

**Questions from the Commissioner to the South Australian Government Concerning  
its Submission to the Murray-Darling Basin Royal Commission  
dated June 2018**

1. At [49] of the Submission, the Government states that *“the Authority determined the amount of water needed for the environment was between 3,000 GL per year and 7,600 GL per year”*. This does not reflect the Commissioner’s full understanding. Page 114 of the “Technical Background Guide to the Proposed Basin Plan” contains a table concerning “Reductions in Diversions Required to achieve Environmental Watering Requirements”: Exhibit RCE 2. The opinion expressed there by the Authority was that a total reduction in diversions of 3,856 GL was required to achieve environmental water requirements at a level of “high uncertainty”. To reach a level of “low uncertainty”, a total reduction in diversions of 6,983 GL was required. The figure of 3,000 GL is only reached by applying a confidence limit of -20% to the high uncertainty target: see page 115, Exhibit RCE 2. The figure of 7,600 GL is reached by applying a +10% confidence limit to the low uncertainty figure.

The ordinary and natural meaning of the words, together with the views of various scientists who have given evidence at the Commission’s hearings, is that the term “high uncertainty” should be interpreted to mean that a reduction in diversions of 3,856 GL is highly unlikely to achieve the environmental watering requirements set by the Authority. In relation to this:

- (a) Does the Government have a different view?
  - (b) Given the high uncertainty range of 3,856 GL and the low uncertainty range of 6,983 GL, what is the Government’s view as to the appropriateness of the Authority only examining scenarios between 3,000 GL and 4,000 GL in the Proposed Guide to the Basin Plan?
2. At [60] and [64] of the Submission, the Government describes the sustainable diversion limit determined for the Basin Plan, and the adjustment mechanism, as a “negotiated result.” There has been unchallenged evidence called at the Commission’s hearings which could form the basis for a finding that the SDL and ESLT determinations were not made solely on the basis of “the best available scientific knowledge (s.21(4)(b) of the Water Act), or even the best available scientific knowledge coupled with some

unspecified consideration of social and economic outcomes. In relation to this and the reference in the submission to “negotiated result”:

- (a) Does the Government suggest that part of the Water Act allows for the environmentally sustainable level of take, the long term average sustainable diversion limit, or the SDL adjustment mechanism, to be determined by means of “a negotiated result” rather than “on the basis of the best available scientific knowledge”?
  - (b) How was the result “negotiated”, and who participated in the negotiation of the result?
  - (c) Does the Government have information concerning how much, “in volumetric terms”, social and economic considerations influence the determination of the ESLT or the Basin-wide SDL?
3. Still on [60] of the Submission, it is asserted that a water recovery of 3,200 GL per year has been *“reviewed extensively by the department as being able to achieve key environmental outcomes”*. Should the Commissioner view this as a submission that if the Basin Plan provides for 3,200 GL per year to be recovered for the environment that this reflects an “environmentally sustainable level of take” as that term is defined in the Water Act? If so, what is the scientific basis for holding that view?
4. Still on [60] of the Submission, it is stated that *“delivery of 450 GL in efficiency contributions provides real additional water for the entire system and in particular, benefits to the Coorong”*. In relation to this assertion:
  - (a) Should the Commissioner understand that the Government’s position is that efficiency contributions (referred to as efficiency measures in the Basin Plan) will result in an extra 450 GL of real water for the “entire system”. If so, what is the scientific basis for holding that view?
  - (b) How will 450 GL of real water be achieved for the enhanced environmental outcomes outlined in Schedule 5 of the Basin Plan in circumstances where the efficiency measures now will be largely off-farm, rather than on-farm?

5. Still on [60] of the Submission, in addition to what is set out at [207] to [211] of the Submission concerning return flows, what is the Government's position in relation to the unchallenged evidence given at the Commission's hearings from Australian and overseas-based scientists regarding their concerns related to the concept of "return flow"? Please answer by means of reference to scientific evidence that these concerns are not well-founded, if that is the Government's view.
  
6. Still on [60] of the Submission, in determining an environmentally sustainable level of take, and in setting the long-term average Basin-wide SDL, the Authority ignored climate change projections in its modelling. In relation to this:
  - (a) Is it the Government's view that climate change projections from research organisations such as Australia's leading universities or the CSIRO and the like, are part of the "best available scientific knowledge"?
  
  - (b) What is the Government's view as to whether the ESLT or the long-term average Basin-wide SDL can be lawfully determined without incorporating climate change projections into the modelling? – the Government should also note s.21(4)(a) of the Water Act in addressing this question.
  
7. In relation to the reference to the "*additional 450 GL of water*" referred to in [61] at the Submission:
  - (a) What is the scientific basis for the assertion that there will be an additional 450 GL of water recovered by efficiency measures?
  
  - (b) What is the scientific basis for considering what has been referred to as the "3,200 GL Plan" will achieve the enhanced environmental outcomes referred to in section 7.09 and Schedule 5 of the Basin Plan?
  
  - (c) What is the scientific basis for the Government asserting that as at 31 December 2017 "a total of 2,106.4 GL of water has been recovered for the environment"?
  
  - (d) What is the scientific basis for the Government accepting that 702.7 GL of water has been recovered from the SRWUIP and SARMS programs?

