

Department of Planning and Environment


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Review of the activities of the department under Section 10 of the Water Management Act 2000

For the period July 2017 to December 2022

August 2023



Acknowledgement of Country

The Department of Planning and Environment acknowledges that it stands on Aboriginal land. We acknowledge the Traditional Custodians of the land and we show our respect for Elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

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Review of the activities of the department under Section 10 of the Water Management Act 2000

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1 Glossary of terms

Term	Definition
Access licence	An access licence entitles its holder to shares in available water within a specified water source (or management area) and to take water in specified circumstances, locations, at specified times or rates. As defined in section 56 of the Act.
Act	<i>Water Management Act 2000.</i>
Approval	A water use approval, a water management work approval or an activity approval as defined in sections 89-91 of the Act.
Discretionary decision	A decision made using judgment and reason, by someone who has been granted discretionary powers.
Principles	The water management principles of the Act defined in section 5. Also referred to as ‘water management principles’.
Regulations	Regulations are subordinate legislation made by the responsible Minister exercising a head of power in the legislation.
Water management plan	Management plans specified in the Act. May be for the purpose of water sharing, water source protection, drainage management or floodplain management. Currently only water sharing plans and floodplain management plans are in force.
Water access licence	Refers to an ‘access licence’ as defined by the Act.
Water source	<p>Means the whole or any part of:</p> <ul style="list-style-type: none"> a) one or more rivers, lakes or estuaries, or b) one or more places where water occurs on or below the surface of the ground (including overland flow water flowing over or lying there for the time being) and includes the coastal waters of the State <p>As defined in the Act.</p>
Water management principles	The water management principles of the Act defined in section 5.

2 Executive Summary

2.1 Introduction

2.1.1 Purpose and Scope

Section 10 of the Act requires a review of the department's work and activities to determine if the department has been effective in giving effect to the Act principles.

Section 10 states:

(1) The Minister is to ensure that the work and activities of the Department are reviewed at intervals of not more than 5 years for the purpose of determining whether they have been effective in giving effect to the water management principles of the Act and the State Water Management Outcomes Plan.

(2) The results of each review under this section are to be included in the relevant annual reporting information prepared for the Department under the *Government Sector Finance Act 2018*.

The scope of this review is functions of the Act implemented during the period July 2017 to December 2022.

The State Water Management Outcomes Plan was gazetted in 2002 and applied for 5 years. As there was no State Water Management Outcomes Plan in place during the review period it was not in scope for this review.

For the purposes of this review, 'the department' as described in s 10 included the statutory agencies with delegated responsibility for implementation of the Act. This is defined for this review as including:

- Department of Planning and Environment – Water group (Water group)
- Department of Planning and Environment – Environment and Heritage Group (Environment and Heritage group)
- The Natural Resources Access Regulator (NRAR)
- WaterNSW.

Throughout the review where 'the department' is referred to it relates to all of the above entities. Where a specific departmental agency or corporation is being referred to the specific name is used.

The Natural Resources Commission (NRC) is not defined as part of 'the department'; however, activities implemented by the NRC under the Act, including audit and review functions, have been included in this review for the purpose of completeness.

The Minister for Water and Minister for Environment are not considered part of the department and as such, Ministerial decisions are not in scope for this review. Where Minister's briefs have been used as evidence in this review, this was to determine the actions undertaken by the department in contributing to that decision and not for the purposes of reviewing a Ministerial decision.

2.1.2 Legislative context

The Act sets out its objects in section 3. The objects describe what the legislation is seeking to achieve, providing an important reference point for understanding the intent of all parts of the Act.

In general, the objects of the Act are 'to provide for the sustainable and integrated management of the water sources of the State for the benefit of both present and future generations.' Specific objects are also provided under section 3.

In addition to objects, the Act provides water management principles (the principles). General water management principles provided in section 5(2) of the Act, focus on (in summary):

- protection and restoration of water sources and dependent ecosystems
- protection and restoration of habitats, protection of animals and plants
- protection and enhancement of water quality
- consider and minimise cumulative impacts
- protection of features of Aboriginal significance
- protection of features of major cultural, heritage or spiritual significance
- maximising social and economic benefit
- application of adaptive management.

The Act also provides more specific principles in relation to:

- water sharing (s 5(3))
- water use (s 5(4))
- drainage management (s 5(5))
- flood management (s 5(6))
- controlled activities (s 5(7))
- aquifer interference activities (s 5(8)).

Section 9 of the Act requires that all persons exercising functions under the Act are required to do so in accordance with and so as to promote the principles, and to give priority to the water sharing principles (s 5(3)) in the order in which they are set out. While the duty under section 9 requires the relevant principles to be applied when exercising all functions, some principles are mandatory (as indicated by the word 'must') whereas others state that things 'should' be done. Many other parts of

the Act (for example, water planning, implementation and review requirements) refer back to the principles in section 5.

This review has not assessed whether the duty under s 9 has been met when exercising the functions to which s 9 applies. Consistent with s 10, the review has assessed evidence as to whether the principles have been considered by the department when undertaking its work and activities more broadly, including when supporting decision making. There is no statutory obligation for all staff in the department to promote the principles; the duty under s 9 applies only to those exercising statutory functions.

2.1.3 Conducting the review

Review design

The s 10 review was conducted using the published method developed in 2021 (the review method). The method was designed to be implemented through a series of steps, with each step collating and reviewing information to inform subsequent steps. The review method focuses on document review with interviews used to supplement or clarify where required.

This review was the first application of the published method and additions and adjustments were made to the method as required to implement within the time and resources available to conduct the review (see Appendix 3). These additions and adjustments did not adversely impact on the effectiveness of the method to answer the review questions.

Assessing ‘effective in giving effect to the principles’

The method assesses decision-making processes used when implementing functions under the Act. Assessment first determines if the processes include steps to consider the principles. Relevant decisions are then assessed for whether they were made in accordance with those established processes and whether the evidence demonstrates that the principles have been considered in making those decisions, thus giving them effect.

2.2 Review context

This review period (2017-2022) has coincided with major reforms and events in water management and regulation in NSW and the Commonwealth.

2.2.1 Legislative changes

During the review period, amendments were made to the Act via the *Water Management Amendment Act 2018* (Amendment Act, 2018).

In summary, the main amendments made by the Amendment Act 2018 are:

- amendments relating to water sharing plans
- implementing the NSW Non-Urban Water Metering Policy
- strengthening compliance and enforcement provisions.

The *Water Management (General) Amendment (Metering) Regulation 2018* has been amended a number of times to implement the NSW Floodplain Harvesting Policy (the FPH Policy). The FPH Policy aims to bring floodplain harvesting within the Act's licensing and approval framework by enabling access licences to be granted, authorising floodplain harvesting and requiring that water taken under those licences is to be metered and measured.

The *Natural Resources Access Regulator Act, 2017* (NRAR Act) commenced in two tranches, with some provisions commencing on 14 December 2017 and the remainder commencing on 30 April 2018. It established the Natural Resources Access Regulator (NRAR) as a statutory body with functions relating to ensuring compliance with the Act and related legislation.

The *Water Supply (Critical Needs) Act 2019* (Critical Needs Act) commenced on 21 November 2019. It was intended to facilitate the construction of a number of major water infrastructure projects at a time of severe drought across the State. Although the Critical Needs Act is still in effect, the key provisions expired on 22 November 2021.

2.2.2 Roles and responsibilities

On 30 June 2021 a 'Roles and Responsibilities Agreement' (the Agreement) came into effect which set out in detail how the department and other agencies work together to administer their roles under the Act. This agreement replaced a former 'Deed of Transfer'. The Agreement details each agency's role and provides a framework for resolving any interagency issues, along with the identification of improvement opportunities.

2.2.3 Priorities

Key departmental priorities during the review period included:

- developing metropolitan and state water strategies, including the NSW State Water Strategy, the Greater Sydney Water Strategy and the Lower Hunter Water Security Plan
- development and replacement of water sharing plans and floodplain management plans as per the statutory obligations of the Act
- consultation on, development and submission of all 20 water resource plans to the Murray-Darling Basin Authority (MDBA) for accreditation
- implementation of the NSW Floodplain Harvesting Policy
- implementing the NSW Non-Urban Water Metering Policy to improve the standard and coverage of non-urban water meters across NSW.

2.2.4 Impact of national reforms and independent reviews on NSW water planning and management

The water sector has undergone significant reform prior to the review period, including those stemming from the National Water Initiative, the *Water Act 2007* (Cth) and the Basin Plan 2012 (Cth).

Within the review period, several reviews have been initiated at the state and federal level following media reports and allegations of mismanagement of water resources and misconduct. In response

to recommendations arising from the Matthews Investigation (2017) and the Murray–Darling Basin Water Compliance Review (2017), the NSW Government developed a [Water Reform Action Plan](#) (WRAP) in 2017 that outlined how it would implement those recommendations. Implementation of the WRAP has changed the landscape of how water is managed and shared in NSW.

A 2020 NSW Independent Commission Against Corruption (ICAC) report, ‘Investigation into complaints of corruption in the management of water in NSW and systemic non-compliance with the *Water Management Act 2000*’ recommended that the department ensure the water management principles in s 5, and in particular those that relate to sharing, as set out in s 5(3) of the Act, are given effect. It also recommended that the department publicly records its water strategy, objectives and priorities for use and management of NSW’s water resources in a manner that is consistent with s 9 of the Act. The NSW Government agreed with ICAC’s recommendations and set out an action plan to address the recommendations by 2022, including reviewing all relevant policy and operational guidance documents to clearly reflect alignment with s 5 of the Act. They also committed to undertake this s 10 review. The 24-month progress report on these actions, published on the ICAC’s website, indicates that these actions have now been completed.

2.2.5 Extreme events

During the review period NSW experienced a number of extreme events. This included the worst drought on historical record for most river valleys across NSW, during 2017 to 2020. The impact of drought in many areas was severe with impacts on rural communities, rural productivity and the environment.

In early 2019 a series of severe fish death events occurred on the Lower Darling near Menindee. Although fish death events occur under a range of conditions and not only in drought, these particular events raised considerable public interest. Two reviews were commissioned, one by the Commonwealth Government and one by the Commonwealth opposition which made similar findings and recommendations. The NRC also finalised its review of the Barwon–Darling water sharing plan in 2019. The NSW Government published a single response to both the NRC review and the Commonwealth government report in 2019, which included a series of commitments and actions. Of the 7 actions for which the department is responsible, 4 are complete and 3 in progress.

Flood response has been a major focus between 2021 and 2022, particularly for WaterNSW. The WaterNSW operating licence authorises WaterNSW to undertake flood mitigation and management in all areas of NSW, except for the Sydney catchment area. In the case of the 2021 very high flows and flood flows, WaterNSW worked with the NSW State Emergency Service to manage flows and provide timely information to affected communities.

2.2.6 Internal reviews and restructures

A number of internal reviews and restructures to NSW water agencies and operations have taken place during the review period. Reviews included a regulator maturity assessment conducted by NRAR in 2020. Restructures included establishment of a Water Planning Implementation team in the Water group, a shift of the Hunter Valley Flood Mitigation Scheme team to the Water group from the Environment and Heritage group and licence and approvals responsibilities moving from NRAR to the Water group.

2.3 Synthesis of findings

The review identified areas of success in giving effect to the principles as well as issues that will need to be addressed, as outlined in the key findings and recommendations (Chapter 7). This first application of the review method also identified limitations with the method, which should be considered for future reviews.

2.3.1 What underpinned success in giving effect to the principles?

The following were found to contribute to the department's success in giving effect to the principles:

- clear pathways where consideration of the principle in high level instruments were linked to processes and resulting decisions referenced or clearly reflected high-level instruments and processes
- the specific principles (for example, for water sharing, floodplain management or controlled activities) tended to be applied clearly in decisions where those specific principles applied
- improvements in the maturity of the planning process were evident as well as increased confidence from the role of NRAR in monitoring and enforcing compliance with plan rules
- reviews and reforms have led to initiatives that are improving clarity of roles, accountability and management of responsibilities
- the review found that functions required by the Act are being implemented, with few exceptions, giving confidence that there are not significant or systemic issues with Act implementation.

2.3.2 What have been the challenges in giving effect to the principles?

The review has identified the following challenges in giving effect to the principles:

- the complexity of the Act, including the large number of functions and subordinate legislation makes it challenging to identify and document where and how the principles have been considered
- it is often not clearly articulated which considerations in a decision relate directly to a statutory plan and where there were areas of discretion that require direct consideration of the principles
- assumptions regarding reliance on statutory plans for consideration of the principles have not been tested
- there are risks associated with discretionary decision making in the absence of guiding policies or procedure including reduced consistency in decision making, reduced transparency and potentially onerous documentation requirements
- the number of agencies with responsibility for Act implementation and restructuring during the period of the review (as well as prior to that period) presents an ongoing challenge to managing disruption to activities and loss of expertise.

2.3.3 Limitations of the review method and approach

The review identified the following limitations with the review method and approach:

- hierarchy of Act implementation provided by the method does not always reflect the approach to implementation
- non-focus area review approach requires refining due to low level of assurance possible and reliance on document evidence limited ability to make findings
- lack of a framework for forming evaluative conclusions consistently and transparently.

2.3.4 What can be done to improve?

The following improvements were suggested to address challenges in giving effect to the principles and limitations in the review method:

- there is a need for overarching guidance on how the principles should be interpreted and applied to support consistency in application of the principles and set expectations for meeting the duty under s 9
- staff require a clear pathway for accessing tailored advice on how the principles apply to their work
- ongoing education for staff on the duty and how it applies would help to increase staff confidence in applying the principles and may drive uptake of overarching guidance and tailored advice
- a quality management framework would support consistent record keeping for decision documentation, enabling auditing, reporting and continual improvement
- the review method should be reviewed and updated to address limitations identified in this review.

2.4 Key findings and recommendations

The key findings and recommendations of the review are summarised in Table 1. Note that Recommendation 2 references the additional findings and suggested actions, which are included in Chapter 7.

Table 1. Key findings and recommendations

Key finding	Recommendation
<p>F1 There was a lack of explicit evidence for how the principles are given effect in policies, processes and decisions. Where consideration of the principles was evident, it was often implicit and addressed either the general or specific principles but often not all principles that apply.</p>	<p>R1.1 Each agency in the department should develop guidance for how the principles should be applied in all levels of implementation, including high-level instruments, processes and decisions. Guidance should reflect the requirement for key documents to demonstrate alignment with the principles, either by showing alignment with a higher-level instrument or demonstrating alignment with the principles directly where discretion is required, or no high-level instrument is in place.</p> <p>R1.2 The department should undertake to educate staff on the duty under s 9 and provide avenues for business units to obtain tailored advice on which principles should be applied to their work and how.</p> <p>R1.3 The department should establish a quality management framework that supports improved assurance that decisions are being made in alignment with the principles and that assumptions based on linkages between high level instruments and decisions are being tested.</p> <p>R1.4 In the interim to R1.1-1.3, the department should develop and provide to staff consistent advice on requirements for demonstrating and documenting alignment with the principles in decision making.</p>
<p>F2 Staff were often uncertain about which principles apply to their work and how those principles should be given effect at policy, process and decision levels.</p>	<p>R1.1-1.4 applies</p>
<p>F3 Consideration of the principles in decision making was sometimes deferred to a management plan, assumed to be consistent with the principles. However, it was often not demonstrated which parts of a process or decision strictly implemented a management plan and which parts were not covered by plan provisions and required discretion. These links were also not clearly articulated in documentation of processes or procedures.</p>	<p>R1.1-1.4 applies</p>

Key finding	Recommendation
<p>F4 Issues were identified in review of specific functional areas, which may pose a risk to the department giving effect to the principles.</p>	<p>R2 The department should prioritise and address the additional findings and suggested actions¹ identified with the 'AF' and 'SA' prefixes using a risk-based approach.</p>
<p>F5 First application of the review method identified areas for improvement, as well as limitations in the approach used for reviewing non-focus functional areas. The NRC also suggested future reviews should consider applying an outcomes-based approach.</p>	<p>R3 The Water group should review the Section 10 review method and make updates as required. This should consider changes to how the method is operationalised throughout the 5-year period to support reporting under s 10.</p>

¹ The additional findings and suggested actions appear in Chapter 7 of this report.

3 Introduction to Section 10 Review

3.1 Purpose and scope of review

The purpose of this review is to determine if the work and activities of the department have been effective in giving effect to the water management principles, as required under s 10 of the *Water Management Act 2000* (the Act).

Section 10 of the Act states:

(1) The Minister is to ensure that work and activities of the Department are reviewed at intervals of not more than 5 years for the purpose of determining whether they have been given effective in giving effect to the water management principles of the Act and the State Water Management Outcomes Plan.

(2) The results of each review under this section are to be included in the relevant annual reporting information prepared for the Department under the *Government Sector Finance Act 2018*.

The scope of this review is functions of the Act implemented during the period July 2017 to December 2022.

The State Water Management Outcomes Plan was gazetted in 2002 and applied for 5 years. As there was no State Water Management Outcomes Plan in place during the review period it was not in scope for this review.

Previous reviews were undertaken in 2007 and 2011. This review is the first to be undertaken since 2011.

3.1.1 The department

For the purposes of this review, 'the department' as described in s 10 included the statutory agencies with delegated responsibility for implementation of the Act. This is defined for this review as including:

- Department of Planning and Environment – Water group (Water group)
- Department of Planning and Environment – Environment and Heritage group (Environment and Heritage group)
- The Natural Resources Access Regulator (NRAR)
- WaterNSW.

Throughout the review where ‘the department’ is referred to it relates to all the above entities. Where a specific departmental agency or corporation is being referred to the specific name is used.

The Natural Resources Commission (NRC) is not defined as part of ‘the department’; however, activities implemented by the NRC, including audit and review functions, have been included in this review for the purpose of completeness.

Individuals or organisations with responsibility for functions under the Act, but not listed here, such as irrigation corporations, water utilities, private irrigation trusts or drainage boards, are not in scope of the review as they are not defined as part of ‘the department’.

The Minister for Water and Minister for Environment are not considered part of the department and as such, Ministerial decisions are not in scope for this review. Where Minister’s briefs have been used as evidence in this review, this was to determine the actions undertaken by the department before a decision was made and not for the purposes of reviewing a Ministerial decision.

3.2 Legislative context

The Act was enacted in 2000 to provide for the sustainable and integrated management of the state's water for the benefit of both present and future generations. The Act is based on the concept of ecologically sustainable development; that is, development today will not threaten the ability of future generations to meet their needs. The Act recognises:

- the fundamental health of the state’s rivers and groundwater systems and associated wetlands, floodplains, estuaries has to be protected
- the management of water must be integrated with other natural resources such as vegetation, soils and land
- to be properly effective, water management must be a shared responsibility between the government and the community
- water management decisions must involve consideration of environmental, social, economic, cultural and heritage aspects
- social and economic benefits to the state will result from the sustainable and efficient use of water.

The Act recognises the need to allocate and provide water for the environmental health of rivers and groundwater systems, while also providing licence holders with more secure access to water and greater opportunities to trade water through the separation of water licences from land. The main tool in the Act for managing the state's water resources are water sharing plans. These are used to set out the rules for the sharing of water in a particular water source between water users and the environment and rules for the trading of water in a particular water source.

3.2.1 Objects of the Act

The Act sets out its objects in section 3. The objects describe what the legislation is seeking to achieve, providing an important reference point for understanding the intent of all parts of the Act.

In general, the objects of the Act are 'to provide for the sustainable and integrated management of the water sources of the State for the benefit of both present and future generations.' Specific objects are also provided under section 3.

3.2.2 Water management principles of the Act

In addition to objects, the Act provides water management principles (the principles). The principles are described in s 5 of the Act. Section 5 provides general principles (s 5(2)), which apply when exercising all functions under the Act, as well as specific principles (s 5(3)-(8)), which additionally apply to specific types of functions.

The principles are:

(2) Generally

- a. water sources, floodplains, and dependent ecosystems (including groundwater and wetlands) should be protected and restored and, where possible, land should not be degraded, and
- b. habitats, animals, and plants that benefit from water or are potentially affected by managed activities should be protected and (in the case of habitats) restored, and
- c. the water quality of all water sources should be protected and, wherever possible, enhanced, and
- d. the cumulative impacts of water management licences and approvals and other activities on water sources and their dependent ecosystems, should be considered and minimised, and
- e. geographical and other features of Aboriginal significance should be protected, and
- f. geographical and other features of major cultural, heritage or spiritual significance should be protected, and
- g. the social and economic benefits to the community should be maximised, and
- h. the principles of adaptive management should be applied, which should be responsive to monitoring and improvements in understanding of ecological water requirements.

(3) In relation to water sharing

- a. sharing of water from a water source must protect the water source and its dependent ecosystems, and
- b. sharing of water from a water source must protect basic landholder rights, and
- c. sharing or extraction of water under any other right must not prejudice the principles set out in paragraphs (a) and (b).

(4) In relation to water use

- a. water use should avoid or minimise land degradation, including soil erosion, compaction, geomorphic instability, contamination, acidity, waterlogging, decline of native

vegetation or, where appropriate, salinity and, where possible, land should be rehabilitated, and

- b. water use should be consistent with the maintenance of productivity of land in the long term and should maximise the social and economic benefits to the community, and
- c. the impacts of water use on other water users should be avoided or minimised.

(5) In relation to drainage management

- d. drainage activities should avoid or minimise land degradation, including soil erosion, compaction, geomorphic instability, contamination, acidity, waterlogging, decline of native vegetation or, where appropriate, salinity and, where possible, land should be rehabilitated, and
- e. the impacts of drainage activities on other water users should be avoided or minimised.

(6) In relation to floodplain management

- a. floodplain management must avoid or minimise land degradation, including soil erosion, compaction, geomorphic instability, contamination, acidity, waterlogging, decline of native vegetation or, where appropriate, salinity and, where possible, land must be rehabilitated, and
- b. the impact of flood works on other water users should be avoided or minimised, and
- c. the existing and future risk to human life and property arising from occupation of floodplains must be minimised.

(7) In relation to controlled activities

- a. the carrying out of controlled activities must avoid or minimise land degradation, including soil erosion, compaction, geomorphic instability, contamination, acidity, waterlogging, decline of native vegetation or, where appropriate, salinity and, where possible, land must be rehabilitated, and
- b. the impacts of the carrying out of controlled activities on other water users must be avoided or minimised.

(8) In relation to aquifer interference activities

- c. the carrying out of aquifer interference activities must avoid or minimise land degradation, including soil erosion, compaction, geomorphic instability, contamination, acidity, waterlogging, decline of native vegetation or, where appropriate, salinity and, where possible, land must be rehabilitated, and
- d. the impacts of the carrying out of aquifer interference activities on other water users must be avoided or minimised.

3.2.3 Duty in relation to the principles

The Act establishes in s 9 a duty on all persons exercising functions under the Act:

It is the duty of all persons exercising functions under this Act —

(a) to take all reasonable steps to do so in accordance with, and so as to promote, the water management principles, and

(b) as between the principles for water sharing set out in section 5 (3), to give priority to those principles in the order in which they are set out in that subsection.

The duty under s 9 requires that the relevant principles be considered when exercising all functions under the Act. The principles also specify that some principles are mandatory and ‘must’ be done, and that others ‘should’ be done. For example, the water sharing principles under s 5(3) are mandatory.

