

Executive Summary

The Sunshine Coast's waterways and coastal foreshores are valuable assets that provide significant environmental, social and economic benefits. They provide valuable aquatic and foreshore ecosystems, are fundamental to the coastal lifestyle that we all enjoy and they support many businesses and industries that contribute to the Sunshine Coast economy. The effective management of these assets is a priority for the Sunshine Coast Council as we strive toward becoming Australia's most sustainable region and protecting our natural advantage.

To effectively manage our valuable coastal assets, the state government and council are challenged with making decisions in response to coastal hazards. This involves responding to immediate erosion issues that threaten significant infrastructure in major storm events, while also planning for longer term climate change impacts on the coast, specifically sea level rise and storm surge leading to inundation of low lying coastal land and increased erosion. Managing our coastal foreshores requires a process that balances the protection of the existing values with long term outcomes in a complex and dynamic coastal environment.

To support this decision making process and address both immediate and emerging waterway and coastal management issues, the Sunshine Coast Council has been working in partnership with the government and community to implement the Sunshine Coast Waterways and Coastal Management Strategy. Strategy implementation has included the development of a coastal policy position and planning framework that identifies planning required to assist with the delivery of effective coastal management in order to continue to provide healthy coastal foreshores for the Sunshine Coast community.

A key component of this framework is the Sunshine Coast Council Shoreline Erosion Management Plan (SEMP). The SEMP provides a 10-year action plan that describes key coastal processes along the Sunshine Coast, identifies current shoreline erosion threats to Council controlled assets, and outlines preferred management options to be implemented through council's coastal operations and capital works programs to address such threats. The SEMP addresses erosion risks based on current climatic conditions and sea level.

The development of the SEMP was undertaken in three parts including the:

1. preparation of detailed technical background study;
2. identification of coastal erosion threats; and
3. selection of preferred erosion management responses.

Given the dynamic nature of our coastal environment, experts were engaged to undertake an investigation of coastal processes on the Sunshine Coast to improve council's understanding of how dominant coastal processes influence the accumulation, erosion and transport of sand along the coast. While the study considered multiple planning horizons, the SEMP focuses on a 10 year time period. The changing legislative framework and available shoreline erosion management options were also reviewed. Management of activities and development within the coastal environment is regulated primarily under the Coastal Protection and Management Act 1994, the Sustainable Planning Act 2009 and the Maroochy, Caloundra and draft Sunshine Coast Council local planning schemes.

Informed by the coastal experts technical background study, the SEMP divides the Sunshine Coast Council shoreline into four shoreline management zones which are made up of 28 beach management units (see Figure 1). Beach management units have been determined in most cases by local characteristics that affect coastal processes, such as headlands and river entrances.

Dominant coastal processes and the social, environmental and economic values associated with each beach management unit were identified before reviewing the area to determine the priority erosion threats with respect to Council controlled assets. This included council infrastructure threatened by current erosion as well as that which may occur during a defined major storm event.

In addressing these threats a range of different management options including, maintaining existing arrangements, to soft, hard or hybrid solutions were considered by applying a values and constraints decision making framework. Preferred management options were determined by considering local coastal values, specialist advice, indicative investment and the viability of alternatives. Figure 1 provides an overview of the 11 beach management units that contain a priority erosion threat and the proposed management response. Additional investigations, including a review of financial, social and environmental factors associated with proposed options may be required to progress from concept to the detailed design stage.

Implementing the SEMP forms part of council's integrated coastal management program. As part of this work, ongoing monitoring of the shoreline and beaches is considered an important task, as further impacts of sea level rise and natural hazards occur and new information on erosion and accretion rates can assist in the adaptive management approach being applied to deliver healthy foreshores for the Sunshine Coast.

