

# Chapter 5

## Role of the Australian Government

5.1 In Australia, stormwater management is the responsibility of state and local governments. Despite this, it is clear that successive Australian governments have been involved in stormwater issues. For example, the Department of the Environment's submission noted that Australian governments have 'worked with other governments to improve urban water management including stormwater harvesting, through the implementation of the National Water Initiative'.<sup>1</sup> The Cooperative Research Centre (CRC) for Water Sensitive Cities, which was established in July 2012, is also an Australian government initiative.<sup>2</sup> Australian governments have also commissioned various reviews that examined matters related to stormwater.

5.2 Several submitters called for the Australian Government to play a greater role in stormwater. Among other things, it was considered that the Australian Government could play a leadership role and assist to address inconsistencies between jurisdictions that may impede the development and implementation of new stormwater management efforts.

5.3 This chapter considers the evidence received on these issues. The policies and programs related to stormwater that various Australian governments have developed or been involved in are outlined in the following paragraphs. The evidence received by the committee regarding how the Australian Government could facilitate improved stormwater management outcomes is then examined.

### Commonwealth policies, programs and past reviews

5.4 This section outlines previous stormwater-related initiatives that the Commonwealth has been involved in, either directly or as part of the Council of Australian Governments (COAG).

#### *National Water Initiative*

5.5 The principal multi-jurisdictional water policy agreement in Australia is the National Water Initiative agreed to by COAG in 2004. The Initiative was developed:

...in recognition of the continuing national imperative to increase the productivity and efficiency of Australia's water use, the need to service rural and urban communities, and to ensure the health of river and

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1 Department of the Environment, *Submission 48*, p. 1.

2 Cooperative Research Centre (CRC) for Water Sensitive Cities, *Submission 44*, p. 2.

groundwater systems by establishing clear pathways to return all systems to environmentally sustainable levels of extraction.<sup>3</sup>

5.6 The Department of the Environment explained that the stormwater-related objectives and outcomes in the National Water Initiative are:

- clause 90—to 'encourage innovation in water supply sourcing, treatment storage and discharge'; and
- clause 92—agreed actions to promote 'innovation and capacity building to create water sensitive Australian cities'.<sup>4</sup>

5.7 Following the National Water Initiative, various guidelines for water recycling and planning were developed. These included the Australian Guidelines for Water Recycling, National Validation Framework for Water Recycling, National Urban Water Planning Principles and the National Urban Pricing Principles.<sup>5</sup> Further, various Australian governments have funded projects that have resulted in significant volumes of potable water being substituted by stormwater. A list of government programs that have funded stormwater projects is at Box 5.1.

*Box 5.1: Australian government programs under the National Water Initiative*

- National Urban Water and Desalination Plan (active since April 2008)—provides 'funding for urban water infrastructure and research that contributes significantly to improving the security of water supplies in Australia's larger cities without adding to greenhouse gas emissions'. Under the Plan, 36 projects have received funding totalling around \$184 million and 10.1 gegalitres of potable water use per year has been replaced by stormwater.
- National Water Security Plan for Cities and Towns (active since 2007)—has 'the objective of improving water security to cities and towns with fewer than 50,000 people'. Five projects received funding of around \$21.4 million from the Australian Government, with 6.9 gegalitres of potable water replaced by stormwater each year as a result of these projects.
- Water Smart Australia (active since 2004–05)—aims 'to accelerate the development and uptake of smart technologies and practices in water use across Australia, and to advance the implementation of the National Water Initiative'. Six stormwater projects received funding of \$88.1 million from the Australian Government with almost 28.3 gegalitres of potable water replaced by stormwater per year as a result.
- Strengthening Basin Communities (completed program)—under this program, seven stormwater projects received funding totalling \$12.3 million.

3 *Intergovernmental Agreement on a National Water Initiative*, June 2004, paragraph 5, [http://nwc.gov.au/\\_data/assets/pdf\\_file/0008/24749/Intergovernmental-Agreement-on-a-national-water-initiative.pdf](http://nwc.gov.au/_data/assets/pdf_file/0008/24749/Intergovernmental-Agreement-on-a-national-water-initiative.pdf) (accessed 8 May 2015).

