

Southern Coastal Management Program Advisory Committee

Meeting Date: Monday, 15 April, 2024

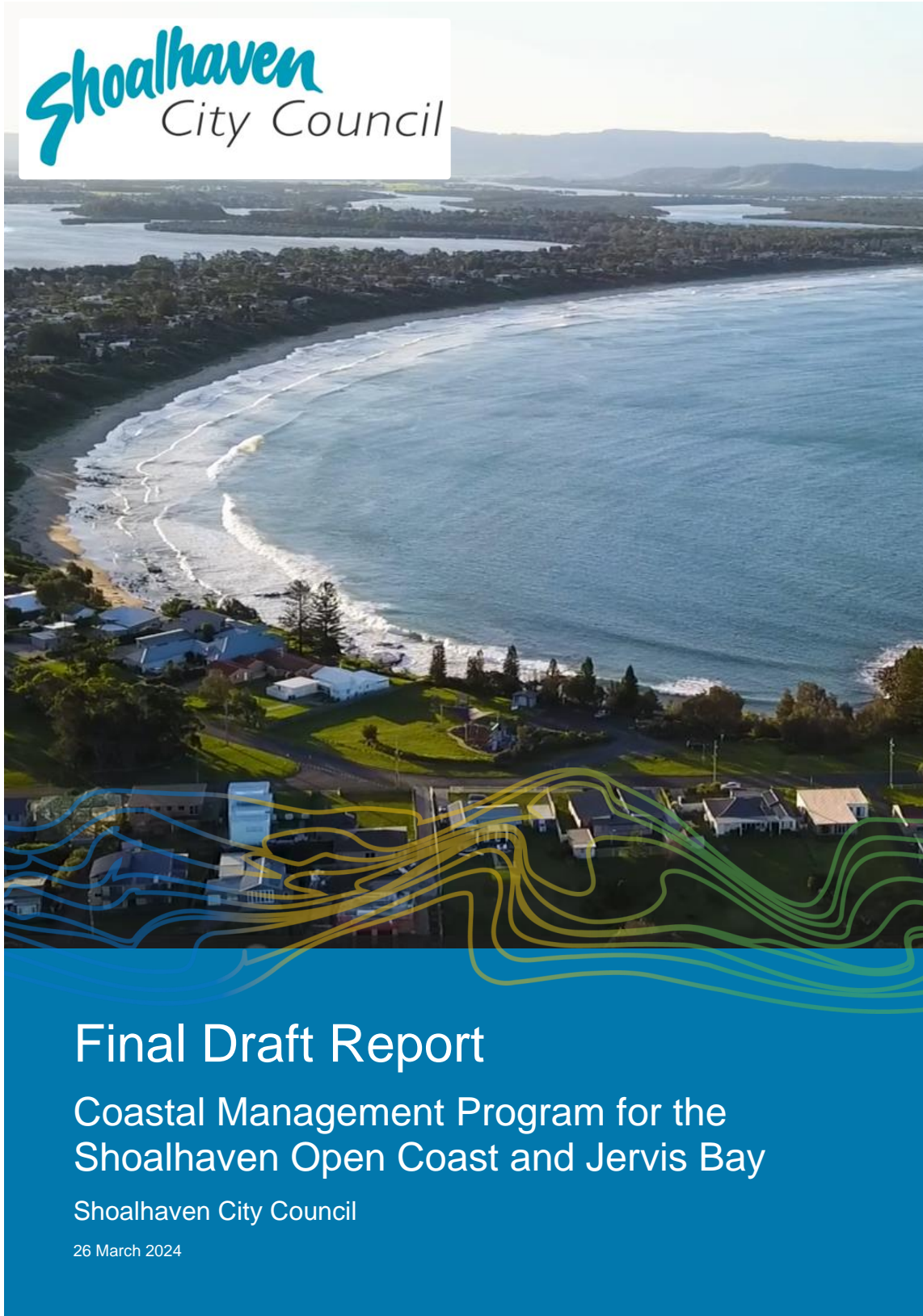
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Shoalhaven
City Council

Final Draft Report

Coastal Management Program for the Shoalhaven Open Coast and Jervis Bay

Shoalhaven City Council

26 March 2024

SC24.1 - Attachment 1



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Acknowledgment of Country



We acknowledge the traditional owners and custodians of this country and their continuing connection to the land through culture and community. We pay our respects to Elders past, present and future.



