



National Irrigators' Council

NIC Submission

Senate select committee on the multi- Jurisdictional management and execution of the Murray Darling Basin Plan

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Summary

The Murray Darling Basin is Australia's most important agricultural region, with irrigated agriculture a key component. The most recent ABS figures indicate that irrigators grew 36% of the value of production in the Basin, worth more than \$8.6 billion in 2017-18. As a wholesale value the number is likely to underestimate the full flow on impact in the communities of the Basin.

The Basin Plan is the latest in a series of reforms since the 1990s that have reduced access to water for agriculture, in this case the Basin Plan has seen 1 in every 5 litres of water previously available for irrigation returned to the environment. This has produced hardship for irrigation communities particularly where the water has been recovered mainly through buyback. Negative impacts are particularly exacerbated in a time of severe drought.

With four years of implementation still to go, independent reviews suggest positive early benefits have been achieved for the environment.

There are many significant challenges remaining and the potential for failure, and further harm to communities, is strong. It is vital, however, that the Senate recognises that the Basin Plan has already achieved many of its goals for the stages implemented to date.

Below are key points from the NIC submission. NIC would be happy to elaborate on these at a hearing.

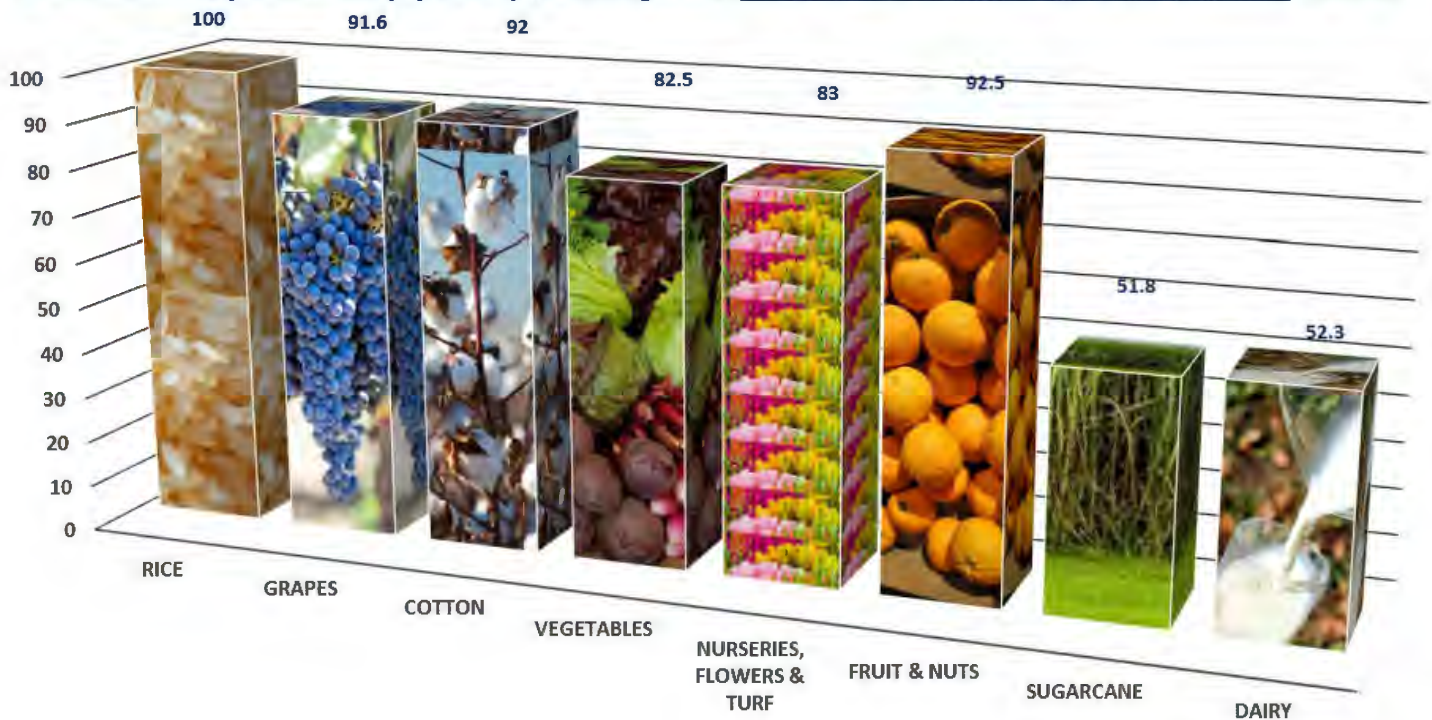
- The committee is urged to acknowledge the vital role of irrigated agriculture in the Murray Darling Basin in supplying food and fibre for Australia and in generating jobs and economic activity for Basin communities; and to recognise that the Basin Plan promised a triple bottom line outcome healthy rivers, healthy communities and a continued capacity to produce food and fibre;
- The administration of the Murray Darling Basin is complex and, by necessity, involves different levels of government and different agencies. Given our federal structure it is likely that any change to responsibilities would simply move a boundary but not necessarily remove duplication;
- NIC does not support existing state responsibilities for river management being transferred to the Commonwealth. State responsibility for land and catchment management, planning and other rivers in each state means such a move would not remove duplication, or the need to have state cooperation and involvement in management of the Basin;
- Land (catchment) management is just as important to positive environmental outcomes as water management;
- NIC supports efforts to simplify administration and remove duplication or complexity where it can be shown to be practical and justified.
- There are good geographic and resource management reasons for many differences in what might on the surface seem to be similar things – e.g. water entitlement types.
- NIC urges the committee to recommend that Governments implement the recommendations of the Productivity Commission 5-year review of the Basin Plan;
- NIC recommends that the committee acknowledge that Government priority must be on the implementation of the very difficult remaining portions of the Basin Plan – in particular ensuring that there is the commitment and the flexibility to enable the SDLAM process to deliver equivalent benefit of 605GL, thus ensuring no further recovery is required; and that the no negative impact on communities guarantee is met;



- The committee should consider recommendations that facilitate a greater practical focus on delivery on the SDLAM and ensure that Government is focused on cooperative and adaptive approaches;
- In terms of administrative reform, transparency and openness, the committee might consider endorsing in particular, Productivity Commission recommendations in relation to the operation of the Basin Officials Committee;
- The last three years has seen a massive increase in resources for compliance and huge change in requirements and standards; it is critical that these reforms are allowed to be completed and assessed before any further change is considered;
- The committee should allow the ACCC, with its significant expertise and resourcing, to consider issues around the operation of water markets;
- NIC supports improved monitoring of rivers and more research leading to better and more comprehensive information; NIC would also support a reintroduction of a sustainable rivers audit type approach.

Irrigators grow Australia's food and fibre

% of Australian production (by value) from irrigation (ABS 'gross value of irrigated agricultural production' 2017-18).



Irrigated Agriculture in the Murray Darling Basin

Australia built irrigation infrastructure so that we could produce food and fibre in dry years. It is a critical part of producing food and fibre for Australia and for the export income that contributes directly to the standard of living enjoyed by every Australian.

The Murray Darling Basin is a key part of that. According to ABS data ([Gross Value of Irrigated Agricultural Production 2017-18](#)) Murray Darling Basin irrigators grew \$8.6 billion worth of product (wholesale price) in 2017-18 (Australian Bureau of Statistics, 2019).

It is a simple fact that without Murray Darling Basin irrigation, cities including Sydney, Melbourne and Adelaide would not have fresh fruit and vegetables on their supermarket shelves and Australians would have a lower standard of living.

On the 2017-18 figures, Basin irrigators grew 36.36% of the value of total agricultural production in the Basin; nearly 49% of all Australian irrigated agricultural production and nearly 15% of total Australian agricultural production.