4 Department of the Environment, *Submission 48*, p. 1.

5 Department of the Environment, *Submission 48*, pp. 3–4.

- Green Precincts Fund (completed program)—under this program, various project initiatives that encouraged water and energy savings measures at the community level were supported.
- National Rainwater and Greywater Initiative (completed program)—under this scheme, rebates (of up to \$500) were provided to households and grants (of up to \$10,000) were available to surf lifesaving clubs for rainwater or greywater tanks. A total of 14,625 rebates worth \$7,017,200 were paid under the household program. Grants totalling \$658,000 were provided to 86 surf lifesaving clubs across Australia.

Source: Department of the Environment, *Submission 48*, pp. 5–7.

### ***Recent reviews***

5.8 Another way that Australian governments have been involved in stormwater is by helping to build the knowledge base about approaches to stormwater management by initiating reviews or inquiries that examine this issue. For example, the key challenges associated with utilising stormwater were identified in a 2007 report of the Prime Minister's Science, Engineering and Innovation Council's working group: *Water for our cities: building resilience in a climate of uncertainty*.

5.9 Another relevant report is the Productivity Commission's 2011 report on urban water. In that report, the Commission reached the following conclusion:

Integrated water cycle management initiatives are often driven by the assumption that it is always in the community's interest to increase water reuse and recycling, and to decrease reliance on centralised water supply systems. A preferred approach is to facilitate efficient recycling and reuse projects by removing barriers to integration (such as the absence of appropriate property rights for wastewater and stormwater and deficiencies in the analyses, and community awareness, of costs and benefits).<sup>6</sup>

5.10 Of relevance to stormwater, the Productivity Commission recommended that:

- to create the conditions necessary for institutions to operate effectively, governments should 'define property rights for environmental and consumptive use water, including stormwater and wastewater';<sup>7</sup> and
- with some possible exceptions, the Australian, state and territory governments should, in general, cease providing subsidies for stormwater (and other water) infrastructure.<sup>8</sup>

6 Productivity Commission (PC), *Australia's urban water sector*, report no. 55, vol. 1, August 2011, p. xlix [finding 5.1].

7 PC, *Australia's urban water sector*, vol. 1, p. xlvii [recommendation 4.1].

## Calls for an increased role for the Australian Government

5.11 As noted in the introduction to this chapter, various submitters have argued that there would be significant benefits from the Australian Government undertaking a greater role in stormwater issues.

5.12 Although it was commonly recognised that stormwater issues are primarily matters for the states and local governments, it was suggested that this does not absolve the Australian Government from responsibility in stormwater matters. For example, Dr Peter Dillon noted that co-investment by the Australian Government in urban infrastructure such as roads, bridges and airports creates additional impervious areas that contribute to existing stormwater problems. Dr Dillon argued:

Such investments should include engineered provisions for water harvesting and treatment, not just from the construction site but from surrounding urban areas where lack of open space limits options. They could also be made to depend on better integration of all water and energy utilities, urban catchment management plans being a fundamental basis for urban planning, and on continuing innovation.<sup>9</sup>

5.13 In justifying greater involvement by the Australian Government in stormwater management issues, precedents for Commonwealth involvement in other matters that are traditionally state responsibilities were also noted. Stormwater Australia, for example, argued that the Australian Government has a clear leadership role 'in setting the tone for planning and building controls', even though this is largely a state responsibility.<sup>10</sup>

5.14 It was also argued that stormwater management is a national issue warranting Commonwealth attention because the challenges faced by the states are similar. For example, Mr Andrew King from Stormwater South Australia told the committee that, as the challenges multiple states face are similar, 'it is critical to have stronger leadership and stronger importance of stormwater related infrastructure and the subject driven from a federal level'.<sup>11</sup> Dr Robin Allison, also from Stormwater South Australia, noted that although there is a 'reasonably consistent' approach to stormwater quality for greenfield development in the east-coast states, this consistency was

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8 PC, *Australia's urban water sector*, vol. 1, p. xlviix [recommendation 5.3]. The possible exceptions identified by the PC are where infrastructure investment 'is required due to changes in environmental standards that impose a significant cost on a defined group and/or infringe a well-defined "property right"; or a 'formal and transparent process has identified that a regional community should not be required to recover costs fully through water charges'.

9 Dr Peter Dillon, *Submission 46*, p. 2.

10 Stormwater Australia, *Submission 19*, p. 19. Stormwater Australia referred to the Australian Building and Construction Commission and the 'overarching guidance for different building typologies around the nation and supports skills development to deliver the required outcomes'.