EXECUTIVE SUMMARY

Overview of the CMP

The open coastline of the Shoalhaven City Council Local Government Area (LGA) provides a diverse array of social, cultural, environmental, and economic benefits. Located on the south coast of New South Wales (NSW), the Shoalhaven coastline provides a stunning natural environment, a multitude of recreational opportunities, and is the cornerstone of the coastal lifestyle that is so highly valued by the local community and visitors alike.

However, the coastal zone is facing increasing pressures from natural hazards, urban development, population growth, and climate change. In order to address these risks, a Coastal Management Program (CMP) has been prepared for the Shoalhaven Open Coastline and Jervis Bay, in line with the NSW Coastal Management Framework.

The CMP comprises a program of integrated management actions that are intended to address key issues, and harness new opportunities. It outlines specific actions that are to be implemented over a forward 10-year management timeframe. In doing so, the CMP seeks to achieve the objects of the *Coastal Management Act 2016* (CM Act), and preserve the social, cultural, economic, and environmental values of the coastal zone.

This program has been developed in accordance with the staged process for developing and implementing a CMP, as detailed in the NSW Coastal Management Manual (OEH, 2018a) (Figure EX-1). The completed stages supporting this CMP include the preparation of:

- **Stage 1: Shoalhaven Coastal Management Program Scoping Study** (Advisian, 2020): This included a review of relevant background information, a first pass risk assessment, a data gap analysis, and formulation of a plan for the development of the suite of CMPs covering the Shoalhaven's coastline and estuaries.
- **Stage 2: Shoalhaven Open Coast and Jervis Bay CMP Stage 2 – Risks, Vulnerabilities and Opportunities** (Water Technology, 2023a): This included a detailed assessment of the various threats and risks affecting the environmental, social, cultural, and economic assets and values of the coastline.
- **Stage 3: Shoalhaven Open Coast and Jervis Bay CMP Stage 3 Summary Report** (Water Technology, 2023b): This included stakeholder engagement and options analysis in order to identify and prioritise coastal management actions that can effectively address issues and risks, take advantage of new opportunities, and give effect to the objectives of the CM Act.

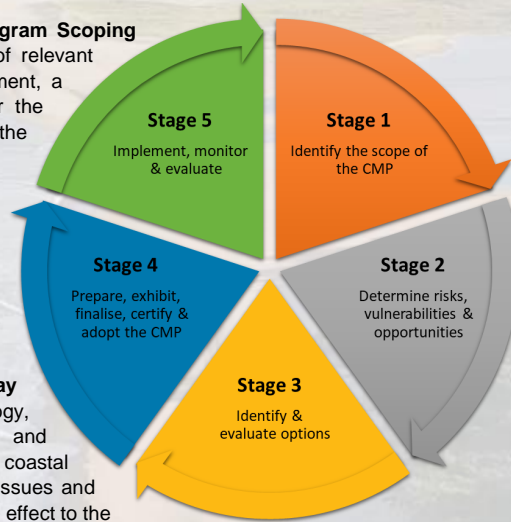


Figure EX-1 The CMP process

This document has been prepared on behalf of Shoalhaven City Council (Council), with funding and technical support from the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW), and in consultation with various state agencies and other relevant stakeholders.

Study Area

The CMP covers and applies to the coastal zone of the Shoalhaven Open Coast and Jervis Bay – as legally defined in the CM Act and the State Environmental Planning Policy (Resilience and Hazards) 2021 (RH SEPP) and shown in Figure EX-2. This stunning coastline stretches over 165 km, from Shoalhaven Heads in the



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north, to North Durras Beach in the south, and also includes Jervis Bay – see Figure EX-2. To ensure a consistent management approach across the entire LGA open coast, the study area of this CMP covers the full extent of the open coastline within the Shoalhaven LGA, exclusive of the Jervis Bay Territory.



Figure EX-2 The Shoalhaven and Jervis Bay Coastal Management Plan Study Extent



The Shoalhaven LGA is one of the most biologically diverse regions in the NSW. The study area supports biodiversity that is important from national, state, regional, and local perspectives – and the unique topography and geography provide the setting for a diverse range of terrestrial and marine ecosystems.

Furthermore, the coastal zone of Shoalhaven LGA supports activities such as tourism, which forms a substantial portion of the local economy. As a primary tourism destination in NSW, the summer population of coastal villages peak at double or triple their normal amount. In recent years, the Shoalhaven LGA has seen significant increases in day trip visitors to its coast and tourism outside of peak season has increased by 40% (Advisian, 2020).

