

North Central Waterwatch

2021 Volunteer Survey Report



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Acknowledgment 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.

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North Central Waterwatch

Introduction

Waterwatch Victoria was established in 1993 and has since become an important and successful Citizen Science program, connecting local communities to river health and sustainable waterway management. The continued contribution of committed volunteers to collect river health data about the ecological health and condition of our waterways is the foundation of the program.

The North Central CMA is grateful to the 61 active volunteers who monitor 81 sites across the region as part of the North Central Waterwatch program. The data collected by these dedicated volunteers support the sustainable management of our waterways, a task that is critical for the future prosperity and productivity of our region.



Photo: Waterwatch volunteer Frank Steele. Courtesy of Tania MacLeod.

2021 Volunteer Survey

A volunteer survey was undertaken during 2021 to ensure the North Central CMA continues to support volunteers in the best way possible. Survey results provide an insight into what the North Central CMA is doing well and also areas of the program that could be strengthened and improved for current and future volunteers.

The 2021 survey was designed by Dr Alan Curtis, Adjunct Research Professor the Graham Centre for Agricultural Innovation, Charles Sturt University, with input from the North Central CMA's Citizen Science team.

Survey objectives

- To evaluate the impact of participation in North Central Waterwatch.
- To gauge the level of satisfaction of current volunteers with North Central Waterwatch.
- To capture a snapshot of the demographics of current North Central Waterwatch volunteers.
- To identify current issues or concerns with the program and highlight areas for further improvement.

The survey was a point in time (not longitudinal) assessment designed to be replicated in future years so the impact of follow-up actions and emerging trends can be tracked over time. The survey is intended to be conducted at intervals of no less than twenty-four months.

The survey comprised five sets of questions across four key themes: Participation; Satisfaction; Enjoyment, and Impact. Volunteers were asked to rate and comment on their experience over the prior 12-month period. The survey was distributed to the 61 current volunteers via e-mail with a link to fill out an electronic survey using 'Survey Monkey'. The survey was open for a period of three weeks between 9 and 31 August 2021 with 35 responses, or 57% participation rate, from a possible 61 volunteers.



Executive Summary

Thirty-five responses were received from 61 current North Central Waterwatch volunteers between 9 and 31 August 2021.

It is clear from the survey feedback that coronavirus (COVID-19) has impacted volunteer participation in Waterwatch program in the 12-month period to July 2021. Despite these setbacks, respondents indicated that they enjoyed being part of Waterwatch in 2020-21 with satisfaction rates across the various aspects of the Waterwatch program rating very high.

One hundred per cent of volunteers who responded to the survey indicated that being part of Waterwatch had either a positive or very positive impact of their sense of attachment to nature.

North Central Waterwatch volunteers are dedicated community members with more than two-thirds of survey respondents indicating they contribute more than two hours per week (some significantly more) to volunteering. Nearly a third of Waterwatchers (62%) also reported being involved in a local Landcare group in 2021 and a number would like to see more opportunities for volunteers to contribute to the monitoring and management of their waterways.

Recommended improvements to the program include greater reporting of trends in the Waterwatch data; more timely feedback from North Central Waterwatch staff and more targeted recruitment of underrepresented communities.

Results and Discussion

Demographics

There is a good spread in the length of service of North Central Waterwatch volunteers. Almost half (49%) have been volunteering for more than five years with one in five contributing their service for more than ten years (Figure 1). While there are some dedicated, long-serving volunteers there has also been healthy recruitment of volunteers to the program over the past five years with 51% of respondents joining the program. Volunteer numbers have steadily grown over the years from 39 in 2017-18 to 61 in 2021 ([Waterwatch Victoria, Annual achievement reports](#)).

Results indicate there is a good cross-section of people who volunteer for North Central Waterwatch. 43% of responders identified as male and 37% as female. While the mean age of volunteers is 60, the youngest is 22 and the oldest is 83 (Appendix 1, Figure 6). Fifty per cent of volunteers are between the ages of 45 (25th percentile) and 74 (75th percentile) and there is representation of participants across their 20s, 30s, 40s, 50s, 60s, 70s and 80s in the program. While no school-aged volunteers are registered in North Central Waterwatch, our River Detectives program engages approximately 1,400 primary and 350 secondary school students across 31 schools in water-related citizen science activities across the region. The group most underrepresented in North Central Citizen Science programs is youth between the ages of 15 and 25. Greater opportunities for youth and young adults to engage in Citizen Science programs should be explored in the North Central CMA region going forward.

Despite 71% of volunteers indicating they live on a rural property (Appendix 1, figure 9) only 3% consider themselves to be full-time farmers (Figure 2). This could be an indication that full-time farmers either do not have the capacity to commit to the program or there needs to be more targeted engagement with farming communities across the North Central CMA region going forward.

Sixty-two per cent of respondents stated that as well as being part of Waterwatch, they are a member of a Landcare group during 2021 (n 29). Many North Central Waterwatch volunteers reported that on top of being part of the Waterwatch program they volunteered more than two hours of their time per week to volunteering (Appendix 1, Figure 11). Combined with reasons given as to why Waterwatchers enjoyed being part of the program (Question 2) it is clear that social connectedness as well as opportunities to get out in the natural environment are motivators of participation in Waterwatch. Twenty-four per cent reported that the North Central CMA had previously undertaken on-ground works on their property.

