

Climate action and sustainability strategy

2025-2035

Acknowledgment of Country

We recognise and pay respect to all Traditional Owners, Custodians and Elders of the lands and waters we work on, and the continuation of cultural, spiritual and educational practices of Aboriginal and Torres Strait Islander peoples.

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A message from our Managing Director

Tackling the challenges of climate change and sustainability are at the forefront of our mission. Through partnerships with our stakeholders, we will provide affordable services using our precious resources to ensure a productive and liveable region.

Our region spans a third of Victoria with varying rainfall, landscapes and ecosystems. There is a critical reliance on our water and wastewater services, as well as resource management, to sustain the health of communities, industry, and the environment - places to live and places to recreate.

We recognise we cannot do this alone. The culture, knowledge, and practice of Traditional Owners, as the original carers for land and water, provides us powerful lessons. With healing steps, we can walk together to be proud custodians of Country.

The prospect of greater climate variability makes it even more important for us to take steps to build resilience and reduce our impacts. We started more than two decades ago with the conversion of channels to pipelines, firstly in the Northern Mallee and then followed by the Wimmera Mallee system. Water saved has flowed to the environment, recreation lakes and wetlands, and enabled pipeline extensions to new customers in neighbouring districts.

We can only utilise natural resources and energy, and generate wastes, within the capacity of the environment to give and receive. We are embracing circular economy opportunities, transforming our wastes into resources, along with integrated water management. Through our ambitious investments in renewable energy and

efficient technologies we are reducing our operating costs and reliance on grid-energy. We are advanced on the path to net-zero carbon emissions by 2035.

The biodiversity and landscapes of our region are also integral to community liveability. We have a role to protect and restore these assets for future generations.

Through innovation, partnerships, and local action, we believe we can contribute to meeting the UN Sustainable Development Goals, particular for water supply and sanitation.

This strategy is our 'Call to Action' to meet climate and sustainability challenges head-on, so we continue to provide safe, reliable and affordable services to customers, while treading lightly on the planet.

Mark Williams
Managing Director

1

Our case for action



GWMWater has one of the largest geographic footprints of all Victorian water businesses, spanning 60,000 square kilometres. Across this vast area, we harvest water from catchments and groundwater bores, and operate networks to supply water and wastewater services to approximately 72,000 people in rural areas or one of 71 urban towns. We also treat and recycle wastewater for agriculture and viticulture use, recreation areas and for community amenity.

Climate change is apparent, and its impacts are intensifying. Our region has experienced severe drought, floods, heatwaves and fires over the last 25 years. Our river systems are amongst the most degraded in Victoria. Much of our biodiversity is reliant on remnant wetlands and bushland reserves.

Therefore, the case for action is clear:

- Our operations and activities utilise resources and energy and creates waste.
- Our infrastructure is built and operated within environmental and culturally sensitive landscapes.
- Our services sustain communities, industry and the environment in the driest parts of Victoria.
- We are a partner of our community and other agencies in managing natural resources and enhancing regional growth and liveability.

This Climate Action and Sustainability Strategy (CASS) sets out how GWMWater is committed to delivering our responsibilities as an essential services provider, whilst also working to ensure our regional water cycle continues to support a healthy environment, and prosperous and resilient communities under a changing climate.

This strategy provides direction to staff, our key partners and all stakeholders on our path forward for the next ten years (2024-2034).

Five broad themes or 'enablers for action' have been identified to help us achieve this:

- Clean Energy
- Resilient Infrastructure
- Efficiency, and Adaptive Business Systems
- Strengthening Regions and Communities
- Healthy Environment and Culture

For each 'enabler' we have set out action plans and strategies to ensure outcomes are achieved. We will continually review our progress and adapt our approach as we move forward to deliver this strategy in close collaboration with our partners, Traditional Owners, stakeholders and the broader community.