Those 2017-18 figures show why we have irrigation infrastructure in the Basin. The year saw the Basin and much of eastern Australia going into drought. Our irrigation storages are designed so that we can continue to produce in dry years and that's exactly what happened in that year.

ABS water use statistics (Australian Bureau of Statistics, 2019) show that the amount of irrigation water used increased in 2017-18; that was to be expected as stored water was utilised to maintain production and supplement crops with a shortage of natural rainfall. This is what the system is designed to achieve.

Basin irrigators used 7,870GL in 2017-18, the drought made that some 30% less than the Sustainable Diversion Limit and, combined with water returned to the environment, more than 40% less than the pre Basin Plan use.

In 2016-17 Basin irrigators grew \$7.2 billion worth of agricultural product, 29% of the Basin's total production, in the drier 2017-18 year that went up to \$8.6 billion worth or 36%.

Overall Gross Value of Production figures show that the proportion of Australia's fruit and nuts (by value) produced by irrigators in 2017-18 increased from 83.3% to 92.5%, while dairy went from 44% to 52.3%.

In 2017-18 Basin irrigators grew more than 70% of all Australia's grapes, 41% of fruit and nuts, 20% of our vegetables, 99% of rice and 82% of cotton – among other products.

Overall, Australia's irrigators produced 82.5% of our vegetables, 92.5% of fruit and nuts, 92% of grapes, 92% of cotton, 100% of rice, 52.5% of dairy, 52% of sugar cane and reflecting drought conditions 14.4% of hay.

Climate change is reducing run-off into dams, but also producing more extreme weather events including severe storms. That makes appropriate water storage infrastructure even more important for producing the food and fibre Australia relies on, but also for storing water to help to ameliorate some (unfortunately it's just not possible to ameliorate all) of the negative environmental impacts of climate change.



General points on issues paper

NIC appreciates that the issues paper is not intended to draw any conclusions or point respondents in particular directions. In general, we would agree that the issues paper provides a reasonable outline of the background to the Basin Plan and the complexity of administration of water across Basin and between the states.

The Basin Plan is very complicated as are the intricacies of interstate agreements on water use; the effort made by the committee to summarise this and attempt to identify issues is appreciated.

NIC particularly acknowledges the important statement of fact that starts the section on the purpose of the Basin Plan. That *'the Plan is not intended to drought-proof the Basin or return it to pre-development conditions'* (Senate Select Committee on the Multi-Jurisdictional Management and Execution of the Murray Darling Basin Plan, 2020, p. viii).

In providing a summary of the aims of the Plan, NIC would suggest that all equally weighted objectives from section 5.02 of the Basin Plan (Commonwealth of Australia) should be noted; the objectives for the Basin Plan as a whole are:

- (a) to give effect to relevant international agreements through the integrated management of Basin water resources; and
- (b) to establish a sustainable and long term adaptive management framework for the Basin water resources, that takes into account the broader management of natural resources in the Murray-Darling Basin; and
- (c) to optimise social, economic and environmental outcomes arising from the use of Basin water resources in the national interest; and
- (d) to improve water security for all uses of Basin water resources.

By including this the committee then notes the triple bottom line objective of the Basin Plan as intended by the Parliament when it was introduced.

NIC would like to have seen recognition in the overview of the significance of irrigated agricultural production to Australia's supply of food and fibre, and the flow on benefits for export industries and for local communities. While the summary recognises the number of irrigators in the Basin and the economic significance of tourism, it is critical that the value of irrigated agricultural production is recognised.

In a Plan designed to have a triple bottom line outcome, this is important information.

The introduction to this submission highlights some of that data.

NIC appreciates the time the committee has taken in leading up to this issues paper to seek submissions and testimony from Government agencies involved in implementation of the Basin Plan and operation of the rivers.

However, we note that in presenting the issues paper the committee reports the opinions of a number of external sources, including quoting from media articles with comments provided by critics of aspects of the Basin Plan and of irrigation. In several cases these are not presented with the alternative views held by other well qualified scientists.

NIC would be concerned if the limited and one-sided non-Government sources quoted in the issues paper were a reflection of a direction the committee intends to take.



This limitation is noticeable, particularly in the discussion on infrastructure programs, with the issues paper presenting one minority opinion on cost and benefit of infrastructure programs while completely excluding the extensive contrary evidence.

The background paper quotes extensively from the South Australian Royal Commission. Unfortunately, this inquiry, however well intended, also did not hear from a range of individuals and groups who might have provided evidence contrary to that expressed by the Commissioner in his report.

Several quotes are included that express an opinion critical of programs that directly involve irrigators, however, there is no material or quote included from any industry or irrigator group including NIC or National Farmers' Federation. While it is appreciated that this is an issues paper not an opinion, NIC would suggest that acknowledging that there are differing opinions and expert views on a number of aspects is important.

NIC notes that in the discussion about complementary measures / works, the issues paper quotes comment from the Environmental Defenders Office. The claim made is that stakeholders wished to substitute these measures from environmental flows. Unfortunately, the paper does not provide the actual view of stakeholders – including NIC – who strongly advocate for focusing on achieving actual environmental outcomes (not just flow targets) pointing out that this does not just mean flows. This is a vital point for the health of a river system, where an actively managed flow can achieve far better outcomes through optimised timing, modulation and extent – rather than a flow released at the wrong time, in the wrong way or with the wrong temperature which can actually cause significant damage to the environmental health of the river system.

On our reading, the issues paper appears to be a little confusing when discussing Sustainable Diversion Limit Adjustment Measures (SDLAM) projects. It talks about capacity to assess the amount of water being saved and quotes an article saying there is no reliable way of knowing how much water has been returned to the environment. It needs to be clear that SDLAM projects are not designed to return water to the environment in the same way (as held entitlements) as previous efficiency programs and buybacks.

Water held by environmental water holders provides tangible and measurable increases in volumes available for environmental use by adding to 'baseline flows' where they were not previously available for that purpose.

SDLAM projects are quite different, they are 'supply' projects and are about delivering water differently and in some case more efficiently to environmental assets; an equivalent amount of water is saved in that process, but it is not 'returned to the environment' in the same way.

Finally, NIC notes that the only specific reference to comment from agricultural groups is on page 66 dealing with the water market where the issues paper refers to media reports and says "agricultural groups are thus calling for temporary bans on non-landowning water investors from buying and carrying over water" (Senate Select Committee on the Multi-Jurisdictional Management and Execution of the Murray Darling Basin Plan, 2020, p. 66). The statement is incorrect.

NIC does not support this call, nor, as far as we know, does the National Farmers' Federation. It is disappointing that the issues paper has provided a misleading impression. [The NIC submission to the ACCC water markets inquiry which is available on our web site makes this clear](#) (National Irrigators' Council, 2019).



Responses to specific questions from the Committee

Adequacy of information

Water measurement

NIC has consistently advocated transparent and comprehensive information about the Murray Darling Basin and we have pointed previously to concerns around the data available.

Comprehensive, timely and accurate information about water volume and use is very important, but it is complicated by coming from a range of different information sources, measuring systems and technologies.

Metering requirements will ensure that the most comprehensive information exists about use by licenced irrigators. Large irrigators are all metered and are working with Government in all Basin States to achieve the standards set out in the national compact. Not all extraction will be metered with smaller users via stock and domestic licences not required to meter use.

There is a need to improve data available for inflows, river measurements etc. NIC's [election policy proposals for the 2019 Federal election](#) suggested an expenditure of \$20 million on improving river monitoring and measurement with a particular focus on the Northern Basin (National Irrigators' Council, 2019).

We strongly support better and more technologically advanced monitoring of river flows and inflows. There is currently a network of data points which do provide reasonable information often intended for specific purposes however they have been put in place over a long period of time with a variety of technologies. Improving information would certainly assist with information on river operation and would also assist in education about where water goes and in building confidence in water use.

