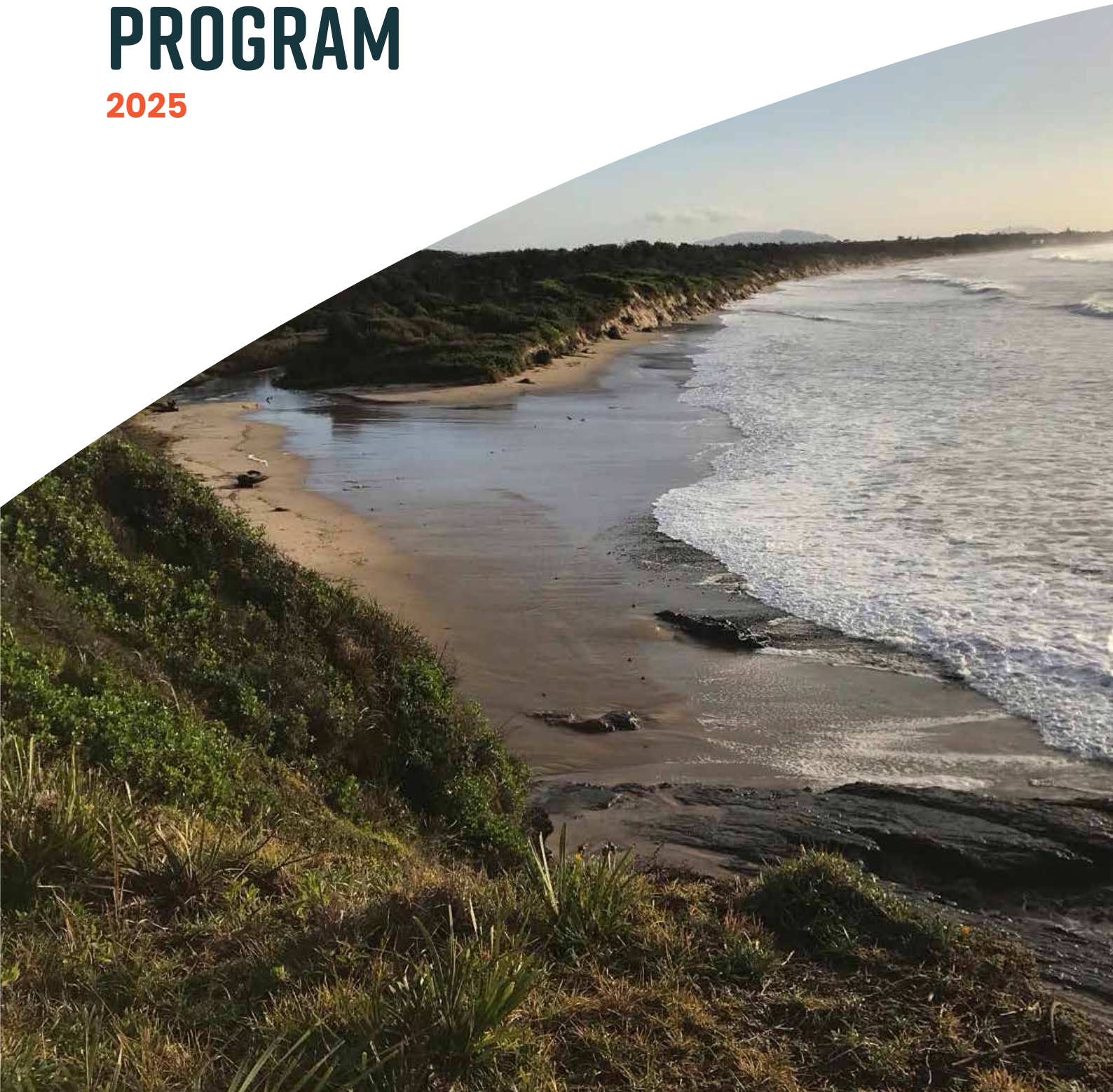




MIDCOAST
council

OLD BAR MANNING POINT COASTAL MANAGEMENT PROGRAM

2025





Acknowledgement of Country

We acknowledge the traditional custodians of the land on which we work and live, the Gathang-speaking people and pay our respects to all Aboriginal and Torres Strait Islander people who now reside in the MidCoast Council area. We extend our respect to Elders past and present, and to all future cultural-knowledge holders.

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Executive Summary

NSW Councils are required to prepare coastal management programs (CMP) for their coastal areas. CMPs set the long-term strategy for the coordinated management of the coast, with a focus on achieving the objectives of the *Coastal Management Act 2016* (CM Act). They are strictly regulated by the CM Act and the Coastal Management Manual and ultimately certified by the Minister.

CMPs identify coastal management issues and propose actions to address those issues in a strategic and integrated way. They detail how and when those actions are to be implemented, their costs and proposed cost-sharing arrangements and other viable funding mechanisms. While the planning horizon extends to 2125, the CMP is only a 10-year plan. So, towards 2035 a new CMP will be prepared with actions for the following 10-years.

The Old Bar Manning Point CMP (OBMP CMP) includes the coastal zone¹ area south of Crowdy Head to Wallabi Point. It abuts the Manning Estuary CMP boundary to the west and excludes the Crowdy Bay and Khappinghat National Parks.

The management issues and actions that have been considered in the development of the CMP are from extensive technical studies, consultation with the community and the Community Reference Group and the contribution of others working in the management of the coastal zone (See OBMP CMP Issues and Options Discussion Paper).

The assessment of management options is an important and mandatory requirement of the coastal management framework. The framework requires that options are assessed against criteria related to viability, feasibility and acceptability. Council engaged an external consultant to facilitate the assessment of the management options and to prepare the assessment report. Council requested that 'feasibility' be renamed to 'affordability' and that management options were assessed against criteria related to 'fairness'. Many of the options considered have financial, environmental and management implications for other parts of the community and importantly, for future generations. The assessment was undertaken by the Community Reference Group and 15 other community members.

Old Bar is a community that is identified as a coastal erosion hot spot. There have been tangible changes to the coastal environment and loss and damage to buildings and properties. Updated hazard modelling predicts substantial, ongoing loss and damage to properties, structures and infrastructure in Old Bar, Mitchells Island, and Manning Point. There have been many studies into the coastal processes and options to defend the area against shoreline recession and coastal erosion. There is no enduring solution to these processes in this compartment. Ongoing shoreline recession and acute coastal erosion events mean that properties, buildings and infrastructure will continue to be damaged and lost.

The strategic direction for this part of the coast is managed retreat. Managed retreat acknowledges the inevitable change to the coastal environment and the acceptance that loss of, and damage to, properties, infrastructure and assets will occur over-time. This direction is underpinned by the fundamental realities that sea-level rise will continue for centuries, that there is no enduring solution to protect properties, and that longer-term options like revetment walls have adverse impacts on the coast, are expensive to install and maintain and they burden future generations with financial and management commitments. They are not sustainable, and they are not fair.

¹ The coastal zone is the area mapped in the State Environmental Planning Policy (Resilience and Hazards) 2021.

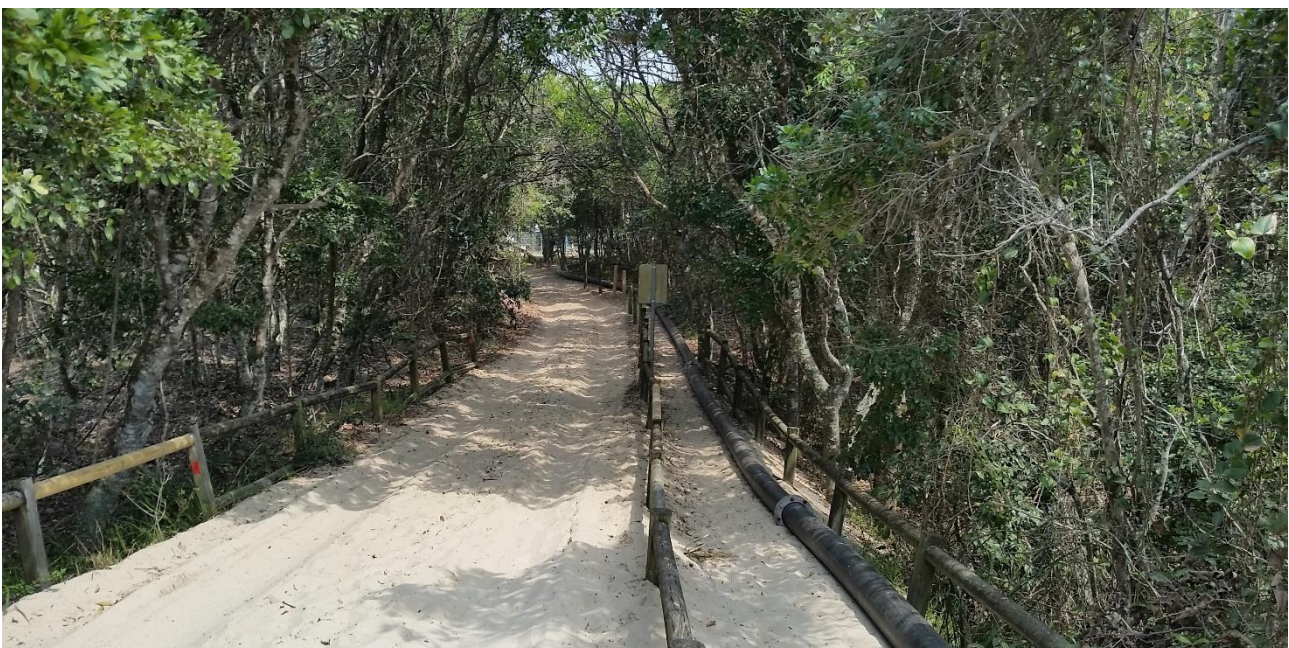
The CMP includes the preparation of an Adaptation Policy and Guidelines with Local Adaptation Plans for Manning Point, and Lewis Street and Pacific Parade at Old Bar. These will set triggers and thresholds for actions such as when infrastructure is to be abandoned and what options are acceptable to replace that infrastructure (e.g. reticulated water to rainwater tanks). It will also state when the residential occupation of buildings will cease and when structures are to be demolished.

Council is committed to supporting low-impact, *buying-time* measures that may extend the life of homes and infrastructure, so that impacted landowners can enjoy their properties for as long as possible, and our communities can adjust to a changing coastal landscape. The CMP includes options that support the Lewis Street landowners to undertake sand scraping, sand trapping and to install sand-filled geotextile bags. Gaining approval and the funding of these options will be wholly the responsibility of those landowners. To *buy time* for the Pacific Parade roadway, it is proposed to reconfigure Pacific Parade to a one-way system and to revegetate the gained area. This may bolster the roadway against future erosion events and again *buy time*.

An important action of this CMP is to amend the local planning framework. To encourage the attrition of properties over time, it is necessary to discourage greater investment and densification in these vulnerable areas. Amendments to the MidCoast Local Environmental Plan and Development Control Plan may include updated maps to represent current modelling of coastal risks, changes to the land-use zone in vulnerable areas and the application of specific development controls that only allow development that is commensurate with the risk posed from coastal processes. The CMP also includes an action urging the NSW State Government to take a leadership role in relation to sea-level rise targets, risk thresholds and land valuation.

The CMP includes a number of actions to build awareness of coastal hazard risk and to increase the preparedness of our communities as coastal change occurs. It also includes asset management plans to identify vulnerable assets and utilities and plan for their relocation. Utility providers such as Telstra and Essential Energy will be provided with the updated hazard modelling, so that they can update their asset planning activities. All of these are important to build a resilient community.

Natural systems, like coastal wetlands and littoral rainforests, are particularly vulnerable to changes in the coastal zone. The CMP supports a range of measures to bolster these communities against the predicted changes so that they continue their important ecological role. There is also an opportunity for land to be identified for voluntary acquisition under the Coastal Lands Protection Scheme that could contribute to the protection of existing coastal ecosystems and improve public access in some locations.



Our coast has particular significance to the Biripi people. Coastal processes will expose, damage and destroy known and unknown Aboriginal cultural heritage sites and items. The CMP recommends the development of a strategy to identify these impacts and to put in place mechanisms so that our Aboriginal community can respond to these impacts in a timely and culturally appropriate way.

Our beaches are an important part of our identity and our lifestyles and they are an arena for many different types of activities. They are also sensitive and vulnerable landscapes that house important plant and animal communities. Migratory and resident shorebirds are an important feature of some beaches. At times, there are conflicts between ways that we use these beaches and other values. A Beach Access and Use Strategy is an important action of the CMP.

The CMP includes actions to implement improvements to Racecourse Creek and Old Bar Park to build capacity in those systems to deal with stormwater and flooding. Both the dredging and inlet opening strategies for the Manning River and Farquhar Inlet require review and these will be completed as part of this CMP.

The OBMP CMP was exhibited for five weeks between 26 September and 9 November 2025. Fourteen submissions were received and 65 people attended 'pop-up' events at Old Bar and Manning Point. The CMP has considered these submissions and feedback in the finalisation of the program.

Council wishes to thank the Community Reference Group for their ongoing commitment and their valuable contribution to this project.

This CMP is a 10-year program. The plan will be revised after this period.



Introduction

NSW Councils are required to prepare coastal management programs (CMPs) for their coastal areas. CMPs set the long-term strategy for the coordinated management of the coast, with a focus on achieving the objectives of the Coastal Management Act 2016 (CM Act). CMPs identify a range of management issues and propose a 10-year program of actions to address those issues.

The OBMP CMP applies the area of coast between Crowdy Head and Wallabi Point. It abuts the Manning Estuary CMP boundary and excludes the National Parks. The scope of the OBMP was included in the Scoping Study 2020 that is provided on [Council's website](#).

This coastline is highly vulnerable. Coastal erosion and shoreline recession are already impacting our communities and landscapes. Over the past few decades there has been significant recession of the coast. Change to our entire coastline is occurring; however, the Old Bar Manning Point coast is characterised as being sediment deficient meaning that there is more sand moving out of the compartment than is being replenished. This is a natural characteristic of the compartment, but it means that shoreline recession will occur more quickly than in other areas. Sea-level rise and more intense storm events anticipated with climate change will exacerbate the risk of shoreline recession and coastal erosion.

An exhaustive number of studies and reports have been prepared for the study area. These have considered various coastal processes and hazards and investigated numerous hard and soft engineering options to address coastal erosion, flooding, and shoreline recession. These options have been considered in the development of the CMP. Most of these engineering options are not feasible, affordable or fair.

The strategic direction for this area of coast is managed retreat. Managed retreat acknowledges that over time infrastructure, assets and properties will be damaged and lost. The CMP includes options to *buy time* so that the use and occupation of homes are extended for as long as possible.

Shoreline recession and coastal erosion are enduring themes for this area. However, the CMP considers a range of other management issues affecting the Old Bar Manning Point area that have been raised by the community, the working group and the Community Reference Group.

The draft CMP was exhibited for 5 weeks over September through to November 2025. Fourteen submissions were received. Key issues raised included Farquhar Inlet opening, alternative hard engineering and other options to address impacts from coastal processes, beach user conflicts, the Manning Point southern spur wall, and Council's responsibilities relating to road access. Two of the submissions were supportive of Council's strategic direction. The submissions have been considered in this final CMP and addressed in the Council report dated 10 December 2025.

The CMP is a 10-year program to address the range of management issues identified. After this period, a new CMP will be prepared.

The OBMP CMP is part of the broader project to complete CMPs for the MidCoast Open Coast. Council committed to advance the OBMP CMP ahead of the broader project because of concerns about rapid coastal erosion and shoreline recession in this area and the need to provide our community with a clear direction about how this area is to be managed in the future.

Rationale for Area

This CMP applies to the area between Wallabi Point and Crowdy Head, but it is referred to as the Old Bar Manning Point CMP. The area includes the coastal zone² and abuts the Manning River Estuary CMP boundary. The CMP excludes Crowdy Bay and Khappinghat National Parks (See Figure 1). The area covered by the CMP applies to one part of the coastal zone within the MidCoast local government area.

Council is concurrently undertaking a coastal management program for the remainder of the open coast. The primary reason for the OBMP CMP to be treated separately is because of the concerns of our community about rapid changes to the shoreline and destructive coastal erosion events at both Old Bar and Manning Point. However, there are other reasons why this area has been considered. The area shares similar geomorphology the communities are demographically similar and there are common management issues.

This section of coast is within the Crowdy to Black Head Coastal Sediment Compartment. The dominant regional processes influencing coastal geomorphology in this region are the humid warm to cool temperate climate, micro-tides, south-easterly Tasman Sea swells, easterly seas, dominantly quartz (terrigenous) sediments with northerly longshore transport in the northern part, and the El Nino Southern Oscillation (driving beach erosion/accretion cycles, cyclone frequency). Pleistocene sands are being eroded and veneered with Holocene dune and beach sands locally mixed with gravel. Indurated sand and bedrock outcrops in places on the beach and offshore control sediment thickness on the beach, including at the critical beach-dune interface. This sediment compartment is sediment starved and prone to erosion; much is sensitivity rating 4, and erosion hotspots such as Old Bar are ranking at a 5.

Legislative Context

Coastal management in NSW is undertaken within a complex legal and strategic framework. The management of the coast and marine estate is primarily established by:

- The Coastal Management Act 2016,
- The Marine Estate Management Act 2014, and
- The Environmental Planning and Assessment Act 1979.

The Local Government Act 1993 also participates in the management of the coast through the Integrated Planning and Report Framework.

The Coastal Management Act:

1. outlines the objectives of coastal management in NSW,
2. states the management objectives for coastal management areas,
3. requires councils to prepare Coastal Management Programs, and
4. establishes the Coastal Management Manual which dictates how CMPs are to be drafted.

The Marine Estate Management Act provides for the management of the marine estate.

The Environmental Planning and Assessment Act 1979 (EP&A Act) provides the strategic land-use framework to manage the development and use of the coast. This occurs through regional plans (e.g. Hunter Regional Plan 2041) and the Local Strategic Planning Statements. Importantly, the EP&A Act establishes a hierarchy of statutory and non-statutory regulatory instruments by which

² The coastal zone is the area mapped in the State Environmental Planning Policy (Resilience and Hazards) 2021.

development in coastal areas is assessed. These include the State Environmental Planning Policy (SEPP) (Resilience and Hazards) 2021, section 9.1 Ministerial Directions, Local Environmental Plans and Development Control Plans.

Each management action has been attributed to the relevant objects of the Coastal Management Act, the Marine Estate Management Act, the objectives of each coastal management area under the SEPP and the MidCoast Community Strategic Plan (Appendix B: Strategic Alignment).

Strategic Context

The strategic context for the management of the coast is provided by the MidCoast Community Strategic Plan, the Hunter Regional Plan 2041 (HRP) and MidCoast Local Strategic Planning Statement (LSPS).

Community Strategic Plan

The Community Strategic Plan includes a strategic objective that states the “We understand and manage environment and climate change risks and impacts”. The applicable strategies include:

- To promote understanding of place-based risks and vulnerabilities and develop resilience and adaptation plans, and
- Climate change risk management planning and adaptation frameworks are applied in development proposals, infrastructure planning and land-use planning.

Hunter Regional Plan

The HRP acknowledges sea-level rise and inundation, coastal hazards and the role of climate change will have on these processes. It states that land-use planning should be informed by coastal management programs that consider coastal hazards to avoid or acceptably mitigate risks for future development.

MidCoast Local Strategic Planning Statement

The MidCoast LSPS includes two planning priorities that are relevant to the development and implementation of coastal management programs. Planning priority 6 – Protect and improve our environment includes actions to work with government and the community to improve biodiversity and Planning priority 7 – Improve our resilience, acknowledges coastal hazards and risk and anticipates the development of CMPs for Old Bar Manning Point and the Open Coast.



OLD BAR MANNING POINT COASTAL MANAGEMENT PROGRAM

LEGEND

- Old Bar Manning Point CMP area
- Crowdy Bay National Park
- Manning Estuary CMP
- Secondary sediment compartment
- Primary sediment compartment

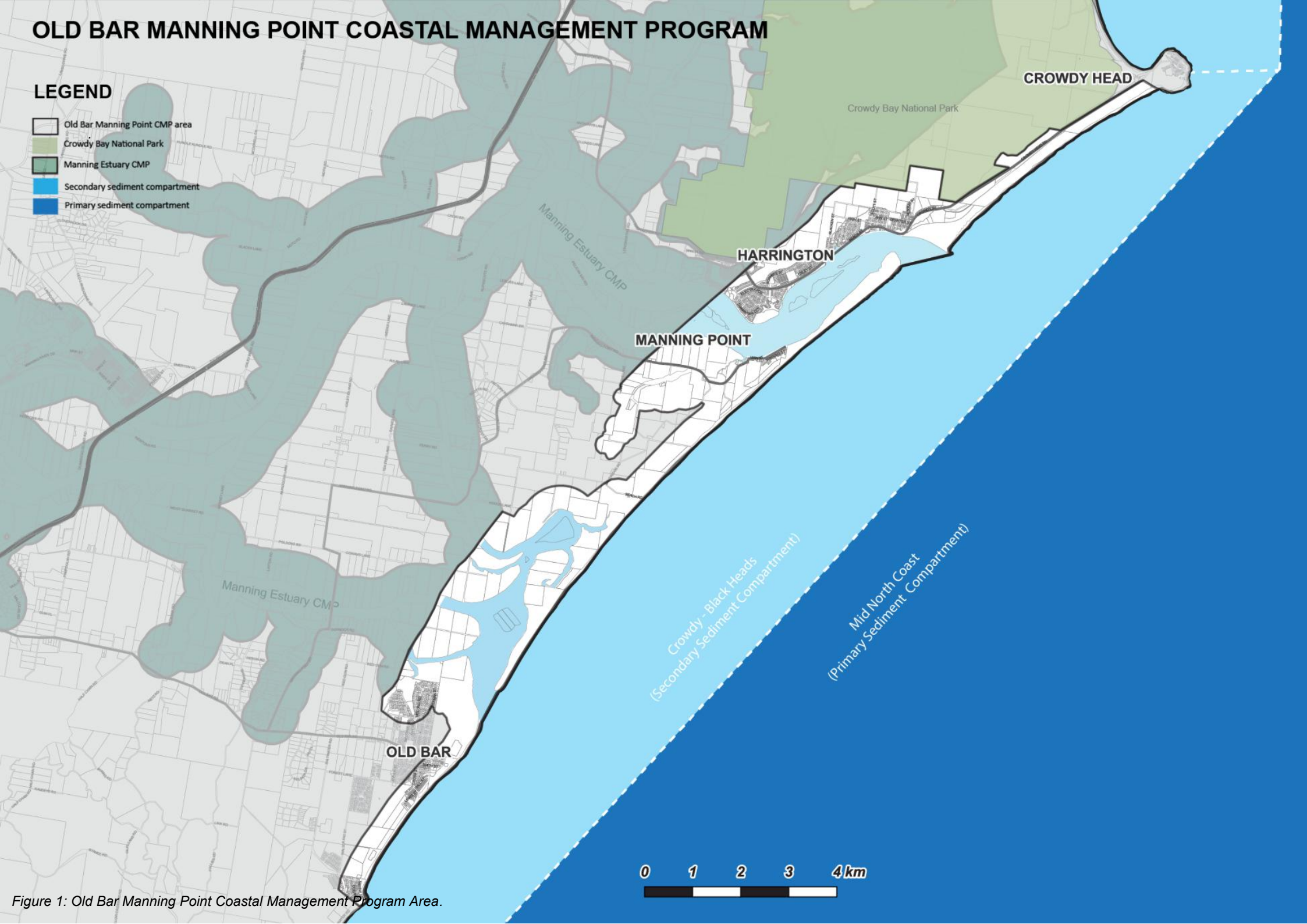


Figure 1: Old Bar Manning Point Coastal Management Program Area.

Strategic Direction

Council's policy for the management of this area is managed retreat. Managed retreat acknowledges the inevitable change to the coastal environment and the acceptance that loss of, and damage to, properties, infrastructure and assets will occur over-time.

The Manning coastal compartment is sediment deficient. This means that there is more sand leaving the compartment than entering it and there is no discernible sand body offshore to naturally replenish the beaches. These are natural characteristics of this compartment, but it means that shoreline recession will occur more rapidly in this area than may be experienced in other areas of the MidCoast. Under climate change predictions the frequency and intensity of storm events are expected to increase, so the risk of acute coastal erosion events will also be higher.

Our community has already witnessed significant recession of the coast and coastal erosion has already claimed several homes along Lewis Street, Old Bar. These processes will continue to occur and changes to our coastline will continue for many generations.

Managed retreat is the only sustainable approach. It is the only approach that preserves beach access and amenity, accommodates coastal ecosystems and maintains coastal processes. Importantly, it is the only management option that does not burden future generations with the cost and responsibility to maintain and ultimately remove or abandon coastal defensive infrastructure.

Council is committed to allow the occupation of a dwelling or property for as long as it is *safe to do so* and, it can be serviced by essential utilities and services but, as structures and essential infrastructure are damaged, the residential occupation of dwellings will cease and buildings, structures and inground services, will be demolished and disposed of in an appropriate manner.

It is important to interrupt the cycle of intensification of land and investment in buildings and structures in vulnerable areas. This will encourage the attrition of homes relative to the risk posed and provide a reasonable life-expectancy of the investment.

Council acknowledges that our communities will demand an opportunity to defend their properties, so the CMP supports temporary, low-impact measures and actions that may provide some additional resilience to coastal processes. Again, this is about extending the life of properties so that they can be enjoyed for as long as possible.

This position is informed by the following principles:

1. **Sea-level rise is an ongoing phenomenon.** While our planning horizon is currently to 2125, sea-level rise will continue to occur for many centuries. The impacts that we are experiencing now are the beginning of the fundamental reshaping of the world's coastline. Decisions that we make now, will set the precedent for future responses.
2. **The actions we take today have implications for future generations.** Hard infrastructure, such as sea walls and revetment walls to defend against coastal processes locks in an adaptation pathway. These structures require ongoing maintenance and will eventually have to be removed or abandoned. That is an unacceptable burden on future generations.
3. **Private versus public interest.** The coast and beaches are fundamental to the identity of our community. Many interventions to defend against coastal processes have unintended impacts on access to and the amenity of the coast. Continued access to and enjoyment of the coast by our community is prioritised by the wider community over the protection of private assets.
4. **Right to defend your property.** Impacted residents will demand an opportunity to protect their properties. There are temporary, *buying-time* works and interventions that build

resilience and some low-impact engineering options that may provide some defence against acute erosion events. The options are supported in the CMP.

5. **Once the land is lost, it is lost.** Once land is consumed and infrastructure is damaged by coastal processes, Council will not rebuild that land or replace those infrastructure assets.

Managed retreat

Managed retreat acknowledges the inevitable change to the coastal environment and the acceptance that loss of and damage to properties, infrastructure and assets will occur over time. It is a very difficult reality to communicate, particularly to those landowners whose properties will be lost. The impact of these processes will become more widespread over the next few decades and some communities, such as Manning Point and parts of Old Bar will be profoundly affected. But it is not only those whose properties that will be damaged and lost that are impacted. Our coastline is part of our MidCoast identity and changes to that environment and to those communities will impact us all.

Managed retreat is a much-maligned term. Many public authorities steer clear of using it, preferring to adopt more palatable variations like 'planned adaptation' or 'managed relocation'. But we are embracing it. This is a difficult and important conversation. We want to be honest and transparent and have mature conversations with our community so that collectively we are prepared for changes to our coastline.

Many people look to physical structures such as revetment walls, sea walls, offshore reefs and groynes to mitigate the erosion risk. There have been decades of investigation into these interventions at Old Bar and Manning Point³. There are several key considerations when assessing the merit of pursuing hard infrastructure options that need to be communicated.

The legislative framework imposes strict requirements relating to the impact of coastal protection works on public access and amenity, and environmental impact. All physical structures have an impact on the coastal environment. Revetment walls, groynes, offshore reefs and sand nourishment are all options that have been considered previously at Old Bar.

Revetment walls result in the loss of sand in the front of the wall. Without ongoing sand replenishment, the beach will disappear, public access to the beach will be reduced. Ultimately the wall will be compromised as the toe of the wall is eroded and undermined. At either end of the structure erosion increases, leading to these areas being more profoundly impacted.

Groynes are rock walls that are built perpendicular to the beach. They cause sand to build up on one side of the structure, but they increase erosion on the other side. Groynes fundamentally change the coast and severely impact public access, amenity and coastal processes. There are also no groynes on the NSW open coast other than training walls at river entrances.

Offshore reefs were also investigated at Old Bar but there is conflicting evidence that offshore reefs provide protection. However, they may alter surf breaks, become a hazard themselves and they require regular topping up and maintenance.

Another option that was explored was mass sand nourishment. This is the movement of sand from one location to another. It relies on a reliable and accessible source of sand. There is no source of sand in the compartment. Sand would need to be moved from another area to Old Bar by truck. So, this is not a viable or desirable option.

