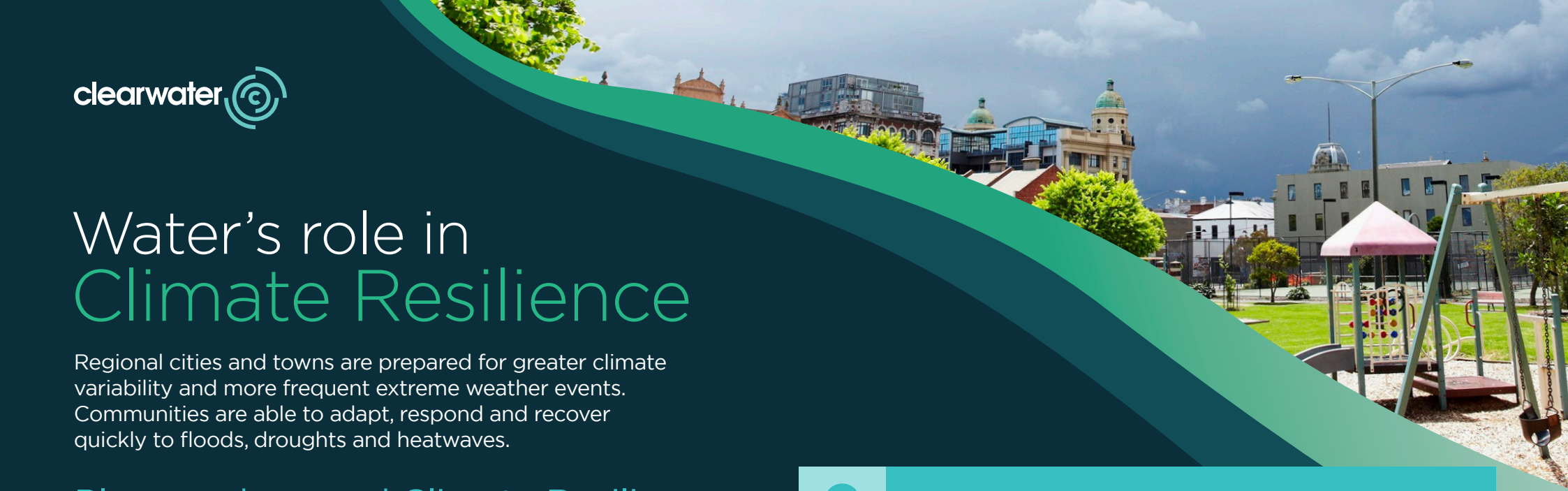
clearwater

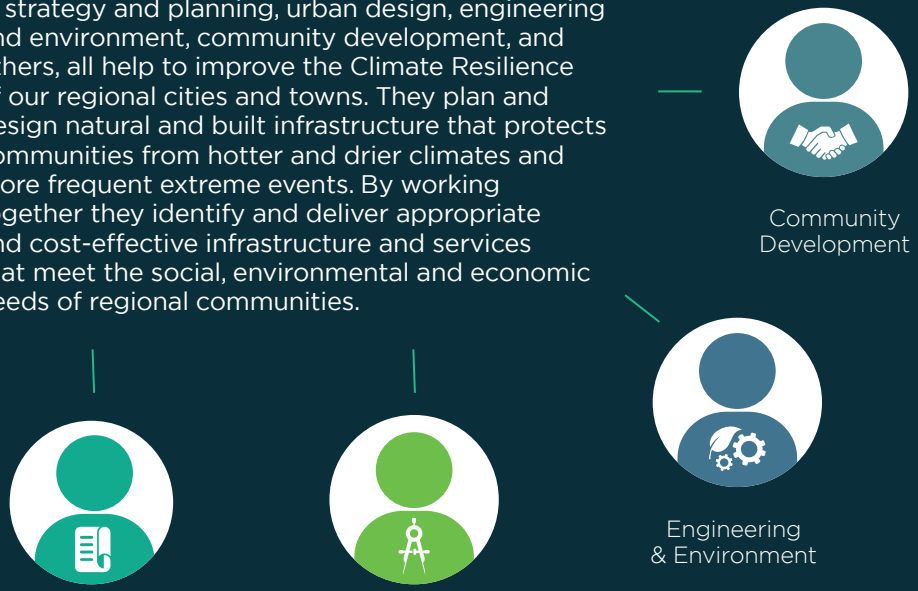


Water's role in Climate Resilience

Regional cities and towns are prepared for greater climate variability and more frequent extreme weather events. Communities are able to adapt, respond and recover quickly to floods, droughts and heatwaves.