Length of service

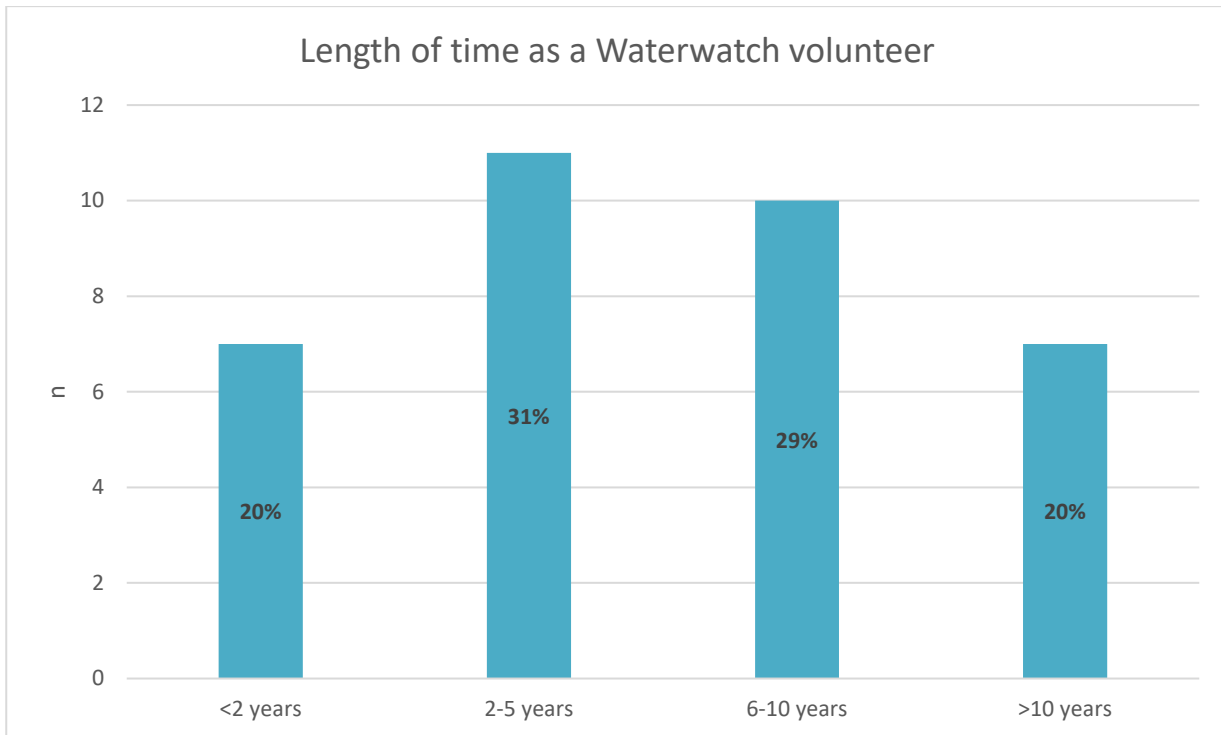


Figure 1. Question 1 – What length of time have you been a Waterwatch volunteer? (n=35)