³ See <https://www.midcoast.nsw.gov.au/Community/Our-environment/Our-coasts-and-rivers/Coastal-management>

When an application for coastal protection works is submitted for assessment, the Coastal Management Act 2016 requires that the Consent Authority is satisfied that the works will not unreasonably limit, or be likely to unreasonably limit, public access to or the use of a beach, or pose or be likely to pose a threat to public safety. It also requires that satisfactory arrangements be made (by conditions imposed on the consent) to restore the beach, or land adjacent to the beach, if any increased erosion of the beach or adjacent land is caused by the presence of the works, and for the maintenance of the works. There are also other considerations under the Environmental Planning and Assessment Act 1979 and the SEPP (Resilience and Hazards) 2021. These requirements make it very difficult for the Consent Authority to approve any one of these longer-term options. A previous application for a revetment wall in Old Bar was refused.

Another major consideration is the cost to construct physical structures and maintain them in the long term. The design life of a revetment wall is around 30-40 years, and they require regular maintenance. They are hugely expensive to construct and maintain. Future generations will be burdened with the environmental and financial legacy of these structures. Any interventions will be paid for by the beneficiaries. So, for example, if a revetment wall is built in front of the Lewis Street properties the cost would be wholly borne by those landowners and there will be ongoing financial obligations for those landowners and future landowners to maintain the structure, address end effects, restore the beach and when the structure fails, to remove it and restore the beach. Physical structures are considered longer-term interventions, but they do not last forever and ultimately seawalls, revetment walls, groynes and artificial reefs will fail, and future generations will be burdened with that responsibility.

Managed retreat relies heavily on the Insurance Agencies, Financial Institutions, and the local planning framework to signal to the market about the risk of investing in vulnerable locations. It is already difficult or impossible to secure finance or insurance for properties at risk of 'actions of the sea'⁴ including coastal erosion, shoreline recession, and inundation. The local planning framework including land-use zoning and development controls also has an important role to regulate appropriate land uses in vulnerable locations. When a property is sold, conveyancing laws require the issuance of a planning certificate that states the coastal hazard risk. Collectively, these factors should discourage investment and drive down the value of at-risk properties, but this has not generally been the case. There are likely to be many reasons for this, including the failure of State land valuations to consider coastal hazard risk in the calculation of unimproved land values.

This CMP is an important signal to the market. It clearly defines council's position to support short-term actions to *buy time*, to extend the use and occupation of properties but not longer-term hard engineering options.



⁴ 'Actions of the sea' is a legal term that refers to coastal erosion, shoreline recession and inundation.

Probabilistic Hazard Modelling

A very important part of the development of this CMP was to undertake updated modelling of coastal hazard risk. Until now, predicted coastal erosion and shoreline recession along the coast was based on observed trends and deterministic modelling. This provided a good understanding about coastal processes, but it was informed by superficial knowledge of the substrate underlying the area. The geotechnical component of the study provided a detailed understanding of what is below the surface, so that the modelling can take this into consideration and provide more accurate predictions about the speed and extent of shoreline recession and coastal erosion in these locations.

Probabilistic modelling uses a baseline of predictable factors like short-term erosion, long-term recession, sea-level rise and the geological conditions but it also considers the contribution of random events like east coast lows and storm events. Modelling was undertaken for the present day, in 2060 and in 2100. A million scenarios for each period were run to predict the likelihood at each time frame of the location of the shoreline and the area where the foundations of building may be compromised.

The modelling shows two areas where there is significant uncertainty. These are the Manning River entrances at Farquhar and Harrington. The interaction between coastal processes and riverine processes makes it very difficult to predict the impact on those areas with any certainty.

A copy of the hazard modelling report is available on [Council's website](#).



PROBABILISTIC HAZARD MODELLING

LEGEND

- PROBABILISTIC HAZARD MAPPING
- 2020
 - 2060
 - 2100
 - Areas of hazard uncertainty

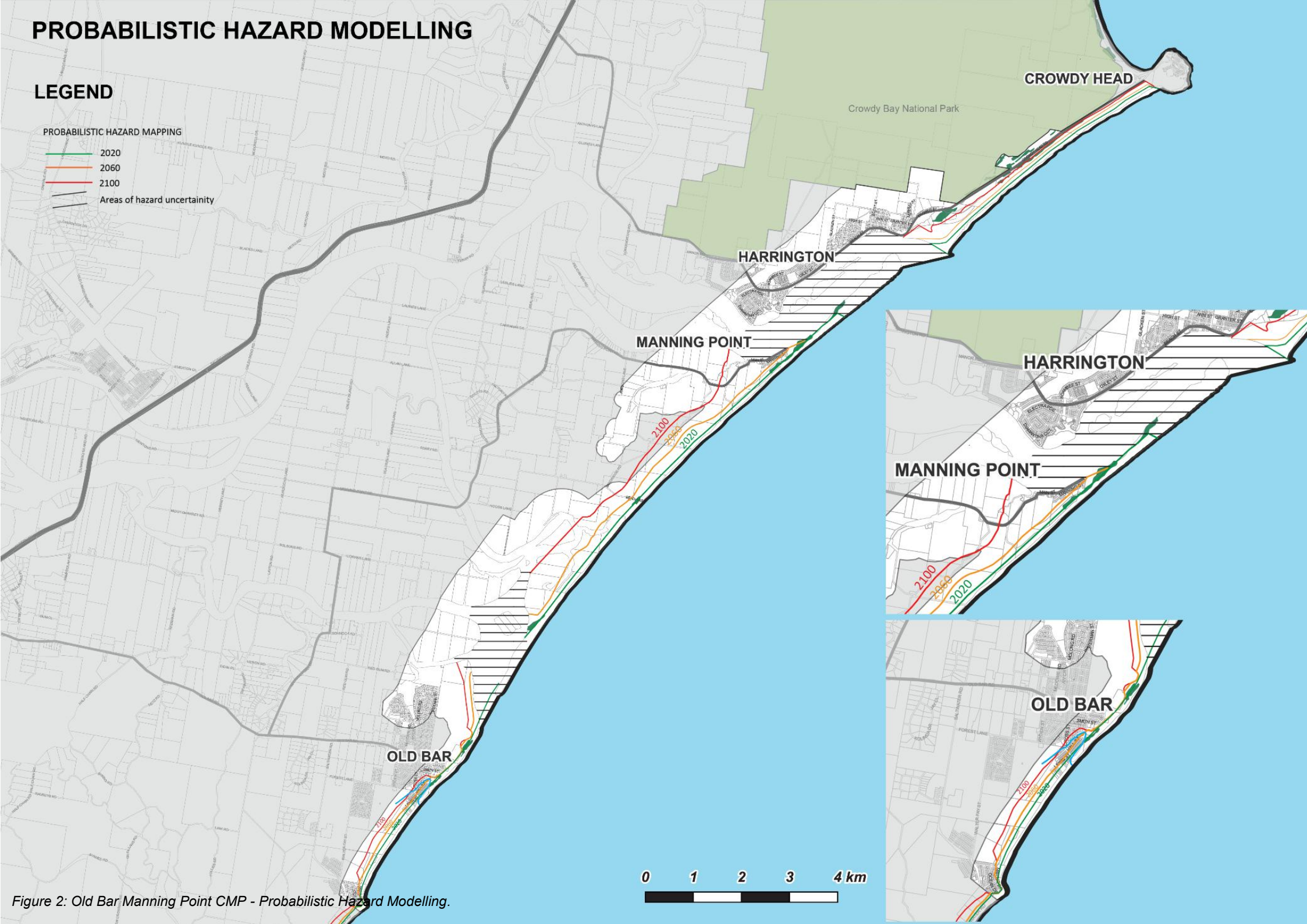


Figure 2: Old Bar Manning Point CMP - Probabilistic Hazard Modelling.

A Snapshot of Issues

This section describes the key characteristics, values and priority coastal management issues for the entire CMP area and for each of the coastal management areas.

Overview

The OBMP CMP applies to a single coastal compartment that is relatively uniform in its geography, geomorphology and demography. Community engagement undertaken to support the CMP, showed that the values and qualities of this area of coast are shared across the communities. The development of the CMP revealed that many of the management issues are common across the area; but there are unique challenges and opportunities in discrete sections of the coast.

The coastal sediment compartment is characterised by two entrances of the Manning River. One at Harrington, in the north of the compartment and one further south at the Farquhar Inlet, just north of the township of Old Bar. An important geomorphological feature of the Crowdy-Black Heads sediment compartment is that there is no discernible sand body offshore. The inner continental shelf sands have already been substantially transported onshore during the past 6,000 to 7,000 years. So, the compartment is sediment deficient meaning that coastal erosion and shoreline recession will occur more quickly in this part of the coast compared to other areas. Coastal erosion and shoreline recession are enduring themes for this area. Sea-level rise and climate change will exacerbate these processes.

Probabilistic hazard mapping for present day (2020), 2060 and 2100 demonstrates that there are areas in Old Bar that are at immediate risk of coastal erosion. Properties, infrastructure and assets will be lost. Over time, the risk extends inland at both Old Bar, Mitchells Island and Manning Point. By 2100, the modelling predicts that erosion and recession will have fundamentally changed these communities including the complete loss of the Manning Point township. Beyond this period, the only certainty is that if sea levels continue to rise, these processes will continue in areas underlain by sand. The impacts that have occurred in Old Bar are the beginning of fundamental remodelling of our coast. There is significant uncertainty in the modelling about the interaction of the Manning River entrances at Harrington and Farquhar, flooding and coastal processes. There is a high risk that a breakthrough of Manning Point Spit will occur which could cause the river entrance to move south. The impact of this on Manning Point and Harrington is unknown.

Future residential growth in the study area is moderate. New greenfield release areas at Old Bar are outside of the 2100 hazard risk area. Infill development and the intensification of land use in vulnerable areas is the most significant risk. There are few examples where infill development or intensification has occurred in the subject area; however, at other vulnerable MidCoast locations, it has. The local planning framework needs to be more robust to dissuade investment and intensification commensurate with the risk. Other land uses such as employment lands and recreational areas are generally located outside of area of immediate risk.

Crowdy Head – Harrington (including the Manning River Entrance)

- The section of coast adjoins the Crowdy Bay National Park to the north.
- It is the only area of coast in the subject area that is accreting.
- There are pockets of littoral rainforest between Harrington and Crowdy Head.
- There is a mixture of tenures, property ownership and management responsibilities including Crown Land, Council Land and private properties.
- It includes the northern Manning River Entrance which is partially trained (northern side) and is highly dynamic. The river entrance is highly unstable and difficult to navigate. The State Government has undertaken comprehensive investigation and feasibility assessment of options to improve navigation in the entrance; however, these have not progressed.

- The area is an important shorebird breeding area including migratory birds.
- 4WD access is permitted along this area from the northern break wall to Crowdy Head.

Priority issues

- There may be opportunities to protect and restore existing areas of littoral rainforest and provide areas for the migration of these communities.
- Beach access and user management is a common issue and balancing public access, particularly recreational vehicles and domestic animals, and other objectives was commonly raised during engagement.
- There may be land suitable for voluntary acquisition under the Coastal Lands Protection Scheme to rationalise and coordinate the management of public lands, to improve public access and protect coastal vegetation communities.
- There is a need to continue protecting migratory shorebird breeding sites from threats such as foxes and to manage beach users at specific times.
- The Manning Entrance Strategic Business Case⁵ recommended to advance the sand management system, through to the Gate 2 Infrastructure Investor Assurance Framework. Transport for NSW (TfNSW) made a decision not to advance this further at the time.

Manning Point Mitchells Island

- Manning Point and Mitchells Island are highly vulnerable to coastal erosion and shoreline recession.
- The Manning Point community is subject to flooding and during flood events, can be isolated.
- Manning Point Spit is highly vulnerable to coastal erosion, and a breakthrough of the spit is anticipated in the longer-term driven by open coast processes. However, the 2025 record floods damaged the southern spur wall and exacerbated riverside erosion of the spit. This has significantly increased the likelihood of a breakthrough in the immediate to short-term. There is significant uncertainty of the implications of this including increasing the coastal erosion risk to Manning Point and exposing Harrington to the open coast.
- There are pockets of littoral rainforest.
- Manning Point is a popular beach access point for 4WDs and there are important recreation assets at risk over the medium to long-term.
- The area contains important shorebird breeding sites.

Priority issues

- To repair the southern spur wall and undertake emergency nourishment activities to bolster the spit until the wall is repaired.
- To interrupt the cycle of investment and intensification of development in the Manning Point township and parts of Mitchells Island, so that the natural attrition of properties occurs.
- The Manning Point Sewerage Treatment Plant is vulnerable in the short-medium term.
- To commence monitoring the Manning Point Spit.
- To provide buffer areas for littoral rainforest to migrate if possible or look for other options to maintain their ecological function in the landscape.

⁵ More information is available at: <https://www.transport.nsw.gov.au/projects/current-projects/manning-river-entrance>

- There is a need to better manage beach access and recreation vehicle use, particularly when shorebirds are breeding.

Farquhar Inlet

- Farquhar Inlet is the second Manning River entrance. It is intermittently closed, and it is manually opened by Council when river levels reach a specified flood height. It is primarily opened to mitigate flood risk; however there has been significant pressure to open Farquhar for water quality and aesthetic reasons.
- Farquhar is a popular recreation area for the community. It includes 4WD beach access, Mud Bishop's Reserve and the important Aboriginal cultural place, Farquhar Park.
- Farquhar Park is managed by Crown Lands. There are management challenges including the protection and restoration of the littoral rainforest and access arrangements.
- Coastal erosion and shoreline recession will impact these areas noting that there is great uncertainty in the modelling around this because of the complex interaction of the river entrance and coastal processes.
- Dredging has occurred previously to provide boat access to Farquhar Park.
- Farquhar is an important breeding area for migratory and resident shorebirds.

Priority issues

- There is a need to revise the Inlet Opening Strategy and communicate this to the community.
- Similarly, the Dredging Strategy for the Manning River, including Farquhar needs to be revisited and updated.
- Coastal protection works (to maintain access) to support environmental protection works within the littoral rainforest may be required.
- Access arrangements and use of the area need to be revisited to balance public access and shorebirds particularly at breeding times.
- Council, Crown Lands and the National Parks and Wildlife Service undertake routine fox control measures that need to be formalised in the CMP.



Old Bar North (including Old Bar Beach)

- This is the focal point of the Old Bar Community. It is a key recreation and community asset and important for tourism. The area includes Taree Old Bar Park, the Taree Old Bar Surf Life Saving Club (SLSC), picnic facilities, café, skate park and playground.
- Manning Coastcare Group and the Old Bar Beach Sand Replenishment Group actively work in this area. They undertake ecological restoration and, management of littoral rainforest remnants and dune restoration, sand trapping and landscaping. Some of this work is being compromised by stormwater and overland flow in times of high rainfall.
- Probabilistic hazard modelling demonstrates that this area is underlain by bedrock. So, over time the sand will be eroded from the beach, and it will become a rocky headland.
- The modelling demonstrates that private properties in this location are constructed on bedrock.
- There are pockets of littoral rainforest that have limited opportunity to migrate because of urban squeeze.

Priority issues

- Maintaining the short-term function and appeal of Old Bar Beach is an important action; however, it needs to be communicated to the community that in the medium-term it will be unsustainable to maintain a sandy beach in this location.
- Managing community expectations about the long-term function of Old Bar Beach will be an ongoing challenge.
- A planning proposal to remove existing restrictions relating to coastal hazards on some properties is required.
- Ensuring that beach access by SLSC vehicles and equipment is available.
- Stormwater and overland flow issues will need to be resolved and considered in any future planning of Old Bar Park and environs.
- Given that much of the existing littoral rainforest will be impacted over time, the identification of retreat areas and maintaining the ecological function of this community in the landscape will be important.

Old Bar South (Pacific Parade and Lewis Street)

- This is one of the 15 coastal erosion hot spots in New South Wales.
- Significant erosion and shoreline recession has occurred in the area and properties have been damaged and lost. The area is underlain by sand, so shoreline recession and coastal erosion will continue to occur. There are properties, infrastructure and assets at immediate risk.
- Racecourse Creek is a small creek that runs through the area and is intermittently closed and open to the sea. There is community concern over the creek's ecological health, its role in localised flooding, proposed additional development within the catchment and the perception that at times of flood, Racecourse Creek increases erosion of the beach.
- This is a popular area for public recreation, and it is valued by the community.

Priority issues

- The key management issues in this location are coastal erosion and shoreline recession. So, intervening in the intensification and redevelopment of properties in this area is an important challenge.
- The risk is ongoing with modelling showing that properties on the sea side of Lewis Street and the Pacific Parade are at immediate risk. In 2060, this extends to all of Lewis Street, and the properties along Pacific Parade and by 2100 the hazard risk extends to include Hall Street, George Streets and areas of adjoining streets.
- There may be opportunities to undertake remedial work in Racecourse Creek to address community concerns.
- To understand the legal responsibilities and obligations for public beach access on eroding coastlines.

Wallabi Point

- The Wallabi Point township is underlain by bedrock, so the impact of coastal processes on most of the township will be limited. However, there are several properties that are at risk in the immediate term.
- There are pockets of littoral rainforest north of the township that are being actively regenerated and revegetated by the Manning Coastcare Group.
- There are several beach access points and associated infrastructure (e.g. picnic areas and car parks) that are vulnerable to coastal hazards.

- There is significant infrastructure (e.g. exfiltration ponds) in areas vulnerable to coastal erosion and shoreline recession.

Priority issues

- To provide retreat zones for the littoral rainforest communities to migrate if possible or to look for other options to maintain their ecological function in the landscape.
- To ensure that there is a strategy in place to relocate infrastructure, assets and utilities outside of areas of risk.
- To interrupt the cycle of investment and intensification of development in areas of Wallabi Point that are impacted by coastal processes commensurate with risk.



COASTAL MANAGEMENT AREAS

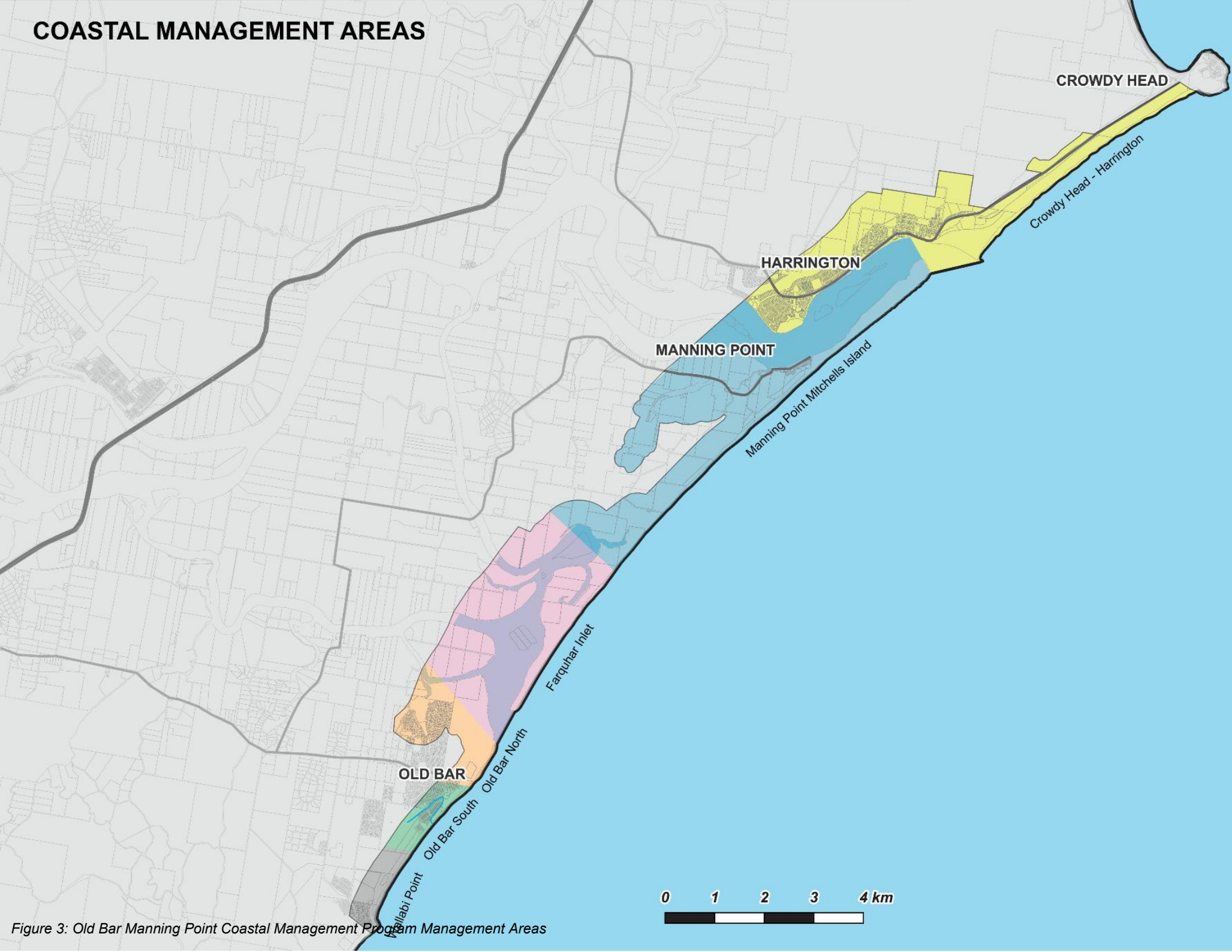


Figure 3: Old Bar Manning Point Coastal Management Program Management Areas

Risk Assessment

Council prepared a detailed risk assessment of key threats against key values identified for the OBMP CMP area (Appendix A: Detailed Risk Assessment). The risk assessment identified and assessed coastal risks, vulnerabilities and opportunities including the risks to environmental, social and economic values and benefits.

The following three threats were identified as those most relevant to the study area.

- Shoreline recession and coastal erosion
- Beach access and use
- Flooding and stormwater

These threats were assessed against the following five categories of values.

- Servicing
- Socio-economic
- Beach access and use
- Culture
- Natural systems

The likelihood of each threat occurring was considered along with the consequence to provide an indication of the current threat level and how this level may change in 2060, 2100 and 2125 based on anticipated changes to the area at each of these timeframes. These timeframes were selected as detailed probabilistic hazard modelling was undertaken for the years 2020, 2060 and 2100. The timeframes and planning horizons required to be considered in a CMP (immediate, 20 years, 50 years, 100 years) are encompassed within the modelling outputs and risk assessment timeframes adopted, with the 2125 timeframe being considered by council as a continuation of the trend of escalating risk beyond the 2100 model results.

As expected, shoreline recession and coastal erosion pose the greatest risks to all values over the 100-year planning horizon. As these processes continue to reshape the coastline, it will increase the risk to an increasing number of private properties and infrastructure leading to increased socio-economic impacts. Aboriginal cultural sites and items will be exposed, damaged and lost and beach access and use will experience short-term interruptions and long-term changes to space. Natural systems are particularly vulnerable to shoreline recession and coastal erosion as hydrological and climatic conditions change and discrete coastal vegetation communities are eroded.

Beach access and use is rated as relatively low risk against most values but as the population increases and recreational vehicle ownership increases, the risk to already compromised natural systems (including shorebirds, dune systems and littoral rainforest) increases.

Flooding and stormwater will be exacerbated over time but in the context of the CMP, these impacts will be relatively isolated and minor.

Table 1: Overall risk assessment.

VALUE	RISK (or Risk Rating)											
	Shoreline recession and coastal erosion				Beach access and use				Flooding and stormwater			
	2020	2060	2100	2125	2020	2060	2100	2125	2020	2060	2100	2125
Servicing	Medium	High	Extreme	Extreme	N/a	N/a	N/a	N/a	Low	Low	Low	Low
Social-economic	Medium	High	Extreme	Extreme	Low	Low	Low	Low	Medium	Medium	Medium	Medium
Beach access and use	Medium	Medium	High	High	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Culture	Medium	High	High	High	Low	Low	Medium	Medium	Low	Low	Low	Low
Natural systems	High	High	Extreme	Extreme	Medium	High	High	High	Low	Low	Low	Low

A copy of the detailed risk assessment is available at Appendix A: Detailed Risk Assessment.

Manning Point Spit Breakthrough

Since the Risk Assessment was prepared, an additional, significant risk has emerged. In May 2025, record floods occurred in the Manning River Catchment. During the event, part of the southern spur wall was damaged. The damaged wall has exacerbated riverside erosion of the spit and the likelihood of a breakthrough in the short-term has significantly increased.

The impacts of a breakthrough are not known. However, a breakthrough is likely to fundamentally change the dynamics of the Manning River Entrance. A similar event occurred at Bribie Island in Queensland in 2022. That event caused the main entrance to relocate to the breakthrough point. If a similar outcome were realised at the Spit, the Manning Point township could be at short-term risk from erosion and Harrington could be exposed to open coast conditions.

The CMP anticipates a breakthrough of the spit in the longer-term, but that event was expected to be driven by open coast processes. Although, the spur wall is not a protective structure it does maintain the dominant entrance conditions that have existed since it was constructed. The spur wall is a Transport for NSW asset. A whole of Government response is underway to secure the necessary approvals and funding to repair the wall. In the interim, Council has utilised emergency concessions provided under the State Emergency and Rescue Management Act 1989 to undertake sand nourishment to bolster the Spit until the wall is repaired.

Applying the risk framework to the current situation, the likelihood of a breakthrough is “Likely”, and the consequence is “Catastrophic” given the potential impact on the Manning Point and Harrington communities. Therefore, the risk rating is “Extreme”.

Table 2: Impact description.

	DESCRIPTION
Minor	Discernible or temporary negative impact. The impact affects a small number of individuals/properties. Short-term recovery will occur.
Moderate	Limited impacts on parts of the community. Recovery in the short-term is likely.
Major	Impacts affected significant proportion of the community. Long term recovery is anticipated.
Catastrophic	Community-wide, permanent negative impact. Complete breakdown of ecological function. Extensive, irreparable environmental damage. Recovery will not occur.

Table 3: Likelihood and consequence relationship.

LIKELIHOOD	CONSEQUENCE			
	Minor	Moderate	Major	Catastrophic
Likely	Medium	High	High	Extreme
Possible	Medium	High	High	Extreme
Unlikely	Low	Medium	Medium	High
Rare	Low	Medium	Medium	High



Figure 4: Damaged spur wall and breakthrough risk location.

Land use and population

The key demographic and development statistics for the Old Bar Manning Point CMP are provided below.



Table 4: Demographic statistics for the MidCoast LGA compared to NSW.

Indicator	MidCoast LGA	NSW
Median age (years)	54	39
<15 years	14.6%	18.1%
60 and over	42.0%	23.5%
Couples with children	17%	31%
Single parents with children	10.5%	10.6%
Aboriginal and Torres Strait Islander	7.3%	3.4%
Born overseas	10.1%	29.3%
Speaks English only at home	89.9%	67.6%
Households renting	22%	31%
Bachelor or higher degree	9.9%	23.4%
Median weekly household income	\$1114	\$1,849
Employed population	91.0%	93.7%

Some notable differences between the MidCoast LGA and NSW are:

- There is a significantly higher median age, a lower proportion of people in the younger age groups (15 years of age or younger) and a higher proportion of people in the older age groups (60+ years) compared to the NSW averages.

- There is a lower percentage of households with couples with children compared to the NSW average.
- There is a higher percentage of Aboriginal and Torres Strait Islander population compared to the NSW average.
- There are high levels of people born in Australia and most only speak English at home.
- There is a relatively high level of home ownership.
- Less than 10% of the population has a bachelor's degree or higher.
- The income per person is considerably less than the state average.

A community profile for the wider MidCoast is available at <https://profile.id.com.au/midcoast>.

Council maintains a contemporary, strategic land-use planning framework that consists of the Local Strategic Planning Statement, Housing Strategy and MidCoast Urban Release Areas Report. These documents form the local strategic policy framework that inform changes to the Local Environmental Plan. Coastal risks are considered in these documents.

While Harrington has seen very high growth rates over the last decade, the opportunities for additional development are very limited due to constraints. Comparatively, Old Bar and Wallabi Point have observed a moderate growth rate and there is adequate zoned and undeveloped land available to accommodate, predicted future growth. These areas are outside of the 2100 probability hazard areas.

The strategic planning framework does not facilitate additional development at Manning Point.

All other areas in the OBMP CMP area are rural or environmental lands.

No significant areas of coastal land are anticipated for future infrastructure or recreation purposes.

There are two infrastructure items that are at risk from coastal processes in the short-medium term. These are the Manning Point Sewerage Treatment Plant (STP) and the exfiltration ponds at Wallabi Point. One of the challenges anticipated in this CMP is the ongoing servicing of the Manning Point Community after the STP is decommissioned due to risk of damage from coastal processes. Because Manning Point is likely to be incrementally impacted in the medium to long-term, constructing a new STP is unlikely to be viable, so alternate arrangements to service the township will need to be considered.

Evaluation

The evaluation of management options is an integral part of this CMP. Council engaged an independent consultant to evaluate the management options identified in the risk assessment and the OBMP CMP Issues and Management Options Discussion Paper (MidCoast Council, 2024).

