

## River Detectives Story of Change

Stawell Primary School '502', Wimmera CMA region, 2022



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.

Since 2016, the program has been available to school and youth groups in five regions across Victoria.

In the Wimmera CMA region Toni Stewart is a teacher at Stawell Primary School '502', a forward-looking historically significant school, with an Eco Ninja program, into which slots River Detectives.

Teacher Toni Stewart reports on their involvement;

*"Stawell Primary School has been a part of River Detectives for approximately 5 years. With an 'Eco Ninja' program at the school, River Detectives fits really well with the 'Water Ninjas' part of that. At present we have our Eco Ninjas program run weekly, so try do River Detectives fortnightly/monthly. But, there have been lots of interruptions to the school year which then causes interruptions to the River Detective Program.*

*We became involved as it was an authentic way to learn about sustainability and be 'Citizen Scientists'. We use River Detectives as part of sustainability, but it is also part of science when we are looking at ecosystems and habitats. We also hoped it would encourage students to respect and care for our waterways and appreciate how important it is to care for them and our environment."*

Stawell Primary School is located in the centre of the town of Stawell. With an enrolment of 280 students, it draws on both the town and surrounding rural districts and is a 20 minute drive from the Gariwerd / Grampians National Park. Within the town there is a lake, on the edge is a creek wetland and in the National Park there are further creeks and lakes.

River Detectives has evolved and followed teacher, Toni Stewart, with her year levels from grade 5/6 to grade 4. She also began under Landcare Officer / RD facilitator Bronwyn Bant, who encouraged and supported them.



In March 2020, with additional Landcare funding to cover bus travel, Toni and her class were able to travel to the Stoney Creek waterway (WI\_Sto005\_RD) in Budja Budja / Halls Gap. Bron came and demonstrated the monitoring and helped with the class. The water results, indicating excellent rainwater for the tests conducted, were put on the River Detectives website. On the walk to and from Venus Baths, the class also did a Citizen Scientist lookout for birds and animals.





Without continued funding, Toni had to look closer in Stawell for suitable walkable-distance water places from the school. Now with her Grade 4 class of 26 students, they walk to the lake at Cato Park (site WI\_LCT450\_RD) for monitoring.



When possible, Toni brings additional samples to school from Federation Park/Stinky Creek wetland (site WI\_SFD500\_RD) on the edge of town for the students to test. (These town sites have also turned out to be of rainwater salinity levels, but murkier and with higher levels of nutrients.)

After Bronwyn left, Jeanie Clark became Toni's Wimmera CMA's River Detectives support. Despite times of covid lockdown, Toni was able to keep some monitoring going of these local sites. Jeanie also secured additional equipment from the Wimmera CMA's former Waterwatch program to enable Toni to have more students actively involved in each monitoring. By supplementing the River Detective kit's one turbidity tube with three Waterwatch tubes, Toni's Grade 4 students have been able to test turbidity in four groups and compare their readings - a reliability check before being reported to the River Detectives database.

Toni reflects on these experiences;

*"Our River Detectives outings were quite full on and very busy. Now that we have more equipment it is easier as more students can take part. Having a River Detectives facilitator with us would make this even easier. Students take turns doing the various testing and recording results. They love doing waterbugs especially on site (photo right at Federation Park). When entering the data on the River Detectives website, we click on the 'fish' which tells us how healthy our results are so the students know what their readings mean."*

Toni explains the impact of the River Detectives program on students;

*"I think the biggest change for our school is students getting the opportunity to do something for the community and for the environment that has a real purpose. They enjoy using 'real' scientific equipment when doing the tests on pH, salinity, temperature, turbidity and soluble phosphate. Thus, students are becoming more aware of looking after their environment. They bring samples of water to school from their own dams for testing."*







*“We are presently trying to create a frog bog at school. This came about because of our involvement in River Detectives. Our school tried to do a frog bog a couple of years ago, but covid got in the way. We decided to extend it this year after talking about bugs and ecosystems when discussing River Detectives’ readings. To do this, students have to have a real understanding of what type of habitat we need to provide and have come up with lots of ideas of what they can contribute.”*

For Toni, the River Detectives programs brings rewards and presents challenges;

*“I really enjoy the excursion when we can actually visit the sites rather than when I just bringing samples to school. It’s great to get students outdoors and surveying the surrounds and doing the testing so we can fill in the data.”*

*COVID has definitely impacted our participation. COVID was very difficult and pretty much stopped us. It was nearly two years of not being able to get River Detectives testing done. It still affects us as our daily structure can fly out the window when staff are away ill and we need to change our plans. With a crowded curriculum and last minute changes due to teaching shortages, I haven’t had the opportunities to test as I often as I would like which means I often feel a bit ‘rusty’ when using the equipment.*

Toni also comments on the financial cost of involvement in going to further afield sites;

*“We are limited to sites we can walk to, parent support when they can transport us or the occasional funding opportunity to cover a bus trip, so if funding was found for schools to travel, that would be even better.”*

Toni is thinking to the future and what River Detectives might look like at Stawell Primary School;

*“In our Grade 3 /4 model at Stawell PS, River Detectives fits in well with our Water Eco Ninjas. So I see it going from strength to strength. We are planning to inform our community about our results, with Facebook posts and end of term assembly presentations.*

*It would be great to try and find some funding to assist with transporting students to locations. Since the earliest funding from Landcare for travel and the current funding from the Wimmera CMA for equipment, I haven’t used or found other funding to work in with River Detectives but would be open any opportunities.*

*I am currently organising some transport to get us to our further site at Federation Park so that we can spend a morning there. We plan to have Jeanie on-site for her to model and assist with the class testing as part of the waterbug professional development training.”*



**For more information:** Email [riverdetectives@nccma.vic.gov.au](mailto:riverdetectives@nccma.vic.gov.au)

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