Farmer identity

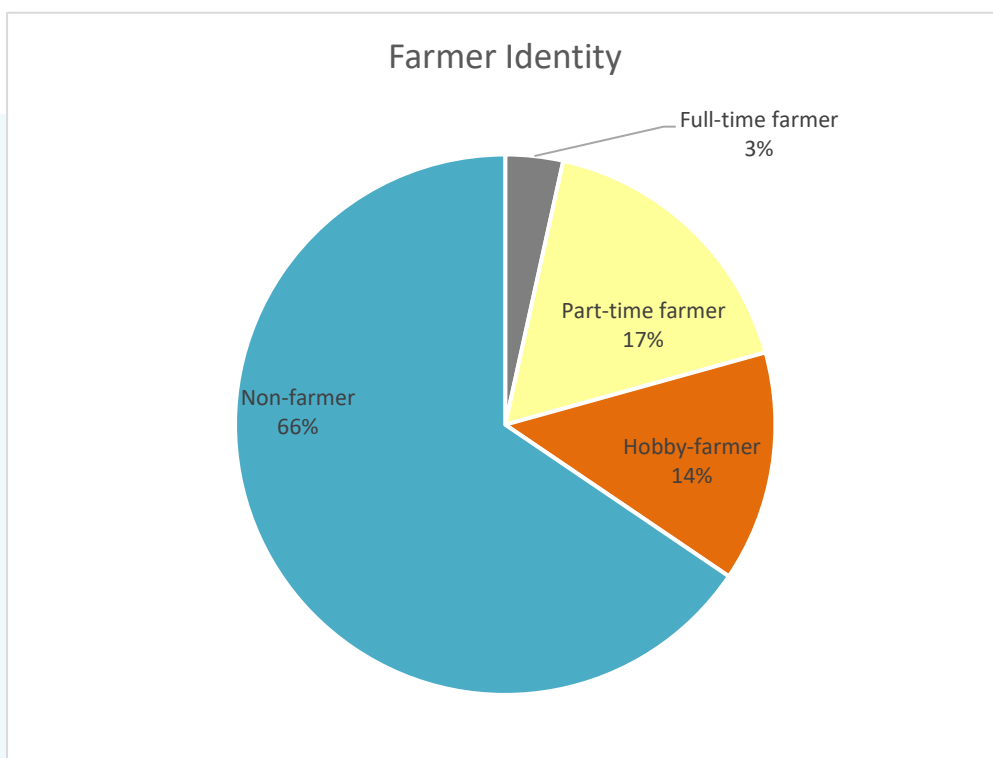


Figure 1. Responses to the question “Please circle the term that best describes the extent you see yourself as a farmer”. (n=29, Missing values 6).

Participation

The majority of respondents (91%) reported that they had participated in water quality monitoring at some stage during the past 12-months. This is not surprising as the monitoring of water quality data (pH, salinity, turbidity, reactive phosphorus) at designated sites represents the core activity of the Waterwatch program.

Supporting activities and events that would typically be held throughout the year to foster the knowledge and skills of volunteers were severely impacted as a result of COVID-19 restrictions. Many planned activities in 2020-21 were cancelled such as waterbug monitoring events which are usually held in the field with subject experts and volunteers each spring. Others, such as the annual quality assurance and quality control (QAQC) event, where volunteers get together to hone their water quality testing skills, was primarily undertaken at home with remote support. COVID-19 restrictions also meant that volunteers have been physically prevented in some instances from travelling to their sites to undertake regular monitoring.

“Unfortunately, COVID has severely impacted my ability to get out and about to sample for Waterwatch. May this situation end soon.”

Six per cent of survey respondents indicated they did not participate in any Waterwatch related activities during the past 12 months. While this doesn't seem like a lot, combined with the fact that just over half of current active volunteers (57%) responded to this survey, it may indicate that enthusiasm and motivation to participate in the program is waning slightly. A few volunteers stated in their open-ended responses that their enthusiasm to participate in the Waterwatch program had indeed wavered during the pandemic.

“The impacts of lockdowns disrupted the continuity of the program and now I find it difficult to reignite the interest and enthusiasm.”

“Losing connection with Waterwatch has been totally my own lack of motivation.”

