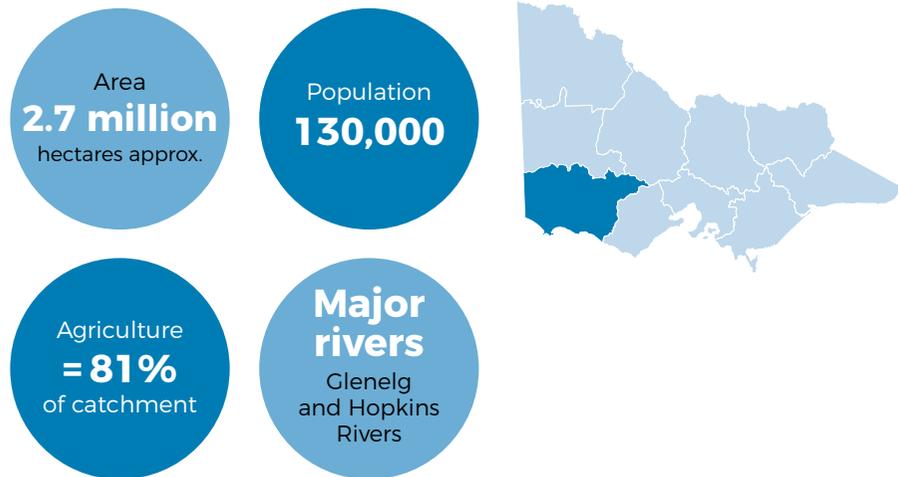


Glenelg Hopkins

REGIONAL CONTEXT



SIGNIFICANT NATURAL FEATURES: Budj Bim National Heritage Landscape (Mt Eccles/Lake Condah/Tyrendarra Area), Grampians (Gariwerd) National Park (listed on National Heritage Register), Kanawinka Geopark (UNESCO listed).

MAJOR WATERWAYS: Glenelg River (Heritage River), Hopkins River, Lake Bookar (part of the Western District Ramsar Lakes), Seasonal Herbaceous Wetlands (GHCMA, 2014a).

INDIGENOUS HERITAGE: Traditional Owner Corporations include Gunditj Mirring Traditional Owners Aboriginal Corporation and Eastern Maar Aboriginal Corporation.

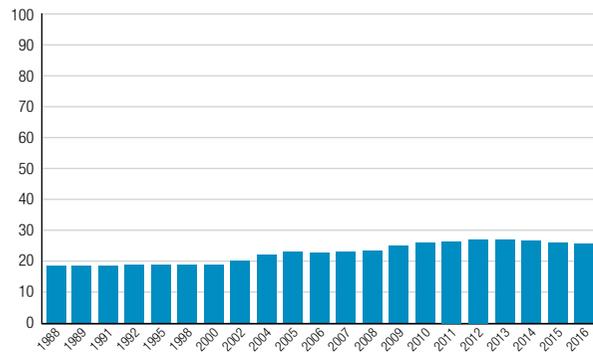
Source: GHCMA, 2013



The condition of the Glenelg River is a long way from what it once was before the Glenelg River Restoration Project. Photo: GHCMA

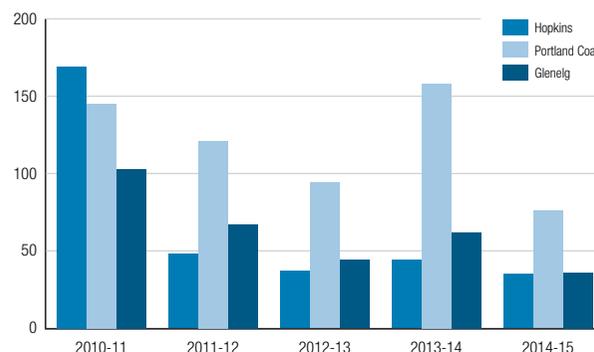
REPORT CARD

BIODIVERSITY Tree cover



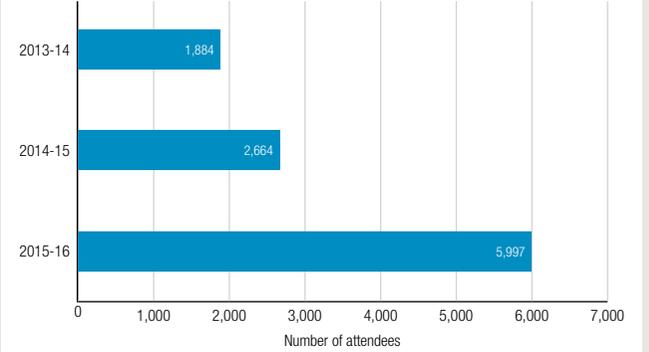
Average annual percentage (%) tree cover for the Glenelg Hopkins region 1988-2016. Source: Van Dijk and Summers, 2016