This review has not assessed whether the duty under s 9 has been met when exercising the functions to which s 9 applies. Consistent with s 10, the review has assessed evidence as to whether the principles have been given effect by the department when undertaking its work and activities, including when supporting decision making or making decisions. For decision-making, giving effect to the principles means giving the principles adequate consideration. There is no statutory obligation for all staff in the department to promote the principles; the duty under s 9 applies only to those exercising statutory functions.

3.2.4 Subordinate legislation

Implementation of the Act is governed by subordinate legislation, which includes:

- the Water Management General Regulation 2018 (the Regulation)
- water management plans
- orders.

A detailed review of implementation of subordinate legislation was not undertaken as the focus of the review is functions under the Act.

During the period of the review the only water management plans in force were water sharing plans and floodplain management plans. The Act includes provision for other management plans including for water use, drainage management, controlled activities and aquifer interference activities; however, these have not been required by the department to date.

Orders are in force to implement a range of functions under the Act. These are described where relevant throughout the review.

3.3 Conducting the review

3.3.1 Review design

The s 10 review was conducted using the published method developed in 2021 (the review method; Alluvium Consulting, 2021).

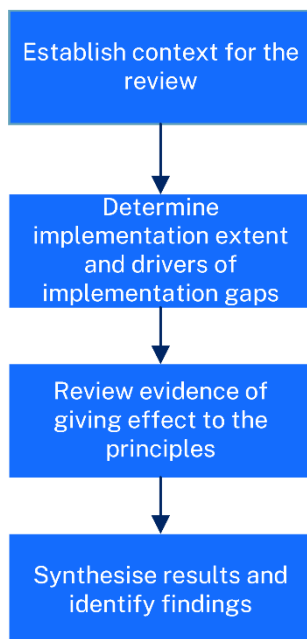
The review was designed to identify areas of success as well as opportunities for improvement, and to increase confidence by transparently reporting on implementation of the Act.

The review aimed to identify:

1. What has underpinned success in giving effect to the principles?
2. Why has implementation not met expectations?
3. What can be done to improve outcomes?

The review was designed to be implemented through a series of steps, with each step collating and reviewing information to inform subsequent steps. The steps are summarised broadly in Figure 1.

Figure 1. Key components of the section 10 review method



This review followed the method steps with some adjustments and additions required as this was the first time the method had been applied. These adjustments and additions did not adversely impact on the effectiveness of the method to answer the review questions. Refer to Appendix 3 for information on how the method was adapted throughout the review.

The review method prioritises review of documents as evidence of implementation and giving effect to the principles, with interviews used to supplement or clarify.

3.3.2 Hierarchy of Act implementation

The review method was designed based on a hierarchy with the Act and its objects and principles at the highest level, and below that, strategic level policies, strategies and plans specified in the

legislation (statutory plans). At the next level are the implementation and regulation functions undertaken by each agency. These functions (along with plans and policies) inform procedures and processes, which in turn inform decisions and actions at the finest scale. Refer to Figure 2 for a diagram of the hierarchy from the Act to individual decisions and actions.

During application of the method for this review the levels of ‘planning and policy’ and ‘implementation and regulation’ were combined. The only instrument available for the ‘implementation and regulation’ level was the Regulation.

Refer to Table 2 for definitions of each level of the hierarchy as they were applied in this review.

The principles are given effect by activities at each level of implementation. The greatest level of assurance is given when the review finds evidence of the principles being given effect at each level in a connected manner.

The review is designed to access and synthesise information at several levels of implementation of the Act, from planning and policy to decisions and actions.

Figure 2. Relationship between the Act and decisions and actions, as a hierarchy of implementation

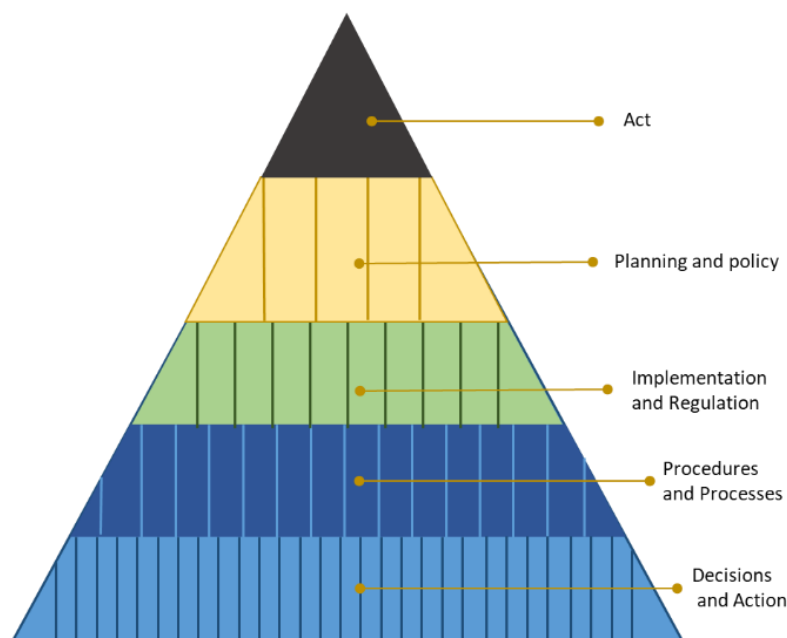


Table 2. Definitions of the key terms used in Figure 2

Levels in the hierarchy	Description
Act	<i>Water Management Act 2000</i>
Planning & Policy (incorporating Implementation and Regulation)	Subordinate legislation including statutory plans, regulations and orders. Also includes policies, strategies or other overarching instruments that govern implementation of Act functions.

Levels in the hierarchy	Description
Procedures and processes	<p>Processes are the sequence of steps taken to implement the requirements of the Act, and steps required by any relevant higher levels in the hierarchy such as regulation, policy and plans.</p> <p>Procedures are documented instructions on how to implement functions of the Act.</p>
Decisions and actions	<p>Decisions are the decisions taken to implement functions of the Act. These include statutory decisions and additional decisions requiring judgement in the lead up to a final statutory decision.</p> <p>Actions are activities undertaken by those implementing functions of the Act.</p>

3.3.3 Assessing ‘effective in giving effect to the principles’

The review method defines key words from s 10 in the Act. ‘Effective’ is defined as ‘productive, or capable of producing a result’ and ‘give effect’ is defined as ‘to put into practice; make operative.’

The method applies these definitions in assessment of decision-making processes used when implementing functions under the Act. Assessment first determines if the processes include steps to consider the principles. Relevant decisions are then assessed for whether they were made in accordance with those established processes and whether the evidence demonstrates that the principles have been considered in making those decisions, thus giving them effect.

Where established processes require consideration of the principles and decisions can be shown to have followed that process and given consideration to the principles, this provides assurance that the principles have been given effect.

The method’s focus on whether the processes and decisions gave effect to the principles is distinct from determining if the outcomes of the department’s work and activities had effects (e.g., on the environment, communities or the economy) that were consistent with the principles.

3.3.4 Functional areas

‘Functional areas’ were defined to group together like functions under the Act to enable efficient review and a meaningful scale for making findings. Several considerations, outlined below, were made when determining functional areas.

Functions and rules

Sections of the Act were determined for the purpose of the review to be either functions or rules with the following definitions:

- functions describe something which must or may be done, often identifying who is responsible for undertaking this action (for example, the Minister)

- rules describe how a function is to be performed, or requirements for performance of the function.

Functions and rules have been defined here for the purpose of the review and do not necessarily align with the definition of a statutory function for the purposes of the Act.

Required and discretionary functions

The Act provisions vary in wording with some provisions specifying the words 'must' or 'is to' and others specifying that the provision 'may' be applied.

For the purpose of this review functions that were 'must' or 'is to' were deemed as required and were the focus of the review. Provisions that include 'may' are used at the discretion of the relevant legislated authority and only if determined to be required. These functions have not been considered in the Act unless they have been specifically implemented, or it was relevant to mention them for the purpose of explaining implementation of a functional area.

The duty under s 9 applies to all statutory functions when exercised, whether they are required or discretionary functions.

Excluded functions

Most sections under Chapter 8 Administration and Chapter 9 Miscellaneous were not included in any functional area, and therefore the scope of the review. There are limited required functions in these sections with most providing support for implementation and were deemed not relevant for determining how the principles have been given effect. Exceptions are s 372 Functions of Ministerial Corporation which covers significant work by the department important to implement the Act and s 388 relating to committees established for delivering functions under the Act. These two functions were included in scope.

Twenty-six functional areas were defined by the department to cover all functions under the Act. Figure 3 lists all functional areas included in the review scope, grouped by the Act chapter they primarily relate to.

Figure 3. Functional areas of the *Water Management Act 2000* identified for the section 10 review, with focus functional areas in darker blue



3.3.5 Prioritising focus areas using a rubric

A rubric provided by the method was used to identify functional areas to be prioritised for more detailed review. These are defined as ‘focus functional areas’.

The following focus functional areas were selected:

- water sharing plan development
- water management plan amendment
- water restrictions
- water supply work approvals
- available water determinations
- compliance enforcement
- regulations and orders.

Refer to Figure 3 with the focus functional areas identified in darker blue.

Modelling and measurement was also identified by the rubric for focus; however, due to time constraints this functional area was changed to a non-focus area during the review.

Appendix 1 contains detailed information about the functions and rules of the Act for each functional area reviewed.

3.3.6 Treatment of focus and non-focus functional areas

All functional areas were reviewed to address the question:

- How do relevant strategies and policies consider the principles?

Focus functional areas were prioritised for a more detailed review, which included addressing the additional questions:

- How do processes and procedures consider the principles?
- Have decisions and actions given effect to the principles?

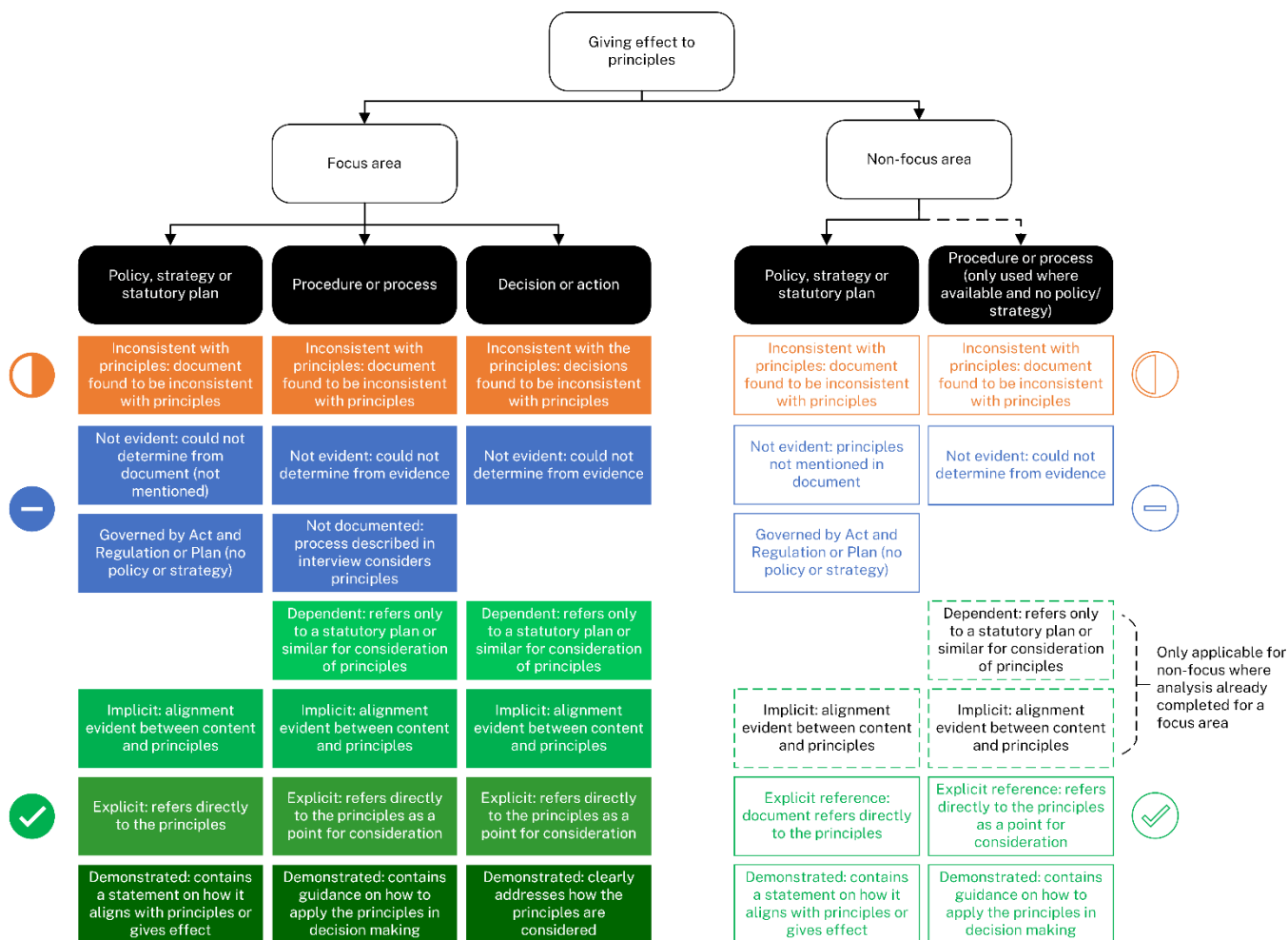
To assess strategies and policies, the review determined if the relevant documents contained references to the principles. It is acknowledged that this level of assessment for non-focus areas is not capable of answering if the activities under a functional area gave effect to the principles, as was possible for focus areas. Rather, it is intended to provide information on potential risks at a high level and to inform potential focus areas for future review. For some non-focus functional areas where there was no policy or strategy, procedure documentation was reviewed, although only to determine if the principles were referenced. This assessment did not include interpretation of the content to determine if there was implicit alignment with the principles, as was undertaken for focus areas.

3.3.7 Standards for giving effect to the principles

Standards were developed to provide a consistent approach to assessing evidence and communicating findings (Figure 4).

In the figure and throughout the findings, solid-coloured symbols represent a higher level of assurance from focus area assessment and outlined symbols reflect a lower level of assurance from the non-focus area approach. These standards are used when presenting the findings, throughout Chapter 5.

Figure 4. Standards for giving effect to the principles



Standards for policies and strategies

Where they existed, strategies and policies for all functional areas were assessed and graded based on whether they referenced the principles or contained a statement on how the principles are given effect as follows:

- demonstrated: contained a statement on how it aligns with the principles or gives effect to the principles
- explicit: refers directly to the principles
- implicit: shows implicit alignment between the content and the principles
- governed by the Act, Regulation or plan: where the functional area is governed by the Act and Regulation (and no overarching strategy or policy exists) no further analysis was undertaken; it was not considered in scope to determine whether subordinate legislation (including the Regulation or plans) gave effect to the principles
- not evident: could not determine from the document (principles not mentioned)
- inconsistent with the principles: document found to be inconsistent with the principles.

Standards for procedures and processes

Procedures and processes were graded based on whether they referenced the principles or contained a statement on how the principles are given effect as follows:

- demonstrated: contains guidance on how to apply the principles in decision-making
- explicit: refers directly to the principles, as a point for consideration
- implicit: alignment evident between content and the principles
- dependent: refers only to a statutory plan or similar for consideration of the principles
- not documented: process described in interview considers the principles (only applied to focus functional areas)
- not evident: could not determine from the evidence
- inconsistent with the principles: document found to be inconsistent with the principles.

Processes and procedures were only reviewed for focus areas, except in some cases, where there were no policies or strategies to review and process documentation covering a non-focus area had already been obtained for the purposes of reviewing a focus area. However, in these cases the review only determined if the principles were referenced. Only focus areas received interpretation of the content to determine if there was implicit alignment with the principles.

Standards for decisions

In the 7 focus functional areas, a sample of decisions and actions were assessed and graded based on whether they referenced the principles or contained a statement on how the principles are given effect as follows:

- demonstrated: clearly addresses how decisions align with principles or how the principles are considered
- explicit: refers directly to the principles, as a point for consideration
- implicit: alignment evident between content and the principles
- dependent: refers only to a statutory plan or similar for consideration of the principles
- not evident: could not determine from the evidence
- does not give effect: decisions found to be inconsistent with the principles.

Review of decisions was intended to determine if there was evidence demonstrating that the decision had been made with consideration of the principles.

3.4 Governance of the review process

A governance structure was established in line with the published review method, with some minor modifications to enable parts of the review to be undertaken by an external service provider. These governance arrangements were designed to:

- oversee the appropriate and efficient delivery of the review

- guide the planning of the review process to ensure it aligns with Act requirements and government priorities
- facilitate access to information and data to support the review.

Review governance included the following groups:

- a Steering Committee to provide strategic direction, allocate resources from their teams, provide linkages to leadership within and between agencies and endorse key deliverables
- a nominated Executive Director (within the Water group) to make final decisions on review scope, approve key deliverables and approve final report with findings and recommendations following endorsement from Executive Directors from across the department
- a Working Group to support the review team in identifying sources of information, facilitating access, support risk management, and help draft reports
- a Review Panel to identify key findings and develop recommendations
- a Project Team to undertake the review. This consisted of staff from the Water group and an external service provider.

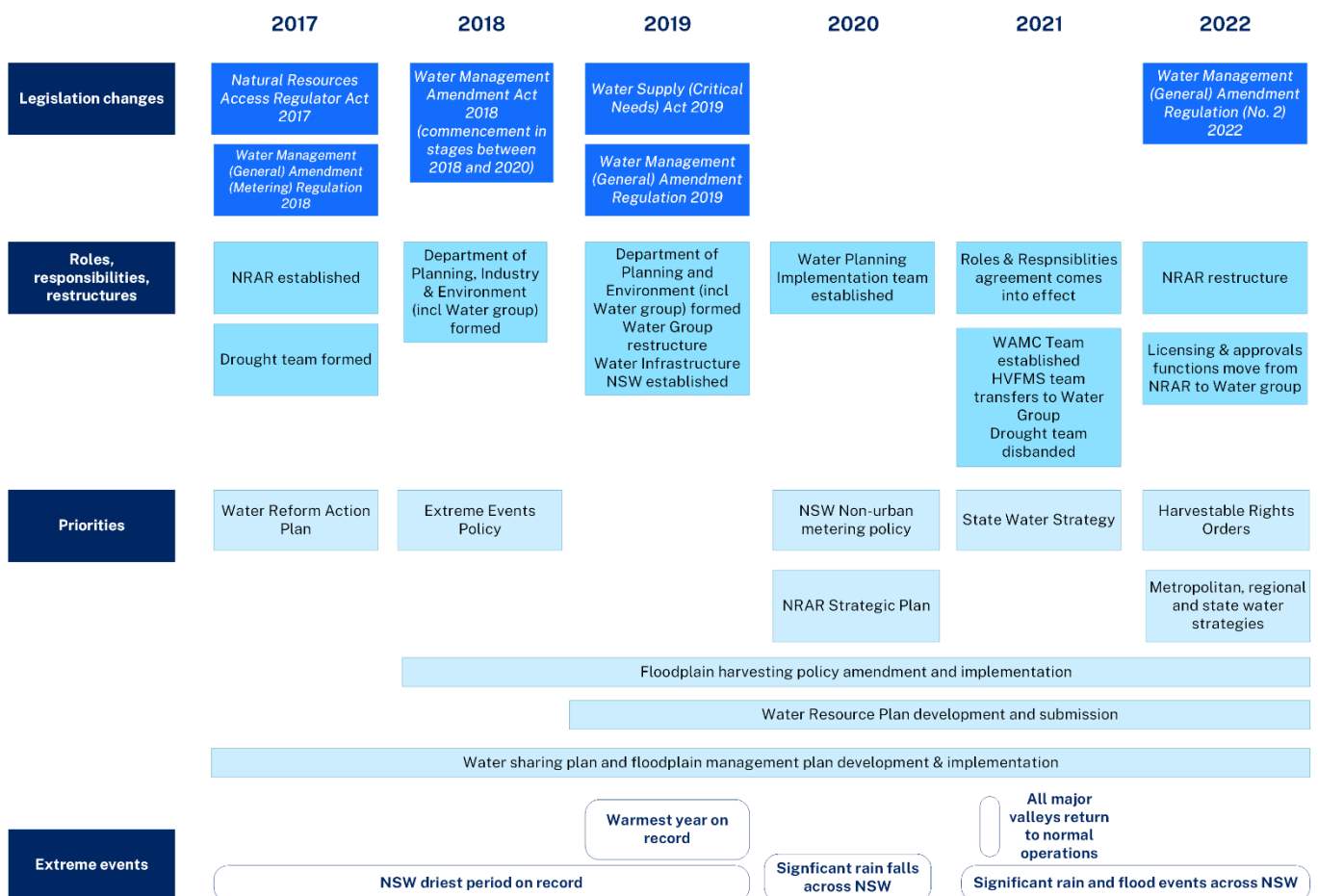
The Steering Committee included representation from the Water group, Environment & Heritage group, WaterNSW and NRAR. The Review Panel included representation from the Water group, Environment and Heritage group, WaterNSW, NRAR, NRC and the external service provider. The Review Panel was chaired by a representative from the external service provider with administrative support from the Project Team.

Terms of Reference were established for the Steering Committee, Review Panel and Working Group. Decisions by the Review Panel were made by consensus, with an escalation process if required to resolve issues.

4 Review Context

This chapter captures the key events in the review period (2017-2022) that have potentially influenced the department’s ability to give effect to the water management principles. These key events are summarised in Figure 5.

Figure 5. Summary of key events during the section 10 review period that may have influenced the department’s giving effect to the water management principles



4.1 Legislative changes

The Act is the key piece of legislation for the management of water in NSW. The Act provides for the sustainable and integrated management of NSW water resources through Minister’s plans, management plans and other instruments.

During the review period, amendments were made to the Act via the *Water Management Amendment Act 2018* (Amendment Act, 2018) as described below. There are also provisions of the Act which are yet to commence and will not be part of this review (Table 3).

Table 3. Act provisions not commenced during the review period

NSW legislation	Provisions not commenced
<i>Water Management Amendment Act 2010</i>	<ul style="list-style-type: none"> • Provisions repealing those parts of the Act dealing with private irrigation districts and private drainage boards and replacing them with new provisions dealing with private water corporations, in order to modernise and simplify the legal and governance framework for those entities. • Provisions repealing some of the Parts of the Act dealing with private water trusts and replacing them with other provisions which would simplify and modernise the legal and governance frameworks for those trusts.
<i>Water Management Amendment Act 2014</i>	<ul style="list-style-type: none"> • Provisions enabling transfers of water allocation entitlements for a specified period • Provisions creating new offences of contravening a bore driller's licence • Provisions streamlining certain licensing and trading processes • The water allocation accounts of water access licences after being converted from licences under the <i>Water Act 1912</i>.
<i>Water Management Amendment Act 2018</i>	<ul style="list-style-type: none"> • Provisions enabling the Minister to publish online information about rights to take water • Provisions granting the Crown and certain government authorities, including Water NSW, protection from liability arising as a consequence of the release of water for environmental purposes • Provisions enabling regulations to be made for a scheme to facilitate negotiation and consultation with landholders who may be affected by releases of water for environmental purposes.

