

## Introduction

### Overview

- 1.1 This inquiry relates to the management and use of Commonwealth environmental water in the Murray-Darling River Basin (the Basin), with particular consideration given to the role of the Commonwealth Environmental Water Holder (CEWH).
- 1.2 Since European settlement in Australia, water has been taken or diverted from rivers and lakes for irrigation and consumptive use. More recently, environmental water has been set aside to fill lakes, flood wetlands and to increase river flows – although progress towards restoration is a long-term process.<sup>1</sup> Sustainable diversion limits (SDLs) determine how much water can be extracted for consumptive purposes and allocated for the environment.<sup>2</sup>
- 1.3 While dry periods form part of the natural cycle, plants and animals rely upon having enough water at the right times to reproduce and sustain their growth. Australian climatic conditions vary and, depending on conditions, water may be abundant or there could be none.<sup>3</sup> Environmental water also helps to counteract the effects of extended dry periods.<sup>4</sup>

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1 National Irrigators' Council, *Submission 23*, p.2; see also Environmental Defenders Office Australia, *Submission 28*, p. 3; Murray-Darling Basin Authority, *Submission 34*, p. 3.

2 Department of Agriculture and Water Resources, *Submission 31*, p. 1.

3 Sarah Moles, *Submission 6*, p. 1.

4 Nature Conservation Council NSW, *Submission 24*, p. 3.

- 1.4 Choosing when and where to release the Commonwealth's environmental water is the task of the CEWH, subject to the legal requirements of the *Water Act 2007* (Cth) and other laws.<sup>5</sup>
- 1.5 The Commonwealth's environmental water 'portfolio' consists of 2,706 gigalitres of entitlements (the right to use water resources<sup>6</sup>) valued at around \$3.15 billion, in 22 river catchments. Over the long-term, these entitlements have yielded an average<sup>7</sup> of 1,836 gigalitres of water.<sup>8</sup> Since July 2009, 8,272 gigalitres of environmental water has been released into the Basin.<sup>9</sup> The CEWH is required to progress environmental outcomes with its water assets, rather than a financial return.<sup>10</sup>
- 1.6 The Basin is an area with significant economic, social and environmental values:
- more than 2.6 million Australians live in the area;
  - tourism generates \$8 billion in annual revenue;
  - rivers and lakes are used for social and recreational activities;
  - annual food and fibre production is estimated at \$22 billion; and
  - there are 16 internationally recognised wetlands, as well as habitats for native animals.<sup>11</sup>
- 1.7 The Basin is also important to Indigenous people and the connection their laws and customs have with the river system.<sup>12</sup>
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5 Ms Jody Swirepik, Commonwealth Environmental Water Holder, Department of the Environment and Energy, *Committee Hansard*, Canberra, 28 March 2018, p. 1.

6 The *Water Act 2007* (Cth) (s. 3) defines water resources to include surface water, ground water, a dry or flowing watercourse (e.g. a river or creek), a lake, wetland or aquifer. The Act defines a water access entitlement as being 'a perpetual or ongoing entitlement, by or under a law of a State, to exclusive access to a share of the water resources of a water resource plan area.'

7 The total available water depends on rainfall and flows into water storages, which are then distributed (or allocated) based on size the of the ongoing water entitlement share. Less rain and low storage levels would reduce allocations. The Act (s. 3) defines a water allocation to be 'the specific volume of water allocated to water access entitlements in a given water accounting period.' See also Murray-Darling Basin Authority, 'Water markets and trade', at <<https://www.mdba.gov.au/managing-water/water-markets-and-trade>>.

8 Department of the Environment and Energy, *Supplementary Submission 38.1*, p. 16 (CEWH response to Question 14); Department of the Environment and Energy, *Submission 38*, p. 5.

