



Charmaine Quick Managing Director

Goulburn-Murray Water



- Australia's largest rural water company
- GMID 840,000Ha
- 6,000kms of irrigation channels and 4,000kms drainage network
- 24 storages, 11,400 GL capacity
 - Dartmouth 3,800GL
 - Eildon 3,300GL

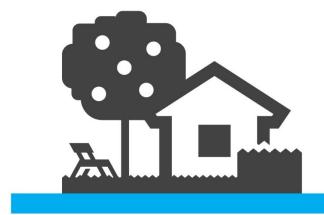


GMW Stores and Delivers Water to



Average

900GL - GMID 700GL - LMW



RURAL

Rural water businesses that supply rural areas.

60GL



URBAN

Urban water businesses that supply towns and businesses.

600GL



ENVIRONMENTAL

Environmental water holders that protect and improve waterway health.

21,000+ active customers

Economic Production in our Region





Australia's **pears**



Australia's peaches



Australia's apricots



Australia's milk production



Production



Exports





10,000 regional businesses and jobs we support

- SPC Ardmona
- Unilever
- Tatura Milk Industries
- Kissan
- Kagome
- Graincorp
- Lactails
- Simplot
- Kraft-Heinz

- MP Harvest Foods
- Elders
- Claas Harvest Centre
- Rex James Stockfeed
- Hepburn Agri Centre
- North West Ag
- CAF Consulting
- Echuca Engineering
- Swan Hill Abattoirs

- APG Workforce
- Programmed
- CVGT
- Echuca & District Livestock Exchange
- Almondco
- AGRIvision Consultants
- Agribusiness Labour Consultants











Catchment Management Authorities



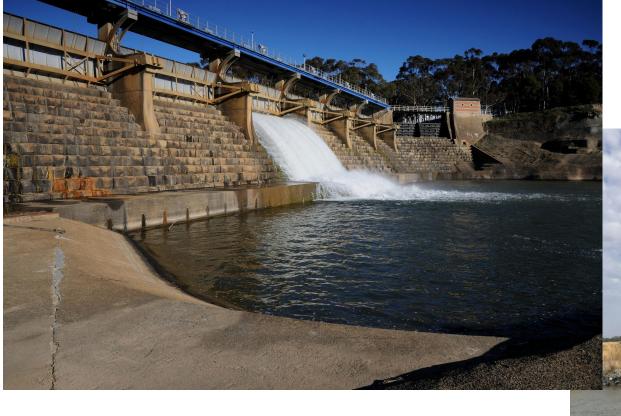


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GMW Connections & WEP Project



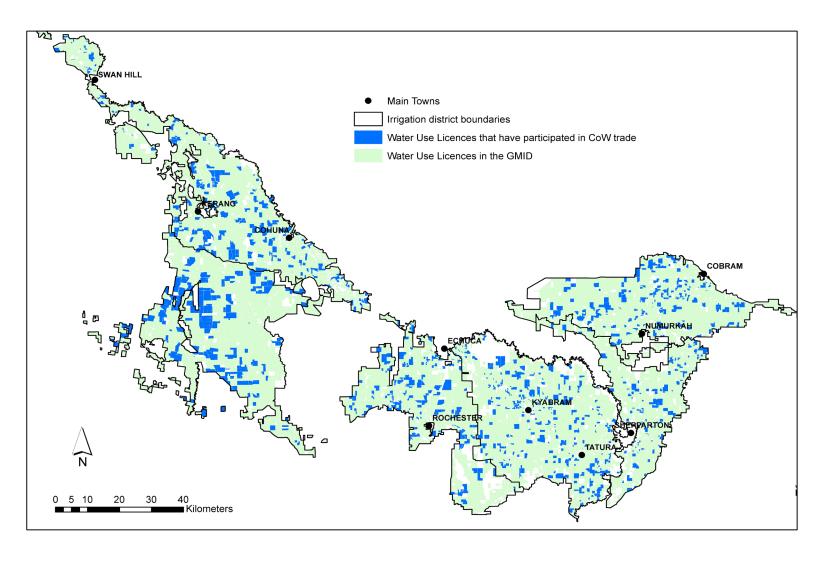
The art of the possible when tackling complex problems and using the wisdom of the collective to shape a way forward





The Impacts of Buybacks – there had to be a **GMW** better way.

The Buybacks up until 2015 created a 'swiss cheese' effect across the network and did not provide any opportunity to optimise assets and costs and improve service



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The Art of the Possible Takes Time



- 2001 Total Channel Control trialled
- 2004 First reconfiguration (80km channel, 400 outlets)
- 2008 NVIRP/Connections Project established
- 2016 Connections Project reset
- 2020 Connections Project deliver milestone target (433GL)
- 2021 Water Efficiency Project announced (15.9GL target)
- 2023 Water Efficiency Project delivers milestone target

Infrastructure projects (Connections and WEP) unlike the swiss cheese targeted the 900GL in loses (evaporation, leakage, meter loss).

Increasing the system water efficiencies from 70% to 85%.



2001: Total Channel
Control trialled

What do Water Efficiency Projects Involve?











