

QUESTIONS ON NOTICE - 18 SEPTEMBER 2015

DEPARTMENT OF THE ENVIRONMENT

Questions One and Two

Hansard Pages 16 & 17

**Senator MADIGAN:** *Could you briefly give the committee an overview of your assessment of the basin environment in 2015?*

**Senator MADIGAN:** *Would you also be able to inform us as to what the key indicators are that the department uses to determine improvement in these iconic sites?*

**Answer:**

The following information has been provided by the Murray-Darling Basin Authority (MDBA) and any follow up questions can be addressed by the Authority if additional information is required.

The MDBA is using four key indicators of the Basin's water-dependent ecosystems to monitor changes in the health of the Basin and to measure the benefits of the Basin Plan. They are:

- river flows and connectivity;
- native vegetation;
- waterbirds; and
- native fish

These indicators are good indicators of the health of river systems. They are well understood and have all declined appreciably because of the way we capture, divert and manage water. They also respond to environmental watering making it easier to identify the benefits of the Basin Plan.

River regulation and diversions have impacted the habitat available for, and the populations of, water dependent animals and plants that rely on these rivers.

Natural over-bank events have reduced to the point that many floodplain ecosystems and the functions they support are at risk. Parts of the Murray floodplain used to be inundated, on average, once in every two years or even more frequently. Under the arrangements in place prior to the Basin Plan, the frequency of inundation had been reduced to once in every five to 10 years.

More than 30 years of annual waterbird surveys have shown a 72% decline in waterbird populations. This means the starting populations are lower when conditions favourable to breeding do occur.

The Sustainable Rivers Audit rated riverine vegetation in the northern Basin catchments as 'moderate' on average. However, riverine vegetation condition in the southern catchments, which are more heavily regulated, was rated as 'poor' on average. Overall, the condition of vegetation in the southern catchments has been declining rapidly over the past two decades.

Changes to natural flow regimes have degraded fish habitat and reduced habitat connectivity across the Basin leading to a significant decline in the abundance and distribution of almost all native fish species. The Sustainable Rivers Audit recorded the condition of fish communities as:

- moderate in 3 valleys;
- poor to very poor in 12 valleys; and
- extremely poor in 8 valleys

*Additional background information*

- River flows and connectivity

The Basin-wide Environment Watering Strategy (the Strategy) highlights that over the 114 years of record, river regulation and diversions have reduced the volume of water flowing downstream by up to 50% in the most developed catchments of the basin (e.g. Murrumbidgee, Goulburn Broken,

Murray, Gwydir and Condamine Balonne). This in turn has impacted the habitat available and the populations of water dependent animals and plants that rely on these rivers.

As a general trend, the impact of development on connections between rivers has been greater in the southern Basin compared to the northern catchments. This reflects the historically higher level of development and extraction present in the southern valleys.

In most developed valleys the frequency of flows which connect rivers with their floodplain has also been substantially reduced. In these rivers, the flows delivered from dams are almost always in-channel—so natural over-bank events have been reduced to the point that many floodplain ecosystems and the functions they support are at risk. The Strategy illustrates this for a part of the Murray floodplain where currently these areas are inundated only once or twice in a ten year period, whereas prior to development, the natural inundation frequency ranged from every year (i.e. 10 in 10 years) for some areas, every second year (i.e. five in 10 years) for a wider area.

The pattern is repeated in many catchments throughout the Basin, including in unregulated valleys where water sharing plans permit most medium-sized events to be pumped. Pages 12 – 45 of the Strategy detail how each of the four components of the Basin's water dependent ecosystems have declined.

The Sustainable Rivers Audit (2008-2010) indicated that all river systems in the Basin have been influenced by human development which has impacted on seasonal flows and flow variability. Only low developed reaches or headwaters were found to be in good health under the hydrology theme.

