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Murray Darling Basin

Comments on Guide to Basin Plan

Background

Barossa Infrastructure Ltd (BIL) is an unlisted public company which supplies 5,000 to 7,000 Megalitres per annum of supplementary irrigation water to viticulture in the Barossa Valley. SA Water provides the connection to the Warren Reservoir, supplemented with water supplied via the Mannum Adelaide Pipeline and Warren Transfer Main, from the River Murray.

SA Water is provided with irrigation water rights sourced from the River Murray for the amount of water supplied to Barossa Infrastructure. This water comes from Water Access Entitlements either purchased or in the form of long term leases and annual Water Allocations purchased on the market.

BIL's customers are the shareholders in proportion to their contracted volume. The scheme cost in 2000 was approximately $30 million, funded about 1/3 by shares and 2/3 by a long term bank loan. Current debt is about $8.5 million. In addition to usage charges customers pay an annual infrastructure levy. There was no Government funding although considerable assistance was provided in negotiation of the necessary permits for the scheme.

The comments below reflect both on the Basin Plan and the methods of recovery of water for the environment. If the Authority is restricted in the areas covered by the Basin Plan then strong recommendations should be made as to how the impacts could be mitigated to reduce the impact being concentrated on water buybacks. It is understood that a number of these comments are outside the Authorities' area but a coordinated response to the problem is required.

It appears that South Australia as a smaller diverter and one that has not increased allocations since 1968 is to suffer a disproportionate reduction in high security rights, as higher flows in SA have been left for the environment. Critical Human Needs, including quantification of stock and domestic diverters, are a much higher percentage of SA diversions and hence, unless these are counted separately, a larger impact will be felt by irrigators.

Detailed comments follow:

Comments

1. The implementation of the Basin Plan should be extended over a longer period and subject to regular review to see if the objectives are being achieved and the community impacts managed. This would enable time to:
    - quantify the gains through the infrastructure investment program
    - design and implement environmental works to improve the irrigation efficiency
    - review environmental improvements
    - assess the impact of the current higher flows on environmental recovery and hence allow for informed calculation of environmental watering requirements
2. In South Australia the impact of water reductions will be exaggerated by water for Critical Human Needs. These should be considered separately to the reductions of the irrigation diversions. As there appears no intention to reduce CHN then they should not be part of the volume considered for reduction.
3. The Current Diversion Limit in table 5.2 does not reflect the current cap. It is difficult to understand or find convincing evidence for the assumptions illustrated in the table for current diversions in SA. The water allocation plan is 724 GL. If changes due to living Murray and trade are incorporated this is reduced to 719 GL not 665 as given in the table. It has been suggested that the amount has been reduced because of low flows since 2006; further considerations should be given to the extent of rationing and temporary transfers from interstate in making this calculation.
4. South Australia suffers additional disadvantages
    - That most delivery systems are piped means few gains can be made in irrigation efficiency. If Commonwealth money is being spent in such areas then the benefits should be shared equally and not only credited to the valley in which the expenditure is made.
    - SA's freeze on new allocations since 1968 and only having one type of water means there is considerably less flexibility in mitigation actions that can be taken.
    - Environmental works and measure should also be considered before buybacks.
5. SA has only one class of water. This should be identified as high security and in years of water shortage given the same allocation as similar classes of water in the connected Murray system. We are one nation and this class of water encourages permanent plantings which need to be protected for future seasons.
6. The discussion of long term averages makes it difficult to determine the real impact of the changes. Since the historical data is available, it would be an advantage if the impact was modelled in some key years. It would then to be possible to see how the additional environmental water was used and if real benefits were achieved. Climate variability in the Basin is known and averages appear to be a poor way of expressing its impact. BIL is concerned that the impact of drought on irrigators is likely to be even more extreme after implementation of the plan than at present and communities will not be viable over large areas of the Basin. Effectively, the buyback is likely to reduce the pool of water available for trading in drought years. This should be modelled for drought years so the full impact on communities is known.
7. A recommendation could be included that water availability in drought years be increased by trading with the environment.
8. The extended period of the Government purchasing water licenses has introduced a high degree of uncertainty into the market. The result is businesses, such as ours, are not certain on future pricing and reluctant to invest in water rights. This may impact on new industries which could assist in the transitions to a lower water use.