11 Mr Andrew King, Chair, Stormwater South Australia, *Proof Committee Hansard*, 26 August 2015, p. 27.

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'lacking a bit' in South Australia, Tasmania and the Northern Territory. As a result, Dr Allison argued that, in relation to greenfield development, 'there is certainly a space for federal leadership' to promote consistency.<sup>12</sup>

5.15 Other inconsistencies between states were highlighted. Mr Andrew King, for example, noted that South Australia is, to his knowledge, 'the only state that does not have water quality targets in enforcement'. He added:

South Australia released a water-sensitive urban design policy in October the year before last. Part of that policy was mandating water quality targets into development controls and government projects. That still has not occurred. There is some industry scepticism as to when that will occur, what the scale and extent will be and how softly that will be implemented.<sup>13</sup>

5.16 The inconsistent approaches may have implications for private sector investment. The committee was told that different objectives for stormwater management between different states inhibit private sector investment, thereby limiting the potential for innovation in ways to manage stormwater.<sup>14</sup>

5.17 As noted in Chapter 4, witnesses suggested that state governments may be reluctant to improve stormwater management outcomes because such action may have consequences for the revenue they receive from water utilities. To overcome this, it was argued that Commonwealth involvement or encouragement is needed. Dr Peter Dillon told the committee:

Integrated urban water management that includes stormwater is rare and is dependent on Commonwealth grants because states...are defensive of their monopoly utility cash cows and do not have stormwater policies in place.<sup>15</sup>

5.18 In addition to an expectation that the states would not act to reduce the revenue received from water utility dividends, Dr Dillon stated that the states also 'are wanting to evade taking on other liabilities or responsibilities'. Dr Dillon stated that Commonwealth leadership could 'change the policy framework so that states will operate in a way that is giving most value for the whole of the state as opposed to just generating revenue'.<sup>16</sup>

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12 Dr Robin Allison, Committee Member, Stormwater South Australia, *Proof Committee Hansard*, 26 August 2015, p. 28.

13 Mr Andrew King, Stormwater South Australia, *Proof Committee Hansard*, 26 August 2015, p. 28.

14 Mr Adam Lovell, Executive Director, Water Services Association of Australia (WSAA), *Proof Committee Hansard*, 26 August 2015, p. 2.

15 Dr Peter Dillon, *Proof Committee Hansard*, 26 August 2015, p. 17.

16 Dr Peter Dillon, *Proof Committee Hansard*, 26 August 2015, p. 20.

5.19 A final justification for the Commonwealth to be involved in stormwater management policies that was put to the committee is that the Commonwealth may become involved in the future anyway. To support this argument, the unique role of the Commonwealth in providing assistance for natural disasters was noted. It follows that the Australian Government may have an incentive to encourage stormwater projects that have the ability to alleviate the risk of damage from flooding. As the Managing Director of Urban Water Cycle Solutions and former Chief Scientist at the Office of Living Victoria, Dr Peter Coombes, remarked:

When you get a big flood that is a large natural disaster, which level of government is called on to address the problem?<sup>17</sup>

5.20 Similarly, it was pointed out that the states may seek assistance from the Commonwealth when considering how to replace ageing stormwater infrastructure. Dr Peter Coombes told the committee:

The stormwater infrastructure we have was built during the Great Depression and post war, and we are going to have to replace that soon. The states will probably have to go to the Commonwealth and say, 'We need more money to replace this.' That is an interesting problem also because it is local governments that are managing that asset. There is no real coordination of the national value—what it is costing us, how much it is worth, how old it is and what the nation together has to strategize for to ensure that the problems are solved and understood in the future.<sup>18</sup>

### **How the Australian Government could assist**

5.21 Submitters identified various ways in which the Australian Government can encourage better outcomes. These included a leadership role, the provision of funding directly or ability to provide incentives for others to offer funding, and the Australian Government's ability to encourage innovation. The following paragraphs explore the evidence received on these matters.

#### ***Leadership and development of national policies***

5.22 One area where there is a perceived role for greater involvement by the Australian Government in stormwater is policy coordination and leadership.

5.23 Suggestions for the Australian Government to work with the state and territory governments to set objectives for stormwater are not new; the Productivity Commission, for example, made the following recommendation in its 2011 report on the urban water sector:

The Australian, State and Territory Governments should articulate a common objective for the urban water sector in relevant policy documents along the following lines:

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17 Dr Peter Coombes, *Proof Committee Hansard*, 26 August 2015, p. 14.

