

Adapt West - Shaping our Shores Community and Social Values Study

Port Phillip Bay Western Shoreline Regional and Strategic Partnership





Acknowledgement of Bunurong and Wadawurrung Traditional Owners

We acknowledge and respect the Bunurong and Wadawurrung Traditional Owners as the original and ongoing custodians of the land and waters in the Adapt West study area. We pay tribute to their unique ability to care for Country and deep spiritual connection to it.

We honour Elders past and present whose knowledge and wisdom has ensured the continuation of culture and traditional practices.

We work with Wadawurrung Traditional Owners Aboriginal Corporation and Bunurong Land Council Aboriginal Corporation as partners in the Port Phillip Bay Regional and Strategic Partnership to deliver the Adapt West - Shaping our Shores project.

Acknowledgements

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Editor



Energy,
Environment
and Climate Action

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Photo credit

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Department
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1 Introduction

This section introduces the Adapt West – Shaping our Shores project, the Victoria's Resilient Coast – Adapting for 2100+ framework, and context for the Community and Social Values Study.

1.1 Project context

The Port Phillip Bay western shoreline is a unique part of the bay landscape with diverse marine and coastal values. These include Traditional Owner values and connection to Country along with internationally significant ecosystems such as Ramsar-listed wetlands, parks, reserves, and a marine sanctuary.

The area is also home to key facilities such as the Werribee agriculture precinct, Western Treatment Plant, oil refineries, Avalon Airport, and strategic national defence sites. It is one of the fastest growing populations in Victoria. The coastal zone provides essential social and community value for residents and visitors.

Coastal hazards currently impact the western shoreline. With a changing climate, the region faces some of the highest increases in flooding of residential and industrial land across Victoria's coast.



The Adapt West - Shaping our Shores (Adapt West) project is a coastal hazard adaptation project, overseen by the Port Phillip Bay Western Shoreline Regional and Strategic Partnership (RaSP). The project involves developing a Coastal Hazard Adaptation and Resilience Plan (CHARP). The project will follow the seven stages of the Victoria's Resilient Coast - Adapting for 2100+ (VRC) framework to develop a CHARP.

The Regional and Strategic Partnership

Regional and Strategic Partnerships (RaSPs) are a tool of the *Marine and Coastal Act 2018*, created to bring rightsholders and stakeholders together as partners to act on regionally significant issues. The Port Phillip Bay Western Shoreline RaSP has been established between ten partners. It provides a forum for partners to collaborate, share knowledge and strategically plan for the future.

The Port Phillip Bay Western Shoreline RaSP has been established to:

- respond to climate change and coastal hazard impacts on the marine and coastal values of the Port Phillip Bay western shoreline
- develop an overarching Coastal Hazard Adaptation and Resilience Plan (CHARP)
- strengthen relationships and partnerships amongst key rightsholders and stakeholders

RaSP partners have committed to working together to develop a CHARP. The CHARP will direct a coordinated response to coastal hazard impacts for the region that cuts across jurisdictional boundaries.



RaSP Partners at Werribee River. Credit: DEECA

Victoria's Resilient Coast – Adapting for 2100+

The VRC framework and guidelines (DEECA, 2023) outline a seven-stage process to coastal hazard risk management and adaptation planning (Figure 1).

Through the Adapt West project, the RaSP is working with the community through these stages (Table 1) to develop a CHARP. Embedded in all stages are:

- Traditional Owner knowledge, rights and assertions
- Partnerships and a collaborative process
- Engagement and communication

The initial scoping and preparation tasks associated with Stage 1 were completed throughout 2022-2024. This included establishment of the RaSP, project planning, and communication and engagement planning.

The purpose of Stage 2 is to develop an understanding of place-based values, aspirations and objectives for adaptation planning. This Community and Social Values Study forms part of the Stage 2 work.



Figure 1. The seven stages of the Victoria's Resilient Coast – Adapting for 2100+ framework

Table 1. Stages of the VRC framework.

VRC stage	Description	Status
1. Scoping and preparation	Provide a foundation for adaptation planning aligned to best practice guidance.	Complete
2. Value, vision and objectives	Ensure adaptation planning is underpinned by regional and place-based values.	Current Stage
3. Coastal hazard exposure	Assess coastal hazard exposure, including scenarios that enable best practice approaches to assessing current and emerging risk.	Future stage
4. Vulnerability and risk	Explore place-based coastal hazard vulnerability and risk, to enable strategic consideration of adaptation needs/priorities	Future stage
5. Adaptation actions and pathways	Identify, assess, consult on and decide which adaptation options and actions are the most appropriate for managing the current and future coastal hazard risks in the study area.	Future stage
6. Plan and implement	Confirm the plan of action for coastal hazard risk management and adaptation and commence implementation.	Future stage
7. Ongoing monitoring and review	Ensure coastal hazard risk management and adaptation is accompanied by ongoing monitoring and evaluation process that enables effective implementation, learnings and improvement.	Future stage

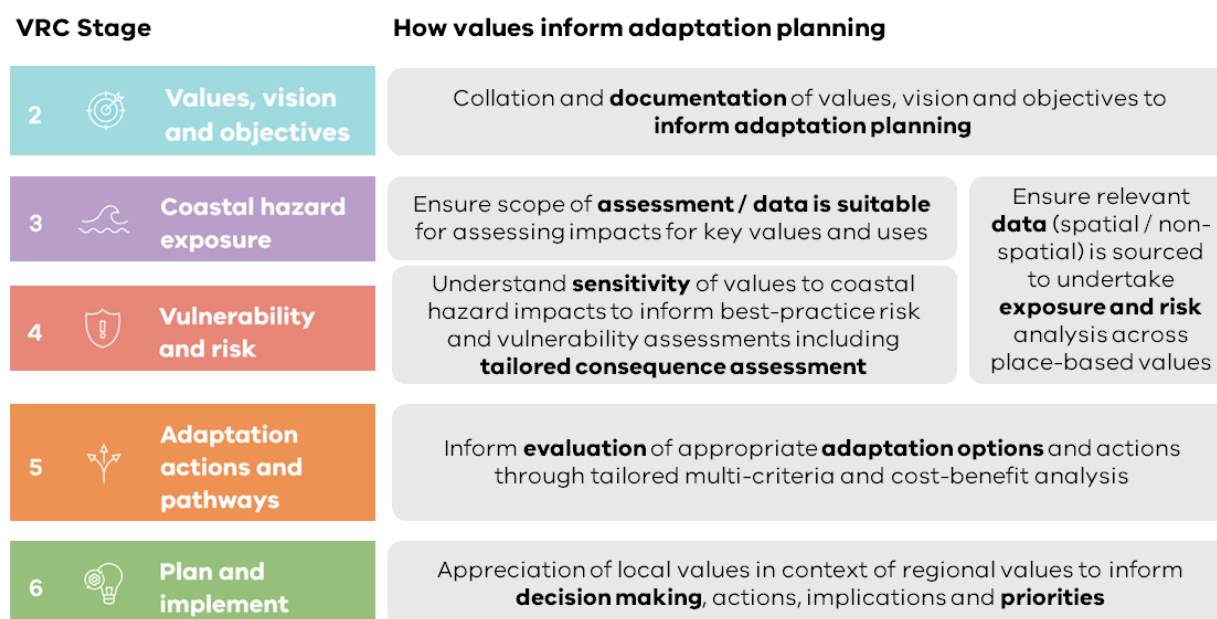
1.2 Stage 2 of the VRC framework

The purpose of this stage is to ensure coastal hazard risk management and adaptation planning is underpinned by place-based values and a shared vision and objectives. This includes building and documenting a shared understanding of the values, experiences and relationships that the Adapt West communities have with their coastal areas.

Values appreciation forms the foundation of objectives for future management, consequence of coastal hazard impacts, approaches for mitigating risk, and decisions made on adaptation and resilience planning. It informs technical and strategic work at various stages of CHARP development:

This study recognises Traditional Owner cultural values and connection to Country.

Detailed **cultural values assessments are being undertaken for Bunurong and Wadawurrung Country** along the Port Phillip Bay western shoreline as part of the Adapt West project. These assessments will be completed by the RaSP in later stages of the adaptation planning process.



Through the Adapt West project, the RaSP is undertaking several values studies to develop a deeper understanding of the values and aspirations for the region and how these may influence a vision and objectives for adaptation. These include:



Ecological Values Assessment

Developed by EcoFutures and Alluvium



Community and Social Values study

This document, developed by Alluvium



Cultural values studies

In collaboration with Bunurong and Wadawurrung Traditional Owners



Economic studies

Including a 'base case' of economic impacts resulting from coastal hazards

Each of these values studies will inform the vision and adaptation objectives for the region as part of Stage 2. This will be summarised in a Stage 2 summary report.

This understanding will help drive an approach to adaptation planning that is holistic, robust, and tailored to our specific communities and environments. We will continue to gather and build upon this values knowledge throughout the project.



1.3 What do we mean by values?

Values represent individual and collective judgements about what is important and meaningful. Their basis and motivation can vary and may potentially derive from a person or community's worldview, an attachment to specific places or landscapes, or through a person's interactions with other people, objects or activities.

A coastal value exists when an aspect of the coast is significant (of value) to a person. This can be culturally, environmentally, socially or economically significance. It is important to note that this definition carries an assumption that values exist when in relation to people. The Marine and Coastal Policy (DEECA 2020) vision also asserts that marine and coastal ecosystems are valued in their own right.

Our vision is 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.

Marine and Coastal Policy 2020

In the coastal environment, social and community values can be wide-ranging, from physical features or assets to services and activities that occur within the coastal landscape. Some values can also be hard to articulate, such as those of a sensory nature or those that evoke certain thoughts, feelings or inspiration. There are also many views and values held across a community, with the potential that some individual values may be in conflict. Hearing from a diverse collection of people and perspectives is an important part of this project. Table 2 details some important definitions in relation to community and social values.

Table 2. Definitions in relation to community and social values

Term	Definition
Community	<p>A group of individuals who share a common sense of belonging and where there is a level of trust between members. A community can be based on:</p> <ul style="list-style-type: none">• Geography – based on where people live, such as neighbourhood, town or region• Interest – based around common interests such as conservation, community connection and improvement or recreation interest• Identity – based on sharing a common identity such as age, culture or lifestyle <p>The Adapt West community encompasses everyone who lives, works, visits and cares for the region.</p>
Community engagement	<p>Refers to the planned and unplanned ways we (DEECA, RaSP partners and consultants) interact and relate to our partners, stakeholders and communities. Community engagement is undertaken across many aspects of the project and to achieve a range of outcomes. These include capturing values and aspirations; participation in decisions, actions or outcomes; building and maintaining relationships; and increasing community capacity for planning, action and learning.</p>
Values (community and social values)	<p>For this Community and Social Values Study, a value is something that is important and meaningful to someone. A coastal value exists when an aspect of the coast is significant (of value) to a stakeholder. This can include cultural, environmental, social and/or economic aspects across the Adapt West region. These values encompass elements of holistic wellbeing for both current and future generations.</p>



Jawbone Flora and Fauna Reserve. Credit: Alluvium

This report focusses on the community and social values held across the Adapt West region. Whilst these values may include ecological, cultural or economic values, the focus of this study is documenting what is important and meaningful to the communities of the Adapt West region.

2 Approach

This section provides an overview of the study area extent and details on how information is being gathered and analysed to form an understanding of the coastal values of stakeholders and community for the project.

2.1 Study area

The project extent includes all marine and coastal areas that may be impacted by coastal hazards from now to 2100+, from Greenwich Reserve in Williamstown to Limeburners Bay/Hovells Creek Estuary north of Geelong (Figure 2). This study area covers Bunurong and Wadawurrung Country along with three local government areas.

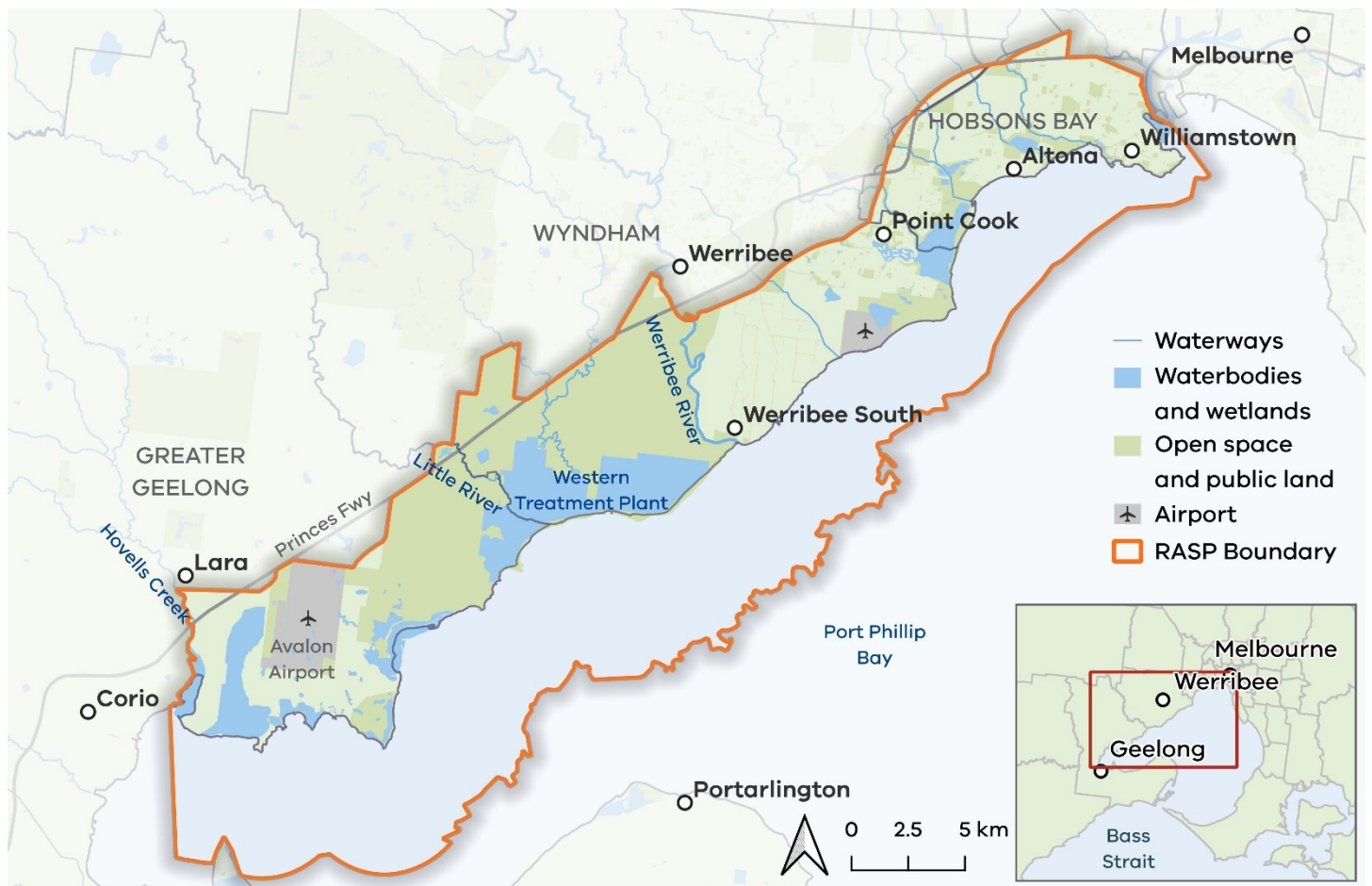
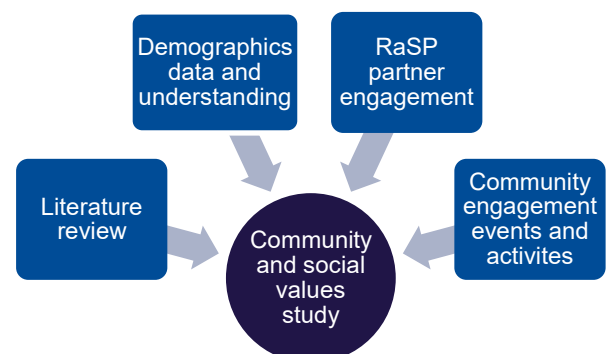


Figure 2. Adapt West (Port Phillip Bay Western Shoreline RaSP) project extent

2.2 Methodology

Our approach to understanding and documenting community and social values has included extensive literature review, analysing demographic data, RaSP partner engagement and a range of community engagement events and activities. This section describes the work that has informed this Community and Social Values Study. All engagement has been guided by a Collaborative Engagement Plan.

Further information about these activities is detailed in Appendices 1 to 3.



2.3 Literature review

Some community and social values have already been captured in various strategic documents, plans and previous engagement activities. These documents include those relating to:



A list of documents reviewed is provided in Appendix 1. Some of the community and social values derived from review of literature and previous engagement activities is provided in Appendix 2.

2.4 Demographics and population understanding

A range of census and statistical data is available for the region. Most of this data is sourced from the Australian Bureau of Statistics (ABS), .id (informed decisions)¹, Victoria in Future (DTP, 2023) and local Council documents. Demographic and census-based data is used in this report to provide an overview of the characteristics of the Adapt West region's resident population. Some statistics may vary based on the information source, date and recent events that may alter population projections (e.g. Covid-19 pandemic).

Data has been reported on at LGA, suburb and statistical area scales. This helps to provide an understanding of the variances in population demographics across the region. Given the statistics are aggregated to different scales, totals may vary. Best estimates have been given to represent the Adapt West resident population.

2.5 RaSP partner engagement

In scoping stages (Stage 1) and through Stage 2 of the VRC framework process, RaSP partners (Table 3) have participated in various meetings, site visits and workshops. Through these activities partners have contributed to the understanding and appreciation of:

- Key events, history and trends that have shaped the communities and social fabric of the region
- Documents, activities and information relating to community and social values
- Context of values in relation to the broader region, state, national and international setting
- Their own organisations' values and aspirations
- Other data or information that contributes to the understanding of coastal values and visioning

RaSP partners also contributed to development of the Collaborative Engagement Plan that guides communication and engagement through all stages of the project.

¹ <https://home.id.com.au/>

Table 3. Port Phillip Bay western shoreline RaSP partners

RaSP partner	Reason for selection
 Energy, Environment and Climate Action	Department of Energy, Environment and Climate Action (DEECA) Lead partner agency, asset and land manager and lead department for the <i>Victoria's Resilient Coast – Adapting to 2100+</i> program.
 ABORIGINAL CORPORATION	Bunurong Land Council Aboriginal Corporation (BLCAC) Registered Aboriginal Party representing Bunurong community and protecting cultural and heritage values for the Sea Country of eastern Port Phillip Bay, across west to the Werribee River.
 Aboriginal Corporation	Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC) Registered Aboriginal Party representing Wadawurrung community and protecting cultural and heritage values for Sea Country from the Werribee River to Limeburners Bay and beyond.
 HOBSONS BAY CITY COUNCIL	Hobsons Bay City Council (HBCC) Local Government authority and land manager for coastal areas from Spotswood to Altona Meadows.
 wyndhamcity city.coast.country	Wyndham City Council (WCC) Local Government authority and land manager for coastal areas from Sanctuary Lakes / Point Cook to Little River.
 CITY OF GREATER GEELONG	City of Greater Geelong (CoGG) Local Government authority and land manager for coastal areas from Little River to Limeburners Bay and beyond.
 CORANGAMITE CMA	Corangamite Catchment Management Authority (CCMA) Agency with responsibilities for catchment and floodplain management.
 Melbourne Water	Melbourne Water (MW) Agency with responsibilities for stormwater & wastewater infrastructure (including the Western Treatment Plant), inland waterways, catchment and floodplain planning, management and advice.
 PARKS VICTORIA	Parks Victoria (PV) Local manager for terrestrial and marine reserves and Local Ports Manager for Port Phillip Bay.
 Department of Transport and Planning	Department of Transport and Planning (DTP)* State government department responsible for key transport, planning, land, precinct and policy functions within a single department to create thriving places and connected communities

*DTP joined the RaSP as a partner in August 2024.



RaSP Partner engagement workshops and site visits. Credit: Alluvium and DEECA.

2.6 Community engagement events and activities

To further understand the interests, values and aspirations that the Adapt West community hold for their region and its coastal areas, a tailored engagement program was designed, in line with the Collaborative Engagement Plan.

Port Phillip Bay Western Shoreline Regional and Strategic Partnership – Collaborative engagement plan
June 2024



Collaborative Engagement Plan

A tailored engagement plan is guiding the engagement approach throughout the Adapt West project. This enables a strategic and planned approach to gathering insights and perspectives of the community and stakeholders in adaptation and resilience planning for the region.

The engagement plan identifies key project stages and highlights various opportunities for stakeholders and community to be involved throughout the project. To ensure consistency and clarity, it outlines the context, purpose, objectives and key messages for engagement. It also identifies key stakeholders and their interests and needs for engaging in the project. An action plan is used in preparing and delivering engagement activities and communications materials, helping to achieve desired and necessary outcomes for each stage of the project.

The plan is updated at the commencement of each stage to ensure engagement activities are evaluated and revised, based on feedback to date.

Stage 2 engagement and communication work has focussed on capturing and examining information on the array of interests, values and aspirations held by the region's communities, stakeholders and rightsholders. A community engagement program ran from July to August 2024 with activities and events including:



Engage Victoria webpage: The webpage provided key information on the Adapt West project. We saw **5,600 page views**.



Values and experience survey: A targeted survey to hear about the values and uses of the region's coastal areas, and experiences of coastal hazards. Over **230 people** contributed.



Interactive map: A mapping activity where people dropped pins to show the coastal places they enjoy visiting, what they do, why they love these areas and where they've experienced coastal hazards. People contributed **42 pins**.



Pop-up events: In-person information sessions at local markets in Tarneit, Werribee and Altona. We had over **150 people** stop by to learn about the project.

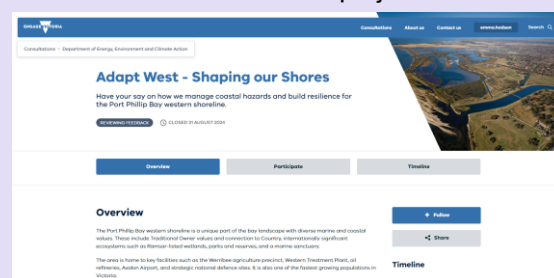
Further information on our approach to engaging is provided in Appendix 3.

Engagement sought to establish an appreciation of coastal values, uses and experiences, including the relationships that the Adapt West communities have with their coastal areas.

Engage Victoria

An Engage Victoria webpage was set up for the project with key project information and activities. Engagement activities were open for feedback across July and August 2024.

The page also provides project information, Frequently Asked Questions, updates and factsheets for the life of the project.



engage.vic.gov.au/adapt-west



Identifying regional values and aspirations

As detailed above, a series of interactive engagement activities and events have been undertaken throughout Stage 2 of the project (see Figure 3). Activities prompted RaSP partners, community members and other stakeholders to contribute their personal and organisation views, perspectives and experiences. This helped build an understanding of their values, their experiences with hazards, and their aspirations for the future of the Adapt West study area.



Figure 3. Interactive engagement activities and events undertaken during Stage 2 of the project.

Section 3 provides a background understanding of the Adapt West region. Community and social values are further explored in Section 4.



Altona Beach, looking towards Melbourne. Credit: Alluvium

3 Understanding the region

This section provides a contextual background for understanding the Adapt West region. It provides a snapshot of the region's communities, explores current population demographics and forecasted growth. This is followed by a summary of the environments, cultures, industries and history that have shaped the region's communities and coastal uses through time.

This background information helps us understand the events, history and trends that have shaped the coastline and social fabric of the region. This helps us to think about what is important to people in the long term and future aspirations the community may hold for coastal hazard adaptation.

Note: Various sources of demographic information have been reviewed and collated. This includes data from the latest national Census (2021), .id (informed decisions), Victoria in Future (DTP, 2023) and local Council documents. Each of these sources provides current and future projections for population and demographics that may differ slightly based on date of publication/census, differing modelling methods, and recent events driving population changes (e.g. Covid-19 pandemic, migration, etc.). We have generally used the .id data as the primary source. This data is presented for a finer resolution statistical area (SA1), is projected to 2041 (compared to 2036), is updated regularly, and is nationally consistent.

3.1 Communities of the Adapt West region

Spread across three local government areas and 16 suburbs, the Adapt West study area is home to over 220,000 people². Data from the latest national census (2021), .id (informed decisions)³ and local Council documents give a snapshot of the diverse communities found across the region. These areas are changing quickly as more and more people are attracted to the area. This section details key statistics and demographic mapping to better understand the current and future communities across this region.

Table 4. Key population statistics. Source: .id (informed decisions), December 2022.

Population measures	Hobsons Bay (range across LGA)	Wyndham (range across LGA)	Greater Geelong (range across LGA)	Victoria
2023 population estimate	93,002	325,290	289,272	6,547,822
Population density (people per km ²)	1,422 (965 – 3,350)	539 (6 – 3,548)	216 (4 – 3,049)	28.6
Household size (people per household)	2.5 (2.2 – 2.9)	3.1 (2.3 – 3.5)	2.4 (1.7 – 3.0)	2.5
Households with children (percentage)	43% (32 – 57%)	57% (32 – 72%)	38% (12 – 55%)	41.1%

Range across LGA indicates the lowest and highest values for statistical areas in each LGA. Large areas of Greater Geelong are outside the study area. .id data has been used as it provides population estimates to June 2023, rather than utilising 2021 census data.

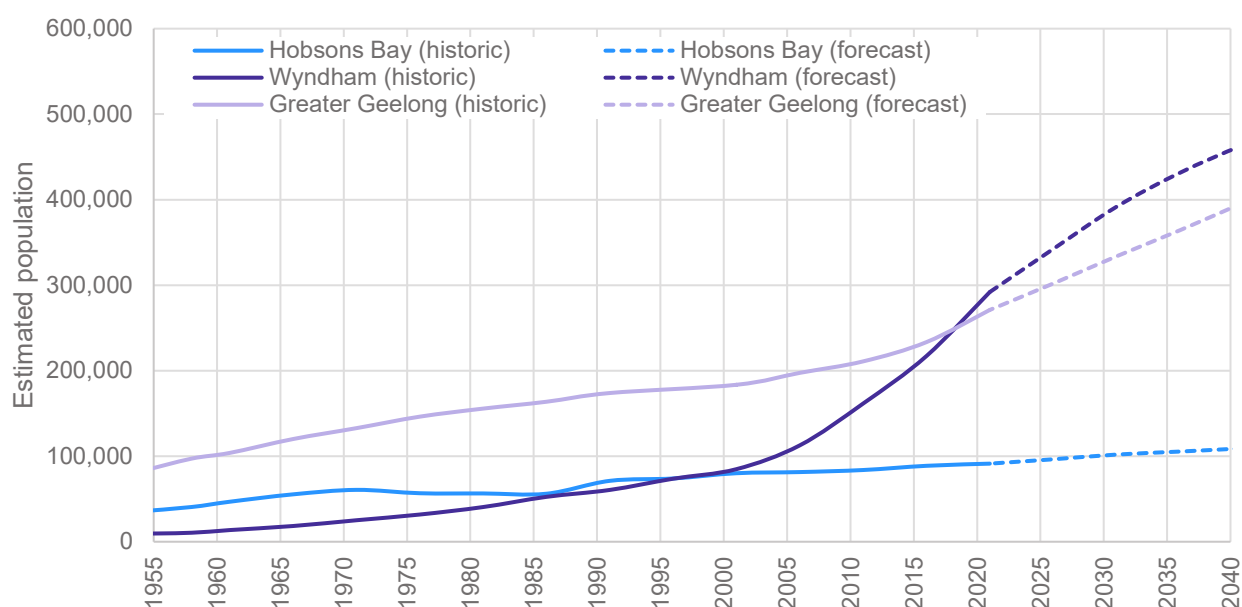
History of population growth

The Adapt West region has witnessed substantial population growth since European settlement in Williamstown, Wyndham, and Geelong in the 1830s. Over time, suburban areas along Port Phillip Bay, particularly those in close proximity to Melbourne, have seen significantly higher population densities compared to other coastal regions in Victoria.

Figure 4 shows population growth and forecasts from 1955 to 2040. Wyndham experienced notable expansion during the 1970s and 1980s, followed by accelerated growth in the 1990s and early 2000s. Areas like Point Cook and Werribee drove much of the region's population boom. Over the last decade, Wyndham's population has grown by more than 110,000, establishing it as one of Victoria's fastest-growing regions. This included major coastal developments such as Wyndham Harbour. The redevelopment of former industrial and surplus government land in the 1990s such as the Williamstown Junction and the Merrett Rifle Range in Hobsons Bay also contributed to increased residential density in the region.

² Approximation of 2021 ABS census population of 16 suburbs within Adapt West study area.