The Coastal Management Manual recommends the options are considered against three broad criteria.

- **feasibility** – would it work?
- **viability** – Is it worth paying for, and is there a fair way to pay for it?
- **acceptability** – will stakeholders and the public like the option and is it equitable?

Council requested a slightly different set of criteria.

‘Viability’ was renamed ‘**Affordability**’ to acknowledge that many of the hard interventions are very expensive to construct and then to maintain and they are simply not affordable. Any public funds diverted to these types of interventions means less funding for other public assets and facilities and Council services.

The second change was the inclusion of criteria around ‘**Fairness**’. Many of the interventions considered impose unreasonable obligations on the broader community and future generations. When considering the merit of each option, Council felt that it was important to consider the impact on the community, which may be affected by less public funding available for assets, infrastructure, facilities and services, and the burden on future generations to meet the ongoing maintenance costs and the reengineering or removal of these structures at that end of their design life.

The evaluation considered the 73 management options that were identified in the Issues and Options Discussion Paper and two additional options that were suggested by the Consultant. The options were grouped into three categories.

1. **No regrets options.** These options are those that provide benefit for moderate cost, regardless of any uncertainties that surround coastal management and future sea-level rise. Actions typically include the development of policies and strategies, and the completion of relatively inexpensive studies to support policy and strategy decisions. No regrets options were included in the CMP and did not undergo further assessment.
2. **Infeasible options.** These options are beyond the capacity of present funding sources and typical arrangements within a CMP. A coarse filter using a maximum previously assessed capital cost of \$20 million was applied to actions based on experience of the authors with several CMP’s that have either recently been gazetted or are at the stage of public exhibition. These options were excluded from the CMP.
3. **Remaining options.** These options are those remaining options when the above two categories of options were removed from the list and tend to be the various protective mechanisms identified in previous studies and reports. These options were the subject of the Multi-Criteria Analysis (MCA).

The MCA was supported by two consultative exercises.

1. A ‘Have your say’ page that asked the community about their usage of, and values for, this part of the coast and their priorities for its management.
2. A targeted consultation exercise that formally surveyed 85 residents of the broader MidCoast Community asking them similar questions about usage, values and management priorities.

From these exercises, it was clear that the community values this area and that it provides many opportunities for active use, such as walking, swimming and exercising animals. The two highest priorities for coastal management were to protect coastal ecosystems and processes and to protect public access. These results helped Council, and our consultant draft the criteria against which the remaining options were assessed.

Eighteen criteria were drafted, eight assessing **acceptability**, five for **fairness** and the remaining six to evaluate **feasibility**. Note that the participants were instructed not to consider the cost or **affordability** of the action. The 18 criteria address the requirements of the Coastal Management Act 2016 and manual and reflect the community values and usage of this part of the coast.

The participants carried out two tasks. The first was to rate the **importance** of each of the criteria to them. The second task asked them to evaluate the **performance** of each option against those criteria. The scores were averaged and normalised with the following results.

The assessment was separated into two geographical areas, Old Bar and Farquhar/Manning Point. The following tables contain the results from the MCA.

Table 5: Multi-criteria Analysis (MCA) results for options at Old Bar.

Old Bar	MCA Rank	MCA Normalised Score	Cost (\$)
Flexible Adaptation (including managed retreat)	1	100	\$100K / year for 5 years
Property Purchase	2	44	\$90M
Beach Scraping	3	33	\$150K / year
Geotextile Sand Container Wall	4	18	\$8.63M
Pacific Parade Rock Revetment	5	13	\$10.6M
Lewis Street Rock Revetment	6	12.5	\$12.5M
Rock Filled Bag Revetment	7	-8	\$17.2M
Submerged Breakwater / Multipurpose Reef	8	-20	\$26.0M

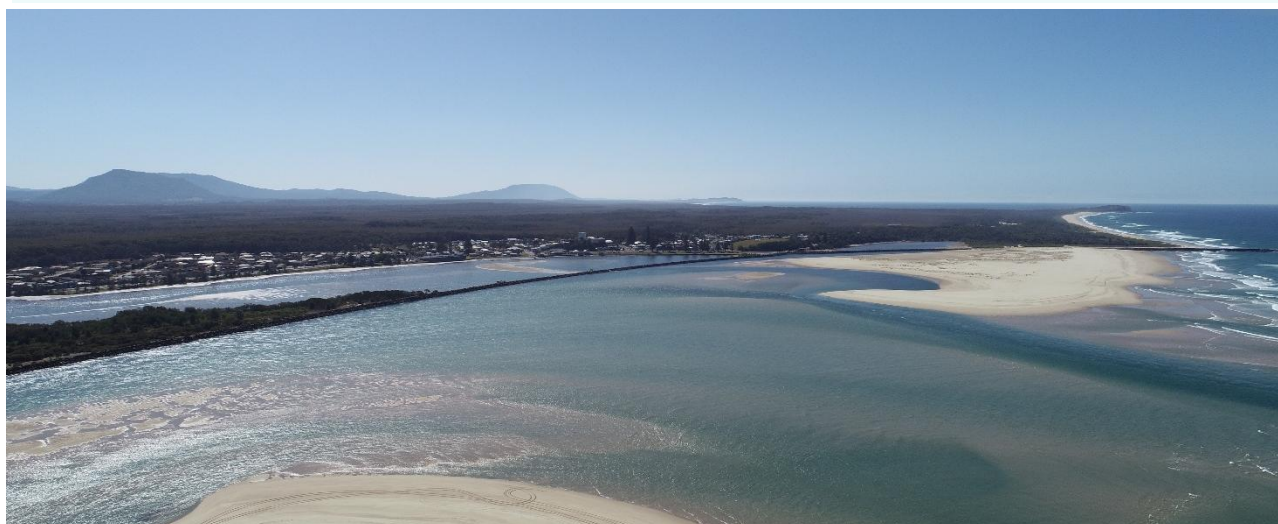


Table 6: MCA results for options at Farquhar, Mitchells Island and Manning Point.

Farquhar / Manning Point	MCA Rank	MCA Normalised Score	Cost (\$M)
Manning Point – Soft options	1	100	\$80M nourishment \$360K / year scraping \$220K / year dune rehabilitation
Mitchells Island – Soft options	2	70	\$45M nourishment \$210K / year scraping
Farquhar Inlet – Dredging to keep entrance open.	3	9	\$2.25M + \$1.6M / year
Farquhar Inlet – dredging and training structures	4	-51	>\$40M
Farquhar Inlet – Dredge to form Lake behind Berm	5	-137	\$8.8M

From these results, the ‘flexible adaptation’ (including managed retreat), was the overwhelmingly preferred option for Old Bar with the highest rank and lowest cost. When the scores were normalised, it was over twice as highly rated as the second preference which was ‘property purchase’.

Participants were instructed not to consider the ‘affordability’ of any of the options in their evaluation. This is an exercise that occurs in the business planning process when funding mechanisms are identified. Property purchase has an estimated cost (2024\$) of \$90M. So, while ‘property purchase’ was the second favoured option, a \$90M+ cost means that it is unfeasible to pursue this option further.

At Mitchells Island and Manning Point, soft options including ‘nourishment’, ‘beach scraping’ and ‘dune rehabilitation’ were highly favoured. But the costs of these interventions are extremely high because to the volume of sand required for nourishment (\$120M collectively), and the length of coast treated by scraping (\$570K per year). Again, these options cannot be reasonably justified or funded. However, there are two ‘no regrets’ options identified for Manning Point. One is to monitor the spit and to direct efforts for sand scraping and beneficial re-use of dredged materials. These are in the CMP.

The MCA process did not explicitly evaluate managed retreat as an option for Mitchells Island or Manning Point. Instead, this option was evaluated through a workshop held between council, DCCEEW representatives and other state agencies. This process canvassed the viability, feasibility and community acceptability of potential management strategies to address projected coastal hazards and risks to these communities over the life of the CMP. This process noted the significant support that managed retreat received in its application at Old Bar which provided a strong indication it would gain similar support in the context of Manning Point and Mitchells Island. The outcome of this process led to the adoption by Council of managed retreat as a consistent management approach applied throughout the CMP study area.

None of the options presented to manage the Farquhar Inlet were considered reasonable, desirable or feasible. The ‘no regrets’ options to review the Manning River Dredging Strategy and Inlet Open Strategy has been included in the CMP.

Actions to be implemented by Council or by public authorities

The following are the management actions that are proposed to be implemented over the 10-year life of this CMP.

Governance

Council's policy for the management of this area is managed retreat. The coastal compartment is sediment deficient, meaning that there is more sand leaving the compartment than entering it. This is a natural process, but it means that shoreline recession and impacts from acute erosion events will advance more rapidly in this compartment than might be experienced in other coastal areas.

Council is committed to allow the occupation of a dwelling or property for as long as it is safe-to-do-so and can be serviced by essential utilities and services but, as structures and essential infrastructure are damaged, the residential occupation of dwellings will cease and buildings, structures and inground services demolished and disposed of in an appropriate manner. As part of this policy, there is an absolute need to challenge the ingrained notion of serviceability that government planners and engineers hold on to, and which is reinforced by planning and engineering requirements. Council needs to rethink what essential access and services really mean and move to a more innovative and pragmatic regulatory framework that recognises that alternatives to traditional servicing thresholds exist.

To support this, it is necessary to prepare an Adaptation Policy and Guidelines and where relevant, Local Adaptation Plans (LAPs) for discrete areas. Manning Point, Lewis Street and Pacific Parade are nominated as priorities for LAPs in this CMP. Other areas may be prepared in future iterations of the CMP. These plans will be developed in close consultation with the community.

The Adaptation Policy and Guidelines will set triggers and thresholds for actions such as when infrastructure is to be abandoned and what options are acceptable to replace that infrastructure (e.g. reticulated water to rainwater tanks). It will also state when the residential occupation of buildings ceases and when structures are to be demolished. The LAPs will provide area-specific direction on this. This is a long-term, strategic policy that needs to be placed in an enduring policy environment, not in a 10-year CMP.

LAPs will be opportunities for Council and our communities to work together to come up with solutions that support the extended occupation and use of properties. In some circumstances there may be opportunities to provide easements at the rear of properties or through adjoining properties when road access is compromised, or where electricity or water can be rerouted.

The Adaptation Policy and Guidelines and LAPs, and the amendments to the local planning framework, are fundamental elements of this CMP. Therefore, they are high priority items that will be initiated immediately after the CMP is certified. In doing so, council will also consider the outcomes of related State-led projects such as the State Disaster Mitigation Plan action to *"Develop a State policy for large-scale multi-hazard managed relocation"*, and the NSW Climate Change Adaptation Action Plan actions to *"Review the land-use planning framework to better embed climate change risk and adaptation considerations"* and *"Investigate additional mechanisms and incentives that facilitate climate change risk management, adaptation and building resilience in areas impacted by flood and coastal hazards."*

Coastal processes will ultimately damage and destroy important Council infrastructure like roads and reticulated water and sewer systems. In a managed retreat scenario, it is essential that Council understands its legal obligations and liabilities under the various legislations that apply. So, an important action of the CMP is to seek formal legal advice on these matters.

Table 7: Old Bar Manning Point CMP - Governance actions.

Management action	Timing (FY)	Responsibility (Lead)	Indicative capital cost	Indicative maintenance cost	Indicative operational cost	Funding source/s
G1: To prepare an adaptation policy and guidelines and local adaptation plans (LAPs) for Manning Point, Lewis Street and Pacific Parade.	2026/2027	MidCoast Council (Natural Systems)	\$120K	\$0	\$0	Council budget
G2: To seek legal advice to confirm local governments' obligations under the Local Government Act, the Roads Act and the Environmental Planning and Assessment Act to maintain physical access and services to properties impacted by coastal processes.	2026/2027	MidCoast Council (Roads)	\$10K	\$0	\$0	Council budget

Community Education and Awareness

Over time, coastal erosion and shoreline recession will fundamentally change our coastline and how we interact with it. There will be tangible changes to our coastal communities. Old Bar Beach will be lost and eventually become a rocky headland, and it is likely that embayments will form north and south of the underlying bedrock. Most profoundly, there will be the ongoing loss of peoples' homes along Lewis Street and Pacific Parade and eventually Hall Street and George Streets and beyond. In the case of the Manning Point, the modelling indicates that there will no longer be a Manning Point township by 2100.

Community awareness and preparedness is an important management action to build resilience and acceptance, and particularly to ensure those people in the most vulnerable areas are prepared for inevitable loss. It is also essential that those people who are most likely to be impacted by acute coastal erosion events know what to do in an emergency. The CMP action proposes to undertake targeted and general campaigns to achieve this over the 10-year period to increase our communities' awareness and understanding and to build resilience and acceptance.

The coast is a diverse, dynamic and culturally rich environment. There are opportunities to provide interpretive and educational material on a range of ecological, cultural and geomorphological features. A coastal signage strategy should aim to provide consistent and complementary signage along the MidCoast coast. The strategy aims to rationalise existing signage, adopt less intrusive interpretive signage such as the use of QR codes and ensure emergency signage is consistent, easily interpreted and appropriately located. The CMP anticipates the development of a Coastal Signage Strategy in the 2027/2028 financial year with a 4-year implementation program in the following years.

Table 8: Old Bar Manning Point CMP – Community education and awareness actions.

Management action	Timing (FY)	Responsibility (Lead)	Indicative capital cost	Indicative maintenance cost	Indicative operational cost	Funding source/s
EA1: To include opportunistic features or stories in Council's media outputs including webpage.	All years	MidCoast Council (Comms) NSW SES	\$0	\$0	\$0	Council funds
EA2: To undertake media as storm season approaches.	All years	MidCoast Council (Comms) NSW SES	\$0	\$0	\$0	Council funds
EA3: To send mail outs to households at risk of coastal erosion as the storm season approaches.	All years	MidCoast Council (Comms) NSW SES	\$3K	\$0	\$10K	Council funds
EA4: To prepare a Coastal Signage Strategy.	2027/2028	MidCoast Council (Public Spaces)	\$60K	\$0	\$0	Council funds
EA5: To implement the Coastal Signage Strategy.	2028/2029-2031/2032	MidCoast Council (Public Spaces)	\$0	\$0	\$200K	Council funds



Land-use planning

Change to our coastline is inevitable. There is no enduring solution to the impacts of coastal erosion and shoreline recession. The accepted design life of a house is 50 years⁶. To support Council's strategic direction of managed retreat, it is essential to interrupt the cycle of investment and intensification of land uses in vulnerable areas. This will encourage the attrition of housing stock and property values over time. Other than the financial and insurance industries signals, the local planning framework is the most effective mechanism to achieve this. There is also a role for the State's land valuation system.

A fundamental action of the CMP is to update the land-use planning and governance framework to reflect the updated hazard mapping. This will include consolidated and consistent development provisions in the MidCoast LEP and DCP and to ensure that planning certificates are updated to alert future landowners of coastal hazard risk. It may also include rezoning areas to a land-use zone that recognises the vulnerability of these areas, such as C4 Environmental Living. This is important to ensure development is responsive to coastal hazards, to prohibit higher-density development and to discourage additional investment in at-risk areas.

Government planners and engineers need to be challenged and empowered by the planning framework to revisit ingrained notions of access and serviceability. This is required so that innovative and pragmatic regulatory solutions are applied to the challenges that ongoing coastal erosion and shoreline recession will present. For example, in some cases vehicular access by road will be compromised before the structural integrity of the building is threatened or before the reticulated sewer system fails. Physical access, albeit by foot or other means may still be available. Similarly, a failed reticulated water system could be replaced by a water tank and electricity could be rerouted or replaced by a solar system. The Adaptation Policy and Guidelines will outline these thresholds, and the planning system must be amended to allow this.

The State Government strongly recommends Councils map areas of coastal hazard risk as 'Coastal Vulnerability Areas' under the SEPP (Resilience and Hazards) 2021. Development in these areas must address the development provisions listed in clause 2.9 of that instrument. Council strongly resists this approach because the primary consideration is that the building or works are engineered to withstand current and projected coastal hazards for the design life of the building works. This is incompatible with managed retreat and will drive engineering solutions (e.g. piling) over planning ones. Engineering solutions will encourage investment and are unlikely to be compatible with other coastal values like amenity or access. At some point the piled dwelling will be undermined and while it may be structurally sound, exposed piled structures may not be habitable and are not compatible with these values.

Clause 7.4 of the MidCoast LEP addresses coastal hazard risk and provides the opportunity for a more localised approach that responds to Council's strategic direction. If Council were to adopt the State's approach, where there is an inconsistency between the provision of the SEPP and the LEP, the SEPP would prevail. As such, council does not intend to map a Coastal Vulnerability Area under the SEPP and will instead review and potentially amend Clause 7.4 of the LEP. However, if the State Government were to amend the clause 2.9 to reflect Council's strategic direction of managed retreat, then Council may reconsider the merit of the CVA mapping.

Section 10.7 planning certificates are an important means to inform prospective property purchasers of the coastal hazard risk. The probabilistic hazard report has altered the extent of land anticipated to be impacted by coastal processes to 2100. So, the section 10.7 certificate system needs to be updated to reflect these changes.

⁶ National Construction Code.

Each year, the NSW Valuer General issues land value notifications for all rateable property in NSW. The valuations are of the unimproved land value of the parcel and are generally undertaken by a 'mass valuation system'. The system groups local properties that have similar features, such as location, size, and amenity in 'components'. A broad range of sales data is analysed in each component, and inspections of some of the properties are undertaken. A representative benchmark property is selected for valuation in each component. The percentage change in value of the benchmark property from its last valuation is then calculated and this change is then applied to all properties in the component to calculate their new land values.

Despite, clear evidence of coastal hazard risk and coastal erosion in some of our communities, the unimproved land value of at-risk properties continues to rise. For example, the land value of at-risk properties in Lewis Street has trebled over the 10 years between 2014-2024. This sends a discordant signal to landowners and the market, and it complicates discussions with our community. Climate change will mean that more and more properties will become vulnerable to coastal processes and other climate related risks such as flooding and bushfire. The State's land valuation system should be responsive to this change and consider vulnerabilities in its assessment of land value. The CMP includes an action to formally raise the issue with the NSW Valuer General.

Table 9: Old Bar Manning Point CMP – Land-use planning actions.

Management action	Timing (FY)	Responsibility (Lead)	Indicative capital cost	Indicative maintenance cost	Indicative operational cost	Funding source/s
LUP1: To prepare a planning proposal to amend the MidCoast LEP: <ul style="list-style-type: none"> To update coastal risk mapping (1% exceedance probability). To review clause 7.4 Coastal Risk Planning. To investigate the rezoning of land in Coastal Risk Planning areas to an alternate zone and the inclusion of an additional zone objective about coastal hazard risk. 	2025/2026	MidCoast Council (Land Use Planning) Natural Systems	\$10K	\$0	\$0	Council funds
LUP2: To prepare an amendment to the MidCoast DCP with development controls for development in coastal risk planning areas.	2025/2026	MidCoast Council (Land Use Planning) Natural Systems	\$10K	\$0	\$0	Council funds
LUP3: To update s10.7 certificate notations for properties within coastal risk hazard area.	2025/2026	MidCoast Council (GIS)	\$3K	\$0	\$0	Council funds

Management action	Timing (FY)	Responsibility (Lead)	Indicative capital cost	Indicative maintenance cost	Indicative operational cost	Funding source/s
LUP4: To lobby the State Government to take a leadership role in coastal management in NSW and specifically to: <ul style="list-style-type: none"> Provide consistent sea-level rise targets for NSW. Commit to a risk exceedance level to support mapping in statutory and non-statutory planning instruments. 	All years	MidCoast Council (Land Use Planning) Natural Systems	\$0	\$0	\$0	-
LUP5: To formally write to the NSW Valuer General to raise the issue of land valuations and climate change risks including coastal erosion, flooding and bushfire.	2025/2026	MidCoast Council (Natural Systems)	\$0	\$0	\$0	-

Aboriginal cultural heritage

The Biripi people have a deep cultural connection to this coast. This is reflected in the many cultural sites along the coastline. There are sites and heritage items that are known to exist but there will be many that are not, and over time there is a high risk that coastal processes will expose, damage and destroy these sites and items. The CMP proposes an action to facilitate the preparation of an Aboriginal Cultural Heritage Assessment and Management Strategy to manage these impacts and to empower the Aboriginal community to respond to these issues in a timely and culturally appropriate way. This body of work is proposed to be undertaken by the local Aboriginal Community with support from MidCoast Council.

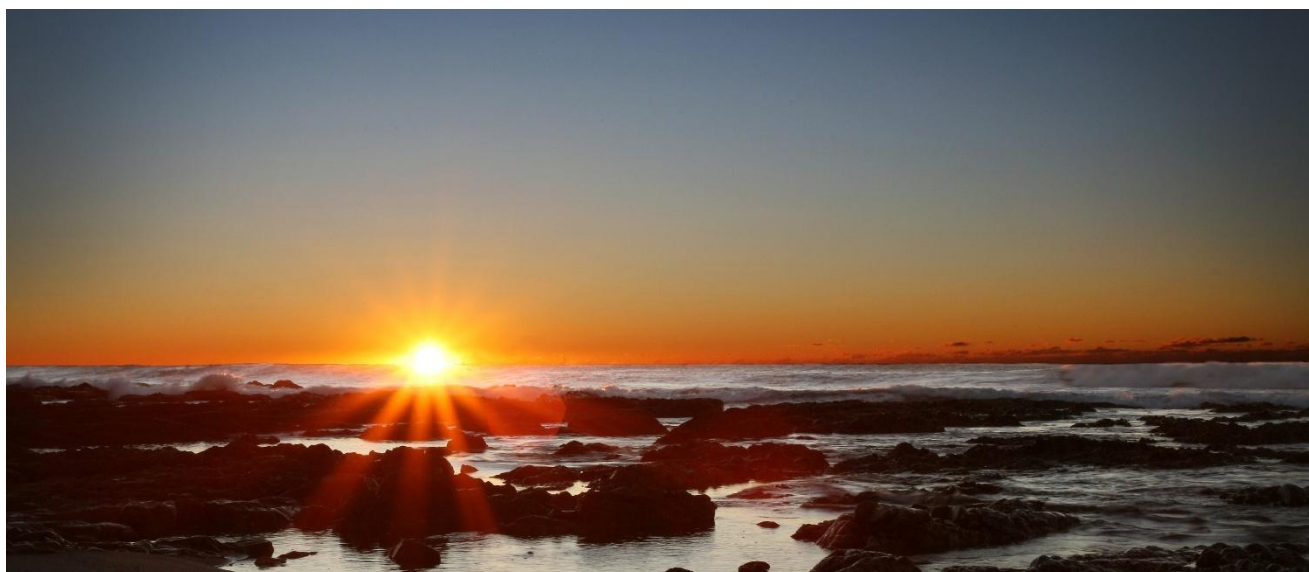


Table 10: Old Bar Manning Point CMP – Aboriginal cultural heritage actions.

Management action	Timing (FY)	Responsibility (Lead)	Indicative capital cost	Indicative maintenance cost	Indicative operational cost	Funding source/s
ACH1: To prepare an Aboriginal Cultural Heritage Assessment and Management Strategy	2028/2029	MidCoast Council Purfleet Local Aboriginal Land Council (LALC) DCCEEW	\$80K	\$0	\$0	Aboriginal Cultural Heritage Grants

Coastal wetlands and littoral rainforest

Most coastal wetland areas within the CMP area are within private land ownership and across the boundary between the OBMP CMP and the certified Manning River Estuary CMP. The actions within this section of the CMP apply to those mapped coastal wetland and littoral rainforest areas as shown in Figure 5. Relevant management options from the Manning CMP have been adopted for the purpose of the OBMP CMP to ensure consistency across CMP boundaries. The actions in the Manning CMP cover a much larger geographical area. These action will be done in concert with complimentary actions in the Manning CMP and will incur no additional costs.

Changes to hydrological regimes and ground conditions may alter the behaviour and exposure of acid sulfate soils (ASS) in the study area. The areas within the CMP boundary are described as low and moderate priority. To ensure consistency across the boundary with the Manning River Estuary CMP, the action relating to ASS has been copied across into the OBMP CMP. These actions are identified in the Manning Estuary CMP so, no funding has been allocated to these items.

There may be opportunities for Council infrastructure projects, such as road building and repair works to reinstate or improve hydrological regimes to support coastal wetlands.



Table 11: Old Bar Manning Point CMP – Coastal wetland actions.

Management action	Timing (FY)	Responsibility (Lead)	Indicative capital cost	Indicative maintenance cost	Indicative operational cost	Funding source/s
CW1: To prepare a planning proposal to amend the SEPP (Resilience and Hazards) to update coastal wetlands mapping (Action 7.01 Manning Estuary CMP) ⁷ .	2027/2028	MidCoast Council (Natural Systems) Coastcare Local Land Services (LLS)	\$0	\$0	\$0	N/a
CW2: To consider additional benefits in infrastructure projects (e.g. road works) to improve and support coastal wetlands.	All years	MidCoast Council (Roads) LLS	\$0	\$0	\$0	Council funds
CW3: To work with landholders to restore coastal wetlands on both public and private land (Action 2.02 Manning Estuary CMP) ⁸ . Proposed works entail environmental protection works in any of the Coastal Wetland and Littoral Rainforest Areas as shown in Figure 5 ⁷ .	All years	LLS MidCoast Council (Natural Systems) Landcare DCCEEW Landowners	\$0	\$0	\$0	N/a
CW4: To identify coastal wetland migration zones under sea-level rise scenarios, develop a plan to retain suitable buffers to accommodate changing footprints (Action 3.01 Manning Estuary CMP) ⁷ .	2025/2026	MidCoast Council (Natural Systems) LLS Landowners	\$0	\$0	\$0	N/a

⁷ The actions in the Manning CMP cover a much larger geographical area. This action will be done in concert with complimentary actions in the Manning CMP and will incur no additional costs.

⁸ These are 'environmental protection works' *identified* for the purposes of MR8vi of the Coastal Management Manual.

Management action	Timing (FY)	Responsibility (Lead)	Indicative capital cost	Indicative maintenance cost	Indicative operational cost	Funding source/s
CW5: To work collaboratively with landholders and other stakeholders to develop an adaptation plan to mitigate the long-term (50-100 years) risk of climate change impacts on the floodplain, including management of productivity, coastal wetlands, acid sulfate soil and blackwater events. (Action 3.03 Manning Estuary CMP) ⁷	2023/2024 2025/2026 2026/2027	MidCoast Council (Natural Systems) NSW Department of Primary Industries and Regional Development (DPI) – Fisheries LLS Landowners	\$0	\$0	\$0	N/a
CW6: To implement key priority acid sulfate soil management actions from the draft Manning River Floodplain Prioritisation Study 2021. (Action 2.01 Manning Estuary CMP) ⁷ .	All years	MidCoast Council (Natural Systems) DPI- Fisheries	\$0	\$0	\$0	N/a

There are several areas of littoral rainforest along the coastline. Littoral rainforests have recently been remapped. An amendment to the SEPP (Resilience and Hazards) 2021 is proposed to reflect changes in these areas. Retreat buffers may be possible in some locations. Many of these buffer areas will extend into private properties. So, Council and LLS will need to work with landowners to achieve these outcomes.

Littoral rainforest is a relatively slow growing community, and unassisted migration may not keep up with the pace of shoreline recession. In some areas, littoral rainforest will be lost because of coastal squeeze, the existence of other vegetative communities or incompatible hydrological and ground conditions.

A coastal vegetation strategy is proposed to consider actions to retain the ecological function provided by this community in the landscape and to improve the connectivity and relationship between existing rainforest communities and stands of littoral rainforest. It will also consider other coastal communities such as heathland, dune systems and the rehabilitation of themeda headland grasslands. The vegetation strategy will be prepared in close collaboration with Manning Coastcare and may consider actions such as street tree and public space plantings and the establishment of a local native plant nursery. Private landholders are also encouraged to seek opportunities via the NSW Biodiversity Conservation Trust to protect ecological communities on private lands.

Council and Coastcare operate in many publicly managed coastal areas in the OBMP CMP area. These include those littoral rainforest areas at Wallabi Point (not currently mapped), Old Bar, Mitchells Island, Manning Point and Harrington. Works include removal of weed species; planting of native species and other activities directed at the rehabilitation of land towards its natural state.

These works constitute ‘environmental protection works’ under the EP&A Act and must be *identified* under MR8vi of the Coastal Management Manual. The proposed vegetation strategy (**LR3**) is likely to include similar environmental protection works.

Farquhar Park is under the Management of Crown Lands. Routine maintenance works, regeneration and protection works to support the littoral rainforest are supported by this CMP. These include weed management, bush regeneration and other activities that may result from **LR3**. In order to support these environmental protection works, some low-impact, short-term coastal protection works (CPW) may also be required. The purposes of these CPW are to address foreshore erosion and to maintain existing access and avoid ad-hoc vehicle encroachment into littoral rainforest or other sensitive areas. Non-structural foreshore management approaches will be used where appropriate. However, it is anticipated that sand-filled geotextile bags may be required in areas where slumping of the access occurs. Timing and funding of these coastal protection works are not included because these works will be responsive to the need to do these works. Future CPW would be subject to design and engineering specifications. These are CPW are identified for the purposes of the MR8vii of the Coastal Management Manual and c2.16(2) of the SEPP (Resilience and Hazards) 2021.

