



River Detectives Investment Prospectus



Acknowledgement of Country

The North Central Catchment Management Authority acknowledges Aboriginal Traditional Owners within the region, their rich culture and spiritual connection to Country. We also recognise and acknowledge the contribution and interest of Aboriginal people and organisations in land and natural resource management.

River Detectives Investment Prospectus (Public Sector)

Front cover photo: River Detectives on Country captured by Bill Conroy.

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Invest in the future of young people and the environment through our River Detectives program that supports students to actively care for their local waterway

River Detectives is a successful environmental education program that has been connecting young people to nature since 2016.

By adopting and monitoring a local waterway, students learn about the importance of catchment health and their role in caring for it through engaging citizen science activities.

This prospectus provides an overview of the program and the investment-ready opportunities to support it.

The program enables Catchment Management Authorities (CMAs) and other agencies to connect and engage with local students and communities about priority projects and raise awareness about local environmental issues.

River Detectives provides educators with a practical means of delivering environmental science education in the field and delivering learning outcomes in science, technology, maths, and humanities. It is a program where everyone can succeed.

Support River Detectives students to:

- Collect meaningful data that contributes to decision making around natural resource management issues in their catchment.
- Engage in real-life projects being delivered by government agencies, universities and the community.
- Become environmental stewards.
- Consolidate learning in STEM and humanities subjects through practical, hands-on learning.
- Connect with local community groups such as Landcare, WaterWatch and natural resource management Friend groups.
- Spend time on Country with Traditional Owners.



Delivery model

Our River Detectives citizen science program is delivered through a train-the-trainer model by which educators are provided with the tools, resources and support to deliver the program to their students.

This flexible model has proven to be an economical way for organisations to deliver the program widely across their region with the added benefit of upskilling educators and raising awareness of local waterway issues within the wider school community.

State-wide River Detectives Coordinator

- Coordinates state-wide delivery of the program and supports facilitators in each region.
- Advocates for the program and explores emerging opportunities.
- Maintains the River Detectives database and online learning resources.
- Chairs the River Detectives network, convenes regular meetings and seminars.
- Hosted by North Central CMA.

Cultural Education Officer

- Provides cultural oversight across the River Detectives program and supports reconciliation.
- Brokers relationships between Traditional Owners, delivery partners and participating groups.
- Provides opportunities for on-Country learning.
- Links educators to culturally appropriate learning materials and resources in their local area.
- Reports to the Statewide River Detectives Coordinator.

Regional River Detectives Facilitator

(one per delivery region)

- Delivers the River Detectives program within each region.
- Provides educators with professional development, support and training enabling them to deliver the program to their students.
- Links participating groups to community groups and local natural resource management projects.
- Develops relationships with local Traditional Owners and provides participating groups with cultural learning opportunities.
- Develops regionally specific learning materials and resources.
- Offers excursions/incursions to participating groups.
- Hosted by the delivery partner and reports back to the Statewide River Detectives Coordinator.

Participating Groups Educators

- Usually the classroom teacher but it could be volunteers, Scout leaders, local rangers or community groups.
- Deliver River Detectives content to their students.
- Coordinate monitoring of local waterway and data collection with students.
- Access learning materials and resources to support classroom learning.
- Maintain equipment.
- Liase with their Regional River Detectives Facilitator.

Students

Enjoy hands-on learning in the great outdoors and participate in real science!

Current River Detective program participation across Victoria (2023)



Five delivery partners across Victoria



River Detectives was established in the North Central CMA region two decades ago. From humble beginnings, the program has expanded and prospered and is now delivered free of charge to students across 4.5% of schools in Victoria.

Annual activity

- More than **100** registered groups.
- **125** monitoring sites across Victorian waterways.
- **7,000** students participating.
- **30** professional development sessions.
- **60** interactive and engaging incursions.





A plan to protect the future of River Detectives

Vision: Victorian students and their communities are environmental stewards

Outcomes:

Students have an increased awareness of issues affecting catchment health through regular monitoring of their local waterway.