³ <https://home.id.com.au/>



Note: Prior to 1996, LGA data includes totals of amalgamated LGAs and may not include all areas within current LGA boundary. Best estimates of population are presented. Profile .id data provides projections to 2041 for all LGAs.

Figure 4. Estimated population growth and forecasts 1955 to 2040. Source: ABS and forecast.id projections.

Population density across the study area

Population density varies across the study area (Figure 5). Densely populated suburbs include Point Cook, Tarneit, Truganina, Werribee, Newport and Williamstown. As one of Victoria's first European settlement sites, the densely populated suburbs of Williamstown, Newport and Altona in Hobsons Bay have a long history of urban and industrial development in the coastal zone. Little River, Lara and Werribee South have relatively low population density, with Cocoroc and Point Wilson having very low populations.

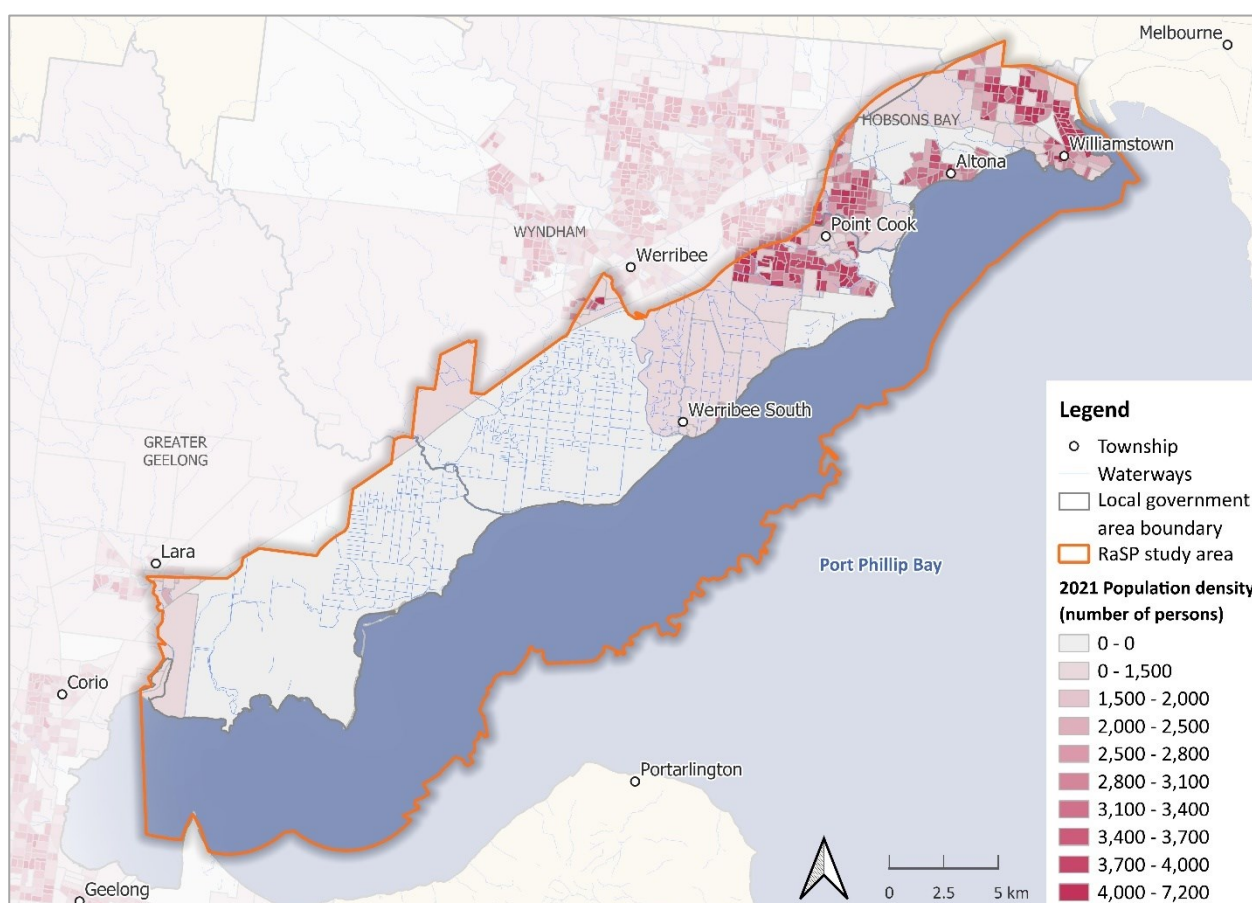


Figure 5. 2021 population density across the Adapt West study area (SA1 scale). Data source: profile.id.com.au.

Future population growth across the study area

The Adapt West region is poised for significant population growth, which presents both opportunities and challenges for coastal and marine management.

Wyndham is expected to experience population growth of over 40%, reaching over 460,000 residents by 2041. New residents continue to be attracted by its affordability and lifestyle opportunities, with rapid population growth occurring in Point Cook, Tarneit, Truganina and Wyndham Vale. New residential developments and employment precincts are anticipated to bring an additional 58,000 jobs to the region.

Hobsons Bay is expected to see around 17% population growth by 2041, necessitating careful planning to balance residential expansion with the preservation of heritage, environmental sustainability, and neighbourhood character. This will include further industrial land regeneration and expanding community open spaces.

Table 5. Population and household forecasts, 2021 to 2041. Source: .id (informed decisions), estimates dated from Jan 2023-Sep 2024.

Population measure	Hobsons Bay	Wyndham	Greater Geelong	Victoria
2023 population	93,002	325,290	289,272	6,547,822
2041 population	109,223	463,661	396,388	8,753,701
Change 2024-41	17.4%	42.5%	37.0%	33.7%

Urbanisation across the Adapt West region is pushing the growth boundary further to the south and west of Melbourne (Figure 6). These areas of population growth present both development opportunities and the need for careful planning to preserve the region's coastal and marine values and assets.

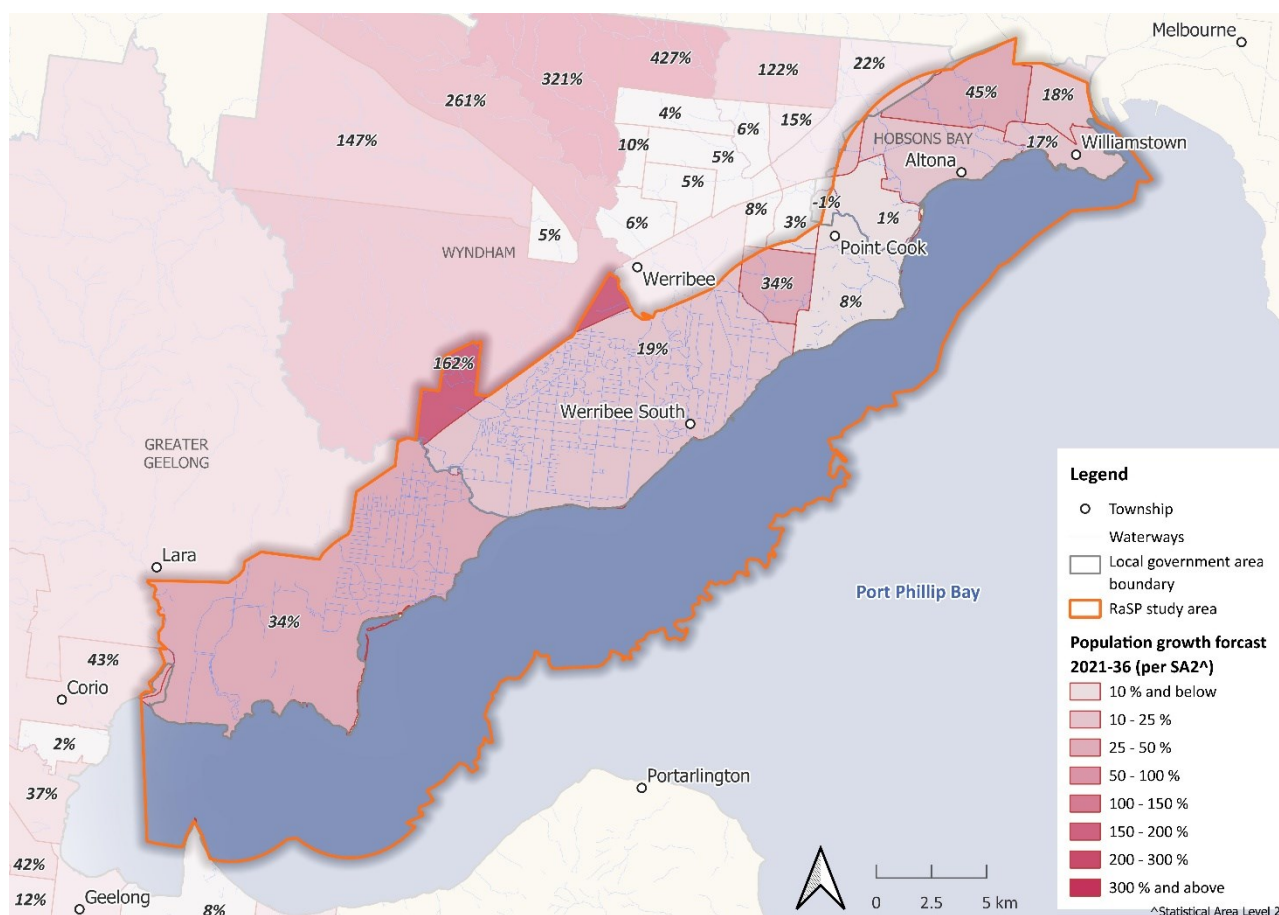


Figure 6. Population growth forecast from 2021 to 2036 (SA2 scale). Data source: Victoria in Future 2023 (DTP 2023).

Increased population places pressure on the health of Port Phillip Bay and surrounding waterways. There will be more people enjoying the bay and its coastlines, with more people boating, fishing and using bayside beaches. Urbanisation changes catchment hydrology (both surface and groundwater). It can result in more stormwater runoff, pollution, and litter generated throughout catchments entering the bay, degrading water quality and natural ecosystems.

The 2021 *Waterways of the West Action Plan* highlights the urgency of protecting vital creeks and rivers from the impacts of development, particularly vulnerable wetlands such as the RAAF swamp in Laverton and Wyndham Vale Swamp. As growth continues, balancing urban expansion with environmental stewardship and sustainable infrastructure will remain key priorities for the region.



Skeleton Creek, Cheetham Wetlands. Credit: Alluvium

Diversity of culture, language, ability, age and socio-economic status

The region is marked by a rich and diverse demographic landscape, reflecting a broad spectrum of cultural, linguistic, and socio-economic backgrounds. Communities across the region each contribute distinct attributes to the region's identity.

Diversity can be measured in a range of different metrics (Table 6). Compared to the rest of the State, areas in Wyndham Council see a large proportion of people born overseas and who speak a language other than English. Areas where more than 50% of residents were born overseas include Tarneit, Truganina, Point Cook, Williams Landing, Manor Lakes and Laverton (Figure 7).

The median age is younger than the State average in Wyndham, but higher in Hobsons Bay. The higher median age and higher percentage of people who need assistance due to disability in Hobsons Bay may be related. Home ownership is relatively low in Wyndham, signifying a high number of renters. Unoccupied dwellings is relatively low, signifying fewer second homes or holidays houses.



Laverton Creek Spit, Altona. Credit: Alluvium

Table 6. Key demographic statistics for different diversity measures at LGA scale. Source: profile.id.com.au

Diversity measure	Hobsons Bay (range across LGA)	Wyndham (range across LGA)	Greater Geelong (range across LGA)	Victoria
<i>Cultural and linguistic diversity</i>				
People who identify as Aboriginal and/or Torres Strait Islander (%)	0.7% (0.4 – 0.8%)	0.9% (0.2 – 1.9%)	1.3% (0.4 – 3.4%)	1.0%
People who were born overseas (%)	30.1% (20.5 – 50.9%)	48.0% (22.9 – 64.7%)	17.7% (10.1 – 35.7%)	30.0%
People who speak a language other than English at home (%)	27.1% (14.8 – 49.0%)	49.8% (17.3 – 73.7%)	34.1% (1.6 – 36.0%)	27.6%
People who are not fluent in English (%)	4.1% (1.4 – 8.8%)	5.8% (1.7 – 7.9%)	1.6% (0.0 – 7.1%)	4.4%
<i>Disability</i>				
People who need assistance due to disability (%)	6.4% (3.5 – 9.4%)	4.1% (1.4 – 9.6%)	6.5% (3.0 – 13.3%)	5.9%
<i>Age</i>				
Median age (years)	39 (32 – 45)	32 (28 – 47)	39 (27 – 62)	37
<i>Socio-economic status</i>				
Index of relative socioeconomic disadvantage (IRSD)*	1,021 (905 – 1,091)	1,006 (895 – 1,072)	1,007 (764 – 1,096)	1,010
Median household income (\$)	\$1,932 (\$1,579 - \$2,735)	\$2,015 (\$1,349 - \$2,527)	\$1,625 (\$902 - \$2,311)	\$1,802
People who own their own home (%)	32.8% (19.7 – 38.7%)	17.3% (2.9 – 44.7%)	33.1% (13.0 – 51.1%)	31.0%
Unoccupied dwellings (%)	8.0% (4.8 – 12.4%)	6.1% (2.5 – 9.5%)	10.2% (4.4 – 44.9%)	10.6%

*The IRSD is derived from attributes such as low income, low educational attainment, high unemployment, jobs in relatively unskilled occupations, overcrowded dwellings and households with jobless parents, as well as other variables that broadly reflect disadvantage. Low scores on the IRSD indicate relatively greater disadvantage.

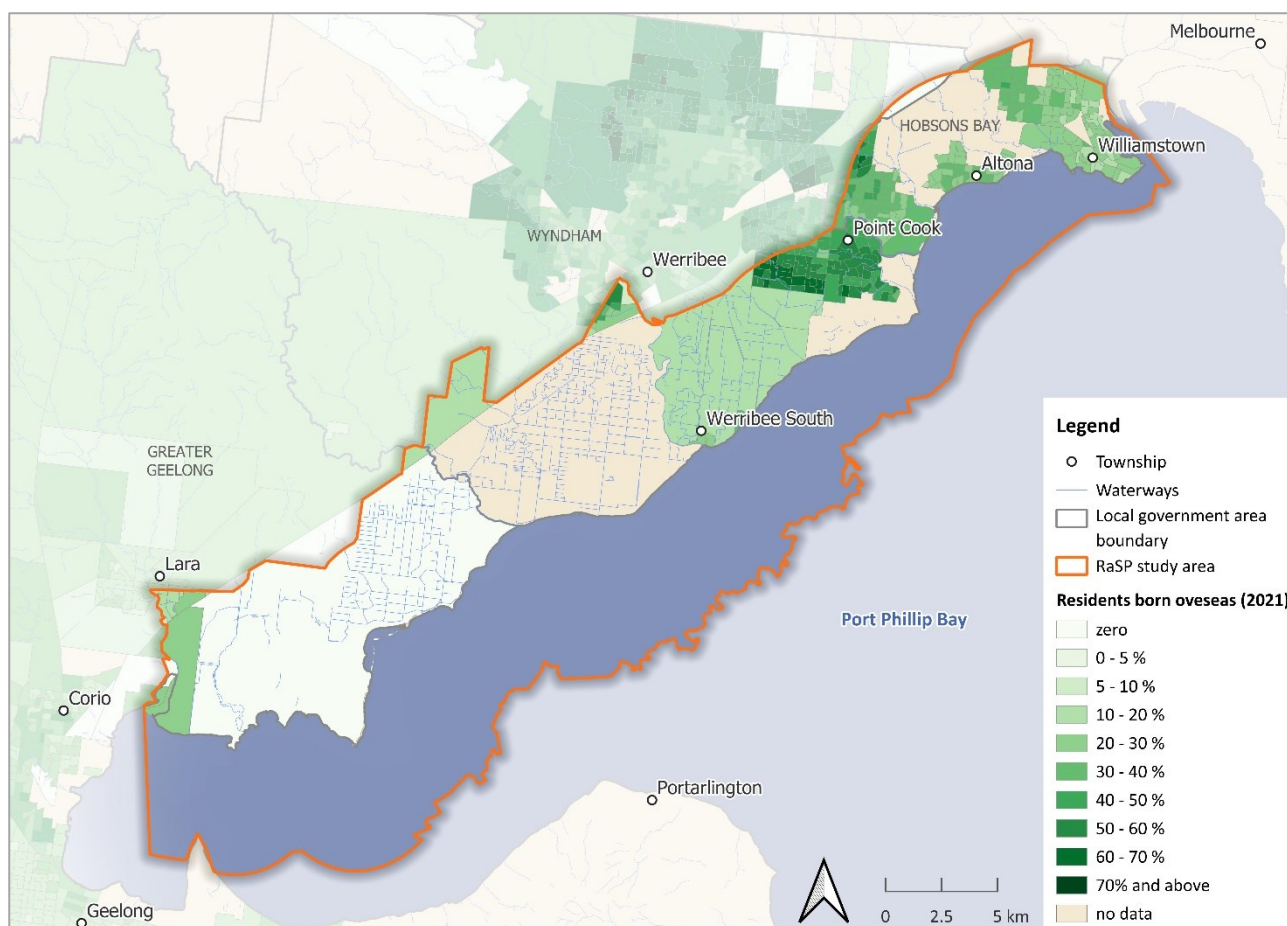


Figure 7. 2021 residents born overseas across the Adapt West study area (SA1 scale). Data source: profile.id.com.au.

Greater Melbourne Regional Climate Change Adaptation Strategy: Equitable climate adaptation



Climate change impacts are most strongly felt by people and groups already considered ‘at-risk’ for other reasons. Many of the actions to support at-risk people to adapt, will also contribute to a more equitable and sustainable society.

Across the Adapt West study area some groups of people are more at risk from the impacts of climate change than others. These groups may find it difficult to access or interpret timely and relevant information about what to do in extreme weather conditions like heat waves, bushfires or flash-flooding.

People more vulnerable to the impacts of climate change include those:

- Who are elderly, living alone and / or are socially isolated
- With chronic health issues or mental illness
- With disabilities
- Who are sleeping rough, live in poor quality social housing or have mortgage stress
- With low proficiency or literacy in English
- In transient communities such as international students and tourists
- That are homeless or experiencing another socio-economic disadvantage

3.2 Marine and coastal environments and ecosystems

The RaSP region contains unique and biodiverse marine and coastal ecosystems including:

- Significant rivers and waterway corridors, such as the Werribee River and Little River.
- Coastal landscapes and reserves, sandy beaches, reef systems and rockpools, as well as mangrove, mudflat, saltmarsh and seagrass ecosystems.
- Coastal wetlands of international significance within the Port Phillip (Western Shoreline) and Bellarine Peninsula Ramsar site.

These ecosystems provide habitat for coastal and marine fauna, including insects, birds, frogs, reptiles, crustaceans, fish and other marine life. Several of these species are listed as either vulnerable, endangered or critically endangered at either a national level (under the EPBC Act) and/or an international level (on the IUCN Red List). Many of these environments and ecosystems are found within protected marine sanctuaries or coastal reserves and parks (Figure 8).

Further information about the ecological values of the region will be included in a separate Ecological Values Assessment, currently under development by the RaSP.



Cheetham Wetlands. Credit: Alluvium

Ramsar site

The Port Phillip Bay section of the internationally recognised Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site is fully contained within the RaSP study area. The Ramsar site contains sections of the Avalon and Spit Coastal Reserves and the Western Treatment Plant, in addition to Cheetham Wetlands, Point Cook Coastal Park and Point Cooke Marine Sanctuary.

As a Ramsar site, this area contains wetlands of international importance for either being representative, rare, unique, or for conserving biological diversity. For example, Cheetham Wetlands are home to over two hundred species of birds at varying times of the year. The site as a whole provides habitat for several threatened species, including ten threatened species of bird, growling grass frog, and Australian grayling.

DEECA are currently undertaking a review of the Ramsar site boundaries. Management of the site is guided by a Ramsar Site Management Plan.



Coastal reserves and parks



Avalon Coastal Reserve.

Credit: Alluvium



Several coastal reserves and parks are found within the RaSP region, including Jawbone Flora and Fauna Reserve, Altona Coastal Park, Cherry Lake Reserve, Truganina Swamp and Explosives Reserve, Cheetham Wetlands, Point Cook Coastal Park, the Spit Coastal Reserve, and Avalon Coastal Reserve

Collectively, these reserves and parks contain important and diverse stretches of natural environments and ecosystems found within the region. For example, seven different ecological vegetation classes are contained within Point Cook Coastal Park and Cheetham Wetlands alone.

These reserves and parks provide important habitat that supports numerous fauna and their needs, including breeding, diversity and abundance of waterbirds, fish and other coastal and marine species.

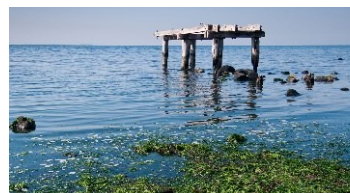
Notably, many threatened species are supported by these natural environments, including iconic species such as the orange bellied parrot, Australasian bittern, growling grass frog and Australian grayling.

Marine sanctuaries

There are two marine sanctuaries located within the RaSP region, Jawbone Marine Sanctuary and Point Cooke Marine Sanctuary, spanning 30 Ha and 292 Ha, respectively.

Jawbone Marine Sanctuary is significant as a scientific reference for marine flora and fauna of the region. The area was protected from urban development during its use as rifle range for 110 years prior to its establishment as a marine reserve, then later a marine sanctuary. It contains a community of mangroves and saltmarsh uniquely positioned among basalt boulders. This is one of the few mangrove stands in Port Phillip Bay and an important habitat for many species of seabirds and shorebirds. Its system of intertidal and subtidal basalt reefs, mudflats and seagrass beds support biodiverse communities of birds, fish, algae, and invertebrates.

Point Cooke Marine Sanctuary is the largest of Victoria's three marine sanctuaries. Sandy beaches, intertidal reefs and mudflats provide roosting and foraging habitat for many threatened migratory seabird and shorebird species. Its system of intertidal and subtidal basalt reefs support dense macroalgae, beds of Cunjevoi (sea squirts), and many species of fish and invertebrates, such as Tasmanian blenny, weedfish, anemone, and abalone.



Point Cooke Marine Sanctuary (top); Jawbone Marine Sanctuary (bottom)

Credit: Parks Victoria.

Waterways and integrated water management



Laverton Creek (top) Credit: Alluvium



Werribee River (bottom) Credit: DEECA

Several waterways and estuaries meet the coast in the Adapt West study area. These include from east to west: the mouth of the Yarra River, Kororoit Creek, Cherry Creek, Laverton Creek, Skeleton Creek, the Werribee River, Little River, and Hovells Creek at Limeburners Bay. The Adapt West study area mainly sits in the broader Werribee catchment. Waterways across the catchment are diverse, ranging from large rivers to small ephemeral creeks.

Integrated Water Management (IWM) is a holistic and collaborative approach to planning for and managing all elements of the water cycle. IWM considers how water, wastewater and stormwater management can contribute to water security, flood risk reduction, and public and environmental health. IWM supports a range of social and community values, including urban amenity.

Regional IWM forums bring together many organisations with a role in implementing IWM. These include many of the RaSP partners. Through IWM planning, partners aim to achieve several strategic outcomes. This includes securing water supply and wastewater systems, promoting urban cooling and greening, improving waterway and bay health, mitigating flood risk, and promoting agricultural productivity and prosperity.

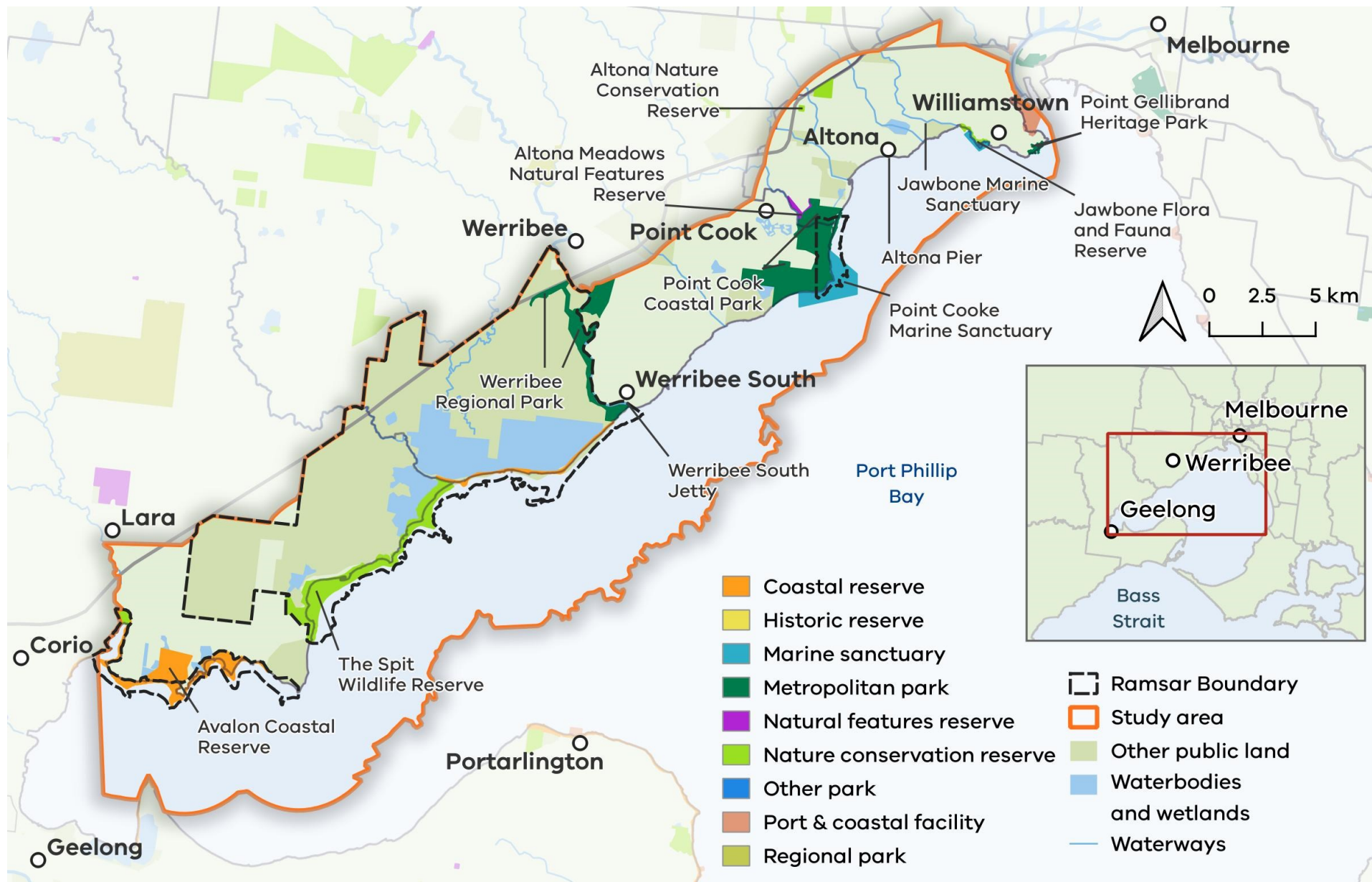


Figure 8. Reserves, parks and Ramsar areas of the Adapt West study area.

3.3 Cultural heritage and history

The RaSP region lies within the Traditional Lands of the Bunurong peoples and the Wadawurrung peoples of the Kulin Nation. Traditional Owners are represented by their respective Registered Aboriginal Parties (Figure 9). Bunurong and Wadawurrung peoples have lived on and cared for these lands as Traditional Owners of Country for at least 40,000 years, during which incredibly deep cultural connections have evolved alongside the landscape.

Colonisation has had an ongoing and significant impact on the health of Country and its Traditional Owners. Despite this, connections to Country and culture continue today and there are many instances of cultural values and heritage, both intangible and tangible, found across the Adapt West region.



