



## Statewide mid-year report 2022



COMMUNITY  
PARTNERSHIP  
PROGRAM



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## Acknowledgement

The River Detectives program acknowledges the Tradition Owners across the regions on which the program is delivered. We recognise their rich culture and spiritual connection to Country and the contribution and interest of Aboriginal people and organisations in land and natural resource management.

## Program Delivery

River Detectives is an engaging education initiative that connects young people to nature by caring for their local waterway. Students learn about the importance of healthy waterways through water quality testing and the benefits to land, plants, animals and people. Participating schools are provided with equipment, support, training and teaching resources.

The statewide River Detectives program is generously sponsored by Agnico Eagle Australia Community Partnership Program. The sponsorship enables the co-ordination and delivery of the program across four regions.

### *2022 River Detectives delivery partners*

- North Central Catchment Management Authority (CMA)
- Corangamite Catchment Management Authority (CMA)
- North East Catchment Management Authority (CMA)
- Wimmera Catchment Management Authority (CMA)
- Melbourne Water\*

\*Melbourne Water's participation in the program is secured through separate funding.

This report highlights statewide River Detectives program activities during this first half of 2022.

## Statewide Delivery

Terms 1 and 2, 2022

**95**

**Schools and groups  
participating in the  
program**

**39** North Central CMA

**20** Corangamite CMA

**27** Melbourne Water\*

**5** North East CMA

**6** Wimmera CMA

**125**

**Active waterway  
monitoring sites**

**45** North Central CMA

**24** Corangamite CMA

**37** Melbourne Water\*

**7** North East CMA

**12** Wimmera CMA

**3674+**

**River Detective  
students**

**1053** North Central CMA

**521** Corangamite CMA

**2050+** Melbourne Water\*

**TBC** North East CMA

**50+** Wimmera CMA

Delivered 16 professional development introductory modules for teachers

Held five online statewide coordinator network meetings

Water Quality activity matrix produced



'Ask the Expert' Native Fish Webinar recorded

Region	North Central CMA	Corangamite CMA	Melbourne Water*	North East CMA	Wimmera CMA
Registered groups	39	20	27	5	6
Active monitoring sites	45	24	37	7	12
Data entries	15	9	8	0	4
Water quality entries	15	8	5	0	4
Waterbug entries	0	1	4	0	0



Habitat assessments

1

0

1

0

0

## Statewide statistics

Terms 1 and 2, 2022

## North Central CMA



### Participation in River Detectives in North Central during 2022

Number of River Detective schools registered	39
Number of students participating in the River Detectives program	1053
Number of teachers/educators being supported	60

#### Activity

#### Number

#### Participants

Co-ordination of introductory PD session/s for educators

6

18

Coordination of and attendance at state-wide network meetings

5

N/A

Provide one incursion per school per year

8

197

## Term 1 and 2 highlights

### Professional Development (PD)

At the beginning of every school year, a number of Professional Development (PD) sessions are held for educators to introduce them to the River Detectives program and to equip them with the materials, know-how and enthusiasm to deliver the program to their students. These sessions are invaluable for new teachers and are extremely beneficial to those returning to the program to refresh their skills to successfully deliver the program over the coming school year.

***"The River Detectives program is as much about supporting teachers as it is students. We know the more confident teachers are in their own knowledge of water health issues, the more motivated and effective they'll be sharing concepts with students."***

Nicole Howie, River Detectives Project Officer, North Central CMA

In previous years these sessions have been held face-to-face but during 2022 they were predominantly hosted online in 2022 due to COVID-19 restrictions but to also allow teachers flexibility to attend during their busy schedules.

Five live and interactive PD sessions were hosted online in February and March and another session was recorded for teachers to access and watch at their own convenience. Nicole Howie, North Central CMA River Detectives Project Officer, visited Donald High School and had a one-on-one introduction with teacher/s. The school was new school to the program and the face-to-face introduction was extremely beneficial in giving the teacher the confidence and support to roll the program out to students.



Project Officer Nicole hosts one of six online PD sessions for River Detective teachers, running through the water quality tests, equipment and resources available.