Better information on inflows would also be of assistance to many other agencies including emergency services during flood emergencies.

Obviously, all information on water use will be available to authorities to ensure appropriate administration and compliance. Telemetric metering will also be useful for individual users to keep track of and manage their own use and is already in common use in some regions.

Data on inflows, river flows and overall system information is available to the public already and it would be reasonable to also make available overall, catchment-wide information on extractions.

Is there sufficient transparency around Sustainable Diversion Limit Adjustment Mechanism projects and water recovery?

As mentioned above these are very different and quite separate issues. NIC would be concerned if the Committee was confusing supply projects with other water recovery projects for the environment. Our comments below go to each separately.

Sustainable Diversion Limit Adjustment Measures (SDLAM) projects

The committee should consider the detailed submissions provided by NIC on the progress – and importance - of SDLAM projects during the process of the Productivity Commission undertaking its five-year review of the Basin Plan. The most recent of those is the [NIC 'response' to the review](#) (National Irrigators' Council, 2019).



NIC endorsed the Productivity Commission review recommendations and we have consistently since highlighted the need for [Ministers and Basin governments to act on them](#). In our letter to Ministers before the last MinCo, NIC said (in part):

Our members remain extremely concerned by lack of progress on the Sustainable Diversion Limit Adjustment Measures. There is a fundamental disjoint in responsibility for implementation of these projects vs consequences of failure.

Irrigation communities will bear the cost of failure to achieve 605GL of equivalent benefits and we remain extremely concerned that the lack of progress on many projects means we will see more water purchased by the Federal Government in 2024.

This would be an extremely unfair and damaging outcome. Irrigators have done their share of heavy lifting - one in every five litres of previously available productive water purchased for the environment. We expect Government to accept its responsibility to get 605GL worth of projects implemented, as part of that we continue to urge maximum flexibility in how and what is delivered.

That includes ensuring the flexibility to change projects (including introducing new projects) if they can produce better results for the environment and communities. (National Irrigators' Council, 2019, p. 2)

NIC's letter to Ministers reinforced our concern expressed to Minister Littleproud following the release of the COAG response to the Productivity Commission.

Prior to that we wrote directly to the NSW Deputy Premier urging *"the NSW Government to make as its highest Basin Plan priority delivering the supply projects as part of the Sustainable Diversion Limit Adjustment Measures. After the impacts of drought, the possibility of failure of those projects is the number one medium term threat to irrigation communities in the Southern Basin.*

NIC also strongly advocates implementing the recommendations from the Productivity Commission review of the Basin Plan. These provide a way forward in addressing – in a more considered and practical way – a number of the issues that are causing concern for NSW irrigation communities."

Supply measures (SDLAM) are a critical component of the Basin Plan. If successfully implemented, these measures promise better environmental outcomes along with better economic and social outcomes. Not enough progress has been made on these projects and that flows right through to the associated necessary work around community engagement and transparency.

We must see a focus on implementation, which must occur with genuine community and stakeholder engagement, and with maximum adaptability of the projects – including being able to bring in new projects and additional, complementary projects if they are suitable and value-add.

NIC strongly shares the concern expressed by the Productivity Commission on the risks to these projects being delivered. The projects are being delivered by Governments, but the risk largely lies with irrigators and Basin communities.

This separation of risk and responsibility has become even more apparent over recent months. There have been several worrying developments in particular in political debate that indicate very little concern about flow on implications for the irrigated agriculture sector and communities.



NIC is concerned about slow progress on projects. But as the Productivity Commission report makes very clear on page 127, the core reasons for lack of progress rest with Government. The report highlights four points about governance and funding that are not resolved.

NIC's concern is that while responsibility for resolving these issues rests with Government, the cost of failing is borne by communities and irrigators.

It is particularly worrying when those who are interested in political point scoring use this lack of progress to talk down the prospects of the projects meeting expectations.

We would agree with the summation on page 135 of the Productivity Commission report which says:

"The package of agreed supply measures is potentially more cost effective than recovering 605 GL of water entitlements to achieve the environmental outcomes. Successful implementation could save Basin Governments and taxpayers in the order of half a billion dollars by avoiding further water recovery, which is a concern for many communities. These measures could also provide additional benefits to improve the long-term health of the Basin, such as the ability to provide additional delivery capacity, greater flexibility for river operations and capacity to water new areas of floodplain." (Productivity Commission, 2018, p. 135)

NIC strongly agrees with the Productivity Commission conclusion that *"Governments should confront the reality that some projects may require more time"*. (Productivity Commission, 2018, p. 138)

In fact, Governments and Oppositions must confront that reality and ensure that in their actions and/or alternative policies, they do not suggest taking a big stick to people who will suffer most if the projects fail to produce their anticipated benefit. The Federal Government and Opposition must put the pressure on Basin Governments to deliver, and not propose punishing the communities by threatening buyback if projects are not fully delivered by 2024.

The committee's issues paper tends to highlight the few people who are dismissive of the economic impact of buyback of water. The paper does not acknowledge the very detailed and significant analysis of negative economic impact which has been shown in a range of studies including those by the MDBA, State Governments and most recently the work of the Independent Assessment of Social and Economic conditions in the Basin

This is critical to note when considering the danger to communities of proceeding with buyback instead of achieving the 605GL of SDLAM benefits. If the SDLAM projects fail to deliver the anticipated benefits to the environment, then a government proceeds to purchase water it will have massive economic impact.

A rough estimate using the ABS value of production figures as a basis suggests that the full 605GL equals around \$765 million in wholesale value of crops. That would be accompanied by a significant additional impact with multiplier effects right through irrigation communities. Based on the attribution of where the 605 GL comes from, the biggest recoveries would be from the NSW and Victorian Murray, Murrumbidgee, Goulburn and South Australian Murray.

It means a negative economic impact with potential flow on amounting to several billion dollars felt in communities like Shepparton, Mildura, Griffith, Deniliquin and South Australia's Riverland.

NIC outlined these impacts particularly on the NSW Murray and Murrumbidgee communities in our media release on 2 December 2019 "[Irrigators Council says, fix don't ditch, on Basin Plan.](#)" (National Irrigators' Council, 2019)



Accounting for the benefits of supply measures projects under the SDLAM is complex. These projects deliver equivalent environmental benefits; they do not result in held water for the CEWH. That means the modelling is necessarily quite complex with many interactions between projects.

The Basin Plan sets out a process for undertaking the reconciliation and it is appropriate that this is conducted by the Murray Darling Basin Authority (MDBA). It is premature to suggest that this process is not going to be transparent enough.

Again, it needs to be made clear that SDLAM is not about 'water recovery' in the same way as buyback and efficiency programs. Not all water that provides an environmental benefit is an entitlement held by CEWH. Some of the commentary in the issues paper seems to confuse this.

As outlined above, the current concern relating to the SDLAM projects is around the apparent lack of commitment to getting them underway and having them successfully concluded. NIC would argue that without these projects we will not be able to deliver the environmental outcomes envisaged by the Basin Plan, certainly not within existing time-frames. A greater focus is therefore necessary on the actual environmental outcomes than on simplistic and potentially symbolic flow numbers.

On the broader issue of accounting for water recovery and transparency of water recovery, NIC will take this to refer to the water recovered through buyback and efficiency programs.

Water recovery questions

NIC is concerned that the committee's issues paper presents a one-sided view of water recovery. There is a failure in the commentary to acknowledge that water recovery to date is accounted for, it is extremely transparent, and the water is being used for the environment.

More concerning is the selective comment on the economic impact of different types of water recovery, comment which ignores substantial and well researched evidence of negative impact of water recovery. NIC has previously addressed many of these issues in our submissions to other Senate inquiries, to the Productivity Commission and many others and it is addressed again below.

