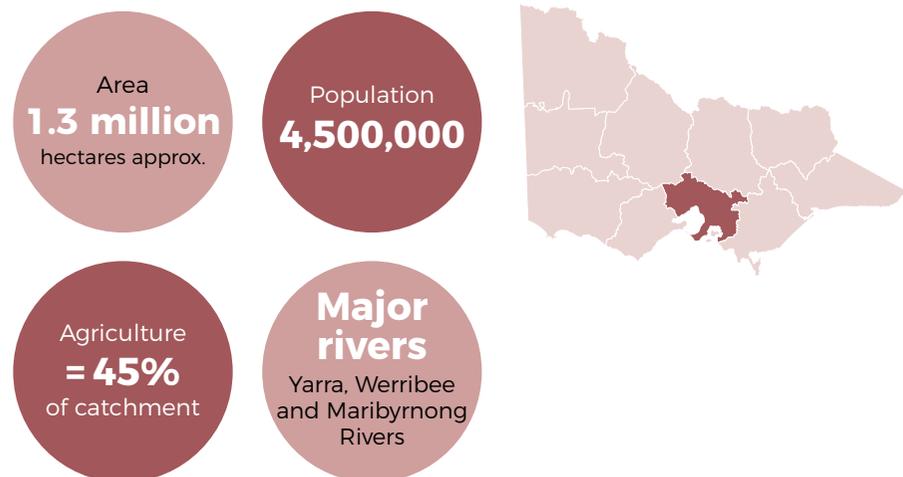


# Port Phillip and Western Port

## REGIONAL CONTEXT



**SIGNIFICANT NATURAL FEATURES:** Port Phillip Bay and Western Port, Phillip Island, Dandenong Ranges National Park, Yarra Ranges National Park, Brisbane Ranges National Park.

**MAJOR WATERWAYS:** Yarra River, Werribee River, Maribyrnong River, Edithvale-Seafood Wetlands (Ramsar listed), Port Phillip Bay Western Shoreline and Bellarine Peninsula Ramsar site, and Western Port (Ramsar listed).

**INDIGENOUS HERITAGE:** Wurundjeri Tribe Land Compensation and Cultural Heritage Council, Wathaurung Aboriginal Cooperative, Boon Wurrung Foundation, and Bunurong Land Council Aboriginal Corporation.

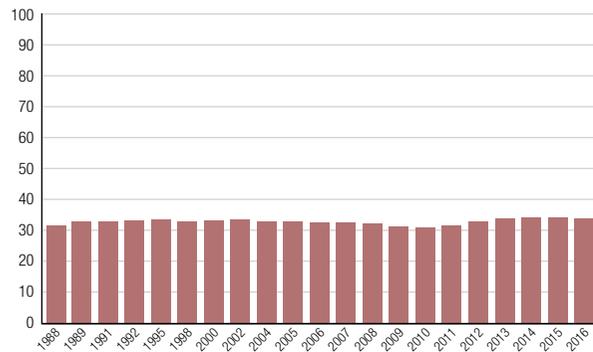
Source: PPWCMA, 2016



Melbourne's natural environment is a drawcard for residents and tourists. Photo: PPWCMA

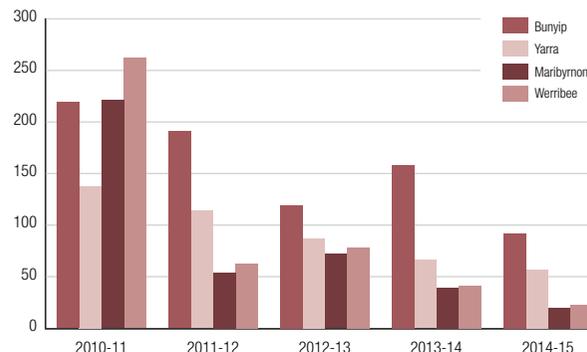
REPORT CARD

**BIODIVERSITY** Tree cover



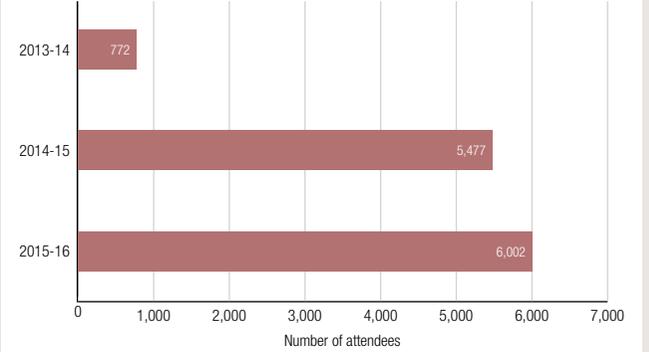
Average annual percentage (%) tree cover for the Port Phillip and Western Port region 1988-2016. Source: Van Dijk and Summers, 2016

