# **Chapter 3**

# **Investigations into Basin-state water management**

- 3.1 The airing of allegations of water theft by Four Corners—and through other media reports—prompted a significant number of investigations and inquiries into the management and oversight of the MDB. Some of these inquiries also examined the enforcement of and compliance with water use rules by both the Commonwealth and the Basin states.
- 3.2 This chapter considers each of the major inquiries and investigations that have examined the adequacy of compliance, enforcement, transparency and monitoring of water use throughout the Basin. The committee considers these reports and their recommendations to be of great importance for both this inquiry and to the successful management of the Basin more broadly.
- 3.3 The review by the MDBA and the independent review panel into the MDBA's compliance functions (the Murray-Darling Water Compliance Review) is discussed in Chapter 4.

# Independent investigation into NSW water management and compliance – interim report

- 3.4 On 26 July 2017, the NSW Minister for Regional Water, Mr Niall Blair, announced that Mr Ken Matthews AO had been appointed to independently investigate the allegations raised by Four Corners that involved DPI-Water and its employees. Mr Matthews presented an interim report on 8 September 2017 (interim report) and a final report on 30 November 2017 (final report).
- 3.5 The interim report sought to clarify the circumstances around the allegations made by Four Corners, and to provide independent advice on opportunities to improve compliance and enforcement of water arrangements in NSW. Any identified breaches of the relevant water legislation were referred to the relevant authorities for further investigation and action, as this was not the role of the Matthews review.<sup>2</sup>
- 3.6 The interim report found that water-related compliance and enforcement in NSW was 'ineffectual' and required 'significant and urgent improvement'.

<sup>1</sup> NSW Department of Industry, *Independent review of water management and compliance*, <a href="https://www.industry.nsw.gov.au/about/our-business/independent-review-water-management-and-compliance">https://www.industry.nsw.gov.au/about/our-business/independent-review-water-management-and-compliance</a> (accessed 11 December 2017).

<sup>2</sup> Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, p. 16; <a href="https://www.industry.nsw.gov.au/\_data/assets/pdf\_file/0016/120193/Matthews-interim-report-nsw-water.pdf">https://www.industry.nsw.gov.au/\_data/assets/pdf\_file/0016/120193/Matthews-interim-report-nsw-water.pdf</a> (accessed 11 December 2017).

Mr Matthews argued that in the Barwon-Darling, metering, monitoring and measurement of water extractions was not of a standard required for proper water management, with individual cases of alleged non-compliance remaining unresolved 'for far too long'.<sup>3</sup>

3.7 Further, the interim report argued that there was insufficient transparency around compliance and enforcement in NSW, weakening public confidence in water regulation arrangements in NSW.<sup>4</sup>

#### **Outcomes**

- 3.8 Following the release of the interim report, Minister Blair announced that misconduct proceedings as set out in the NSW government sector employment legislation had been commenced and Mr Gavin Hanlon (NSW Deputy Director General of the Department of Industry) had been stood down while the misconduct proceedings were underway. Mr Hanlon was alleged by Four Corners to offer irrigation lobbyists classified departmental material. Mr Hanlon resigned shortly after being stood down.
- 3.9 The interim report called for a systemic fix to the NSW water management system, and presented a number of options for improving compliance and enforcement arrangements in NSW. The options recognised that:

A trusted compliance and enforcement system is essential if the new Barwon–Darling Water Resource Plan is to be accepted by all parties, and if the wider Murray–Darling Basin Plan is to succeed.<sup>7</sup>

- 3.10 The interim report suggested three principles for the future re-design of compliance and enforcement in NSW:
- transparency increased public transparency would help contribute to greater compliance;

3 Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, p. 4.

Australian Associated Press, 'Top bureaucrat faces misconduct proceedings over Murray-Darling water theft allegations', *The Guardian*, 11 September 2017, <a href="https://www.theguardian.com/australia-news/2017/sep/11/top-bureaucrat-misconduct-proceedings-over-murray-darling-water-theft-allegations">https://www.theguardian.com/australia-news/2017/sep/11/top-bureaucrat-misconduct-proceedings-over-murray-darling-water-theft-allegations</a> (accessed 15 January 2018).

Patrick Begley, 'Top water bureaucrat Gavin Hanlon resigns after corruption allegations', Sydney Morning Herald, 16 September 2017, <a href="http://www.smh.com.au/nsw/top-water-bureaucrat-gavin-hanlon-resigns-after-corruption-allegations-20170915-gyiq7h.html">http://www.smh.com.au/nsw/top-water-bureaucrat-gavin-hanlon-resigns-after-corruption-allegations-20170915-gyiq7h.html</a> (accessed 15 January 2018).

7 Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, p. 36.

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<sup>4</sup> Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, p. 4.

- independence decisions about enforcement and compliance should be sufficiently independent of 'water policy making, water planning, water regulation-making, and water delivery services to customers'; and
- effectiveness compliance and enforcement efforts should be 'sufficiently resourced, empowered and professional to support public and investor confidence that the quantities, timing and means of water extractions', for whatever purpose, were consistent with allowed entitlements.<sup>8</sup>
- 3.11 The interim report encouraged the implementation of common arrangements across the MDB, so that enforcement, compliance and auditing activities could be readily undertaken and be suitably transparent.<sup>9</sup>

#### **Transparency**

- 3.12 In stressing the need for greater transparency, the interim report stated that the public should have ready access to a single source that provides all relevant information on water entitlements, including meter reading, real time water account balances and other information. Further, transparency should be improved around environmental water entitlements and flows. <sup>10</sup>
- 3.13 Mr Matthews argued strongly for improved transparency in the management of water. The interim report stated that:

water is a community-owned resource and members of the public have the right to satisfy themselves that it is being used in compliance with the law. Accordingly, changes proposed include enabling the public to readily access from a single source all details of individuals' water entitlements, licence conditions, meter readings, water account balances, and trading activities. Similarly it is recommended that arrangements be put in place for the public to readily identify any specific pump, off-take or works. Corresponding improvements to the transparency of environmental water flows are proposed. Such full transparency would, of itself, add considerably to a more compliant culture among water users. 11

3.14 Transparency would be further increased with the establishment of state-wide non-compliance reporting channels, which would allow for anonymous reporting of

9 Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, p. 5.

