

A National Plan for Water Security

Tomorrow we celebrate Australia's unique blend of individual freedom, community spirit and national unity. In my Australia Day eve address last year I spoke about the sense of balance that has helped sustain our nation's progress.

With undiminished faith in this country's future, I want to focus today on one of our greatest national challenges – the quest for a secure, sustainable future for Australia's water resources.

There is deep and understandable community anxiety about water.

Almost all our major cities are on water restrictions. Where we used to think of water police in boats, today they are being asked to peer over back fences.

The drought still gripping large parts of Australia is the most severe since records began. Its reach has been long and its toll merciless on struggling farmers, proud gardeners and a thirsty landscape.

Some years ago I began talking about water as Australia's greatest conservation challenge. No other single substance has a greater impact on the human experience or on our environment.

For thousands of years, Aboriginal life on this continent revolved around water. On the eve of Australia Day, we recall that the choice of Port Jackson over Botany Bay as the birthplace of British settlement was governed largely by the availability of fresh water.

The quest for reliable water supplies would shape the young colony's patterns of settlement and economic development. And in due course, Australians made landmark contributions to water management.

Before rising to national prominence, Alfred Deakin oversaw the first great wave of irrigation development as Victoria's Attorney General. Having studied water problems in the United States, he made sure that all Victoria's surface water was public property. The other Australian colonies followed suit.

Nothing, however, could change the basic facts of our continent – a low and highly variable rainfall, a relatively flat landmass and river systems without the size and energy found in the Northern Hemisphere. If not exactly destiny, hydrology surely mapped the frontiers of national ambition.

This was brought home by the Federation drought from 1895 to 1902, the event that led a young Dorothea Mackellar to pen her ode to a land 'of droughts and flooding rains'.

These lean years also cast their shadow over the nation-building work of those who framed our constitution. For much of last century, the configuration of water powers in our Federation appeared, if not ideal, at least not debilitating.

Coinciding with a wet climate cycle, the decades after World War II ushered in a new era of bold development. We built dams and irrigation schemes, more than doubled our population and forged lifestyles beyond the dreams of earlier generations.

In the process, however, we further intensified pressure on the nation's water resources. This led in the 1980s to growing concern about the health of our river and groundwater systems.

The other main problem, as Paul Perkins of the Barton Group has noted, is that: 'We stopped

long-term water development planning but failed to apply appropriate resources to optimising our water efficiency systems’.

In the last decade or so, we’ve started to turn this around. Billions of dollars have been set aside for projects and for better water planning. The Australian Government’s \$2 billion Australian Water Fund is leveraging major investments in every state.

Through the Living Murray Initiative, we are on the way to restoring six iconic environmental sites in our greatest river system. And with the National Water Initiative, a long-term framework is finally in place to increase the efficiency of water use, to service the needs of communities, and to return our river and groundwater systems to environmental health.

Despite this, the current trajectory of water use and management in Australia is not sustainable. In a protracted drought, and with the prospect of long-term climate change, we need radical and permanent change.

I regard myself as a climate change realist. That means looking at the evidence as it emerges and responding with policies that preserve Australia’s competitiveness and play to our strengths.

There does appear to have been a contraction to the south in the weather systems which traditionally brought southern Australia its winter and spring rains.

Our rainfall has always been highly variable. The deviation around average rainfall is enormous. And it seems to be getting bigger.

We need to make every drop count – on our farms, in our factories and in our homes. Our water management systems must be more resilient and sustainable, geared not to a world of steady averages that rarely materialise, but to the variability that has been part of Australia’s climate since time immemorial.

Water solutions will vary from place to place. The truth is, as I said in July last year, we have the capacity to drought-proof our large cities. What is needed is more investment, sensible pricing and an end to state governments using water utilities as cash cows.

Our water scarcity problems are bigger in rural Australia given the drought and unsustainable water use in many places.

Against this backdrop, I announce today a \$10 billion, 10 point plan to improve water efficiency and to address the over-allocation of water in rural Australia, particularly in the Murray-Darling Basin.