The Shoalhaven LGA has a rich and continuing Indigenous heritage, with cultural history that goes back 60,000 years. Cultural heritage values of the area are dynamic and includes both tangible and intangible elements. Indigenous cultural heritage sites include men’s and women’s sites; initiation grounds; corroboree grounds; landscape creation stories; and named places.

Vision, Purpose, and Objectives for the CMP

A local vision statement has been developed for the CMP to help stakeholders identify with the future of the coastline, and foster commitment to its implementation. The Vision for the CMP is:

“We care for and protect the coast in a responsible manner so that current & future generations continue to be refreshed & inspired by their coastal experience.”

The purpose statement further refines the vision by specifying the intended function and role of CMP:

“To develop a plan for the future management of the Shoalhaven’s open coastline in a manner consistent with the principles of ecologically sustainable development for the social, cultural, and economic well-being and safety of the people of the Shoalhaven.”

A suite of objectives has been developed for the CMP, in order to ensure that the program recognises and protects the environmental, social, cultural, and economic values of the study area. These objectives have been developed ensuring consistency and alignment with a range of local, regional, and state policies and plans – including the CM Act.

Snapshot of Issues

The various issues, vulnerabilities, and opportunities affecting the Shoalhaven Open Coast and Jervis Bay were initially assessed as part of the First Pass Risk Assessment in Stage 1 (Advisian, 2020). This was further refined in Stage 2 (Water Technology, 2023a), and included an updated and detailed risk assessment of coastal hazards. This involved identifying and assessing risks and benefits to environmental, social, and economic values across the coastline, with the aim of informing the development of management options in Stages 3 and 4.

Key issues influencing coastal management are summarised in Figure EX-3, and include:

- Coastal hazard risks to land, property, assets and infrastructure – including risks posed by the coastal hazards defined in the CM Act. The Shoalhaven LGA coastline has a long history of experiencing severe coastal hazard impacts, with the greatest impacts felt by coastal erosion and coastal inundation generated by East Coast Lows (ECLs).
- Social, cultural, and environmental risks: These include risks to environmental values and biodiversity, social and recreational amenity (and public safety), as well as risks to both tangible and intangible cultural heritage values.



As required by the CM Act, the key risks and threats have been considered over a range of timeframes, including the present day, as well as future planning horizons 20 years, 50 years, and 100 years - in order to account for future climate changes impacts, and the impacts of population growth and future development on the coastal zone. The nature and severity of these risks varies widely across the study area, and therefore in order to adequately inform the derivation and assessment of management options, these risks were assessed at a local level on a beach-by-beach basis.

| Coastal hazards addressed in this CMP | | | | | |
|--|--|---|---|---|---|
| (1) Beach erosion | | (2) Shoreline recession | | (3) Coastal lake or watercourse entrance instability | |
| (4) Coastal cliff/slope instability | | (5) Coastal inundation | | (6) Tidal inundation | |
| Key Environmental, Social and Cultural Risks addressed in this CMP | | | | | |
| Environmental | | Social (Public Safety and Amenity) | | Cultural | |
| Weeds and invasive species | Coastal hazard impacts on public safety | Tangible & intangible Aboriginal Cultural Heritage (ACH) protection | Vegetation vandalism | Coastal hazard impacts on safe & sustainable beach access | Community & visitor education & awareness of ACH values |
| Recreational use impacts on dunes | Ensuring safe boating access to coastal waters | Increasing First Nations participation in management of coastal country | Climate change impacts on habitats and biodiversity | Maintenance of recreational amenity | |
| Population growth & coastal development impacts on biodiversity | Population growth impacts on social & recreational amenity | | | | |

Figure EX-3 Key risks addressed in this CMP



Stakeholder and Community Engagement

A detailed Stakeholder and Community Engagement Strategy was developed as part of the CMP, outlining the timing, content, and engagement methods to be utilised for all community and stakeholder engagement activities (Advisian, 2020). This strategy has been implemented progressively through each stage of the CMP, with a summary of activities provided in Figure EX-4. This engagement strategy was developed in line with CMP Engagement Guidelines (OEH, 2018d), the Shoalhaven City Council Community Engagement Strategy (Shoalhaven City Council, 2023a), and the use of the International Association for Public Participation (IAP2) guidelines. This included engagement with Traditional Owner Groups, local communities, and public authorities through a range of methods – including workshops, drop-in sessions, surveys and 1 on 1 meetings.



Figure EX-4 Snapshot of CMP engagement process

Management Strategies and Actions

One of the key objectives of the CMP process is to facilitate a coordinated approach to address issues and risks. With this in mind, this CMP has attempted to the greatest extent possible to develop a program of management actions that is highly integrated, and which can be enacted through an achievable and coordinated implementation schedule.