10 Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, p. 39.

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<sup>8</sup> Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, p. 37.

<sup>11</sup> Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, pp. 4-5.

breaches. Informants would then receive regular feedback on actions taken in response to complaints. 12

3.15 The interim report also stated that the NSW Department of Industry needed clear reporting channels, so that there was sufficient independent scrutiny of water users. Any water users found guilty of serious offences would have their identity published. All NSW compliance and enforcement actions would be reported annually, with the reports delivered to a fixed schedule. <sup>13</sup>

#### Independence

- 3.16 The interim report called for the separation of water compliance staff from other staff involved in areas such as regulation and policy, with the aim to 'separate approvals of rights and conditions from enforcement of conditions and related legislation'. <sup>14</sup>
- 3.17 Mr Matthews called for clarity around 'responsibility, authority, accountability, and delegations' with regard to compliance and enforcement functions, and suggested the appointment of a Chief Compliance and Enforcement Officer. <sup>15</sup>
- 3.18 To strengthen the compliance and enforcement systems in place, the interim report recommended that these systems be periodically reviewed by other Basin states, possibly via facilitation from the MDBA. With regard to the MDBA, the Matthews interim report found that its compliance and enforcement powers and functions should be more clearly articulated and made public, including when powers to intervene would be invoked. <sup>16</sup>

#### **Effectiveness**

3.19 Of importance to the committee's inquiry, the interim report called for universal metering of water use, under a 'no meter, no pump' rule, and the enforcement of modern Australian metering standards. It also called for the removal of all

<sup>12</sup> Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, p. 40.

<sup>13</sup> Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, p. 40.

<sup>14</sup> Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, p. 40.

<sup>15</sup> Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, pp. 40-41.

Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, p. 41.

self-reporting on water use, such as the use of log books, to be replaced by fully operational water meters.<sup>17</sup>

- 3.20 The interim report argued that the tolerance for differences in conditions between the northern and southern areas of the MDB should be reduced, with standards and rules—including those for metering—applied Basin-wide. The review argued that 'divergences in approach should only be allowed where the need for differences can be convincingly demonstrated'. 18
- 3.21 The report called for a mandatory requirement for meter readers to report 'defective, inoperable or apparently tampered-with meters in real time', with more random and frequent meter reading schedules. The meter readings should be published in real time. <sup>19</sup>
- 3.22 With regard to compliance, the interim report encouraged the use of structures and documented processes for 'commencing, progressing, and decision making on compliance actions'. The interim review also called for the NSW Government to:

Assertively adopt and implement new monitoring and compliance techniques and technologies such as: remote sensing of crop growth and water holdings; back to base and remote meter reading and telemetry; and targeted covert operations. These techniques can be made first-line tools or utilised as cross-checks of more conventionally sourced data. To date, there had been limited use only of these techniques—it is time to utilise them assertively.<sup>20</sup>

- 3.23 Effectiveness would also be increased with:
- post-action audits of each major enforcement case, to seek and implement improvements;
- more stable and secure resourcing for compliance and enforcement activities;
- targeted recruitment of specialist investigators and minimum training levels for compliance and enforcement staff (including ethics training on commencement);
- the wider and more ready use of innovative penalties for breaches of water licence conditions, other than monetary penalties; and

<sup>17</sup> Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, p. 41.

<sup>18</sup> Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, pp. 5, 41.

<sup>19</sup> Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, p. 41.

Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, pp. 41-42.

• establishing best practice information sharing among jurisdictions and other natural resource-based industries. <sup>21</sup>

#### Natural Resources Access Regulator

- 3.24 The interim Matthews report presented a Water Management Compliance Improvement Package. The two elements of the Package consisted of structural reforms for consideration by ministers, and operational and administrative improvements for consideration by the Secretary of the NSW DPI.<sup>22</sup>
- 3.25 As part of the structural reforms, the report recommended the formation of a NSW Natural Resources Access Regulator (NRAR). The NRAR would consolidate all enforcement and compliance functions across WaterNSW and DPI-Water. <sup>23</sup> Following the release of the interim report, the NSW Government implemented legislation establishing the NRAR. <sup>24</sup>
- 3.26 The NRAR became operational on 30 April 2018, with principal objectives of ensuring the 'effective, efficient, transparent and accountable compliance and enforcement measures for the natural resources management legislation', and to maintain public confidence in the enforcement of natural resources management legislation. Members of the public can make confidential reports to the NRAR should they have any concerns about potentially illegal or suspicious water activities.<sup>25</sup>
- 3.27 The NRAR, led by an independent board, now has oversight of all water compliance and enforcement activities in NSW. It provides directions to the NSW Department of Industry on improvements or the need for corrective actions, and determines whether proceedings for breaches of water legislation should commence. The Matthews review recommended that the NRAR also make public an annual report 'attesting to the adequacy of the department's regulatory activities, and information on areas that it has recommended or directed improvement'. <sup>26</sup>

Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, p. 38.

<sup>21</sup> Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, p. 42.

<sup>23</sup> Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, p. 38.

Parliament of New South Wales, Natural Resources Access Regulator Bill 2017, <a href="https://www.parliament.nsw.gov.au/bills/Pages/bill-details.aspx?pk=3460">https://www.parliament.nsw.gov.au/bills/Pages/bill-details.aspx?pk=3460</a> (accessed 12 December 2017).

NSW Department of Industry, *Natural Resources Access Regulator (NRAR)*, <a href="https://www.industry.nsw.gov.au/natural-resources-access-regulator">https://www.industry.nsw.gov.au/natural-resources-access-regulator</a> (accessed 2 November 2018).

Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, pp. 38-39.