This plan includes:

1. a nationwide investment in Australia’s irrigation infrastructure to line and pipe major delivery channels;
2. a nationwide programme to improve on-farm irrigation technology and metering;
3. the sharing of water savings on a 50/50 basis between irrigators and the Commonwealth leading to greater water security and increased environmental flows;
4. addressing once and for all water over-allocation in the Murray-Darling Basin;
5. a new set of governance arrangements for the Basin;

6. a sustainable cap on surface and groundwater use in the Basin;
7. major engineering works at key sites in the Murray-Darling Basin such as the Barmah Choke and Menindee Lakes;
8. expanding the role of the Bureau of Meteorology to provide the water data necessary for good decision-making by governments and industry;
9. a Taskforce to explore future land and water development in Northern Australia and
10. completion of the restoration of the Great Artesian Basin.

This 10 point plan opens a new chapter of national water management in Australia. It is a large investment, but also a prudent one, especially given the importance to Australia of the Murray-Darling Basin, and the scale of the water crisis there.

The Basin accounts for the vast bulk of irrigated agricultural production in Australia and roughly 85 per cent of our irrigation water use. It has a population of close to 2 million people, with another million in South Australia heavily dependent on the river system for water.

The last five years have been the driest in the Basin since records began. The sequence of seven failed autumn breaks has not occurred previously. As a result, the operation of the River Murray remains, in the words of the Murray-Darling Basin Commission, on a 'knife-edge'. In 2006, the inflows into the Murray were only 40 per cent of the previous all-time low.

Water security will remain an enormous challenge in the Basin. Indeed, it could worsen.

The CSIRO estimates that by 2020, average annual flows could decline by about 15 per cent due to climate change, recovery from bushfire, farm dam and plantation expansion and increasing use of groundwater.

For this plan to work there must be a clear recognition by all – especially by state and territory governments – that the old way of managing the Murray-Darling Basin has reached its use-by date.

The tyranny of incrementalism and the lowest common denominator must end.

I will therefore be writing to all relevant State and Territory Leaders requesting that they refer to the Commonwealth their powers of water management within the Murray-Darling Basin.

The \$10 billion plan I have just outlined will only work if the governance arrangements for the Basin are put on a proper national footing. The proposal is conditional on this occurring.

Modernising irrigated agriculture

In a normal year, irrigated agriculture uses about 14,000 GL of water (roughly 70 per cent of all water use in Australia). Unfortunately, this water is not used as efficiently as it should be.

A huge amount (up to 30 per cent) is lost transporting the water, through leakage, seepage and evaporation. There are massive opportunities to save water by strategic placement of new infrastructure and by more efficient on-farm use.

To increase the efficiency of water use and to maximise future water security, the Government will embark on the largest modernisation of irrigation infrastructure (both on and off-farm) in Australia's history.

At a cost of almost \$6 billion, works will include lining or piping of major delivery channels, improved metering and the installation of drip systems. When complete, these investments should save more than 3,000 GL of water – equivalent to an efficiency gain of more than 20 per cent in Australia's irrigated water use, or about 17 times Adelaide's annual water use.

This will deliver major improvements in water security and quality, helping both our farmers and our environment.

Many of our largest irrigation districts – such as Murray, Murrumbidgee and Goulburn-Murray irrigation areas – offer significant potential for water savings.

Districts such as the Burdekin in Queensland and Harvey Irrigation Area in Western Australia will also be able to significantly improve the efficiency of water use.

The new Minister for the Environment and Water Resources, Malcolm Turnbull, will call for specific proposals from industry peak bodies and irrigation companies to improve off-farm irrigation infrastructure. We will be looking for transformative proposals whereby irrigation distribution systems reach 90 per cent efficiency for water delivery.

The Commonwealth will contribute roughly \$3 billion to this phase of our plan, with irrigation companies expected to contribute about \$750 million. Fifty per cent of water savings will be retained by irrigators and 50 per cent held by the Commonwealth will go to enhancing water security and to sustaining river systems and wetlands.

It will not be economic to pipe or line all channels. As 80 per cent of seepage losses occur in less than 20 per cent of channels, we will target the leakiest hot-spots.

