Australian Dairy Industry Council Inc.

Australian Dairy Industry

Represented by

Australian Dairy Industry Council Inc.

Response to

Inquiry into the Murray-Darling Basin Plan

15 October 2015

Submission to: Senate Select Committee on the Murray-Darling Basin Plan
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The Australian dairy industry

The Australian Dairy Industry Council (ADIC) is the dairy industry's peak policy body. It co-ordinates industry's policy and represents all sectors of the industry on national and international issues through its two constituent bodies, Australian Dairy Farmers Ltd (ADF) and the Australian Dairy Products Federation (ADPF).

Australian dairy is a $13 billion farm, manufacturing and export industry directly employing 43,000 Australians and indirectly providing a livelihood for more than 100,000 people in dairy related service industries. Australia's 6300 dairy farms produced approximately 9.7 billion litres of milk in 2014-15. Australia is the fourth largest dairy exporter in the world, accounting for seven per cent of global trade. Approximately 98% of Australia's dairy farms are family-owned farms that are generally high turnover, low profit small businesses subject to highly variable income due to the volatile operating environment.

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Summary of submission and recommendations

The Australian dairy industry continues to support reforms to improve the environmental health of rivers, wetlands and lakes across the Murray-Darling Basin. Our dairy farmers have played an active role in achieving better environmental outcomes, through selling and transferring water for the environment, and participating in Landcare and catchment management activities and plans.

The Australian Dairy Industry Council (ADIC) supports a Murray-Darling Basin Plan with clear and appropriate targets to recover water for the environment, and clear and appropriate means of achieving those targets. Underpinning our views on how the Basin Plan achieves its environmental targets, is the principle that farms must remain viable dairy businesses to protect the future of dairying in the Basin.

The dairy industry is concerned that the Murray-Darling Basin Plan and its implementation remain focused on a narrow, 'just add water' approach. This precludes the agile, adaptive management required in a complex, dynamic, and highly regulated river system. Just adding water alone will not achieve the environmental outcomes sought, particularly in the lower lakes and Coorong, and will have lasting negative effects on agricultural production and regional prosperity. Efficiency must be an overarching principle to ensure that environmental outcomes are achieved in the most water efficient way possible.

The right balance will not be achieved through the Basin Plan and associated Acts in their current form. Nor will it be achieved by the current water recovery and structural adjustment programs designed and administered by Canberra-based departments and agencies.

At the most fundamental level, the community buy-in required has not been achieved, and without this, the Basin Plan will be a missed opportunity. Community buy-in will not be achieved without a clear and full picture of the projects, achievements and impacts across the Basin.

Water availability and affordability are the key issues for the dairy industry. More than 1160GL (long-term annual average) has been transferred from the pool allocated for irrigation across to the environment so far under the Basin Plan, through buybacks and on-farm upgrades.

A significant pain of adjustment is already being felt in the dairy industry, even if no more water is transferred from the consumptive pool across to the environment. The impacts are illustrated in dairy farming systems; exposure to higher water prices, a more volatile temporary water market; reduced viability of some irrigation districts; and overall, a constrained ability to grow milk production.

As an example, Dairy Australia analysis indicates that based on conservative estimates, the 120GL of high reliability water entitlements dairy farmers in the Goulburn Murray Irrigation District (GMID) sold to the Commonwealth as buybacks, could have resulted in the production of an additional 289 million litres of milk if those entitlements were still owned. That 289 million litres of milk is conservatively worth $144 million at the farmgate and $360 million in regional economic activity. GMID farmers sourcing around 275 GL a year from the temporary market to meet their needs (due to reduced ownership of entitlements) has added a cost impost of $41million at $150/ML, noting that as at 12 October 2015 temporary water was trading at $300/ML.

In this submission, we make a number of practical and reasonable recommendations that we believe will help to get the Basin Plan back on track to achieve community ownership and genuine triple-bottom line outcomes.

Most importantly, there is a need for realistic timelines, transition and structural adjustment. We must have a clearer picture of socio-economic and environmental effects before more water is taken from the irrigation pool. This includes the need for a clearer understanding of the water market and more appropriate approach to the 450GL "upwater". We are also seeking greater flexibility to trade environmental water and an appropriate sustainable diversion limit adjustment mechanism.

Getting the Basin Plan back on track does require intervention with its current path of implementation. This Inquiry provides an opportunity for political direction on the targets and approach to achieving targets while also achieving the triple-bottom-line outcomes.

A summary of our recommendations to improve the Murray Darling Basin Plan follows, with further detail outlined in the remainder of the submission.

Recommendation A: Establish realistic timelines, transition and structural adjustment

Action 1: Pause further water recovery towards Basin Plan targets for three years, to allow time for the outcomes of the water recovery and structural adjustment measures so far to become clear and to be properly assessed for an informed review of the sustainable diversion limit. This will require additional funding for robust monitoring of outcomes and achievements for the environment, and the socio-economic effects.

Action 2: Amend timelines in the Basin Plan to allow time for the above action. For example, the sustainable diversion limit adjustment would be done in 2019, not 2016, and sustainable diversion limits would come into effect in 2022, not 2019.

Action 3*:* Implement a community consultation program involving small teams of social, environmental and economic specialists embedded in Basin communities for extended periods to create and deliver bottom-up, local structural adjustment programs reflecting that community's particular circumstances.