Darnuk. Credit: Wadawurrung Traditional Owners Aboriginal Corporation

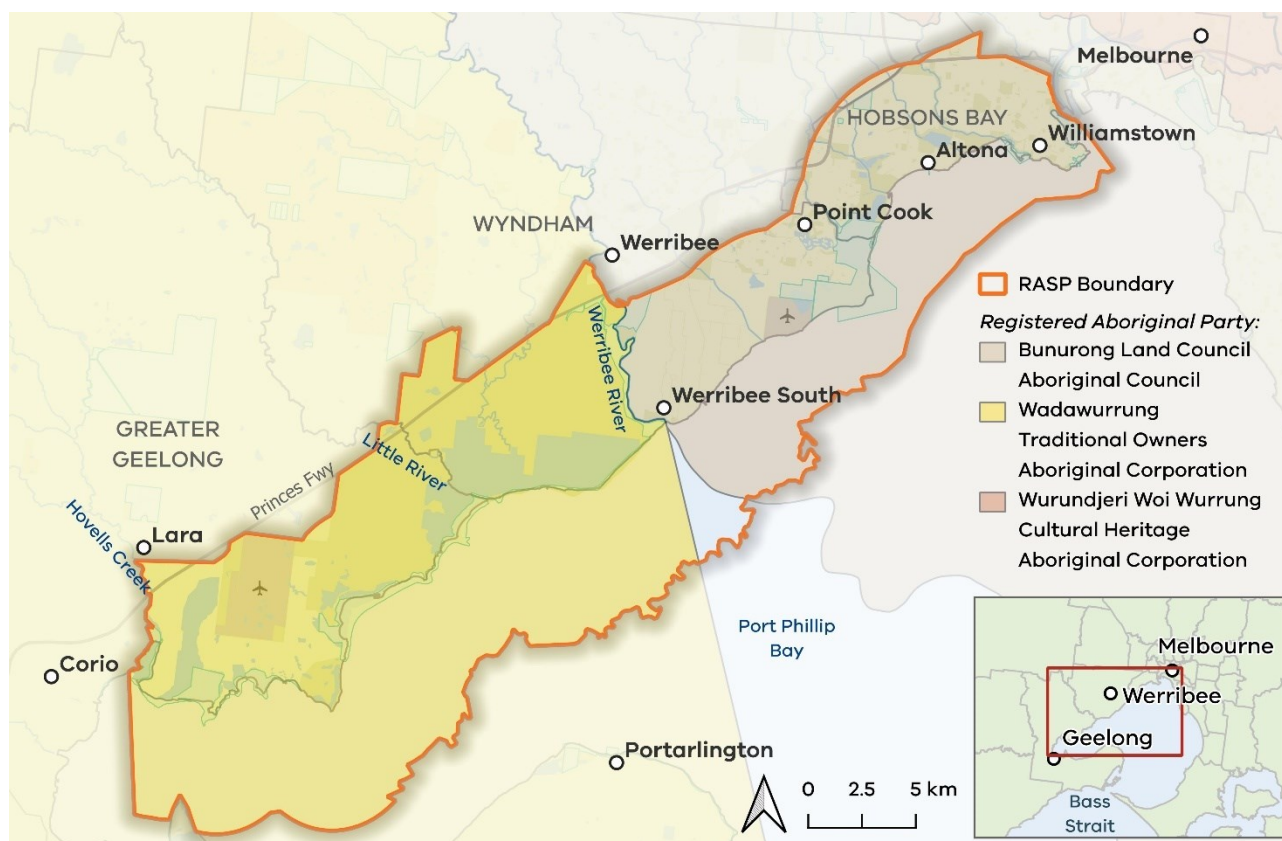


Figure 9. Registered Aboriginal Parties across the Adapt West region. Note: This map is currently defined by Registered Aboriginal Party (RAP) mapping. These areas may change as Treaty, Native Title and other land and water negotiations progress.

The flooding of Nairn (Port Phillip Bay)

Around 16,000 years ago, the area now known as Port Phillip Bay was a great expanse of grasslands known as Nairn (Narm/Naarm). Bunurong and Wadawurrung peoples' ancestors lived and cared for this Country until 8-10,000 year ago when it was flooded by the ocean. This time is referred to by Bunurong people as the Time of Chaos.

The story of this immense landscape change has been passed down through cultural storytelling practices across many generations. Since this time, the coastline and its surrounding Country have continued to be cared for by Wadawurrung and Bunurong Traditional Owners.

Further information about the cultural values of Bunurong and Wadawurrung peoples will be included in separate cultural values assessments, to be completed by the RaSP in collaboration with Traditional Owners in later stages of the adaptation planning process.

First nations cultural connections and heritage

Within the Adapt West region are many culturally important values and places for Bunurong and Wadawurrung peoples. Many of these are unacknowledged and/or undocumented. They include tangible heritage places of Aboriginal cultural significance such as middens, burials, ceremony places, tool making sites and scar trees. Also of significance are elements of intangible cultural heritage, including:

- the ongoing connection to Country,
- sight lines and views of the bay and sky from the coast that constitute important song lines,
- arts and education spaces, and
- storytelling and lore.

Each Traditional Owner group holds distinct stories and connection to Country and their own interpretations of cultural values and significance.



Werribee River and cliffs. Credit: DEECA

Further information about the cultural values of Bunurong and Wadawurrung peoples will be included in separate Cultural Values Assessments

Traditional Owner Country Plans

Paleert Tjaara Dja Let's make Country good together 2020 – 2030



The Wadawurrung Healthy Country Plan presents a collective vision and direction for the future for Wadawurrung people and Country:

*Wurrurrwilw a gupma bengadak Wadawurrung wurring-wurring baap dja.
All people working together to make Wadawurrung Country and Culture strong.*

The Plan illustrates what is threatening the health of Wadawurrung Country and people, and priority work areas to address these threats.

Wadawurrung coastal Country stretches from the Werribee River, to take in the Avalon Coastal reserve, Djilang (Geelong), the Bellawiyin (Bellarine) Peninsula and down along the Barwon River, to the Torquay and Airey's Inlet coastline. The coast holds great cultural significance for Wadawurrung People. However, with the increasing number of people who call Wadawurrung coast home and come to visit, there is more pressure on the coastal plants, animals and cultural sites.



Priorities for Wadawurrung Coastal Country centre around the goal that: *By 2029, native vegetation extent remains or increases, and cultural places are protected.* This includes increasing the extent of moonah, ironbark and heathlands, increased breeding numbers of shorebirds, and improved condition and Wadawurrung assessment of coastal cultural sites.

Wadawurrung Healthy Country Plan: [full plan](#) and [summary](#)

Bunurong Land Council Aboriginal Corporation



The Bunurong First Nations statement from the *Water is Life: Traditional Owner Access to Water Roadmap* (DELWP, 2022), states that Bunurong people heavily identify with being a saltwater people; this means that all the water flowing into the sea is connected within Bunurong cultural landscapes, places and Country.

The rivers, creeks, wetlands and floodplains in Bunurong Country provide a resource-rich region that has allowed people in the past and the present to survive. Water provides a connection for Bunurong people to Country, a spiritual connection to place with immeasurable mental health and wellbeing benefits.

The Bunurong Country Plan is currently under development. Bunurong Land Council Aboriginal Corporation lead cultural values assessments on Country, including Sea and Coast Country. Bunurong Coast Country stretches east from the Werribee River, around Port Phillip and Western Port Bays to the Inverloch region.

Bunurong Land Council Aboriginal Corporation [website](#)

Earliest European settlement within the Adapt West region began during the 1830's. Williamstown was Melbourne's first port settlement. Introduced industries, such as maritime, agriculture and manufacturing, developed from this time, aspects of which continue today. Important sites of cultural heritage from this period, such as shipwrecks and colonial-era buildings, help tell the history of this time of European contact, settlement and significant social change

European / colonial settlement and heritage



The Williamstown Timeball Tower (top); Werribee Park Mansion (bottom). Credit: Parks Victoria.

Sites of European settlement and heritage span the breadth of the Adapt West region. Key historic buildings associated with early European graziers include the Werribee Mansion built by the Chirnside family in 1877 and the Point Cook homestead built in 1857.

Maritime history has a strong presence in the region, with its beginning in Williamstown in the 1800s. Many ship wrecks can be found in the region, with many listed on the Victorian Heritage Register and frequented by scuba divers today. The Williamstown Timeball Tower at Point Gellibrand, originally a lighthouse, is one of only a few Timeball towers still found around the world.

Other historic industries established during European settlement whose sites can be visited include the Werribee Sewerage Farm (now the Western Treatment Plant) and the Cheetham Saltworks (now restored to coastal wetlands within the Cheetham wetlands and Point Cook Coastal Park).

These heritage sites provide tourist attractions for visitors to Melbourne.

3.4 Industry and economic drivers

The RaSP region has historically been home to industry that has provided key services and employment to the region and beyond, while contributing to the local and broader economy. This continues today with many facilities providing essential services to the region, greater Melbourne and even nationally. Many of these facilities are of economic, industrial and defence value. They also support community and social values through providing direct employment and enabling the local economy.

Some of these industries may be vulnerable to the impacts of coastal hazards and climate change, more broadly. It will be important to consider the impact (consequence) of coastal hazards on these key industries and consider vulnerabilities for the regional economy and employment.

Further information about industrial and economic values will be included in a separate economic assessment completed by the RaSP in later stages of the adaptation planning process.



The Victorian Planning Authority (VPA) is working with the City of Greater Geelong to prepare a Precinct Structure Plan (PSP) and Development Contributions Plan (DCP) for a new employment precinct in Avalon. The **Greater Avalon Employment Precinct** is a State significant employment precinct centred around Avalon Airport that will feature significant industrial and commercial opportunities.

The precinct is located within the Adapt West study area, approximately 20 km north-east of Geelong and 55 km south-west of the Melbourne CBD

The precinct will attract national, state and regional economic investment across the industries of manufacturing, freight and logistics. It will promote circular economy uses and be designed to facilitate a wide range of industries adaptive to future trends in employment. The precinct is identified in the Avalon Corridor Strategy and will use its proximity to the airport to establish an airport precinct that will feature significant industrial and commercial opportunities.

Current key industries are outlined below, with further information is provided in Figure 12 in Section 3.5.

Agriculture

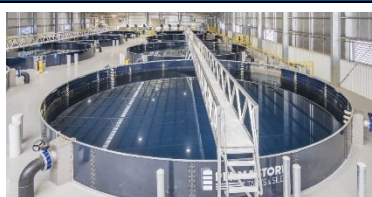
Loose soils washing down the Werribee River catchment provide a fertile environment. Prior to European colonisation, agricultural and aquacultural practices were an important social and economic base for organised community groups of Wadawurrung people. These practices have continued to build in the region over time. Market gardening began in the early 1900s. This was spurred on by the Closer Settlement Scheme and Soldier Settlement program that made farm land in Werribee South available.

Today, over 3,000 Ha of irrigated land is cultivated within the designated Green Wedge Zone of the Werribee South intensive agriculture precinct. The area is a significant local employer, thought to produce 10% of Victoria's vegetables, including the majority of the brassica and leafy green vegetables.



Vegetable farming in Werribee South. Credit: Mason Bros Vegetable Farms.

Aquaculture



Werribee barramundi aquaculture. Credit: Mainstream Aquaculture.

Aquaculture is a growing industry within and around the RaSP region. In 2003, commercial aquaculture began offshore of Geelong with the declaration of four Aquaculture Fisheries Reserves, primarily for production of mussels. Total mussel production for the Bay is currently around 900 tonnes per annum. In 2004 land-based operations of barramundi aquaculture began in Werribee. Further inland, abalone aquaculture development has occurred in Avalon.

Water treatment

Melbourne Water's Western Treatment Plant (WTP) treats about half of Melbourne's wastewater and produces recycled water used for irrigation. It also forms a large portion of the Ramsar site, due to the internationally significant habitat its permanent wetlands and lagoons provide for shorebirds and waterbirds. Construction of the WTP in its earliest iteration as the Werribee Sewerage Farm began in 1884, with first homes connected in 1897. Various upgrades have been carried out since. The historic township of Cocoroc was built to house workers at the farm, remaining inhabited until the 1970s. In recent years, erosion events have prompted stabilisation works and the proactive development of a Coastal Hazard Adaptation plan for the site.



Lake Borrie wetlands at WTP. Credit: Annette Kelly.

Energy production and freight



Mobil Altona Refinery. Credit: Star Weekly



Newport Power Station. Credit: Energy Australia

The Adapt West region has a history of energy production via refinement of crude oil to petroleum products, including petrol, diesel, and jet fuel. These fuels still play a major role in Australia's supply needs for transport fuels, meeting a large portion of the country's demand. The Mobil Altona oil refinery commenced operations in 1949, remaining a key contributor to the Victorian economy and fuel supply until its closure in 2021. Plans are underway to convert the Altona refinery to service fuel importation and storage needs. Following the closure of the refinery, the nearby Viva Energy Geelong refinery remains as one of only two oil refineries in operation nationally. Newport Power Station, owned by Energy Australia, is also within the study area. It uses natural gas to provide electricity, when demand is high.

State Government is currently exploring opportunities to expand Victoria's port capacity. Being in close proximity to Melbourne, and with good transport links that could support growth in container freight, the Adapt West region has been identified as a possible option. Such an expansion would lead to growth in local port and related industries.

Defence and aviation

The Adapt West region contains both commercial and defence aviation sites, as well as other strategic national defence areas. These include:

- Point Cook RAAF Base and RAAF Williams Base - these bases still provide a number of services to the Australian Defence Force, however, much of the airfields were decommissioned and developed into the residential suburb of Williams Landing.
- Avalon Airport - First opened in 1953 to service the construction of military aircraft and since 1992 has hosted the Australian International Airshow biennially. Commercial passenger flights out of Avalon Airport occurred briefly in 1995, resuming in 2004 following purchase by Linfox from the Commonwealth Government. The first international flights from Avalon Airport began in 2018 but ceased in 2020.
- Point Wilson Explosives Pier and Munitions Facility - constructed in 1961 for Commonwealth defence and commercial explosives, the pier and wharf were upgraded in 2023 to bolster national security. It remains the only Defence-owned facility for bulk explosive ordnance importation in Australia.



Avalon Airport. Credit: Novakreo



Point Cook RAAF Base. Credit: Wyndham TV

Tourism

Tourism within the region centres around two primary forms of attraction:

- ecotourism, commercial and recreational opportunities provided by its natural environments, and
- the history and experiences provided by its heritage buildings.

The coastline contains two main sandy beaches - Williamstown and Altona – that service much of the western suburbs and host Life Saving Club patrols. Many stretches of the coast offer boating facilities, with boat ramps at the Warmies (Newport), Altona, Werribee South, Kirk Point, and Avalon. Recreational fishing holds an estimated economic value of over \$420 million per year across all of Port Phillip Bay.

The coastal and marine parks and reserves attract tourists with ecological and recreational interests in bird watching, rock pooling, hiking, picnicking and diving. The large number of ship wrecks and marine reserves along the shoreline of the Adapt West region provide dive sites easily accessible from Melbourne.

Werribee Park and Mansion, which includes the Victoria State Rose Garden is the grandest example of heritage architecture and construction in the region and is a frequently visited tourist destination. Local tourist attractions also include Werribee Open Range Zoo, historic piers and maritime attractions, various museums, Scienceworks and botanic gardens.



Williamstown Beach. Credit: Hobsons Bay Council



Snorkelling at Jawbone Marine Sanctuary. Credit: Parks Victoria

Parks Victoria tourism and visitation

Parks Victoria capture visitor numbers and statistics for a range of parks within the Adapt West region (Parks Victoria, 2022; 2024a). In 2023 Over 150,000 vehicles were recorded visiting Point Cook Coastal Park (Parks Victoria, 2024b).

The top reasons for visiting Point Cook Coastal Park and Gem Pier are reported in Figure 10. The convenient location scoring as a top reason indicates many locals are visiting these parks and enjoy the easy access to natural areas.

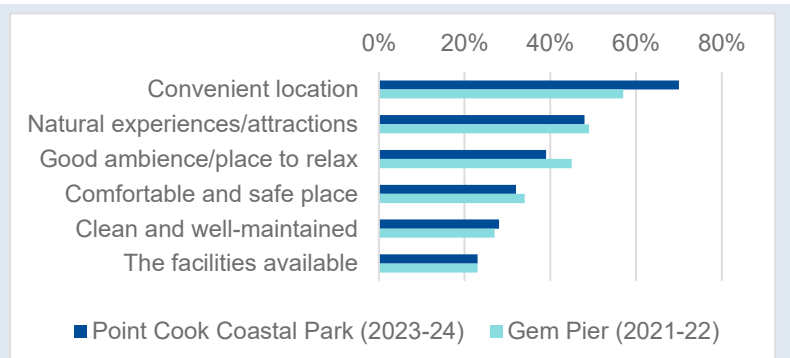


Figure 10. Top reasons for choosing parks. Source: Parks Victoria (2022) and Parks Victoria (2024a)

Healthcare and social assistance

Healthcare and social assistance is a top employer across the Adapt West region. For the City of Wyndham, which contains the Werribee Mercy Hospital, the industry makes up over 12% of all employment. For the City of Greater Geelong, which contains three major hospitals: Barwon Health, St John of God and Epworth, it makes up over 21%. For the Geelong municipality, the industry is also the most productive, generating \$2.6 billion in 2022/23 (profile.id, 2024).

The healthcare industry is also actively growing across the Adapt West region. This trend can be expected to continue, given the region's ageing and growing population. It is expected that the number of Victorians aged 60 years and over will increase by around 60% by 2046, making up a quarter of the Victorian population (Department of Health, 2023). Direct impacts of climate change on health are also expected to increase, further increasing demand for healthcare services. These impacts include morbidity and mortality associated with extreme events such as heatwaves, floods, drought and bushfires.



Werribee Mercy Hospital.
Credit: Victorian Health
Building Authority.

These industries are important for the local economy and also provide a source of income for residents. Table 7 provides an overview of the labour force and top five employment industries for residents across the suburbs of the Adapt West Region.

For residents of the region, healthcare, education and IT industries provide much of the employment, and are commonly ranked in the top five employment industries. Generally, there is a diversity of employment industries with only around 3-4% of residents employed in any one industry. Across Werribee South and Avalon, vegetation growing is an important industry, employing 8-10% of residents. Many other residents across the region are employed in supermarket, takeaway food service or agricultural industries.



Werribee South agricultural areas, beach, and Wyndham Harbour. Credit: Alluvium

Table 7. Key 2021 population statistics relating to labour force, employment industries and median weekly incomes (ABS, 2021).

Legend: Top employment sectors										
Healthcare				Food and/or agriculture			Banking		Other	
IT and computing				Education			Government administration			
Top employment industries (% of workforce)										
LGA	Suburbs	Population	Median age	% in the labour force	1st	2nd	3rd	4th	5th	Median weekly income
Hobsons Bay	Spotswood	2,820	37	73.3%	Hospitals (4.4%)	Primary education (2.8%)	Computer system design and related services (2.6%)	State government administration (2.4%)	Non-residential building construction (2.0%)	\$1,229
	Newport	13,658	38	72.0%	Hospitals (3.6%)	Computer system design and related services (2.9%)	Higher education (2.5%)	State government administration (2.4%)	Banking (2.3%)	\$1,241
	Williamstown	14,407	45	65.4%	Hospitals (3.8%)	Computer system design and related services (3.0%)	Primary education (2.6%)	Higher education (2.5%)	Secondary education (2.3%)	\$1,106
	Williamstown North	1,622	42	66.6%	Computer system design and related services (3.1%)	Hospitals (3.0%)	Higher education (2.4%)	Takeaway food services (2.2%)	Banking (2.2%)	\$963
	Altona North	12,962	37	56.3%	Hospitals (3.5%)	Computer system design and related services (2.5%)	Banking (2.0%)	Cafes and restaurants (2.0%)	Supermarket and grocery stores (2.0%)	\$753
	Seaholme	2,067	43	62.0%	Hospitals (3.4%)	Computer system design and related services (2.5%)	Higher education (2.5%)	Primary Education (2.3%)	Other social assistance services (2.3%)	\$935
	Altona	11,490	42	62.7%	Hospitals (3.4%)	Primary education (2.8%)	Computer system design and related services (2.7%)	Local government administration (2.1%)	Higher education (1.9%)	\$947
Wyndham	Altona Meadows	18,479	41	59.4%	Hospitals (3.3%)	Supermarket and grocery stores (2.6%)	Primary education (2.4%)	Road freight transport (2.2%)	Takeaway food services (1.9%)	\$730
	Seabrook	4,952	37	66.6%	Computer system design and related services (4.1%)	Hospitals (2.9%)	Supermarket and grocery stores (2.6%)	Banking (2.3%)	Road freight transport (2.0%)	\$823
	Point Cook	66,781	33	71.4%	Computer system design and related services (5.7%)	Banking (3.5%)	Hospitals (3.0%)	Supermarket and grocery stores (2.1%)	Takeaway food services (2.1%)	\$969
	Werribee	50,027	35	62.1%	Hospitals (2.9%)	Supermarket and grocery stores (2.1%)	Road freight transport (2.8%)	Aged care residential services (2.4%)	Takeaway food services (2.1%)	\$760
	Werribee South	2,392	45	60.2%	Vegetable growing (10.4%)	Hospitals (2.9%)	Local government administration (2.1%)	Supermarket and grocery stores (2.1%)	Secondary education (2.3%)	\$857
	Cocoroc	No information can be provided because the area selected had no people or a very low population in the 2021 Census.								
Greater Geelong	Point Wilson	No information can be provided because the area selected had no people or a very low population in the 2021 Census.								
	Avalon	255	41	57.1%	Vegetable growing (8.8%)	Takeaway food services (7.9%)	Other horse and dog racing activities (6.1%)	Other agriculture and fishing support services (5.3%)	Engineering design and engineering consulting services (4.4%)	\$511
	Lara	19,014	37	61.8%	Hospitals (3.9%)	Takeaway food services (3.3%)	Other social assistance services (3.1%)	Supermarket and grocery stores (2.5%)	Road freight transport (2.3%)	\$834

3.5 History of social change and experiences of coastal hazards

Social change

Like any community, the Adapt West region continues to be shaped by change. Figure 12 summarises some of the environmental, cultural, social and economic events that have shaped the region and its communities. Understanding this story of change across the region helps to frame the different historic influences on the social fabric of the study area. This context provides a basis to then understand future aspirations and priorities for the Adapt West communities.

With a growing population, newer residents of the region may not have a long or detailed understanding of this history of change. The 2021 census captures recent arrivals to Australia as those people that arrived between 2016 and 2021, and that intend to stay in Australia. Figure 11 displays this information across the Adapt West region. In some areas, recent arrivals account for around a third of all overseas-born people. This is evident across Wyndham, where 25% of people born overseas arrived between 2016 and 2021.

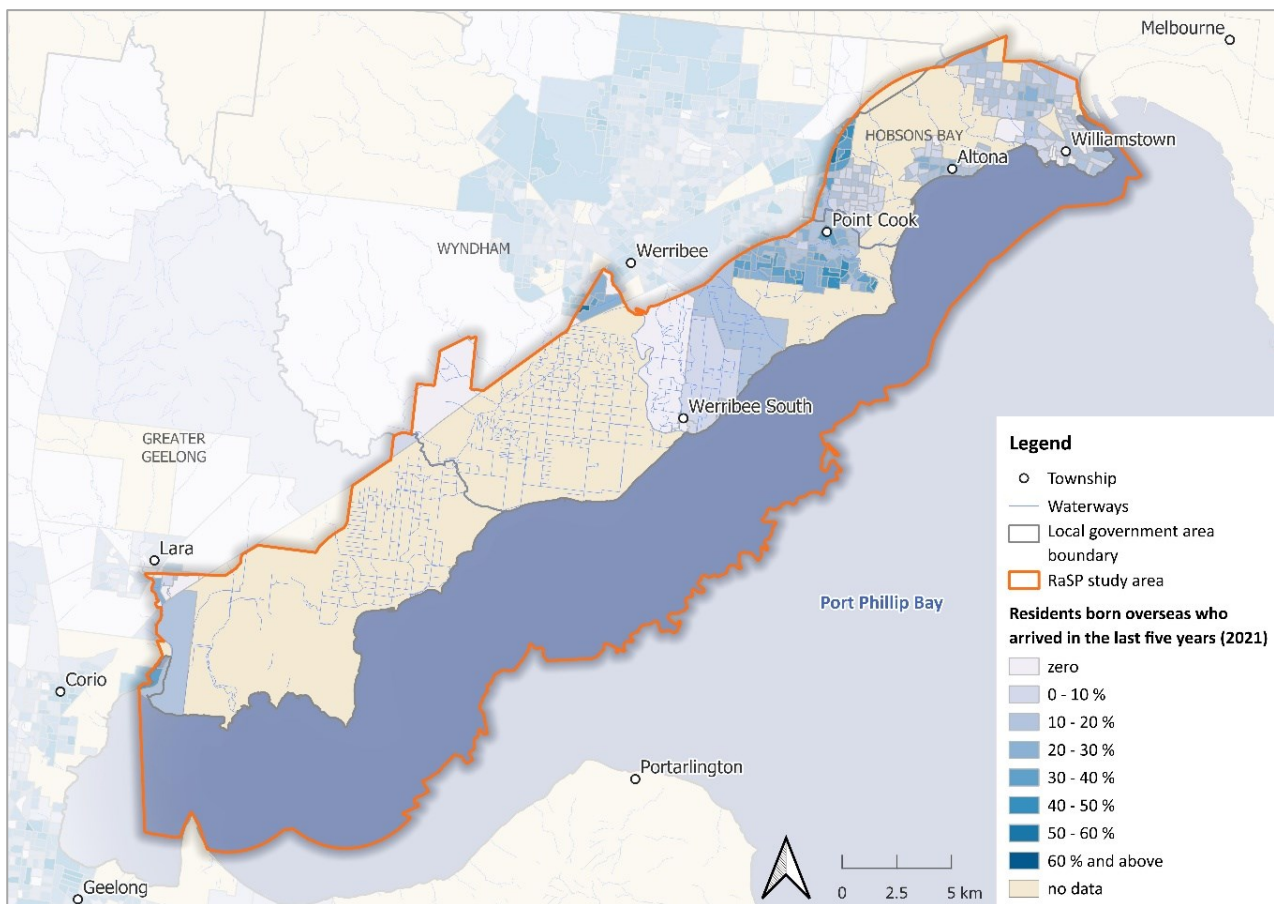


Figure 11. Percentage of residents born overseas who arrived in Australia within the last five years (from 2016 – 2021) (Data source: profile.id.com.au).

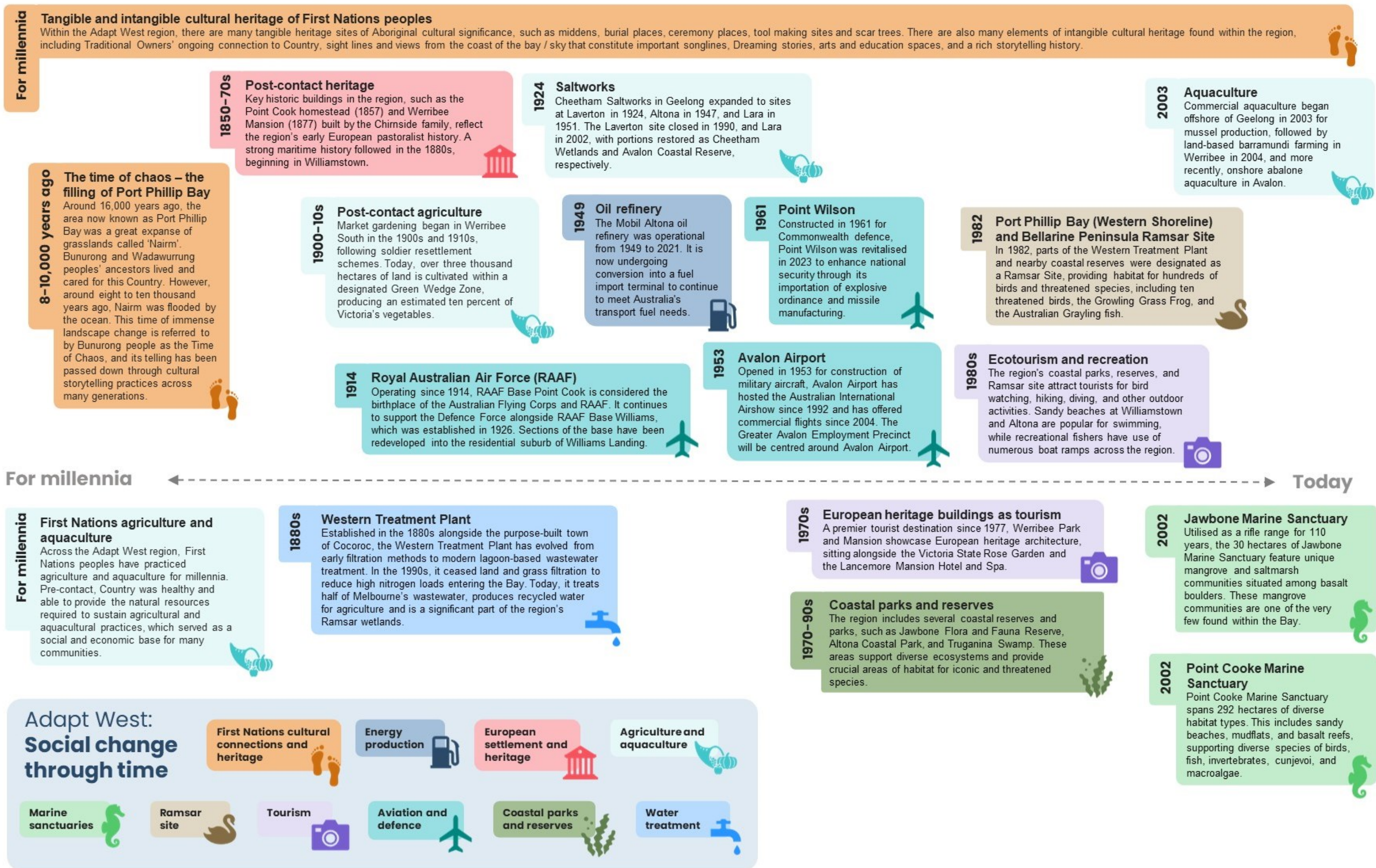


Figure 12. Summary of key aspects of change across the Adapt West region through time.

