

Engagement with the community

- 4.1 The issues outlined in the previous Chapter stem directly from a lack of community consultation, both in the development of the Guide and the information sessions following its release.
- 4.2 It is essential that the final Basin Plan and any related implementation plans (including state water sharing plans) reflect the local conditions in each Basin valley. This includes reflecting the knowledge of the local land and catchment managers in how to best manage environmental flows and savings and recognising the work done to date by communities in developing state water sharing plans.
- 4.3 The Committee heard repeatedly within communities about support needed for environmental recovery, but this was consistently partnered with a concern that MDBA assumptions did not reflect the reality of conditions within catchments and was too dependent on conditions during the recent extended drought.
- 4.4 The Chair of Murray Irrigation Ltd, Mr Stewart Ellis, expressed a desire for a successful Basin Plan but it needs to involve communities:

Is the Basin Plan needed? Yes. Like all the other groups, we are saying there is a need for a basin plan. The opportunity here is ripe. You can develop a basin plan, but it must be done in consultation with local communities. The Murray River is a connected system. You cannot just rely on flows from the upper Murray, the Menindee Lakes and the Darling River to supply all the River Murray requirements. It is a connected system. The tributaries, like the Goulburn and Murrumbidgee, are all part of the basin and we are all part of the solution to a better outcome for

the basin. But, again, I would just reiterate: communities like ours deserve a better approach.¹

- 4.5 Communities have been actively involved in environmental recovery programs, particularly in the southern basin through The Living Murray program. The need for further planning is known but not necessarily fully understood:

The current poor health of the Basin and its associated flora and fauna is alarming. Clearer explanation of how and why increased environmental flows will improve the health of Basin ecosystems and populations of important flora and fauna species is needed to attain a greater level of community understanding and appreciation for the scale of the problem needed to be addressed.²

- 4.6 Communities have the right and the need to understand why the Basin Plan is necessary and the process must reflect this need.

Case study 4.1 Community solutions

Basin-wide

Australian Rain Technologies (ART) presented to the Committee in March 2011 to explain the benefits of Atlant rainfall enhancement technology in the Murray-Darling Basin. Atlant technology is an experimental "green" technology that ART claim is low cost, environmentally friendly, flexible, targetable and adds water to the whole environment. It works as an on ground ionisation-based system designed to increase the proportion of cloud moisture that falls as rainfall downwind of the device.

Statistical analysis of four Australian trials conducted in the last three years, has shown highly significant measured enhancement effects. Based on the trial results, one machine produces around 300 GL of additional rainfall over a downwind area of 4,200 square kilometres. While the Atlant contribution is substantial in terms of rainfall, it does not significantly impact the general abundance of overall atmospheric moisture and analysis has revealed no detectable rain shadow effect. ART identifies the Gwydir Valley and the Hume/Dartmouth catchments as areas of potential Atlant application.³

Dam Geo-Engineering

In its submission Solartran suggests the use of large floating evaporation covers to minimise water loss due to evaporation. Solartran indicates that evaporation rate from reservoir surfaces is, conservatively, about 1 metre per year. Using the Lake Hume reservoir with its surface area of 20,000 hectares as an example, Solartran estimates an additional water yield from an evaporation cover at 182 GL per year.⁴

1 Mr Stewart Ellis, Chairman, Murray Irrigation Ltd, *Transcript of Evidence*, Deniliquin, 24 January 2011, p. 18.

2 Municipal Association of Victoria, *Submission 381*, p. 10.

3 Australian Rain Technologies, *Supplementary Submission 589.1*, p. 3.

4 Solartran, *Submission 147*, p. 2.

- 4.7 The planning process must also reflect the socio-economic needs of communities through targeted structural adjustment plans to offset any further impacts of any reduction in water availability. The knowledge regarding the best form of structural adjustment is held within communities, by business owners, employers and local councils. Communities must be engaged and have a leading role in managing their futures. All levels of government must be leaders in this process:

It is no good just saying to people: what is the economy going to look like in 10 years time with less water, or asking anyone in this room today what they would do if they were not doing what they are doing now. Most people who work in a particular field all their lives would find that a really difficult question to answer. We are dealing with a high level of uncertainty and that is, in part, what generates community anxiety in response. But we can actually get through that uncertainty and begin to plan for a better future as long as we have the key structural elements in place and as long as there is clear leadership from government demonstrating that government has belief in the capacity of communities to come up with viable options for the future.⁵

Case study 4.2 Reassessing land use

Land classification

CSIRO carried out a pilot study in the Torumbarry Irrigation Area (TIA) to investigate the potential for targeted investment in reconfiguration and water purchases to provide multiple benefits. These benefits include increasing the value of agricultural production and ecosystem services, and reducing water delivery costs and salinity loads. The study concluded that irrigated land use in the area could be reconfigured using a 'Traffic Light Concept' where land is divided into three planning zones based on soil, environmental and location characteristics.