Table 12: Old Bar Manning Point CMP – Littoral rainforest actions.

Management action	Timing (FY)	Responsibility (Lead)	Indicative capital cost	Indicative maintenance cost	Indicative operational cost	Funding source/s
LR1: To prepare a planning proposal to amend the SEPP (Resilience and hazards) to update littoral rainforest mapping.	2025/2026	MidCoast Council (Land Use Planning) Natural Systems	\$10K	\$0	\$0	Council funds
LR2: To review extent of coastal acquisition area (Mitchells Island) and assess potential for retreat buffers for littoral rainforest and other coastal vegetative communities.	2029/2030	MidCoast Council (Natural Systems) Department of Planning, Housing and Infrastructure	\$3K	\$0	\$0	Council funds
LR3: To prepare a Coastal vegetation strategy to improve the biodiversity, connectivity and the relationship between other rainforest communities and stands of littoral rainforest. To identify retreat buffers for littoral rainforest.	2025/2026	MidCoast Council (Natural Systems) Coastcare LLS	\$40K	\$0	\$0	Council funds

LR4: To undertake routine maintenance works, regeneration and protection works to support the littoral rainforest within Farquhar Park (R45183). These include weed management, bush regeneration and other activities that may result from LR3 . ⁹	All years	Crown Lands	\$-	\$-	\$-	Crown Lands Funds
LR5: To undertake responsive coastal protection works to support the protection and maintenance of the littoral rainforest in within Farquhar Park (R45183). These may include non-structural foreshore management works and the short-to-medium term placement of sand filled geotextile to address any slumping of the access ¹⁰ .	All years	Crown Lands	\$-	\$-	\$-	Crown Lands Funds

Beach access and user management

Our beaches and coastline fulfil a range of recreational and commercial purposes. Some of these uses, in some locations, are inconsistent with other values and functions leading to conflict between different users and environmental qualities. A **Beach Access and Use Strategy** is proposed to address beach access and user management issues in the coastal zone. These include:

- Recreational 4WD vehicles
- Commercial fishers
- Commercial use of beaches (e.g. tourist operations)
- Domestic animals (e.g. dogs, horses).

The Beach Access and Use Strategy will review these uses and values in specific locations and may lead to a place-based response.

Compliance and enforcement are fundamental activities to manage 4WD recreational vehicles and domestic animals on beaches. Ahead of the Beach Access and Use Strategy, greater resources could be allocated to the enforcement of existing regulations. These could be targeted campaigns at key areas and times of the year when shorebirds are nesting and there is high vehicle activity.

There are a number of areas where Council is unsure about its legal responsibilities, obligations and liabilities in the coastal zone. As shoreline recession consumes private properties the cadastre of those properties extends beyond mean high water level. These areas are then used by the

⁹ These are 'environmental protection works' for the *identified* for purposes of MR8vi of the Coastal Management Manual.

¹⁰ The are 'coastal protection works' *identified* for the purposes of MR8vii of the Coastal Management Manual and c2.16(2) of the SEPP (Resilience and Hazards) 2021.

community for recreational purposes such as walking and, in some instances, 4WD vehicle use. Council is uncertain about the legality of compliance activities in these areas and also the liability of landowners where public access occurs. Council intends to seek legal advice on these matters to inform its ongoing strategy.

Council's regulatory responsibility for recreational vehicle management is limited and relies on the issuance of permits. The permitting system may provide opportunities for Council to address some of the most significant concerns about recreational vehicles. These include raising the age of permit holders, limiting permits to MidCoast residents only and to increase the fines attached to non-compliance. These options will be explored as part of the CMP and Beach Access and Use Strategy.

Table 13: Old Bar Manning Point CMP – Beach access and user management actions.

Management action	Timing (FY)	Responsibility (Lead)	Indicative capital cost	Indicative maintenance cost	Indicative operational cost	Funding source/s
BA1: To prepare a Beach Access and Use Strategy.	2026/2027 2027/2028	MidCoast Council (Public Spaces) Crown Lands	\$120 K	\$0	\$0	Council funds
BA2: To undertake additional compliance and enforcement.	All years	MidCoast Council (Compliance)	\$0	\$0	\$0	Council funds
BA3: To seek legal advice in relation to public beach access and use by recreational vehicles to: <ul style="list-style-type: none"> Understand Council's role, capacity and limitations to regulate and enforce recreational beach drivers. Increase the fines for non-compliance. Increase age of permit holders to 25 years. Understand its responsibilities under the Crown Land Management Act, Local Government Act and Road Transport Act. 	2026/2027	MidCoast Council (Compliance) MidCoast Council (Natural Systems)	\$10K	\$0	\$0	Council funds

Asset management

There are various public assets and infrastructure at risk from coastal erosion and shoreline recession. Damage to or loss of these can range from inconvenient, e.g. the exposure of a stormwater pipe on a beach, to disastrous, e.g. the failure of a sewerage treatment plant. Some risks cannot be predicted such as those from an acute coastal erosion event and others can be planned for such as those existing assets and infrastructure known to be at risk of shoreline recession. Asset management plans are proposed for community facilities, transport assets and water services. The asset management plans will consider coastal hazard risk in the future planning of these assets.

Council's sewerage treatment plant exfiltration ponds at Wallabi Point are within the short-, medium- and long-term coastal hazard areas. There is a high risk that this infrastructure will be compromised in the short-term. A strategy is required to relocate this infrastructure outside of hazard areas. When the exfiltration ponds are relocated the land will become available for alternate uses. There will be a need to remediate land and there is an opportunity to provide retreat buffers for coastal vegetation communities and/or an alternate, temporary public use.

The Manning Point Sewerage Treatment Plant is also within the -short, -medium and long-term predicted lines of coastal erosion and recession. The probabilistic hazard assessment report indicates that the Manning Point community will be significantly affected by 2060 and by 2100, where much of that community will be impacted by coastal processes. It is unlikely that the construction of a new treatment plant will be viable. An alternative treatment option will be required, so that the community continues to be serviced. This will be investigated in conjunction with the proposed Adaptation Policy and Guidelines and Local Adaptation Plan that will be prepared for Manning Point.



Table 14: Old Bar Manning Point CMP - Asset management actions.

Management action	Timing (FY)	Responsibility (Lead)	Indicative capital cost	Indicative maintenance cost	Indicative operational cost	Funding source/s
AM1: To undertake a Community Facilities Asset Management Plan that includes: <ul style="list-style-type: none"> An audit of community assets and facilities at risk from coastal processes at various timeframes. A plan to respond to vulnerable assets. 	2026/2027	MidCoast Council (Public Spaces)	\$80K	\$0	\$0	Council funds
AM2: To undertake a Transport Asset Management Plan that includes: <ul style="list-style-type: none"> An audit of transport assets at risk from coastal processes at various timeframes. A plan to respond to vulnerable assets. 	2027/2028	MidCoast Council (Roads)	\$40K	\$0	\$0	Council funds
AM3: To undertake a Water Systems Asset Management Plan that includes: <ul style="list-style-type: none"> An audit of water and sewer assets at risk from coastal processes at various timeframes. A plan to respond to vulnerable assets. 	2026/2027	MidCoast Council (Water Systems)	\$45K	\$0	\$0	Council funds
AM4: To investigate appropriate design and materials for services affected by saltwater and sediment intrusion.	2026/2027	MidCoast Council (Water Systems)	\$3K	\$0	\$0	Council funds
AM5: To prepare a strategy to move exfiltration ponds outside of the 1% exceedance area for Reduced Foundation Capacity. The strategy should also consider the remediation and future use of the site.	2026/2027	MidCoast Council (Water Systems)	\$20K	\$0	\$0	Council funds
AM6: To prepare a strategy for the ongoing servicing of Manning Point.	2027/2028	MidCoast Council (Water Systems)	\$20K	\$0	\$0	Council funds

Utilities

There is communications and electricity infrastructure within the impacted area. These are owned and managed by external organisations which will need to respond to these risks in accordance with their own risk management and asset management strategies. Council will formally notify these organisations and provide them access to the updated hazard mapping.

Table 15: Old Bar Manning Point CMP – Utilities actions.

Management action	Timing (FY)	Responsibility (Lead)	Indicative capital cost	Indicative maintenance cost	Indicative operational cost	Funding source/s
UTL1: To formally notify Telstra, Essential Energy and NBNCO about the updated probabilistic hazard mapping.	2025/2026	MidCoast Council (Natural Systems)	\$0	\$0	\$0	Council funds



Important coastal shorebird sites

There are various locations along the coast where, at certain times of the year, migratory and resident shorebirds nest, feed and rest. There can be conflict between beach users, domestic animals, introduced pest animals (e.g. foxes), predatory native animals (gulls, etc.) and these shorebirds. Education, regulation, compliance and enforcement of beach users is required. The management of shorebird sites is a coordinated, strategic effort of a range of stakeholders, including Council, Hunter Local Land Services, NSW National Parks and Wildlife Service, Crown Lands, the Department of Climate Change, Energy, the Environment and Water, and others.

Council has been awarded funding through the Crown Reserves Improvement Fund (CRIF) in previous years to undertake the annual fox control project. It is anticipated that, that funding will be available in the future.

Table 16: Old Bar Manning Point CMP – Shorebird actions.

Management action	Timing (FY)	Responsibility (Lead)	Indicative capital cost	Indicative maintenance cost	Indicative operational cost	Funding source/s
SB1: To deliver coordinated annual strategic fox controls at important shorebird sites (particularly nesting areas).	All years	MidCoast Council (Natural Systems) Crown Lands NSW National Parks and Wildlife Service (NPWS) LLS DCCEEW	\$0	\$0	\$250K (\$25K per year)	CRIF
SB2: To support trials of new shorebird protection measures, such as exclusion fencing and odour deterrents, etc.	2026/2027 2028/2029 2030/2031	MidCoast Council (Natural Systems)	\$0	\$0	\$150K (\$50K per trial)	CRIF
SB3: To regulate and enforce conflicting recreational activities (4WD, etc.) and domestic animals at and around important shorebird nesting sites.	SEE BA2					

Racecourse Creek

Racecourse Creek has primarily been used for stormwater management. There is community concern that this has resulted in a greater erosion potential leading to impacts on coastal erosion and localised flooding. The community has also raised issues about the condition of the creek and Council is aware that erosion is undermining the stability of the bank in one location. The Racecourse Creek Flood Study and Options Assessment recommended a number of options to improve the function, amenity and health of the creek including removing debris and rubbish, weed management and the removal of a failed gross pollutant trap (GPT). The proposed management action is to undertake specific works to address these issues.

Table 17: Old Bar Manning Point CMP – Racecourse Creek actions.

Management action	Timing (FY)	Responsibility (Lead)	Indicative capital cost	Indicative maintenance cost	Indicative operational cost	Funding source/s
RC1: To implement specific recommendations of the Racecourse Creek Flood Management and Options Assessment. Specifically: <ul style="list-style-type: none"> To remove the GPT. To install a revetment wall to stabilise the bank. To remove weeds, debris and rubbish. 	2026/2027	MidCoast Council (Coastal Flooding & Drainage)	\$700K	\$0	\$0	Council funds



Dredging and Farquhar Inlet management

The existing Manning River Dredging Strategy includes an ambitious, hydrodynamically unrealistic and financially unsustainable program of dredging activities which is overdue for review. The revised strategy will consider the existing extent of dredging activities and priorities for dredging in the Lower Manning Estuary and provide a more realistic and representative program. Current dredging priorities are the Manning backwater extending to the entry into the main river channel at Harrington, Manning River South Arm to Scott's Creek and Scott's Creek to Farquhar Park. All these sites have been dredged in the past five years and will require maintenance dredging over a 10–20-year cycle based on current infill rates.

The Farquhar Inlet acts like an intermittently open and closed coastal lake and lagoon. Sand accretes during calm weather and closes the inlet. This influences various qualities of the inlet and surrounding waterways including salinity and water quality and it also affects its recreational appeal. Council is pressured by various groups to open the inlet after it has closed. However, the opening of the inlet is only sustained when river flows are sufficient to maintain an open entrance. In dry times, natural coastal processes act to close the entrance. The existing management strategy allows opening at certain triggers such as water heights, salinity, and water quality. The revised strategy or policy will define the trigger/s. This will be communicated to the community as part of the review.

Table 18: Old Bar Manning Point CMP – Manning River Dredging and Farquhar Inlet actions.

Management action	Timing (FY)	Responsibility (Lead)	Indicative capital cost	Indicative maintenance cost	Indicative operational cost	Funding source/s
DF1: To review the Manning River Dredging Strategy.	2026/2027	MidCoast Council (Natural Systems)	\$15K	\$0	\$0	Council funds
DF2: To review the inlet opening strategy for Farquhar Inlet.	2026/2027	MidCoast Council (Coastal Flooding & Drainage)	\$15K	\$0	\$0	Council funds



Old Bar Beach

Old Bar Beach is the focal point of the Old Bar Township and an important asset for tourism. The area includes the Taree Old Bar Surf Lifesaving Club (SLSC), picnic area, café, skate park and playground. The Old Bar Park has undergone comprehensive redesign process that will over time improve the function and appeal of the area. The adopted masterplan for Old Bar Park includes the replacement of the existing viewing platform with an accessible version, upgraded beach access, the rehabilitation of areas dune systems. It also proposes the upgrade of the SLSC sand access to the beach that is routinely undermined by coastal erosion events. The investigation of more robust access options is supported. However, the options need to recognise that Old Bar Beach is eroding and in the short-medium term the beach will ultimately become a rocky platform.

Stormwater management has been identified as an issue in the area. There are areas within the dune system that are eroding because of overland flow and the poor performance of existing stormwater infrastructure in major events. A stormwater strategy or investigation is required to understand the functionality of the existing system and to resolve any legacy issues that might exist such as redundant pipelines and unmanaged catchments e.g. caravan park. The Old Bar Park masterplan also includes landscape interventions in that plan that serve to retain stormwater or divert water to a less vulnerable area.

The geotechnical investigation that was undertaken for this CMP revealed that Old Bar Park is underlain by bedrock. This means that this will be the limit of shoreline recession. The Surf Club and park will not be impacted by coastal processes; however, over time Old Bar Beach will likely become a rocky headland, and the sandy beach will disappear. Sand scraping is the mechanical movement of sand from the intertidal zone to the dune system. This provides a short-term additional erosion buffer against small to medium events. Over the 10-year life of the CMP, it is anticipated that up to three sand scraping campaigns may be required to maintain the recreation function and appeal of Old Bar Beach. In the long term, this will be unsustainable because there will not be adequate sand supply to undertake the works.

The Old Bar Beach Sand Replenishment Group (OBBSRG) and Manning Coastcare have previously undertaken sand trapping works along Old Bar Beach. Sand trapping involves the installation of hessian fences placed perpendicular to the shore. As sand is blown along the beach, sand is trapped and gradually builds up. Council has conditionally supported this activity in the past and will continue to support groups to undertake those works. Sand trapping only occurs in a defined area, this is between the littoral rainforest proximity areas north and south of Old Bar Beach.



Table 19: Old Bar Manning Point CMP - Old Bar Beach actions.

Management action	Timing (FY)	Responsibility (Lead)	Indicative capital cost	Indicative maintenance cost	Indicative operational cost	Funding source/s
OBB1: To undertake a stormwater management strategy or investigation.	2027/2028	MidCoast Council (Coastal Flooding & Drainage)	\$40K	\$0	\$0	Council funds
OBB2: To include stormwater management in the preparation of the plan of management.	2026/2027	MidCoast Council (Public Spaces)	\$0	\$0	\$0	Council funds
OBB3: To undertake up to three sand scraping campaigns at Old Bar Beach. ¹¹	2027/2028 2030/2031 2033/2034	MidCoast Council (Public Spaces)	\$600K ¹²	\$0	\$0	Council funds
OBB4: To support groups to undertake sand trapping ¹¹ .	2026/2027 2029/2030 2031/2032 2033/2034	MidCoast Council (Public Spaces) OBBSRG	\$2K	\$0	\$3K	Council funds
OBB5: To support the realisation of the Old Bar Park Masterplan.	Ongoing	MidCoast Council (Public Spaces)	\$0	\$0	\$0	Council funds
OBB6: To investigate more robust beach access options for the Taree Old Bar SLSC.	2026/2027	MidCoast Council (Public Spaces) Taree Old Bar SLSC	\$10K	\$0	\$0	Council funds

¹¹ For the purposes of MR8vii of the Coastal Management Manual these are coastal protection works.

¹² \$200K per campaign.

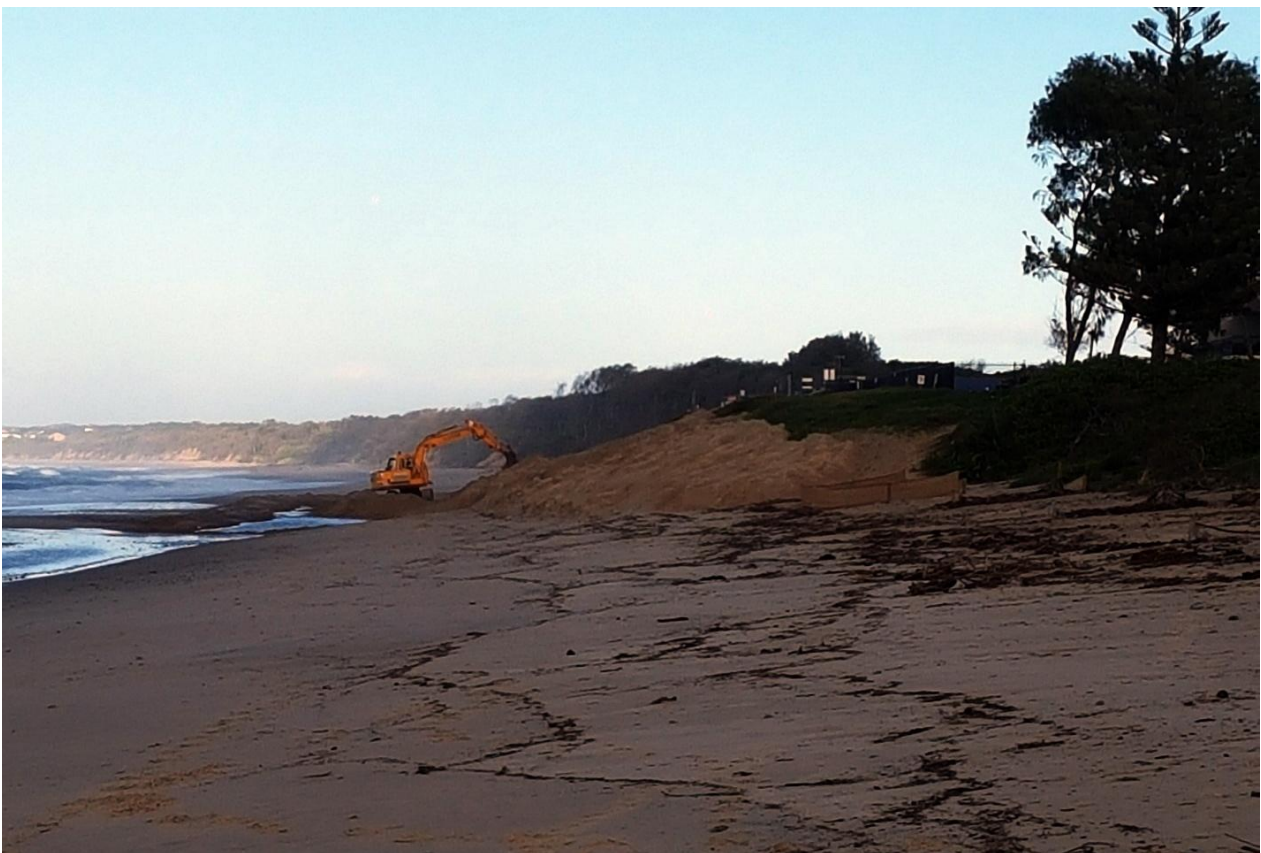
Old Bar – Lewis Street (actions to be delivered by private landowners)

Old Bar Lewis Street is one of the most vulnerable areas in our community. There is a long-term trend of shoreline recession and acute coastal erosion events in this location. Probabilistic hazard mapping (and geotechnical investigation) has demonstrated that properties south of Racecourse Creek are underlain by sand and will continue to be subject to periodic acute erosion events and long-term shoreline recession.

Council acknowledges that impacted landowners will demand an opportunity to protect their properties. So, the CMP supports certain temporary, *buying-time* works and interventions that build resilience and some low-impact engineering options that may provide some defence against acute erosion events. An assessment of options against a range of criteria supports sand scraping and sand trapping as management options to *buy time* for properties in this location. Costing for these works are proposed on a per campaign basis. The CMP supports these activities subject to the relevant approvals including from Crown Lands, throughout the 10-year period.

The CMP also conditionally supports the use of sand-filled geotextile bags (2.5m^3 and 5.4m^3) to provide some short-term defence against coastal erosion in this location. Conditional support includes the requirement for any intervention to be approved, designed and constructed by an appropriately qualified and experienced Coastal Engineer, be wholly funded by landowners and the landowners are fully responsible for any ongoing maintenance and removal of the structures when failure occurs. The interventions must be undertaken within the private property boundaries.

Development approval for these works must address the relevant provisions and legislative requirements. The inclusion of these options in the CMP signals Council's conditional support but does not guarantee the success of any future development application.



Council will not be implementing any specific management action at Lewis Street but as noted above, conditionally supports the following actions should landowners opt to undertake these works.

Table 20: Potential landowner management actions - Lewis Street*.

Management action	Timing (FY)	Responsibility (Lead)	Indicative capital cost	Indicative maintenance cost	Indicative operational cost	Funding source/s
LEW1: To undertake sand scraping campaign/s on the Lewis Street properties.	2029/2030	Landowners Crown Lands	\$77K (per campaign)	\$0	\$0	Landowners
LEW2: To undertake sand trapping on the Lewis Street properties.	2026/2027 2029/2030 2031/2032 2033/2034	Landowners OBBSRG	\$2K	\$0	\$3K	Landowners
LEW3: To install sand filled-geotextile containers (5m ³ 9T ElcoRock ER500 GSC Units) on the Lewis Street properties.	2028/2029 + annual maintenance	Landowners	\$4.5M	\$112.5K (per annum)	\$0	Landowners
LEW4*: To install sand filled-geotextile containers (2.5m ³ GSC Units) ¹³ on the Lewis Street properties.	2028/2029 + annual maintenance	Landowners	\$3.1M	\$77.5K (per annum)	\$0	Landowners

* Note: LEW4 is an alternative to LEW3.

¹³ These are an alternative sized GSC. These have been used previously in this location; however, these have not been recommended by Engineers because they have limited demonstrated effectiveness in an open coast environment. Despite, this these have been included as an alternative available to landowners.

Old Bar - Pacific Parade

This area is similarly affected by coastal hazard risk to the Lewis Street properties. However, the options to *buy time* are more limited. Sand scraping is unlikely to be effective as the erosive capacity of Racecourse Creek will undermine any sand scraping works in this location. Sand trapping may make a minor contribution to building dune systems but again this is likely to be compromised in a flood event or other high energy coastal event.

One option to provide additional resilience to withstand shoreline recession and erosion events is to narrow Pacific Parade to a one-way system, relocate fencing landward, rationalise beach access and undertake substantive planting of endemic coastal vegetation in the gained area. Some of Pacific Parade is within the littoral rainforest proximity area. The revegetation of this area may constitute environmental protection works. Therefore, these are *identified* as environmental protection works for the purposes of MR8vi of the Coastal management manual.

Table 21: Old Bar Manning Point CMP – Pacific Parade actions.

Management action	Timing (FY)	Responsibility (Lead)	Indicative capital cost	Indicative maintenance cost	Indicative operational cost	Funding source/s
PP1: To redesign Pacific Parade to a one-way system, realign fencing and parking areas and undertake revegetation of endemic species ¹⁴ . Install interpretive signage.	2027/2028 2028/2029	MidCoast Council (Roads) Landowners Manning Coastcare	\$100K	\$0	\$0	Council funds
PP2: To undertake sand trapping campaigns in front of Pacific Parade ¹¹ .	2026/2027 2029/2030 2031/2032 2033/2034	MidCoast Council (Public spaces) Landowners OBBSRG	\$2K	\$0	\$3K	Council funds

¹⁴ These are 'environmental protection works' for the *identified* for purposes of MR8vi of the Coastal Management Manual.

Manning Point

Manning Point is identified as a highly vulnerable community. It is subject to flooding from the Manning River and coastal processes along the open coast. The probabilistic hazard model describes the area as an 'Area of Hazard Uncertainty' because of the complexity and interactivity between these systems.

The model predicts the Manning Point township may be impacted by coastal erosion and shoreline recession by 2060. However, the other significant risk to the Manning Point community is the potential for a breakthrough of the Manning Point Spit. Shoreline recession has thinned the Spit generally and there has been the loss of vegetation. There is extreme uncertainty of the impacts of a breakthrough. The 2022 breakthrough on Bribie Island resulted in the establishment of the dominant entrance at the breakthrough location and the closure of the former entrance. The new entrance is also significantly wider than the former entrance and has exposed Golden Beach to open coast conditions and damage has occurred. A similar outcome at Manning Point could hasten the erosion of Manning Point and expose Harrington to open coast conditions.

In May 2025, record floods occurred in the Manning River Catchment. During the event, part of the southern spur wall was damaged. The damaged wall exacerbated river side erosion of the spit and the likelihood of a breakthrough in the short-term has increased significantly. TfNSW, in conjunction with Reconstruction Authority and other relevant State Agencies are working towards the repair of the structure. These works may take up to 12 months to complete. In the meantime, Council is using emergency powers under the State Emergency and Rescue Management Act 1989 to undertake sand nourishment works to bolster the spit until the works are completed. There is significant risk that a breakthrough will occur despite the nourishment. The action below acknowledges the relationship between MidCoast Council and the NSW Government and the immediate action to repair the spur wall and the undertake emergency nourishment works to bolster the spit.

The CMP anticipates the breakthrough of the Spit in the long-term, but it was expected to be driven by open coast processes. Once the repair of the wall is complete, the short-term risk to Manning Point Spit should be addressed. However, the longer-term threat remains. When a breakthrough occurs, it will fundamentally change the dynamics of the Manning River entrance. The short-term and longer-term outcomes are unpredictable. Council and State Government Agencies must be prepared to enact appropriate emergency responses which may include the evacuation of the Manning Point Community.

The CMP advocates the beneficial re-use placement of dredged materials to nourish the Spit. However, this is dependent on other infrastructure and dredging priorities across NSW. The CMP also to commence a formal monitoring program.



Table 22: Old Bar Manning Point CMP – Manning Point.

Management action	Timing (FY)	Responsibility (Lead)	Indicative capital cost	Indicative maintenance cost	Indicative operational cost	Funding source/s
MP1: To beneficially re-use dredged materials for nourishment activities. ¹⁵	As available	TfNSW MidCoast Council (Natural Systems)	\$0	\$0	\$0	-
MP2: To commence a profile monitoring study of the Manning Point spit.	All years	MidCoast Council (Coast and Flooding)	\$0	\$0	\$77K (\$7K p/a)	Council funds
MP3: To work with TfNSW and other NSW Government agencies to repair the spur wall.	2025/2026	MidCoast Council (Coastal, Flooding and Drainage) TfNSW Reconstruction Authority Crown Lands DCCEWW	\$0	\$0	\$0	-



¹⁵ To be funded from TfNSW operating budget subject to Maritime's assessed infrastructure and dredging priorities across NSW.

Crowdy Head

There are a number of privately-owned coastal properties south of Crowdy Head and adjacent to Crowdy Bay National Park. Their inclusion in the public land network would contribute to the protection of those lands and also improve public access to this area of the coast. The Coastal Land Protection Scheme provides a mechanism to fund the acquisition of coastal lands from willing landowners. It is recommended to nominate these properties for voluntary acquisition. Ownership and ongoing management arrangements would be subject to negotiation with the relevant public land authority.

Table 23: Old Bar Manning Point CMP – Crowdy Head.