2

Our context



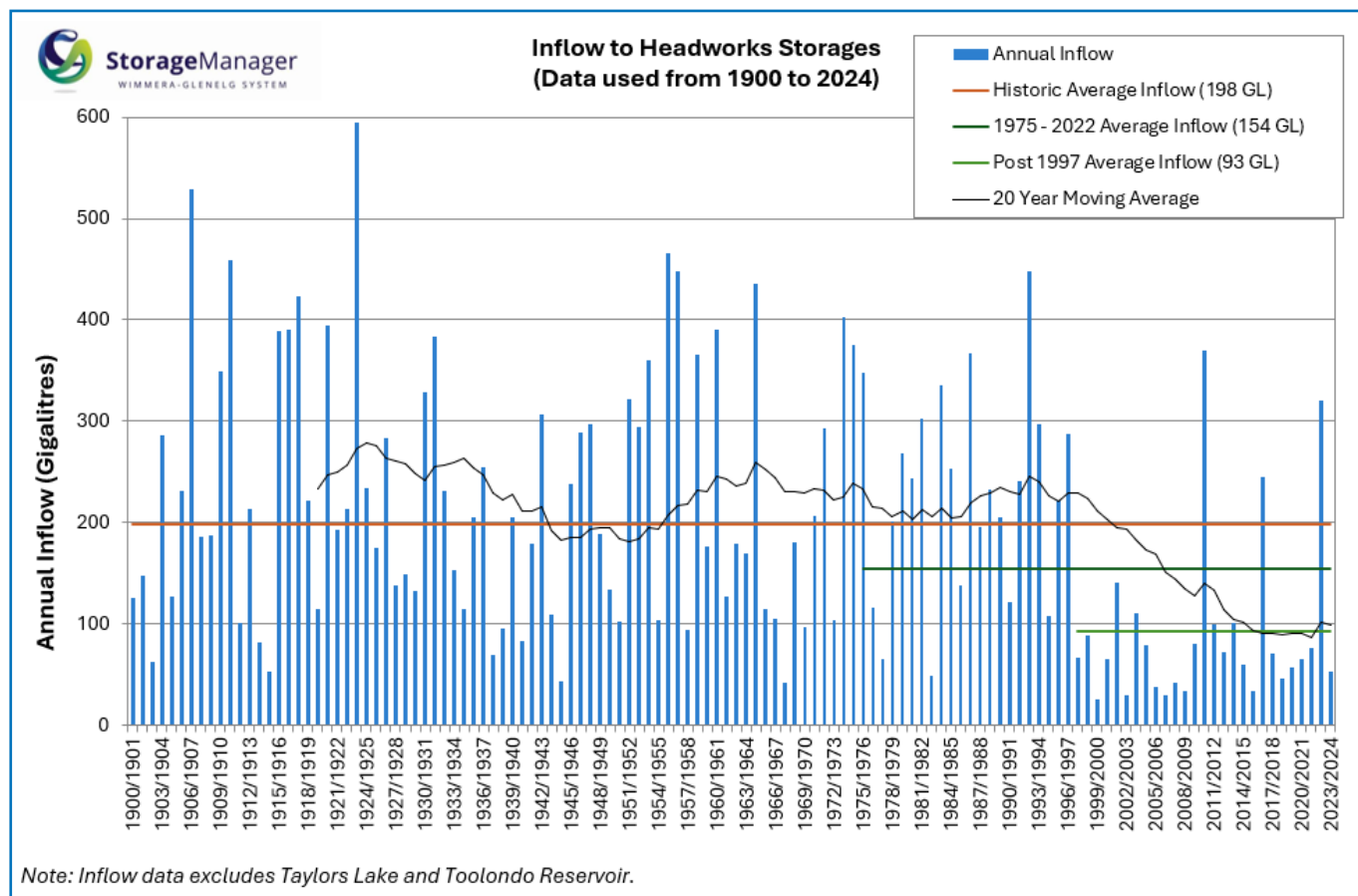
2.1 Our climate future

The climate trends of the last few decades; increasing temperature, declining rainfall and greater climate extremes, are expected to continue. Projections show that by 2039 our region may experience the following changes, compared to the 1990s.

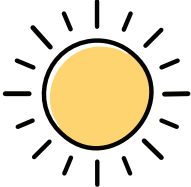
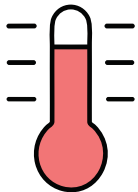



Figure 1. Future Climate Trends

	Wimmera-Southern Mallee	Mallee
Maximum temperature	+0.9 to 1.8°C	+0.9 to 1.6°C
Minimum temperature	+0.6 to 1°C	+0.7 to 1.1°C
Rainfall (%)	-17 to +1	-16 to +3
Evaporation (%)	+9.2 to 21.5	+8.6 to 23.4

Figure 2. Annual inflow for GWMWater storages (1950-2024)



These projections create significant adaptation challenges and risks for the management of water resources, energy demand, infrastructure and biodiversity.