- Waterbirds

More than 30 years of annual waterbird surveys have shown a 72% decline in total population (average abundance) of waterbirds between the first decade of the survey (1983 to 1992) and the third decade of the survey (2003 to 2012). Abundance declined within each functional group, with shorebirds declining by 76% and large-waders by 57%. The number of nests and broods and the number of species breeding declined significantly, the latter by 72%. Overall, the number of different species was the only measure of the waterbird population that did not decline over the survey. Other investigations have found this same pattern of decline.

Waterbirds naturally respond to 'boom and bust' periods driven by river flows and local rainfall. River regulation has diminished the extent and frequency of the flows that drive 'booms'. While the populations will always be low in drier years, the natural reproductive response in the higher flow years has been less evident over the previous decades. There has been less opportunity for populations to build over time because suitable conditions (such as medium flows) rarely occur; as such flows are mostly captured in dams and weirs. Therefore, the starting population at the beginning of each boom period is trending lower over time.

- Water dependent vegetation

Over the period 2008–2010, the Sustainable Rivers Audit rated riverine vegetation condition in the northern Basin catchments as 'moderate' on average. However, many of the unregulated catchments were rated as being in 'good' condition. Riverine vegetation condition in the southern more regulated catchments was, on average, 'poor'; and only one of the 13 southern catchments was rated in 'good' condition (the Central Murray). Overall, the condition of vegetation in the southern catchments has been declining rapidly over the past two decades.

The high-flow events in 2011 and 2012 (following significant rain) improved the condition of some vegetation. However, in many places these improvements were modest, and follow-up watering is required to consolidate this improvement in condition.

The MDBA commissioned a condition assessment (as at 2013) of water-dependent trees (river red gum, black box and coolibah) for the development of the Basin-wide Environment Watering Strategy. This assessment indicated that the vegetation lower on the floodplain (namely red gums) was in marginally better condition than vegetation higher on the floodplain (e.g. black box) that had been more impacted by reductions in small to medium flooding throughout the system. For example in the southern basin up to 60 to 80% of river red gums were rated as being in moderate to good condition

while for the same catchments between 20 and 60% of black box could be considered to be moderate to good condition.

- Native fish

The 2008 Sustainable Rivers Audit report card (SRA 1, 2004–2007) recorded the poor condition of fish communities across much of the Basin. Only three valleys had fish communities in moderate condition (Paroo, Condamine and Border Rivers), while 12 were in poor to very poor condition; and the remaining eight valleys were in extremely poor condition. SRA 2 (2008–2010) showed improved fish condition only in the Paroo.

Changes to natural flow regimes have degraded fish habitat and reduced habitat connectivity across the Basin leading to a significant decline in the abundance and distribution of almost all native fish species.

Silver perch was once a common species in the middle reaches of the River Murray, but during the 1990s numbers fell by 95%. Trout cod and Macquarie perch could once be found along nearly 1000 kilometres on the Lower Murray, but now only occur in isolated populations and upper tributaries. Commercial fishing in the River Murray once targeted Murray cod before major declines from the 1950s reduced profitability. Catches of some target species in the Lakes and Coorong Fishery in South Australia have also declined. Smaller species—like olive perchlet and southern purple-spotted gudgeon—have also declined or been lost from whole catchments. At the same time, changes to rivers have favoured alien species like carp.

Further details on the environmental condition of the Basin can be found in the Basin-wide Environmental Watering Strategy and the Sustainable Rivers Audit on the MDBA website, at:

<http://www.mdba.gov.au/media-pubs/publications/basin-wide-environmental-watering-strategy>

<http://www.mdba.gov.au/what-we-do/mon-eval-reporting/sustainable-rivers-audit>

**Question Three****Hansard Page 16**

**Senator MADIGAN:** *In the information you said you can provide to the committee, how much of the current state of the environment is due to improved weather and how much to the implementation of the plan? Are you able to differentiate a bit there for the committee?*

**Answer:**

The following information has been provided by the Murray-Darling Basin Authority and any follow up questions can be addressed by the Authority if additional information is required.