### Project Prattles

26 of the 39 registered River Detectives schools within the North Central CMA region are affiliated with other priority projects for the CMA. These projects include:

- Caring for the Campaspe (10 schools)
- Bendigo Creek Citizen Science Project (6 schools)
- A Healthy Coliban Catchment (2 schools)
- Riverscan (Native Fish Recovery Project) (8 schools)

During late April and early May, Nicole Howie convened one 'Project Prattle' for each project. Teachers within each project footprint were briefed on how their monitoring site relates to the broader catchment and the on-ground works and management that is happening in their community. These sessions gave teachers the opportunity to speak directly with project managers, network with other River Detectives schools in their area, access a wealth of learning resources on their waterway and presents a unique opportunity to collect valuable citizen science data with their students to contribute to the project.

The next 'Project Prattle' series will be held in August 2022 where teachers will hear from a Waterwatch volunteer and/or landholder in their areas and learn about their experiences.



*Teachers from schools along Bendigo Creek met at the Wanyarram Dum dancing circle beside Bendigo Creek and learnt all about the Reimagining Bendigo Creek Project from City of Greater Bendigo's Senior Water Strategy Officer, Liam Sibly.*

### Term 1 and 2 incursions





School	Date	Year level	Students
1. Victory Christian College	16/5/2022	9/10	24
2. Marong Primary School	18/5/2022	5/6	24
3. Elmore Primary School	18/5/2022	Prep to 5	30
4. Trentham Primary School	25/5/2022	5/6	23
5. Koondrook Primary School	8/6/2022	4	17
6. Leitchville Primary School	8/6/2022	3-6	7
7. St Joseph's Primary School	8/6/2022	2-4	35
8. Gunbower Primary School	8/6/2022	2-6	37
<b>Total</b>			<b>197</b>

## River Detectives on Country

On June 8, 100 River Detectives students braved the winter sunshine for a fun-filled day of discovery at Tree Tops Scout Camp in Gunbower Forest.

Students from St Joseph's Kerang, Gunbower, Leitchville and Koondrook primary schools were welcomed to Country in a smoking ceremony by Barapa Barapa Elder Uncle Ron Galway before being treated to hands-on activities to learn more about water for the environment on the Gunbower Forest floodplain.

Highlights included live turtle and fish displays from Native Fish Australia and Turtles Australia, where children learnt all about the special critters that call Gunbower Forest home. Parks Victoria staff lead an interactive waterbug activity. Students were very fortunate to also learn how to weave from Bapara Barapa woman Laura Kirby and to paint (and throw!) boomerangs with North Central CMA staff members Rochelle and Nick.

The North Central CMA would like to extend their gratitude to Uncle Ron Galway and Barapa Barapa Traditional Owners, Native Fish Australia, Parks Victoria, Turtles Australia, Ceramicist Anne Ferguson and her assistant Kaori, as well as the Leitchville Bunyips Sporting Club for putting on the barbecue lunch. A big thanks also goes to the many North Central CMA staff for their generous

*"I learnt how the different turtles made their nest and about the water bugs and what they need to survive"*





support and contributions, especially River Detectives Project Officer Nicole Howie for her tireless work in coordinating such a successful and smooth-running event.

Clay fish and turtle creations produced by students on the day will be on exhibition in the Gateway to Gannawarra Visitor Centre in Cohuna throughout July 2022 to celebrate the watering of the Gunbower Forest floodplain over winter and spring.



*"I learnt that  
Golden perch  
travel hundreds  
of kilometres"*



*"I enjoyed it because I have  
learnt how to weave. I had  
never done it before"*



### **River Detectives in the community**

North Central River Detectives supported the Echuca Moama Beacon Foundation's Careers Expo in Moama on Tuesday May 31 by hosting a series of workshops on water science. Twenty-four Year 9 and 10 students from Echuca College, St Joseph's College, Moama Anglican Grammar, Echuca Twin Rivers Specialist School and River City Christian College who had expressed interest in biodiversity conservation, environmental science and fisheries heard from North Central CMA staff about possible career pathways.

River Detectives students from the Dharma School in Daylesford stole the show with their presentation at the Launch of the North Central Regional Catchment Strategy in Hepburn on June 23.

### **Plans for terms 3 and 4**

Thirteen schools in the North Central CMA region will be offered an incursion during term 3. Teachers can choose from topics ranging from the water cycle and salinity to urban stormwater and waterbugs.