Increasing temperature	
	<ul style="list-style-type: none"> • Increasing evaporation and evapotranspiration resulting in increased system losses and demand for water and energy (cooling). • Increased pathogen and algal growth reducing water quality and increasing frequency of blue green algae outbreaks. • Shifts in where water is needed.
Increasing heatwaves	
	<ul style="list-style-type: none"> • Increased risk of power and communication outages that may affect provision of water and wastewater services. • Peaks in water demand that may exceed system capacity. • Infrastructure malfunctioning in extreme heat. • Health and safety risks for staff providing services.
Less and more variable rainfall	
	<ul style="list-style-type: none"> • Lower stream flows and run-off reducing water harvested and stored. • Increased demand and competition for water supply. • Reduced waterway health and increased stress on biodiversity. • Ground / soil movement damaging water infrastructure. • Difficulty maintaining green gardens, recreation, sporting and amenity spaces, which are critical for community health and wellbeing.
More intense rainfall	
	<ul style="list-style-type: none"> • More intense rainfall and flooding impacting water quality and catchment areas. • Increased risk of sewer spills and recycled water discharges to the environment. • Significant investment in infrastructure to mitigate floods.
Increased bushfires	
	<ul style="list-style-type: none"> • Damage to assets in bushfires. • Inability to access critical assets after bushfire. • Impact to water quality and quantity after bushfire.

2.2 Our strategic context

World

The United Nations Conventions on Climate Change (1992) and Biological Diversity (1992) and the Sustainable Development Goals, set out a global call to action.

The UN developed and published the Sustainable Development Goals (SDG) in 2015. The goals are a definitive list of the 17 most pressing environmental, social and governance issues for ensuring a sustainable future.

The United Nations Climate Change Conference (COP 21) in 2015 set a legally-binding international treaty on climate change, with 195 parties committing to keep global temperature increase below 2 degrees Celsius and aiming to keep them below 1.5 degrees Celsius.

Australia

Australia has committed to achieving net-zero emissions by 2050 and a 43% reduction on 2005 greenhouse gas levels by 2030. This commitment forms part of Australia's Nationally Determined Contribution (NDC) to the UN Framework Convention on Climate Change (UNFCCC), submitted in June 2022. These commitments are legislated through the federal *Climate Change Act (2022)*.

Australia's strategy for *Nature 2019-2030* outlines Australia's approach to biodiversity conservation including our commitments as a signatory to the Convention on Biological Diversity.

Victoria

The Victorian Water Cycle Climate Change Adaptation Action Plan 2022-2026 is one of seven plans prepared by the Victorian Government to help ensure climate resilience across government sectors.

Victoria's Climate Change Strategy (2021) commits all Victorian Government operations to sourcing 100% of their electricity from renewable sources by 1 January 2025. It charts a path to net-zero emissions by 2050.

The state water plan, *Water for Victoria* (2016) states that the Victorian water sector 'will be a leader in the state's climate change mitigation and adaptation actions'. The Statement of Obligations (SoO) (Emission Reduction) (May 2022) sets out greenhouse gas emissions reduction and renewable electricity use obligations for Victorian water corporations.