Increasing use of piped and pressurised systems will allow water to be used more efficiently when and where it is needed so as to cut overall demand. Remote monitoring and control of irrigation flows will reduce the amount of water that goes unaccounted for, making actual water usage more transparent.

We also need a radical transformation in on-farm water efficiency. At the moment, up to 20 per cent of water delivered to the farm gate may be lost in on-farm distribution channels. And roughly 10 to 15 per cent of water applied to crops is lost through over-watering.

The Australian Government will invest \$1.5 billion nation-wide to raise on-farm water efficiency. Farmers will be expected to provide significant contributions in order to achieve a step-change in on-farm technology.

This will raise the productivity of large parts of our farm sector through the ability to deliver water on demand and better match water application to crop needs.

A further \$225 million (matched by irrigators) will be invested in accurate meters at the farm gate to increase transparency of use within irrigation districts. More accurate metering and capture of data will improve water planning and management and make monitoring and compliance of licence conditions more effective. Conversion to remote monitoring and control of farm off-takes will also mean more accurate water delivery.

In order to accrue the benefits of this multi-billion infrastructure investment, farmers and irrigators will need to meet strict new conditions. These include:

- Full compliance with the objectives of the National Water Initiative;
- Acceptance of mandated metering standards, including the metering of all bores and a new metered regime for stock and domestic use in priority catchments; and
- Acceptance of an enforceable regime on the building of new farm dams.

To complement these measures, the Australian Government will invest a further \$500 million to improve the efficiency and effectiveness of river operations and storages.

This is especially important in the Murray-Darling Basin where large-scale engineering works are required to improve water use efficiency and water trading options.

At the Barmah Choke, for example, there is an urgent need to alleviate channel capacity constraints to enable more effective delivery of irrigation and environmental water. Greater water mobility will enhance the operation of water trading markets.

Water over-allocation in the Murray-Darling Basin

As well as improving water efficiency, we need to confront head-on the over-allocation of water in the Murray-Darling Basin.

We must strike a sustainable balance between the demands of agriculture, industry and towns on the one hand and the needs of the environment on the other.

Getting that balance right is a key commitment of the National Water Initiative. And it is not an easy one. Every catchment and district is different. Within each community there will be differing, and strongly held, views.

But decisions have to be taken and we will ensure that there are sufficient funds committed to this process to ensure that those decisions are based on the best science.

Today I announce that the Australian Government will allocate up to \$3 billion to adjust water entitlements in the Murray-Darling Basin.

This is the Commonwealth assuming responsibility for a problem created by the states. We are willing to address the chronic over-allocation of water in the Basin and to carry the cost.

The CSIRO is working to ascertain the sustainability of allocations catchment-by-catchment. Results for the initial group of catchments are due by the end of March and final results for all catchments by the end of the year. This will reveal the full extent of over-allocation and overuse within the Basin.

Water acquired by efficiency measures or direct purchase can in our highly variable climate both provide greater security for water users in dry years and provide substantially greater environmental flows in other years.

Inevitably these measures will contribute to the changing face of agriculture in the Basin which is already seeing water move to higher value uses. There is no point sugar-coating this. Enhancing the overall viability of irrigation districts will require structural adjustment.

The Government stands ready to provide structural assistance and, if necessary, to purchase water allocations in the market.

We could muddle through as the states have been doing but, frankly, that gets us nowhere. Without decisive action we face the worst of both worlds – the irrigation sector goes into steady but inevitable decline while water quality and environmental problems continue to worsen.

We will work with communities in managing the necessary transition. Governments have a role in helping communities adjust, but we must also ensure that we have strong, efficient markets to continue this process once a sustainable base of water allocations has been established.

No doubt some will argue that we should go further. Their agenda is the wholesale retrenchment of irrigated agriculture in the Basin.

This is both wrong and defeatist – out of step with Australia's past and future ambitions as a major agricultural producer. Anyone can come up with a plan to withdraw and do less. Our goal is to do more with less – to increase agricultural production with less water use.

Australia has an enormous opportunity to consolidate and even expand our role as a global supplier of food and fibre in coming decades. We live in an increasingly urbanised world whose population is expected to reach 8 billion people by 2030. These people will demand food and clothing.