18 Dr Peter Coombes, *Proof Committee Hansard*, 26 August 2015, p. 14.

The primary objective of the urban water sector is to provide water, wastewater and stormwater services in an economically efficient manner so as to maximise net benefits to the community. This objective should be met by pursuing the following more specific objectives:

- achieving water security and reliability at lowest expected cost
- contributing to universal and affordable access to water and wastewater services
- contributing to public health, flood mitigation and environmental protection.

Economic efficiency should be defined broadly to include environmental, health and other costs and benefits that might not be priced in markets.<sup>19</sup>

5.24 The CSIRO noted that stormwater planning lacks coordination, and as a result there 'may be value in establishing a national approach to urban water management', with the view to increasing the level of adoption of stormwater harvesting practices.<sup>20</sup> Dr Peter Dillon argued that there is a role for the Commonwealth in setting the principles that state governments should implement in order to improve economic efficiency of urban water management.<sup>21</sup> Dr Dillon also suggested that the Commonwealth 'could play a facilitating role by establishing the principle that urban planning demonstrably address water issues holistically as a high priority'.<sup>22</sup>

5.25 Dr Dillon added that a national approach is also needed if greater private sector involvement in stormwater is an objective that governments want to achieve. He explained:

If it is going to go down the private route, the policies really need to be tight and they need to be national so that we do not see competition between locations on the basis of the way in which water is being managed or poorly managed sites being able to make cheaper subdivisions because they are not taking into account the externalities. It needs to be a national approach—definitely.<sup>23</sup>

5.26 Dr Peter Coombes argued for the creation of a national stormwater initiative, which would lead to the development of 'a modern national stormwater policy'. Dr Coombes explained that within a national stormwater policy framework, policymakers would be:

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19 PC, *Australia's urban water sector*, vol. 1, p. xlvii [recommendation 3.1].

20 CSIRO, *Submission 42*, p. 3. Similarly, Stormwater Industry Association WA suggested the Australian government could facilitate better water management outcomes through the 'development of a coordinated approach to state regulatory frameworks'. Stormwater Industry Association WA, *Submission 21*, p. 10.

21 Dr Peter Dillon, *Submission 46*, p. 1.

22 Dr Peter Dillon, *Submission 46*, p. 2.

23 Dr Peter Dillon, *Proof Committee Hansard*, 26 August 2015, p. 20.

...better able to go off and ask the Productivity Commission, the Bureau of Meteorology and the other agencies to answer...questions based on the wider challenge we are facing rather than whether we can make more money out of harvesting stormwater—because that is not the question here.<sup>24</sup>

5.27 In its submission, the Adelaide and Mount Lofty Ranges Natural Resources Management Board acknowledged that stormwater management is primarily the responsibility of state and local governments; however, it suggested that national standards for best practice stormwater management could work in concert with state and local government-based policies. The submission stated that the development of national standards would 'ensure consistent implementation nationwide'. The standards could also be linked to funding programs, which would promote the implementation of the standards 'and the resulting community and environmental benefits'.<sup>25</sup>

5.28 Dr Darren Drapper called for the Australian Government to set a policy direction that 'stormwater/rainwater harvesting is something every state and local authority should be implementing'.<sup>26</sup> Similarly, SPEL Environmental argued that the Australian Government should require all local governments to introduce pollutant reduction targets.<sup>27</sup> These submitters specifically called for the Australian Government to provide incentives for rainwater tanks to be installed on all new dwellings/developments nationally.<sup>28</sup>

5.29 The Water Services Association of Australia (WSAA) agreed that 'there is a role for the Commonwealth as a catalyst to better coordinate and provide leadership'. Notwithstanding this, the WSAA did not propose a specific model or objectives for this leadership; it suggested that the 'precise form' of the Commonwealth's involvement 'should evolve from further discussion with stakeholders'.<sup>29</sup> At the committee's Adelaide public hearing, however, the Executive Director of the WSAA expounded the WSAA's position by suggesting that stormwater should be

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24 Dr Peter Coombes, *Proof Committee Hansard*, 26 August 2015, p. 9.

25 The submission stated: 'The development of national standards for best practice stormwater management could work in concert with state and local government based policy and guidelines to ensure consistent implementation nationwide. Any future funding programs could then be linked to the national standard to promote its implementation and the resulting community and environmental benefits'. Adelaide and Mount Lofty Ranges Natural Resources Management Board, *Submission 11*, p. 6.