In the implementation of the Basin Plan to date the task of water recovery has largely been completed. That is a big achievement for the Plan and has produced real, positive benefits for the environment – but it is also clear it has often come at a big cost for irrigation communities and has exacerbated a number of impacts of the current drought for farmers.

The five-year review of the Basin Plan, along with reports from the CEWH and many local catchment groups, point to the early environmental benefits from water recovered as part of the Basin Plan. In figures released late last year the CEWH indicated that since the Plan commenced, her office has used more than 9,000GL of environmental water – that's 18 Sydney harbours worth of additional flow in rivers (on top of the existing flows).

That water has been used in many locations and for many purposes, from encouraging native fish breeding through to bird breeding events on hundreds of public and private wetlands. Watering important wetlands on private properties occurs with the cooperation and active involvement of irrigators. Perhaps one of the most obvious differences the environmental water has had – and one that certainly causes some anger for many people upstream – is that the environmental water has ensured that in this drought, unlike the millennium drought, there are still high levels of water in the lower lakes and water flowing out to sea from the mouth. There is legitimate argument over priorities when we see that happening, but it is an undeniable result of having water 'in the bank'.



This reflects the fact that the held environmental water is much more than paper water. It is entitlement transferred to the Government.

In that sense water recovery has been extremely accountable. In every case, whether it is buyback or water purchase via an efficiency program, the entitlement is handed over up front and transferred to the CEWH. Entitlement then produces allocation (depending on availability) but it is a capital investment that produces a real water dividend each year in perpetuity.

According to the Aither Water Markets Report for 2018-19 the estimated value of entitlements held by the Australian Government in the southern MDB alone is \$5 billion (Aither, 2019).

NIC acknowledges that there is a level of commercial in confidence secrecy around individual contracts for both purchase of water and efficiency programs. Like many in the community we want as much transparency as is possible, while also respecting legitimate privacy issues where they arise.

NIC is aware from extensive discussions with the Department, with some program partners and others that there has been a high level of internal auditing and accounting relating to the delivery of broad programs. We are also comforted by the knowledge that the Auditor General delves into details. NIC acknowledges controversy around some one-off agreements with large or corporate water owners, but again we must assume that the Auditor General will be able to report on the appropriateness of these agreements. NIC is generally opposed to buyback but we will support targeted one-off buybacks where they are voluntary and can be shown to be beneficial overall.

Have efficiency programs delivered 'real' water

NIC has responded many times in the past to one-sided commentary claiming that efficiency programs have not returned water to the environment or are not reasonable value for money.

The argument around how much water is returned to the environment revolves around estimating loss of return flows.

As a starting point we know that currently in the CEWH account there is 640 GL of water obtained via efficiency programs.

The return flows argument revolves around how much water would previously have been returned to the river system or into a groundwater system because of less efficient practices. Committee members may remember that thirty years ago many irrigation areas had major problems with salinity because of inefficient practices causing rising water tables. Efficiency in irrigation has largely solved those issues and produced many other benefits including greater production per litre and reduction in nutrient rich run-off from irrigation farms.

An objective of efficient irrigation therefore is a very reasonable one with a broad community benefit. It is also an inevitable goal once a country creates a water market. In the case of the Basin Plan it has also produced real gains for the environment via the return of a portion of water saved to the environment.

There is no doubt that as irrigation becomes more efficient it does reduce return flows via ground water systems. It may also reduce some run-off into other water bodies, but it should be clear that irrigation systems had generally stopped all run-off back into rivers well before the Basin Plan.

One academic (Professor Grafton) has constructed a basin wide mathematical model and he has used it to suggest in many media interviews that there may be no net return to the environment from efficiency programs. Unfortunately, Professor Grafton's assertion has been used as the basis for several media stories and for conclusions reached by the South Australian Royal Commission.



Fortunately, those assertions are not supported by the MDBA's experts or importantly by other independent scientists who have (unlike Professor Grafton) looked individually at the variety of programs used to deliver efficiency savings, the different soil types etc. For example, an efficiency program that reduces evaporation has no negative impact on return flows. It is also important to note that much of the work undertaken by irrigators and irrigation districts to eliminate or reduce return flows was undertaken well before the Basin Plan.

Scientists from the University of Melbourne have undertaken an independent study on return flows. Critically their study recognises the variety of different types of efficiency programs and geological structures, and also takes into account prior actions. Their estimate of loss from return flows is around 121GL per year. The MDBA has stated that the Basin Plan does take that into account.

[The University of Melbourne study](#) concluded that:

"Irrigation efficiency projects recover a total of 1179 GL/yr across the Basin, of which 757 GL/yr or 64% is transferred to environmental entitlements. These irrigation efficiency projects are found to reduce return flow by 121 GL/yr. The reduction represents 10% of the total recovery, or 16% of the recovery transferred to environmental entitlements. An uncertainty range of 90 GL/yr to 150 GL/yr is suggested.

The largest reduction is in ground return flow, making up 80% of the total reduction in return flow. The timeframe for the reduction in ground return flow is 20 years or much longer depending on the catchment. This timeframe is the lag time between seepage reduction and equilibrated river response." (Q J Wang, 2018)

The Productivity Commission supported the MDBA and University of Melbourne view, concluding that that:

"The Department of Agriculture and Water Resources has accounted for the impacts of improving irrigation efficiency on return flows in some major water recovery projects, but has not done so in all cases. The Department has committed to monitor impacts in future water recovery programs, but the framework for doing this is not yet clear.

The overall impact of improved irrigation efficiency on water resources is not precisely known, but recent independent work indicates it to be relatively small." (Productivity Commission , 2019, p. 36)

In undertaking their research, the University of Melbourne researchers, quoted above, undertook consultation with a range of other independent scientists and river experts.

NIC is also aware of criticism of efficiency programs from the Australia Institute which was then used as the basis for an unbalanced and deceptive ABC 4Corners program in July 2018.

A critical Australia Institute error, re-presented by the program, was failing to acknowledge that when water entitlement was handed to the Government, as part of an efficiency program, the overall amount available for irrigation declined.

As the Productivity Commission pointed out in its report, overall since the Basin Plan started, 20% or 1 in every 5 litres that was previously available for irrigation has been transferred to the CEWH (from buyback and efficiency).

This means that even if an irrigator who has received efficiency funding then goes out and buys more water, it is coming overall from a smaller bucket. It simply isn't valid to suggest that an



individual property using more water means more overall is being extracted as was implied by the 4Corners report and the Australia Institute paper.

The NIC CEO responded specifically to claims made by the Australia Institute about efficiency programs in the Murrumbidgee in a [CEO update in October 2018](#) (National Irrigators' Council, 2018). A listing of responses to the 4Corners 'Cash Splash' program was in the [NIC CEO update for 12 July 2019](#) (National Irrigators' Council, 2019).

Negative economic impacts of buyback

In recent commentary by some academic campaigners, NIC has noted a tendency to denigrate the importance of agriculture for employment in rural communities. The issues paper quoted one example in suggesting that money for efficiency programs would be better spent on health and education. Those making these claims fail to consider multiplier effects from irrigated agricultural production throughout a local economy and the more fundamental question about what the economic base is that actually keeps population in the local economy.

One recent media comment on this topic suggested that agriculture wasn't really all that important in Basin communities because agricultural businesses were only a small part of the statistics on employment for a region. It is a suggestion that ignores the number of other businesses and employment that are there because of the work generated by agriculture as the *Primary Industry*. Irrigation businesses tend to be more intensive than dryland agriculture, so their multiplier impact is far greater. This is rarely taken into account by external commentators.