Action 4: Design farm upgrades programs in consultation with the States and peak industry bodies to ensure they are economically viable for farmers, and will achieve the regional structural adjustment required to sustain irrigated production in a water-scarce future. Ensure adequate funding for timely completion of key programs such as the Connections Program.

Recommendation B: Review the Water for the Environment Special Account; 450GL of upwater

Action 5: Amend the Water for the Environment Special Account Act 2013 and the Basin Plan 2012 by inserting the words 'up to' in front of all references to 450GL in 'upwater'

Action 6: Amend subparagraph 7.17 in the Basin Plan to broaden the socio-economic neutrality test for 'upwater' projects to include collective impacts on irrigation districts, community and water affordability and availability on the market.

Action 7*:* Amend the Water for the Environment Special Account Act 2013 and the Basin Plan to ensure that the 2750GL target is achieved first before any 'upwater' under the Water for the Environment Special Account Act 2013 is counted toward a 3200GL target.

Action 8*:* Amend the Water for the Environment Special Account Act 2013 to allow funding to also be directed to projects optimising environmental outcomes, for example through environmental works like fish ladders; CEWH activities; feral fish, animal and weed control; and other catchment management activities.

Action 9: Amend 85D(4) in the Water Act 2007 to ensure that the 1500GL cap on buybacks includes the 450GL in 'upwater' in the Water for the Environment Special Account Act 2013.

Action 10*:* Determine the full costs and socio-economic effects of relaxing or removing operational and physical constraints to deliver an additional 450GL 'upwater', before any 'upwater' is recovered.

Recommendation C: Greater flexibility to trade environmental water

Action 11: Amend Section 106(2) in the Water Act 2007 to enable proceeds from environmental water trading to be reinvested in works and activities to improve environmental outcomes, and to cover the CEWH's storage and other costs.

Action 12: Amend Section 106(2) in the Water Act 2007 to enable environmental water trading when the water is not needed for environmental purposes, regardless of whether it can be carried over to the next season.

Recommendation D: Amend the sustainable diversion limit adjustment mechanism

Action 13*:* Design the sustainable diversion limit adjustment mechanism to also account for constraints and the socio-economic effects of reducing the volume of water available for irrigated production.

Dairy in the Murray-Darling Basin

Dairy is the largest irrigation-based livestock industry in the Murray-Darling Basin, with about 1790 dairy farms producing 2.623 billion litres of milk in 2014 (27% of Australia's total milk production).

The Basin dairy industry's 2014-15 farmgate milk value was $1.3 billion, with regional processing worth $3.25 billion in value-added dairy products. The Basin is home to 31 milk processing facilities (large and small) providing manufacturing jobs for thousands of regional Australians.

More than 12,000 people in the Basin rely on dairy for their livelihoods, including farm and factory workers, tanker drivers, dairy machinery technicians, financial services, vets, feed brokers and suppliers, farm equipment suppliers, agronomists and farm advisers.

The bulk of the dairy industry in the Basin is in the Murray Dairy region, which covers northern Victoria and the southern Riverina. This region is the largest milk producing region in Australia, accounting for 25% of national production. In 2014-15, it produced 2.335billion litres of milk, with a farmgate value of $1.2 million.

The Murray Dairy region is home to nine major milk processing facilities producing fresh and powdered milk, butter, cheese and ice cream. More than 8000 people living here rely on dairy for their livelihoods.

Impacts of the Murray-Darling Basin Plan

Water availability and affordability are our key issues. More than 1160GL (long-term annual average) has been transferred from the pool allocated for irrigation across to the environment so far under the Basin plan, through buybacks and on-farm upgrades.

More than 950GL of this water has been sourced in the southern-connected Basin, where it represents about 13% of the annual average water availability. It includes about 20% of Victoria and South Australia's high reliability entitlements, which underpin those States' high-value dairy industries.

We note that dairy communities in the Queensland catchments are awaiting results of the Northern Basin Review to better understand the proposed water recovery, how this will be achieved and the associated impacts.

A significant pain of adjustment is already being felt in the dairy industry, even if no more water is transferred from the consumptive pool across to the environment.

Reduced water availability and affordability due to the buybacks has reduced milk production to well below pre-drought levels, at a substantial economic loss to the communities that dairy supports.

For example, Dairy Australia analysis indicates that, based on very conservative estimates, dairy farmers in the Goulburn Murray Irrigation District (GMID) sold 120 GL of high reliability water entitlements to the Commonwealth during the buybacks. Factoring in efficiency gains in water use since then, GMID dairy farmers could produce another 289 million litres of milk if they still owned that 120GL of entitlements and were receiving the allocations against those entitlements.

That 289 million litres of milk is conservatively worth $144 million at the farmgate, and $360 million in regional economic activity. Foregone dairy production in the GMID is not being offset by increased production of, or investment in, other primary industries, so the socio-economic effects of dairy's foregone productivity in this region will be far-reaching and profound.

The dairy industry accepts that farmers sold entitlements for the environment during the drought, and the cash-flow helped to keep many in business who would not otherwise have survived. However, the dairy industry and the communities it supports cannot afford to lose even more water entitlements to the environment under the Basin Plan.

