



Frankston CMMP Precinct Plans

Values, Issues & Opportunities

Frankston City Council

16 November 2022



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ACKNOWLEDGEMENT OF COUNTRY

Water Technology acknowledges the Bunurong people of the Kulin Nation as the Traditional Custodians of the lands and waters in and around Frankston City, and value and recognise local Aboriginal and Torres Strait Islander cultures, heritage, and connection to land as a proud part of a shared identity for Frankston City. We pay respect to Elders past and present and recognise their importance in maintaining knowledge, traditions, and culture in Frankston's community.

We also respectfully acknowledge the Bunurong Land Council as the Registered Aboriginal Party responsible for managing the Aboriginal cultural heritage of the land and waters where Frankston City Council is situated, and understand a separate project is currently underway between Frankston City Council and Bunurong Land Council Aboriginal Corporation to inform and shape the Frankston Coastal and Marine Management Plan 2023 – 2033.

It is understood Council engaged with Elder Uncle Mik and his son Erik to perform an acknowledgment of Country and Smoking Ceremony to commence the CMMP project and associated community engagement¹. We shall be guided by our Elders and “be careful with our feet, thread softly, gently and carefully”, while we “seek to produce a reasonable, rational and responsible” Coastal and Marine Management Plan.



Figure 1-1 Elder Uncle Mik conducting Welcome to Country and Smoking Ceremony to commence CMMP

¹ Frankston City Council YouTube Channel, *Welcome to Country with Elder Uncle Mik*. Posted: February 9, 2022. Available: <https://www.youtube.com/watch?v=gnMMSoSTCtw>



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PART A – COASTAL PLANNING CONTEXT





1 INTRODUCTION

1.1 Purpose of report

This report has been drafted to provide a summary of the values, issues and opportunities of Frankston's coastal and marine areas that are being considered in the preparation of precinct plans that will form a component of Frankston City Council's (Council) updated Coastal and Marine Management Plan 2023 (CMMP). This report is authored to be a public document, and subject to a public consultation period in accordance with State policy guidelines and Council's commitment to best practice public participation in planning matters.

To provide context to the coastal values, issues and opportunities identified, summary information is provided about coastal planning, the State coastal policy framework, and other Council plans and strategies that are of relevance to the CMMP. Further information is provided about the scope of CMMPs and what areas this plan relates to in Frankston in section 1.3.

1.2 The role of coastal planning

Planning for current and future use and management of coastal areas is important to mitigate and adapt to pressures on coastlines, take a coordinated, strategic, and informed approach to planning and development, and be responsive to local communities and environments.

Key pressures on coastal settlements and environments include population growth and land management practices such as tourist visitation. Likewise, climate change impacts and natural coastal processes need to be considered, including changes in rainfall and temperature patterns, increased frequency, and intensity of natural hazards (e.g., flooding, bushfires, and heatwaves). Coastal-specific hazards to plan for include shoreline erosion, saltwater intrusion and storm-tide inundation, and sea level rise.

Additionally, having a planning framework enables consistency in approach across states and regions and enables efficiencies in applying a standardised, peer-reviewed methodology for planning. In Victoria, the coastal planning framework includes state legislation, supported by policies and strategies, and adapted to the local context through local planning instruments.

Further information is provided about the Marine and Coastal Act, Policy, and Strategy in section 2.

1.3 Coastal planning in Frankston

Under the *Marine and Coastal Act 2018*, coastal councils are required to develop a CMMP and update no later than 5 years after the commencement of the plan. Frankston has an existing Coastal Management Plan which was adopted in 2016. Since then, a new framework of state legislation and policy has been released. Subsequent CMMP amendments may be approved by the Minister.

A CMMP is now being prepared by Council, to align with recent State legislation and policy which redefines the strategic direction and scope of these plans; with a particular focus on inclusion of acknowledging Traditional Owners' rights and considering the marine environment as a part of coastal planning. Therefore, the existing Frankston *Coastal Management Plan 2016* will be superseded by the *Frankston Coastal and Marine Management Plan 2023*.

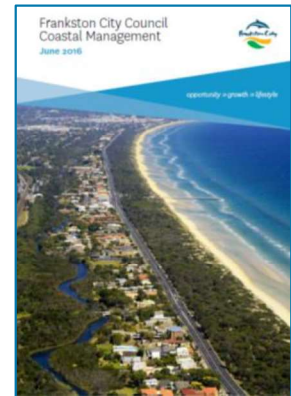




1.3.1 Frankston Coastal Management Plan 2016

The Coastal Management Plan 2016 aligns with *Coastal Management Act 1995* and associated policies and strategies, which have now been superseded. Under this previous planning coastal planning framework, three key themes were used to structure this Plan, being:

- **Value and Protect** focused on ecosystem health, weed management, water quality, cultural and heritage.
- **Plan and Act** focused on coastal processes, hazards, asset protection, and stewardship.
- **Use and Enjoy** focused on access and connectivity, tourism, recreation, boating and infrastructure.



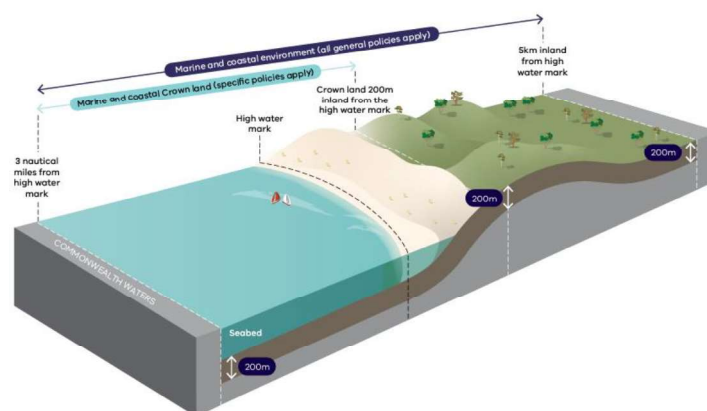
This Plan identified 80 actions in coastal areas to be implemented between 2016 and 2026. The implementation plan categorised these actions into the short, medium and long term. The review of this Plan was conducted in 2021, which identified that 40% of actions were completed, 43% were in progress or partly completed, and 16% were not started.

The 2016 Plan was limited because it lacked 'spatial sense', meaning the specific locations where actions would be implemented were not clearly defined, and the Frankston foreshore was not divided into unique precincts. Additionally, Council departmental restructure and an absence of Officer resourcing was found to hinder effective promotion and plan implementation.

The update of this plan from its 2016 version to align with the new planning framework is considered an opportunity to strengthen the sentiment of the current plan, continuing beneficial actions implemented under the 2016 Plan assessment of the suitability of incomplete actions for inclusion in the new plan, and inclusion of additional actions.

1.3.2 Frankston Coastal and Marine Management Plan 2023

CMMPs relate to marine and coastal Crown land. This is defined in the Marine and Coastal Act (2018) as: *Marine and coastal Crown land is the area up to 200 metres inland from the high-water mark. This also includes land more than 200 metres inland of the high-water mark of the sea where that land is reserved under the Crown Land (Reserves) Act 1978 for the purpose of the protection of the coastline.* A depiction of this is shown in Figure 1-1.



Source: DELWP 2019

Figure 1-1 Spatial definition of coastal and marine Crown land, being the area where CMMPs apply



The Coastline covers the 9.5 kilometres and approximately 88 hectares of coastal Crown land reserve within the City of Frankston. This reserve sits with the edge of Port Phillip to its west and varies in width from 10 metres to over 100 metres where it meets either the road verge or private property to its east. The study area for the CMMP includes coastal Crown land, shown as the highlighted area on Figure 1-3. However, planning needs to be integrated, consider connectivity to surrounding areas and compatibility with adjacent land uses.

The coastal precincts within the CMMP extend from Osprey Lane at the northern border of the municipality to Kackeraboite Creek at the southern border of the municipality. This includes the suburbs of Seaford, Frankston and Frankston South. The updated CMMP has designated the 11km stretch of coastal Crown land within the local government area into 6 precincts for planning purposes. These include:

- **Precinct 1: Oliver's Hill** (Gulls Way to Waterfront Playground)
- **Precinct 2: Frankston Waterfront** (Waterfront Playground to Wells Street)
- **Precinct 3: Long Island** (Wells Street to Mile Bridge)
- **Precinct 4: Seaford Foreshore** (Mile Bridge to Seaford Road)
- **Precinct 5: Seaford Pier** (Seaford Road to Victor Avenue)
- **Precinct 6: Keast Park** (Victor Avenue to Osprey Lane)

These precincts contain many places of value, including Frankston Waterfront and Seaford Foreshore beaches and activity nodes, as well as significant ecosystems, habitats & waterways. A map of the marine and coastal Crown land the CMMP applies to is presented in Figure 1-3. Additionally, a map of each of the 6 precincts is provided in Appendix A.

The CMMP will set out the vision, objectives and actions for the management of the Frankston and Seaford coastal and marine areas and aims to strengthen Traditional Owner engagement and Frankston's adaptation planning for climate change.

This is a strategic document to guide the use of coastal areas over the next decade and will be reviewed every 5 years. Developing a CMMP at a local level enables a consistent approach to be taken across Victoria to implement State policy, while being context-specific and responsive to the needs and values of local communities.

The process for developing a CMMP involves several stages and tasks, including extensive community and stakeholder engagement and consultation, engaging the Bunurong Land Council Aboriginal Corporation, and working alongside Water Technology to prepare several components that will form the basis of the updated CMMP. This includes:

- Targeted stakeholder consultation and post-consultation report;
- Identification of values, issues and opportunities for coastal and marine Crown land; and
- Development of precinct plans and associated implementation plan.

Additionally, the CMMP is being developed in parallel with concept planning of Olivers Hill carpark and Council's updated Climate Change Strategy and Action Plan.



Figure 1-2 CMMP timeline as detailed on the Engage Frankston project page



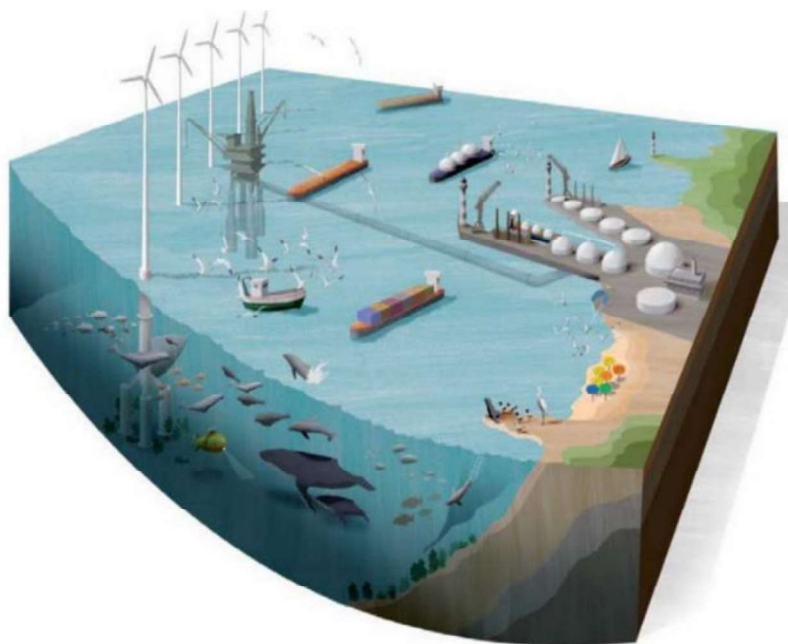
Figure 1-3 Map of Frankston showing the 6 precinct areas (note: coastal Crown land encompasses 200m inland and 2 nautical miles offshore from HAT)

2 POLICY CONTEXT

2.1 Victorian marine and coastal planning framework

2.1.1 Overview

The Marine and Coastal Act (2018) and associated Marine and Coastal Policy (2022) and Marine and Coastal Strategy (2022) provide objectives and guiding principles for the planning and management of Victoria's coastline. This is in accordance with state-wide initiatives for coastal hazards and marine spatial planning. Marine and coastal areas present a complex interaction of social, cultural, economic, and environmental values, with various stakeholder interests. This is demonstrated by Figure 2-1, where industry, ecosystems, transport, and amenity values are represented.



Source: DELWP 2019

Figure 2-1 Visual representation of the various values and interests in the marine and coastal environment

The Marine and Coastal Act, Policy, and Strategy is the key legislative policy framework governing the marine and coastal areas of Victoria and requires Crown land managers to prepare a CMMP. Understanding these policies' requirements is essential in the development of Frankston's CMMP 2023. A brief summary of the key purpose of each policy instrument is provided in the following sections.

2.1.2 Marine and Coastal Act 2018

The *Marine and Coastal Act 2018*² (the Act) regulates management of marine and coastal environments across Victoria. The Act seeks to facilitate an integrated and coordinated approach to planning and managing marine and coastal environments. This includes coastline protection from long-term climate change, population growth and aging infrastructure challenges. One of the guiding principles of the Act is to: *To respect natural processes in planning for and managing current and future risks to people and assets from coastal hazards and climate change.*

² State Government of Victoria (2018). Marine and Coastal Act 2018 (Authorised version No.003)



The Act is the primary legislative document governing these environments and outlines the principles and objectives for planning and management to ensure that these environments are adequately cared for so that future generations may also experience and enjoy their multiple benefits. Two key objectives of the Act include:

- Coastline protection and the ability to address the long-term challenges of climate change, population growth and ageing coastal structures; and
- ensuring an integrated and coordinated whole-of-government approach to protect and manage Victoria's marine and coastal environment.

This Act includes the establishment of the Marine and Coastal Council and the framework for the Policy and Strategy, spatial planning framework and range of guidelines for how land managers can implement the requirements and objectives in these policy documents.

Under Part 7 Division 1 of the Act, coastal and marine management plans are required. Section 57(2) defines the purpose of CMMPs as: *to provide direction for the future local management of an area of marine and coastal Crown land*. Further information is provided about the scope of a CMMP, as well as the requirement to align with Marine and Coastal Policy and Strategy.

2.1.3 Marine and Coastal Policy 2020

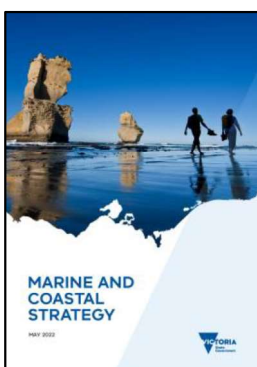


Under the Act, the state-wide Marine and Coastal Policy³ (the Policy) facilitates effective planning, management, and sustainable use of these areas. As a part of this, the Marine Spatial Framework establishes a process for achieving integrated and coordinated planning in Victoria.

The Policy sets a 15-year vision for *"A healthy, dynamic and biodiverse marine and coastal environment that is valued in its own right, and that benefits the Victorian community, now and in the future"*, providing guidance for marine and coastal environmental management, including all public and private land.

Managing coastal hazard risk is addressed explicitly in Chapter 6 of this policy. This section suggests a pathway approach to decision-making is adopted as best practice.

2.1.4 Marine and Coastal Strategy 2022



The Draft Marine and Coastal Strategy⁴ (the Strategy) identifies how the vision outlined in the Act and Policy will be achieved. It is the first of three strategies that will outline priority actions to achieve the intended outcomes of the Policy. As the first strategy, it lays the foundations for the subsequent strategies.

Several actions of the Strategy relate to managing coastal hazards, with a focus on adapting to the impacts of climate change. The development of the Victoria's Resilient Coasts program has been initiated as a part of this strategy to create and adopt a state-wide approach to improve long term resilience and adaptation to coastal hazards, including state-wide hazard mapping, adaptation framework and guidelines.