In Stage 3 of the CMP, management actions were identified and prioritised through stakeholder and community engagement, expert professional analysis and insight, and a review of the historical management of the coastline. Based on this assessment, a total of 116 actions have been included in the program.

The CMP actions have been structured to better facilitate a large scale, coordinated approach to coastal management, whilst maintaining specific focus and granularity at a local level. The actions are therefore comprised of 7 overarching strategies for managing the entire LGA coastline, and 4 local area plans (LAPs) that focus on discrete actions at a local beach level in order to manage localised coastal risks and threats – as depicted in Figure EX-5.



Figure EX-5 The structure of this CMP – comprising 7 strategies for managing the entire coastline, and 4 local area action plans

For each action, this CMP provides a summary of the tasks involved, roles and responsibilities, costs, and timeframes for delivery, and well as objectives and performance indicators.

Management actions have been developed for a ten-year period and have been aligned with Council's four-year Delivery Programs (DP) under the NSW Integrated Planning and Reporting (IP&R) Framework.

Business Plan

A Business Plan has been developed which outlines the key components of the funding strategy for the CMP, including the cost of proposed actions, proposed cost-sharing arrangements, and other potential funding mechanisms. Delivery of the CMP is estimated to cost \$45 Million (2023 dollars) over 10 years.

Sustainable funding and financing arrangements for management actions will be established in consultation with key stakeholders. Funding for management actions may be gained from various sources, including competitive State Government grant programs, Council's internal funds, and local third parties.

Implementation and Review

This CMP is considered a 'living document' that is to be reviewed and updated over time. A strategic review of the CMP should occur at least once every ten years to assess the effectiveness of the CMP in achieving its objectives and to incorporate changes in light of new information, legislative and policy changes, and improved understanding of the local coastal processes.



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1 INTRODUCTION

1.1 Purpose of this Coastal Management Program

The purpose of this Coastal Management Program (CMP) is to establish an integrated program for the coordinated management of the Shoalhaven Open Coast and Jervis Bay.

The CMP provides strategic direction, and a program of integrated management actions that are intended to achieve the objects of the *Coastal Management Act 2016* (CM Act), and preserve the environmental, social, and economic values of the coastal zone. It outlines specific actions that are to be implemented over a forward 10-year management timeframe and provides clear details for how actions will be implemented, funded, monitored, and reviewed.

This CMP aims to address the various risks, threats, and opportunities across the coastal zone over a range of timeframes (immediate, 20 years, 50 years, 100 years), as required by the CM Act. Longer-term pressures such as climate change and population growth have been considered in the formulation of management actions, to ensure resilience against future threats and the conservation of the values of the coastline for future generations.

The Shoalhaven Open Coast and Jervis Bay CMP has been prepared in accordance with the mandatory requirements for CMPs specified in the CM Act, and the NSW Coastal Management Manual (OEH, 2018e) (hereby referred to as the CM Manual). This document has been prepared on behalf of Shoalhaven City Council (Council) with funding and technical support from the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW), and in consultation with various state agencies and other relevant stakeholders.

Under the NSW Coastal Management Framework, this CMP supersedes the previous Shoalhaven Coastal Zone Management Plan (CZMP), which was developed under the previous coastal management framework (and the *Coastal Protection Act 1979*) and certified by the Minister for the Environment in September 2018 (Shoalhaven City Council, 2018).

1.2 Area Covered by this CMP

1.2.1 CMP Study Area

The Shoalhaven Local Government Area (LGA) coastal zone comprises over 165 km of open coastline which extends from Shoalhaven Heads in the north, to North Durras Beach in the south, and also includes Jervis Bay. To ensure a consistent management approach across the entire LGA open coast, the study area of this CMP covers the full extent of the open coastline within the Shoalhaven LGA. This CMP only applies to areas within the mapped coastal zone. A map of the CMP study area is provided in Figure 1-1 below.

It should be noted that the study area for the CMP does not include the Jervis Bay Territory (which includes Booderee National Park), which is a Commonwealth-administered territory occupying the Bherwerre Peninsula and forming the southern boundary of Jervis Bay.

A companion mapping set depicting the study area in detail, including key beaches, headlands, coastal features and major townships is provided in Appendix A.

