



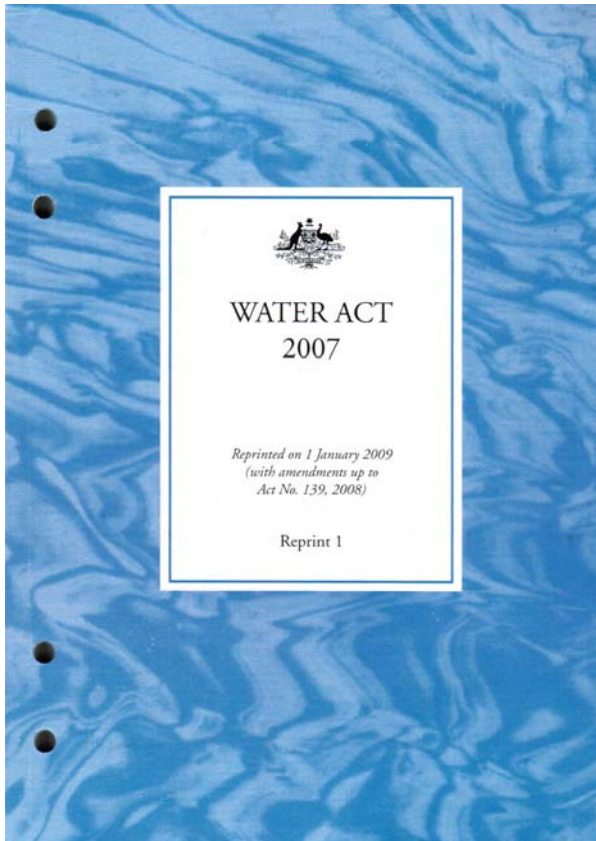
“Insights into Water”

The Murray Darling Basin Plan & Sustainable Diversion Limits:

Natalie Akers, Balcombe Consulting



Federal Water Act

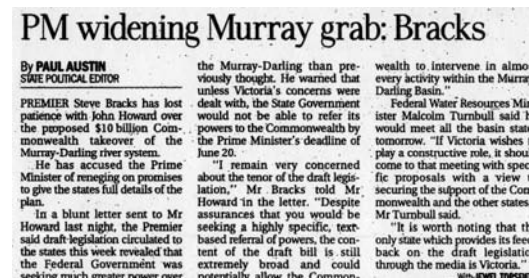


- Emphasis towards the environment
- Little regard for social and economic implications;

Development of the Act



- January 2007, the Howard Government launched their National Plan for Water Security (NPWS)
- Fed's sought deferral of State water powers as Constitution does not give them any power over water;



- Section 51 outlines power for the Commonwealth – inc. 'external affairs' powers;

So with External Affairs Powers in mind.....



- We saw every international environmental agreement included in the Water Act



- Ramsar Wetland Conventions
Protection of international icon Wetland sites

What does the Act say about the Basin Plan and SDL's?



The Basin Plan must:

- “Give effect to international agreements”
- “Have regard to the sustainable use of biodiversity”
- “Protect, restore the ecosystems, natural habitats and species”
- “Promote wide use of basin resources”;
- “Promote conservation of Ramsar wetlands”
- “Take account of ecological character of environmental sites”

Subject to points above the MDBA can then take account of:

- “Sustainable development”
- “Scientific knowledge and socio-economic analysis”

What does the Act say about the Basin Plan and SDL's Cont...?



Section 22: Mandatory content of the Basin Plan:

- Water resource plans;
- Risks to water availability & strategies to address them;
- Quantities of water to be available – **Sustainable Diversion Limits**
(SDL's – will set a new limit on surface and groundwater)
- Environmental watering plans;
- Water quality and salinity plans;
- Rules for trading and transferring water;

- ❑ Guide to Basin Plan released 8th October – **2000 pages!!**
- ❑ Release of Draft Basin Plan – 16 week consultation period;
- ❑ Final Basin Plan Released 2011 (**20,000 pages!!**) – doesn't take effect in NSW till 2014 and 2019 in Vic

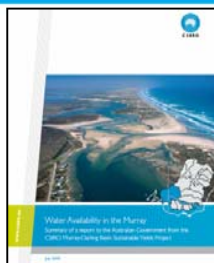
What information will the plan be based on? CSIRO Sustainable Yields 2008



MDBA's Sustainable Diversion Limit Issues Paper (Nov 2009) –Pg 15

“adapt the river system modeling used in the Sustainable Yields project to develop the Basin Plan”.