Experiences with coastal hazards

In addition to the large scale drivers of social change across the region, detailed above, the region has also experienced a range of coastal changes and hazard impacts, from the “Time of Chaos” flooding of Port Phillip Bay to more recent storm events. People’s experiences with coastal hazards influence their perceptions of these natural processes and their future aspirations for adapting to coastal changes.

News articles (Figure 13) detail the long history of flooding and erosion across the region including some of the impacts these events have had on communities.

SEA EROSION AT ALTONA

The erosion of the foreshore at Altona has been causing much concern for some time past and the Werribee Council has supported the foreshore committee in the members' efforts to check the encroachment of the storm waters. After much representation the Minister of Public Works (Mr. Merrifield) has informed Mr. J. Lemmon, M.L.A., that he has approved of the expenditure of £1900 for the prevention of further damage to the area concerned.

Williamstown Advertiser
16 October 1953

POINT GELLIBRAND EROSION.

Governmental Assistance Suggested.

The Premier says that something will have to be done to check erosion on the Bay frontages. A special Government grant is, therefore, a possibility. The shore line along the old battery road at Point Gellibrand has given way at several points and, where there are gaps in the retaining wall, big holes are now to be seen in the roadway. Application might be made for Government assistance to check this inroad. Perhaps the Vigilance Association will take up the matter, and urge action by the Council.

Williamstown Advertiser
19 January 1935

Links Clear After Inundation.

The recent storm and floods attended Altona with unusual severity, the links being almost completely inundated, only the higher ground on 1, 2, 3, and 4 holes being visible. The flooding, which was due to the phenomenal high tides banking up the waters in the creek, marooned several houses in Altona environs for several days. Fortunately the waters receded almost as quickly as they came, and no damage was caused; quite likely it will prove beneficial and ensure a good fairway growth for summer golf. On Saturday last play was possible on all but the 1st and 12th holes, where a fair quantity of water still remained, and although no competition was played several members enjoyed their usual round.

Williamstown Advertiser
15 December 1934

Williamstown Chronicle

EIGHTIETH YEAR OF PUBLICATION AND STILL THE BEST LOCAL PAPER!
Become a Subscriber to the Most Widely Read Paper in the District.

No. 4606 Printed and Published for the Proprietor by J. H. Dwyer, at the "Star" Press, 11, Victoria Street, Melbourne. Saturday, December 8, 1934. PER QUARTER (FORTH) SUBSCRIPTION 1/6. ONE PENNY

WILLIAMSTOWN SEA BATHS WRECKED BY SEVERE STORM

Beach and Foreshore Sandless—Only Rocks Remain

MANY FISHERMEN RUINED BY LOSS OF CRAFT

Friday, 30th November—Fishermen of this town will remember this date as a “Black Friday” because of the fact that their fishing craft—their sole means of living—were reduced to mere masses of splinters and twisted iron-work by the merciless storm which raged over Victoria last week-end, claiming the lives of two citizens of this town, Messrs Dowling and Newlands, who were drowned in the tragic foundering of the steamer, Coramba, presumably off Phillip Island.

The most serious loss—from a municipal point of view—was the almost total destruction of the baths on the Esplanade. About 5 o'clock on Friday afternoon the eastern portion of the baths collapsed under the continual pounding of the heavy seas, wreckage rapidly being washed up on to the beach. The caretaker (Mr. Pidoto) quickly salvaged what furniture and stock he could. The loss will be a crippling one to the bathing company.

CLUB HOUSE A TOTAL WRECK TREES UPROOTED

The old life-saving club house was lifted from its foundations as if it was a bit of paper, and completely wrecked. Residents residing along the Esplanade had cause for alarm when the sea waters encroached over roadway at the foot of Victoria-street and even got as far as the houses. The new life-saving club building at present under erection, was completely surrounded.

In various parts of the city trees were uprooted and fences blown over. Local plumbers and carpenters have been kept busy this week repairing the damage.

The electric light staff had a long and anxious time clearing the lines and repairing broken wires caused through falling trees etc. Luckily, no serious accidents were reported.

In most of the residences, water penetrated through the roofs and did damage to the interiors.

At present the beach resembles anything but a beach as it is almost sandless and rocks and boulders are protruding the whole length of the beach, the whole forming a very bleak and uninviting aspect.

Williamstown Chronicle
8 December 1934

Altona, Seaholme areas flooded by sea

24/05/2014

Like 0

f t e



The June 2014 flood.

Parts of Altona and Seaholme were flooded by the sea on Tuesday, with Altona Pier partly submerged and roads under water.

Star Weekly
24 June 2014

Figure 13. News article excerpts on historic coastal hazard events.

In our community engagement survey, many people shared stories of the dynamic coastline and the changes they had seen. Some of these changes have been driven by natural processes, and some had been influenced by human intervention. Experiences of coastal change, hazard and impacts were shared:

"The coast line is a dynamic system. When I was a kid in the 90s, swimming at Campbell's Cove there were extensive sea grass beds. As I got older the seagrass retreated more and more. But in some years it would extend again. That change seemed to impact the number of bait fish we'd see in the shallows."

"Observing erosion on the coastline at Sandy Point Reserve Newport, Doug Grant Reserve and the formation of the Laverton Creek Estuary."

"Altona Boat Ramp floods very often"

"The shoreline of the Western Treatment Plant has changed over the past 40 years with erosion and sand movement changing the coastline, particularly around the mouth of the Little River and north of the Kirk Point boat ramp."

"I've witnessed the coastline shift, the sandbanks appear and disappear. This can be a natural process, but also impacted by human activities and changes along the coast."

"I can remember Williamstown beach being washed away in the 1980's"

"My home basement was flooded by storm surge 7 years ago."

"King tide and storm surge damaged coastal infrastructure and other property."

"As the groynes on both sides of the mouth of the Werribee River have worn away, the sea has eroded the beaches on both sides. There has also been a big shift in sand movement since the rock wall at Wyndham Harbour was built."

"Observed significant changes to the mouth of Laverton Creek over the past 10-15 years"

"Erosion and movements of coastal sediments resulting in changes in the foraging and roosting distribution of shorebirds and other waterbirds."

"Witnessed bad storms and flooding of homes along beach roads"

"Some of the roads close to the shoreline were closed due to erosion."

"Noticed very high tides - Washing away sand and spilling over to the walkways near Williamstown beach"

"The different beach areas have definitely been eroded where once the tides did not reach the coastal vegetation it has now encroached in to it."

"Coastal change has been dynamic, with ecosystems and wildlife adapting well to the changes – recession of Altona Coastal Park foreshore, deposition of Laverton Creek Spit, changing shape of Limeburners Lagoon."

"We often have king tides and water breaching over rock walls."

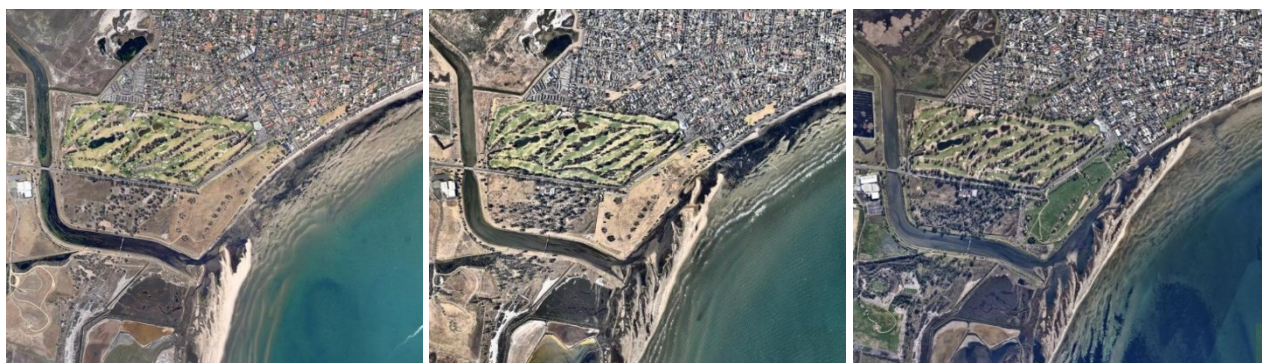
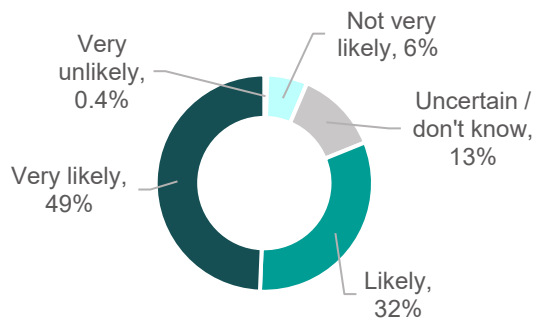
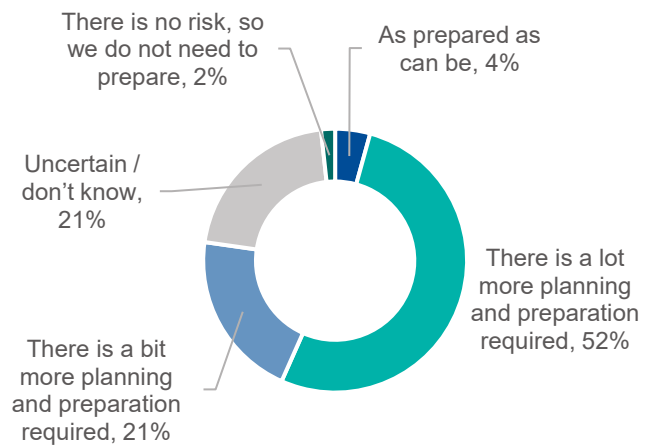


Figure 14. Laverton Creek spit across 2009, 2016 and 2024. Source: Nearmap.

With these experiences, many people are aware of the risk the region faces from coastal hazards now and into the future. 81% of our survey respondents reported they felt it was either likely or very likely the region will be affected by coastal hazards in the future. About half of respondents felt there is a lot more planning and preparation required to manage coastal hazards. This shows the value of undertaking adaptation planning through the Adapt West project.



How likely is it that the region will be affected by coastal hazards?



How prepared is the region for future impacts?

Figure 15. Results of survey questions 'How likely is it that the region will be affected by coastal hazards?' (left) and 'How prepared is the region for future impacts?' (right).

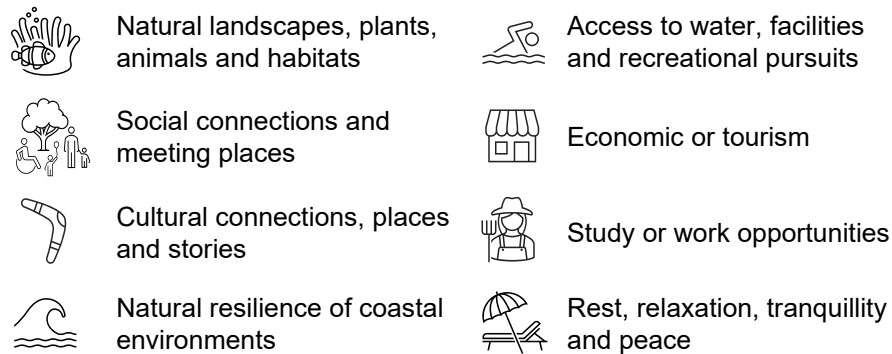


The Adapt West Project Working Group attend a site visit to Campbells Cove. Credit: DEECA.

4 Community and social values synthesis

Guided by the literature review, RaSP partner input and community engagement, this section brings together findings and insights on values. This includes defining the core community and social values for the Adapt West region. Combined with other values studies these will guide visioning and objective setting for future adaptation planning.

From initial engagement and background literature review, we identified several community and social values considered important for communities of the Adapt West region. These covered eight key themes:



These themes were used as a framework to guide our engagement process and reporting.

Having these value themes available for people to engage with allowed for a common language in describing values of the region, and for direct comparison and prioritisation between different values and coastal areas.

When asked to rank their top five values and the relative importance from these eight themes, people demonstrated clear preferences between different themes (Figure 16).



Figure 16. Responses to the survey question: What do you value most about the region's coastal and marine areas?

Values can also vary across the region. Specific places, facilities, activities and areas are important to people in different ways. Our interactive mapping tool helped determine this spatial distribution of different activities and values. Mapping of these results is provided in Appendix 3.



Left to right: Wyndham Harbour, Werribee River, Avalon Coastal Reserve, Jawbone Flora and Fauna Reserve. Credit: Alluvium and DEECA

The eight value themes (above) guided and structured our synthesis of social and community values. Through community engagement activities and developing the Community and Social Values Study, we updated these themes to better represent findings. These updates included:

- Highlighting the dependence of many values on healthy, **natural coastal environments** and natural resilience of these environments. This mirrors the Marine and Coastal Policy (Figure 17), where the values and benefits that marine and coastal areas provide are dependent on a healthy, dynamic and biodiverse marine and coastal environment.
- Separating **Aboriginal cultural values** and **post-contact heritage values**, recognising these as two separate and distinct values.
- Recognising the contribution of a range of values to broader **liveability** of these communities. This included the notion that residents valued being able to live in a coastal community and have the services to support this now and into the future.

The ten updated value themes are presented in the revised values framework (Figure 18).

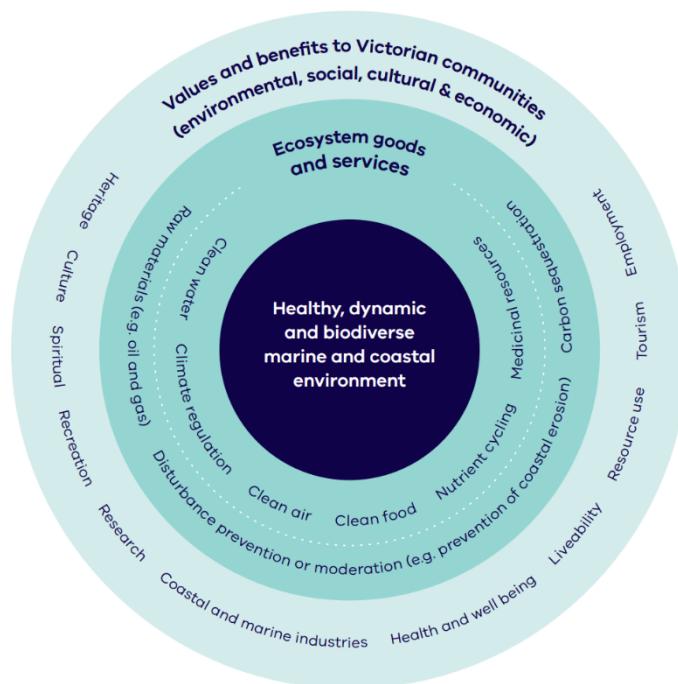


Figure 17. Importance of a healthy marine and coastal environment. Source: Marine and Coastal Policy (DELWP, 2021).

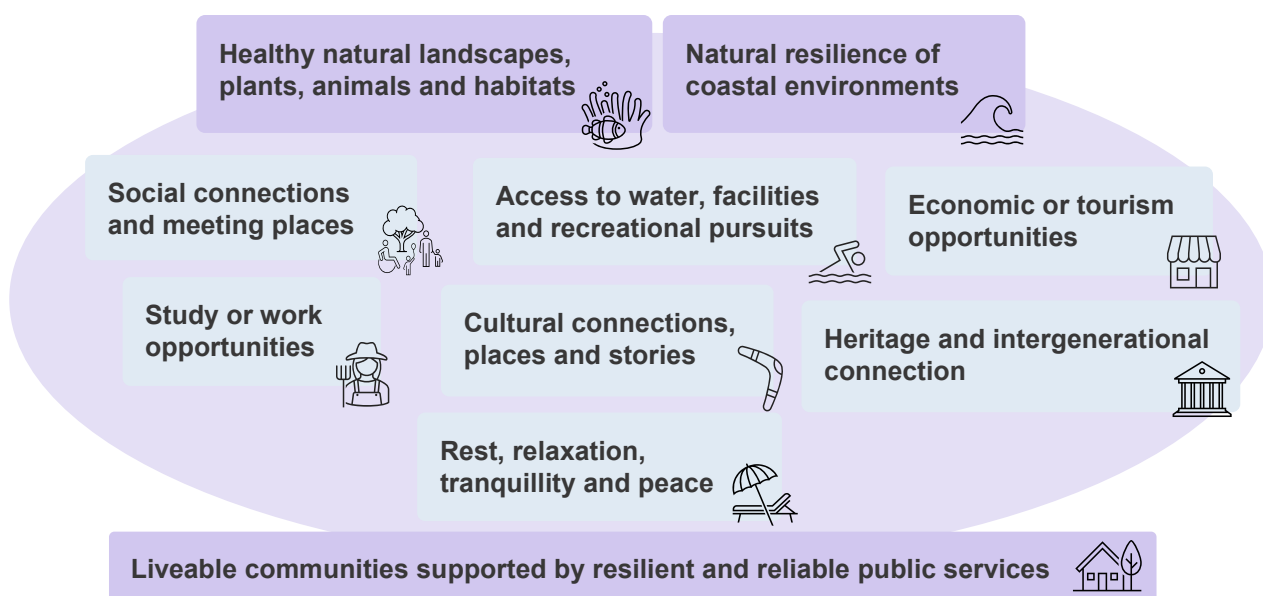


Figure 18. The values framework, including ten values themes.

Each of the ten themes is explored in the following sections, with information and data gathered on coastal values, uses, functions, experiences and aspirations presented.

This synthesis considers how communities of the region value marine and coastal areas and how values relate to the activities people enjoy across the coast. While some values have been prioritised over others in engagement feedback, these values are not mutually exclusive, with interlinkages and relationships existing between the different values. We also recognise that some values will hold significant weight for certain people and communities.

4.1 Healthy natural landscapes, plants, animals and habitats

A healthy, functioning environment provides habitat for flora and fauna, services for communities, and is valued in its own right. Aspects of *healthy natural landscapes, plants, animals and habitats* strongly valued by Adapt West communities include:

- the biodiversity of flora and fauna of the region's ecosystems,
- the ecosystem services and functions provided,
- the experiences and sense of peace and refuge in nature, and
- the uniqueness of the region's natural environments.

Natural and ecological values were consistently reported as the most important coastal and marine values held by Adapt West communities. From our community survey:

- two thirds of respondents ranked *natural landscapes, plants, animals and habitats* as their most important value
- nearly 70% of respondents ranked *providing habitat for flora and fauna* as the most important function of coastal areas



Coastal saltmarsh. Credit: Catherine Cavallo.

The region's marine sanctuaries, coastal reserves, parks, and Ramsar sites are seen as vital for supporting these values. These protected areas are also recognised as locations that provide easy access to experience natural landscapes at no cost.

The Western Treatment Plant and Cheetham Wetlands, within the Ramsar Site, are particularly valued as locations to experience diverse and significant species, including those migrating along the East Asian Australasian flyway. The uniqueness, naturalness and sense of refuge provided by these natural spaces is recognised as an identifying feature of the Adapt West region and is particularly valued given the proximity of the region to urbanised areas of Greater Melbourne.

"Significant migratory shorebirds, unique saltmarsh environments, corridor to connect our natural / conservation areas."

"I love watching the native wildlife at Jawbone Reserve."

"Preservation of natural habitat for birds and other flora / fauna."

"We should be encouraging these wetlands and bringing back the southernmost mangroves to their former glory for a healthier marine environment."

"Biodiversity, habitat and ecosystems."

"Safe habitat for species, particularly migratory bird species."

"Having wildlife corridors so close to the city; the uniqueness of the environment."

Social and community sub-values

- Ramsar site, coastal reserves, marine sanctuaries
- Bird watching and Western Treatment Plant
- Conservation and restoration of ecosystems
- Low development, peaceful, naturalness

Healthy natural landscapes, plants, animals and habitats



- Marine life, mangroves, seaweeds
- Biodiversity, uniqueness, habitat for threatened species, wildlife corridors

Related coastal and marine activities

- Bird or wildlife watching (13% of survey respondents)
- Snorkelling and diving – growing in popularity
- Passive recreation and exercise in nature
- Sightseeing or photography (10% of survey respondents)
- Fishing and boating
- Environmental education

Related coastal and marine functions

- Ecosystem services – biodiversity, habitat provision, water quality/climate regulation (temperature, carbon sequestration)
- Intrinsic value
- Experiencing nature
- Conservation and protection of ecosystems

4.2 Natural resilience of coastal environments

Natural features such as wetlands, dunes and floodplains provide a buffering effect and can reduce impacts of coastal hazards on built and other natural assets. *Natural resilience of coastal environments* is recognised as foundational to the preservation all other coastal and marine values of the region. In our community survey:

- nearly 70% of respondents ranked *natural resilience of coastal environments* among the top values.
- three quarters of respondents ranked *providing a physical buffer to protect the natural and built environment* as one most important functions of the coastal environment.

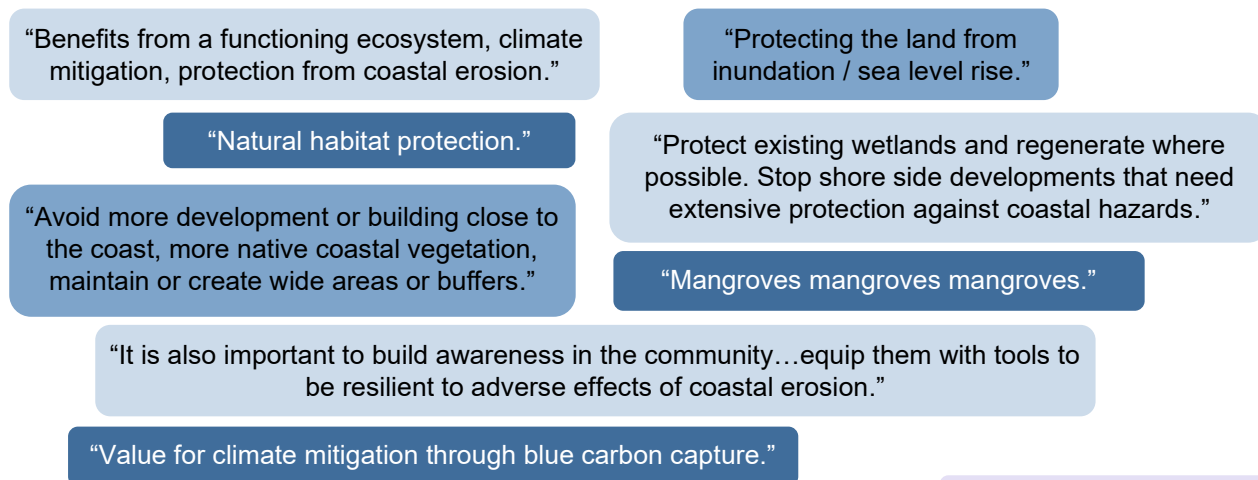
Protecting and enhancing natural buffers in the coastal space, such as mangroves and wetlands, is acknowledged as important for maintaining and increasing resilience. The current low levels of development in the coastal zone of the region, relative to other sections of Port Phillip Bay, are important for maintaining these buffers. There is a strong community desire for further development to be limited in current and future coastal zones.

Nature-based methods are widely regarded as an effective approach to building natural resilience. The most strongly supported measures across communities are the restoration and protection of foreshore areas, such as mangroves and wetlands.

The ecosystems in the Adapt West region are recognised for providing valuable ecosystem services that enhance resilience beyond coastal hazards. These include preserving water and air quality, as well as regulating temperature and climate through carbon sequestration.



Houses bordering Altona Coastal Park
Credit: Alluvium



Social and community sub-values

- Coastal zones as buffers to hazards
- Environmental regulation, water and air filtering
- Making space for nature

Natural resilience of coastal environments



- Carbon sequestration, 'blue carbon' environments and climate change mitigation

Community aspirations for increasing resilience

- Restoration of foreshore areas, including mangroves, wetlands and estuaries
- Development controls on the coastal zone
- Protected areas in the coastal zone
- Nature-based methods (NBM) of adaptation
- Hybrid/hard engineering, when appropriate
- Education on NBM, natural resilience and coastal hazard impacts
- Water- and eco-sensitive urban design
- Enforced pollution regulations
- Management based on robust and accessible hazard assessments that use the most current data available
- Artificial reefs
- Sustainable fishing regulation / education
- Climate change mitigation
- Space for nature to retreat
- Considering Indigenous knowledges

4.3 Cultural connections, places and stories

Cultural connections include Traditional Owner connection to land and sea Country, places, stories and lore. The importance of values associated with *cultural connections, places and stories* of the Adapt West region varies for different people, depending on the form and depth of their connection to the region.

For Bunurong and Wadawurrung Traditional Owners, values tied to cultural connection are incredibly important. Cultural heritage of First Nations peoples within the Adapt West region is part of a living culture that resides within the lands and waters of the region. Water is Life Traditional Owner Nation Statements (DEECA, 2024) provide Traditional Owner perspectives on the importance of water:

“The Bunurong cultural perspective does not separate water from Country... Water ‘connects us to our Country’, it travels through and with all Bunurong people, connecting us... Bunurong people heavily identify with being a saltwater people; this means that all the water flowing into the sea is connected within these cultural landscapes, places and Country. These rivers, creeks, wetlands and floodplains in Bunurong Country provide a resource-rich region that has allowed people in the past and the present to survive.”

Bunurong Land Council Aboriginal Corporation Nation Statement

“Our rivers carry their own stories, they are holistic living entities that provide to country, from the bed to the surface and the banks surrounding; nurturing all living things to grow and prosper... They are the life blood of our people and our Country, they are our highways; it is how Wadawurrung people move about. Our connection is continued and maintained, unceasingly providing valuable resources for Wadawurrung people... Important decisions were made on the banks of these waterways by our Ancestors. They are important living, meeting & celebration places.”

Wadawurrung Traditional Owners Aboriginal Corporation



BLCAC Welcome to Country and Smoking Ceremony at Truganina Explosives Reserve. Credit: Alluvium.

For all communities across the region there is recognition of the strong connection between Country and culture for First Nations peoples. Active engagement with culture, through creative arts, education and experiences is seen as a way of passing on stories and cultural connection to the region's future generations. **Note: A separate cultural values study will be undertaken to further describe the range of Traditional Owner values across the Adapt West region.**

The spectrum of cultural connections to the Adapt West region

Cultural connections, places and stories

“The responsibility for the caring of our Country belongs to us as its custodians... These places hold our stories, culture and our Ancestors physically as well as spiritually, and it is by the Lore of Bunjil we protect, love and look after her.”

BL CAC

“Embracing our heritage...[including] Indigenous, maritime, historic buildings, industrial and landscapes.”

Hobsons Bay 2030 Community Vision

“Creativity drives culture: Involvement with local art, music, heritage, contemporary culture and Wadawurrung culture.”

CoGG 30-yr Community Vision

“Living places are made up of the midden sites, discarded food wastes from many meals in the one location. They are next to rivers, lakes and bays or in the sand dunes by the ocean... There are many more cultural places that are intangible and also carry the imprint of our ancestors. We can feel them in places where our songlines pass through and in the places in our creation stories.”

WTOAC

“For Boon Wurrung community members, the ability to reconnect with Country includes the ability to walk the length of the coastline... The ability to observe the night sky from the coast... The mouth of the Werribee River is a very important location.”

Wyndham CMMP 2020-2025

4.4 Heritage and intergenerational connection

The Adapt West communities and visitors have strong *heritage and intergenerational connections*. Often members of the same family have lived in the region for many generations. Newer arrivals also make connections with places as a new home through learning about the area's past. Historic sites provide tourism experiences and educational opportunities across the region.

Sites of post-contact heritage significance exist alongside, and in many instances co-exist with, sites of cultural importance and heritage for Traditional Owners. Heritage sites are often linked to the central role of the sea in the early economic, social and physical development of Victoria by Europeans.