The MDBA is using four key indicators of the Basin's water-dependent ecosystems to monitor changes in the health of the Basin and to measure the benefits of the Basin Plan. These key indicators are also applied to iconic sites. They are:

- river flows and connectivity;
- native vegetation;
- waterbirds; and
- native fish

The approach which will be taken to monitoring and evaluation will be to compare the outcomes observed with the Basin Plan with the best estimate of what would have been achieved without the Basin Plan. For example, comparing gauged river data and the observed area of inundation with what would have occurred without the additional flows provided by environmental watering will be the foundation of the evaluation exercise. There are also opportunities to directly compare the ecological condition of sites which benefited from managed environmental watering with nearby sites which were not watered. This helps us tease apart the beneficial effects of additional environmental water provided under the Basin Plan from the effects of year to year changes in seasonal conditions.

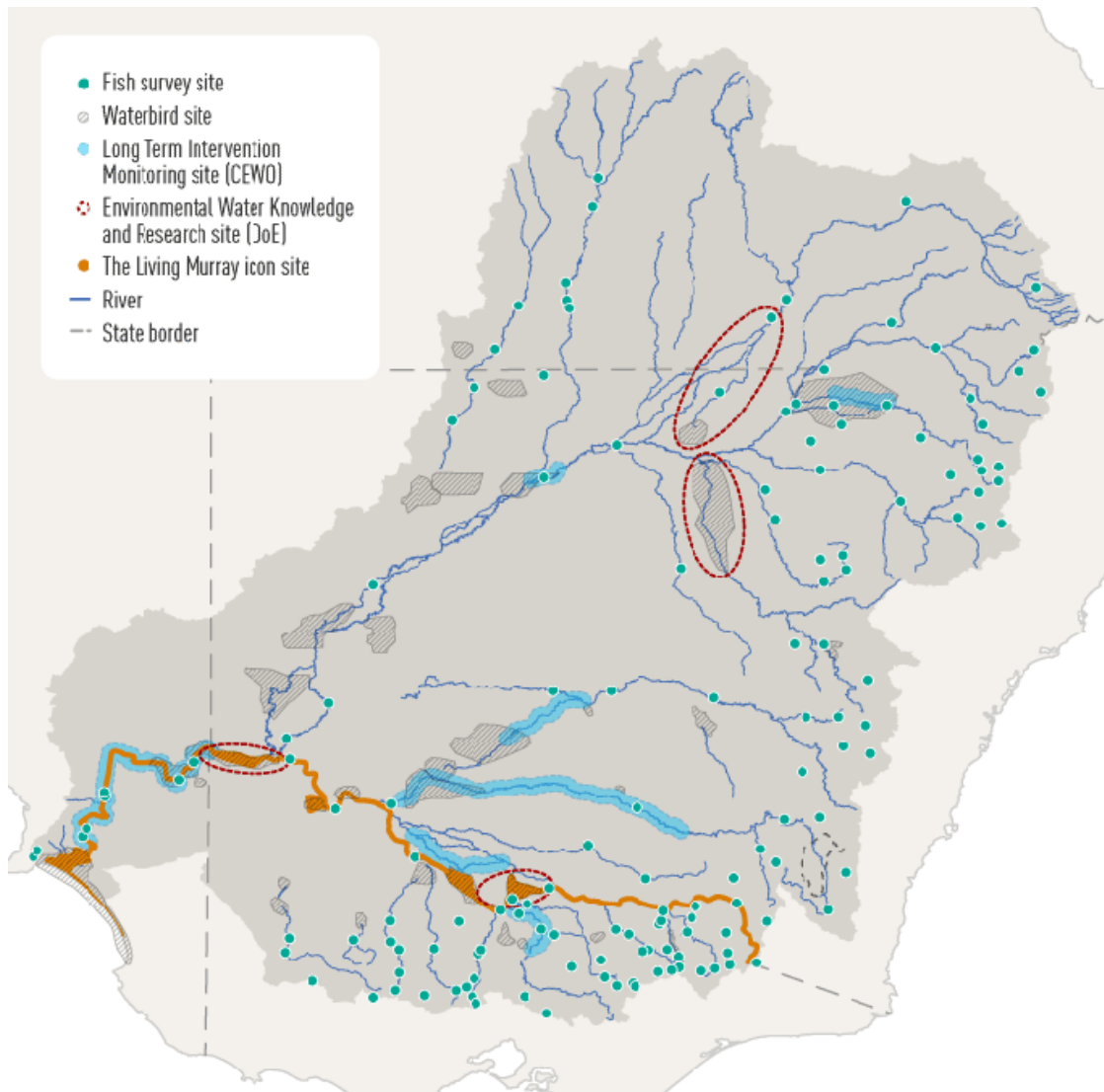
*Additional background information*

The MDBA has established a basin scale monitoring program to measure basin scale changes in environmental condition as a result of the Basin Plan. It focuses on waterbirds, fish, vegetation and hydrology, and will help to measure progress towards the expected outcomes established in the Basin-wide Environmental Watering Strategy.

This basin scale monitoring will allow the MDBA to both record how ecosystems respond to the wet and dry cycles of the Basin's climate, and effect of the rewetting of wetlands and low-lying floodplains as a result of environmental watering. The MDBA is also working with its Commonwealth and State government partners to coordinate the monitoring of indicators at a range of scales, from Basin-wide programs to localised projects at individual sites. This ensures that environmental monitoring programs are coordinated and cost-effective across the Basin. The following map shows where in the Basin the key monitoring and evaluation sites are.