As an illustration, it is worth looking at the local statistics for the number of businesses in the Edward River Shire as provided by the ABS for 2018. In total they record there being 915 businesses in the Shire, 290 of those are agriculture, forestry or fishing. Of the other 625, the 24 in manufacturing are likely to be largely servicing farmers, similarly many of the 64 in wholesale and retail; the 55 in transport, postal or warehousing; the 59 in professional, scientific and technical and so on. In that year just five houses were approved for the Shire, so it is likely most of the 113 businesses involved in construction were working for agriculture related businesses. For the Edward River Shire that means the private sector driver of employment is agriculture and that drives the reason families stay in the area.

We know from many rural areas that when there is no work available, people leave those towns. That is why shires like Wakool, where the Basin Plan saw 39% of water entitlements purchased for the environment, have seen population decline. This type of impact has been well document by the MDBA in its very detailed community by community economic analysis.

Another illustration of the flow on benefit of an irrigation business comes from one single family farm growing irrigated cotton near Narromine. This property employs one person (in addition to the owner), so for a cotton farm it is relatively small, but a tally of its expenditure showed that it spent more than \$1.2 million directly with businesses in the Narromine Shire (alone) in a single year. If you add expenditure in nearby Dubbo and multiply that by the number of similar irrigating business in the region, you have a key the reason some of these towns continue to exist.

NIC notes the quote in the Committee's issues paper suggesting that "every dollar spent on health, education and basic services in Basin communities could potentially produce three to four times the jobs that would flow from a dollar spent on irrigation infrastructure" (Senate Select Committee on the Multi-Jurisdictional Management and Execution of the Murray Darling Basin Plan, 2020, p. 34).



The reference used by the Committee has also been used by a small group of academic critics of the investment in infrastructure; the original economic modelling on which this is based was undertaken in 2013. Among its flaws, for this debate, is that it runs an economic model based on impact on national GDP and Basin wide product (presumably including cities like Canberra) rather than community by community impact.

Unfortunately, the quote used above is a claim repeated ad nauseam by a small group of activist academics who campaign on the Murray Darling Basin Plan. Dishonestly, those who make the claim fail to point out that investment in irrigation infrastructure and ongoing agricultural production produces ongoing jobs and economic activity through investment of capital funding (as well as water returned to the environment) – while similar capital investment in services produces a short term job benefit which falls away over time.

It is a fundamental point that long-term jobs in Government services need recurrent funding and that is not what the Basin Plan investment provides.

Again, it is noted that the quote above was talking about the Murray Darling Basin overall not at local community level. Building a new hospital or school in a country community is always welcome but unless there is economic activity generating jobs and keeping families in the district then those services will have no clients and they will disappear. We know that Basin communities that have lost population following contraction of agricultural production, lose teachers, classes and eventually whole schools. A capital investment that ensures there are still jobs picking, packaging and transporting product might keep them open, but painting the classroom will not.

Even with its flaws, the quoted modelling shows that investment in irrigation infrastructure produces an overall benefit for Basin communities. This is obvious to anyone who has visited communities like Griffith, though unfortunately it is a conclusion ignored by the sources quoted in the issues paper.

What we know from on the ground experience and thorough community by community research, is that the impacts of the Basin Plan have been varied. The MDBA [community profiles released in 2018](#) resulted in a conclusion that *“the MDBA recognises that water recovery has contributed to detrimental social and economic changes in some communities, especially where water is recovered through direct purchase. This research shows that water recovered through infrastructure efficiency programs, on the other hand, can have a positive or neutral effect on communities”* (Murray Darling Basin Authority, 2018).

To this point, the MDBA research is the most authoritative source of community level information on impacts of buyback versus infrastructure investment. Rather than contesting its conclusions, its critics resort to denigration of the Authority and its peer review process. Instead they seek to quote, far less relevant, Basin wide mathematical modelling.

The clear evidence from MDBA assessments in their Northern Basin review and the Southern Basin community profiles is that, even after accounting for external factors, including changes in agriculture and drought, the communities who have suffered the most from the Basin Plan are the ones where substantial portions of water have been purchased via straight buyback.

NIC acknowledges that there are irrigators who would willingly sell water if a buyback was offered as there have been to date. For those individual businesses there may be a benefit, however the flow on to the community and the sector overall is negative.



That is why irrigators groups, and any group genuinely representing communities, will not support buyback to recover more water.

Are there opportunities to better coordinate and consolidate information about the Plan and its implementation? How might this be achieved?

The difficulty with the Basin Plan and water management throughout the Basin is that it is extremely complicated.

Inevitably there are opportunities to ‘better coordinate and consolidate information’ but frankly that is difficult when functions and responsibilities are (appropriately) spread across different jurisdictions. The MDBA does a good job (often in difficult circumstances) of presenting a large amount of information, though, as other inquiries have said it needs to constantly do its best to ensure that its decision making is transparent, particularly around modelling processes.

There are elements of the Basin Plan delivered by different levels and different parts of Government. That is appropriate and NIC does not believe a Federal ‘takeover’ would improve these issues. Should any change to current arrangements be proposed it must be required to show conclusively how that would improve the possibility of achieving outcomes.

NIC agrees with conclusions and recommendations made by the Productivity Commission about the need for greater transparency and community input to the powerful Basin Officials Committee. Currently that Committee is far too secretive.

How can accuracy, efficiency, and transparency of water trading be improved? What are the potential merits and drawbacks of introducing a single Basin-wide water trading platform and Water Register?

NIC tends to agree with the main comment on this in the issues paper, that the Committee should let the ACCC complete its inquiry into the water markets and make its recommendations for reform. The ACCC has gathered a significant number of people with expertise and is resourced well to undertake the work in what is an extremely complicated set of markets.

NIC’s 2019 Federal election platform included a request that Government “work to provide more comprehensive, timely and transparent water market information”, noting:

“Australia has a world leading water market system; water entitlements were separated from land and a water market was established, with the express purpose of enabling water to go to its highest value uses (within the bounds of physical constraints). There is no doubt it is achieving that aim, although this does not come without cost. NIC strongly supports the system of water entitlements and trading.

We are concerned however, that despite significant effort and expenditure, the water market is difficult to navigate, still lacks transparency and in many cases, timeliness of information. This is not entirely surprising given the complexity of products and differing state based registers, but a more streamlined, user friendly water market platform will improve information flows, transparency and ease of operation.” (National Irrigators' Council, 2019, p. 7)

NIC does advocate much more transparency, improvement in information and a range of other actions, and a single water trading platform and register would be a very worthwhile objective. This would be a very complicated process and it would require a big commitment to standardising information and, in the first instance, combining the State registers.



NIC has made [a submission to the ACCC inquiry](#) which includes a much more detailed consideration of a number of the issues and challenges in markets. A summary of the key points made is:

- Separating land and water and creating markets had a direct benefit to irrigators, it made water entitlements a property right and that gave a level of security to irrigators not previously available.
- The protection and enhancement of the property right attached to water is a key principle for NIC.
- Changes in crops grown are driven by the return farmers receive at the farm gate. Commodity prices, market access and input costs impact these decisions. Water markets facilitate change by allowing water to be moved (within physical constraints) to its highest value use.
- Water markets have enabled inflow of capital and have enhanced the value of irrigated agriculture. It has had positive impacts overall but negative impacts in some regional areas mostly reflecting the economic returns for water use (as measured at the farm gate).
- NIC acknowledges concerns, from some irrigators, about non-water users owning entitlement, in particular, allocation and carryover. Restrictions on ownership would cause negative impacts for irrigating businesses including those relying on allocations, unintended consequences and costly compensation. NIC supports the ACCC taking specific action if it identifies anti-competitive behaviour or evidence of market manipulation.
- Carryover rules have developed differently in different catchments, often for very practical reasons. The rules are built into the value of the property right and have been an important part of enabling better planning of farming operation.
- The ACCC should consider whether there are aspects of the operation of carryover that have unintended consequences or unfair impact on water markets. Evidence of such impact needs to be shown before considering any changes.
- It is not possible or practical to have a fundamental reversion of water markets, either back to the pre-1990s situation of water tied to land or even a blanket exclusion of non-water users owning water entitlement or allocation.
- NIC's priority is to ensure that the water markets are working fairly and transparently. It is important to reduce the complexity and confusion around the myriad of different exchanges and products and to ensure that enough information is publicly available for a competition authority to make an informed judgement about what constitutes anti-competitive or unfair behaviour.