Management action	Timing (FY)	Responsibility (Lead)	Indicative capital cost	Indicative maintenance cost	Indicative operational cost	Funding source/s
CH1: To prepare an application for these sites to be identified in the Coastal Lands Protection Scheme.	2031/2032	MidCoast Council (Natural Systems) NPWS	\$3K	\$0	\$0	Council funds



COASTAL MANAGEMENT PROGRAM ACTIONS

LEGEND

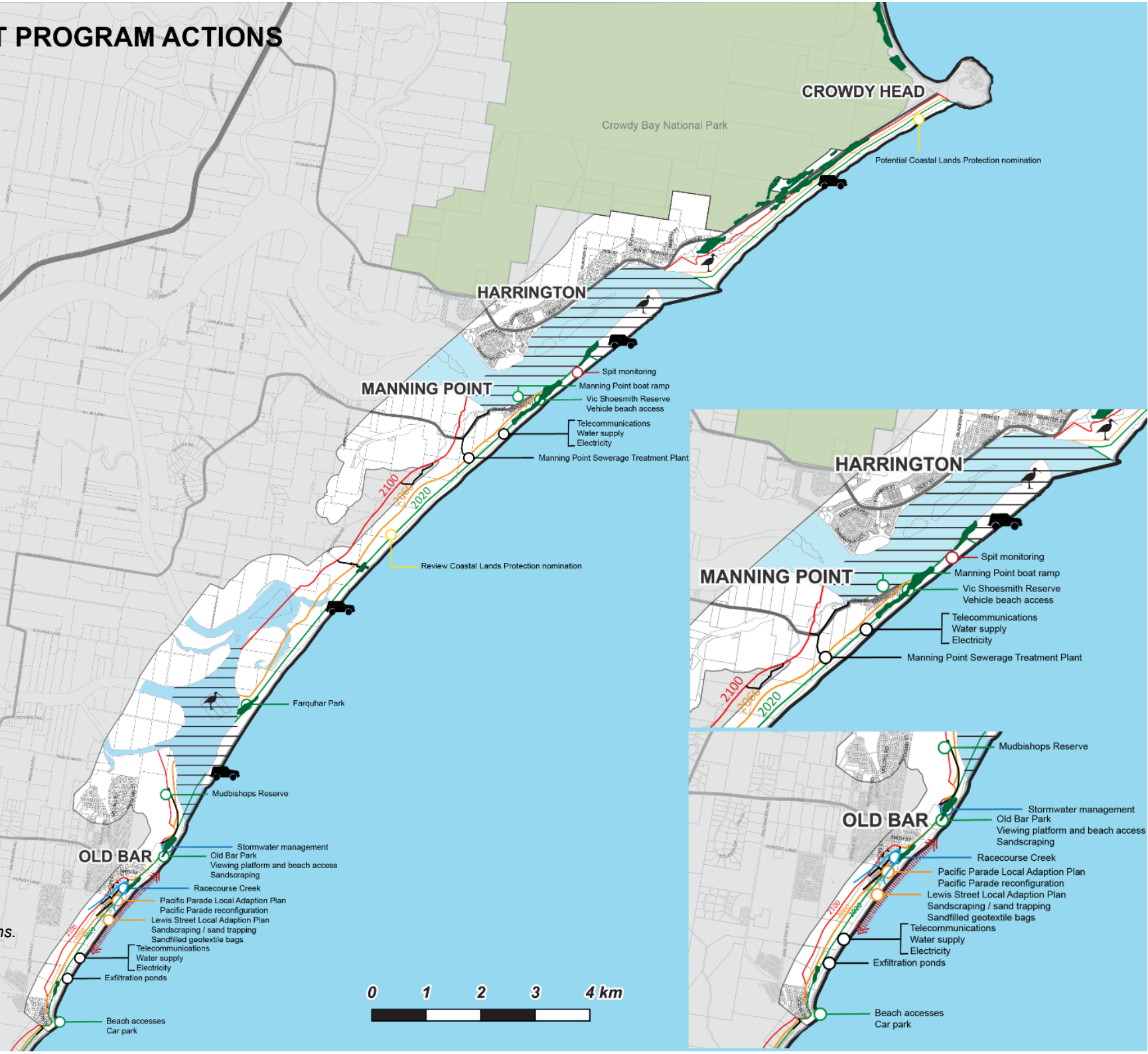
PROBABILISTIC HAZARD MAPPING

- 2020
- 2060
- 2100
- Areas of hazard uncertainty

CMP ACTIONS

- Local Adaption Plan
- Monitoring
- Recreation assets
- Infrastructure assets
- Flooding / Stormwater management
- Coastal Lands Protection Scheme
- Shoreline bird habitat
- Beach Access and Management Strategy
- Growth areas
- Erosion hotspot
- Crowdy Bay National Park
- Littoral rainforest

Figure 5: Coastal Management Program Actions.



Whether the CMP identifies recommended changes to the relevant planning controls, including any proposed maps

The Strategic Direction for this area of coast is managed retreat. Only shorter-term, low impact interventions will be permitted through the CMP to *buy time* and ultimately, properties, infrastructure and assets will be damaged and lost.

The measures supported in this CMP aim to *buy time* so that the expected lifecycle of a residential building is within the risk timeframe. An important intervention is to interrupt additional investment and intensification of properties in vulnerable areas and to ensure that new buildings and uses are commensurate with risk and designed acknowledging the risk. For existing dwellings in areas of immediate and short-term risk, this may not be possible.

Outside of Financial and Insurance Industries' signals, the local planning framework is most likely mechanism to achieve this. Changes to land-use zones, land-use permissibility, development controls and section 10.7 certificates will all contribute. A key monitoring action is to undertake an end-of-plan review is proposed to evaluate this management collective. If these actions have not discouraged investment and intensification, this should be understood, and new approaches installed.

SEPP (Resilience and Hazards) 2021

The CMP includes actions to amend the SEPP Coastal Wetlands and Littoral Rainforest Area (CWLRA) mapping. The actions for coastal wetlands have been duplicated from the Manning Estuary CMP (MECMP) including an amendment to the CWLRA mapping for coastal wetlands. This is to ensure consistency across CMP areas but will be implemented and funded through the MECMP.

The preparation of a planning proposal to amend the littoral rainforest mapping will be initiated and funded through the OBMP CMP. MR5(iii) of the Coastal Management Manual requires CMPs to *identify*¹⁶ information that can support a planning proposal. The amendment is supported by the "Evidence for a Future Planning Proposal to Amend the CM SEPP - Coastal Wetlands 2021"¹⁷ prepared by Locale Consulting. Despite the title, that body of work also includes evidence to support an amendment to the littoral rainforest mapping. The report is supported by the following:

- Eco Logical Manning River Estuary & Catchment Coastal Wetlands Report 2019 including Wetlands Species Matrix
- North Coast Aerial Mapping Littoral Rainforest MidCoast Council Mapping Report May 2019
- Coastal Wetlands of NSW A Survey and Report Prepared for the Coastal Council of NSW 1985 (book)
- Department of Planning, Industry and Environment, 2017. Standard Technical Requirements for Spatial Datasets and Maps, Version 2.0, August 2017.

No changes to the Coastal Environment Area and Coastal Use Area are proposed.

¹⁶ *Identify* means establish or indicate who or what (someone or something) is.

¹⁷ Note: this was prepared before the State Environmental Planning Policy (Resilience and Hazards) 2021 replaced the former policy.

Coastal vulnerability area

Old Bar is one of 15 coastal erosion hot spot areas in New South Wales. The NSW Government is strongly supportive of mapping these areas as a CVA. Development within a CVA area must address clause 2.9 of the SEPP that requires the development to be “engineered to withstand current and projected coastal hazards for the design life of the building or work” and other requirements related to coastal processes, amenity, access and public safety. An example of this is the use of piles to ensure that structure is bedded in a stable substrate, but this does not consider other issues like essential services. Piling may provide structural support to the building, but it is likely that the sewer, water and access is critically compromised at the point. Managed retreat prepares for and recognises the loss of infrastructure, assets and properties over time. The SEPP clause does not. An engineered solution is inconsistent with managed retreat, Council’s Strategic Direction and Council proposed local development framework. Therefore, Council will not be mapping Old Bar as a CVA.

The NSW Government argues that inclusion of the area as a CVA provides a ‘line of sight’ between the SEPP, LEP and the DCP. However, the SEPP clause is inconsistent with the existing and proposed LEP clause and the proposed DCP. Where there is inconsistency between these instruments, the SEPP would prevail. However, if the State Government were to amend the clause 2.9 to reflect Council’s strategic direction of managed retreat, then Council may reconsider the merit of the CVA mapping.

MidCoast Local Environmental Plan

Clause 7.4 Coastal Risk Planning, of the former Great Lakes LEP has been brought across to the MidCoast LEP with the associated mapping. A planning proposal is proposed to update the clause and include mapping for the OBMP CMP area. This will be based on the Probabilistic Hazard Mapping prepared for the OBMP CMP.

MidCoast Development Control Plan

A new DCP will be prepared to support the clause 7.4. The purpose of the DCP will be represent Council’s Strategic Direction for this area.



SEPP (RESILIENCE AND HAZARDS) - COASTAL MANAGEMENT AREAS

LEGEND

- SEPP (Resilience and Hazards) 2021
- Coastal wetlands
 - Coastal wetlands buffer area
 - Littoral rainforest
 - Littoral rainforest buffer area
 - Coastal environment area
 - Coastal use area

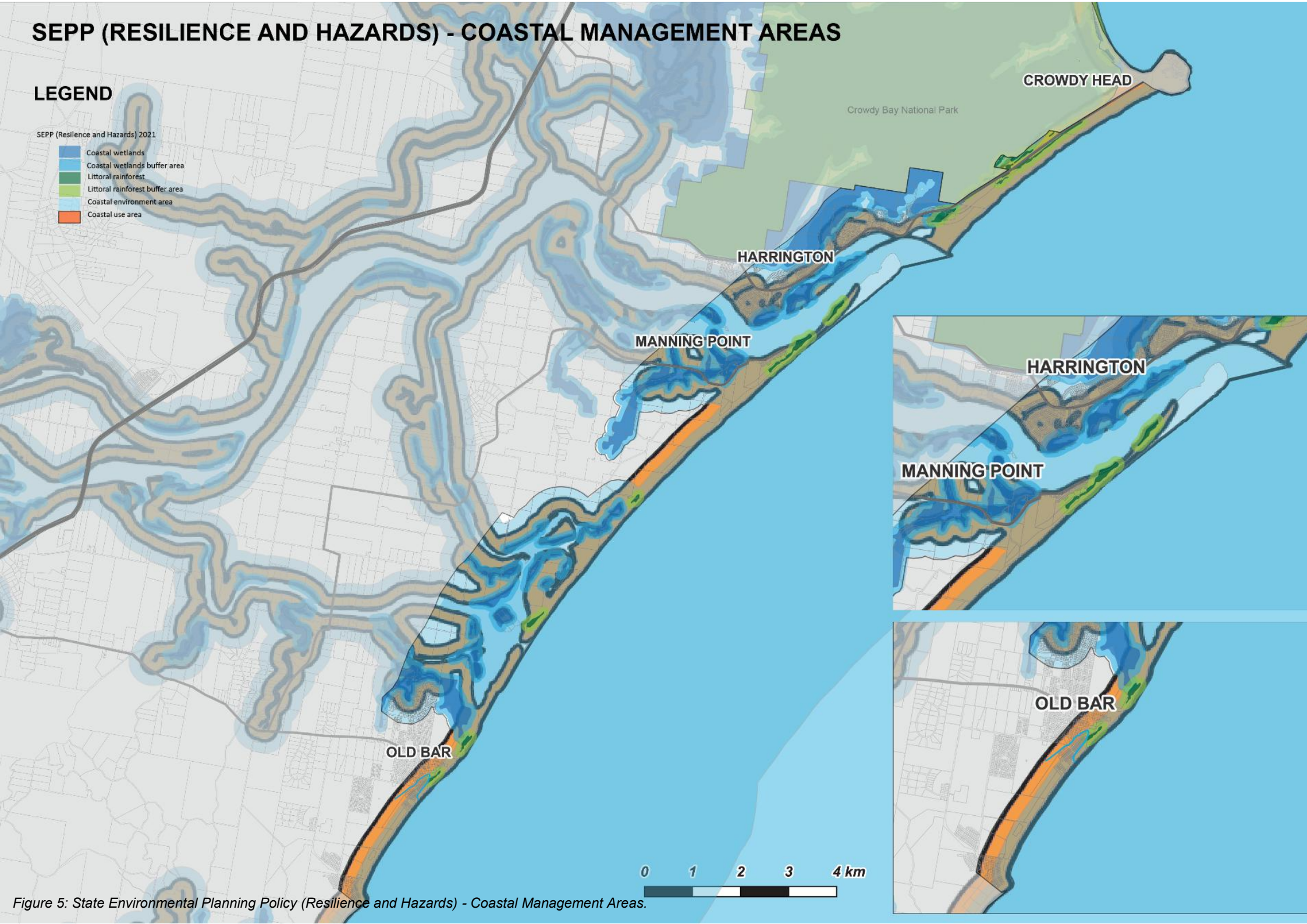


Figure 5: State Environmental Planning Policy (Resilience and Hazards) - Coastal Management Areas.

A Business Plan

The actions included in the CMP are costed based on the extensive experience of officers across the Council who deliver similar projects on a regular basis in a local context. The CMP is a 10-year plan and while all efforts have been applied to anticipate future costs at the point of implementation, the costs included within the business plan should be considered as preliminary and subject to change over the life of the plan and in response to variations in scope and external factors.

Many of the projects listed are strategies to further understand a particular management issue. It is very difficult to anticipate the specific outcomes of those strategies and to establish an accurately costed implementation program. The implementation costs have been estimated based on the works that are anticipated to result from the strategic process.

Council will rely heavily on external funding opportunities to carry out these programs. This is reflected in the CMP business case. However, there is no certainty that these opportunities will exist at the time of implementation. Therefore, it is unlikely that the schedule of works will be implemented as detailed in the plan. Council will take every opportunity to anticipate and apply for relevant funding opportunities as they arise over the 10-year period.

A comprehensive business plan including all action costing information is provided at Appendix C: Detailed Business Plan.

Possible sources of funding

Government funding sources

The bulk of funding to implement the actions in the CMP is expected to be sourced from Council funds and through the **Coast and Estuary Grants Program** as these are the most reliable sources of funding for the plan. Implementation actions included within a certified CMP are currently eligible to apply for funding through competitive assessment process through the Coast and Estuary Grants Program at a funding ratio of 2:1 (State:Council). This ratio represents council's proposed cost-sharing arrangement with the State for those eligible actions.

Action ACH1 to prepare an Aboriginal Cultural Heritage Assessment and Management Strategy is proposed to be funded under an **Aboriginal Cultural Heritage** grant streams that are sporadically offered by DCCEEW. There are no current grant streams available, but Council will monitor opportunities to fund this action.

For the past 3-years Council has been awarded funding (\$25K per annum) under the **Crown Reserves Improvement Fund (CRIF)** to undertake strategic fox controls at important shorebird sites. This is a competitive process; however, the CMP assumes that this funding will continue to be available over the life of the CMP. Alternate sources of funding will be pursued to ensure this important action continues over the life to the CMP. Action SB2 proposes to undertake three trials of shorebird protection mechanisms. Council will look for additional funding contribution partners, for example universities, to participate in these trials.

Other funding opportunities that may be available through the Commonwealth Government or NSW Reconstruction Authority will also be considered as appropriate.

Table 24: External funding sources identified in the OBMP CMP.

Action	Proposed Funding Source	Responsibility	Proposed funding amount
ACH1: To prepare Aboriginal Cultural Heritage Assessment and Management Study.	Aboriginal Cultural Heritage Grants	Purfleet LALC	\$80K
SB1: To undertake annual strategic fox controls at important shorebird sites.	Crown Land - Crown Reserves Improvement Fund	MidCoast Council	\$250K (\$25K per annum)
SB2: To support trials of new shorebird protection measures.	MidCoast Council DCCEEW (Coast and Estuary Grants) Alternate contribution partners	MidCoast Council	\$150K (\$50K per campaign)

Landowners (Lewis Street)

The CMP provides conditional support for specific coastal protection works at Lewis Street Old Bar. Landowners are wholly responsible for funding and gaining the necessary approvals. Landowners will be wholly responsible for the full cost of the works including the implementation and maintenance of the works.

The CMP provides two alternative sizes for sand-filled geotextile containers (2.5m³ and 5m³). The installation of sand-filled geotextile containers is considered a short-medium term option to extend the occupation of properties in vulnerable areas. This is consistent with Council's strategic direction for this area. If landowners gain approval for these works and they are installed, there will be an ongoing financial commitment to maintain these structures and to ensure that public access and the amenity of the beach is maintained. There will also be obligations to remove these structures when they fail. This will be a key consideration of any development application and conditioned on the approval.



Coastal zone emergency action subplan if the Coastal Management Act 2016 requires that a subplan is to be prepared.

No Coastal Zone Emergency Action Subplan will be prepared.



Monitoring, evaluation and reporting program

The Coastal Management Manual requires that Council monitor key indicators, trigger points and thresholds identified in the MER. There are three actions in the CMP that would result in Council undertaking or facilitating works because of a potential event, threshold or trigger. These are sand scraping at Old Bar Beach (**OBB3**) and facilitating sand trapping at Old Bar Beach (**OBB4**) and Pacific Parade (**PP2**).

Triggers and thresholds for Actions OBB3, OBB4 and PP2 are based on the interaction of three factors:

1. the level of beach erosion
2. the availability of partners and resources
3. the suitability of environmental and seasonal conditions.

These factors interact together to form a decision-making trigger, rather than in isolation. Council will consider implementing works when the following conditions are met to a suitable degree:

Trigger / Threshold 1 – Physical Condition of the Beach (Reactive)

This factor provides the environmental trigger indicating that works may be warranted.

Trigger:	Observable erosion or mass sand-loss.
Threshold:	Erosion exceeds normal seasonal variation and results in one or more of the following: <ul style="list-style-type: none">• Dune scarp formation or dune instability• Exposure or undermining of accessways, vegetation root zones or other assets• Beach width or beach profile lowering to a degree that compromises amenity, safety, or natural recovery.

Trigger / Threshold 2 – Capacity to Undertake or Support Works (Opportunistic)

This factor determines whether works are practically possible at the time the environmental trigger occurs.

Trigger:	A willing delivery partner or operational capacity is available.
Threshold:	Confirmation that the Old Bar Sand Replenishment Group or Council resources are available, capable, and permitted to carry out the works safely and within regulatory constraints.

Trigger / Threshold 3 – Environmental and Seasonal Suitability (Conditional)

This factor ensures that works are appropriate and environmentally responsible.

Trigger:	Conditions are conducive to low-impact and safe implementation.
Threshold:	<ul style="list-style-type: none">• Adequate sand is present in suitable locations for scraping or capture• Timing avoids ecological sensitivity periods• Safe access, weather and tidal conditions exist• Works can be undertaken within licence or approval conditions

Actions will OBB3, OBB4 and PP2 only be considered when:

- (a) a physical erosion event *creates the need*, and
- (b) partner or Council capacity *creates the opportunity*, and
- (c) environmental/seasonal conditions *create an appropriate window to act*.

These combined factors represent the effective trigger and threshold for implementation. These triggers and thresholds guide decision-making and do not oblige Council to undertake works if other considerations (safety, cost, alternative management options, ecological concerns, regulatory limitations or community impacts) suggest that works are unsuitable at the time.

There are two additional monitoring activities proposed.

The first is to establish a monitoring program for the Manning Point Spit (**MP2**). The spit is a highly dynamic part of the coast. It routinely changes in response to the complex interactions of the Manning River, Farquhar Inlet and the open coast. The snaking of the entrance north and south has been relatively confined. There is a risk that an overtopping and breaching event of the spit north of Manning Point could cause the river mouth to relocate south and accelerate the erosion of Manning Point and increase the accretion of sand south of the northern training wall. There is also a risk that a breach of the spit could expose parts of Harrington to open coast conditions.

This action seeks to monitor the spit profile to better understand the dynamics of this area. It may also help assess the impact of interventions such as the beneficial reuse of dredge spoil in bolstering its integrity.

The complexity of the interaction between the Manning River and open coast in this location and the uncertainty about what may result from a breach does not provide an appropriate mechanism to justify a specified course of action. If a breach does occur in the life of this CMP, the response will need to be flexible to accommodate a range of potential impacts and actions.

This monitoring activity will be undertaken by an external agent and most likely utilising drone or similar technology. Council does not currently have the internal capacity or equipment to undertake this work. Over the 10-year life of the CMP it is intended to build this capacity in Council and to commence monitoring at other locations across the MidCoast.

In addition, Council will continue to review beach monitoring data as collected by others, such as the DEA Coastlines satellite data available from Geoscience Australia, and the NSW Beach Profile Database which has been regularly updated based on coastal LiDAR collected for NSW DCCEEW. This information will help inform council's decisions to implement certain actions as described above.

Table 25: Monitoring actions.

Action	Description	Outcome/s
MER1: To undertake an annual monitoring exercise at the Manning Point Spit. (See Action MP1 and MP2)	This action is intended to collect information about changes to the Manning Point Spit over time.	<p>To provide a benchmark.</p> <p>To better understand the dynamics of the Manning Point Spit.</p> <p>To assess vulnerabilities of the Spit.</p> <p>To inform the placement of opportunistic spoil from routine dredging activities.</p>
MER2: To build internal capacity to undertake monitoring activities on all beaches.	This action is proposed to increase Council's internal capabilities to undertake routine surveys and monitoring. It may include acquiring technology (e.g. drones) and training and/or training to analyse and interpret datasets.	To build the capability of Council officers to undertake regular monitoring of beaches.

Evaluation

Each management action includes an evaluation threshold where the management action has been achieved. The majority of these are the finalisation of a body of work such as a strategy or a plan. These are listed in Appendix D: Monitoring, Evaluation and Reporting Framework.

A key outcome of this CMP is to formally acknowledge managed retreat as the management approach. Managed retreat means that only shorter-term, low impact interventions will be permitted through the CMP and ultimately, properties, infrastructure and assets will be damaged and lost or pre-emptively removed.

The measures supported in this CMP aim to *buy time* so that the expected lifecycle of a residential building is within the risk timeframe. An important intervention is to interrupt additional investment and intensification of development in vulnerable areas and to ensure that new buildings and uses are commensurate with risk and designed acknowledging the risk.

Outside of Financial and Insurance Industries' signals, the local planning framework is the most likely mechanism to achieve this. Changes to land-use zones, land-use permissibility, development controls and section 10.7 certificates will all contribute. An end-of-plan review is proposed to evaluate this management collective. If these actions have not discouraged investment and intensification, this should be understood, and new approaches installed.

Table 26: Evaluation actions.

Action	Description	Outcome/s
MER3: To undertake an end-of-plan review of the planning framework interventions.	This action is intended to understand the effectiveness of changes to the Local Planning Framework to disincentive investment and intensification of land-use in vulnerable areas.	To evaluate the effect of LUP1, LUP2 and LUP3.

Reporting

The reporting program will include an annual, 4-yearly and end-of plan review to align it with the Integrated Planning and Reporting Framework.

It is proposed to deliver a simple, annual monitoring report (AMR) in June each year that describes those management actions that have been completed in the preceding 12-months and those that are anticipated to be completed in the following financial year. The AMR will be presented to Council and published on the MidCoast Council website.

The Natural Resources Team produces an end-of-term report that details all the environmental programs and projects that have been undertaken during the term of that Council every four years. This report also responds to the relevant Community Strategic Plan objectives.

At the end of the CMP (i.e. in 10-year after adoption and certification), an end-of-plan review report will be prepared that reviews the implementation of the plan including the actions completed and the evaluation metrics identified. Importantly, the outcomes of **MER3** will be reported.



Maps

Maps have been provided in each relevant section of the CMP.



Reference list

- Balmoral Group. (2014). *Cost-Benefit Analysis of Options to Protect Old Bar from Coastal Erosion*. Sydney: Balmoral Group.
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- MidCoast Council. (2017). *Old Bar Beach Scraping Feasibility Discussion*.
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- Royal HaskoningDHV. (2016). *Old Bar Beach Sediment Tracing*. Sydney: Royal HaskoningDHV.
- Water Research Laboratory. (2013). *A Review a Artificial Reefs for Coastal Protection in NSW*. Sydney: WRL University of New South Wales.
- Worley Parsons. (2010). *Farquhar Inlet Entrance Opening Management Plan*. Worley Parsons.
- Worley Parsons. (2010). *Greater Taree Coastline Management Study - Black Head to Crowdy Head*. Worley Parsons.

Supporting Documents

This CMP is supported by several important documents. To ensure that the CMP is as readable and accessible as possible, these documents are not appended to the CMP. However, they are available on Council's website and linked from this section.

BMT (2020) Old Bar to Manning Point Coastal Erosion Hazard Mapping Update

Local Consulting (2021) Evidence for a Future Planning Proposal to Amend the CM SEPP - Coastal Wetlands 2021

MidCoast Council (2020) Coastal Scoping Study

MidCoast Council (2024) Old Bar Manning Point Issues and Options Discussion Paper

Salients (2024) Old Bar Manning Point Coastal Management Program – Multicriteria Analysis



APPENDICES

Appendix A: Detailed Risk Assessment

Introduction

It is recommended that Councils prepare a detailed risk assessment if potentially high and unacceptable risks are identified or there is significant uncertainty or complex management choices. The risk assessment helps to identify and schedule management options, so that implementation of the CMP actions is responsive to the timing and impact of the threat.

Threats

Shoreline recession and coastal erosion

Coastal erosion and shoreline recession are dominant and persistent threats in this compartment. There is a history of property damage and loss, damage to infrastructure and destruction of coastal ecosystems.

Council completed a probabilistic hazard assessment in stage 2 of the CMP. This study illustrates anticipated changes to the coastline at present day (2020), 2060 and 2100. This study provides Council with an indication of when impacts *may* occur and therefore, provides a basis to anticipate and plan for impacts to property, infrastructure, assets, utilities, cultural heritage and natural systems.

To meet the requirements of the Coastal Management Framework, a 100-year timeframe (i.e. 2125) has also been included, however given the great uncertainty over that timeframe those results should be considered with caution.

Council expects to adopt¹⁸ the landward extent of the 1% exceedance probability area (1%EP) at each timeframe for planning purposes. In each of these timeframes, 1% is considered a 'rare' outcome. However, sea-level rise and climate change means that the likelihood of these impacts occurring will become more likely as time progresses.

Beach access and use

Beach access and use (including amenity) have been identified as a threat to coastal values, particularly in sensitive locations. It is also identified as a key value. The most common beach access and use threats arise from the conflict between different beach users.

Conflict between beach users, particularly the use of recreational vehicles on some beaches and the presence of domestic animals (horses and dogs) has been raised in various forums as an issue. In addition, the conflict between beach use and access and the impact of this on shorebirds, the integrity of dune systems and coastal vegetation communities are threats that are identified in this CMP.

Flooding and stormwater management

Additional urban development and the impact of flooding and stormwater management within the Racecourse Creek catchment have been identified as a threat by the community. Flooding in the

¹⁸ This is subject to a future planning proposal.

catchment has resulted in incidences of nuisance flooding of residential streets and some properties.

High flows also displace sand on Old Bar Beach which is perceived as undermining the integrity of natural coastal defences in this location.

Stormwater (including overland flow) has been identified as a threat to dune systems at Old Bar Park during storm and intense rain events. Stormwater systems become overwhelmed and overland flow travels over the dune systems and erodes a path to the beach. This has undermined the replanting and regeneration efforts by Coastcare.

Benefits, values and vulnerabilities

The following 5 categories are coastal benefits, values and vulnerabilities identified during the CMP process. They represent those qualities most at risks to changes to the coastal environment in this location.

Servicing

Servicing refers to the connection of properties to essential infrastructure (water/sewer), access (roads) and utilities (electricity and telecommunications).

The impact on infrastructure, property and assets from coastal erosion is inevitable, acute and in the case of community-scale infrastructure such as trunk infrastructure, has the potential for extensive, sustained impacts. The modelling has illustrated that the Manning Point Sewerage Treatment Plant and the exfiltration ponds at Wallabi Point are in vulnerable locations. Their failure would have significant impacts on the wider community.

In most circumstances, localised damage to certain infrastructure will be inconvenient for a small number of properties. These may be repairable or there may be opportunities to adapt to changed, permanent conditions such as the loss or damage to part of a roadway. In other circumstances, permanent damage to essential infrastructure such as trunk sewer may require the residential use of the property to cease.

Socio-economic

Socio-economic benefit refers to the economic activity generated by tourist visitation, private property investment and other economic activities occurring within the coastal zone, e.g. property ownership, commercial fishing and tourism operations.

Tourism is a minor contributor to the local economy in Old Bar, Manning Point, Wallabi Point and Harrington. However, they are tourist locations and enjoy seasonal popularity. Changes to the coastline, particularly access to beaches and waterways may have an adverse impact on visitation rates.

The loss of private properties is the most significant socio-economic impact from shoreline recession and coastal erosion. As observed, private properties will be damaged and destroyed and land lost as coastal processes continue to reshape the coastline. This is also anticipated to have impacts on social cohesion as properties are lost, and people leave the immediate community. Manning Point is an example where by 2100, that community may be completely lost and in the interim fundamental changes to existing social fabric may occur. There is also likely to be a gradual disinvestment and abandonment of properties as areas are impacted.

There are minor commercial activities that the coast supports. For example, commercial fishing and small-scale tourist operations. Physical changes to the coastline may impact these.

Beach access and use

Beach access and various passive and active uses are all values and activities that have been identified as important by the community. Disruptions to access through damaged infrastructure, like beach accesses and eroded beaches will interrupt beach use. However, it is likely that these will be temporary interruptions and will be readily restored.