26 Dr Darren Drapper, *Submission 10*, p. 3.

27 The targets advocated for are for the reduction of (a) gross pollutants by 90 per cent; (b) total suspended solids by 80 per cent; (c) total phosphorous by 60 per cent; and (d) total nitrogen by 45 per cent. SPEL Environmental, *Submission 12*, p. 2.

28 Dr Darren Drapper, *Submission 10*, p. 2; SPEL Environmental, *Submission 12*, p. 1.

29 WSAA, *Submission 49*, p. 2.

incorporated into the National Water Initiative, which would 'also bring in elements of climate change impacts, population growth, liveable cities'.<sup>30</sup>

5.30 Other matters noted included the advice that the Australian Government receives on water management issues and the particular agencies that could oversee the development of a national strategy. Multiple witnesses remarked that the recently-abolished National Water Commission<sup>31</sup> would have been well-placed to lead the development of a national stormwater initiative.<sup>32</sup> In the absence of the National Water Commission, Dr Coombes noted that the Department of the Environment could be the lead agency, and could 'challenge' the Bureau of Meteorology and the Productivity Commission to 'expand [their] thinking'. Dr Coombes concluded, however, that further advice could be sought about the specific bureaucratic arrangements.<sup>33</sup>

5.31 More general suggestions were put forward for particular organisations to receive greater attention from the Government. Dr Peter Coombes explained that, in his view, 'Stormwater Australia has now reached a level of maturity to be trusted in assisting the Australian Government to improve the future of water management and urban planning'. This would bring Stormwater Australia in line, in this respect, with the WSAA and the Australian Water Association, which Dr Coombes noted already directly advise the Australian Government on water management.<sup>34</sup>

5.32 Finally, a suggestion put to the committee was that there should be either a Commonwealth Minister for Cities or a departmental Major Cities Unit that 'incorporates water into the big infrastructure questions for Australia'.<sup>35</sup> Mr Lovell, who outlined this suggestion on behalf of the WSAA, provided the following reasoning for this recommendation:

...80 per cent of our GDP comes from just 0.2 per cent of our landmass, which means our cities are important in getting the infrastructure challenges right and incorporated. I will give you an example of why water would be with transport. Think of all the water that comes through drainage off roads

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30 Mr Adam Lovell, WSAA, *Proof Committee Hansard*, 26 August 2015, p. 2.

31 The *National Water Commission (Abolition) Act 2015* received the Royal Assent on 16 June 2015, formally abolishing the Commission (although the Commission effectively ceased operating from 1 January 2015).

32 For example, Dr Peter Dillion commented 'If the National Water Commission still existed, that would be the ideal way in which this...'. *Proof Committee Hansard*, 26 August 2015, p. 20. See also Dr Peter Coombes, *Proof Committee Hansard*, 26 August 2015, p. 10.

33 Dr Peter Coombes, *Proof Committee Hansard*, 26 August 2015, p. 10.

34 Dr Peter Coombes, *Submission 60*, p. 3.

35 On 21 September 2015, the Hon Jamie Briggs MP was appointed Minister for Cities and the Built Environment.

and how important that is. That is one simple example of why we need to integrate energy, waste, water, telecom and transport.<sup>36</sup>

### ***Funding and financial incentives***

5.33 In many areas of public policy that are not direct Commonwealth responsibilities, the Australian Government can nonetheless influence outcomes through the provision of funding. Successive Australian governments have fulfilled this function in relation to stormwater by providing significant funding for stormwater-related projects (see Box 5.1).

5.34 Mr Adam Lovell, the Executive Director of the WSAA, told the committee that the previous Commonwealth funding for stormwater (and desalination) was provided in response to drought. In response to a question about the previous funding, he stated:

To give a very quick answer: it was in response to drought and trying to stimulate urban water security through diversity, and stormwater was seen to be part of that and so was desalination.<sup>37</sup>

5.35 Dr Peter Dillon outlined some of the benefits from the Commonwealth investment. He submitted:

A substantial part of the \$2 billion Australian Government Water Fund, announced in 2005, was spent on stormwater infrastructure projects in urban areas. This raised equivalent co-investment by local government, generated diverse innovative projects, helped states to approve them, and built capability within local government and the consulting and contracting industries.<sup>38</sup>

5.36 Ms Mellissa Bradley told the committee that the Commonwealth funding 'accelerated projects that probably would have taken them another 10 years to fund'.<sup>39</sup>

5.37 A suggestion for a new funding arrangement that was outlined to the committee is Commonwealth co-funding of state government stormwater funding. Dr Peter Coombes suggested that dividends and revenue earned by state governments from water utilities for environmental management should be tied to water environmental management, and the Commonwealth could co-fund the states' contributions.<sup>40</sup>

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36 Mr Adam Lovell, WSAA, *Proof Committee Hansard*, 26 August 2015, p. 2.