These sites, stories and places are significant to people in different ways. There is appreciation of European settlement, family ties and heritage as an important historical record that tells the story of vast societal change within the region. Some people may have family connections to these places and stories, including a maritime, industrial and agricultural history. For Aboriginal Victorians, these places are symbolic of invasion and dispossession of traditional lands across Australia. Newer residents also bring their own cultural traditions and coastal spaces often provide a place for gathering and practices.



Truganina Explosives Reserve. Source: Hobsons Bay Council



Williamstown piers, workshops and slipways ~1920s. Source: Public Record Office Victoria

Across the study region there are over 40 registered shipwrecks, three aircraft wrecks and various historic sites on the Victorian Heritage Register and Inventory. These include various jetties and docks, Werribee Park and Mansion, Point Cook Homestead, Williamstown Rifle Range, Truganina Explosives Reserve, Williamstown Beach Dressing Pavilion, Fort Gellibrand, Time Ball Tower and Williamstown Naval Dockyard.

As a site pivotal to Australia's post-contact maritime history and Melbourne's original seaport, Williamstown hosts a variety of museums and attractions centred around its maritime history. This includes the Seaworks Maritime Precinct and a range of tourist and educational experiences.

The dynamic nature of the coastal environment can challenge the preservation of cultural values and heritage sites. Increasing population and visitation rates can also put heritage sites at risk. Management of these sites needs to strike a balance between ensuring cultural values and heritage sites are understood, experienced and appreciated by the community, while also preserving them for future generations.

The spectrum of heritage connections to the Adapt West region

Heritage, history and intergenerational connection



"There is...a rich social and farming history at Werribee South and a number of sites along the Wyndham Coastline with remnants of European settlement."

Wyndham Coastal and Marine Management Plan (CMMP) 2020-2025

"Recent history has seen the region grow and evolve around maritime, industrial, and manufacturing sectors. The legacy of these remain in the form of many heritage sites along with historical stories and experiences. This history is valued by local residents and visitors."

Hobsons Bay CMMP 2021

"The history of the former Truganina Explosives Reserve."

"Embracing our heritage...[including] Indigenous, maritime, historic buildings, industrial and landscapes."

Hobsons Bay 2030 Community Vision

"I grew up in Melbourne's western suburbs and have fond memories of visits to Williamstown and Altona beaches as a child."

4.5 Rest, relaxation, tranquillity and peace

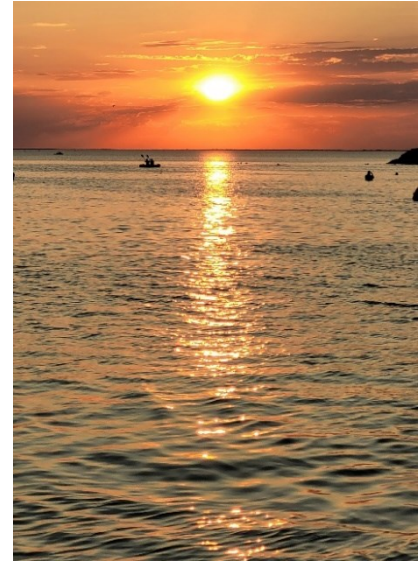
Sea views, peaceful open spaces and the movement of the water provide people with peace, tranquillity and sense of place.

Coastal and marine values related to *rest, relaxation, tranquillity and peace* were ranked among the top coastal and marine values in our community survey.

Large sections of the region are well-characterised by expansive and open natural spaces with very little urbanisation or commercialisation. People connect strongly to these peaceful and tranquil spaces, finding the natural foreshore environment particularly relaxing and immersive.

Many people value these spaces to take in fresh sea air and experience a sense of escapism from fast-paced life in more urbanised areas. These aspects of the region provide a welcome space for people to take part in contemplative and introspective activities, such as photography, meditation, and walking. These values are important for their ability to regulate people's wellbeing and mental health.

The large number of protected natural spaces, such as coastal and marine reserves, parks and the Ramsar site within the Adapt West region play a large role in ensuring that significant sections of the region continue to provide tranquil and peaceful places for people to rest and relax.



Sunset at Williamstown. Credit: Alluvium

"Meditating and recharging my batteries near the water."

"A place to look at as you drive by. mental health can be improved by just seeing nature / the water"

"Fresh air, relaxed, peaceful, natural, interface between land and sea."

"Positive impact on mental health and wellbeing due to very few people while birdwatching."

"Space, peace and quiet, natural."

"The open space and a place to get away from the noise from industry and traffic."

"Quiet, restful, natural places to slow down and unwind."

"It's so peaceful compared to the other side of the bay. Really appreciate that it's not as built up."

"Peace and quiet, non-industrialisation, non-commercialisation, lower density, open space, sense of place."

"Open spaces, big sky, fresh air."

Social and community sub-values

- Natural beauty
- Open / expansive space and views of the sky
- Sunsets over the Bay and water views
- Fresh sea air

Rest, relaxation, tranquillity and peace



- Low development / naturalness
- Enjoying a clean environment
- Benefit to wellbeing and health

Related coastal and marine activities

- Quiet and introspective activities, such as:
 - Walking (18% of survey respondents)
 - Sightseeing or photography (10% of survey respondents)
- Relaxing (12% of survey respondents)
- Meditating
- Driving along the coastline

Related coastal and marine functions

- Providing a place people can experience nature (90% of survey respondents ranked as one of the most important functions)
- Provide a sense of refuge and escapism
- Provides connection with nature
- Contributes to wellbeing and health, particularly mental health
- Providing sense of place

4.6 Social connections and meeting places

The Adapt West region offers numerous coastal locations that serve as important communal hubs for *social connections and meeting places*. These places allow people to spend time with family and friends, are available throughout the year, generally at no cost, and in close proximity to residential areas.

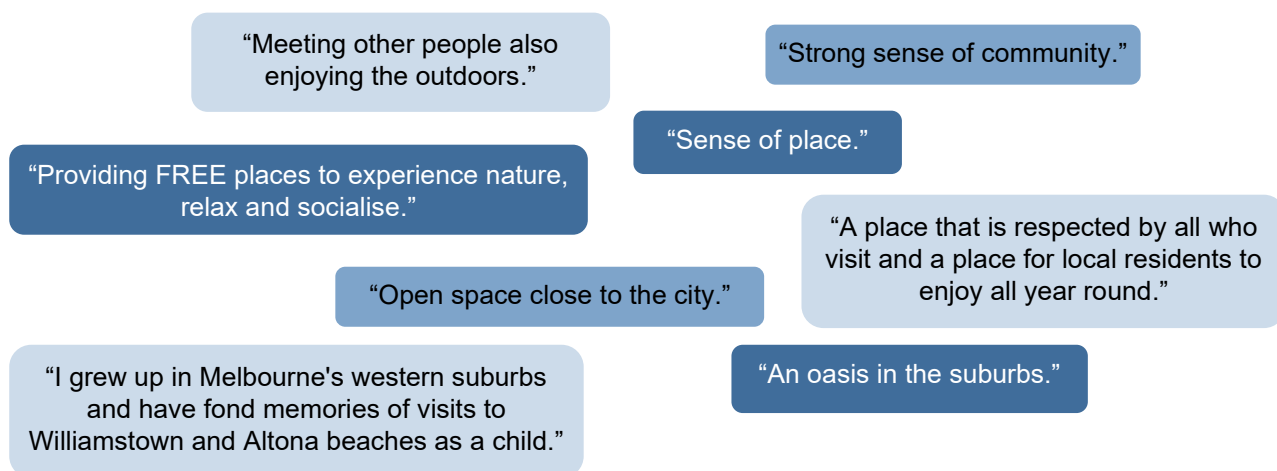
For families, new residents, and nature enthusiasts from more urbanised areas of the Adapt West region or beyond, the presence of natural open space is important. As the region's residential communities continue to grow and populated areas densify, the importance of these meeting spaces will continue to increase.

Coastal spaces are also sometimes used for markets, festivals, and events. This provides community meeting places and social connection opportunities for residents and visitors. Volunteering and undertaking activities with like-minded people across these spaces also fosters a strong sense of community and care for a common cause.

The coast can also provide a sense of connection to childhood and family. A number of people who have grown up in the region or who have intergenerational family members appreciate these spaces as a place of shared connection that is passed down to future generations.



Altona dog beach. Credit: Alluvium



Social and community sub-values

- Meeting places with natural beauty
- Accessibility (cost, availability, proximity, abilities)
- Sense of place and shared care with likeminded people
- Childhood memories and ongoing connection for future generations / intergenerational connection

Social connections and meeting places



Related coastal and marine activities

- Socialising with friends or family (10% of survey respondents)
- Volunteering (4% of survey respondents volunteer in the region)

Related coastal and marine functions

- Providing an accessible and beautiful meeting place for all people – no cost, available all year round, close proximity
- Providing places for storytelling, experiencing nature and people to spend leisure time
- Creating a sense of place for community members

4.7 Access to water, facilities and recreational pursuits

A range of facilities, pathways, amenities and other assets support access to and along the coast, connectivity with water, and a broad range of recreational activities.

In our community survey 15% of respondents ranked *access to water, facilities and recreational pursuits* as the most important (rank no. 1) value. Over 60% ranked it as a top five value.

The easy accessibility of the Port Phillip Bay coastline — considering cost, availability, proximity, facilities and access for all abilities — is valued by local communities. Many individuals appreciate the ability to visit the coast and the Bay, with minimal barriers.

Access to water is essential for a wide range of recreational activities enjoyed throughout the Adapt West region. These activities include swimming, small craft water sports, boating, and fishing, as well as sand play, rock pooling, snorkelling and diving. Other recreational pursuits include walking, cycling, photography, exercising, and dog walking. Many of these activities rely on access paths, tracks, stairs, boat ramps, and launching places, along with picnic and toilet facilities.



Kite surfing at Altona. Credit: Alluvium

As the population in the Adapt West region continues to grow, it will be increasingly important to ensure that liveability is maintained, whilst ensuring providing good access and facilities does not compromise the environmental integrity of the coastline and the Bay.

“Having good access to the water for boating, swimming and kayaking.”

“The access to good swimming spots.”

“Access for photography and walking.”

“Access to beautiful beaches.”

“Accessibility for all abilities e.g. extensive network of hard/paved shared pathways.”

“Mainly value the outside space, green environment and water.”

“Healthy area to exercise in.”

“A place for recreation (free). Walking, running, swimming, bike riding, playing.”

“Disabled access and seats on walking tracks.”

Community and social sub-values

- Accessibility – close proximity, no cost, all-year around availability
- Disabled access all the way to the water
- Recreational activities related to coastal and marine spaces

Access to water, facilities and recreational pursuits



- Facilities – boat ramps, stairs, paths
- Recreational / connected trails
- Building sand castles / playing in the sand
- Access to the water / Bay / ocean
- Fresh sea air and escape, close to the city

Related coastal and marine activities

- Walking (18% of survey respondents)
- Swimming (9% of survey respondents)
- Bike riding (7% of survey respondents)
- Small craft water sports – kayaking, windsurfing, jet skiing, etc. (3% of survey respondents)
- Boating or yachting (2% of survey respondents)
- Fishing (2% of survey respondents)
- Other activities mentioned: Snorkelling and diving, exercising, dog walking, rock pooling

Related coastal and marine functions

- Areas for leisure activities including access to beaches and foreshore areas
- Places and facilities to support recreational use
- Access to the water, Bay / ocean
- Access for all abilities to natural and coastal spaces

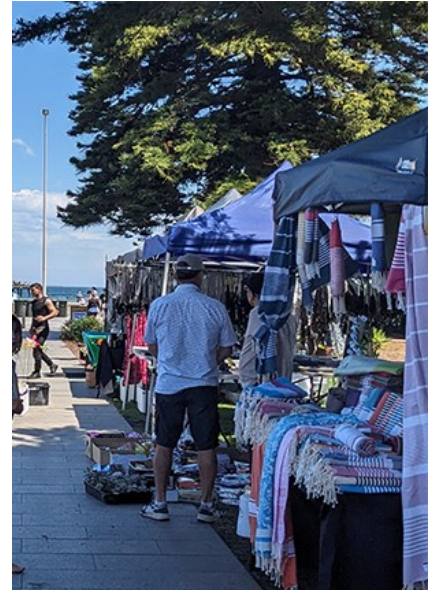
4.8 Economic or tourism opportunities

A long-standing industrial history is synonymous with the Adapt West region. Local industries hold significant value from the local to national level for the benefits they provide to the economy, for employment and as providers of essential services. Key sectors include food production, water treatment, aviation and defence services, and energy production.

The Werribee South agricultural precinct continues to be an important contributor to greater Melbourne's food bowl. It is a key part of the region's cultural identity, particularly for the rural community. Additionally, First Nations communities recognise potential economic opportunities related to their traditional knowledge of aquaculture and agriculture of the region and how this may relate to production of culturally important products.

Survey responses showed community support for development of the local tourism industry. Currently, the sector is modest, centred around the area's colonial heritage and a burgeoning ecotourism industry. The natural beauty and ecological significance of the region provide many opportunities to further develop nature-based tourism. This includes existing attractions such as the Werribee Open Range Zoo, Werribee Park and Mansion, coastal and marine parks, reserves, and Ramsar Site, along with the proposed Hobsons Bay Wetland Centre.

Foreshore areas are also often popular areas for festivals, competitions, markets, community events and gatherings, drawing locals and visitors to our coastal areas. There is a collective awareness of the need to balance any additional commercial or tourism development with protection of the region's natural ecosystems. Commercialisation should be balanced to provide broad public benefit, diversified opportunities and retention of the character of coastal communities.



Altona Beach Market. Credit: Altona Village Traders Association.

Support for different economic and tourism opportunities in the region

Economic or tourism opportunities



"This coastal region has so much tourism potential. I snorkel and dive in the area particularly at Jawbone Marine Sanctuary and Point Cooke Marine Sanctuary. These two spots have fantastic marine life and are very accessible for people to enjoy!"

"Open to tourists."

"We [wish to] bring our traditional knowledge into current businesses and pursue aquaculture and agricultural enterprises with products that are culturally important to us and help heal Country."

Wadawurrung Traditional Owners
Aboriginal Corporation

"Protect market gardens / food bowl and promote our rural community. Honouring our primary producers, prioritising rural land for farming."

Help shape Wyndham's future: Community
engagement findings 2021

"We've got natural beauty here.
Tourism is vital for Greater Geelong."
Greater Geelong 30-year Community
Vision

"Harmony – people, wildlife, industry."

Port Phillip Bay Environmental
Management Plan 2017

"Tourism values: Opportunities for guided
marine education and nature-based tourism."

Point Cooke Management Plan 2007

"Tourism must be prioritised, more festivals, events and celebrate the many nationalities and talents. Push the country to coast element."

Help shape Wyndham's future: Community engagement findings 2021

4.9 Study or work opportunities

Studying or working across the region includes work or scientific study specific to or reliant on marine and coastal environments (e.g. coastal management, marine industries) or industries located adjacent to the current or future coastal zone (e.g. agriculture, airport, universities, petroleum industries).

There is broad recognition of the *study or work opportunities* offered by the marine and coastal environment of the Adapt West region.

In our community survey, several respondents identified they were engaged in a field of employment directly supported by the region's coastal and marine spaces. This included fields such as catchment management, conservation, ecology, marine studies, and nature tourism.

The coastal and wetland environments provide opportunities for research and academic study. These studies and monitoring activities also provide an in-depth understanding of coastal environments and processes.

Additionally, many community members are actively involved in volunteering initiatives related to these coastal and marine areas. These include coastal monitoring, vegetation management, and leading educational walks and workshops focussed on the regions' history, wetland ecosystems and habitats.

There is a strong belief that the Adapt West region provides a unique setting for educational experiences, relatively close to Melbourne. Experiences include educating residents and visitors on the importance of local ecosystems and diversity of plant and animal life.



Lettuce growing in Werribee South.
Credit: Velisha Farms

"Providing places for education for all ages and abilities, including research opportunities."

"Educational value offers learning opportunities about ecosystems."

"Support innovations such as Hobsons Bay Wetlands Centre whose aim is to connect people to nature, preserve our wetlands, educate citizens via guided walks, citizen science, workshops, [and] research in situ."

"Providing interpretation and info on wildlife. Understanding the local environment."

"Better information provided to people about place and its importance."

"Environmental protection and preservation education."

"Students learning about the space."

"Educational value offers learning opportunities about ecosystems."

Local coastal and marine related fields of employment, education and volunteering

Study or work opportunities



- Agriculture and aquaculture
- Bush regeneration
- Catchment management
- Ecology, environmental and conservation
- Environmental volunteering, including:
 - Leading walks and workshops about Hobsons Bay wetlands
 - Rescues for Wildlife Victoria
 - Jawbone Marine Sanctuary care group
- Marine biology and environmental studies
- Nature tourism
- Construction
- Community mental health and nature therapy
- Primary school education on the local environment delivered along the shoreline
- Local Council

4.10 Liveable communities supported by resilient and reliable public services

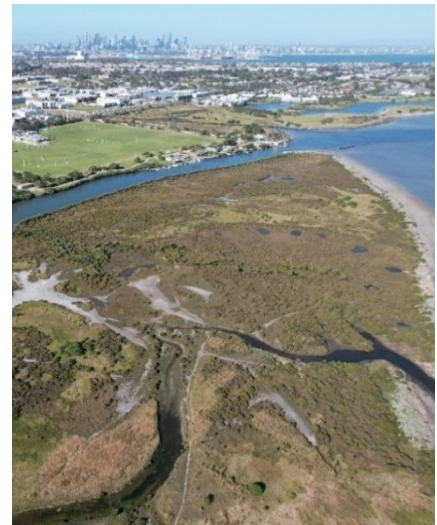
Opportunities offered by the region's coastal setting draw people to the area. These coastal reserves hold an array of amenities and facilities that enable and encourage residents and visitors to enjoy these areas and support the wide range of activities they like to pursue.

Many residents expressed value in the ability to live in a coastal community and wish to continue to do so into the future. Several aspects contribute to making coastal areas desirable places to live, work, visit and play. These include reliable and equitable access to services including built and natural assets, utilities, transport networks, and other public amenities.

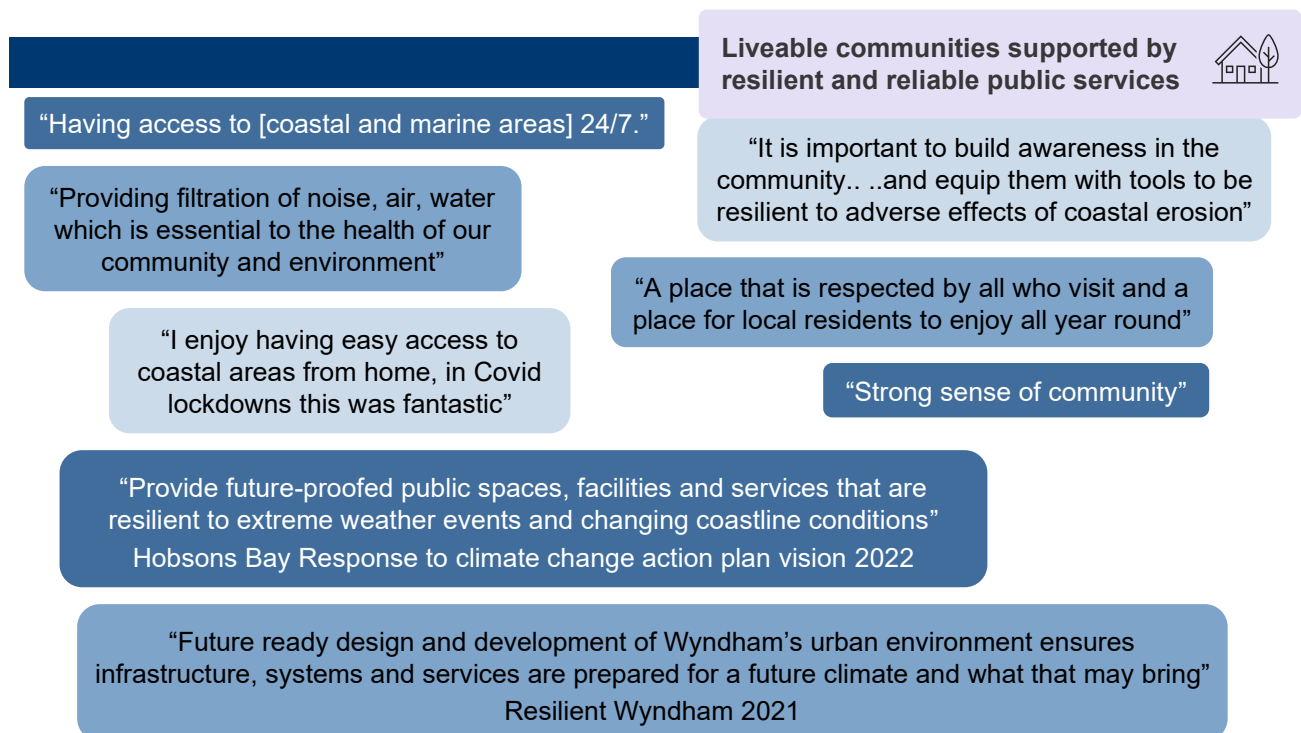
Impacts of coastal hazards and other environmental degradation has potential to threaten personal well-being and impact on service provision in coastal communities. Coastal hazards could impact service connectivity (infrastructure networks), the function and integrity of built assets, or involve shocks (such as storm events) requiring recovery efforts.

Community engagement highlighted that community awareness raising, preparedness and resilience building is important in adapting to future coastal and climate-related hazards. Building resilient communities also involves ensuring public services, assets are resilient to change and can withstand changing conditions. This might include aspects of resilient or innovative design as well as recognising the role that physical/engineered coastal protection structures play.

The values presented (above) all contribute to a liveable community.



Altona Coastal Park. Credit: Alluvium.



5 Next steps

This section summarises aspirations for adaptation through understanding social and community values. It then considers next steps in how these values and aspirations inform adaptation planning.

5.1 Aspirations for adaptation planning

Through this community values study we have built an understanding of values, knowledge and experiences with coastal hazards, and the communities' future aspirations. These are summarised below.

What people value about coastal areas	Knowledge, experiences and concern for coastal hazards	Future aspirations for adaptation planning
<p>Core value themes include:</p> <div>  Healthy natural landscapes, plants, animals and habitats </div> <div>  Social connections and meeting places </div> <div>  Cultural connections, places and stories </div> <div>  Heritage and intergenerational connection </div> <div>  Natural resilience of coastal environments </div> <div>  Access to water, facilities and recreational pursuits </div> <div>  Economic or tourism </div> <div>  Study or work opportunities </div> <div>  Rest, relaxation, tranquillity and peace </div> <div>  Liveable communities supported by resilient and reliable public services </div>	<p>Inundation Impacts of inundation have been felt in previous storm events. People have observed rock walls being breached/overtopped, drainage challenges, and flooding of natural wetlands, walkways, sports fields, other facilities and their own homes.</p> <p>Erosion Coastal erosion was the most mentioned coastal hazard in engagement activities. This may be because people notice visible changes and erosion scarps can be evident in the landscape. People had seen erosion of beaches, walking paths and frontage of the Western Treatment Plant.</p> <p>Natural coastal processes Many people had observed significant changes along the coast from natural sand movement processes, particularly spit formation at Laverton Creek.</p> <p>Natural resilience The role of natural environments in mitigating coastal hazards was strongly recognised. The importance of wetlands, mangroves, saltmarsh, and floodplains were all valued and the co-benefits of these environment recognised.</p> <p>Human intervention Many also noted that human interventions have caused coastal changes. Either through coastal structures (groynes, seawalls), drainage, or changing catchment runoff conditions.</p>	<p>Protecting and enhancing natural environments Strong desire for nature-based management, respect for natural processes and protection of cultural values and habitats. This included expanding natural environments where possible to provide nature-based resilience.</p> <p>Co-benefits and ecosystem services Recognition of the range of ecosystem services provided by the regions marine and coastal environments. Recognition of the co-benefits of ecosystem restoration for both hazard mitigation, education purposes, carbon sequestration, to support flora and fauna and people's enjoyment of nature.</p> <p>Maintaining liveability, facilities and access Maintenance of community facilities, access and connectivity to and along the coast, with recognition of coastal spaces as important community open spaces and meeting places.</p> <p>Proactive and coordinated Strong and proactive land use planning to prepare for future changes, including population growth, protection for undeveloped areas and, for future port development and freight corridors. Includes collaborating with many partners and agencies across boundaries.</p> <p>Peaceful communities The sense of community and undeveloped nature of coastal areas as important places for social connection, tranquillity and well-being.</p>

5.2 How social and community values inform adaptation

Reflecting on this Community and Social Values Study, there are a range of ways these values can be embedded in adaptation planning and inform upcoming stages of the Adapt West Project (Table 8).

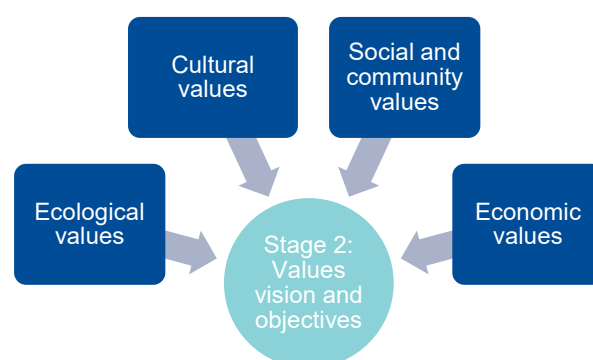
Table 8. Opportunities to embed community and social values into next stages and adaptation planning.

VRC stage	Opportunities to embed community and social values
2. Value, vision and objectives	<ul style="list-style-type: none"> Developing a shared vision and objectives for adaptation reflecting community sentiments Understanding relative importance of values and how adaptation can support these values
3. Coastal hazard exposure	<ul style="list-style-type: none"> Consider the range of coastal hazard types that could impact on community and social values Ensure potential coastal hazard impacts on core community and social values are considered
4. Vulnerability and risk	<ul style="list-style-type: none"> Appreciate consequences of coastal hazard (e.g. damage/loss) on community and social values including key assets, facilities and uses. Understand community expectations regarding tolerance to risk Guide economic analysis, including base case and focus of economic case studies to capture core community and social values
5. Adaptation actions and pathways	<ul style="list-style-type: none"> Evaluation of potential management options suitable for these areas, assessment criteria development, and community sentiment towards adaptation options Prioritisation of adaptation options and understanding of community sentiment in terms of potential trade offs
6. Plan and implement	<ul style="list-style-type: none"> Long term vision and adaptation objectives for the Adapt West region Opportunities to involve community in management initiatives.
7. Ongoing monitoring and review	<ul style="list-style-type: none"> Opportunities for community involvement in monitoring, evaluation and review.