WATER Streamflow



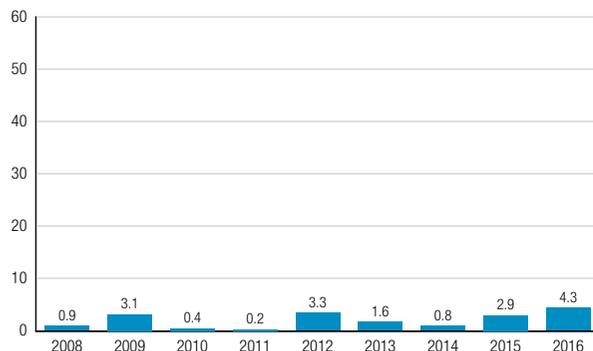
Basin streamflow (%) compared to long-term average. Source: Victorian Water Accounts

COMMUNITY Participation



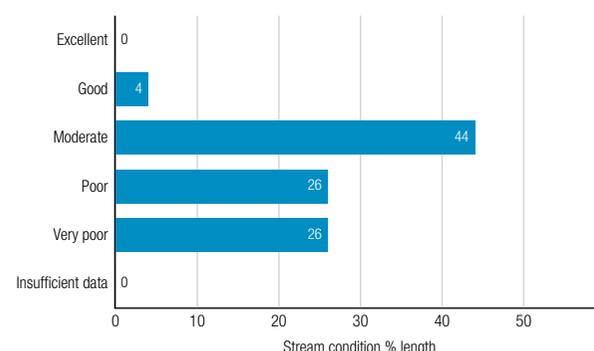
Community participation in CMA engagement events. Source: Victorian Catchment Management Authorities, 2014, 2015, 2017

LAND Exposed soil



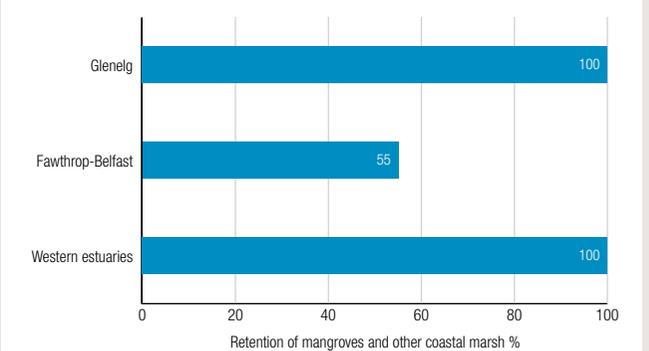
Percentage (%) Dryland area with 30-100% bare soils (higher risk of erosion) in March, 2008-16. Sources: DEDJTR, 2017a; EnSym; Guerschman et al., 2015

WATERWAYS Stream condition



Index of Stream Condition 2013 summary for the Glenelg Hopkins region. Source: DEPI, 2013b, p. 124

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 Glenelg Hopkins region has a minimal risk of erosion from bare soils in dryland production over the last nine years. After a low of almost no dryland area with bare soil >30% in 2011, the last few years have begun to ramp up. Wetter conditions prevailed in the latter half of 2016.
- ▶ While bare soils and groundcover are a proxy for erosion risk, particular soil types are more susceptible to erosion. In the Glenelg Hopkins region, erosion risks are high to very high for sheet and rill erosion across 18% of the catchment, 12% for gully and tunnel erosion, and 16% for wind erosion (GHCMA, 2014b).