Dairy farmers in the GMID must now source around 275 GL a year from the temporary market to meet their needs, due to reduced ownership of entitlements. At $150/ML, the industry has an added cost impost of more than $41 million. As at 12 October 2015, temporary water was trading at $300/ML.

Reduced water availability and affordability is having the following effects:

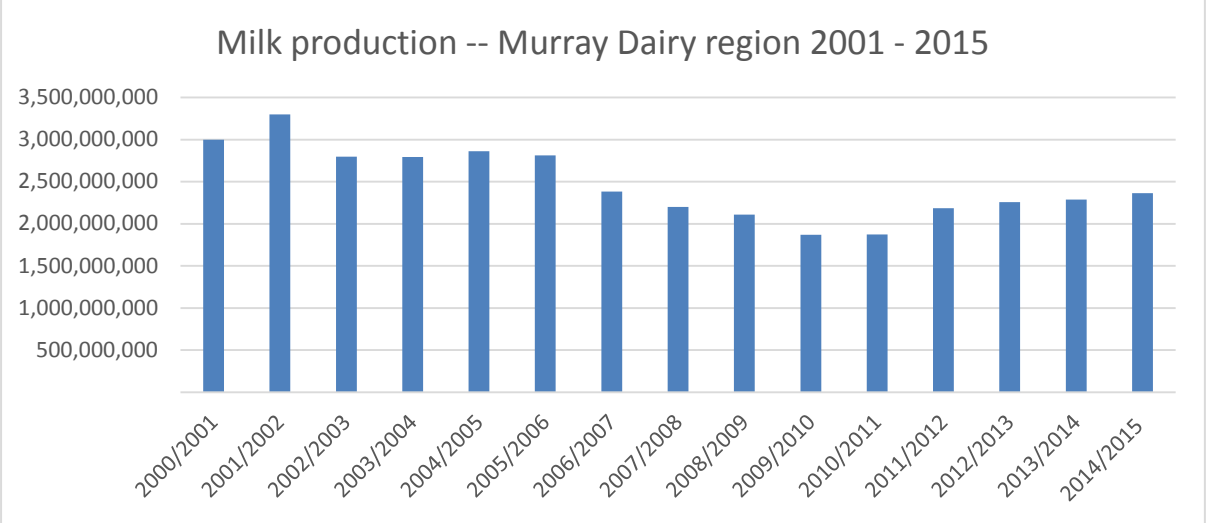
Dairy farming systems

- Dairy farming systems are changing to be more water efficient and adaptive to more volatile water availability and affordability from one season to the next.
- Dairy farming systems in the Basin are now more varied compared to 10-15 years ago. The wider range of approaches reflects differences in water ownership and scale.
- There are limits to adaptation and farmers can't keep changing how they farm. Future adaptation is uncertain without a "game changer" in water use / productivity.
- There is a high level of dairy participation in State and Federal on-farm water-saving infrastructure programs, to increase productivity. While the modernisation of irrigation driven by these programs has led to increased productivity, it has not necessarily led to reduced water use on farm as increasing temperatures, declining rainfall and increases in application flow rates all demand extra water to maintain original production.
- Dairy farming in the Basin now requires high skills in water trading as an integral part of a profitable dairy farming system.

Constrained milk production and profitability

- Dairy farmers are reaching the limits of economically feasible adaptation now – water scarcity and affordability is constraining recovery of milk production to pre-drought levels.
- Milk production is levelling out, consistent with expectations in models commissioned by Dairy Australia in 2012 to show the likely effects of water buybacks under the Basin Plan (refer Figure 1).
- The loss of more entitlements owned by dairy farmers will see the industry lose its modest gains since the drought, and slide backwards.
- The price and availability of water are factors that reduce certainty about profitability, therefore affecting confidence and ability to make decisions on production systems and investment in farms and factories.
- Water cost is one farm input cost. It also impacts input costs through displacement of the water cost where home-grown feed is substituted with bought feed because water is too scarce or expensive to grow pasture or fodder crops on-farm.

Figure 1



Greater exposure to volatile temporary market, increasing industry vulnerability

- Dairy farmers are more exposed to meeting production needs from the volatile temporary water market, having sold some or all water entitlement to the environment for desperately needed cash flow during the millennium drought. Table 1 below illustrates the reduction of permanent water entitlement owned by dairy farmers in the GMID, the largest dairy producing region in the Basin.
- We estimate that dairy farmers, on average, now own less than half their annual requirement in high reliability water entitlement, and source the remainder of their needs from the temporary market.
- The proportion of water now being sourced from low reliability sources will become an increasing concern for dairy's future prosperity when considered in conjunction with rising water prices (see following section).

