



# North Central Waterwatch and Citizen Science Action Plan to 2025

Our Waterwatch Program supports people to actively care for their environment by participating in programs that monitor and report on the health of our regions land, water and biodiversity resources.

The 2020- 2025 North Central Waterwatch Action Plan strengthens our program activities so we can focus on working together with our region's community over the next five years.

This Plan builds on the 2014-2019 North Central Waterwatch Support Plan. It has been developed with input from Waterwatch volunteers, educators and project partners from across north central Victoria and our North Central CMA team, including our Regional Engagement Committee.

BY PARTICIPATING  
IN CITIZEN SCIENCE  
PROGRAMS, PEOPLE FEEL  
A SENSE OF CONNECTION  
TO THEIR NATURAL  
ENVIRONMENT & ARE  
EMPOWERED TO LOOK  
AFTER THEIR LOCAL PATCH.



### **Acknowledgment of Country**

The North Central Catchment Management Authority (CMA) 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.



Aunty Marilyn Nicholls at Wanyarrem Dhelk frog ponds at Knight Street.

**Document name:** North Central Waterwatch and Citizen Science Action Plan to 2025.

**Front cover photo:**

Volunteers, Loddon River  
© North Central Catchment Management Authority, 2003, 2019.

**North Central Catchment Management Authority**

628-634 Midland Highway, Huntly  
PO Box 18, Huntly Victoria 3551

**Telephone:** 03 5448 7124  
**Facsimile:** 03 5448 7148  
**Email:** [info@nccma.vic.gov.au](mailto:info@nccma.vic.gov.au)

The Victorian Government is supporting community partnerships over the next four years through Waterwatch and other citizen science initiatives to address local waterway priorities. These priorities are being addressed as part of the Victorian Government's Water for Victoria investment to improve catchment and waterway health across regional Victoria.



Since 1993, Waterwatch Victoria has been a successful community engagement program connecting local communities with river health and sustainable water management.



The North Central CMA's Waterwatch Program works with our community to increase their knowledge and skills in waterway related issues, supporting them to become custodians of our local waterways.

The interpretation of the data collected by our community provides us with information and knowledge about the ecological health of a waterway. More than one indicator is required to comprehensively evaluate ecological health.

The North Central CMA's Regional Waterway Strategy underpins the actions of our Waterwatch Program. The Program is supported to use the data collected by our region's citizen scientists to help strengthen trust, credibility and participation in forming a collective awareness of the current condition of our natural resources.





# Strategy

**This Plan supports Waterwatch Victoria's vision of: Waterway condition that supports environmental, social, cultural and economic values.**

The scope of this plan is limited to the North Central CMA region and is not intended to be a strategic Plan for Waterwatch Victoria.

Understanding the issues the environment faces and reporting on its condition is important for informing natural resource management decisions. We aim to support a healthy environment, a prosperous economy, thriving community and partnerships with Traditional Owner Groups throughout the North Central CMA region now and into the future. To do this, North Central Waterwatch works with citizen scientists to address Water for Victoria's action 3.4 Strengthening community engagement and participation; support community partnerships and citizen science.

We show respect for Traditional Owner and Aboriginal and Torres Strait Islander peoples and their cultures by working together to best protect cultural heritage values and restore them to better health.

Engaging and educating the community supports regional actions outlined in the North Central CMA's Regional Catchment Strategy. The plan addresses a number of State, Regional and local Strategies, Acts and Plans.

## Victorian Strategies Acts and Plans

- Protecting Victoria's Environment – Biodiversity 2037
- *Catchment and Land Protection Act 1994*
- *Water Act 1989*
- *Aboriginal Heritage Act 2006*
- Our Catchments Our Communities
- Water for Victoria

## Regional Strategies and Plans

- North Central Regional Catchment Strategy 2013 - 2019
- North Central Waterway Strategy 2014- 2022

## Local Strategies and Plans

- City of Greater Bendigo's Environment Strategy
- Mount Alexander Shire's Urban Waterways Management Plan
- All Reconciliation Action Plans



**CITIZEN SCIENTISTS ARE CHANGING THE WAY WE COLLECT INFORMATION ABOUT THE HEALTH OF OUR REGION.**



The scope of this Plan is limited to the North Central CMA and its support for waterwatch and citizen science activities in north central Victoria. It will guide our engagement and activities for working with our community over the next five years. It is not intended to be a strategic plan.

The Plan supports Waterwatch Victoria's vision of: Waterway condition that supports environmental, social, cultural and economic. The Plan also supports Water for Victoria's vision: Sharing a precious resource. Water is fundamental to our communities. We will manage water to support a healthy environment, a prosperous economy and thriving communities, now and into the future.

The North Central Waterwatch and Citizen Science Programs will focus on building people's knowledge and skills and raising awareness about the condition of our regions land, water and biodiversity resources. To do this well we will:



### Citizen Science

Provide opportunities for people to participate in citizen science activities that report on the ecological health of the region's land, water and biodiversity.

