

MACEDON RANGES' WATER FUTURE

Engagement report

rpsgroup.com



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1. EXECUTIVE SUMMARY

a). About the project

Greater Western Water (GWW) is facing a significant challenge in managing the volume of recycled water processed at Recycled Water Plants across the Macedon Ranges.

Water is a precious resource, essential to all life. As a water corporation, GWW plays a vital role supplying drinking water, treating sewage and providing alternative water to communities and industry.

The region's population is projected to double over the next 30 years and water security management is more important than ever. Climate change will increase the impact of these challenges, with Victoria becoming drier over the long-term, with more extreme events including droughts, floods and heatwaves. The Government predicts that by 2065, streamflows to some catchments could reduce by around 50% per cent per year. This means less available water in our water storages. Rainfall will decline, although intense storms will likely be more frequent, causing overflows at recycled water plants that are nearing capacity.

When considering how best to respond to climate change and population growth, GWW want to explore the broadest possible range of options and scenarios, to ensure they can provide safe and affordable water for the communities of the Macedon Ranges over the next 50 years and beyond.

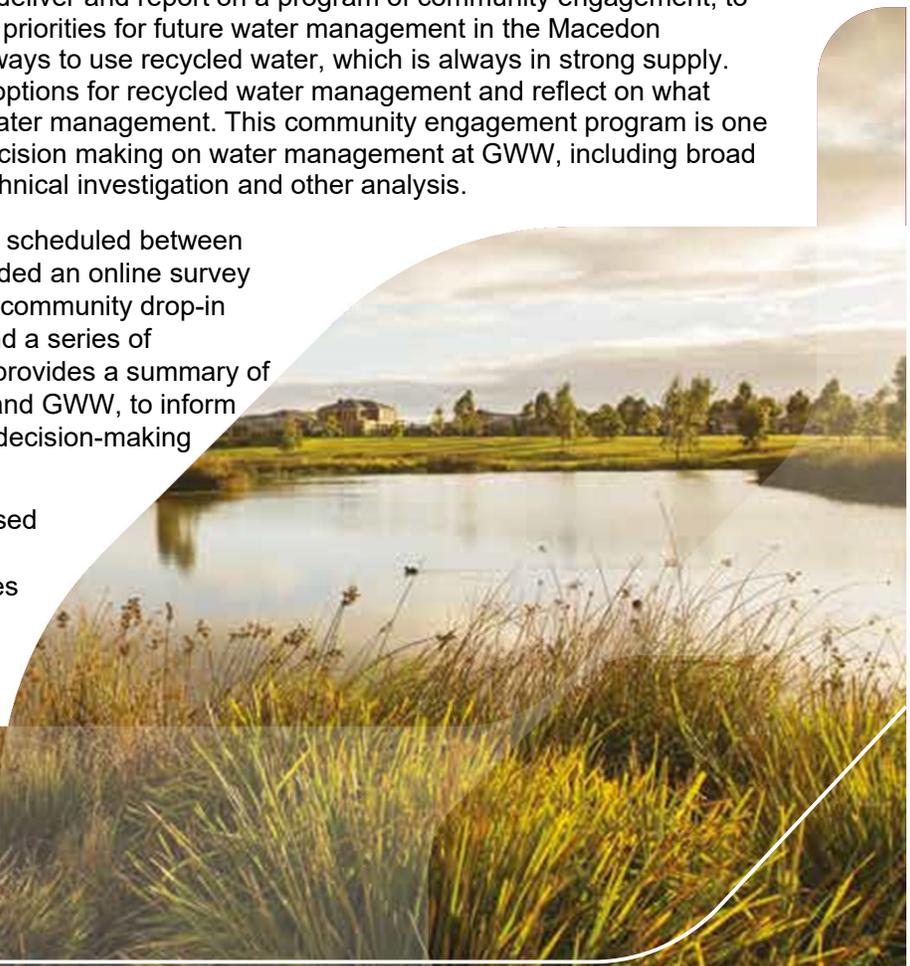
The project's goal was to engage with local Macedon Ranges communities and key stakeholders to understand what's important when thinking about the future of water management in the region. This included hearing a range of perspectives on alternative water supply options, willingness to pay, healthy waterways, wastewater treatment for better water quality and planning for future water demand and usage.

b). Introduction

RPS was engaged by GWW to design, deliver and report on a program of community engagement, to support its understanding of community priorities for future water management in the Macedon Ranges. This includes finding the best ways to use recycled water, which is always in strong supply. The community was asked to consider options for recycled water management and reflect on what they value the most when it comes to water management. This community engagement program is one of several inputs that will help inform decision making on water management at GWW, including broad stakeholder consultation, modelling, technical investigation and other analysis.