(National Irrigators' Council, 2019)

How useful is publicly available information in demonstrating how the Plan is being implemented and monitored, including communications that illustrate if elements of the Plan are not meeting objectives? How might this information be improved?

There is currently a huge amount of information about the implementation of the Basin Plan. Some of the more constructive information comes from regular impartial reviews like the Productivity Commission. The MDBA itself does a good job with information on its web site attempting to present progress.

Noting that the Plan still has four years until it is intended to be fully delivered, there is significant information available highlighting the remaining challenges and indeed, areas where it appears goals



may not be able to be achieved. The key challenge is to identify how to tackle those problems in an environment characterised by controversy and often significant deliberate misinformation.

Perhaps the key problem with monitoring progress on the Basin Plan is that so many of the indicators are simplistic flow targets which do not guarantee positive environmental outcomes. The health of the river system and its environment is dependent on factors far more complex than flow metrics, yet much commentary fails to acknowledge that fact.

There is no doubt there is a significant challenge in the poor public understanding of the Basin Plan. That is because it is complex, but it is also in part because of misinformation being spread by individuals and groups pursuing their own agendas. It is clear that, at times, some of the commentary is deliberately misleading and seeks to demonise water users in particular.

Another factor frequently misrepresented is the impact of the current drought on the environment, the economy and regional communities. The Basin Plan was never intended to 'drought-proof' the river system. Commentary which claims that dry rivers during drought means that the Plan has failed, highlights ignorance of the intent and capability of the Plan – not to mention nature.

It is notable that the discussion question posed focuses on 'including communications that illustrate if elements of the Plan are not meeting objectives'. Why, we might ask, did this question not acknowledge better communication of the fact that independent reviews show that significant progress has been made on the Basin Plan and it is showing positive early results for the environment?

There is a clear need to improve public, media and many politicians' knowledge about the Plan; this includes the positive stories as well as the real challenges that exist. We need to build awareness that we are talking about the whole system. It is important to note for example, that there are thousands of wetlands along the river system (including many on private property); we won't achieve a healthy ecosystem just by focusing on a couple of iconic locations at the expense of other parts of the river.

There have been at least 42 inquiries or reports into aspects of the Basin Plan implementation since it commenced at the end of 2012. That is probably a conservative count given the many that can be found on the MDBA web site. It is perhaps, less a question of producing more information and more about focusing on carrying through and implementing findings of reports rather than continually producing more reports on the same issues. The Basin Plan is complex and a lack of knowledge and understanding of the Plan does not automatically indicate failure.

On that basis NIC strongly reiterates the need to implement the Productivity Commission's recommendations which very clearly identify those remaining aspects of the Plan that will be difficult to implement.

Complexity of current Basin Plan governance arrangements

What are the benefits or limitations of the current management and governance arrangements of the Basin Plan?

Australia's federal structure dictates that there will be very complex arrangements for the implementation of the Basin Plan and while those arrangements are often frustrating and hard to follow, it is also hard to see how they could be significantly changed.



The fact that we do have a federal agency (now the MDBA) managing the operation of the Murray is something that was a substantial achievement in the century of dispute about the system.

NIC members would not support transfer of more water management functions to the Commonwealth. It is not a position based on thinking that the current arrangements particularly suit irrigators or that they are easy to navigate; it is really about the fact that there are such substantial differences between states in allocation types and river management with expertise (theoretically) and on the ground knowledge in the state administrations.

This is an issue that has been considered (to an extent) in many reports, including the Productivity Commission Review and the Northern Basin Commissioner's first report.

There is no doubt that the complexity, and sometimes confused responsibilities, make at times for a system where it is hard to hold the right people responsible and where too often projects (like the SDLAM projects) are left in limbo. As we saw with the COAG response to the Productivity Commission report, the need to get common ground from all participants often leads to either something vague or, for something controversial, to a dead stop.

However, it is hard to see how the management arrangements could fundamentally change. The arrangements do reflect a federal structure, which in almost every area leaves many Australians understandably confused about responsibilities.

State Governments have very legitimate roles in management of vital aspects of the rivers in their states along with catchment and land management, planning, infrastructure management and maintenance etc. The difficulty with any transfer of responsibility, wherever that might be, there would still be a boundary and split responsibility.

In the NIC's view it is best to focus on improving transparency of decision making, communication and building a culture where governments work together to facilitate implementation and not put up barriers, often political.

Is there sufficient transparency in the management and governance arrangements of the Basin Plan, particularly in the division of roles and responsibilities between Commonwealth and Basin states and their various agencies?

Those with good knowledge of these processes do understand areas of responsibility; but for most people, management and governance arrangements would be confusing.

There is room to improve. The Productivity Commission suggested reforms to make the Basin Officials Committee processes more transparent and there are still many occasions where more public consultation would be beneficial. One recent example of that has been the Ministerial Council dealing with delivery issues in the Murray, an issue raised by industry but where the process of dealing with it was essentially taken behind closed doors at the direction of the Ministerial Council.

Do jurisdictional differences create unnecessary complexity and inconsistency, or increase potential for compliance breaches? To the extent such complexity is unavoidable, given the history and inter-jurisdictional nature of Basin management, how can this complexity be best managed?

Obviously jurisdictional differences create complexity and inconsistency. In some cases, there are strong reasons for differences, in others perhaps less so. It is unavoidable that the allocation of water and therefore the different types of entitlement vary between catchments and states. There



are significant differences in the characteristics of the river systems across the Basin and that feeds through to very different levels of reliability and then differing types of entitlement. That is entirely logical.

It is hard to see how these differences would increase potential for compliance breaches. At the moment it is very clear that primary responsibility for compliance rests with state authorities, the federal oversight of compliance is not intended to take over that primary responsibility.

Potential for breaches certainly occurs if there is poor information flow (for example about embargoes being imposed) or if there was ever to be inconsistent information from state and federal authorities.

State governments have made policy decisions on aspects of the entitlements they have issued and, on that basis, irrigation industries have developed somewhat differently in each state. While it might seem attractive to standardise entitlement types, any process seeking to do that would need to ensure that like for like was appropriate.

Ensuring reasonably consistent terminology might be a good first step.

Should the Commonwealth have greater powers to manage the Murray-Darling Basin? What additional powers would help improve the management of the Basin? What would the practical implications of making these changes be?

NIC does not support further transfer of powers to the Commonwealth. Australia (for better or worse) has a federated structure which means state governments have responsibility for management of land and rivers in their jurisdictions.

It is difficult to see what 'greater powers' would practically achieve. There is no practical doubt about the capacity of the Commonwealth to have legislated a Basin Plan. The Plan already provides a Commonwealth role in setting Sustainable Diversion Limits in each catchment and requires states to put Water Resource Plans in place that comply with those limits.

The current legislation gives the Commonwealth a significant level of power over those Water Resource Plans via the requirement for accreditation. State governments have the expertise and the networks to do the day to day management of rivers including making allocation decision and monitoring compliance. These roles go hand in hand with land and catchment management along with planning, all of which are key state responsibilities.

Achieving agreement to put in place a Basin Plan was a major achievement for our federal system and its success in the long term depends on a cooperative bipartisan approach. Transferring additional power for shared water resources to the Commonwealth would not remove parochialism or political point scoring from water management and might in fact create greater challenges by removing some of the need to reach agreement across all Basin Governments on critical issues.

What are the benefits or drawbacks of a large number of entitlement types? Is there scope to streamline entitlements used across the Basin?