4.1.1 Water Management Amendment Act 2018

The Amendment Act 2018 was assented by the Governor of NSW in June 2018 'to amend the Act with respect to management plans, approvals and access licences, Murray–Darling Basin water resources, metering equipment, enforcement and liability, the provision of information and managing environmental water; and for other purposes'. It commenced in stages, with provisions commencing on 27 June 2018, 9 August 2018, 1 December 2018, 1 April 2019 and 1 July 2020.

In summary, the main amendments made by the Amendment Act 2018 are:

- amendments relating to water sharing plans, including:
 - enabling plans to include measures that are necessary due to requirements arising under the *Water Act 2007* (Cth)

- a requirement for the NRC to carry out periodic audits of water sharing plans and flood plain management plans as well as the scope for the NRC's role in water sharing plan reviews
- enabling the Minister to suspend dealings with a water source within the Murray–Darling Basin during an extreme event, such as an extreme dry period.
- implementing the NSW Non-Urban Water Metering Policy including:
 - creating new offences for holders of water supply work approvals failing to give notice that metering equipment is not operating, and providing false or misleading information in relation to metering equipment
 - creating a new mandatory condition on water supply approvals, to ensure that metering equipment is installed, used and property maintained
- strengthening compliance and enforcement provisions, including:
 - enabling the Minister to direct a licence or approval holder to undertake a compliance audit
 - enabling the Minister to accept an enforceable undertaking and to allow the Land and Environment Court to make certain orders if that undertaking is breached
 - increasing penalties for offences under the Act
- other miscellaneous amendments, including:
 - providing that access licences and approvals are subject to any mandatory conditions imposed by the Act or the *Water Management (General) Regulation 2018*
 - allowing access licence holders to trade individual daily extractions components of their licences
 - amendments to certain regulated river orders and water sharing plans, as a response to a Land and Environment Court case.

The section below provides a summary of the major amendments to other related legislation and regulations that impact on water management during the review period.

4.1.2 Making of and amendments to the Water Management (General) Regulation 2018

The following is a summary of major amendments to the Water Management (General) Regulation 2018 (the Regulation).

Implementing the NSW Non-Urban Water Metering Policy

The NSW Non-Urban Water Metering Policy (the Metering Policy; Department of Planning, Industry and Environment 2020) was made in November 2020. It aimed to ensure that the majority of water take is accurately metered. The Metering Policy was made in response to the independent investigation into NSW water management and compliance, conducted by Ken Matthews, AO (Matthews 2017).

The Metering Policy was put into legal effect by the Amendment Act, 2018 and the Water Management (General) Amendment (Metering) Regulation 2018, which commenced 1 December 2018. The amending regulation inserted a new Part 10, which contains requirements that holders of water supply work approvals must comply with, in order to comply with the new mandatory condition relating to metering equipment.

Further, less substantial amendments were made in relation to the Metering Policy by the Water Management (General) Amendment Regulation 2019, which commenced on 22 November 2019. Of these, the most significant amendments were:

- postponing the deadline for compliance with the mandatory metering condition, in certain circumstances
- inserting additional exemptions from that condition
- imposing additional recording and reporting obligations.

Floodplain harvesting – licensing and metering

The Water Management (General) Amendment (Metering) Regulation 2018 has been amended a number of times to implement the NSW Floodplain Harvesting Policy (the FPH Policy; Department of Industry 2018a). In short, the FPH Policy aims to bring floodplain harvesting within the Act's licensing and approval framework by enabling access licences to be granted, authorising floodplain harvesting and requiring that water taken under those licences is to be metered and measured.

The Water Management (General) Amendment (Exemptions for Floodplain Harvesting) Regulation 2020 created a temporary exemption allowing landholders to take water by floodplain harvesting, without the need for an access licence. It commenced on 7 February 2020 but was disallowed by the Legislative Council on 22 September 2020.

Regulations amending the Water Management (General) Amendment (Metering) Regulation 2018 to include metering and measurement requirements for floodplain harvesting were made on three separate occasions. The first two amending regulations were made on 30 April 2021 and 17 December 2021, but both were disallowed by the Legislative Council, on 6 May 2021 and 24 February 2022 respectively. The third amending regulation, the Water Management (General) Amendment Regulation (No 2) 2022, commenced on 1 July 2022 and was not disallowed (and remains in effect at the time of writing).

Amending regulations to enable the issuing of floodplain harvesting access licences were made on three separate occasions (on 30 April 2021, 17 December 2021 and 1 July 2022) and all three regulations were subsequently disallowed by the Legislative Council (on 6 May 2021, 24 February 2022 and 21 September 2022 respectively).

Declaration of land as a floodplain

Various regulations amended the Regulation to declare land as a floodplain. This enabled the Minister to make floodplain management plans for that land. Floodplain management plans provide the framework for coordinating the development of flood works on a whole-of-valley basis. Historically, the management of rural floodplains relied on localised floodplain management plans under Part 8 of the *Water Act 1912*. Currently, of 22 historical floodplain management plans prepared under Part 8, 10 remain in force in NSW.

As part of the transition of water management from the requirements of the *Water Act 1912* to those of the Act, floodplain management plans have been prepared for five valleys in northern NSW: the Gwydir, Namoi (Upper and Lower), Barwon–Darling, Macquarie and Border Rivers valleys.

Floodplain management plans in the northern Murray–Darling Basin were prepared as part of the implementation of the [NSW Healthy Floodplains Project](#), which commenced in 2013 to reform the management of water on the floodplains of inland NSW. The NSW Government is continuing to review and develop floodplain management plans across the Murray–Darling Basin. This includes revisions and updates to the six floodplain management plans developed under the Act in the northern Murray–Darling Basin, and the continued transition of historical plans remaining in the southern Murray–Darling Basin.

4.1.3 Making of the Natural Resources Access Regulator Act 2017

The *Natural Resources Access Regulator Act 2017* (NRAR Act) commenced in two tranches, with some provisions commencing on 14 December 2017 and the remainder commencing on 30 April 2018. It established NRAR as a statutory body with functions relating to ensuring compliance with the Act and related legislation.

4.1.4 Making of the Water Supply (Critical Needs) Act 2019

The *Water Supply (Critical Needs) Act 2019* (Critical Needs Act) commenced on 21 November 2019. It was intended to facilitate the construction of a number of major water infrastructure projects at a time of severe drought across the state. In summary, the Critical Needs Act provided that certain water infrastructure development could be authorised by the Minister and be exempt from some planning legislation.

Although the Critical Needs Act is still in effect, the key provisions, including those summarised above, expired on 22 November 2021.

4.2 Roles and responsibilities

There has been a complex history of changes in NSW government agencies responsible for water management and administration of the Act. Prior to 2015 there were numerous agencies sequentially or jointly responsible for implementing various aspects of the water management. These included the Department of Primary Industries, NSW Office of Water, Department of Environment, Climate Change and Water, Department of Natural Resources as well as the Office of Environment and Heritage.

A 2018 investigation by the NSW Ombudsman into water compliance and enforcement (NSW Ombudsman 2018) reported that the high level of restructuring and moving of water administration functions and regulation between different government agencies has resulted in significant impacts on staff, loss of expertise and corporate knowledge, and disruptions to systems, strategy and continuity of service delivery.

On 30 June 2021 a ‘Roles and Responsibilities Agreement’ (the Agreement; Department of Planning and Environment 2021b) came into effect. The agreement sets out in detail how the department and

primary agencies work together to administer their roles under the Act and replaces a former 'Deed of Transfer'. The Agreement is a requirement under WaterNSW's Operating Licence. It details each agency's role and provides a framework for resolving any interagency issues, along with the identification of improvement opportunities. Much of the content of the Agreement reflects the Conferred Functions (Schedule A of WaterNSW's Operating Licence).

4.2.1 Department of Planning and Environment – Water group

The administration of the Act and other water related legislation falls to the Water group as the Minister's delegate for policy, planning, monitoring and reporting matters. The Water group is responsible for setting water management rules that establish water entitlement rights and share water between users, communities and the environment. The Water group also administers water access licences and approvals for a small cohort of larger water users such as state significant developments, mining operations, irrigation corporations and government entities.

4.2.2 WaterNSW

WaterNSW is a state-owned corporation responsible for operating the dams and regulated rivers to deliver bulk water to water users. It owns, maintains and monitors hydrometric assets and datasets and is empowered under the Conferred Functions of its operating licence to undertake certain functions under the Act, mostly related to customer service functions, including administration of water access licences, approvals, dealings (for most customers, but excluding those administered by the Water group) and water accounting, meter reading and billing.

4.2.3 Natural Resources Access Regulator

NRAR was established in 2018 and regulates enforcement of licence and approval holders. Since its establishment NRAR has focussed on ensuring compliance with NSW's water laws and providing guidance and education to help water users in NSW meet their obligations. NRAR sets annual regulatory priorities independently through its board, having regard to compliance and data intelligence. NRAR's role in providing water licensing and approvals functions for their customers was transferred to the Water group in 2021.

4.2.4 Department of Planning and Environment – Environment and Heritage group

The Environment and Heritage group administers and delivers NSW's held environmental water entitlements and 'discretionary', account-based planned environmental water. In certain valleys of the Murray–Darling Basin, the Environment and Heritage group orders and delivers water on behalf of the Commonwealth Environmental Water Holder. In addition, the Environment and Heritage group advises the Minister for the Environment on statutory concurrence to water sharing plans and floodplain management plans.

4.2.5 Water Administration Ministerial Corporation

The Water Administration Ministerial Corporation (WAMC) is established by the Act and administered under delegation by the Water group and Water Infrastructure NSW. WAMC serves a range of functions as a water holder, financial entity, holder of assets and risk, administrator and regulator. The powers of the WAMC enables the Minister for Water to deliver water programs for NSW which require acquisition of property and water rights. WAMC has specific functions under the Act to construct, maintain and operate water management works, gauging stations and other monitoring equipment, and conduct research and develop technology in relation to water management. WAMC is the entity by which the Minister for Water owns and manages the Hunter Valley Flood Mitigation Scheme (from July 2021). WAMC's only regulatory role is in relation to the Snowy Water Licence, under the *Snowy Hydro Corporatisation Act 1997*. This is not subject to the Act and therefore not in scope for this review.

4.2.6 Water Infrastructure NSW

Water Infrastructure NSW (WINSW) was established in June 2020 as part of sector reforms to strengthen the water sector's capacity to deliver critical water infrastructure investment and minimise the delivery risk of significant projects. WINSW leads the development and delivery of key government water infrastructure projects and programs across the state. Since its inception it has worked with local water utilities co-funding their infrastructure improvements. It is delivering significant investment into new bulk water and wastewater infrastructure in regional and metropolitan NSW, as well as delivery of projects under the Basin Plan (SDLAM and constraints measures). WINSW and WAMC have agreed an MoU for WINSW to deliver projects under WAMC delegations.

4.2.7 Natural Resources Commission

The Natural Resources Commission (NRC) are an independent body and not part of the department. However, the NRC has responsibility for functions under the Act including s 43A reviews of water sharing plans and s 44 audits of floodplain management plans and water sharing plans. The NRC took over responsibility for these functions from the department in 2018.

4.3 Priorities

4.3.1 Strategies

In 2021-2022, the department continued to develop the metropolitan and state water strategies and released the NSW Water Strategy, the Greater Sydney Water Strategy, and the Lower Hunter Water Security Plan (Department of Planning and Environment 2021a; 2022a; 2022b).

The NSW Water Strategy was launched in September 2021 to set the objectives and state-level priorities for water management and services. It works in tandem with 14 strategies based on local needs (2 metropolitan and 12 regional water strategies) and two cross-cutting strategies: the NSW Groundwater Strategy and the NSW Aboriginal Water Strategy (under development).

Regional strategies set out the plan to manage water needs for each NSW region over the next 20-40 years. They combine climate evidence with a range of tools and solutions covering policy, planning, behavioural, technology and infrastructure. Six of the 12 regional strategies have been completed thus far with the remainder to be finalised in 2023.

The NSW Groundwater Strategy was released in December 2022 and delivered on a key priority of the NSW Water Strategy by ensuring an enhanced, state-wide focus on sustainable groundwater management for the next 20 years.

A state-wide Aboriginal Water Strategy is in development. The strategy will deliver water rights for Aboriginal communities and include their interests in water management.

The department also supported the Hunter Water Corporation in finalising the Lower Hunter Water Security Plan, which was released in April 2022.

4.3.2 Statutory water resource plan and management plan development

Following 3 years of public consultation, the NSW Government submitted all 20 water resource plans to the Murray–Darling Basin Authority (MDBA) for accreditation with 5 of these already accredited as of June 2023. As of June 2023, since the end of the review period, 7 of these plans have been withdrawn while the department works with the MDBA to resolve accreditation issues. The plans provide a management framework for new rules on how much water can be extracted from the system, ensuring the sustainable diversion limit is not exceeded over time.

Water sharing plans have been, and continue to be, prepared by the department as per the statutory obligations of the Act. There were 59 plans in force at the end of the review period with each plan having effect for a 10-year period, after which time they are extended or replaced. All water sources in NSW are covered by a water sharing plan.

There are currently 16 floodplain management plans in force. Of these, 10 were prepared under the *Water Act 1912* and declared to be floodplain management plans under the Act in 2016. In addition, six floodplain management plans in force have been developed since the Act's provisions for floodplain management plans and flood work approvals commenced and meet its requirements, with 4 of those developed during the review period. These plans have effect for a 10-year period.

4.3.3 Measuring and licensing floodplain harvesting

Under the Act, the department is obligated to regulate floodplain harvesting so that total water take in each valley is within legal limits. It involves creating new work approvals, licences, rules and ways of measuring floodplain harvesting to provide clarity for water users and the regulator.

The regulation of floodplain harvesting is contentious. The NSW Legislative Council has disallowed aspects of floodplain harvesting legislation in recent years. New legislative amendments had commenced on 1 July 2022 that provide a framework to licence and measure the take of water by floodplain harvesting activities. This includes rules about how water take is measured, recorded and reported. Some water sharing plans were amended in July 2022 to enable the implementation of this framework.

Using improved data and modelling, and following consultation, the department finalised regulations to licence and measure this kind of water take. In 2021, the NSW Government

implemented the NSW Floodplain Harvesting Policy by licensing this water take in the Border Rivers and Gwydir Valley. Floodplain harvesting was implemented for the Macquarie and Barwon–Darling valleys in 2023 and the department expects to implement for the Namoi later in 2023.

4.3.4 Non-urban water metering framework

The department is implementing a metering framework to improve the standard and coverage of non-urban water meters across NSW.

The non-urban water metering framework began in December 2018 and is progressing in implementation. However, compliance deadlines have been delayed due to external factors such as flooding, supply chain limitations and availability of duly qualified persons to install equipment. New rules apply to water supply works (such as pumps) that take water from regulated rivers, unregulated rivers and groundwater systems under a licence, where the take can be measured with a meter. Ensuring all relevant water users have an appropriate meter installed will mean:

- the majority of water take is accurately metered
- meters are accurate, tamper-proof and auditable
- undue costs on smaller water users are minimised
- metering requirements are practical.

NRAR has played a significant role in supporting implementation of the NSW non-urban water metering framework through increasing water user knowledge and understanding of the metering rules and designing a program to verify compliance.

4.3.5 Water compliance and enforcement

The NSW Government has invested significantly in water compliance and enforcement within the review period. Three separate agencies oversee water management compliance and enforcement. In broad terms, the Water group is responsible for policy advice and making the rules (for example, for water sharing); WaterNSW is the customer-facing agency responsible for implementing the rules (for example, issuing licences and approvals and delivering water); and NRAR is responsible for enforcing the rules (for example, ensuring compliance with licences and approvals).

NRAR was established to be an independent, transparent and effective regulator with responsibility for managing compliance and enforcement of water laws in NSW. This role includes monitoring and auditing compliance of industries, companies and individuals extracting surface and groundwater to ensure the equitable sharing of water resources within the law. Regulation of water extraction, water sharing and associated works underpins secure water entitlements and allocations. NRAR is also responsible for investigating allegations of breaches and taking enforcement action, including prosecution.

NRAR has established a best practice regulatory regime that includes a regulatory framework, regulatory policy and prosecution guidelines. NRAR has recruited and trained staff to enable a considerable backlog of allegations to be investigated and to complete a substantial number of successful prosecutions. This has been accompanied by education programs and proactive compliance campaigns. NRAR has applied a risk-based approach, with regular review of risks and

targeting of activities. A transparent and regular program of public reporting on priorities, activities and outcomes has significantly improved outcomes and public confidence.

NRAR has adopted sophisticated approaches to intelligence gathering and analysis. Reporting on compliance and enforcement in NSW is ongoing via dashboards and web pages, and efforts are being made to provide clearer insights into core compliance rates of take within allocations and entitlements, in terms of both volume and numbers of water users.

In 2021, the Office of the Inspector-General of Water Compliance was established to oversee reform and compliance across the Murray–Darling Basin.

4.4 Impact of national reforms and independent reviews on NSW water planning and management

NSW's water legislation and planning arrangements have evolved over 30 years to address issues of water scarcity, supply and demand. Water reform in Australia has been driven by the value of water as an enabler of economic activity and by the environmental, social and economic costs of exceeding resource limits. Significant reforms include the 1994 Council of Australian Government's (COAG) Water Reform Framework, the 2004 National Water Initiative (NWI), the Water Act 2007 (Cth) and the Basin Plan 2012 (Cth).

National agreement was reached on the principles underpinning the transition to a more efficient and resilient water sector in the 1994 COAG Water Reform Framework. The reforms included changes to pricing of water, provision of environmental flows, rights to water and institutional reforms, and led to development of the Act. The COAG Water Reform Framework was later expanded in the NWI.

The NWI is Australia's blueprint for national water reform, created in 2004 and agreed by all states and territories. This shared commitment by all Australian governments provides a framework and principles for sustainable management of water resources. It aims to increase the efficiency of Australia's water use, provide investment confidence and greater certainty for the environment, and improve water security for rural and urban communities.

Under the NWI, all states and territories committed to:

- prepare water plans with provisions for the environment
- achieve sustainable water use in over-allocated or stressed water systems
- introduce registers of water rights and standards for water accounting
- expand trade in water rights
- improve pricing for water storage and delivery
- better manage urban water demands.

In response to these reforms, state and territory governments established tradable water entitlements separated from land title, water allocations in response to availability and carryover accounting rules to allow water users greater flexibility in managing their water entitlement. They also developed water trading, continuous accounting and capacity sharing. Environmental water

allocations increased in this period (initially as ‘planned environmental water’), as the environmental consequences of growth in consumptive water use became apparent. In 2020, the Productivity Commission completed a review of the NWI and an assessment of performance against the NWI (Productivity Commission 2020).

Since 2017 several reviews have been initiated at the state and federal level following media reports and allegations of mismanagement of water resources and misconduct.

In response to recommendations arising from the Matthews Investigation (Matthews 2017) and the Murray–Darling Basin Water Compliance Review (Murray–Darling Basin Authority 2017), the NSW Government developed a Water Reform Action Plan (WRAP) (Department of Industry 2017), which outlined how it would implement those recommendations. The WRAP included enduring solutions for better management of environmental water that were designed to meet the objectives, principles and vision of the Act. In summary, the WRAP goals were to:

- introduce best practice for water management
- ensure transparency in how water is shared, allocated and managed
- build a compliance and enforcement regime that ensures strong and certain regulation
- build capability to support implementation of water reforms.

The WRAP included 40 actions, which focussed on:

- measures to improve compliance and enforcement, availability and transparency of data, information, decisions and their rationale
- protecting environmental water flows, while also protecting access to water for consumptive water use
- improving capability of the relevant NSW government agencies to implement the reforms.

Since 2017 the NSW Government has prioritised the implementation of the WRAP and this has changed the landscape of how water is managed and shared in NSW. This set the groundwork for the regulatory framework and governance arrangements we see today in NSW. In 2018, all Murray–Darling Basin States agreed to the Murray–Darling Basin Compliance Compact (Murray–Darling Basin Authority 2018) to further strengthen compliance and enforcement efforts.

A 2020 NSW Independent Commission Against Corruption (ICAC) report (ICAC 2020) formed an opinion that in many matters it investigated the evidence established that certain decisions and approaches taken by the NSW Government department with responsibility for water management over the last decade were inconsistent with the object, principles and duties of the Act and failed to give effect to legislated priorities for water sharing. ICAC recommended in this report that the department ensure the water management principles in section 5, and in particular those that relate to sharing, as set out in section 5(3) of the Act, are given effect. It also recommended that the department publicly records its water strategy, objectives and priorities for use and management of NSW’s water resources in a manner that is consistent with section 9 of the Act. The NSW Government agreed with ICAC’s recommendations and set out an action plan to address the recommendations by 2022, including reviewing all relevant policy and operational guidance documents to clearly reflect alignment with section 5 of the Act. The action plan also committed to undertake this s 10 review. These actions have now been completed.

Ongoing statutory audits (s 44) of water sharing plans and floodplain management plans and reviews (s 43A) of water sharing plans by the NRC provide independent, publicly available review, which increases transparency in how water is managed.

4.5 Extreme events

Projected climate-change-driven changes in rainfall patterns, warmer conditions and increased evaporation will impact future water availability. The frequency, intensity and duration of droughts are also expected to increase, which may affect water quality, river condition, water dependent ecosystems and the availability of water.

The management of NSW water resources under the impact of climate change and extreme events has relied on forward planning, new policy and initiatives and cooperative arrangements with the Commonwealth and other state governments. The NSW government has developed state water strategies, regional water strategies (5 completed and more currently in draft), a groundwater strategy and other new policies to help NSW adapt to future changes in its water resources.

4.5.1 Drought

The department works in partnership with WaterNSW and local water utilities in regional NSW to manage town water supplies during drought. The Minister may also restrict the use of surface or groundwater (by order under s 324 of the Act) in response to water shortage or threat to public health or safety.

The 2017-2020 drought was the worst on historical record from the 1890s for most river valleys across NSW. Not all valleys experienced the same severity of drought because inflows to major storages (a measure of water security) varied across the state. The following valleys experienced Stage 4 Critical Drought (the highest level) during parts of this period:

- Lower Darling (December 2018 to March 2020)
- Barwon–Darling (February 2019 to March 2020)
- Peel (August 2019 to August 2020)
- Macquarie (May 2019 to April 2020)
- Lower Namoi (February 2019 to March 2020)
- Border Rivers (August 2019 to March 2020).

In regional NSW, the impact of the drought was severe, affecting rural productivity and the resilience and wellbeing of rural communities. The environment was also under considerable pressure. This was highlighted by algal blooms and severe fish-death events in 2019 in western NSW.

The NSW Government responded in a range of ways to manage limited water supplies, support rural communities and minimise ecological impact. The department worked with WaterNSW and others to implement water sharing plan suspensions and temporary water restrictions, among other measures.

NRAR's role has been to build community confidence in the compliance system to protect water and share it fairly, particularly during drought. It has used its position as licensor to local water utilities to assist councils to strengthen their water management plans to secure access for human consumption.

WaterNSW is currently developing drought management plans under the Roles and Responsibilities Agreement and to meet conditions in their water supply work approvals, which will outline considerations and decision logic for operating regulated rivers, including during periods of emerging and severe drought.