Different water investment strategies would be applied in each zone:

- Green – Sustainable Irrigation: Priority locations for investment in irrigation infrastructure modernisation and efficient water delivery. Low priority for water purchases unless they provide particularly low cost water;
- Amber – Environment and Amenity: Priority locations for investment in rural amenity and ecological restoration. Encourage change in land use from irrigation to biodiversity and carbon plantings. High priority for water purchases based on potential for water delivery cost savings, public good environmental and salinity benefits; and
- Red – New Dryland: Priority locations for investment in new dryland farming. High priority locations for water purchases.

The environmental and economic benefits that can be achieved by using this reconfiguration design in the TIA are significant:

- 20 percent of the water used for irrigation can be returned to the environment – approximately 60 GL;

5 Prof. Chris Miller, School of Social and Policy Studies, Faculty of Social and Behavioural Sciences, Flinders University, *Transcript of Evidence*, Murray Bridge, 18 January 2011, p. 30.

- water delivery infrastructure operation, maintenance and replacement cost savings in the order of 40 percent;
- agricultural profitability could increase by 24 percent;
- cessation of irrigation in the 'red' zones would reduce salinity measured at Morgan (the key reference point) by up to 13EC. This equates to a cost saving of more than \$50 million over 30 years in salinity mitigation; and
- over 10 million tonnes of CO₂ equivalents sequestered annually by encouraging planting in the 'amber' zones.

The study shows that if the same volume of water is allowed to leave the district in an unplanned way, these benefits will be lost and the value of agricultural production will decline rather than increase.⁶

Alternative Cropping

An example from the Inland Rivers Network (IRN) of a low water, low chemical use crop with numerous commercial by products is industrial hemp. This crop and industry has the potential to create major employment opportunities in regional Australia. According to IRN, the dominance of the flood irrigated cotton and rice industries in the Basin needs to be analysed in relation to economic return per megalitre of water use as well as the environmental impacts and costs of that water extraction.⁷

Socio-economic studies

- 4.8 The Committee has not undertaken a comprehensive socio-economic study of the Basin. This is not the role of a parliamentary committee. This work should be undertaken by policy-makers, prior to any policy development. The MDBA and government agencies have been rightly criticised for not undertaking this work in conjunction with the development of a draft Basin Plan.
- 4.9 Indeed, there was little point in the Committee undertaking a socio-economic study with the changing ground in the water market as the Government continues to purchase water and the final SDLs are undetermined.
- 4.10 A number of socio-economic studies have been undertaken throughout the Basin, commissioned by a range of organisations. At the time of drafting the Guide, there was work available to inform a more comprehensive socio-economic analysis than is contained within the Guide.⁸
- 4.11 At the time of drafting this report, the socio-economic study commissioned by the MDBA late 2010 had not been released. While the Committee is disappointed about this, from private briefings held with the

6 Environment Victoria, *Submission 317*, pp. 19-20.

7 Inland Rivers Network, *Submission 409*, p. 4; see also Kitty Schiansky, *Submission 256*, p. 2; Matt Brown, *Submission 46*, p. 1.

8 For example, Marsdon Jacob Associates, *Economic and social profiles and impact assessments for the Murray-Darling Basin Plan: Synthesis report*, 7 July 2010.

MDBA, the Committee understands that the outcomes of this study mirror its own findings and the draft Basin Plan will be based on a more comprehensive understanding of Basin communities.

- 4.12 The Committee recognises that significant progress has been made towards the completion of this work. The recommendations contained within this report presume that this work will be completed.
- 4.13 While the MDBA has been specifically charged by the Water Act to develop the SDLs for Basin valleys, the Act also requires this to be placed in the context of the communities living within the Basin. The lack of focus on the community, both in terms of socio-economic analysis and community consultation is a key reason why communities are so opposed to the Guide.
- 4.14 If a further reduction in diversions is identified after proper auditing of current volumes allocated, there must be a minimal negative impact on communities. A comprehensive, localised, structural adjustment package could be necessary in some places of strategic buyback to ensure that these communities can remain healthy, viable and vibrant places to live.
- 4.15 Any structural adjustment packages will only be successful, indeed, the Basin Plan will only be successful, if developed with a community engagement strategy that is focussed on transparency of process and contains clear and meaningful opportunities for local communities to contribute to and take ownership of the final Plan.

Aboriginal involvement

- 4.16 Many Basin communities report high Aboriginal populations and a corresponding high level of Aboriginal disadvantage. The Committee heard that Indigenous peoples thought that the proposals put forward in the Guide would affect them disproportionately compared to other parts of the community.
- 4.17 Like many in the Basin, Aboriginal people feel left out of the process for developing the Guide and a lack of recognition of their cultural association with the Basin.

Recognition of cultural values

- 4.18 The recognition of the importance of cultural water for social, spiritual and customary obligations for Aboriginal peoples is reflected in the Ramsar Convention and through provisions in the Water Act and the National Water Initiative.
- 4.19 The Act, while requiring consideration of cultural values, does not specifically provide for cultural water in the Basin Plan. As such, the Guide did not include cultural values in the criteria for identifying 'icon' sites of the Basin and did not provide for cultural flows. Regardless of the overlap between environmental and cultural values relating to water, they are not the same. Specific flows are necessary for the cultural obligations of Aboriginal people:

Cultural flows are very different from environmental flows. Let me go to one of your environmental flows for the purpose of breeding down at Narran Lakes. I am a traditional owner for Narran Lakes. Unfortunately, they send water down there when the birds were gone. So we get a drying up lake, and when the birds return to breed, there is no water in the lake. That has happened too many times in the system. When we talk about cultural flows and Aboriginal people getting control of those cultural flows or at least having some say and input into regulating cultural flows for our purposes, that is part and parcel of what we are talking about in terms of getting those things included.

