

Webinar

Findings from the inquiry into water sharing arrangements in the southern Basin

Webinar: Questions and Response

26 May 2020

Noting: Questions are grouped where the response is the same.

Question	Response
<p>Q: You mentioned that proper water measurement systems don't exist, so how can we take the figures that the MDBA quote as correct?</p> <p>Q: To correct the loss of accountable water into the system, when is a start going to be made to ensure all pumps whether belonging?</p>	<p>The approach to measuring (and accounting for) water use differs depending on scale. Measuring volumes of water at the Basin or valley scale (such as conveyance water or bulk State water shares) relies on computer models that use climatic data and data taken from river gauges.</p> <p>Metering is required under state water legislation for some forms of water take in the Basin, but for other forms of take (such as floodplain harvesting) the volumes of take are largely estimated.</p> <p>New South Wales (NSW) is currently incorporating floodplain harvesting into their licensing framework. Once this process is complete, volumetric entitlements will be required in addition to works approvals for floodplain harvesting storages.</p> <p>Queensland (Qld) has regulated floodplain harvesting through infrastructure approvals since the early 2000s and more recently has started introducing volumetric licences in key Basin catchments.</p> <p>There are a range of standards, forums and work programs that are driving improved metering and measurement of water use in the Basin, including for floodplain harvesting, such as the Basin Compliance Compact.</p>
Question	Response
<p>Q: Do you still think that transparency is imperative? DEWLP has a survey available and it's concerning to see the advocacy groups are coming out publicly and implying that full transparency will allow animal activist groups access to information. That information is already available.</p>	<p>Yes, transparency is imperative so people are fully informed and there is a reliable, authoritative source of information about river management and operations.</p>
Question	Response
<p>Q: In this section of the report "Impacts of northern Basin inflows on state shares Over the historical record, inflows from the lower Darling have only contributed an average of about 8% of water available in the River Murray system each year." is contradicted by here - "The Menindee Lakes scheme delivers water to South Australia to meet part of its annual entitlement (39% on average)." Found here - https://www.mdba.gov.au/sites/default/files/archived/proposed/EWR-Lower-Darling-River-System.pdf which is an MDBA document titled Assessment of environmental water requirements for the proposed Basin Plan:</p>	<p>This information was provided to the Inquiry by the Murray-Darling Basin Authority (MDBA). The MDBA initially advised: "the data reflects the contribution to the Murray from the Darling after allowing for losses/operation of Menindee Lakes. The data is comprised of modelled 'current conditions' inflows for the period 1895 to 2000 from the Basin Plan's Baseline Diversions Limit (BDL). Data from 2001 is based upon actual observations to the end of December 2019. Data from January to June 2020 is an estimate – i.e. a repeat of inflows from this time last year".</p>