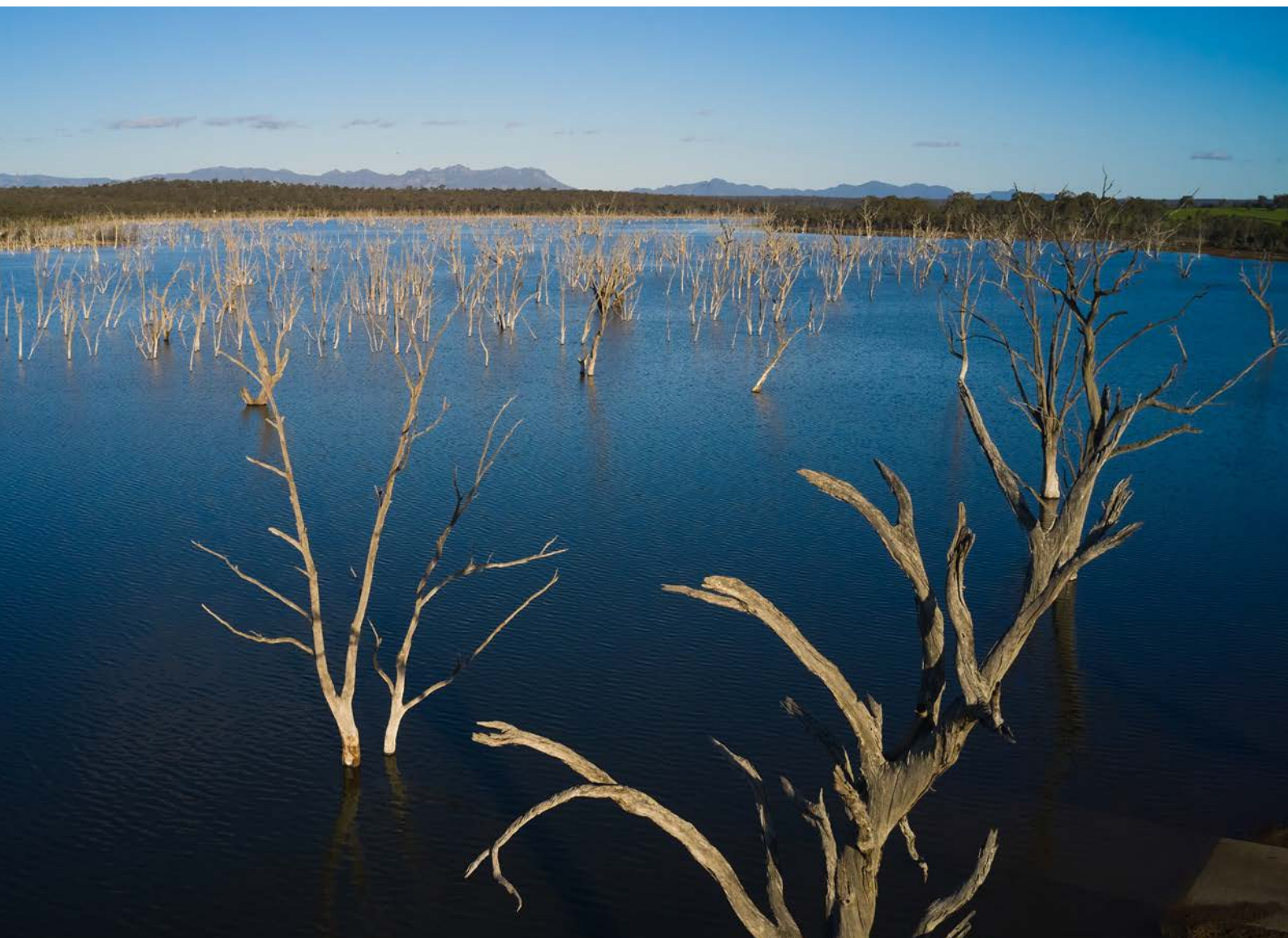
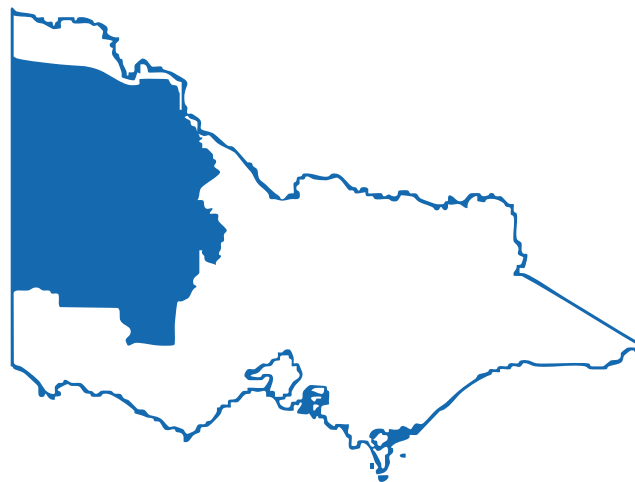
Victoria's biodiversity strategy, *Protecting Victoria's Environment – Biodiversity 2037* presents a long-term vision for Victoria's biodiversity.

Victoria's *Water Is Life Roadmap* provides the framework for self-determination by Traditional Owners in water management on Country.

GMMWater region

Regional catchment, biodiversity and floodplain strategies enable collaboration between agencies for integrated management of land, water and biodiversity.

The *Grampians Region Climate Adaptation Strategy* and the *Loddon Mallee Climate Ready Plan* provide frameworks for agencies, organisations and communities to coordinate climate change action.



2.3 Our commitment to sustainability

Vision and mission

Sustainability principles are already embedded in who we are and what we do.

- Our vision: Healthy environment, thriving community.
- Our mission: Through partnerships with our stakeholders, we will provide affordable services using our precious resources to ensure a productive and liveable region.

Strategic directions

Our strategic directions (below) have six interrelated themes contributing to sustainability.



Risk framework

GWMWater recognises climate related risks as two of the highest corporate risks:

- The impact of climate change on GWMWater's ability to meet water and wastewater service requirements'; and
- The impact of climate change in long-term water availability from catchments.

GWMWater is committed to the protection of the environment and human health, including the prevention of pollution and waste, and responding to climate change through adaptation and mitigation measures.

Our Corporate Risk Register links to our Environmental Management System Aspects and Impacts Register to include environmental and heritage risks relevant to our activities:

“The Sustainability Policy defines our commitment to sustainability in the context of our business, communities and environment, by following core sustainability principles.”

“Sustainability means being able to continuously provide water supply and wastewater services which support our customers, staff and the region, and balance economic, social and environmental outcomes.”



2.4 Our purpose

GWMWater aims to embed climate resilience and sustainability principles into everything we do.

We want to ensure our organisation is equipped to handle the challenges of changing climate. We want to take action and play our part in tackling biodiversity loss in our region.