Community engagement activities were scheduled between August 2022 and March 2023 and included an online survey hosted on GWW's 'YourSay' page, five community drop-in sessions, two community workshops and a series of stakeholder conversations. This report provides a summary of all engagement activities lead by RPS and GWW, to inform development of a community-informed decision-making process for GWW.

It also contains insights which can be used to demonstrate to the Macedon Ranges community and surrounding communities how their input has influenced GWW decisions.



c). Key outcomes

Across all activities there were areas of broad consensus, as well as differing views about sustainable water management, being prepared for the future, the impacts on affordability, finding innovative solutions to manage water and maintaining healthy waterways and habitats.

Common priorities – what matters most about how water is managed in the Macedon Ranges

- **The natural environment** is precious to people who live, work and visit the Macedon Ranges: it's the reason why they choose to live in the region, and it contributes strongly to their perceptions of their own quality of life. Protecting the natural environment consistently emerged as the community's highest priority in conversations about managing water.
- **Using water that's available more efficiently**, such as not using drinking quality water to water gardens, in commercial industry or to irrigate farms, public spaces and sporting fields.
- Ensuring **safe, good quality drinking water** is always readily available and easily accessible to all community members.
- Being **prepared for the future** and **finding innovative ways to manage water** are also seen as important priorities, especially in light of recent flooding and bushfire events. Identifying new and emerging technologies could help solve water management issues

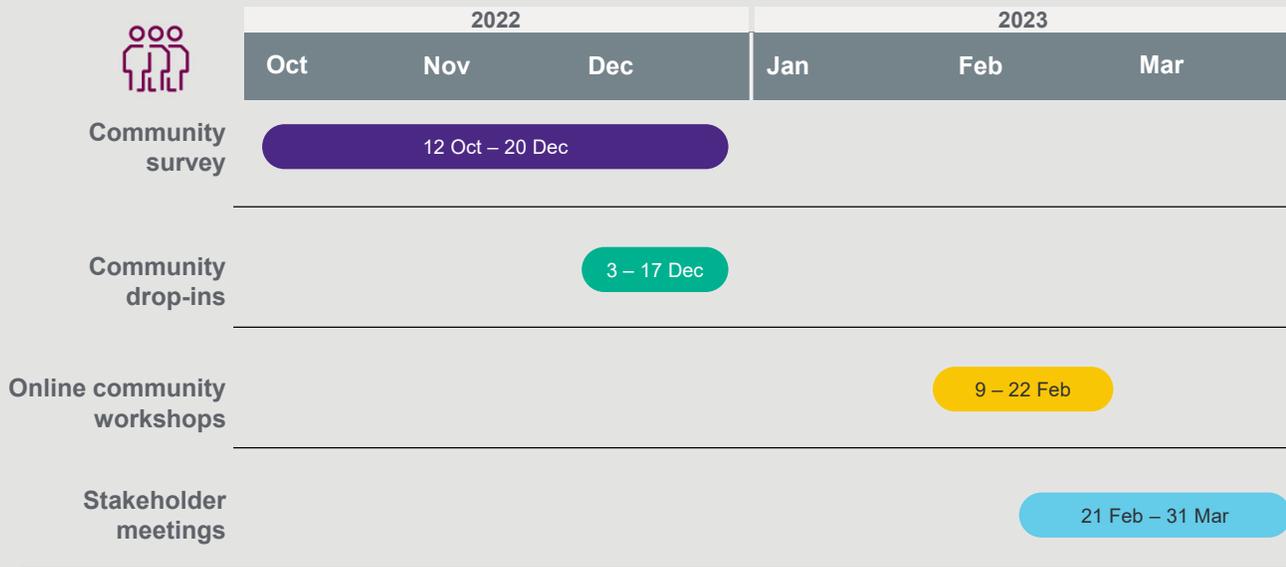
Other issues discussed

Discussions with the broader community, industry stakeholders and community interest groups identified a number of issues that weren't necessarily shared across groups, or that had different levels of support, both by individuals and across groups.