The MDBA will use information collected from the coordinated monitoring programs to evaluate how well the Basin Plan environmental reform measures are improving the condition of Basin ecosystems. Comparative assessments will be used to compare observed results with a reference case—often called a baseline and compare what has happened with what would have happened if the Plan did not exist (with and without). For example comparing gauged river data or area of floodplain inundation with what would have occurred without additional flows provided by environmental watering. This approach will then separate the effects of the Basin Plan from the impacts of climate.

Further information on the MDBA's Monitoring and Evaluation Program including who is responsible for environmental monitoring and evaluation at the various scales can be found on the MDBA [website](#).



**Figure 1: Overview of Monitoring and Evaluation sites across the basin**

SENATE SELECT COMMITTEE ON THE MURRAY-DARLING BASIN PLAN  
QUESTIONS ON NOTICE - 18 SEPTEMBER 2015

**Question Four**  
**Hansard Page 17**

**Senator MADIGAN:** *What is the department's assessment of the health of the Barmah-Millewa red gum forests currently?*

**Answer:**

The following information has been provided by the Murray-Darling Basin Authority and any follow up questions can be addressed by the Authority if additional information is required.

The combined effects of river regulation and water extraction have resulted in a reduction in the frequency, size and duration of the medium to large floods required to sustain the Barmah-Millewa Forest. Regulation has reversed the seasonality of flows due to winter and spring flows captured in storage and higher flows delivered in late spring to autumn to meet consumptive demand.

An overview of the results of environmental watering at Barmah-Millewa Forest since 2009-10 is provided in the table below.

Water Year	Volume*	Outcomes
2014-15	0 GL	Natural inundation in Spring 2014 and summer 2015. No environmental water required
2013-14	355 GL	Growth and flowering of Moira grass, breeding of colonial waterbirds, improved floodplain vegetation and benefits for native fish and turtles.
2012-13	2.9 GL	Breeding of colonial waterbirds at a significant wetland.
2011-12	424.6 GL	Improved river red gums and other vegetation, waterbird breeding, and provide suitable conditions for fish breeding.
2010-11	199 GL	Recovery and maintenance of wetland vegetation, and contributed to a successful bird breeding event.
2009-10	2.4 GL	Recovery and maintenance of wetland vegetation, and maintenance of bird breeding and foraging habitat.