This strategy sets out a whole-of-business approach towards building GWMWater's adaptive capacity and reducing exposure to climate impacts.

The strategy summarises our progress and success so far, and sets out our ambitions for the next decade towards net-zero emissions and beyond to a sustainable, climate resilient and nature-positive future.





3

Our climate action
and sustainability
enablers for action

3.1 Overview


GWMWater has identified five climate action and sustainability enablers.



3.2 Clean energy

GWMWater has adopted a Clean Energy Strategy and is advancing towards self-generating all electricity requirements with a commitment to net-zero by 2035.

So far...



2.3MW

2.3MW of behind-the-meter solar generation has been installed to replace grid electricity usage at operational sites.

Behind-the-meter batteries are now in the process of being installed at targeted sites.



The Nhill Renewable Energy Facility project has been approved and constructed, including installation of front-of-meter 6.5MW solar and 6.5MWh battery.

Aside from the generation capability, the Nhill project is a catalyst for GWMWater to overhaul its electricity procurement approach and take a more active role in energy management through the wholesale market.



Energy efficiency initiatives to reduce the electricity demand of existing systems are being implemented gradually and new facilities are increasingly being assessed for their potential to operate from stand-alone power systems.

A feasibility study is underway at **Donald** to test the concept of GWMWater **generating and storing electricity** to service a community energy supply.

Our strategy...

Plan:

We will embrace and transition to a cleaner and more efficient energy future through renewable energy generation and use, demand management and market participation.

Goals:

- Carbon neutrality
- Net-generator of renewable electricity
- Facilitator of community energy schemes
- Integrated water and energy utility retailer

Actions:

- Clean Energy Strategy 2023-30
- Carbon Emissions Management Plan
- Zero Emissions Fleet Plan

Results:

- Carbon neutrality by 2035
- Sourcing 100% of electricity from renewable sources by 2025
- Making energy investments that don't increase customer bills
- Electricity cost optimisation via operational management and participation in the wholesale energy market
- Implementation of community energy projects
- Zero fleet carbon emissions

Case study

Behind-the-meter solar

Behind the meter solar generation has been added to 58 GWMWater sites, with a combined capacity of 2,277 kWp.

GWMWater currently has a 251 kWp solar PV generator at Lake Fyans Water Pump Station (WPS). This site is registered as a Power Station with the Clean Energy Regulator (CER) and has generated a total of 869 large-scale generation certificates (LGCs) to date. This translates to a reduction of approximately 700 tCO₂-e of Scope 2 emissions when the LGCs are retired.



3.3 Resilient infrastructure

GWMWater recognises its role as the manager of infrastructure critical to providing essential services to our community, including through emergencies and extreme events.

So far...

All water and wastewater storages are routinely inspected. Backup power enabled at critical pump stations and treatment facilities.



System operating rules manage risks to dam safety, and water availability and quality.

Asset management decisions incorporate:

- information on current factors affecting asset condition,
- lifecycle and service performance,
- and the risks of potential failure to service continuity, public and private property, and the environment.

New linear assets are designed and constructed to industry standards. Assets are designed to be long-lived, with resistant materials.



Continuous seismic monitoring occurs at Mt Zero as part of the Victorian Water Industry network.

Highest consequence category dams are inspected annually by specialist engineers. Each has a Dam Safety Emergency Plan.

Renewable energy investments have reduced reliance on grid electricity.

Our strategy...

Plan:

We will plan, build and operate infrastructure to be resilient to the impacts of climate change over its lifetime.

Goals:

- Our infrastructure provides reliable services
- Water quality variability is able to be managed without impacting service levels
- Emergencies and extreme events are managed with minimal service impacts

Actions:

- Strategic Asset Management Plan
- Emergency Management Plan
- Dam Safety Action Plan

Results:

- Climate risk to asset performance and life is understood and reviewed
- Infrastructure design standards consider forecast climate variability and regional climate differences
- Infrastructure investments consider climate and sustainability risks/opportunities
- No early asset failures caused by climate factors
- Reduction in sewer overflows in high-rainfall events
- Reduction in supply interruptions due to water quality events

Case study 2022 floods

Well above average rainfall in the spring of 2022 led to system inflows on par with the total inflow received over the preceding 5 years. The region experienced **moderate riverine flooding and some reservoirs spilled over for the first time in 26 years.**

GWMWater formed an incident management team to manage impacts on the headworks system, and water and wastewater services to customers.

We collaborated with state and regional emergency management centres to provide advice about storage levels and spills in the face of further predicted rainfall. Clear and coordinated communication enabled communities to be prepared.