#### Role of the MDBA

3.28 The interim report found that the MDBA could offer a greater contribution to water enforcement and compliance. Specifically, the review called for the roles, functions, and scope of action for the MDBA to be more clearly articulated and made public. It further called for the urgent development of a revised whole-of-basin compliance and enforcement strategy. The strategy would:

include standards and the levels of effort (resourcing) to be achieved by each member state. The objective would be to build confidence that all states were achieving a similar standard of compliance. The strategy should set out a rolling program of review of the highest areas of risk of non-compliance and routinely audit the adequacy of each state's water measurement (especially metering) and monitoring arrangements.<sup>27</sup>

- 3.29 The interim report called for further contributions from the MDBA, including:
- the provision of more effective annual assurance reports from Basin states about their compliance and enforcement arrangements, with the reports to be made public;
- implementation of reciprocal third-party auditing of each Basin state's compliance and enforcement systems by other states; and
- sponsorship of a new national forum for compliance and enforcement agencies from Basin states to share best practice and address cross-border issues.<sup>28</sup>

# Independent investigation into NSW water management and compliance – final report

3.30 Mr Matthews' final report, dated 24 November 2017 and presented on 30 November 2017, examined the progress made by the NSW Government on implementation of the recommendations from the interim report. The final report noted that steps had been taken immediately by NSW following the release of the interim report, to implement a 'historic program of reforms to the way water compliance and enforcement is managed' in NSW. The final report summarised the steps taken, including the establishment of the NRAR, the appointment of its board and other measures such as:

A new division of the department to manage water and Crown Lands...A new Deputy Secretary experienced in natural resource management was recruited from outside the department to lead it. Leadership of the water group within the new division was changed. Additional staff were assigned. Within the broader department, a major program to foster ethical conduct

<sup>27</sup> Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, pp. 42-43.

Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance*, interim report, 8 September 2017, p. 43.

was launched. Considerable top management attention has been directed towards rebuilding staff morale, team performance and commitment to the reform journey ahead. In my view, the department has made a good start.<sup>29</sup>

- 3.31 However, the final report presented five key risks to the successful implementation of a water reform program, being:
- risks associated with planning implementation of the reforms;
- risks in not allocating sufficient financial and staff resources to tasks;
- translating high-level reform outcomes into specific and practical measures at ground level;
- pressure from stakeholders to 'water down' key reforms, including those for water metering; and
- an uncooperative relationship between government agencies and risks with compliance and enforcement staff restructures.<sup>30</sup>
- 3.32 It was noted in the final report that 'certain important stakeholders' had expressed concerns over the interim report's recommendations about water metering and improved transparency of information about water usage. The final report acknowledged these concerns, and that they may result in 'practical adjustments' to the desired policy outcomes. However, the report warned that:

if too many 'adjustments' accumulate, there is a risk of gradually losing the current unprecedented opportunity to achieve long-overdue remedies to NSW compliance problems.<sup>31</sup>

- 3.33 To counteract such an event, the final report recommended that the NSW Government announce its intention to commission an independent audit and evaluation of results against the original policies and desired outcomes, after a 12-month period. 32
- 3.34 The final report suggested that the NSW Government seek from the Commonwealth funds that are available for Basin Plan implementation. It was noted that Commonwealth funding for metering, compliance and enforcement, and

<sup>29</sup> Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance – advice on implementation*, final report, 24 November 2017, p. 1.

<sup>30</sup> Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance – advice on implementation*, final report, 24 November 2017, p. 1.

Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance – advice on implementation*, final report, 24 November 2017, p. 3.

Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance – advice on implementation*, final report, 24 November 2017, p. 3.

protection of environmental water, could advance the objectives of both the state and federal governments.<sup>33</sup>

3.35 In implementing reforms to water management, the final report called on the MDBA to have a more assertive role with regard to compliance and enforcement, with clear delineation between the complementary roles of Basin states and the MDBA. The report stated that:

The MDBA is uniquely positioned to engage and lead the other Basin states. NSW will not be able to achieve whole-of-basin improvements acting alone. It therefore makes sense for NSW to seek to align its compliance reform efforts with those of the MDBA.<sup>34</sup>

- 3.36 It was recommended by the final report that the MDBA focus its compliance and enforcement efforts at the Basin Plan level, and exercise its full powers in doing so. The final report called for the MDBA to intervene 'where a Basin state has manifestly failed to act satisfactorily'. Further, the MDBA should provide a common framework for Basin states' planning, execution and regular public reporting of compliance and enforcement.<sup>35</sup>
- 3.37 The final report noted that it would be desirable for the MDBA and the NSW Government to align their metering objectives and any technical or minimum threshold standards to be applied throughout the Basin. The report noted that it would be of no benefit if different metering outcomes were recommended by the MDBA and NSW, and that MDBA minimum standards should be the basis for the NSW standards.<sup>36</sup>

#### Reception of the Matthews review

- 3.38 There was widespread support from a variety of MDB stakeholders for the recommendations of the Matthews reviews. Many parties expressed their pleasure that the investigation had been comprehensive and offered practical and much-sought-after solutions and recommendations.
- 3.39 For example, Mr Rob McBride expressed his view that the Matthews recommendations were 'without doubt' adequate to address issues with water compliance and enforcement in NSW. Further, Mr McBride felt that the

<sup>33</sup> Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance – advice on implementation*, final report, 24 November 2017, pp. 10-11.

Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance – advice on implementation*, final report, 24 November 2017, pp. 24-25.

<sup>35</sup> Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance – advice on implementation*, final report, 24 November 2017, p. 25.

