPW. > Figure C-9 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations. Approvals Pathway: The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation.	CCC	DCCEEW	High (30)	Within 1-4 years	Design prepared and works completed. Improved foreshore resilience to coastal hazards.
Strategy 6: Coastal	S6.CCC.S	Broken Bay	Patonga	Patonga Sand Management Plan	Investigate and design a sand management plan for Patonga Beach and Patonga Creek. The action would contain the following key elements: > A detailed investigation of the local sediment transport processes. A key outcome of this	CCC	DCCEEW	Medium (12)	Within 4-8 years	Study completed.



CMP Strategy	S4 ID	Functional Zone	Locality	Action Name	Action Description	Lead	Support	Priority (Score)	Timing	Performance Criteria
Hazard Resilience					model would be an enhanced understanding of the local sediment dynamics - including a quantified sediment budget that includes sediment exchange between the creek and beach. This would include investigation erosive process currently occurring in the creek such as along Larkins Flat. > Development of a sand redistribution program to improve the coastal hazard resilience of key foreshore assets and infrastructure. This would involve an ongoing program of the redistribution of sand sourced from western beach and creek entrance shoals to be placed in front of Patonga Drive to provide a buffer against storm erosion. > This should also investigate opportunities for periodic maintenance dredging of sand from the creek entrance providing a viable source of sand.					
Strategy 6: Coastal Hazard Resilience	S6.CCC.T	Broken Bay	Patonga	Repair and renewal of the Patonga Creek Coastal Protection Works	The Patonga Creek foreshore protection works, which are constructed of stepped sandstone blocks, is in need of repair. It is recommended that a repair and renewal project is undertaken to maintain the function of the structure, extend the functional life, and adapt it for future sea level rise impacts. Repair and renewal works would likely comprise the re-packing of displaced or unstable sandstone block units, and the placement of additional sandstone block units to increase interlocking and hydraulic stability. It may also include incorporation of improved access arrangements for small watercraft – however this would be subject to a design process. Scope of Works: > Structure Survey and coastal engineering condition inspection: To survey the structure and identify the nature of the required repair and renewal works > Repair and renewal design: To prepare a specific repair design - including the required armour materials, grades and levels. > Repair and renewal works: Implementation of the repair design, including a safety in design assessment, construction of the works and development of As-Constructed certification from a suitably qualified engineer for Council records. The works will likely comprise the installation of a filter layer and repacking of re-placement of sandstone block units. The renewal will ensure long-term protection against coastal hazards and improve the overall safety and resilience of the infrastructure. References: > Figure B-16 provides the location and indicative extent of the proposed CPW. > Figure C-9 provides a concept design cross-section. Note that key design parameters would be refined as part of detailed design investigations. Approvals Pathway: The foreshore works are categorised as CPW and will be undertaken using the streamlined approval pathways under Section 2.16(2)(a) of the R&H SEPP during action implementation.	CCC	DCCEEW	High (24)	Within 1-4 years	Design prepared and works completed. Improved foreshore resilience to coastal hazards.
Strategy 6: Coastal Hazard Resilience	S6.CCC.U	Broken Bay	Patonga	Patonga Levee Feasibility Investigation and Design	Sea Level Rise (SLR) inundation mapping indicates that under a +0.5 m SLR scenario, some areas of Patonga will be exposed to sunny day king tide inundation. Under a future +1.0 m SLR scenario the potentially impacted areas increases significantly. Subsequently, Council should undertake a feasibility investigation of implementing a vegetated earthen levee along the western foreshore of Patonga, adjacent to Patonga Creek. The levee would be located on public reserve and would extend from approximately from Merroo Avenue to Jacaranda Avenue. The feasibility study would include: > Problem Definition and Objectives > Site Assessment (survey geotechnical assessment, hydrology, land ownership, and utilities) > Concept Design Options and Associated Cost Estimates > Environmental and Planning Constraints > Social and Community Considerations > Recommendations	CCC	DCCEEW	Medium (9)	Within 4-8 years	Study completed.
Strategy 6: Coastal Hazard Resilience	S6.CCC.V	Broken Bay	Broken Bay Beaches	Review and implement updated Beach Maintenance Program	Council's Beach Maintenance Program would be reviewed and implemented to improve public beach access, amenity and safety. The action would include prioritisation and upgrades to beach accessways in line with the Recreational Use Study and Council's Disability Inclusion Action Plan. The program would outline the management of post-storm beach access and safety, where small scale works such as beach scraping for amenity purposes may be undertaken and beach and dune fencing. It will also include an audit on beach maintenance operations to maximise inhouse efficiencies to ensure that the necessary plant and equipment is available to effectively implement the program.	CCC	DCCEEW	High (30)	Within 1-4 years	Beach Maintenance Program reviewed, updated and implemented in conjunction with Council's beach maintenance crews. Improved beach access, safety and



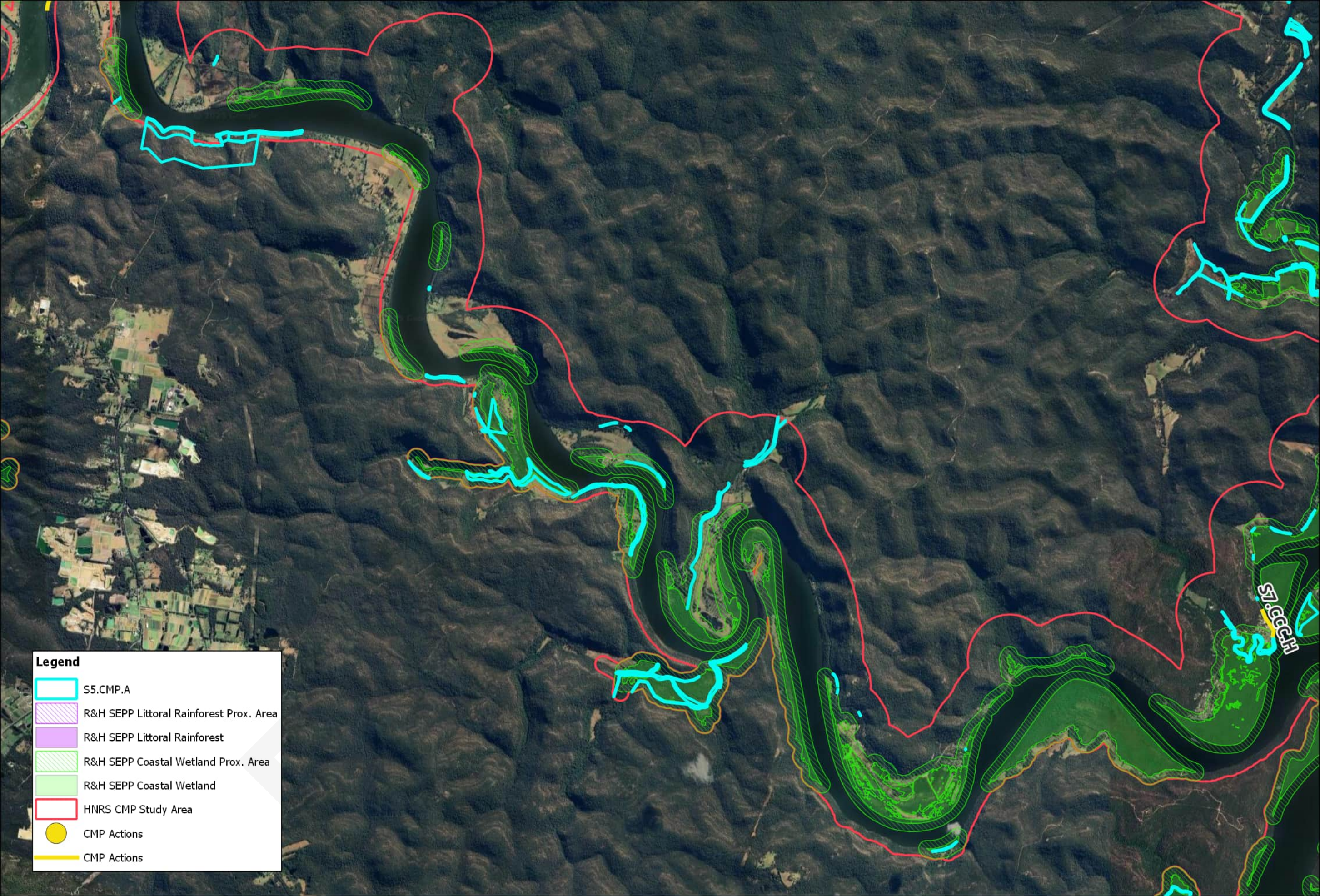
CMP Strategy	S4 ID	Functional Zone	Locality	Action Name	Action Description	Lead	Support	Priority (Score)	Timing	Performance Criteria
										amenity, improved dune environment
Strategy 6: Coastal Hazard Resilience	S6.CCC.W	Broken Bay	Broken Bay Beaches	Develop and implement a coastal vegetation and dune management strategy	This action would involve surveying coastal and dune vegetation to inform the development of a Coastal Vegetation Strategy aimed at supporting and enhancing coastal resilience, ecosystem integrity, beach amenity and conservation outcomes. The strategy will guide the on-ground management to achieve these outcomes and involve elements such as the management of priority weed species, dune stabilisation and planting, tree restoration and succession planting, education opportunities for the public and community groups and remediation actions required in instances of illegal clearing.	CCC	DCCEEW	High (27)	Within 1-4 years	Strategy developed, published and implemented
Strategy 6: Coastal Hazard Resilience	S6.CCC.X	Broken Bay	Broken Bay	Implement recommendations from Gosford Lagoons & Creek Entrance Management Review (Salients 2017) for Green Point Creek, Pearl Beach Lagoon and Ettalong Creek.	This action would include updating the Opening of Coastal Lagoons policy to include recommendations of the Gosford Lagoon and Creek Entrance Management Review (Salients 2017). These recommendations relate to Green Point Creek, Pearl Beach Lagoon and Ettalong Creek, and include the identification of triggers for entrance management intervention to mitigate flood impacts in low lying areas.	CCC	DCCEEW	High (27)	Within 1-4 years	Works implemented.
Strategy 7: Social and Recreational Amenity	S7.CCC.A	Broken Bay	Gosford	Support the Gosford Foreshore Masterplan	This action would seek to identify and support components of the Gosford Foreshore Masterplan that relate to estuary management. The intention of this action would be to embed the consideration of water quality outcomes and improvement to estuarine habitat as part of any future detailed design processes. This would also include embedding coastal hazard resilience into the development design (especially coastal inundation).	CCC	DCCEEW, Hunter Central Coast Development Corporation (HCCDC)	Medium (8)	Within 4-8 years	Masterplan design appropriately embeds water quality outcomes in design.
Strategy 7: Social and Recreational Amenity	S7.CCC.B	Broken Bay	Ocean Beach	Construction of an all-abilities beach access point at Ocean Beach SLSC	The project involves the construction of a dedicated all-abilities beach access point at Ocean Beach Surf Life Saving Club (SLSC). This initiative aims to enhance beach accessibility, ensuring that all members of the community, regardless of their physical abilities, can enjoy the beach and its amenities. This action is consistent with Council's Disability Inclusion Action Plan (Central Coast Council 2021) which has four focus areas, one of which is "2: Making the Central Coast more accessible, inclusive and liveable", and one of the objectives is "We will make it easier to access the places we love on the Central Coast – the beaches, waterways and bushland". It is also consistent with the Central Coast Recreational Use Study Stage 1: Open Coast and Coastal Lagoons - Improving and increasing disabled access with states that "Council should work with SLS clubs to ensure that they all have either beach access wheelchairs or beach mats".	CCC	N/A	Medium (9)	Within 4-8 years	Increased accessibility at Ocean Beach.
Strategy 7: Social and Recreational Amenity	S7.CCC.C	Broken Bay	Patonga	Develop and implement a foreshore masterplan for Patonga Creek	This master planning process would provide an holistic vision for the Patonga Creek foreshore. Key elements of the plan would include: > Parking and amenities > Safe and equitable foreshore access > Riparian vegetation management > Dingy/water craft storage > Road drainage and management of overland flow The master plan will be developed through stakeholder engagement, site analysis, and alignment with relevant coastal management policies. The outcome will be a clear, actionable strategy to ensure the long-term sustainability and enjoyment of the Patonga Creek foreshore.	CCC	N/A	Medium (16)	Within 4-8 years	Masterplan designed and implemented. Improved recreational amenity, environmental values, and foreshore resilience.
Strategy 7: Social and Recreational Amenity	S7.CCC.D	Broken Bay	Pearl Beach	Feasibility Investigation: Ambulant Access at Pearl Beach Rock Pool Access	This feasibility investigation will assess options for a low-impact handrail to assist ambulant access from the sand at Pearl Beach to the rock pool platform. The study will consider the environmental, structural, and accessibility requirements for a minimal-intervention solution that enhances safety while preserving the natural character of the area. Key elements of the investigation will include site assessments, design feasibility, regulatory considerations, and potential impacts on coastal processes.	CCC	N/A	Medium (12)	Within 4-8 years	Study completed.



