

**Environment, Planning and Sustainable
Development Directorate**

FOR OFFICIAL USE ONLY

To: Minister for Water, Energy and Emission
Reduction

Tracking No. 21/06303

Date: 25 January 2021

From: Executive Group Manager - Environment

Subject: ACT-Led Murray-Darling Basin Water Efficiency Project – Project Update

Critical Date: 27 January 2021

Critical Reason: EPSDD is meeting with Minister on 27 January 2021 to provide a verbal briefing on the Project.

Purpose

To provide you with background, context and a status report on the ACT-led Murray-Darling Basin Water Efficiency Project.

Recommendations

1. **Note** the information contained in this brief.

Noted / Please Discuss

Shane Rattenbury MLA

28/1/21

Minister's Office Feedback

FOR OFFICIAL USE ONLY

Background

1. The Murray Darling Basin Plan 2012 (Commonwealth) includes a commitment to recover, through water efficiency measures, 450 gigalitres (GL) of environmental water by 30 June 2024. It also requires the ACT to contribute 4.9 GL (from within its Sustainable Diversion Limit resource unit) to meet the Shared Reduction Amount (SRA). This is the Territory's contribution toward achieving the Basin-wide targeted reduction in consumptive water use, with savings attributed to environmental use in the Basin.
2. The ACT and Australian Government had previously considered that the ACT had met its SRA commitment. The Australian Government has since advised that the previous arrangements did not meet the legal requirements under the Basin Plan. There has been agreement at Ministerial level that the Australian Government would remedy this by allowing the 4.9 GL SRA to be recovered through efficiency measures delivered under their water efficiency program.
3. The ACT Government made a commitment at the June 2018 Minco meeting to investigate a contribution of up to 15 GL (4.9 GL SRA and 10.1 GL additional environmental water) in accordance with the *Project Agreement for Murray-Darling Basin, Australian Capital Territory-led Efficiency Project (the Agreement)*. This Program involves the Australian Government providing funding for water efficiency measures in exchange for water entitlements for environmental use. These measures attracted a premium of up to 1.75 times the market price of water. Water entitlements must be permanently traded. The Program ends in June 2024. At this stage, measures must be implemented, water recovered, and an entitlement transferred to the Commonwealth Environment Water Holder by this date.
4. Funds received from the transfer of entitlement must be used to implement water efficiency measures to an equivalent level of the amount of entitlements transferred to the Commonwealth. Any remaining funds can be used by the ACT for waterway health improvements. This investment in water efficiency initiatives and the injection of funds from the Commonwealth, would contribute to:
 - Increasing water security
 - making the ACT more resilient to the impacts of drought;
 - improving poor water quality in waterways and catchment areas;
 - responding to future water shortages; and
 - mitigating the effects of climate change.

Issues

5. The Directorate will be meeting you on the 27 January 2020 to provide a background briefing on the Water Efficiency Program and will cover the following strategic areas. The PowerPoint presentation at Attachment A will form the foundation of this briefing in conjunction with this brief.

Program Context

6. This works was initiated following ACT's commitment at the June 2018 Minco meeting to investigate a contribution of up to 15 GL. Additionally, within ACT it was recognised

that long-term water security is critical the future prosperity of the ACT considering Climate Change and population growth.

7. An initial package of work was presented to Cabinet 29th October 2019 (19/499/CAB) with Cabinet making the following deliberations.
 - Agree to transfer 4.9 to Commonwealth as SRA under the WEP.
 - Investigate a further transfer of 10.1 GL under WEP.
 - Investigate options of financial models to provide a sustainable funding stream to progress Canberra towards a world class water sensitive city.
 - Bring back to Cabinet final arrangements for transfer of 4.9GL; preferred financial management arrangements and final business case for transfer of additional 10.1 GL.
8. The overriding context for the ACT, remains our water security into the future in 30 to 50 years' time. Our starting proposition is to maintain the current levels of water consumption as our population grows and impacts of climate change become more evident.

Program Eligibility Criteria

9. The Australian Government will assess the ACT-Led Project based on Program criteria agreed by the Murray–Darling Basin Ministerial Council on 14 December 2018. Of particular importance is the criteria which requires the efficiency measures to not negatively impact on social and environmental outcomes and/or the price of water. This may be difficult for the ACT, especially given that the Project must be delivered by 30 June 2024. The ACT will meet with Australian Government representatives in February to determine the level of program flexibility.
10. Policy work on the tradability of ACT water access entitlements (WAE) is progressing in consultation with NSW, the MDBA and Australian Government. This work is essential for the water product to be of value to the Commonwealth Environmental Water Holder (CEWH) to allow them to use the water across the MDB for watering of environmental assets. This is also critical for the ACT's participation in the Program.