WATER

- ▶ According to the last Index of Stream Condition benchmark conducted in 2010 (DEPI, 2013b), all stream reaches assessed as being in 'good' condition were found in the Glenelg basin. The Glenelg and Portland basins were otherwise mostly in 'moderate' condition. Much of the Hopkins basin was assessed to be in 'poor' or 'very poor' condition. The Hopkins and Portland basins have been largely cleared for agriculture, while Glenelg basin is more forested (DEPI, 2013b). The 2010 benchmark was conducted during a particularly severe drought period in the region (GHCMA, 2016b). Basin streamflow was below the long-term average in 2014-15.
- ▶ In its 2015-16 annual condition report, the Glenelg Hopkins CMA rated the condition of their wetlands as 'good' to 'excellent' for 64% of wetlands surveyed, drawing on results from the 2009 Index of Wetland Condition. Estuary condition was rated as 'moderate' to 'good' based on a trial assessment of the Index of Estuarine Condition (GHCMA, 2016b).

BIODIVERSITY

- ▶ Tree cover has increased from approximately 19% in 2000 to 26% in 2006, mainly in the 'green triangle' area (south west), likely due to increases in plantations and farm forestry.
- ▶ In its 2015-16 annual condition report, the Glenelg Hopkins CMA rated the extent of vegetation as 'poor', reflecting widespread clearing in the past. Remaining vegetation is concentrated in conservation reserves, and a small proportion protected through covenants on private land.

COASTS

- ▶ Western estuaries and the Glenelg coastal marsh area are relatively intact, while the Fawthrop Lagoon (near Portland) and Belfast Lough (Port Fairy) have been modified (Sinclair and Boon, 2012). Parts of the Western estuaries lie outside the region. The data are probably only accurate for the coastal marsh very low in the estuary systems. Coastal marsh higher in the estuary system has been reduced as a result of grazing and development.
- ▶ In its 2015-16 annual condition report, the Glenelg Hopkins CMA rated the condition of its coasts as 'generally poor', recognising that the coast is under pressure from sea level rise, flooding, erosion and development. Coastal vegetation is largely fragmented.

COMMUNITY

- ▶ Community participation has increased over three years. The Glenelg Hopkins CMA has a strong emphasis on building partnerships with a diverse range of partners to improve participation in natural resource management. The Glenelg Hopkins CMA has a focus on building partnerships with other groups in the region, particularly Landcare, anglers, and Traditional Owner groups (GHCMA, 2016b).
- ▶ The top three community concerns about environmental health relate to invasive weeds (78% of respondents), feral animals (60%), and declining numbers of native animals (58%); all considered a problem by respondents (Schirmer et al., 2016).

CASE STUDY

Engaging with angling communities



Photo: GHCMCA

“The engagement sessions allowed for in-depth discussions about environmental flows and river health management with anglers, tailored to their local area and fishing interests.”

LOCATION: Glenelg Hopkins

PARTICIPANTS: Glenelg Hopkins CMA, angling community, funded by the Victorian Environmental Water Holder.

OBJECTIVES: To trial a targeted approach in engaging angling communities to illustrate the benefits of environmental flows on the Glenelg River.

Glenelg Hopkins CMA and the Victorian Environmental Water Holder have identified a need to increase community awareness of environmental watering, and to promote the benefits of flows for fish to the angling community.

Glenelg Hopkins CMA piloted a series of targeted engagement activities along the Glenelg River in May and June 2016. The day-long events aimed to communicate the shared benefits of environmental flows with anglers. Fish ecologists carried out fish sampling demonstrations using electro-fishing and approved net fishing techniques. Anglers were asked to weigh, measure and count the fish that were caught. Information on fish population dynamics, distribution and environmental flow requirements was provided to anglers at the event, to improve their understanding of the importance and benefits of environmental flows and integrated river health works in the Glenelg River. The CMA used social media to record and publish the day's events.

There was significant interest in the engagement days, with more than 100 people attending the four events. Each event provided an informal forum for the exchange of information between environmental water managers and anglers. The engagement sessions allowed for in-depth discussions about environmental flows and river health management with anglers, tailored to their local area and fishing interests.

Anglers provided positive feedback on both the format and content of the engagement days. Anglers were particularly interested in understanding how environmental flows benefit fish. The engagement day activities provided an opportunity to share knowledge and observations about the significant responses by native fish to environmental flows in the Glenelg River.

The CMA was able to successfully use social media to promote the issues discussed at each event. As a result, some environmental groups have indicated their interest in having similar sessions with a broader environmental focus, including plants and birds.