CMP Strategy	S4 ID	Functional Zone	Locality	Action Name	Action Description	Lead	Support	Priority (Score)	Timing	Performance Criteria
					Community consultation will form an essential part of the study, ensuring that a range of viewpoints are considered in selecting the most suitable option. This will involve engaging local stakeholders to explore preferences for materials, positioning, and design. The investigation will result in a summary report outlining feasible design options, estimated costs, and implementation considerations for Council's review.					
Strategy 7: Social and Recreational Amenity	S7.CCC.E	Broken Bay	Broken Bay Beaches	Prioritise and upgrade beach life guard patrol towers and ancillary structures	This action would involve undertaking an audit of beach life guard patrol towers and ancillary structures to ensure their adequacy, performance and safety from coastal hazards. Necessary upgrades and improvements required would be prioritised and implemented to ensure required functions continue to be performed.	CCC	N/A	Low (7)	Opportunistic, within 8-10 Years	Vulnerable life guard patrol towers identified and improvements/upgrades implemented
Strategy 7: Social and Recreational Amenity	S7.CCC.F	Broken Bay	Broken Bay Beaches	Review waste collection assets and servicing in coastal public spaces	Work with internal business units and service providers to review the adequacy of waste collection assets and servicing along the coast. The review would be focused on ensuring that infrastructure and assets are sufficient to meet current demands, seasonal and event variations and opportunities for improvement to reduce the environmental and amenity impacts from marine litter and debris. This action should also include the management of post-storm and flood debris.	CCC	N/A	Medium (10)	Within 4-8 years	Waste collection assets identified and upgraded. Management plan for removal of post storm debris developed and implemented.
Strategy 7: Social and Recreational Amenity	S7.CCC.G	LGA Wide	LGA Wide	Prepare Central Coast Council Dinghy Management Plan	Dinghies and other small watercraft are a popular way to access the public foreshores across Council's waterways. However, better management is needed to balance accessibility with environmental protection and community use of foreshore reserves. A Strategic Dinghy Management Plan would guide the responsible storage and use of dinghies on public land, ensuring they are kept in designated areas and do not obstruct shared spaces. The goal of the plan would be to: > Establish and maintain designated dinghy storage facilities to support authorised vessels while aligning with Council's open space objectives. > Maintain high-quality foreshore reserves for the enjoyment of the whole community. > Minimise environmental impacts, safety hazards, and obstructions caused by unattended watercraft. > Provide a framework for the removal of unclaimed or improperly stored dinghies from public land. The development of the plan should consider alignment with the Central Coast Watercraft Storage on Public Land Policy (CCC086)	CCC	N/A	Medium (16)	Within 4-8 years	Plan developed.
Strategy 7: Social and Recreational Amenity	S7.CCC.H	Middle Estuary	Spencer	Develop and implement a foreshore masterplan for Spencer	This master planning process would provide a strategic and holistic vision for the Spencer foreshore - extending from the boat ramp in the south to the public swimming enclosure in the north. Key elements of the plan would include: > Parking and amenities > Safe vessel access to the waterway > Pedestrian access and safety > Renewal of the Spencer swimming enclosure > Riparian vegetation management > Road drainage and management of overland flow. The master plan will be developed through stakeholder engagement, site analysis, and alignment with relevant coastal management policies. The outcome will be a clear, actionable strategy to ensure the long-term sustainability and enjoyment of the Spencer foreshore.	CCC	N/A	Medium (14)	Within 4-8 years	Masterplan designed and implemented. Improved recreational amenity, environmental values, and foreshore resilience.
Strategy 7: Social and Recreational Amenity	S7.CCC.I	Brisbane Water	Estuary-Wide	Undertake strategic upgrades of Council owned boat ramps in Brisbane Water	This would include implementing boat ramp upgrades identified by Councils boat ramp action plan. Works may include improvements to ramp structures, associated car and trailer parking, lighting, signage, and accessibility features, ensuring facilities meet contemporary safety, usability, and environmental standards. Upgrades will be staged and prioritised to align with community demand, asset condition, and available funding.	CCC	TfNSW	Low (7)	Opportunistic, within 8-10 Years	Review completed. Priority upgrades established and implemented.
Strategy 7: Social and Recreational Amenity	S7.CCC.J	Brisbane Water	Estuary-Wide	Implement the St Huberts Island Canals maintenance program	The purpose of the St Huberts Island Canals maintenance program is to enable residents and Council to conduct maintenance and improvement activities within the St Huberts Island Drainage Reserves (canals) in an informed and consistent manner. The Guideline provides advice and direction for the undertaking of activities to protect and restore foreshores, seawalls and canal depths in a manner that minimises impacts on the hydraulic, sedimentary or ecological processes occurring within the canals, foreshores and surrounding water body (Brisbane Water).	CCC	N/A	Low (5)	Opportunistic, within 8-10 Years	Survey undertaken. Monitoring completed. Feasibility study completed.



CMP Strategy	S4 ID	Functional Zone	Locality	Action Name	Action Description	Lead	Support	Priority (Score)	Timing	Performance Criteria
					Whilst the program predominantly includes provision of guidelines for waterfront residents, there are a number of actions for Council, including the following: > Undertaking hydrographic surveying of the canals every 10 years > In conjunction with the surveying and monitoring of sedimentation program, a program of visual monitoring for foreshore management should be undertaken. Similarly, this should be undertaken every three to five years > Preparation of a dredging and disposal feasibility assessment & strategy. The strategy should be developed following consideration of the required dredging volume. This also includes a review available funds to determine whether dredging works are economically feasible					
Strategy 8: Cultural Heritage Protection	S8.CCC.A	Broken Bay	Entrance channel	Identify the location and condition of ship wrecks near the old bar via a maritime archaeological survey.	The project involves conducting a comprehensive maritime archaeological survey to identify the likely location and assess the condition of shipwrecks near the Old Bar. This initiative aims to uncover historical maritime artifacts, preserve cultural heritage, and contribute to the understanding of the region's maritime history.	CCC		Low (5)	Opportunistic, within 8-10 Years	Survey completed.