CSIRO Sustainable Yields 2008



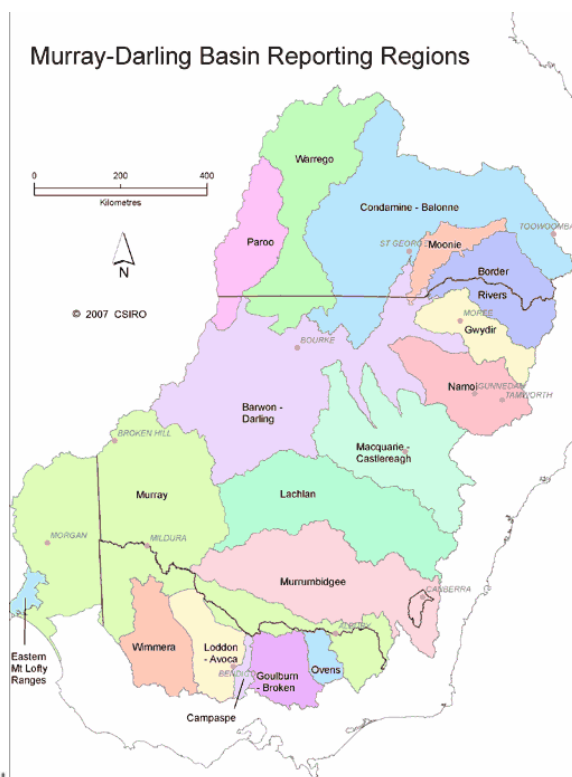
Estimated water availability of 18 basin catchments in 2008:

• Murray:

- 56% surface water used - “extremely high”
- By 2030 under medium climate change – surface water fall by 14%;
- Groundwater use to treble;

• Goulburn-Broken:

- 50% surface water used - “extremely high”
- By 2030 under medium climate change – surface water fall by 14%;
- Groundwater use increase by 67%



So what is dairy doing?

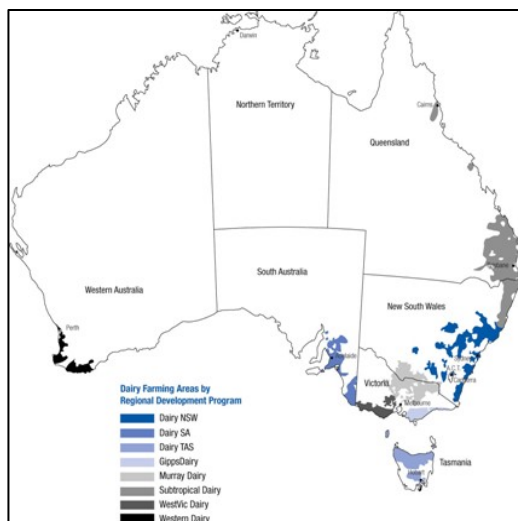


Australian Dairy Industry Council Inc.

- ADIC Leading Dairy's response to Plan and SDLs;
- Each State has a team of 4-5 assisted by a technical consultant;

Vic Team	NSW Team
Jeff Odgers	Malcolm Holm
Chris Griffin	Jamie Drury
Daryl Hoey	Janet Moxey
Richard Anderson	Kevin Malone
	Erika Chesworth
Natalie Akers (Tech Consultant)	Geoff McLeod (Tech Consultant)

Dairy's fit in the Basin:



Dairying regions in Aust



The Murray Darling Basin

- 276,000 hectares dairy pasture
- 32% Australia's dairy COWS

• Vic	82%
• NSW	13%
• SA	4%
• Qld	1%

Source: Aust. Bureau of Statistics, 2008



“So what are the big issues for dairy in the face of the Basin Plan”

Sustainable Diversion Limits:

“A new limit for surface and groundwater”



What is the MDBA saying about SDL's?

