



Fluid Assets Almond Conference 2016

Gavin McMahon

**Chief Executive Officer
Central Irrigation Trust Chairman,
National Irrigators Council**

17th Australian Almond Conference



HOSTED BY:
The Almond Board of Australia



SUPPORTED BY:
Horticulture Innovation Australia Ltd

Pullman Hotel Melbourne, Albert Park, Victoria
November 8th - 10th, 2016



Gavin McMahon



Chief Executive Officer, **Central Irrigation Trust** Chairman, **National Irrigators Council**

Mr Gavin McMahon is heavily involved in water issues within the SA Riverland District and across the Murray–Darling Basin. He is the Chief Executive Officer of Central Irrigation Trust and a Director of Central Irrigation Pty Ltd, where he is responsible for the delivery of irrigation water to thousands of families, domestic customers and industries. He is also a Director of the National Irrigators Council and currently serves as the Chairperson. Gavin was recently a member of a Water Act Review Panel which reviewed the Water Act 2007. Mr McMahon previously spent 23 years with BSES Ltd, a research and development company servicing primary producers and processors in the sugar industry where he held several positions within the company commencing as an agricultural advisor and completing his time with BSES as the Manager of Customer Service.

Gavin holds a BSc from Griffith University where he majored in Environmental Studies as well as a BBus from the University of Southern Queensland.



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Presentation by

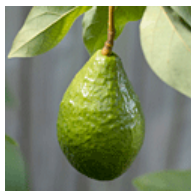
Gavin McMahon
CEO, Central Irrigation Trust
Chairman, National Irrigators Council



Introduction



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ALMONDS,
HEALTHY BAKING
AND DESSERTS
TASTING THE FUTURE



A new era in quality dawns



**ALMONDO
Pure**
100% Pure Almond Oil

Life Style



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A need for Change Globally



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Iran Worlds top Pistachio Producer

- ***“The pistachio trees at the village in southern Iran are long dead, bleached white by the sun the underground water reserves sucked dry by decades of over-farming and waste.”***

(The National, September 4 2016)