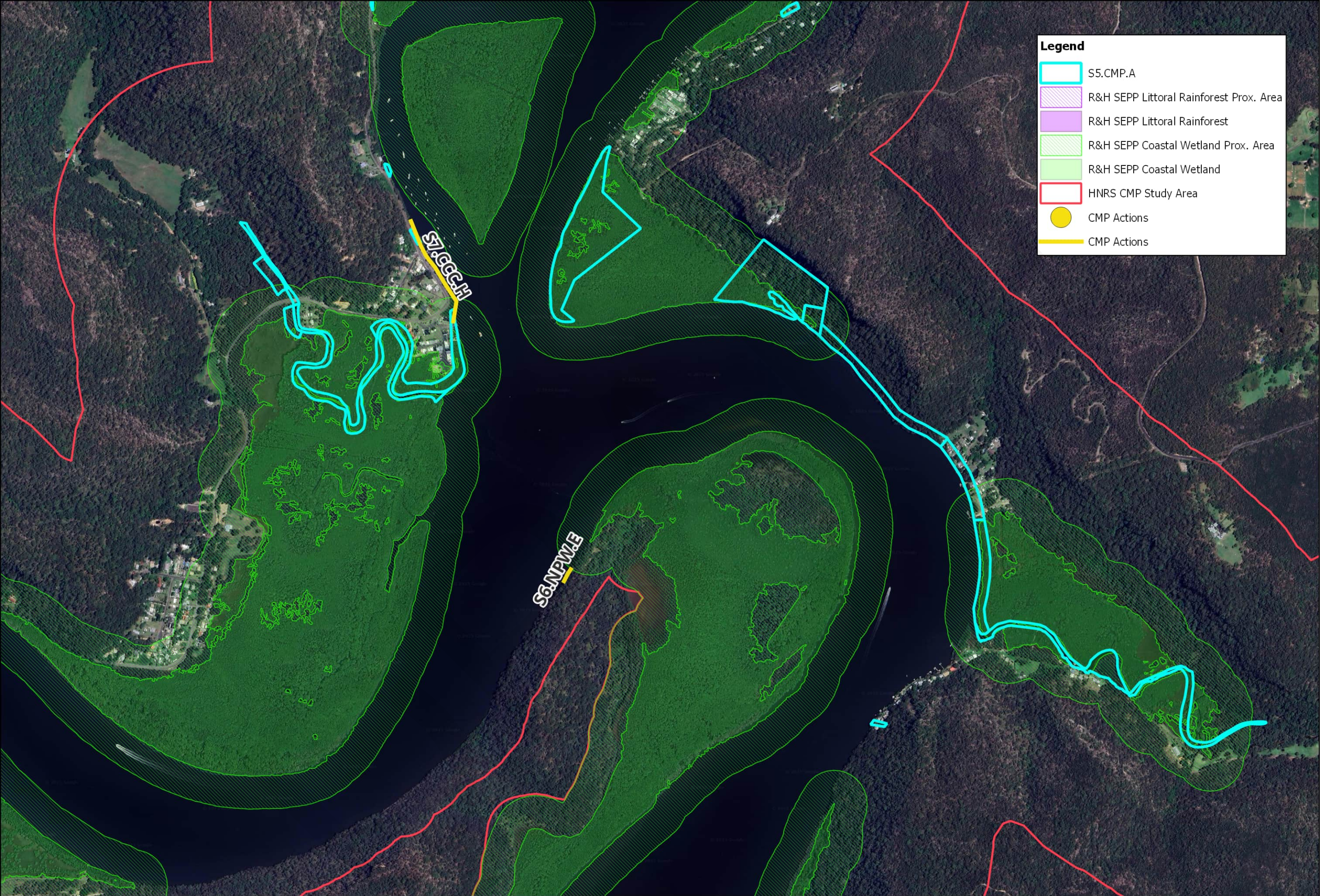


Data sources:
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Figure B10

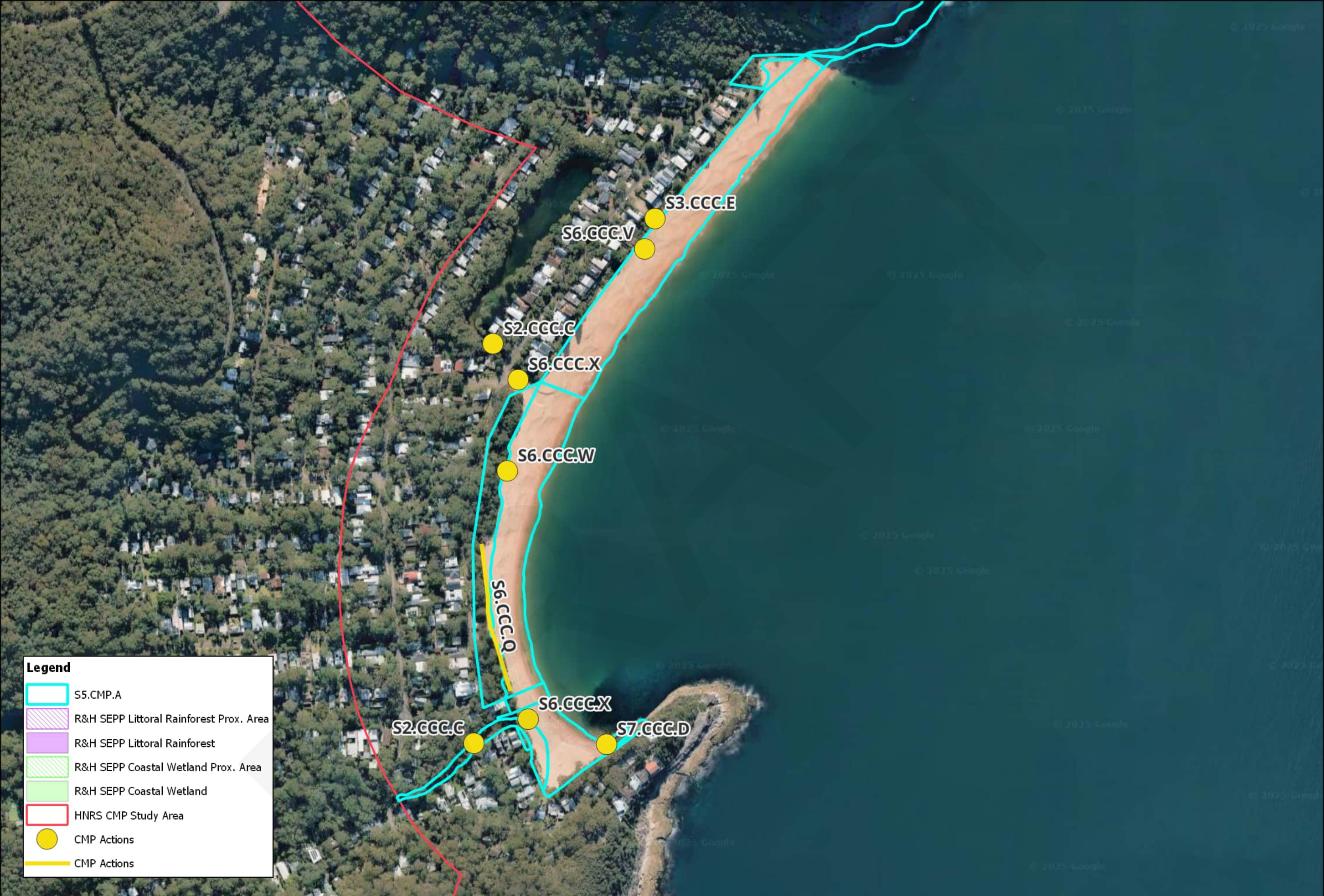




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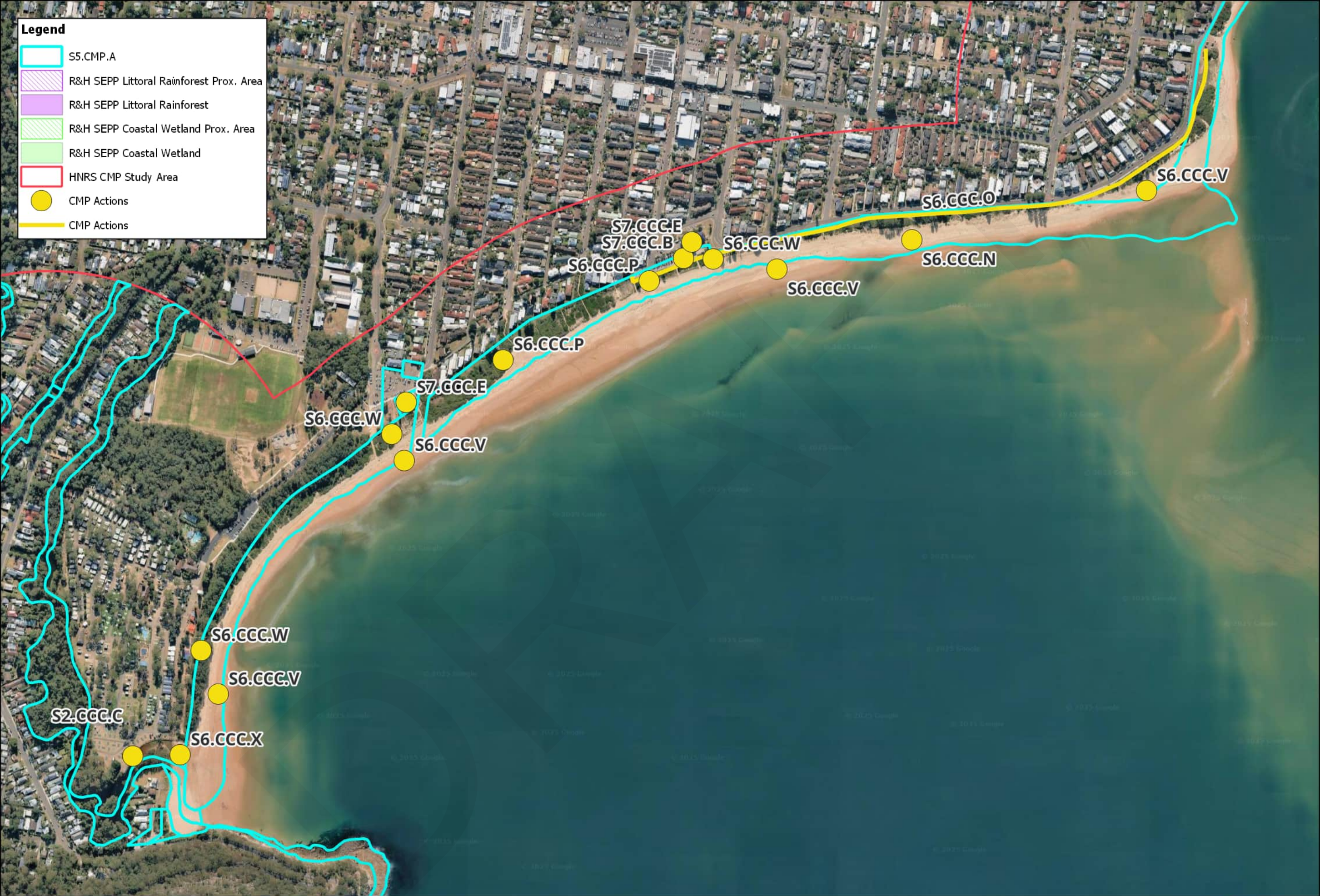
- S5.CMP.A
- R&H SEPP Littoral Rainforest Prox. Area
- R&H SEPP Littoral Rainforest
- R&H SEPP Coastal Wetland Prox. Area
- R&H SEPP Coastal Wetland
- HNRS CMP Study Area
- CMP Actions
- CMP Actions





Legend

- S5.CMP.A
- R&H SEPP Littoral Rainforest Prox. Area
- R&H SEPP Littoral Rainforest
- R&H SEPP Coastal Wetland Prox. Area
- R&H SEPP Coastal Wetland
- HNRS CMP Study Area
- CMP Actions
- CMP Actions

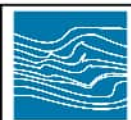


Data sources:
Contains SIXMAPS Information © State of NSW 2025

0 100 200 m

Figure B18



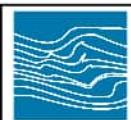
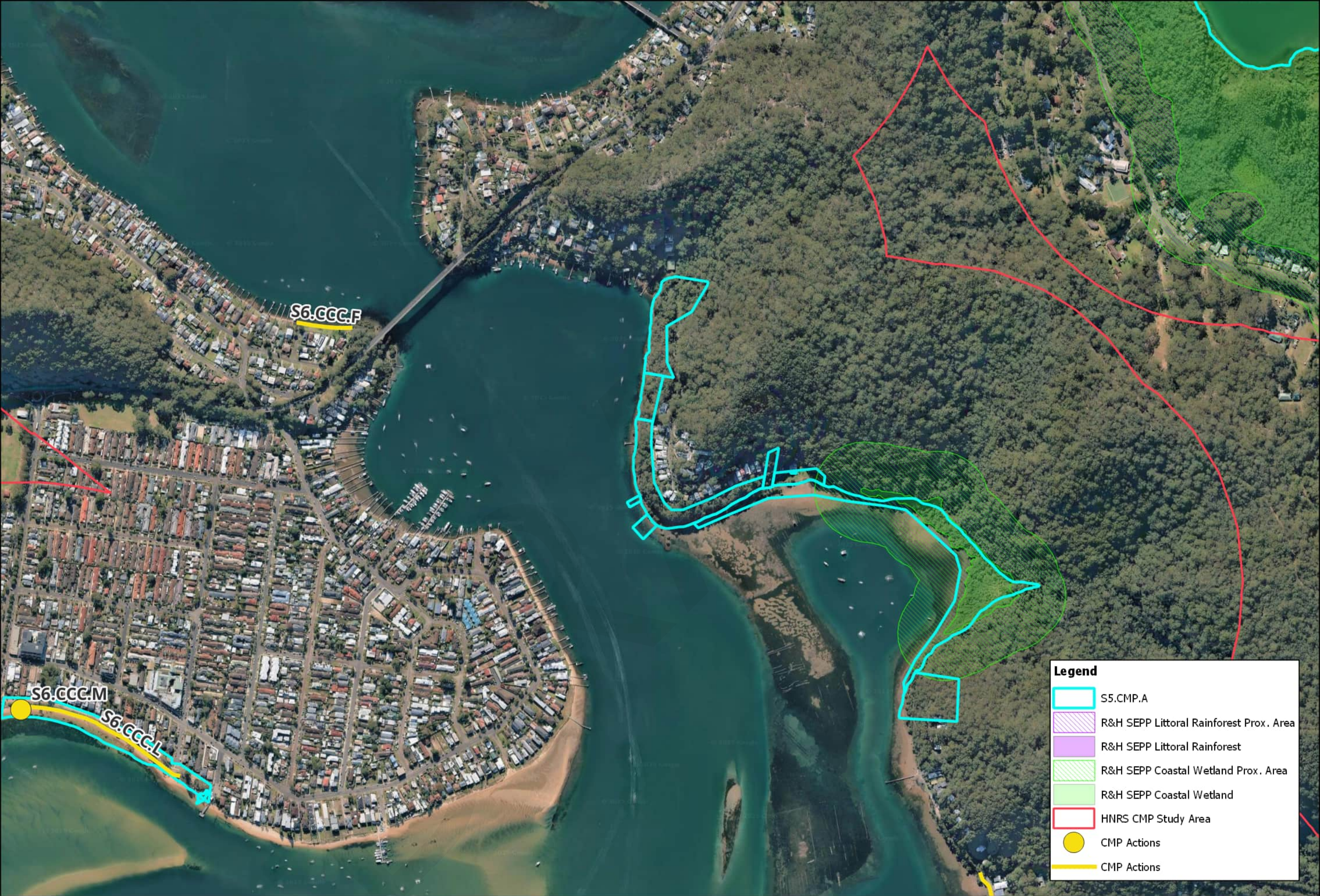


Data sources:
Contains SIXMAPS Information © State of NSW 2025

0 100 200 m

Figure B19





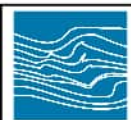
Data sources:
Contains SIXMAPS Information © State of NSW 2025

0 100 200 m

Figure B20



2025-09-19T19:43:36.070



Data sources:
Contains SIXMAPS Information © State of NSW 2025

0 100 200 m

Figure B21



2025-09-19T19:43:53.779

Legend

- S5.CMP.A
- R&H SEPP Littoral Rainforest Prox. Area
- R&H SEPP Littoral Rainforest
- R&H SEPP Coastal Wetland Prox. Area
- R&H SEPP Coastal Wetland
- HNRS CMP Study Area
- CMP Actions
- CMP Actions