³ State Government of Victoria (2020). Marine and Coastal Policy. Available: www.marineandcoasts.vic.gov.au

⁴ State Government of Victoria (2014). Marine and Coastal Strategy. Available: www.marineandcoasts.vic.gov.au



2.1.5 Victoria's Resilient Coast

Victoria's Resilient Coast – Adapting for 2100+ provides a state-wide approach for coastal hazard resilience and adaptation. This includes a framework, guidelines, and support for Local Government, land managers and their communities to:

- Enable place-based, leading practice and long-term coastal hazard adaptation.
- Build on the directions in the Marine and Coastal Policy 2020.

The state-wide approach was developed through a collaborative process, including a project partnership with Traditional Owners, and a Working Group including representatives from coastal Councils, Committees of Management, Catchment Management Authorities, government agencies, water authorities and peak body groups.⁵

2.1.6 Marine Spatial Planning Framework

The Marine Spatial Planning Framework⁶ provides guidance to enable consistent and coordinated marine environment management across the areas of environmental health, sustainable growth, marine related and dependant economies, and climate adaptation planning. This Framework is important to enable social and economic benefits, while ensuring environmental protection of marine environments.

This Framework was developed through an evidence-based approach using best-practice principles. The function of the Framework is to integrate and enhance collaboration between multiple sectors and users of the marine environment and to provide a methodology for strategic and integrated planning. While the Framework doesn't create marine plans, it outlines the process, components, and methodology for marine spatial planning to help guide planning and decision-making by considering the marine system as a whole.

The output of the Marine Spatial Planning process is a Marine Plan, which is a strategic document that helps to structure and guide management decisions in the area to which the plan applies.

The Department of Environment is leading the implementation of the Marine Spatial Framework, Land, Water and Planning, including engagement with Traditional Owners and Aboriginal communities, industry, government agencies, and the wider community.

2.1.7 Victoria Planning Provisions

Under the *Planning and Environment Act 1987* regulates development under local and state-wide decision-making processes. Local councils are the responsible authorities for local planning matters, assessing permit applications against the planning scheme.

The Victoria Planning Provisions are a part of the Planning Policy Framework to improve policy alignment, based on a three-tier structure that integrates state, regional and local policy. The VPP is a document containing a set of planning provisions for state-wide reference to enable consistency and coordination how state and regional policy can be applied in a local context with a planning scheme.⁷

VPP 12 is of particular relevance to consider, as it discusses coastal inundation and erosion and 12.01.2S provides an overlay for land that is subject to inundation. In the context of managing climate change impacts,

⁵ State Government of Victoria (2022). *Victoria's Resilient Coast – Adapting for 2100+ program*. Available: <https://www.marineandcoasts.vic.gov.au>

⁶ State Government of Victoria (2022). *Marine Spatial Planning*. Available: <https://www.marineandcoasts.vic.gov.au>

⁷ State Government of Victoria (2022). *Planning Policy Framework translation*. Available: www.planning.vic.gov.au



VPP 13 Environmental Risks and Amenity provides provisions specific to natural hazard, climate change and coastal hazards including requirements listed below:

- Natural hazards and climate change;
 - Development minimises the impacts of natural hazards and adapt to climate change; and
 - Risk areas are identified using best available climate change science.
- Coastal inundation and erosion;
 - Plans include sea level rise of not less than 0.8 metres by 2100; and
 - Developable land subject to hazards is identified and managed to ensure future development is not at risk.

These provisions can be consulted to inform the development of the CMMP and guide actions relating to planning and development.

2.1.8 Coastal and Marine Management Plan Draft Guidelines 2022

The Coastal and Marine Management Plan Guidelines⁸ (the guidelines) is in draft form (dated February 2022) to reflect the changes to the Act and Policy and support local land managers in preparing a CMMP that aligns with these policy amendments. The new Act and Policy has a strong emphasis on Integrated Coastal Zone Management and the marine environment, as well as facilitating self-determination of Traditional Owners' role and knowledge of coastal management.

These guidelines define the role and scope of a CMMP, the consultation, drafting and approval process local land managers should undertake, and key considerations for how to contextualise the objectives of the Act and Policy for coastal settlements and environments. This is structured by the framework of *establish, inform, construct and implement, monitor and report* as the stages of CMMP development.

These guidelines also provide a checklist of key components required to form a CMMP, including defining the area and vision of the CMMP for the local context, identifying collaboration opportunities with Traditional Owners and other stakeholders, identifying the values and challenges relevant to coastal Crown land, identifying the strategic direction of the Plan, and what resources and monitoring will be required.

The planning and decision pathway set out by these guidelines identifies the guiding principles from the overarching policy framework and how these should be used in decision-making for the management of coastal areas. A key component of this is the 5 themes identified in the Marine and Coastal Policy, being:

- **Traditional Owners' rights, aspirations, and knowledge** - Current and future generations of Traditional Owners care for and respect Country through self-determination.
- **Protect and enhance the marine and coastal environment** - Including ecosystems and habitats, natural features and landscapes, Cultural values, and heritage sites
- **Respect natural processes and strengthen resilience to climate change** - Including Managing coastal hazards, emergency response and preparedness. Adaptation pathways – Avoid, protect, retreat etc
- **Use and develop sustainably** - Including coastal settlement planning, coastal industries, recreation and tourism, buildings structures access
- **Stewardship, Knowledge, Engage and Collaborate** - Engagement with the community, citizen science, volunteer as well as sustainable funding.

⁸ The State of Victoria Department of Environment, Land, Water and Planning 2022, *Coastal and Marine Management Plan Draft Guidelines, February 2022*. Not publicly available.



These 5 themes form a structure to apply the guiding principles and objectives of the policy framework to the local context. Therefore, the values, issues and opportunities identified for Frankston and Seaford are categorised into these themes. The planning and decision pathway from the guidelines is shown in Figure 2-2.

Planning and Decision Pathway



Figure 2-2 Planning and decision pathway as defined by the Draft CMMP guidelines 2022

2.1.9 Additional guidelines

In addition to CMMP guidelines, there is a dedicated guideline⁹ to provide direction for land managers and decision-makers in managing and maintaining existing bathing boxes and boatsheds in Victoria. As Crown land is a public asset for residents and tourists, many environmental, social, cultural and economic values need to be balanced in these areas.

⁹ The State of Victoria Department of Environment, Land, Water and Planning 2022, *Guidelines for the management of existing bathing boxes and boatsheds on marine and coastal Crown land*, March 2022. Available: <https://www.marineandcoasts.vic.gov.au/coastal-management/guidelines>



These structures are vulnerable to coastal hazards, including storms, erosion, and sea level rise, and may negatively impact natural coastal processes. Appropriate management of these sites is essential to minimise the impact on environmental and cultural values and risk to public safety. In Frankston, there are 59 bathing boxes and boatsheds situated on the foreshore.

There is also the 'Sitting and Design Guidelines for Structures on the Victorian Coast'¹⁰ which provides best practice advice in line with the Marine and Coastal Policy, including considerations for how to adapt to future population and climate pressures on Victoria's coastline. This guideline is of use to local land managers and individuals, community groups, designers, architects, and developers.

2.2 Council plans and strategies

Council has a number of strategies and strategic planning documents whose visions and actions are important to consider when developing the CMMP. Actions identified in precinct plans and the overarching CMMP should align and contribute to the implementation of other strategic directions, as well as identify new actions for the sustainable management of the coast.

It is understood a key strategy governing strategic planning actions in Frankston is the Community Vision 2040¹¹. This plan sets the strategic direction for the next 20 years, intended to inform the Council's decision-making, long-term resourcing and medium-term strategic plans and policies, having been developed in collaboration with key stakeholders and community members.

As a part of this strategy, it is understood Frankston City Council has adopted six themes to guide its strategies and plans that impact the community. These themes are:

- Healthy families and communities
- Vibrant and inclusive communities
- Natural environment and climate action
- Connected places and spaces
- Industry, employment and education
- Advocacy, governance and innovation

While the actions of the CMMP will be focused on coastal management, they ultimately work to achieve the community vision for Frankston.

Frankston City 2040 is the place on the Bay to learn, live, work and play in a vibrant, safe, and culturally inclusive community. Our City is clean, green, and environmentally responsible.

'Our Community Vision' - Frankston City Council

Additional strategies and plans of relevance to consider are summarised Table 2-1. This is not an exhaustive list that highlights key strategy documents being considered.

¹⁰ The State of Victoria Department of Environment, Land, Water and Planning 2022, *Guidelines for the management of existing bathing boxes and boatsheds on marine and coastal Crown land*, May 2020. Available: <https://www.marineandcoasts.vic.gov.au/coastal-management/guidelines>

¹¹ Frankston City Council, *Community Vision 2040*. Available: (online) <https://www.frankston.vic.gov.au/Our-Community/Community-Development/Community-Vision-2040>



Table 2-1 Overview of Council strategic documents of relevance to CMMP development

Theme	Strategy / Plan title	Role of strategic document	Relevance to CMMP
Overarching	Community Vision 2040	Outlines community aspiration to be incorporated into strategic planning and decision-making. Requirement of the <i>Local Government Action 2020</i> .	This community vision and associated themes are central to all Council planning documents and to be considered in precinct plans and the wider CMMP.
	Council Plan and Budget 2021 - 2025	Overarching plan within Council's integrated Planning and Reporting Framework outlining governance, community engagement, public transparency, strategic planning, financial management and service performance over the next 5 years. Requirement of the <i>Local Government Action 2020</i> .	The Council budget is central to all planning documents and projects. Frankston's beaches and coastline are listed as a key value to be protected by this Budget Plan. This is representative of the community feedback received for Community Vision 2040 creation. This budget also commits \$40,000 to the CMMP and maintaining Frankston's natural and coastal reserves.
	Coastal Management Plan 2016	This Plan identified 80 actions in coastal areas to be implemented between 2016 and 2026. In the implementation plan, these actions were categorised into short, medium, and long term and related to the themes of Value and Protect, Plan and Act, and Use and Enjoy.	The current management plan is being reviewed and updated to better align with updated legislative and policy frameworks from the Victorian State Government concerning the management of marine and coastal Crown land.
Traditional Owner's Rights	Reconciliation Action Plan 2020 - 2022	The model of Reconciliation is to build a respectful relationship between Aboriginal and Torres Strait Islanders and the broader community in Frankston City. A RAP recognises Aboriginal and Torres Strait Islander cultural protocols and works closely with the Bunurong Land Council, the local Recognised Aboriginal Party. The RAP will also explore opportunities to increase employment of Aboriginal and Torres Strait Islanders across Council, influence decision making, increase opportunities for participation and give the community a voice for their own self-determination. This RAP focuses on three areas: Relationships, Respect, and Opportunities.	The CMMP will support the implementation of the RAP, particularly Action 2 in strengthening mutually beneficial relationships with Traditional Custodians and Elders, Action 3 in maintaining Council's engagement and communication with Aboriginal and Torres Strait Islanders and Action 11 in observing cultural protocols. Additionally, CMMP can consider opportunities to implement RAP actions on coastal Crown land, such as Action 15 acknowledgement of Traditional Custodians and place names on Council signage, Action 20 opportunities for the community to learn of culture and histories, Action 21 arts and culture, and Action 22 participation in governance (e.g., in CMMP implementation).
Environmental protection	Biodiversity Action Plan 2021	This Plan collates biodiversity data, identifies knowledge gaps and future threats, and presents an action plan for targeted biodiversity enhancement.	The management of coastal biodiversity areas are a key consideration in this plan. Several coastal Ecological Vegetation Classes (EVCs) are identified. Biodiversity is a key value identified during CMMP stakeholder consultation, not only in the coastal vegetation reserve in Seaford and Keast Park precincts, but also in the rich diversity of marine life present directly offshore for Frankston's beaches. Protection of biodiversity is a priority according to the stakeholders consulted. CMMP precinct plans will look for alignment with actions in this Plan that relate to the coastal fringe (particularly section 3.6).
Climate change resilience	Urban Forest Action Plan 2020	This Plan sets out targeted actions for protecting, managing and enhancing trees across Frankston (regardless of tree species, location, origin, or ownership), recognising the important role urban forests provide.	The urban coastal landscape character is identified as a key value for Frankston in this Plan. Several coastal species are also identified as key trees in Frankston's urban forest, to be protected and expanded. A range of co-benefits of trees are identified, including amenity, health, and climate adaptation; which are key components for precinct plans to consider.
	Domestic Animal Management Plan	This Plan sets out actions to develop ways to improve current practices and sets the future vision and goals for effective, safe and environmentally responsible domestic animal management in Frankston.	Domestic animal issues were identified during community engagement and stakeholder consultation, including dog poo on beaches and in coastal areas, and domestic animals endangering native fauna and fauna in coastal reserve areas. The actions in this plan address these issues and maybe prioritised for coastal precincts.
	Climate Change Impacts and Adaptation Plan 2011	The Plan is currently being updated. The superseded Plan from 2011 identified Frankston being significantly exposed to climate extremes and natural hazards such as storm surges, coastal inundation, floods, bushfires and heat waves. The updated Climate Change Strategy will guide Frankston City Council and the Frankston community towards net zero greenhouse gas emissions and prepare for the impacts of climate change, therefore, combining both mitigation and adaptation into a single Strategy and Action Plan. The Strategy is based on the latest climate change science, incorporates input from Council's key strategic documents and the community. The delivery timeframe for the Strategy is 2030.	The updated CMMP framework and draft guidelines place a greater focus on coastal hazard resilience. The updated Climate Change strategy includes actions to develop pathway adaptations and advocacy for State leadership and strategic investment in coastal climate change.



Theme	Strategy / Plan title	Role of strategic document	Relevance to CMMP
Recreation and amenity	Open Space Strategy 2021	This Strategy recognises open space provision is a fundamental component of quality of life. This is a 20-year plan which analyses the existing and future community open space needs and identifies implementation actions for the nine neighbourhoods of Frankston.	Amenity provision is a key consideration in precinct planning. The objectives, strategies, actions associated with open space planning is important to align with in the CMMP for an integrated and consistent approach to be achieved.
	Frankston Play Strategy 2020-2030	As a sub-set of the Open Space Strategy, the Draft Strategy (2021) sits alongside other open space planning documents and focuses on play spaces as a key component of open spaces in Frankston. This Plan provides a framework for improvement and key outcomes to be achieved.	Specifically, this Plan identifies connection between play spaces and surrounding coastal environments as a priority towards 'valued open space'.
	Local Park Action Plan 2021	As a sub-set of the Open Space Strategy, this Draft Plan identifies the benefits, current state and prioritised actions for small and large parks across Frankston to improve amenity, safety, sustainability and recreation values of open space for the community.	Specifically, this Plan identifies coastal space as a key type of open space in Frankston that is of value, and to plan for how these areas are managed and protected over time.
	Health and Wellbeing Plan 2021-2025	This Plan sets the strategic direction for achieving well planned, liveable, safe, and equitable communities. Six priorities are identified as <i>Healthy and active communities; Fair and inclusive communities; Mental wellbeing and resilience; Climate action for community wellbeing; Gender equality and respectful relationships; and Safe communities.</i>	Amenity and safety were key values, issues and opportunities raised by stakeholders during CMMP consultation. Aligning CMMP actions with this Plan is important for a coordinated and integrated approach to facilitated community safety and wellbeing.
	Leisure Strategy 2021-2029	This Strategy outlines the drivers for encouraging and providing facilities for an active and healthy community. Actions focus on reducing barriers and increasing awareness for the community, accessible and high-quality facilities, encouraging active travel and connection with nature, social connectivity and governance.	This Strategy refers to the high-value coastal scenery, beaches and foreshore offers the community and the importance of these landscapes for mental health, wellbeing and recreation. This strategy includes an action to support CMMP implementation in encouraging recreation and leisure in foreshore areas, through ongoing development and promotion.
Sustainable development	Long Term Infrastructure Plan 2021 - 2031	This Plan seeks to grow the economy, build communities, and enhance the environment in managing \$1.52 B worth of infrastructure. Actions centre on planning integration, prioritisation of funding, asset management optimisation, continued service delivery, and leverage technology for enhanced service delivery.	This Plan identifies coastal management as a priority for Frankston, detailing the aspects of the coast that are of value including tourism, recreation, infrastructure, services, and vegetation. This plan includes capital works improvements along the coast and recognises the importance of operational performance and collaborations for effective coastal management. The high cost of storm surge and inundation on coastal infrastructure is recognised in this Plan, as well as the potential asset loss due to sea level rise. CMMP precinct planning needs to consider and align with planned infrastructure works for coastal precincts outlined in LTIP appendices.
	Asset Plan 2023 - 2032	The Asset Plan relates to the management of physical assets including buildings and facilities, roads and carparks, bridges, major culverts and pedestrian structures, pathways, stormwater drainage, open space and natural assets. It is a 10-year Plan detailing how Council's community vision will be implemented through asset management, maintenance, and future provision.	The CMMP needs to consider existing and future assets planned for Frankston in the coastal precincts to enable an informed, strategic and coordinated approach to land use planning. This Plan identifies coastal hazards and corrosion as a risk to Frankston's existing and future assets. This Plan also reports the management of open space assets along the 11km of Frankston's foreshore meets current service needs. The CMMP considers and plans for future service needs of coastal precincts.
	Integrated Water Plan 2016 - 2026	This Plan spans potable water use, water quality, how water supplies and natural water bodies are managed. Additionally, an integrated approach is promoted, with Frankston's transition to a water sensitive city planned for through staged actions.	This Plan mentions the impact of salt water intrusion and sea level rise on water management, as well as key issues such as water quality of waterways and the bay. An action in this plan (P-Pol-13) tasks the CMMP with identifying integrated water management priorities for the foreshore and coastal areas, focused on waterway protection. The water quality of waterways and the marine environment was a key issue repeatedly raised by stakeholders during CMMP consultation. Additionally, the future management of coastal precincts should consider water sensitive design to be climate resilient, environmentally sustainable, and responsive to the objectives of the Integrated Water Action Plan (and Draft Climate Strategy).
	Engagement framework	The Community Engagement Framework outlines the engagement principles, purpose, scope, and types of engagement Council undertakes. This is aligned with best practice principles from the International Association for Public Participation (IAP2).	The Engagement Plan used to plan CMMP precinct planning targeted stakeholder engagement was informed by Frankston's Engagement Framework. This Framework can inform the implementation of continued public participation for CMMP actions over time.