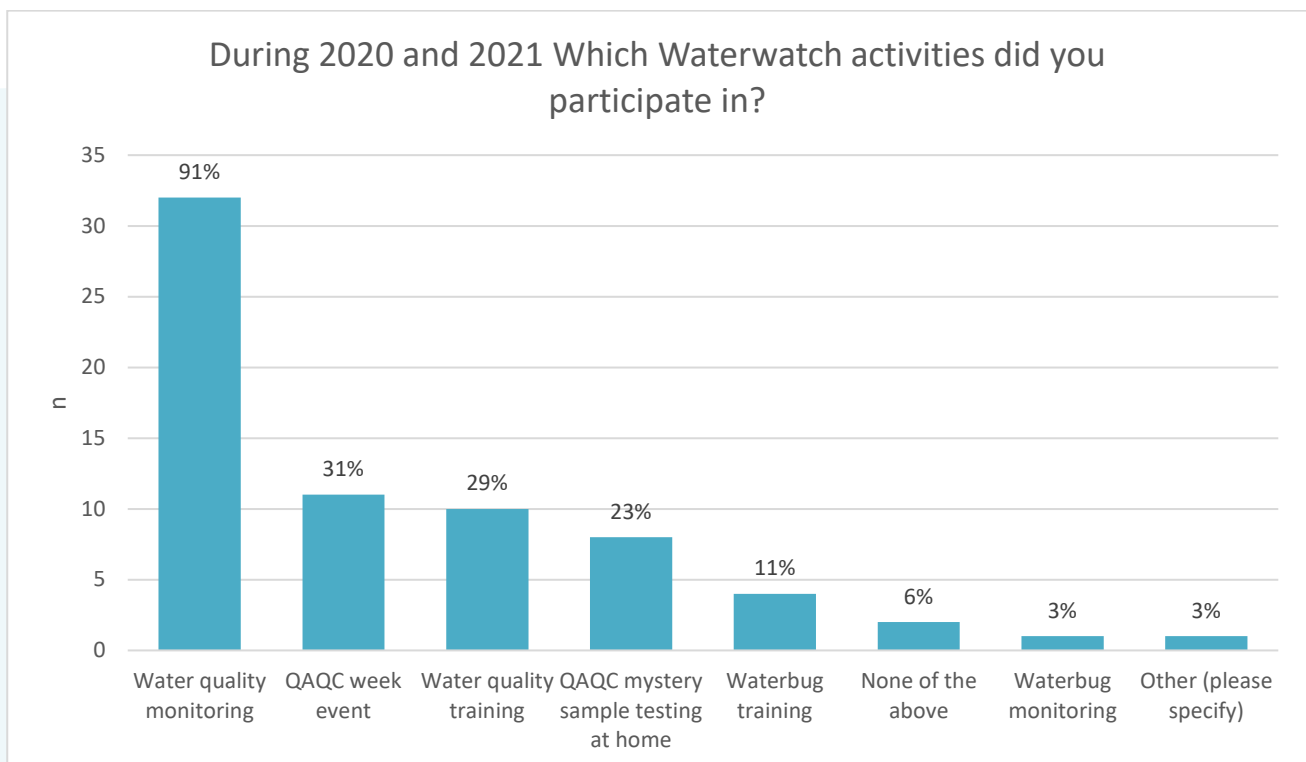


Figure 2. Question 1 - Engagement with or experience in Waterwatch. Other activities were listed as QAQC mystery sample testing at meeting venue.

Enjoyment

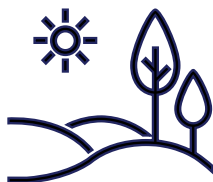
All North Central CMA Waterwatch volunteers who responded to the survey indicated they enjoy being part of the Waterwatch program. There were common themes that emerged from the open-ended question as to their reason why.



The enjoyment of undertaking the samples, seeing trends in the data, and connecting to the local environment through an enhanced understanding of its condition.



Connecting to other people, the wider community, and the opportunity for social interaction.



Being able to get outdoors and amongst nature.



The feeling of being useful and helpful and that the data collected is valued by land managers, farmers and the community.

100% of survey respondents enjoy being involved in Waterwatch (Appendix 1, Figure 5).

Satisfaction and impact

Overall, satisfaction rates with the Waterwatch program were very high among responders (Figure 4).

More than 95% of volunteers indicated they were either satisfied or very satisfied with the following aspects of the Waterwatch program:

- The equipment provided to perform Waterwatch activities (100%).
- Realistic expectations of the time commitment (97%).
- The extent to which their contributions are acknowledged by Waterwatch staff (97%).
- The approachability and responsiveness of staff (97%).
- The level of support from staff (97%), and
- Initial water quality training (95%).

“(We) are really happy with contact from various Waterwatch facilitators over the years. We have found them all to be good approachable people.”

“You are doing a wonderful job.”

While satisfaction rates were generally high across aspects of the program, volunteers were markedly less satisfied with opportunities for volunteers to socialise and network with other volunteers, scientists, staff and natural resource managers during the survey period. Again, this may be partly explained by the interruption to the Waterwatch schedule over the survey period due the cancellation of most planned training and networking events due to COVID-19

restrictions. This was also reflected in volunteers' perceived impact of the program on these networks and the ability to contribute to local natural resource management processes (figure 5).

“COVID has curtailed interactions, learning/training and the use of the data in management. Once over, we should accelerate these needs.”