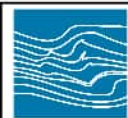
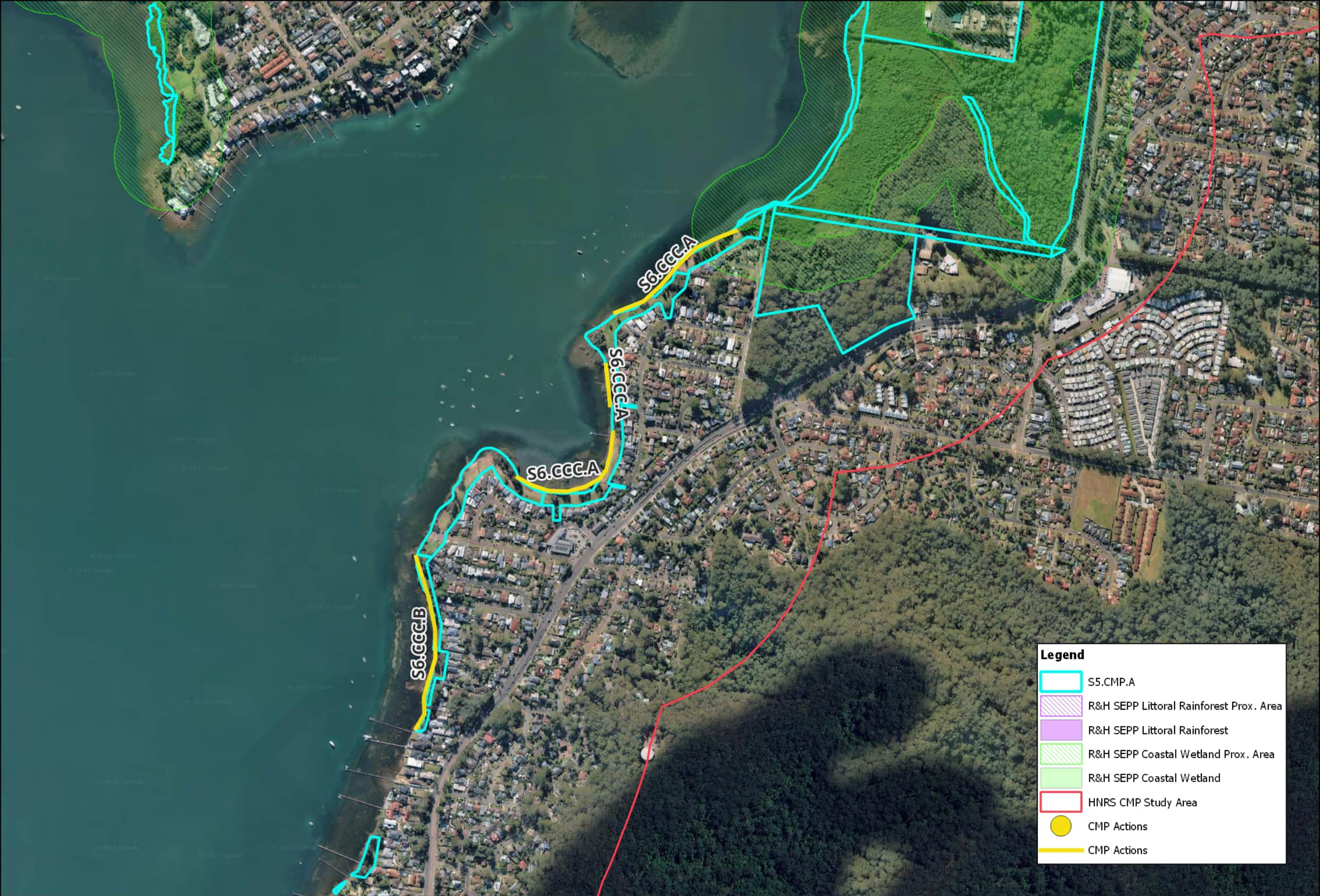


Data sources:
Contains SIXMAPS Information © State of NSW 2025

0 100 200 m

Figure B22



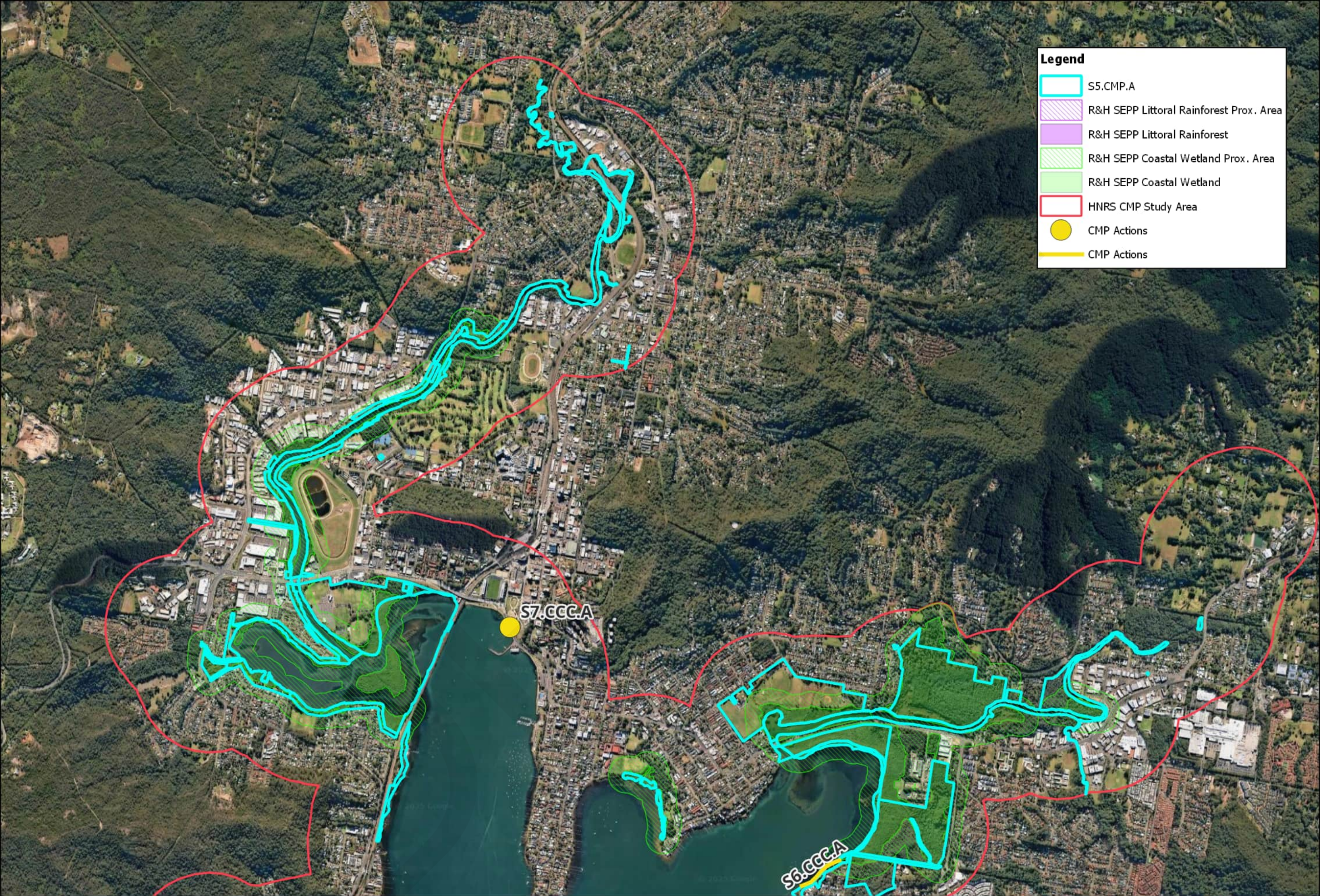


Data sources:
Contains SIXMAPS Information © State of NSW 2025

0 100 200 m

Figure B23





Legend

- S5.CMP.A
- R&H SEPP Littoral Rainforest Prox. Area
- R&H SEPP Littoral Rainforest
- R&H SEPP Coastal Wetland Prox. Area
- R&H SEPP Coastal Wetland
- HNRS CMP Study Area
- CMP Actions
- CMP Actions