PART B – VALUES, ISSUES, OPPORTUNITIES IDENTIFICATION



3 VIO IDENTIFICATION PROCESS

3.1 Purpose

The purpose of identifying values is to understand what is important to the community and what is of value culturally, environmentally, and economically, to focus on what to protect, enhance and plan for the next decade. As identified in the Port Phillip & Western Port Regional Catchment Strategy¹²:

Coastal environments are the interface between marine and terrestrial ecosystems and are vital to their productivity, health and resilience. They are highly valued economically, hold significant geological and cultural sites and are visited by millions of people annually for a range of recreational activities.

From understanding the values in coastal and marine areas, the issues and opportunities surrounding these values can be identified in accordance with CMMP Draft Guidelines.

3.2 Considerations

The following inputs have been used to identify values, issues, and opportunities of relevance to the coastal and marine areas of Frankston and Seaford:

- Review of relevant policy, strategies, and studies;
- Community engagement and targeted stakeholder consultation findings;
- Identification of values, issues, and opportunities during site visitation of precincts; and
- Coastal planning experience and strategic analysis.

Further information about how community inputs have been used is provided in the following section.

3.2.1 Informed by community and stakeholder perspectives

A number of public and identified stakeholder engagement and consultation activities have been conducted to support the inception of the CMMP 2023 project. A summary of activities and participation is provided in Table 3-1.

These activities focused on informing participants about the CMMP and gathering perspectives on the current and future values, issues, and opportunities for each coastal precinct to be considered in CMMP preparation. A significant amount of feedback was received through these activities.

Table 3-1 Overview of CMMP engagement and consultation activities

Activity	Contributors	Invited	Participation rate
Council led community engagement and stakeholder consultation			
Interactive map responses	253 drop pins	<i>Publicly advertised</i>	NA
Community survey	157 responses	<i>Publicly advertised</i>	NA
Conservation & Research workshop	4 participants	18 participants	22%
LGA discussion	6 participants	2 Councils	100%
Secondary College workshop	2 schools	2 schools	100%

¹² Melbourne Water 2022, *DRAFT – submitted to Minister for government consideration*. Available: <https://portphillipwesternport.rcs.vic.gov.au/themes/coasts/>



Activity	Contributors	Invited	Participation rate
Water Technology led stakeholder consultation			
Internal Council Stakeholders (online)	20 participants	35 participants	57%
State Agencies Stakeholders (online)	8 participants	14 participants	57%
Community Stakeholders (online)	12 participants	<i>Publicly advertised</i>	NA
Community Stakeholders (in-person)	15 participants	<i>Publicly advertised</i>	NA
FAC Stakeholders (in-person)	8 participants	11 participants	73%

The Engage Frankston webpage¹³ managed by Council is used to advertise upcoming activities as well as providing transparency about project purpose, scope, and progression.

A post-consultation outcomes report was provided to Council following targeted stakeholder consultation designed and led by Water Technology. This report summarised the methods used, and analysis of key findings based on the 600+ comments generated through stakeholder workshops. The distribution of comments relating to values, issues and opportunities is shown in Figure 3-1.

While the comments were spatially structured by precinct during engagement activities, the key themes and sentiments that apply across the Frankston coastline have been analysed and represented in the following sections of this report.

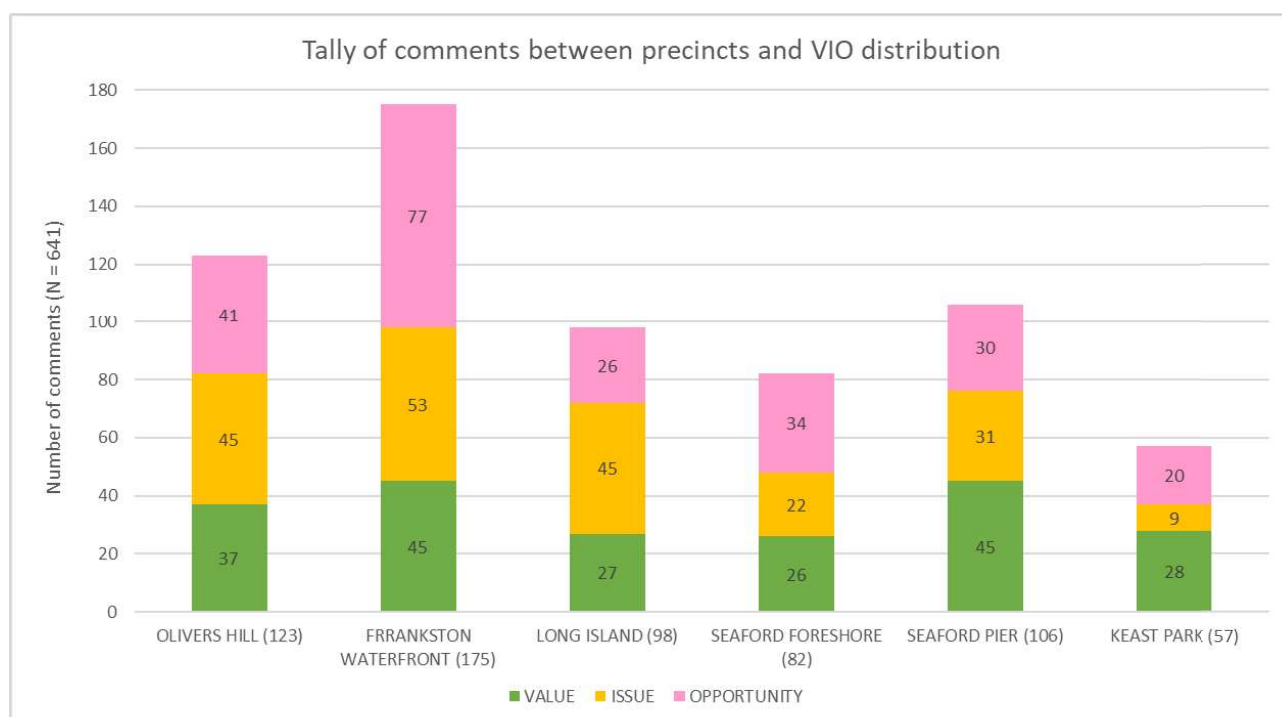


Figure 3-1 Excerpt from post-consultation report detailing the distribution of comments

Findings from targeted stakeholder engagement activities outcomes analysis are fit for progressing into the following stages of the CMMP Precinct Planning project. During this phase of the project,

¹³ Frankston City Council 2022, Coastal and Marine Management Plan. Available: <https://engage.frankston.vic.gov.au/CMMP>



thematic analysis has enabled the following key themes to be identified across the 6 precincts, being:

- Access and amenity;
- Recreation;
- Cultural considerations;
- Safety;
- Climate impacts;
- Environment; and
- Planning and development.

A copy of precinct-based values, issues, and opportunities matrices from the Post-Consultation Report (Water Technology, 2022) are presented in Appendix B. Additionally, overarching sentiment about what is valued in Frankston from community survey responses found:

- No matter what time of the year, rain hail or shine the community uses the foreshore on a daily basis; with Frankston Waterfront, Oliver's Hill and Long Island utilised the most.
- The community enjoy keeping active by walking and swimming along the coastline and relaxing on the beautiful beaches.
- Having a healthy and biodiverse coastal ecosystem was important to have a great coastal experience.

3.3 Alignment with State policy objectives

The following sections are organised by the key objectives present in the State marine and coastal management policy framework, being:

- Traditional Owners' rights, aspirations, and knowledge;
- Protect and enhance the marine and coastal environment;
- Respect natural processes and strengthen resilience to climate change;
- Use and develop sustainably; and
- Stewardship, knowledge, engagement, and collaboration.

The values, issues and opportunities have been categorised by these overarching objectives rather than being precinct-based. Further detail relating to the value, issues and opportunities categorised into precinct-based outputs can be found in the Post-Consultation Report and summarised in matrices in Appendix B.

The values, issues and opportunities identified in the following sections represent all areas of marine and coastal Crown land along the 11km stretch of coastline between Frankston and Seaford, with some site-specific commentary provided when relevant to the State objective theme.



4 TRADITIONAL OWNERS' RIGHTS, ASPIRATIONS AND KNOWLEDGE

This objective seeks to ensure Traditional Owners rights and obligations are embedded locally into planning and management of the marine and coastal environment. This includes current and future generations of Traditional Owners care for and respect Country through self-determination.

4.1 Frankston context

It is respectfully acknowledged that the Bunurong Land Council is the Registered Aboriginal Party responsible for managing the Aboriginal cultural heritage of the land and waters where Frankston City Council is situated.

4.1.1 Collaboration with Bunurong Land Council Aboriginal Corporation

A dedicated consultancy project has been initiated between Frankston City Council and the Bunurong Land Council Aboriginal Corporation (BLCAC) to self-determine involvement and contribution to the CMMP. Council is currently collaborating with Bunurong Land Council Aboriginal Corporation in identifying Traditional Owners' rights and aspirations for Frankston and Seaford coastal and marine areas. BLCAC cultural values and actions will form part of the CMMP. The scope of works of this ongoing collaboration includes:

- inception meeting with BLCAC Elders or knowledge holders,
- Site visit with BLCAC Elders or knowledge holders,
- Aboriginal Cultural Values Report, and
- Final meeting with BLCAC Elders or knowledge holders.

The outcomes of this collaboration will help inform and shape the drafting and finalisation of the CMMP.

4.1.2 Council's Draft Reconciliation Action Plan

In addition to the direction provided through collaborating with BLCAC, the CMMP will seek to align with key actions in Council's Reconciliation Action Plan (RAP). The CMMP has an opportunity to support the implementation of the RAP, particularly Action 2 in strengthening mutually beneficial relationships with Traditional Custodians and Elders, Action 3 in strengthening Council's engagement and communication with Aboriginal and Torres Strait Islanders, and Action 11 in observing cultural protocols.

Additionally, CMMP can consider opportunities to implement RAP actions on coastal Crown land, such as Action 15 acknowledgement of Traditional Custodians and place names on Council signage, Action 20 opportunities for the community to learn of culture and histories, Action 21 arts and culture, and Action 22 participation in governance (e.g., in CMMP implementation).

Ultimately, Aboriginal and Torres Strait Islander representatives will inform the involvement, actions and objectives.



*Be informed by Bunurong
Land Council Aboriginal
Corporation
recommendations & align
with Council's
Reconciliation Action
Plan 2021*





5 PROTECT AND ENHANCE THE MARINE AND COASTAL ENVIRONMENT

This objective relates to marine and coastal values, ecosystems and habitats, natural features and landscapes, cultural values, and heritage sites (to be informed by engagement with BLCAC).

5.1 Frankston context

Frankston has many coastal and marine natural assets, including beaches, coastal waterways, native vegetation reserves and ecosystem types, intact natural coastal protection structures, and geological features. Refer to the *Section 5 Supporting Information* yellow textbox to read a summary of the natural landscapes present within coastal Crown land.

5.2 Values

Based on findings from community stakeholder consultation, it is understood the environmental values of marine and coastal areas of Frankston and Seaford is highly valued by the local community, as summarised by Engage Frankston:

Having a healthy and biodiverse coastal ecosystem is the most important factor enabling the community having a great coastal experience.

The key marine and coastal environmental values have been categorised into the following sections.

5.2.1 Intrinsic value of natural assets

A variety of **natural assets** were identified as having intrinsic value, and providing amenity, beautiful scenery, and recreational values, including:

- Reefs, sandbars, and marine life;
- Beaches and areas of naturalised foreshore/shorelines (without protective structures);
- Dune systems and coastal vegetation classes; and
- Wetlands, creeks and riparian vegetation around waterways.

Additionally, the following specific elements of natural assets were identified as having significant value:

- Biodiverse and **connected ecosystems** such as habitat linkages and green corridors, vegetation buffers, fauna nesting sites, fish habitat, and conservation areas.
- Intact and **healthy vegetation** such as native remnant vegetation and the specific coastal ecological vegetation classes of coastal banksia woodland, coastal dune scrub and coastal dune grassland.
- Presence of **native fauna** in a variety of ecosystems such as marine life, birdlife, and other types of native fauna.

5.2.2 Clean and natural environment

Not only are the presence of these natural assets valued, but the quality of these environments is also of importance. This includes:

- Safe and clean **water quality** of beaches and waterways (while this was also identified as an issue and opportunity).



Align with Council's Biodiversity Action Plan, Domestic Animal Management Plan & Integrated Water Plan, as well as State initiatives such as the Port Phillip Environmental Management Plan



- A **litter-free** natural environment.

5.2.3 Amenity value of naturalised environments

The human-use of naturalised areas is a significant value as it includes:

- **Recreational use** including swimming, snorkelling, diving, fishing, watercraft, boating, walking, running, bike riding, picnicking and other recreational activities in Frankston's coastal areas.
- **Views, sunset vantage points and scenery** that naturalised coastal areas provide. **Visual amenity** provided by vegetation in buffering the sight/sounds of carparks, roads, and development.
- **The beach** its naturalised processes, its uninterrupted vista, its environmental connections, provide mental wellbeing and enjoyment.