3.4 Efficiency and adaptive business systems

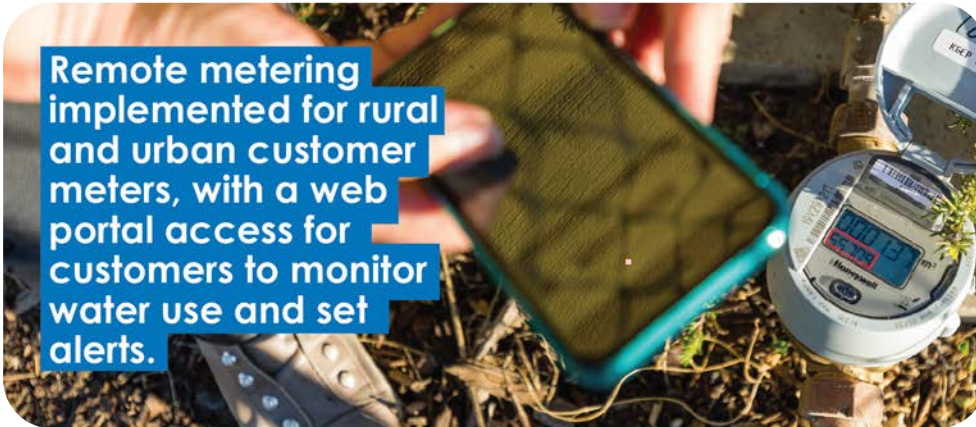
GWMWater embraces technology as a path to efficiency and improved customer service.

So far...

Operations Management Centre constantly monitors SCADA alarms and remotely manages infrastructure and systems.



Remote metering implemented for rural and urban customer meters, with a web portal access for customers to monitor water use and set alerts.



Vehicle tracking software allows best positioned field staff to attend reactive works in the field.

Asset management system integrated with GIS and other business systems to prioritise maintenance and capital investment, balancing risk, cost and asset performance.



Research relationships established through industry and university partners.

Water Management Information System (Aquarius) implemented to integrate water data sources with a web-based viewer interface.



Corporate Management System certified against ISO 9001:2015 (Quality) ISO 14001:2015 (Environmental) AS/NZS 4801:2001 (Safety)

Our strategy...

Plan:

We will adopt learning and adaptive systems, energy efficient procurement, and collaborate through research and innovation to generate continuous improvement.

Goals:

- Our business systems are continuously improved to support effective procurement and management decisions
- We effectively collaborate with research and innovation partners to identify opportunities to enable improvement

Actions:

- Audit action plans
- Research Strategy and Plan

Results:

- Insurances cover climate risk
- Adoption of smart operating and decision support systems
- Participation in research projects and implementation of research outcomes
- Certified Corporate Management Systems

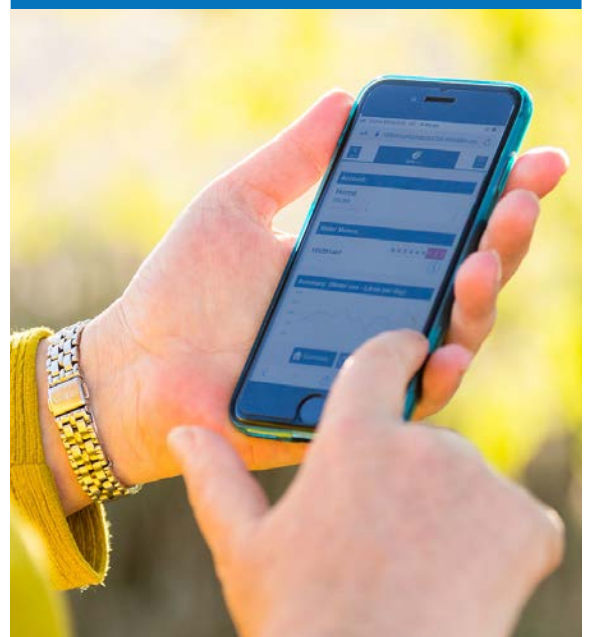
Case study Customer Portal

GWMWater's Customer Portal puts water information at the fingertips of residential, commercial and rural customers.

Customers can see all of their water accounts, monitor water use, set alerts for high usage, identify leaks and track spending or, where allocations apply, the volume used year to date.

On various devices, they can view their historical water use and set up alerts to notify them of high usage or potential leaks.

Potential leaks are identified if water is continuously running over a 48-hour period. The customer sets their own threshold for what they consider high usage to trigger an email warning or text message alert.



3.5 Strengthening regions and communities

GWMWater doesn't just provide water and wastewater services, we operate as part of the community. Our investments in infrastructure are improving customer and community access to fit-for purpose supplies, boosting climate resilience, social and economic outcomes, and regional liveability.

So far...
A new rural pipeline supply has been extended to the Southwest Loddon region to drought-proof stock and domestic supplies, with construction underway for the East Grampians Rural Pipeline Project.