Participating groups have built a relationship with Traditional Owners in their area and have an appreciation of Indigenous Ecological Knowledge.

Participating groups are connected to their communities and are engaged in current environmental projects.

All regions and schools who want to be part of River Detectives are actively participating.

Program components

Core program delivery

- Statewide coordination, governance and administration.
- Program facilitation across the participating regions.
- Professional development and support for educators.
- Cultural education and on-Country experiences.
- Maintenance of website and interactive database.
- Development of teaching and learning resources.
- Equipment purchases and maintenance.
- One incursion for each participating group by experienced facilitators and subject experts.
- Opportunity to participate in two virtual 'Ask the Expert' sessions annually with keynote speakers in Citizen Science programs from across Victoria.
- Opportunity to network with other River Detectives groups.
- Access to the River Detectives data portal and website with extensive teaching resources and inspiration.
- On-going support for educators.
- Opportunities for on-Country activities with Traditional Owners.
- Opportunity to tap into and learn from current local natural resource management projects.
- Participate in real science through engaging citizen science initiatives.

What is provided to each group annually

- A water testing kit with the equipment needed to undertake testing of their adopted site.
- Bespoke professional development sessions and training for educators.

Alignment to government policy and strategy

The health of our catchments relies on the active participation of communities in the region.

Catchment management authorities bring together regional partners, communities and Traditional Owners in the management of waterways and catchments and to promote land and water resources, and their sustainable use and conservation.

The River Detectives program focuses on strengthening local relationships and enabling young people to participate in citizen science programs that increase their knowledge and awareness of natural resource management.

This approach directly supports the Victorian Government's policy objectives for supporting community partnerships, citizen science and First Nations self-determination listed in:

- Water for Victoria: Water Plan, 2016
- Victorian Waterway Management Strategy
- Regional catchment strategies
- Regional waterway strategies
- Country Plans of Traditional Owners
- Marrung - Aboriginal Education Plan 2016-20126
- [Victorian Aboriginal Affairs Framework \(VAAF\)](#)
- Various reconciliation action plans (i.e. ['Galkangu', North Central CMA Stretch Reconciliation Plan 2022-2025](#))

River Detectives:

- Is an integrated citizen science program that engages community in collecting useful data to inform water, land, and biodiversity programs.
- Aligns program delivery and content with priority waterways and associated projects outlined in regional waterway strategies.
- Fosters community participation in waterway management and promotes opportunities for people to connect to nature.
- Celebrates Aboriginal cultures and languages and includes traditional ecological knowledge.
- Provides opportunities for greater Aboriginal participation in program delivery and to speak for Country.
- Nurtures the next generation of environmental stewards by supporting school communities to regularly monitor the health of the natural environment and contribute to knowledge and enquiry.



Case Study River Detectives on Country

North Central CMA

In mid-2022 project teams within the North Central CMA came together to host a day on country for a fun-filled day of discovery at Tree Tops Scout Camp in Gunbower Forest.

All registered River Detectives schools within the footprint of several CMA projects were invited to learn more about water for the environment on the Gunbower Forest floodplain. 100 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 including:

Water is Life

An interactive session hosted by **Ramsar wetlands**, and **Native Fish Recovery Plan** project managers on the importance of environmental water flows for the fish, birds and reptiles who call the Gunbower Forest home. Students got up and personal with live turtles and fish and asked questions to experts from **Turtles Australia** and **Native Fish Australia**.



"I learnt how the different turtles made their nests and about the waterbugs and what they need to survive."

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



Cultural Connections

Students were very fortunate to 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.

Waterbugs with Junior Rangers

Parks Victoria Junior Rangers staff treated students to a hands-on and engaging waterbug search whilst learning how important these little critters are for supporting ecosystems.