“...likely that the Basin-wide SDL for both groundwater and surface water will be set at a level below the current level of use”.

“The SDLs will take into account the best available science, and the ‘precautionary principle’. According to this principle, if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation”.

How much water do we think will be left in the GMID under SDL's?



	Historic	After Modernisation/ Buyback	30% SDL reduction	40% SDL reduction	60% SDL reduction
Water delivered to region	2145 GL	1564GL	1480GL	1244GL	772GL

Increased Water Use Efficiency will be critical:

1999/00 – 1 ML of water produced 1390 litres of milk

2008/09 – 1ML of water produced 1800 litres of milk

23% efficiency in 10 years

Water Returned to the Env't through Vic Water Projects



Project	Date	Water to return to Env't	Total Water Saved
Barman Millewa Forest Allocation	1993	100GL (50 GL Vic/50 GL NSW)	50
Living Murray Initiative	by June 2009	67GL (<i>modernisation, Mokoan</i>) 120 GL (<i>sales deal</i>) 27GL (<i>reconfiguration</i>)	67 GL 120GL 27 GL
Snowy Water Recovery Project (inc. Mokoan)	By 2013	35 GL	35 GL
NVIRP Stage 1	By 2013	75GL (<i>75GL to farmers & 75GL to Melb</i>)	225
NVIRP Stage 2	Proposed	100 GL (100GL to farmers)	200
		474 GL to return to env't	724 GL saved in projects

Consideration for water already returned?


Water Returned to the Env't in NSW



Project	Date	Water to return to Env't	Total Water Saved
Barman Millewa Forest Allocation	1993	100GL (50 GL Vic/50 GL NSW)	50
Privatisation of NSW Murray Irrigation	1995	30 GL	30 GL
Water for Rivers	Commenced 2003	50 (<i>purchase</i>) 7GL (<i>Edwards River Wetlands</i>) 3GL (<i>Colly Channel automation</i>) 11GL (<i>Forest Ck Stage 1</i>) 23GL (<i>Forest Ck Stage 2</i>) 20GL (<i>Barren Box Swamp</i>)	114
Living Murray	Commenced 2004	249 GL (<i>purchases, on-farm efficiencies, piping</i>)	249
		443 GL returned to env't	

Restoring the Balance



 **WATER**
for the FUTURE

Restoring the Balance in the Murray-Darling Basin

The Australian Government is committed to restoring the health of our rivers by investing in more efficient water use and delivery, by finding new sources of water, and buying water entitlements from interested sellers to return water to the environment.

The health of the Murray-Darling Basin (the Basin) is in decline. The ecosystems which rely on the water flowing through the Basin's rivers and tributaries are under considerable pressure, due to unsustainable extraction levels for irrigation and other extractive uses. This problem is likely to become worse as water availability declines, due to climate change.

Without sufficient water, the Basin's ecosystems will continue to deteriorate, threatening many species and the viability of farming, non-rural production, cities and towns.


Water for the Future is a 10-year initiative, helping Australia plan for a future with less water. As part of the initiative, \$3.1 billion will be invested in Restoring the Balance in the Murray-Darling Basin to purchase water entitlements from irrigators looking to sell.

There is compelling scientific evidence that we are facing a future with less water. The purchase of water entitlements is part of an integrated effort to meet this challenge. It is important to take a national approach to water management and this is exactly what the Australian Government is doing by implementing an integrated plan for the Murray-Darling Basin, not just water buy-backs.

The Australian Government's plan to help Basin communities meet the challenges ahead has three main elements: the Basin Plan, which will be implemented by the Murray-Darling Basin Authority and will set scientifically based sustainable limits on water use; buying water entitlements for our rivers and wetlands; and extensive investment in more efficient irrigation systems. It is critical that immediate action is taken to address these problems.