Rural pipeline water is supplied to **11 recreation lakes and repurposed urban storages** to provide recreation opportunities and local amenity.

Integrated water management projects have been implemented with council partners to supply sports facilities and green spaces in St Arnaud, Stawell and Horsham.

Clean Water upgrades have been completed for the Wemen System of the Northern Mallee Pipeline with funding to replicate the project more broadly.



Wetlands with environmental and cultural values are sustained through piped water supply.

Relationships are being established with Traditional Owner groups through major projects and partner forums.



Our strategy...

Plan:

We will maximise circular economy opportunities and integrate water resources to provide secure, fit for purpose and affordable products to sustain communities, and recreation, cultural and environmental values.

Goals:

- Water supply security is understood through sound science and assured through smart decisions and investments
- Circular economy opportunities maximised
- Our community is climate ready and resilient

Actions:

- Urban Rural Water Supply Demand Strategy
- Drought Preparedness Plan
- Carbon Emissions Management Plan
- Reconciliation Action Plan
- Resource Recovery Plan

Results:

- Urban and rural water supply demand and supply forecasts
- Improved water security for customers
- Generation of ACCUs within the region to create a carbon sink

Case study Ouyen Lake

The Ouyen community celebrated the opening of Ouyen Lake in April 2018.

The lake, formerly an open storage for the Wimmera-Mallee channel system, was converted to a recreational lake with a pipeline supply. New facilities were provided through State Government, GWMWater and Mildura Rural City Council investment and local group action.

The community are proud of their local lake, located in the heart of the hottest region in Victoria.



3.6 Healthy environment and culture

We are dedicated to fostering positive environmental, cultural, inclusion, and diversity outcomes while managing groundwater and surface water resources to sustain community access and protect all users, including the environment.

So far...



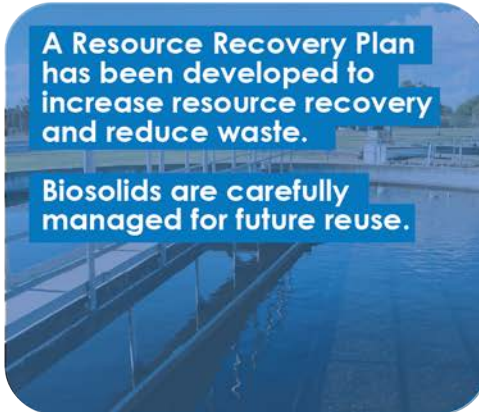
Our bulk and consumptive metering ensures diversions and usage complies with bulk entitlements, sustainable diversion limits, permissible annual volumes and individual licences.

Co-sponsor of a Water Partnerships Officer for the Eastern Maar Aboriginal Corporation.



A Resource Recovery Plan has been developed to increase resource recovery and reduce waste.

Biosolids are carefully managed for future reuse.



We are partners in regional surface and groundwater monitoring programs to assess the condition of resources. There are groundwater management plans to ensure sustainable extraction from groundwater aquifers in the Murrayville and West Wimmera management areas.



Bushland blocks are protected to provide offsets for biodiversity impacts of native vegetation removal.

Drought Preparedness Plan to manage future short-term water security and water quality issues for our supplies.



Our Urban Rural Water Supply Demand Strategy assesses long-term water security for urban and rural users under a range of water supply and future climate scenarios.



80%

On average 80% of recycled water produced is utilised each year to water sporting grounds, racecourses and vineyards.

ISO 14001 Accredited Environmental Management System

Premiers Sustainability Award in 2018 for the Memorandum of Understanding with the Dja Dja Wurrung Clans Aboriginal Corporation for the Southwest Loddon pipeline project.



Our strategy...

Plan:

Tread lightly by protecting and restoring our natural resources, biodiversity, people and cultural assets for the benefit of generations to come.

Goals:

- Our vital water resources, natural resources, biodiversity and cultural assets are protected and enhanced for the benefit of generations to come
- Guiding resource management policies and principles enable the most efficient delivery and use of the available water resource

Actions:

- Urban Rural Water Supply Demand Strategy
- Carbon Emissions Management Plan
- Resource Recovery Plan
- Biosolids Management Plan
- Reconciliation Action Plan
- Diversity and Inclusion Strategy

Results:

- Resource management guidelines, policies and activities are routinely reviewed and updated
- Increased use of recycled and energy efficient products across our supply chain
- Reduction in waste generated from offices
- A reduction in the fugitive emissions from WWTPs
- Efficient use of recycled water to benefit the community and environment

Case study Horsham SmartWater Project

The Horsham SmartWater project involved a pipeline to supply recycled water to green spaces in Horsham, and upgrades to the wastewater treatment plant and Agriculture Victoria's SmartFarm to improve water quality. The new pipeline connects the cemetery, racecourse, school ovals and parks.