Mr Hooper alluded to the fact earlier that our cultural sites are not necessarily within the river system itself. They are part and parcel of the overland system. Most of us down this river system have a four totemic system as opposed to people in the Northern Territory and Western Australia and Central Australia. Within that four totem system, our people belong to certain environmental areas. My grandfather belonged to the Ghooriburra, which is the native orchid that grows up in the Coolibah trees on the flat country. My grandmother belongs to Red Belly Black Snake country, which is the top of the ridges, and our main tree is the kurrajong tree. On the other side, we have the Murrawarry people who belong to lignum country, the swamp countries, that go along the riparian areas and the floodplains throughout the system. Then we have the Billabimble mob, and that is the bimbale box, and they belong to a totally different ecosystem altogether, throughout and across the land.

In order for us to survive and maintain our cultural identity, we need those systems to thrive and survive. To cut off water flows across those overland areas throughout those districts will destroy all the native flora and fauna within that system. The native flora and fauna within that system is part of our totemic system.⁹

- 4.20 Mr Fred Hooper, Chairperson of the Northern Basin Aboriginal Nations, also expressed the value of the rivers to his people and a desire for control of water to support these values:

The red river gum in my culture with my people is one of the most special plants that we have. The reason for that is that all of our old people – and there is a section on Weilmoringle Station that is about three kilometres off the river that only floods when we have major floods – have a stand of red river gums. Around what we call Gooramon swamp, there are ancient camp sites. That is where our old people used to go to talk through the red river gums to our ancestors. For us, spiritually, that is the most significant plant in the Murray-Darling Basin. That connects us to our ancestors. If people understand Aboriginal culture, especially Murrawarri culture, for us that is very significant. If we have a problem, we go and sit under that red river gum and we talk to our ancestors. We talk to those people that have gone before us, and that is our spiritual connection. That is not considered in any of this. I am sorry to say this, but it is not considered by the environmentalists, it is not considered by the irrigators or government.

...

So ... give us that opportunity. Let us do it. Do not say that, yes, within the water sharing plans we will give you some responsibility to stay and beg. Please give us some water so we can look after Gooramon swamp. That Mundagubba can come down from his home, down to the river, and keep it healthy, because that is the very thing that connects us from Warwick to the Coorong. Give it back to us.¹⁰

9 Mr Michael Eckford, Executive Director, Northern Basin Aboriginal Nations, *Transcript of Evidence*, St George, 15 March 2011, p. 37.

10 Mr Frederick Hooper, Chairperson, Northern Basin Aboriginal Nations, *Transcript of Evidence*, 15 March 2011, St George, p. 40-41.

- 4.21 At the other end of the Basin, the Ngarrindjeri people expressed a similar cultural connection to the waters and land at the Murray mouth:

The Meeting of the Waters is a fundamental aspect of the Ngarrindjeri world where all things are connected, whether they are living, from the past and/or for future generations. The Meeting of the Waters makes manifest core concepts of Ngarrindjeri culture that bind land, body, spirit, and story in an integrated, interfunctional world. The principles that flow from this cultural system are based upon respect for story, country, the old people, elders and family. The pursuit of these principles is contingent on maintaining a relationship with country. ... According to these principles and contingent beliefs, the "environment" cannot be compartmentalised: the land is Ngarrindjeri and the Ngarrindjeri are the land.¹¹

- 4.22 Like many landholders, the Northern Basin Aboriginal Nations recognise that farm storages can provide some environmental benefits, specifically for bird breeding and have indicated that they are considering the challenge of whether to incorporate this into cultural practice where the river health no longer performs this role.¹²

- 4.23 The specific cultural knowledge held by Aboriginal peoples is recognised by many who spoke to the Committee as a resource for environmental managers. Many also noted that access to cultural water can provide a pathway back to country in Basin communities that have large Aboriginal populations with high levels of disadvantage.¹³

- 4.24 There is obvious benefit and need for greater involvement of the Basin's Aboriginal people in water planning processes, especially in the development and implementation of the Environmental Watering Plan. In addition to improving the level of involvement in water planning, consideration should be given to finding novel and innovative ways to provide for cultural water managed by Aboriginal people, such as the creation of cultural water holdings or periodic access to water held by the CEWH.

11 Ngarrindjeri Regional Authority Inc, *Submission 385*, p. 1.

12 Mr Frederick Hooper, Chairperson, Northern Basin Aboriginal Nations, *Transcript of Evidence*, 15 March 2011, St George, p. 38.

13 For examples, see Judith Melville, *Submission 177*, Murray Darling Association, *Submission 402*, Prof. Dianne Bell, River Lakes and Coorong Action Group, *Transcript of Evidence*, Murray Bridge, 18 January 2011, p. 2.