River Detectives primary schools affiliated with Reimagining Bendigo Creek will be treated to Kia Dhehk Gatjin, an event 'Celebrating Healthy Water' at Wanyarram Dum, newly created frog ponds on the Bendigo Creek. The event is supported by the City of Greater Bendigo and Dja Dja Wurrung. A two-day event will be also held at the same site for Year 7 students from the adjacent Weeroona College in spring.

Spring is prime macroinvertebrate sampling time and teacher professional development sessions will be rolled out across the region to upskill teachers in their waterbug identification and build their confidence in conducting sampling sessions with students.

North Central CMA staff are currently planning a conference for regional staff, teachers and educators involved in delivering River Detectives across the state. This online forum will be an opportunity for teachers to hear successes from other schools, share learnings and resources and to raise questions they may have. Feedback received from this event will shape delivery of the program in 2023.

Statewide River Detectives network meetings are scheduled for July, September, and November while a second round of 'Project Prattles' will take place in August.

## Corangamite CMA



### Participation in River Detectives in Corangamite during 2022

Number of River Detectives schools registered	20
Number of students participating in the River Detectives program	521
Number of teachers/educators being supported	24

Activity	Number
Co-ordination of introductory PD session/s for educators	3
Attendance at Statewide meetings	3
Provide one incursion per school per year	4

### Term 1 and 2 highlights

#### Staffing

Corangamite CMA's Citizen Science Project Officers are facilitating the River Detectives program. This approach links other community based and Corangamite CMA programs to River Detectives schools and adds value to the program.

For example, River Detective schools affiliated with waterways in Geelong have been invited to participate with scientists from RMIT's Aquatic Environmental Stress Research Group in the latest iteration of the [Litter Trackers project](#).



Corangamite River Detectives Facilitator Deirdre Murphy working with Corangamite River Detectives Coordinator Kristen Lees (behind the camera) to update old and prepare new River Detectives kits for participating schools.



### Professional Development (PD)

Three introductory PD sessions were delivered to new and returning teachers to the River Detectives Program in early 2022. These sessions were held in Colac, Ballarat and Geelong and delivered to a total of 19 participants. The sessions were an opportunity for others to come along and learn about the program including a staff member from a neighboring CMA and three Landcare volunteers who are actively engaged with one of the participating schools.



Colac



Geelong







## Ballarat



### Incursions and activities

According to Corangamite River Detectives facilitators, each incursion feels like a highlight. A few schools were lucky enough to get their incursions in before the winter chills, with most participating schools opting for a late winter/spring incursion. To date, Corangamite CMA have delivered four incursions, involving both their largest and smallest schools.

Two of the educators in Corangamite's River Detectives program are Parks Victoria, rather than Department of Education, employees. Although Corangamite CMA count Parks Victoria as one "school", they involve students from multiple schools in their River Detectives activities. During the first half of 2022, Parks Victoria engaged students from three primary schools as well as a disability group in River Detectives activities on-site at Serendip Sanctuary.

Incursions have also been delivered as part of the Corangamite CMA flagship project *The Living Moorabool*. The Year 9 environment program focusing on the Moorabool River is a fantastic partnership between River Detectives school Covenant College, Batesford-Fyansford Landcare, City of Greater Geelong and Corangamite Waterwatch.

### Challenges

The biggest challenge encountered by facilitators delivering River Detectives in the first half of 2022 was connecting with teachers for professional development, incursions and general communication. This has been attributed to the impacts of the pandemic with COVID-19 outbreaks in schools and stresses on the system created by short staffing. This resulted in significant delays to the commencement of the program in some schools. *"There's not much we can do about it – we are just being patient and as flexible as possible,"* Robyn Vale, Corangamite River Detectives Facilitator.

Restricted access to the full functionality of the River Detectives website resulted in monitoring sites not being registered for data entry and this was an issue for some schools. This glitch has since been resolved.

### Plans for the remainder of 2022

Schools are slowly booking in for incursions in term 3, and it is expected that most will occur over spring, with a focus on water bugs.

Corangamite CMA project officers are currently coordinating a Community Open House for the Upper Barwon Flagship area, linking Forrest Primary School to the wider school community to better understand how they value this catchment.