Place-makers and Climate Resilience

Many professions contribute to Climate Resilience through their role in place-making. People with roles in strategy and planning, urban design, engineering and environment, community development, and others, all help to improve the Climate Resilience of our regional cities and towns. They plan and design natural and built infrastructure that protects communities from hotter and drier climates and more frequent extreme events. By working together they identify and deliver appropriate and cost-effective infrastructure and services that meet the social, environmental and economic needs of regional communities.



How does water support Climate Resilience?

Water is a critical resource that supports life and livelihoods.

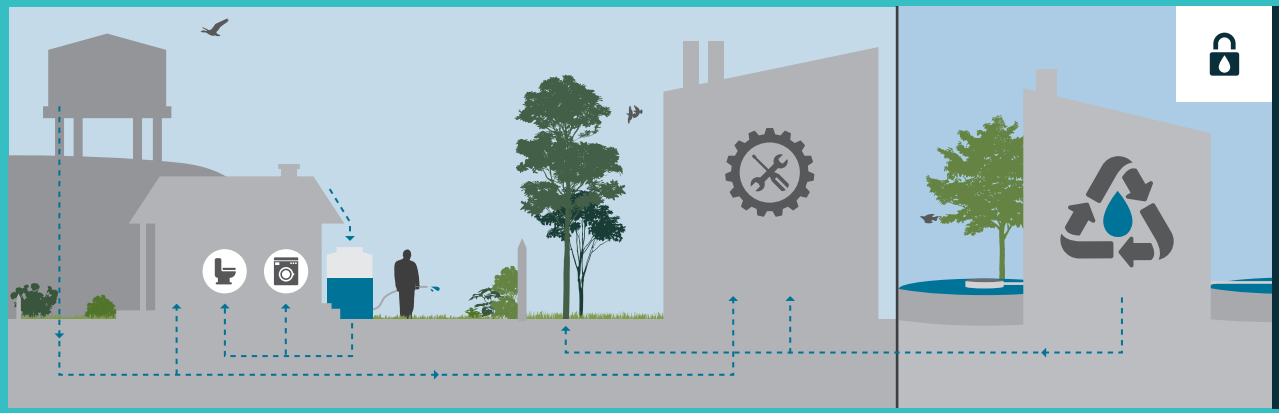
Managing water during dry periods and flood events is crucial for sustaining regional communities. Diverse water supply options support industry, residential and community water needs, for example the maintenance of soil moisture and green open spaces to mitigate heatwave impacts on people and infrastructure. The use of recycled water or stormwater can also reduce the demand from natural catchment sources with benefits to waterway health. Multipurpose spaces can be used to manage food waters, keeping homes and businesses safe, while being available for other uses the rest of the time.

Opportunities for water to support Climate Resilience are best realised when all place-makers and the community work together, leveraging combined skills, disciplines, knowledge and resources. Bringing together different skills and disciplines makes these possibilities a reality by leveraging resources, skills and knowledge to resolve complex challenges and deliver new opportunities.

These pages articulate the connection between water and Climate Resilience, and your role as a place-maker in collaborative and integrated planning to deliver this outcome.

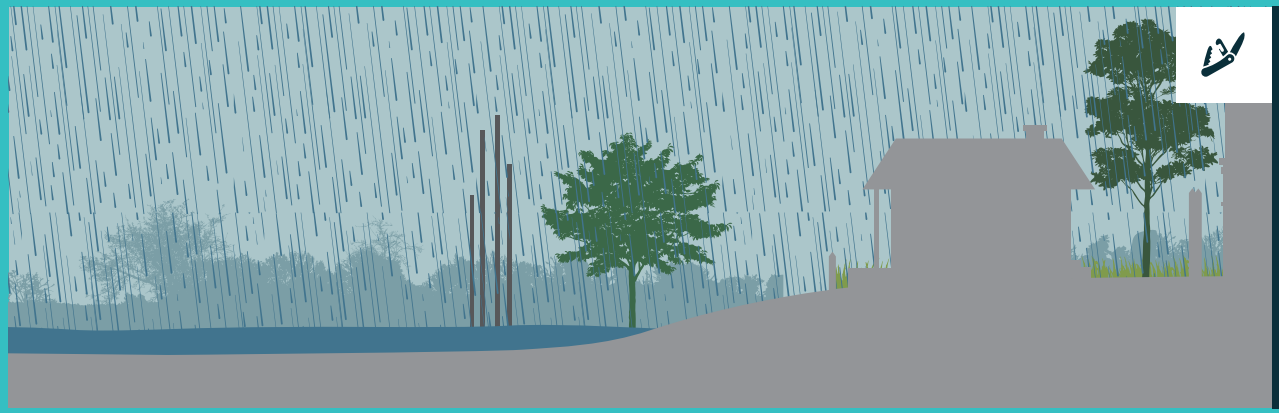
How can I contribute to creating Climate Resilience?