\*Note that volumes may include water from The Living Murray, The Barmah-Millewa Environmental Water Account, the [Commonwealth Environmental Water Holder](#) and the [Victorian Environmental Water Holder](#)

Ecological monitoring undertaken in the Barmah-Millewa Forest in 2013-14 as part of The Living Murray (TLM) initiative has indicated that:

- The 2014 Stand Condition Assessment found that 94% of the River red gum forests and woodlands were in Good or Moderate condition, compared to 89.5% prior to significant natural flooding in 2010.
- The extent of Moira grass in 2013-14 represents less than 5% of the area mapped in 1940's. There was extensive growth of Moira grass in response to the 2013-14 environmental watering event. Monitoring indicates that this growth has been from existing plants, rather than new plants germinating from seed, and that there are few viable seeds present in the Barmah forest wetland soils. As a result this vegetation community is still under considerable threat.

- The fish community is still in the process of recovery from the significant blackwater event caused by natural flooding in 2010. Following this event pest species, rather than native species, dominate the fish community. Monitoring shows native fish numbers are increasing with Murray Cod larvae and eggs of golden perch and silver perch detected after environmental watering in 2013-14. The Golden perch spawning in 2013-14 was the first major spawning recorded at Barmah since 2005.
- With the support of environmental watering there have been two large waterbird breeding events in Barmah-Millewa Forest between 2010-11 and 2013-14. In 2010-11 at Millewa it was estimated that there were 10,500 to 15,000 nesting birds included key species such as Egrets, Ibis, Spoonbills, Bitters, Herons and Brolga. In 2013-14 at Barmah it was estimated that there were 2,125 nesting birds including Australian white ibis and straw-necked ibis, black cormorants and little pied cormorants. These breeding events will be important to contribute to improve waterbird populations across the basin.

**Question Five****Hansard Page 17**

**CHAIR:** *The same would be applied to the Macquarie Marshes—can we add the Macquarie Marshes to that list, please?*

**Answer:**

The following information has been provided by the Murray-Darling Basin Authority and any follow up questions can be addressed by the Authority if additional information is required.

The condition of the Macquarie Marshes has been declining for decades (NSW DECCW 2010a). It is estimated that 50 years of water regulation and extraction from the Macquarie River have contributed to a 40–50% reduction in the size of the Macquarie Marshes (Kingsford & Thomas 1995).

Vegetation mapping undertaken in 2008 (Bowen & Simpson 2010) demonstrated significant areas of wetland vegetation in poor condition and the large loss of semi-permanent and permanent wetland vegetation communities. Many areas of river red gum demonstrated a substantial decline in canopy condition, with more than half the area showing more than 40% dead canopy and a considerable increase in chenopod (dryland) understory.

In 2009, the Ramsar listed sites were the subject of an Article 3.2 notification under the Ramsar Convention as being likely to have undergone a fundamental change in their ecological character as a result of an altered flooding regime (NSW OEH 2013a).

The Marshes recovered some condition during the wet years from 2010 to 2012 and follow up watering from environmental water accounts in 2013–14 and 2014–15. However indications of drying are becoming evident in 2015-16 and in some areas terrestrial vegetation is invading.

As a result, the Macquarie Marshes were listed as a Basin annual environmental watering priority for 2015-16 in order to maintain semi-permanent wetland vegetation in core refuge areas in the Marshes.

*References*

Bowen S & Simpson SL 2010, *Changes in extent and condition of vegetation communities of the Macquarie Marshes floodplain 1991-2008*, Department of Environment and Climate Change, Sydney, New South Wales.

Kingsford RT & Thomas RF 1995, 'The Macquarie Marshes in arid Australia and their waterbirds: a 50 year history of decline', *Environmental Management*, vol. 19, pp. 867–878.

NSW Department of Environment, Climate Change and Water (NSW DECCW). 2010a. *Macquarie Marshes Adaptive Environmental Management Plan: Synthesis of information projects and actions*. NSW Department of Environment, Climate Change and Water, Sydney.

NSW Office of Environment and Heritage (NSW OEH). 2013a. *Macquarie Marshes Ramsar site, Article 3.2 response strategy*. NSW Office of Environment and Heritage, Sydney.