4.5.2 Fish deaths

In early 2019, a series of severe fish death events occurred on the Lower Darling near Menindee. These events were widely publicised alongside strong community response. Although fish death events occur under a range of conditions and not only in drought, these particular events raised considerable public interest. The Commonwealth Government commissioned an expert panel headed by Professor Robert Vertessy to investigate the causes and recommend responses (Vertessy et al. 2019). The report was also complemented by a separate report by the Australian Academy of Sciences (2019), commissioned by the Commonwealth opposition, which made similar findings and recommendations. In September 2019, the NRC finalised its review of the Barwon–Darling Water Sharing Plan under s43A of the Act.

Vertessy et al. (2019) and the NRC made findings and recommendations, most of which aligned with or complemented the WRAP and the Murray–Darling Compliance Compact. Other recommendations went to matters beyond the scope of the WRAP. The NSW Government published a single response to both reports in 2019, which included a series of commitments and actions (Department of Planning, Industry and Environment 2019). Of the 7 actions for which the department is responsible, 4 are complete and 3 in progress.

4.5.3 Floods

Flood response has been a major focus between 2021 and 2022, particularly for WaterNSW, with the Water group having limited flood management responsibilities. The WaterNSW operating licence authorises WaterNSW to undertake flood mitigation and management in all areas of NSW, except for the Sydney catchment area. In the authorised areas, only Burrendong Dam and Glenbawn Dam have a defined flood mitigation zone in their water supply works approvals. In some cases, water is released in anticipation of rain to allow additional airspace to capture inflows and after a flood event has passed, water is withheld in some dams to reduce peak flows downstream. These operations are undertaken in line with the NSW State Flood Plan (NSW State Emergency Service 2021) and WaterNSW Flood incident Management Protocol. These protocols aim to ensure the safety of structures, achieve the post-flood target storage level and mitigate the effect of flood as far as authorised and practicable to do so. In the case of the 2021 very high and flood flows, WaterNSW worked with the NSW State Emergency Service to manage flows and provide timely information to affected communities.

4.6 Internal reviews and restructures

A number of internal reviews and restructures to NSW water agencies and operations have taken place during the review period. A summary of actions in the last 5 years include:

- establishment of the Water Planning Implementation team in the department's Water group as a response to the ICAC investigation into complaints of corruption in the management of water in NSW and systematic non-compliance with the Act (ICAC 2020). The ICAC recommended the department establish a dedicated team and adequately fund water sharing plan implementation to ensure all of the state's water sharing plan rules are implemented effectively
- NRAR launched WATERS in 2019, a new internal system for document, reviews and updating approved processes and procedures. This supports the implementation of NRAR's Quality Management System
- in 2020, NRAR moved toward a proactive, intelligence-led approach to improve the efficiency of operations and effectiveness of outcomes. New technology such as drone imagery, spatial data and integrated information systems was adopted to produce higher quality, faster, and more efficient compliance outcomes
- WaterNSW and the Water group implemented a business transformation project (WAVE) in 2020 to deliver operational, data, customer and information improvements
- NRAR conducted a regulator maturity assessment in 2020. This resulted in the establishment of an ongoing maturity advancement program that includes: the establishment of a regulatory intelligence function; review and remake of NRAR's corporate documents; communicating the outcomes of NRAR's work to assist the public to demonstrate the benefits to the community and the environment
- the Chief Strategy Office was established in the Water group in December 2020. It was established to set the department's long-term strategic direction, deliver strategic projects, fulfil statutory and intergovernmental obligations and lead policy development. Its functions were split in early 2022, with functions including economics and project management office moving to the new Performance Division and standalone Strategy and Policy and Planning Divisions formed
- responsibility for licensing and approvals functions for larger water users transferred from NRAR to the Water group's Operations Division in 2021 to simplify licensing and approvals for water users. WaterNSW continue to manage licensing and approvals for their customers
- the Water group commissioned a review of communications, stakeholder engagement, water relations, knowledge and media functions in 2022
- the Water group's Performance Division commenced in 2022 to lift the performance culture of the Water group through program and project management, finance and economic support, and to deliver key initiatives to embed major long term water reform in NSW
- WINSW's operating model was updated in 2022 to simplify the structure, operations and provide clearer accountabilities

- NRAR restructured in 2022 to move from four directorates to six and remove the emphasis on geographical east-west divide
- the Hunter Valley Flood Mitigation Scheme Team transferred from the Environment and Heritage group to WAMC
- WaterNSW is undertaking a realignment to a new Operating Model, which is not yet finalised.

5 Findings for functional areas under the Act

Note that the results in this chapter should be read with reference to the assessment standards outlined in 3.3.7.








5.1 Water sharing plan development

5.1.1 Summary

The water sharing plan development functional area (Table 4) includes making and replacing water sharing plans, including preparing and exhibiting plans and obtaining concurrence from the Minister for the Environment.

The Water group are responsible for the majority of these functions. The Environment and Heritage group are responsible for advising the Minister for the Environment on providing concurrence.

Table 4. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments give effect to principles	Processes and procedures give effect to principles	Decisions and actions give effect to principles
Water sharing plan development	 Implemented	 Governed by Act (no policy or strategy)	 Unregulated rivers and groundwater outside Murray-Darling Basin Implicit: alignment evident between content and the principles  Regulated rivers and groundwater within the Murray-Darling Basin Not Evident: Could not determine from the evidence.  Concurrence process Not documented: Process described in interview considers principles	 Options analysis Implicit: alignment evident between content and the principles  Concurrence Explicit: Refers directly to the principles as a point for consideration

5.1.2 Implementation status

The water sharing plan development functional area is being implemented.

Water sharing plans have been, and continue to be, prepared by the department as per the statutory obligations of the Act. There are currently 59 plans in force with each plan having effect for a 10-year period, after which time they are extended or replaced.

Water sharing plans commenced within the review period were:

- 2019: 2 new water sharing plans commenced (Hastings, Paterson)
- 2020: 1 surface water replacement water sharing plan commenced (Bellinger), 12 inland groundwater replacement water sharing plans commenced
- 2021: 1 replacement water sharing plan commenced (Border Rivers regulated)
- 2022: 5 replacement water sharing plans commenced (Central Coast, Coffs, Lower North Coast and Hunter Unregulated and Alluvial and the Peel Regulated).

Water sharing plans are audited in the first 5 years of the plan (as per s 44) and reviewed in the last five years of the plan (under s 43A). The outcomes of the section 43A reviews inform development of the replacement plan. Plan audits and reviews are dealt with in the functional area, 'Management plan audit and review'. Water sharing plan audits and reviews demonstrate implementation of water sharing plan development.

Table 5 outlines required sections of the Act that are currently not implemented as the conditions for their implementation have not occurred during the period of the review. Table 6 outlines discretionary sections of the Act that have not been used during the review period.

Table 5. Water sharing plan development sections not currently implemented due to conditions during the review period

Section number	Act 'May' or 'Must'	Implementation evidence
s 37	Must	<i>Referral to the minister requirements</i> This section does not apply to Minister's plans.
s 46	Must	<i>Making or amendment of a management plan</i> This is a must clause however only applies if the water sharing plan amendment or replacement results in a reduction of water allocations in relation to which compensation might be payable. These circumstances have not arisen during the review period. No policy or procedure outlining this requirement has been provided.
s 40	Must	<i>Resubmission of draft plan to minister with public exhibition comments.</i> This section does not apply as WSPs are Minister's plans, not committee plans. Committees have not existed during the review period.

Table 6. Water sharing plan development functional area discretionary sections not currently enacted

Section number	Act 'May' or 'Must'	Implementation evidence
s 17	May	<i>Provisions applicable to all management plans.</i> Provisions cover the preservation and enhancement of the quality of water, monitoring and reporting requirements imposed on conditions of approval, and conditions that apply to access licence and approvals. The provisions appear in WSPs however there is no policy or procedure to confirm implementation.
ss 11-14	May	<i>Requirements for management committees</i> Management committees are not currently established and thus s 11-14 not implemented.

Section number	Act 'May' or 'Must'	Implementation evidence
s 15	May	<p><i>Preparation of draft management plan</i></p> <p>The Minister may, by order by which a management committee is established or by a subsequent order in writing – direct a committee to prepare a draft management plan and review any related implementation program.</p> <p>A decision was made by the department, prior to the review period to develop water sharing plans as Ministers plans under s 50. Management Committees are not currently established and thus s 15 does not apply.</p>

5.1.3 Giving effect to the principles

Processes for developing water sharing plans were found to implicitly give effect to the principles for those plans covered by the Replacement Water Sharing Plan Manual; however, it was not evident that the process gave effect to principles related to features of geographical and Aboriginal significance. It could not be determined from the evidence whether processes for developing water sharing plans not covered by the manual gave effect to the principles. The process for advising on concurrence from the Minister for Environment was not documented, but a process was described and demonstrated via templates whereby the principles are considered.

Decisions on options analysis mostly implicitly aligned with the principles, rarely explicitly referring to the principles as a point of consideration in documents recording the options analysis process.

Evidence for decisions on concurrence explicitly referred to the principles as a point of consideration and summarised which principles had been considered.

Strategies, policies and statutory plans

Water sharing plan development is implemented without a strategy, policy or statutory plan. When plans are replaced, the previous plan provides a guide for development of the replacement plan, but the plans themselves do not govern the replacement process.

Processes and procedures

The Replacement Water Sharing Plan Manual (Department of Planning and Environment 2022b) provides guidance on making and replacing water sharing plans, including identifying changes that may be required, analysing options for new or amended provisions, preparing and exhibiting plans and obtaining concurrence from the Minister for the Environment (as required by s 41 (2) of the Act). The manual covers coastal unregulated plans and alluvial plans outside of the Murray–Darling Basin. It does not cover water sources for regulated rivers or groundwater within the Murray–Darling Basin. The relevant business units have advised that the process is similar for plans not covered by the manual, but alignment with the principles could not be determined.

There is implicit alignment evident between the process in the manual and the general and water sharing principles, with the exception of the general principles s 5 (2) (e) concerning features of Aboriginal significance and s 5 (2) (f) concerning geographical and other features of major, heritage or spiritual significance. Features of Aboriginal significance are considered in part through the update of information relating to Native Title holdings, however this is a limited part of requirements of the principle in s 5 (2) (e).

The replacement process includes steps for identification of issues raised in reviews undertaken by the NRC, which review plans against the principles, as well as input from stakeholder consultation. These sources of information contribute to identification of provisions in the plan which may require amendment in the replacement process, and for which options may need to be developed. However, there is no requirement to implement every recommendation made by the NRC and issue identification includes consideration of a range of information.

The manual identifies points in the process where data and information updates are required. These include groundwater-dependent ecosystem identification, socioeconomic, basic landholder and native title rights, licensed entitlement, flow reference points, flow classes, maps, and risk assessment. These points of consideration implicitly align with the principles; however, the principles are not referred to directly in process documentation and it is not always clear what data inputs are used to service these considerations. Additionally, NRC audits and reviews have identified issues with monitoring and evaluation of water sharing plans, which limits information inputs to inform plan replacement.

Throughout the process of developing a draft plan, the Water group consult with the Environment and Heritage group and other agencies via working groups and other committees to inform the design of new water sharing plans. The process is finalised with the Minister for Water seeking concurrence on the decision to approve commencement of a replacement plan from the Minister for the Environment.

As part of the concurrence process, the Minister for Water provides various documents to the Minister for the Environment to demonstrate adherence with the requirements of the Act. At this stage, the Environment and Heritage group provide advice to the Minister for Environment to inform the decision on concurrence. This advice is based on engagement throughout the plan replacement process and analysis of the documents contained in the package provided by the Minister for Water.

The Environment and Heritage group advised in interview that the concurrence process involves a review of the concurrence documents and consideration of other relevant information. The process does consider the principles relating to water sharing, evidenced by templates used in that process. However, there is no written guidance for how the principles are to be applied in the concurrence process.

Issues were identified with the replacement process more broadly, which may affect staff's ability to review and provide advice on consistency of the plan with the principles. These include:

- reliance on the assumption that the previous plan is consistent with the principles so that assessment of the replacement plan can focus on only the provisions that have changed, noting that NRC reports have raised concerns about alignment between the plans and the principles

- reliance on the information provided by the Water group to undertake analysis and changes to the plan template to simplify plans
- timeframes for decision making limiting opportunity for more detailed analysis.

Decisions and actions

A sample of decisions were selected for review, covering:

- decisions on whether to adopt proposed changes to plan provisions during the options analysis process
- decisions on whether to recommend the Minister for Environment provide concurrence.

The decisions related to the following water sharing plans:

- Hunter Unregulated and Alluvial Water Sources 2022
- Peel Regulated River Water Sources 2022
- Darling Alluvial Groundwater Sources 2020.

Documents analysed included meeting papers documenting the options analysis process, briefing notes and attachments reflecting the outcomes of decisions made in the options analysis process and Minister Briefs to the Minister for Water and Minister for Environment reflecting the concurrence process. However, the exact documents reviewed vary according to the availability of each document type and which document type provided the clearest evidence of the particular decisions in each case.

Water sharing plans were selected for review from those that commenced during the review period. It is acknowledged that the majority of plans in force during the review period commenced prior to the that period and the processes to develop those plans were not in scope. The NRC have made findings that some plan provisions were not consistent with the principles.

Options analysis

For the Hunter Unregulated and Alluvial Water Sources 2022, options analysis was undertaken by a Coastal Water Interagency Working Group. They identified issues with the current plan, developed options to address the issues and deliberated to make recommendations on changes to be included in the replacement plan. The Regional Water Senior Officers Group (RWSOG) have a role to review the draft plan and provide support for public exhibition, noting that the Environment and Heritage group do not endorse at this stage so not to pre-empt concurrence decision making. Evidence for decision making in the options analysis process was the brief to the RWSOG and attachments, including a summary of substantive changes in the draft plan, an updated risk assessment, comments from working group members on proposed changes to the trade framework and a summary of the department's actions to address recommendations from audits and reviews.

The Peel Regulated River Water Sources 2022 water sharing plan was replaced as part of the water resource plan development process. Options analysis was undertaken with a Stakeholder Advisory Panel (SAP), who recommended changes to the plan via a briefing paper to the RWSOG. Evidence for decision making in the options analysis process was the brief to RWSOG and attachments, including a final recommendations report and a summary of substantive changes.

The Darling Alluvial Groundwater Sources 2020 water sharing plan was also replaced as part of the water resource plan development process and options analysis was undertaken with a SAP. Evidence for decision making in the options analysis process was meeting agendas and attachments where the Darling Alluvial plan was discussed, including issues relating to common water sharing plan rules, identification of groundwater dependent ecosystems and specification of environmental water. A Minister Brief requesting approval to make the plan was also reviewed, along with attachments covering substantive changes to the plan and a statement on consistency with the principles.

Analysis of documents produced from option analysis contained little evidence of explicit consideration of the principles, except in a small number of cases. More commonly, documents implicitly aligned with the principles, often identifying points of consideration related to water sharing principles, such as protection of water dependent ecosystems and provision of environmental water and basic landholder rights. It is important to note that meeting records were not always available for review and that documents reviewed do not necessarily reflect the full range of deliberations undertaken during options analysis. For example, summaries of substantive changes reflect the outcomes of decision-making but are not intended to capture all points of consideration in making those decisions.

Statements of compliance with the water management principles included in Minister Briefs provided evidence that the plans were made to be consistent with the principles; however, this is not a direct measure of the points of consideration in the decision-making process during options analysis. These statements have been published along with the plans at time of commencement since 2020 and some have been retrospectively developed for earlier plans throughout 2022 and 2023.

Concurrence

Evidence for decisions on concurrence included the Minister Briefs developed by the Environment and Heritage group to advise the Minister for Environment on providing concurrence and the Minister Briefs developed by the Water group to request approval from the Minister for Water for the new water sharing plan to commence, following concurrence. These briefs were chosen as evidence because they provide a summary of the concurrence process taken to date and deliver a recommendation based on that process. These decisions are Ministerial decisions and as such, the review considered whether there was evidence that the department had considered the principles when providing information. It did not consider whether the decisions made by the Minister were consistent with the principles.

All briefs to the Minister for Environment used a standard layout to advise the Minister on the outcomes of the review of the draft plan, including assessment against the principles and identification of residual concerns where applicable. This was provided in summary form in the briefing paper and in detail via an attachment. The briefs also contained statements to the effect that the Environment and Heritage group had worked constructively with the Water group throughout the plan replacement process.

Residual concerns identified in briefs included instances where recommendations from s 43A reviews had not been incorporated into the draft plan, issues with plan provisions or indicators and

issues with process, particularly short timeframes for providing concurrence. In the Peel example, the previous plan had already expired by the time concurrence was provided.

Briefs to the Minister for Water after concurrence had been provided included the letter of concurrence from the Minister for Environment and demonstrated that the concurrence process had been completed and the principles had been considered as part of that process.

Briefs to the Minister for Environment and Minister for Water explicitly stated that the plans were consistent with the principles. Briefs to the Minister for Water contained attachments summarising how the plan gives effect to the principles.





5.2 Management plan amendment

5.2.1 Summary

The management plan amendment functional area includes amending water sharing plans and floodplain management plans as these are currently the only types of management plans that have been developed under the Act. During the term of each management plan, amendments may be required if deemed necessary in line with s 45(1) of the Act.

The Water group are responsible for these functions.

Table 7. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments give effect to principles	Processes and procedures give effect to principles	Decisions and actions give effect to principles
Management Plan Amendment	 Implemented	 Governed by the Act, Regulation and water management plans (no policy or strategy)	 Explicit: refers directly to the principles	 Explicit: refers directly to the principles as a point of consideration

5.2.2 Implementation status

The water management plan amendment functional area is being implemented.

Over the period of this review, 38 management plan amendments commenced.

5.2.3 Giving effect to the principles

Amendments are not guided by policies or strategies; however, management plans enable or require certain amendments to be made under certain circumstances. These plans are made in

accordance with the Act and subject to review for consistency with the principles prior to gazettal. Ten floodplain management plans made under the *Water Act 1912* are exceptions to this.

Procedures for making amendments explicitly refer to the principles, and the water sharing plan amendment protocol contains guidance on application of the water sharing principles only, but no other guidance is provided on how the principles should be applied.

Decisions to make amendment to a water sharing plan and floodplain management plan, evidenced in attachments to Minister Briefs, contained assessments that explicitly referred to the principles. However, the water sharing plan example only assessed against the water sharing principles, reflecting the relatively minor scope of the amendment and that the plan being amended was subject to legal review for consistency with the principles prior to gazettal.

Strategies, policies and statutory plans

No policies or strategies are in place to guide amendments to management plans. However, management plans contain amendment provisions, which outline particular provisions which may be amended or in some cases require that amendments be made under certain circumstances (for example, after a period of time or on completion of a study). Additional amendments may be made outside of those amendment provisions.

Management plans are made in accordance with the Act and subject to legal review and review against the principles prior to commencement. Ten historical floodplain management plans developed under the *Water Act 1912* and still in force (as converted plans under the Act) are the exceptions to this because they were not developed according to the principles.

Processes and procedures

The Water Sharing Plan Amendment Protocol (Department of Planning and Environment 2022c) provides guidance on amending water sharing plans and the Amendments to Floodplain Management Plans Factsheet outlines the process for amending floodplain management plans.

The Water Sharing Plan Amendment Protocol describes 13 steps including considerations for each step. At the highest level, the process covers development of the amendment in line with the Act, consultation, formal amendment, public communications and implementation. Step 2 states that the amendment should be developed in accordance with water sharing principles and priorities. Step 8 of the process includes a specific assessment of consistency with water sharing principles and priorities, reflecting that the principles are to be applied in order. The protocol seeks to ensure alignment with the water management principles by stating the requirement to take all reasonable steps to promote the water management principles. There is explicit guidance on how the water sharing principles should be considered but no guidance on how the general principles should be considered.

The Amendments to Floodplain Management Plans Factsheet (Department of Planning and Environment 2022a) is not a procedure manual but describes the process for making a floodplain management plan amendment. The document refers to the proposed amendment being scoped in accordance with the Act principles. However, there is no specific guidance in the document about how each of the individual principles should be considered. Process steps also include consultation,

drafting, ministerial approval, upload to the NSW legislation website, internal and external communications and implementation via updates to flood work approval conditions.

Decisions and actions

Two amendment packages were reviewed to determine if they were made with consideration of the principles. The amendments related to:

- adding high priority groundwater-dependent ecosystems identified in the Yass Catchment Groundwater Source to the Water Sharing Plan for the NSW Murray Darling Basin Fractured Rock Groundwater Sources 2020
- adding new provisions to enable planned ecological enhancement flood works in the Gwydir Valley Floodplain to the Floodplain Management Plan for the Gwydir Valley Floodplain 2016.

Evidence assessed was the brief to the Minister for Water seeking approval to make the amendment and the attachment to each brief, which assessed consistency with the principles. This is a standard attachment.

The briefs demonstrated that the amendments were made in accordance with the principles but does not directly demonstrate consideration of the principles in decisions on whether to proceed with a proposed amendment or the process for making the amendment.

The brief on amendment to the water sharing plan only included assessment of consideration of some principles (Section 5 (2)(a)(b)(d), (3)(a)). Other principles were considered to not be affected by the amendment. This aligns with the principles because all the principles were considered in the original water sharing plan development, which was subject to legal review for consistency with the Act prior to commencement.

The brief on amendment to the floodplain management plan assessed against all the relevant principles, being the general principles and those relating to floodplain management.

5.3 Water restrictions





5.3.1 Summary

The water restrictions functional area includes making orders to prohibit or restrict take of water if necessary to do so in the public interest, under section 324 of the Act.

Section 324 of the Act allows the Minister or a delegate to direct, by order, that temporary water restrictions within a water source(s) have effect for a specified period if these restrictions are determined to be in the public interest. Examples of public interest referred to in section 324 (1) include 'to cope with a water shortage, threat to public health or to manage water for environmental purposes'. Restrictions can also be amended or repealed.

The Water group and WaterNSW share responsibility for these functions.

Table 8. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments give effect to principles	Processes and procedures give effect to principles	Decisions and actions give effect to principles
Water restrictions	 Implemented	 Implicit: alignment evident between content and principles	 Implicit: alignment evident between content and principles	 Implicit: alignment evident between content and principles

5.3.2 Implementation status

The water restrictions functional area is being implemented.

The department's website contains a register of current and expired temporary water restriction orders since May 2019 (when the register was started). This register identifies that at May 2019, 33 temporary water restrictions were in place for varying periods of time. Of these, 31 expired or were repealed within the audit timeframe.

A large number of the restrictions applied were during the prolonged dry period of 2019 and 2020, and during initial flow events after the dry period.

Examples of the restrictions applied include:

- restricting extraction by unregulated river access licence holders to protect environmental water
- restricting access to water in general security access licence accounts to cope with a water shortage and a threat to critical human and high priority needs

- restrict take of water for the purpose of floodplain harvesting to protect water for critical needs, basic landholder rights and environmental needs after a prolonged dry period
- restricting take from groundwater source to reduce demand and allow groundwater levels to sufficiently recharge.

All temporary water restrictions since 2019 have been within water sources in the Murray–Darling Basin.

5.3.3 Giving effect to the principles

The NSW Extreme Events Policy (EEP) implicitly gives effect to the Act principles by providing a framework to maintain water sharing plan provisions as much as possible during extreme events. There is no explicit link to the principles in the policy. The policy and associated framework were developed during the review period and provided significant improvements to how water is managed during extreme events.