Ceramic sculpting

Ceramicist Anne Ferguson assisted student to sculpt their very own clay fish and turtles. The creations produced by students on the day were then put on exhibition in the **Gateway to Gannawarra Visitor Centre** to celebrate the watering of the Gunbower Forest floodplain during winter and spring.

Local sporting club, the **Leitchville Bunyips**, put on a yummy barbecue lunch for everyone.

The event was a fantastic demonstration of how multiple agencies, Traditional Owners, project managers and community groups can come together to celebrate and raise awareness of the work that is being done to maintain these special natural places.



"I learnt that golden perch travel hundreds of kilometres".

Case Study River Detectives at Deans Marsh Primary School

Corangamite CMA

Nestled in the Otway hinterland lies the small rural town of Deans Marsh. It is a wonderful place with unique nature and wildlife, and the local school draws on its surrounding environment to support student learning. Deans Marsh Primary School and it's 40 students have been part of the River Detectives program since 2020, regularly monitoring Deans Creek, a tributary of the Barwon River and significant river in the Corangamite CMA region.

Teaching principal Russell Taylor-Shaw describes how their involvement in River Detectives has helped the students to learn about where the water in their catchment comes from and where it goes: *"the water starts up in the Otways..... all that water is flying down those hills then eventually it ends up in the Barwon River. They all know that area well. We've looked at the River Detectives videos about rivers and that's been good for the kids to access a bit more information"*.

The school enjoys visits by River Detectives coordinators from the Corangamite CMA. River Detectives facilitator Deirdre Murphy held a macroinvertebrate incursion where students learnt about aquatic waterbugs and collected further data. The class tries to get down to Deans Creek once a month to complete their water quality testing and see the creek it all its different stages. *"We're heading down next week, and there's a little dam on the way there and the landowners told us it's full of tadpoles, so we'll be doing a bit of a detour."*

Dean Marsh PS prides themselves on being a community school and loves the walk through town down to the creek as the community sees them with their buckets and their nets. The proximity of the school to Deans Creek is a great opportunity to get the kids out into the community.



The school fosters **extensive community partnerships** and demonstrates a substantial commitment to environmental education, including an annual trip to the Bamba wetlands to investigate a larger local ecosystem and conducts revegetation at nearby Bamba.

They've developed wetlands on the school grounds into a small wildlife reserve involving a partnership with **Landcare** and local families. **Parents and community members** have shared their knowledge of native flora and fauna, working with the school to create a nature walk linking the school wetland with the playground. The name of the **local cricket club** is even named after the Rakali, the subject of grade 5/6 studies: the Deans Marsh Swamp Rats.

The school is also involved in **recycling programs**, is a **Resource Smart School** and is part of the **Schools Water Efficiency Program**. Through a water meter installed on their main tank, students and staff monitor water consumption to assist the school to become as water efficient as possible.

Russell explains the impact the River Detectives program has had on the school and students: *"River Detectives is one of those things that students will list as a personal highlight. But it's more than that: the pride in their town and in their environment and in themselves"*.

"We've really embraced River Detectives as a school program and added our own flair to it."

The video story is accessible at [Deans Marsh Primary School River Detectives - YouTube](#)



Invitation to partner

Core program delivery

Annual Investment - \$800,000

Your support will enable River Detectives to continue in its current form, delivering quality citizen science education to 110 groups across five regions.

This level of funding employs a state-wide coordinator and cultural education officer as well as a River Detectives facilitator in each of the five delivery regions.

Each of the 110 participating groups across the state will be provided with the equipment, materials and support they need to bring River Detectives to their adopted waterway and into the classroom.

State-wide coordination

Annual Investment - \$300,000

This level of funding will support the annual state-wide coordination of the River Detectives program.

It includes a full-time state-wide coordinator and a part-time cultural education officer and covers administration, governance and overheads associated with the program.

This does not include regional or group delivery.



Cultural Education Program

A plan for a Cultural Education component to River Detective is currently being prepared.