Table 1: Reduced ownership of high reliability water[1]

Ownership	2001-02	2003-04	2012-13
GMW HRWS GL	1597	1567	1068
GMID dairy HRWS GL	unknown	709 (45%)	470 (44%)
Water use			
GMID water used GL	2053	1653	1622*
GMID dairy water used GL	1065 (52%)	922 (56%)	746 (46%)

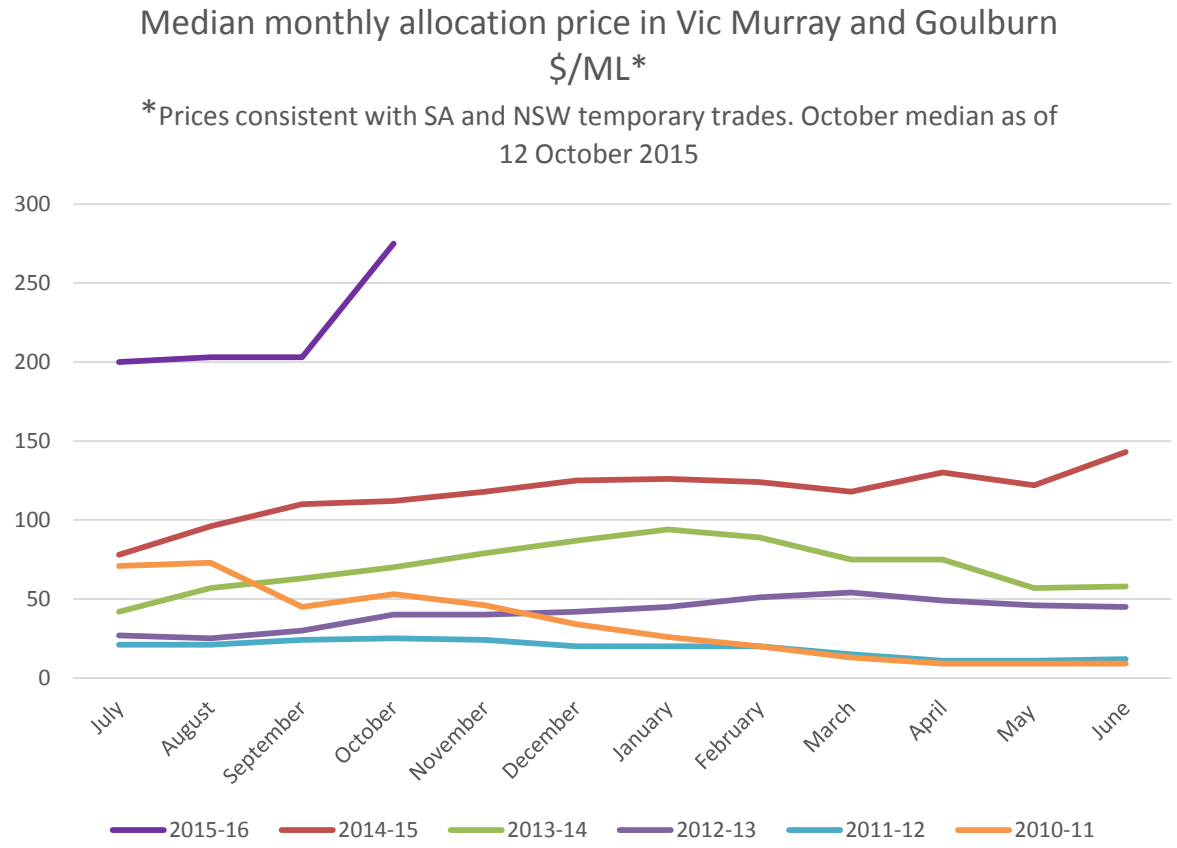
Rising water prices and intensified competition

- Temporary water prices have steadily risen year on year since 2012 (see Figure 2). This makes it difficult to control costs and plan production with any certainty.
- Dairy farmers are price takers in domestic and export markets, and cannot pass on increases in water and other costs associated with adapting to a future with less water.
- Many properties are now sold without water, so farmers looking to expand, or new entrants to dairying, are then reliant on temporary market to irrigate the properties.
- More farmers across commodities are competing for less water available due to the volumes held by environment, in high carryover and public reserves as drought insurance (refer Figure 4).
- New corporate entrants in expanding sectors such as almonds are intensifying the competition with deeper pockets to purchase than family-owned farms (97% of dairy farms in the Murray-Darling Basin are family-owned).
- Dairy farming relies on the irrigated lucerne and other hay-making industries as well as agistment providers which are also impacted by the price and availability of water. The trigger for 'high price' of water will be different and probably lower for these producers.
- There is no clear overview of the water market available publicly, for example overall commodity water use, water ownership and the impact of 'corporate' or non-water users on the market, and the impact of water brokers. In addition, state rules for carryover vary and

[1] *Sources*: GMW customer cultural surveys (discontinued more than 10 years ago), GMW annual reports for total GMID entitlements and use, Andy McAllister's spatial mapping, which links land titles to water titles, water use, and enterprise. Note: 2012-13 was a high water use year (1622GL) compared with 1286GL and 1295GL in the year before and the year after respectively. Data in this table comes from three different sources that have each collected and collated for different purposes, so inevitably the margin for error is wide. Nonetheless, the numbers are not inconsistent, taking account of the loss of sales water, the net loss of GMID HRWS to MIS schemes, the drought, and the buybacks over this period.

impact on the available water pool and price. While the water price may reflect the operation of an efficient market, this does not necessarily account for the impacts on regional development and community outcomes resulting from market operation.