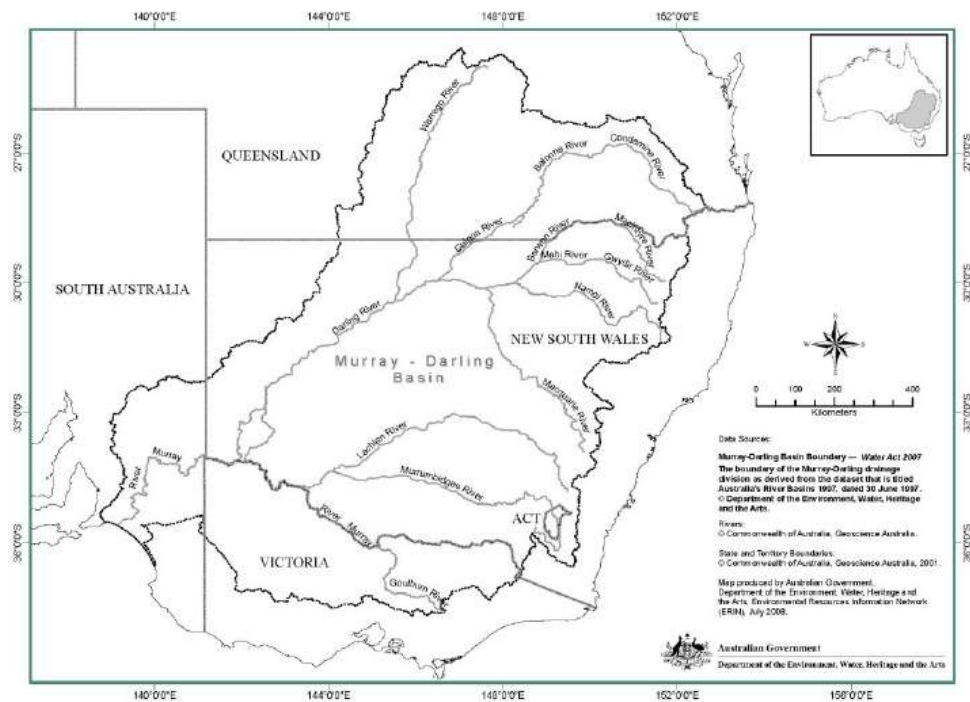
9 Department of the Environment and Energy, *Submission 38*, p. 15.

10 Ms Jody Swirepik, Commonwealth Environmental Water Holder, Department of the Environment and Energy, *Committee Hansard*, Canberra, 28 March 2018, p. 6.

11 Murray-Darling Basin Authority, 'Rivers - Worth It', at <<https://www.mdba.gov.au/rivers-worthit>>; Department of the Environment and Energy, 'The Ramsar Convention on Wetlands', at <<http://www.environment.gov.au/water/wetlands/ramsar>>; see also Southern Riverina Irrigators, *Submission 21*, p. 2; Nature Conservation Council NSW, *Submission 24*, p. 2; Mr Denis Flett, Chairperson, Victorian Environmental Water Holder, *Committee Hansard*, Albury, 30 April 2018, p. 1.

- 1.8 The Basin is an area defined by law, as shown in the map below. The Basin is divided into northern and southern regions, along a boundary running approximately between Broken Hill and Sydney, as well as a subset of 22 river catchments.

**Figure 1.1 Map of the Murray-Darling River Basin**



Source Water Act 2007 (Cth) Schedule 1A. The MDBA's website has detailed maps and profiles: <https://www.mdba.gov.au/discover-basin/catchments>.

- 1.9 Governance of water resources in the Basin is complex. A submission from the Department of the Environment and Energy summarised arrangements so far as these relate to environmental water:

The Commonwealth environmental water holdings are water entitlements and rights, issued by Basin State governments that were acquired by the Australian Government through investments in water-saving infrastructure and purchases on the water market. ... The rules governing the Commonwealth environmental water entitlements vary across states and across catchments but they are subject to the same fees, allocations, carryover and other rules, as equivalent entitlements held by other water users. These rules determine how the Commonwealth's water can be used, the value

12 Mr Frederick Hooper, Chairperson, Northern Basin Aboriginal Nations Ltd, *Committee Hansard*, Canberra, 20 June 2018, pp. 1-3. Mr Hooper mentioned in particular the movement of the Rainbow Serpent, fishing and bush plants with edible food. See also Murray Lower Darling Rivers Indigenous Nations, *Submission 26*, p. 6.

of the portfolio and the environmental outcomes that can be achieved.<sup>13</sup>