**Corangamite CMA now links to the River Detectives website directly from its own:** <https://ccma.vic.gov.au/get-involved/citizen-science/>



### River Detectives

#### Exploring local waterways with students

This hands-on program is an initiative of Catchment Management Authorities that supports teachers and leaders to connect young people to their local waterway.

Schools and youth community groups can apply to be a part of the program which, if successful, allows your group to lend a water quality monitoring kit, for the teacher or leader to attend training sessions and the ability to access more activities, resources and an interactive data recording portal on this website.

Spaces in the River Detectives program are limited. Applications generally open in November for the following school year.

[River Detective Resources](#)



## Melbourne Water



### Participation in River Detectives in Greater metropolitan Melbourne during 2022

Number of Schools registered for River Detectives	27
(Including 3 partner organisations)	
Number of students participating in the River Detectives program	>2050
Number of teachers/educators being supported	41

Activity	Quantity
Co-ordination of introductory PD session/s for educators	3
Attendance at state-wide meetings	1
Provide one incursion per school per year	TBD

### Term 1 and 2 highlights

In previous years Melbourne Water has provided macroinvertebrate sampling kits to schools on a loan and return basis. The decision was made this year to provide kits to all schools that wanted them and to all schools joining the program for the first time in 2022. To date, 14 kits have been distributed.

A short quiz was designed to gauge student's level of understanding of waterway health prior to their participation in the River Detectives Program. The intention is for students to complete the quiz again at the end of the year to see whether there is an increased level of knowledge and understanding of waterway health through participation in the River Detectives program.

### Professional Development (PD)

Melbourne Water delivered three PD sessions for educators delivering the River Detectives program in the greater Melbourne metropolitan area. These were attended by eight teachers representing seven schools.

Date	Number of Schools Attending	Number of Participants
23 March	4	5
11 May	2	2
1 June	1	1

### Challenges

Schools and teachers have been facing many competing priorities with the return to face-to-face learning in 2022. Impacts from the ongoing pandemic and recent influenza outbreak have meant that school programs have been quite disrupted. It is to be expected that River Detectives may be a lower priority in some schools at this time. Melbourne Water actively look for opportunities to provide support to teachers to deliver the program wherever they can.

### Plans for the remainder of 2022

Planning is underway to deliver incursions to schools during Terms 3 and 4, commencing with schools that are new to the program in 2022. These incursions will focus on upskilling teachers to deliver macroinvertebrate sampling sessions to their students and conducting habitat surveys.

## North East CMA



### Participation in River Detectives in North East during 2022

Number of Schools registered for River Detectives	6
Number of students participating in the River Detectives program	TBC
Number of teachers/educators being supported	7

**NORTH EAST  
CATCHMENT  
MANAGEMENT  
AUTHORITY**

Activity	Quantity
Co-ordination of introductory PD session/s for educators	1
Attendance at State-wide meetings	4
Provide one incursion per school per year	0

### Term 1 and 2 highlights

Upper Sandy Creek Primary School joined the North East River Detectives program in 2022. Matthew, the managing teacher, has hit the ground running with his background in Environmental Science and experience teaching environmental studies at VCE level. The school will commence water quality and water bug monitoring at Upper Sandy Creek PS in term 3.

Mitta Mitta Primary School continues to be a quiet achiever, delivering River Detectives despite the challenging times. They recently represented the North East CMA through their submission to the 'Ask the Expert' webinar.

With some additional time and available staff members employed under the Youth Employment Program, the North East CMA has completed a stock take and quality assurance testing of River Detectives monitoring equipment and are now in a good position to support schools for their term 3 start.

Returning to normal classroom schedules and topic progression will continue to be the priority in most classrooms and schools for terms 3 and 4. Despite a rocky start and a change of River Detectives Support Officer, five schools are officially registered and resourced to deliver activities in the second half of the year. Two additional schools have expressed interest but have yet to register due to resourcing challenges. If these schools are to deliver River Detectives in 2022, building these relationships will be important to support their future involvement. Most existing schools chose to review the online professional development and training videos in their own time. Teachers may request training and support closer to their implementation date in term 3.