Stage 2 summary report

Social and community values form one part of the broader understanding of the region's coastal and marine values. Separate ecological, cultural and economic assessments will document this broader range of values. A Stage 2 summary report will document:

- The work undertaken to date, including engagement and communication process and outcomes
- A summary of local aspirations and values, including synthesis of separate values studies
- A shared vision and objectives for coastal hazard risk management and adaptation



6 Glossary and acronyms

Term	Definition
Community engagement terminology	
Community	<p>A group of individuals who share a common sense of belonging and where there is a level of trust between members. A community can be based on:</p> <ul style="list-style-type: none"> • Geography – based around where people live, such as neighbourhood, suburb, town or region • Interest – based around common interests such as conservation, community connection and improvement or recreation interest • Identity – based on sharing a common identity such as age, culture or lifestyle <p>The Adapt West community encompasses everyone who lives, works, visits and cares for the region.</p>
Community engagement	<p>Refers to the planned and unplanned ways we (DEECA, RaSP partners and consultants) interact and relate to our partners, stakeholders and communities. Community engagement is undertaken across many aspects of the project and to achieve a range of outcomes. These include capturing values and aspirations; participation in decisions, actions or outcomes; building and maintaining relationships; and increasing community capacity for planning, action and learning.</p>
Values (community and social values)	<p>For this Community and Social Values Study, a value is something that is important and meaningful to someone. A coastal value exists when an aspect of the coast is significant (of value) to a stakeholder. This can include cultural, environmental, social and/or economic aspects across the Adapt West region. These values encompass elements of holistic wellbeing for both current and future generations.</p>
Registered Aboriginal Parties (RAP)	<p>Body corporates approved to deal with Aboriginal heritage matters on behalf of the relevant Traditional Owners within the RAP area. The members of the body corporate are Traditional Owners. Registered Aboriginal Parties are determined by the Aboriginal Heritage Council. Bunurong Land Council Aboriginal Corporation and Wadawurrung Traditional Owner Aboriginal Corporation are the Registered Aboriginal Parties for the Adapt West region.</p>
Rightsholders	<p>Rightsholders are actors who hold legal or custodial rights and obligations and thus have a different status to stakeholders. Traditional Owners are key rightsholders in Australia with landowner and land manager roles and are custodians of Sea Country.</p>
Stakeholders	<p>Described as any individual, group of individuals, organisation, or political entity with an interest or stake in the outcome of a decision.</p>
Traditional Owners	<p>People with traditional and customary rights in a particular part of the land. Some Aboriginal Traditional Owner groups have also had these rights recognised by the Australian legal system under a Native Title determination (Commonwealth) or a Traditional Owner Settlement Agreement (Victoria).</p>
Coastal hazard adaptation terminology	
Coastal hazards	<p>Natural coastal processes that may negatively impact on the marine and coastal environment, including impacts on human use, values, property or infrastructure. Hazards include coastal erosion and inundation (flooding) due to storm tide and sea level rise.</p>
Coastal vulnerability	<p>The susceptibility of people and places along the coast to adverse impacts from coastal hazards. Includes the degree of exposure, and ability to cope with, respond to and adapt to coastal hazards.</p>
Risk assessment	<p>A systematic process of evaluating the potential risks (likelihood and consequence) of coastal hazards, helping to inform a response and adaptation actions.</p>
Resilience	<p>The capacity of social, economic, and environmental systems to cope with a hazardous event, trend or disturbance, responding or reorganising in ways that maintain their essential function, identity, and structure, while also maintaining the capacity for adaptation, learning, and transformation.</p>

Term	Definition
Liveability	The qualities, services and characteristics of a place that support wellbeing and quality of life. Liveability is an important aspect of any local region. It can be significant in attracting and retaining people in communities
Adaptation	The process of adjustment to actual or expected disturbances such as coastal hazards. In human systems, adaptation seeks to proactively manage or avoid harm or make use of beneficial opportunities. Some natural systems may benefit from human intervention in helping to facilitate these adjustment process.
Coastal adaptation	Modification of behaviour through change in coastal land management, land-use or infrastructure, which reduces or prevents adverse impacts associated with coastal hazards, both through present measures and proactive planning for future conditions.
Acronyms	
ABS	Australian Bureau of Statistics
BLCAC	Bunurong Land Council Aboriginal Corporation
CCMA	Corangamite Catchment Management Authority
CoGG	City of Greater Geelong
CHARP	Coastal Hazard Adaptation and Resilience Plan
CMMP	Coastal and Marine Management Plan
DCP	Development Contributions Plan
DEECA	Department of Energy, Environment and Climate Action
DTP	Department of Transport and Planning
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth)
Ha	Hectares
HBCC	Hobsons Bay City Council
IRSD	Index of relative socioeconomic disadvantage
IUCN	International Union for Conservation of Nature
IWM	Integrated Water Management
LGA	Local government area
MW	Melbourne Water
PSP	Precinct Structure Plan
PV	Parks Victoria
RAAF	Royal Australian Air Force
RaSP	Regional and Strategic Partnership
SA	Statistical area
VPA	Victorian Planning Authority
VRC	Victoria's Resilient Coast – Adapting for 2100+
WTOAC	Wadawurrung Traditional Owners Aboriginal Corporation
WTP	Western Treatment Plant
WCC	Wyndham City Council

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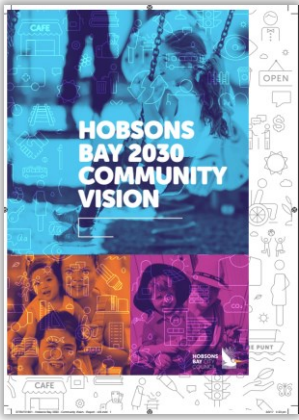
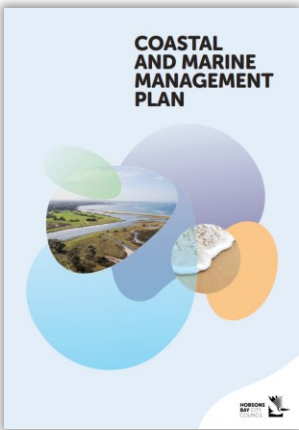


















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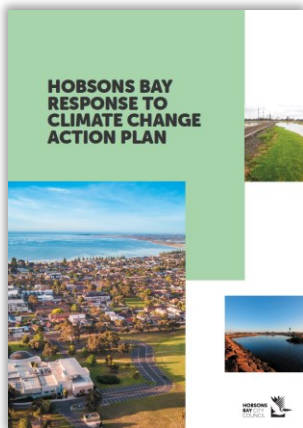



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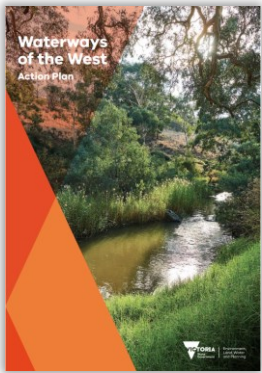
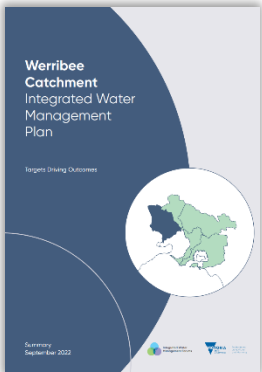
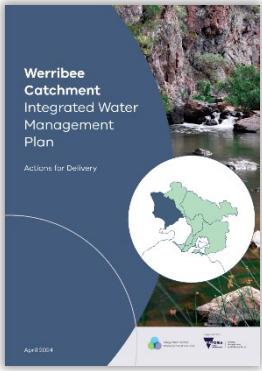
Appendix 1: Document review


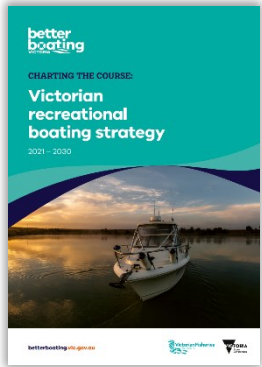

Document	Summary of the document	Key/relevant objectives, goals or recommendations that align with adaptation planning																								
<p>Council Plan and Municipal Public Health and Wellbeing Plan 2021-25 (Hobsons Bay City Council 2021)</p> 	<p>The Council Plan 2021-25 outlines the strategic agenda of Council for the next four years, in accordance with legislative requirements. It is based on a planning framework that aligns the Hobsons Bay 2030 Community Vision to Council's planning, development, resource allocation and service provision to the Hobsons Bay community. The Municipal Public Health and Wellbeing Plan is integrated within the plan.</p> <p>The Council Plan has been informed by extensive community engagement to obtain feedback on the Hobsons Bay 2030 Community Vision and ideas for the Council Plan 2021-25. This included a consultation campaign that ran for over 14 weeks, involving a wide range of media and engagement activities to encourage as many members of the community as possible to participate.</p>	<p>The Council Plan presents five strategic objectives to guide Council over the next four years. Those with relevance to coastal hazard management include:</p> <ul style="list-style-type: none">- 2.2 Enhance protection, preservation and promotion of our coastal environment and wetlands/waterways, biodiversity and natural areas<ul style="list-style-type: none">o a) Foreshore and riverine assets are upgraded to meet predicted impacts of climate change, maintain existing recreational uses while improving conservation valueso b) Advocate to relevant stakeholders and land managers to develop a partnership approach to foreshore managemento c) Foster increased community engagement with world class environmental areas across the municipality including through supporting the work of community organisationso d) Advocate for the establishment of a wetlands centre, promoting environment and tourism at the Hobsons Bay Ramsar rated wetlands- 3.2 Increase economic and tourism opportunities that capitalise on our cultural and creative strengths- 3.4 Increase participation in recreation activities across the community- 3.5 Ensure land use and development supports high amenity, sustainability, exemplary design and responds to neighbourhood context- 4.1 Ensure the transport network is safe and efficient for all users with a focus on pedestrians and cyclists- 4.2 Ensure that our assets are properly maintained now and into the future at the most economical cost to the community and the environment<ul style="list-style-type: none">o a) Reduce the asset renewal demand gap for key assets including roads, footpaths, buildings, recreation and community facilities																								
<p>Hobsons Bay 2030 Community Vision (Hobsons Bay City Council 2017)</p> 	<p>Hobsons Bay 2030 is a vision for the future of Hobsons Bay for those who live, work, study, and or visit the region. It was developed by the community for the community and will guide Council's work until 2030.</p> <p>It provides the first long term community vision for the municipality, along with six priorities for achieving that vision. It is based on evidence of current and future community needs and has been developed following an in-depth community consultation and engagement process.</p>	<p>The 2030 vision for Hobsons Bay is: By 2030, embracing our heritage, environment and diversity, we - the community of Hobsons Bay – will be an inclusive, empowered, sustainable and visionary community led and supported by a progressive Council of excellence.</p> <p>Hobsons Bay 2030 provides six priority areas for Council to focus their efforts on in order to address current issues and reach the 2030 vision for Hobsons Bay. Those with particular relevance to coastal hazard adaptation in the Hobsons Bay area include:</p> <ul style="list-style-type: none">- Priority 1: Visionary, vibrant, accountable urban planning Including indicators for community satisfaction with: protection of local heritage, the appropriateness of development, provision and maintenance of parks, gardens and open space- Priority 2: Community wellbeing and inter-connection- Priority 4: Proactive enrichment, expansion and conservation of the natural and urban environment Including indicators for community satisfaction with: protection and enhancement of the foreshore, the provision and maintenance of parks, gardens and open space, protecting and conserving the natural environment, improving the water quality of local creeks, lakes, waterways and wetlands.- Priority 5: Activate sustainable practices Including indicators for progress towards delivery of Council's environmental strategies.- Priority 6: An accessible and connected community																								
<p>Coastal and Marine Management Plan (Alluvium for Hobsons Bay City Council 2020)</p> 	<p>This Coastal and Marine Management Plan (CMMP) provides Hobsons Bay City Council with the strategic direction for the management of their coastal and marine areas for the next 10 years. The CMMP has been created in consultation with the community, the Bunurong Land Council, Council staff, and other stakeholder agencies. Informed by the local context and sentiment, it has been structured to align closely with the legislation, guidelines, and government policy, including key objectives and outcomes.</p> <p>The CMMP presents:</p> <ul style="list-style-type: none">• A vision and objectives that reflect community and stakeholder sentiment and align with legislative direction.• Outcomes that convey the values and future aspirations for the coastal and marine areas in Hobsons Bay and guide the actions.• Current and emerging issues, including those which may potentially threaten values.• Priority actions over the next 10 years.• An implementation pathway and monitoring framework.	<p>The vision, objectives and outcomes of the CMMP are closely aligned with coastal hazard adaptation. The vision and objectives include:</p> <table><tr><td>Vision</td><td colspan="4">A healthy, connected, and resilient Hobsons Bay coastline that is valued and enjoyed by its community</td></tr><tr><td rowspan="2">Objectives</td><td> Acknowledge Traditional Owners' rights, aspirations & knowledge</td><td> Protect & enhance the marine & coastal environment</td><td> Respect natural processes</td><td> Strengthen resilience to climate change</td></tr><tr><td>Understand, acknowledge & act upon rights & aspirations of Traditional Owner groups for Country.</td><td>Protect & enhance intrinsic values & goods & benefits of the marine & coastal environment.</td><td>Understand dynamic natural processes in planning for & managing risks to people & assets.</td><td>Understand current & future stressors from climate change & assess how well marine & coastal environments can cope with & adapt to change & how that can be strengthened.</td></tr><tr><td colspan="2"></td><td> Use & develop sustainably</td><td colspan="2"> Promote stewardship & collaborative management</td></tr><tr><td colspan="2"></td><td>Consider impacts & benefits of existing & new use & development on the environment, other users & prosperity of future generations.</td><td colspan="2">Take a stewardship approach, build understanding & knowledge, engage, & collaborate.</td></tr></table>	Vision	A healthy, connected, and resilient Hobsons Bay coastline that is valued and enjoyed by its community				Objectives	 Acknowledge Traditional Owners' rights, aspirations & knowledge	 Protect & enhance the marine & coastal environment	 Respect natural processes	 Strengthen resilience to climate change	Understand, acknowledge & act upon rights & aspirations of Traditional Owner groups for Country.	Protect & enhance intrinsic values & goods & benefits of the marine & coastal environment.	Understand dynamic natural processes in planning for & managing risks to people & assets.	Understand current & future stressors from climate change & assess how well marine & coastal environments can cope with & adapt to change & how that can be strengthened.			 Use & develop sustainably	 Promote stewardship & collaborative management				Consider impacts & benefits of existing & new use & development on the environment, other users & prosperity of future generations.	Take a stewardship approach, build understanding & knowledge, engage, & collaborate.	
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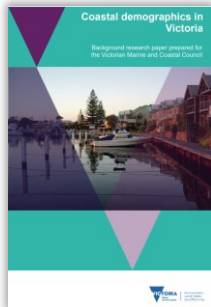

Document	Summary of the document	Key/relevant objectives, goals or recommendations that align with adaptation planning
<p><i>Hobsons Bay Response to climate change action plan</i> (Hobsons Bay City Council, 2022)</p> 	<p>This Plan has been developed as an overarching guide to responding to climate change that also complements Council's other environment and climate related policies, strategies and plans. This ensures a cohesive approach to responding to climate change through capital works, service delivery and behaviour change initiatives across all disciplines.</p> <p>This Plan outlines the tangible actions that Council will take to achieve its vision to: dramatically reduce greenhouse gas emissions from Council operations</p> <ul style="list-style-type: none"> inspire and support residents and businesses to reduce their own greenhouse gas emissions provide future-proofed public spaces, facilities and services that are resilient to extreme weather events and changing coastline conditions create a greener, healthier municipality through an Integrated Water Management approach support net zero and climate resilient buildings in the private realm <p>In addition, the actions will ensure that Council complies with legislation, meets the commitments in the Council Plan (2021-25) and Community Vision 2030 and supports the delivery of Council's suite of environment and climate related policies.</p>	<p>Council has committed to both mitigation and adaptation actions for Council's own operations as well as for supporting the community. The plan defines adaptation as: taking actions to protect human health and wellbeing, physical assets and the natural environment from the impacts of a changing climate such as rising sea levels and extreme weather events.</p> <p>Council has developed the Plan based around four key themes:</p> <div> <div>1. Implementation of Council's emissions reduction action plan (mitigation)</div> <div>2. Managing risk and preparing for a changing climate (adaptation)</div> <div>3. Integrated Water Management (water)</div> <div>4. Supporting the community to respond to climate change (community)</div> </div> <p>Some actions directly related to coastal hazard adaptation include:</p> <ul style="list-style-type: none"> Assess recommendations from the state-led Port Phillip Bay Coastal Hazard Assessment and use them to inform foreshore and coastal adaptation responses. Deliver fit for purpose responses to sea level rise that also deliver habitat and amenity benefits. Collaborate with Melbourne Water, Department of Environment, Land, Water and Planning, Municipal Association of Victoria, and other Bayside municipalities to ensure flooding and inundation data consider climate change and are reflected in the planning scheme. Work with partners including Traditional Owners to monitor, conserve and enhance coastal ecosystems such as wetlands, mangroves and salt marshes. Conduct climate vulnerability assessments and financial risk modelling of Council's assets, prioritising those in high-risk areas.
<p><i>Council Plan 2021-25</i> (Wyndham City Council 2021)</p> 	<p>The Council Plan is Council's shared vision and blueprint for the next four years, outlining how they will work towards achieving the Wyndham 2040 Community Vision. It outlines Council's strategic directions, what actions they will take and how they will track and measure their progress.</p> <p>It has been informed by extensive community engagement, including deliberative engagement, through the 'Help Shape Wyndham's Future' project. Over multiple platforms including online surveys, visits to kindergartens and community conversations, the Wyndham community shared hundreds of ideas, priorities and aspirations. These have been used to refresh the Wyndham 2040 Community Vision and to develop this Council Plan.</p>	<p>The Council Plan provides eight strategic areas to focus Council efforts. Each area is aligned to one of the four Wyndham 2040 Community Vision themes. Those strategic areas with particular relevance to coastal hazard management include:</p> <ul style="list-style-type: none"> A Liveable City: Wyndham has great places and spaces that can be enjoyed by all and growth is sustainable A Green City: Wyndham is an environmentally sustainable place where natural environments are protected. A Welcoming and Inclusive City: Wyndham is an inclusive, safe, welcoming and family-friendly municipality which celebrates our heritage and diverse cultures.
<p><i>Wyndham 2040 Community Vision</i> (Wyndham City Council 2021)</p> 	<p>In 2016, 2,040 stories were collected from Wyndham residents, local businesses, community leaders and organisations about Wyndham. The community told Council what they liked about the municipality, and what their hopes were for the City's future. These stories, as well as a range of other data collected through workshops, forums and individual conversations gave Council a much clearer picture of the community that residents would like to live in. These community sentiments are captured in the <i>Help shape Wyndham's future: Community engagement findings 2021</i> report. From this, the Wyndham 2040 Vision was created.</p> <p>In 2021, Council launched the 'Help Shape Wyndham's Future' project to refresh the existing Wyndham 2040 Community Vision. This included an extensive community engagement process and a deliberative component, in which community representative learnt about the challenges and opportunities facing the municipality, particularly following Covid-19, and shared their ideas and hopes for Wyndham. They then deliberated to reach consensus on a shared vision for Wyndham in 2040 and a refreshed set of theme statements.</p>	<p>Vision for Wyndham in 2040: "A safe, connected and inclusive community. We respect, acknowledge, value and celebrate the First Nations people, our heritage, cultural diversity and multicultural strengths. Our community has the infrastructure and services it needs to support holistic health and wellbeing for all. Local employment and education facilities are plentiful, and there are a variety of recreational, leisure, tourism, art and cultural opportunities for everyone to experience throughout the municipality. We preserve our natural environment and rural lifestyle; we are able to get around easily and get to where we want to go efficiently. We are self-sufficient and pride ourselves on being green and sustainable."</p> <p>This overall vision is underpinned by four themes:</p> <ul style="list-style-type: none"> People and community Places and spaces Earning and learning Leadership and participation
<p><i>Wyndham Coastal and Marine Management Plan 2020-2025</i> (Urban Initiatives for Wyndham City Council 2021)</p> 	<p>The CMMP community engagement process included place-based pop-up engagements in four locations across the municipality, a range of online tools (including 152 completed surveys), as well as workshops with stakeholders. The community engagement process directly informed the visions and themes for the CMMP, as well as the project implementation priorities.</p>	<p>The vision for the CMMP is: <i>To connect and enhance the unique qualities of the Wyndham coastline for greater access and enjoyment and to facilitate appropriate coastal development and tourism.</i> Its development was informed strongly by community consultant. Of particular importance and relevance to the community is the need to connect the foreshore, increase amenity and preserve the coastal character including protection of vegetation and sites of cultural significance. To protect the coastal values of the Wyndham region, the CMMP sets four principle for decision-making:</p> <ol style="list-style-type: none"> Protect what is unique: Ensure protection and recognition of the Wyndham coastline's unique habitat, agricultural, historic, marine sanctuary, indigenous and volcanic landscape values Good planning: Develop an integrated planning framework, strategic partnerships and State Government advocacy priorities to facilitate future sustainable land use and development. Use and access: To improve connectivity and coastal access for Wyndham's growing community to natural and wild places for children to play and for all people to enjoy and recreate. Development: Ensure coastal development protects against adverse environmental impacts to the coastal and marine environment, responds to anticipated sea level rises, activates key activity areas and facilitates community and tourism access to the Wyndham coastline.

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<p><i>Resilient Wyndham 2021-2025</i> (Wyndham City Council, 2021)</p> 	<p>This strategy sets out a blueprint to enable the Wyndham community to better prepare for, respond to, and recover from disruptions. It is designed to maintain and build on the resilience momentum that has been generated to date, particularly through the global Covid-19 pandemic. It outlines actions and targets that will drive change and make a positive difference to how Council interact, how natural and built environments thrive, and how Council embed resilience principles in their decision making.</p> <p>The plan is divided into five focus areas:</p> <ol style="list-style-type: none"> 1. Our People: Healthy, connected and inclusive 2. Our environment: Flourishing natural spaces 3. We are Ready: Disaster aware 4. Our Places: Resilient and sustainable 5. Our Future: Walking our talk 	<p>Several actions in the strategy aim to build resilience to manage sea level rise, storms / flooding / intense rainfall, and other shocks and stresses such as transport disruption, urbanisation and the loss of the natural environment. Key actions related to coastal hazard adaptation include:</p> <ul style="list-style-type: none"> • Identify active open spaces that are subject to flooding and sign them accordingly • Assess the recommendations from DELWP to understand the implications of the Coastal Hazard Vulnerability Assessment of the Port Phillip Bay and incorporate the findings into precinct planning under the implementation of the Wyndham Coastal Management Plan • Update climate change risks in Council's risk register • Climate change adaptation and risk training /education for Councillors and staff • Develop and communicate three key emergency messages for the community to identify with for preparedness and resilience
<p><i>Our Community Plan 2021-25</i> (City of Greater Geelong 2021)</p> 	<p>This plan is a key strategic document that ensures the Council stays current and responsive to the region's evolving priorities and opportunities. It tells the community what councillors are aiming to achieve during their four-year term.</p> <p>The region's long-term vision and values were established in 2017 as part of the Council's clever and creative 30-year plan for our community, and they remain the Council's 'north star' today. The plan identifies four strategic directions that Council will focus their efforts on over the next four years, always moving towards the 30-year vision:</p> <ol style="list-style-type: none"> 1. Healthy, caring and inclusive community 2. Sustainable growth and environment 3. Strong local economy 4. High-performing Council and organisation. <p>For the first time, Council have also incorporated the municipal public health and wellbeing plan into <i>Our Community Plan 2021–25</i>.</p>	<p>Sustainability is a key principle underpinning this plan. Sustainability refers to a continual way of thinking that focuses on the best outcomes for people, the environment and the economy – both now and in the future. It also means demonstrating leadership, supporting sustainable choices for industry and the community, as well as tracking our progress and reporting annually against global reporting standards.</p> <p>Strategic direction and outcomes with particular relevance to coastal hazard management include:</p> <ul style="list-style-type: none"> - Sustainable growth and environment: - We protect and restore our natural environment - Greater Geelong has quality, vibrant public spaces - We are...increasing the City's resilience to climate change impacts
<p><i>A Clever and Creative Future: 30-year community vision</i> (City of Greater Geelong 2017)</p> 	<p>From September 2016 to May 2017, over 16,000 people told Council what they value about the region, how they rate it against the recognised elements of a successful community, and shared ideas about how to address challenges now and in the future.</p> <p>The diversity of the people involved and their commitment and passion for Greater Geelong makes this document a strong and durable platform to guide future decision-makers, establish their planning requirements and hold them accountable.</p>	<p>Our community's 30-year clever and creative vision: "By 2047, Greater Geelong will be internationally recognised as a clever and creative city region that is forward looking, enterprising and adaptive, and cares for its people and environment."</p> <p>Features nine community aspirations:</p> <ul style="list-style-type: none"> - A prosperous economy that supports jobs and education opportunities - A leader in developing and adopting technology - Creativity drives culture - A fast, reliable and connected transport network - A destination that attracts local and international visitors - People feel safe wherever they are - An inclusive, diverse, healthy and socially connected community - Sustainable development that supports population growth and protects the natural environment - Development and implementation of sustainable solutions
<p><i>Paleert Tjaara Dja: Let's Make Country good together 2020-2030</i> <i>Wadawurrung Country Plan</i> (Wadawurrung Traditional Owners Aboriginal Corporation 2020)</p> 	<p>The Paleert Tjaara Dja (Let's make country good together) Country Plan 2020-2030 presents a collective vision and direction for the future of Wadawurrung people and Country.</p> <p>The ultimate vision of the Plan is: Wurrurrwilwa gupma bengadak Wadawurrung wurring-wurring baap dja – All people working together to make Wadawurrung Country and Culture strong. It illustrates what is threatening the health of Wadawurrung Country and people, and priority work areas to address these threats. It serves as a guide for building Wadawurrung cultural heritage management and broader aspirations, including the Wadawurrung Land and Sea Management Program.</p>	<p>The Plan presents nine values and goals that detail what is really important. Three programs and 18 strategies provide focus areas to reduce threats and improve the health of values. Strategies and related goals that are particularly relevant to coastal hazard management include:</p> <p>Wurrurrwilwa Wadawurrung Corporation (Strengthening Wadawurrung Corporation):</p> <ul style="list-style-type: none"> - By 2021 the WTOAC Healthy Country and Culture Committee is guiding projects - By 2027 WTOAC is known and being engaged by 60% of our stakeholders in any decisions to do with cultural and environmental management in our Country. - By 2030, we have healthy relationships and partnerships supported by agreements with 60% of our priority stakeholders <p>Gobata Dja baap Ngubiyt (Taking Care of Country and Waters):</p> <ul style="list-style-type: none"> - By 2021, our Caring for Country Team is established - By 2024, cultural heritage values along our coastal country are assessed. - By 2027, Cultural Heritage Plans or Agreements are in place to guide the protection of priority cultural places. - By 2029 20,000 ha (10%) of crown land that are special places to us are in Wadawurrung management. -

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<p><i>Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site Management Plan Summary</i> (DELWP 2018)</p> 	<p>This Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site Management Plan (RMP) sits within a framework for the management of aquatic ecosystems in Australia and the State of Victoria. At the national level, the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) establishes the basis for managing Ramsar sites; and a set of national guidelines for describing ecological character and developing management plans has been developed (DEWHA 2008). In Victoria, the Victorian Waterway Management Strategy (VWMS) guides the management of rivers, estuaries and wetlands. The RMP aligns with Action 3.4 and 3.9 in Water for Victoria by improving waterway health and knowledge of waterways and catchments.</p> <p>The primary purpose of the RMP is to maintain ecological character and promote wise use of the site. Wise use is defined by the Convention as: “the maintenance of their ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development”.</p>	<p>Site management themes, and their sub strategies, with particular relevance to coastal hazard management include:</p> <ul style="list-style-type: none"> - Theme 1: Protecting flora and fauna <ul style="list-style-type: none"> o 1.7 Investigate options for addressing cumulative impacts of land use change and development on ecological character. - Theme 2: Adapting to climate change <ul style="list-style-type: none"> o 2.1 Identify and assess options for managing risk to coastal habitats (saltmarsh, seagrass and intertidal flats) from sea level rise and implement as appropriate. o 2.2 Identify opportunities for artificial habitat creation within and adjacent to the Ramsar site to compensate for potential habitat loss due to sea level rise and implement as appropriate o 2.3 Identify sites at most risk from extensive shoreline erosion and implement appropriate interventions. - Theme 5: Communication, Education, Participation and Awareness <ul style="list-style-type: none"> o 5.2 Work with Aboriginal groups to improve understanding of Aboriginal values associated with the Ramsar site and develop opportunities for Aboriginal involvement in Ramsar site management. o - 5.3 Build capacity and collaboration with community and industry groups by supporting citizen science and on-ground community action in Ramsar site management.
<p><i>Jawbone Marine Sanctuary Management Plan</i> (Parks Victoria 2007)</p> 	<p>The plan provides the basis for the future management of Jawbone Marine Sanctuary. As a public document, the plan establishes how Parks Victoria will protect the natural and cultural values of the sanctuary and describes the services and facilities that will be provided to help visitors to enjoy, appreciate and understand the sanctuary in ways that are consistent with this. The plan also serves to inform and encourage cooperative land management and participation in community-based programs between Parks Victoria and the managers of areas adjacent to the sanctuary.</p>	<p>Major management directions for the sanctuary relevant to coastal hazard management include:</p> <ul style="list-style-type: none"> - The intertidal reef, mudflat, mangrove, saltmarsh and seagrass communities will be protected as a scientific reference area by focusing shore-based access and educational use at Jawbone Bay. - Protect natural processes to ensure an overall benefit to biodiversity and marine ecological communities. - Undertake and encourage scientific research to improve the scientific basis for management. - Minimise other identified threats to the sanctuary through ongoing risk assessment and complementary adjacent, coastal and catchment management. - Reflect the Traditional Owners' knowledge and interests in the area and aspirations for the sanctuary in the planning and management. - Respect, promote and interpret Indigenous knowledge relating to Country in accordance with the views of the Traditional Owners. - Manage recreational and educational activities in Jawbone Bay sustainably and with minimal impact on the sanctuary. - Interpret and promote the sanctuary's natural and cultural values and its recreational opportunities and foster community appreciation and awareness. - Support and encourage Friends and volunteer groups and promote opportunities for the community to work together and with Parks Victoria to achieve common goals for the sanctuary. - Work collaboratively with agencies, the community and other stakeholders to assist in the sanctuary's management. -
<p><i>Point Cooke Management Plan</i> (Parks Victoria 2007)</p> 	<p>This plan is a strategic guide for future management of the sanctuary. As a public document, the plan establishes how Parks Victoria will protect the natural and cultural values of the sanctuary and describes the services and facilities that will be provided to help visitors to enjoy, appreciate and understand the sanctuary in ways that are consistent with this. The plan also serves to inform and encourage cooperative land management and participation in community based programs between Parks Victoria and the managers of areas adjacent to the sanctuary.</p>	<p>Management directions for the sanctuary with relevance to coastal hazard management include:</p> <ul style="list-style-type: none"> - Habitats within the sanctuary will be managed for the protection of flora and fauna, including birds, fish, invertebrates, seaweeds and seagrass, subject to natural processes. - The Traditional Owners' knowledge, interests and rights in the sanctuary and aspirations for Country will be reflected in planning and management. - The sanctuary's values and recreational and tourism opportunities will be interpreted and promoted to foster community participation, appreciation and awareness. - Opportunities for marine education will be promoted. - Opportunities for visitors to enjoy activities that are compatible with conservation objectives will be promoted. - Scientific research will be undertaken to improve the scientific basis for management of the sanctuary and other marine protected areas. - Friends and volunteer groups will be supported and encouraged to work together and with Parks Victoria to achieve common goals for the sanctuary.
<p><i>Waterways for the West Community Vision</i> (DELWP 2021)</p> 	<p>The Waterways of the West Community Vision is the first, overarching, long-term vision for this complex, connected, living system of waterways and parklands. People from the West came together to create a vision representing their aspirations and expectations for protecting the waterways. To develop the vision, a Community Assembly of 45 residents representing the vibrant community of the region was convened. As part of the process, they heard from each other, waterway health experts, representatives of cultural and linguistically diverse communities and school students.</p>	<p>The Community Vision is themed into three broad spatial domains, all of which have relevance to coastal hazard management in the RaSP region:</p> <ul style="list-style-type: none"> - The vision for cities, towns and suburbs - The vision for rural and agricultural lands - The vision for natural places and forested areas <p>This vision will guide policymakers, waterway and land managers and the community as we walk together with the Traditional Owners of the Waterways of the West and their lands over the next 50 years.</p>