Figure 2



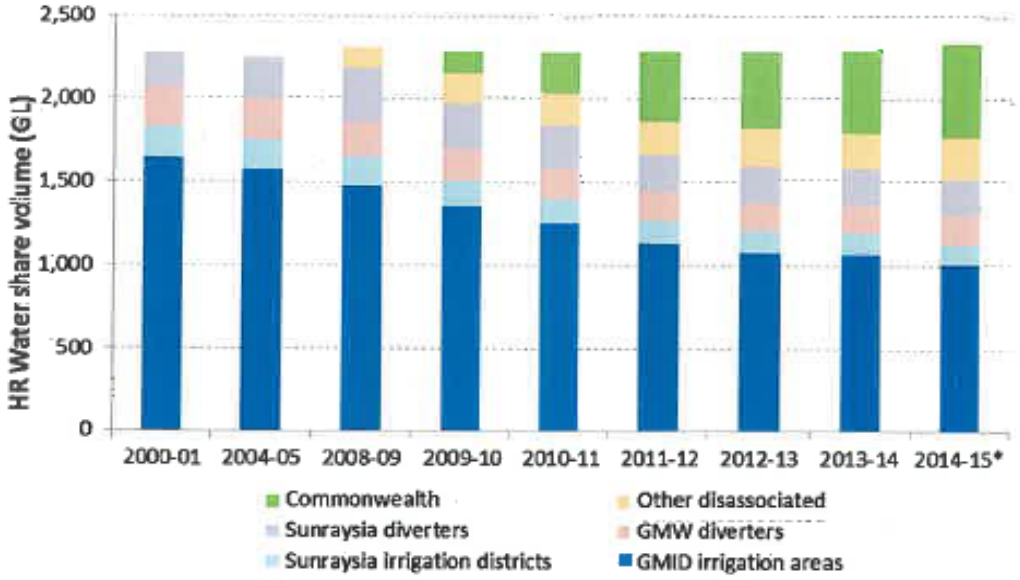
Water leaving irrigation districts, undermining their viability

- Water can be traded between irrigation districts and no longer stays within an irrigation district.
- Expansion and investment in new commodities such as almonds is not occurring in the same place as where the water for these ventures is sourced. The negative socio-economic effects of water flowing away from some communities to support expansion elsewhere has not been addressed.
- There has been upward pressure on fixed costs to sustain shared irrigation districts, due to less water entitlement held and delivered to its farms. For example, farmers in the Goulburn Murray Irrigation District owned 1600GL HRWS in 2000, compared with only 1000GL in 2014-15 (refer Figure 3 below).
- There is no clear picture of the long-term commercial considerations, for example system price implications with the reduction in revenue related to total volume of entitlements held and water used within districts (distinct from the increased costs of maintaining and operating the modernised infrastructure).

Figure 3

High reliability water shares in Northern Victoria (2000/01 to present)

The graph below shows how the volume of high-reliability water shares in northern Victoria are divided between customers in the irrigation districts, private diverters and those who have disassociated their water shares from land[1].



**2014-15 data represents conditions at the time of the report creation (25 May 2015)*

Case Study – Jervois Irrigation District, South Australia

The Jervois Irrigation District is located on reclaimed land south of Murray Bridge in South Australia, below Lock 1. Irrigators draw water direct from the River Murray, and share a complex drainage system designed to control salinity and acid soil formation.

The reclaimed land helps protect the River Murray levee banks that define the river channel, and keep the water within the main river channel on its way to the lower lakes. If the levees are breached, research done during the drought showed that water lost through evaporation would be significantly more than if the area was kept farming and irrigated.

These lands, if kept damp during drought conditions, help control the environmental damage done to the levees. The reclaimed area has had significant acidic soil damage due to under-watering during the drought.

If the reclaimed land reverted to swampland, much of the environmental water destined for the lower lakes and Murray mouth would instead spread across this area and be lost to evaporation. In dry periods, the natural swamps would be susceptible to acid soil formation.

Before the millennium drought and the Basin Plan, the Jervois Irrigation District was almost exclusively an intensive and highly productive dairying area supporting two factories in Jervois and Murray Bridge. In 2002, Jervois farmers held 20 GL in high reliability water entitlements, and 30 dairy farms irrigated 1458 hectares.

In 2015, Jervois farmers hold less than 5 GL, due to farmers abandoning production during the drought due to low water allocations and the river being low too to access water in any case; most sold their water entitlements to the Commonwealth for the environment. About 1.2-1.8 GL of the remaining entitlement is leased out by farmers who still have Jervois Irrigation District water, but no longer dairy.