Appropriate engagement

- 4.25 Fifteen per cent of Australia's Aboriginal population lives in the Basin.¹⁴ Some councils estimate up to 70 per cent of the population being Aboriginal and rates of Aboriginal unemployment being from between 30 to 40 per cent and up to 90 per cent in smaller communities. Councils reported being cognisant of the need for any workforce planning to specifically address Aboriginal employment and many have planning in place to address this need.¹⁵
- 4.26 To date, Aboriginal people have been underrepresented in the MDBA planning process and a number of submissions raised this as a serious concern:
- It can be argued that the mechanisms and approaches used to date for consultation and engagement of community members have not been appropriate for Indigenous Australians. Given the cultural significance of water to Aboriginal communities substantial effort is required to develop effective techniques for dialogue and discussion of water planning and to identify cultural uses at the local level.¹⁶
- 4.27 While Aboriginal peoples feel excluded from the Basin debate to date, they expressed a willingness to engage constructively in the process. Ngarrindjeri elder, Tom Trevor, best summarised the entire Basin debate when he said to the Committee:
- What is required to save our river, our lakes and our Coorong is water flows. The water must flow down...we got to find the balance. We're all in this country... we're all in the same boat... so, let's work together to find that balance. We're worried, but we're putting our faith in that everybody can pull together and find a way through this, find a solution.¹⁷
- 4.28 Given the proportionally high Aboriginal population in the Basin, and corresponding levels of disadvantage, any structural adjustment packages needed because of job losses, for example (discussed below) must take into account the specific needs of Aboriginal peoples.

14 MDBA, *Guide: Volume 1*, October 2010, p. 98.

15 For example, see Shire of Brewarrina, *Submission 222*, p. 1; Mr Robert Lacey, Executive Officer, Northern Basin Aboriginal Nations, *Transcript of Evidence*, 15 March 2011, St George, p. 36; Councillor Walter Mitchell, Bourke Shire Council, *Transcript of Evidence*, 15 February 2001, Bourke, p. 3.

16 Inland Rivers Network, *Submission 409*, p. 22.

17 Mr Tom Trevor, Ngarrindjeri elder, Camp Coorong, Site inspection, 18 January 2011.

State and territory responsibilities

- 4.29 While the MDBA and Commonwealth government agencies have been responsible for a number of the failings regarding the Guide, the states must also shoulder some of the responsibility for the community reaction to it – much of the community anxiety stems from a lack of understanding of implementation, and this is the responsibility of states through water sharing plans. The Basin Plan will only be successful if it is a true partnership between the states and the ACT and the Commonwealth.
- 4.30 The consequences of the failure by the MDBA and state/territory governments to work together in communicating how the Basin Plan will work are illustrated by the case of the Peel Valley, within the Namoi catchment. Namoi Councils suggested that a return of only three gigalitres from within the Peel Valley to the environment would make the entire district unsustainable:

Under the 3,500GL scenario outlined in the current Guide to the proposed Basin Plan there is a proposed reduction of 25% to current diversion limits for the Namoi. If this was to be applied across the total Namoi, including the Peel, this would reduce the current diversion limit in the recently made water sharing plan for the Peel from 15.1GL to 11.2GL. Given that town water supply for Tamworth makes up a large component of the entitlement in the Peel and are likely to be quarantined from any impacts associated with the implementation of SDLs, the proposed reductions or additional environmental water requirement would need to be met from a much smaller number of licence holders and would result in a much higher percentage impact - i.e. long term average current diversion limit component for irrigation in the Peel would be reduced from 6.1 GL to 2.3 GL. This is not sustainable and will put irrigators out of business in the Peel.¹⁸

- 4.31 This is why it is essential to have a localised approach to planning. The sub-systems within catchment areas can often have very different characteristics, as Namoi Councils explained:

The irrigation characteristics of the Peel Valley are distinctly different from the Namoi Valley, for example, in the Peel Valley the farms are smaller, landuse is different, irrigation licences are smaller, and the irrigation methodology, behaviour and commodities are different. Furthermore, all hydrologic modelling for the Peel Valley has been undertaken separately from the

18 Namoi Councils, *Submission 517*, p. 12.

Namoi River Valley and the Peel (combined water sources) has a separate Water Sharing Plan to the Namoi water sources. These are all examples of why consideration should be given to designating the Peel River Valley as a separate area for the development and implementation of SDLs.¹⁹

- 4.32 However, this is not an issue for the Basin Plan to address, it is the responsibility of state water sharing plans to define how the finally agreed SDLs will be met. It may be that the NSW Government chooses to exempt the Peel Valley from further entitlement reductions through the water sharing plan process, but this was not something the MDBA could or should define.
- 4.33 Given the apparent attitude of the MDBA towards the states and the ACT in developing the Guide, the Committee can understand their reluctance in being involved in its dissemination. However, in the above case, had the NSW Government been in partnership with the MDBA in communicating the Guide, some of the concerns of the Peel Valley community may have been addressed.
- 4.34 Water planning is a contentious issue in state-territory-Commonwealth relationships and has been since before Federation. It requires a high level of trust and cooperation between governments and this takes a long time to be developed and very little time to be eroded. The Basin Plan process has tested these relationships.
- 4.35 The Committee received submissions from most Basin state and territory governments and met with water ministers from every Basin jurisdiction,²⁰ either privately or on the public record. All indicated a strong level of support for a successful Basin Plan. All acknowledged that they could continue to improve water management and that they were committed to working to this end.
- 4.36 However, the states and the ACT also have some serious and valid concerns about the use of technical data in the Guide arising largely from a lack of consultation and cooperation during the development and a lack of access by these governments and their technical advisors to the assumptions underpinning the modelling utilised by the MDBA. Many of these concerns are addressed throughout this report.