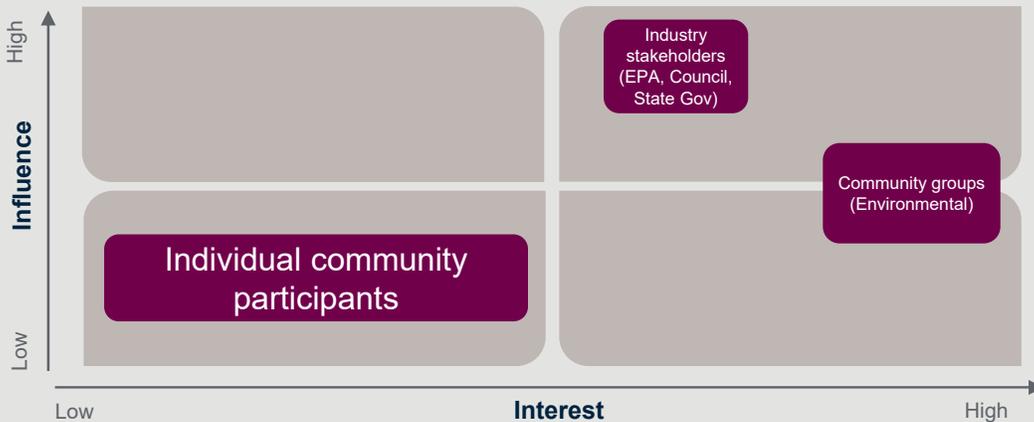
- The community is broadly concerned about population growth in the region, although those engaged through this process recognise that this is not within GWW's control.
- The impact of development across the region as a result of population growth was raised at the online community workshops and environmental community group workshop. GWW may not control the decision on population growth, although community members and stakeholders believe GWW could work with developers and government to advocate for the best outcomes for the community.
- While environmental groups and the broader community do share similar priorities on maintaining and protecting the natural waterways, members of the broader community tended to express more balanced views. For example, the broader community believe releasing treated water into waterways could be a good thing depending on conditions, and environmental groups maintain a preference to not release under any conditions.
- Common themes emerged from discussions in the online community workshops and the environmental groups session, including the need to improve collaboration with stakeholders across the water industry, including government agencies and water corporations.
- Some community members believe GWW should be doing more to work with First Nations people in water management, to educate the community about how Traditional Owners have managed the land for thousands of years, although others questioned whether this was fundamentally GWW's responsibility, and put more importance on providing water services safely and in cost effective ways.

2. ENGAGEMENT METHODOLOGY

RPS designed communications and engagement activities to complement activities being delivered by GWW, and help GWW understand community attitudes about how best to manage water across the Macedon Ranges.



The matrix below illustrates the different views we heard during the engagement program, particularly focusing on the level of influence and interest of the broader community (individuals), community environmental groups and industry stakeholders. Although more representative of the broader community, individual community participants were not as motivated by strong views to engage, nor as influential as representatives of community groups (e.g. environmental groups) who are passionate and have strong views. It's important to capture all views and provide a balanced representation of input throughout this engagement.



a) Community engagement

Online survey

RPS developed an online survey accompanied by a short explainer animation and fact sheet hosted on GWW's 'YourSay' [website](#). The online survey received 58 responses and was initially open from 12 October until 1 November 2022, and reopened from 28 November until 20 December 2022. (The break reflected the Government caretaker period during the Victorian State election, and provided the community with multiple opportunities to have their say during the community drop-in sessions in December). The survey explored community sentiment towards recycled water management and what matters most when considering the best outcomes for water management across the Macedon Ranges. The survey was part of a broader social media campaign that ran over four weeks via Facebook and Instagram.

Community pop-ups

GWW planned and delivered five community pop-ups to gather 'front-of-mind' feedback on water resource management in Woodend, Romsey, Riddells Creek and Lancefield.

Date	Location	Attendees
3 December 2022	Woodend Farmers Market	160
10 December 2022	Romsey Community BBQ	62
13 December 2022	Woodend Community Centre	8
15 December 2022	Riddells Creek Community Centre	5
17 December 2022	Lancefield Farmers Market	87
		322



Online community workshops

RPS designed an engagement approach to gather information to support GWW in making decisions about the future of recycled water management in the Macedon Ranges. This approach was designed to collect robust qualitative and quantitative community feedback from a broad range of community members.

Our approach included facilitating two online workshops with randomly selected residents from across the Macedon Ranges and surrounding areas, as well as those who work in and visit the area. Participants were offered an incentive to take part.

The engagement targeted community members who were not sufficiently motivated by strong views to proactively participate, recognising that communities are diverse and needs and priorities must be balanced to meet the needs of the whole community. They also introduce a degree of transparency and accountability, providing information is available for interrogation and consideration to help make informed decisions.

This approach captured input that reflects a broader range of views, so that GWW can build – and share with government and other decision makers – a comprehensive understanding of the whole community's perspectives the challenges and opportunities of recycled water management.

Recruitment approach

RPS engaged Taverner Research to recruit a selection of participants using targeted Facebook advertising.

The recruitment approach sought to balance the participant profile to reflect the age, gender and geographic distribution of the Macedon Ranges population. This approach allowed us to work with a number of people who wouldn't otherwise be engaged about long term planning and water management issues, while still being representative of the community.

