

River Detectives is a cross curricular citizen-science program connecting young people with their local waterway. Through water quality testing, macroinvertebrate sampling and habitat surveys students learn about the importance of catchment health. The website provides access to a wide variety of engaging resources inspiring teachers to embed River Detectives in school and community life.

Since 2016 the program has been available to school and youth groups in five catchment management authority regions across the state.

In the Corangamite CMA region, Jeff Douma is the principal of Carlisle River Primary School, a small school of just nine students nestled in the Otway Ranges. The school has been involved with the River Detectives program for many years.

“We have always been interested in the indigenous flora of the local Carlisle River forest. We were very fortunate to have a passionate teacher, Gail Maddern, work with us to learn about the biodiversity of our area”

“The late Mrs Laura Bocker (early years teacher) first got our school involved with the River Detectives program. She had a passion for nature and we soon found it was the perfect program to involve our students in learning about the local environment.”

Students and staff have adopted a site on the Carlisle River, a small waterway in the Corangamite catchment of the Otways area. It is a tributary of the Gellibrand River with running water all year round.

At Carlisle River PS the whole school is involved in the program.

“We do water sampling at least once a month at Carlisle River. We all walk the 1km to the river (subject to weather) and undertake the testing at the bridge over the Carlisle River. All of the students from prep to Grade 6 are involved. Older students work with younger buddies to undertake the five tests. The older students take the lead on the more complicated tests such as reactive phosphorus, electrical conductivity and turbidity and the younger students take the lead testing pH with strips and taking photos of the site. On our return to school students add the results on the Waterwatch chart displayed in the school breezeway for parents and visitors to see.”

Jeff comments that it has been great to be involved in the program over many years to collect lots of data and for students to become very familiar with the program and the river’s health through their involvement from Prep.

“Students enjoy being out and about and making a connection with the land and water. They love walking to the river and having time to admire the river. The testing is always interesting. The students estimate the quality of the water due to various factors such as rain, presence of weeds, etc.”

Older students remember a time when river levels were higher;

“A fish ladder was installed some years ago which banked up the water and created a much-loved swimming hole for locals however it has since been removed so water levels at the monitoring site are generally lower now with the water flowing more freely.”

Other changes have been observed over time;

“Some time ago a program of fencing was undertaken to fence off local farmland from the waterway. Revegetation was added and it was all looking terrific but it hasn’t been maintained and now weeds such as blackberry have taken over the site making access to our testing site very difficult.”

Talking about these local issues gives students a real-life experience of how land and water management decisions impact plants, animals, land, water, people, industry and communities. Jeff reports that his students really love being involved in the River Detectives program.

“The program helps students really appreciate the importance of looking after our waterways. Our area is a dairy farming area. Learning about the Carlisle River makes students more aware how water quality could impact on local industry.”

Jeff speaks passionately about one of the highlights of the school’s River Detectives journey;

“In 2019 we set ourselves a goal to see as many waterways in our local area as possible. We researched to find the very start of the Carlisle River. We enjoyed an excursion where we travelled to the source which was actually a spring and then followed the waterway 20-30km to the mouth. This was a fantastic experience for the students to see the waterway on a landscape scale, see how it is an integral part of our area and understand the impact that upstream activities could have further downstream and on the ocean.”

“We visited waterfalls, rivers, creeks, the confluence of the Carlisle and Gellibrand rivers and also the estuary of the Gellibrand River at Princetown. The older students visited Camperdown Treatment Plant and learnt a lot about how river water is turned into our tap water.”

This year’s COVID restrictions have meant challenging times for schools but fortunately Carlisle River PS was able to continue with testing as a few students were still at school during lockdown. During this time the remote learning matrices developed and distributed by the River Detectives team were very useful.

“Students were given the opportunity to choose a selection of activities from the matrix that appealed to them. Due to the lack of internet at many students homes, the resources for chosen activities were then printed out by staff and posted to students. Students were asked to work on their chosen activities one afternoon each week for one hour. One student did a wonderful job of the rainbow task from the Nature Study matrix, thoroughly enjoying searching for natural objects from every colour of the rainbow. He had trouble with blue but found some hay band on his farm. The final product looks amazing.”

Looking forward Jeff plans to continue water testing and as school life returns to normality hopes to undertake waterbug and habitat survey activities. He would also love to see the Billabong Banter area of the website used more by schools to share the great River Detectives activities they are doing.

The River Detectives program is supported by the Victorian Government’s \$222 million Water for Victoria investment to improve catchment and waterway health across the state.