Mr Ken Matthews AO, *Independent investigation into NSW water management and compliance – advice on implementation*, final report, 24 November 2017, pp. 25-26.

recommendations made by the Matthews review could enable some integrity to return to the NSW water system.<sup>37</sup>

- 3.40 Mr Justin McClure of the AFA acknowledged that the Matthews review was a 'very significant step in the right direction', while recognising that there was much further to go.<sup>38</sup>
- 3.41 MLDRIN thought that the recommendations of the Matthews review signified a start to improving compliance and regulation, but it was important that the NSW Government implement the recommendations, especially those concerning metering and compliance.<sup>39</sup>

# **NSW Ombudsman – Investigations into water compliance and enforcement**

- 3.42 While the allegations made on Four Corners regarding water theft were made in mid-July 2017, the NSWO had already commenced, in 2016, an investigation into water compliance and enforcement issues in NSW. The 2016 investigation was the fourth such investigation since 2006 (with previous investigations completed in 2009, 2012 and 2013). The NSWO investigations were instigated by complaints and public interest disclosures about a lack of compliance and enforcement with water management principles in NSW. <sup>40</sup>
- 3.43 The most recent investigations arose from allegations made by DPI-Water staff in June 2016, about the performance of DPI-Water in relation to its statutory compliance and enforcement functions. Staff had made a number of allegations, including that:
- the SIU had been 'scaled down and rendered ineffectual' due to staffing reductions and transfers;
- staff member delegations to undertake enforcement action were removed;
- senior DPI-Water executives allegedly directed staff to take no enforcement action in relation to an alleged offence of an unlawfully modified and enlarged dam;
- no enforcement action was taken on unlicensed dams containing large volumes of water, being used for irrigation purposes and without a water licence; and

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<sup>37</sup> Mr Robert McBride, Committee Hansard, 1 November 2017, p. 4.

<sup>38</sup> Mr Justin McClure, Australian Floodplain Association, *Committee Hansard*, 1 November 2017, p. 22.

<sup>39</sup> Mr Grant Rigney and Mr Rene Woods, Murray Lower Darling Rivers Indigenous Nations, *Committee Hansard*, 2 November 2017, p. 9.

<sup>40</sup> NSW Ombudsman, *Investigation into water compliance and enforcement 2007-17*, November 2017, Foreword, <a href="https://www.ombo.nsw.gov.au/\_data/assets/pdf\_file/0012/50133/">https://www.ombo.nsw.gov.au/\_data/assets/pdf\_file/0012/50133/</a>
<a href="Investigation-into-water-compliance-and-enforcement-2007-17.pdf">https://www.ombo.nsw.gov.au/\_data/assets/pdf\_file/0012/50133/</a>
<a href="Investigation-into-water-compliance-and-enforcement-2007-17.pdf">Investigation-into-water-compliance-and-enforcement-2007-17.pdf</a> (accessed 9 January 2018).

- there were systemic failures by senior management to take action on water compliance matters. 41
- 3.44 Also in June 2016, a further allegation was made by a member of the public of large-scale water theft by a cotton farmer, with the member of the public asserting that DPI-Water was not taking adequate action in light of the allegations.<sup>42</sup>
- 3.45 In November 2017, the NSWO presented a progress report into its fourth investigation. The progress report did not present findings or concluded opinions on the fourth investigation. The report did note, however, that the Matthews review made findings largely similar to the three earlier NSWO investigations, the findings of which had been reported to the relevant NSW minister and department upon completion but were not made public. 43

#### **Outcomes**

- 3.46 The progress report observed that the NSWO had been raising concerns over inadequate water compliance resourcing in NSW since 2009, and had previously made recommendations to properly resource compliance functions. The first NSWO investigation, concluded in 2009, determined that the ten water compliance officers then engaged by the relevant department was 'seriously inadequate to ensure the proper protection of the state's increasingly scarce and valuable water resources'. This was highlighted by the fact that approximately 600 breach allegations were being received per year, with only 20 per cent of these subject to investigation. 44
- 3.47 Further, the first investigation, conducted between 2006 and 2009, concluded that:

the Department's compliance function was in disarray. There were no adequate policies, no proactive monitoring of compliance, no adequate system for logging and responding to alleged breach reports, no compliance strategy, and poor record keeping and custody of evidence practices. <sup>45</sup>

3.48 These concerns continued into the NSWO's third investigation, conducted between 2011 and 2013. The 2013 report of the NSWO highlighted issues with excessive delays in completing investigations and subsequent enforcement and

NSW Ombudsman, *Investigation into water compliance and enforcement 2007-17*, November 2017, p. 7.

NSW Ombudsman, *Investigation into water compliance and enforcement 2007-17*, November 2017, p. 7.

<sup>43</sup> NSW Ombudsman, *Investigation into water compliance and enforcement 2007-17*, November 2017, pp. 2, 9, 14.

NSW Ombudsman, *Investigation into water compliance and enforcement 2007-17*, November 2017, pp. 14-15.

NSW Ombudsman, *Investigation into water compliance and enforcement 2007-17*, November 2017, p. 19.

prosecution actions, with poor communication between compliance and legal staff noted as a particular concern. 46

- 3.49 In its 2013 report, the NSWO again expressed its 'grave concerns' for water compliance and enforcement should there be further resourcing reductions. The NSWO also cautioned against the engagement of water licensing officers in compliance roles, as they may be unqualified to conduct water investigations to an acceptable standard. 47
- 3.50 However, the progress report noted that the creation of the SIU in 2013, and its operation in 2014-15 (prior to staff reductions in 2016), was effective in targeting higher risk breaches and delivering effective enforcement outcomes.<sup>48</sup>
- 3.51 The NSWO progress report noted that the frequency of administrative changes to water management and regulation in NSW had 'substantially impaired' water compliance and regulatory functions. The report noted that:

Over the past two decades the administration of functions related to water management and regulation have been restructured and moved between different government agencies close to twenty times. At least eight of those changes in the last fifteen years were major restructures that resulted in substantial staff relocations and retrenchments, carving up of functions, splitting of departments, amalgamation of units and establishment of new agencies. Since 2003 when the Department of Land and Water Conservation was abolished, there has been a restructure involving water management functions approximately every two years.

The opinion of the Ombudsman's office is that the impact of these changes on staff, loss of expertise and corporate knowledge, disruptions to systems and strategy, and continuity of service delivery, have been devastating. 49

3.52 The NSWO concluded that many of the underlying structural and systemic problems that it had raised throughout the course of its investigations had not been properly addressed, or the impetus for change, when it occurred, was not maintained. This was due to 'chronic under-resourcing of the enforcement and compliance roles', constant departmental restructures and transfers of responsibility, and a 'clash of cultures between a customer service focus and enforcement obligations'. <sup>50</sup>

NSW Ombudsman, *Investigation into water compliance and enforcement 2007-17*, November 2017, p. 16.

NSW Ombudsman, *Investigation into water compliance and enforcement 2007-17*, November 2017, p. 20.