The reviewed process document implicitly referred to the principles and includes a prioritisation method directly informed by the order of the water sharing principles. Relaxation of water restrictions considers criteria that links to the principles by ensuring that the water dependant ecosystems and habitats remain protected and require the consideration of the cumulative impacts in relation to downstream water requirements.

Decisions reviewed did not contain explicit reference to Act principles with decision-making more guided by the wording of the Act. However, there is obvious implicit alignment to the general principles in most briefs outlining the decisions for the restrictions and strong alignment with the water sharing principles in some briefs. Many briefs did not link explicitly to the policy or procedures.

Strategies, policies and statutory plans

This review focused on water restrictions applied for the purpose of managing in extreme events, in particular times of water shortages. Water restrictions for these purposes are primarily guided by the NSW Extreme Events Policy (Department of Industry 2018), which outlines the conditions in which restrictions should be made and repealed. The Extreme Events Policy and associated Incident Response Guides (IRGs) were a significant development in how the department manages water during extreme events that occurred during the review period. The policy was updated in December 2022 and this update is awaiting publication at the time of this review. There was no policy relevant to temporary water restrictions prior to the EEP publication in October 2018.

The EEP does not explicitly refer to the Act principles but maintains an implicit link to the water sharing principles through its linkages to the water sharing plans. The principles are given effect by ensuring that the provisions in water sharing plans that give effect to the water sharing principles can continue to be in force for as long as possible during dry periods. The priority order established by the water sharing principles is only altered under the most extreme conditions, in accordance with the EEP and the IRG.

The EEP covers the application of water restrictions across the NSW Murray–Darling Basin, setting the principles (separate to the principles of the Act) and decision-making tools for implementing restrictions under extreme conditions. The EEP outlines how a range of measures, including s 324 water restrictions, may be used in response to an extreme event. Other measures include water sharing plan suspension (s 49A Suspension of management plans during severe water shortages) and making of available water determinations (AWDs) (s 60 (3) Rules of distribution applicable to making of available water determinations).

The EEP includes 9 of its own principles, the first of which dictates that “Every attempt will be made to maintain the operation of the statutory water sharing plans”. The EEP is only used in extreme dry periods or water quality events, when provisions in water sharing plans that give effect to the principles can no longer be sustained due to extreme conditions.

Outside of the Murray–Darling Basin other strategies are primarily used to manage periods of water stress, including suspension of plans (in full or part) and system optimisation for urban water supplies.

Processes and procedures

The EEP is given effect by IRG, which identify valley-specific triggers and possible responses.

The Gwydir IRG (Department of Industry 2018b) was the process documentation selected to assess whether processes and procedures give effect to the principles. The IRG includes a prioritisation method that is directly informed by the order of the water sharing principles in s 5(3) of the Act. Priority order for access to water established in the water sharing plans and water resource plans are only changed during an extreme event, as guided by the IRG. Under prescribed conditions, the IRG provides for prioritisation of water use in line with s 60(3) and s 49A, which places environmental needs as the second priority behind domestic water use. The EEP or IRG do not clearly show the criticality stages outlined relate to maintaining or deviating from the priority of the water sharing principles.

Interim environmental criteria have been established to guide relaxation of water restrictions once they are in place. The criteria link to the principles by ensuring that the water dependent ecosystems and habitats remain protected (principles s (2)(a) and (b) and require the consideration of the cumulative impacts (2)(d) in relation to downstream water requirements.

No process documentation is available for s 324 orders made outside of the Murray–Darling Basin.

Decisions and actions

A sample of decisions to declare a s 324 order were assessed to determine if the decisions followed the procedures and gave effect to the principles. Those chosen from the review period were focused on restrictions during periods of critical water shortages, either for the purpose of managing critical supply or for managing environmental water.

Key documents assessed included reasons for decision documents, internal briefing notes and departmental webpages. The following s 324 decisions were selected from those applied during the review period:

- decision to make Temporary Water Restriction for Barwon–Darling and other unregulated river water sources (April 2018)

- decision to make Temporary Water Restriction (Belubula Regulated River Water Source) Order 2019
- decision to make Temporary Water Restriction (Namoi and Macquarie Water Sources) Order 2019
- decision to make Temporary Water Restriction (Tuppall Creek) Order 2020
- decision to remake Temporary Water Restriction (Upper Lachlan Alluvial Zone 1 Management Zone, Upper Alluvial Groundwater Source) Order 2020.

While some of the documents reviewed referenced the process for decision making regarding water restrictions (the EEP and IRG), there was no evidence provided in all but one for how the decision was made using this process. The documents outlined how the restriction met the requirements of s 324 rather than any detail of the decision making that linked to the principles.

The documents reviewed identified that restrictions were made in line with interpretation of s 324 (1), “to cope with a water shortage, threat to public health or safety or to manage water for environmental purposes”. The reasoning provided in the documents outline how each of these three purposes were met by the restriction. The s 324 ‘public interest’ requirements align implicitly with the principles as they relate to protecting water sources and dependent ecosystems (environmental purposes) and maximising social and economic benefits (threat to public health or safety). The principle of managing for water quality may also align with this public interest test.

An example of this alignment is in the briefing for making a Temporary Water Restriction in the Barwon–Darling and other unregulated river water sources in April 2018. This order was made to protect releases being made by Commonwealth Environmental Water Holder aimed at providing ecosystem benefits and connectivity between the upper reaches of the NSW Northern Basin and the lakes at Menindee. This order clearly demonstrated the benefits that gave effect to the principles ((2)(a), (b) and (c)).

All decisions reviewed provided this implicit link to the principles via the public interest test but did not link to the process or procedure (except for in one brief in 2019), or link to the principles explicitly. Some principles are also not covered by the public interest test such as those related to cultural heritage and managing cumulative impacts.

A review of the temporary water restrictions used to protect the first flushing flows following drought in was undertaken in 2020 (Craik and Claydon 2020). This review made a number of recommendations about improving management of these events and how temporary water restrictions could be used in future, but the review did not consider how the restrictions considered the Act principles. Findings did include that the approach used by the department represented an explicit effort to maintain connectivity and protect water for towns and the environment, which aligns with principles (2)(a), 2(b) and 2(g).





5.4 Water supply work approvals

5.4.1 Summary

The water supply work approvals functional area includes determining applications for water supply work approvals, imposing mandatory and discretionary conditions and amending, suspending and cancelling approvals.

Water supply work approvals govern the construction and use of a work which takes water from a river, lake or aquifer such as pumps, bores, dams, irrigation channels or levees. Approvals for a water supply work for private rural landholders or industries are issued by WaterNSW whilst the Water group administers approvals for larger water users (for example state significant development, irrigation corporations, state owned corporations and local water utilities). NRAR was responsible for the larger water users until the licensing and approval functions moved to the Water group in 2022.

Table 9. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments give effect to principles	Processes and procedures give effect to principles	Decisions and actions give effect to principles
Water supply work approvals	 Implemented	 Governed by Act, Regulation and plans (no policy or strategy)	 Demonstrated: contains guidance on how to apply the principles in decision making	 Demonstrated: clearly addresses how decisions align with principles and how they are considered.

5.4.2 Implementation status

The water supply work approvals functional area is being implemented.

The NRC's audits of water sharing plan implementation during the review period found that water supply work approvals assessments were generally compliant with the legislative requirements but made adverse findings relating to delays in notification of mandatory conditions of approvals (refer to mandatory conditions functional area for details). However, the NRC's ability to assess implementation is influenced by the scope of their audits and more recent audits of groundwater plans have found gaps in compliance.

A Water Licensing Improvement Program undertaken by the Water group, in partnership with WaterNSW and the NRAR, will deliver improvements to water licensing and approvals for customers. Release 2 of the program in late 2023 will include changes for the processes for water supply work approvals.

5.4.3 Giving effect to the principles

The licensing procedure manual in place for the period of the review explicitly references the general principles and contains guidance on the assessment that can be linked to consideration of the principles. The assessment summary sheet explicitly details all the general principles and demonstrates how the principles are considered during the assessment of applications. The manual does not mention the specific water sharing principles and it may be assumed that they are covered by reference to the relevant plan rules. The assessment includes consideration of the distance rules of the water sharing plans.

The decisions taken on granting or refusing applications for water supply work approvals sampled demonstrated how the general principles were given effect throughout the assessment and determination process. The decisions don't explicitly refer to the water sharing principles.

Strategies, policies and statutory plans

Water supply work approvals are governed by the Act, Regulation and management plans with no additional policies or strategies in place.

Processes and procedures

The processes for this functional area chosen to be the focus for this review are those related to assessing and determining applications for water supply work approvals. Documentation reviewed to assess whether processes and procedures give effect to the principles were sections of the Licensing procedure manual and an assessment sheet template used by the Water group (internal documents).

The licensing procedure manual sections reviewed were:

- operations section: receiving, processing and determining applications for approvals under the Water Management Act 2000 associated with integrated development approved under Part 4 of the Environmental Planning and Assessment Act 1979
- operations section: receiving, assessing and determining applications for approvals under the Water Management Act 2000 when the project or proposal is defined as an activity under Part 5 of the Environmental Planning and Assessment Act 1979.

These documents are NSW Office of Water documents dated 2014 but were the manual sections in use by WaterNSW and the Water group during the review period. WaterNSW have drafted updated procedure documentation, but this was not yet in use by the end of the review period.

The Water group and WaterNSW use assessment sheets to record determination of applications for water supply work approvals and water use approvals (which maybe be completed as a combined approval). Specific assessment sheet templates are used for approvals for test bores and production bores, dewatering (groundwater) and bores for basic landholder rights use.

In the assessment process, an application is checked against requirements to ensure it complies with the relevant water sharing plan and other statutory requirements including the principles of the Act. Depending on the characteristics of the application, specialist advice may be sought,

including from hydrogeologists, ecohydrologists, geomorphologists and floodplain engineers, to support the assessment and decision on whether to grant or refuse the application, and what conditions to apply. For groundwater approvals a triage process is in place to support decisions on when specialist referral is required. The assessment process may also include various searches, advertisement, consultation with other divisions and agencies (such as Biodiversity and Conservation Division and Department of Primary Industries – Fisheries) or objectors. The assessing officer makes a recommendation to grant or refuse the application, and if granted, what conditions should be applied. The officer with the delegation reviews the assessment and then approves or rejects the recommendation.

The licensing procedure manual includes explicit reference to the general Act principles, and it can be determined from the manual how the principles are considered in the process. However, the manual only refers to the principles in a broad sense and does not point out which steps link to individual principles. The link between the principles and how it is assessed can be interpreted but not expressed in the document. There are detailed guidelines on what should be assessed for approvals including consideration of impact on water sources and ecosystems (2)(a), consideration of water quality impacts and impacts on areas of cultural significance.

There is no mention of the water sharing principles in the manual. It is assumed that the water sharing principles have guided the water sharing plan rules, which are also considered during the assessment process. However, this is not explicitly stated anywhere in the process documentation and there is no assessment of which decisions are being made that are not governed by the water sharing plan rules and that they are aligning with the principles. The assumption that the water sharing plan can be relied on for consideration of the principles has also not been tested.

The assessment sheet template explicitly details all the general principles and gives guidance on how these principles are to be assessed. This includes reference to the specific checks and assessments required for each principle and refers to additional guidelines and procedures and an indication of when specialist assessment might be needed.

The granting of water management work approvals, such as water supply work approvals, are also governed by section 97(2) which states that ‘A water management work approval is not to be granted unless the Minister is satisfied that adequate arrangements are in force to ensure that no more than minimal harm will be done to any water source, or its dependent ecosystems, as a consequence of the construction or use of the proposed water management work.’ It is assumed that this consideration in the assessment process is also delivering on the principles by delivering on the intent of principle (2)(a) which is to protect and restore water dependant ecosystems and, where possible, land should not be degraded. This may not be effective if it suggests that some harm is acceptable.

The assessment sheet specifies that if any of the ‘assessment criteria indicate impacts are likely, do the mandatory conditions of the [water sharing plan] ensure minimal harm. If not, consider additional conditions to avoid such impacts. If the impacts are likely to harm the water source or [groundwater dependent ecosystems], recommend refusal of the application.’

Decisions and actions

Decisions to grant or refuse an application for a water supply work approval based on the assessment process were reviewed. There were 8 decisions sampled which covered assessments by

WaterNSW, NRAR (prior to Licensing and Approvals moving to the Water group in 2022) and the Water group, with and without specialist assessment. The majority were from groundwater sources with applications for basic landholder rights bores. The very small sample of decisions reviewed, and the limited breadth in the type of approval applications, must be considered when considering the results. However, the consistency in findings across all those decisions sampled does lend support to the findings being likely to apply more broadly.

The decisions reviewed followed the process moderately well. There were some minor areas that did not follow the process thoroughly, such as one instance of a missing signature from the officer with delegation on the assessment sheet, and one instance of failure to record how the assessment criteria were considered (tick only).

Consideration of the general principles was demonstrated in all decisions except one and all aligned with the processes. This included information provided on the assessment summary sheets, and in the specialist assessment, of which Act principles were considered and with what form of assessment. Water sharing and floodplain management principles were not explicitly considered and are assumed to be covered by compliance with the relevant management plan provisions, as per the process described above.

5.5 Available water determinations

5.5.1 Summary








The available water determinations (AWDs) functional area includes making AWDs, the rules of distribution applicable to making of AWDs and keeping a register of AWDs.

AWDs are used to manage the variability of water available each year in a water source. Water is allocated to users in accordance with the rules set out in the relevant water sharing plan. For regulated water sources, this is based on the water available, and forecast to be available, in the water source, as well as the principles for water sharing (Act s 5(3)) and the priorities provided in the Act for access licences (s 58).

Initial water allocations are made on 1 July each year, with subsequent allocations provided throughout the year for regulated water sources and an additional allocation possible for groundwater sources with an opening allocation of less than 100%.

The Water group and WaterNSW share responsibility for these functions.

Table 10. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments give effect to principles	Processes and procedures give effect to principles	Decisions and actions give effect to principles
Available Water Determinations	 Implemented	 Governed by Act, Regulation and plans (Extreme Events policy relevant only in times of severe water shortage)	 Regulated river water sources Explicit: refers directly to the principles as a point of consideration  Groundwater sources Implicit: alignment evident between content and principles  Unregulated river water sources Does not give effect: process found to be inconsistent with the principles	 Regulated river water sources Not evident: could not be determined from the evidence  Groundwater sources Not evident: could not be determined from the evidence

5.5.2 Implementation status

The available water determinations functional area is being implemented.

AWDs are made using Available Water Determination Orders, approved and signed by a delegated officer. Water allocation statements are prepared that announce allocations for a given water source and licence category. They provide a summary of current allocations, outlook and possible future water availability.

The Orders and Allocation statements are published on the website and also announced on the Water group Twitter account. A water register is maintained by WaterNSW and available online. The register includes the current year and historical allocations information for all water sources.

5.5.3 Giving effect to the principles

Processes for regulated river water sources AWD outlined in the method documents explicitly refer to the water sharing principles as a requirement of the AWD process. However, it does not detail how these principles are considered throughout the process, where the principles are assumed covered by water sharing plans, or where they are applied for discretionary decisions. The general principles are not evident, except for some implicit alignment, such as application of adaptive management (2)(h). The process documentation covers the resource assessment process but not how decisions on allocations are made based on the resource assessment process.

There is no documented method document of groundwater AWD process. A process diagram for groundwater has been developed but does not explicitly mention the principles. However implicit alignment can be seen through the assessment of the resources to ensure extraction has not exceeded the limit before allocations are made, which aligns with protection of the water source and basic landholder rights. The general principles are not evident in the process diagram except where they align with water sharing principles (protection of water sources). Decisions on how allocations are made based on the resource assessment process are being made using an undocumented protocol established in recent years and only documented in materials provided to stakeholders for input. No consideration of the principles occurred during establishment of this protocol according to departmental staff.

For unregulated river water sources the process does not give effect to the principles as 'water take' is not currently assessed annually for compliance against the plans' long term average annual extraction limit (LTAAEL), and therefore this does not give effect to the water sharing principles as it fails to protect the water source from unsustainable extraction.

Decisions on regulated river water source AWDs show no evidence of how the principles were considered in most cases. The decisions are outlined in terms of how the process has been followed and a summary of inputs and outputs of the resource assessment process, but with no explicit outline of the principles. It is assumed that AWDs operationalise water sharing plans and that development of the plans is where these principles are considered, but this

assumption is not documented. Aspects of the process or decisions that are not explicitly governed by plan rules are not outlined to ensure they are considering the principles.

Decisions on groundwater sources show limited evidence of how the principles are considered, and departmental staff have identified that neither the general or specific principles have been considered, other than some implicit consideration of maximising social and economic benefits and adaptive management.

Strategies, policies and statutory plans

Implementation of AWDs is governed by the Regulation and water sharing plans. The relevant water sharing plan for a given water source plan sets out the rules for water sharing, allocating water to different users, including the environment in a prescribed manner.

During extreme events, such as drought or water quality events, the NSW EEP also applies. If triggers defined by the policy or Incident response guides are met usual AWDs processes may be suspended to meet critical human water needs. Refer to the Water restrictions functional area for the review of how the EEP considers the Act principles.

Processes and procedures

Processes for making AWDs differ for regulated river, unregulated river and groundwater sources. The processes and documents reviewed for each water source type are outlined below.

Regulated river water sources

Regulated river water source AWDs are calculated using a resource assessment, and decisions made on the amount of water to be allocated to the water source based on the assessment. This assessment includes calculation of available water in storages, future inflows, existing commitments, and water to be set aside for system operation. The resource assessment is updated throughout the water year to consider any changes to water availability. Available water identified by the resource assessment is distributed for allocation as directed by the water sharing plan and priorities of water access licences established by the Act and Regulation.

The process documentation reviewed were the 10 water allocation methodologies for regulated river water sources. Of those reviewed, 9 include an explicit reference to the water sharing principles. The documents state that the process gives effect to the specific principles for water sharing by allocating water in line with the priorities for sharing set out in the water sharing plan and the Act.

The majority of the general principles are not evident in the method. Implicit alignment with principle 2(a) exists as the protection of water sources and dependent ecosystems aligns with the water sharing principle (3)(a). Maximising social and economic benefits (2)(g) may be implicit from the allocation of water to licenced water users, including town water supply and productive purposes.

Adaptive management (principles (2)(h)) can be implicitly seen in the updating of resource assessments as conditions change throughout the year. Relevant department staff stated in interview that best available information is utilised in making AWDs, for example the inputs to the resource assessments. They are responsive to monitoring and improvements, for example,

modelling improvements to improve representation of the situation in regulated rivers. This represents alignment with the adaptive management principle.

In general, it is not clear from the process methodology documents where the principles are considered throughout the processes applied. There is an assumption that the process is aligned with the principles by aligning with relevant water sharing plan provisions and the Regulation, but no detail on which elements of the process are governed by specific plan rules and which are decisions made by the department to operationalise the rules and therefore require direct consideration of the water sharing plan principles. The assumption that the water sharing plan can be relied on for consideration of the principles has also not been tested.

The process documents cover the resource assessment method, but not the decisions made on AWDs after the resource assessment is completed. This includes decisions about reducing allocations when the plan long-term average annual extraction limit or sustainable diversion limit are exceeded. Water sharing plans may contain provisions that specify how water should be allocated in this circumstance but there may be opportunity for discretion. Decisions for this have been made on a case-by-case basis by the delegated officer. An interview with relevant staff indicated that the principles are not explicitly considered when these decisions are made.

Groundwater sources

The process documentation provided for groundwater AWDs is a process diagram outlining the key steps in the process and a summary of the process provided by the relevant team. AWDs for groundwater sources are made based on an assessment of actual take against the long-term average annual extraction limit established in the water sharing plan. This assessment is completed for water sources that have been identified of being at risk of exceeding the limit. An initial assessment is done before the beginning of the water year using data available from metering and an opening allocation established based on an assessment of take, how complete the metering data is and the level of risk of exceedance of the limit. An excel based AWD calculator is used to run scenarios given the available data and using past usage to estimate the likelihood of exceedance. Given the data is incomplete before the end of the water year the assessment is run again once full data is obtained (usually by September) and an additional water allocation may be made.

The process diagram does not include explicit reference to the Act principles. Maximising social and economic benefits (2)(g) may be implicit from the allocation of water to licenced water users. Adaptive management (principles (2)(h)) can be implicitly seen in the process of updating allocations when additional data is received. Relevant department staff stated that best available information is utilised in the risk assessment for groundwater, which is responsive to monitoring and improvements.

The department in interview confirmed that the general principles are not considered in their work, even when discretion is required. For any discretionary decisions needing to be made, there is no guidance for making those decisions in alignment with the principles.

As for regulated water sources there is an assumption that the process is aligned with the principles by aligning with relevant water sharing plan provisions and the Regulation, but no detail included on which elements of the process are governed by specific plan rules and which are decisions made by the department to operationalise the rules and therefore require direct

consideration of the water sharing plan principles. The assumption that the water sharing plan can be relied on to give effect to the principles has also not been tested.

The process diagram outlines the resource assessment method, but not the decisions made on AWDs after the resource assessment is completed. This includes decisions about reducing allocations when the plan long-term average annual extraction limit or sustainable diversion limit are exceeded.

Water sharing plans do not specify in detail the actions to be taken if a plan exceeds its limit other than outlining options for reducing extraction to the limit, which includes reducing AWDs. Groundwater sources also have an additional option for reducing extraction by reducing maximum account debits in addition to or instead of reduced AWDs.

The Water group in interview indicated there were some established undocumented protocols developed based on extensive stakeholder consultation on which actions could be taken in these circumstances. This currently includes not using the maximum account debit option (although investigation of this option is continuing) and reducing AWDs over a 2 or more-year time period. The protocol has been recorded in stakeholder engagement materials only. Given it has been used for multiple years and communicated to stakeholders it is now identified by staff as an established process. The Water group in interview indicated that the principles were not explicitly considered when these protocols were developed.

Unregulated river water sources

The process for available water determinations in unregulated systems is to set the opening allocations at 100% in each water year, except in some circumstances in extreme events. The process is an administrative process of making the orders rather than being based on an available resource assessment.

The Water allocations in unregulated river systems factsheet specifies that 'water take' is not currently assessed annually for compliance against the plans' long-term average annual extraction limit. Reductions in AWDs to bring extractions back within compliance with the limit is one of the mechanisms that water sharing plans have to protect the environment from water extraction above the plan limit.

The NRC's audits and reviews of inland unregulated plans have identified that the lack of compliance assessments creates a risk that current extraction in these systems are higher than the current limits and that water meant to be reserved for the environment and basic landholder rights is being extracted. This does not give effect to the water sharing principles and general principle (2)(a) as it fails to protect the water source from unsustainable extraction. In addition, the cumulative effect of extraction ((2)(d)) related to water access licences is not being monitored and therefore it is unknown whether this level exceeds the limits. Consideration of principle (2)(g) may be assumed as providing allocations to water users of 100% is maximising potential economic benefits possible from this water use, however this is not explicitly documented and would not satisfy the requirement to give effect to all relevant principles.