There are a number of contributing factors to the very large range of types of entitlement. Primarily this is because every catchment is different, they are not all practically connected, they have different levels of reliability and different characteristics etc. On top of that each state has developed their entitlements separately often with quite different policy positions based on the type of irrigated agriculture they are serving. It is not like the 'Railway Gauge' issue where standardisation was a matter of engineering.



There are many practical reasons for differing characteristics for entitlements and this can be confusing for people who do not deal with these issues on a daily basis. Often the public discussion makes the system sound more complex than it is.

However, there is unlikely to be a lot of scope to standardise or 'streamline' in a practical sense – that is, to give them all the same characteristics. That is not to say that there should not be a periodic review in each state to see if there are opportunities to do so. Though it must be remembered that a change to a characteristic of an entitlement might also influence its reliability and value, so the process is not simple.

A more practical approach might be to look at whether, over time, common terminology could be introduced to give a better idea of like for like in each jurisdiction.

Environmental watering

The management of environmental water has been the subject of a number of inquiries and reviews over the last few years. These include the Productivity Commission's review of National Water Reform (2017) and its five-year Basin Plan review; the House of Representatives Inquiry and the CEWH's own review of their investment framework.

NIC has made submissions to all these inquiries.

We must ensure that environmental water is used as effectively as possible to generate positive outcomes (which are not just flow targets).

NIC's policy urges the Commonwealth Government to be proactive in building a new stream of work to focus on maximising the benefits of environmental water by building community and catchment involvement in environmental water decisions; better coordinating environmental watering with natural flows and releases and undertaking complementary measures to improve the river habitat and riparian zones.

NIC strongly supports the use of local knowledge as a critical part of any broader approach to decision making around managing environmental water to ensure delivery of water to important environmental assets, to mitigate potential negative impacts and, where possible, provide flow on benefits for communities including for First Nations communities.

The deployment of local knowledge might work in conjunction with the existing team of local engagement officers appointed by the CEWH who are currently playing an important role working with communities and delivery partners (state agencies, river operators and local advisory groups) to ensure the delivery of water to important environmental assets.

Complementing the work of the local engagement officers, NIC recommends an approach that focuses on maximising the benefits of environmental water by building community and catchment involvement in environmental water decisions, engaging with local communities, landholders and catchment management authorities specifically to support coordination of environmental watering with natural flows and releases.

It would be fair to say that environmental water managers are still on a learning curve in relation to best use of their water and they are achieving more positive results.

In terms of effectiveness of delivery and coordination, NIC has noted a number of positive assessments of environmental watering events. In particular, events where experience of previous



efforts has been used to determine the best way to coordinate Commonwealth flows with natural flows or state water holder releases.

We have noted several positive assessments of this work on fish breeding in some areas along with other results. For example, the MDBA 5-year review highlights early positive results from the Basin Plan overall but also specifically on watering events.

Anecdotally (and in several reviews) it is clear that there is more to be learned about the most effective timing of events and how to ensure best results. That is not surprising given the early stage of the Plan and the relatively new science of environmental water management.

We would continue to strongly encourage close cooperation and communication between all levels of management of rivers along with river experts and local communities. We need to communicate that the expectation is that it will take time to get arrangements right. In terms of barriers, we know there are different arrangements in each state for water and catchment management which may lead to differing levels of success.

Management of environmental water is not just about flow; poorly timed flows can have detrimental environmental impacts, just as well managed releases can multiply benefits significantly. Requirements vary enormously in different places and at different times, so it is by necessity a learned process.

It is also important to again emphasise that the health of the system will not be improved with flows alone. There are a range of vital complementary measures that need to be put in place; this is in recognition of the need for the restoration of whole habitats suitable for native plants and animals to thrive, which is about more than flows.

NIC's 2019 election policy called for an additional \$500 million to put in place complementary or non-flow measures designed to enhance the river environment. The water that the CEWH has available can be effectively used to introduce complementary measures to improve connectivity and habitat for native fish, concerted action on terrestrial and aquatic animal and plant pest species, as well as measures to address cold water pollution.

A dedicated focus on these measures is becoming increasingly pressing, where it is underpinned by scientific work on native fish, impacts of terrestrial and aquatic pest species etc.

Without complementary measures, the water reserved for the river and the environment will not produce actual environmental outcomes. A recovery figure or flow target is not an environmental outcome, but just one part of the mechanism to achieving an outcome. Moving beyond hydrology as a solution will require expansion of thinking to include active land and water management, broadening the scope of the Plan to exponentially improve the environmental outcomes.

Complementary measures (also known as toolkit measures in the Northern Basin) facilitate delivering equivalent ecological outcomes required to meet Basin Plan objectives that will not be met through existing water recovery measures:

- supporting the rehabilitation of native fish species
- improving productivity within aquatic ecosystems
- increasing the resilience of threatened species
- improving social and economic prosperity from aquatic resources
- contributing to the achievement of cultural water objectives



There are a number of different plans that guide the delivery of environmental water. Is there any crossover between planning (for the delivery of environmental water) that is carried out by Basin states and the MDBA? Is there opportunity for such planning processes to be streamlined and, if so, how might this occur?

There is a hierarchy of plans for environmental watering, something that is to be expected. As NIC has outlined above, we would like to see a planning process that has a strong focus on local engagement using local knowledge. Our main concern with this aspect is noting the quite different catchment management arrangements between the states. The Productivity Commission's 2017 report on water reform made positive mention of Victorian CMA arrangements as being a good model and from what NIC has seen that model does appear to have produced an effective partnership that is getting positive results.

A range of coordination committees meet on an ongoing basis to plan water delivery and coordinate environmental watering events across different WRP areas and between jurisdictions. How effective are these coordination committees? What changes, if any, could improve environmental water coordination?

In keeping with our advocacy of localism in environmental water management we do support the use of coordination committees. "Localism" was a major commitment made to regional stakeholders in the development of the Plan, as was "adaptive management".

Are the outcomes of environmental watering communicated effectively with stakeholders and the broader community? If not, what information needs to be publicly available to improve understanding of environmental watering, and the transparency of environmental watering processes?

There is a lot of room for improvement in this area. It is very clear that within its current structure (i.e. embedded in the Department of Environment), and with the resources it has available, the Commonwealth Environmental Water Office (CEWO) is not able to undertake the extensive public information and communication necessary to educate the community either about the things the CEWH is doing or even the reason they are being done.

The CEWH's use of its water is not perfect but it is making full use of being the Basin's largest holder of entitlement. Yet if you believed some Basin Plan critics and the media who report these issues you could be forgiven for thinking there is no environmental water; others (including some supposed experts) would also have people believe that held environmental water is the only water in the system not extracted. There is poor understanding of the huge number of environmental watering events, the purpose and the outcome and the CEWH could do much more to tell this story.

NIC has been working for some time to highlight some of the many examples of irrigators watering valuable wetlands on their properties. Often not understood or acknowledged, is the fact that many important wetlands and breeding areas are on private land and in many cases, irrigators are their custodians. NIC's project became the [web site "Sustainable Stories"](#).

It is important to provide examples of successes in environmental watering events, both to highlight where this massive water purchase has gone but also to educate the broader public about benefits.

Education and clear easily accessible information would assist in understanding what is and what is not environmental water flows. In the current drought crisis, the volume of flows down river in the



Murray can be very sensitive and a source of reliable information would be useful in informing people in broad terms where, and for what purpose, those quantities are released.

NIC has raised the need for a more proactive presence from the CEWO in the media and on-line in the past. For this purpose, we strongly recommend that they are provided with more resources and the licence to undertake the work to support a more balanced narrative.

There have been concerns raised about the effectiveness of environmental watering including that the outcomes of watering events are not monitored and evaluated adequately, and that there is a lack of transparency in how environmental outcomes are measured. How might these processes be improved?