## Challenges

Creating plans and maintaining communication with schools through continuing COVID-19 interruptions, influenza and staffing issues in 2022 is challenging and needs to be taken into consideration when communicating with staff and schools about the program. North East CMA has reached out to all participating and interested schools in the region and will continue to provide support and maintain relationships whilst schools are returning to pre-COVID-19 activities, without insisting on results.

Several of the teachers who originally registered for River Detectives in the North East are on leave or are no longer teaching at the school. Making contact and involving their replacements in the program has been challenging. Supporting teachers when they are ready to take on River Detectives will be vital to schools and teachers continuing in the program.

Two teachers have reported finding data entry challenging with primary-aged classrooms. The activity either requires the teacher to enter data after class or close supervision of a small number of students on a device connected to the internet. Perhaps an offline app that could automatically upload data when a suitable connection is available could assist these classes.

## Plans for the remainder of 2022

The commitment by six schools to be involved in River Detectives during the first two school terms in 2022 means that delivering the program during terms 3 and 4 will be a major outcome for the year. The second half of the year will involve maintaining support for the participating schools and planning incursions in collaboration with schools to meet their needs.

There have been challenges with school staffing as well as a changes in North East CMA project support during 2022. All registered and interested schools have been provided equipment and information to help them uptake the program in the second half of 2022. Teachers are still recovering from lockdowns and at home learning. As of June 2022, schools have not commenced their River Detectives topics. Incursions are most likely to be completed during terms 3 and 4.

It is hoped that there will be links to several North East CMA on-ground works projects with participating schools, including the Lower Kiewa catchment stewardship project (Dederang Primary School) and the Mullinmur wetland environmental water community engagement project with Wangaratta Primary School as they complete their activities in terms 3 and 4.

## Wimmera CMA



### Participation in River Detectives in Wimmera during 2022

Number of Schools registered for River Detectives	6
Number of students participating in the River Detectives program	50+
Number of teachers/educators being supported	6

**Wimmera CMA**

### Activity

### Number

Co-ordination of PD session/s for educators
Provide one incursion per school per year
Attendance at State-wide meetings

6

2

1

+ provided updates to networks via email  
when could not attend

### Term 1 and 2 highlights

More than 50 students have been involved in River Detectives activities across the Wimmera region during the first half of 2022.

New schools to the program include Dimboola (22 students), Minyip (21 students from Years 3-6) and Rupanyup (25 students from foundation to year 6) primary schools.

Returning Schools include Jeparit Primary School (14 students from foundation to Year 6) and Stawell Primary School with 23 Year 4 students.

At this stage Wimmera CMA expects over one hundred students to participate in the program in the second half of 2022 with a second group from Dimboola MSC joining the program and participation from a science club in Horsham.

### Professional Development (PD)

Professional Development sessions with teachers were conducted as individual school meetings except for Minyip and Rupanyup primary schools which were able to agree to a joint date and place.

School	PD	Date
Dimboola MSC	Introductory	8 February
Stawell PS	Review	30 March
Minyip PS and Rupanyup PS	Introductory	2 May
Jeparit PS	Review	7 June
St Brigids College Horsham	Review	22 June

### Incursions

Instead of conducting in-person incursions this semester, online resources were created for distribution to all schools. A 'World Wetlands Day' resource was provided at the start of the school year and an 'Introduction to Salinity' was sent out at the end of term 2 for use during the school holidays. A need for training in salinity was identified by one educator, thus the resource was created, and teachers were supported to deliver the learning material in their classrooms via phone and email.

These resources have been made available in the Resource Riverbank section of the River Detectives online portal for use by all participating regions and schools.

### Challenges

Schools are still very much impacted by COVID-19 and illness, limiting what can be done in the classroom and getting out to monitor sites.

Secondary school timetables run in terms and there are no year-long classes available for continual monitoring and involvement.



## Communications and Media

2 Media releases featuring River Detectives

16 Nov 2021 Recruitment for 2022 schools

4 Feb 2022 Announcing sponsorship of program

1 Radio interview on ABC Central Victoria

19 Nov 2021 Recruitment for 2022 schools



Maintenance of River Detectives website, data portal and resources



Promotional animation video via social media and internal networks  
<https://www.youtube.com/watch?v=Dp33maVh0U8>



The program is proudly supported by



## Schools urged to make a splash

North Central Catchment Management Authority is on the lookout for passionate groups and schools keen to engage the next River Detectives recruits.