SENATE SELECT COMMITTEE ON THE MURRAY-DARLING BASIN PLAN  
QUESTIONS ON NOTICE - 18 SEPTEMBER 2015

**Question Six**

**Hansard Page 17**

**CHAIR:** *Do you have an assessment of the financial value for the upstream environments and agricultural production of water removed to maintain the Lower Lakes as a freshwater system?*

**Answer:**

The following information has been provided by the Murray-Darling Basin Authority and any follow up questions can be addressed by the Authority if additional information is required.

The cost of operating and maintaining the barrages to keep the Lower Lakes fresh is relatively small, being in the order of \$2.2 million per year. Such investment should be seen as a necessary cost to support the upstream extraction of more than 10,000 GL per year for consumptive use. On a per megalitre basis, the cost is very small and is very affordable given the billions of dollars of agricultural production it enables.

Additional information from the MDBA submission to the Senate Committee:

One of the reasons that some people continue to focus on the Lower Lakes is that they believe that large volumes of water are being delivered just to the end of the river system. This is incorrect.

The way the Basin Plan was developed was to determine the environmental water needs of important sites and functions over the length of the river system (from the top to the bottom states). If all those sites and functions receive sufficient flows, then there will be enough water travelling through to the end of the system. In other words, if you meet all upstream environmental water needs then you will also look after the Lower Lakes.

**Question Seven****Hansard Page 17**

**Senator MADIGAN:** *Have you done any work on how much freshwater on average is diverted away from the Coorong annually by the South East Drainage Scheme? And does this scheme have a material effect on the health of the Coorong?*

**Answer:**

The Department has not undertaken work on how much freshwater on average has been diverted from the Coorong annually by the South East Drainage Scheme. The South East Drainage Scheme is managed by the South East Drainage Board in South Australia and this question should be directed to the South Australian Government for response.

The Department notes that historically, water from the Upper South East would flow into the Coorong South Lagoon; however, due to salinity and flood mitigation measures, the majority of the upper south east water currently flows into the sea through a series of constructed drains. Using a combination of natural watercourses, newly constructed flood ways and existing drains, the South East Flows Restoration project aims to divert additional water from the Upper South East into the Coorong South Lagoon to help provide environmental benefits that would assist in maintaining a healthy South Lagoon ecosystem through lower salinity.

**Question Eight****Hansard Page 18****CHAIR:** *So, at baseline, was it listed as estuarine or fresh?***Mr Manning:** *I would have to go back to the ecological character description, but it would have been the site with the barrages in place at that time and with significant diversions.***CHAIR:** *So probably fresh.***Mr Manning:** *It would have been largely freshwater.***CHAIR:** *I will ask you to confirm that on notice, if you would, just to see what implications it would have for that Ramsar listing if it were rendered estuarine, hypothetically speaking.***Answer:**

The 2006 Ecological Character Description (ECD) for The Coorong, and Lakes Alexandrina and Albert Wetlands Ramsar site, which describes the ecological character of the site at the time of listing, describes the lower lakes as 'freshwater systems units' (page 34). The ECD states 'Salinity levels in Lake Alexandrina range from 400EC to 1,500 EC and in Lake Albert from about 1,300 EC to 2,300 EC. In both cases much higher recordings have been observed at low flow times' (Page 168).

The link to the 2006 ECD is:

[http://www.environment.sa.gov.au/Knowledge\\_Bank/Science\\_research/Seascapes\\_landscapes\\_and\\_communities/Ecological\\_community\\_mapping/Wetland\\_inventories\\_and\\_mapping/Ecological\\_Character\\_of\\_the\\_Coorong\\_Lakes\\_Alexandrina\\_and\\_Albert\\_Wetland](http://www.environment.sa.gov.au/Knowledge_Bank/Science_research/Seascapes_landscapes_and_communities/Ecological_community_mapping/Wetland_inventories_and_mapping/Ecological_Character_of_the_Coorong_Lakes_Alexandrina_and_Albert_Wetland)

The Coorong, and Lakes Alexandrina and Albert Wetland is a site of international importance under the Ramsar Convention.

