Please note that these comments are the authors and do not reflect or represent the views of any officials of any Government or associated entities.

Information request 4 Water entitlements and planning, but also covers 6

As required by the Murray Darling Basin Plan, the ACT commenced drafting a Water Resource Plan (WRP) in 2013. Prior to that, the ACT had a good water entitlement system and managed extractions well within our Murray Darling Basin (MDB) Cap and then the subsequent Sustainable Diversion Limit (SDL). The ACT also had robust water quality targets supported by a related monitoring and reporting program.

The ACT WRP was drafted and repeatedly re-drafted, but not submitted and accredited until 2020. The main reasons for this lengthy delay, were as follows:

- The MDBA were obviously unclear about the requirements of the WRPs because they repeatedly changed the "required format" for 5 years. (Noting that the MDBA didn't actually specify a format, but did keep suggesting formats that were more likely to be accredited). Instead of providing a plan for improving the management of the ACT's water resources as required and aligned with the objectives of the Basin Plan, it became a legal, box ticking exercise, ie to just show that the clauses in the Basin Plan had been addressed in the WRP. This approach saw the WRP become a minimalist approach, rather than one built around improving the environmental outcomes, water use efficiency and equity in access to water. The ACT completed a draft WRP in 2013 and provided it to the MDBA for review, on the basis that it may not have met all the Basin Plan requirements perfectly (as those requirements were subject to different interpretations on how they could be addressed). As the ACT was going to be one of two of the first WRPs to be submitted, it was recommended that the States should be advised that it was NOT a suitable template for them to follow. If the ACT WRP was to be accredited at that time, the ACT could then get on with improving the management issues that had been identified as requiring further action to meet the Basin Plan objectives and the MDBA's original timetable, with its positive outcomes for the Basin water use being met. Instead the MDBA kept requiring revisions of the ACT WRP. Eventually the ACT tired of these delays and started implementing improvements in its water management systems ie revising the ACT Government instruments on water availability and environmental flows.
- The ACT WRP was eventually accredited in 2020, without identifying many of the required improvements of the original draft, but also with the MDBA requiring the ACT to provide 4.9GL of surface water entitlements from within the ACT rather than providing the water that it had previously provided to the Commonwealth Environmental Water Holder (CEWH) some 5 years earlier from entitlements previously purchased in NSW. The MDBA and NSW had previously agreed to this mechanism for the return of this water. The negative outcome of this, was that the CEWH could have used that 4.9GL of water for several years, but now it is back in the negotiation phase.
- The above change, was in despite of the ACT having an SDL equal to about 10% of the total average water available in the ACT massively less than NSW and Victoria's over 50%. This disparity in availability of water under the approach being taken, ignores:
 - the relative economic contribution of the ACT to the Basin GDP, compared to agriculture based water use in the four main jurisdictions;
 - that the historical open access to water in the Basin has created the environmental (and future agricultural) problems in the Basin and now rewards those actions; and

- the additional water provided downstream by urban development from hard surfaces increasing runoff the ACT is providing an estimated extra 14GL to the Murrumbidgee systems upstream of Burrinjuck Dam, for subsequent irrigation use downstream.
- The ACT's groundwater WRP was accredited noting that the ACT was aiming to increase the groundwater SDL based on new knowledge. This was despite the fact that this "new knowledge" had been identified in 2013 and was even then years old!
- The MDBA endorsed the first Queensland WRP which had minimal metering it is not clear how water resources can be effectively accounted for and managed, without comprehensive metering.
- The failure of NSW to:
 - progress water trading with the ACT as required under the NWI;
 - consult with the ACT regarding the NSW unregulated Murrumbidgee WRP as required under the Basin Plan; and
 - seek to progress its water management against the objectives of the Basin Plan over this entire period in conjunction with the ACT.
- Water reform and related micro-economic reform would be enhanced if there were an
 independent assessment of the relative merits, implicitly of water use between States and
 the ACT and possibly sub-regions, together with independent management of water for
 environmental outcomes where those outcomes are established by scientific assessment
 and public evaluation.

Now that all WRPs have been submitted, to meet NWI objectives, it needs to be reinforced to the MDBA, States and Territory, that they need to deliver on the Basin Plan objectives and the Productivity Commission should produce an annual report on each State and the ACT's progress in reaching those objectives, in a similar way in which the national competition policy reform assessments were undertaken. This will include percentage of water metered; compliance of abstractors with licenses; actual representative and accurate water quality in each major river reach and what has actually been done to improve water quality; actual environmental flows released and protected from abstraction in the rivers and what is being monitored to determine their effectiveness; volumes of water provided for Indigenous use; the effectiveness of water markets in facilitating the movement of water to its highest value; the expected impact of climate change on water availability in the Basin and options to address any expected decline of water availability including for environmental use; etc.

The issue of speculative water trading eg by Superfunds, out of Basin investors, etc. who push the price of water up, but are not necessarily adding value in the Basin by using the water for higher value crops, other uses, etc (a major objective for introducing water trading) also needs to be addressed. An option could be to make water purchases tied to a proportion of the area of land which can/could be irrigated.

Information request 8 Water services, but also covers 4 and 12

During the Millennium Drought, the ACT did some excellent work in analysing and then developing a robust, secure water supply system. This included the following:

- Undertaking the community's willingness to pay for restrictions, using this in an NPV analysis
 of the options to improve water security, including demand management. This should be
 required by all capital cities to ensure the community is getting the water security it is willing
 to pay for. If feasible, this could be extended to types of agriculture and mining use, to
 improve market information in water trading.
- Scarcity pricing was advocated in the ACT, but rejected by the ACT pricing regulator, the ICRC. This should also be adopted by all capital cities, as has been done in Sydney recently, to ensure that the pricing signals occur during periods of water scarcity prior to stricter restrictions, rather than after the imposition of stricter restrictions.

Information request 5 Water accounting and compliance

Water accounting is only as good as the data used. States and Territories have had a history over the last few decades of cost cutting and poor management of, and reductions in, their hydrometric networks. A review, including benefit cost analysis, statistical analysis, etc, should be undertaken by experienced and independent practitioners to determine the optimum networks and the current shortcomings, for measuring both water quantity and quality. For example:

- Pratt (a decade or so ago) found about 500GL of unaccounted for water in the Murrumbidgee River catchment alone;
- Bureau of Meteorology published model results have shown around 400GL of unaccounted for water in the ACT in one year;
- a water utility operated a water quantity and quality station after the 1983 fires, through the 2003 fires and then closed it a month or so prior to the 2020 fires why, to save costs. Yet hydrological response to fires is so poorly understood in forested catchments around Australia (other than the Melbourne ash catchments);
- Within the agricultural sector, the ongoing failure to accurately account for water through both metering and water quality assessment; risks of over extraction (or possibly under extraction); as well as disadvantaging downstream users, such as graziers, relying on overland flooding for pasture development and growth, where upstream irrigators capture overland flood water outside regulated extractions from river courses.