<sup>48</sup> NSW Ombudsman, *Investigation into water compliance and enforcement 2007-17*, November 2017, p. 23.

<sup>49</sup> NSW Ombudsman, *Investigation into water compliance and enforcement 2007-17*, November 2017, pp. 5-6.

<sup>50</sup> NSW Ombudsman, *Investigation into water compliance and enforcement 2007-17*, November 2017, p. 28.

3.53 The NSWO progress report recommended that to avoid the previous failures in water compliance in NSW:

it is vital that any water compliance and enforcement effort is adequately funded and resourced and staffed by qualified experienced persons with investigative experience in dealing with offences where the burden of proof is beyond reasonable doubt. It is equally important that investigators are supported by, and have easy access to, water experts and legal officers experienced in water issues. The expertise that was developed by DPI Water and the SIU in particular should not be lost. Strong leadership support and a clear mandate from Government are paramount to the success of any future compliance model. <sup>51</sup>

### Final report

- 3.54 On 17 August 2018, the NSWO presented a special report to NSW Parliament on water compliance and enforcement. With the implementation of the NRAR, the NSWO noted that the water management landscape in NSW was considerably different to when the investigations first commenced.<sup>52</sup>
- 3.55 The final report reiterated the view that over many years, water compliance functions had been significantly under-resourced, with WaterNSW failing to adequately staff its compliance functions until after the Four Corners allegations were broadcast. The NSWO further stated that:

The lack of resources, the impact of the disruptions, the failure to manage staff expectations, the lack of effective communication, and a failure to integrate staff in a timely fashion had a significant negative effect on compliance performance. <sup>53</sup>

- 3.56 However, since the Four Corners episode and the Matthews reviews, the NSWO acknowledged that the NRAR had been established, and commended the NSW Government for 'giving this issue the attention and resources it requires'. The NSWO observed that, as of August 2018, the NRAR had:
- 64 compliance officers engaged in compliance, breach investigations and monitoring activities, on-the-ground education and engagement;
- 4 staff in the Water Enforcement Team, including 3 legal officers, oversighting and supervising investigations; and

<sup>51</sup> NSW Ombudsman, *Investigation into water compliance and enforcement 2007-17*, November 2017, p. 28.

NSW Ombudsman, *Water: compliance and enforcement*, 17 August 2018, p. i. <a href="https://www.ombo.nsw.gov.au/news-and-publications/publications/reports/state-and-local-government/water-compliance-and-enforcement">https://www.ombo.nsw.gov.au/news-and-publications/publications/reports/state-and-local-government/water-compliance-and-enforcement</a> (accessed 13 September 2018).

<sup>53</sup> NSW Ombudsman, Water: compliance and enforcement, 17 August 2018, p. o.

- 12 coordination officers for intake and triage of non-compliance reports and preliminary investigations. 54
- 3.57 The final report of the NSWO made a number of findings and recommendations with regard to the NRAR, as well as other matters. To ensure best practice moving forward, the NSWO recommended that the responsible state minister ensure that the NRAR received sufficient resourcing to enable it to undertake efficient and effective compliance operations. This would help to avoid the inadequacies observed by the NSWO in its investigations over the past decade. <sup>55</sup>
- 3.58 The NSWO also turned its attention to prosecutions of water theft using various technologies, and recommended that the NSW water minister:

Reviews the evidentiary requirements to prove offences under the Water Management Act and Water Act so that evidence obtained through appropriate technology, such as remote sensing, is prima facie admissible in prosecutions–similar to evidence obtained by speed cameras in driving offences. <sup>56</sup>

#### NRAR actions

- 3.59 In September 2018, the NRAR advised that it had completed 147 on-site inspections, 58 property audits and 109 compliance actions in its first 100 days of operation, with four compliance actions progressing to prosecutions under the NSW *Water Management Act 2000*. The NRAR identified the compliance actions as follows:
- four prosecutions in the NSW Land and Environment Court;
- five penalty infringement notices;
- eight remediation notices directing landholders to undertake remedial actions;
- 81 advisory letters notifying landholders of alleged breaches; and
- 11 warning letters advising of suspected minor breaches.<sup>57</sup>
- 3.60 Additionally, on October 10 a Carinda man was found guilty of providing false and misleading information to NRAR water investigators, an offence under the *Water Management Act 2000*. The NRAR also advised that two directions had been

<sup>54</sup> NSW Ombudsman, Water: compliance and enforcement, 17 August 2018, p. o.

<sup>55</sup> NSW Ombudsman, Water: compliance and enforcement, 17 August 2018, pp. 62-63.

NSW Ombudsman, Water: compliance and enforcement, 17 August 2018, p. 63.

NSW Department of Industry, 'Over 100 actions taken by new water regulator', *Media release*, 19 September 2018, <a href="https://www.industry.nsw.gov.au/media/releases/2018/over-100-actions-taken-by-new-water-regulator">https://www.industry.nsw.gov.au/media/releases/2018/over-100-actions-taken-by-new-water-regulator</a> (accessed 7 November 2018).

issued to cotton farms in the Brewarrina-Walgett area, to upgrade their metering equipment.<sup>58</sup>

# ANAO – National Partnership Agreement on Implementing Water Reform in the Murray-Darling Basin, NSW

- 3.61 In 2013, COAG agreed to the Intergovernmental Agreement on Implementing Water Reform in the Murray-Darling Basin (IGA). Under the IGA, the Australian Government provides financial support to the Basin states via the National Partnership Agreement on Implementing Water Reform in the Murray-Darling Basin (NPA).
- 3.62 This financial assistance contributes to the costs involved in implementing the Basin Plan, such as the preparation of new WRPs, and implementing new compliance and reporting requirements. The payments to Basin states are based on performance against milestones in the NPA, with the milestones based on measures and objectives stipulated in the IGA and in the Basin Plan. Milestone assessment reports are prepared by DAWR, which recommends whether payments should be made under the NPA. <sup>59</sup>
- 3.63 The Commonwealth therefore ensures that:
  - outputs are delivered and outcomes are achieved within agreed timeframes. This includes [Basin states] making suitable progress in sustainable water extraction, which involves the protection and use of environmental water through effective regulatory and compliance arrangements. <sup>60</sup>
- 3.64 As a result of the allegations made by Four Corners, the ANAO expanded an already existing audit into National Partnership Agreements, and undertook a limited assurance review of the New South Wales NPA.<sup>61</sup>

#### **Outcomes**

3.65 The ANAO's review into the NPA made the following findings:

NSW Department of Industry, 'Water regulator sends strong message', *Media release*, 15 October 2018, <a href="https://www.industry.nsw.gov.au/media/releases/2018/water-regulator-sends-strong-message">https://www.industry.nsw.gov.au/media/releases/2018/water-regulator-sends-strong-message</a> (accessed 7 November 2018).