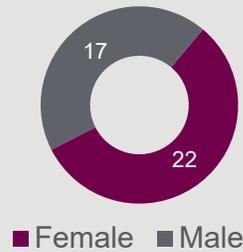
One of the strengths of using random selection, and paying a stipend in recognition of participants' time, is that it provides confidence that the views being expressed are those of everyday citizens.

Demographic overview

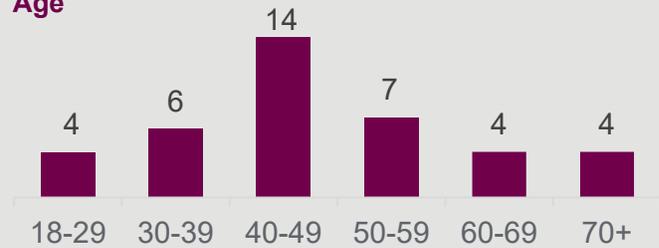
Participants



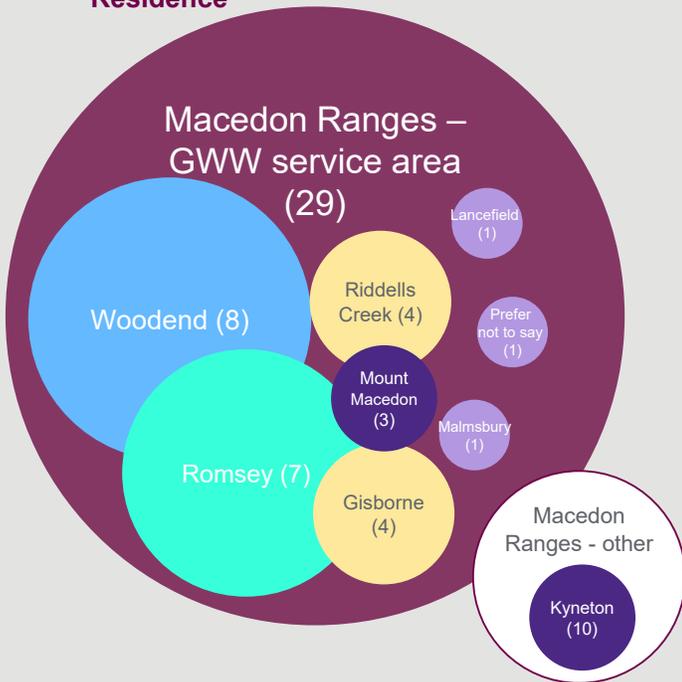
Gender



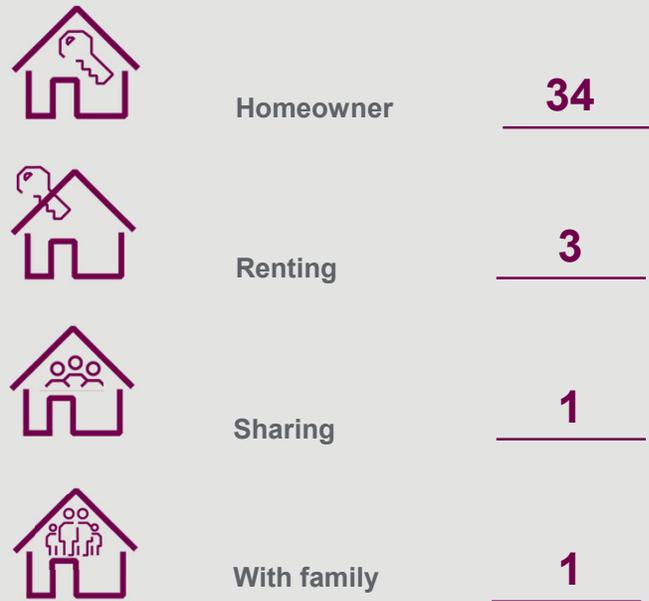
Age



Residence



Housing



Connection to the Macedon Ranges



Methodology

The engagement involved two online workshops of two hours each, held over two weeks. A final survey was sent to participants to validate the outcomes of the workshops and determine the most important priorities for water management across the Macedon Ranges.

Workshop one Thursday 9 February 2022 **Building understanding**

The focus of workshop one was to:

- Introduce Greater Western Water and its work
- Present information on the topic, its challenges and opportunities
- Facilitate discussions about the pros and cons of recycled water management options
- Identify participant questions
- Provide participants with deliberative 'homework' – reflection questions for them to consider

Note: There were technical disruptions during the first online community workshop which resulted in tighter security controls for the second workshop.