Governance arrangements in the Murray-Darling Basin

None of this massive investment by the Australian Government makes sense without a complete overhaul of the Murray-Darling Basin's governance arrangements.

Putting the Basin on a sustainable footing can only occur through faster reform and fully integrated catchment management. And that requires an end to the parochial pursuit of state interests.

This large, connected system of surface and groundwater systems should be managed as one. After all, rivers do not recognise those lines on the map we call state borders. This was recognised, at least in principle, as long ago as the 1902 Interstate Royal Commission on the Murray.

The states manage all of the water in their jurisdiction. The Murray-Darling Basin Commission, which it must be said is a somewhat unwieldy body, is focused on the River Murray.

Criticism of the management of the Murray-Darling Basin is often seen as the Commonwealth blaming the states or one state blaming another. And there is no doubt that many errors have been made in the past.

Some were based on ignorance and lack of science. Others were the product of an optimistic expectation that the relatively wet years in the second half of last century would last forever.

In the final analysis, however, the core problem is that the different states have competing interests. The South Australians resent, as they have for more than 150 years, the level of diversions by Victoria and New South Wales. The Queenslanders feel they were late to the party in developing irrigated agriculture and want to catch up. The New South Welshmen downstream complain that their overland flows have been diverted to cotton farms.

As long as integrated water systems are being managed piecemeal by governments with competing interests, the execution of even the best national agreements will remain

challenging and contentious.

The examples of this in the Murray-Darling Basin are legion:

- We still do not have an effective Basin-wide cap on water extraction, 12 years after the introduction of an interim cap which Queensland and the ACT have essentially ignored and which NSW has regularly breached;
- We still lack the most basic water information such as a consistent, Basin-wide register of water entitlements;
- Despite a host of Commonwealth-State agreements, there is still inadequate reform on issues such as water trading and pricing;
- Contrary to assurances made to the Commonwealth as late as the Melbourne Cup Day Water Summit last year, states are not insisting that irrigation companies implement the Australian Competition and Consumer Commission's recommendations on Exit Fees; and
- Because of the veto power individual states have over the Ministerial Council's agenda, some issues like unregulated flows are not addressed in a timely manner, if at all.

I have already stated my intention to ask the relevant state and territory leaders for a reference of powers over the Basin. At stake is nothing less than the economic, social and environmental health of one of Australia's most important regions.

We must think and act as Australians – not as Queenslanders, New South Welshmen or Victorians.

Let me also speak directly to the scientists, hydrologists, engineers, economists and others who have spent years working on the Murray-Darling Basin – often with inadequate resources and in fragmented institutions.

The Australian Government values your expertise and experience. Indeed, we need them to forge a new era of common purpose.

Better National Water Information

Australia's water scarcity problem also requires that we measure our water resources and our usage of them far more accurately. You cannot manage what you cannot measure.

Our plan for the Murray-Darling Basin, for example, calls for better understanding of supply and demand at a catchment level, irrigation district level and farm level.

At the moment in Australia, water information is dispersed across more than 100 agencies. The last two national assessments of water resources have been bedevilled by inconsistencies in data definition and coverage across jurisdictions.

One of the frustrations surrounding the National Water Initiative has been the failure of states to reach acceptable standards of water measurement and monitoring. Remarkably, in some cases they have cut resources for this vital work.

Without better measurement capability we will not be able to make the right decisions on long-term adjustments or on day-to-day management of our water resources. With better measurement capability we can vastly reduce waste, overuse and theft of water.

To facilitate more accurate and timely water decisions – by government, business and water authorities – I announce today a significant upgrade in the role of the Bureau of Meteorology to include the collection of water information on a national basis.

At a cost of \$480 million, this enhanced capability will provide:

- Comprehensive water resource assessments and projections of future water availability;
- Rigorous and nationally-consistent water usage measurement and accounting;
- Greatly improved access to water information for government and business decision-makers; and
- Much greater independence and transparency, removing the perception of reporting bias.

Northern Australia

Armed with better information, we will be able to make sensible long-term decisions for future land and water use, including in northern Australia where a large proportion of Australia's readily available water supply is found.