19 Namoi Councils, *Submission 517*, p. 12.

20 While the Committee met with the previous NSW minister, it was not able to meet with the new minister following the change of government in NSW in March 2011.

- 4.37 The Hon Paul Ciaca MP, Minister for the River Murray (South Australia) effectively summarised the views of all the state and territory ministers that the Committee spoke to when he said:

I think there was anger and frustration as a result of what was, in my view, a lack of a professional approach with respect to what is one of the most significant reforms that this country is ever going to undertake. There was no accompanying narrative, there was no accompanying vision, there had been no proper engagement of the communities, and there had been no proper engagement of the states to any great extent during the development of that guide. We provided, as all states did, information. We are still seeking a response to some of the science that they have used. And so that resulted in the anger. As politicians we know that if people are better informed and better engaged at all levels, there will be a more considered response, notwithstanding the fact that there will still be angst. But it was not done as well as it could have been, and that is an understatement.²¹

- 4.38 The Committee is encouraged by assurances received by all states and the ACT that there is a clear intention to work constructively to progress the Basin Plan. However, there needs to be a more active effort made by the states and the ACT to work together with the MDBA to address community concerns.
- 4.39 While the Committee can only make recommendations to be implemented by Commonwealth agencies, its recommendations will require the partnership of all levels of government, including local councils, if they are to be successfully implemented.
- 4.40 The Committee strongly encourages the MDBA, the Commonwealth and the states and ACT to work in partnership to implement its recommendations and to progress the development and implementation of the Basin Plan in the most constructive manner possible.

21 Hon. Paul Caica, Minister for the River Murray (South Australia), *Transcript of Evidence*, Canberra, 25 February 2011, p. 25.

Providing certainty

4.41 Overall, the Committee heard a high level of support for the need for a Basin Plan and a need to look after the health of the river systems and catchments. Mr Matt Linnegar of the National Farmers Federation expressed a common view: ‘Do we need a basin plan as such?...Yes, we do, but not the one that was delivered in the guide.’²²

4.42 Regional Development Australia (Far West NSW) equally gave voice to a common sentiment:

Within the context of the whole Basin, our community members and leaders have expressed a range of views and opinions, but in the main, all substantially agree upon the following:

- 1. The health of the whole Basin including the Darling River and the Lower Darling Region of the Basin is very poor and requires significant environmental improvements. The Guide is most clear about this. Our community agrees.
- 2. The transition time necessary to restore health throughout the Basin must be reasonable, cognisant of human capabilities to change and adapt, and sufficient to allow business and industry to adapt. The Central Darling Shire and Broken Hill City Councils, for example, are mindful of these sensitivities. However, there is also an equally compelling need to make swift change, particularly in the Lower Darling region, given its poor state. Our region’s proactive environmental “guardian”, the Darling River Action Group (DRAG), would strongly favour this. However, understanding these extremes, our community acknowledges the balancing of interests will be challenging but the overarching need to return water to the Basin is imperative, and how and when it is done is an outcome to be determined with the Basin’s best interests at the heart.²³

4.43 While the Committee heard some evidence seeking the Basin Plan to be delayed or implemented over a long timeframe, it is of the opinion that this will have a negative impact on communities and it is more important finalise the plan quickly but appropriately to provide certainty and allow for business confidence:

In the guide to the draft plan, one suggestion – a so-called transitional strategy – is to extend the period by which we

22 Mr Matt Linnegar, National Farmers Federation, *Transcript of Evidence*, Canberra, 25 March 2011, p. 19.

23 Regional Development Australia (Far West NSW), *Submission 493*, p. 4.

introduce the water reform policy. We heard earlier this morning from an advocate for extending the time period for change. But actually extending the time can often have the reverse effect to what people think it will have. People seem to assume that, by giving us more time for change, there is a greater opportunity for adaptation whereas, in reality, all we are doing is posting a future date on which communities are likely to come to an end. So keeping that timescale in mind, what happens is that the best, the most resilient and the most adaptable pack up and go. They look for a future elsewhere. They do not stay and wait for the final date on which change will happen. They start to assess what the options are elsewhere. What you then see is communities go through this period of decline which, as I said before, is really difficult to reverse once it has begun. Now we have an opportunity – having secured a healthy river system for the benefit of all and for future generations – for the Commonwealth, in partnership with state governments, working together with basin communities, to invest in the future of basin communities, particularly in an economic future.²⁴