Workshop two Thursday 16 February 2022 **Interactive problem solving**

The focus of workshop two was to:

- Check in and share reflections since workshop one
- Answer questions from workshop one
- Facilitate discussions and capture participants' most important priorities from a list of 10 values to inform decision-making on water management across the region.
- Participants were invited to respond to questions via the online polling platform called 'Slido' where they were able to see their responses in real time on screen (smartphone or desktop) as they selected their preferences.

Participants were able to consider the perspectives of others and reconcile those perspectives with their own while delivering suggestions for how differing perspectives can be accommodated to manage water across the region.

Final survey

Following the workshop, participants received a Survey Monkey-based survey, in which the ranking of each value from the workshops was presented. Participants were asked to indicate whether they thought the poll option had been ranked too high, too low or should remain unchanged.



b). Environmental community group

GWW organised a 2.5 hour workshop with a group of environmental representatives across the Macedon Ranges on Tuesday 21 February 2023. The group included Landcare and 'Friends of' representatives.

RPS prepared a workshop guide to help facilitate discussions on the challenges, opportunities and priorities when managing water across the Macedon Ranges. Although 13 people were expected to attend, 20+ representatives arrived on the day. As a result of passionate participation, the original agenda for the workshop was not delivered.

The main priority that emerged during the unstructured conversation was the participants' strong desire to protect the health of the waterways ahead of all other priorities. GWW is committed to continue working with this group and establish a strong working relationship to help inform the future of water management across the Macedon Ranges.

c). Industry stakeholders

Organisations including local councils, state government agencies and water corporations are key stakeholders – and often partners – for GWW in developing effective solutions for water management.

GWW and RPV identified a list of five priority stakeholders to approach for an interview. These were:

- Environmental Protection Authority Victoria (EPA)
- Melbourne Water
- Coliban Water
- Southern Rural Water, who were not able to participate
- Macedon Ranges Shire Council .

Methodology

The purpose of meeting with these stakeholders individually was to:

- Update them on GWW's recent work with community members and organisations.
- Understand their values, aspirations and concerns about recycled water management in the region.
- Identify any current work that may intersect with or influence recycled water management.
- Advance trust and lay a foundation for working together on current and future water management issues and potential solutions in the Macedon Ranges region.

Each meeting was conducted in line with a structured interview guide comprising six key questions:

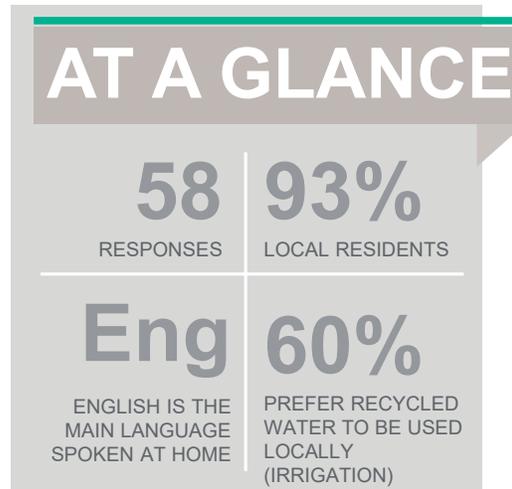
1. What do you see as the key challenges for the region, including in terms of water management?
2. What are your communities and stakeholders saying they see as challenges?
3. What do you believe are the most important considerations about how water is used?
4. Where do you see your role in managing water – including recycled water – in this community?
5. Do you have any relevant work on foot? Where are you putting energy and effort?
6. What opportunities do you see for us to better work together to make a difference?

3. WHAT WE HEARD

This section summarises the feedback we received from the online community survey (YourSay), community workshops and stakeholder meetings.

a). Community survey snapshot

The summary below provides a snapshot of key outcomes from the YourSay community survey.



Most important ways water is used



Drinking

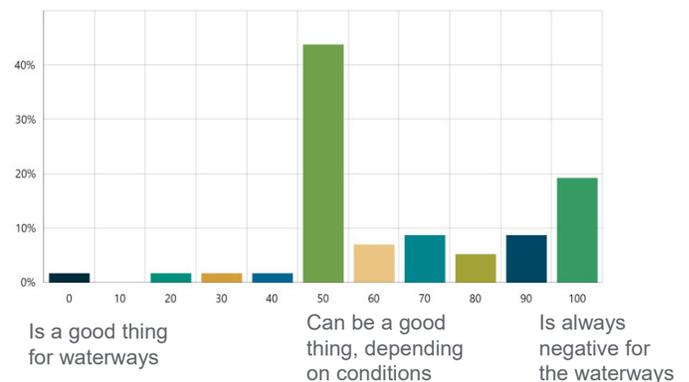


Maintaining ecosystems, including making sure there are enough water flows in creeks and rivers to support wildlife and native flora



Household use, including toilets, cleaning and gardening

Releasing recycled water into waterways:



Recycled water is



b). Community values

The values below represent community priorities when it comes to managing water in the Macedon Ranges. They reflect a combination of priorities shared by community members at the drop-in sessions and online YourSay survey.