<p>Lower Darling River System this quote is found on page 8. Meaning the 8% vs the 39% or 148GL contribution vs 720GL contribution are vastly different and have massive impacts on NSW Murray and VIC securities of their respective entitlements. How did your office miss this?</p> <p>Q: Can the IIG please advise the source for the 8% Darling contribution to the Murray?</p>	<p>Given this information appeared to differ to information contained within a report (Assessment of environmental water requirements for the proposed Basin Plan: Lower Darling River System https://www.mdba.gov.au/sites/default/files/archived/proposed/EWR-Lower-Darling-River-System.pdf) compiled by the MDBA, which contains the following statement:</p> <p>"The Menindee Lakes scheme delivers water to South Australia to meet part of its annual entitlement (39% on average)." My Office sought clarification from the MDBA in relation to this issue.</p> <p>The MDBA provided the following information by way of clarification:</p> <p>Below is an explanation of the 39% figure in the document "Assessment of environmental water requirements for the proposed Basin Plan: Lower Darling River System" which states the following:</p> <p>"The Menindee Lakes scheme delivers water to South Australia to meet part of its annual entitlement (39% on average). As well as the allocation to South Australia, flows are released into the Lower Darling, to a maximum rate of 9,000 ML/d, to meet monthly target storage levels for Lake Victoria to hold it full over summer to minimise evaporation losses from the Menindee Lakes (Thoms et al. 2000), and to provide water to consumptive users along the Lower Darling."</p> <p>Take homes:</p> <ul style="list-style-type: none"> • The 39% figure isn't inconsistent with the 8% figure published recently – they are just comparing different things. • 8% compares flows out of the Darling with total inflows to the River Murray. • 39% compares flows out of the Darling with SA entitlement flows. <p>Details:</p> <ul style="list-style-type: none"> • The 8% figure was calculated using monthly data and represents the average % contribution of flows out of the lower Darling at Burtundy compared to total inflows to the Murray (from all tributaries and the upper Murray catchment) – looking at the long record up to 2020. • The Darling flows include not only those called by MDBA to supply the Murray but also flood flows. • It's not entirely clear where and when the 39% figure first appears or exactly how it was calculated but by working backwards we can essentially recreate the figure. • It appears the 39% figure was calculated using annual data. This approach overstates the apparent contribution of the Darling particularly during flood years. A flood late in the water year can be accounted as supplying entitlement flow in earlier months. • A similar calculation using monthly data to better reflect timing gives 27%. • However, both the 39/27 calculations infer that Darling water, before all other sources from the upper Murray,
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	<p>meets the SA entitlement. A more meaningful approach is to use total flows across the border and not to assign a particular purpose to flows from a particular location.</p> <ul style="list-style-type: none"> • The average annual contribution of the lower Darling to the Murray flow downstream of the confluence is around 15%. This statistic has been generally used by MDBA in describing the relative contributions. It compares like with like and doesn't assume a particular purpose for the lower Darling contribution. The equivalent median value is 12-14%. • The 9,000 ML/d referred to is rarely achievable (when all the lakes at Menindee are full), with flow rates more often around 3,000 – 4,000 ML/d. <p>Further details:</p> <p>By comparing annual volumes past Burtundy with annual SA entitlement we can re-create a figure of 37%. For simplicity, if we assume the entitlement is always 1850 GL and we divide the annual Burtundy volumes by 1850 (capping the figures to 100% in big flood years) and then average the percentages we get 37%. Noting that SA's entitlement isn't always 1850 GL and that we have had various model updates in recent times the difference to the original 39% figure is explainable.</p> <p>The 8%, 39% and 15% (introduced above) are all accurate in terms of the statistic defined. However, the average contribution of the total flow (15%) is robust, relatively simple and the similar value to the median indicates it is a reasonable descriptor of the true situation, not overly influenced by outliers or easily called into question.</p>
Question	Response
<p>Q: What is the greatest barrier to the 'single source of truth'?</p>	<p>Recommendation 4 provides that "The BOC should consider implementing a single authoritative platform that combines information currently available on the various Commonwealth and state websites, to provide higher levels of transparency and trust and to improve water literacy". This has been endorsed by the Federal Minister, and provided to the Basin Official Committee for implementation.</p>
Question	Response
<p>Q: I note that water in excess on the MDA that goes across the border is 'not available for consumptive purposes and it flows through as planned environmental water'. While this is the case, is this right? Is there a way to account for this water that better reflects that they have received in excess of their entitlement?</p>	<p>The Inquiry found that the "extra unregulated flows" going to South Australia occurs when there are unregulated flows upstream that cannot be captured in Lake Victoria. When this occurs South Australia is unable to use this water for consumptive purposes and it flows through as planned environmental water (p.g17).</p> <p>Planned environmental water is defined under the Commonwealth Water Act 2007 (section 6), as water for the purposes of achieving environmental outcomes. This means that unregulated flows cannot be taken for consumptive uses in South Australia.</p> <p>The MDBA publish contributions of the flow to South Australia in their Annual Report. They have advised as part of their response to the recommendations made during this Inquiry,</p>

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	regarding transparency, they will consider further avenues for making this information more available.
Question	Response
<p>Q: Was the loss of dam capacity due to carry over, environmental and Snowy Hydro water considered as it equates to 7000 gigs?</p>	<p>The Inquiry chose not to explore or make comment on carryover in detail due to the ongoing Australian Competition and Consumer Commission (ACCC) Inquiry into Murray-Darling Basin water markets (report pg. 22).</p> <p>The Inquiry did determine that SA carryover does not adversely impact NSW or Victorian water availability. Should the storages fill, SA's deferred water is the first to spill (report pg. 18).</p> <p>For environmental water, the Inquiry found that the Commonwealth Environmental Water Holder's (CEWH) holdings are comprised of exactly the same type of entitlements that are held by irrigators and that the same carryover rules apply (report pg. 33-35).</p> <p>In regard to the Snowy Hydro water, the Inquiry found that there has been virtually no change in the median inflows from the Snowy Hydro scheme over the last 20 years. The limited change in inflows suggests water from the Snowy Hydro has a limited effect on changes in water availability in the River Murray system (report pg. 13).</p>
Question	Response
<p>Q: What is being done regarding riverbank erosion due to poor river management as asked at the Shepparton RSL consultation meeting?</p>	<p>The issue of riverbank erosion in the Goulburn River and the Barmah Choke arising from increased downstream demand is addressed in the Report at pg. 30.</p> <p>The Inquiry found that:</p> <ul style="list-style-type: none"> • This is one risk being investigated by the MDBA for the Independent Panel for Capacity Project Review, reporting to the Ministerial Council. • The Victorian Government is investigating changes to operational and trade rules to reduce the risk to the environment, with changes expected to be introduced by late 2020.
Question	Response
<p>Q: Why wasn't the stolen Water that was taken by the NSW government in the Murrumbidgee and Murray investigated and a returned?</p> <p>Q: The legality of NSW Voluntary Contributions and their connection to the MBDA targets</p>	<p>The issue of voluntary contributions is addressed in the Report at pg. 23.</p> <p>The NSW Government told the Inquiry that when Water Sharing Plans were being made in the early 2000s it was agreed that provision needed to be made for environmental water, and this agreement was achieved through the negotiation of rules. These negotiations occurred through River Management Committees that comprised a cross-section of water users and stakeholders in the community. The NSW Government advised that the 'voluntary contribution' is a delay in High Security irrigators reaching full allocation, rather than an absolute reduction in their entitlement.</p>