To an extent this is covered in the comments above.

It is very important that as the environmental watering experience matures the CEWH can demonstrate that it is making the best use possible of the very large amount of water that has been removed from productive use and dedicated to the environment. Irrigators face constant demands for accurate accountability for their use of water and the same should apply to Government.

Reporting from the CEWH must focus on the environmental outcome that has been achieved. There must be clear differentiation between these outcomes and 'flows'.

Environmental watering planning must be clear about desired objectives, combined with an improved communication strategy around this. For example, where are the targeted areas and what is the intended outcome? It is recognised that there will be learning along this process, that it takes time to work out the timing and type of release that will suit a particular area or target species.

We recognise the spectrum of support versus opposition to environmental watering; this means that for some people at one end of the spectrum there will never be enough environmental water while there are those who feel all e-water is a waste. It must be accepted that there will be some uses of environmental watering that will attract criticism. It would be hard to envisage a time, for example, where water going out to sea at the Murray Mouth would be seen as anything other than negative by people who are in drought and face unaffordable or non-existent allocations.

NIC does acknowledge the role environmental water can play in producing a healthy river system; this includes providing water to wetlands, flows for native fish breeding events, building on natural flows and providing variability in river heights and overbank flows etc. This does not mean we should not demand accountability, justification of decisions and transparency around this.

Is there a need for the Commonwealth Environmental Water Holder to have powers to compel information from other bodies to assist in the delivery and coordination of environmental water?

NIC is not aware of any case where the CEWH has not had the information or power to undertake its work.



Water Resource Plans

Is there adequate information available for stakeholders to understand the process of developing, amending, implementing, monitoring and enforcing Water Resource Plans (WRPs)? If not, what information is required?

State planning processes necessarily differ between states due primarily to their unique base legislation.

WRPs are complex and are not always well understood, even by those stakeholders directly concerned with their outcome. Typically, those stakeholders who are involved with the development of the WRPs have a working understanding of it, but WRPs are often difficult for external parties to understand, due to their complexity and broad scope. Some of the angst that has surfaced about WRPs has been a result of poor or incomplete understanding of the whole document.

Sufficient information about WRPs should be available to all stakeholders and should include 'plain-English' versions to expand their uptake.

Is there sufficient clarity around how WRPs will be implemented alongside existing state arrangements?

No, see above comments.

What complexity is created by jurisdictional differences in developing and enforcing WRPs? How can this complexity be managed?

Complexity across the Basin is just a fact of life. Understandably it is difficult, if not impossible to understand all the nuances that are included in different legislation, regulations, plans and basic information about water administration. Stakeholders typically understand their own local arrangements to a 'working' standard, but have little deep knowledge of other areas.

It is fundamental to understand that arrangements evolved in the way they have for a good reason.

While the end result of 'standardisation' seems attractive, the process of implementing the change would be far more complex and costly than the result would justify.

Is there scope to improve accountability in the delivery and enforcement of WRPs?

Accountability is already applied through initial accreditation of WRPs by the MDBA and the annual reporting requirements.

Compliance arrangements

Compliance is a means of ensuring that the rightful owner of water receives what they are legally entitled to. This applies to ALL entitlement-holders, irrigators, Government agencies and authorities including CEWO. NIC and its member groups (indeed irrigators overall) have consistently advocated for and supported compliance arrangements that are clear, well-resourced and able to build confidence in the system. Our members have been advocating these positions from well before compliance issues appeared in the media, highlighting the run-down of on the ground compliance resources that occurred in some areas. Irrigators were vocal about paying for a compliance function that they saw was not being adequately delivered.

With the creation of NRAR in NSW, reviews in Queensland, the creation of the inspector general and the signing of the compact we have seen significant change including a major injection of resources



into the job of compliance in the Basin. Irrigators welcome this and continue to work with Government on implementation.

Irrigators have zero tolerance for water theft; water theft reduces water available to legitimate users and gives an unfair cost advantage.

Irrigator groups have been positive and active participants with Government in working through the many issues associated with metering, monitoring and policing of water use, with the aim of achieving a system that is workable and effective.

Compliance is, and should remain, primarily a function carried out by state governments. State government agencies have the capacity to be 'on-the-ground' and that is essential for strong compliance. The two-tiered system, with the Commonwealth having an oversight role, is a useful guarantee as long as it does not result in duplication of effort and cost.

It is important to recognise the major changes in compliance over the past few years underpinned by a major increase in resourcing and to also recognise that we are in the midst of huge changes in metering and monitoring policies. It is important to acknowledge the work that is underway and to allow it to continue to conclusion.

The flip side of demanding high levels of compliance from water users should also be a much greater accountability from river operators and Government about losses in the system.

What improvements, if any, could be made to facilitate robust monitoring and compliance into the future?

The current reforms must be allowed to continue until they are fully implemented and are able to be assessed over a period of time. We encourage the committee to acknowledge the huge amount of work and additional resources committed by state governments and the Commonwealth and the positive cooperation of irrigators in that process must also be acknowledged. In doing so the committee should consider putting forward a firm finding to counter those who seek to score dishonest political points by pretending nothing has happened over the last three years.

What have the impacts of the compliance processes set through the Compliance Compact been? Have they resulted in better compliance? Are there areas that need further development?

The compliance compact has been an important positive development which, combined with actions taken by state governments, has resulted in improving resourcing of compliance activities and therefore better compliance. The current process of implementation needs to be finished before considering if further development is required.

Do the Commonwealth and the states have adequate powers, resources, and information to monitor and enforce compliance? If not, what is missing?

Governments have adequate powers and they now appear to be directing resources where they are needed. The tools available for monitoring and enforcement continue to develop, particularly around technological solutions. NIC notes the difficult challenges in working through the issues around how to effectively manage the large amount of data that will come from telemetric meters; this will be a difficult challenge and will also need careful consideration around accuracy and privacy issues.



Is it challenging for water entitlement holders to find information about, and understand their compliance obligations? Do entitlement holders have confidence that they know the rules so they can act in accordance with their water licenses?

Some license conditions are quite complex and when they interact with a need to measure natural events, there is potential for confusion. This is particularly the case in unregulated systems. Most large irrigators do understand their obligations; to ensure this continues they must have access to timely information from Government about any changes and about 'events' that might impact their right to extract water (for example cease to pump orders or embargoes). There are instances of some entitlement holders who do not have a good understanding of their obligations, and additional communication about this by the states concerned would help this.

What are the effects, positive or negative or otherwise, of Basin states having different compliance processes including having different penalties and sanctions for offences, or different metering equipment?

It is inevitable there will be differences between states because there are differences in types and conditions on entitlements. The comment made above in relation to different entitlements also applies to this question.

In the long term it would seem sensible to have similar or consistent penalties and in the medium to longer term, metering equipment will also be meeting the same standards (AS4747).

That does not mean everyone needs the same meters or telemetry systems; however it would be desirable to ensure that systems development keeps pace with technological advances; this means setting standards for the accuracy of meters and the data that needs to be communicated rather than being too definitive in the actual make and model of equipment to be used.

Is it feasible to develop a uniform sanctions and penalties regime? What are the benefits/challenges of having uniform sanctions and penalties across the Basin?

This may be feasible in the longer term however it would firstly need to be established that existing penalties and sanctions were not fit for purpose.

Do the existing licensing and regulation frameworks for water brokers provide sufficient protection for traders?

In NIC's position statement on water markets we state that we want the ACCC to ensure that codes of conduct for water brokers are adequate to ensure market participants' rights are protected.

NIC does not have evidence one way or another that further protection is needed and that is why we would hope the ACCC investigates the area and takes an ongoing role in monitoring activity in the markets.

NIC would suggest to the committee that this is an area the ACCC is well placed to look into given the resources allocated for their water markets inquiry.



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