Decisions and actions

Six decisions involved in making AWDs were reviewed. These were selected based on aiming for a spread of years within the review period (coinciding with varying climatic conditions); including

opening allocations as well as subsequent resource assessments and decisions related to groundwater and regulated river sources. No unregulated water source decisions were reviewed as the AWD process is administrative (as outlined above) and individual decisions on allocations are made in line with the departmental approach outlined of always allocating 100% of shares.

Regulated water sources

Decisions reviewed included:

- decision on Macquarie-Cudgegong Valley allocation – November 2019
- decision on opening allocations for regulated river water source AWD – June 2021
- decision on Hunter supplementary access licence AWD – December 2021
- decision on opening allocations for regulated river water source AWD – June 2022.

It is not evident from the briefs reviewed for regulated river water sources allocation decisions how the general or water sharing principles were considered. The briefs outline in detail a range of considerations in the allocation decisions, focusing on the inputs into the resource assessment such as current water availability in storages, expected inflows and existing commitments.

A detailed assessment of whether the published resource assessment process was followed was not in scope of this review, and the processes used for the allocation decisions were not linked to explicitly other than in some briefs a statement that ‘the preparation of AWDs follows a long-standing established process’. Assuming the documented process was followed the method document is not detailed enough in how the principles are considered throughout the process to make any conclusions about implicit alignment with the principles. Water group staff indicate that as AWDs are governed by water sharing plan rules the principles have been considered during plan development. However, this assumption is not documented in decisions or processes, and it is not expressed which decisions are governed by plan rules, and which require discretion (including aspects of resource assessments or decisions after resource assessments are completed). The assumption has also not been tested.

During extreme events AWDs are governed by the Extreme Events Policy and Incident Response Guides. The decision reviewed from a period of drought stage 2 and 4 did not reference the IRG governing policy or processes.

In addition to the decisions reviewed for this review it is noted that NRC Audits of regulated water sharing plans conducted in 2022 found that higher priority requirements in the Namoi and Gwydir were depleted to deliver lower priority requirements and that this was not in accordance with the water sharing principles. The department responded that it agrees with the recommendation and stated that they have implemented changes to the resource assessment to ensure this does not occur again.

Groundwater sources

Decisions reviewed included:

- decision on reduced groundwater AWDs – July 2020
- decision on reduced groundwater AWDs – June 2021.

The July 2020 brief on a decision to reduce groundwater AWDs for opening allocations for some water sources shows no evidence of how the principles were considered. The brief requested approval of AWDs for 3 water sources that had exceeded the relevant plan's compliance rules.

For one water source it was the third consecutive year of non-compliance. The brief indicated that previous years' AWD reductions were not sufficient to reduce extraction to compliance with the limit based on a previous decision to bring extraction back within compliance by reducing AWDs over a 'number of years'. The brief details the AWD assessment outcome but no evidence of what is considered in the AWD decisions. The brief indicates other aspects might be considered in these decisions, but these are not detailed.

For the remaining 2 water sources the brief outlines a decision to reduce the AWD in the first year to an amount that would bring extraction to the plan 'compliance trigger' which is between 5 and 10% above the limit (specified in the plan and may vary depending on the water source). The brief also mentions that extraction for one water source had exceeded limits in earlier years (2014-2016) with no compliance action taken.

There is no documented process for making decisions regarding reduced allocations for groundwater when a plan's limit is exceeded. The decisions outlined in this brief align with an established, undocumented protocol of reducing extraction over multiple years, with no more than a reduction below 0.5ML/share in the first year, and reduction to the plan compliance trigger initially.

Water group staff have indicated that the principles were not considered when establishing the protocol for reduction in extraction or in the individual decisions. It was stated that spreading out a reduced AWD over multiple years was developed to minimise negative impacts to and maximise reliability for community and business (implicitly considering general principle (2)(e) regarding social and economic benefits).

This decision may be inconsistent with the water sharing principles if a delay in reducing extraction to the limit results did not consider the risk to water sources and their dependent ecosystems and basic landholder rights being prejudiced by other water use during the period of time that is taken to bring extraction back to the limit.

The July 2021 brief on reduced groundwater AWDs shows implicit alignment with the water sharing principles. The brief outlines a decision to approve a compliance action for 2 groundwater sources that were identified as expected to reach the plan limit compliance trigger. A reduction in AWD was identified to bring extraction within plan limits as required by the assessment. Although the Act principles are not explicitly outlined as a consideration (only the AWD assessment process) a reduction in AWD as a compliance action implicitly aligns with the water sharing principles.





5.6 Compliance enforcement

5.6.1 Summary

The *Natural Resources Access Regulator Act 2017* requires the Natural Resources Access Regulator (NRAR) to be accountable for the delivery of water compliance enforcement activities under the Act and *Water Act 1912* in an effective, efficient and transparent manner. It also requires NRAR to maintain public confidence in the enforcement of the Act.

NRAR is responsible for enforcement of individual licence and approval requirements and operates a state-wide enforcement regime.

Table 11. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments give effect to principles	Processes and procedures give effect to principles	Decisions and actions give effect to principles
Compliance enforcement	 Implemented	 Implicit: alignment evident between content and principles	 Not documented: process described in interview considers principles	 Implicit: alignment evident between content and principles

5.6.2 Implementation status

The compliance enforcement functional area is being implemented.

NRAR has reported on its website compliance activities and outputs quarterly since the third quarter in 2019. These reports detail the number of investigations received and finalised along with the regulatory action taken by NRAR. NRAR also reports enforcement actions in a public register enabled by section 12A of the *Natural Resources Access Regulator Act 2017*.

Although NRAR's activities are not the focus of the NRC's audits of water sharing plan implementation, audits between 2020 and 2022 have also found that NRAR has a proactive and reactive regulatory compliance regime in place, supported by a Compliance Investigations Manual and a Compliance Investigation Reporting and Management System (CIRaM) for compliance purposes.

5.6.3 Giving effect to the principles

NRAR's Regulatory Policy does not explicitly link to the general principles but contains implicit reference to considering degree of harm to water users, community and the environment which is an implicit link to some principles. There is no explicit or implicit link to the specific principles.

The process for determining regulatory priorities is not documented but the process outlined as currently in place by NRAR gives implicit consideration of some general principles by considering activities with the highest potential for harm to the environment and other water users, preventing harm to the environment, community, culture and the economy and the impact of cumulative harms from widespread non-compliance from particular activities and industries.

Decisions on setting annual and regulatory priorities show implicit consideration of some of the general principles and implicit links to floodplain management and controlled activities principles but no clear consideration of the water sharing principles.

Strategies, policies and statutory plans

NRAR's compliance enforcement activities are governed by the NRAR Regulatory Policy (Natural Resources Access Regulator 2021a). In addition, NRAR has a range of internal guidelines to guide their work including the NRAR Prosecution guidelines and NRAR Enforceable Undertakings Guidelines (Natural Resources Access Regulator n.d.; 2020). NRAR develops an annual compliance and enforcement program delivered through operational and regulatory project plans.

The Regulatory Policy was the policy document reviewed for the s 10 review and was found to not include explicit reference to the principles, although it does mention the objects of the Act.

The policy references that 'degree of harm' is considered in determining the response to non-compliance. This includes impacts on other water users, the community and the environment. This implicitly relates to some of the general principles of the Act that relate to protection of water sources and dependent ecosystems (2)(a) and maximising social and economic benefits (2)(g).

There is no link to the specific water sharing, controlled activities or floodplain management principles.

It should be noted that in all compliance enforcement functions NRAR gives effect to the principles through assessing whether there has been a breach of relevant water management legislation, or any licence, approval, notice or requirement issued or made under the Act or *Water Act 1912*. However, this is assumed rather than stated in the policy.

Review of processes and procedures

The processes and decisions for the compliance enforcement functional area chosen to be the focus of this review were those involved in setting NRAR's regulatory priorities to understand whether they are established with regard to giving effect to the Act principles.

The *Natural Resources Access Regulator Act 2017* requires NRAR to set regulatory priorities and provides for these to be set independently. NRAR sets regulatory priorities to encourage voluntary

compliance and communicate how and where NRAR's compliance and enforcement focus will be. These priorities identify a focus by activity or industry, water use or user, and location. NRAR prioritise reports of activities that fall within regulatory priority areas.

Annual priorities are emerging issues or matters that require a targeted whole of agency approach to achieve regulatory outcomes. Enduring priorities address activities and conduct that typically pose greater risk to water management in NSW, or values that underpin the decisions NRAR make and the work they do. They are ongoing priorities to NRAR's program and activities over consecutive years.

Information on the process used to set priorities was obtained through an interview with NRAR staff. NRAR outlines that their approach to setting priorities has evolved and matured, from the approach outlined in the 2019-20 regulatory priorities statement which was based largely on historical data to an intelligence-led approach described in the most recent 2022-23 regulatory priorities statement (Natural Resources Access Regulator 2022).

The current process includes reference to data from internal sources, community reports, experts (including ecological experts), licence conditions, weather conditions, economic conditions, water accounts, water allocations, spatial data, drones and ongoing satellite monitoring. This data is reviewed and options reports developed that analyse the level of harm of the activity or issue on the environment, community, culture and economy, the level of non-compliance in the community, the persistence of the issue, and the likelihood and potential to prevent harm and non-compliance by focusing resources on the issues/activity. It is not clear how the sources of evidence or different considerations are prioritised or combined to develop a priority recommendation.

The options reports are provided to the NRAR Board for a decision and the approved priorities are published in the Regulatory priorities document on the NRAR website.

The process considers activities with the highest potential to harm the environment (implicitly aligning with principle (2)(a)) and other water users (principle (2)(g)). The principle of addressing cumulative impacts of water management licences and approvals ((2)(d)) is implicitly addressed by consideration of the impact of cumulative harms from widespread non-compliance from particular activities and industries.

NRAR's approach to setting regulatory priorities reflects an adaptive management process giving effect to the Act principle 2 (h) which concerns adaptive management. In interview NRAR provided examples of how they have adjusted regulatory priorities based on changing environmental contexts, for example in periods of dry pivoting to protecting low flows. They can and have adjusted their annual and enduring priorities based on quarterly reviews of the impact of the compliance and enforcement activities, improvements in technology, data and analytical tools or community feedback, and environmental and social change.

Decisions and actions

The decisions reviewed were the setting of annual regulatory priorities for 2019-2021 and 2022-2023 and the setting of enduring priorities for 2022-23.

Review of the published regulatory priority documents (Natural Resources Access Regulator 2019; 2021b; 2022) found they do not explicitly mention the principles in setting the annual priorities but show evidence of implicit alignment with some principles.

Implicit alignment includes to (2)(a) by prioritising areas where there is risk to water sources such as floodplains and to (2)(g) by maximising social and economic benefits by reducing risk to other water users. Floodplain management principles are implicitly aligned by a focus on reviewing unapproved flood works and controlled activities principles by prioritising enforcing controlled activities in some areas. Water sharing principle ((3)(a) can be assumed broadly by conducting enforcement of take so that it does not prejudice water sources, dependent ecosystems and basic landholder rights but this is not explicitly outlined. Consideration of order of the water sharing principles is not clear in the decisions as the priorities are based on minimising harm to the environment and other water users, with no indication that harm to water sources is prioritised over harm to basic landholder rights and then other uses.

In interview it was identified that floodplain harvesting was selected as a priority in 2019 based on expert advice that it is crucial for environmental protection. The focus on harvestable rights dams was selected based on academic research on the high impact of farm dams on the environment, aligning with principle (2)(h) regarding adaptive management.

There were no enduring regulatory priorities set in the first statement for 2019-2021. Enduring regulatory priorities were set for the years 2021-2022 and 2022-23 and focussed on issues that need a longer-term compliance focus. The enduring priorities include implicit consideration of principles (2)(e) and (2)(f) by 'protecting and prioritising Aboriginal cultural and spiritual values in water regulation'.

There is some linkage between the priority to ensure water take is accurately accounted for ensuring community confidence in water laws and (2)(g) maximising social and economic benefits if the link is made that community confidence in water laws is linked to a social and economic benefit.

A focus on unauthorised structures that prevent water from getting to where it should on the floodplain aligns with protection of water sources (2)(a) and floodplain management specific principles.






5.7 Regulations and orders

5.7.1 Summary

The regulations and orders functional area concerns making regulations and orders that are not included within implementation of another functional area, including making regulations under s 400. In the period of review, this has included making and amendment of the *Water Management (General) Regulation 2018* and making of harvestable rights orders.

The Water group has responsibility for these functions.

Table 12. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments give effect to principles	Processes and procedures give effect to principles	Decisions and actions give effect to principles
Regulations and Orders	 Implemented	 Governed by the Act and Regulation (no policy or strategy)	 Not evident: Could not determine from evidence	 Harvestable Rights Order Demonstrated: Clearly addresses how the principles are considered  Floodplain Harvesting and Metering Regulations Not evident: could not determine from the evidence

5.7.2 Implementation status

The regulations and orders functional area is being implemented.

During the review period, the *Water Management (General) Regulation 2011* was remade with the commencement of the *Water Management (General) Regulation 2018*. Since then, a number of amendments to the Regulation have been made to:

- give legal effect to the NSW Non-Urban Metering Policy

- implement the NSW Floodplain Harvesting Policy
- declare land as a floodplain for the purposes of developing floodplain management plans.

Further detail is provided in the Context section of this report.

There are currently 3 harvestable rights orders in place, 2 of which were made during the review period:

- Harvestable Rights (coastal-draining catchments) Order 2022
- Harvestable Rights (central inland-draining catchments) Order 2022.

Harvestable rights allow landholders (owners or occupiers of land) to capture and store a proportion of the rainfall runoff from their landholding in one or more harvestable rights dams without a water access licence, water supply work approval or water use approval.

5.7.3 Giving effect to the principles

Regulations and orders are made according to the Act, without guidance from policies, strategies or statutory plans.

There is no established procedure that guides on consideration of the principles given variation in the subject matter and purpose of regulations and orders. However, regulations are developed in accordance with the NSW government guidance for making regulations.

The decision to make harvestable rights orders demonstrated how the principles were considered by the department but acknowledged that full consideration could not be given until catchment assessments could be completed, after making of the order.

It could not be determined from the evidence to what extent decisions to make amendments to the Regulation to implement floodplain harvesting or metering gave effect to the principles; however, the regulations were supported by statements of compliance with the Act and principles.

The relevant principles for this functional area are the general principles and the specific principles relating to water sharing.

Strategies, policies and statutory plans

The regulations and orders functional area is implemented without strategies, policies or plans. Regulations and harvestable rights orders are made and amended under the Act.

Processes and procedures

The department does not have any standard procedure for making or amending regulations and orders, or any guidance for how regulations and orders should give effect to the principles. This is in part due to the diverse subject matter of regulations and orders and that they may be developed by different business units, depending on the purpose. The department does use the NSW Government Guide to Better Regulation. This section will therefore seek to comment on the department's established practices undertaken in the absence of specific procedures.

The practices are informed by the legislative framework, and policy context, and therefore differ by topic. Generally, development of regulations and orders included analysis and information gathering (for example, modelling, consulting experts), engagement with affected community (for example, discussion papers, community meetings, what we heard reports) engagement with relevant departments (for example, WaterNSW and NRAR) prior to development of policies and new or amended regulations or orders required to implement the policy.

Ministerial briefings are prepared to seek relevant approvals prior to formal subordinate legislation processes. Orders to be made are approved by the Minister and published in the NSW Gazette. For regulations to be made as subordinate legislation, approval is required from the Minister, the Governor and the Executive Council, before publication on the NSW Legislation website and tabling in the NSW Legislative Council.

The department in interview suggested that the established practices did include some implicit consideration of the principles; however, the extent to which this is demonstrated varied by topic and the lack of an established procedure requiring consideration of the principles means this could not be determined. As such, review of how these activities gave effect to the principles is only possible at the decisions and actions level.

Decisions and actions

The types of decisions sampled include making new regulations and orders. Three decisions were sampled including:

- making harvestable rights orders
- amending the Regulation to implement floodplain harvesting
- amending the Regulation to implement the Non-Urban Metering Policy.

These decisions are Ministerial decisions and as such, the review considered whether there was evidence that the department had considered the principles when providing information. It did not consider whether the decisions made by the Minister were consistent with the principles.

Harvestable rights orders

A Minister Brief to decide on commencement of new harvestable rights orders was used as evidence for whether information provided to enable a decision to make harvestable rights orders considered the principles. The brief and attachment explicitly refer to how the principles were considered by the department. However, they identify that it is not possible to be clear about the extent and severity of impacts on other water users until catchment assessments have been completed. The attachment demonstrates how the principles will be promoted by the orders, but relies on mitigation measures, including that catchment assessments must be undertaken to determine impacts.

Floodplain harvesting amendment

Briefs to the Minister requesting that amendments be made to implement the Floodplain Harvesting Policy contained statements of compliance with subordinate legislation, which states that the regulation is consistent with the Act and principles. However, no demonstration of how the principles have been considered is provided by these documents.

The department in interview indicated that the amendments were developed to allow floodplain water extraction to be managed under the water sharing plans. Interviews suggested that the amendments are partially dependent on the water sharing plans to give effect to the principles, rather than explicitly considering the principles when making the amendment. However, the assumption that the water sharing plan can be relied on for consideration of the principles has not been tested. There may be implicit consideration of elements of the principles, suggested throughout the supporting policy and engagement information. The Floodplain Harvesting Policy states that its purpose is 'to manage floodplain water extractions more effectively in order to protect the environment and the reliability of water supply for downstream water users, ensure compliance with the requirements of the WM Act, and meet the objectives of the National Water Initiative.' However, this evidence was not sufficient to determine if the principles were given effect in decision making.

Metering amendment

Briefs to the Minister requesting that amendments be made to implement the Non-Urban Metering Policy contained statements of compliance with subordinate legislation, which states that the regulation is consistent with the Act and principles. However, no demonstration of how the principles have been considered is provided by these documents.

Further information about the process used to develop the amendments and any consideration of the principles could not be gathered via interview due to there not being suitable staff still working in the department who were involved in that work. It could not be determined from the evidence how the principles are given effect by the decision.

5.8 Water modelling and measurement



5.8.1 Summary

The water modelling and measurement functional area includes:

- conducting research, collecting information, and developing technology in relation to water management
- constructing, maintaining, and operating gauging stations and other monitoring equipment.

The Water group and WaterNSW share responsibilities for these functions.

Table 13. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments give effect to the principles	Processes and procedures give effect to principles	Decisions and actions give effect to principles
Water modelling and measurement	 Implemented	 Not evident: Could not be determined from the evidence (Note: based on non-focus area review)	Not assessed	Not assessed

5.8.2 Implementation status

The water modelling and measurement functional area is being implemented.

The department conducts a range of activities in relation to modelling and measurement under section 372 of the Act. These include:

- surface water monitoring, which includes the collection and provision of quantity, quality, algal and ecological information for monitoring, use, assessment and management of surface water
- groundwater monitoring, which includes the collection and provision of water level, pressure, flow and quality information for monitoring, use, assessment and management of groundwater
- water take monitoring, which includes the provision of metering services, the collection of water take data and its recording on water allocation accounts for unregulated and groundwater licence holders

- water modelling and impact assessment, which includes the development and use of water system models for water sharing and water management applications, resource impact and water balance assessments, and annual general purpose water resource accounts for NSW water sources.

General Purpose Water Accounting Reports are prepared each year, which consolidate water information from a range of sources such as hydrometric, licence holder information, environmental holdings, Irrigation Corporation water budgets, climatic data and council storage operation and use. A Water Resource Accounting System has been developed by the department to support this work.

A department review of the surface water and storage monitoring network in the Murray–Darling Basin Catchments of NSW (Department of Planning, Industry and Environment 2021) found that the network currently meets the needs of the major NSW stakeholders.

5.8.3 Giving effect to the principles

There was no documentation nominated by the department as the policy, strategy or statutory plan for this functional area. Therefore, it could not be determined how the functional area gives effect to the principles.




5.9 Floodplain management plan development

5.9.1 Summary

The floodplain management plan development functional area concerns making and replacement of floodplain management plans. Floodplain management plans are required to deal with identification of existing natural flooding regimes, identification of ecological benefits of flooding, flood works and their management and risks to life and property. They may also deal with other matters provided for by the Act. These plans have effect for a 10-year period. A floodplain management plan may also be amended during its 10-year term.

The Water group has responsibility for these functions.

Table 14. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments give effect to the principles	Processes and procedures give effect to principles	Decisions and actions give effect to principles
Floodplain management plan development	 Implemented	 Governed by Act and Regulation (Note: based on non-focus area review)	 Explicit: refers directly to the principles as a point for consideration (Note: based on non-focus area review)	Not assessed

5.9.2 Implementation status

The floodplain management plan development functional area is being implemented.

There are currently 16 floodplain management plans in force. Of these, 10 were prepared under the *Water Act 1912* and declared to be floodplain management plans under the Act in 2016. Six floodplain management plans currently in force have been developed since the Act's provisions for floodplain management plans and flood work approvals commenced and meet its requirements. Four of those were developed during the review period. Work is underway to transition the 10 remaining *Water Act 1912* floodplain management plans in the southern Murray–Darling Basin into 4 valley-wide floodplain management plans developed under the Act.

5.9.3 Giving effect to the principles

Floodplain management plan development is governed by the Act and Regulation with no policy or strategy in place. The technical manual for developing plans refers explicitly to the principles as a point of consideration.

The technical manual to develop plans under the Act (Department of Planning, Industry and Environment 2020) outlines the planning process and approach and gives explicit direction that floodplain management plans are to be developed to satisfy the general water management principles and the principles specific to floodplain management.

It is noted that the 10 floodplain management plans developed under the *Water Act 1912* have not been developed with direct consideration of the principles since they were not created under the Act. The department has commenced technical work to develop new floodplain management plans under the Act for these areas.



5.10 Management plan suspension

5.10.1 Summary

The management plan suspension functional area concerns the suspension of management plans, in whole or in part, in response to severe water shortages.

The Water group has responsibilities for these functions.

Table 15. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Overarching instruments give effect to principles	Overarching instruments give effect to principles	Processes and procedures give effect to principles	Decisions and actions give effect to principles
Management plan suspension	 Implemented	 Implicit: alignment evident between content and principles (Note: based on non-focus area review)	Not assessed	Not assessed

5.10.2 Implementation status

The management plan suspension functional area is being implemented.

Five water sharing plan suspensions were made during the review period. A summary of current and expired or repealed water sharing plan suspensions from 2019 onwards are published on the department's website.

The most recent suspension was to the Water Sharing Plan for the Belubula Regulated River Water Source 2012. Clause 26 of the water sharing plan, relating to end of system flows, was suspended for 6 months in 2020 due to drought conditions. The context and reasons for the decision of each suspension is provided on the department's website.

The review of implementation examined whether suspensions were applied during the review period but did not examine whether suspensions were applied in all cases when they should have been, as this was not possible within the review timeframe and scope. It is noted that NRC audits have identified circumstances during the review period where suspensions of plan provisions should have been considered during extreme events but were not applied.

5.10.3 Giving effect to the principles

There is implicit alignment between the Extreme Event Policy and Incident Response Guides and the principles.

The Extreme Events Policy (EEP) covers the application of management plan suspensions (in full or in part) across the NSW Murray–Darling Basin during severe water shortages. It establishes the principles and decision-making tools for implementing suspensions. The EEP maintains a link to the principles of the Act primarily through its linkages to the water sharing plans. It does not explicitly give effect to the principles. The EEP includes 9 of its own principles, the first of which states that 'Every attempt will be made to maintain the operation of the statutory water sharing plans'.