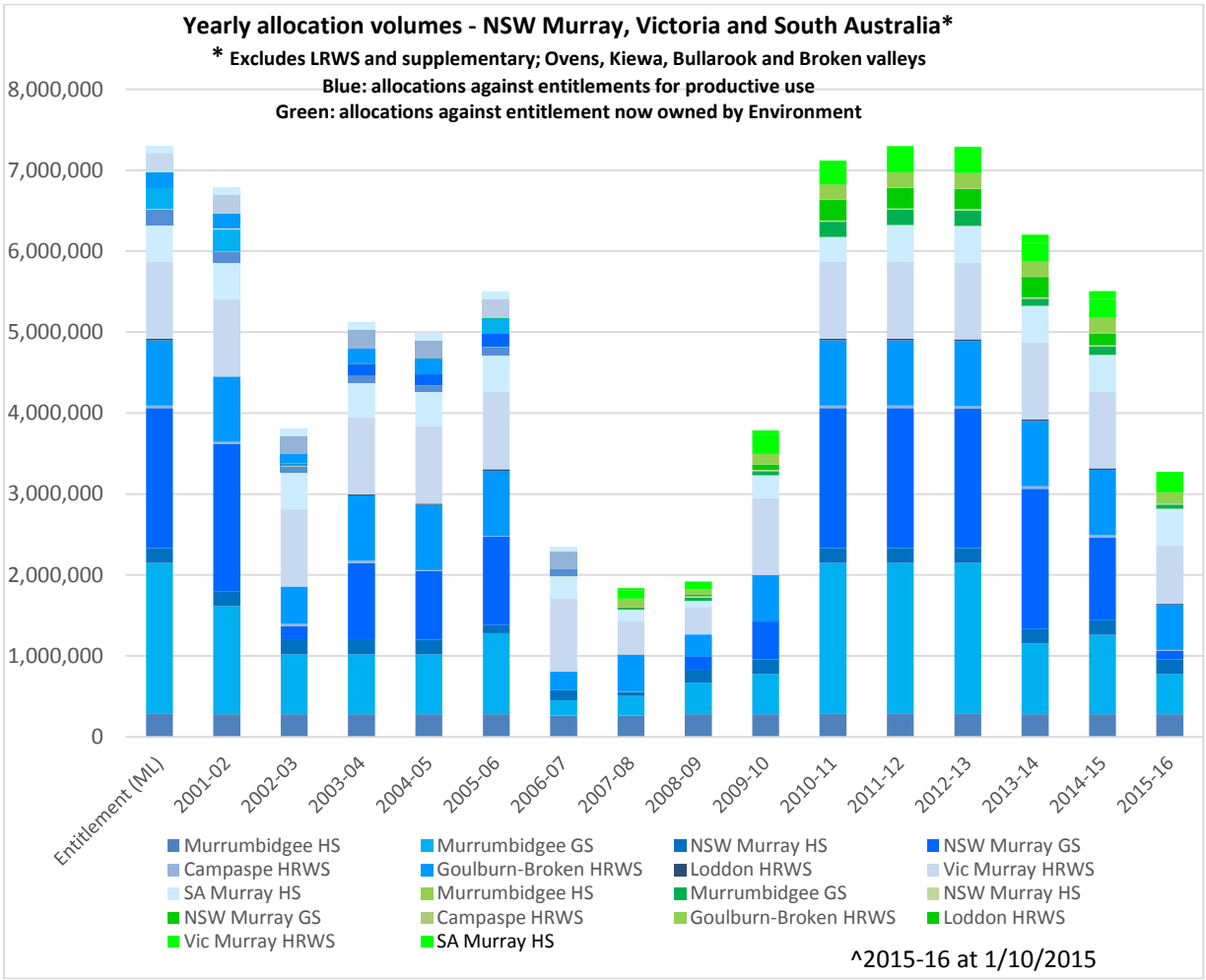
Eight dairy farms now remain, covering around 600 hectares, about 300 of which are irrigated. Some farms have been replaced by lifestyle blocks; others simply lie idle. Many land-holders are now questioning why they should contribute financially to maintaining the district's drainage system when they are not actively irrigating. But fewer landholders contributing would substantially increase costs for the few remaining irrigators to sustain the positive environmental benefits associated with the levees, drainage system and irrigation in this area.

New owners of the Jervois and Murray Bridge milk factories are now looking for increased milk supply, creating a much needed opportunity for regional development and new jobs. But the scarcity and expense of purchasing water entitlements, and the high business risk around relying on a volatile temporary water market, pose a serious constraint against new dairy farm entrants and existing farms expanding production in the Jervois Irrigation District.

Reduced volume allocated for productive use each year

- The volume of water allocated for irrigation varies from year to year depending on seasonal conditions and inflows into the storages, particularly in NSW. The volume available is now much less, because about 15-20% previously allocated to irrigators is now owned by the environment (refer Figure 4).

Figure 4



The Dairy Position

The Australian Dairy Industry has engaged in the development of the Murray Darling Basin Plan as well as advocacy opportunities in its implementation.

With more than 1160GL a year already removed from the productive pool through buybacks and farmers transferring entitlements to the environment under on-farm infrastructure projects, water availability limitations exacerbate the negative socio-economic effects of a reduced pool of water available for irrigated production.

Irrigators and the communities that rely on them are rightly worried about what will happen if more water is removed from productive use to cover the remaining 795GL gap to the 2750GL target, much less the additional 450GL under the Water for the Environment Special Account.

The dairy industry supports a Murray Darling Basin Plan with clear and appropriate targets to recover water for the environment, and clear and appropriate means of achieving those targets with socio-economic neutrality.

This means that the Inquiry into the Murray Darling Basin Plan provides an opportunity to consider the targets, the positive and negative impacts, and the options in continuing to implement the Basin Plan. Including consideration of:

- Consolidating and evaluating environmental gains
- Reality check on closing gap to 2750 GL target, and 3200 GL target
- Market effects if more water entitlement is transferred to environment
- Constraints preventing effective environmental delivery of additional water, and risk of perverse and negative effects
- Impacts on viability of shared irrigation districts
- More flexibility on environmental water trading
- Continued investment in modernised on and off-farm infrastructure for efficient water use, as part of the structural adjustment package
- Socio-economic neutrality test that goes beyond individual participation, to consider broader irrigation system and community costs.