Investigations

Technical Feasibility

11. A rigorous investigation process has been implemented to ensure that decisions relating to the Agreement are based on the best available information. Four technical feasibility studies have been completed. These studies have identified water efficiency opportunities and associated water savings across four areas (i.e. water sensitive urban design (WSUD), demand management, infrastructure renewal and maintenance and stormwater harvesting).
12. The Institute of Sustainable Futures, University of Technology Sydney (ISF) has undertaken a peer review and comparative analysis of these studies. This work was done to provide comfort to both the ACT and Australian Governments respectively that the predicted water savings are both achievable and cost-effective. This work

identified water efficiency measures that could generate water savings in the order of 6 GL/year by 2030 and 8.2 GL by 2050.

13. ISF also determined the program would have a Benefit Cost Ratio of 4.70 and provide a number of additional benefits consistent with current government policy such as a reduction of 812,000 tonnes of carbon emissions and contributions to the government Living Infrastructure Strategy and Urban Forest Strategy.

Socio Economic Assessment

14. In line with Program eligibility criteria, a socio-economic assessment investigating the impact of the implementation of water efficiency measures on the ACT's long-term water security, the price of water and vulnerable sections of the community is now being undertaken. This work is informed by two separate pieces of analysis undertaken by Frontier Economics and eWater.
15. The Frontier Economics modelling considers the impacts of different water efficiency initiatives on water pricing, vulnerable sections of the community, businesses (non-residential sector), the water utility, and ACT Government revenue. This work is yet to be finalised. Preliminary results suggest that reducing current water demand (via efficiency measures) will result in an impact to Icon Water's revenue and provide only a minor reduction to their costs by means of supplying lower volumes.
16. The ACT Government will also see a reduction in revenue received from Icon Water through the collection of a dividend, the Water Abstraction Charge, (WAC).
17. The unit cost of water prices will need to rise for Icon Water to recover forgone revenue. The Independent Competition and Regulatory Commission (ICRC) sets ACT water prices. If the ICRC recommend an increase to the price of water, the efficiency measures implemented must be able to reduce residential and non-residential water consumption enough to offset the increased water price to avoid an increase to consumer water bills. The Frontier Economics investigations will provide advice on the degree of water savings various segments of the community will need to achieve a net zero impact on their household water bills.
18. The eWater demand modelling considered the impact of different water recovery contributions (5, 10, 15GL) on the ACT's long-term water security, accounting for population growth and climate change projections. The results for worst case scenario (i.e. high degree of climate change, altered water accounting practices in the Basin, partial efficacy of efficiency measures) demonstrate that the ACT would reach its maximum consumptive use under the Basin Plan (i.e. its Sustainable Diversion Limit (SDL)) in 56 years in the event a 4.9 GL contribution (equal to SRA amount) . Under the base case (no transfer of entitlement) the ACT would reach its maximum consumptive use (also for the worst-case scenario) in 2090 (70 years).
19. The eWater results suggest that, if the ACT could offset revenue impacts (via efficiency measures), a water recovery contribution of 5GL could be viable.

Project Legacy

20. Several studies and tools for quantitative analysis have been produced as part of the

ACT-led Efficiency Project. This includes four feasibility studies, a comparative assessment on the viability of efficiency measures, improved economic and hydrological modelling capability, and technical reports. This suite of information, analysis and supporting modelling tools serve as a strong foundation for evidenced based decision-making for water efficiency in the ACT going forward.

Financial Implications

21. Recent rainfall events and water availability will influence the price of water in the Basin and consequently the funds payable to the ACT. Technically feasible efficiency measures are expected to generate 6GL of water savings by 2030. This would attract a contribution from the Australian Government in the vicinity of \$84M based on previous market valuation (2019). This figure assumes a market multiplier of 1.75 is applied and that the market rate of water entitlement is \$8000/ML.
22. The full financial impact of this work is not known and part of the current works program.

Consultation

23. Icon Water's and CMTEDD (Treasury) support the principles and approach undertaken. The Directorate has made great effort to keep Icon Water and CMTEDD informed and involved as the project has evolved. Their continuing input is especially important to the socio-economic assessment and development of options for government.

Work Health and Safety

24. There are no work health and safety implications arising from this brief.

Benefits/Sensitivities

25. As well as returning water to the environment, the technically viable efficiency measures investigated could reduce greenhouse gas emissions by around 812,000 tonnes by 2050.
26. Work undertaken by ISF suggests that the measures could provide water savings which will improve the ACT's security of supply, before even considering the added financial value of returning water to the environment under the Agreement. If efficiency measures cannot satisfy Program eligibility criteria, the ACT could, subject to budget funding, pursue implementation without the limitations of these criteria. The approach would retain the benefit of the water savings (no need to transfer entitlement) and could potentially allow the ACT to participate in temporary allocation trade once a trade delivery mechanism had been negotiated.

Communications, media and engagement implications

27. There are no media implications arising from this brief.

Action Officer: Chris Glennon

Phone: 6205 9023

Attachments

Attachment	Title
Attachment A	Powerpoint Presentation – WEP briefing January 2021