Under Article 3.1 of the Ramsar Convention, Australia is required to formulate and implement our planning so as to promote the conservation of the wetlands included in the Ramsar list, and as far as possible the wise use of wetlands in our territory. Under Article 3.2 of the Convention, the Australian Government needs to be informed at the earliest time if the ecological character of any wetland in our territory included on the Ramsar list has changed, is changing, or is likely to change a result of technical developments, pollution or other human interference. Information about such changes needs to be passed on without delay to the Ramsar Secretariat.

A change in the lower lakes from a freshwater system to estuarine would be inconsistent with our international Ramsar Convention obligations. It would not be promoting the conservation of the site, and a notification of change in ecological character due to human induced influenced would be required.

Ramsar wetlands of international importance are also a matter of national environmental significance under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Under Section 16 of the EPBC Act, a person must not take an action that has, will have, or is likely to have a significant impact on the ecological character of a declared Ramsar Wetland.

The following information has also been provided by the Murray-Darling Basin Authority and any follow up questions on this information can be addressed by the Authority if required.

The five barrages at the Murray mouth were built in the 1930s to prevent sea water from entering Lake Alexandrina. Their construction was funded in equal shares by the Commonwealth and the states of New South Wales, Victoria and South Australia. Building the barrages enabled more development and water extraction to occur upstream in all three states and prevented further deterioration of the Lower Lakes.

In effect, a “natural” estuary no longer existed once upstream regulation and water extraction started. By 1902 South Australia was raising concerns with upstream states about this.

The only way a natural estuary could be reinstated today would be to stop upstream regulation and extraction.

Simply decommissioning the barrages would result in the Lower Lakes becoming hyper-saline for protracted periods when river flows are low, particularly in times of drought. The hyper-salinity would be even worse if the main driver for decommissioning the barrages was to allow for more upstream irrigation.

Given that upstream governments are unlikely to be interested in stopping regulation and extraction, then they have only two options. Either:

- have the lakes as a very unhealthy estuary and at times an extreme hyper-saline water body (with conditions likely to further deteriorate over time); or
- maintain the Lakes as essentially fresh as they have been for the past 75 years.

It is understood that any proposal to materially change the character of Lake Alexandrina from a freshwater system to an estuary or hyper-saline system would trigger the provisions of the federal environment law—the Environment Protection and Biodiversity Conservation Act.

**Question Nine**

**Hansard Page 18**

**Senator DAY:** *I refer to your briefing session to us on 10 September and responses to questions on notice—in particular, my question regarding the percentage of water used for urban purposes. The figures of three per cent to four per cent has been mentioned. I note that the figures do not include water used in other urban areas beyond the basin, such as Adelaide. Given there are a lot of urban areas beyond the basin which use water from the basin—and I am thinking of cities like Whyalla in northern South Australia—can you tell us the total percentage of water used for urban purposes from the Murray-Darling Basin?*

**Answer:**

The total percentage of water used for urban purposes within the Murray-Darling Basin averages between 3-4% of total abstractions from the Basin per year.

Based on data from 1997-2014, Basin diversions to regions outside the Basin for urban purposes average 2% of total Murray-Darling Basin water abstracted per year. This figure is additional to the 3-4% of Basin water used for urban purposes within the Basin.

Major urban centres outside the Basin that currently source water for urban supply from the Basin include Adelaide and Whyalla.

Sydney and Melbourne have the potential to access water from the Basin however the amount in recent years has been small to negligible.

SENATE SELECT COMMITTEE ON THE MURRAY-DARLING BASIN PLAN  
QUESTIONS ON NOTICE - 18 SEPTEMBER 2015

**Question Ten**  
**Hansard Page 20**

**Senator CANAVAN:** *So what is the planned recovery by infrastructure in the Condamine-Balonne?*

**Answer:**

Phase Two of the Healthy HeadWaters Water Use Efficiency (HHWUE) Project provides up to \$130 million and includes a series of up to nine funding rounds, finishing in 2018-19.