In the Murray–Darling Basin, the EEP is given effect by the Incident Response Guides (IRGs), which identify valley-specific triggers and possible responses at the scale of the Water Resource Plan area. The EEP was updated in December 2022 and this update is awaiting publication so was not reviewed.

The EEP and IRGs are in place to manage extreme conditions in a way that keeps the water sharing plans operating in accordance with the principles for as long as possible, only altering the priority order when there is no alternative and water is required to meet critical needs. Under these extreme circumstances, the water sharing priority order established by the Act and reflected in water sharing plans may be temporarily altered. The EEP and IRGs provide a framework for making these decisions consistently and under specific circumstances.

The IRG includes a prioritisation method that is directly informed by the order of the water sharing principles in s 5 (3) of the Act. The IRG mainly links to the principles through the water sharing plan and water resource plan. Priority order for access to water established in the water sharing plans

and water resource plans are only changed during an extreme event. Under prescribed conditions, the IRG provides for prioritisation of water use in line with s 60(3) and s 49A, which places environmental needs as the second priority behind domestic water use.

The EEP notes that department has limited capacity to actively manage systems outside of the Murray–Darling Basin, relying on management by councils and local water utilities. These systems are managed according to the water sharing plans and may also be subject to water restrictions or plan suspensions as required but are not covered by IRGs.

5.11 Management plan audit and review

5.11.1 Summary

The management plan audit and review functional area concerns audits of management plans under s 44 to determine if the plans are being given effect, and reviews of management plans to determine whether the plans remain adequate and appropriate (for floodplain management plans under s 43) or have contributed to achievement of their intended outcomes (for water sharing plans under s 43A). Section 43A of the Act also allows for extension of the duration of water sharing plans following review.

The Water group’s responsibilities for this functional area include:



- section 44 audits until 2018, when the Act was amended to change responsibility to the NRC
- section 43 reviews of floodplain management plans
- extension of water sharing plans.

The NRC has the following responsibilities under this functional area:

- section 44 audits, since 1 December 2018
- section 43A reviews of water sharing plans.

Note that the NRC is not included in the definition of ‘the department’ for the purposes of s 10 but their work has been included in review of this functional area for completeness.

Table 16. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments give effect to principles	Processes and procedures give effect to principles	Decisions and actions give effect to principles
Management plan audit and review	 Implemented but issues identified	 Demonstrated: document contains a statement on how it aligns with the principles (Note: based on non-focus area review)	Not assessed	Not assessed

5.11.2 Implementation status

The management plan audit and review functional area is being implemented by the department however there were delays in conducting s 44 audits during the review period.

Audits under s 44 of the Act

A total of 52 water management plan audits were completed from 2018 to 2022.

Between 2015 and 2018, section 44 audits of management plans were completed under the direction of an independent panel appointed by the Minister.

The Water group did not complete all section 44 audits within the five-year timeframe specified in the Act due to the lack of an agreed process for undertaking the audits. In 2018 the department contracted an external service provider to undertake audits of 25 water sharing plans that were overdue for completion.

Since the NRC commenced responsibility for audits, a further 6 audits were not completed within the required timeframe. This was due to decisions made by the department during 2020 and 2021 regarding changes to regulated water sharing plans required as part of submitted Water Resource Plan packages. The department initially proposed to replace these plans to make the changes required. Due to concerns raised by stakeholders, including the NRC, that this would result in plans being replaced without a s 43A review being conducted, a decision was made to not replace plans and amend them instead. This resulted in the s 44 audits needing to be completed by the plan's original schedule. Delays in departmental input to the audits has resulted in further delays with 3 overdue audits not completed by the end of the review period.

Reviews of floodplain management plans under s 43 of the Act

Under section 43, a review of a floodplain management plan is required within the first 5 years of each plan commencing. The department has contracted external service providers to conduct reviews of 10 floodplain management plans converted from the *Water Act 1912* and 2 floodplain management plans developed under the Act using a method developed and published in 2021.

Reviews of water sharing plans under s43A of the Act

The NRC have conducted section 43A reviews to evaluate how water sharing provisions have contributed to environmental, social and economic outcomes, and recommend any changes to improve outcomes, within the last five years of each plan. These have been completed by the NRC within the required timeframes.

Extension of water sharing plans under s 43A of the Act

Under section 43A the Minister can extend a management plan for water sharing for up to 10 years after it was due to expire. This decision must be made with consideration of the NRC's section 43A report. Numerous water sharing plans were extended during the review period.

5.11.3 Giving effect to the principles

Frameworks used by the NRC for s 44 audits and s 43A reviews demonstrate how the activities are intended to give effect to the principles. The Water group's s 43 review methodology demonstrates how the activities give effect to the principles.

The NRC has a framework for audits of water management plans under s 44 which contains an explicit statement on how the audit functions give effect to the principles, by providing assurance for implementation of provisions in management plans that may themselves give effect to the principles. The framework was in place from when NRC commenced audits of plans, made publicly available in 2020 and updated in 2022.

The NRC has published a framework for reviews of water sharing plans under s 43A. The framework was developed in 2022 and explicitly identifies the role of reviews in independently assessing the performance of plans in relation to the objects and principles of the Act.

No strategy or policy documents were identified to cover s 44 audits previously undertaken by the department.

The Water group's published methodology for s 43 reviews of floodplain management plans (Alluvium Consulting 2021a) includes detail on how the review method considers the general and specific principles.




5.12 Water access licences

5.12.1 Summary

The water access licences functional area concerns determining applications for water access licences including the assessment process, granting or refusal of applications and imposing mandatory and discretionary conditions. The Act also includes functions for amending the share component of an access licence and suspending and cancelling access licences. The water access licences functional area also includes functions relating to the keeping of water allocation accounts and daily extraction accounts.

The Water group and WaterNSW share responsibilities for this functional area for their customers.

Table 17. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments give effect to principles	Processes and procedures give effect to the principles	Decisions and actions give effect to principles
Water access licences	 Implemented	 Governed by Act, Regulation and water sharing plan (Note: based on non-focus area review)	 Explicit: document refers directly to the principles (Note: based on non-focus area review)	Not assessed

5.12.2 Implementation status

The water access licences functional area is being implemented.

Recent audits of water sharing plans such as the ‘Audit of the implementation of the Namoi, Gwydir and Macquarie regulated water sharing plans’ (NRC, 2022) and the ‘Audit of the implementation of the Water Sharing Plan for the Hunter Regulated River Water Source 2016’ (NRC, 2021), found that water access licences applications have generally been assessed and processed in accordance with the legislative requirements and water access licence management tools and that processes were generally in place to manage the licences. Other documentary evidence for implementation is outlined below.

The WaterNSW webpage ‘Water access licences’ outlines the general rules administered by WaterNSW regarding water access licences, including their features, categories and tenure along with the application process, water access licence register and certificates and components included on a certificate. The WaterNSW webpage also outlines the key steps that WaterNSW take

when issuing a licence certificate including the application process, notice of determination, registering the licence and issuing the certificate. The WaterNSW procedure manual and work instruction outline procedures used for most water access licence functions.

The Water group's Licensing and Approvals team issues water access licences for their customers. This includes special purpose access licences for town water supply, which involve referral to the Water group's Local Water Utilities team for specialist assessment. The Water group's Licensing and Approvals team also has a procedure for when an access licence is surrendered.

The water accounting rules for water sharing plans procedural document describes the water accounting rules for managing water ordering, water usage and licence dealings under the Act. It covers rules for regulated and unregulated river water sources and groundwater water sources. This document also covers the keeping of water allocation accounts.

5.12.3 Giving effect to the principles

The process of granting and applying conditions to water access licences is primarily governed by the Act, Regulation and water sharing plan provisions. In the absence of a policy, the assessment procedures for granting and applying water access licences were reviewed and found to refer directly to the principles as a point of consideration.

The Water group and WaterNSW assessment procedures were reviewed in the absence of relevant policy. They require the assessment of licence applications against the principles and relevant water sharing plan provisions. The principles are given effect by the assessment and application of mandatory and discretionary conditions to access licences. Mandatory conditions give effect to the rules of the Act, Regulation and any relevant management plan. Discretionary conditions, which the Minister may impose, are conditions added at assessment to impose environmental protections additional to those required by a plan. The authority to impose these conditions comes from the Act.



5.13 Dealings

5.13.1 Summary

The dealings functional area concerns the transfer of access licences, entitlement shares and allocations. Dealing rules in water sharing plans restrict and enable trade between and within water sources to protect environment, basic landholder rights users and reduce impacts on other users.

The responsibilities for this functional area are shared with WaterNSW and the Water group. WaterNSW manage Dealings however the Water group may be asked to provide specialist advice.

Table 18. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments give effect to principles	Processes and procedures give effect to principles	Decisions and actions give effect to principles
Dealings	 Implemented	 Explicit: document refers directly to the principles (Note: based on non-focus area review)	Not assessed	Not assessed

5.13.2 Implementation status

The dealings functional area is being implemented.

The NRC's section 44 audits undertaken between 2020 and 2022 consistently found that rules for access licence dealings rules were implemented. A trade dashboard published on the department's website provides evidence of dealings occurring.

5.13.3 Giving effect to the principles

Dealings is governed by the Act, Regulation, water sharing plans and the Access Licence Dealing Principles Order 2004 (the Dealing Principles Order). The Order provides explicit direction to give effect to the principles. No policies or strategies govern dealings.

The Dealing Principles Order states all applications for access licence dealings under the Act are to be dealt with in accordance with the water management principles, the principles in the Order and access licence dealing rules established by the management plan. The Act requires any access licence dealings rules established by management plans to be consistent with the Dealing

Principles Order. The Dealing Principles Order restricts dealings between and within water sources to protect the environment, basic landholder rights and reduce impacts on other users.



5.14 Controlled allocations

5.14.1 Summary

The controlled allocations functional area concerns declaring rights to apply for access licences by auction, tender or other means. In water sources with unassigned water a controlled allocation order can make new access licences available. The controlled allocation may relate to one or more licences, a particular class of licence (for example, aquifer access licences) or all licences for a specified water source or plan area.

The Water group has responsibility for this functional area.

Table 19. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments provide direction to give effect to principles	Processes and procedures give effect to principles	Decisions and actions give effect to principles
Controlled allocations	 Implemented	 Not evident: Could not determine from the evidence (Note: based on non-focus area review)	Not assessed	Not assessed

5.14.2 Implementation status

The controlled allocations functional area is being implemented.

Controlled allocation orders have been made each year of the review period (2017 to 2022) for groundwater sources and in 2022 for some surface water sources. Orders are published in the NSW Government Gazette and announced on the department's website.

5.14.3 Giving effect to the principles

The strategy for groundwater controlled allocations refers explicitly to the principles, but NRC audits have been unable to determine if all principles have been given effect. There is no

equivalent document for surface water controlled allocations. A high-level interim decision-making framework has been applied and explicitly refers to the principles, but only environmental principles were considered.

Controlled allocations in groundwater sources are supported by the Strategy for the controlled allocation of groundwater (Department of Primary Industries 2017). The strategy gives effect to the water sharing principles by considering controlled allocations that maintain sustainable and equitable access to and use of water, predicted future water requirements for high priority use including supply for towns and basic landholder rights.

However, the audits of the Water Sharing Plan for the Bega and Brogo Rivers Area Regulated, Unregulated and Alluvial Water Sources 2011 and Review of the Water Sharing Plan for the Greater Metropolitan Region (as well as more recent NRC s43A reviews) found that it was unclear whether controlled allocations are being made in accordance with the Act and its principles, and with the objectives of the relevant water sharing plans. The NRC was not able to review documentation demonstrating how controlled allocations gave consideration to Aboriginal cultural values and provision for environment and basic rights, as required by the Act's principles and objectives of the water sharing plans (as they protect water for the environment, basic landholders and cultural needs). NRC reviews have found that the controlled allocation process does not adequately consider principle (2)(f) relating to geographical and other features of major cultural, heritage or spiritual significance.

There is no formal strategy for making controlled allocation orders for surface water sources. Controlled allocation orders were made for surface water sources in 2022 based on a 'high-level interim decision-making framework' developed at the time. At this time, controlled allocations were recommended for release according to risk, based on available information and in line with the principles. However, only environmental principles were considered in the framework. Some licences were recommended to be retained for further assessment, as they required additional assessment of risks associated with town water supply, environmental risks, risks to extraction limits and benefits and opportunities for water for Aboriginal people and other social and economic benefits.



5.15 Access licence and approvals registers

5.15.1 Summary

The access licence and approvals registers functional area concerns keeping of registers to record access licences, dealings and approvals. The Act requires that dealings, approvals and Water Access Licences are recorded in registers, with rules applying to access, searches, correction and amendment of the registers.

Responsibilities for this functional area is shared between WaterNSW and the Land Registry Services.

Table 20. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments give effect to principles	Processes and procedures give effect to principles	Decisions and actions give effect to principles
Access licence and approvals register	 Implemented	 Governed by Act and Regulation (Note: based on non-focus area review)	Not assessed	Not assessed

5.15.2 Implementation status

The access licence and approvals registers functional area is being implemented.

The NSW Water Register located on the WaterNSW website provides public access to information about water licences, approvals, water trading, water dealings, environmental water and other matters related to water entitlements in NSW in compliance with the Act and Regulation. The register amalgamates information from several public registers maintained by WaterNSW as part of its statutory responsibility to record water entitlement and water market information.

The NSW Water Register is complemented by the Water Access Licence Register maintained by NSW Land Registry Services, which provides more detailed property right information about every water access licence entitlement in NSW.

5.15.3 Giving effect to the principles

The access licence and approvals registers are governed by the Act and Regulation in the absence of policy or strategy. No further assessment was undertaken, in line with the lower effort approach.

The Regulation outlines the matters to be included in the Water Access Licence Register. No relevant policies or strategies were identified for review.



5.16 Flood work approvals

5.16.1 Summary

The functional area concerns determining applications for flood work approvals, imposing mandatory and discretionary conditions and amending, suspending and cancelling approvals.

The responsibilities for this functional area are shared between WaterNSW and the Water group.

Table 21. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments to give effect to principles	Processes and procedures give effect to principles	Decisions and actions give effect to principles
Flood work approvals	 <p>Implemented but issues identified</p>	 <p>Governed by the Act, Regulation and floodplain management plans (Note: based on non-focus area review)</p>	Not assessed	Not assessed

5.16.2 Implementation status

The flood work approvals functional area is being implemented however issues have been identified with the assessment and granting process, and application of mandatory conditions.

The most recent NRC audit (Upper and Lower Namoi Valley floodplain management plans, published in January 2023) identified a number of issues with flood work approvals in these management plan areas. This included:

- some converted flood work approvals were not assigned to their relevant floodplain management plan
- approvals granted that did not meet the requirements of the plan
- approval assessments did not clearly document the management zones considered
- problems with coding mandatory conditions into the water licensing system so that they can be applied to approvals, resulting in manual application of conditions at the time of assessment. This was due to historical limitations with the system and due to current work replacing this system.

NRC audits of floodplain management plans (between 2020 and 2022) found that mandatory conditions had been inconsistently applied and flood work approval holders have been inconsistently notified of approval conditions required under sections 100 and 102 of the Act.

Further information provided to this review via interview included that in late 2022 all 6 floodplain management plans have had mandatory conditions applied; however, there continue to be system IT issues that prevent the Water group from notifying approval holders. The system is under review for rectification.

WaterNSW has addressed the majority of the audit recommendations, including identifying that updated assessment templates and procedures are now in place. System updates of licensing and approval functions will further address outstanding gaps.

5.16.3 Giving effect to the principles

Flood work approvals are governed by floodplain management plan provisions. However, the processes by which the governing instruments are implemented was not reviewed, in line with the lower effort approach.

Floodplain management plans include rules that govern the granting or amending of flood work approvals, which must be considered in the assessment process. These rules relate to:

- the types of flood works that can be built
- whether an application for a flood work approval must be advertised
- criteria for assessing the impacts of flood works and whether they will significantly redistribute or otherwise alter flood behaviour, or have impacts on floodplain connectivity, ecological and cultural assets, or drainage on neighbouring properties.

The rules in floodplain management plans are designed to provide for flood work development in those parts of the floodplain where they have the lowest risk of adversely impacting flooding behaviour, the floodplain environment or other landholders.




5.17 Water Use Approvals

5.17.1 Summary

The water use approvals functional area concerns determining applications for water use approvals and imposing discretionary conditions, and amending, suspending and cancelling approvals. A water use approval authorises its holder to use water for a particular purpose, such as irrigation, at a particular location.

Responsibility for this functional area is shared between WaterNSW and the Water group.

Table 22. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments give effect to principles	Processes and procedures give effect to the principles	Decisions and actions give effect to principles
Water use approvals	 Implemented	 Governed by Act and Regulation (Note: based on non-focus area review)	 Explicit: refers directly to the principles as a point of consideration (Note: based on non-focus area review)	Not assessed

5.17.2 Implementation status

The water use approvals functional area is being implemented.

Water use approval applications are determined based on the rules of the Act and Regulation. The NSW Water Register provides access to information on water use approvals. The register amalgamates information from several public registers maintained by WaterNSW as part of its statutory responsibility to record water entitlement and water market information.

5.17.3 Giving effect to the principles

Water use approvals are governed by the Act and Regulation. In the absence of a policy, process documentation already provided to the review was reviewed, and it was found to refer directly to the principles as a point of consideration.

The WaterNSW Licensing Manual details the procedures, policies and requirements regarding how applications for approvals are received, assessed and determined in alignment with the Act and Regulation. The manual explicitly refers to the principles and requires officers to consider environmental impacts prior to approving.




5.18 Controlled activity approvals

5.18.1 Summary

The controlled activity approvals functional area concerns determining applications for controlled activity approvals, imposing discretionary conditions and amending, suspending and cancelling approvals.

The Water group has responsibility for this functional area.

Table 23. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments give effect to principles	Processes and procedures give effect to the Act	Decisions and actions give effect to principles
Controlled activity approvals	 Implemented	 Governed by Act and Regulation (Note: based on non-focus area review)	 Explicit: refers directly to the principles as a point of consideration (Note: based on non-focus area review)	Not assessed

5.18.2 Implementation status

The controlled activity approvals functional area is being implemented.

In the 12-month period from January to December 2022 there were 372 controlled activity approvals issued, as evidenced by the NSW Planning Portal.

5.18.3 Giving effect to the principles

Controlled activity approvals are governed by the Act and Regulation. No policies or strategies are in place. Process documentation including guidelines and assessment sheets were

reviewed and the assessment sheets refer directly to the principles as a point of consideration in assessment.

The department’s guidelines (for activities on waterfront land impacting riparian corridors, instreams, outlet structures, vegetation and water course crossings) were reviewed and found to not explicitly mention the principles. The only reference is to ensuring minimum harm to waterfront land. Assessment sheets for controlled activities applications were also reviewed and these included explicit reference to the general principles and controlled activity principles in the assessment.



5.19 Mandatory conditions

5.19.1 Summary

The mandatory conditions functional area concerns imposing mandatory conditions on access licences and approvals to give effect to the Act, regulations or management plans. It also covers imposing, amending, revoking and suspending mandatory conditions on access licences and approvals.

Responsibilities for this functional area are shared between the Water group and WaterNSW.

Table 24. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments give effect to principles	Processes and procedures give effect to principles	Decisions and actions give effect to principles
Mandatory conditions	 <p>Implemented but issues identified</p>	 <p>Governed by Act, Regulation and management plans (Note: based on non-focus area review)</p>	Not assessed	Not assessed

5.19.2 Implementation status

The mandatory conditions functional area is being implemented, but issues with implementation have been identified.

Mandatory conditions have been implemented. However, in audits of the 3 northern regulated river water sharing plans (2022), the 8 coastal unregulated and alluvial water sharing plans (2021) and the water sharing plan for Hunter Regulated River water source (2021), the NRC found systematic

delays in written notice to approval holders, giving delayed effect to sections 102(4) and 102(5), 100(1A) and 67(4) of the Act. These delays occurred within the review. Further, the NRC found in the audit of the Namoi, Gwydir and Macquarie regulated water sharing plans (NRC 2022) that for WaterNSW work approvals, some mandatory conditions were not included in the statement of approvals. The audit recommendation directed the Water group to prepare relevant conditions for the WaterNSW statements of approvals sampled in the audit. As stated in the flood work approvals functional area, the NRC audits found that the flood work approval holders have also been inconsistently notified of approval conditions, and where notification has occurred, mandatory conditions have been inconsistently applied, not giving effect to s 100 and 102 of the Act.

The Water group has focussed on improving the application of mandatory conditions and the notifying of landholders of their approvals since 2020. A dedicated team has been addressing these issues, including establishment of governance, resourcing and systems to mitigate this issue. In 2021 – 2022, the department has focussed on addressing the backlog of notifications to licence holders and has recently addressed the backlog. The reasons provided in interview for the delay in notifications were the lack of dedicated resources, system inefficiencies and lack of clear responsibilities and governance for this task (after the establishment of NRAR). In the NRC’s audit report on regulated water sharing plans in 2022 it was ‘the Commission has confidence in the broader process going forward for timely notifications and therefore makes no recommendation’.

This review found that the department was not implementing section 66(3), which stipulates, “At the end of each 5-year period, the Minister is to vary each local water utility licence so as to reflect any variation in population, together with any variation in associated commercial activities, that has occurred during that period in the area in which domestic water is supplied under the licence”.

No local water utility water access licences were varied under this section of the Act during the review period. Requirements under this section of the Act were clarified in 2018 however no evidence was found that work progressed on this function since the advice was received.

5.19.3 Giving effect to the principles

There is no discretionary decision making in applying mandatory conditions, so giving effect to the principles relies on accurate application of the provisions of the Act, Regulation and management plans.

Mandatory conditions are governed by the Act, Regulation and individual management plans. Mandatory conditions from these instruments are coded in the Water Licensing System to give effect to the instruments. There is no discretionary decision making when applying conditions, so the application of mandatory conditions gives effect to the principles by accurately applying the provisions of the instruments.



5.20 Joint private works – irrigation corporations

5.20.1 Summary

The joint private works – irrigation corporation functional area concerns conferral of operating licence for irrigation corporations, approval of applications for inclusion and exclusion of land in area of operations and keeping of a register of licences, audits and management programs by irrigation corporations.

The Water group has responsibility for this functional area.

Table 25. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments give effect to principles	Processes and procedures give effect to principles	Decisions and actions give effect to principles
Joint private works – irrigation corporations	 <p>Implemented but issues identified</p>	 <p>Governed by Act and Regulation (Note: based on non-focus area review)</p>	Not assessed	Not assessed

5.20.2 Implementation status

The joint private works – irrigation corporation functional area is being implemented in part, but issues with implementation have been identified.

Applications for irrigation corporations to include and exclude land (s 128, s 130, s 132, s 133, s 134) are processed by the department using a documented procedure. However, the department needs to determine whether irrigation corporations should be lodging an application to amend their water use approval at the time of inclusion or exclusion (which has not historically occurred). The department is reviewing this issue.