Over time, there will be more fundamental changes that may impact on beach access and use. For example, over time Old Bar Beach will become a rocky beach or platform as sand is lost, and the underlying bedrock is exposed. However, it is likely that more pronounced embayments will form north and south of Old Bar providing different opportunities for beach access and use.

Cultural

There are Aboriginal cultural heritage sites and items that are known to exist within the immediate and long-term hazard areas. There are likely to be many other items that are exposed, damaged and destroyed over the current planning period to 2125. The impact of these events on these items will depend on their significance to the Local Aboriginal Community.

The coast is an important part of the identity of coastal communities. As coastlines change, it may impact that identity. Changes in the way the community interacts with the coast may change and strong cultural attachments to coastal space such as beaches and surf breaks may impact the community.

Natural systems

Natural systems are particularly challenged by the predicted changes to the coastal environment. Dune systems, littoral rainforest and other coastal vegetative communities are highly vulnerable to shoreline recession and coastal recession.

In many areas, dune systems are unable to recover and reestablish typical profiles between storm events, so dunes are generally steep, the revegetation potential is compromised, and the system is more susceptible to erosion.

Changes to hydrological regimes, increased salt and wind exposure and physical destruction are already impacting littoral rainforest and driving changes to these systems. The loss of these communities will mean the loss of habitat and food sources for important coastal fauna. Coastal processes are likely to outrun unassisted migration of littoral rainforest.

Coastal fauna, including migratory and resident shorebirds are also vulnerable to coastal processes and there is conflict between beach access and use particularly during nesting seasons. Council maintains exclusion zones at certain locations and signage and fencing. The use of these beaches by domestic animals (dogs and horses) is also identified as a threat.

There are two stretches of beach where recreational vehicles are conditionally permitted. In terms of natural systems, the identified impacts are from physical damage to dune systems, impacts on benthic fauna and conflict with shorebirds.

Changes to hydrological regimes will impact coastal wetlands and changes to these systems may have severe implications on habitat and water quality.

Likelihood and consequence

A common approach to characterise risk is to combine the **likelihood** of the risk occurring and the **consequence** of the risk.

Shoreline recession and coastal erosion are the dominant threats in the compartment. These threats are persistent meaning that they will continue to reshape the coastline over time. Therefore, the likelihood of the risk will increase over time.

The probabilistic hazard model that was prepared in Stage 2 of the CMP provided modelled outputs for slope adjustment and reduced foundational capacity at three timeframes: 2020, 2060 and 2100 and 4 different exceedance probabilities: 1%, 10%, 20%, 50%. These probabilities may be considered as rare (1%), unlikely (10%), possible (20%) and likely (50%). This provides a framework through which to consider the likelihood of certain impacts (e.g. on infrastructure and properties) occurring in each of these time periods. However, it is important to qualify that this is a model. It is used for planning purposes and in the context of the CMP, this exercise is intended to prioritise management actions over the 10-year life of the program.

The consequence of the threat is commonly allocated the following labels: Minor, Moderate, Major, Catastrophic. Consequence is relative and perspective dependent. It is the Assessors' assessment of the impact relative to other criteria. For example, the destruction of a dwelling in an erosion event may be considered catastrophic by the landowners but relatively minor compared to the loss of a street of homes or a community. Similarly, damage to an Aboriginal cultural heritage site may be considered a major consequence by the Aboriginal Community but less so by the wider community.

Table 1: Impact description.

	DESCRIPTION
Minor	Discernible or temporary negative impact. The impact affects a small number of individuals/properties. Short-term recovery will occur.
Moderate	Limited impacts on parts of the community. Recovery in the short-term is likely.
Major	Impacts affected significant proportion of the community. Long term recovery is anticipated.
Catastrophic	Community-wide, permanent negative impact. Complete breakdown of ecological function. Extensive, irreparable environmental damage. Recovery will not occur.

Table 2: Likelihood and consequence relationship.

	CONSEQUENCE			
LIKELIHOOD	Minor	Moderate	Major	Catastrophic
Likely	Medium	High	High	Extreme
Possible	Medium	High	High	Extreme
Unlikely	Low	Medium	Medium	High
Rare	Low	Medium	Medium	High

Risk assessment

The following risk assessment determines the likelihood and consequence of the identified threats on the identified values (See Table 9: Overall Risk assessment.)

Shoreline recession and coastal erosion

By far the most significant threats to most of the values are from coastal erosion and shoreline recession. These persistent processes will continue to impact the coast and be amplified by sea-level rise and climate change. For all values, the risk assessment becomes more pronounced as time goes by, with most values moving from **medium** to **high** and **extreme** from present day to 2125.

Over time, these processes will interact with substantive infrastructure items like the Manning Point Sewerage Treatment Plant and trunk infrastructure. Road networks could be compromised, and other utilities including electricity and telecommunications networks could be impacted.

The socio-economic impacts from these processes are likely to be profound. There are private properties at present risk. This will be an ongoing impact and loss to 2100 and beyond. The modelling predicts that by 2100, the township of Manning Point could be lost.

These processes will drive fundamental changes to the existing coastline. Established beach access and use points may be compromised. Despite these anticipated changes, it is likely that the coast will recover eventually, and accesses will be restored. However, dramatic changes to the coast are likely to occur with the loss or change of the Manning Point Spit, the loss of Old Bar Beach (and its change into a rocky shore) and the loss of Farquhar Park.

The impact on Aboriginal Cultural Heritage moves from **medium** (*Unlikely x rare*) at present day to (*possible + likely x moderate*) **high** in 2060, 2100 and 2125. The exposure or damage to Aboriginal cultural heritage items becomes more likely as coastal processes continue and the potential loss of key sites like Farquhar Park may have profound impacts on parts of the community.

Natural systems will be acutely impacted by coastal processes. This is exacerbated by coastal squeeze, whereby natural migration is inhibited by private properties and development. Coastal fauna that rely on these coastal systems and vegetation communities will be similarly impacted. Structural changes to beach profiles may also accelerate erosion and recession. The impacts to the natural environment from shoreline recession and coastal erosion is rated as **medium** (*likely x minor*) at present day and moves to **high** (*likely x moderate*) in 2060 and **extreme** (*likely x catastrophic*) by 2100 and 2125.

See Table 3: Threat Assessment – Shoreline recession and coastal erosion.

Beach access and use

The socio-economic impact from compromised beach access is rated as **medium** based on a *likely x minor* impact. Impacts are likely to be temporary and impacted a small number of people. Similarly, the impacts from conflicts between beach users are *likely* but *minor*, so that is rated as **medium** over all time periods as well.

Beach access and use and its impact on Aboriginal cultural heritage is considered **low** (*Unlikely x minor*) at present day, but as sites are exposed and beach use increases (particularly by recreation vehicles) there is a risk that these impacts will increase over-time.

The current impact on natural systems caused by beach access and use is rated as **medium** (*likely x minor*) in 2020 as there is evidence of recreational vehicles, beach users and domestic animals having an adverse impact on beach profiles requiring Council intervention (e.g. Manning Point Spit barricading) and shorebirds. With increases in population, tourism and ownership of

recreational vehicles, it is likely that this will increase in time. Beach systems and habitat will be more vulnerable. It is expected that this risk will increase to **high** in 2060, 2100 and 2125 (*Likely x moderate*).

See Table 5: Threat Assessment - Beach access and use.

Flooding and stormwater

The risk of flooding and stormwater relate to two areas:

1. The Racecourse Creek catchment (flooding and stormwater)
2. Old Bar Park (overland flow, stormwater).

Racecourse Creek drains a substantial area of Old Bar and the area between Old Bar and Wallabi Point. Properties along Racecourse Creek (including Oceanic Parade) have been impacted by nuisance flooding and in rare events flood waters has entered a small number of buildings. As this may occur again, the social-economic threat level is assessed as **medium** (*unlikely x minor*).

The key focus of the community has been on an approved manufactured housing estate and golf course on Lot 2/DP1022067, Lot 1/DP594864 and Lot F/DP420085. There is concern that additional development within the catchment may exacerbate flooding in the area. As part of that development Council undertook a flood study that identified a limited range of measures outside the development site to improve stormwater management and flooding. The flood study considered climate change.

One measure was the construction of a detention basin on public land on Rushby Drive. This was rejected by the community. Changes to the development means that stormwater management may need to be revisited. However, the report demonstrated that the development would not increase flood risk. For these reasons, the risk has not been increased from the present risk for 2060, 2100 and 2125.

The community has expressed concern over the erosion of sand from Old Bar Beach (South) where Racecourse Creek discharges into the sea. This is a very visual impact to a community that is sensitised to the loss of sand. But it is a natural process, and the sand is not lost from the system. Over time, the sand will be restored. This is very likely to occur as it is a natural and expected process. So, it is rated as **medium** (*possible x minor*)

The final site impacted from stormwater is Old Bar Park. During intense storm events, the stormwater system can be overwhelmed, and overland flow breeches the dune system causing erosion. This has undermined the efforts of the local Coastcare group who have lost trees and plantings in the area. It is also a safety risk as the erosion scarp is close to the park, and it can be steep.

The risk of this occurring without intervention is rated as **medium** (*possible x minor*) on the basis that the impacts are isolated and recovery in the short-term is expected.

See Table 7: Threat Assessment - Flooding and stormwater.

Conclusion

As expected, shoreline recession and coastal erosion pose the greatest risks to all values over the 100-year planning horizon. As these processes continue to reshape the coastline, it will increase the risk to an increasing number of properties and infrastructure leading to increased socio-economic impacts and impacts on beach assets including access.

Aboriginal cultural sites and items will be exposed, damaged and lost and beach access and use will experience short-term interruptions and long-term changes to space.

Flooding and stormwater will be exacerbated over time but in the context of the CMP, these impacts will be relatively isolated and minor.

While shoreline recession and coastal erosion are the most significant risks, the remaining identified threats including beach access and use, and flooding and stormwater should be considered in management actions for the Old Bar Manning Point Coastal Management Program.

Table 3: Threat Assessment – Shoreline recession and coastal erosion.

	Present			2060			2100			2125		
VALUE/BENEFIT	Likelihood	Consequence	Rating	Likelihood	Consequence	Rating	Likelihood	Consequence	Rating	Likelihood	Consequence	Rating
Servicing												
Infrastructure (Water/sewer/transport)	Rare	Moderate	Medium	Possible	Major	High	Likely	Catastrophic	Extreme	Likely	Catastrophic	Extreme
Assets (Recreation assets / Council buildings)	Rare	Minor	Low	Unlikely	Minor	Low	Likely	Moderate	High	Likely	Moderate	High
Utilities (Electricity / Telecommunications)	Rare	Moderate	Medium	Possible	Major	High	Likely	Moderate	High	Likely	Moderate	High
Socioeconomic												
Tourism	Rare	Minor	Low	Possible	Moderate	High	Likely	Major	High	Likely	Major	High
Community and social cohesion	Rare	Minor	Low	Unlikely	Minor	Low	Likely	Major	High	Likely	Major	High
Private landownership	Unlikely	Moderate	Medium	Possible	Major	High	Likely	Catastrophic	Extreme	Likely	Catastrophic	Extreme
Economic activities (e.g. commercial fishing)	Rare	Minor	Low	Unlikely	Minor	Low	Unlikely	Minor	Low	Unlikely	Minor	Low
Beach access and use												
Beach access	Possible	Minor	Medium	Possible	Minor	Medium	Likely	Minor	High	Likely	Minor	High
Passive uses	Possible	Minor	Medium	Possible	Minor	Medium	Possible	Minor	Medium	Possible	Minor	Medium
Active uses	Possible	Minor	Medium	Possible	Minor	Medium	Possible	Minor	Medium	Possible	Minor	Medium
Culture												
Aboriginal cultural heritage	Rare	Moderate	Medium	Possible	Moderate	High	Likely	Moderate	High	Likely	Moderate	High
Community identity	Rare	Moderate	Medium	Possible	Moderate	High	Likely	Moderate	High	Likely	Moderate	High
Natural systems												
Coastal fauna (including migratory birds)	Rare	Minor	Low	Possible	Moderate	High	Likely	Major	High	Likely	Major	High
Coastal vegetation communities (e.g. littoral rainforest)	Possible	Moderate	High	Possible	Moderate	High	Likely	Catastrophic	Extreme	Likely	Catastrophic	Extreme
Biodiversity	Possible	Moderate	High	Possible	Moderate	High	Likely	Catastrophic	Extreme	Likely	Catastrophic	Extreme

Table 4: Overall risk assessment - shoreline recession and coastal erosion.

	VALUE																			
	Servicing				Socio-economic				Beach access and use				Culture				Natural systems			
PERIOD	2020	2060	2100	2125	2020	2060	2100	2125	2020	2060	2100	2125	2020	2060	2100	2125	2020	2060	2100	2125
Risk	Medium	High	Extreme	Extreme	Medium	High	Extreme	Extreme	Medium	Medium	High	High	Medium	High	High	High	High	High	Extreme	Extreme

Table 5: Threat Assessment - Beach access and use.

	Present			2060			2100			2125		
VALUE/BENEFIT	Likelihood	Consequence	Rating	Likelihood	Consequence	Rating	Likelihood	Consequence	Rating	Likelihood	Consequence	Rating
Servicing												
Infrastructure (Water/sewer/transport)	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
Assets (Recreation assets / Council buildings)	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
Utilities (Electricity / Telecommunications)	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
Socioeconomic												
Tourism												
Community and social cohesion	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low
Private landownership	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low
Economic activities (e.g. commercial fishing)	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
Beach access and use												
Beach access	Likely	Minor	Medium	Likely	Minor	Medium	Likely	Minor	Medium	Likely	Minor	Medium
Passive uses	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low
Active uses	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low
Culture												
Aboriginal cultural heritage	Rare	Minor	Low	Unlikely	Minor	Low	Possible	Minor	Medium	Possible	Minor	Medium
Community identity	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low
Natural systems												
Coastal fauna (including migratory birds)	Likely	Minor	Medium	Likely	Moderate	High	Likely	Moderate	High	Likely	Moderate	High
Coastal vegetation communities (e.g. littoral rainforest)	Likely	Minor	Medium	Likely	Moderate	High	Likely	Moderate	High	Likely	Moderate	High
Biodiversity	Likely	Minor	Medium	Likely	Moderate	High	Likely	Moderate	High	Likely	Moderate	High

Table 6: Overall Threat Assessment – Beach access and use.

PERIOD	VALUE																			
	Servicing				Socio-economic				Beach access and use				Culture				Natural systems			
	2020	2060	2100	2125	2020	2060	2100	2125	2020	2060	2100	2125	2020	2060	2100	2125	2020	2060	2100	2125
Risk	N/a	N/a	N/a	N/a	Low	Low	Low	Low	Medium	Medium	Medium	Medium	Low	Low	Medium	Medium	Medium	High	High	High

Table 7: Threat Assessment - Flooding and stormwater.

VALUE/BENEFIT	Present			2060			2100			2125		
	Likelihood	Consequence	Rating	Likelihood	Consequence	Rating	Likelihood	Consequence	Rating	Likelihood	Consequence	Rating
Servicing												
Infrastructure (Water/sewer/transport)	Rare	Minor	Low	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
Assets (Recreation assets / Council buildings)	Rare	Minor	Low	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
Utilities (Electricity / Telecommunications)	Rare	Minor	Low	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
Socio-economic												
Tourism	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low
Community and social cohesion	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low
Private landownership	Unlikely	Minor	Medium	Unlikely	Minor	Medium	Unlikely	Minor	Medium	Unlikely	Minor	Medium
Economic activities (e.g. commercial fishing)	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low
Beach access and use												
Beach access	Possible	Minor	Medium	Possible	Minor	Medium	Possible	Minor	Medium	Possible	Minor	Medium
Passive uses	Possible	Minor	Medium	Possible	Minor	Medium	Possible	Minor	Medium	Possible	Minor	Medium
Active uses	Possible	Minor	Medium	Possible	Minor	Medium	Possible	Minor	Medium	Possible	Minor	Medium
Cultural												
Aboriginal cultural heritage	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low
Community identity	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low
Natural systems												
Coastal fauna (including migratory birds)	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low
Coastal vegetation communities (e.g. littoral rainforest)	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low
Biodiversity	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low	Rare	Minor	Low

Table 8: Overall Threat Assessment – Flooding and stormwater.

PERIOD	VALUE																			
	Servicing				Socio-economic				Beach access and use				Culture				Natural systems			
	2020	2060	2100	2125	2020	2060	2100	2125	2020	2060	2100	2125	2020	2060	2100	2125	2020	2060	2100	2125
Risk	Low	Low	Low	Low	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Low	Low	Low	Low	Low	Low	Low	Low

Table 9: Overall Risk assessment.

PERIOD	VALUE																			
	Servicing				Socio-economic				Beach access and use				Culture				Natural Systems			
	2020	2060	2100	2125	2020	2060	2100	2125	2020	2060	2100	2125	2020	2060	2100	2125	2020	2060	2100	2125
Shoreline recession and coastal erosion	Medium	High	Extreme	Extreme	Medium	High	Extreme	Extreme	Medium	Medium	High	High	Medium	High	High	High	High	High	Extreme	Extreme
Beach access and use	N/a	N/a	N/a	N/a	Low	Low	Low	Low	Medium	Medium	Medium	Medium	Low	Low	Medium	Medium	Medium	High	High	High
Flooding and stormwater	Low	Low	Low	Low	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Low	Low	Low	Low	Low	Low	Low	Low

Appendix B: Strategic Alignment

Introduction

Coastal Management in NSW is undertaken within a complex regulatory and legal framework. The Coastal Management Act 2016 is the principal Act that:

1. outlines the objectives of coastal management in NSW,
2. states the management objectives for coastal management areas,
3. requires applicable Council's to prepare coastal management programs, and
4. establishes the Coastal Management Manual.

The Coastal Management Manual dictates that CMPs must demonstrate that management actions have been considered against:

- The objects of the Coastal Management Act,
- The objects of the Marine Estate Management Act,
- The objectives of the relevant coastal management areas, and
- The Council's Community Strategic Plan.

Table 1 attributes each management action with the relevant objects of the Coastal Management Act, the Marine Estate Management Act, the objectives of each coastal management area and the MidCoast Community Strategic Plan. However, the Coastal Management Manual requires CMPs to *describe* how they meet the ten objects of the CMA Act and the objectives of the coastal management areas.

Coastal Management Act 2016 - Objects

There is a number of actions that seek “[3a] to protect and enhance natural coastal processes and coastal environmental values including natural character, scenic value, biological diversity and ecosystem integrity and resilience.” These values were the highest priority for those who participated in the engagement activities that preceded the development of the CMP actions. Managed retreat and the supporting actions to prepare an Adaptation Policy and Guidelines and Local Adaptation Plans, to amend the local planning framework, and to support low-impact, *buying-time* options are fundamental to protection of the natural processes. There are direct actions that seek to support the resilience of littoral rainforest and coastal wetlands such as preparing a coastal vegetation strategy, identifying migration zones and working with landowners to prepare adaptation plans and policy actions like amending the coastal wetland and littoral rainforest area of the SEPP.

Again, managed retreat is important “[3b] to support the social and cultural values of the coastal zone and maintain public access, amenity, use and safety”. Alternatives, such as defensive infrastructure have perverse impacts on the coast that, without nourishment, results in the loss of beach and therefore the loss of public access amenity and use. In the case of Old Bar Beach, which is a focal point for the community and visitors, the CMP includes up to three sand scraping campaigns over the 10-year period to prolong the sandy beach. However, the CMP acknowledges that while this may be an appropriate action over the next 10-years, ultimately it will become unsustainable to nourish the beach, and it will become a rocky headland.

A major body of work in the CMP is the preparation of a Beach Access and Use Strategy. This Strategy will revisit beach access and use at specific locations and review the use of those public spaces for 4WD vehicles, domestic animals, commercial fishers and tourism operations.

There are three actions that seek “[3c] to acknowledge Aboriginal peoples' spiritual, social, customary and economic use of the coastal zone”. The preparation of an Aboriginal Cultural

Heritage Assessment and Management Strategy is proposed to understand the impact of coastal processes on Aboriginal Cultural Heritage Items and sites; the Beach Access and Use Strategy will integrate Aboriginal cultural heritage into the strategy and the Signage Strategy is an opportunity to provide interpretative signage on the Aboriginal peoples' relationship with the area.

Tourism is important to our local economy. Protecting and maintaining the quality of these environments is essential to ***“[3d] recognise the coastal zone as a vital economic zone and supports sustainable coastal economies”***. The actions relating to managed retreat, protection of littoral rainforests and coastal wetlands and beach access and user management all contribute to this objective.

The proposed amendments to the local planning framework, the preparation of adaptation policy and local adaptation plans, and asset management plans all ***“[3e] facilitate ecologically sustainable development in the coastal zone and promote sustainable land use planning decision-making.”***

The CMP ***“[3f] mitigates current and future risks from coastal hazards, taking into account the effects of climate change”*** by the overarching managed retreat approach, by allowing low-impact, temporary, *buying-time* options and by informing proposed changes to the local planning framework with the probabilistic hazard modelling. There are also actions to ensure that assets at risk are identified, and asset management plans consider current and future risks. There are actions to respond to anticipated changes to natural systems including coastal wetlands and littoral rainforest.

Object [3g] requires CMPs ***“to recognise that the local and regional scale effects of coastal processes, and the inherently ambulatory and dynamic nature of the shoreline, may result in the loss of coastal land to the sea (including estuaries and other arms of the sea), and to manage coastal use and development accordingly.”*** The management approach adopted the CMP is managed retreat. This inherently meets this objective.

One of the key purposes of a CMP is ***“(3h) to promote integrated and coordinated coastal planning, management and reporting”***. The CMP does promote Council and the community's intended management approach for our coastline. Relevant government agencies have provided their support for the actions within the plan. The CMP includes a Monitoring, Evaluation and Reporting element which therefore meets this objective.

There are three asset management plans proposed (Community Facilities, Transport and Water Services) and two additional actions (Manning Point Sewerage Treatment Plan and Wallabi Point Exfiltration Ponds) that specifically ***“[3i] encourage and promote plans and strategies to improve the resilience of coastal assets to the impacts of an uncertain climate future including impacts of extreme storm events.”*** The Adaptation Policy and Guidelines and Local Adaptation Plans will also contribute to this objective.

The Coastal Management Framework seeks ***“(3j) to ensure co-ordination of the policies and activities of government and public authorities relating to the coastal zone and to facilitate the proper integration of their management activities.”*** However, it is difficult for many agencies to forward funding commitments, particularly over the 10-year lifespan of a CMP. The CMP does reflect where State agencies are proposed to be involved.

The development of the OBMP CMP has been strongly informed by engagement with our community. Many of the management issues and the actions were derived from that engagement and the community reference group. The assessment of the options was also undertaken by the community reference group and 15 community members. There are also a group of actions (EA1-EA3) that specifically seek ***“[3k] to support public participation in coastal management and planning and greater public awareness, education and understanding of coastal processes and management actions”***.

The CMP was prepared with significant consultation with the community. Every landowner within the 1% exceedance probability coastal hazard area was notified and invited to speak with council about what the modelling meant for them and their properties.

A values and issues survey was undertaken at the beginning of the project to understand how the community valued and used this area of coastline. They were also asked about their management priorities for the area. More thorough consultation was undertaken to support the identification of actions and to establish the evaluation criteria. The evaluation of actions was undertaken by the Community Reference Group and an additional 15 community members. The draft CMP was exhibited for a period of 5 weeks. Three public 'pop ups' were held at Old Bar and Manning Point.

The CMP includes three actions EA1-EA3 that specifically seek to build public awareness and understanding of coastal processes and particularly coast hazard risks.

Object (3l) seeks ***“to facilitate the identification of land in the coastal zone for acquisition by public or local authorities in order to promote the protection, enhancement, maintenance and restoration of the environment of the coastal zone”***. The CMP includes two options relating to the Coastal Lands Protection Scheme. The first is to review the existing layer on Mitchells Island to see if it could be justified to support the migration of littoral rainforest. However, given the rate of erosion in this location, it is unlikely that this will be pursued. The second is to review opportunities to nominate privately-owned land between Harrington and Crowdy Head to consolidate this into the public estate.

The final object (3m) is ***“to support the objects of the Marine Estate Management Act 2014”*** which largely covers many of the objectives above. Table 1 provides an alignment between each action and the MEM Act.

SEPP (Resilience and Hazards) 2021 – Coastal Management Areas

There are three coastal management areas that are mapped in the OBMP CMP area. The following provides a *description* of how the objectives of the coastal management areas covered by the CMP have been given effect to in preparing the CMP.

Coastal wetland and littoral rainforest area (CWLRA)

The objectives of the CWLRA aim to protect coastal wetlands and littoral rainforests in their natural state, to promote rehabilitation and restoration, improve the resilience of these ecosystems and to support their social and cultural value.

The OBMP CMP generally extends 2kms landward to the boundary of the Manning Estuary CMP. The MECMP includes a comprehensive suite of actions to achieve the coastal wetlands objectives (See CW1, CW3-CW6). These actions have been copied over to the OBMP CMP because these wetlands extend over the two CMP boundaries. These actions will be sponsored and undertaken as part of the MECMP. One additional action has been included in the OBMP CMP. CW2 proposes to consider benefits in infrastructure projects (e.g. road works) to improve and support coastal wetlands.

Changes and loss of littoral rainforest is already occurring in this area. On this eroding coastline, littoral rainforest will be lost through coastal processes, coastal squeeze and changes to hydrological regimes, increased exposure to salt and wind and physical destruction. The CMP does include changes to the SEPP mapping, to review opportunities to acquire coastal land and to identify littoral rainforest migration zones but is unlikely that natural migration of this community will outrun coastal processes. So, to maintain the ecological function of this community it is proposed to prepare a Coastal vegetation strategy that looks to improve the relationship between littoral and other less vulnerable rainforest communities and to undertake actions to include local rainforest species in urban environments such as streets and parks and private properties.

Coastal Environment Area

The coastal environment area generally applies to coastal environmental features including coastal waters, estuaries, coastal lagoons, headlands and rock platforms. The strategic direction for this area is managed retreat. This is fundamentally important to achieve the objectives of the coastal environment area. Any protection mechanism that is installed has implications for the sustainability of coastal processes and therefore coastal environmental features. The greatest resilience of natural systems to shoreline recess, coastal erosion and sea-level rise will be to allow for the unhindered migration of the coast landward. The CMP includes opportunities for low impact, *buying-time* actions to extend the life of properties, assets and infrastructure but ultimately it accepts damage and loss of these will occur over time and the coast will continue to move landward. Managed retreat is also a more effective mechanism to maintain the integrity of coastal environments and therefore public access.

The CMP includes protection, restoration and management actions including Aboriginal Cultural Heritage, shorebird protection, the management of beach users, and strategies for littoral rainforest and other coastal communities.

Coastal Use Area

The coastal use area seeks to protect and enhance the scenic, social and cultural values of the coast by ensuring that development is appropriately located and designed, that social and cultural qualities are protected, and that public access and use of the coast is maintained.

Once again, managed retreat is fundamental to achieve these objectives. The CMP includes specific actions to intervene in the investment and intensification of land use in vulnerable locations and to ensure that future development is designed and located in areas commensurate with risk. An Adaptation Policy and Guidelines are proposed, and Local Adaptation Plans will help to achieve these objectives in specific vulnerable locations such as Lewis Street and Pacific Parade.

The preparation of the asset management plans for water services, transport and community assets will ensure that future planning for these assets considers coastal processes. There are two water services assets that are vulnerable in the short-medium term and there are specific actions relating to these. There are also telecommunications infrastructure that is at short-term risk, so the owners of that infrastructure will be notified.

The Beach Access and User Management Strategy is an important action in the plan to achieve the objectives of the CUA. It seeks to revisit the use of beaches and coastal areas so that the uses are consistent with the qualities, vulnerabilities and limitations of different beach environments.

Old Bar Beach and park are a focal point for the community and visitors to the area. The geotechnical investigation and hazard modelling demonstrated that the area is underlain by bedrock so the park and surf club will not be impacted by coastal processes. However, over time Old Bar Beach will be lost, and it will become a rocky headland. The CMP proposes up to three sandscaping campaigns over the 10-year period of the plan to prolong the use of the beach. However, it also acknowledges that this will be unsustainable in the long term and the beach will be lost.

Table 1: Old Bar Manning Point CMP – Strategic Alignment.