Figure 5-1 The intact environmental values of the coastline being 'untouched' is highly valued

5.3 Issues

Aligning with what is valued about the natural marine and coastal environment in Frankston, several current and future issues were identified. From the community survey, in terms of the natural environment, it is understood the community is most concerned about:

- Degradation of the natural environment and ecology is not improving
- Safe boat harbour negatively impacting beach amenity
- Stormwater pollution



Additional issues align with what is identified to be of value. These are categorised as follows:

- **Water quality** in creeks and waterways, negatively impacting the water quality of oceanic waters offshore of beaches. The community and stakeholders perceive the key sources of pollution to be:
 - Plastics and other types of litter in waterways and the ocean.
 - Siltation and sediment, originating in waterways and from dredging methods used in Frankston.
 - Wet-weather flows including stormwater and sewage overflow contributing to nutrient unbalance and pollutants, causing odour issues and litter.
- **Litter** on beaches and other terrestrial areas of coastal Crown land.
- **Introduced species** impacting natural environments, including:
 - Non-native flora species / weeds out-competing native species in vegetation reserve areas.
 - Domestic and feral animals harming native flora and endangering native fauna.
- **Edge-effects** and encroachment on natural environments:
 - Informal tracks through vegetation reserves and dune causing damage to vegetation and ecosystem health, as well as introducing edge effects.
 - Unlawful development, such as unapproved protection structures (e.g., retaining walls), and boat landings.
 - Encroachments and the impact of development in Crown land.
- **Environmental vandalism** has been reported to occur along the coastal fringe, including:
 - Unapproved removal of coastal vegetation on Crown land;
 - Damage to coastal vegetation (e.g., breaking of branches, carving into trunks etc.).



Figure 5-2 Environmental vandalism - Banksia tree removal, damage, and unlawful pruning



5.4 Opportunities

The community survey identified the following key opportunities to protect and enhance the natural environment:

- Coastal dune rehabilitation.
- Education on litter and dune protection.
- Ensure the natural environment is protected for future generations.

Opportunities to enhance and protect the values identified as well as mitigate the issues listed include:

- Prioritise **preserving the naturalised, uninterrupted nature** and protection of **visual amenity values** of the beach and coastal environments as a central theme of the CMMP. Opportunities to increase this value include:
 - Revegetation, weed removal and other vegetation management activities in dunes and coastal vegetation reserve areas.
 - Ongoing monitoring of environmental health.
 - Development controls and land use planning considerations to mitigate encroachments.
 - Use of nature-based solutions and careful consideration of use and type of protection structures.
- Further enhance the **biodiversity and connectivity of ecosystems** through aligning with actions in the *Biodiversity Action Plan* and:
 - Consider removing informal tracks and formalising select tracks to limit disturbance to dune systems and coastal vegetation reserve areas.
 - Implement the actions in the *Domestic Animal Management Plan* and consider maintenance / extended use of fencing to exclude domestic and feral animals from entering dune systems and coastal vegetation reserve areas.
 - Consider the installation of additional artificial reefs to enable further substrate/habitat for marine life¹⁴.
- Improve **water quality** through the implementation of the *Integrated Water Plan* actions and consideration of a suite of strategies, including:
 - Consideration of alternative dredging methods to keep the mouth of Kananook Creek open
 - Point-source pollution control and consideration of wet-weather flows
 - Installation of litter traps to prevent plastics and other forms of litter from entering waterways
 - Educational and awareness-raising activities, including the installation of additional signage
 - Coastal clean-up activities to remove litter from beaches and waterways
- Further support **recreational use** and continued enjoyment of **sunset vantage points and scenery** through installing environmentally responsive amenity infrastructure and systems to prioritise and support passive, low-carbon recreation modes and community connection to nature.

¹⁴ Note - Artificial reefs:

- Community sentiment was favorable to installation of additional reefs. State sentiment encouraged further promotion of existing artificial reefs as infrastructure that is of value for environmental recreation and tourism.
- Artificial reefs may be located offshore and at a depth deeper than of 5.0m to not degrade natural coastal processes. Further studies and consideration would be required to explore this opportunity.



SECTION 5 SUPPORTING INFORMATION

Overview of natural landscapes within Frankston's coastal Crown Land

Beaches

There are two main beaches, which are located throughout Seaford and Frankston. Seaford Foreshore is approximately 55ha, 5km in length with an average width of 100m comprising of mostly unbroken sandy beaches backed by dense coastal vegetation. Frankston Foreshore is approximately 15ha, 2.7km in length with an average width of 30m prominently open coastal dune scrub with beaches separated by Kananook Creek, Frankston Waterfront ending at Olivers Hill seawall. Frankston beach was renourished in 2014 with 15,000 cubic metres of sand.

Ecosystem and Habitats

Seaford foreshore supports the largest, contiguous remnant of coastal vegetation within proximity to Melbourne. It includes intact patches of three coastal Ecological Vegetation Classes (EVCs) including coast banksia woodland, coastal dune scrub and coastal dune grassland. Coastal dune grassland occurs on the primary dune and grades into dune scrub. The height of the scrub increases, and structure changes to a relatively tall 5-6m shrub land on the inland side of these dunes transitioning to coast banksia woodland.

Frankston foreshore (south of Mile Bridge) is narrower and coastal vegetation is interrupted by car parks, open parkland, paved promenades and built infrastructure. The steep cliffs of Olivers Hill to Daveys Bay support relatively intact patches of coastal headland scrub.

Waterways

Frankston's coastline intersects with several significant waterways including Kananook, Sweetwater and Kackeraboite Creeks. Kananook Creek, originally rising from the Carrum Swamp has been an integral feature of the foreshore reserve in Frankston. Where Kananook Creek meets the bay has been altered substantially over the years and regularly dredged to allow for boating access.

Lower Sweetwater Creek in its southernmost reach the creek enters two large barrel drains, which take the creek under the Nepean Highway and Olivers Hill Carpark then into Port Phillip Bay. Kackeraboite Creek resides in Mornington Peninsula Shire Council with the mouth entering Davey's Bay. Occasionally the mouth will reside with Frankston City dependant on sand movement.

Geological Significance

Most of the foreshore area lies within a low-lying crescent that stretches from the Beaumaris headland to Olivers Hill. The coastline of Seaford consists of a sandy beach backed by a low sand cliff and coastal dune woodland. At parts of Seaford Beach, the primary and secondary dunes are well vegetated. The Seaford Foreshore Reserve is considered regionally significant as the site is the most intact remnant of the large barrier and wetland complex that dominated the physiography of the area between Mordialloc and Frankston.

The sand beach ends at the southern boundary of Olivers Hill car park, and the Selwyn Fault brought up the Tertiary and older rock formations through to Kackeraboite Creek. This area is a site of geological significance showing weathered older volcanic basalt, Mount Eliza granodiorite, slumping red clay cliffs formed from ferruginous Baxter, sandstone partially weathered basalt faulted against granite and fresh fractured granite. The base of Olivers hill is protected by rock groin with a succession of beaches between cliffs continuing through to Davey's Bay.

Information supplied by Frankston City Council, 2022.



6 RESPECT NATURAL PROCESSES AND STRENGTHEN CLIMATE RESILIENCE

This objective relates to the marine and coastal processes of the project area in the context of coastal compartments and coastal hazard risks associated with climate change.

6.1 Frankston context

The Frankston coastline is a largely natural coastline, exposed to wave energy from the north-northwest through west to southwest across the deepest sections of Port Phillip Bay.

The highly seasonal wind climate within Port Phillip Bay results in a distinctive summer and winter coastal process pattern, with northerly winds dominating in winter driving sand south and the dominant southerly winds in summer reversing the sediment transport and pushing sand back towards the north.

The exposed coastline also allows more significant waves to cause storm erosion on the beach, shifting sand from the beach into the dunes. Higher storms in winter generally shift material offshore to the bars to travel south before calmer summer conditions shift sand to the inshore bars where there is a northerly drift. Seasonal and annual variation of the land-water and sand-vegetation buffer results in erosion and accretion along the foreshore.

For the coastline north of Long Island, a wide vegetated buffer separates the Nepean Highway from the water line. Fencing is limited along the highway, however present in some parts along the bushland track running parallel to the coastline. Several informal tracks are present cutting through the nature reserve, used to access the water directly, presumably made/used by residents living along the highway.

South of Long Island, residential, community and commercial buildings are located close to the coastline, and boat boxes are situated among the coastal vegetation. The training walls of Kananook Creek trap the northerly summer and southerly winter transport to the south and north, respectively. This material can build up and bypass the training walls, requiring dredging to maintain navigation into Kananook Creek.

At the southern end of the Council coastline the land reclaimed for car parking to access the Oliver's Hill boat ramp is stabilised by a vertical seawall and rock rubble. The nearshore bars along the coastline here illustrate the past natural alignment of the coastline in response to the wave climate.

6.2 Values

Community stakeholder workshops identified general concern about climate change and the potential impact on coastal processes and coastal areas in terms of amenity, recreation, safety, and potential future cost (e.g., costly erosion mitigation works). This represents several underlying values, including:

- **The value of the current built form and community infrastructure** situated in coastal precincts, including public use buildings such as lifesaving clubs, restaurants, privately owned bathing boxes and residential properties.
- **The amenity value of beach access** and the naturalised coastline (without the presence of protective structures)
- **The recreational value of shallow Bay waters and sandbars offshore enables** safe swimming, snorkelling and diving opportunities. Interestingly, *sandbars* were raised as a stand-alone value several times by various stakeholder groups



Consider findings of the State-wide coastal hazard vulnerability assessment (DELWP)], & coordinate with Council's Climate Change Strategy (in-development)



- **Existing protective structures** are also valued, including the buffering coastal dune systems, resilient coastal vegetation in the northern precincts, and the rock wall at Olivers Hill.
- **Waterway connectivity between** creek outlets and the Bay is valued for environmental function and boating access, with the importance of maintaining an open entrance of Kananook Creek into the Bay specifically recognised.



Figure 6-1 Waterway access infrastructure on Kananook Creek, Frankston Waterfront Precinct

6.3 Issues

Several issues relating to coastal processes and climate change risk were identified, summarised in the following sections.

6.3.1 Protection and access for boats

- The boat ramp is exposed to high-energy waves and is not suitable for safe harbour during a storm event.
- Community perspectives on the **need** for (or lack of need for) and **location of a boat harbour** was heavily represented in consultation responses.
 - Community perception represent the proposal for a boat harbour at Oliver's Hill as an issue, for its potential impact on coastal processes and visual amenity of the precinct (naturalised rather than modified).



- While maintaining the entrance of Kananook Creek for safe passage was valued, community perspectives saw the current **dredging methods** as an issue. This was based on its impact on visual amenities, and increased siltation in the water around Kananook Creek entrance, negatively impacting water quality and potentially marine life.

In relation to Kananook Creek entrance, it is understood that to control the location of the mouth of the creek training walls have been built. To reduce the need for dredging, these training walls may be extended further offshore (for example, in place at Martha Cove, Safety Beach) to block the sediment from bypassing the walls into the channel. However, constructing walls to this length would result in significant changes to the coastline. Therefore, this is not recommended without sand bypassing, which essentially would require some form of dredging. Some form of optimisation of the dredging works may improve the management of the Creek entrance.

6.3.2 Coastal hazards and climate change impacts

Key coastal hazards were identified as current and future issues, including:

- **Coastal erosion –**
 - impacting beach access, beach width and endangering infrastructure, vegetation, built form and other assets (including concern over boat ramps).
 - **Cliff instability** at Olivers Hill was also identified as an issue and ongoing erosion of the bank due to weathering and vegetation loss.
- **Storm-tide inundation –**
 - Low-lying sections of the road, especially at the bottom of Olivers Hill are subject to **storm tide inundation**, both currently and into the future. Spray also can spill across the road during large storm events.
 - **Storm-tide Inundation** upstream in Kananook Creek affects the properties adjoining this waterway in Long Island, Kananook and Seaford.



Figure 6-2 Example of coastal erosion of beach and dunes into the vegetation reserve, Seaford foreshore

Additionally, the impact of worsening coastal hazards and the impacts of climate change is identified as a key issue.

■ **Sea level rise (SLR)–**

- Future risk to long-term recession of the coast could continue into the foreshore and dune vegetation, as well as impacting built form and coastal infrastructure.
- If loss of vegetation occurs, this will lead to enhanced seasonal and long-term erosion of the coastline

- Sections of the coastline (e.g., Olivers Hill or Kananook Creek) that are very popular will become narrower as the sea level rises, resulting in less accommodation for natural beach recession to occur during storms.

- **Built form adaptation** – the protection or rebuilding of coastal assets such as lifesaving clubhouses, restaurants, or bathing boxes will require alignment with State policy requirements and consider the coastal hazard risk hierarchy of *avoid, accommodate, retreat, protect*.

- Additionally, consideration of coastal-dependency of the development, and the end of design life in the context of erosion and sea level rise is an ongoing issue to manage.

■ **Future impacts to coastal processes -**

- Any **interruption** of the coastal processes will cause issues along the coast (e.g., the Melbourne Water outlet just south of Keast Park). An interruption may be caused by changed climatic conditions or altered substrate / installation of man-made structures into the marine environment.
- Sand dunes are likely to grow with rising sea levels and recession of coastline (sand will move from dune to nearshore area with SLR), which may pose an issue for existing built form and coastal infrastructure (e.g., beach access stairwells may become buried etc.).
- The beach alignment has developed in response to the existing wind climate. **Significant changes to the wind climate** in Port Phillip Bay in the future associated with the effects of climate change could result in erosion or accretion in new areas.



Climate change is an issue of importance to stakeholders and the Frankston community alike. In particular, the need to plan for coastal erosion and sea level rise for enhanced coastal resilience and protect the values present in coastal areas was consistent from all stakeholder groups, in relation to all 6 precincts. This is also consistent with other findings from previous community consultations in Frankston:

In 2019, Frankston City Council declared a Climate Emergency. A survey designed to understand community sentiment found 80% of respondents are 'extremely concerned' or 'very concerned' about climate change.

Climate Change Community Survey 2020¹⁵

6.4 Opportunities

Opportunities centre around coastal hazard adaptation and include the following general engineered and nature-based solutions:

- Continued and enhanced **protection of existing vegetation**, including coastal banksia woodland, coastal dune scrub and coastal dune grassland areas.
- **Revegetation** of additional areas to promote the use of vegetation as an erosion and storm-tide buffer.
- **Education of the benefits of vegetation** to discourage removal of coastal vegetation on Crown and private land and promotion of revegetation on private land.
- Clear and unambiguous **planning and development controls** for the coastline to follow the principles of coastal-dependant development and the coastal hazard risk hierarchy.
- **Dredge plan for Kananook Creek** and findings from feasibility or evaluation studies relating to the effectiveness of existing methods in operation to be publicised in an engaging and easy to understand way (in response to community perception that dredging methods should be altered).
- Assess the impact of **additional artificial reefs** on coastal processes.
- Evaluate the coastal inundation hazards in low-lying foreshore area to proactively manage environmental flows and stormwater drainage, and to understand "business as usual" interruptions due to storm action or climate change.

¹⁵ Point Advisory 2020, *Climate Change Community Survey Summary Report*. Available: <https://www.frankston.vic.gov.au/Community-and-Health/Environment/Climate-and-energy/Climate-change-survey-results-2020>



Figure 6-3 Example revegetation activities occurring along the coastal Crown land in Frankston



SECTION 6 SUPPORTING INFORMATION - Coastal processes and climate change

Overview of coastal processes functionality in Frankston

- Coastal processes are highly seasonal – sand migrates north in summer, south in winter
- Winter storms bring sand offshore into bar system, summer storms rebuild the beach
- Sand moves along the shore in lobes
- Vegetated dune reduces erosion both from storm waves and winds
- Structures on the beach will cause erosion on the down drift side (alternating during the year)
- Kananook Creek training walls designed to prevent closing and migration of creek entrance. Sand builds up and reforms, blocking entrance to creek

Overview of key climate risks

- Coastal hazards include storm-surge / storm-tide inundation, and erosion
- Climate change is causing extreme weather events to increase in frequency and intensity, accelerating and worsening the impact of coastal hazards
- Additional impacts such as changed rainfall and temperature have various impacts on climatic conditions and long-term weather patterns, which in turn affect coastal processes (such as wind patterns)

Overview of future climate impacts in Frankston

- CoastAdapt provides sea level rise projection data for Frankston to be an increase of 5.8mm/year under a low emissions scenario (RCP6.0) and 10.4mm/year under a very high emissions scenario (RCP8.5).
- Sea level rise causing future recession of beach and loss/damage to coastal infrastructure and built form (such as surf clubs, bathing boxes, walking tracks, fences etc).
- Dune destabilisation may occur through loss of vegetation as a result of increased erosion, resulting in a further narrowing of beach where dune buffers are not present.

