ENGINEERS
AUSTRALIA

Dr Jane Doolan
Commissioner
Productivity Commission
4 National Circuit
Barton ACT 2600

24 March 2021

RE: National Water Reform Draft Report

Dear Dr Doolan,

Thank you for the opportunity to review and provide feedback to the National Water Reform Draft Report (the Draft).

Engineers Australia is the national peak body of the engineering profession and is a professional association with approximately 100 000 individual members. Established in 1919, Engineers Australia is a not-for-profit organisation constituted by Royal Charter to advance the science and practice of engineering for the benefit of the community.

This response has been developed by members of Engineers Australia's National Committee on Water Engineering . The focus of this letter builds on our August 2020 submission to the Productivity Commission's National Water Reform Issues Paper, and highlights areas of strength and weakness from the Draft relative to our previous submission.

Engineers Australia strongly supports the proposal to enhance the system integrity element of the National Water Initiative (NWI). However, it is recommended that the proposal provides for a more in-depth review and assessment. For the stated objectives[1] to be met, formal review of the spatial coverage and quality of Australia's water resource monitoring systems (monitoring of rainfall, evaporation, streamflow, groundwater level, models, etc) relative to the information requirements of the NWI within each jurisdiction must be undertaken.

Any such review should be accompanied by a requirement for the jurisdictions to install, operate and maintain a minimum set of required monitoring systems to meet the information requirements of the NWI. This recommendation aligns with our submission to the Issues Paper in which we recommended: *formal review of water resource monitoring systems, the fundamental data networks on which Australia's water systems are managed and assessed. This should include the application of a report card approach to the regular review of the nation's stream gauging network.*[2]

Another area of concern is the lack of focus on catchment management and flood management within the NWI. The Draft considers catchment management in the context of waterway health, but not in the context of the impacts on the quantity and quality of water that can be harvested. While flood management is recognised as an important issue in broad terms,[3] flood management, similarly, is not adequately reflected in the existing or proposed NWI objectives.

As well as recognising the importance of catchment management and flood management as objectives, it is equally critical that the NWI recognises the economic links between water supply, catchment management and flood management. For example, cost recovery mechanisms for the non-consumptive benefits of water supply infrastructure, such as flood mitigation associated with dam operations, should be included in the review's commentary on cost recovery mechanisms and project evaluation.

The Draft's focus on the need for water sharing plans to make provision for the effects of climate change, and specifically calling out the need to "*include provisions in water plans to deal with water scarcity arising from drought, incorporating priorities for water sharing and actions relating to meeting critical human and environmental needs*[4] is strongly supported. However, the review needs to provide clear guidance regarding acceptable levels of drought security for different types of water users and the environment and on how to apportion water between critical environmental and human needs when severe water shortage inevitably occurs.

[1] Productivity Commission 2021, *National Water Reform 2020, Draft Report*, Canberra, p121.
[2] Engineers Australia 2020, *National Water Reform – Response to Productivity Commission Issues Paper*, p4 & 7.
[3] Productivity Commission, *op.cit.* p5.
[4] *Ibid*, p8.

Finally, the discussion regarding *flawed decision making for Dungowan Dam*[5] itself draws on a dubious economic comparison and needs to be removed or substantially re-written. The problem is that the Draft provides a comparison between the market cost of 6 GL/annum of general security water with the cost of constructing a dam that provides 6 GL/annum of town water supply to demonstrate that it would be more cost effective to purchase water from the market rather than to invest in the new dam. Without bias, the comparison provided in the Draft is flawed because local water utility licences have a different (much higher) level of security than general security licences. The market value of 6 GL/annum of local water utility licences, if it were available, would therefore be significantly greater than the market value of 6 GL/annum of general security licences. This difference in market value reflects the fact that considerably more storage needs to be set aside in a dam per ML of licenced allocation for local water utility supply compared with the amount of storage that needs to be set aside per ML of general security supply.

Engineers Australia would like to congratulate the Productivity Commission on the work and objectives of the Draft and we look forward to supporting progress. Thank you once again for the opportunity to provide comment and for taking the time to consider the above.

If you have any questions or would like to discuss the content of this letter further, please do not hesitate to contact me

Yours faithfully,

Sybilla Grady
Senior Policy Advisor
Engineers Australia

[5] *Ibid*, p171.