Document	Summary of the document	Key/relevant objectives, goals or recommendations that align with adaptation planning
<p><i>Waterways for the West Action Plan (DELWP 2021)</i></p> 	<p>The Waterways of the West Action Plan is a transformational, five-year plan that will bring to life the 50-year vision developed by the community, with guidance from the Bunurong, Wadawurrung and Wurundjeri Woi wurrung Traditional Owners. It includes immediate actions to improve the health, amenity and sustainability of the waterways of Melbourne's west. The Waterways of the West region is rapidly transforming. We must act now to protect the enduring and unique beauty, character and history of the waterways if we are to move towards the long-term aspirations in the Waterways of the West Community Vision. The Waterways of the West region extends from Ballan – north-west of Melbourne – to Lancefield in the north, to Footscray in inner Melbourne, and to Little River settlement to the west. The main waterways are the Maribyrnong (Mirrangbamurn) River and the Werribee River (Wirribi Yaluk). Other rivers and creeks in the region include Moonee Ponds (Moonee Moonee) Creek, the Little River (Worin-yaloke) and Laverton, Skeleton and Kororoit creeks. The region's waterways also include internationally significant coastal wetlands and estuaries.</p>	<p>This Action Plan includes nine directions supported by 20 shorter-term actions which will be implemented in the next year, and a further 20 actions that will be delivered within five years. Longer-term actions are to consider necessary changes to institutional arrangements, strengthen planning provisions for waterways and strengthen the role of Traditional Owners in planning and management.</p> <p>The directions include:</p> <ol style="list-style-type: none"> 1. Recognise the Waterways of the West as living and integrated natural entities and the Traditional Owners as the 'voice of these living entities 2. Embed Traditional Owners' values in planning and decision-making for waterways 3. Strengthen planning policy and controls for waterways 4. Improve waterway amenity to meet community expectations 5. <u>Better protection of the region's wetland values</u> 6. Identify opportunities to meet environmental and cultural water needs 7. Protect the Waterways of the West from pollution 8. Increase community connection, education and participation 9. Ensure accountability and transparency for Action Plan delivery
<p><i>Werribee Catchment Integrated Water Management Plan: Targets driving outcomes (DELWP 2021)</i></p> 	<p>The Werribee catchment includes a major Australian food bowl and several of Victoria's fastest urbanising greenfield areas. The Werribee Integrated Water Management (IWM) Forum identifies on-ground projects and initiatives to progress the catchment's vision and strategic outcomes, as delineated in their IWM Plan.</p> <p>This IWM Plan provides a consistent framework for coordinating action by the various organisations involved in water cycle management within the Werribee catchment. It represents the collective vision and intent of the Werribee IWM Forum and has been developed through a collaborative process.</p> <p>Members of the Werribee IWM Forum include the CEOs and Managing Directors of:</p> <ul style="list-style-type: none"> • Brimbank City Council • Bunurong Land Council Aboriginal Corporation • Greater Western Water • Hobsons Bay City Council • Macedon Ranges Shire Council • Melbourne Water • Melton City Council • Moorabool Shire Council • Southern Rural Water • Department of Energy, Environment and Climate Action • Victorian Planning Authority • Wadawurrung Traditional Owners Aboriginal Corporation • Wurundjeri Woi Wurrung Cultural Heritage Aboriginal Corporation • Wyndham City Council 	<p>The Plan presents seven Strategic Outcomes, including:</p> <ol style="list-style-type: none"> 1. Safe, secure and affordable water supplies in an uncertain future 2. Effective and affordable wastewater systems 3. Existing and future flood risks are managed to maximise outcomes for the community 4. Healthy and valued waterways and marine environments 5. Healthy and valued urban and rural landscapes 6. Community values are reflected in place-based planning 7. Jobs, economic benefits and innovation <p>Under each Strategic Outcome are both catchment-scale and Greater Melbourne region-scale measures, which include measures of current performance, as well as targets for 2030 and 2050. Measures and targets with particular relevance to the Adapt West region and coastal hazard adaptation planning include:</p> <ul style="list-style-type: none"> • Measure 3.1 Reduction in Annual Average Damage (AAD) delivered by flood management initiatives. <ul style="list-style-type: none"> ◦ Target: \$3 - 13 million reduction in AAD delivered by flood management initiatives by 2030 for the catchment. • Measure 3.2 Effective flood storage volume created as part of multi-functional assets. • Measure 3.3 Projects that cross consider IWM and flood mitigation opportunities as part of their design. <ul style="list-style-type: none"> ◦ Target: 100% of projects cross-consider IWM and flood mitigation opportunities as part of their design by 2030 and maintained by 2050 for the catchment. • Measure 4.1 Mean annual urban runoff volume reduction. <ul style="list-style-type: none"> ◦ Target: 46 Gigalitres/year and 197 Gigalitres/year of mean annual urban runoff volume reduction by 2050 for the catchment. • Measure 4.2 Mean annual Total Suspended Solids (TSS) and Total Nitrogen (TN) prevented from discharging to receiving waters. <ul style="list-style-type: none"> ◦ Target: Remove TSS and TN to achieve the marine pollutant load objectives for the Port Phillip Bay and Western Port, as specified in the Environment Reference Standards 2021k. • Measure 6.1a Traditional Owners' capacity to partner in IWM programs, policy, planning and projects. • Measure 6.1b Other IWM partner organisations' capability to partner with Traditional Owners in IWM programs, policy, planning and projects. • Measure 6.2 Blue-green infrastructure created or enhanced by IWM as a proportion of land area.
<p><i>Werribee Catchment Integrated Water Management Plan: Actions for delivery outcomes (DEECA 2024)</i></p> 	<p>This Action Plan was developed by the partners of the Werribee IWM Forum in collaboration with partners of the Yarra, Dandenong, Western Port and Maribyrnong IWM Forums. It includes outcome-focused actions at a range of scales, which are complementary and reinforcing, to improve the resilience, liveability and sustainability of the Werribee catchment's urban areas and the environment.</p> <p>The Action Plan will support water planning and management over the next 10 years (2024–2034). It outlines a suite of priority projects agreed on by all organisations involved in the management of water, working together towards a common vision. Additionally, many more locally important projects are being pursued, which collectively contribute to the strategic outcomes of the catchments.</p> <p>The plan will be used by IWM Forum partners to guide investment. It will be a living plan, to be reviewed regularly. Organisations will use their best endeavours to progress projects using the priority action lists for infrastructure planning and when making investment decisions. Future actions will be identified through updates to the plan.</p>	<p>This Action Plan provides a vision for the Werribee catchment as: <i>The Werribee catchment is resilient and thriving. Our growing communities are supported, and the health of our diverse environment is enhanced.</i></p> <p>The Action Plan also presents priority actions to contribute to delivering outcomes for the Werribee catchment as well as for the Greater Melbourne region. This includes 8 structural actions, 15 systemic enabling actions, and 7 place-based enabling actions. Actions with particular relevance to coastal adaptation planning include:</p> <ul style="list-style-type: none"> • Structural Action 2: Cherry Creek stormwater harvesting • Systemic Enabling Action 1: Secure funding and resourcing to enable Traditional Owners to make decisions and determine IWM priorities on their Country. • Systemic Enabling Action 4: Embed IWM in land-use planning and urban development. • Systemic Enabling Action 6: Develop guidance for stormwater harvesting and infiltration. • Systemic Enabling Action 8: Further develop the IWM resource hub to share data and information. • Place-based Enabling Action 5: Support implementation of Flood Management Strategy of report Phillip and Western Port – Action Plan 2021-2026.

Document	Summary of the document	Key/relevant objectives, goals or recommendations that align with adaptation planning
<p><i>Port Phillip Bay Environmental Management Plan</i> (DELWP 2017)</p> 	<p>The Port Phillip Bay Environmental Management Plan 2017–2027 demonstrates the Victorian Government's the long-standing commitment to conserve and enhance Victoria's most important coastal and marine areas. This Plan builds on the work that is already being done to maintain the health of the Bay. This Plan is required under the State Environment Protection Policy (Waters of Victoria) – Schedule F6 Waters of Port Phillip Bay (1997). It applies to 'all the waters of Port Phillip Bay bounded by the high water mark, a line drawn between Point Lonsdale and Point Nepean and a line across the mouth of the Yarra River'.</p> <p>This Plan recognises the environmental, social and economic values of Port Phillip Bay, and builds on current programs and investment to protect the Bay's health. It aligns government, industry and community groups on actions that will address challenges resulting from population growth, urbanisation and climate change. The Plan:</p> <ul style="list-style-type: none"> • Determines the priority management issues • Outlines actions that respond to priority issues • Identifies management responsibility for particular issues • Coordinates the management for protection of the Bay's beneficial uses and natural values • Identifies specific management actions for nutrients, sediments, pathogens, litter and marine pests • Provides a process for reviewing and reporting progress to the community. 	<p>This Plan focuses action and investment on priority issues affecting Bay health. Priorities were identified through background investigations, and community and agency consultation. Priority actions will be implemented over ten years and will follow an adaptive management approach. Specific interventions and activities will be aligned to, and in some cases delivered by, broader state or regional plans and strategies (such as whole-of-catchment planning or integrated water cycle management).</p> <p>Vision: A healthy Port Phillip Bay that is valued and cared for by all Victorians.</p> <p>Three goals have been developed, each based on input and advice from key agencies and stakeholder groups, and on feedback from the community, to achieve the long-term vision for the health of the Bay. They are included below, align with any related strategies that hold particular relevance to coastal hazard adaptation:</p> <ol style="list-style-type: none"> 1. Stewardship of the Bay is fostered across community, industry and government <ol style="list-style-type: none"> a. Improve appreciation and understanding of Bay values and connections to catchment b. Improve collaboration and partnerships across community, industry and government 2. Water quality is improved to ensure environmental health and community enjoyment of the Bay 3. The Bay's habitats and marine life are thriving <ol style="list-style-type: none"> a. Conserve and restore habitats and marine life b. Manage risks from marine pests
<p><i>Victorian recreational boating strategy 2021 – 2030</i> (Better Boating Victoria of the Victorian Fisheries Authority 2021)</p> 	<p>The Victorian Recreational Boating Strategy and associated documents set the vision for the future of boating In Victoria. The 2021 Strategy is a Victorian-first document developed through extensive consultation with boaters and user groups to establish the vision for the state's boating facilities through 2030.</p> <p>This strategy identifies and describes challenges and opportunities around growth in the number of boaters and the variety of activities they undertake across Victoria.</p> <p>Challenges outline by the strategy include:</p> <ul style="list-style-type: none"> • An inconsistent approach to funding priorities and resource allocation • The poor condition of some boating facilities • Lack of access (dredged channels and all abilities access) • A shortage of car trailer parking • Under-resourced waterway management and a subsequent lack of oversight over assets such as moorings, berths, channels, navigation aids and safety signage as well as compliance with local safety rules such as exclusion zones and speed limits • Resourcing of Marine Search and Rescue bodies • Improvements needed for better data sharing • The threat to the environment and marine life posed by damaged or abandoned vessels • Changing climate and its impacts to boating facilities 	<p>The strategy sets out a number of objectives aimed at meeting boating challenges in Victoria. They include:</p> <ul style="list-style-type: none"> • Improving the maintenance of public facilities and renewing and building new boating facilities • Improving access and navigation • Investing in destination locations • Investing in Marine Search and Rescue and boating safety and education • Promoting boating across Victoria • Improving the quality of data and information available to boaters <p>Coastal hazards and climate change (storms, erosion and inundation) are recognised as posing ongoing infrastructure challenges to Victorian boating facilities along the coast. The changing climate is also considered likely to pose infrastructure challenges on inland waterways, particularly during times of flood and drought.</p> <p>The strategy details prioritisation of boat ramp renewals. Across the Adapt West area:</p> <ul style="list-style-type: none"> • The Warmies (in Newport), Altona and Avalon boat ramps are categorised Medium priority • Werribee South and Point Wilson (Kirk Point) boat ramps are categorised High priority <p>Proposed facility upgrades in the strategy also include:</p> <ul style="list-style-type: none"> • Overflow carpark improvements at The Warmies (Newport), Altona, Werribee South and Avalon Beach • Longer pontoons/jetties at Altona, Werribee South and Avalon Beach • Additional ramp lanes at Altona, Werribee South and Point Wilson (Kirk Point) <p>Potential additional berths, mooring and destination jetties are also highlighted for Williamstown.</p>
<p><i>Greater Melbourne Regional Climate Change Adaptation Strategy</i> (DEECA 2021)</p> 	<p>This Strategy provides a framework for considering what we need to do to adapt to climate change in the Greater Melbourne. It is full of ideas developed by our own communities and shows that everyone has a role to play.</p> <p>The action areas in section 2 outline priorities that could be funded or co-funded by anyone: businesses, individuals, state and local government, private sector organisations, peak bodies or philanthropic groups. We hope this Strategy will inspire communities across our region to work together to solve problems and achieve common goals</p>	<p>The vision for the Greater Melbourne region: Our region and its communities have the agency, will, skills and resources to adapt to climate change.</p> <p>The principles of the strategy, and action areas with particular relevance to coastal hazard adaptation, include:</p> <ol style="list-style-type: none"> 1. Taking a systems approach <ol style="list-style-type: none"> a. Improving infrastructure resilience across the whole system 2. Creating a more equitable and sustainable society through climate adaptation <ol style="list-style-type: none"> a. A focus on supporting the most at-risk communities and people b. Increasing and enhancing the natural environment, urban green spaces and parks 3. Learning how to adapt and transform 4. Making adaptive and transformational change together <ol style="list-style-type: none"> a. A focus on supporting problem-solving in at-risk locations 5. Understanding, informing, advocating and empowering decisions at all levels <ol style="list-style-type: none"> a. Strengthening the knowledge, data and evidence base for decision-making

Document	Summary of the document	Key/relevant objectives, goals or recommendations that align with adaptation planning																				
<p>Wave 5: Marine and Coastal Community attitudes and behaviour report (DELWP, prepared for the Victorian Marine and Coastal Council 2019)</p> 	<p>This report presents the findings of Wave 5 of the Victorian Marine and Coastal Community Attitudes and Behaviours Research Study conducted in late 2018 on behalf of the Department of the Environment, Land Water and Planning (DELWP). The previous four ‘Waves’ were conducted in 1996, 2000, 2007 and 2011, although the study has evolved considerably over time.</p>	<p>The overall objectives were to:</p> <ul style="list-style-type: none">- understand and track community views toward the Victorian coast and marine environments- identify community values, issues and concerns related to these environments- contribute to informing future policy, planning and management of the Victorian coast- refresh and, where possible, contribute to the previous research data.																				
<p>Coastal demographics in Victoria (DELWP, prepared for the Victorian Marine and Coastal Council 2020)</p> 	<p>The purpose of this report is to inform policy initiatives being undertaken through the Marine and Coastal Act 2018. The latest demographic and census-based data is used in this report to provide an overview of issues associated with population and settlement along the Victorian coast. The latest demographic and census-based data is used in this report to provide an overview of issues associated with population and settlement along the Victorian coast.</p> <p>Ninety-six percent of the Victorian coast is in public ownership, unlike coastal areas in most other Australian States</p>	<p>Note: this is not a strategy document, there are no aspirations or goals.</p> <p>Note: the RaSP region is partially grouped within 'Greater Melbourne' and partially within 'Geelong' - most results are therefore too high-level to draw out information of particularly relevance to the RaSP study area.</p>																				
<p>Victoria in Future 2023 Population and household projection to 2051 (Department of Transport and Planning 2023)</p> 	<p>Victoria in Future 2023 (VIF2023) is the official state government projection of population and households. Population projections are estimates of the future size, distribution, and composition of the population. They are based on trends and assumptions for population change, household formation and housing development across all of Victoria. It should be noted that projections should not be interpreted as exact predictions or forecasts of the future, nor are they targets.</p> <p>VIF2023 makes projections based on the Estimated Resident Population (ERP). The ERP is the official population estimate released by the Australian Bureau of Statistics at least once per year. The latest data used in the report are the numbers for 30 June 2022. Household and dwelling data are based on the results of 2021 Census.</p> <p>Projections for sub-state areas are published for every fifth year from the most recent Census (2021) and extend to 2051 for major regions and to 2036 for Local Government Areas. Any sub-state estimates based on 2023 figures are derived from an interpolation between 2021 and 2026.</p> <p>The data files provided online provide the most detailed view of the projections and have been used within this report.</p>	<p>VIF2023 provides projections that can be used by decision makers in government, business, and the community to understand the growing and changing Victorian population. This includes some key high-level statistics and information relating to the Adapt West region.</p> <p>In terms of top population growth across metropolitan and regional LGAs in Victoria, LGAs of the Adapt West region including Wyndham and Greater Geelong are among the highest for projected population growth from 2021 to 2036. :</p> <div><div><div>Metropolitan LGAs</div><table><tr><td>Wyndham</td><td>175,900</td></tr><tr><td>Melton</td><td>168,200</td></tr><tr><td>Casey</td><td>158,000</td></tr><tr><td>Hume</td><td>109,200</td></tr><tr><td>Whittlesea</td><td>103,600</td></tr></table></div><div><div>Regional LGAs</div><table><tr><td>Greater Geelong</td><td>96,900</td></tr><tr><td>Ballarat</td><td>31,200</td></tr><tr><td>Greater Bendigo</td><td>28,300</td></tr><tr><td>Baw Baw</td><td>21,600</td></tr><tr><td>Moorabool</td><td>18,900</td></tr></table></div></div> <p>Figure 6 – Top five population growth, 2021 to 2036, Metropolitan and Regional Local Government Areas.</p> <p>VIF2023 data files have also provided projected rates of population change from 2021 to 2036 per Statistical Area Level 2 (SA2) for the Adapt West region that have been included within this report.</p>	Wyndham	175,900	Melton	168,200	Casey	158,000	Hume	109,200	Whittlesea	103,600	Greater Geelong	96,900	Ballarat	31,200	Greater Bendigo	28,300	Baw Baw	21,600	Moorabool	18,900
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Appendix 2: Community and social values and aspirations derived from literature review

A literature review of strategic documents has provided a starting point for understanding community coastal values and aspirations across the Adapt West study area. These values and aspirations, as derived from their literature sources, are themed by cultural heritage, environment and ecosystems, industry and economy, and use of the coast (Table 9).

Table 9. Community values and aspiration for the Adapt West region, compiled from literature review.

Values and aspirations	Literature source
Cultural heritage	
Cultural heritage is experienced as living, both tangible and intangible, and held within the lands, waters and skies of the region.	<i>'We the Bunurong People are the Traditional Custodians of this Country, it's alive with our stories. These sands of the Bass Coast contain the footprints left behind by our ancestors in every cultural way. The responsibility for the caring of our Country belongs to us as its custodians...These places hold our stories, culture and our Ancestors physically as well as spiritually, and it is by the Lore of Bunjil we protect, love and look after her.'</i> (Bunurong statement of significance, Bunurong Land and Aboriginal Corporation)
(First Nations community values of First Nations cultural heritage)	<i>'For Boon Wurrung community members, the ability to reconnect with country includes the ability to walk the length of the coastline. This provides a connection between significant destinations, places and ancestral remains within the coastal landscape. The mouth of the Werribee River is a very important location for community members. The ability to observe the night sky from the coast is also important for some community members.'</i> (Wyndham CMMP 2020-2025, Wyndham City Council 2020)
	<i>'There are many physical (tangible) places that have the imprint of our ancestors living on Country...Living places are made up of the midden sites, discarded food wastes from many meals in the one location. They are next to rivers, lakes and bays or in the sand dunes by the ocean...There are many more cultural places that are intangible and also carry the imprint of our ancestors. We can feel them in places where our songlines pass through and in the places in our creation stories. In this way all of Country is connected.'</i> (Paleert Tjaara Dja: Let's Make Country good together 2020-2030, Wadawurrung Traditional Owners Aboriginal Corporation 2020)
	<i>'Our links to coastal and sea Country are vital! They continue to be a place where we can swim, fish, harvest and connect, a safe place to revive and partake in our living culture.'</i> (Melinda Kennedy, Paleert Tjaara Dja: Let's Make Country good together 2020-2030, Wadawurrung Traditional Owners Aboriginal Corporation 2020)
	<i>'To keep moving forward, we need to accept each other's differences, skills and knowledge and truly embrace the world's oldest living culture, our Aboriginal culture. Let's walk into the unknown together!'</i> (Norm Jurrawaa Stanley, A Clever and Creative Future: 30-year community vision, City of Greater Geelong, 2017)

Values and aspirations	Literature source
Recognition of the strong connection between Country and culture for First Nations peoples. (Broader community values of First Nations cultural heritage)	<p><i>'This coastline and its surrounding Land and Sea areas are rich in Aboriginal culture. The area is of great significance to the Bunurong Traditional Owners. These peoples have a strong connection to Country and have played an important role in management of land, water, and the natural landscape.'</i> (Hobsons Bay CMMP, Hobsons Bay City Council 2020)</p> <hr/> <p><i>'We recognise the diversity of Aboriginal and Torres Strait Islander peoples, culture and stories that continue to shape our lives together. The country beginnings of our towns and shire are remembered.'</i> (Wyndham 2040 Community Vision, Wyndham City Council 2021)</p> <hr/> <p><i>'The Action Plan has an action to develop with Traditional Owners – as the 'voice of this living entity' and to acknowledge their continuous connection to the wetlands and sea Country – a coastal wetlands master plan.'</i> (Waterways for the West Action Plan, DELWP 2021)</p>
European settlement and heritage is an important historical record that tells the story of recent and profound societal change within the region.	<p><i>'Recent history has seen the region grow and evolve around maritime, industrial, and manufacturing sectors. The legacy of these remain in the form of many heritage sites along with historical stories and experiences. This history is valued by local residents and visitors to Hobsons Bay.'</i> (Hobsons Bay CMMP, Hobsons Bay City Council 2020)</p> <hr/> <p><i>'There is also a rich social and farming history at Werribee South and a number of sites along the Wyndham Coastline with remnants of European settlement.'</i> (Wyndham CMMP 2020-2025, Wyndham City Council 2020)</p>
All forms of cultural heritage provide an opportunity to add to the richness of today's culture through active engagement with them.	<p><i>'Community vision: By 2030, embracing our heritage... [where community representatives state] heritage to include indigenous, maritime, historic buildings, industrial and landscapes.'</i> (Hobsons Bay 2030 Community Vision, Hobsons Bay City Council 2017)</p> <hr/> <p><i>'Creativity drives Culture': [we value] involvement with local art, music, heritage, contemporary culture and Wadawurrung culture.'</i> (A Clever and Creative Future: 30-year community vision, City of Greater Geelong 2017)</p> <hr/> <p><i>'I value the uniqueness of the area...and cultural heritage'</i> (Community member, Wyndham CMMP 2020-2025, Wyndham City Council 2020)</p>

Values and aspirations	Literature source
Environments and ecosystems	
Uniqueness of the region's natural environments	<i>'Hobsons Bay's rich natural environment is one of its greatest assets.'</i> (Hobsons Bay 2030 Community Vision, Hobsons Bay City Council 2017)
	<i>'The community sees the unique natural environments of the municipality and the environment as something that needs to be safeguarded and respected.'</i> (Wyndham 2040 Community Vision, Wyndham City Council 2021)
	<i>'I value the uniqueness of the area, the river, estuary, red cliffs.'</i> (Community member, Wyndham CMMP 2020-2025, Wyndham City Council 2020)
	<i>'[The community] recognises the uniqueness and significance of its natural environments.'</i> (A Clever and Creative Future: 30-year community vision, City of Greater Geelong 2017)
The biodiversity of flora and fauna contained within the coastal and marine ecosystems of the region.	<i>'We have a superb coastline in Hobsons Bay and...amazing birdlife. It's truly awesome.'</i> (Community member, Hobsons Bay 2030 Community Vision, Hobsons Bay City Council 2017)
	<i>'The birdlife is fantastic and you see different kinds at different times of the year. The marine life is varied year-round and sometimes you can spot dolphins! I love it here!'</i> (Community member, Wyndham CMMP 2020-2025, Wyndham City Council 2020)
	<i>'Students of the west would like the waterways to be places of natural beauty, with plenty of native wildlife, living in excellent habitat and clean, healthy waterways.'</i> (Waterways for the West Community Vision, DELWP 2021)
	<i>'Strong ecosystem. Animal habitat looked after!'</i> (Port Phillip Bay Environmental Management Plan, DELWP 2017)
The sense of refuge into nature provided by marine and coastal reserves, parks and sanctuaries.	<i>'[I like Hobsons Bay because of] The wonderful open spaces, coastal parks, Skeleton Creek, Jawbone Reserve, Newport Lakes, 100 Steps, Altona Coastal Park, Altona Beach, Cherry Lake and they are looked after'</i> (Community member, Hobsons Bay 2030 Community Vision)
	<i>'The sanctuary's tranquillity and wide variety of coastal habitats are enjoyed and cherished by the local community and visitors.'</i> (Jawbone Marine Sanctuary Management Plan, Parks Victoria 2007)
	<i>'The sense of remoteness at Point Cook Coastal Park, and its role as a 'refuge from urban development', are its defining features. Expansive views within the park, from across Port Phillip Bay to Mornington Peninsula, the Dandenongs and along the coast towards the city and the Bellarine Peninsula, are valued.'</i> (Wyndham CMMP 2020-2025, Wyndham City Council 2020)
	<i>'A number of local environmental groups, including Friends of Cheetham wetlands, Friends of Point Cook Coastal Park, other community groups, residents of the Point Cook area, and the education and research community have historical associations with the sanctuary area.'</i> (Point Cooke Management Plan, Parks Victoria 2007)

