

River Detectives Story of Change

Covenant College, Corangamite CMA region, 2024



River Detectives is a cross-curricular citizen-science program connecting teachers and young people with their local waterway. Through water-quality testing, macroinvertebrate sampling, and habitat surveys students learn about the importance of catchment health and their role in caring for it.

The program is available to schools and youth groups in five regions across Victoria.

Covenant College is a Christian school that caters for students from three year old kindergarten to VCE. They welcome families from diverse cultural and denominational backgrounds, drawing students from Geelong and the surrounding region.

The school has been involved in the River Detectives program since 2020, integrating it into the broader sustainability curriculum that has been successfully delivered by the college in partnership with Batesford Fyansford Stonehaven (BFS) Landcare for over a decade. Their story is a fine example of the way curriculum and learning outcomes can be enhanced through strong collaborative partnerships with community groups.

Now in its fourth year, Covenant College involve their Year 9 students in River Detectives as part of the College's Community Service Program. Students are immersed in the local environment and community action by working closely with BFS Landcare to improve the health of the Moorabool River. This collaboration allows students to make tangible contributions to their local environment while learning valuable skills.

In the past, a huge variety of activities, projects and events have been held including weekly walks, talks and on-ground work in the Moorabool River Reserve. Focusing on the river in the vicinity of Dog Rocks Fauna and Flora Reserve, the students have increased their awareness of the condition of the Moorabool River and the importance of healthy waterways to the environment; and learned about threats to the river system, threatened species and habitat.

Regular water quality monitoring, an integral feature of the River Detectives program, has added a new citizen-science component to the learning of both the students and Landcare members.



Corangamite CMA staff member Deirdre Murphy with Covenant College Year 9 students

The students regularly visit the Dog Rocks Fauna and Flora Reserve with volunteer members of the local landcare group as well as staff from the Corangamite Catchment Management Authority. During these excursions, they collect crucial water quality data, which supports the broader ongoing monitoring of the Moorabool River's condition and its changes over time.

The data collection involves measuring various parameters such as pH, electrical conductivity, air and water temperature, phosphorus levels, and turbidity. Additionally, students perform macro-invertebrate surveys—analysing water bugs to assess biological health indicators of the river.

Vice president of BFS Landcare, David Clift, explains the value of utilising the River Detectives program in their work with the school.

“As a Landcare group we welcome the opportunity to work with the River Detectives program which we understand to be a worthwhile initiative.

Our hope is to introduce students to the important concept of being responsibly engaged in care for our local waterway environments, with weeding and planting in land reserves. It’s also a great way to be involved ourselves as a Landcare group in monitoring the health of our local waterways.”

By alternating between physical-chemical testing and biological assessments, students gain a comprehensive understanding of the river's health. This dual approach provides insights into both the physical conditions and the ecological state of the waterway, fostering a deeper connection to their local environment.

BFS Landcare secretary, Felicity Spear, enjoys the relationship they share with the school.

“BFS Landcare works with school groups to raise awareness of the value of caring for and protecting the natural environment and its waterways, including our local Moorabool River and its surrounding riparian zone.

With assistance from the Corangamite CMA and local volunteers our school groups from Covenant College regularly monitor water quality and bug biodiversity contributing this data to the bigger picture of river health in the region.

We regard this activity as a valued part of our program, with students having an opportunity to be actively involved in the experience of ‘hands on’ analysis, while developing a greater understanding of the impact of their findings.”



Covenant College students complete water quality testing and macroinvertebrate sampling to assess the health of Moorabool River.



BFS Landcare members with Covenant College Year 9 students

The River Detectives program not only teaches students about water science but also emphasises the importance of environmental stewardship.

It offers a hands-on, engaging way for young people to explore the interconnections between water, land, plants, animals, and their communities.

Through this experiential learning, students develop a greater appreciation for their local waterways and their roles in sustaining them.

For more information about River Detectives:

Email riverdetectives@nccma.vic.gov.au or visit www.riverdetectives.net.au