Draft findings for Gippsland

The Water Act 1989 requires a long-term water resource assessment every 15 years to assess whether water availability has declined or if waterway health has deteriorated for reasons related to changes in flow.

Long-term water resource assessment

Water-sharing arrangements need to be kept up-to-date. A long-term water resource assessment is a formal process to consider whether the impact of a long-term reduction in water availability needs to be shared more equitably, or whether water-sharing arrangements need to respond to a deterioration in waterway health.

The process starts with a backwards-looking technical assessment, which examines historical changes in Victoria’s water resources and waterway health. The technical assessment is used to determine if water-sharing arrangements remain as previously agreed.

Water in my region

A long-term water resource assessment looks at changes in water sharing and waterway health for river basins. Gippsland encompasses seven river basins: East Gippsland (Victorian part), Tambo, Snowy (Victorian part), Mitchell, Thomson, Latrobe and South Gippsland. The rivers in these basins rise in the Great Dividing Range and flow to the Gippsland Lakes or Bass Strait.

The Thomson and Latrobe river systems are regulated, meaning they are characterised by large dams and weirs. These rivers are important sources of water for urban centres — including Melbourne — as well as irrigated agriculture and power generation. The Victorian Environmental Water Holder has entitlements to water in the Thomson, Macalister and Latrobe rivers to protect the health of these rivers and wetlands, some of which are RAMSAR listed.

Further east, the rivers are unregulated. In these rivers, only a small proportion of the available water is allocated to supply urban centres and rural demands.

Rivers in Gippsland are considered, in general, to have high environmental values, having a number of catchments with extensive areas of forest and a high proportion of native vegetation cover, especially in the highlands to the north and east. Many of the flows are in a near-natural condition.

In addition to surface water, over 170 gigalitres of groundwater is available for consumptive uses in Gippsland, with approximately 45 gigalitres associated with the coal mines in the Latrobe Valley, and the remaining supporting agricultural and urban water supplies, including those for Sale, Yarram and Orbost.

Findings for my region

Long-term surface water availability has declined across all river basins in Gippsland, predominantly due to the change in climate. Declines range from 5 per cent to 14 per cent of river flow.

In the Latrobe basin, these declines have changed how water is shared between consumptive users (people, farms and industry) and the environment. A review of water sharing may be required in the Latrobe catchment in the next sustainable water strategy (SWS).

The increased volume of environmental entitlements in the Thomson basin since the SWS has not changed the proportion of water available for the environment as originally intended because it has been offset by declines in above-cap water. Above-cap water is the water that remains in a river after limits on diversions have been reached, as well as spills from storage and unregulated flows that cannot be kept in storage. Without water recovery, the environment’s share would have declined. A review may also need to be considered for the Thomson basin.

In other basins — South Gippsland, Mitchell, Tambo, Snowy and East Gippsland — there has been no change in how water is shared, despite declines in overall water availability. This is because relatively small volumes are allocated to consumptive use. A review in these basins is unlikely.
There have been significant declines in groundwater availability, particularly in deeper confined aquifers, due to dewatering to allow for mining and offshore oil and gas extraction. However, these declines have not materially contributed to declines in flow in rivers, because the confined aquifers are not connected to rivers.

The technical assessment found good short-term evidence that environmental water management is supporting waterway health. For example, in the Thomson River, releases of environmental water trigger fish breeding. In the lower Latrobe basin, wetland flooding is used to manage invasive plants.

Over the long term, rivers in Gippsland show trends in improvement of some water quality indicators (e.g. dissolved oxygen), but deterioration in others (e.g. salinity), although in this region these changes are typically very small. Unfortunately, many other aspects of waterway health (e.g. native fish) have not been monitored for the many decades necessary to identify long-term trends. The Thomson basin was one of the few basins across the state where macroinvertebrates showed improvement, although only a small part of this could be attributed to changes in flow.

Overall, the findings for waterway health were inconclusive. The government’s investment in monitoring waterway health is already improving data collection to inform future assessments of long-term changes in waterway health.

**Next steps**

The draft findings show that a review of water-sharing arrangements may be needed in some river basins to determine what action is needed to restore the balance between the environment and consumptive uses.

The need for a review will be decided after feedback on the technical assessment has been considered.

Any review will be undertaken as part of the development of a SWS. This will ensure that any actions arising from a review consider both past findings and future water challenges.

The review will be open and consultative, and will consider economic, social and environmental matters, including relevant Aboriginal cultural values and uses of water.

**Join the conversation**

We invite you to go online to engage.vic.gov.au/ltwra to provide us with your feedback on the draft technical assessment for southern Victoria. ‘Open House’ events are being held across southern Victoria in October 2019. Everyone is welcome to drop in to talk about the draft assessment, sustainable water strategies and other water-related projects.