Provide opportunities for people to participate in training programs to raise awareness and build their knowledge and skills.



### Sustainable Education

Support youth across the region to participate in educational programs such as the River Detectives program.

Raise awareness and improve our future leaders' knowledge and skills in natural resource management.



### Community Participation

Support the broader community to participate in activities that relate to the ecological health of our region.



### Resources and Reports

Develop publications and online resources that raise awareness and provide tools to enable participation.



### Working in Partnership

Work in partnership with Traditional Owners to better understand land and water and to heal Country together for the future.

Continue to build partnerships that aim to support community volunteer's participation in citizen science programs.



WITHOUT CITIZEN SCIENTISTS WE WOULD NOT HAVE 25 YEARS OF WATER QUALITY DATA FROM OUR REGION'S PRECIOUS WATERWAYS.

# 4,195

people have been involved in our program!

## 2014-2019 Support Plan achievements

We are excited that we have exceeded many of our engagement targets. Why? We continue to support a network of dedicated and passionate community volunteers, educators and students across our region who contribute meaningful information about our region's resources, we share our stories and acknowledge their contribution in all the work we do!

### Snapshot of achievements

#### Field Days

# 1,563

Participants

Target: 320



- 26** National Volunteer Week  
Avoca Catchment Tour
- 970** National Gone Fishing Day  
Annual Campaspe Carp Catch
- 100** Connecting to Country Event  
Dja Dja Wurrung Traditional Owners Cultural Heritage Event
- 100+** Elmore Field Days  
Agricultural Field Day
- 85** Girl Guides Victoria  
Women in Recreational Fishing
- 282** National Water Week  
Annual Partnership event to raise awareness of 'Water' with our youth

#### Presentations

# 1,556

Participants

Target: 0



- 200** Recognising Waterwatch Contributions  
20 years of Waterwatch to Rob Loats
- 120** River Detectives program  
Launching the new regional program
- 16** Rakali (Water Rat) Roadshow  
Australian Platypus Conservancy
- 37** Water Science Forum  
Launching the new NatureBlitz App
- 22** State-wide River Detectives program  
Launching the new Pilot Program
- 43** You, Me & Biodiversity  
Introducing Community to Waterbugs
- 22** What is Citizen Science?  
Presentation to Castlemaine Landcare Group
- 23** Celebrating 25 Years of Waterwatch  
North Central Waterwatch recognition event
- 110** It's a Frog Life presentation  
Introducing Frogs to Camp Hill Primary School
- 23** What is Citizen Science?  
Presentation to the Healthy Coliban Catchment Community Reference Group
- 940** NAIDOC Week Voice. Treaty. Truth. Let's work together for a shared future  
Introducing Waterbugs to Children



OUR GREATEST ACHIEVEMENT WAS SHARING THE WORK OUR WONDERFUL WATERWATCH VOLUNTEERS DO THROUGH 'THE STORY OF WATERWATCH, 20 YEARS OF DATA'





## Training

# 684

Participants

Target: 385



- 3** **Habitat Assessment**  
With Waterwatch Volunteers
- 24** **New Volunteers**  
Provided induction and training to new volunteers
- 202** **Quality Assurance and Quality Control**  
Making sure our equipment and methods are consistent
- 171** **Professional Development**  
Provided training to River Detectives educators (North Central)
- 36** **Water quality and Waterbugs**  
Provided training to Traditional Owners across the region
- 248** **Agreed Level Taxonomy Waterbug Workshops**  
Provided accredited training to community and citizen scientists

## Workshops

# 249

Participated

Target: 20



- 108** **City of Greater Bendigo Environment Strategy**  
Engaging students in planning for our future
- 10** **Passions and Pathways program**  
Introduction to future employment opportunities
- 14** **Data Management and Interpretation**  
North Central Waterwatch volunteers training in the use of the Waterwatch Victoria database
- 95** **Reimagining Bendigo Creek**  
Engaging our Bendigo Creek River Detective students in planning for our future
- 22** **Bendigo Creek Litter Trackers Launch**  
Educating our Bendigo Creek River Detective students about litter

## Publications

# 65

Target: 68



- 2** **Booklets**  
Field Manual and the Monitoring and Methodology Manual
- 1** **Pamphlet**  
North Central Waterwatch Program
- 42** **Newsletters**  
North Central Chat, Landcare and Waterwatch News
- 7** **Certificates**  
Recognition and mile stone templates designed
- 1** **Poster**  
Raise awareness about salinity
- 1** **Radio**  
ABC - Launch of the Pilot Statewide River Detectives Program
- 7** **River Health Snapshot Reports**  
RiverScan and Birch's Creek
- 1** **Waterwatch Achievements Report**  
Highlight the year of achievements
- 1** **The Story of Waterwatch**  
A celebration of the our volunteers work and summary of 20 years of data
- 1** **Action Plan**  
North Central Waterwatch Action Plan 2020 - 2025



## Water Assessments

# 528

Target: 320



## Management Systems

# 3

Target: 3



- 1** **Waterwatch Victoria database**
- 1** **NatureBlitz App**
- 1** **River Detectives website and database**

## Support

The Waterwatch Program is well supported in the region. Fifty volunteers monitor waterway health at more than 120 sites across the region on a monthly basis. There are more than 30 schools participating in the River Detectives Program each year. In addition to this, there are five Citizen Science programs that monitor works on waterways throughout our region's priority waterway projects. This model supports citizen scientists to monitor changes in waterway health as a result of on-ground works and supports our communities to actively monitor the health of the region's waterways beyond the life of a project contributing to our understanding of changes over-time.