Guiding principles for adaptation - Coastal risk management hierarchy

- **Non-intervention**- the first preference is when coastal hazards do not require intervention due to the risk posed being considered *acceptable* or *tolerable*.
- **Avoid** – identify future no-build areas and use of land use planning to prevent new development in risk-prone areas.
- **Nature-based solutions** – use of vegetation, reinstallation of dune systems and other methods to reinstate natural coastal processes and provide erosion buffering and wave energy diffusion.
- **Accommodate** – continue current land use and modify the built form to accommodate and withstand the impact of coastal hazards
- **Retreat** – withdraw, relocate or abandon assets that are at risk. Ecosystems are likely to retreat landwards as sea levels rise.
- **Protect** – use hard structures such as seawalls to protect land from coastal hazards. These may be prohibitively expensive, especially in the long term. This is the least preferable adaptation option.

Note: Additional CoastAdapt projection data information can be found in Appendix C.



7 USE AND DEVELOP SUSTAINABLY

The purpose of this objective is to consider the use of marine and coastal land for enhanced access, development, and sustainable management into the future.

7.1 Frankston context

Frankston includes large areas of Crown land in the marine and coastal zone. The existing uses range from precincts aligned around amenity and community access to more natural 'untouched' areas. Visitor access to the beach and coast is adjacent to both residential land and commercial precincts.

The coastal foreshore areas hold cultural, recreational, social, tourism and economic value, and as such has a part in shaping Frankston. How this land is managed and used over the next decade is an important planning consideration, particularly in the consideration of how values across all State objectives are protected and enhanced, and what future values may emerge over time.

Key activity nodes are present in each precinct and serve various uses from nature-based recreation to dining. Olivers Hill boat ramp, Frankston Waterfront and Keast Park are key activity nodes with built form and modified foreshores and beach access areas, Long Island is a largely residential precinct serving local access points rather than as key activity node, and the Seaford Foreshore and Pier precincts are dominated by the naturalised coastal interface dunes and the vegetation reserve. Activity nodes in these precincts are localised to the designed car park entry points, however, several informal tracks provide disbursed access through the coastal banksia woodland.

7.2 Values

Access and amenity was the category in targeted community workshops that raised a high number of comments, as well as some that related directly to planning and development. Detail about key values are summarised in the following sections, in addition to overarching values identified in public consultation, being:

- Beautiful clean sand and safe swimming spaces.
- Recreational opportunities.
- Great facilities.
- Ability to walk the dogs.
- Boardwalks.
- Nippers and Life Saving Clubs.

7.2.1 Access and connectivity

- **Beach access** is an important value with many facets, including:
 - Value all being able to access beach and coastal areas and value universal access points where wheelchair accessibility is provided for.
 - Carparking passes for residents are valued (while low car parking supply is generally noted as an issue) in supporting the local community accessing the beach.
 - Pathways and crossings to enable non-car dependant travel to the beach are of value.
 - Safe access to and around coastal precincts through roads and paths is valued.



Align with Council's Asset Plan, Long Term Infrastructure Plan, Integrated Water Action Plan, & Urban Forest Action Plan



7.2.2 Recreational use of precincts

- Marine and coastal land is valued for **recreational amenity** it provides, for walking, running, biking, swimming, snorkelling, diving, fishing, and other activities.
- Use of **boats and non-powered watercraft** is also a key part of recreation in coastal precincts and of value to the community.
- The focal points for recreation (Olivers Hill, Frankston waterfront, Seaford Pier) provide a **balance** to the undeveloped beach areas in the northern precincts.

7.2.3 Amenity provision

- **Existing infrastructure** is of value (including playgrounds, seating and lawned areas, boardwalks, beach access stairs/ramps, water fountains, toilet blocks, shade provision etc.)
- **Public space for events and festivals** at Frankston Waterfront is important for economic stimulus and community activation near the main Frankston commercial precinct
- **Diversity of spaces** between precincts provides amenity and caters for various desired uses, from developed to naturalised, and from temporary to permanent vendors.

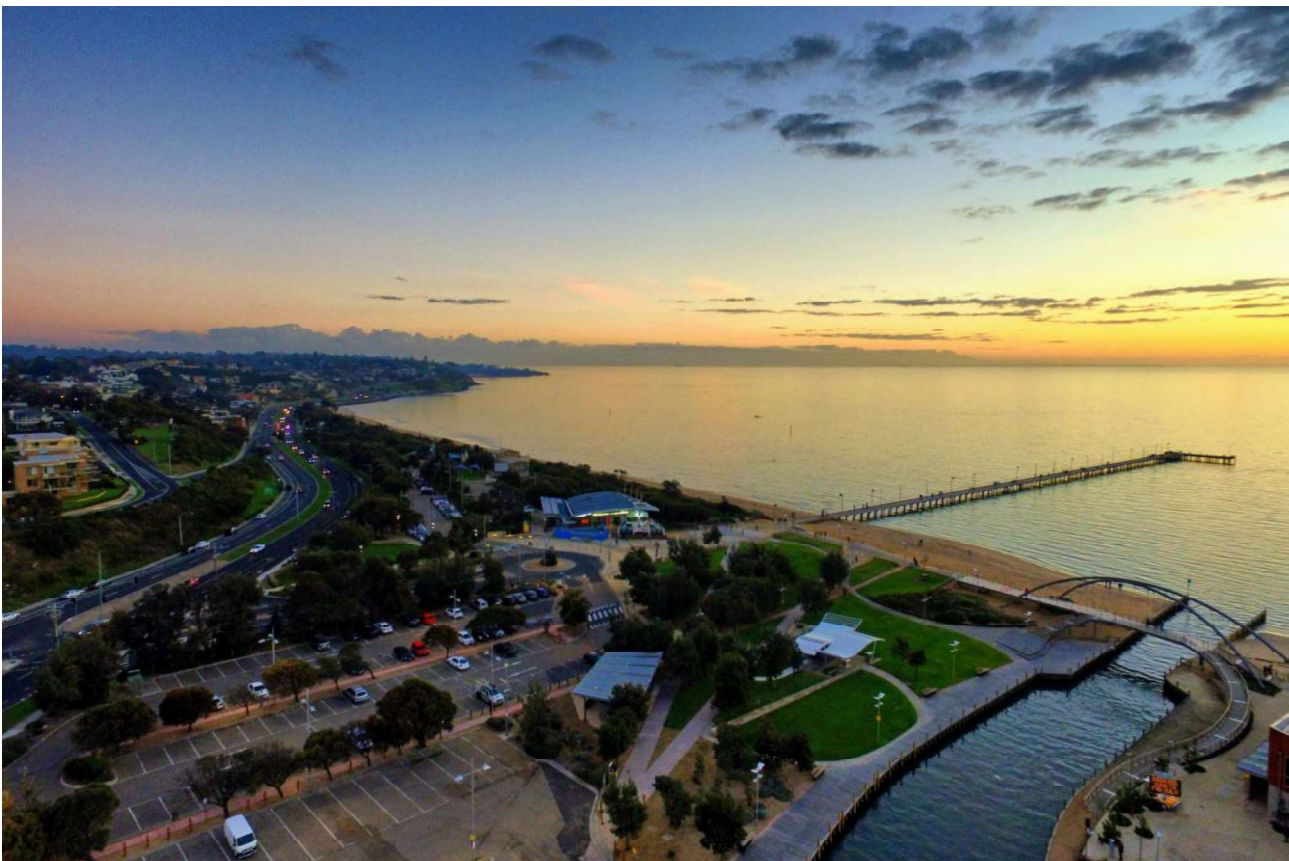


Figure 7-1 Frankston Waterfront showing the multiple uses in this precinct

7.2.4 Built form and local character

- The existing **natural ‘family friendly’ beach** areas are unique around Port Phillip Bay.
- **Building character** of inter-generationally owned residential lots is of note and of value to some residents.



- Additionally, the **architectural style** of the built form in Keast Park was noted as desirable and valued by community stakeholders.
- The value of development being responsive to the coastal setting in its design, alignment, purpose and functionality.
- Additionally, **the lack of built form** is of value – with areas of **intact naturalised foreshore**, protected dune systems and coastal vegetation (as opposed to a cleared and fully developed coastal fringe which occurs in many other locations in Port Phillip Bay).

7.3 Issues

Considering this list of values, several current and future issues were identified, including:

- **Access –**
 - Provision of **car parking** to cater for peak times during summer and weekends, particularly with the popularity of the area as a beach destination for visitors and tourists (car parking and appropriate beach access points limited), particularly along the Nepean highway
 - Safe/easy to navigate **connectivity** for pedestrians between key activity nodes in Frankston city across the highway to the beach and foreshore areas, particularly crossing the Nepean Highway
 - **Path continuity** between precincts to facilitate greater recreation and non-car dependant beach access
- **Management –**
 - Community responsibility and Council management issues including **facility maintenance, dog poo, graffiti, cleaning, litter** and **rubbish bins** particularly in high traffic areas.
 - Managing **competing uses** within the same space (jet skis, swimmers, boating, dog walking, etc.).
- **Development –**
 - Balancing **competition for land use** and pressure to develop marine and coastal Crown land for public use with the need to protect the environmental integrity of natural areas.
 - **Legacy assets/amenities** in marine and coastal crown land that are not coastally dependent
 - **Decline in commercial activity** near the Frankston waterfront
 - **Encroachments** of development and unlawful structures on natural areas and waterways

7.4 Opportunities

Several opportunities to further protect and enhance the sustainable use of marine and coastal areas are identified, including:

- **Access –**
 - Identify and coordinate access needs, including removing informal existing access points and enhancing priority access areas.
 - Providing additional accessibility infrastructure to enable universal access at key activity nodes.
 - Investigate and enhance connections between the existing coastal public space and nearby commercial precincts.
- **Management –**
 - Identify and coordinate ongoing maintenance and management activities (beach cleaning, etc.)



- Providing of additional servicing and facilities such as rubbish bins, particularly for peak use periods.
- Review (and update if required) the existing arrangement for different site uses, including jet ski access, fishing, boating, swimming, and dog beach areas.
- Review and implement required enforcement measures for the above uses (dog access, jet skis, etc.)
- **Development –**
 - Prepare planning controls and policies to limit inappropriate development.
 - Using the Siting and Design Guidelines, identify existing Council assets without coastal dependency and prepare adaptation plans before end-of-life.
 - Implement the DELWP “siting and design guidelines” into the planning of council works.
 - Protect and preserve natural areas of environmental significance for future generations in balance with developed areas for public use.
 - Upgrades to amenity infrastructure such as seating, shade and boardwalks, and community buildings.

SECTION 7 SUPPORTING INFORMATION

Development consideration for CMMP – use of activity nodes

Activity nodes provide a focus for managing recreation demand and enhancing links between the foreshore reserve, retail and commercial districts of Frankston and Seaford. The Frankston Waterfront is the primary activity node and the main hub for concentrated activity such as large-scale events and commercial activities.

Recreation nodes support high levels of visitation with significant existing infrastructure that includes multi-purpose community buildings; public toilets; accessible pathways; car parking; links to public transport; bike racks; and general play/fitness spaces. These areas include Olivers Hill, Mile Bridge, Seaford Life Saving Club and Keast Park. Defining activity nodes serves to:

- provide access to the foreshore reserve for less formal activities such as swimming, sun bathing and walking. Supporting infrastructure at these locations is limited to picnic tables, pathways/ boardwalks, bike racks, and Nepean Highway pedestrian crossings to parking and transport opportunities located outside of the reserve.
- provide pathway access into the reserve. Infrastructure is limited to signage and pathways that should connect to a broader pedestrian and transport network.

Information supplied by Frankston City Council, 2022.



8 STEWARDSHIP, KNOWLEDGE, ENGAGE AND COLLABORATE

This objective relates to increasing community stewardship and collaborative management of the marine and coastal environment, including use of citizen science, volunteering, and sustainable funding for long-term implementation to protect values, mitigate issues and embrace opportunities.



*Align with Frankston's
Engagement Framework
& best practice principles*



8.1 Frankston context

Engage Frankston is the Council run platform used to engage the local community and other stakeholders. This is an interactive platform, where Council provides project updates and progress bulletins, and the community can contribute through the login portal function of the platform for two-way information exchange. Advertisement of upcoming engagement events, links to surveys and other interactive consultation opportunities are also posted on this platform.

Frankston City Council recognises the importance of collaborative and strategic partnerships based on common objectives and relevant expertise in securing vital funding investments and influence decision-making at all levels to benefit the community now and into the future.

Additionally, community reference groups such as Frankston's Foreshore Advisory Committee (FAC) have been established to enable community-led advice and input at all stages of major project development. Collaboration with other stakeholders such as neighbouring councils, state agencies, schools and research groups is also proactively sought by Council for enhanced project outcomes.



Figure 8-1 Council-led engagement at the Frankston Waterfront festival to commence CMMP project



8.2 Values

- An engaged community motivated to participate in local planning and coastal management.
- Enthusiastic local community groups and stakeholders.
- Historical custodianship of Traditional Owners and present-day involvement of Bunurong Land Council Aboriginal Corporation (BLCAC) in coastal management, stewardship and planning activities.
- Clearly defined CMMP framework to enable a coordinated, strategic approach to coastal management.
- Existing initiatives and projects to engage the local community (such as Engage Frankston, CoastSnap)

8.3 Issues

- Jurisdictional ambiguity regarding roles of Council and other agencies (Parks Victoria, MSV, BBV, DELWP, etc.).
- Challenges in effective coordination of community group activities and local projects with broader resources and other programs.
- Commonly there can be a lack of funding for implementation of coastal management actions.

8.4 Opportunities

- Creation of a well-defined project governance structure of implementation of the CMMP – that includes a clear delineation of roles and responsibilities of all stakeholders across the coastal zone.
- Encourage and support local community groups such as ‘friends of’ groups to champion and action local projects – including dune care in coastal reserves.
- Council engagement with community groups and Landcare groups for revegetation and dune care activities.
- Implement community education through programs, signage, Council websites and social media channels regarding:
 - **History:** Enhanced communication of Indigenous history, including collaboration with Traditional Owners.
 - **Environmental Processes:** Coastal process and coastal hazard risks.
 - **Governance:** Roles and responsibilities various agencies and jurisdictions.
- A specific Frankston design guideline may be envisaged to promote cultural values and identity of the coastal amenities, this could extend across the council to other discipline via a Human Centric Design process¹⁶.
- Promotion of citizen science programs such as CoastSnap.
- Identification and promotion of local coastal features/spaces for nearby school visits, educational activities and tourism.
- Promote Traditional Owner walking tours and cultural activities related to coastal management
- Envisage hybrid funding model for coastal amenities, where public and private investments are made for specific projects (time, cost, quality definition). The duration of such projects may be limited and subject to short-term land use agreements, to promote sustainable coastal adaptation to climate change.