37 Mr Adam Lovell, WSAA, *Proof Committee Hansard*, 26 August 2015, p. 3.

38 Dr Peter Dillon, *Submission 46*, p. 3.

39 Ms Mellissa Bradley, Program Manager, Water Sensitive SA, *Proof Committee Hansard*, 26 August 2015, p. 24.

40 Dr Peter Coombes, *Proof Committee Hansard*, 26 August 2015, p. 9.

5.38 Mr Lovell argued that funding should be directed towards regional stormwater projects. He explained that a workshop that the WSAA held with its regional members in August 2015 revealed that they 'still struggle in terms of getting some of those projects up and running'. Mr Lovell remarked:

The big cities, the Sydney Waters of the world, the Melbourne Waters of the world have got an economic rate of return and they can properly price those sorts of services. They cannot necessarily in the regional areas so there is potential funding there.<sup>41</sup>

5.39 Witnesses also provided suggestions for how Commonwealth grant schemes could be improved. Dr Dillon argued that grant-based schemes have 'been very successful in seeing implementation of water sensitive urban design, better use of stormwater, improved suburbs and increased greenery'. He observed that providing such grants on a competitive basis 'is an inducement for innovation'. Dr Dillon suggested, however, that the timeframe for projects based on grants is not ideal:

One of the difficulties that we have with a lot of the current government subsidies is that you have to have the project over and done with within three years. Basically, they are paying large amounts for capital items but are not de-risking before the investment. What I am getting to is that we could end up with much better outcomes if the grants were over a longer period of time. It might delay the opening...but the value of the taxpayer investment in schemes could be significantly enhanced.<sup>42</sup>

5.40 In addition to direct funding, the potential for the Commonwealth to provide financial incentives, such as rebates for stormwater harvesting schemes, was also noted.<sup>43</sup> Dr Darren Drapper suggested that federal grants for such schemes 'should encourage collaborative and cooperative schemes that share the benefit with other water users, reduce demand on potable water supplies and enable possible "lease-back" arrangements'. Dr Drapper argued 'this would provide immediate community benefit with an ongoing income stream for the government'.<sup>44</sup>

5.41 Potential taxation incentives were also discussed. After it noted Singapore's 'far-sighted program to replace much of its post-war concrete lined floodways and drainage system with natural creeks and restored wetlands', the Australian Water Association stated that the Australian Government should ensure that investment decisions of this kind in Australia are not distorted by any taxation or fiscal measures.<sup>45</sup> Dr Drapper called for the Australian Government to provide incentives

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41 Mr Adam Lovell, WSAA, *Proof Committee Hansard*, 26 August 2015, p. 2.

42 Dr Peter Dillon, *Proof Committee Hansard*, 26 August 2015, pp. 20–21.

43 SPEL Environmental, *Submission 12*, p. 1.

44 Dr Darren Drapper, *Submission 10*, p. 3.

45 Australian Water Association, *Submission 47*, p. 5.

for such projects, such as a 'green/stormwater/blue tax credit' to businesses that would be similar to the research and development tax incentive.<sup>46</sup>

### *Involving the private sector*

5.42 The Australian Water Association submitted that the private sector's investment in water has been limited to outsourcing arrangements with water utilities for certain treatment facilities. According to the Association, the reforms 'required to create a water sector that accommodates private actors have been identified, but as yet governments have not decided to implement them'. The main barriers to greater private sector involvement in water are considered to be:

- existing regulatory frameworks 'that do not adequately provide for potential private ownership of water storage, treatment and distribution network assets';
- 'a lack of competitively-neutral regulatory structures';
- state-based economic regulators 'that are not sufficiently independent and are constrained by government policy of the day'; and
- state government-controlled pricing frameworks that 'do not enable operators to recover the full cost of supply'.<sup>47</sup>

5.43 Stormwater Australia suggested that the Australian Government could develop a program that encourages co-investment across different levels of government and with the private sector. Stormwater Australia added that the program should be focused over the long-term.<sup>48</sup>

5.44 Dr Peter Dillon argued, however, that for efforts to encourage private sector involvement to be effective, 'the policies really need to be tight and they need to be national'. Dr Dillon explained that a national policy would prevent competition between different locations:

...on the basis of the way in which water is being managed or poorly managed sites being able to make cheaper subdivisions because they are not taking into account the externalities.<sup>49</sup>

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46 Dr Darren Drapper, *Submission 10*, pp. 2–3.