- 4.44 As stated earlier in this report, the Guide has no official status in regards to the Basin Plan that will be put to Parliament for consideration. It is a preliminary presentation of information being considered for the proposed Basin Plan. Instead, it has created a climate of fear and uncertainty and resulted in a significant downturn in investor confidence across the Basin.
- 4.45 A new approach to the proposed Basin Plan must be based on strong and effective partnerships between Commonwealth, state, territory and local governments and communities.
- 4.46 In developing the proposed Basin Plan, the MDBA needs to engage with communities, recognising and respecting the wealth of local knowledge and the right to be involved in a process that will have consequences for their lives into the future. It is essential that the scientific justification for proposed policies and their expected socio-economic implications be clearly communicated.
- 4.47 The emphasis in the Guide is on the reduction of SDLs. Many suggested that the SDLs proposed have little credibility. Very little emphasis was placed on how the Basin Plan will be implemented or what is necessary for this to occur. Given the complex and difficult task of managing the

24 Prof. Miller, *Transcript of Evidence*, Murray Bridge, 18 January 2011, p. 28.

Basin's water resources, the implementation of the Basin Plan deserves a substantial investment of time and resources and should draw on local knowledge and expertise.²⁵

- 4.48 The Committee also heard concerns that the MDBA did not give enough consideration to the hydrological and agricultural differences between northern and southern parts of the Basin, nor differences in the use of groundwater and surface water. Whether this is the case or not, it is clear that the MDBA has not communicated the full extent of their knowledge, or lack thereof, to the community appropriately.
- 4.49 The Committee also heard of alternative works and measures for extra environmental flow savings or more efficient delivery. It was also stressed that it is not just volume of extra flow that is a consideration of environmental managers. The timing of flows, duration, temperature, turbidity and frequency are just as critical for ecosystem health.
- 4.50 All of the issues raised in this report need to be addressed in a comprehensive implementation plan for the Basin Plan. This may still need to be some significant structural adjustment for Basin communities and the appropriate level of resources needs to be applied both to implementing the plan and supporting community adjustment.
- 4.51 The Committee has had indications from the MDBA that its thinking has shifted significantly since the release of the Guide. The Hon Craig Knowles told the Committee:

I do not have a high degree of ownership of [the Guide] and I would like to think that, symbolically, my appointment offers the hope of a fresh start and an opportunity to re-engage with communities and incorporate their wisdom and their desires, as best as they possibly can be, into the work that I will do with the authority over the next little while.²⁶

25 Namoi Councils, *Submission 517*, p. 6.

26 Mr Craig Knowles, Chair, MDBA, *Transcript of Evidence*, Canberra, 25 March 2011, p. 73.

- 4.52 Mr Rob Freeman, the former Chief Executive of the MDBA also told the Committee:

People are looking for a lot of detail in the environmental water plan, yet it must be principles based. We cannot put out a prescriptive environmental water plan. It must provide flexibility to allow, for instance, the Commonwealth Environmental Water Holder to trade water out of a catchment that is well watered because it has rained in that catchment, and acquire water in a dry catchment. So it has to be principles based, but there was almost universal feedback that people are looking for something with more detail than the principles we outlined. That has driven the authority to consider: is there a communication document that sits below a principles based environmental watering plan that would describe how it might have been done, looking back? So, say, 'For this five-year or 10-year period, this would have been an appropriate environmental water plan.' It is an application of the principles. We are working through that issue, but it is a big challenge. People are looking for detail.²⁷

- 4.53 The Committee is heartened by this change in attitude by the MDBA, but nonetheless is recommending that a new approach be taken to the development and delivery of the Plan.
- 4.54 It is the Committee's view that without a detailed implementation plan for the Basin Plan, which provides certainty to communities in terms of engagement, timeframes and the roles and responsibilities of all stakeholders, the implementation of the Basin Plan will fail.
- 4.55 The Committee acknowledges that a lot of the certainty that the community is looking for – that is, how water will be saved and delivered – cannot be included in the Basin Plan for the reasons outlined by Mr Freeman above. Nonetheless, the Plan can be delivered in a way that provides certainty to Basin communities for future planning.
- 4.56 However, this is also dependent on greater participation and collaboration by the states and ACT, who are responsible for the water sharing plans that will deliver the savings.
- 4.57 The Committee welcomes the Murray-Darling Basin Ministerial Forum announcement of 1 April 2011 to explore 'a more collaborative and inclusive approach' to Basin planning and recognising the need to develop

27 Mr Rob Freeman, Chief Executive, MDBA, *Transcript of Evidence*, 25 March 2011, Canberra, p. 80.

a plan for the Basin that ‘underpins strong and viable communities’.²⁸ It is essential for the Commonwealth and states and ACT to show leadership in working collaboratively to ensure a positive outcome for the Basin and its communities.