- (e) Has the Government been provided with any water accounting to justify the claim from the Authority that 702.7 GL of water has been recovered from the SRWUIP program?
  - (f) Billions of dollars of Commonwealth funds have been spent on the SRWUIP program. Unchallenged evidence has been given at Commission hearings that efficiency measures are at least 2.5 times more expensive as a means of recovering water than the purchase of an entitlement (a “buyback”), and less certain of recovering real water than a buyback because of concerns regarding return flows. Does the Government support efficiency measures as a preferable means of recovering water than a buyback scheme?
8. At [107] of the Submission, the Government states that “the authority has modelled projects [supply measures] as a total package for the 2017 determination to maximise the offset”. Has the Government:
- (a) been provided with the modelling and other information that underpins the determination of the ESLT by means of recovery of water for the environment of 2,750 GL or 3,200 GL?
  - (b) been provided with the modelling said to underpin the 605 GL SDL adjustment?
9. At [108] of the Submission, the Government submits that “*it is not possible to attribute individual volumes to individual projects*”. In relation to this assertion:
- (a) If individual volumes cannot be attributed to individual projects, what is the Government’s understanding as to how the total figure of 605 GL has been reached?
  - (b) Further, the Commission notes that there are Authority/New South Wales Government documents attributing 106 GL to, for example, the Menindee Lakes supply measure project. How is this consistent with the South Australian Government’s submission?
10. At [118] of the Submission, the Government states the supply measure projects “*have been subject to a rigorous assessment criteria*” and that the South Australian Government “*is satisfied that all projects progressing to the next phase of the*

*implementation satisfied the requirements*". It is also asserted at [81] of the Submission that the adjustment mechanism *"improves socio-economic outcomes [and] facilitates the achievement of improved environmental outcomes."* It is also claimed that the supply and efficiency measures, and proposals addressing constraints will *"guarantee flows of 80,000 megalitres per day at the South Australian border and improved outcomes for the Coorong, Lower Lakes and Murray Mouth"*. These assertions are not consistent with the unchallenged evidence called at the Commission's hearings. In relation to these assertions:

- (a) What is the scientific basis for the Government's satisfaction that section 7.17 of the Basin Plan has been satisfied with respect to all supply measures?
  - (b) What is the scientific basis for any satisfaction that the Government might have that supply measures will equate to 605 GL of water for the environment?
  - (c) Does the Government have a view as to whether it would be better to recover 605 GL for the environment through the buyback of water entitlements rather than through supply measures?
  - (d) Many supply measures are at a concept stage only. What "rigorous assessment criteria" have these measures been subject to?
  - (e) What "constraints" are being referred to in relation to the claim that a flow of 80,000ML is guaranteed to be within the capacity of river managers, and what is the scientific basis for this asserted guarantee?
11. Still on [118] of the Government's Submission, the Commissioner notes that the business cases for the various supply measures have only recently been made publically available, and only after the disallowance motion in the Senate. The Authority's analysis of these various supply measures was only made available after it was compelled to produce those documents in the Senate. In relation to this:
- (a) What is the Government's view as to whether these documents should have been made publically available at or about the time the documents were created?

- (b) What explanation, if any, has the Government been provided by the Authority as to the reasons for not making publically available either the business cases for the supply measures until very recently, or its analysis concerning the business cases?
12. In relation to the statements made at [128] and [129], what is the scientific basis for the assertion that the “tool-kit measures” that are referred to justify a reduction of water to be recovered for the environment in the Northern Basin from 390 GL to 320 GL?
13. Still on [129], the Authority’s own analysis in relation to recovery targets ranging from 273 GL to 415 GL in the Northern Basin shows that in all of these scenarios many of its environmental watering targets will not be met. What is the Government’s position then as to why a 320 GL (or even 415 GL) recovery target for the environment in the Northern Basin is appropriate, or forms part of a lawful ESLT or SDL under the Basin Plan?
14. At [138], the Submission is made that “efficiency projects are real water savings for the environment”. A great deal of unchallenged evidence has been given at the Commission’s hearings that efficiency measures are poorly accounted for (if at all) and are unlikely to result in recovering as much water for the environment as is claimed (if at all). This is no doubt of particular concern to the Government given efficiency measures are the basis for the proposed recovery of 450GL of water for South Australia’s icon environmental assets. The Commissioner is interested in the scientific basis for the Government’s assertion. In particular, the Commissioner would be interested to hear from the Government as to why it (presumably) thinks that the various scientists and other experts that have given evidence before the Commission are wrong?
15. While it may have been answered in [7](b) above, in relation to [139] of the Submission, evidence given to the Commission suggests that even a 3,200 GL recovery of water for the environment has almost “no hope” of achieving the outcomes outlined in Schedule 5 of the Basin Plan or Schedule 86AA of the Water Act. What is the scientific basis for the Government holding the view that these outcomes will be achieved under the current Basin Plan?
16. In reference to [157] of the Submission, what is the Government’s understanding of what progress has been made in relation to the Constraints Management Strategy?

17. In relation to [167] to [177] of the Submission, is it the Government's view that sections 10.52 to 10.54 of the Basin Plan are adequate and appropriate in terms of addressing the broad range of social, spiritual and cultural values and uses of Aboriginal people in relation to the rivers and watercourses of the Basin?
18. Still in relation to [167] to [177] of the Submission, does the Government support, at least in principle, an allocation to Aboriginal nations of a "cultural flow" under the Basin Plan in volumetric terms, and pursuant to some legal recognition of that cultural flow?
19. In relation to [187] of the Submission, what is the Government's understanding of the level of monitoring and assessment of the Basin Environmental Assets?
20. The Commissioner is aware of the report referred to at [195] of the Submission. What is the scientific basis for the assertion that the "*monitoring provides strong evidence*" of the matters referred to in the submission? In relation to this paragraph, and in relation to [201] of the Submission, what is the scientific basis for the confidence expressed by the Government?
21. What is meant by the term "on track" in [200] of the Submission?
22. In relation to [207] to [211] of the Submission, while this matter may have been addressed in a previous answer, what are the South Australian Government's views concerning the evidence presented to the Commission by various scientists and water economists concerning return flows?