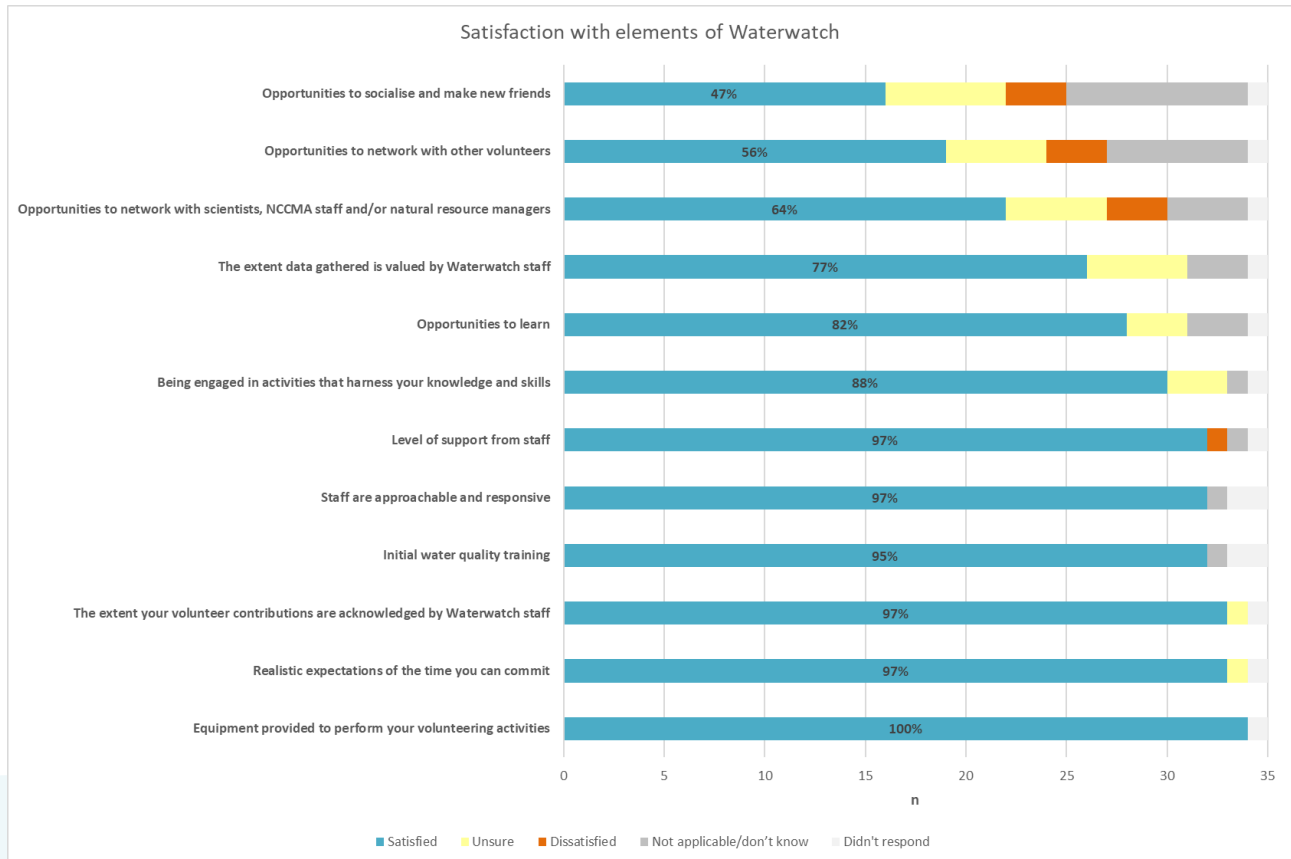


Figure 3. Volunteer ratings of satisfaction for elements of Waterwatch.

While waterway monitoring is fundamental to the Waterwatch program, it is clear that being involved in the program is also important for fostering a sense of community connection and wellbeing. Despite COVID-19 disruptions, one third of volunteers indicated that the being part of the program positively impacted their sense of attachment or connection with others in their community (Figure 5). Connection to the community and fostering social links emerged as a clear theme as to why Waterwatch volunteers enjoy being part of the program and there is an appetite to get together as a group as soon as conditions allow. More than ninety per cent of respondents indicated that being part of Waterwatch had a positive impact on their sense of wellbeing (figure 5).

“It has been impossible to get-together during lockdowns virtually from 2019. When things settle down it would be good for Waterwatchers to be able to get together both socially and [for] work and learning opportunities as we have done in the past.”

Lastly, but by no means least, 100% of volunteers indicated that being part of Waterwatch had a positive or very positive impact of their sense of attachment to nature. Participation in the program increased volunteers' understanding of water quality and monitoring methods, their knowledge and understanding of the importance of biodiversity, land and water quality issues and improved their skills in undertaking water quality monitoring.