Under Water for the Future, excessive consumptive use and declining river health are urgent priorities and these are to be addressed immediately by the Restoring the Balance in the Murray-Darling Basin program.

The goal of the program is to purchase water entitlements so that the water allocated to them can be used for the environment. This will improve the health of the Basin's rivers, wetlands and floodplains.



Waterfalls South Australia (© Batar & DEWMA)

By purchasing water entitlements from irrigators and investing in water savings through improved irrigation efficiency, we expect the transition to the Basin Plan to be smoother and any impacts on communities to be smaller.

The water buy-back program is providing immediate action for the Basin's at-risk rivers and wetlands and it is also part of a long-term strategy to provide a permanent rebalancing between consumptive water use and the environment.

The Australian Government conducted the first round of water purchases in 2007-08. In 2008-09 a second round of water purchase tenders was conducted. As part of the 2008-09 water purchase tenders, the Australian Government made the largest single purchase of water for the environment in Australia's history when it purchased 240 gigalitres of water entitlements from Twynham Agricultural Group for \$303 million.

These water entitlements will be used to restore river and wetland health in many at-risk catchments, potentially benefiting the ecologically significant wetlands of the Macquarie Marshes, Gwydir Wetlands, Bocklaj Wetlands, and Fivebough and Tuckabil Swamps.

In September 2009, the Australian Government provided a substantial financial contribution to the NSW Government purchase of Toorale Station in return for the Toorale Station water entitlements.

Water for the Future is preparing Australia for a future with less water. The 10-year initiative is addressing four key priorities:

- Taking action on climate change
- Using water wisely
- Securing water supplies
- Supporting healthy rivers

\$3.1 billion to purchase water entitlements

- **23,000 GL surface water falls in basin; (on average)**
- **11,000 GL used (on average)**
- **Over 900GL already purchased for envt;**
 - **Likely the envt will own 1/3rd of water**

Aggregate Permanent Net Trade Out in VIC 1991/92 to 2009/10 – 4% limit



Region	Cumulative Net ML
Shepparton	-36,985
Central Goulburn	- 78,663
Rochester	-29,370
Campaspe	-3,862
Pyramid Boort	-81,188
Murray Valley	-34,376
Torrumbarry	-91,503
	-355,947 ML
Further 44,902 traded outside 4% limit through Exemptions	- 400,849 ML

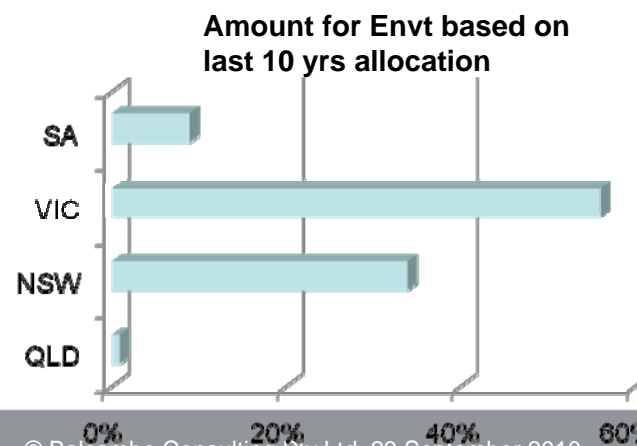
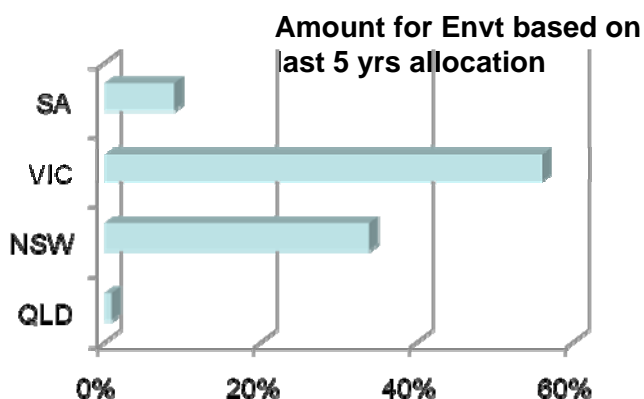
278 GL
purchased
for envt