Recommended action

Realistic timelines, transition and structural adjustment

Significant water has already been recovered towards the 2750GL target. When the 2750GL target was set, it was not known with certainty if this was the right number to achieve the environmental outcomes sought. Prior to recovery of additional water out of the productive pool, we need a better understanding of the outcomes of the water recovery and structural adjustment measures so far.

The timelines in the Basin Plan and associated instruments set an unrealistic pace of change that no community or regional economy can be expected to adjust to sensibly and effectively.

The pace of implementation precludes responsible, proper monitoring and evaluation of environmental and socio-economic effects. This monitoring and evaluation of aspects such as environmental outcomes of water recovery to date, the operation of the water market, impacts on profitability of different commodities, and subsequent impacts on local communities, is needed to inform genuine adaptive management, Basin Plan refinements and operational modifications.

Federal and state agencies are under pressure to meet statutory deadlines, using whatever scant, incomplete or too-early-tell information is available. The result is big decisions are being made based on assumptions and incomplete modelling, rather than robust assessment and ground-truthing.

1. **Pause further water recovery towards Basin Plan targets for three years, to allow time for the outcomes of the water recovery and structural adjustment measures so far to become clear and to be properly assessed for an informed review of the sustainable diversion limit. This will require additional funding for robust monitoring of outcomes and achievements for the environment, and the socio-economic effects.**

2. **Amend timelines in the Basin Plan to allow time for the above action. For example, the sustainable diversion limit adjustment would be done in 2019, not 2016, and sustainable diversion limits would come into effect in 2022, not 2019.**

3. **Implement a community consultation program involving small teams of social, environmental and economic specialists embedded in Basin communities for extended periods to create and deliver bottom-up, local structural adjustment programs reflecting that community's particular circumstances.**

Farm upgrades are an essential component in the regional structural adjustment required for farmers and communities to remain economically viable under the Basin Plan. Unlike current Federal Government program design, the funding for upgrades must reflect the true market and productive value of the water, to be economically attractive to landholders. Some programs have experienced delays and funding issues inhibiting achievement of expected outcomes.

4. **Design farm upgrades programs in consultation with the States and industry bodies to ensure they are economically viable for farmers, and will achieve the regional structural adjustment required to sustain irrigated production in a water-scarce future. Ensure adequate funding for timely completion of key programs such as the Connections Program.**

The Water for the Environment Special Account – 450GL of 'upwater'

The Government is legally bound to recover 450GL under the Water for the Environment Special Account Act 2013, with this absolute volume reflected in the Basin Plan Part 2, Division 1, 7.09(e) Note 1. The Act then sets out a Budget appropriation schedule to achieve this volume of water.

Our concern is that this does not, legally speaking, provide any flexibility to reduce the volume recovered under this Account in the face of negative socio-economic impacts. Rather, the Act tends to suggest any impacts will be addressed *after* all the water has been recovered.

5. **Amend the Water for the Environment Special Account Act 2013 and the Basin Plan 2012 by inserting the words 'up to' in front of all references to 450GL in 'upwater'**

The dairy industry notes the words of the Parliamentary Secretary to the Minister for the Environment, Bob, Baldwin in his second reading speech for the Water Amendment Bill 2015 on 28 May 2015:

> *"Our vision for water reform in Australia is very clearly founded in a triple bottom line outcome. We understand that the focus must be on the social, economic and environmental benefits equally. We will not achieve optimal outcomes through the Basin Plan without this triple bottom line focus."*

However, the socio-economic neutrality test in the Basin Plan is not consistent with achieving triple bottom line outcomes. This is because it is based only on individual participation; that is, that the mere fact a farmer decides to participate means the project has no negative socio-economic effects.

This ignores the need for comprehensive socio-economic impact assessment if more water is removed from the productive pool to meet the 2750GL target, and the additional 450GL in the Special Account. Impacts include upward pressure on prices in the water market and fixed costs in shared irrigation districts, and effects on production and the broader community.

Determining the direct and indirect adverse impacts of the Basin Plan is a complex exercise. For example, recovering water through on-farm works has both positive and negative implications, and these need to be well understood in order to inform socio-economic neutrality assessment.

Otherwise, the Government runs a serious risk of paying to address negative impacts in future that could have been avoided in the first place, and when it may be too late to save irrigation districts and their communities from sliding into economic unviability.

By way of illustration, recovering water through on-farm works is a welcome investment in regional development and increased farm productivity. As such, it is a meaningful structural adjustment

payment that is paying social and economic dividends far in excess of the original investment. This is because it helps keep farmers, regional processing and farm service industries in business, and therefore supports the overall wellbeing of the community and national economy[2].

However, it does need to be remembered that on-farm works have a downside, because farmers transfer a portion of their entitlements to the Government equal to the savings they achieved. In this way, like buybacks, on-farm works will contribute to a smaller collective pool of water entitlements available for irrigation overall.

This has cost implications in dry seasons, when less water is available on the temporary market to alleviate low allocations. It also has cost implications for shared irrigation districts, because less water delivered to farms means less revenue, forcing water companies to raise prices to cover the shortfall.