A more detailed description of each value, and additional background about the discussion in the community workshops is included in the next two pages.

-  **Keeping prices low**
Maintaining affordable water bills.
-  **Maintaining healthy waterways and habitats**
Protecting and improving the natural environment include habitats.
-  **Reducing the carbon cost of managing water**
Clean power, minimising cost to treat water at treatment plants, waste-to-energy incentives.
-  **Making appropriate water accessible for all community uses**
Use the water we have available more efficiently, e.g. not using drinking quality water to water gardens, irrigation or farms, public spaces and sporting fields.
-  **Finding innovative solutions to managing water**
Emerging technologies, smart meters
-  **Being prepared for the future**
Water infrastructure is built to withstand extreme weather events such as storms, bushfires, drought and floods.
-  **Protecting cultural heritage**
Celebrate and protect cultural and spiritual connections of First Nations people to the lands and waters.
-  **Making sure safe drinking water is always available**
Clean, safe and readily available water is easily accessible.
-  **Protecting the local economy**
Water is available for local businesses when they need it.
-  **Community education**
Raising awareness about water management and its challenges so people use it carefully.

The summary below provides an overview of the values in order of importance and corresponding group discussions.

1. Maintaining healthy waterways and habitats

- Many participants believed that by maintaining healthy waterways and habitats, cultural heritage will be protected. The two values could be combined. If you achieve one, you'll achieve the other. Protecting cultural heritage is part of maintaining healthy waterways.
- A good example of maintaining healthy waterways with Traditional Owners is the partnership between the Djaara (Dja Dja Wurrung People) and North Central Catchment Management Authority to improve the water health of Bendigo Creek and its tributaries.
- Collaboration with other water companies upstream and downstream was considered important to better understand what's flowing down the rivers and creeks. Need to consider the end-to-end water system and how this impacts the local community.

2. Making sure safe drinking water is always available

- This value was consistently in the top three priorities across all engagement activities. Safe and high quality drinking water is important to the local community.
- Participants also highlighted how cyclical weather patterns can influence access to water and the importance of preparing for the future.

3. Making appropriate water accessible for all community uses

- Participants reflected on ways individuals, households and businesses can use water more efficiently, e.g., using recycled water around the house (watering the garden, irrigation, washing the car, construction sites, potential to treat for human consumption).

4. Being prepared for the future (Including extreme weather events)

- A participant suggested this value should be combined with 'Reducing the carbon cost of managing water' as they represent similar priorities.

5. Educating the community about how we manage water and the challenges

- Water literacy plays a significant role in empowering people to take actions on the best solutions to water management. Participants reiterated if people knew more about what was happening in the water industry, they would use less water or use it more efficiently.
- Participants were highly supporting of GWW and other water companies encouraging people to do the right thing and be more water efficient by introducing incentives, similar to the energy industry and the widespread uptake of solar panels. A similar application can be considered for rainwater tanks, smart water meters that can minimise repair costs, reduce water wastage and minimise community disruption.

5. Finding innovative solutions to managing water

- There was robust discussion between community members on how finding innovative solutions could help solve other issues, like protecting cultural heritage. Listening to Traditional Owners and their land and water management practices to help protect water resources.
- Willingness to pay a little extra for innovative solutions that will benefit the community in the long term was identified as an important priority for GWW to consider.

6. Keeping prices low

- A majority of respondents to the YourSay survey believed their water bill was 'About right'.
- The discussions reflected a clear understanding that keeping prices low can interfere with other values because it may mean a smaller fund for GWW to draw on to innovate and upgrade infrastructure the community needs. A younger participant reflected on the possibility of people wasting more water because they are not worried about how expensive it is.
- Participants also discussed whether using recycled water in the garden, and for household use could potentially lead to cheaper bills.

7. Reducing the carbon cost of managing water

- An interstate pipeline for the supply and sharing of water could be laid, similar to how electricity supply is shared between states/territories for load sharing when circumstances arise. Whilst this would be expensive, it would be comparable to the desalination projects that have cost millions of dollars and are inefficiently used. It would also be a 'one-off' build to benefit future generations.
- A participant suggested GWW investigate using stormwater as a source of energy to pump back into the grid for the community.
- The Loganholme Wastewater Treatment Plant in Queensland was discussed as good example of a waste to energy project. The treatment plant turns sewerage into energy and biochar, a fertilizer that can be used commercially. GWW have a partnership with a third party to collect and treat solids and turn them in to usable products i.e. fertiliser. GWW is also researching this option with other metropolitan water partners and Melbourne Water.

