



Waterwatch & EstuaryWatch
Citizen science in
Victoria's waterways
East Gippsland

Regional Report

2019-2020



Environment,
Land, Water
and Planning

**EAST GIPPSLAND
CATCHMENT
MANAGEMENT
AUTHORITY**





Victoria sustains a vibrant history of community-based environmental monitoring and citizen science programs, including the Waterwatch and EstuaryWatch programs. These programs are instrumental in informing waterway management decisions while strengthening community engagement and fostering environmental stewardship and advocacy. Catchment management authorities, water authorities, local government and other delivery partners play a crucial role in facilitating the programs.

Through the EstuaryWatch and Waterwatch programs, citizen scientists are supported and encouraged to become actively involved in local waterway monitoring and on-ground activities. Citizen scientists involved in the 2019-2020 programs contributed a total of **232,580** hours to care for our waterways, equivalent to 31,011 volunteer days. This contribution provides an economic value of the 2019-2020 volunteer effort of **\$9,707,889**. For more information, see the Waterwatch & EstuaryWatch Citizen science in Victoria's waterways Annual Achievements Report 2019-2020.

Aboriginal Acknowledgement:

EstuaryWatch and Waterwatch proudly acknowledge Victoria's Aboriginal community and their rich culture and pays respect to their Elders past, present and emerging. We acknowledge Aboriginal people as Australia's first peoples and as the Traditional Owners and custodians of the land and water on which we rely. We recognise and value the ongoing contribution of Aboriginal people and communities to Victorian life and how this enriches us. We embrace the spirit of reconciliation, working towards the equality of outcomes and ensuring an equal voice.

If you are interested in participating in citizen science in your region, please contact East Gippsland CMA on (03) 5152 0600 or visit <https://egcma.com.au/>.

Regional Stats



3

Event Participants



7

Active Groups



30

Active Sites



7

Active Volunteers

A River of Knowledge Retires

As keen fishers, it makes sense that Ken and Marg Bradley take an interest in the health of their beloved Nicholson River.

In collaboration with the East Gippsland Catchment Management Authority (EGCMA), the couple has spent twenty years monitoring the water quality

“It’s something we fell into as members of the Nicholson Angling Club,” said Marg Bradley. “Back when we started, we didn’t know much about what was happening in the river. I’m not sure it helped us catch more fish, but Waterwatch is a great way to make people more aware of what goes on in our waterways.”

In the early 2000s, the Bradleys would set out on their wooden cruiser with fellow anglers Ray Fields, Doug Clarke and Kevin Buchanan to monitor conditions as they

travelled upstream. “Back then we did everything manually, so it would take a few hours, but morning tea was always involved, so it was a social outing,” said Ken Bradley

Nowadays the equipment is more advanced, with a single probe delivering results in minutes. Testing is conducted at four locations, measuring pH levels, turbidity, salinity, and dissolved oxygen, among other things. Once uploaded, the data is publicly available on the Waterwatch website and used by the EGCMA and other government agencies to better understand of the health of the river.

Over the last two decades, Marg and Ken have been involved in many changes to the Nicholson River. The couple helped the EGCMA place wooden logs in the river to provide habitat for fish. Marg and Ken, together with the Nicholson Angling Club and Nicholson Landcare Group, also planted countless native plants along the river and watched them grow.

“It takes passion and perseverance to continue a project for this long, and the EGCMA greatly appreciates the Ken have shown to improving the health of the Nicholson River.”

Bec Hemming,
EGCMA Delivery Manager



Phil Schneider is keen to learn the Waterwatch ropes from Marg Bradley on the Nicholson River.

Waterwatch Data Sparks Collaboration and Change

Romawi Landcare Group's Waterwatch monitoring provides a current and ongoing understanding of the health of Forge Creek; an ephemeral chain of ponds near Bairnsdale in East Gippsland.

Extending eastward for ten kilometres from its source, south of the Bairnsdale aerodrome, Forge Creek flows to Newlands Arm in the Ramsar-listed Gippsland Lakes. The creek and surrounding reserve provide habitat and a water source for many species of fauna including kangaroos, wallabies and many bird species such as the Azure Kingfisher (*Ceyx azurea*).

For more than a decade, Romawi Landcare Group has made significant efforts to fence off and revegetate the reserve, as well as construct two rock chutes to stabilise the creek's ponds and prevent floodwater erosion.

Since September 2011, the group has steadily monitored Forge Creek's water quality; keen to examine the health of the waterway, alongside bird and frog surveys, to see improvements from the rehabilitation works.

With monthly measurements of air and water temperature, electrical conductivity, turbidity, pH and reactive phosphorus, Romawi Landcare Group's Waterwatch monitoring found the creek had high phosphorus, pH and turbidity levels at times.

The high phosphate levels were the trigger for Romawi Landcare Group to collaborate with the Department of Environment, Land, Water and Planning (DELWP), East Gippsland Catchment Management Authority (EGCMA), East Gippsland Water (EGW) and the Environment Protection Authority (EPA) Victoria to investigate the source. The elevated readings in the creek were due to several sources including

surrounding agricultural land runoff, septic tank runoff and overflow, as well as a significant waterbird roosting site. Working alongside the partner agencies on this issue led to the elimination of direct water discharges, improved water management practices, and further revegetation of the reserve.

"Waterwatch monitoring is an important tool in tackling the problem of nutrient input into the Gippsland Lakes. It provides an ongoing picture of the health of Forge Creek and assists other groups and organisations in understanding where issues are and where improvements are needed."

Alistair Mailer,
Romawi Landcare Group's member and Waterwatch monitor



The Nicholson River. Alistair Mailer, Romawi Landcare Group and Forge Creek Waterwatch volunteer. Credit EGCMA.