¹⁶ State Government of Victoria 2022, Introduction to human-centred design. Available: <https://www.vic.gov.au/introduction-human-centred-design>

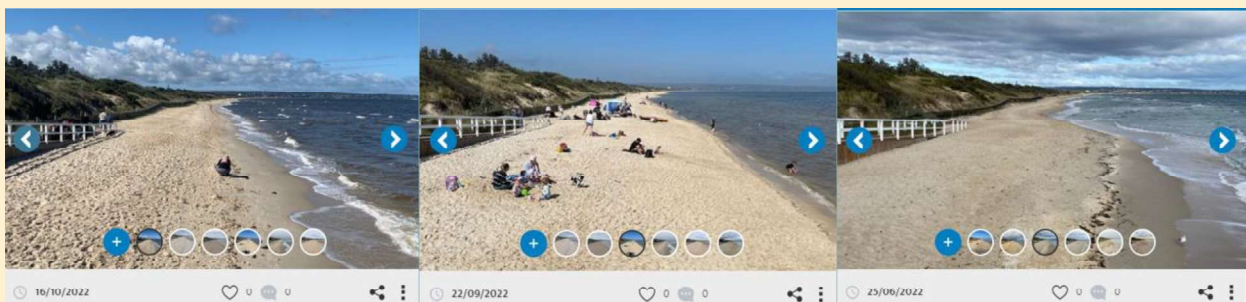


- Promote sustainable use of sediment when dredging and working with nature as business as usual for Council
- Review and consider opportunities for Blue Carbon investment along the coast. While the Emission Reduction scope may be spatially constrained, this will assist in formulating future Coastal Management Plan beyond the 2023 Plan

Citizen Science Case Study – CoastSnap

The University of New South Wales Water Research Laboratory and the New South Wales Government partnered to develop CoastSnap in 2017. Beginning with two pilot sites at Manly and North Narrabeen beaches, the tools and techniques were developed to make simple and accurate community beach monitoring a reality. Through this process, it was discovered that communities and their visitors love learning about dynamic coasts by getting involved as community beach scientists. From its humble beginnings on Sydney's Northern Beaches, CoastSnap is now a global phenomenon.

There are two CoastSnap stations in Frankston, located at Olivers Hill lookout and the Seaford Pier. These stations consist of educational signage about the app and program, and a phone frame to enable consistent images to be collected and uploaded by beach visitors. Example images from Seaford Pier are shown below.



This project demonstrates how the community can be engaged in coastal monitoring and management. Other projects where public and community group collaboration could benefit CMMP implementation should be explored, to foster shared ownership of outcomes, local-leadership and awareness raising while contributing additional resources and perspectives for the protection and enhancement of marine and coastal environments.

Information referenced from NSW Government and CoastSnap: <https://www.environment.nsw.gov.au/research-and-publications/your-research/citizen-science/get-involved/coastsnap>

9 SUMMARY

Coastal areas are of immense value to coastal communities and hold importance culturally, environmentally, socially, and economically and for tourism. In turn, these areas are used for a variety of purposes and functions, which can serve competing interests, as well as in conflict with natural coastal processes and the impacts of climate change; as well as adapting to the pressure of increasing coastal in-migration and tourism.

A review of the coastal planning context is presented in Part A to summarise the importance aligning with the *Marine and Coastal Act 2018*, Marine and Coastal Policy 2020, and the Marine and Coastal Strategy 2022, among other key State policy guidance and initiatives to support local governments in sustainably managing Victoria's coastal areas. Additionally, this section reviews key Council strategic planning documents for consideration in Frankston's Coastal and Marine Management Plan 2023 development project.

The inputs of the State marine and coastal management planning framework, Council's strategic directions, and values, issues and opportunities identified in extensive community and stakeholder consultation (summarised in the Post-Consultation Report delivered to Council in a separate document) will be used to draft precinct-based actions in the next phase of this project, as represented in Figure 9-1.

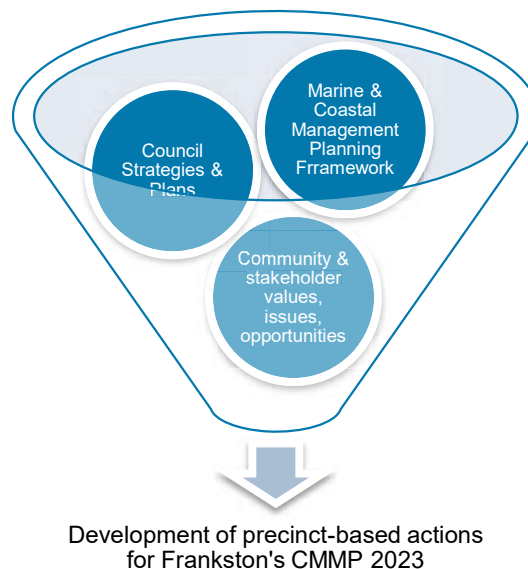


Figure 9-1 Overview of inputs to-date in project for next phase development

The presentation of values, issues and opportunities related to Frankston's coastline are overarching and a summary of many hundreds of comments and considerations gathered through background review and community and stakeholder consultation inputs. These have been structured by the 5 key State policy objectives, being:

- Traditional Owners' rights, aspirations, and knowledge;
- Protect and enhance the marine and coastal environment;
- Respect natural processes and strengthen resilience to climate change;
- Use and develop sustainably; and
- Stewardship, knowledge, engagement, and collaboration.



APPENDIX A COASTAL CROWN LAND PRECINCT MAPS



Olivers Hill



Frankston Pier

Daveys Bay

Olivers Hill Lookout

Olivers Hill Boat Ramp

Kackeraboite Creek



0 250 500 m



Frankston Waterfront



Long Island



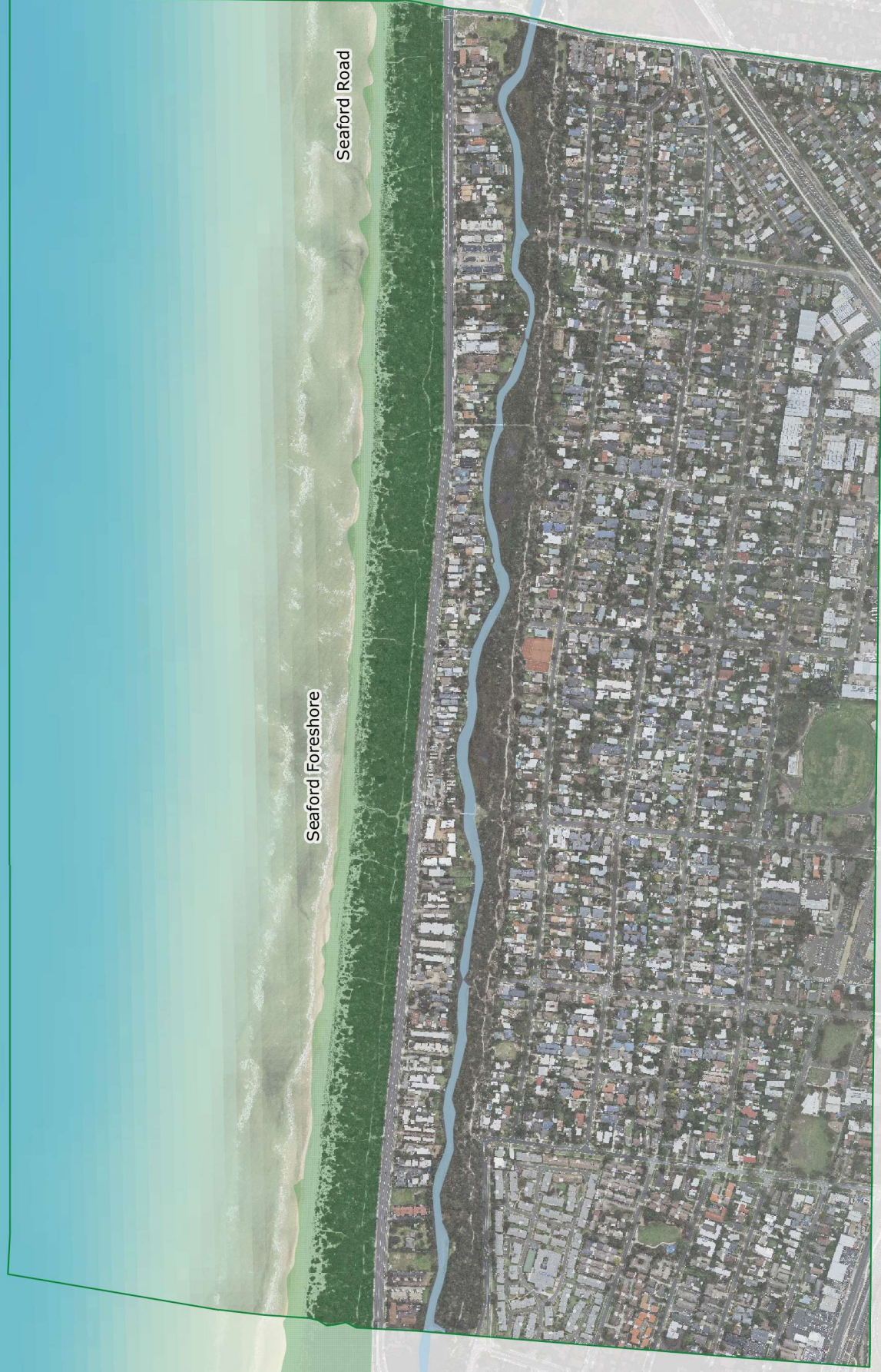
Frankston Pier

Frankston Waterfront

Kananook Creek

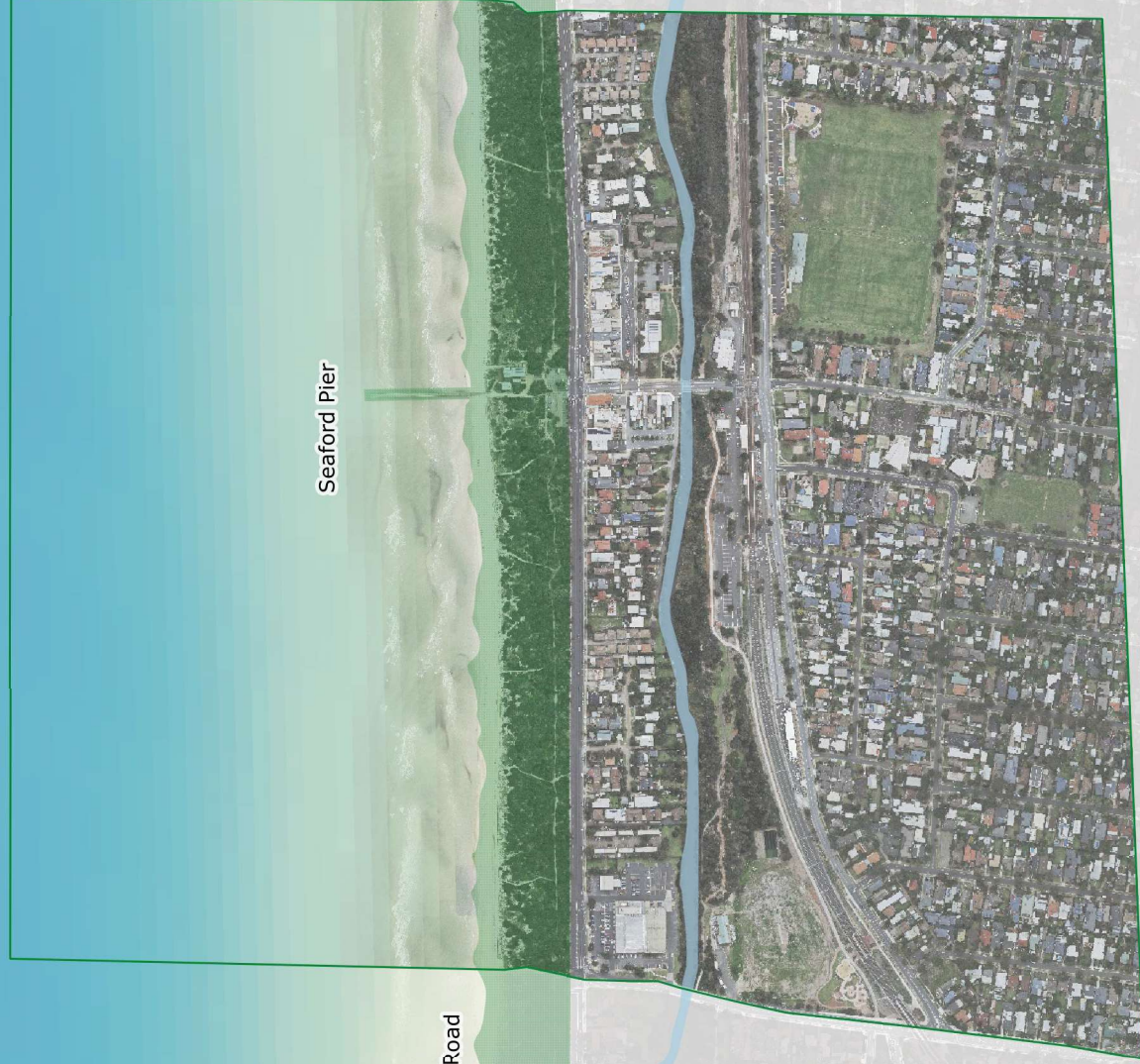
0 250 500 m

Seaford Foreshore



0 250 500 m

Seaford Pier

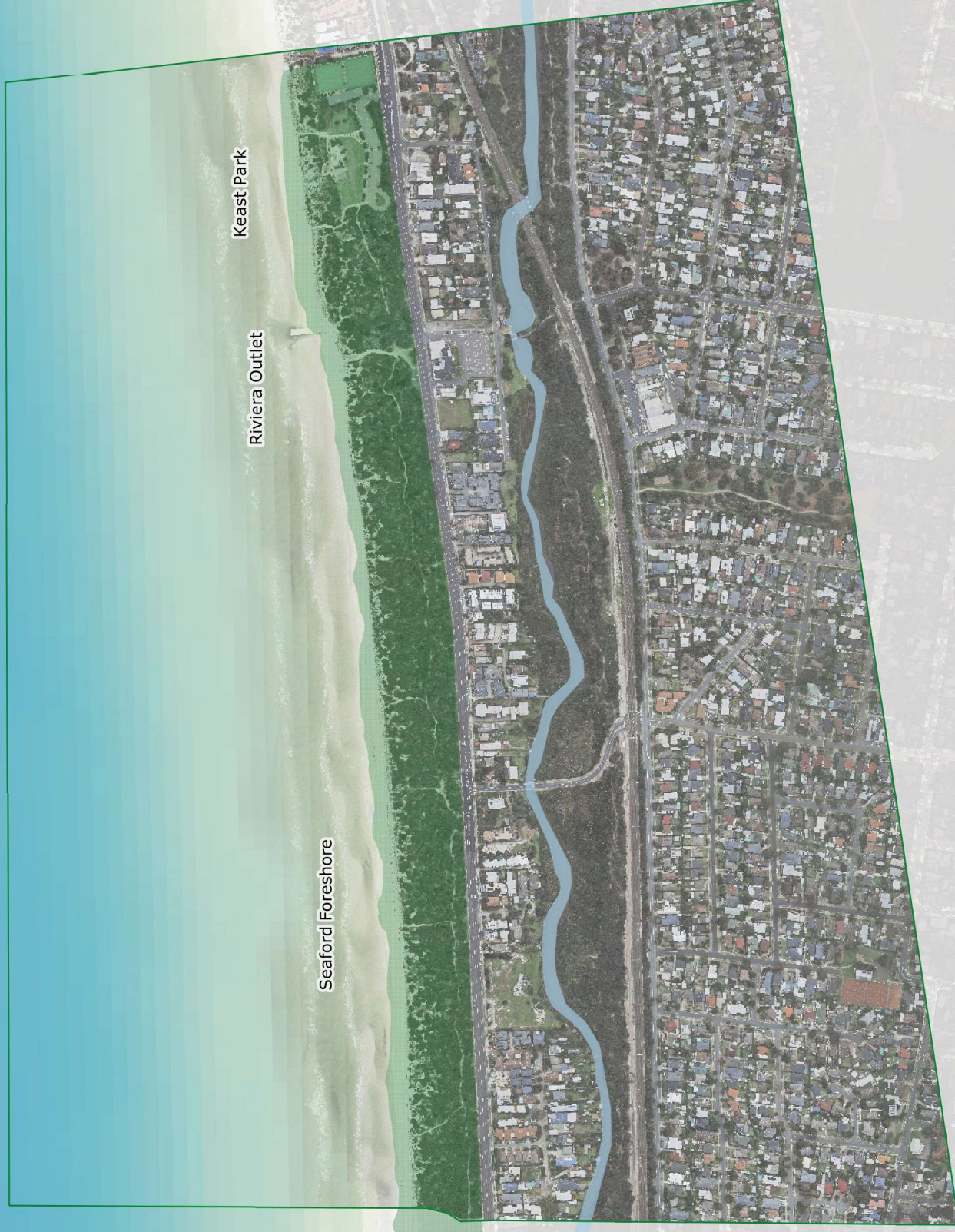


Seaford Foreshore

Seaford Road

0 250 500 m

Keast Park



0 250 500 m





APPENDIX B PRECINCT-BASED VIO MATRICES (EXCERPT FROM POST-CONSULTATION REPORT)