This could be achieved by doing things like:



Planners and engineers implement different supply options to keep water available for different needs and uses.

Helps achieve Council Plan, Sustainable Water Strategy



Place-makers design multipurpose community spaces that reduce the impacts of extreme weather events on people and infrastructure.

Helps achieve Flood Management Plan, Open Space Strategy

Urban designers, strategic planners and engineers increase vegetation and shade, supported by water systems to reduce the impact of urban heat on people and infrastructure.

Helps achieve Council Plan, Council Health and Wellbeing Plan

Climate Resilience: Case Studies

Large-scale community rainwater harvesting in Warrnambool

Wannon Water's large-scale rainwater harvesting system was designed to cater for an increasing population and an increasingly uncertain and variable climate. Rainwater is collected from residential roofs and directed to the local water storage basin via a dedicated pipe network. The rainwater mixes with other water in the basin before being treated to become drinking water for the City of Warrnambool.

The initiative was trialled in 2011 within a subdivision up-hill from the water storage basin. The trial successfully utilised rainwater and gravity to increase the water supply and reduce energy consumption. As development in this area continues, rainwater from new houses will further increase the volume of water harvested.

Peter Wilson
Branch Manager Asset Planning, Wannon Region Water Corporation

"This system is more climate resilient than a natural catchment."

"Water that we get from the Gellibrand River has to be pumped 100 kilometres to get here. You need very high energy input to do it. The system that's been designed for this catchment, is particular to the topography. Water that falls on the roof doesn't need any pumping to get into the basin, it flows by gravity. Every mega-litre we capture avoids the greenhouse gasses associated with transporting water 100 kilometres from the Otways and allows the water in the Gellibrand River to flow down the river.

Water that hits a roof, doesn't soak in, so all that water runs into the gutter. There will be a bit of an evaporative loss, probably around 5%, so from that perspective this system is more climate resilient than a natural catchment."

Resilient and attractive town centres in Buloke Shire

Buloke Shire Council's recent masterplanning process involved the development of Landscape Plans for their major towns to attract visitors and foster community pride and connection through the creation of green, climate resilient streetscapes and parks. Community feedback highlighted strong demand for attractive town centres and the need for green spaces and streetscapes to be maintained through uncertain climates.

The finalised Landscape Plans provide urban greening using low maintenance, drought tolerant, indigenous plants. These are supported by council initiatives to improve water efficiency and ongoing collaboration with Grampians Wimmera Mallee Water (GWMW) to develop diverse sources of water for streetscapes and parks.

"What was re-emphasized in those drought years was the need for green spaces in the urban centres."

Anthony Judd
Director Works and Technical Services, Buloke Shire Council

"The Landscape Plans were developed through consultation with community and staff. Partnerships are vital and getting them set up early is important for getting broad community support.

Water was something we thought about early because we were coming up to two years of significant drought. What was re-emphasized in those drought years was the need for green spaces in the urban centres – they are really important to travellers and community members. We are also trying to open connections through improved walking linkages to rivers, creeks or mountains to encourage people to stop, but also to make our towns more vibrant and attractive for our own community members to have that pride of place."

Why Integrated Planning?

An integrated approach to water planning and management can provide multiple benefits to communities beyond water supply, sewage and drainage services, such as:

- **Green and cool streetscapes**
- **Healthy waterways and habitat**
- **Water for sport and recreation**
- **Multipurpose assets**
- **Supply security**
- **Engaging places for community connection**

In order to realise those benefits of an integrated approach to water planning and management in an efficient and cost-effective way, we need to bring all our place-makers together. Even though they may not see themselves as associated with water, professionals in strategy and planning, urban design, engineering and environment and community development can all help achieve these broader benefits in the local context through early planning, collaborative decision-making and considering the whole system.

This document highlights the benefits of working beyond operational and organisational silos so that all place-makers contribute to Climate Resilience through the way water is managed. Climate Resilience is one outcome from a list of five – the others are Healthy Communities, Economic Opportunity, Healthy Environments, Vibrant Centres - that all characterise the best of regional Victoria.

Want to know more?

Visit clearwater.asn.au for more resources on how you can help your region thrive.

Contact Us:

info@clearwater.asn.au
03 9679 7711

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