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Question	Response
<p>Q: How do you see your recommendations being applied as they relate to the continuing implementation of the Basin Plan?</p>	<p>All the recommendations from the Inquiry have been designed to help increase transparency and understanding of water resource management across the Basin. This supports the continued implementation of the Basin Plan as it helps to inform everyone's understanding.</p>
Question	Response
<p>Q: Shouldn't all environmental water be metered not modelled for transparency?</p>	<p>The Report addresses the approach to measuring (and accounting for) different water use at page. 32.</p> <p>The Inquiry heard different standards for measurement and accounting are applied at different scales of water use or management according to the accuracy of measurement that is technically possible. There are a range of standards, forums and work programs that are driving consistent and improved measurement of water use across Australia under the Murray-Darling Basin Compliance Compact.</p> <p>In regards to environmental water, the Inquiry found environmental water holders do require some unique delivery services, which reflects the nature and purpose of environmental water as it flows through the river system. The Inquiry called for greater accessibility and availability of information, and improved engagement and communication with stakeholders on these issues (pg. 35-36).</p>
Question	Response
<p>Q: Is the lower lakes evaporation and flows out to sea included in the 1850 g/l of S.A entitlement?</p>	<p>The Report provides detail on South Australia's (SA) entitlement of 1850 gigalitres and the breakdown of use (pg. 16-17). The loss and dilution component of the SA entitlement is for conveyance to Wellington – it doesn't include an allowance for evaporation from the Lower Lakes. Nonetheless, any losses within SA (including evaporation from the lakes) needs to be met by water SA receives under their entitlement. By limiting development, SA has increased the volume of water available for the Lower Lakes, however in dry years this may not be enough to prevent lake levels from falling.</p> <p>The Inquiry also found that the only extra unregulated flows that go to SA are when there are unregulated flows upstream that cannot be captured in Lake Victoria – when this occurs SA is unable to use this water for consumptive purposes and it flows through as Planned Environmental Water.</p>
Question	Response
<p>Q: Do you have any recommendations for how to transition to a future with less water available, when allocations will be less?</p>	<p>There needs to be greater collaboration between industry and Government to be able to work through these issues together.</p>
Question	Response
<p>Q: Lack of flows into Murray storage haven't changed. Flows have changed into Murray system from the north (2nd page of the graph you have been using that I supplied to you) maybe that's because an unmetered and unregulated amount has grown beyond the 3000 gigs.</p>	<p>The Inquiry found that there has been a significant reduction across all River Murray sources. While inflows from NSW tributaries and lower Darling have experienced the greatest proportional reductions, the volumetric change has been most pronounced from those sources that tend to contribute the greatest flows. More than two-thirds of the decline in median</p>

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	<p>total system inflow volumes is attributable to changes in flows from the Murray upstream of Albury and the Victorian tributaries (report pg. 9). Further analysis of the reduction in inflows to non-lower Darling sources can be found on pages 10 and 11 of the Report.</p>
Question	Response
<p>Q: At the Shepparton meeting you indicated that you'd found 200 - 300GL of water savings. What happened to these?</p>	<p>Recommendation 3 addresses this issue: "The MDBA should clearly communicate the results of its examination of underuse of allocations and compare them with the submissions made to this Inquiry so that accurate feedback can be provided to the community".</p> <p>This question, at Shepparton, was in reference to underuse of water relative to the Sustainable Diversion Limits (SDL) as set by the Basin Plan.</p> <p>The MDBA is continuing to investigate this issue</p>