Trade out of Riverina has only occurred recently with Water Buyback

Water Purchases in the MDB @ 31-8-10



State	Purchased Entitlement ML	Amount returned to envt if based on last 5 yrs allocation (ML)	Amount returned to envt if based on last 10 yrs allocation (ML)
QLD	6,832	2255	2255
NSW	578, 215	106,670	184,355
VIC	281,462	171,298	249,450
SA	47,416	25,604	31,924
TOTAL	913,925	305,827	467,984



So what does it mean as water leaves the region?



“Significant Impacts on our Rural Communities!!

- Fed’s paying less for water– impacting on current farmers equity as banks re-value water;

	Paid by Cwlth Dec 09	Paid by Cwlth (May '10)	Difference
Goulburn System	\$2400/ML	\$1862/ML	- \$538/ML
Murray System	\$2400/ML	\$1824/ML	-\$576/ML
NSW General Security	\$1300/ML	\$870/ML	- \$430/ML

- Less water means less water to charge against – potential water price increases?
- We don’t understand what impact the buyback program will have on our water market. Potentially, the temporary market will be smaller as those who have historically sold on the temporary market will have sold water to the Cwlth.

So what does it mean as water leaves our region cont.....



2005 VFF Study Found:

“For every 1 ML of irrigation water removed... the community would need to receive between \$16,610 and \$31,312 today to offset the loss that they would suffer over the next 20 years”

Fed Govt needs to consider the socio-economic implications as water leaves the region

WATER

New minister makes towns, food priorities

Tom Arup
ENVIRONMENT
CORRESPONDENT

REGIONAL towns and food production need to be "a real priority" in plans to save the Murray-Darling river system, the newly appointed Water Minister, Tony Burke, said.

In his first interview in his new portfolio, Mr Burke said the legislative framework underpinning a new plan to reform the Murray-Darling Basin gave priority to ensuring sufficient water for the environment, and there was no reason to undermine that.

But Mr Burke said the long-term sustainability of regional towns and food production



had to be protected as well, and he would immediately seek information about what extra measures, including potential compensation packages, could be used to do that.

The question is how do you, within that framework, provide the best possible focus for sustainable food production and the sustainability of regional towns," Mr Burke said. "I'll be seeking that information from the earliest briefings."

Mr Burke - previously the minister for agriculture, fisheries and forestry - will face a political whirlwind when the independent Murray-Darling Basin Authority releases key details of the new basin plan, including the size of cuts to irrigators water entitlements.

Several irrigator and farming groups have recently questioned whether the plan will focus on the needs of the environment at the expense of farmers and rural towns.

The same groups were also upset by the authority's decision to defer release of key details of the plan until after the election. Those details will now be made known on October 8.

Yesterday Mr Burke defended the authority's decision to withhold the report, saying all evidence he had seen suggested the authority had acted properly under its statutory obligations.

Mr Burke said Labor's election commitment to reach any water entitlement cuts under the basin plan with voluntary water buybacks would go some way to ease the fears of rural Australia.

As part of the cabinet reshuffle after the election, Mr Burke has also taken the environment portfolio from Peter Garrett. Yesterday he indicated an interest in green corridors as part of measures to improve Australia's biodiversity.

Other Environmental Solutions

Lindsay Island



Lindsay Island - icon site of The Living Murray program;

*Site received 1000GL on 15th May 2009,
Yet \$42 million for structural works could reduce the water required for
the environment by 908GL to just 92GL!*



Lindsay Island before watering (April 9)



Lindsay Island after watering (Dec 09)

Other Environmental Solutions



Regulators for the Environment :
Maintains water levels for efficient flooding



Fencing Riparian Lands will protect rivers;



Erosion: Increased flows will not help if we don't deal with erosion;