The current round commenced 1 July 2015 and will close on 24 December 2015. Six projects have been approved to date (17 September 2015) under this round.

Up to 2 rounds will commence in 2016, based on funding availability.

The Condamine-Balonne is an eligible catchment under the HHWUE project.

**Question Eleven**

**Hansard Page 20**

**Senator CANAVAN:** *Given these are, in your words, Mr Slatyer, large projects and complex projects, can you give us a list of projects that you are currently looking at?*

**Answer:**

A total of 51 on-farm projects in the Queensland Murray Darling Basin worth \$96.3 million in Australian Government funding (including project management costs) have been approved, completed or contracted to date.

Projects are managed by the Queensland Department of Natural Resources and Mines. Specific details about individual projects are unavailable due to the commercial-in-confidence nature of the information.

In the Condamine Balonne 21 on-farm projects have been approved for funding over the last nine rounds.

- The projects include the following types of on-farm works:
  - Upgrading surface irrigation through redesigning delivery and reconfiguring fields.
  - Installing or upgrading overhead irrigation (centre pivot or lateral move machines).
  - Converting from surface irrigation to trickle or subsurface irrigation.
  - Replacing inefficient storages.
  - Upgrading and reconfiguring storages and channels to minimise seepage and evaporation loss.

**Table: Condamine-Balonne projects - Key funding and water recovery facts**  
**(as at 17 September 2015)**

Item	Condamine Balonne
Number of projects	21 (16 proponents)
Water savings and contributions (LTAAY) <ul style="list-style-type: none"> <li>• Secured for the irrigator</li> <li>• Secured for the environment</li> </ul>	3,275 ML <sup>(1)</sup> 4,685 ML <sup>(1)</sup>
On-farm project funding committed <sup>(2)</sup> <ul style="list-style-type: none"> <li>• Australian Government</li> <li>• Irrigator</li> </ul>	\$17.0 million \$4.1 million

<sup>(1)</sup> This figure may be revised downwards once the cap factor for overland flow entitlements is determined by the MDBA

<sup>(2)</sup> Excludes project management and start-up costs

**Question Twelve**

**Hansard Page 22**

**Senator CANAVAN:** *On notice, just to be absolutely clear what I am asking, I really want that SRWUIP program broken up into buyback infrastructure, in particular the expenditure that relates to the Murray-Darling Basin. I am not sure what has happened since the election, but my understanding is that previously some allocations from SRWUIP were made to projects outside the basin. Indeed, I am interested only in water recovery projects in the basin—water recovery that goes to achieving the SDLs.*

**Answer:**

Sustainable Rural Water Use and Infrastructure Program (SRWUIP) administered funding for purchase in the Murray-Darling Basin in the forward estimates (2015-16 to 2018-19) is \$0.66 billion. This figure includes funding currently under contract.

SRWUIP administered funding available for infrastructure water recovery projects in the Murray-Darling Basin in the forward estimates (2015-16 to 2018-19) is \$1.97 billion. This figure includes funding currently under contract.

In addition a further \$1.27 billion is available in total for supply measure activities (2015-16 to 2023-24), which would go towards reducing the actual water recovery and thereby increasing the final Sustainable Diversion Limits.



SENATE SELECT COMMITTEE ON THE MURRAY-DARLING BASIN PLAN  
QUESTIONS ON NOTICE - 18 SEPTEMBER 2015

**Question Thirteen**

**Hansard Page 22**

**Senator DAY:** *I have a quick question. In South Australia, instead of running its new desalination plant, the South Australian government entered the water market. Can you say how much water the South Australian government has purchased and what impact that has had on water prices—what it has contributed to the \$2,000 a megalitre?*

**Answer:**

The quantum of South Australian water purchase is unknown, and this question should be directed to the South Australian Government for response.