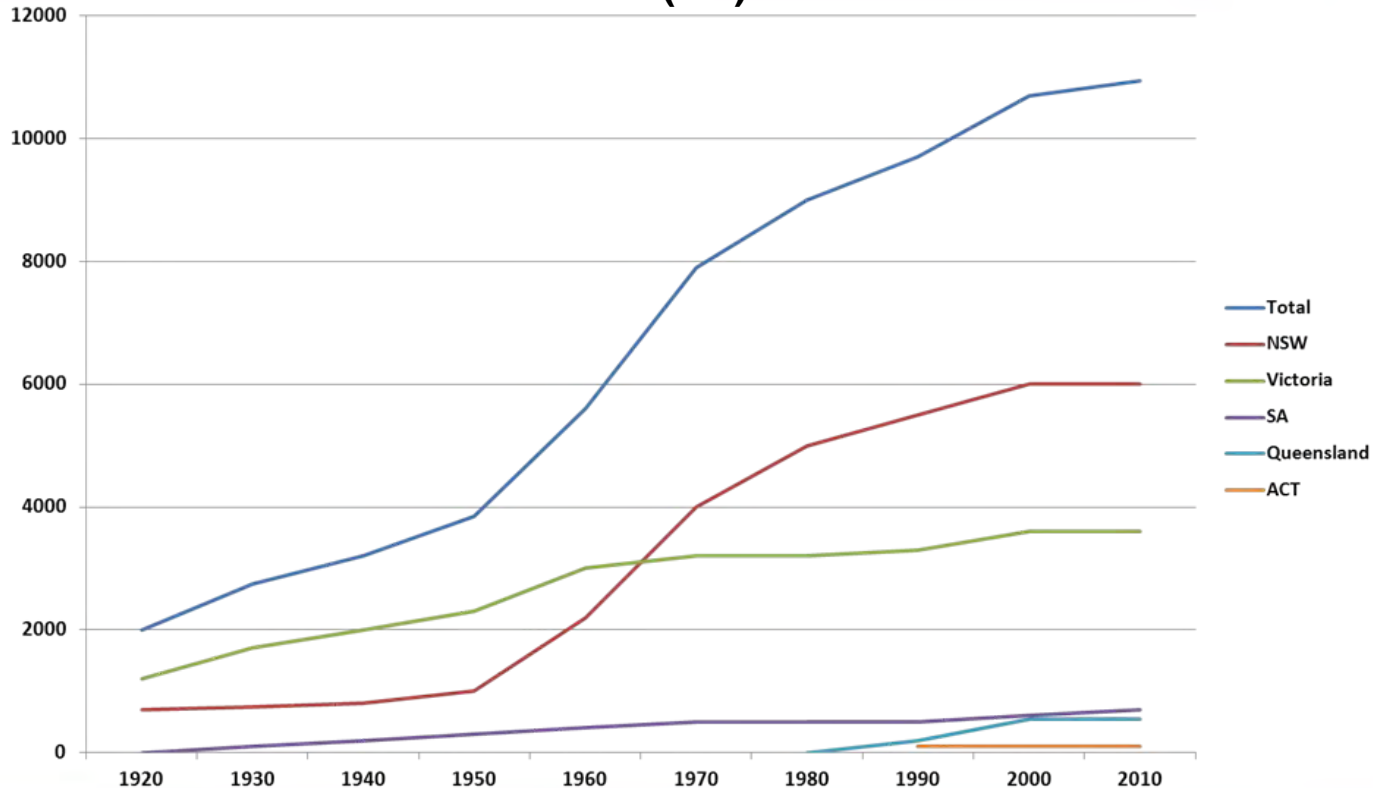


A need for Change - Australia



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Historical Water Diversions (GL)



The River was Dead?



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We have a
once-in-a-
lifetime
opportunity to
get it right

Money is flowing
but the river is still
dying

Death,
destruction as
wetlands
expire

They say a
River dies
from its
mouth



Urgent Call to
prayer for
Dying Murray
River

Our Murray is
dying for a
drink

National disaster
has collapsed

Australia's true
catastrophe
now happening

A need for Change Australia



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Change was occurring.



River Murray Waters Agreement 1915
SA Cap on extractions 1969
Cap on diversions 1995
Living Murray Initiative 2003
Numerous Government buybacks
Water Act driven by the Millennium Drought

Achievements — we should be celebrating!



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- We all survived the millennium drought
- Functioning and sophisticated water market
- Natural recovery from floods in 2011-12
- Significant Environmental Water Recovery
- CHEW is learning to use its portfolio
 - Partnerships
 - States
 - Other bodies
- Environmental Infrastructure installed and working
- Focus on infrastructure
- Innovative thinking DPI – adaptive management
- State of the art irrigation infrastructure
 - World class
- Solutions other than just add water
 - Carp control
- With no contribution from towns or cities



We survived the Millennium Drought



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Functioning and sophisticated water market



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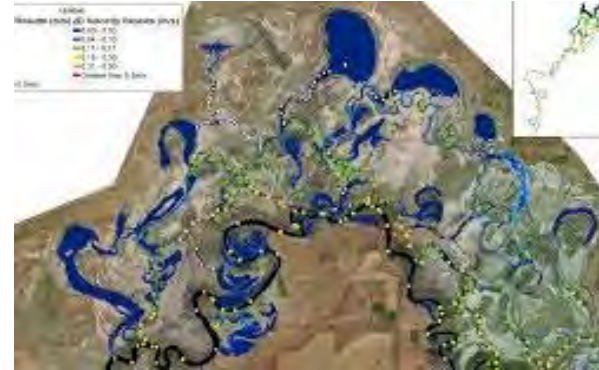
Natural Recovery from the 2011/12



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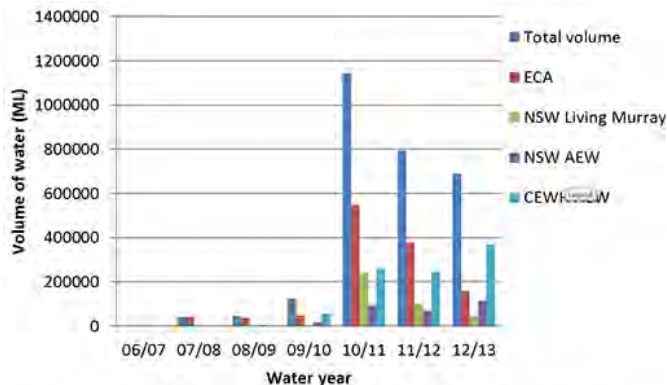


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- A photograph of a mangrove forest. Numerous trees with thick, greyish-brown trunks are growing out of the water. The water is calm and reflects the trees. In the foreground, there are some green plants growing out of the water. The background is filled with more trees and foliage.

Governments have accumulated large quantities of water



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Annual volumes of water delivered to NSW targets from: environmental contingency allowances (ECA), the Living Murray Program, licences purchased by the NSW Government (NSW AEW) and licences purchased by Commonwealth Government (CEWH AEW)

- State Government Environmental Water
- The Living Murray 500 GL
- Water Returns to the Snowy River BASIN Plan 2750
- Up Water 450 GL
- Environmental Water Trusts

Unlike the controversial Murray Darling Basin renewal project spearheaded by federal Labor, Water for Rivers did not principally engage in water "buybacks" from farmers and other land users. Instead, the project focused on improving infrastructure and reducing wastage, with 80 per cent of the recovered water coming from infrastructure.

Chief executive Neville Smith said the key to their success was working with already existing groups who were working locally to save river systems.

