

IRRIGATION INNOVATION, SHARED PROSPERITY: THE MACALISTER STORY

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**9th ASIAN REGIONAL
CONFERENCE**

Irrigation & Drainage

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Macalister Irrigation District

- Built 1920s & 1950s
- Mainly dairy farms plus vegetables
- Earthen channels & gravity pipelines
- Major upgrade 2005-2025



MID major investment history

MID – initial scheme

1920-35

MID – expanded scheme

1952-59

Modernisation first stages

2005 - 12

MID 2030 Strategy (2006-07)



MID2030 investments (stages)

2013- 25

2050 Strategy (in progress)

MID2030



\$197 mill, 49.3 GL
~\$4,000 / ML

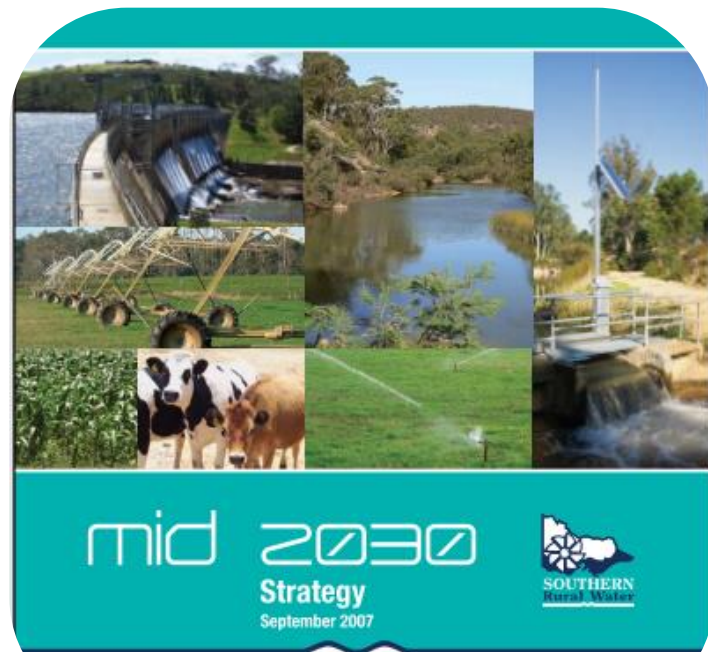


Developing the Strategic Plan:

MID2030
Phase 1 – Input from customers and stakeholders based on detailed situation report

Phase 2 – Feedback on options

Phase 3 – Feedback on revised options & the strategy



An opportunity to maximise the full potential of the MID.



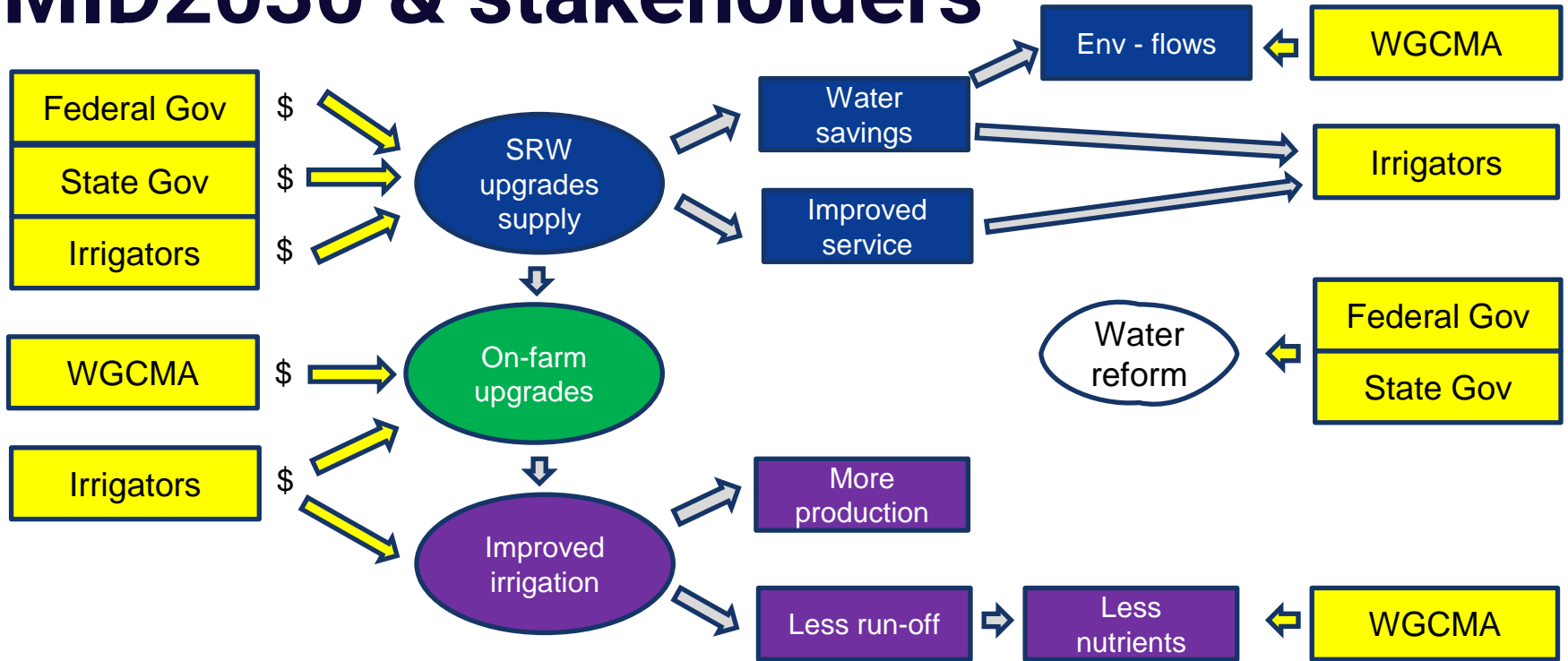
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MID2030 & stakeholders