B-1 Precinct 1 – Olivers Hill

PRECINCT 1 – OLIVERS HILL			VALUES			ISSUES			OPPORTUNITIES			123	
#	Theme	Sentiment	State agencies	Community	FAC	State agencies	Community	FAC	State agencies	Community	FAC	Total	
39	Access & Amenity	Public boat ramp - size, carparking, accessibility, all-weather access, not deep enough	1	-	1	2	-	1	2		1	8	
		Pedestrian walking - trails, linkages, connectivity to Sweetwater Creek, Davies Bay, past carpark, maintenance of trails	-	3	1	-		-	1	2	2	4	13
		Amenities / visual amenity - views, native vegetation, beautification, permanent coffee shops, outdoor seating	-	5	2	-	-	-	-	1	2	4	14
		Parking – peak periods, Nepean Hwy, emergency access	-	-	1	1	1	-	-	-	1	-	4
9	Recreation	Boating and fishing – access, boating day tourists, buoys for boat parking	2	-	1	-	-	-	-	-	-	3	
		Water sports - snorkelling, diving, swimming, SUP, etc. establishment of swimming area	-	3	2	-	-	-	-	-	-	1	6
6	Cultural considerations	Education opportunities – geology (magnetic sand, pink clay, basalt), marine, cultural significance of area, marine education centre	-	-	1	-	-	-	-	1	-	2	
		Traditional Owners - values, history	-	1	-	-	1	-	-	-	-	2	
		Coastal tours – for visitors and locals	-	-	-	-	-	-	-	-	1	-	1
		Natural heritage – bushland, flora, fauna, habitat			1								1
18	Safety	Conflicting water use – swimmers, vessels, no vessel zones, Swimming around boat ramp	-	-	-	2	-	-	1	-	-	3	
		Protection for boats, modified boat harbour protection, anti-harbour comments	-	-	-	1	5	1	1	-	-	8	
		Coastal structures - unsafe / unauthorised, vegetation maintenance / widen paths for safe access (bikes, snakes etc.)	-	-	-	-	-	-	1	1	-	1	1
		Cliff instability – restore vegetation	-	-	-	1	2	1	1	-	-	5	
8	Climate impacts	Climate hazard vulnerability - boat ramp	-	-	-	1	-	-	-	-	-	1	
		Sea level rise – hazard	-	-	-	1	-	-	-	-	-	1	
		Erosion – need for planting, caused by private access, promotion of artificial reefs, caused by private access, buffer for beach	-	1	-	-	3	1	1	-	-	6	
35	Environment	Water quality – clean water, contamination from Sweetwater Creek, pollutants, plastic, stormwater inflows, human health	-	1	1	1	5	2	-	-	3	13	
		Vegetation –restore native vegetation, remnant bushland, vandalism, more planting / vegetation maintenance, community group establishment for revegetation	-	-	-	1	2	-	1	-	5	9	
		Ecosystem health – habitat linkages / improvements (e.g., reinstate Sweetwater Creek estuary), conservation, reefs, creeks	-	2	-	-	-	-	-	1	2	-	5
		Fauna – marine life, habitat corridors, presence of fauna, nesting sites	-	1	1	-	-	-	-	-	-	2	
		Invasive species – woody weeds, introduced species, feral cats/foxes	-		-		-	-	-	-	-	0	
		Beach and sand bars, sand movement (protection against erosion)	-	5	-	-	-	1	-	-	-	6	
		Encroachments, concrete walls, erosion caused by private access	-	-	-	1	2	-	-	-	-	3	
		Land use – conflicting, confusion over management	-	-	-	-	-	1	-	-	-	1	
4	CMMP	Coordination with other jurisdictions for management of Davies Bay	-	-	-	-	-	-	1	-	-	1	



PRECINCT 1 – OLIVERS HILL		VALUES		ISSUES		OPPORTUNITIES		123
	Implementation – costs (e.g., walking trail around Olivers Hill, maintaining existing landscapes)	-	-	-	1	2	-	3

B-2 Precinct 2 – Frankston Waterfront

PRECINCT 2 – FRANKSTON WATERFRONT			VALUES			ISSUES			OPPORTUNITIES			175				
#	Theme	Sentiment	State agencies	Comm-unity	FAC	State agencies	Comm-unity	FAC	State agencies	Comm-unity	FAC	Total				
54	Access & Amenity	Dredging / boat ramp – access for sailing, restrict access to only non-powered shallow water craft, establish narrow approach lane on boat ramp to protect swimmers; improved dredging methods, reduce dredging, more holistic dredging solution required (e.g., sand pump) Pier / marina – improve boat access, harbour - for/against, floating / offshore harbour, pier extension Maintenance - pier maintenance (remove hooks, scales etc.), dog poo in public areas, litter on beach areas, vandalism, graffiti Pedestrian walking – path continuity, linkages to Creek, value walking, value red brick path, value boardwalk (low impact on vegetation), low impact recreation like walking Wheelchair accessibility – inclusive spaces, access to water Amenities / visual amenity, shade provision (not enough / too much), improve views through native landscaping, more / improve food vendors / fine dining, reinstall web cam, playground – more naturalised, pressure washing station needed, carparking – more at beach entrances, away from water motor-free zone along beach (quiet, safe), park and ride system Boating and fishing – boat hire, sailing access, boat safety, yacht, kayak, fishing, increase use of Kananook Creek, kayak trail (access, low carbon recreation) Water sports – scuba diving below pier, snorkelling, swimming, SUP	1	1	-	-	1	2	-	3	-	-	8			
			-	-	-	-	1	-	-	-	7	3		11		
			-	-	-	-	-	5	-	-	-	-			5	
			-	3	2	-	-	1	-	-	-	1				7
			-	-	-	-	-	1	-	-	1	-				
22	Recreation	Boating and fishing – boat hire, sailing access, boat safety, yacht, kayak, fishing, increase use of Kananook Creek, kayak trail (access, low carbon recreation) Water sports – scuba diving below pier, snorkelling, swimming, SUP	1	2	6	-	-	-	3	1	-	13				
			-	1	4	-	-	-	-	-	3	1	9			
25	Cultural considerations	Tourism – use of pier, sculpture trail, diving tourism, coastal tours, geology, festivals (valued, opportunity for more diverse), opportunity for cultural heritage promotion, educational signage Public event space - activity node, event opportunities, markets, more lawn areas / encourage picnics, friendly open areas, valued as is, more diverse festivals, McCombs Park – more festivals, planting, seating, BBQ	-	-	-	-	-	-	2	6	1	9				
			2	2	3	-	-	-	-	1	6	2	16			
11	Safety	Pier / marine safety - unsafe for jumping / diving, increase safety of diving through temporary / built structures, pier maintenance and safety, Dredging – unsafe depth / current created from dredging (safety of swimmers etc.) Conflicting water use – no vessel zone south of pier, no vessel zone, stronger jet ski regulations (noise / safety for swimmers), strong winds / unsafe weather	-	-	-	1	3	-	3	-	-	7				
			-	-	-	1	-	-	-	1	2	-	4			
4	Climate	Erosion – current issue, promotion of artificial reef, use of vegetation to manage	-	-	-	-	1	-	1	2	-	4				
52	Environment	Water quality – Kananook Creek water quality, dredging methods, siltation, contaminants / pollution/litter from roads, litter traps needed, upstream water quality Vegetation – increase cover, vegetation buffer / corridors, native coastal vegetation, dune protection through boardwalks, naturalise creek banks, high value remnant vegetation Marine environment – fish habitat, habitat protection, impacts of pier lighting, protect / value marine life, conservation, more artificial reefs further offshore, beach / sandbars	1	1	-	4	14	6	-	2	4	32				
			2	1	-	-	-	-	-	3	2	-	8			
			2	4	3	-	1	-	1	1	-	12				



PRECINCT 2 – FRANKSTON WATERFRONT					VALUES		ISSUES		OPPORTUNITIES			175
7	Planning & Development	Encroachments, prevent overscale development (e.g., SE Water Building), area between yacht / lifesaving clubs unsuitable for development, non-coastal dependant development unwanted				-	-	1	2	-	-	-
		Urban renewal – improve built form in commercial zone, McCombs Park renewal,				-	-	1	1	-	-	3
		Land use – management confusion along creek corridor, building height interrupts views				-	-	1	1	-	-	2
						-	-	1	1	-	-	2

B-3 Precinct 3 – Long Island

PRECINCT 3 – LONG ISLAND			VALUES			ISSUES			OPPORTUNITIES			98	
#	Theme	Sentiment	State agencies	Comm-unity	FAC	State agencies	Comm-unity	FAC	State agencies	Comm-unity	FAC	Total	
23	Access & Amenity	Water access – Increase beach access – through residential areas; Competing creek access expectations (community, residents)	-	-	-	1	1	-	-	3		5	
		Carparking - lack of, along highway, shuttle bus from Frankston Station to beach, improve carparking without impacts to habitat, purchase land for parking away from coastal fringe				1	2			4	1	8	
		Pedestrian / bike access – Creek trail - connections, extend under Milebridge, safety; Coastal boardwalk – extension, extension would encroach on vegetation, weatherproof bike path; beach access trails - consolidate	1	-	-	1	1	-	2	1	1		7
		Amenities – pumping stations not functional, dog bins / dog poo, vandalism of empty shops	-	-	-	-	3	-	-	-	-	-	3
5	Recreation	Boating and fishing – kayaking, promote fishing	-	-	1	-	-	-	1	-	-	2	
		Beach recreation – swimming, beach walking, quiet beach	-	-	3	-	-	-	-	-	-	-	3
7	Cultural	Atmosphere – sense of community, noise pollution, light pollution, boat sheds – create atmosphere, valued asset, visual amenity, issue, promote bathing boxes as tourist attraction	-	3	-	-	2	1	-	-	1	7	
9	Climate impacts	Climate hazard vulnerability – development pressure, exposure to climate change / hazards, coastal defence structures not visually appealing	-	-	-	-	2	1	-	-	-	3	
		Sea level rise – impact on beach boxes and houses, loss of beach and public space between residential property and sea – requires intervention	-	-	-	1	-	2	-	-	-	3	
		Erosion – erosion control, vegetation as erosion buffer	-	1	-	-	1	-	-	-	1	-	3
44	Environment	Environment – Foreshore / creek habitats - natural reserve, biodiversity, wildlife, birds, secondary dune system; Beaches – valued, clean beaches, plastic litter on beach / in water; Invasive species – marrum grass, cats, Indian mynas, impacts to native wildlife; fencing for reserve / wildlife protection	3	8	1	-	3	1	-	1	1		
		Vegetation management – Dunes - system / vegetation of value, fragile dunes, balance access with dune growth, revegetate dunes, informal trails through dunes from residences; Boat sheds / bathing boxes within primary sand dune system; Vandalism for views; Education – importance of coastal vegetation	2	2	-	2	7	1	2	-	2		18
		Water quality – General – wastewater, stormwater, pollutants, litter; Marine - clean water at Long Island Beach; Kananook Creek – silt, rubbish/pollution, improve to be able to swim in creek, odour, clean/visually appealing	-	2	-	1	3	-	-	2	-	8	
10	Planning & Development	Encroachments – development threatening vegetation / reserve, private properties encroaching into sand dunes, illegal protective structures (e.g., retaining walls); illegal creek encroachments (e.g., private jetties, boat ramps)	-	-	-	3	1	-	-	-	-	4	



PRECINCT 3 – LONG ISLAND		VALUES		ISSUES		OPPORTUNITIES		98
	Land use – Overdevelopment - reduce infill development, discourage residential development, non-coastal-dependent development (e.g., Long Island Tennis Club); Different land managers along waterway corridor; Utilities connections to bathing boxes; Stronger planning controls for greater safety / climate resilience	-	-	-	3	-	3	-
								6

B-4 Precinct 4 – Seaford Foreshore

PRECINCT 4 – SEAFORD FORESHORE			VALUES			ISSUES		OPPORTUNITIES			82		
#	Theme	Sentiment	State agencies	Comm-unity	FAC	State agencies	Comm-unity	FAC	State agencies	Comm-unity	FAC	Total	
17	Access & Amenity	Pedestrian / bike accessibility –consolidate tracks, improved access across highway (residents to beach), cycling route along highway, encourage walkability	-	-	-	-	-	-	1	3	1	5	
		Use of beach – valued as amenity, valued oceanic / sunset views; amenity issue when sand is discoloured after storm events; noise / light pollution	-	1	3	2	-	-	-	-	-	-	6
		Amenities / visual amenity –attractive natural beach	-	1	-	-	-	-	-	-	-	-	1
		Parking – public parking on highway, improved parking configuration, improved access between railway and beach, offsite parking	-	-	-	1	1	-	-	-	2	1	5
15	Recreation	Boating - passive watercraft - kayak/canoe, SUP, kite surfing	-	1	-	-	-	-	2	1	-	4	
		Water sports – swimming, snorkelling, diving	-	1	2	-	-	-	-	-	-	-	3
		Passive recreation – walking, running, use of trails through reserve, important recreation area for Melbourne residents, increase diving opportunities (artificial reef etc.), family-friendly	1	2	2	-	-	-	1	2	-	-	8
8	Cultural	Building character / heritage – financial value, cultural value	-	2	-	-	-	-	-	-	-	2	
		Tourism – increased pressure on coastline, promote as passive recreation destination	-	-	-	1	-	-	-	1	-	-	2
		Traditional Owners – promote Indigenous cultural heritage / significance, increase education	-	-	-	-	-	-	-	1	-	-	1
		Natural heritage – valued as natural / remote area	-	-	3	-	-	-	-	-	-	-	3
		Highway – parking on highway unsafe, more /safe pedestrian crossings needed, opportunity for more traffic lights, reduced speeds, lane closures etc.; dedicated cycle lane, parking bays	-	1	-	4	-	2	3	-	-	-	10
5	Climate Impacts	Conflicting water use – create no vessel zone to support safe swimming/diving/windsurfing, jet skis endangering swimmers (parking on beach, noise/light pollution)	-	-	-	-	2	-	-	1	-	3	
		Climate hazard vulnerability – cost of managing climate impacts; resilient housing, coastal areas; dune erosion, vegetation as buffer	-	-	-	-	-	2	-	-	3	-	5
19	Environment	Marine environment – marine life (e.g., dolphins); reef / artificial reef – enhance, protect from pressures; beach / sandbars – breakwaters would impact sand movement	-	1	-	-	2	-	-	2	-	5	
		Vegetation – valued native riparian vegetation, valued dune vegetation and intact dune system, vegetation protection required; support for revegetation community groups; increase revegetation between highway & pedestrian trial	3	-	-	1	-	-	-	-	-	1	5
		Water quality – Marine – runoff from creeks; valued waterways - litter in Kananook Creek, sewage overflow / wet-weather flows, stormwater impacts less in this precinct	-	2	-	2	1	-	-	-	1	-	6
		Biodiversity – avoid lighting in dune system for wildlife impacts; monitor flora / fauna via reporting, increase reserve	-	-	-	-	-	-	1	2	-	-	3
5	Planning & Development	Encroachments – illegal structures on creek (jetties, boat ramps etc. from residential properties)	-	-	-	1	-	-	-	-	-	1	