<sup>59</sup> Australian National Audit Office, Department of Agriculture and Water Resources' Assessment of New South Wales' Protection and use of Environmental Water under the National Partnership Agreement in Implementing Water Reform in the Murray-Darling Basin, ANAO Report No. 17 2017-18, pp. 9, 13.

Australian National Audit Office, Department of Agriculture and Water Resources' Assessment of New South Wales' Protection and use of Environmental Water under the National Partnership Agreement in Implementing Water Reform in the Murray-Darling Basin, ANAO Report No. 17 2017-18, p. 10.

Australian National Audit Office, Department of Agriculture and Water Resources' Assessment of New South Wales' Protection and use of Environmental Water under the National Partnership Agreement in Implementing Water Reform in the Murray-Darling Basin, ANAO Report No. 17 2017-18, p. 10.

- the milestones and criteria for assessing the performance of NSW under the NPA lack specific, measurable deliverables and outcome measures, representing 'significant weaknesses in the performance framework';
- the NPA framework does not support DAWR to 'effectively assess the performance of NSW in protecting and using environmental water in line with the Basin Plan':<sup>62</sup> and
- that DAWR recommended that NSW receive payments under the NPA despite NSW not meeting required milestones in 2014-15 and 2015-16, and despite significant concerns being raised by the CEWH about NSW's 'failure, if not active disinterest' in supporting the effective delivery of environmental water in line with the Basin Plan. 63

#### 3.66 The ANAO review found that:

While DAWR has followed agreed processes for monitoring performance, there was a lack of evidence and explanation to substantiate its positive assessment of NSW's progress under Milestone 8 of the Murray-Darling Basin NPA in light of the serious issues raised by the CEWH. Importantly, there was little in DAWR's submission to the Minister for 2015–16 to suggest there were risks that NSW was not delivering environmental water consistent with the Basin Plan. These factors indicate that DAWR has had limited effectiveness in assessing the performance of NSW against the milestones in the Murray-Darling Basin NPA. 64

3.67 Notwithstanding the effects of these findings, the Auditor-General determined that there was no indication that DAWR had not provided a high level of assurance about the protection and use of environmental water in the Murray-Darling Basin, for the 2014-15 and 2015-16 assessment years. 65

Australian National Audit Office, Department of Agriculture and Water Resources' Assessment of New South Wales' Protection and use of Environmental Water under the National Partnership Agreement in Implementing Water Reform in the Murray-Darling Basin, ANAO

Report No. 17 2017-18, pp. 17-18.

Australian National Audit Office, Department of Agriculture and Water Resources' Assessment of New South Wales' Protection and use of Environmental Water under the National Partnership Agreement in Implementing Water Reform in the Murray-Darling Basin, ANAO Report No. 17 2017-18, p. 14.

Australian National Audit Office, Department of Agriculture and Water Resources' Assessment of New South Wales' Protection and use of Environmental Water under the National Partnership Agreement in Implementing Water Reform in the Murray-Darling Basin, ANAO Report No. 17 2017-18, p. 18.

Australian National Audit Office, Department of Agriculture and Water Resources' Assessment of New South Wales' Protection and use of Environmental Water under the National Partnership Agreement in Implementing Water Reform in the Murray-Darling Basin, ANAO Report No. 17 2017-18, p. 6.

### Productivity Commission – five-year review of the Basin Plan

- 3.68 In August 2018, the Productivity Commission (PC) released its draft report titled *Murray-Darling Basin Plan: Five-year assessment* (draft report). The PC has responsibility for assessing the effectiveness of implementation of the Basin Plan and associated WRPs, every five years, to ensure public confidence in implementation of the Basin Plan.<sup>66</sup>
- 3.69 While noting that significant practical progress had been made under the Basin Plan, the draft report highlighted that 'immediate improvement' was needed with regard to the development and accreditation of WRPs, which were behind schedule. The PC also noted that over the next five years it would be important that the Basin Plan arrangements were embedded and complied with.<sup>67</sup>
- 3.70 The draft report argued that there was 'major shortcomings in the current institutional and governance arrangements and these pose a significant risk to successful implementation'. The PC further found that the two major roles of the MDBA supporting Basin States to implement the Plan, and, as the regulator, ensuring compliance with the Plan were in conflict, and that this conflict would intensify in coming years. It was unclear to the PC whether it was the Basin States, or the MDBA, that was responsible for leading implementation of the Plan. <sup>68</sup>
- 3.71 The PC spoke strongly to the matter of conflict within the MDBA with regard to its varied roles, observing that this conflict:

will be exacerbated over the next five years. Its agent of Government role will grow, as Basin Governments draw on its technical capability and river operations skills to implement supply projects. Its role as regulator of the Basin Plan comes into full effect when WRPs are accredited. This conflict cannot be successfully managed through internal controls. In its current form, the MDBA cannot be a trusted adviser to Basin Governments and be a credible regulator. <sup>69</sup>

3.72 Additionally, the PC has found that stakeholders were concerned about the lack of an adequate compliance regime in many of the Basin states. The draft report stated that:

Productivity Commission, *Murray-Darling Basin Plan: Five-year assessment; Draft Report, Overview and Recommendations*, August 2018, p. 3.