Data sources:
Contains SIXMAPS Information © State of NSW 2025

0 1 2 km

Figure B24



C-2 Generic Concept Designs for CPW

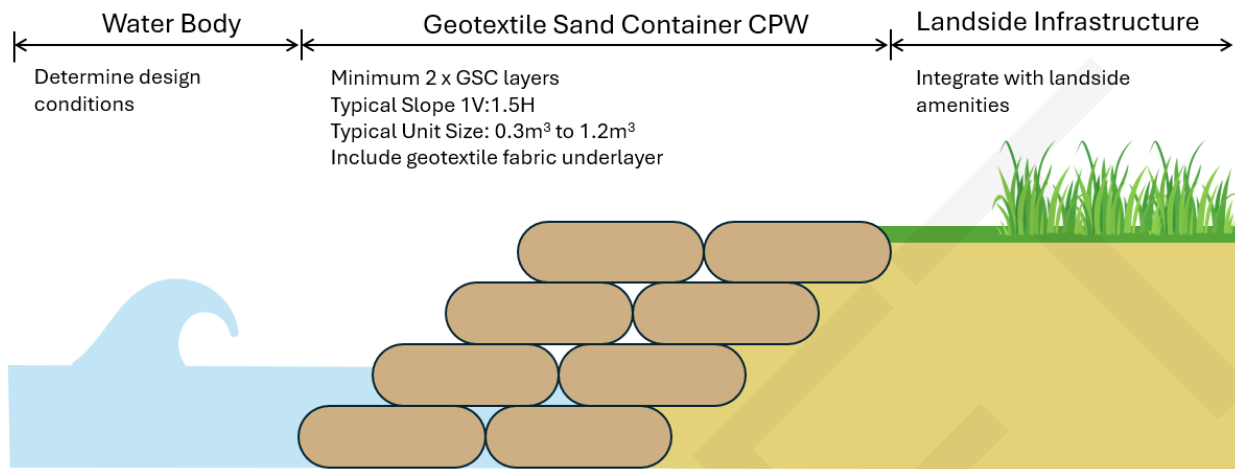


Figure C-1 Concept Design for CPW: Geotextile Sand Container (GSC) structures

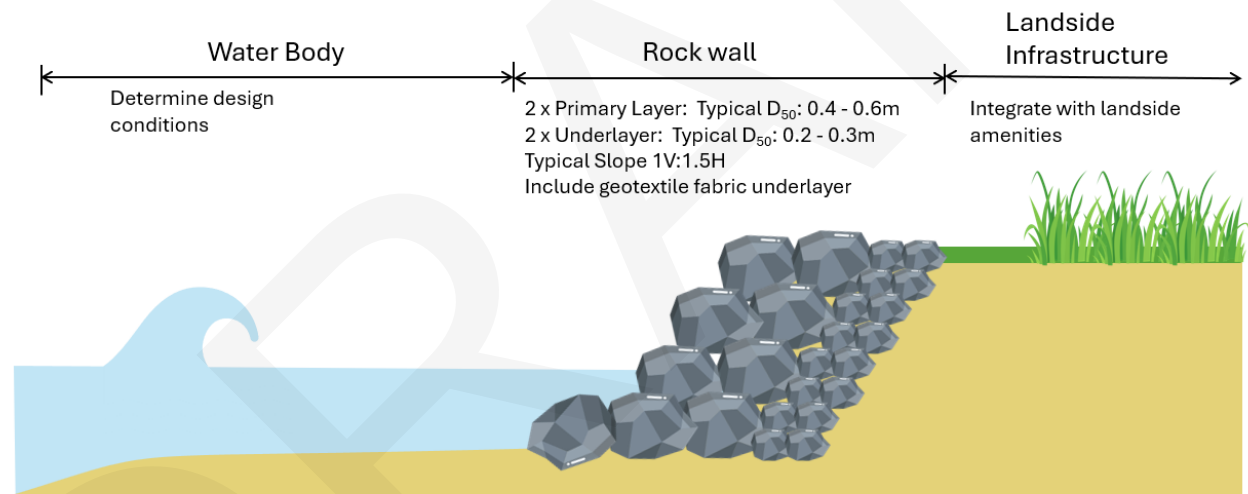


Figure C-2 Concept Design for CPW: Rock armoured structures

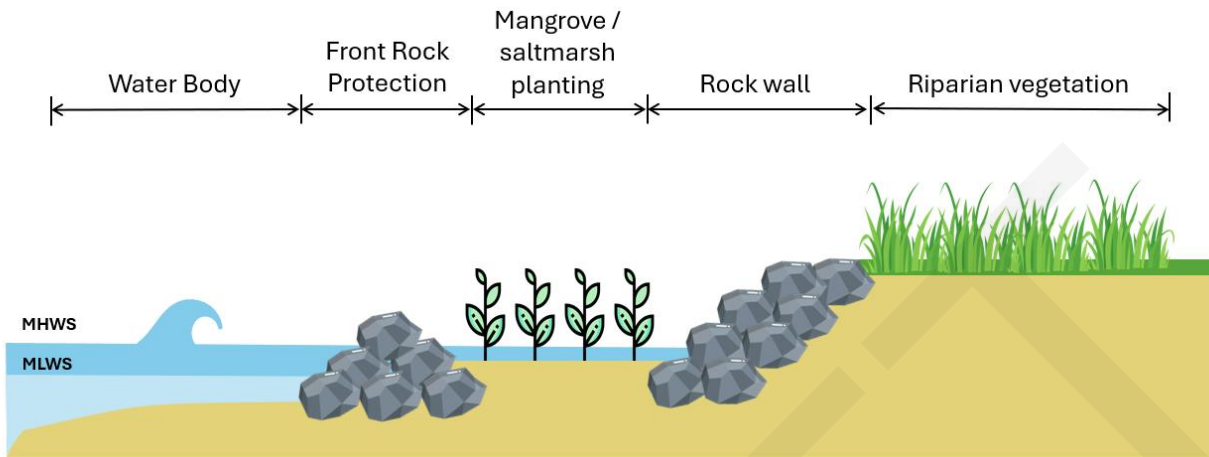


Figure C-3 Concept Design for CPW: Rock bench living shoreline structures

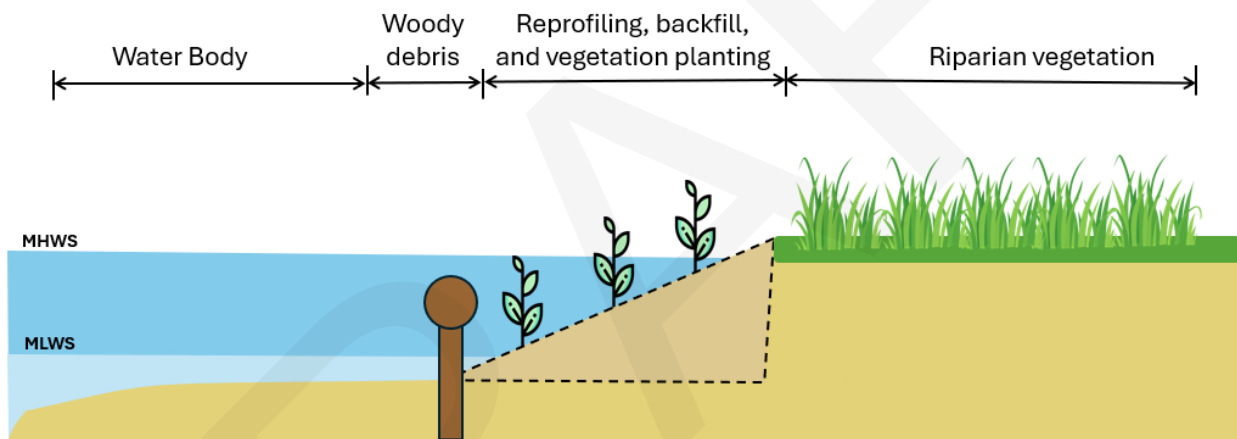


Figure C-4 Concept Design for CPW: Bank reprofiling and woody debris installation