The plan will build reconciliation into the program by embedding self-determined cultural education activities and empower school communities to build relationships with First Nations people in their region.



Regional delivery

Annual Investment - POA

Your support will engage a part-time River Detectives facilitator to provide educators in their region with the professional development, support and resources they need to deliver the program to their students.

The regional facilitator plays a critical role in linking participating groups to community groups, local environment projects and Traditional Owner groups and develops regionally specific learning materials and resources.

A minimum level of investment at this tier would enable a delivery partner to deliver the core program to six groups.

This type of investment would enable additional regions to join the program.

Regional delivery of River Detectives is dependent on state-wide coordination.



Additional investment opportunities

The following projects are one-off capital investments that will add value to the River Detectives program and include minimal operational costs in subsequent years.



Website refresh

Investment - \$100,000

Resources that support students' fieldwork are critical to the success of River Detectives. A key recommendation from a recent review of the River Detectives program highlighted a need to refurbish the existing website to increase its usability, particularly for recording site visits and scientific observations. Greater ability to upload scientific observations is hoped to lead to an increase in data entries and subsequently add value to the citizen science data that is being captured.

The existing website contains a vast array of learning materials and resources for educators. A need for better filtering learning resources has been identified to enable educators to better search for material by age group and topic to negate the need for teachers to do their own research or develop their own resources.

Website wish list

- Ability to be used offline to record monitoring data whilst in the field.
- Greater ability for the River Detectives community to use the online platform to network, promote events and share learnings.
- Greater functionality for students to interact with data, graphs and maps.
- Improve website accessibility for educators and increase the ease of finding resources relevant to students' needs.

River Detectives on the road – branded educational vehicle

Investment - \$100,000

Running in-school incursions requires a great deal of organising, transport and set-up of equipment and materials to ensure the sessions run smoothly.

Facilitators may spend several hours of preparation and pack up for each incursion that is delivered.

Access to an educational van or trailer would improve the efficiency of delivering incursions by enabling staff to have all resources and equipment at hand and save valuable time and energy packing and unpacking vehicles, loading equipment and setting up marquees. It would also enable staff to deliver sessions to multiple groups on one day by simply being able to close the door and drive to the next school.

Ideally, a van or trailer would house essential equipment for running water quality and waterbug incursions with the provision of audio-visual connections. An awning would negate the need to set up marquees for outside activities, as would pullout tables.

It is envisaged that having an educational van or trailer would have multiple uses. It would be in high demand across the organisation for attendance at many field days and community events to raise awareness of catchment health more broadly.



Mallee CMA's educational van

River Detectives brand refresh

Investment - \$30,000

The current River Detectives brand was designed in 2016 delivering a distinctive style that has served the program well.

Available communication resources include logo, iconography and document headers for River Detectives delivery staff to utilise for all River Detectives related media.

The use of these resources is becoming increasingly ad hoc leading to inconsistencies in River Detectives related media and learning resources across the state. A refresh of the River Detective brand and implementation of brand guidelines would provide uniformity in style and formatting across multiple documents and across all program delivery partners. It would also assist River Detectives staff in preparing new learning resources specific to their region – a key part of their role – whilst ensuring consistency of the brand.

A brand refresh should consider how youth and secondary students are attracted to the program, with the existing brand targeted very much at primary age students. It should also remain distinctive, contemporary, and relevant.

A brand refresh and guidelines for River Detectives would include:

- Design and use of the River Detectives logo
- Funder recognition
- Graphic elements including iconography.
- Font and colour palette
- An image library
- Document templates for
 - Reports
 - Fact Sheets
 - Lesson Plans
 - Presentation
 - Letterheads
 - Web resources
 - Social media



Links and further reading

[2023 River Detectives Statewide Annual Report](#)
[2023 River Detectives Statewide Mid-Year Report](#)
[2022 River Detectives Statewide Annual Report](#)
www.riverdetectives.net.au

Contact Information

River Detectives is coordinated
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