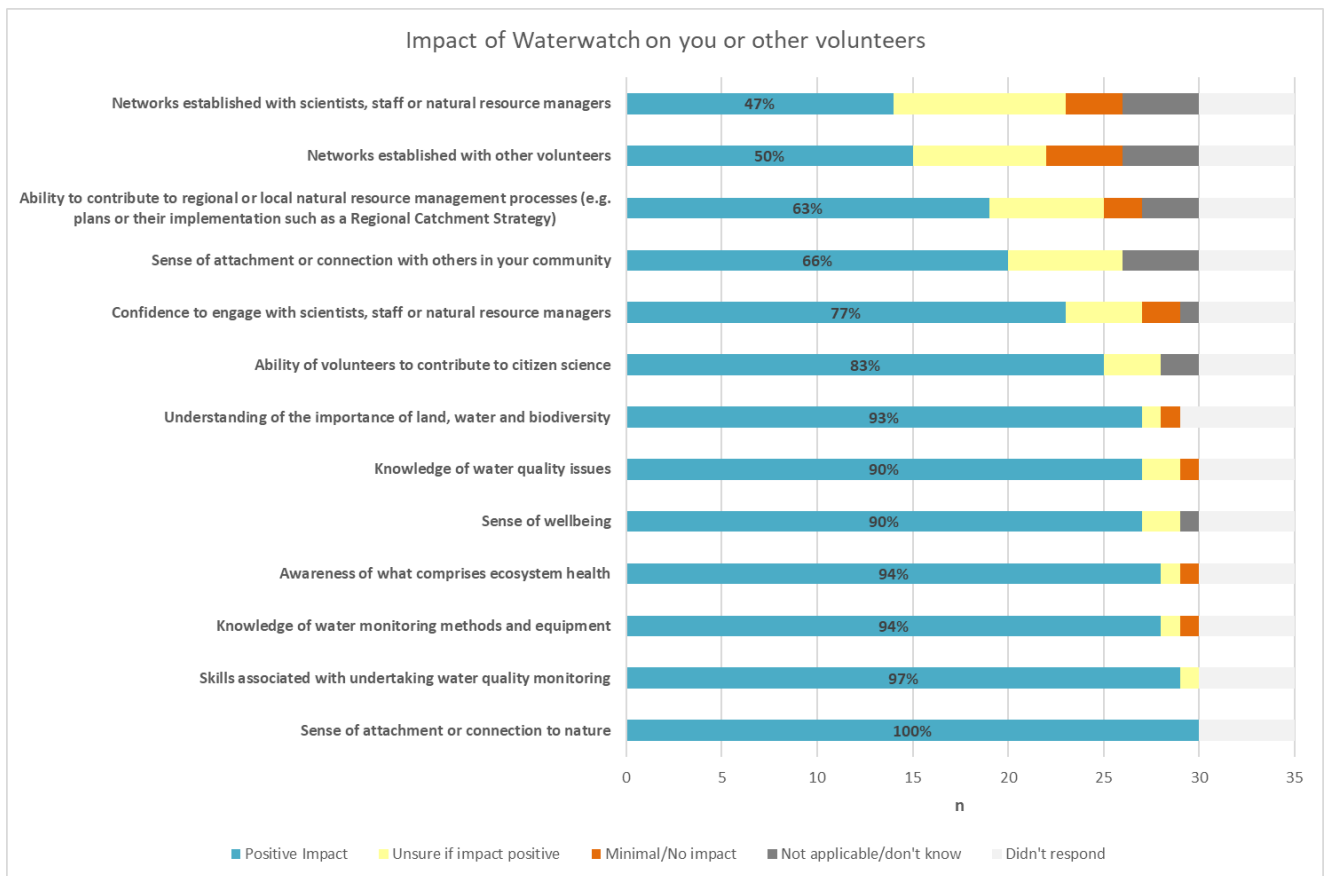


Figure 5. Volunteer assessment of the impact of Waterwatch.

Areas for improvement

Volunteers were asked for suggestions on how to improve the North Central Waterwatch program. This was a free text field and several themes emerged from the responses and suggestions:

- Provide opportunities to reignite motivation to participate in Waterwatch following COVID-19 interruptions.
- More opportunities for volunteers to socialise and share knowledge.
- Greater feedback from North Central CMA staff.
- Greater reporting of results of the data collected and how it is influencing management.
- Expand the program to monitor other components of waterway health such habitat, litter and fauna surveys.

As previously documented, COVID-19 and the associated health restrictions have had a marked impact on the continuity of the Waterwatch program and volunteer participation over the survey period. A number of volunteers expressed their desire to re-connect in person with North Central CMA staff and each other for both social interaction and to boost motivation. The pandemic has also impacted on learning outcomes, and it was suggested by two volunteers that North Central CMA staff spend more time with volunteers at their monitoring sites post-COVID-19 restrictions.

Similarly, several volunteers stated they would like to see greater networking and data sharing between Waterwatch volunteers across the region and across the state. A greater use of digital platforms for hosting more online events was suggested as was a social media platform to enable Waterwatchers to share experiences, learnings, photos, ask questions, talk about recent climatic events and engage in general “banter” with the Waterwatch community.

There is certainly an urgent need to provide opportunities for volunteers to connect with North Central CMA staff, with each other and to re-engage with the program once COVID-19 restrictions ease.

Some (eight) volunteers would like greater reporting on, and interpretation of trends, in the data they have been collecting and how this data is being used to inform management practices in the catchment. It was suggested that more could be done to elevate local issues of concern such as the impacts of rainfall, climate and pollution on water quality.

Some felt there should be a greater focus on the scientific aspects of the program; collecting quality data and making it easier for volunteers to graph their data, look for trends and compare results with other sites, especially sites within the same system. The experience and expertise of volunteers should be acknowledged, and more opportunities provided for them to share their knowledge and contribute to discussions about how to manage river health issues.

“We seem to work in isolation from any other group - possibly a COVID-19 consequence.”

As well as more frequent reporting on water quality data, five volunteers reported that feedback from staff could be improved including better communication, greater follow-up and more timely replenishment of equipment. It should also be mentioned that six volunteers stated that they were satisfied with the how the program was currently operated and a further twelve did not offer any suggestions for improvement.

“From my observations there is very little scope to improve, it’s fine now.”

Some survey respondents suggested they would like more opportunities to do more than just collect water quality data. Suggestions included bird surveys, bug surveys and biodiversity monitoring. Others mentioned they want to address other local concerns such weed removal, revegetation and rubbish collection around monitoring sites.

“As volunteers we are already passionate about our waterways and we are visiting our sites monthly so makes sense to value add.”

Recommendations

The results of the 2021 survey have been reviewed by North Central Waterwatch co-ordinators who make the following recommendations for the program going forward.

1. Create opportunities for volunteers to get together in person once COVID-19 restrictions ease and/or and when safe to do so.
2. Consider other methods of engaging and connecting volunteers to share experiences, foster networks and connection in uncertain times.
3. Carry out shadow-testing with volunteers at their monitoring sites once restrictions allow to improve QAQC and to reinvigorate participation in the program.
4. Greater reporting of water quality results and data trends. Ensure that annual River Health Snapshot reports are published and distributed in a timely manner.
5. Close the loop with volunteers ensuring queries are followed-up and feedback is given in a timely manner.
6. Targeted recruitment of more youth and farming communities to the North Central Waterwatch program.
7. Explore opportunities beyond traditional long-term water quality monitoring for volunteers to contribute to the monitoring and management of local waterways.
8. Re-survey every 12-24 months.

Thank you to all the Waterwatch volunteers who took part in the program in 2020-21 and to those who completed this survey. We look forward to working alongside you again in 2022.