Recommendation 4

The Committee recommends that, in developing the proposed Basin Plan, the Murray-Darling Basin Authority must:

- **develop a community engagement strategy, tailored for each catchment community, focussed on transparency of process with clear and meaningful opportunities for local communities to contribute;**
- **engage all Basin stakeholders, including local, state and territory governments in a genuinely inclusive and respectful manner;**
- **draw upon local knowledge and expertise;**
- **recognise the social and cultural needs of Aboriginal people;**
- **clearly communicate the need for a Basin Plan;**
- **clearly communicate the process, roles and responsibilities for the implementation of the Basin Plan, including:**
 - ⇒ **the role of the Basin Plan;**
 - ⇒ **the role of Commonwealth water recovery programs;**
 - ⇒ **the roles and responsibilities for state and territory governments in water resource planning under the Basin Plan; and**
 - ⇒ **linkages and partnerships between Commonwealth, state and territory governments and relevant agencies within each jurisdiction in the implementation of the Basin Plan.**

28 Murray-Darling Basin Ministerial Forum, *Communiqué*, Sydney, 1 April 2011, p. 1.

A Basin community plan

- 4.58 The Basin Plan is the central outcome of the *Water Act 2007* but it does not stand alone. It requires some management changes and adjustment for the operation of the Basin, and therefore must be complemented by other relevant actions.
- 4.59 One of the most significant criticisms of the Guide and the Act is that too much emphasis is placed on the environment without due consideration of social and economic impacts.
- 4.60 While the Act does allow for a consideration of a ‘triple-bottom-line’ approach, it does not specifically task any one body with the development of a plan to assure these outcomes. The MDBA is a scientific and engineering organisation and it is not appropriate that it be charged also with this policy role.
- 4.61 However, the MDBA did identify significant impacts on the community and a key recommendation of the Guide should have been the development of a plan to support communities to adjust to a change in water allocation as part of implementing the Plan. As put by the Queensland Government:
- It is recognised that that structural adjustment programs are not within the scope of the MDBA, but it is in the scope of the MDBA to communicate the importance of broader structural adjustment programs to the Commonwealth Government. This is, after all, an issue that impacts on the MDBA’s ability to effectively deliver a basin plan that has broad community and government support.²⁹
- 4.62 All levels of government have a responsibility for ensuring the successful implementation of the Basin Plan. Any further reduction in water availability is likely to have a serious impact on the economy and hence national and community wellbeing.

29 Queensland Government, *Submission 624*, p. 4.

- 4.63 Local councils in particular need to be engaged in the development of an implementation plan. Councils provide the local leadership across the region and are responsible for service delivery that is essential to community wellbeing, as suggested by the NSW Government:

Councils may also be expected to demonstrate leadership in assisting communities to adjust to lower-water circumstances and to attract alternative industries that are not as water dependent.

The potential impacts on councils' service delivery functions coupled with cuts to extractive water may impact on the maintenance of facilities such as grassed sporting fields, local parks, golf courses, and horse racing tracks. Maintaining a strong sporting culture and a variety of social events, particularly in small townships, is important for supporting community wellbeing and building community resilience.³⁰

- 4.64 There may be a role for Regional Development Australia and other local bodies to be involved in developing community adjustment plans. Any such bodies should have an awareness of the capacity of small, local organisations to contribute to service delivery and have access to funding sources. Evidence that smaller local organisations can be overlooked in the bureaucratic process is concerning and there needs to be a mechanism to ensure equity in access to funding:

FamilyCare recognises there are limitations on the availability of public funding for community support services. We also understand the management challenges in effectively monitoring the service activities of disparate services, often across large geographic areas.

These challenges have produced changes in funding policy that tend to favour larger community organisations, particularly those with a statewide or even national focus. Whilst in no way being critical of these organisations, many of which are valued colleagues in our service delivery activities, there is a tendency to devalue the importance of local and regional understanding and engagement. We should value the importance of local connection and knowledge more, to ensure rural and regional responses are reflective of actual needs.³¹

30 NSW Government, *Submission 585*, p. 17.

31 FamilyCare, *Submission 537*, p. 3.

- 4.65 Some structural adjustment does exist, for example, the Government's Water for the Future program, a \$12.9 billion package to assist with the transition to a future with less water for all users under the Basin Plan. However, this is almost entirely focussed on minimising the impact on entitlement holders. Only \$290 million is directly targeted at community needs through the Strengthening Basin Communities program. In the Committee's view, this is woefully inadequate.
- 4.66 The Committee received evidence that current government intervention (including some government stimulus, Water for the Future (WftF) and water purchases) can significantly improve the effect of diversion reduction on economic outcomes.³² This indicates that with additional appropriate, targeted community assistance, the impact of a reduction in the SDLs may be significantly improved.
- 4.67 The Queensland, NSW and South Australian Governments, as well as local councils across the Basin and many organisations and individuals have called for the delivery of structural adjustment packages that include a consideration of the needs of entire communities, not just the needs of entitlement holders, and include:
- the development of localised economic and social development plans supported by workforce development and training packages to enhance the diverse economy of Basin communities;
 - strategies for enhancing communities (including a particular focus on mental health support services and investment in community social infrastructure);
 - recognition of the specific economic disadvantage and needs of Aboriginal peoples living in the Basin.³³

32 ABARES, *Submission 399*, p. 6

33 NSW Government, *Submission 585*, p. 34.

- 4.68 Without an adequate structural adjustment program that takes the issues raised in this chapter into consideration, the implementation of the Basin Plan is unlikely to succeed.