## The role and functions of the CEWH

- 1.10 The CEWH is a position established by the *Water Act 2007* (Cth) (the Act). A person is appointed to the role under the *Public Service Act 1999* (Cth) with staff provided from the Department of the Environment and Energy, which forms the Commonwealth Environmental Water Office.<sup>14</sup> The Office had 58 staff on average during 2017-18.<sup>15</sup>
- 1.11 The CEWH's two functions are prescribed in the Act:
- to manage the Commonwealth environmental water holdings; and
  - to administer the Environmental Water Holdings Special Account.<sup>16</sup>
- 1.12 The Act and the *Basin Plan 2012* (the Basin Plan<sup>17</sup>) includes further detail on the powers afforded to the CEWH to fulfil his or her functions, as well as certain objectives and considerations:
- to deal in water, water access rights, water delivery rights or irrigation rights and enter into contracts on behalf of the Commonwealth;
  - protecting or restoring 'environmental assets'<sup>18</sup> in accordance with the national interest and relevant international agreements, such as the Ramsar Convention<sup>19</sup>; and
  - managing water in accordance with the environmental watering plan in the Basin Plan, which includes a management framework for planned and held environmental water, a 'Basin-wide environmental watering strategy'<sup>20</sup> and annual environmental watering priorities.<sup>21</sup>

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13 Department of the Environment and Energy, *Submission 38*, p. 5.

14 Department of the Environment and Energy, *Submission 38*, p. 3; *Water Act 2007* (Cth), s. 115 and 116.

15 Department of the Environment and Energy, *Supplementary Submission 38.1*, p. 10 (CEWH response to Question 8).

16 *Water Act 2007* (Cth), s. 105(1).

17 The Basin Plan is a legislative instrument made in accordance with s. 44 of the *Water Act 2007* (Cth). See <https://www.legislation.gov.au/Details/F2018C00451>.

18 The *Water Act 2007* (s. 3) defines environmental assets to include: water-dependent ecosystems, ecosystem services and sites with ecological significance.

19 *Convention on Wetlands of International Importance especially as Waterfowl Habitat*, done at Ramsar, Iran, 2 February 1971, entry into force for Australia and generally, 21 December 1975; ATS 1975 No. 48, UNTC No. 14583.

20 Murray-Darling Basin Authority, 'Basin-wide environmental watering strategy', November 2014, at <https://www.mdba.gov.au/managing-water/environmental-water/basin-wide-environmental-watering-strategy>.

- 1.13 Further information on these statutory obligations can be found in the ‘Framework for Determining Commonwealth Environmental Water Use’ on the CEWH’s website.<sup>22</sup>
- 1.14 When fulfilling most of the functions prescribed in the Act, the CEWH is not subject to direction from the Minister or the Department’s Secretary.<sup>23</sup> While this provides a degree of independence, the Act does not preclude the Minister from directing the CEWH to make available water from Commonwealth environmental water holdings. The Minister may also make legally binding operating rules in relation to the CEWH dealing in water and water access rights.<sup>24</sup>
- 1.15 The Environmental Water Holdings Special Account<sup>25</sup> funds the CEWH’s costs incurred to perform the functions described in the Act, although it is not used for paying staff salaries.<sup>26</sup> This financial structure ensures that the CEWH does not need to sell environmental water to fund its own administrative expenses. As at 30 June 2017, the Account had a balance of around \$46 million.<sup>27</sup> The Account is used for:
- payment of statutory fees to state water authorities;
  - managing money credited or debited from the sale or purchase of environmental water; and
  - funding monitoring and evaluation of environmental water outcomes.<sup>28</sup>
- 1.16 The CEWH shares responsibility for environmental watering with the Murray-Darling Basin Authority (MDBA) and the Department of Agriculture and Water Resources (DAWR).<sup>29</sup>

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21 Department of the Environment and Energy, *Submission 38*, p. 2; *Water Act 2007* (Cth), s. 3 and s. 105; *Basin Plan 2012*, s. 8.03, s. 8.14, s. 8.29 and s. 8.32 to 8.43; see also Department of Agriculture and Water Resources, *Submission 31*, p. 2; Murray-Darling Basin Authority, *Submission 34*, p. 2.