**WATER** Streamflow



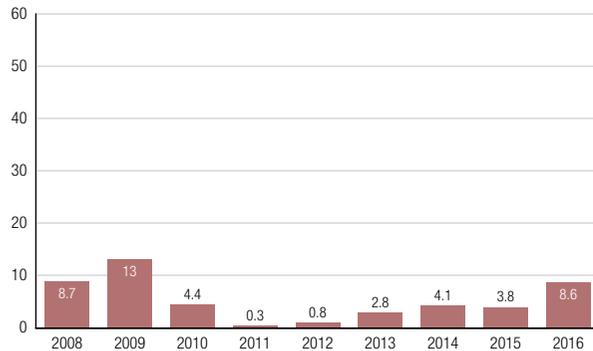
Basin streamflow (%) compared to long-term average. Source: Victorian Water Accounts

**COMMUNITY** Participation



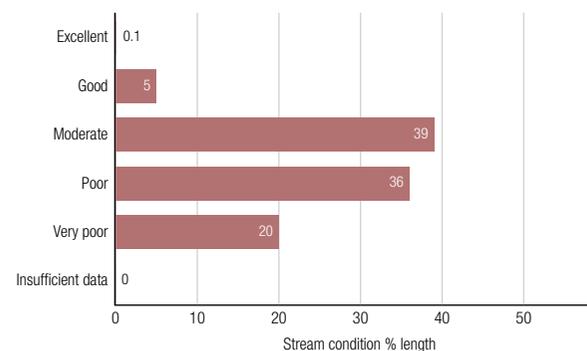
Community participation in CMA engagement events. Source: Victorian Catchment Management Authorities, 2014, 2015, 2017

**LAND** Exposed soil



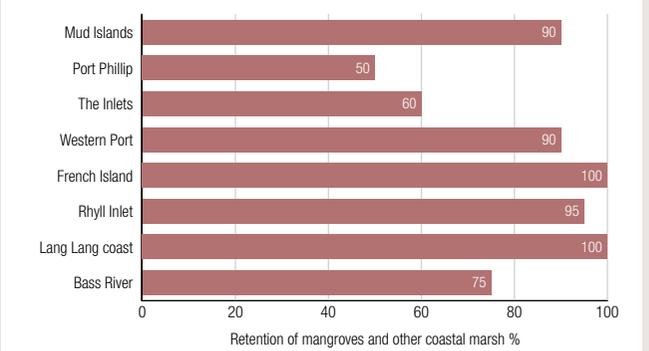
Percentage (%) Dryland area with 30-100% bare soils (higher risk of erosion) in March, 2008-16. Sources: DEDJTR, 2017a; EnSym; Guerschman et al., 2015

**WATERWAYS** Stream condition



Index of Stream Condition 2013 summary for the Port Phillip and Western Port region. Source: DEPI, 2013b, p. 98

**COASTS** Vegetation retention



Estimated total retention (%) of Mangroves and Other Coastal Marsh from pre-1750 to ~2008. Source: Sinclair and Boon, 2012

## ASSESSMENT OF CATCHMENT CONDITION

### LAND

- ▶ The Port Phillip and Western Port region has had minimal area of bare soils in dryland production areas over the last nine years, compared to other regions. Other erosion risk factors, such as wind storms or rain events, have not caused significant erosion events in recent years.
- ▶ Urbanisation has been and continues to be an important influence on land condition in the region through increases in the proportion of land with impervious surfaces (PPWCMA, 2016).

### WATER

- ▶ According to the last Index of Stream Condition benchmark conducted in 2010 (DEPI, 2013b), stream reaches assessed included the Bunyip, Yarra, Maribyrnong, Werribee, Moorabool, and parts of the South Gippsland Basins, which are generally assessed as being in 'moderate' or 'poor' condition. Basin streamflow has declined since 2010-11, with the exception of the Bunyip basin, which has remained above or close to the long-term average. Melbourne Water regularly assesses river health in Dandenong, Maribyrnong, Werribee, Westernport and Yarra catchments across a range of measures. The overall health of waterways is gradually stabilising or improving due to the work of many organisations and the leadership of Melbourne Water.

### BIODIVERSITY

- ▶ Tree cover across the Port Phillip and Western Port region is moderate, comprising approximately 30% of the land area. Tree cover is mostly represented in Yarra Ranges National Park, Lerderderg State Park, Brisbane Ranges National Park, and French Island National Park. The Port Phillip and Westernport CMA reports that around 40% of the land area contains native vegetation, some of which is grasslands that naturally have low levels of tree cover (PPWCMA, 2016). Vegetation losses associated with urbanisation and intensive land management continue to be a challenge.