	Legislative		SEPP (Hazards and Resilience) 2021				CSP
Management action	Coastal Management Act	Marine Estate Management Act	Coastal Wetland and Littoral Rainforest Area	Coastal Vulnerability Area	Coastal Environment Area	Coastal Use Area	MidCoast Community Strategic Plan
G1: To prepare an adaptation policy and guidelines and local adaptation plans (LAPs) for Manning Point, Lewis Street and Pacific Parade.	3(a), 3(d), 3(e), 3(g)	–	–	7(2a), 7(2b), 7(2i)	–	–	2.2, 4.1
G2: To seek legal advice to confirm local governments' obligations under the Local Government Act, the Roads Act and the Environmental Planning and Assessment Act to maintain physical access and services to properties impacted by coastal processes.	3(a), 3(b), 3(e), 3(g)	–	–	7(2f)	–	–	2.2, 2.5
EA1: To include opportunistic features or stories in Council's media outputs including webpage.	3(f)	–	–	7(2a), 7(2b)	–	–	2.2
EA2: To undertake media as storm season approaches.	3(f)	–	–	7(2a), 7(2b)	–	–	2.2
EA3: To send mail outs to households at risk of coastal erosion as the storm season approaches.	3(f)	–	–	7(2a), 7(2b)	–	–	2.2
EA4: To prepare a Coastal Signage Strategy.	3(b), 3(c), 3(k)	3(a)	6(2e)	–	8(2d), 8(2f)	–	1.1
EA5: To implement the Coastal Signage Strategy.	3(b), 3(c), 3(k)	3(a)	6(2e)	–	8(2d), 8(2f)	–	1.1
LUP1: To prepare a planning proposal to amend the MidCoast LEP: <ul style="list-style-type: none"> To update coastal risk mapping (1% exceedance probability), To review clause 7.4 Coastal Risk Planning, 	3(e), 3(f)	–	–	7(2b), 7(2f)	–	9(2a), 9(2b)	2.2, 4.1

	Legislative		SEPP (Hazards and Resilience) 2021				CSP
Management action	Coastal Management Act	Marine Estate Management Act	Coastal Wetland and Littoral Rainforest Area	Coastal Vulnerability Area	Coastal Environment Area	Coastal Use Area	MidCoast Community Strategic Plan
<ul style="list-style-type: none"> To investigate the rezoning of land in Coastal Risk Planning areas to an alternate zone which may include C4 Environmental Living and the inclusion of an additional zone objective about coastal hazard risk. 							
LUP2: To prepare an amendment to the MidCoast DCP with development controls for development in coastal risk planning areas.	3(e), 3(f)	–	–	7(2b), 7(2f)	–	9(2a), 9(2b)	2.2, 4.1
LUP3: To update s10.7 certificate notations for properties within coastal risk hazard area.	3(e), 3(k),	–	–	7(2b), 7(2f)	–	–	2.2, 4.1
LUP4: To lobby the State Government to take a leadership role in coastal management in NSW and specifically to: <ul style="list-style-type: none"> Provide consistent sea-level rise targets for NSW. Commit to a risk exceedance level to support mapping in statutory and non-statutory planning instruments. 	3(e), 3(f), 3(g), 3(i), 3(j)	-	-	7(2b),7(2e)	-	-	2.2, 4.1
LUP5: To formally write to the NSW Valuer General to raise the issue of land valuations and climate change risks including coastal erosion, flooding and bushfire.	3(e), 3(f), 3(g), 3(i), 3(j)	-	-	7(2b),7(2e)	-	-	2.2, 4.1
ACH1: To prepare an Aboriginal Cultural Heritage Assessment and Management Strategy	3(b), 3(c)	–	–	–	–	9(2a)	2.2
CW1: To prepare a planning proposal to amend the SEPP (Resilience and Hazards) to update	3(a), 3(m)	3(a)	6(2a)-6(2e)	7(2c)	8(2a), 8(2b), 8(2c)	–	2.1

	Legislative		SEPP (Hazards and Resilience) 2021				CSP
Management action	Coastal Management Act	Marine Estate Management Act	Coastal Wetland and Littoral Rainforest Area	Coastal Vulnerability Area	Coastal Environment Area	Coastal Use Area	MidCoast Community Strategic Plan
coastal wetlands mapping (Action 7.01 Manning Estuary CMP).							
CW2: To consider additional benefits in infrastructure projects (e.g. road works) to improve and support coastal wetlands.	3(a), 3(m)	3(a)	6(2b), 6(2c)	–	–	–	–
CW3: To work with landholders to restore coastal wetlands (Action 2.02 Manning Estuary CMP).	3(a), 3(m)	3(a)	6(2a)-6(2e)	7(2c)	8(2a), 8(2b), 8(2c)	–	2.1, 2.2, 4.4
CW4: To identify coastal wetland migration zones under sea-level rise scenarios, develop a plan to retain suitable buffers to accommodate changing footprints (Action 3.01 Manning Estuary CMP).	3(a), 3(m)	3(a)	6(2c)	7(2c)	8(2a), 8(2b), 8(2c)	–	2.1
CW5: To work collaboratively with landholders and other stakeholders to develop an adaptation plan to mitigate the long-term (50-100 years) risk of climate change impacts on the floodplain, including management of productivity, coastal wetlands, acid sulfate soil and blackwater events. (Action 3.03 Manning Estuary CMP)	3(a), 3(m)	3(a)	6(2c)	7(2c)	8(2a), 8(2b), 8(2c)	–	2.1
CW6: To implement key priority acid sulfate soil management actions from the draft Manning River Floodplain Prioritisation Study 2021. (Action 2.01 Manning Estuary CMP).	3(a), 3(m)	3(a)	6(2a)-6(2e)	–	8(2c)	–	2.1
LR1: To prepare a planning proposal to amend the SEPP (Resilience and hazards) to update littoral rainforest mapping.	3(a)	–	6(2a)-6(2e)	7(2c)	8(2a)	–	2.1, 2.2

	Legislative		SEPP (Hazards and Resilience) 2021				CSP
Management action	Coastal Management Act	Marine Estate Management Act	Coastal Wetland and Littoral Rainforest Area	Coastal Vulnerability Area	Coastal Environment Area	Coastal Use Area	MidCoast Community Strategic Plan
LR2: To review extent of coastal acquisition area (Mitchells Island) and assess potential for retreat buffer for littoral rainforest and other coastal vegetative communities.	3(a), 3(b), 3(l)	–	6(2c)	7(2c)	8(2a)	–	2.1
LR3: To prepare a Coastal vegetation strategy to improve the biodiversity, connectivity and the relationship between other rainforest communities and stands of littoral rainforest. To identify retreat buffers for littoral rainforest.	3(a), 3(f)	–	6(2c)	7(2c)	8(2a)	–	2.1
LR4: To undertake routine maintenance works, regeneration and protection works to support the littoral rainforest within Farquhar Park (R45183). These include weed management, bush regeneration and other activities that may result from LR3 .	3(a), 3(f)	–	6(2c)	7(2c)	8(2a)	–	2.1
LR5: To undertake responsive coastal protection works to support the protection and maintenance of the littoral rainforest in within Farquhar Park (R45183). These may include non-structural foreshore management works and the short-to-medium term placement of sand filled geotextile to address any slumping of the access.	3(a), 3(f)	–	6(2c)	7(2c)	8(2a)	–	2.1
BA1: To prepare a Beach Access and Use Strategy.	3(a), 3(b), 3(h), 3(i), 3(j), 3(m)	3(a), 3(b)					

	Legislative		SEPP (Hazards and Resilience) 2021				CSP
Management action	Coastal Management Act	Marine Estate Management Act	Coastal Wetland and Littoral Rainforest Area	Coastal Vulnerability Area	Coastal Environment Area	Coastal Use Area	MidCoast Community Strategic Plan
BA2: To undertake additional compliance and enforcement.	3(a)	3(a), 3(b)	–	–	8(2a), 8(2b), 8(2d), 8(2e), 8(2f)	9(2a)	2.1
BA3: To seek legal advice in relation to public beach access and use by recreational vehicles to: <ul style="list-style-type: none"> • Understand Council's role, capacity and limitations to regulate and enforce recreational beach drivers. • Increase the fines for non-compliance. • Increase age of permits to 25 years. • Understand its responsibilities under the Crown Land Management Act, Local Government Act and Road Transport Act. 	3(a), 3(b)	–	–	–	–	–	–
AM1: To undertake a Community Facilities Asset Management Plan that includes: <ul style="list-style-type: none"> • An audit of community assets and facilities at risk from coastal processes at various timeframes. • A plan to respond to vulnerable assets. 	3(b), 3(f), 3(i)	–	–	7(2b), 7(2d)	8(2f)	9(2a)	2.2
AM2: To undertake a Transport Asset Strategy that includes: <ul style="list-style-type: none"> • An audit of transport assets at risk from coastal processes at various timeframes. • A plan to respond to vulnerable assets. 	3(d), 3(f), 3(h)	–	–	7(2a), 7(2b), 7(2d), 7(2h), 7(2i)	–	–	2.2
AM3: To undertake a Water Systems Asset Management Plan that includes:	3(d), 3(f), 3(h)	–	–	7(2a), 7(2b), 7(2d), 7(2h), 7(2i)	–	–	2.2, 2.4

	Legislative		SEPP (Hazards and Resilience) 2021				CSP
Management action	Coastal Management Act	Marine Estate Management Act	Coastal Wetland and Littoral Rainforest Area	Coastal Vulnerability Area	Coastal Environment Area	Coastal Use Area	MidCoast Community Strategic Plan
<ul style="list-style-type: none"> An audit of water and sewer assets at risk from coastal processes at various timeframes. A plan to respond to vulnerable assets. 							
AM4: To investigate appropriate design and materials for services affected by saltwater and sediment intrusion.	3(d), 3(f), 3(h)	–	–	7(2a), 7(2b), 7(2d), 7(2h), 7(2i)	–	–	2.2, 2.4
AM5: To prepare a strategy to move exfiltration ponds outside of the 1% exceedance area for Reduced Foundation Capacity. The strategy should also consider the remediation and future use of the site.	3(e), 3(g), 3(j)	–	–	7(2b)	–	–	2.2
AM6: To prepare a strategy for the ongoing servicing of Manning Point.	3(e)	–	–	7(2b)	–	–	2.2
UTL1: To formally notify Telstra, Essential Energy and NBNCO about the update probabilistic hazard mapping.	3(f), 3(g)	–	–	7(2b)	–	–	2.2
SB1: To deliver coordinated annual strategic fox controls at important shorebird sites (particularly nesting areas).	3(a)	3(a)	–	–	8(2a)	–	2.1
SB2: To support trials of new shorebird protection measures, such as exclusion fencing and odour deterrents, etc	3(a)	3(a)	–	–	8(2a)	–	2.1
SB3: To regulate and enforce conflicting recreational activities (4wd, etc) and domestic	3(a)	3(a)	–	–	8(2a)	–	2.1

	Legislative		SEPP (Hazards and Resilience) 2021				CSP
Management action	Coastal Management Act	Marine Estate Management Act	Coastal Wetland and Littoral Rainforest Area	Coastal Vulnerability Area	Coastal Environment Area	Coastal Use Area	MidCoast Community Strategic Plan
animals at and around important shorebird nesting sites.							
RC1: To implement specific recommendations of the Racecourse Creek Flood Management and Options Assessment. Specifically, <ul style="list-style-type: none"> To remove the GPT. To install a revetment wall to stabilise the bank. To remove weeds, debris and rubbish 	3(a)	–	–	–	–	–	2.1, 2.2
DF1: To review the Manning River Dredging Strategy.	3(a), 3(b), 3(d), 3(m)	3(a)	–	–	8(2a), 8(2c), 8(2d), 8(2f)	–	–
DF2: To review the inlet opening strategy for Farquhar Inlet.	3(a), 3(b), 3(d), 3(m)	3(a)	–	–	8(2a), 8(2c), 8(2d), 8(2f)	–	2.1, 2.2
OBB1: To undertake a stormwater management strategy or investigation.	3(a), 3(i)	3(a)	–	7(2b)	8(2a), 8(2c)	–	–
OBB2: To include stormwater management in the preparation of the plan of management.	3(a), 3(i)	–	–	7(2b)	8(2a), 8(2c)	–	–
OBB3: To undertake up to 3 sand scraping campaigns at Old Bar Beach.	3(a), 3(b), 3(e), 3(g)	–	–	7(2f)	–	–	2.2, 2.5
OBB4: To support the OBBSRG to undertake sand trapping.	3(a), 3(b), 3(e), 3(g)	–	–	7(2f)	–	–	2.2, 2.5
OBB5: To support the realisation of the Old Bar Park Masterplan.	3(b), 3(c), 3(d), 3(h)	3(a)	-	-	8(d), 8(f)	9(2a)	1.1, 1.2

	Legislative		SEPP (Hazards and Resilience) 2021				CSP
Management action	Coastal Management Act	Marine Estate Management Act	Coastal Wetland and Littoral Rainforest Area	Coastal Vulnerability Area	Coastal Environment Area	Coastal Use Area	MidCoast Community Strategic Plan
OBB6: To investigate more robust beach access options for the Taree Old Bar SLSC.	3(b)	-	-	-	8(d), 8(f)	9(2a)	1.4
LEW1: To undertake sand scraping campaign/s in front of the Lewis Street properties. .	3(a), 3(b), 3(e), 3(g)	—	—	7(2f)	—	—	2.2, 2.5
LEW2: To undertake sand trapping in front of the Lewis Street properties.	3(a), 3(b), 3(e), 3(g)	—	—	7(2f)	—	—	2.2, 2.5
LEW3: To install sand filled-geotextile containers (5m ³ 9T ElcoRock ER500 GSC Units) in front of the Lewis Street properties.	3(a), 3(b), 3(e), 3(g)	—	—	7(2f)	—	—	2.2, 2.5
LEW4: To install sand filled-geotextile containers (2.5m ³ GSC Units) ¹⁹ .	3(a), 3(b), 3(e), 3(g)	—	—	7(2f)	—	—	2.2, 2.5
PP1: To redesign Pacific Parade to a one-way system, realign fencing and parking areas and undertake revegetation of endemic species. Install interpretive signage.	3(a), 3(b), 3(e), 3(g)	—	—	7(2f)	—	—	2.2, 2.5
PP2: To undertake sand trapping campaigns in front of Pacific Parade.	3(a), 3(b), 3(e), 3(g)	—	—	7(2f)	—	—	2.2, 2.5

¹⁹ These are an alternative sized GSC. These have been used previously in this location; however, these have not been recommended by Engineers because they have limited effectiveness in an open coast environment. Despite, this these have been included as an alternative available to landowners.

	Legislative		SEPP (Hazards and Resilience) 2021				CSP
Management action	Coastal Management Act	Marine Estate Management Act	Coastal Wetland and Littoral Rainforest Area	Coastal Vulnerability Area	Coastal Environment Area	Coastal Use Area	MidCoast Community Strategic Plan
MP1: To beneficially re-use dredged materials for nourishment activities.	3(a), 3(b), 3(e), 3(g)	–	–	7(2c)	–	–	2.2
MP2: To commence a profile monitoring study of the Manning Point spit.	3(f), 3(g)	–	–	–	–	–	2.2
MP3: To work with TfNSW and other NSW Government agencies to repair the spur wall.	3(f), 3(g), 3(i), 3(j)	3(b)	–	7(2b), 7(2f)	8(2b)	–	2.2
CH1: To prepare an application for these sites to be identified in the Coastal Lands Protection Scheme.	3(a), 3(b), 3(l)	3(a)	6(2a), 6(2b)	–	8(2a), 8(2f)	9(2b)	2.1

Appendix C: Detailed Business Plan

Introduction

The Coastal Management Manual requires Council to include a business plan that identifies:

1. all proposed coastal management actions identified elsewhere in the CMP.
2. the full proposed capital, operational and maintenance costs, and recommended timing, of proposed coastal management actions.
3. any proposed cost-sharing arrangements and any other viable funding mechanisms for the proposed coastal management actions to ensure delivery of those actions is consistent with the timing for their implementation under the CMP; and
4. the distribution of costs and benefits of all proposed coastal management actions.

The actions included in the CMP are costed based on the extensive experience of officers across the Council who deliver similar projects on a regular basis in a local context.

The CMP is a 10-year plan and while all efforts have been applied to anticipate future costs at the point of implementation, it is unreasonable to obligate Council to deliver future projects at that defined value in the later stages of the CMP implementation.

Many of the projects listed are strategies to further understand a particular management issue. It is very difficult to anticipate the specific outcomes of those strategies and to establish an accurately, costed implementation program. It is also unreasonable to delay implementation of those strategies to the next review of the CMP. Therefore, the implementation costs have been estimated based on the works that are anticipated to result from the strategic process.

Council will rely heavily on external funding opportunities to carry out these programs. This is reflected in the CMP business case. However, there is no certainty that these opportunities will exist at the time of implementation. Therefore, it is unlikely that the schedule of works will be implemented as detailed in the plan. Council will take every opportunity to anticipate and apply for relevant funding opportunities as they arise over the 10-year period.

Possible sources of funding

The following sources of funding (existing and historic) have been identified as potential sources or examples of previously offered funding that may be applicable to fund CMP actions. One of the failures of the CMP process is that it has proven very difficult for external agencies and organisations to commit to funding actions outside of the organisation and over a 10-year period.

The intention for CMPs to guide the management of the coast in a strategic and integrated manner has failed and they have mostly now become Council plans of action. Therefore, the only funding with relative confidence is Council funds and the Coast and Estuary Implementation Grants.

Table 1: Possible and former funding sources applicable to CMP actions.

Funding Source	Description	Status
Council funds	Internal council funds.	Current
NSW Coastal and Estuary Grants Program - DEECCW	The program supports local councils in managing the coastal environment of New South Wales	Current

Funding Source	Description	Status
Increasing Resilience to Climate Change program	This partnership program between LGNSW and the NSW Department of Planning, Industry and Environment (DPIE) provides funding to address climate change risks and assist NSW councils be better able to plan for, and respond to, heatwaves, storms, floods, drought, and bushfires.	Closed late 2022
Crown Reserves Improvement Fund	The Crown Reserves Improvement Fund (CRIF) supports Crown land managers (CLMs) by providing funding for repairs, maintenance and improvements on Crown reserves. The funding aims to benefit the community, boost our economy and contribute to the cultural, sporting and recreational life of NSW.	Current
NSW Environment Trust	The NSW Environmental Trust provides funding to a range of community, government and industry stakeholders to deliver projects that conserve, protect and rehabilitate the NSW environment, or that promote environmental education and sustainability.	
	<p>Protecting Our Places</p> <p>The Protecting Our Places program encourages and empowers Aboriginal communities to protect, conserve and restore landscapes and waterways important to them.</p>	Closed April 2024
Landcare / Coastcare Grants	Landcare Australia works with governments, corporate and philanthropic organisations and donors to facilitate funding for good quality, hands on projects and programs that will improve environmental outcomes for the Landcare community.	Currently closed
Habitat Action Grants	The Habitat Action Grants are funded from the Recreational Fishing Trusts which direct revenue generated by the NSW Recreational Fishing Fee towards on ground actions to improve fish habitat and recreational fishing in NSW.	Currently closed
Boating Now Program	The NSW Boating Now Program provides grant funding to improve maritime infrastructure and facilities across NSW. This investment supports the needs of recreational and commercial boaters and enables broader economic and social benefits for communities.	Currently closed.

Proposed funding

Government funding sources

The bulk of funding to implement the actions in the CMP is expected to be sourced from Council funds and through the **Coast and Estuary Grants Program** as these are the most reliable sources of funding for the plan.

Action ACH1 to prepare an Aboriginal Cultural Heritage Assessment and Management Strategy is proposed to be funded under an **Aboriginal Cultural Heritage grant** stream that are sporadically offered by DCCEEW. There are no current grant streams available, but Council will monitor opportunities to fund this action.

For the past 3-years Council has been awarded funding (\$25K per annum) under the **Crown Reserves Improvement Fund (CRIF)** to undertake strategic fox controls at important shorebird sites. This is a competitive process; however, the CMP assumes that this funding will continue to be available over the life of the CMP. However, alternative sources of funding will be explored to ensure this important action continues for the life of the CMP.

Action SB2 proposes to undertake three trials of shorebird protection mechanisms. Council will look for additional funding contribution partners, for example universities, to participate in these trials.

Table 2: Old Bar Manning Point CMP - Business Case - Government-funded actions.

Action	Proposed Funding Source	Responsibility	Proposed funding amount
ACH1: To prepare Aboriginal Cultural Heritage Assessment and Management Study	Aboriginal Cultural Heritage Grants	MidCoast Council Purfleet LALC	\$80K
SB1: To undertake annual strategic fox controls at important shorebird sites	Crown Land - Crown Reserves Improvement Fund	MidCoast Council	\$250K (\$25K per annum)
SB2: To support trials of new shorebird protection measures	MidCoast Council DCCEEW (Coast and Estuary Grants) Alternate contribution partners	MidCoast Council	\$150K (\$50K per campaign)

Landowners (Lewis Street)

The CMP provides conditional support for specific coastal protection works at Lewis Street Old Bar. Landowners are wholly responsible for funding and gaining the necessary approvals. Landowners will be wholly responsible for the full cost of the works including the implementation and maintenance of the works.

The CMP provides two alternative sizes for sand-filled geotextile containers (2.5m³ and 5m³). The installation of sand-filled geotextile containers is considered a short-medium term option to extend

the occupation of properties in vulnerable areas. This is consistent with Council's strategic direction for this area. If landowners gain approval for these works and they are installed, there will be an ongoing financial commitment to maintain these structures and to ensure that public access and the amenity of the beach is maintained. There will also be obligations to remove these structures when they fail. This will be a key consideration of any development application and conditioned on the approval.

Business Plan

The OBMP CMP includes a business plan. The actions included in the CMP are costed based on the extensive experience of officers across the Council who deliver similar projects on a regular basis in a local context.

The CMP is a 10-year plan and while all efforts have been applied to anticipate future costs at the point of implementation, it is unreasonable to obligate Council to deliver future projects at that defined value in the later stages of the CMP implementation.

Many of the actions listed in the CMP will be undertaken by Council and funded through internal revenue. Where resources are not available Council may engage external consultants to undertake the work. These are nominated in the plan. Council will rely heavily on the implementation funding under the Coastal and Estuary Grants Program to supplement the funding of the CMP.

Many of the projects listed are strategies to further understand a particular management issue. It is very difficult to anticipate the specific outcomes of those strategies and to establish an accurately, costed implementation program. It is also unreasonable to delay implementation of those strategies to the next review of the CMP. Therefore, the implementation costs have been estimated based on the works that are anticipated to result from the strategic process.

Council will rely heavily on external funding opportunities to carry out these programs. This is reflected in the CMP business case. However, there is no certainty that these opportunities will exist at the time of implementation. Therefore, it is unlikely that the schedule of works will be implemented as detailed in the plan. Council will take every opportunity to anticipate and apply for relevant funding opportunities as they arise over the 10-year period.

The CMP requires that agencies that are identified as funding contributors formally agree to the CMP and thereby the funding commitment. Many funding opportunities are transitory and may not be available from year-to-year. Others are likely to become available. The funding of the CMP needs to be flexible to exploit new opportunities that arise over the 10-year period, and to be resilient to expiring opportunities. Many grants are competitive, so these cannot be guaranteed from year-to-year.

Integrated Planning and Reporting Framework

The Coastal Management Manual requires CMPs to demonstrate how actions and in particular the funding of those actions is integrated into Council's IP&R framework.

The IP&R is a requirement under the Local Government Act that requires Councils to develop a 10-year Community Strategic Plan that is supported by a 4-year Delivery Program and an annual Operational Plan.

The Community Strategic Plan includes two objectives that relate to CMPs.

- 2.1 We protect, manage and restore our natural environment and our biodiversity.
- 2.2 We understand and manage environment and climate change risks and impacts.

The current delivery program anticipates the development of Council's CMPs; however, does not include any actions to be implemented. A failure of the CMP business planning requirement is that it does not appreciate that Council will not include actions in its delivery program or operational plan until the CMP has been adopted.

Each action within the CMP has been confirmed by the relevant service area including the anticipated cost and timing. However, to be a responsive and effective plan the CMP must allow some flexibility in the implementation.

Table 1 below identifies the full proposed (anticipated) cost of each action. The recommended timing is indicated by the financial year column headings. Where the dollar amount in the table is \$0 or "\$-" this identifies that there is no additional cost beyond council's business as usual operating costs or that the action only requires council staff time for implementation. The total cost column is inclusive of anticipated capital, operational and maintenance costs. Where a single cost figure is included across the financial year columns, this is identifying a capital or one-off cost for an action. Where costs are spread across a number of years this identifies operational, maintenance or ongoing costs. The actions tables in the CMP (Table 7 to Table 23) also include a breakdown of capital, maintenance and operational costs for each action.

Table 2 identifies the net distribution of costs of all management actions. For each action the funding source column in Table 1 identifies the proposed cost distribution for that action. Where the funding source is identified as council funds this is expected to be paired with any available grant funding from the sources identified above.

The majority of actions within the CMP are expected to have broad benefits that would be distributed across the MidCoast and wider NSW community (for example environmental and amenity benefits that are not quantified here). Certain actions to temporarily protect private property provide benefits to those specific landowners and as such the costs of those actions are solely the responsibility of those beneficiaries.

Table 1: Old Bar Manning Point CMP - Detailed business case.