Recommendation 5

The Committee recommends that the Commonwealth Government develop separate community basin planning that provides:

- **localised and targeted structural adjustment packages;**
- **the development of localised economic development plans supported by workforce development and training packages to support Basin communities;**
- **strategies for enhancing communities (with particular focus on mental health support services and investment in social infrastructure); and**
- **recognition of the specific needs and economic circumstances of Aboriginal communities living in the Basin.**

The development of this plan must be in partnership with states, local government and the community.

Other issues for consideration

Coal seam gas

- 4.69 The Committee heard considerable concern about the impact on groundwater by coal seam gas (CSG) exploration and mining in northern New South Wales and Queensland.
- 4.70 Submitters expressed concerns about the environmental impacts of CSG including:
- **contamination of aquifers through leaching or wastewater;**
 - **changes in aquifer pressure and other damage to or destruction of aquifers;**
 - **contamination of land;**
 - **reduction in surface flows of interconnected systems;**

- the intensive use of Basin water by CSG operations.³⁴

4.71 It was put that the science and the evidence around the impact of CSG is not yet well known enough to gauge the long-term effects on the aquifers:

The issue with the coal seam gas is that we cannot guarantee that they are not going to affect the interconnectivity between the aquifers. The issue is that when you take 350,000 megalitres of water out of an aquifer – and that is the GAB aquifer that we are talking about, the Great Artesian Basin – there has got to be some changes to the pressure.

Santos admitted in their EIS that they would actually depressurise one of the aquifers, the Walloon coal measures, and it will take more than 150 years before that recovers.

...

The water that comes out of that has between 3,000 and 9,000 parts per million of salt, which is not salty in terms of sea water, but it is the types of salts that are very corrosive and very difficult to deal with. The government initially thought they would put them in evaporation ponds. I have seen an evaporation pond where the company tried to make the water evaporate quicker by spraying it up in the air and trees died within 400 metres of that spray, so there are major issues with the salt and how they deal with it.³⁵

4.72 Regulations around mining are largely a state issue. The Queensland Government noted:

We have spent the last 12 to 18 months in Queensland toughening up the legislative controls in regard to the coal seam gas industry in Queensland. Whilst it has been operating safely in Queensland for a long period, we are seeing an expansion of that industry as we go to an export industry of LNG. This has meant that we as a government have passed tougher laws in the parliament in regard to monitoring. It is a requirement that companies have baseline data as part of what they do in order to undertake their works. In regard to the Surat Basin, we have looked at having a cumulative management area where we look at the overall impacts from the coal seam gas industry in that area. We have established a compliance unit out in those regions, so there are people on the

34 Rosemary Nankivell, *Submission 472*; Caroona Coal Action Group, *Submission 386*; Mr Kim Bremmer, AgForce Queensland, *Transcript of Evidence*, Goondiwindi, 16 March 2011, p. 15.

35 Mr Kim Bremmer, AgForce Queensland, *Transcript of Evidence*, Goondiwindi, 16 March 2011, p. 15-16.

ground. In addition to the requirements of the companies to do their own baseline data, and their own continuous monitoring and water monitoring on groundwater impacts, the state government has funded an additional 300 water testings of wells and bores this year to provide people with another layer of confidence regarding water testing undertaken in Queensland.³⁶

- 4.73 The Committee notes that Section 255A of the Act requires independent scientific study to be undertaken on the impact of any new mining licences on floodplains that have underlying groundwater systems. However, this does not affect existing mining license holders in the Basin.
- 4.74 The potential impact of CSG on both extraction volumes and health of groundwater systems is concerning. The mining industry must be placed with the same obligations as other water users in terms of sustainable extractions and care of the environment.
- 4.75 The Guide acknowledges the concerns about mining activity, including CSG extraction and states:
- ...the Basin Plan does not constrain the purpose for which the take will be used as long as the total take complies with the SDL. Any take of water, including for mining, will be required to comply with water resource plans, which will contain detailed arrangements.³⁷
- 4.76 It is therefore the responsibility of the states to ensure that CSG activity is regulated appropriately. However, the Committee notes its concern that this issue has the potential to have long-term environmental impacts in the Basin and to seriously compromise the productive capacity of farmers.
- 4.77 Until such time as the impact on the sustainable yields of related aquifers, unintended aquifer drainage, impact on beneficial recharge, contamination, reduction in water quality and or/availability in the adjacent aquifers are understood, extractive gas and other mining activities in the Basin should not be approved.

36 Hon. Kate Jones, Minister for Environment and Resource Management (Queensland), *Transcript of Evidence*, Brisbane, 17 March 2011.

37 MDBA, *Guide: Volume 1*, October 2010, p. 146.

- 4.78 Any storage or use of extracted or waste water must comply with the relevant groundwater, floodplain and overland flow regulations and if necessary, these regulations be applied with a particular focus on mining activities. This includes requirements for the provision of environmental impact statements and independent monitoring and reporting.

Recommendation 6

The Committee recommends that the Commonwealth Government ensure that the mining industry is placed under the same obligations as other water users in the Murray-Darling Basin by ensuring:

- **that no mining activities are approved that impact on Basin water resources until such time that the impact of such activities is fully understood and able to be mitigated; and**
- **relevant legislation/regulations are applied with a specific focus on mining activities in the Basin as a matter of urgency to ensure that the long-term health and productivity of water resources are protected.**