### COASTS

- ▶ The *State of the Bays 2016* report comprehensively assessed the condition of Port Phillip Bay and Western Port, and concluded that both are generally healthy given their proximity to large urban areas (Commissioner for Environmental Sustainability, 2016). Aspects of the condition of Port Phillip Bay have improved over a few decades, particularly nutrients, water clarity, and algae levels.
- ▶ The region shows high retention of mangroves and coastal marsh, except for low retention of saltmarsh in Port Phillip Bay due to urbanisation (Sinclair and Boon, 2012).

### COMMUNITY

- ▶ Community participation has increased over three years. The Port Phillip and Westernport CMA supports a range of region-wide and local projects, in partnership with local government, Landcare, and land managers (PPWCMA, 2016).
- ▶ The survey results need to be interpreted with caution as sample size is small compared to the region's population of 4.5 million people. The top three community concerns about environmental health relate to invasive weeds (80% of respondents), feral animals (66%), and declining numbers of native animals (62%); all considered a problem by respondents (Schirmer et al., 2016).



Photo: PPWCMA

## CASE STUDY

## Protecting Ramsar wetlands through partnerships and community support

**LOCATION:** Port Phillip and Western Port

**PARTICIPANTS:** Port Phillip and Westernport CMA (PPWCMA) has formal partnership agreements established to deliver environmental actions with Hobsons Bay City Council, Parks Victoria, Western Port Biosphere, Phillip Island Nature Parks, French Island Landcare, Bass Coast Landcare Network, Mornington Peninsula Shire, City of Casey, BirdLife Australia, BlueScope Steel and Lang Lang Foreshore Reserve Committee of Management. Funding from the Australian Government's National Landcare Programme and DELWP.

**OBJECTIVES:** To protect the ecological values of Western Port, and Port Phillip Bay Western Shoreline and Bellarine Peninsula Ramsar sites.

Western Port and the western shoreline of Port Phillip Bay wetland sites support a wide range of plants and animals of conservation significance. The sites are listed as wetlands of international importance under the Ramsar Convention on Wetlands. Australia has an obligation under this convention to manage these sites to maintain their ecological character. To help fulfil this obligation, the PPWCMA is coordinating the Ramsar Protection Program.

PPWCMA undertook a series of prioritisation workshops and steering committee meetings with stakeholders and

community groups. These allowed program partners to identify and implement priority management strategies and actions for each wetland site.

The program aims to reduce threats to the sites such as pest plants and animals. On-ground management activities include annual fox and rabbit control, weed control and fencing at the wetland sites. These on-ground works help improve the health and resilience of the wetlands. It also aims to promote community participation and involvement in wetland management, with opportunities to volunteer on a wetland protection project. PPWCMA also supports landholders that wish to protect and improve wetland values on their land. The CMA works with local communities to improve their understanding of these internationally significant wetlands. More than 500 people have attended special events such as open days and wetland tours, training programs and workshops.

The program demonstrates how collaboration and individual land management by program partners, as well as other stakeholders, can help protect our wetlands. Land managers previously conducted pest plant and animal control works to varying levels and without the benefit of overall coordination. The program allows PPWCMA to coordinate local community and government organisations in their efforts to protect the wetlands.

Partners now participate in collaborative planning to coordinate the timing of on-ground management works across multiple land tenures. This helps improve the efficiency and effectiveness of management programs at the sites. The program provides a catalyst for establishing good working relationships with neighbours, whether they are government organisations with responsibility for land in the region, or local landholders (PPWCMA, 2013).

The program also demonstrates how the wider community, particularly local residents and visitors, can play an important role in protecting the wetland sites. Targeted community engagement has led to a significant change in community perceptions of wetlands and in management behaviour. For example, there has been an increase in the uptake of private landholder incentives to protect wetlands.

The Ramsar Protection Program is now seeing significant improvements in the condition of critical wetland habitat. For example, the condition and extent of saltmarsh vegetation communities has improved as a result of pest plant and animal control activities. This in turn has led to localised increases in waterbird abundance, diversity and breeding, with increased sightings of migratory water birds.