Values and aspirations	Literature source
Industry and economy	
Local agricultural production is an important contributor to greater Melbourne's food bowl and to the cultural identity of region, particularly for rural communities and First Nations communities.	<i>'Community priorities: Promotion of market gardens, the food bowl and our rural community.'</i> (Wyndham City Council 2021)
	<i>'I value the uniqueness of the area...the agricultural and cultural heritage'.</i> (Community member, Wyndham CMMP 2020-2025, Wyndham City Council 2020)
	<i>'We respect and value what the waters provide us: the food they help us grow and the places that nurture our wellbeing, whose beauty we enjoy.'</i> (Waterways for the West Community Vision, DELWP 2021)
	<i>'We bring our traditional knowledge into current businesses and pursue aquaculture and agricultural enterprises with products that are culturally important to us and help heal Country.'</i> (Paleert Tjaara Dja: Let's Make Country good together 2020-2030, Wadawurrung Traditional Owners Aboriginal Corporation 2020)
Tourism is a good opportunity to build the local economy for First Nations peoples and for the community more broadly.	<i>'We want our people to further develop their cultural education, art and tourism businesses.'</i> (Paleert Tjaara Dja: Let's Make Country good together 2020-2030, Wadawurrung Traditional Owners Aboriginal Corporation 2020)
	<i>'Community priorities: Prioritisation of tourism, events and festivals; More arts, tourist destinations and beautification.'</i> (Wyndham City Council 2021)
	<i>'Community members highlighted Wyndham's great tourist attractions like the Werribee Mansion and Werribee Open Range Zoo. Combined with the development of more local events, community members described Wyndham as a having a bright tourism future.'</i> (Wyndham 2040 Community Vision 2021)
There is a great opportunity to utilise the beauty of the region's natural environments for ecotourism, but not at a cost to their health.	<i>'We've got natural beauty here. Tourism is vital for Greater Geelong.'</i> (Franceska Dezelak, A Clever and Creative Future: 30-year community vision, City of Greater Geelong 2017)
	<i>'Tourism values: Opportunities for guided marine education and nature-based tourism (marine interpretive tours and visits by school groups take place on the intertidal area in the sanctuary and the information centre at the Coastal Park on weekdays, particularly during the warmer months).'</i> (Point Cooke Management Plan, Parks Victoria 2007)
	<i>'Harmony – people, wildlife, industry.'</i> (Port Phillip Bay Environmental Management Plan, DELWP 2017)
	<i>'[The Bay is] used to help Victorian economy, not an end itself.'</i> (Port Phillip Bay Environmental Management Plan, DELWP 2017)

Values and aspirations	Literature source
Use of the coast	
Safe and easy access to the coast to facilitate its many uses, with good connectivity along the length of the coastline.	<p><i>'To improve connectivity and coastal access for Wyndham's growing community to natural and wild places for children to play and for all people to enjoy and recreate... During community consultation there were over 70 specific comments mentioning walking and cycling trails... These included requests for the Bay trail to be extended, connections to be made between Point Cook Coastal Park and Werribee, and Sanctuary Lakes and Wyndham Harbour, the walking trail to be extended from Wyndham Harbour to Campbells Cove and the linking of the Point Cook Coastal Park to the Cheetham Wetlands.'</i></p> <p>(Wyndham CMMP 2020-2025, Wyndham City Council 2020)</p> <hr/> <p><i>'[Valued as] accessible, close to home/city.'</i></p> <p>(Hobsons Bay CMMP, Hobsons Bay City Council 2020)</p> <hr/> <p><i>'What the community is saying: Access to public open space, sports facilities and walking trails is important.'</i></p> <p>(Our Community Plan 2021-25, City of Greater Geelong 2021)</p> <hr/> <p><i>'[The principles that guide Wadawurrung partnerships in Caring for Country include] Wadawurrung people's right to access and care for Country as an expression of our cultural obligation, responsibilities, connectedness, our well-being and as our economic basis.'</i></p> <p>(Paleert Tjaara Dja: Let's Make Country good together 2020-2030, Wadawurrung Traditional Owners Aboriginal Corporation 2020)</p>
Possibility to perform a diverse and wide range of recreational activities that are supported by the coastal and marine environment.	<p><i>'Recreation values: Leisure activities such as swimming, walking, birdwatching and nature observation. Colourful subtidal reefs that offer opportunities for snorkelling and diving. Recreational boating, including kayaking and sailing.... Scenic landscapes that provide for spectacular photography and artistic pursuits.'</i></p> <p>(Point Cooke Management Plan, Parks Victoria 2007)</p> <hr/> <p><i>'Port Phillip Bay is one of Victoria's most loved and popular recreational destinations... With its mostly calm, temperate waters and long lengths of sandy coastline, the Bay supports an array of beach and aquatic activities, from swimming, snorkelling, kitesurfing and scuba diving, to fishing, sailing, motor boating or just walking. Millions also can, and frequently do, just enjoy the Bay for its visual beauty, taking in the sights from the shoreline or from adjacent urban areas.'</i></p> <p>(Port Phillip Bay Environmental Management Plan, DELWP 2017)</p> <hr/> <p><i>'Visitors are ...attracted to the foreshore for a wide range of coastal recreational activities including walking, cycling, boating, fishing and beach activities... There is a range of building structures on the foreshore including boatsheds, which in some locations are a key influence on local character.'</i></p> <p>(Wyndham CMMP 2020-2025, Wyndham City Council 2020)</p> <hr/> <p><i>'[Community value] Balance of 'passive' and 'active' areas' for recreation'.</i></p> <p>(Hobsons Bay CMMP, Hobsons Bay City Council 2020)</p> <hr/> <p><i>'Values: Recreational fishing... Water based recreation (swimming, boating); Beside water recreation (camping, bushwalking, nature observation)'</i></p> <p>(Port Phillip Bay (Western Shoreline) and Bellarine Peninsula: Ramsar Site Management Plan Summary, DELWP 2018)</p>

Values and aspirations	Literature source
Fit-for-purpose infrastructure, facilities and amenities to support recreational, social, and safe use of the coast.	<i>'The community engagement process suggests many people would like to see more public toilets, waste collection, seating, shading, BBQ's, playgrounds and other amenities...Some coastal sites are less well known and require substantial infrastructure investment to support improved public access and use for recreation activities.'</i> (Wyndham CMMP 2020-2025, Wyndham City Council 2020)
	<i>'[Opportunities to] Maintain and improve coastal trail facilities and connectivity; Upgrade foreshore facilities – toilets, bins, water fountains, exercise equipment, BBQs, etc.; Increase educational/ interpretive signage, promoting interaction and connectivity with ecosystems, history and culture, helping to manage behaviours and enforce controls...Maintain and support lifesaving facilities'</i> (Hobsons Bay CMMP, Hobsons Bay City Council 2020)
	<i>'What we heard – Active living through more pedestrian-friendly and cycling friendly infrastructure, recreational spaces, amenities for a more active lifestyle, funding for community groups'</i> (What we heard from the community: Feedback on the Hobsons Bay 2030 Community Vision and ideas for the Council Plan 2021-25, Hobsons Bay City Council 2021)
	<i>'Open spaces, sporting and recreational facilities are also highly valued by our residents. They provide opportunities for exercise, quiet reflection, community gatherings, children's play and participation in organised sports that help bind our community together.'</i> (Wyndham Council Plan 2021-25, Wyndham City Council, 2021)

Appendix 3: Community engagement findings

Our approach to engaging

We hosted a series of interactive engagement activities and events over July and August as part of our Stage 2 engagement program. These activities followed the direction provided by our Communications and Engagement Plan for VRC Stage 2.

Activities and events included:



Engage Victoria webpage: The webpage provided key information on the Adapt West project. We saw **5,600 page views**.



Values and experience survey: A targeted survey to hear about the values and uses of the region's coastal areas, and experiences of coastal hazards. Over **230 people** contributed.



Interactive map: A mapping activity where people dropped pins to show the coastal places they enjoy visiting, what they do, why they love these areas and where they've experienced coastal hazards. People contributed **42 pins**.



Pop-up events: In-person information sessions at local markets in Tarneit, Werribee and Altona. We had more than **150 people** stop by to learn about the project.

What we were asking

Across each of our engagement activities, we asked people to consider five key aspects of the Adapt West region:

- How they **use and enjoy** coastal areas, including what activities they do around the coast
- What they specifically **value** about these areas and the relative importance of these values
- What they consider are the roles or **functions** of the region's coastal areas
- Their **experiences** of coastal hazards (such as inundation and erosion) and how they've seen the coast change over time
- Their **aspirations** for coastal areas and perspectives on adaptation planning

The information and data collected on each of these aspects provided us with a robust evidence base to explore social and community values for the Adapt West region.



Who we heard from

We heard from many community members across the region. Two thirds of our survey respondents were residents within the project area, with nearly 40% living within 1 km of the coast. We were also able to speak with many local community members at our three in-person events at the Wyndham Makers and Farmers Market, the Tarneit Firefly Night Market and the Hobsons Bay Wetland Centre open day.

Our engagement events were also successful in reaching many visitors to the region who live outside the project area. This included 84 survey respondents who resided across 40 different local government areas outside of the region. This was important to capture as the Port Phillip Western shoreline attracts many visitors travelling from outside the region, in large part due to its internationally recognised Ramsar sites (DELWP 2018).

People from a broad range of age groups participated in our activities. We were able to engage with a large number of young people and children at our in-person events, while we had a good spread of ages participate in our survey and online mapping activity (Figure 19).

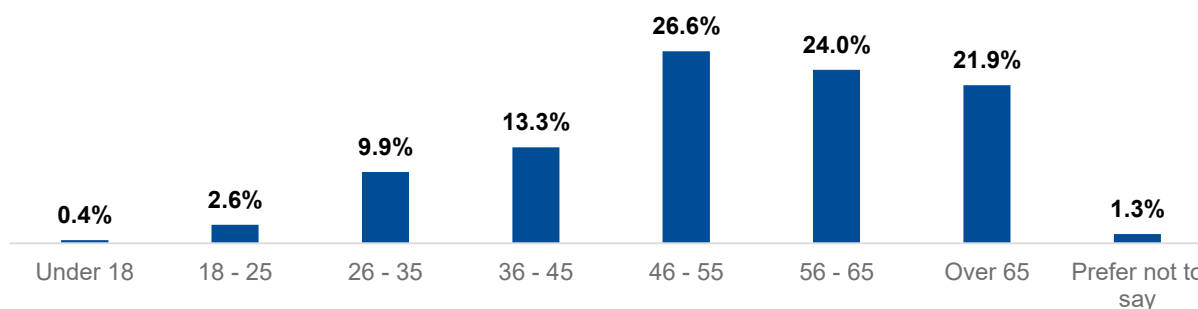


Figure 19. Survey respondent age groups

When considering how people connect to the region's coastal and marine spaces, we had a range of responses. Many people were frequent visitors to the coastline, with 60% of respondents visiting at least weekly (Figure 20), while 12% of respondents worked in the region. Notably, 17% of people made special mention of their connection to the Port Phillip Bay western shoreline being primarily tied to their strong interest in birdwatching.

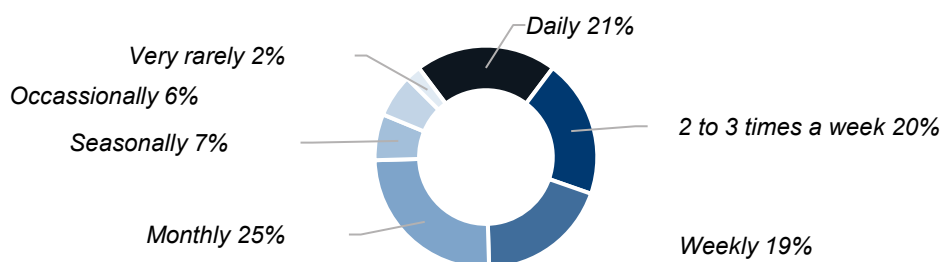


Figure 20. Respondent frequency of visiting the region's coastal wetlands, beaches or foreshore areas.

Key findings on how people use and enjoy the coast

The community engagement phase provided comprehensive information and data, offering valuable insights to address the key questions we posed around coastal values, uses, functions, experiences of coastal hazards and aspirations for future planning.

Coastal values

When asked to rank the values of the framework provided, people demonstrated clear preferences between different values, as shown in Figure 21.



Figure 21. Responses to the survey question: What do you value most about the region's coastal and marine areas?

Natural landscapes, plants, animals and habitats was ranked the most important value by two thirds of all survey respondents, indicating a strong emphasis on ecological values. This was closely followed by *Rest, relaxation, tranquillity, and peace*; *Access to water, facilities, and recreational activities*; and *Natural resilience of coastal environments*, which were all ranked highly. *Cultural connections, places, and stories* and *Social connections and meeting places* also received significant attention, though ranked lower overall.

In contrast, values of *Economic or tourism opportunities* and *Study or work opportunities* were ranked lower in importance, suggesting that participants prioritised environmental and social aspects of the coast over economic or vocational considerations.

These sentiments were echoed by additional coastal values shared with us (Figure 22). People demonstrated that they deeply value the Adapt West region for its rich biodiversity and the various ecosystem services it offers, such as regulation of water quality and carbon sequestration. People highly value Ramsar sites, coastal reserves and marine sanctuaries for how they support bird watching and conservation, and there is a desire to protect these areas for future generations.

The high degree of accessibility of the region's coastal areas, both in terms of proximity and no cost, was highly valued. Additionally, the themes of natural beauty and open, expansive spaces reflect people's appreciation for the coast providing a space to connect with nature and escape city life. Overall, the coast is cherished not only for its aesthetic appeal but also for its ecological significance and the community connections it fosters.



Figure 22. Word cloud of additional values shared. Larger word size indicates more frequent mentions.

Mapping pins (Figure 23) showed specific areas are valued in different ways. Natural values and associated areas for rest and tranquillity are spread across the region, aligning well with reserves, parks and protected areas. Areas for social connection and access to water align with key activity zones and more populated areas.

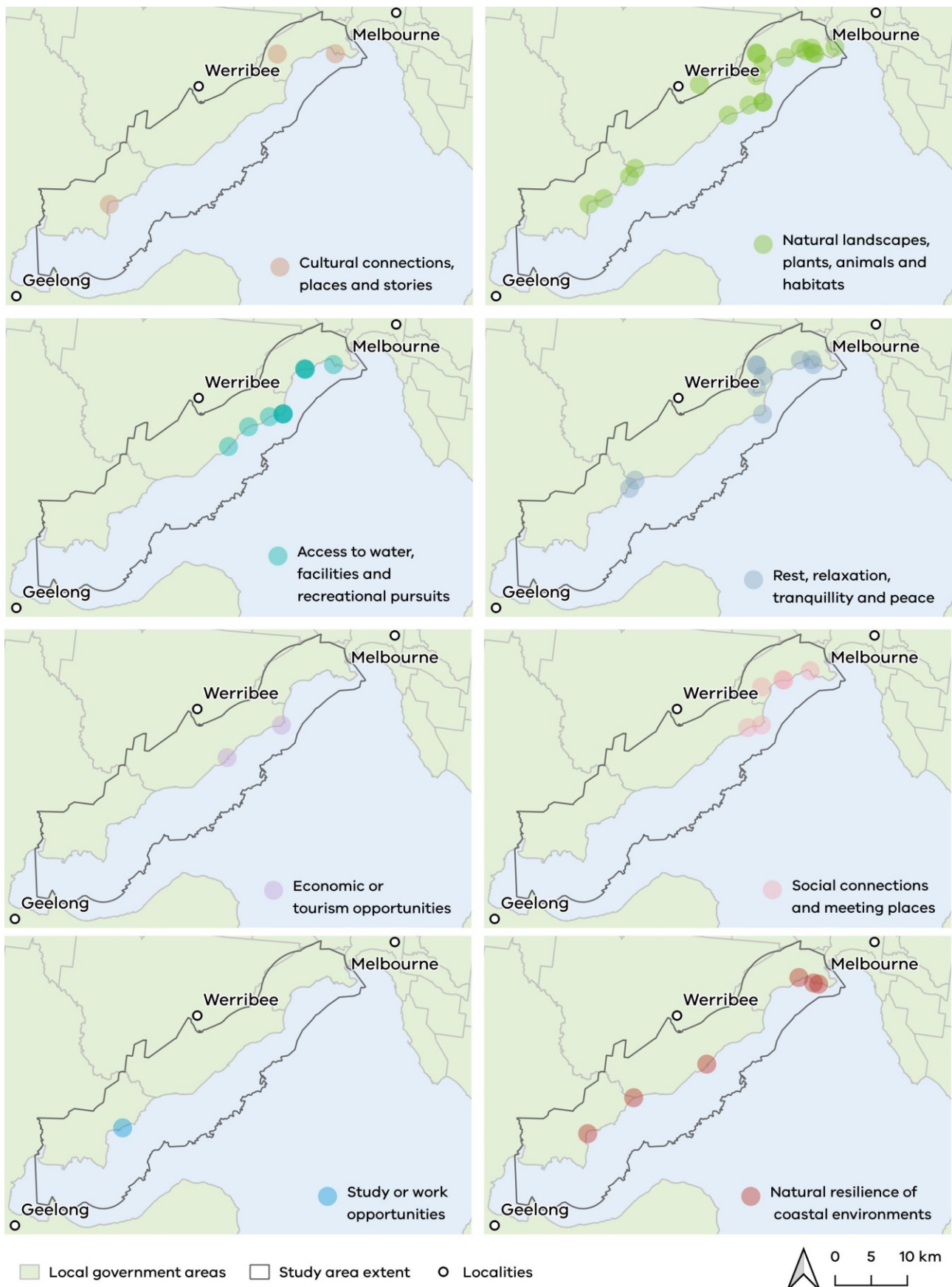


Figure 23. Mapping pins submitted for “Which values are most important to you at this place?”.

Coastal uses and activities

When we asked people to tell us the ways they used and enjoyed the coast, and what kinds of activities they did in coastal and marine areas, people reported taking part in a wide range of activities. Figure 24 shows the percentage of respondents who reported participating in each activity from the list provided.

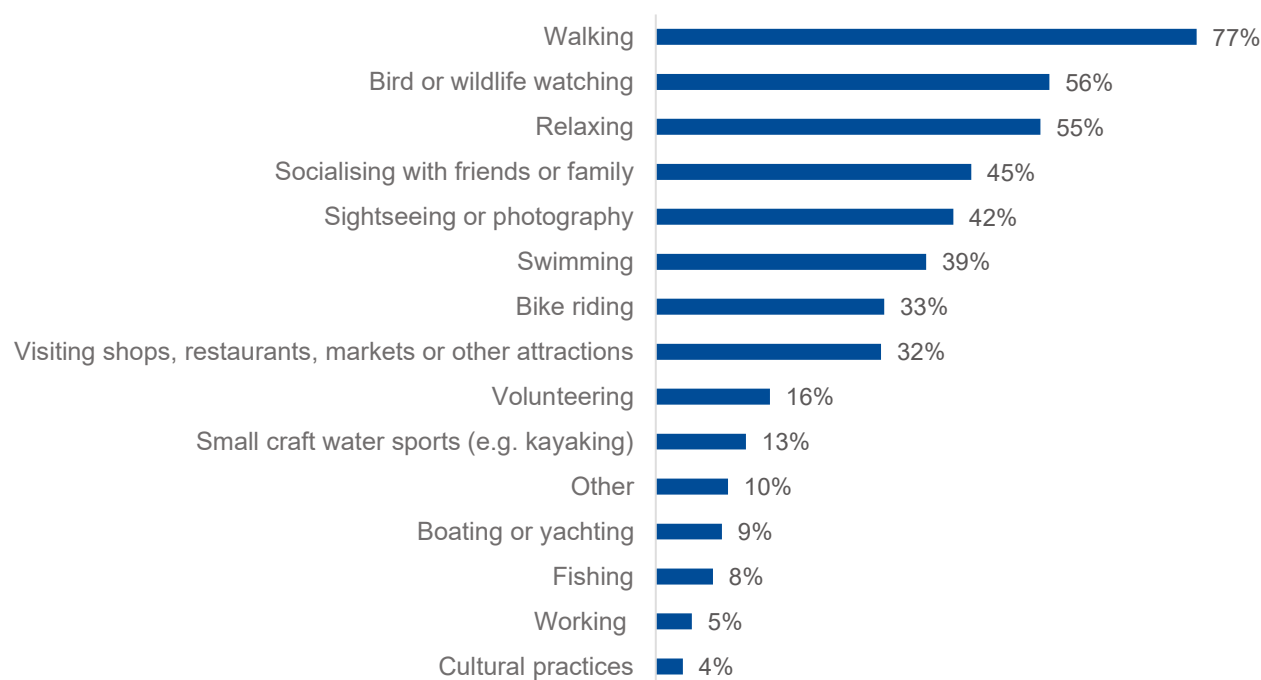


Figure 24. Responses to the survey question: What activities do you do when visiting coastal and marine areas? Respondents could select multiple options.

Our survey data suggests that when visiting coastal areas, visitors to the Adapt West are prefer low impact/passive leisure activities in a natural environment. *Walking* (77% of survey respondents reported participating in this activity) was the most popular activity, reflecting a desire for simple, accessible outdoor experiences. *Bird or wildlife watching* (56%), *Relaxing* (55%) and *Sightseeing or photography* (42%) were also popular, indicating that many people seek opportunities to connect with nature or enjoy the region's tranquil surroundings. *Socialising with friends or family* (45%) was also common, emphasising the appeal of the region's coastal environments as a meeting place and place of social connection.

Activities requiring more physical effort or specific equipment, such as *Swimming* (39%), *Bike riding* (33%), and *Small craft water sports* (13%), were less frequent, which may suggest that either these user groups weren't captured as well or respondents generally prioritise relaxation over high-energy or more adventurous activities. Additionally, commercial activities like *Visiting shops or restaurants* (32%) and more specialised activities like *Fishing* (8%) or *Boating* (9%) were less common responses.



Altona dog beach. Credit: Alluvium

The distribution of activities varied across the region. Walking, birdwatching and sightseeing/photography activities were well distributed across the region. Activities requiring dedicated facilities or water access were focussed around Williamstown, Altona and other water access points.

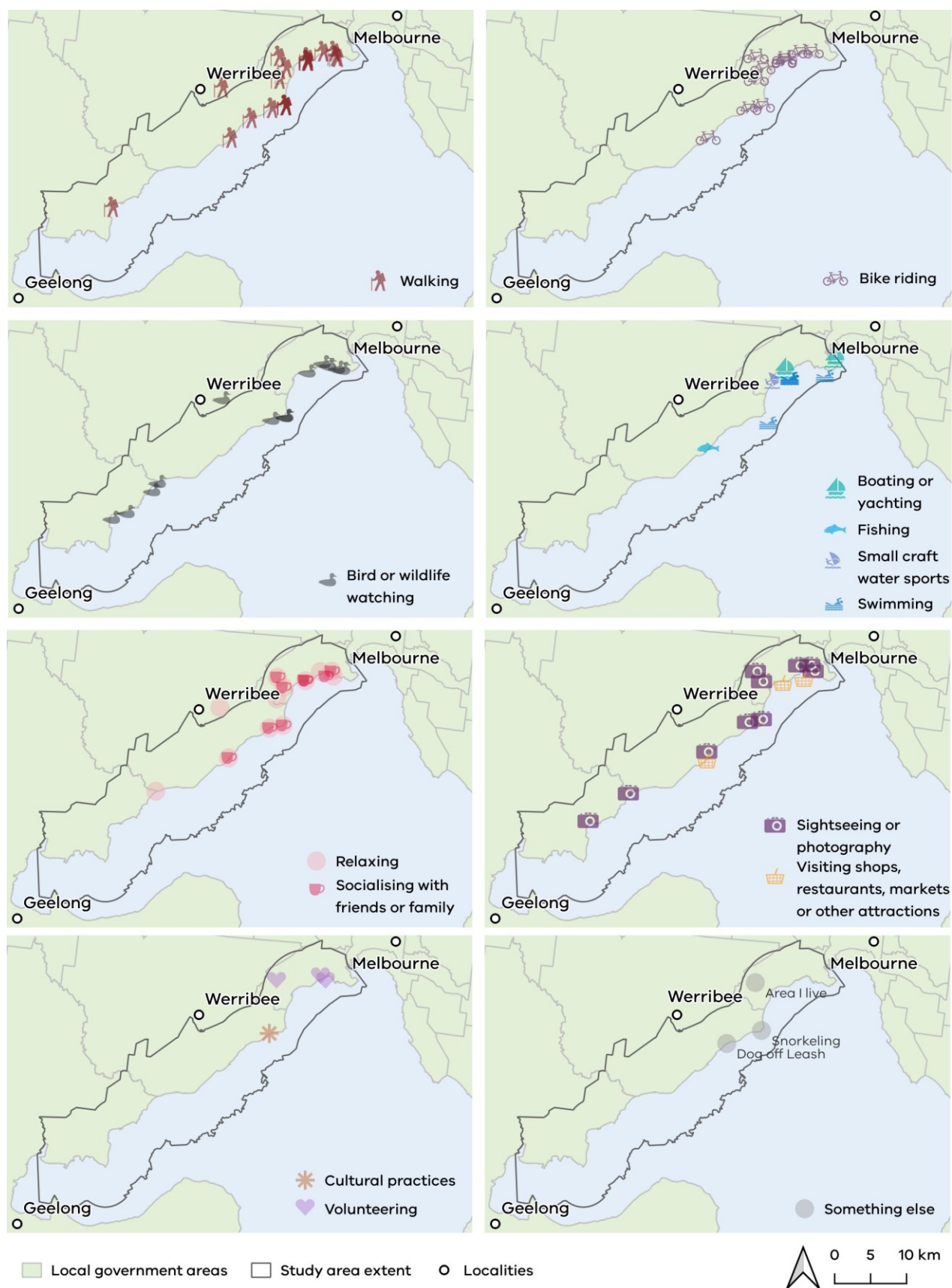


Figure 25. Mapping pins submitted for “What activities do you do at this location?”

Coastal functions

When we asked participants to evaluate the importance of various functions of coastal environments, clear priorities emerged that aligned with the key findings regarding coastal values (Figure 26).



Figure 26. Responses to the survey question: What do you think are the most important functions of coastal areas?

Environmental and social functions were ranked highly, with about 70% of survey respondents considering *Providing habitat for flora and fauna* as the most important coastal function. This was closely followed by *Providing a place for people to experience nature* and *Providing a physical buffer to protect the natural and built environment*, highlighting the community's recognition of intact natural spaces for both connection to nature and coastal resilience. Social functions of *Providing a place for people to spend leisure time* and *Providing places for cultural practices and storytelling*, were also valued, though ranked lower overall. In contrast, economic functions related to tourism, industry and food production were considered less important by respondents.

In addition to the functions provided within the survey, respondents also noted additional functions. Those mentioned most frequently included the significance of the coastal environment for education purposes, and its vital ecosystem services, such as regulating water and air quality and capturing atmospheric carbon within coastal systems such as mangroves.



Mangroves. Credit: DEECA.

Community engagement also provided a valuable opportunity to discuss coastal hazards with the community, such as inundation and erosion. When asked about their understanding of coastal hazards, most survey participants had some understanding of these issues, with 40% reporting good to expert knowledge, and 44% expressing general awareness.

The most commonly experienced hazard was coastal erosion, which people reported witnessing at various sites across the region, including sections of the Altona coastline, the Western Treatment Plant and coastline either side of the Werribee River mouth. Coastal inundation was also reported at many points along the region's shoreline, with people acutely aware of the impact of storm surges on the severity of flood events.

When asked about the likelihood of future coastal hazard impacts occurring, the majority of survey participants believed they were likely or very likely (81%). Additionally, many felt the Adapt West region needed more planning and preparation to withstand and recover from potential future hazards (Figure 27).

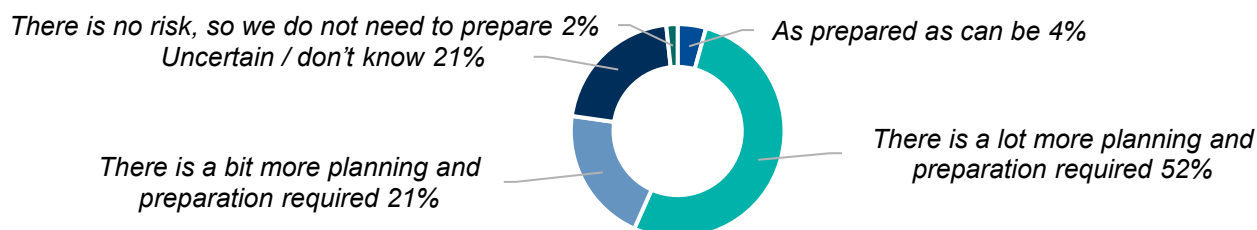


Figure 27. Responses to survey question: How prepared is the region to withstand and recover from potential coastal hazards?

This response highlights the community's recognition of the importance of the Adapt West project and the need for proactive adaptation planning for the Adapt West region.

Aspirations for adaptation planning

Our engagement also explored the community's aspirations for adapting to and building resilience for future coastal hazard challenges. During our in-person events, we had meaningful conversations with community members about various ways to adapt the Port Philip Bay western shoreline to protect what we value most in the region. We also gathered input from our survey participants, asking for their ideas and suggestions on how to strengthen the resilience of our coastal areas for the future.

Over half of our survey respondents suggested ideas for building coastal resilience, with a clear preference for nature-based methods. Common themes included the creation of protected areas, restoration of foreshore and mangroves, and education on the value of natural resilience, highlighting the importance of preserving intact natural environments for coastal protection.

While respondents acknowledged the role of hard engineering in some cases, there was strong support for limiting development in coastal zones, reflecting a desire to protect vulnerable areas through careful and effective land management and planning measures.

This understanding will assist in the development of a vision and objectives for future coastal management.



Figure 28. Word cloud of ideas and suggestions for increasing coastal resilience