7. Protecting cultural heritage

- Some participants believed GWW should be doing more to work with First Nations people in water management and educate the community about how they have managed the land for thousands of years. Some participants questioned whether this was fundamentally GWW's responsibility, and indicated a belief that providing water services safely and in cost effective ways was more important.

8. Protecting the local economy

- Protecting the local economy means that water is available for local business when they need it, although this was not seen as a high priority for participants.

I think collaboration... is essential to [the] long term success of water management.

–Community workshop participant

If we mismanage our waterways, we have nothing else.

–Community workshop participant

c). Challenges and opportunities

Community members, members of key community groups, and stakeholder representatives identified a range of additional challenges and opportunities for GWW to consider when planning for the future of water management in the Macedon Ranges.



a). Challenges

- **Environmental pollution.** Both community members and stakeholders mentioned community concerns about the impact of discharging treated recycled water into waterways, particularly on wildlife and plants. Education, better scientific evidence and increased transparency (such as by releasing monitoring data) may help reduce these concerns.
- **Population growth.** Growth is a key across the Macedon Ranges for communities and for stakeholders. As well as increasing the strain on existing water infrastructure, the expansion of residential and industrial land is reducing the amount of land suitable for irrigation or large volume water distribution.
- **Loss of natural water systems.** The community expressed significant concern about water system impacts, such as creek flows and flooding events.
- **Expanding infrastructure.** While the community recognises that the demands of a growing population will eventually overwhelm existing water infrastructure, they are concerned that new infrastructure (e.g., dams, pipeline connections, recycled water plant upgrades) will be expensive and environmentally impactful.
- **Lack of collaboration.** Communities and stakeholders both perceive some silos across the water industry and with other stakeholders (like the EPA and councils), and lack of collaboration and integration that is standing in the way of best practice water management.
- **Climate impacts.** Stakeholders, in particular, acknowledged that the impacts of climate changes are likely to lead to significant weather events including both prolonged droughts and major flood events, making the task of managing water even more challenging.
- **Community trust.** There is a general lack of trust in the community towards public authorities including Council, water companies and state agencies (EPA).
- **Legacy of previous incidents.** In part, the distrust mentioned above has arisen from previous incidents, which the community (and some stakeholders) perceive were handled poorly. Both community members and stakeholders indicated that acknowledging (and potentially apologising) for these events could go a long way towards rebuilding trust.
- **Community acceptance.** Fundamentally, community members are not convinced about the safety of recycled water, either in terms of human health or environmental impact. Stakeholders acknowledge this lack of acceptance as a significant barrier to its use.
- **Over- and under-supply.** All participants recognised that all water – including recycled water – is perceived to be much more precious and valuable in drought than in flood cycles.

You don't put any value on water until you've not got any.
When you're in a drought, you wish you saved it all.

–Community workshop participant



b). Opportunities

- **Work with developers on sustainable water solutions.** GWW may not control the decisions on population growth and building design although they can work with developers, councils and the Victorian government to influence the inclusion of more efficient water system design in new developments. A few examples include:
 - Stormwater runoff to be captured in water tanks. A minimum tank size would need to be stipulated. Tanks could also be installed 'underground' if space and/or aesthetics were an issue.. Such water could be used in the home, and/or on gardens/lawns etc.
 - Wastewater (not going to sewage) could be tanked, and pumped to gardens/lawns etc.
 - 'Purple pipes' to new homes
- **Citizen engagement.** Leverage local knowledge through community groups to solve complex problems in the water management system. Partner with communities and don't just consult with them. Examples of citizen engagement programs include Aussie Bird Count (Birdlife Australia) and Eye on Water (CSIRO).
- **Community education.** Both the community and stakeholders strongly emphasised the value of community education in building understanding and acceptance of recycled water, and in encouraging people to do the right thing. This could mean living off the water grid, installing rain tanks, encouraging people to share excess water with neighbours, support rainwater harvesting and reticulated systems. A number of stakeholders – including Melbourne Water, EPA and Macedon Ranges Shire – indicated a willingness to collaborate on some form of joint community information or education.
- **Share good news.** Stakeholders indicated that there is a real opportunity to highlight areas of best practice, and great outcomes wherever these are achieved.
- **Balance priorities.** Stakeholders and community members are interested in knowing how decisions about managing water have been made, not just what the outcome is. They indicated a strong desire to understand what competing priorities have been considered, and how they've been balanced.
- **Use water more efficiently.** Community members identified an opportunity to think differently about using water, for example should we be using drinking water to water the garden? Could it be doing something else? They indicated a need to establish value for every drop of water, and get multiple uses out of it – including investing in research and technology to identify 'safe' uses of recycled water.
- **Identify new users and commercial models.** Stakeholders identified the need to find new uses and users for large volumes recycled water, and price recycled options competitively or find other commercial mechanisms to drive uptake.
- **Industry collaboration.** Communities would like to see 'future proofing' decisions being made through collaborations between the state government and regulatory authorities, local councils, community groups, and other water authorities in Victoria and Australia. Collaboration was also a key theme in conversations with stakeholders, who noted a range of specific opportunities including joint scenario planning activities, co-design for new infrastructure, coordination of community information and data releases, and joint research efforts.