22 See <<http://www.environment.gov.au/water/cewo/publications/framework-determining-cew-use>>.

23 *Water Act 2007* (Cth), s. 107.

24 *Water Act 2007* (Cth), s. 109; see also ‘Revised Explanatory Memorandum’, *Water Bill 2007*, p. 31; Productivity Commission, *National Water Reform*, inquiry report 87, December 2017, p. 159, at <<https://www.pc.gov.au/inquiries/completed/water-reform/report>>.

25 A ‘Special Account’ is an amount of money held by the Commonwealth and set aside for a specific purpose (described in s. 113 of the *Water Act 2007*); see also *Public Governance, Performance and Accountability Act 2013* (Cth), s. 80.

26 *Water Act 2007* (Cth), s. 113.

27 Department of the Environment and Energy, *Annual Report 2016-17*, p. 238.

28 Department of the Environment and Energy, *Submission 38*, p. 6; *Water Act 2007* (Cth), s. 113.

29 Department of the Environment and Energy, *Submission 38*, p. 4.

## Environmental watering

- 1.17 The CEWH plans and prepares for where and when environmental water will be used in consultation with third parties, such as other government agencies, non-government organisations and industry representatives.<sup>30</sup> The Department of the Environment and Energy (the Department) submitted:
- ...the CEWH looks to maximise the outcomes that can be achieved with the available water to ensure the best environmental return. This broadly involves trying to best match the available water (that is, 'supply') with identified environmental needs (or 'demands') using all available management options.<sup>31</sup>
- 1.18 When managing its environmental water, the CEWH has three overall options:
- deliver water to a river or wetland to meet an identified demand ('delivery');
  - leave water on the accounts and carry it over for use in the next water year ('carryover'); and
  - trade water by selling it and using the proceeds to either:
    - ⇒ buy water in another catchment or in a future year ('trade'),
    - or
    - ⇒ use the proceeds from selling water to invest in complementary environmental activities ('investment').<sup>32</sup>
- 1.19 The Commonwealth cannot act unilaterally, as the States have responsibility for their own land and water resources. State water regulators and river authorities set the rules for each river valley and determine when Commonwealth environmental water can be released. The CEWH liaises with State waterway managers<sup>33</sup> who deploy the Commonwealth's environmental water as planned, subject to weather and flow conditions.<sup>34</sup> Without rain, the overall availability of environmental

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30 Department of the Environment and Energy, *Submission 38*, p. 14.

31 Department of the Environment and Energy, *Submission 38*, p. 11; see also, Victorian Environmental Water Holder, 'Environmental Benefits' at <http://www.vewh.vic.gov.au/environmental-water/environmental-benefits>.

32 Department of the Environment and Energy, *Submission 38*, p. 11.

33 These 'delivery partners' are listed on the CEWH's website; see <http://www.environment.gov.au/water/cewo/delivery-partners>.

34 Department of the Environment and Energy, *Submission 38*, p. 11 and p. 15; Ms Jody Swirepik, Commonwealth Environmental Water Holder, Department of the Environment and Energy, *Committee Hansard*, Canberra, 28 March 2018, pp. 1-2; see also Professor Michael Stewardson, University of Melbourne, *Committee Hansard*, Albury, 30 April 2018, p. 8.