Works include:

- Replacing old regulators and meters
- Decommissioning high loss irrigation channels
- Lining irrigation channels
- Replacing irrigation channels with pipe
- Automating the metering system
- Reconfiguration of existing assets, water storages and natural waterways
- Environmental projects





Old Channels



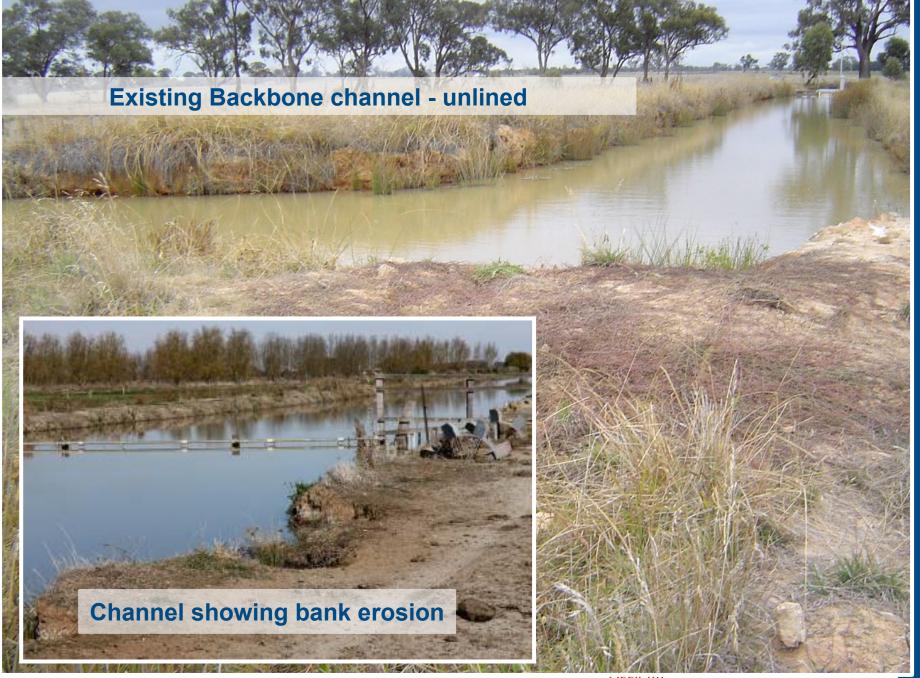


Meter Error

Escape losses and outfalls



Seepage & Leakage Losses







New Gates





Total Channel Control (TCC)

How the Target has been Achieved



Project	Water Savings Achieved	Channels Removed	Channels Remediated	Pipelines Constructed	Outlets Upgraded (No.)	Outlets Removed (No.)
Connections Project	433GL	1,700+km	300km	300+km	9,500+	5,650+
Water Efficiency Project	18GL	148km	1.5km	61km	690	395
Total	451GL	More than 1,850km	More than 300km	More than 360km	More than 10,000	More than 6,000





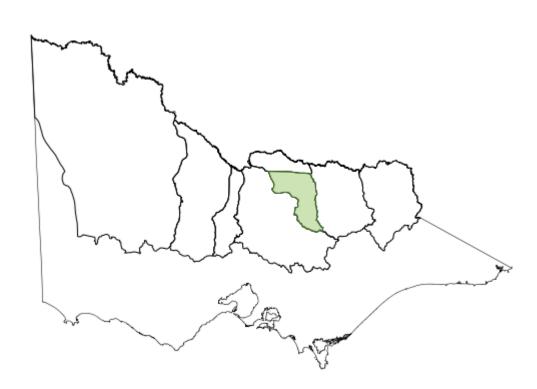
- 279 GL annual water savings gained for the environment
- No socio-economic impact through water buy-backs
- Smart, efficient irrigation system with
 - consistent flow rates
 - improved customer service levels (24hr ordering)
 - Improved on farm delivery on farm automation
 - modernised channels and pipelines
 - encourages new investment by food processors and farm-level investment.
- GMW operating efficiencies enabling a 10% price reduction
- Established and proven Water Savings Protocols, auditing and verification
- Significant boost in regional employment and expenditure, creating jobs and opportunities within the GMID.



Broken Reconfiguration Study



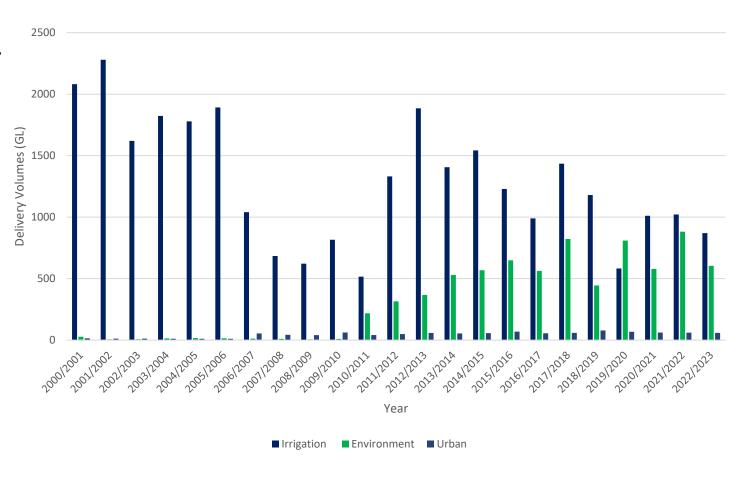
- The Broken System is a regulated system off Lake Nillahcootie
- 60% (19GL) of Nillahcootie is set aside for storage and river losses
- Usage varies from 6.5GL to 1.6GL/annum
- Reliability is reducing
- This is the first time we have looked at reconfiguration of a regulated system. Taking the learnings from the Connections Project and Water Efficiency Project.



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Summary – Driving Economic Benefits and the Art of the Possible if we Work Together

- Irrigators benefit through technology they can leverage for on farm efficiencies and productivities. They can work to their time schedule, not ours.
- The Environment benefits through the return of water to our waterways and floodplains without touching the consumptive pool.
- GMW were able to drive productivity within our business and were able to pass on a 10% price reduction.



Thank You



The art of the possible when tackling complex problems and using the wisdom of the collective to shape a way forward