<sup>67</sup> Productivity Commission, *Murray-Darling Basin Plan: Five-year assessment; Draft Report, Overview and Recommendations*, August 2018, pp. 2, 14; <a href="https://www.pc.gov.au/inquiries/current/basin-plan/draft/basin-plan-draft-overview.pdf">https://www.pc.gov.au/inquiries/current/basin-plan/draft/basin-plan-draft-overview.pdf</a> (accessed 14 September 2018).

<sup>68</sup> Productivity Commission, *Murray-Darling Basin Plan: Five-year assessment; Draft Report, Overview and Recommendations*, August 2018, pp. 2, 21.

<sup>69</sup> Productivity Commission, *Murray-Darling Basin Plan: Five-year assessment; Draft Report, Overview and Recommendations*, August 2018, p. 22.

An overwhelming number of participants to the inquiry indicated that stakeholder confidence has been rocked by concerns that some Basin States have been lax in ensuring compliance with water take rules. An unwillingness to demonstrate that water acquired for the environment can be protected from extraction further downstream, and allegations of fraud in water recovery programs have compounded these concerns and left stakeholders sceptical of the motivations of Basin Governments. <sup>70</sup>

- 3.73 The PC observed that the MDBA was required to manage breaches or non-compliance with all aspects of the Basin Plan, and that it may—at times—be required to call out states who were non-compliant. The PC saw the MDBA as being 'an inherently conflicted entity...perceived as such by stakeholders'.
- 3.74 To help address these concerns and the conflicted role of the MDBA, the PC called for it to be separated into two institutions, known as the Murray-Darling Basin Corporation, and the Basin Plan Regulator.
- 3.75 The Corporation would be governed and funded by the Basin states. The compliance, evaluation and review functions of the MDBA would be assigned to the Regulator, which would be a new, independent Commonwealth statutory entity. The Regulator would be governed by a board 'comprising of members with skills that are aligned to its compliance and evaluation role'. The PC stated that these institutional reforms should be in place by 2021.<sup>72</sup>

## **South Australian Murray-Darling Basin Royal Commission**

3.76 On 26 November 2017, the then Premier of South Australia, Mr Jay Weatherill MP, announced a state royal commission to investigate the allegations of water theft by upstream irrigators. In announcing the royal commission, the Premier stated that it would have 'wide-ranging coercive powers' to investigate breaches of the Basin Plan and the Murray-Darling Basin Agreement, and would examine any changes to the legislation and policies implemented in 2012 that were inconsistent with the Basin Plan and the Agreement. <sup>73</sup>

Productivity Commission, *Murray-Darling Basin Plan: Five-year assessment; Draft Report, Overview and Recommendations*, August 2018, p. 21.

Productivity Commission, *Murray-Darling Basin Plan: Five-year assessment; Draft Report, Overview and Recommendations*, August 2018, p. 14.

Productivity Commission, *Murray-Darling Basin Plan: Five-year assessment; Draft Report, Overview and Recommendations*, August 2018, pp. 22-23, 48. See p. 23 for a diagrammatic representation of the suggested new arrangements.

<sup>73</sup> The Hon Jay Weatherill MP, Premier of South Australia, 'South Australia to establish Royal Commission into River Murray water theft', *Media release*, 26 November 2017, <a href="https://www.premier.sa.gov.au/index.php/jay-weatherill-news-releases/8354-south-australia-to-establish-royal-commission-into-river-murray-water-theft">https://www.premier.sa.gov.au/index.php/jay-weatherill-news-releases/8354-south-australia-to-establish-royal-commission-into-river-murray-water-theft</a> (accessed 10 January 2018).

3.77 Upon release of the draft terms of reference for the royal commission, the SA Government at the time stated that it was:

concerned at recent reports as to the alleged non-compliance with the Basin Plan, the current state of implementation of the Basin Plan, and whether the Basin Plan will achieve its objects and purposes and those of the Act. It considers that an independent Commission of Inquiry with coercive powers is required to inquire into these and related matters.<sup>74</sup>

- 3.78 The commission was formally established on 23 January 2018. The terms of reference provided that the royal commission, led by Bret Walker SC, would examine, among other things:
- whether the WRPs will be delivered in full by 30 June 2019, in a form compliant and consistent with the Basin Plan, and whether any WRPs are unlikely to be delivered in full and in a compliant form;
- whether the current Basin Plan, its implementation and any proposed amendments to it are likely to achieve the purposes of the Water Act and the Plan, including enhanced environmental outcomes and the additional 450GL as provided for in the Water Act;
- if the Basin Plan is unlikely to achieve any of the Water Act or Basin Plan objectives and purposes, what amendments should be made to ensure those objectives are achieved and what legislative impediments should be changed, if needed;
- whether the underlying assumptions in the original modelling used to develop the objects and purposes of the Water Act and the Basin Plan have been sufficiently adjusted for the impact of improved technologies;
- the likely impact of alleged illegal take or other non-compliance on achieving the objects and purposes of the Water Act and Basin Plan, and whether appropriate enforcement proceedings have been taken in such instances (and if not, why);
- whether enforcement and compliance powers in the Water Act are adequate to address non-compliance, and recommendations for legislative change if required;
- whether monitoring, metering and access to relevant information, such as usage data, is adequate to achieve the objects and purposes of the Water Act and Basin Plan; and

Government of South Australia, *Murray-Darling Basin Royal Commission – Draft Terms of Reference*, pp. 2-3, available from 'The Murray-Darling. Who's taking more than their fair share?', *YourSAy*, December 2017, <a href="https://yoursay.sa.gov.au/decisions/murray-darling/about">https://yoursay.sa.gov.au/decisions/murray-darling/about</a> (accessed 16 January 2018).