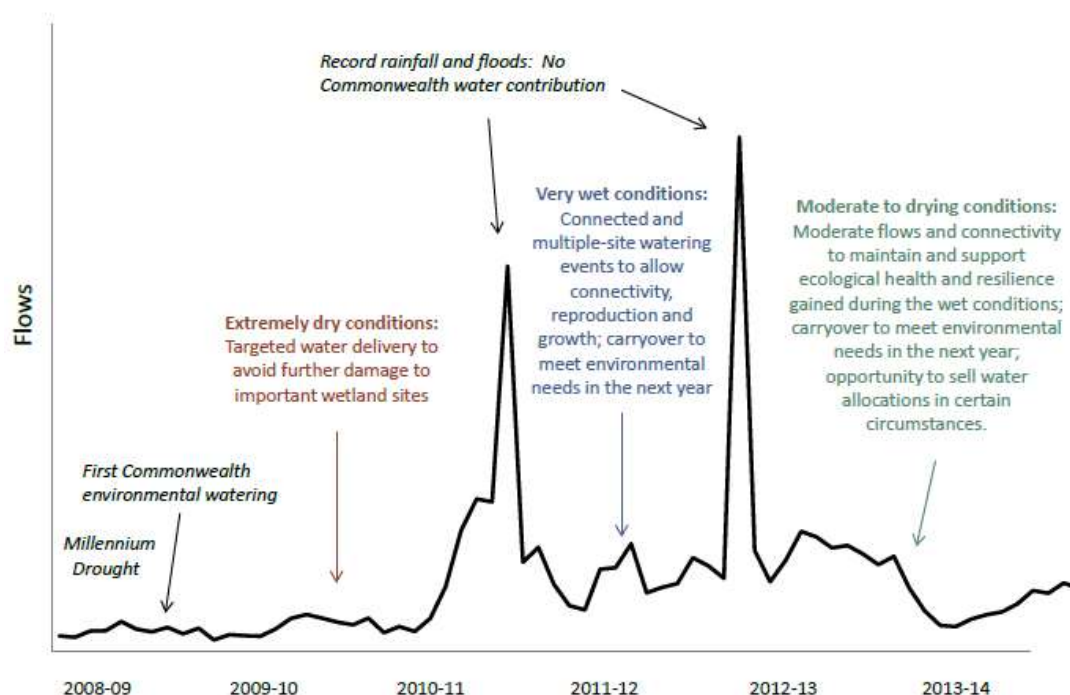
water is reduced, particularly for rivers furthest from upstream dam storage.<sup>35</sup>

1.20 The Department's submission outlined five principles for determining how environmental water should be used:

- the ecological value of the targeted site(s);
- the expected outcomes;
- potential risks;
- the long-term sustainability and management of the site(s) (including any complementary management activities); and
- the cost effectiveness and feasibility of the watering action.<sup>36</sup>

1.21 The graphic below (from the CEWH's website) shows how environmental water is managed over time, noting that conditions may not be the same in the entire Basin.

**Figure 1.2 Environmental watering in response to changing conditions**



Source Commonwealth Environmental Water Office, 'Managing the Commonwealth Environmental Water Portfolio' at <http://www.environment.gov.au/system/files/resources/1a947b47-08ac-453b-901e-4ed59c0b76cc/files/managing-cew-portfolio.pdf>.

1.22 A change to the Act in 2016 permitted the CEWH to sell water and use the funds to progress 'complementary' projects with environmental benefits;

35 Murray-Darling Basin Authority, *Submission 34*, p. 7; Murray Irrigation, *Submission 30*, p. 10.

36 Department of the Environment and Energy, *Submission 38*, p. 14.

for example, tree planting and fish passages.<sup>37</sup> This is discussed further in Chapter 2.

- 1.23 Separately, Victoria and NSW have their own environmental watering programs. The submissions from the Victorian and NSW governments provide further information.<sup>38</sup>

## Conduct of the inquiry

- 1.24 The inquiry commenced on 28 February 2018. The Committee initiated the inquiry based on its power to examine the annual reports of government agencies, as determined in a schedule issued by the Speaker.
- 1.25 The Committee received 43 submissions and held public hearings in Albury, Mildura, Murray Bridge, Canberra and Sydney. Site inspections were conducted in the vicinity of the Goulburn River, Hattah Lakes and the Murray River mouth at Goolwa. Details of submissions received, public hearings and site inspections can be found in the appendices.
- 1.26 The Committee thanks all the individuals and organisations who contributed to the inquiry and assisted with site inspections.
- 1.27 While the CEWH could potentially use environmental water in locations around Australia,<sup>39</sup> in practice this inquiry has concentrated on the Basin area. Although the Basin Plan is also relevant, this report's focus is on environmental water and the CEWH.
- 1.28 The onset of drought conditions in eastern Australia became apparent after the Committee had completed public hearings for this inquiry. Views on whether environmental water should be released for drought mitigation are on the record in other places, such as in media reports and parliamentary debates.
- 1.29 The Committee notes that on 21 September 2018, documents comprising an 'induction briefing' for the current CEWH were made publicly available pursuant to an order of the Senate. These documents included:
- correspondence exchanged between the former CEWH and NSW government authorities on resolving compliance issues; and

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37 Department of the Environment and Energy, *Submission 38*, p. 21; Ms Jody Swirepik, Commonwealth Environmental Water Holder, Department of the Environment and Energy, *Committee Hansard*, Canberra, 28 March 2018, p. 2; Commonwealth Environmental Water Office, *Discussion Paper: Development of a Framework for Investing in Environmental Activities*, at <<http://www.environment.gov.au/water/cewo/investment-framework/discussion-paper>>.