Not for the first time in our history, water scarcity in southern Australia has spurred interest in further developing the water resources of northern Australia. The National Water Commission has already identified northern Australia as an area requiring better water planning and management.

Queensland alone has about 45 per cent of Australia's surface run-off, and most of this originates north of the Tropic of Capricorn. Water is also concentrated in the north in the Northern Territory and Western Australia.

I will establish a Taskforce chaired by Senator Bill Heffernan to examine the potential for further land and water development in northern Australia. This work will be informed by a Northern Australia Land and Water Futures Assessment.

A key focus will be identifying the capacity of northern Australia to play a larger role in agriculture in the decades to come.

Great Artesian Basin

As well as exploring the further development of water resources in northern Australia, we must improve the management of existing northern water resources – in particular, the Great Artesian Basin.

The waste of water from uncontrolled bores and from inefficient reticulation systems has caused a fall in artesian pressure across much of the Basin. This threatens continued access to water by pastoralists while new water users find it almost impossible to obtain access to groundwater.

We are also seeing the loss of groundwater dependent ecosystems in the Great Artesian Basin as a result of land and water salinisation, plant and animal pests and falling pressure in some naturally occurring artesian springs.

The current (phase 2) capping programme through to 2009 will see 60 per cent of all bores capped and 75 per cent of drains replaced.

Today I announce that the Government will commit to phase 3 so as to complete the restoration of the Great Artesian Basin. Consistent with current arrangements, the Commonwealth will seek a commitment from participating states to joint funding.

Urban water

With the exception of Perth, none of our large mainland cities has invested in significantly augmenting their water supplies for several decades.

In some cases (Brisbane and Sydney, for example) decisions to build new dams were cancelled and then nothing else was done. Rather than investing in new infrastructure, state and some local governments have elected instead to constrain demand by imposing water restrictions, no doubt in the hope that the rains would return and replenish their emptying dams.

This strategy was successful in preserving the cashflow of government-owned water utilities which enabled them to continue to pay large dividends to their owners, but the continuation of the drought has shown the strategy to be a foolhardy one. Permanent water restrictions should be no more acceptable in our great cities than electricity rationing.

As a consequence, in several cities we are starting to see a scramble to build new water infrastructure be it recycling, desalination or new dams.

While the case for Commonwealth involvement in interstate water systems is a compelling one, it is less obvious that the Commonwealth should be directly engaged in the provision of urban water. The truth is that all of our cities are able to afford as much water as they need.

Of the \$2 billion Australian Government Water Fund, close to \$900 million has already been committed to important water projects. We are currently considering on their merits all of the major state projects for which Commonwealth finance from the Water Fund has been sought, but they must meet appropriate criteria, including proper pricing strategies.

Consistent with the criteria already specified by the Commonwealth, it is not unreasonable, as a condition of funding, that urban water utilities invest appropriate amounts in infrastructure rather than being constant revenue streams for state governments.

The fact that today the Commonwealth has offered to assume responsibility for a problem created entirely by the states – the over-allocation of water in the Murray-Darling Basin – gives Australia's largest state governments significant capacity to focus their resources on urban water problems.

Conclusion

Today I've talked about a new era in national water management based on a \$10 billion investment that tackles Australia's most pressing water problems.

This investment is a sign of our ambition for Australia. That it is affordable is testimony also to this Government's long-term prudence.

The reason goes back to where we started over a decade ago with a commitment to balance the budget and to pay down the \$96 billion government debt we inherited from the Labor Party.

This has given Australia a platform for uninterrupted economic growth – a decade which has seen 2 million new jobs created, the reform of our tax and welfare systems, the reform of our

workplaces and the biggest sustained investment surge in Australia's history.

By getting the big things right – by reforming and retooling our economy – we can afford to do the bold things – like saving the Murray-Darling Basin from economic and environmental decline, like securing our nation in a time of threat and uncertainty, like positioning Australia as a 21st Century energy superpower, like meeting the challenge of climate change in a way that supports our competitiveness and plays to Australia's strengths.

Water scarcity is a major national challenge. And there will be other challenges we must confront in the years to come. But with the resilience, adaptability and boldness Australians have shown in the past, they can be overcome.