Appendixes

1. Results
2. Waterwatch Volunteer Survey 2021

Appendix 1. Results

Age

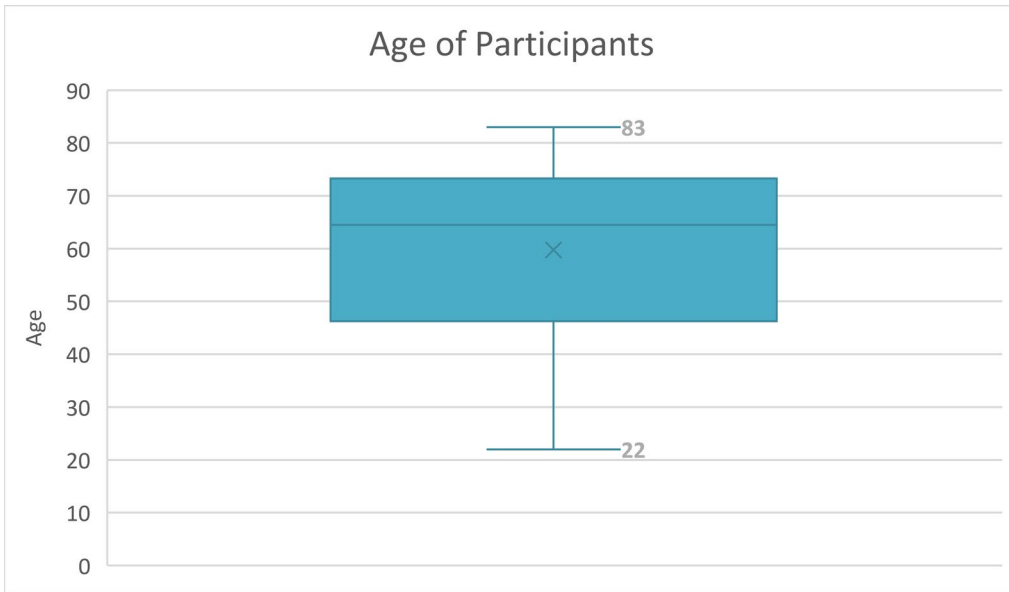


Figure 6. Age of Waterwatch volunteers (n 35). Mean age 60, median age 65.

Gender

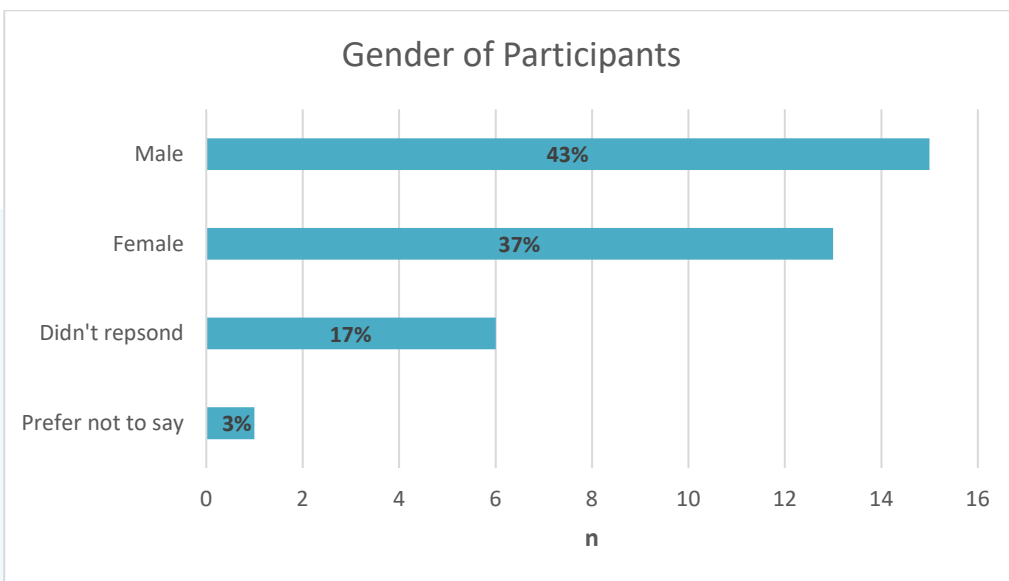


Figure 7

Enjoyment

	YES	NO	N	DNR
DO YOU ENJOY BEING PART OF WATERWATCH	100%	0%	34	1

Figure 8. DNR = Did not respond

Setting

	Yes		No		N	DNR
Do you live in a city, town or village setting?	13	46%	15	54%	28	7
Do you live on a rural property?	20	71%	8	29%	28	7
Landcare member in 2021?	18	62%	11	38%	29	6

Figure 4. DNR = Did not respond

Has the North Central Catchment Management Authority undertaken any on-ground works on your property?

	Yes	No	Unsure	n	DNR
Answer	24%	69%	7%	29	6

Figure 5. DNR – Did not respond

Volunteering

In 2021, on average, how many hours per week do you spend on voluntary activities (e.g. waterwatch, meals on wheels, Landcare, sporting clubs, service clubs such as Rotary or Lions, hall committee)? Open ended response.