9. There appears to be no consideration given to the environment sharing the results of climate change.
10. The view that the river needs to have at least 60% of pre development flow is difficult to understand in a fully regulated river. What are the benefits of modifying the regulation structures to achieve environmental benefits?
11. The high flow events can only occur naturally. If attempted artificially there could be a resultant flooding of private assets. Is this considered in determining average flows?
12. Critical Human Needs are always identified ahead of irrigation allocations. Can these be identified, frozen at current levels and considered before irrigation allocation reductions. If necessary towns and cities would then have to buy additional rights if they were unable to otherwise provide for population expansion.
13. Storage of environmental water must be on the same basis as all other water.
14. Although there are further social economic models being prepared it is difficult to understand the current claimed impacts. In the real world people are not as mobile as seems to be assumed. House costs, lifestyle, the high value of assets utilised in the present enterprise and community support structures would inhibit rapid change and hence impacts would be greater.
15. Has consideration been given to the predicted uneven impacts of climate change? Climate change is likely to be more extreme in the southern basin and yield a positive benefit in the northern basin. The assumptions in Section 3.7 should be examined.
16. Are the quantification of losses in wetlands (Section 3.4) all due to water shortage? How much is due to drought and is now recovering? How much is due to actions of individual landowners with drains, banks, grazing, land clearing and other local impacts?
17. The recovery of water for the environment is primarily through water buy backs. How much consideration has been given to targeting the buybacks where the greatest benefits can be achieved? Such situations are the end of channel systems where the losses are proportionally higher and return flows likely to be lower. Additional payments could be made to assist in restructuring.
18. The assumption on Figure 7.3 that a 7,600 GL or approximately 65% reduction in diversions, and also considering Critical Human Needs, would only result in a 35% reduction in output appears difficult to understand. If this data point is incorrect the straight line graph would also indicate the impacts of the 3,000 to 4,000 GL reductions would be greater than claimed. Information from the 2006 drought should be used to quantify the actual productivity losses associated with the low flows.
19. Salt and nutrient transport functions of the environment need to be reassessed following the end of the drought and the minor floods this year. Are the assumptions supported? We need good science to quantify.

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20. In table 3.1, the risk management strategy did not consider impact on irrigators, the economy or communities. These are essential if a plan is to be considered. Further, in assessing the impacts there appears to be too many “highest” and “high” impacts and these then drive the solutions. It is a good discipline to ensure that there are a range of impacts when doing a risk analysis to demonstrate that the most critical issues have been addressed. As an example the impact on SA River communities could be considered modelling for the most severe drought of record. Would there be any water allocation under a complying Water Allocation Plan? Would the permanent plantings survive? This type of information is essential if the Basin Plan is to be properly considered.
21. What percentage of the critical information is of high reliability?

22. Water Resource Plan requirements should separate Critical Human Needs and Irrigator requirements. In SA the current cap should remain unchanged so that in years such as this higher diversions can be achieved.
23. It is recommended that all irrigators have access to storage where practical. SA needs access to storage to help manage the lower allocations.
24. Water trading is an important part of the adjustment mechanism. In addition to a transparent and readily available record system the following need to be considered:-
    - transaction costs need to be realistic to encourage trading; current levels are a hindrance to trade and result in undervaluing irrigator's assets
    - limits on permanent trade should be abolished in favour of quantification of real costs of the trade
    - Good regulation of water brokers to ensure reliability of trades and security of funds; there should there be a national indemnity fund to protect irrigators trading their water!
    - encouragement of competition between water brokers and their trading systems

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