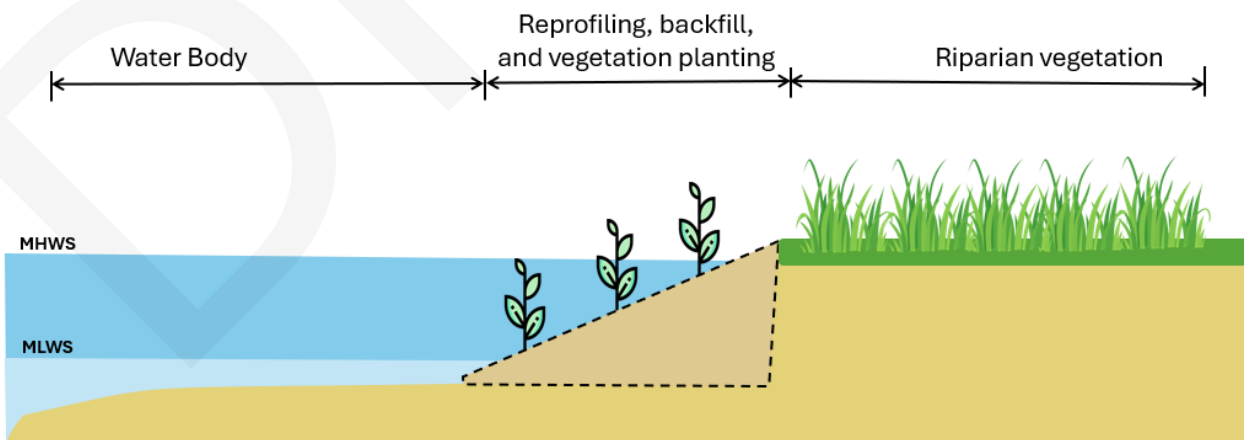


Figure C-5 Concept Design for CPW: Bank reprofiling

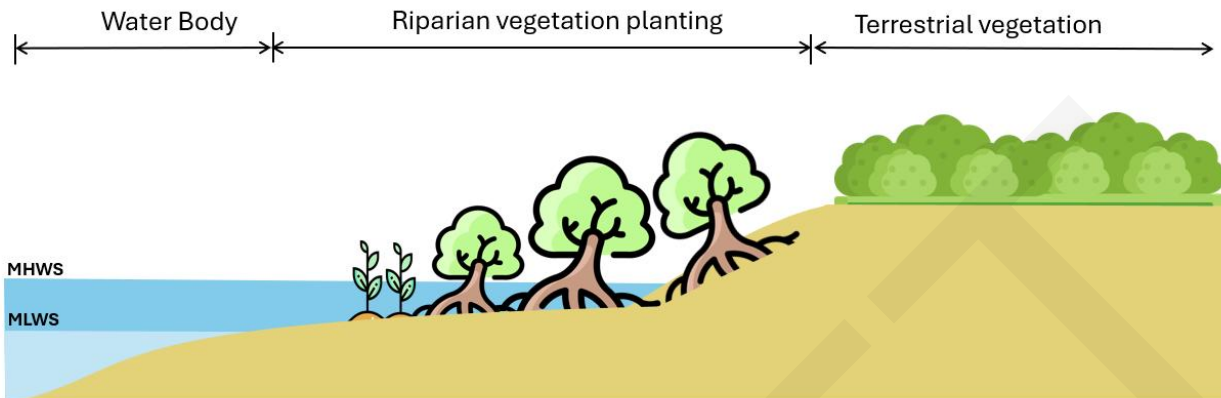


Figure C-6 Concept Design for CPW: Riparian vegetation planting

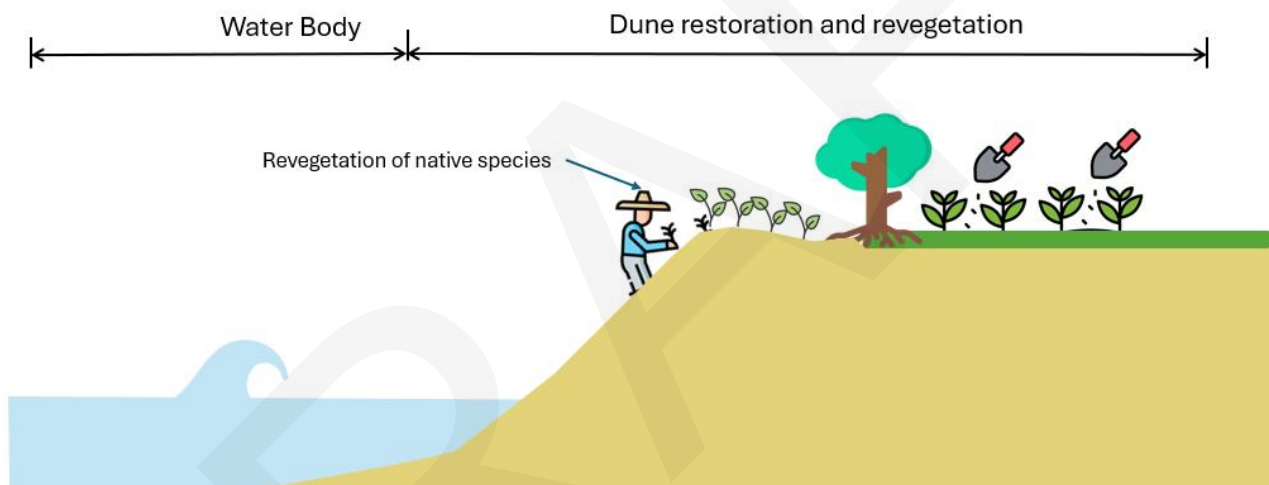


Figure C-7 Concept Design for CPW: Dune restoration and revegetation

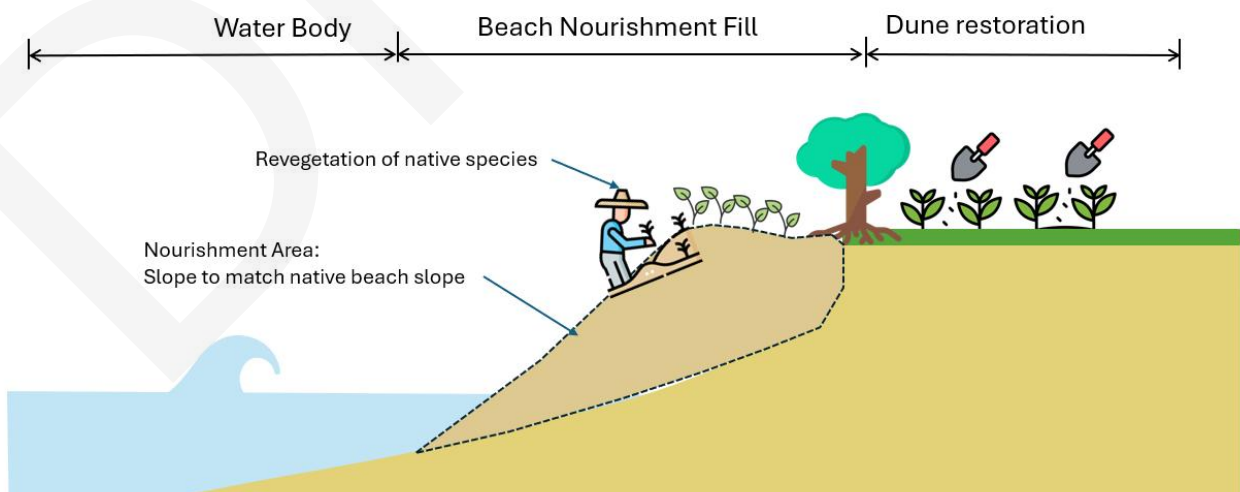


Figure C-8 Concept Design for CPW: Beach nourishment and dune restoration

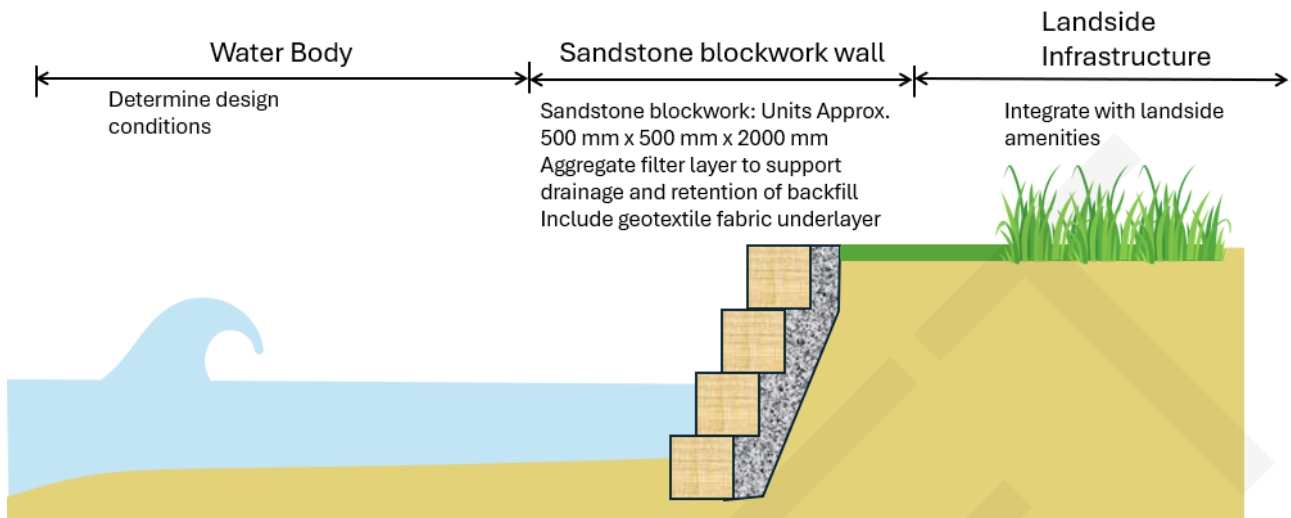


Figure C-9 Concept Design for CPW: Sandstone blockwork revetment