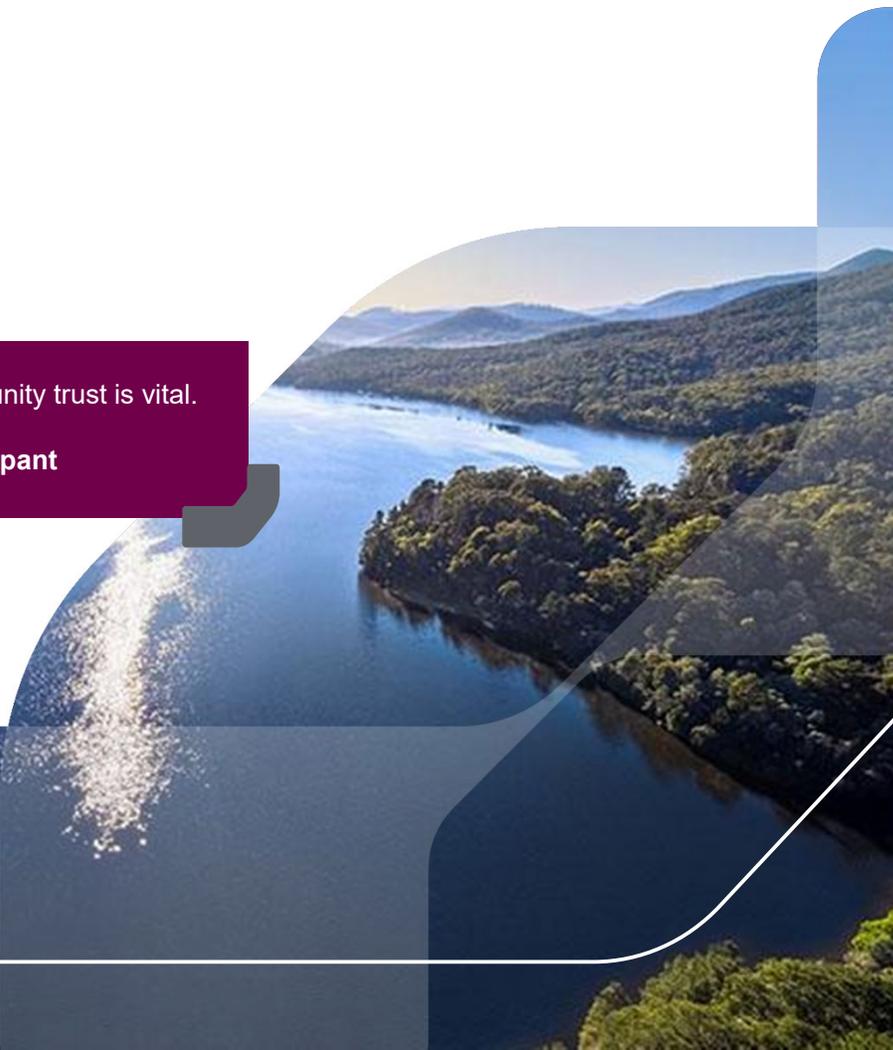
RECOMMENDATIONS & NEXT STEPS

The following recommendations are intended to support GWW in strengthening region-wide engagement to inform decision making and identify local solutions in townships across the Macedon Ranges.

- Ensure future projects reference and reflect what we heard through this program.
- Actively collaborate with a diverse range stakeholders, both on action-oriented projects and programs, and on community education and information sharing.
- Explore options to increase community literacy about recycled water.

Next steps

- Validate the top 10 values and priorities with the Macedon Ranges community.
- Develop community and engagement plans focused on the Riddells Creek, Romsey and Woodend recycled water plants, guided and informed by the top 10 values and priorities.



Building and maintaining community trust is vital.

–Community workshop participant