## CASE STUDY

## Working with local communities to improve waterway health: celebrating 21 years of the River Health Incentives Program

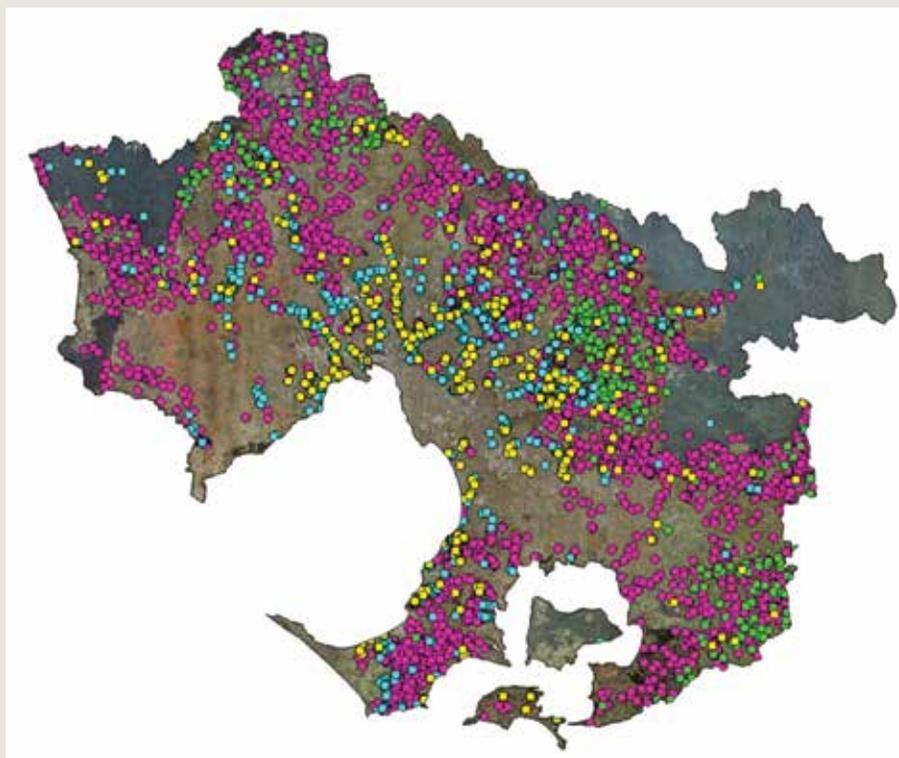
**LOCATION:** Port Phillip and Western Port

**PARTICIPANTS:** Private landholders, community, local government. Funded by Melbourne Water.

**OBJECTIVES:** To work in partnership with the community to improve waterway health and support best practice land management near stream frontages.

Melbourne's population is projected to double by 2050. Waterways and wetlands in the Port Phillip and Western Port region face threats to water quality and riparian vegetation from factors such as urbanisation, weed invasion, erosion and poor land management practices (e.g stock access). Waterways in the region in the poorest condition most often occur where rivers, streams and creeks flow through rural and urban landscapes where riparian vegetation is poor and drainage from agricultural lands and hard urban surfaces flows to waterways.

Melbourne Water's River Health Incentives Program (RHIP) is celebrating 21 years of partnership with landowners, local government, Parks Victoria and community groups, providing funding and technical support to improve the condition of waterways in the region. Since the Program began 21 years ago, it has facilitated more than 12,000 environmental projects across Melbourne's waterways and has worked with over 230 community groups, 38 councils and 4,300 individuals to improve the environmental health of Melbourne's rivers and creeks.



**Figure 50. Sites funded under the River Health Incentives Program, 1996–2016.**

Source: Melbourne Water

*“The efforts of the community though the Program, along with other Melbourne Water works programs, contribute to the overall health of waterways in the region by, for example, improving riparian vegetation, and reducing sediment and nutrient flowing into streams. Improvements in river health are expected over the long term, especially in areas that are not impacted by increased upstream development.”*

Melbourne Water provides a range of incentives suited to different types of landholders and aspects of waterway health. Figure 50 shows sites funded under these programs over the past 21 years.

On-ground management works funded through the Program include fencing waterways to exclude stock, weed control, minor river bed and bank stabilisation, revegetation works, whole farm planning and nutrient and sediment reduction works. Public and private landholders and the community share costs and/or provide in-kind support towards delivering management activities. Other Melbourne Water works, such as woody weed removal projects, often work in tandem with the activities delivered under the Program.

The programs also provide advice and training to local landholders to help them develop their management skills, and to increase their knowledge about land and waterway condition and management.

The efforts of the community though the Program, along with other Melbourne Water works programs, contribute to the overall health of waterways in the region by, for example, improving riparian vegetation, and reducing sediment and nutrient flowing into streams. Improvements in river health are expected over the long term, especially in areas that are not impacted by increased upstream development.

The Program also provides more intangible benefits through its focus on community collaboration and participation. For example, the Program builds on existing knowledge and enthusiasm for waterway management and shares costs and effort with the recipients. This approach has resulted in increased empowerment, stewardship and advocacy amongst land managers and the community.



Photo: Melbourne Water