1.2.2 Overview of the Shoalhaven LGA Suite of CMPs, and rationale for this CMP

Whilst this CMP sets out a management program for Open Coastline and Jervis Bay – it is important to note that this is only one of several CMPs to be implemented by Council. In order to effectively manage its coastal zone, Council has determined to undertake a suite of discrete, but interlinked CMPs that collectively cover the



coastal zone of its LGA, including coastal estuaries and creeks. As of November 2023, the existing suite of CMPs under development include:

- The Lower Shoalhaven River CMP.
- The Lake Conjola CMP
- The Sussex Inlet, St. Georges Basin, Swan Lake, and Berrara Creek CMP.

Future CMPs will be initiated for Lake Wollumboola, Burrill Lake, Lake Tabourie, Lake Willinga, Currumbene Creek and the Shoalhaven Urban and Rural Estuaries.

When determining the optimal spatial scale of a CMP, it is important to consider the need to balance the required level of detail, with desired level of management efficiency. A single CMP that covers the entirety of the Shoalhaven LGA coastal zone (including the entire coastline and all estuaries) would be so large in scale that it would lack the detail required to adequately address smaller, localised issues. Alternatively, the preparation of a CMP for each individual estuary and/or coastal compartment would result in Council having to prepare and implement more than a dozen CMPs. This would result in an inefficient process that is unwieldy and overly complicated to implement. Furthermore, smaller scale CMPs may lack the ability to effectively address larger scale issues, or issues that are common across various parts of the coastal zone.

Therefore, the current suite of CMPs is intended to strike a practical balance for effective management. It has been developed with a strong consideration to the performance of historical management plans, the prevailing coastal zone issues, and relevant stakeholder groups.

1.2.3 Coastal Management Areas

In accordance with the CM Act, this CMP gives effect to the management objectives for the 4 coastal management areas (CMAs) that define the coastal zone of the study area. Each CMA has different characteristics and objectives, and the areas may overlap. The CM Act provides the definition and objectives for each of the management areas. The State Environmental Planning Policy (Resilience and Hazards) 2021 (RH SEPP) provides development controls for each of the management areas, and state-wide mapping of 3 of the 4 areas. The 4 coastal management areas as defined by the CM Act are:

- **Coastal environment area (CEA):** Land containing coastal features such as the coastal waters of the state, estuaries, coastal lakes, coastal lagoons, and land adjoining those features including headlands and rock platforms. Beaches, dunes, and foreshores are included in this area.
- **Coastal use area (CUA):** Land adjacent to coastal waters, estuaries, coastal lakes and lagoons where development is or may be carried out (at present or in the future) and impacts of development on the scenic and cultural values and use and enjoyment of the beaches, foreshores, dunes, headlands, rock platforms, estuaries, lakes and the ocean need to be considered.
- **Coastal wetlands and littoral rainforests area (CWLR):** Land which displays the hydrological and floristic characteristics of coastal wetlands or littoral rainforests, as well as a surrounding proximity area to manage impacts of adjacent development.
- **Coastal vulnerability area (CVA):** Land which is subject to any of the coastal hazards listed in the CM Act, including beach erosion, shoreline recession, coastal lake or watercourse entrance instability, coastal inundation, tidal inundation, coastal cliff or slope instability. Mapping for the coastal vulnerability area has not been provided from the RH SEPP, and no such coastal vulnerability area (CVA) map yet exists for the study area. Nonetheless, it is recognised that the Shoalhaven Open Coast and Jervis Bay are subject to coastal hazards and that the scope of this CMP also covers managing coastal vulnerability. The Open Coast and Jervis Bay are subject to coastal hazards including foreshore erosion, tidal inundation (otherwise termed “sunny day flooding”), storm tide inundation and coastal cliff or slope instability.



The study area for the CMP therefore comprises the envelope extent of these CMAs along the open coastline. Detailed mapping of the study area and relevant CMAs is provided in the companion mapping set in Appendix A.

1.2.4 Coastal Sediment Compartments

Carvalho and Woodroffe (2015) have undertaken a study of the coastal compartments of the eastern coast of NSW. They considered sediment compartments as subdivisions of the coast separated by major obstacles such as headlands, which intercept and affect the longshore transport of sediment. The Shoalhaven coastal zone spans across 2 primary sediment compartments and 7 secondary sediment compartments as defined in the CM Act, noting the secondary and tertiary sediment compartments may be of greater relevance for management considerations for this CMP. These compartments are listed in Table 1-1 and mapped in Figure 1-2.