The supply of recycled water for these green spaces, reduces demand on stormwater and urban supply systems, ensuring sustainable resource management.



4

Tracking our progress

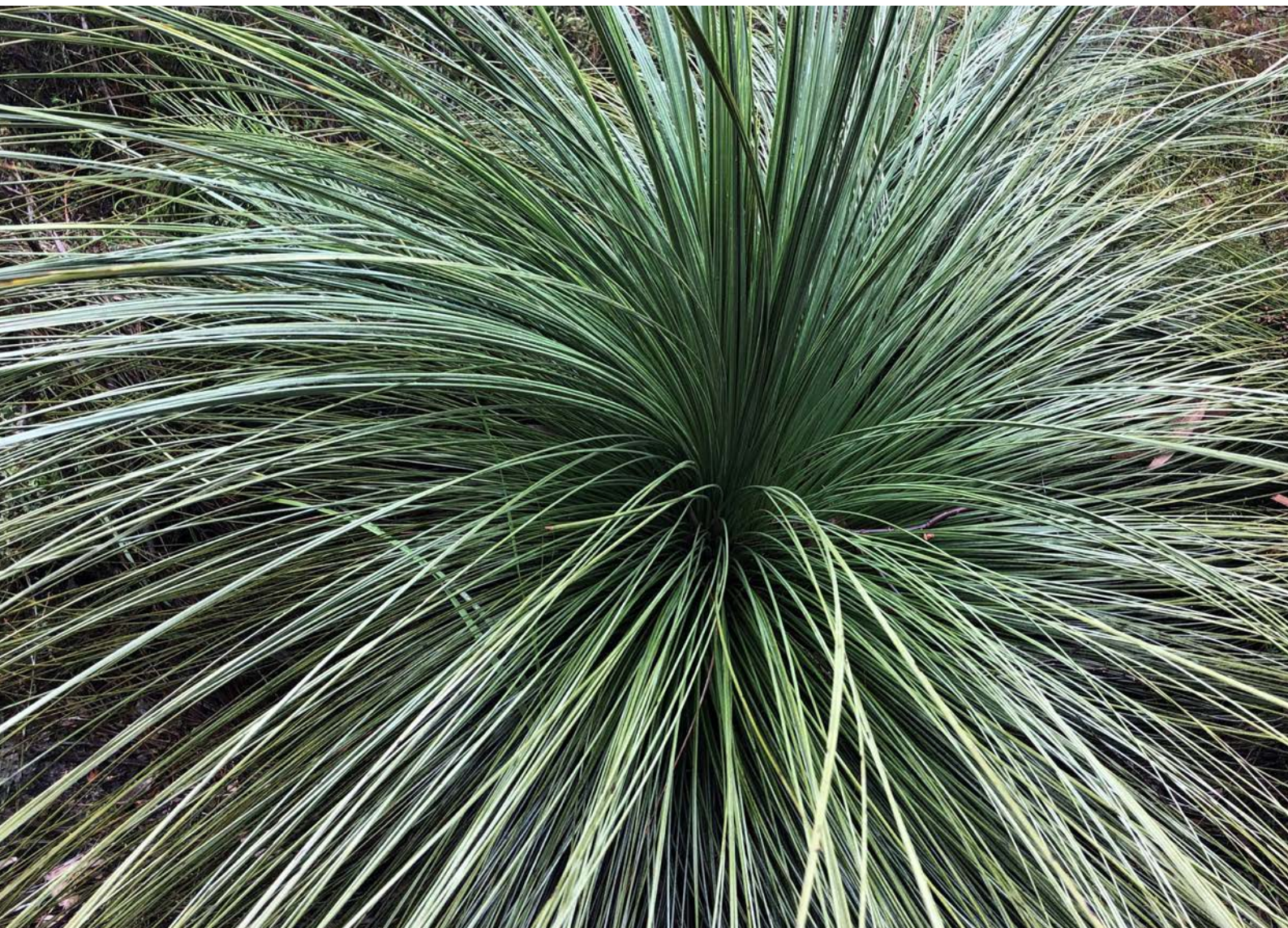


GMMWater has a strategic governance framework to effectively translate strategic direction into strategies and action plans.

Through this framework, individual plans and actions will be reviewed, and outcomes will be measured and reported via the Sustainability Working Group to Executive Leaders and Board.

This strategy will be reviewed every two years, unless triggered by a change in risk, which significantly impacts our commitments, outcomes and/or effectiveness of planned actions.

Climate and sustainability related risks are identified and managed through our corporate risk processes, with mitigations linked to implementation plans.





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