

River Detectives Story of Change

Daylesford Dharma School, North Central CMA region, 2023



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.

Tanya Wiggins is the Learning Manager at Daylesford Dharma School, a small primary school of 34 students near Daylesford in Central Victoria. The school is non-denominational, welcoming all students, but is unique in its Buddhist philosophical approach to teaching and learning with two key principles; interdependence and universal responsibility.

The school aims to foster a strong understanding of how students are connected to the web of life and their responsibility of non-harm to that web. They have been involved in River Detectives since 2014. Tanya explains that when she heard about the program she could see the benefits straight away;



Creek bed developed within the school grounds.

“We were going to Tipperary Springs regularly to learn about habitat, flora, fauna, and water bugs so I saw the program as a great opportunity for students to build that element of universal responsibility. Citizen-science gives them a great chance to contribute their observations while learning amazing skills which sit so beautifully within the Science and Humanities curriculum. It also allows students to explore the chemical science aspect which schools can find a little more difficult to cover.”

The school's decade-long River Detectives journey revolves around their adopted site on Smiths Creek in Daylesford's Cornish Hill Reserve where Grade Three to Six students have been involved. Junior students look forward to being a senior student, with River Detectives a highly anticipated rite of passage.

Small class sizes and mini busses owned by the school means teachers can connect with their community



Students enjoy a River Detectives excursion at Smiths Creek.

regularly. On a whim, teachers can take their class to Smiths Creek and see first-hand what they are learning about. This means the learning is rich, meaningful, and can be continued back in the classroom.

Cornish Hill Reserve, an 1850s goldmining zone, is being rehabilitated by the Friends of Cornish Hill. Former staff member Emily Wilden has developed a close relationship with the Friends of Cornish Hill Landcare Group and, in particular, group member Margie Thomas.



“The school has been involved in many initiatives and events with the Landcare Group over the years from Kids Teaching Kids events to cultural and environmental school field days with neighbouring schools. Parents are invited to come along and see the children’s learning in action with families visiting the reserve on weekends and holidays to see how the site is healing and changing.”

At the Dharma School, immersion in subject matter leads to interests that children have autonomy to follow.

“After a Landcare field day about frogs, the children kept talking about frogs, so staff harnessed this interest. Students from P-6 looked at frog distribution maps, identified the frogs of Cornish Hill, researched them, and created signs that were placed throughout the reserve.”

In 2022, teacher Mandy DeLacy and students refurbished the signs.

“If we’re interacting with a space then we have responsibilities to that space to ensure it is looked after. River Detectives has created a real care of Cornish Hill by students.”



Dharma students teaching their peers.



Frog signs made by Daylesford Dharma School students

Students are currently propagating plants for revegetation in 2024 that will involve designing and making signage from recycled timber.

Daylesford Dharma School is committed to nature-based, environmental learning but Tanya explains the key impact of River Detectives;

“River Detectives keeps the momentum up. There is so much curriculum to consider in schools, but River Detectives keeps environmental learning front and centre in staff and children’s minds throughout the year and over the years. Bush School has been another spinoff. We run Bush School at three sites; Cornish Hill, Tipperary Springs, and Merin Merin Swamp near Clunes. Students spend the bulk of their learning day on a Monday during terms two and three at one of the three sites focusing on experiential learning.”

Tanya shares other benefits the program has had on students, staff, and the school community;

“For students, River Detectives is powerful as a multi-generational program. Older students mentor younger students and students relate skills with the science and biology they engage in at high school.

For staff, the River Detectives program gives us confidence to really think about how we want learning to look and the equipment, training, and support to make it happen. It has given our environmental curriculum form.

When we do lots of excursions around the community, there can at times be questions about whether this is time well spent for educational outcomes. The River Detectives program has helped us communicate the wonderful science learning that is happening when we visit environmental sites. The learning then flows back into our literacy and numeracy programs with the application of meaningful data we have collected,”

In 2023, Daylesford Dharma School received a Regional Recognition Award by the North Central CMA highlighting the contribution they’ve made to the goals of the Regional Catchment Strategy.



Proud recipients of the award for their commitment to River Detectives, their partnership with Landcare and on-ground achievements at both Cornish Hill and at their school site

From a curriculum development perspective, Tanya’s highlight is the power of ongoing data collection that provides meaningful information across the seasons and years for use by students;

River Detectives has been embedded into many other curriculum areas. Rather than using arbitrary data, water quality results have been used in graphing activities in Maths.”

Tanya is confident the school will be involved in the River Detectives program for years to come with Junior Landcare grant funding enabling another exciting project for 2024. Colleague, Rachel Taylor explains;

“For this project, aligned with our Compassionate Citizenship program, we plan to build nature observation boxes with the local Men’s Shed and place them along tracks in the Cornish Hill Reserve. They will house journals and observational tools for people to record what they notice over different times of the year.

“The hope is these installations create greater community connection to the reserve and more awareness of the biodiversity in the waterway. Ultimately, the project will see the students use the data they gather from the observation boxes, and knowledge they glean from the excursions, to run another Kids Teaching Kids Day. Stepping up into the role of community educators, our students will run workshops about biodiversity.”

For more information about River Detectives:

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

Photos provided by Nicole Howie and Tanya Wiggins