Management action	Responsibility (Lead)	Total Cost	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	Funding source/s
G1: To prepare an adaptation policy and guidelines and local adaptation plans (LAPs) for Manning Point, Lewis Street and Pacific Parade.	MidCoast Council (Natural Systems)	\$120K	\$-	\$40K	\$40K	\$40K	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
G2: To seek legal advice to confirm local governments' obligations under the Local Government Act, the Roads Act and the Environmental Planning and Assessment Act to maintain physical access and services to properties impacted by coastal processes.	MidCoast Council (Roads)	\$20K	\$-	\$-	\$20K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
EA1: To include opportunistic features or stories in Council's media outputs including webpage.	MidCoast Council (Comms) NSW SES	\$0	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
EA2: To undertake media as storm season approaches.	MidCoast Council (Comms) NSW SES	\$0	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
EA3: To send mail outs to households at risk of coastal erosion as the storm season approaches.	MidCoast Council (Comms) NSW SES	\$13K	\$4K	\$1K	\$1K	\$1K	\$1K	\$1K	\$1K	\$1K	\$1K	\$1K	Council funds
EA4: To prepare a Coastal Signage Strategy.	MidCoast Council (Public Spaces)	\$60K	\$-	\$-	\$60K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
EA5: To implement the Coastal Signage Strategy.	MidCoast Council (Public Spaces)	\$200K	\$-	\$-	\$-	\$50K	\$50K	\$50K	\$50K	\$-	\$-	\$-	Council funds

Management action	Responsibility (Lead)	Total Cost	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031	2031/2032	2032/2033	2033/2034	2034/2035	Funding source/s
LUP1: To prepare a planning proposal to amend the MidCoast LEP: <ul style="list-style-type: none"> To update coastal risk mapping (1% exceedance probability), To review clause 7.4 Coastal Risk Planning, To investigate the rezoning of land in Coastal Risk Planning areas to an alternate zone which may include C4 Environmental Living and the inclusion of an additional zone objective about coastal hazard risk. 	MidCoast Council (Land Use Planning) Natural Systems	\$10K	\$10K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
LUP2: To prepare an amendment to the MidCoast DCP with development controls for development in coastal risk planning areas.	MidCoast Council (Land Use Planning) Natural Systems	\$10K	\$10K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
LUP3: To update s10.7 certificate notations for properties within coastal risk hazard area.	MidCoast Council (GIS)	\$3K	\$3K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
LUP4: To lobby the State Government to take a leadership role in coastal management in NSW and specifically to: <ul style="list-style-type: none"> Provide consistent sea-level rise targets for NSW. Commit to a risk exceedance level to support mapping in statutory and non-statutory planning instruments. 	MidCoast Council (Land Use Planning) MidCoast Council (Natural Systems)	\$0	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	-

Management action	Responsibility (Lead)	Total Cost	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031	2031/2032	2032/2033	2033/2034	2034/2035	Funding source/s
LUP5: To formally write to the NSW Valuer General to raise the issue of land valuations and climate change risks including coastal erosion, flooding and bushfire.	MidCoast Council (Natural Systems)	\$0	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	-
ACH1: To prepare an Aboriginal Cultural Heritage Assessment and Management Strategy	Purfleet LALC	\$80K	\$-	\$-	\$80K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Aboriginal Cultural Heritage Grants
CW1: To prepare a planning proposal to amend the SEPP (Resilience and Hazards) to update coastal wetlands mapping (Action 7.01 Manning Estuary CMP).	MidCoast Council (Natural Systems) Coastcare LLS	\$0	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Manning Estuary CMP
CW2: To consider additional benefits in infrastructure projects (e.g. road works) to improve and support coastal wetlands.	MidCoast Council (Roads) LLS	\$0	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
CW3: To work with landholders to restore coastal wetlands (Action 2.02 Manning Estuary CMP).	LLS MidCoast Council (Natural Systems) Landcare DCCEEW Landowners	\$0	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Manning Estuary CMP
CW4: To identify coastal wetland migration zones under sea-level rise scenarios, develop a plan to retain suitable buffers to accommodate	MidCoast Council (Natural Systems) LLS Landowners	\$0	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Manning Estuary CMP

Management action	Responsibility (Lead)	Total Cost	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031	2031/2032	2032/2033	2033/2034	2034/2035	Funding source/s
changing footprints (Action 3.01 Manning Estuary CMP).													
CW5: To work collaboratively with landholders and other stakeholders to develop an adaptation plan to mitigate the long-term (50-100 years) risk of climate change impacts on the floodplain, including management of productivity, coastal wetlands, acid sulfate soil and blackwater events. (Action 3.03 Manning Estuary CMP)	MidCoast Council (Natural Systems) DPI – Fisheries LLS Landowners	\$0	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Manning Estuary CMP
CW6: To implement key priority acid sulfate soil management actions from the draft Manning River Floodplain Prioritisation Study 2021. (Action 2.01 Manning Estuary CMP).	MidCoast Council (Natural Systems) DPI- Fisheries	\$0	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Manning Estuary CMP
LR1: To prepare a planning proposal to amend the SEPP (Resilience and hazards) to update littoral rainforest mapping.	MidCoast Council (Land Use Planning) MidCoast Council (Natural Systems)	\$10K	\$10K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
LR2: To review extent of coastal acquisition area (Mitchells Island) and assess potential for retreat buffer for littoral rainforest and other coastal vegetative communities.	MidCoast Council (Natural Systems) Department of Planning, Housing and Infrastructure	\$3K	\$-	\$-	\$-	\$-	\$3K	\$-	\$-	\$-	\$-	\$-	Council funds
LR3: To prepare a Coastal vegetation strategy to improve the biodiversity, connectivity and the relationship between	MidCoast Council (Natural Systems) Coastcare LLS	\$40K	\$40K-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds

Management action	Responsibility (Lead)	Total Cost	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031	2031/2032	2032/2033	2033/2034	2034/2035	Funding source/s
<p>other rainforest communities and stands of littoral rainforest.</p> <p>To identify retreat buffers for littoral rainforest.</p>													
LR4: To undertake routine maintenance works, regeneration and protection works to support the littoral rainforest within Farquhar Park (R45183). These include weed management, bush regeneration and other activities that may result from LR3 .	Crown Lands	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Crown Land Funds
LR5: To undertake responsive coastal protection works to support the protection and maintenance of the littoral rainforest in within Farquhar Park (R45183). These may include non-structural foreshore management works and the short-to-medium term placement of sand filled geotextile to address any slumping of the access.	Crown Lands	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Crown Land Funds
BA1: To prepare a Beach Access and Use Strategy.	MidCoast Council (Public Spaces) Crown Lands	\$120K	\$-	\$60K	\$60K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
BA2: To undertake additional compliance and enforcement.	MidCoast Council (Compliance)	\$0	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
BA3: To seek legal advice in relation to public beach access	MidCoast Council (Compliance) MidCoast Council (Natural Systems)	\$10K	\$-	\$10K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds

Management action	Responsibility (Lead)	Total Cost	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031	2031/2032	2032/2033	2033/2034	2034/2035	Funding source/s
<p>and use by recreational vehicles to:</p> <ul style="list-style-type: none"> Understand Council's role, capacity and limitations to regulate and enforce recreational beach drivers. Increase the fines for non-compliance. Increase age of permits to 25 years. Understand its responsibilities under the Crown Land Management Act, Local Government Act and Road Transport Act. 													
<p>AM1: To undertake a Community Facilities Asset Management Plan that includes:</p> <ul style="list-style-type: none"> An audit of community assets and facilities at risk from coastal processes at various timeframes. A plan to respond to vulnerable assets. 	MidCoast Council (Public Spaces)	\$80K	\$-	\$80K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
<p>AM2: To undertake a Transport Asset Management Plan that includes: An audit of transport assets at risk from coastal processes at various timeframes.</p> <ul style="list-style-type: none"> A plan to respond to vulnerable assets. 	MidCoast Council (Roads)	\$40K	\$-	\$-	\$40K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds

Management action	Responsibility (Lead)	Total Cost	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031	2031/2032	2032/2033	2033/2034	2034/2035	Funding source/s
AM3: To undertake a Water Systems Asset Management Plan that includes: <ul style="list-style-type: none"> An audit of water and sewer assets at risk from coastal processes at various timeframes. A plan to respond to vulnerable assets. 	MidCoast Council (Water Systems)	\$45K	\$-	\$-	\$45K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
AM4: To investigate appropriate design and materials for services affected by saltwater and sediment intrusion.	MidCoast Council (Water Systems)	\$3K	\$3k	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
AM5: To prepare a strategy to move exfiltration ponds outside of the 1% exceedance area for Reduced Foundation Capacity. The strategy should also consider the remediation and future use of the site.	MidCoast Council (Water Systems)	\$20K	\$-	\$20K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
AM6: To prepare a strategy for the ongoing servicing of Manning Point.	MidCoast Council (Water Systems)	\$20K	\$-	\$-	\$20K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
UTL1: To formally notify Telstra, Essential Energy and NBNCO about the update probabilistic hazard mapping.	MidCoast Council (Natural Systems)	\$0	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	-
SB1: To deliver coordinated annual strategic fox controls at important shorebird sites (particularly nesting areas).	MidCoast Council (Natural Systems) Crown Lands NPWS LLS	\$250K (\$25K per annum)	\$25K	\$25K	\$25K	\$25K	\$25K	\$25K	\$25K	\$25K	\$25K	\$25K	CRIF

Management action	Responsibility (Lead)	Total Cost	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031	2031/2032	2032/2033	2033/2034	2034/2035	Funding source/s
	DCCEEW												
SB2: To support trials of new shorebird protection measures, such as exclusion fencing and odour deterrents, etc	MidCoast Council (Natural Systems) Crown Lands NPWS LLS DCCEEW	\$150K (\$50K per trial)	\$-	\$50K	\$-	\$50K	\$-	\$50K	\$-	\$-	\$-	\$-	Council funds
SB3: To regulate and enforce conflicting recreational activities (4wd, etc) and domestic animals at and around important shorebird nesting sites.	See BA2 .												
RC1: To implement specific recommendations of the Racecourse Creek Flood Management and Options Assessment. Specifically, <ul style="list-style-type: none">To remove the GPT.To install a revetment wall to stabilise the bank. To remove weeds, debris and rubbish	MidCoast Council (Coastal, Flooding & Drainage)	\$700K	\$700K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
DF1: To review the Manning River Dredging Strategy.	MidCoast Council (Natural Systems)	\$15K	\$-	\$-	\$-	\$15K	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
DF2: To review the inlet opening strategy for Farquhar Inlet.	MidCoast Council (Coastal, Flooding & Drainage)	\$15K	\$-	\$-	\$-	\$15K	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
OBB1: To undertake a stormwater management strategy or investigation.	MidCoast Council (Coastal, Flooding & Drainage)	\$40K	\$-	\$-	\$40K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds

Management action	Responsibility (Lead)	Total Cost	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031	2031/2032	2032/2033	2033/2034	2034/2035	Funding source/s
OBB2: To include stormwater management in the preparation of the plan of management.	MidCoast Council (Public Spaces)	\$0	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	-
OBB3: To undertake up to 3 sand scraping campaigns at Old Bar Beach.	MidCoast Council (Public Spaces)	\$600K	\$-	\$-	\$200K	\$-	\$-	\$200K	\$-	\$-	\$200K	\$-	Council funds
OBB4: To support the OBBSRG to undertake sand trapping.	MidCoast Council (Public Spaces) OBBSRG	\$5K	\$-	\$2K	\$-	\$-	\$1K	-	\$1K	\$-	\$1K	\$-	Council funds
OBB5: To support the realisation of the Old Bar Park Masterplan.	MidCoast Council (Public Spaces)	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
OBB6: To investigate more robust beach access options for the Taree Old Bar SLSC.	MidCoast Council (Public Spaces) Taree Old Bar SLSC	\$10K	\$-	\$10K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
LEW1: To undertake sand scraping campaign/s in front of the Lewis Street properties. .	Landowners Crown Lands	\$77K	\$-	\$-	\$-	\$-	\$77K	\$-	\$-	\$-	\$-	\$-	Landowners
LEW2: To undertake sand trapping in front of the Lewis Street properties.	Landowners OBBSRG	\$5K	\$-	\$2K	\$-	\$-	\$1K	-	\$1K	\$-	\$1K	\$-	Landowners
LEW3: To install sand filled-geotextile containers (5m ³ 9T ElcoRock ER500 GSC Units) in front of the Lewis Street properties.	Landowners	\$5.2M	\$-	\$-	\$-	\$4.5M	\$112K	\$112K	\$112K	\$112K	\$112K	\$112K	Landowners

Management action	Responsibility (Lead)	Total Cost	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031	2031/2032	2032/2033	2033/2034	2034/2035	Funding source/s
LEW4: To install sand filled-geotextile containers (2.5m3 GSC Units) ²⁰ .	Landowners	\$3.6M	\$-	\$-	\$-	\$3.1M	\$77.5K	\$77.5K	\$77.5K	\$77.5K	\$77.5K	\$77.5K	Landowners
PP1: To redesign Pacific Parade to a one-way system, realign fencing and parking areas and undertake revegetation of endemic species. Install interpretive signage.	MidCoast Council (Roads) Landowners Coastcare	\$100K	\$-	\$50K	\$50K	\$-	\$-	\$-	\$-	\$-	\$-	\$-	Council funds
PP2: To undertake sand trapping campaigns in front of Pacific Parade.	MidCoast Council (Public spaces) Landowners Coastcare OBBSRG	\$5K	\$-	\$2K	\$-	\$-	\$1K	-	\$1K	\$-	\$1K	\$-	Council funds
MP1: To beneficially re-use dredged materials for nourishment activities.	TfNSW MidCoast Council (Natural Systems)	\$0	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	-TfNSW ²¹
MP2: To commence a profile monitoring study of the Manning Point spit.	MidCoast Council (Coastal, Flooding & Drainage)	\$77K	\$7K	\$7K	\$7K	\$7K	\$7K	\$7K	\$7K	\$7K	\$7K	\$7K	Council funds
MP3: To work with TfNSW and other NSW Government agencies to repair the spur wall.	TfNSW MidCoast Council	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	-

²⁰ These are an alternative sized GSC. These have been used previously in this location; however, these have not been recommended by Engineers because they have limited effectiveness in an open coast environment. Despite, this these have been included as an alternative available to landowners.

²¹ To be funded from TfNSW operating budget subject to Maritime's assessed infrastructure and dredging priorities across NSW.

Management action	Responsibility (Lead)	Total Cost	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031	2031/2032	2032/2033	2033/2034	2034/2035	Funding source/s
CH1: To prepare an application for these sites to be identified in the Coastal Lands Protection Scheme.	MidCoast Council (Natural Systems) NPWS	\$3K	\$-	\$-	\$-	\$-	\$-	\$-	\$3K	\$-	\$-	\$-	Council funds
TOTAL	\$11.6M	SUB TOTAL (FY)	\$812K	\$359K	\$688K	\$7.8M²²	\$400K²²	\$523K	\$279K	\$223K	\$426K	\$223K	

Table 2: Old Bar Manning Point CMP - Business Plan - Distribution of costs.

	MidCoast Council (Council Funds)	DCCEEW (Coast and Estuary)	Landowners	Other
Total distribution	\$854K	\$1.65M	\$8.8M	\$330K

²² Includes both sand-filled geotextile containers options (See **LEW3** and **LEW4**).

Appendix D: Monitoring, Evaluation and Reporting Framework

Introduction

The following section outlines the proposed monitoring, evaluation and reporting framework for the Old Bar Manning Point CMP.

Monitoring

The Coastal Management Manual requires that Council monitor key indicators, trigger points and thresholds identified in the MER. There are three actions in the CMP that would result in Council undertaking or facilitating works because of a potential event, threshold or trigger. These are:

1. **OBB3** Beach scraping at Old Bar Beach
2. **OBB4** Sand trapping at Old Bar Beach
3. **PP2** Sand trapping at Pacific Parade.

Council has not included specific triggers for implementation as these actions will be:

1. **Reactive** – e.g. event-based where there is significant, observable loss of sand,
2. **Opportunistic** – e.g. does the Old Bar Beach Sand Replenishment Group have the capacity and interest at the time to undertake sand trapping,
3. **Conditional** – e.g. Is there enough sand to undertake these works? Is it the best time of year to undertake the work?

Council does not wish to bound or accountable to specific triggers or thresholds. These will be actioned if relevant Council officers observe a change, there is sand available or resources (e.g. the OBBSRG) available and it is the appropriate time to undertake those works.

There are two specific monitoring activities proposed.

The first is to establish a monitoring program for the Manning Point Spit. The spit is a highly dynamic part of the coast. It routinely changes in response to the complex interactions of the Manning River, Farquhar Inlet and the open coast. The snaking of the entrance north and south has been relatively confined. There is a risk that an overtopping and breaching event of the spit north of Manning Point could cause the river mouth to relocate south and accelerate the erosion of Manning Point and increase the accretion of sand south of the northern training wall. There is also a risk that a breach of the spit could expose Harrington to open coast conditions.

This action seeks to monitor the spit profile to better understand the dynamics of this area. It may also help assess the impact of interventions such as the opportunistic placement of dredge spoil in bolstering its integrity.

The complexity of the interaction between the Manning River and open coast in this location and the uncertainty about what may result from a breach does not provide an appropriate mechanism to justify a specified course of action. If a breach does occur in the life of this CMP, the response will need to be flexible to accommodate a range of impacts and actions.

This monitoring activity will be undertaken by an external agent and most likely utilising drone or similar technology. Council does not currently have the internal capacity or equipment to undertake this work. Over the 10-year life of the CMP, it is intended to build this capacity in Council and to commence monitoring at other locations across the MidCoast.

Table 1: Old Bar Manning Point - Proposed monitoring activities.

Action	Description	Outcome/s
MER1: To undertake an annual monitoring exercise at the Manning Point Spit. (See Action MP1 and MP2)	This action is intended to collect information about changes to the Manning Point Spit over time.	<p>To provide a benchmark.</p> <p>To better understand the dynamics of the Manning Point Spit.</p> <p>To assess vulnerabilities of the Spit.</p> <p>To inform the placement of opportunistic spoil from routine dredging activities.</p>
MER2: To build internal capacity to undertake monitoring activities on all beaches.	This action is proposed to increase Council's internal capabilities to undertake routine surveys and monitoring. It may include acquiring technology (e.g. drones) and training and/or training to analyse and interpret datasets.	To building the capability of Council officers to undertake regular monitoring of beaches.

Evaluation

Each management action includes an evaluation threshold where the management action has been achieved. The majority of these are the finalisation of a body of work such as a strategy or a plan. These are listed in Table 2: Old Bar Manning Point CMP – Evaluation Framework.

There are a number of actions in the plan that relate to optional works that may be taken by landowners or by other groups (e.g. geotextile bags, sand scraping and sand trapping). There are also actions that will only be pursued if necessary (e.g. sand scraping at Old Bar Beach). These actions will not be used as metrics of success of the plan and may not be formally reported in reporting activities under the reporting section below.

Table 2: Old Bar Manning Point CMP – Evaluation Framework.

Management action	Responsibility (Lead)	Evaluation
G1: To prepare an adaptation policy and guidelines and local adaptation plans (LAPs) for Manning Point, Lewis Street and Pacific Parade.	MidCoast Council (Natural Systems)	<p>Adaptation policy and guidelines adopted by Council.</p> <p>Local Adaptation Plans prepared for Manning Point, Lewis Street and Pacific Parade.</p>
G2: To seek legal advice to confirm local governments' obligations under the Local Government Act, the Roads Act and the Environmental Planning and Assessment Act to maintain physical access and services to properties impacted by coastal processes.	MidCoast Council (Roads)	Legal advice obtained.

Management action	Responsibility (Lead)	Evaluation
EA1: To include opportunistic features or stories in Council's media outputs including webpage.	MidCoast Council (Comms) NSW SES	Features are included in Council's media outputs.
EA2: To undertake media as storm season approaches.	MidCoast Council (Comms) NSW SES	Features are included in Council's media outputs.
EA3: To send mail outs to households at risk of coastal erosion as the storm season approaches.	MidCoast Council (Comms) NSW SES	Annual mailout to properties within the present 1% EP area undertaken.
EA4: To prepare a Coastal Signage Strategy.	MidCoast Council (Public Spaces)	Coastal Signage Strategy adopted by Council.
EA5: To implement the Coastal Signage Strategy.	MidCoast Council (Public Spaces)	Coastal Signage strategy implemented.
LUP1: To prepare a planning proposal to amend the MidCoast LEP: <ul style="list-style-type: none"> To update coastal risk mapping (1% exceedance probability), To review clause 7.4 Coastal Risk Planning, To investigate the rezoning of land in Coastal Risk Planning areas to an alternate zone which may include C4 Environmental Living and the inclusion of an additional zone objective about coastal hazard risk. 	MidCoast Council (Land Use Planning) Natural Systems	LEP amendment gazetted.
LUP2: To prepare an amendment to the MidCoast DCP with development controls for development in coastal risk planning areas.	MidCoast Council (Land Use Planning) Natural Systems	DCP provisions adopted by Council. Mid-plan review of DCP controls.
LUP3: To update s10.7 certificate notations for properties within coastal risk hazard area.	MidCoast Council (GIS)	GIS certificate layer and notation updated.
LUP4: To lobby the State Government to take a leadership role in coastal management in NSW and specifically to: <ul style="list-style-type: none"> Provide consistent sea-level rise targets for NSW. Commit to a risk exceedance level to support mapping in statutory and non-statutory planning instruments. 	MidCoast Council (Land Use Planning) Natural Systems	Lobbying of State Government occurs throughout the CMP period.

Management action	Responsibility (Lead)	Evaluation
LUP5: To formally write to the NSW Valuer General to raise the issue of land valuations and climate change risks including coastal erosion, flooding and bushfire.	MidCoast Council (Natural Systems)	Letter sent
ACH1: To prepare an Aboriginal Cultural Heritage Assessment and Management Strategy	Purfleet LALC	Aboriginal Cultural Heritage Assessment and Management Strategy prepared.
CW1: To prepare a planning proposal to amend the SEPP (Resilience and Hazards) to update coastal wetlands mapping (Action 7.01 Manning Estuary CMP).	MidCoast Council (Natural Systems) Coastcare LLS	SEPP amendment gazetted.
CW2: To consider additional benefits in infrastructure projects (e.g. road works) to improve and support coastal wetlands.	MidCoast Council (Roads) LLS	-
CW3: To work with landholders to restore coastal wetlands (Action 2.02 Manning Estuary CMP).	LLS MidCoast Council - Natural Systems Landcare DCCEEW Landowners	See Manning Estuary CMP.
CW4: To identify coastal wetland migration zones under sea-level rise scenarios, develop a plan to retain suitable buffers to accommodate changing footprints (Action 3.01 Manning Estuary CMP).	MidCoast Council (Natural Systems) LLS Landowners	See Manning Estuary CMP.
CW5: To work collaboratively with landholders and other stakeholders to develop an adaptation plan to mitigate the long-term (50-100 years) risk of climate change impacts on the floodplain, including management of productivity, coastal wetlands, acid sulfate soil and blackwater events. (Action 3.03 Manning Estuary CMP)	MidCoast Council (Natural Systems) DPI – Fisheries LLS Landowners	See Manning Estuary CMP.
CW6: To implement key priority acid sulfate soil management actions from the draft Manning River Floodplain Prioritisation Study 2021. (Action 2.01 Manning Estuary CMP).	MidCoast Council (Natural Systems) DPI- Fisheries	See Manning Estuary CMP.
LR1: To prepare a planning proposal to amend the SEPP (Resilience and	MidCoast Council (Land Use Planning)	SEPP amendment gazetted.

Management action	Responsibility (Lead)	Evaluation
hazards) to update littoral rainforest mapping.	MidCoast Council (Natural Systems)	
LR2: To review extent of coastal acquisition area (Mitchells Island) and assess potential for retreat buffer for littoral rainforest and other coastal vegetative communities.	MidCoast Council (Natural Systems) Department of Planning, Housing and Infrastructure	Review of coastal acquisition area undertaken.
LR3: To prepare a Coastal vegetation strategy to improve the biodiversity, connectivity and the relationship between other rainforest communities and stands of littoral rainforest. To identify retreat buffers for littoral rainforest.	MidCoast Council (Natural Systems) Coastcare LLS	Coastal vegetation strategy prepared.
LR4: To undertake routine maintenance works, regeneration and protection works to support the littoral rainforest within Farquhar Park (R45183). These include weed management, bush regeneration and other activities that may result from LR3 .	Crown Lands	Works undertaken
LR5: To undertake responsive coastal protection works to support the protection and maintenance of the littoral rainforest in within Farquhar Park (R45183). These may include non-structural foreshore management works and the short-to-medium term placement of sand filled geotextile to address any slumping of the access.	Crown Lands	Responsive works undertaken when and if required
BA1: To prepare a Beach Access and Use Strategy.	MidCoast Council (Public Spaces) Crown Lands	The Beach Access and Use Strategy is adopted.
BA2: To undertake additional compliance and enforcement.	MidCoast Council (Compliance)	A joint campaign between MidCoast Council and NSW Police undertaken each year.
BA3: To seek legal advice in relation to public beach access and use by recreational vehicles to: <ul style="list-style-type: none"> Understand Council's role, capacity and limitations to regulate and enforce recreational beach drivers. Increase the fines for non-compliance. 	MidCoast Council (Compliance) MidCoast Council (Natural Systems)	Legal advice obtained.

Management action	Responsibility (Lead)	Evaluation
<ul style="list-style-type: none"> • Increase age of permits to 25 years. • Understand its responsibilities under the Crown Land Management Act, Local Government Act and Road Transport Act. 		
<p>AM1: To undertake a Community Facilities Asset Management Plan that includes:</p> <ul style="list-style-type: none"> • An audit of community assets and facilities at risk from coastal processes at various timeframes. • A plan to respond to vulnerable assets. 	MidCoast Council (Public Spaces)	Asset Management Plan completed.
<p>AM2: To undertake a Transport Asset Management Plan that includes:</p> <ul style="list-style-type: none"> • An audit of transport assets at risk from coastal processes at various timeframes. • A plan to respond to vulnerable assets. 	MidCoast Council (Roads)	Asset Management Plan completed.
<p>AM3: To undertake a Water Systems Asset Management Plan that includes:</p> <ul style="list-style-type: none"> • An audit of water and sewer assets at risk from coastal processes at various timeframes. • A plan to respond to vulnerable assets. 	MidCoast Council (Water Systems)	Asset Management Plan completed.
<p>AM4: To investigate appropriate design and materials for services affected by saltwater and sediment intrusion.</p>	MidCoast Council (Water Systems)	Investigation completed.
<p>AM5: To prepare a strategy to move exfiltration ponds outside of the 1% exceedance area for Reduced Foundation Capacity. The strategy should also consider the remediation and future use of the site.</p>	MidCoast Council (Water Systems)	Strategy completed.
<p>AM6: To prepare a strategy for the ongoing servicing of Manning Point.</p>	MidCoast Council (Water Systems)	Strategy completed.
<p>UTL1: To formally notify Telstra, Essential Energy and NBNCO about the update probabilistic hazard mapping.</p>	MidCoast Council (Natural Systems)	Notification completed.
<p>SB1: To deliver coordinated annual strategic fox controls at important</p>	MidCoast Council (Natural Systems)	Annual fox controls undertaken.

Management action	Responsibility (Lead)	Evaluation
shorebird sites (particularly nesting areas).	Crown Lands NPWS LLS DCCEEW	
SB2: To support trials of new shorebird protection measures, such as exclusion fencing and odour deterrents, etc	MidCoast Council (Natural Systems) Crown Lands NPWS LLS DCCEEW	Three trials completed over the 10-year period.
SB3: To regulate and enforce conflicting recreational activities (4wd, etc) and domestic animals at and around important shorebird nesting sites.	MidCoast Council (Compliance)	A joint campaign between MidCoast Council and NSW Police undertaken each year.
RC1: To implement specific recommendations of the Racecourse Creek Flood Management and Options Assessment. Specifically, <ul style="list-style-type: none"> To remove the GPT. To install a revetment wall to stabilise the bank. To remove weeds, debris and rubbish	MidCoast Council (Coastal, Flooding & Drainage)	GPT removed. Revetment wall constructed. Weeds, debris and rubbish removed from Racecourse Creek.
DF1: To review the Manning River Dredging Strategy.	MidCoast Council (Natural Systems)	Review completed.
DF2: To review the inlet opening strategy for Farquhar Inlet.	MidCoast Council (Coastal, Flooding & Drainage)	Review completed.
OBB1: To undertake a stormwater management strategy or investigation.	MidCoast Council (Coastal, Flooding & Drainage)	Stormwater management plan or investigation completed.
OBB2: To include stormwater management in the preparation of the plan of management.	MidCoast Council (Public Spaces)	Stormwater management included in the design of plan for Old Bar Park.
OBB3: To undertake up to 3 sand scraping campaigns at Old Bar Beach.	MidCoast Council (Public Spaces)	Campaigns completed.
OBB4: To support the OBBSRG to undertake sand trapping.	MidCoast Council (Public Spaces) OBBSRG	OBBSRG supported to undertake sand trapping activities.

Management action	Responsibility (Lead)	Evaluation
OBB5: To support the realisation of the Old Bar Park Masterplan.	MidCoast Council (Public Spaces)	-
OBB6: To investigate more robust beach access options for the Taree Old Bar SLSC.	MidCoast Council (Public Spaces) Taree Old Bar SLSC	Investigation complete.
LEW1: To undertake sand scraping campaign/s in front of the Lewis Street properties. .	Landowners Crown Lands	Approvals for sandscaping obtained.
LEW2: To undertake sand trapping in front of the Lewis Street properties.	Landowners OBBSRG	OBBSRG supported to undertake sand trapping activities.
LEW3: To install sand filled-geotextile containers (5m ³ 9T ElcoRock ER500 GSC Units) in front of the Lewis Street properties.	Landowners	Necessary approvals obtained.
LEW4*: To install sand filled-geotextile containers (2.5m ³ GSC Units) ²³ .	Landowners	Necessary approvals obtained.
PP1: To redesign Pacific Parade to a one-way system, realign fencing and parking areas and undertake revegetation of endemic species. Install interpretive signage.	MidCoast Council (Roads) Landowners Coastcare	Project completed.
PP2: To undertake sand trapping campaigns in front of Pacific Parade.	MidCoast Council (Public spaces) Landowners Coastcare OBBSRG	OBBSRG supported to undertake sand trapping activities.
MP1: To beneficially re-use dredged materials for nourishment activities.	TfNSW MidCoast Council (Natural Systems)	Beneficial re-use of dredged material on Manning Point Spit (if available).
MP2: To commence a profile monitoring study of the Manning Point spit.	MidCoast Council (Coastal, Flooding & Drainage)	Profile monitoring study commenced.

²³ These are an alternative sized GSC. These have been used previously in this location; however, these have not been recommended by Engineers because they have limited effectiveness in an open coast environment. Despite, this these have been included as an alternative available to landowners.

Management action	Responsibility (Lead)	Evaluation
CH1: To prepare an application for these sites to be identified in the Coastal Lands Protection Scheme.	MidCoast Council (Natural Systems) NPWS	Potential sites identified.

A key outcome of this CMP is to formally acknowledge managed retreat as the management approach. Managed retreat means that only shorter-term, low impact interventions will be permitted through the CMP and ultimately, properties, infrastructure and assets will be damaged and lost.

The measures supported in this CMP aim to *buy time* so that the expected lifecycle of a residential building is within the risk timeframe. An important intervention is to interrupt additional investment and intensification of properties in vulnerable areas and to ensure that new buildings and uses are commensurate with risk and designed acknowledging the risk.

Outside of Financial and Insurance Industries' signals, the local planning framework is most likely mechanism to achieve this. Changes to land-use zones, land-use permissibility, development controls and section 10.7 certificates will all contribute. The CMP also includes an action to write to the Valuer General to raise the failure of the land valuation system to consider coastal processes (and other hazards) in the valuation of land.

An end-of-plan review is proposed to evaluate this management collective. If these actions have not discouraged investment and intensification, this should be understood, and new approaches installed.

Action	Description	Outcome/s
MER3: To undertake an end-of-plan review of the planning	This action is intended to understand the effectiveness of changes to the Local Planning Framework to disincentive investment and intensification of land-use in vulnerable areas.	To evaluate the effect of LUP1, LUP2 and LUP3.

Reporting

The reporting program will include an annual, 4-yearly and end-of plan review to align it with the Integrated Planning and Reporting Framework.

It is proposed to deliver a simple, annual monitoring report (AMR) in June each year that describes those management actions that have been completed in the preceding 12-months and those that are anticipated to be completed in the following financial year. The AMR will be presented to Council and published on the MidCoast Council website.

The Natural Resources Team produces an end-of-term report that details all the environmental programs and projects that have been undertaken during the term of that Council every 4 years. This report also responds to the relevant Community Strategic Plan objectives.

At the end of the CMP (i.e. in 10-year after adoption and certification), an end-of-plan review report will be prepared that reviews the implementation of the plan including the actions completed and the evaluation metrics identified. Importantly, the outcomes of **MER3** will be reported.