47 Australian Water Association, *Submission 47*, p. 5.

48 Stormwater Australia, *Submission 19*, p. 17.

49 Dr Peter Dillon, *Proof Committee Hansard*, 26 August 2015, p. 20.

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## *Research and innovation*

5.45 The Australian Government's role in supporting research and innovation pathways through the CSIRO, cooperative research centres and other programs, was noted.<sup>50</sup>

5.46 The CSIRO's past work received significant recognition. For example, Mr Bruce Naumann from the City of Salisbury told the committee:

We really have pushed ahead with this focus on stormwater harvesting. But I must emphasise that it is not us. Peter Dillon has been incredible for us—the CSIRO and their research. We are not just going out there and doing this. All three of the universities here are involved in the research. The CSIRO has done a lot of the work. There are consultants. There are engineering firms. There are a lot of people who have been involved in putting these schemes together. People often say, 'You people must really know what you're doing,' but we don't. We just know who to talk to and we know how to pull projects together, and that has been our success—getting the right people getting these projects rolling.<sup>51</sup>

5.47 Mr Naumann added that as the CSIRO 'really does underpin a lot of what we have done', more stable funding for the CSIRO would be beneficial.<sup>52</sup> He explained:

Moving forward, we really do need that constancy of research. There is still a lot more to do. Managed aquifer recharge is still in its infancy. There is still a lot of work that needs to be done to see the full potential of managed aquifer recharge. I think it is incredibly important for water security in Australia, not just for Adelaide but for a lot of our cities.<sup>53</sup>

5.48 Cuts in CSIRO programs were viewed as a retrograde development. Mr Naumann noted that the CSIRO team they worked with 'just got cut overnight', with only two junior employees retained.<sup>54</sup> Dr Dillon, who was one of the CSIRO employees made redundant, told the committee:

CSIRO urban research capacity is withering without Commonwealth impetus for improved integration and capture of R&D benefits worth billions of dollars in Australia. Other centres are closed or in decline and the CRC for water sensitive cities does not have capacity for integrative matters of this nature. So it is time for reinvestment in the urban domain. I can say that now as a former CSIRO employee, made redundant in September last year when there was a 15 per cent cut across the board in the CSIRO. The urban water research was particularly singled out for

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50 Stormwater Australia, *Submission 19*, p. 26.

51 Mr Bruce Naumann, Manager, Salisbury Water, City of Salisbury, *Proof Committee Hansard*, 26 August 2015, p. 37.

52 Mr Bruce Naumann, City of Salisbury, *Proof Committee Hansard*, 26 August 2015, p. 40.

53 Mr Bruce Naumann, City of Salisbury, *Proof Committee Hansard*, 26 August 2015, p. 37.

54 Mr Bruce Naumann, City of Salisbury, *Proof Committee Hansard*, 26 August 2015, p. 41.

reduction—particularly for my colleagues in Melbourne. They had a capacity which was of the nature that would feed into the discussions that we are having today.<sup>55</sup>

5.49 Despite the recent cuts, witnesses proposed ways that the Australian Government could promote innovation in stormwater. For example, it was considered that innovation and good water management practices could also be directly supported by making grants and rewards available for 'demonstration projects and innovations in stormwater design and construction'.<sup>56</sup> Mr Lovell from the WSAA, however, warned that the Commonwealth should be careful with the funding it provides. Mr Lovell argued that innovation funding should only be provided for 'leading edge projects' to avoid sending 'the wrong pricing signals'.<sup>57</sup>

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55 Dr Peter Dillon, *Proof Committee Hansard*, 26 August 2015, p. 17.

56 Stormwater Industry Association WA, *Submission 21*, p. 10.

57 Mr Adam Lovell, WSAA, *Proof Committee Hansard*, 26 August 2015, p. 2.