38 NSW Government, *Submission 17*; Victorian Government, *Submission 41*.

39 *Water Act 2007* (Cth), s. 105(3)(b).



- documents relating to the CEWH's approach to public communication and engagement.
- 1.30 These documents became available late in the inquiry process after public hearings had concluded.<sup>40</sup>

## Past inquiries and reviews relating to environmental water

- 1.31 Past inquiries and reviews provide further background and context on the CEWH and the management of environmental water. A selection is listed below:
- A Victorian parliamentary committee report on the management, governance and use of environmental water (June 2018).<sup>41</sup>
  - A Productivity Commission report on progress towards national water reform, including environmental management (May 2018).<sup>42</sup>
  - A Federal parliamentary committee inquiry into water efficiency programs in agriculture (December 2017).<sup>43</sup>
  - A panel of experts' review of the Commonwealth Environmental Water Holder's operations and business processes (November 2017).<sup>44</sup>
  - The Australian National Audit Office assurance review of the protection and use of environmental water (November 2017).<sup>45</sup>
  - Wentworth Group of Concerned Scientists' review of water reform in the Murray-Darling Basin (November 2017).<sup>46</sup>

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40 Senate Order for the Production of Documents 1026, available at <[https://parlinfo.aph.gov.au/parlInfo/download/publications/abledpapers/310741e2-76ac-43f1-acc9-e3523d3dedcd/upload\\_pdf/opd%20-%20water%20holder%20letter%20and%20attachments.pdf](https://parlinfo.aph.gov.au/parlInfo/download/publications/abledpapers/310741e2-76ac-43f1-acc9-e3523d3dedcd/upload_pdf/opd%20-%20water%20holder%20letter%20and%20attachments.pdf)>.

41 See <<https://www.parliament.vic.gov.au/enrrdc/inquiries/article/3773>>.

42 Productivity Commission, *National Water Reform*, inquiry report 87, December 2017, p. 159, at <<https://www.pc.gov.au/inquiries/completed/water-reform/report>>.

43 House of Representatives Standing Committee on Water Resources, 'Making Every Drop Count: Inquiry into Water Use Efficiency Programs in Agriculture', December 2017, at <[https://www.aph.gov.au/Parliamentary\\_Business/Committees/House/Standing\\_Committee\\_on\\_Agriculture\\_and\\_Water\\_Resources/Wateruseefficiency/Report](https://www.aph.gov.au/Parliamentary_Business/Committees/House/Standing_Committee_on_Agriculture_and_Water_Resources/Wateruseefficiency/Report)>.

44 Dr R Neil Byron (and others), 'Review of the Commonwealth Environmental Water Holder's Operations and Business Processes', November 2017, at <<http://www.environment.gov.au/water/cewo/publications/cewo-review-final-report>>.

45 Australian National Audit Office Report No. 17 of 2017-18, *Department of Agriculture and Water Resources' Assessment of New South Wales' Protection and use of Environmental Water under the National Partnership Agreement on Implementing Water Reform in the Murray-Darling Basin*, November 2017, at <<https://www.anao.gov.au/work/assurance-review/dept-agriculture-water-resources-assessment-nsw-protection-use-environmental-water-mdb>>.

46 See <<http://wentworthgroup.org/2017/11/review-of-water-reform-in-the-murray-darling-basin/2017/>>.

- The Australian National Audit Office performance audit report on Commonwealth environmental watering activities (May 2013).<sup>47</sup>



*Goulburn River weir*

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47 Australian National Audit Office Report No. 36 of 2012-13, *Commonwealth Environmental Watering Activities*, May 2013, at <<https://www.anao.gov.au/work/performance-audit/commonwealth-environmental-watering-activities>>.