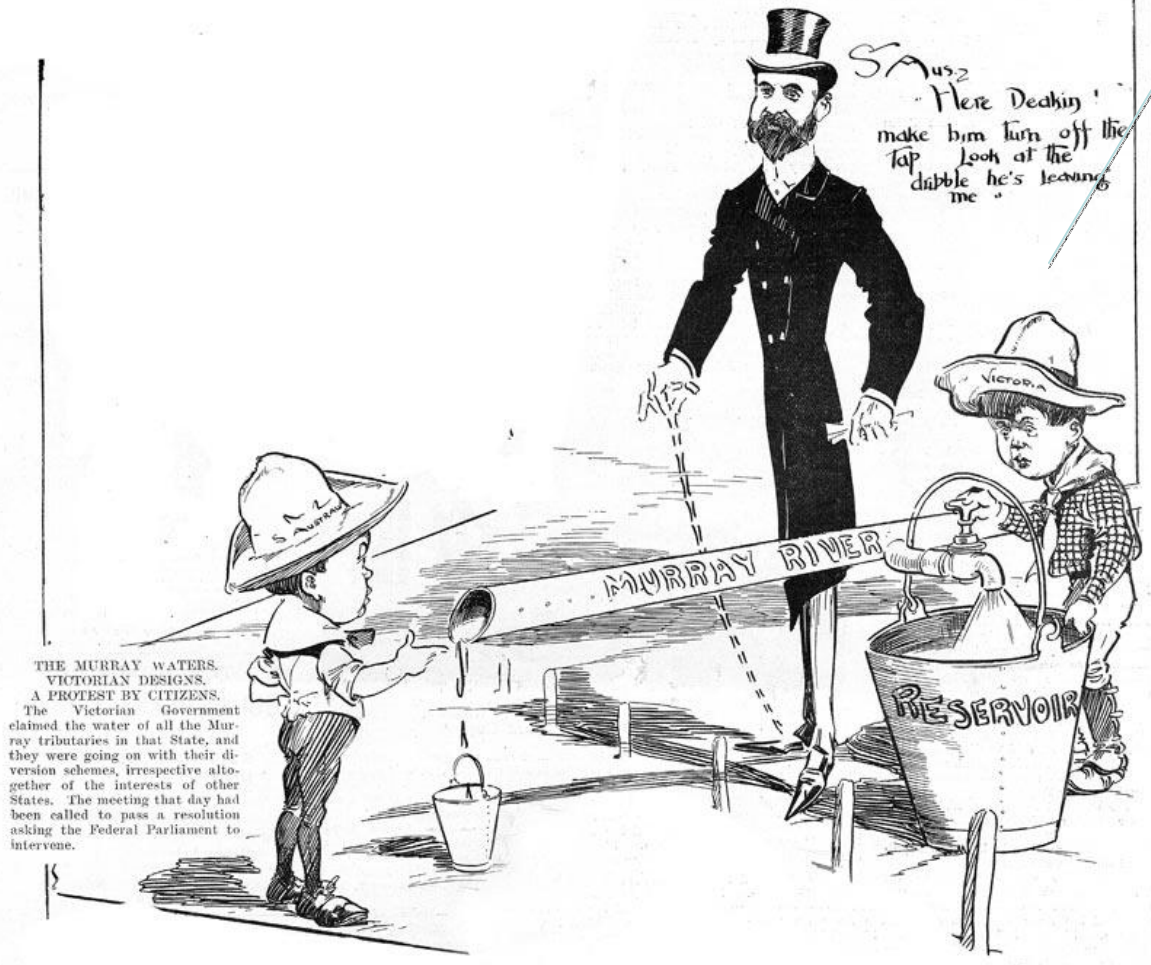


Revegetation:
Encourage natural habitat through re-vegetation

1914 Cartoon



Here Deakin – Make him turn off the tap. Look at the dribble he's leaving me



THE MURRAY WATERS.
VICTORIAN DESIGNS.
A PROTEST BY CITIZENS.
The Victorian Government claimed the water of all the Murray tributaries in that State, and they were going on with their diversion schemes, irrespective altogether of the interests of other States. The meeting that day had been called to pass a resolution asking the Federal Parliament to intervene.

Thankyou



Questions