PRECINCT 4 – SEAFORD FORESHORE				VALUES		ISSUES		OPPORTUNITIES		82
		Land use – confusion over management of creek corridor		-	-	1	-	-	-	1
		Climate resilience – need for climate resilience of residential areas, coastal areas				1			2	3

B-5 Precinct 5 – Seaford Pier

PRECINCT 5 – SEAFORD PIER			VALUES			ISSUES			OPPORTUNITIES			106		
#	Theme	Sentiment	State agencies	Comm-unity	FAC	State agencies	Comm-unity	FAC	State agencies	Comm-unity	FAC	Total		
34	Access & Amenity	Amenity – valued site for recreational / commercial use, valued views, naturalised beach, suitable for children, valued amenities (buildings, picnic areas, pier etc.), opportunities for increased amenities (change rooms, solar showers, roof on seating areas); poor visual amenity of highway corridor	2	5	2	-	2	-	-	2	1	14		
			1	6	1	-	-	-	1	1	-			
			1	1	-	-	2	-	2	-	-		6	
			-	-	-	2	-	1	-	1	-		4	
9	Recreation	Activity node – create passive recreational node around pier, valued walking area	-	2	1	-	1	-	2	-	-	6		
9	Cultural	Water-based– marine swimmers group usage (e.g., 46 persons each day), create creek landings for fishing/non-powered watercraft use, supermarket access via canoe	-	1	-	-	-	-	2	-	-	3		
		Character – valued pier, valued foreshore architecture	2	2	-	-	-	-	-	-	-		4	
		Coastal culture – celebrate the beach as community	-	-	-	-	-	-	-	-	1		-	1
		Education – school education site visits, educational tours, signs for community education, marine observatory	-	-	-	-	-	-	-	-	4		-	4
6	Safety	Conflicting water use – no vessel zone around pier, low-noise zone, jet skis (noise / fuel pollution)	-	-	-	-	1	-	1	-	-	3		
5	Climate impacts	Unsafe use of pier – jumping/diving off pier safety issue	-	-	-	1	-	-	-	-	-	1		
		Safety of trail – safe for walkers / runners (indicated danger- crime, unsafe feeling)	-	-	-	-	2	-	-	-	-	2		
		Natural hazard vulnerability – flooding	-	-	-	-	1	-	-	-	-	1		
		Climate mitigation – ecosystem services from intact environment systems	1	-	-	-	-	-	-	-	1	-	2	
33	Environment	Erosion – valued vegetation buffer from dunes, beach erosion around pier	1	-	-	-	-	1	-	-	-	2		
		Marine life - valued marine life under piers / artificial reefs, promote / protect marine life, adverse impact of lighting		3				2			3		8	
		Dunes – valued dune systems, secondary dune system intact, protection, damage to dunes, erosion buffer valued	3	1	-	-	-	1	-	-	1	-	6	
		Biodiversity – presence valued, opportunity to increase / protect, adverse impact of lighting, adverse impact of pest species (feral foxes / cats, weeds etc.)	-	1	-	-	-	2	-	-	2	-	5	
		Water quality – stormwater pollution	-	-	-	-	2	-	-	-	-	2		



PRECINCT 5 – SEAFORD PIER		VALUES			ISSUES			OPPORTUNITIES			106
		3	4	1	-	2	-	-	2	-	12
10	Planning & Development	Vegetation – dune vegetation, increase reserve areas, weed management needed (road corridors), damage to vegetation, valued banksia woodland, valued tea-tree in foreshore									
		-	-	-	-	3	-	-	1	-	4
		-	-	-	-	6	-	-	-	-	6

B-6 Precinct 6 – Keast Park

PRECINCT SIX – KEAST PARK			VALUES			ISSUES			OPPORTUNITIES			57		
#	Theme	Sentiment	State agencies	Comm-unity	FAC	State agencies	Comm-unity	FAC	State agencies	Comm-unity	FAC	Total		
21	Access & Amenity	Amenity – poorly maintained, promote dog off lead area, naturalised / attractive beach, valued sense of isolation (naturalised) while still close to development, opportunity for more food vendors, more bins needed, amenity provision valued, opportunity for picnic areas at Riviera Outlet	1	-	4	1	-	-	1	-	3	10		
		Pedestrian / bike accessibility – formalise access tracks through dunes (to reduce impact on vegetation), create walkway to wetlands, natural trail valued, valued shared use of path	-	-	4	-	-	-	-	1	-		5	
		Beach access – windsurfing / kitesurfing access, conflicting use between people and dogs, improve management / maintenance	1	-	-	-	2	-	-	-	-		1	4
		Parking – increase formalised parking, more parking without encroaching on reserve	-	-	-	-	-	-	1	-	1		2	
		Activity node – running / walking valued on beach / trail, dog walking, family friendly atmosphere	-	-	3	-	-	-	-	-	1		4	
6	Recreation	Water-based – opportunity for SUP linkages across coast/creek, kayaking	-	-	-	-	-	-	1	-	1	2		
		Education – environmental education opportunities (flora, fauna, marine life, water quality, human impacts etc.)	-	-	-	-	-	-	-	2	-	2		
1	Safety	Snakes – signage	-	-	-	-	-	-	-	-	1	1		
5	Climate impacts	Natural hazard vulnerability – storm surge issues require property protection	-	-	-	1	-	-	-	-	-	1		
		Erosion – benefit of dune vegetation as buffer, damaged fences	1	-	-	-	1	1	-	-	-	2		
22	Environment	Sea level rise – benefit of dune vegetation as buffer, critical issue for area – requires property protection	1	-	-	1	-	-	-	-	-	2		
		Marine – sandbars, marine life under pier / sand (e.g., moon snails)	-	2	-	-	-	-	-	-	-	2		
		Dunes – protect from informal trails damage, highly valued	2	-	-	-	-	-	-	-	-	2		
		Ecosystem / connectivity – reserve valued, uninterrupted stretch of natural beach; connection between wetlands, creek, foreshore	1	3	3	-	-	-	-	-	1	8		
		Water quality – marine - stormwater outfall, issues after storm events; creek - improve creek quality, maintain Riviera Outlet pumps for creek flow	-	-	-	1	1	1	-	-	2	6		
		Vegetation – valued native riparian vegetation, coastal vegetation, revegetation, increased vegetation to screen highway from trail	2	-	-	-	-	-	-	-	2	4		



APPENDIX C COASTADAPT - CLIMATE IMPACTS IN FRANKSTON





Sea-level rise and future climate information for coastal councils

Frankston

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Frankston, Vic

Sea-level rise

Inundation maps

Temperature

Rainfall

Year 2050

Year 2100

Very high greenhouse gases



Satellite base map

Very high greenhouse gas scenario (RCP8.5 2050)

Low greenhouse gases



Satellite base map

Low greenhouse gas scenario (RCP4.5 2100)

Very high greenhouse gases



Satellite base map

Very high greenhouse gas scenario (RCP8.5 2100)



Topographic base map

Very high greenhouse gas scenario (RCP8.5 2050)



Topographic base map

Low greenhouse gas scenario (RCP4.5 2100)



Topographic base map

Very high greenhouse gas scenario (RCP8.5 2100)



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Sea-level rise and future climate information for coastal councils

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Frankston, Vic

Sea-level rise

Inundation maps

Temperature

Rainfall



Observed average
(1981-2010)



Low greenhouse gas
scenario (RCP4.5)



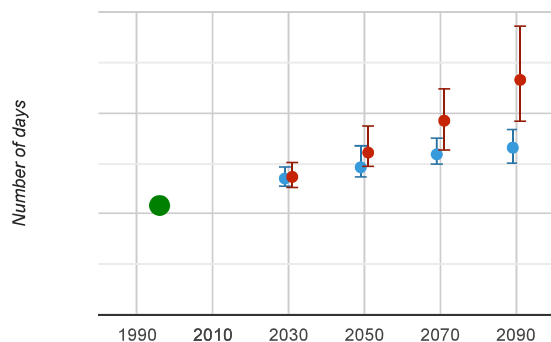
Very high greenhouse
gas scenario (RCP8.5)



Range between highest and
lowest model estimates

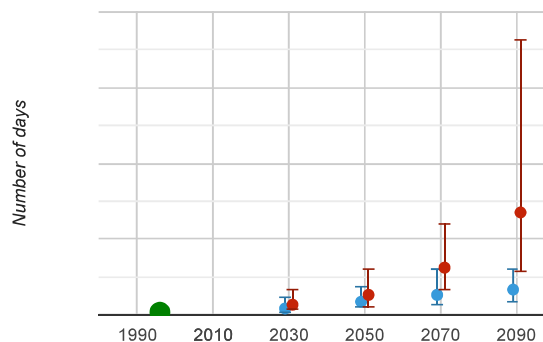
Hot days:

Mean annual number of days with maximum temperature greater than 30°C



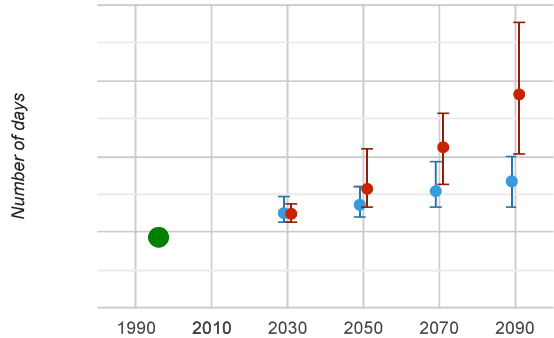
Warm nights:

Mean annual number of nights with minimum temperature greater than 25°C



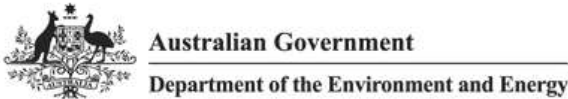
Heatwaves:

Average of longest run of days in each year with maximum temperature greater than 30°C



Want to know more about the present-day coast?
see **Frankston** in Shoreline Explorer

23 April 2017



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CoastAdapt

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Sea-level rise and future climate information for coastal councils

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Sea-level rise

Inundation maps

Temperature

Rainfall



Observed average
(1981-2010)



Low greenhouse gas
scenario (RCP4.5)



Very high greenhouse
gas scenario (RCP8.5)



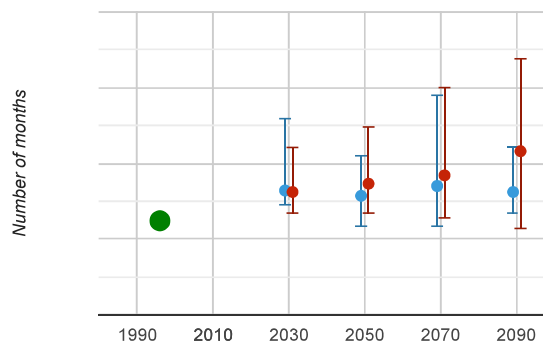
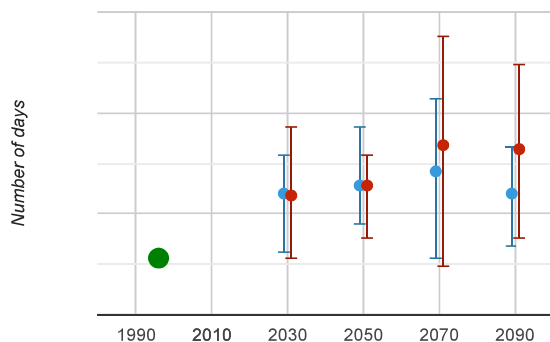
Range between highest and
lowest model estimates

Very wet days:

Mean annual number of days when rainfall exceeds the observed 99.9th percentile

Dry conditions:

Mean annual (May to Apr) number of months when total rainfall is less than the historic 10th percentile



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Sea-level rise and future climate information for coastal councils

Frankston

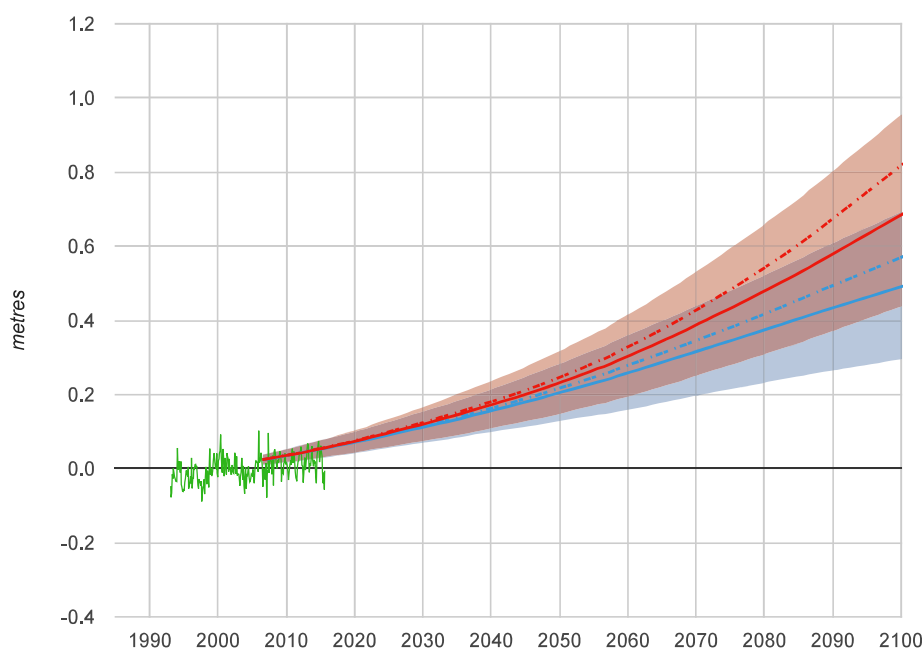
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Sea-level rise

[Inundation maps](#)[Temperature](#)[Rainfall](#)

Select greenhouse gas scenarios

[What are RCP scenarios?](#)Very low greenhouse gas
scenario (RCP2.6)Low greenhouse gas
scenario (RCP4.5)High greenhouse gas
scenario (RCP6.0)Very high greenhouse gas
scenario (RCP8.5) Observed data
(Satellite) Solid lines show median
sea-level rise relative to
an average from 1986 to
2005 Dashed lines show
allowances for each
scenario Shaded areas show the
likely range for each
scenario

Sea-level rise:

(relative to an average calculated between 1986 and 2005)

Date (unit)	Greenhouse gas scenario (RCP)			
	Very low (RCP2.6)	Low (RCP4.5)	High (RCP6.0)	Very high (RCP8.5)
2030 (m)	0.11 (0.07-0.16)	0.11 (0.07-0.16)	0.11 (0.06-0.15)	0.12 (0.08-0.17)
2050 (m)	0.20 (0.12-0.28)	0.21 (0.13-0.29)	0.20 (0.12-0.28)	0.24 (0.15-0.32)
2070 (m)	0.29 (0.17-0.40)	0.32 (0.20-0.44)	0.31 (0.19-0.43)	0.39 (0.25-0.54)
2090 (m)	0.37 (0.21-0.53)	0.44 (0.27-0.61)	0.44 (0.27-0.63)	0.58 (0.38-0.81)
Rate of change at 2100 (mm/yr)	4.0 (1.6-6.3)	5.8 (3.1-8.5)	6.9 (4.0-10.0)	10.4 (6.5-15.0)

See observed
satellite data only >

Allowances:

(relative to an average calculated between 1986 and 2005)

Date (unit)	Greenhouse gas scenario (RCP)			
	Very low (RCP2.6)	Low (RCP4.5)	High (RCP6.0)	Very high (RCP8.5)
2030 (m)	0.12	0.12	0.11	0.13
2050 (m)	0.21	0.22	0.21	0.25
2070 (m)	0.31	0.35	0.34	0.43
2090 (m)	0.42	0.50	0.51	0.68



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Australian Government
Department of the Environment and Energy

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