- whether water purchased by the Commonwealth will be adequately protected from irrigation extraction under WRPs, and recommendations for legislative or other changes.<sup>75</sup>
- 3.79 The South Australian royal commission has concluded its public hearings, with a final report to be provided to the South Australian Governor by 1 February 2019.<sup>76</sup>

### Views on a Commonwealth judicial inquiry

- 3.80 There was strong support put forward throughout the inquiry for a federal-level judicial inquiry or royal commission into the management of MDB water resources.<sup>77</sup>
- 3.81 For example, Mr Leon Zanker, of the AFA, stated that there has been a 'loss of confidence in the ability of government regulatory authorities to do their job', and further, that there was no integrity left in the water system. Mr Zanker, along with the AFA more broadly, called for a royal commission or judicial inquiry to look at the overall state of the water system, as well as the underlying premise of the Basin Plan and its expenditure of taxpayer money.<sup>78</sup>
- 3.82 PAWD was supportive of the calls for a royal commission, noting that such a fulsome inquiry would have the necessary powers to compel evidence and offer protection for whistle-blowers, while allowing irrigation and agricultural communities the chance to 'start afresh in the court of public opinion'. <sup>79</sup>
- 3.83 However, the NFF cautioned against a judicial inquiry or royal commission, noting such inquiries often take considerable time and at great expense. The NFF was instead supportive of the reviews undertaken since the Four Corners program, as these

Murray-Darling Basin Royal Commission, *Terms of Reference*, <a href="https://www.mdbrc.sa.gov.au/resources/terms-reference">https://www.mdbrc.sa.gov.au/resources/terms-reference</a> (accessed 2 November 2018).

Murray-Darling Basin Royal Commission, <a href="https://www.mdbrc.sa.gov.au/">https://www.mdbrc.sa.gov.au/</a> (accessed 2 November 2018).

<sup>77</sup> See, for example: River Lakes and Coorong Action Group Inc., Submission 11, [p. 2]; WWF-Australia, Submission 15, p. 2; Nature Conservation Council of NSW, Submission 16, [pp.2-3]; EDOs of Australia, Submission 18, p. 10; Ms Sarah Moles, Submission 19, [p. 2]; Ms Anne Hartnett, Submission 34, [p. 2]; Broken Hill City Council, Submission 25, [p. 2]; Professor Richard Kingsford, Submission 27, p. 3; South Australian Murray Irrigators, Submission 35, [p. 3]; Australian Conservation Foundation, Submission 37, [p.7]; Ms Anne E. Reeves OAM, Submission 38, p. 4; Pastoralists' Association of West Darling, Submission 40, p. 2; Ms Ruby Davies, Submission 52, [p. 5], and Inland Rivers Network, Submission 54, p. 3.

<sup>78</sup> Mr Leon Zanker, Australian Floodplain Association, *Committee Hansard*, 1 November 2017, p. 23.

<sup>79</sup> Mr Lachlan Gall, Pastoralists' Association of West Darling, *Committee Hansard*, 1 November 2017, p. 37.

had shown that 'focused and expert inquiries can report and deliver clear recommendations, in a very timely and effective manner'. 80

3.84 Likewise, Cllr O'Connor of the Brewarrina Shire Council did not fully agree with the calls for a judicial inquiry or royal commission. The Councillor noted that as water theft was now in the public domain, the issue was 'too big now to be swept under the carpet'. Cllr O'Connor argued that the Matthews review went further than many people were expecting it to, and that, in conjunction with the other inquiries such as the ICAC investigation, things were heading in the right direction. 81

#### Committee view

- 3.85 The committee acknowledges the strong sentiment amongst stakeholders and other interested parties for the establishment of a Commonwealth-level judicial inquiry or a royal commission into the management and operation of the MDB. The committee, however, is not the appropriate body to make a determination on whether such an inquiry or commission proceeds at a federal level.
- 3.86 The committee recognises that underpinning these demands are concerns regarding perceived inequalities in the management of the MDB system, furthered by a lack of transparency in Basin management and modelling, and a lack of effective compliance activity in some Basin jurisdictions. The committee observes that there is a consistency to the themes and issues that have been raised about the management of the Basin, regardless of the forum.
- 3.87 To this end, the committee notes that the various reviews and investigations completed in recent months, addressing concerns with water monitoring and compliance, have gone a considerable way to improving water management across the Basin, with increased clarity around compliance and the ramifications for those who breach the water use rules.
- 3.88 Further, despite the issues highlighted by this inquiry and many others, the Basin Plan is yet to be fully implemented and operational. Until such time as it is, and the legislative frameworks and water management plans can be properly tested, a federal judicial inquiry or similar may be pre-emptive.

#### Other investigations

3.89 In its submission to the inquiry, DAWR noted that Queensland was undertaking an independent review into rural water metering, which would examine the operation and maintenance of meters, and water use reporting.<sup>82</sup>

National Farmers' Federation, Submission 42, p. 9.

<sup>81</sup> Councillor Phillip O'Connor, *Committee Hansard*, 1 November 2017, p. 11.

<sup>82</sup> Department of Agriculture and Water Resources, Submission 47, p. 7.

- 3.90 Queensland has since completed, in March 2018, an audit into its regulatory frameworks for water measurement and compliance. The audit identified three key areas to be addressed as a matter of priority, being the introduction of robust measurement and compliance governance, implementation of a new policy for water metering, and implementation of better water information management systems and improved resourcing. 83
- 3.91 In response to the recommendations made by the audit, Queensland has established a Rural Water Management Program. Among other things, the program seeks to identify regulatory enhancements with regard to offences, penalties, measurement and monitoring; review water metering policies, and undertake a risk assessment of measurement and monitoring activities.<sup>84</sup>
- 3.92 Additionally, the committee notes that the NSW ICAC has not yet made public any information regarding its investigations following the allegations in Four Corners, nor has it released any findings to date. The committee trusts that once ICAC does finalise and publicise its conclusions, that the appropriate NSW agencies will take the necessary steps to address any concerns raised with regard to water management and compliance in that state.

83 Independent audit of Queensland non-urban water measurement and compliance – final report, 23 March 2018, pp. i-ii, <a href="https://www.dnrme.qld.gov.au/">https://www.dnrme.qld.gov.au/</a> data/assets/pdf\_file/0010/ 1396756/independent-audit-water.pdf (accessed 2 November 2018).

Queensland Government, Department of Natural Resources, Mines and Energy, *Improving Queensland's rural water management*, <a href="https://www.dnrme.qld.gov.au/land-water/initiatives/rural-water-management">https://www.dnrme.qld.gov.au/land-water/initiatives/rural-water-management</a> (accessed 2 November 2018).