Table 1-1 Coastal sediment compartments of the Shoalhaven LGA

| Primary | Secondary | Coastline Covered |
|------------|---------------------|--|
| Illawarra | Shoalhaven River | Black Head to Beecroft Head |
| Shoalhaven | Beecroft Peninsula | Beecroft Head to Point Perpendicular |
| | Jervis Bay | Jervis Bay, from Point Perpendicular to Cape St George |
| | St Georges Head | Cape St George to St Georges Head |
| | Wreck Bay | St Georges Head to Bendalong Point |
| | Narrawallee | Bendalong Point to Warden Head |
| | Lake Tabourie Coast | Warden Head to Wasp Head |

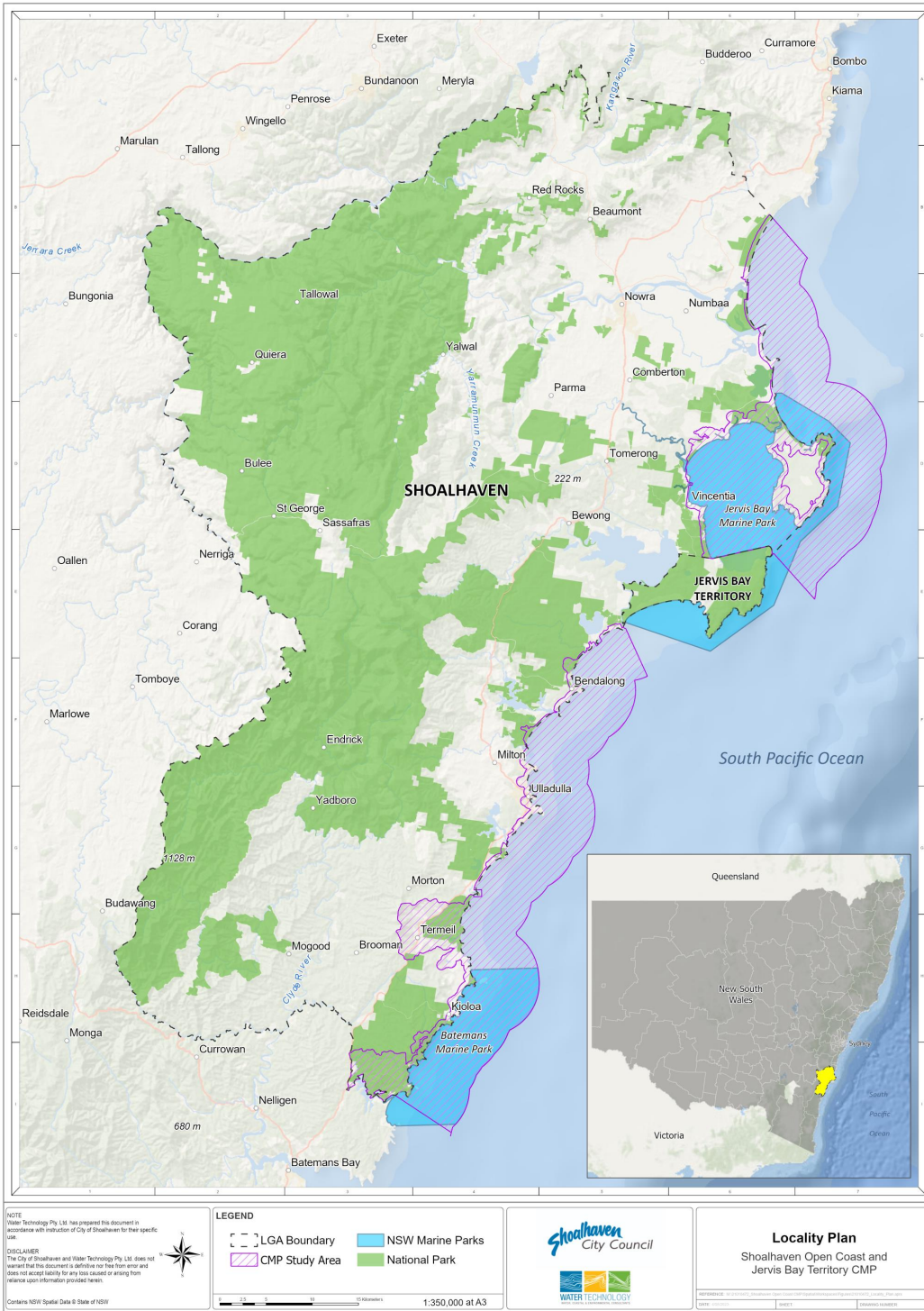


Figure 1-1 The area covered by this CMP