	MIN	MAX	MEDIAN	MEAN	N	DNR
Hours per week	0	30	4	5.1	27	8

Figure 6. DNR – Did not respond

Appendix 2. Survey Questions



Waterwatch Volunteer Survey

Dear valued Waterwatch volunteer,

The team at North Central Waterwatch is keen to better understand the impact of our program has on your knowledge, skills and abilities, and possible contributions to your wellbeing.

With this information, we can better reflect on how we support Waterwatch volunteers and demonstrate the value and outcomes of our Waterwatch program to government.

We hope you can find 10 minutes to complete this confidential survey to help improve Waterwatch and ensure its ongoing success.

Many thanks, Britt, Cass & Nicole

Engagement with or experience in Waterwatch

What length of time have you have been a Waterwatch volunteer?

Please circle best response option.

<2 years 2-5 years 6-10 years >10 years

During 2020 & 2021, which Waterwatch activities did you participate in?

Please tick all that apply.

- | | | |
|---|---|--|
| <input type="checkbox"/> Water quality training | <input type="checkbox"/> Water quality monitoring | <input type="checkbox"/> QAQC week event |
| <input type="checkbox"/> Waterbug training | <input type="checkbox"/> Waterbug monitoring | <input type="checkbox"/> QAQC mystery sample testing at home |
| <input type="checkbox"/> Other (please specify) _____ | | |

Your satisfaction with the Waterwatch

Please rate your level of satisfaction for elements of Waterwatch as listed in the table.

Select the response option that best fits your view and place the number of that option in the Your View column.

Response options:

Dissatisfied	Partly dissatisfied	Unsure	Mostly satisfied	Completely satisfied	Not applicable/ know	don't
1	2	3	4	5	6	

Elements of the Waterwatch program	Your View
Initial water quality training	
Level of support from staff	
Staff are approachable and responsive	
Equipment provided to perform your volunteering activities	
Opportunities to learn	
Opportunities to network with scientists, North Central CMA staff and/or natural resource managers	
Opportunities to network with other volunteers	
Opportunities to socialise and make new friends	
Being engaged in activities that harness your knowledge and skills	
Realistic expectations of the time you can commit	
The extent data gathered is valued by Waterwatch staff	
The extent your volunteer contributions are acknowledged by Waterwatch staff	

Do you enjoy being involved in Waterwatch?

Yes or no, please tell us why.

Your assessment of the impact of Waterwatch

Please provide your assessment of the impact of Waterwatch for the topics listed in the table. The outcome could be for you or other volunteers you have direct knowledge of.

Please select the response option that best fits your assessment and place the number of that option in the Your View column.

Response options:

No impact	Minimal positive impact	Unsure if impact positive	Positive impact	Very positive impact	Not applicable/ don't know
1	2	3	4	5	6

Potential impacts of the Waterwatch program for you/others	Your View
Knowledge of water quality issues	
Knowledge of water monitoring methods and equipment	
Skills associated with undertaking water quality monitoring	
Confidence to engage with scientists, staff or natural resource managers	
Awareness of what comprises ecosystem health	
Understanding of the importance of land, water and biodiversity	
Networks established with scientists, staff or natural resource managers	
Networks established with other volunteers	
Ability of volunteers to contribute to citizen science	
Ability to contribute to regional or local natural resource management processes (e.g. plans or their implementation such as a Regional Catchment Strategy)	
Sense of attachment or connection to nature	
Sense of wellbeing	
Sense of attachment or connection with others in your community	
Other – please list	

Areas for improvement in Waterwatch



Please provide suggestions on how we can improve the North Central Waterwatch program:

Background information

Background Information	Please circle or fill in your response
Do you live in a city, town or village setting?	<input type="checkbox"/> Yes <input type="checkbox"/> N
Do you live on a rural property?	<input type="checkbox"/> Yes <input type="checkbox"/> N
What is your gender?	<input type="checkbox"/> M <input type="checkbox"/> F <input type="checkbox"/> Non-binary <input type="checkbox"/> Prefer not to say
What is your age?	_____ years
In 2021, on average, how many hours per week do you spend on voluntary activities (e.g. waterwatch, meals on wheels, Landcare, sporting clubs, service clubs such as Rotary or Lions, hall committee)	_____ hours
Please circle the term that best describes the extent you see yourself as a farmer (i.e. have a farmer identify)	
<input type="checkbox"/> Full-time farmer <input type="checkbox"/> Part-time farmer <input type="checkbox"/> Hobby-farmer <input type="checkbox"/> Non-farmer	
In 2021, are you a member or involved with a local Landcare group?	<input type="checkbox"/> Yes <input type="checkbox"/> N
Has the North Central Catchment Management Authority undertaken any onground works on your property?	<input type="checkbox"/> Yes <input type="checkbox"/> N

Thank you for your time in completing this survey and for your ongoing contribution and commitment to monitoring the health of our region’s precious waterways.

Please feel free to get in touch with any queries or to provide additional feedback:

britt.gregory@nccma.vic.gov.au or (03) 5440 1843