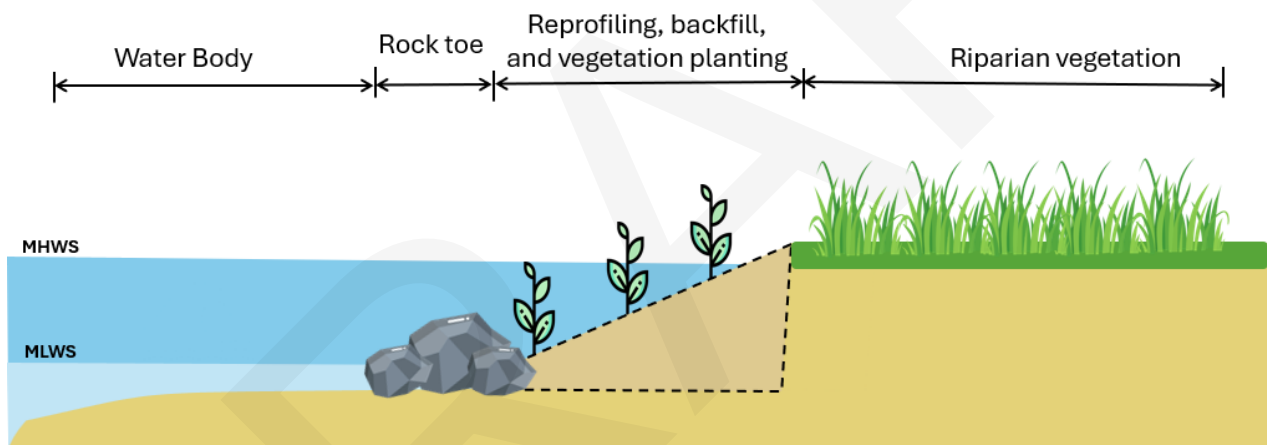


Figure C-10 Concept Design for CPW: Reprofiling with rock toe

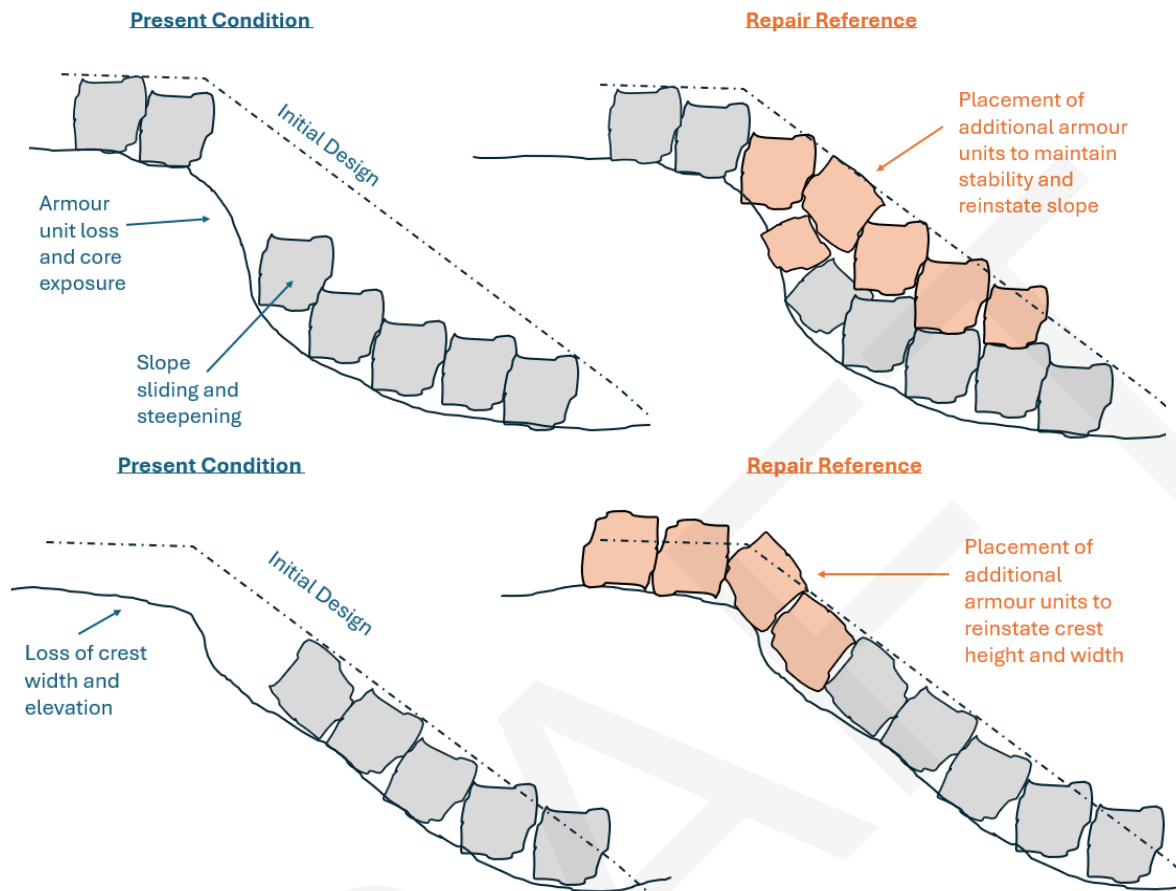


Figure C-11 Repair reference concept for rock armoured CPW



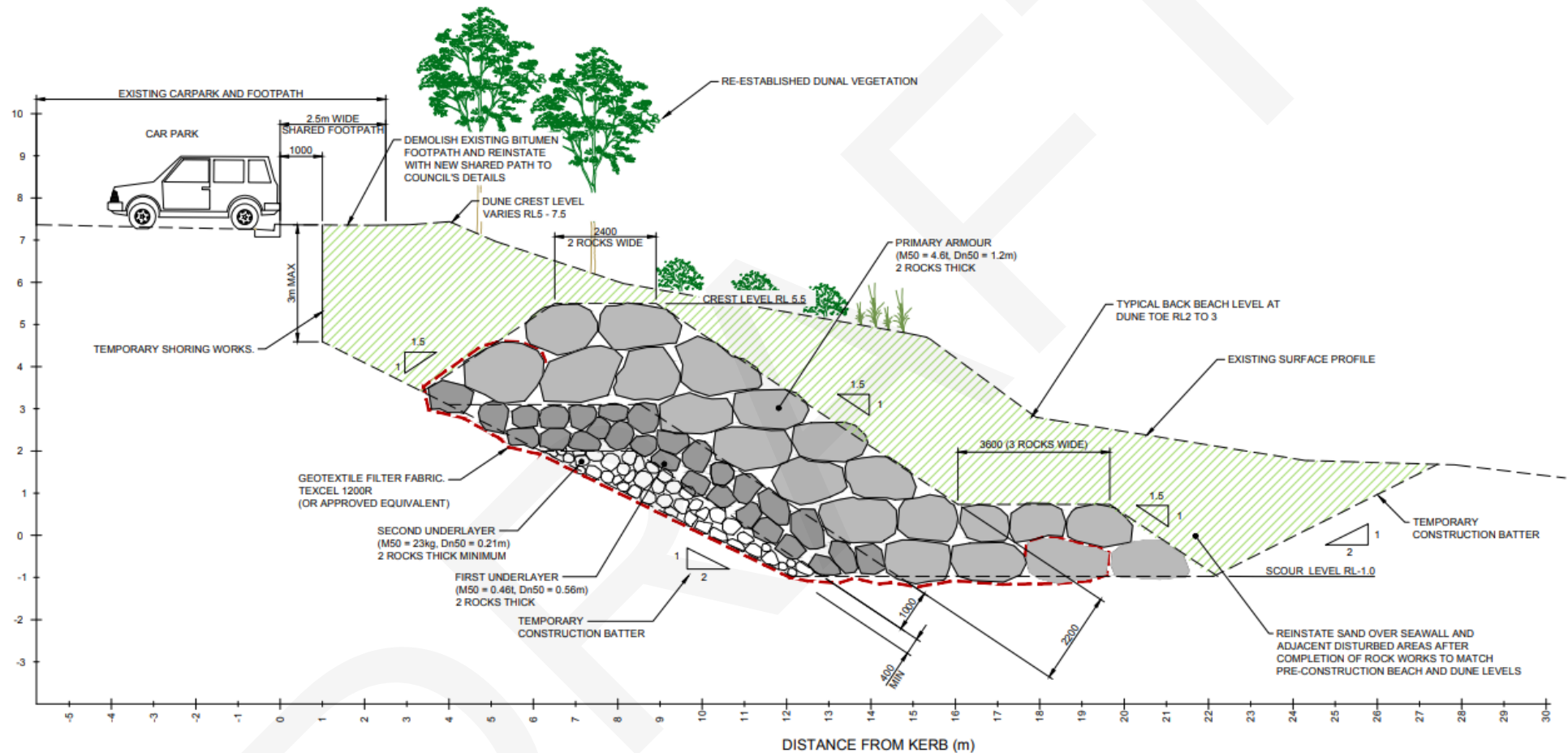


Figure C-14 Concept Design for Action S6.CCC.O. Source and further reference: (RHDHV, 2019)

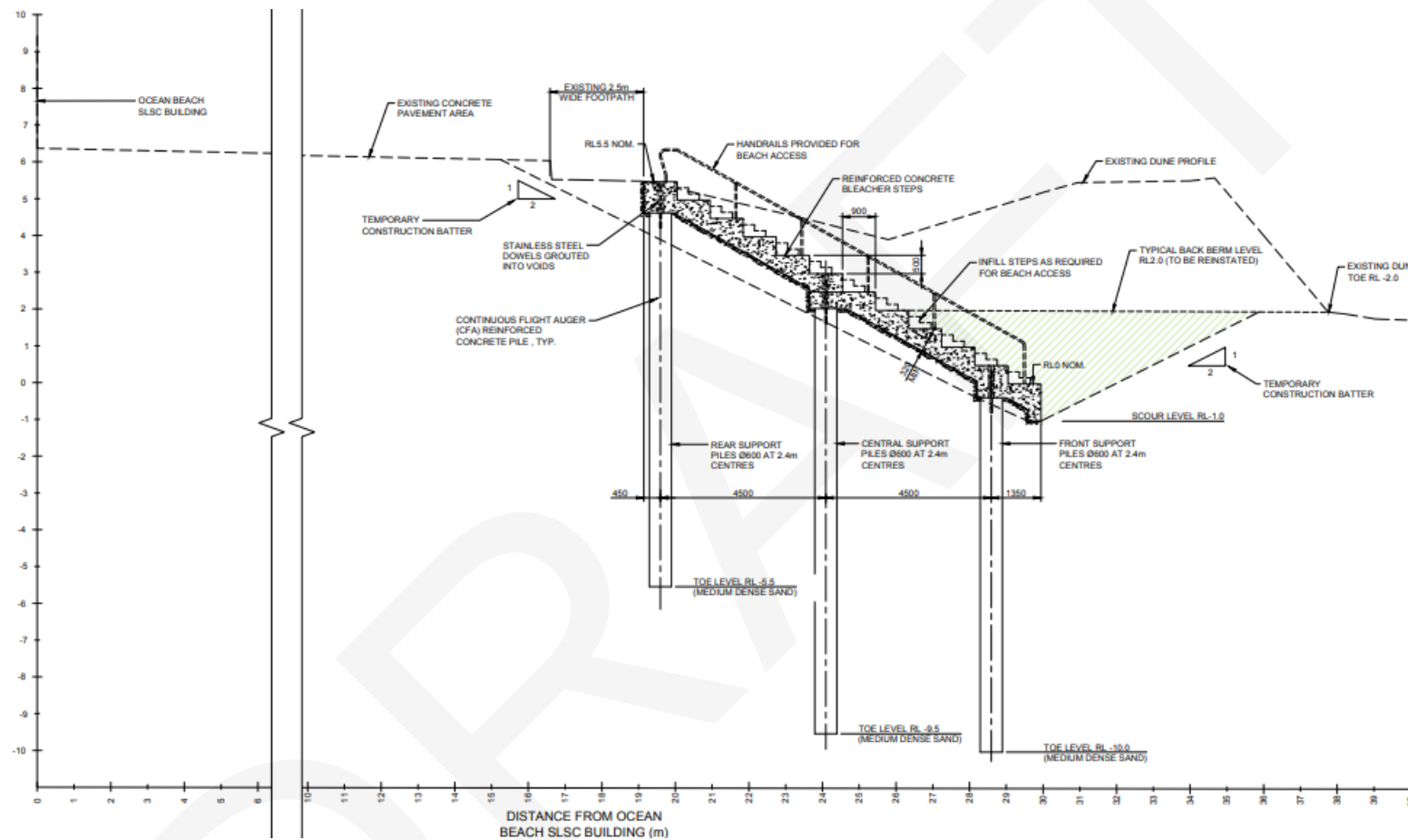


Figure C-15 Concept Design for Action S6.CCC.O. Source and further reference: (RHDHV, 2019)