There is a real danger that a farmer may upgrade the farm to produce more with less water under the on-farm works program, only to be unable to afford to have water delivered because of increased system charges and be unable to sustain, much less grow, production due to scarce and expensive water on the temporary market.

6. **Amend subparagraph 7.17 in the Basin Plan to broaden the socio-economic neutrality test for 'upwater' projects to include collective impacts on irrigation districts, community and water affordability and availability on the market.**

The dairy industry emphasises that there is a still a gap of almost 800GL to reach the 2750GL benchmark, before any attempt to recover the additional 450GL towards a 3200GL target.

The dairy industry is concerned about how Environment Department officials are interpreting Chapter 7 in the Basin Plan, 'Adjustment of sustainable diversion limits' (SDL). This Chapter sets out the SDL Adjustment Mechanism, which allows the SDL to be adjusted up or down by 5%. The mechanism will be applied in 2016, taking account of water recovery measures completed or planned by 2019.

Officials appear to believe this means they must recover at least a proportion of the 450GL under the Water for the Environment Special Account by 2019 commensurate with the budget schedules set out in the Special Account Act. This means recovering water counting towards the additional 450GL, at the same time as water is still being recovered to meet the 2750GL target by 2019. In effect, we will have competing water recovery programs.

The reasoning seems to be the adjustment mechanism requires that any recovery offset through environmental works for the 2750GL target, must be balanced by recovery of water towards the 450GL target. It leaves unanswered how the Department proposes to cover any shortfall to the 2750GL, as Special Account Water would only count towards the 3200GL target.

The dairy industry believes the 2750GL target must be met first, and that any water recovered under the Special Account budget to 2019 must first go towards covering any shortfall to the 2750GL target. This would be consistent with the socio-economic neutrality and triple-bottom line outcomes espoused so often by decision-makers.

7. **Amend the Water for the Environment Special Account Act 2013 and the Basin Plan to ensure that the 2750GL target is achieved first before any 'upwater' under the Water for the Environment Special Account Act 2013 is counted toward a 3200GL target.**

8. **Amend the Water for the Environment Special Account Act 2013 to allow funding to also be directed to projects optimising environmental outcomes, for example through environmental works like fish ladders; CEWH activities; feral fish, animal and weed control; and other catchment management activities.**

9. **Amend 85D(4) in the Water Act 2007 to ensure that the 1500GL cap on buybacks includes the 450GL in 'upwater' in the Water for the Environment Special Account Act 2013.**

[2] RMCG, *Cost Benefit Analysis of Farm Irrigation Modernisation,* May 2013. Full report and fact sheet available at: http://www.dairyaustralia.com.au/Industry-information/About-the-industry/Recent-industry-topics/Murray-Darling-Basin.aspx

10. **Determine the full costs and socio-economic effects of relaxing or removing operational and physical constraints to deliver an additional 450GL 'upwater', before any 'upwater' is recovered.**

Greater flexibility to trade environmental water

Section 106(2) in the Water Act 2007 allows the Commonwealth Environmental Water Holder (CEWH) to trade entitlement or allocation only under very restrictive conditions. Trades can only occur if the water can't be stored or carried over, and can't be used to good environmental effect. The proceeds can only be used to acquire other water to improve environmental objectives.

These requirements set a very high bar on CEWH trades because they effectively deny the use of trading if the outcome is neutral in terms of environmental outcomes, even if the trades generate major socio-economic benefits.

It also limits the CEWH's ability to raise money to fund other highly valuable activities and works that might generate better environment outcomes, and to pay the annual storage and other fees associated with the environmental entitlements.

The environment should pay its way, when it has the means through trade to do so.

Greater flexibility in trading environmental water remains a top priority for industries and communities in the Murray-Darling Basin, as articulated most recently at a meeting in Barham, NSW on 8 July 2015 with members of the Senate Select Committee inquiring into the Murray Darling Basin Plan. More than 1000 people came to the meeting, endorsing among other things flexibility in environmental trading. Not making this amendment now will be a missed opportunity for decision-makers to prove that they are listening to the community and acting to make a change that will help to alleviate concerns about water availability now and in the future.

We note that the approach to trading environmental water is important in terms of irrigator benefit and market response.

11. **Amend Section 106(2) in the Water Act 2007 to enable proceeds from environmental water trading to be reinvested in works and activities to improve environmental outcomes, and to cover the CEWH's storage and other costs.**

12. **Amend Section 106(2) in the Water Act 2007 to enable environmental water trading when the water is not needed for environmental purposes, regardless of whether it can be carried over to the next season.**

The sustainable diversion limit adjustment mechanism

As it stands, the MDBA is designing a conceptual mechanism to measure only the environmental outcomes expected from actual and assumed infrastructure savings, buybacks and environmental works and measures.

This will reset the water recovery target independent of whether water can actually be delivered without unacceptable third-party and unintended environmental effects, and without accounting for the socio-economic effects of further reducing water availability.

This will lead to ongoing pressure on state and federal governments to somehow meet the target, and exacerbate business and community uncertainty.

As recommended above, a pause in implementation will ensure an informed SDL adjustment based on robust research about outcomes and about whether constraints can be overcome without unacceptable costs or third-party impacts.

13. **Design the sustainable diversion limit adjustment mechanism to also account for constraints and the socio-economic effects of reducing the volume of water available for irrigated production.**