The three governments committed \$425 million and the program was remarkably successfully, delivering 314 gigalitres.



CHEW Learning to use its water



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Lyrup Forest Reserve Lagoon

200 ML of Commonwealth environmental water 2015-16



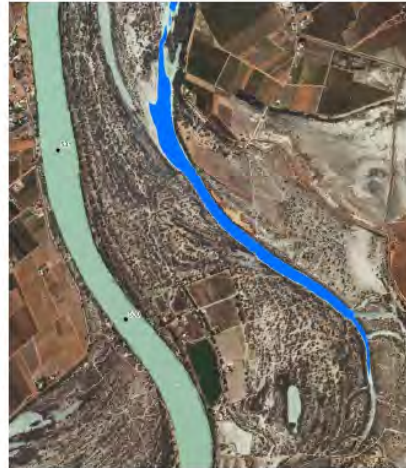
Water For
NATURE

AN INITIATIVE OF
NATURE FOUNDATION SA



Australian Government

Commonwealth Environmental Water Office



Aiming to induce
a brine shrimp
(*Sea Monkey*)
bloom and
attract large
numbers of
water birds to
feed on the
lagoon.

Lyrup Forest Reserve has been identified as a wetland of national significance - listed in the Directory of Important Wetlands in Australia by Environment Australia (*as part of the greater Gurra wetlands*). At times it has a high diversity of wetland fauna, including threatened birds such as Musk Duck, Freckled Duck, Royal Spoonbill, and the Peregrine Falcon). Information; www.naturefoundation.org.au LB LAP 0429 913 508



Government of South Australia
Department of Environment,
Water and Natural Resources



Lyrup Village Association



Innovative Thinking and Adaptive Management



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This week landholders and river users on the River Murray are advised to take note of changing weir pool heights at lock 15 at Robinvale and at locks 7, 8 and 9 between Wentworth, NSW, and the SA border.

Historically weir pool levels have been kept at a reasonably constant height, but as part of a trial to restore a more natural wetting and drying cycle, the MDBA will raise and lower these pool levels between August 2015 and June 2016.

The Lock 15 weir pool level is expected to increase by up to 60cm above the full supply level (FSL) over late-winter and spring, returning to FSL over summer and be lowered by up to 30cm below FSL by mid-autumn.

The weir pool levels at Lock 7, 8 and 9 are expected to increase by up to 50cm, 80cm and 20cm respectively above the FSL over late-winter and early spring, and be lowered by up to 50cm, 80cm and 10cm respectively below FSL over late-spring and summer.

The trial is being conducted by the MDBA in co-operation with the NSW Department of Primary Industries, Water NSW, SA Water and the Mallee Catchment Management Authority.

The MDBA will issue a revised flow advice if there are any significant changes to the plan, which will also be available on the MDBA website at www.mdba.gov.au

State of the Art Irrigation Systems



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Solutions other than just add water



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**Awaiting 'carp herpes' approval, campaigners
seek fishers' help to seek and destroy feral fish**

Work still to be done



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- Remaining Water Recovery
- 2016 is an important year
 - Northern Basin Review
 - SDL adjustment
- 450 GL of “up water”
- Managing constraints (delivery capacity)
- Understanding the Socio Economic Impacts
- Monitoring and evaluation
 - You modelled and you observed
- Legacy costs
- Streamlining processes
- Stability
- Helping communities to adjust



Messages



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- Science is not always right
- A reduced consumptive pool of water will have impact on users
- MDBA have still to recover 30% + 450 GL
- Irrigation footprint will decline due to water availability
- We need to be innovative
- After decades of significant change communities now want some certainty
- Be ready for the next review - 2024
- Electricity costs will be then next big challenge

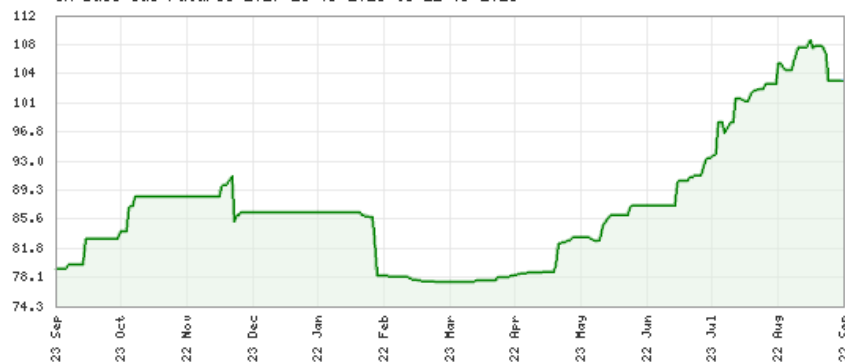
Energy



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SA Base Cal Futures 2017 23-09-2015 to 21-09-2016



VIC Base Cal Futures 2017 28-09-2015 to 23-09-2016



Thank you for listening



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