The North Central CMA's Program has been supported by the Victorian Government's investment in supporting community partnerships through Waterwatch and other citizen science initiatives to address local waterway priorities. The \$222 million investment is a key component of Water for Victoria - the government's plan for management of our water resources now and into the future. One full time position is funded to provide coordination, strategic advice and support to communities. The position advocates for citizen science programs across the North Central CMA region and throughout Victoria.



## Monitoring evaluation and reporting

To ensure the North Central CMA Waterwatch Program delivers its activities, Table 1 outlines deliverables over the next five years and how success will be measured.

The Program will adhere to the North Central CMA's Monitoring, Evaluation, Reporting and Implementation (MERI) strategy and policy. MERI captures performance stories that measure the program's progress and is used as an adaptive management tool to make informed decisions to improve the program.

Project planning and development is a critical part of MERI and the project's implementation. A project plan is developed annually to capture the scope of the project. The project's success is measured through participation and education evaluation surveys. Results from these surveys are valuable to help us understand, plan and deliver activities that provide a benefit to communities' knowledge, awareness, skills and attitudes to land, water and biodiversity resources.

## Implementation

The North Central Waterwatch and Citizen Science Programs focus on four key projects areas (outlined below) that drive implementation of program deliverables and provide opportunities for community participation.









## Citizen Science

Actions	Target	Timing
Deliver Quality Assurance and Quality Control (QA/QC) events to ensure data collected meets state standards	Four training events	Annually
Manage and maintain Waterwatch Data Management System	One managed database	Ongoing
Support citizen scientists to participate in monitoring programs that increase their KASA (knowledge, awareness, skills and attitudes) and contribute to natural resource management outcomes	50 citizen scientists	Annually
Deliver training programs that focus on methods to monitor ecological health of land, water and biodiversity resources	Six events	Annually
Support the development of new citizen science programs	One new program	Annually
Celebrate 30 years of Waterwatch	One celebration event	2022



## Sustainable Education

Actions	Target	Timing
Deliver statewide River Detectives program	One program	Annually
Support staff across Victoria to deliver professional development programs to teachers in each CMA region	6 CMA project officers supported	Annually
Provide training and support to teachers through professional development training events to participate in the River Detectives program	30 training events	Annually
Support teachers to participate in training events to increase their KASA	90 teachers	Annually
School students participating in monitoring programs to increase their KASA and contribution to natural resource management outcomes	2,000 students	Annually
Manage and maintain the River Detectives online resource	One managed database	Ongoing
Develop educational materials	Four materials	Annually
Ask the Expert webinars	Three webinars	Annually
Celebrate five years of the statewide River Detectives program	One event	2021





## Community Participation

Actions	Target	Timing
Community participating in activities/events to increase their KASA to sustainably manage land, water and biodiversity resources now and into the future	One event	Annually
Youth supported to increase their knowledge and skills of water resources through the annual National Water Week event	One event	Annually
Support community participation by attending events, providing presentations, attending meetings and supporting passions and pathways programs	40 training events	Annually



## Resources and Reports

Actions	Target	Timing
Stories shared through the North Central Chat - Landcare and Waterwatch newsletter	11 articles	Annually
Develop North Central Waterwatch River Health Report	One report	2023
Produce Annual North Central Waterwatch Achievements Report	One report	Annually
Develop River Health Snapshot Report for Citizen Science Programs	Four reports	Annually
Review and Develop North Central Waterwatch Support Plan 2025- 2030	One plan	2024



## Working in Partnership

Actions	Target	Timing
Continue to work with North Central CMA projects (River Health, Water for the Environment, Sustainable Agriculture) to deliver monitoring programs that track and report on the work we do.	Partner projects	Annually
Develop partnership initiatives with Traditional Owners across the region	One initiative	Annually
Support Traditional Owners to complete Aboriginal Water Assessments through provision of water quality training, equipment and ongoing support.	Two assessments	Annually
Maintain partnerships with City of Greater Bendigo, Coliban Water and Mount Alexander Shire Council to support the work of citizen science within the region.	Three partnerships	Annually
Identify and build new partnerships to continue to support citizen science programs across the region	One new partnership	Annually
Review and Develop North Central Waterwatch Support Plan 2025- 2030	One plan	2024