The River Detectives program is a free and fun education initiative that connects young people to nature by caring for their local waterway.

Students learn how water works

encouraged to become custodians of their local waterway."

Ms MacLeod is encouraging new schools and youth groups in our catchment to register for the 2022 River Detectives Program.

## Golden opportunity

Gold producer Kirkland Lake Gold has thrown its support behind the statewide school-based River Detectives program.

River Detectives is a free and fun education initiative that connects young people to nature by caring for their local waterway.

Students learn how water, land, plants, animals, people and communities are linked through monthly water testing, and schools are provided with equipment, support, training and teaching resources.

North Central Catchment Management Authority runs the program in 60 schools across the North Central, South East, Corangamite and Werribee catchment areas. Kirkland Lake Gold, which sponsors the Gold Mine Bendigo, has committed to sponsoring River Detectives for the next three years.

Ending means River can continue the end of 2024, we use to engage National Education North Central Dawson said.

Amazing con- Kirkland Lake would not com-

such a wonderful educational program that provides students an opportunity to understand, appreciate and care for their local waterway through engaging activities."

Mr Dawson said registrations were now open for schools and community groups to be involved in the River Detectives program.

"River Detectives aligns with the Australian curriculum framework, offering cross-curricular activities to promote understanding of waterways as integral features of a healthy ecosystem and healthy community," Mr Dawson said.

"Students develop skills in monitoring and enhancing riparian habitats and are encouraged to become custodians of their local waterway."

"We'd love new schools and youth groups in our catchment to get involved and register for the 2022 River Detectives Program."

• For more information, visit [www.riverdetectives.net.au](http://www.riverdetectives.net.au) or go to [www.nccma.vic.gov.au](http://www.nccma.vic.gov.au)

## Hunt for river detectives

North Central Catchment Management Authority is on the lookout for passionate groups and schools keen to engage the next River Detectives recruits.

The River Detectives program is a free and fun education initiative that connects young people to nature by caring for their local waterway.

Students learn how water, land, plants, animals, people and communities are linked through monthly water testing, and schools are provided with equipment, support, training and teaching resources.

North Central CMA Citizen Science co-ordinator Tania MacLeod said River Detectives was fun, healthy and a great way to learn, and could be tailored to specific learning objectives and remote schooling.

"It enables students to gain an intimate knowledge and



New skills: The River Detectives is open for schools to participate again.

love for their local waterway through a variety of hands-on activities, including regular water-quality testing, water-bug sampling and habitat surveys," she said.

Ms MacLeod is encouraging new schools and youth groups in our catchment to register

for the 2022 River Detectives program.

• To find out more about the program and how it could work in a school near you, visit [www.riverdetectives.net.au](http://www.riverdetectives.net.au) or contact Ms MacLeod on 03 5448 7124.



In focus: North Central CMA citizen science co-ordinator Tania MacLeod and Kirkland Lake Gold's Felicia Binks celebrate the organisations' new River Detectives program partnership.

5

Articles in local print media

19 Nov 2021 Riverine Herald

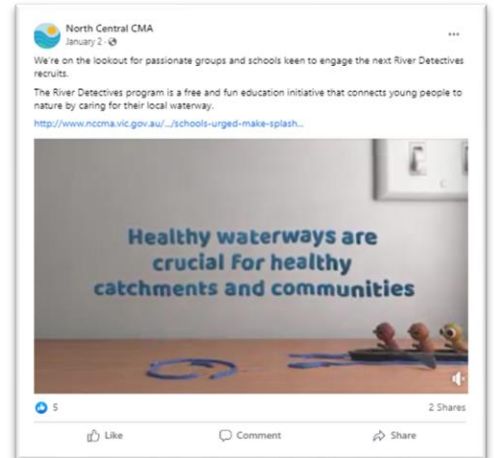
20 Nov 2021 Bendigo Weekly

23 Nov 2021 Midland Express, Kyneton

5 Feb 2022 Bendigo Advertiser

8 Feb 2022 Country News insert, Shepparton





12

Social Media Posts

156 Likes

18 shares





October 2021

November 2021

December 2021

February 2022

March 2022

April 2022

May 2022

June 2022