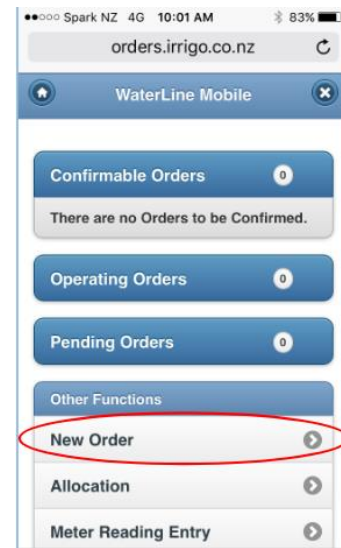
Customer impacts

Implementation

- Works agreements
- On-farm disruption
- Reduce outlets
 - Easier with whole-farm-plans
 - Critical for pipe projects

Post-project

- Adjusting to technology
- Service improvements
- Orders: flexibility & certainty
- Some outlet automation
- Flow-rates – higher & more consistent
 - Efficient surface irrigation possible
- Individual on-farm investments
 - Whole Farm Plan (WGCMA)



A customer story



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Macalister River impacts



Section 2: Gippsland region - Seasonal Watering Plan 2024-25

Water for environment

- Passing flows
- Flows over spillway
- Env. entitlement
 - 19 GL
 - Similar rules to irrigator shares

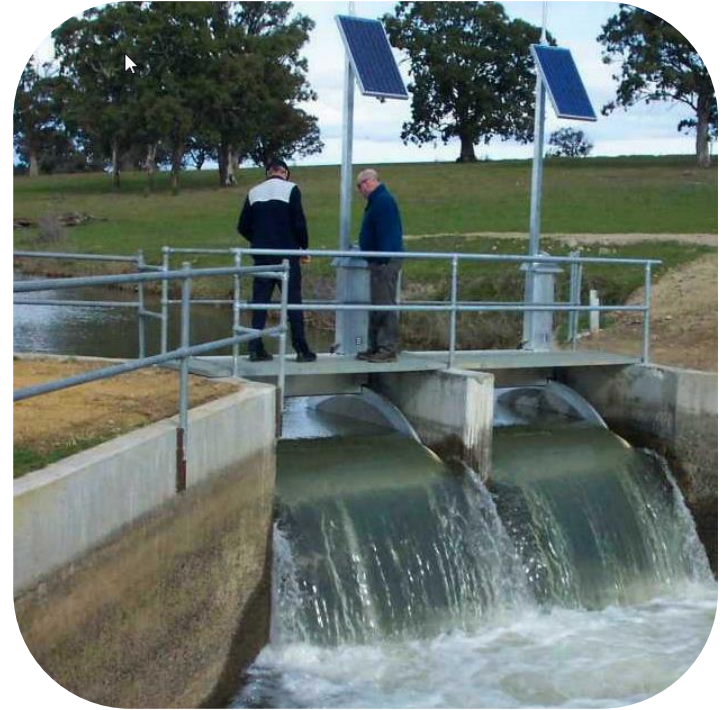
Seasonal watering plans (WGCMA)

- *Identify environmental benefits for specific river reaches*
- *Pre-planned actions -> effects*
- *Scenario planning*
 - *Depends on water allocation and seasonal conditions*



Operational challenges

- Automated channel regulation is fundamentally different
- Going from low to high-tech
- Knowing when to intervene
- Dealing with hybrid operations
- Navigating a large data system
- Managing alarms
- Maintaining mech-elec devices



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Government reform objectives

Make water supplies more efficient



Efficiency increased from <60% to 85%

Increase water for the environment



19GL water for the environment

Increase water productivity



Major increase in service levels

Water Supply Provider financially sustainable



Pricing covers ongoing costs and irrigators' capital share

Improve data and information



Accurate and reliable water measurement



Lessons for similar projects

Understand your water losses – measurement is essential

Have a plan to modernise your whole system

Develop this plan with your irrigators and stakeholders

Understand the different interests in the project

Support the operations to transition to a modern system

Coordinate on-farm planning support as early as possible



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