Shoreline Erosion Management Plan Overview

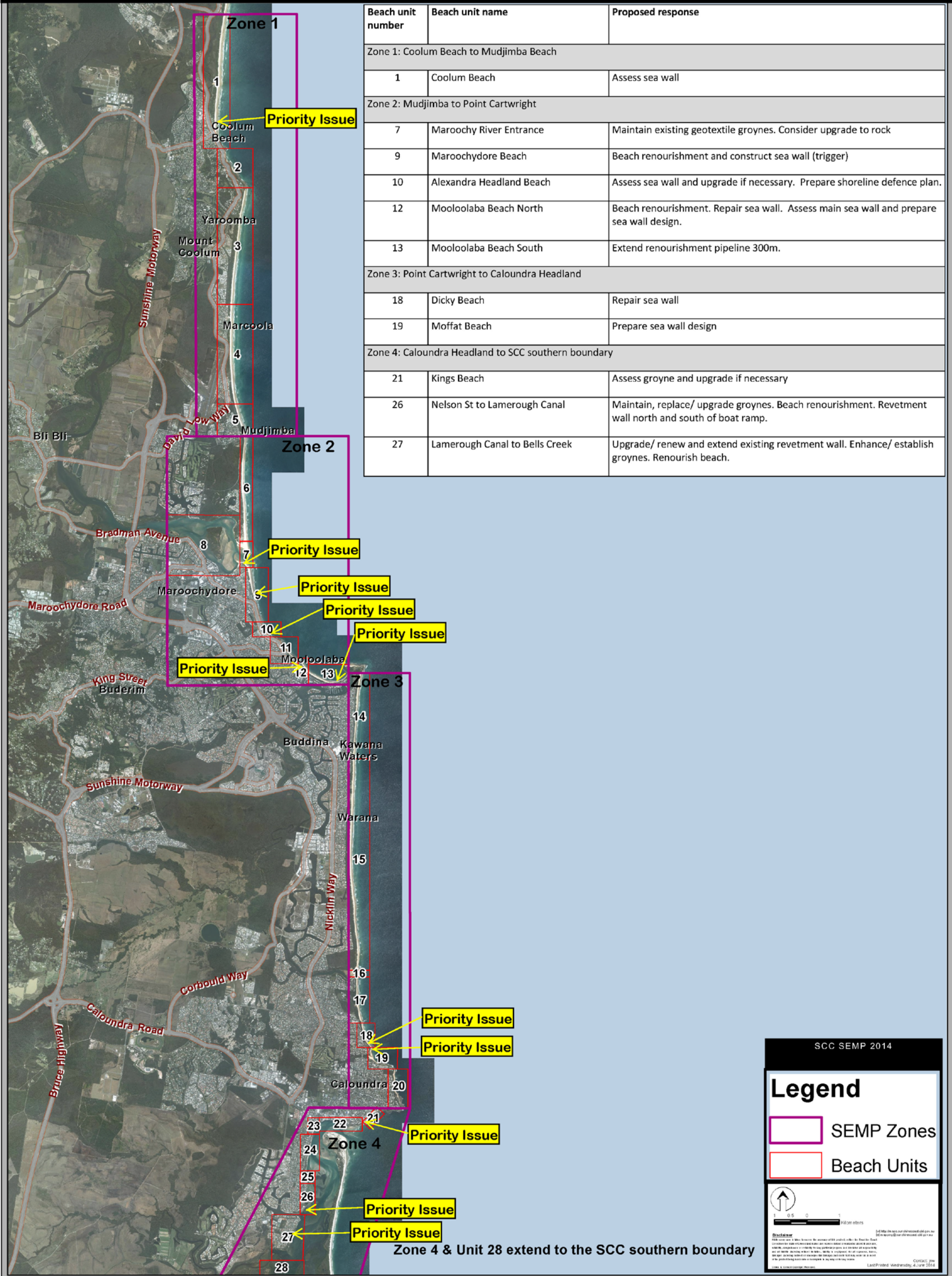


Figure 1: Overview of the SEMP shoreline management zones, beach management units and priority erosion issues