The review found that electronic records of operating licence, audits and management programs required under s 138 are being kept by the department but that no formal register was being kept. The department is reviewing this issue.

Across the department there was uncertainty around roles and responsibilities for some aspects of this functional area and whether any reform is underway.

5.20.3 Giving effect to the principles

The joint private works – irrigation corporation functions are governed by the Act and Regulation. No policies, strategies or statutory plans apply. No further assessment was undertaken, in line with the lower effort approach.



5.21 Joint private works – private irrigation and drainage

5.21.1 Summary

This functional area concerns management of private irrigation districts, private drainage boards and private water trusts including governance functions, receiving and processing petitions to add lands and various financial management functions.

This functional area is the responsibility of the Water group.

Table 26. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments give effect to principles	Processes and procedures give effect to principles	Decisions and actions give effect to principles
Joint private works- private irrigation and drainage	 <p>Implemented but issues identified</p>	 <p>Governed by Act and Regulation (Note: based on non-focus area review)</p>	Not assessed	Not assessed

5.21.2 Implementation status

The joint private works – private irrigation and drainage functional area is being implemented, but issues with implementation have been identified.

This functional area is implemented by the Water group on an as-needs basis. The department is currently working with joint private works schemes to develop clear rules and regulations for schemes as the current legislation is outdated. This section of the Act is the focus of a large reform and regulation program that aims to modernise the Act and Regulation for this functional area. It is anticipated that this reform program will also result in procedures and documentation on how this will be implemented by the department in the future.

5.21.3 Giving effect to the principles

The private irrigation and drainage functions are governed by the Act and Regulation. No policies, strategies or statutory plans apply. No further assessment was undertaken, in line with the lower effort approach.



5.22 Hunter Valley Flood Mitigation Scheme

5.22.1 Summary

This functional area concerns the management of the Hunter Valley Flood Mitigation Scheme (HVFMS). The scheme is a system of flood protection and mitigation infrastructure in place since 1955 to protect life and property across the Lower and Upper Hunter Valley in NSW.

Responsibilities for this functional area are shared between the Water group, WAMC, local government and Local Land Services. In July 2021 the HVFMS Team transferred from the Environment and Heritage group to WAMC.

Table 27. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments give effect to principles	Processes and procedures give effect to principles	Decisions and actions give effect to principles
Hunter Valley Flood Mitigation Scheme	 Implemented	 Explicit: document refers directly to the principles (Note: based on non-focus area review)	Not assessed	Not assessed

5.22.2 Implementation status

The Hunter Valley Flood Mitigation Scheme functional area is being implemented.

An evaluation of the Hunter Valley Mitigation Scheme (the scheme) conducted for the department in 2022 evaluated the scheme's outcomes, value for money and overall performance. The evaluation concluded that the scheme provides a wide range of flood mitigation, economic, social and environmental benefits to the Hunter Valley. The program of asset management, replacement and maintenance was found to be very effective in maintaining the flood mitigation role of the scheme.

The department is conducting a strategic review of the scheme which will make recommendations to improve management in the future.

5.22.3 Giving effect to the principles

An external review of the scheme found the program gives effect to the principles.

The Hunter Valley Mitigation Scheme Evaluation Report reviewed the scheme’s alignment with the Act and found the program aligns with the principles.

In addition, the Hunter Valley Flood Mitigation Scheme Environmental Management Plan (a non-statutory plan) was developed to demonstrate the program’s compliance with the requirements of the Act, including the principles.



5.23 Water supply authorities

5.23.1 Summary

The water supply authorities functional area concerns the constitution of water supply authorities and functions including approving water supply authority determinations.

Responsibilities for this functional area are shared between the Water group and Water Supply authorities listed in Schedule 3 of the Act. The focus of this review is the functions of the department and as such the authorities themselves are not within the scope of this review.

Table 28. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments give effect to principles	Processes and procedures give effect to principles	Decisions and actions give effect to principles
Water supply authorities	 Implemented	 Governed by Act and Regulation (Note: based on non-focus area review)	Not assessed	Not assessed

5.23.2 Implementation status

The water supply authorities functional area is being implemented.

The ‘Boards and Committees: Appointment to existing Committees’ document outlines how section 286 is implemented. Decision briefs signed by the Minister show examples of the implementation of the process.

There is no register kept of whether water supply authorities are complying with their requirement under s 315 to obtain Minister approval of pricing determinations; however, briefs have been reviewed that show s 315 approvals signed by the Minister.

5.23.3 Giving effect to the principles

The water supply authority functions are governed by the Act and Regulation. No policies, strategies or statutory plans apply. No further assessment was undertaken, in line with the lower effort approach.



5.24 WAMC works and land functions

5.24.1 Summary

The WAMC works and land functions functional area concerns constructing, maintaining and operating water management works, and acquiring rights to water and acquiring or leasing land on behalf of the government.

WAMC and the Department has the responsibility for this functional area.

Table 29. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments give effect to principles	Processes and procedures give effect to principles	Decisions and actions give effect to principles
WAMC works and land functions	 Implemented	 Not evident: could not determine from the document (Note: based on non-focus area review)	Not assessed	Not assessed

5.24.2 Implementation status

The WAMC works and land functions functional area is being implemented by the department.

The WAMC Framework provides detail on the functions of the WAMC including s 375 relating to the acquisition of land. The Framework identifies the WAMC powers, benefits of using them and the requirements to ensure the WAMC powers and functions are exercised properly.

WAMC has established an Asset Management Framework in compliance with the NSW Government Asset Management Policy. A WAMC Asset Maturity Assessment has identified implementation gaps, and these are being addressed through the Asset Management Implementation Plan.

The majority of the focus of the Asset Management Plan to date relates to the management and operation of the Hunter Valley Flood Mitigation Scheme, with work on other WAMC assets currently focussed on identifying the nature and condition of the other assets.

5.24.3 Giving effect to the principles

It is not evident from the WAMC Strategy and Framework how the functions give effect to the principles as they are not mentioned in the documents.

The WAMC Framework sets out the functions of WAMC and this includes the purpose of enabling the objects of the Act. Neither the framework nor WAMC Corporate Strategy provides any explicit direction to give effect to the principles.



5.25 Section 388 Committees

5.25.1 Summary

The Section 388 Committees functional area concerns establishing advisory and other committees for the purposes of the Act.

The Water group and the Environment and Heritage group are responsible for this functional area.

Table 30. Summary of implementation status of the functional area and whether the principles have been given effect

Functional area	Implementation status	Overarching instruments provide give effect to principles	Processes and procedures give effect to principles	Decisions and actions give effect to principles
Section 388 Committees	 Implemented	 Governed by Act (Note: based on non-focus area review)	Not assessed	Not assessed

5.25.2 Implementation status

The section 388 committees functional area is being implemented.

Currently the only committees established under s 388 are Environmental Water Advisory Groups (EWAGs), which are responsible for advising on management of environmental water. Five EWAGs are established in the Gwydir, Macquarie Cudgegong, Lachlan, Murrumbidgee, and Murray Lower Darling catchments. The department is working on establishing an additional four EWAGs, for the Hunter-Paterson, Namoi-Peel, NSW Border Rivers, and Barwon-Darling regions.

The EWAG's Terms of Reference outlines the statutory provisions and role of EWAGs and provides guidance on membership, member roles and responsibilities, governance, operations, and administrative arrangements.

A 2020 independent review of the environmental water management program 2014 to 2019 included discussion on EWAGs. The evaluation found that 'they are held in high regard by stakeholders and are functional forums for two-way advice and consultation regarding environmental water'.

5.25.3 Giving effect to the principles

The section 388 committees functional area is governed by the Act with no policy or strategy in place. No further assessment was undertaken, in line with the lower effort approach.

6 Synthesis of findings

The review identified areas of success in giving effect to the principles as well as issues that will need to be addressed, as outlined in the key findings and recommendations (Chapter 7). This first application of the review method also identified limitations with the method, which should be considered for future reviews. This chapter synthesises the findings and aims to address overarching questions regarding the successes and challenges in giving effect to the principles, as well as briefly discussing limitations with the review method. It then discusses what can be done to improve.

6.1 What underpinned success in giving effect to the principles?

The factors outlined in this section contributed to the department's successes in giving effect to the principles.

6.1.1 Clear pathways connecting high-level instruments, processes and decisions

The clearest examples where the principles had been given effect throughout a functional area demonstrated clear pathways whereby consideration of the principles in high-level instruments could be linked to the steps outlined in processes, and the resulting decisions referenced or clearly reflected the high-level instruments and/or processes. However, in practice, many functional areas were not supported by documentation at all levels of this hierarchy and this pathway is easier to achieve in some areas than others (see challenges below).

The water supply work approvals functional area provided an example of a clear pathway whereby the decisions made to approve or reject an application were recorded on assessment sheets, which were supported by a procedure manual. The assessment sheets showed the results of assessments against all the relevant considerations, which included direct reference to the general principles and referred to the water sharing plan provisions for consideration of the water sharing principles. The assessment sheet and procedure manual provided instructions for assessors and decision makers on how to complete each part of the assessment. This functional area was not supported by policy, but the procedures and assessment sheets effectively linked to and provided guidance on all the relevant considerations.

Defining clear pathways for giving effect to the principles is important for transparency and consistency in decision making because the assumptions underpinning decisions can be examined and the results can be readily audited. Defining clear pathways may also enable more efficient decision making, particularly for more routine functions, since decision makers can demonstrate consistency with higher-level documents that have been shown to align with the principles, rather

than applying the principles individually for each decision made (see risks below for further discussion).

6.1.2 Applicability of the specific principles

The specific principles (for example, for water sharing, floodplain management or controlled activities) tended to be applied clearly in decisions where those specific principles applied, although only the application of the water sharing principles was reviewed in detail due to the focus areas prioritised in this review. Staff involved in implementing functions to which the water sharing principles applied generally had a good understanding of what was required to comply with these principles and how the water sharing principles applied to their work; however, there was uncertainty in relation to application of the general and specific principles together in some cases. A number of factors may be contributing to this, including the clear and practical applicability of the specific principles and also the increased awareness of the water sharing principles as a result of recent reviews and reforms in the water sector.

6.1.3 Increased maturity and confidence in statutory plan development and implementation

Improvements in the maturity of the planning process were evident in the review. Floodplain management plans have been developed and converted from the *Water Act 1912* to the Act, with work underway to transition the remaining plans to the Act, and water sharing plans now cover the entire state. Fact sheets demonstrating how the plans give effect to the principles now accompany floodplain management plans and water sharing plans at time of commencement, improving transparency regarding the principles.

The NRC's independent audits and reviews of water sharing plans and review of floodplain management plans have identified issues with plans and their implementation, which are considered by the department and actioned as required, increasing confidence in the plans and their implementation where improvements have been made. Further increasing confidence is the role of NRAR in monitoring and enforcing compliance with plan rules since 2017.

Notwithstanding issues that continue to be identified and addressed, improvements in the planning process, publication of independent audits and reviews and an effective regulator have all contributed to more mature framework for water management via statutory plans and increased confidence in the effectiveness of those plans in giving effect to the principles.

6.1.4 Improvements as a result of recent reviews and reforms

Reviews including Matthews (2017) and ICAC (2020) have given rise to a range of major reforms in the water sector, including the Water Reform Action Plan, and restructuring of the sector. The establishment of a Roles and Responsibilities agreement between the Water group, NRAR and WaterNSW improves clarity for each agency, supporting accountability and providing a framework for managing responsibilities under the Act. Reforms and improvements in water management are ongoing.

6.1.5 Limited gaps in implementation

The review found that functions required by the Act are being implemented, with few exceptions. This finding gives confidence that there are not significant or systemic issues with Act implementation by the department that would impact on the achievement of the objects of the Act or giving effect to the principles.

6.2 What have been the challenges in giving effect to the principles?

The review has identified challenges in giving effect to the principles. Highlighted below are common challenges relating to a number of areas in the review and giving rise to the key findings identified in Chapter 7.

6.2.1 Complexity of the Act and application of the principles

The Act is highly complex, with a large number of functions and many pieces of subordinate legislation. Decision making often requires reference to the Act, the Regulation and statutory plans, which makes it challenging to identify and document where and how the principles have been considered, and which principles need to be considered directly at the point of decision making.

Staff were often not certain on how and where the principles should be applied to decisions, and which principles applied, in order to comply with the duty under s 9 of the Act. Generally, there was better understanding of how to apply the specific principles where relevant, but it was more challenging to determine how the specific principles apply in conjunction with the general principles, which apply to all decisions regardless of whether specific principles also apply.

6.2.2 Lack of clarity in documentation of discretionary decision making for diverse activities

An approach was applied by staff in some cases that relied on the assumption that when implementing according to a statutory plan (or other subordinate legislation), it may be appropriate to rely on that plan having embedded consideration of the principles rather than directly considering all relevant principles in each decision. However, it was often not clearly articulated in decision records which considerations in a decision relate directly to a statutory plan and where there were areas of discretion, which would require direct consideration of the principles. The assumption that the relevant plan can be relied on for giving effect to the principles has also not been tested.

Given the challenges of exercising discretion and implementing subordinate legislation, it is important that documentation of decisions can articulate where and how the principles have been applied with reference to other instruments and direct reference to the principles in areas of discretion. This is required for transparency, consistency and quality assurance (including the testing of assumptions).

Demonstrating where and how the principles have been applied, including by establishing clear pathways between high-level instruments, processes and decisions, is more challenging in some

areas than others. Establishing and documenting pathways for giving effect to the principles is easier in more routine activities, including assessment-based decisions where assessment sheets and checklists can be used in all cases. However, the Act also requires functions that are non-routine and functions where decisions must be made rapidly in response to changing conditions. It is more challenging in these cases to establish and document efficient and reliable pathways for ensuring the principles are given effect.

Development of regulations and orders is one example of a non-routine activity, where each case may require a different process to address particular needs. Tools such as process documents and assessment sheets may be less effective due to the variable subject matter of the work. Higher level guidance on how the principles should be considered is likely to be more appropriate here, along with more detailed articulation of how each decision has directly considered the principles, in the absence of mid-level guidance.

Making available water determinations is an example where establishing and documenting a pathway for giving effect to the principles is very important, due to part of the decision-making process relying on non-discretionary provisions in the water sharing plan and other parts of the process requiring some degree of discretion and therefore direct consideration of the principles. The number of available water determinations being made each year makes it challenging to demonstrate direct consideration of the principles in all areas of discretion for each decision. There is a need for further guiding documentation, which can outline how the principles are applied in areas of discretion so that this can be referenced transparently and discretion by the decision maker can be minimised.

6.2.3 Risks in translation of the principles from instruments to processes and decisions

Legislative drafting practice is that subordinate statutory legislation does not restate provisions that appear in the Act or in other legislation. This increases the significance of policies and procedures in guiding persons exercising functions in how to give effect to the principles, especially when exercising discretionary decisions under the Act.

There are risks associated with discretionary decision making in the absence of guiding policies or procedures and placing significant discretion with a decision maker. These include:

- reduced ability to ensure consistency in decision making in terms of how the principles have been interpreted and applied
- reduced transparency in how the principles have been applied
- potentially onerous documentation required to demonstrate how each decision individually considered the principles.

Use of policies and other guidance to reduce decision maker discretion where the Act or other instrument is not prescriptive also poses risks. Assurance processes are required to ensure that the assumptions allowing decision makers to refer to policies or other guidance instead of directly considering all relevant principles at the time of decision making are tested and can be upheld. It must be determined that the policy or guidance itself gives effect to the principles and that it applies to the decisions that reference it.

6.2.4 Complexity of responsibilities for the Act's functions and changes to organisational structure

The Act's functions are the responsibility of a number of agencies, whose activities must be coordinated. Significant restructuring has also been undertaken in the period of review, and prior to that period, resulting in disruption to activities and loss of expertise (this was acknowledged by the NSW Ombudsman and ICAC). The Roles and Responsibilities Agreement agreed in 2021 provides a framework for improving clarity and resolving issues, but the dispersed responsibilities for functions in the Act remains a challenge.

6.3 Limitations of the review method and approach

This review was the first time that the review method has been applied. The review process identified limitations, which should be considered for future applications of the method. The most significant limitations are outlined below.

6.3.1 Hierarchy of Act implementation does not always reflect the approach to implementation

The method establishes a hierarchy of Act implementation, from the Act itself and the overarching statutory instruments through to decisions and actions (see 3.3.2). The steps of the method rely on activities and evidence at multiple levels of the hierarchy to demonstrate giving effect to the principles. However, in many cases the implementation activities under a functional area did not conform to the hierarchy, or available evidence did not fit into those categories. In addition, few functional areas were supported by policies and there was uncertainty about the definition of a policy (for example, in contrast to a guideline or position statement).

6.3.2 Non-focus area review approach requires refining

The approach to reviewing non-focus functional areas was an addition made to the method in this review to allow for all functional areas to receive a level of review (see 3.3.6). However, this relied on the availability of policies or other overarching instruments and on the assumption that the policies directly influenced or reflected implementation practices. In practice, this approach did not provide a sufficient level of assurance to determine if the principles were given effect for non-focus areas. For all functional areas, the reliance on documentary evidence in the method meant that in many cases it could not be determined if the principles were given effect, although this should not be taken as a finding that the principles were not given effect.

6.3.3 Lack of framework for forming evaluative conclusions

The method provided assessment sheets for sources of evidence but did not provide a framework for forming evaluative conclusions on whether the work and activities gave effect to the principles. Standards were developed to provide consistency in the findings between functional areas, but without an evaluative framework it was only possible to report findings against the review question for individual focus areas.

6.4 What can be done to improve?

Successes and challenges identified in this review indicate that staff need access to relevant knowledge, infrastructure and support so that they can be empowered to apply the principles with confidence and meet the duty under s 9 of the Act when undertaking their work.

Recommended measures to drive improvement in the department's ability to give effect to the principles are outlined below and addressed more specifically in Chapter 7.

6.4.1 Overarching guidance on applying the principles

There is a need for overarching guidance for each agency on how the principles should be interpreted and applied in their work, to support consistency in application of the principles and set expectations for meeting the duty under s 9. It is likely to be most appropriate that each agency develop its own guidance as relevant for its own activities.

Overarching guidance would provide staff with a clear framework for establishing and documenting how their activities under the Act give effect to the principles, including linking between instruments, processes and decisions to establish pathways. These pathways could provide a basis for demonstrating where and how the principles are considered in a process as well as where there are areas of discretion that require policy support to constrain discretion or guidance on how the principles should be applied directly in decision making.

Overarching guidance could be used to set minimum standards for documentation to enable auditing of decisions and transparency more generally (see 6.3.4).

6.4.2 Access to advice

In addition to top-down overarching guidance, staff require a clear pathway for accessing tailored advice on how the principles apply to their work, from the bottom-up. This acknowledges that there is diversity in the range of activities undertaken under the Act and a 'one-size-fits-all' approach is unlikely to be fit for purpose.

Easier access to advice based on legal opinion would provide decision makers with confidence that they are meeting their obligations under the Act and help to identify risks to the principles being given effect by decision making in a particular area of activity.

6.4.3 Education regarding the duty under s 9

The duty under s 9 drives application of the principles; however, the review identified uncertainty in how the duty should be interpreted, including which activities it applies to. Ongoing education for staff on the duty and how it applies would help to increase staff confidence in applying the principles and may drive uptake of overarching guidance and tailored advice.

Education is needed to ensure that the need to comply the duty under s 9 is fully embedded in all processes of decision making under the Act, to the point that it is entirely routine to consider the principles, akin to consideration of work health and safety. Considering the principles in decision making will require additional effort for some areas of activity in the short-term, but this will enable

more streamlined application in the medium to long term, once supported by guidance, advice and other required infrastructure.

6.4.4 Assurance processes for decision making

Additional infrastructure is required to support the department in improving its ability to give effect to the principles, particularly to support documentation of decisions and quality assurance processes. The department needs to be able to demonstrate how decisions have given effect to the principles in order to improve transparency and to increase assurance. A quality management framework would support consistent record keeping for decision documentation, enabling auditing, reporting and continual improvement.

6.4.5 Review and update the review method

The review method should be reviewed and updated to address limitations identified in this first application of the review. Review of the method should consider:

- development of an evaluative framework to transparently guide data collection, analysis, formation of evaluative conclusions and reporting of results
- alternatives – or adjustments – to the hierarchy of Act implementation as a basis for organising activities and evidence types for review, that recognises the diversity in implementation activities under the Act
- a refined approach to treatment of focus areas and non-focus areas to address the limitations of the non-focus area approach taken in this review
- feedback from those involved in this review to identify additional opportunities for improvement.

7 Key findings and recommendations

Key findings and recommendations are presented in Table 31. These are the overarching findings and recommendations aimed at addressing systemic issues or those that relate to many areas of Act implementation.

Additional findings and suggested actions are presented in Table 32. These relate to issues identified in individual functional areas that pose a significant risk to the department's ability to demonstrate giving effect to the principles.

Where the 'department' is referenced in a recommendation this means all agencies exercising functions under the Act for the purpose of the s 10 review. This includes the Water group, the Environment and Heritage group, NRAR and WaterNSW. Individual agencies are mentioned where a finding or recommendation only applies to that agency.

7.1 Key findings and recommendations

Table 31. Key findings and recommendations

Key finding	Recommendation	Rationale for recommendation
<p>F1 There was a lack of explicit evidence for how the principles are given effect in policies, processes and decisions. Where consideration of the principles was evident, it was often implicit and addressed either the general or specific principles but often not all principles that apply.</p>	<p>R1.1 Each agency in the department should develop guidance for how the principles should be applied in all levels of implementation, including high-level instruments, processes and decisions. Guidance should reflect the requirement for key documents to demonstrate alignment with the principles, either by showing alignment with a higher-level instrument or demonstrating alignment with the principles directly where discretion is required, or no high-level instrument is in place.</p> <p>R1.2 The department should undertake to educate staff on the duty under s 9 and provide avenues for business units to obtain tailored advice on which principles should be applied to their work and how.</p> <p>R1.3 The department should establish a quality management framework that supports improved assurance that decisions are being made in alignment with the principles and that assumptions based on linkages between high level instruments and decisions are being tested.</p> <p>R1.4 In the interim to R.1.-1.3, the department should develop and provide to staff consistent advice on requirements for demonstrating and documenting alignment with the principles in decision making.</p>	<p>There is a need for consistent, overarching guidance coupled with education to ensure that staff understand their duty under s 9 and can obtain advice on how the principles should be applied across a range of implementation activities. A quality management system will provide assurance that the principles are given effect and will enable more efficient reporting via s 10. The recommendation to develop interim advice recognises that scoping, resourcing and implementing recommendations R1.1-1.3 may take time.</p>

Key finding	Recommendation	Rationale for recommendation
<p>F2 Staff were often uncertain about which principles apply to their work and how those principles should be given effect at policy, process and decision levels.</p>	<p>R1.1-1.4 applies</p>	<p>See above.</p>
<p>F3 Consideration of the principles in decision making was sometimes deferred to a management plan, assumed to be consistent with the principles. However, it was often not demonstrated which parts of a process or decision strictly implemented a management plan and which parts were not covered by plan provisions and required discretion. These links were also not clearly articulated in documentation of processes or procedures.</p>	<p>R1.1-1.4 applies</p>	<p>See above.</p>
<p>F4 Issues were identified in review of specific functional areas, which may pose a risk to the department giving effect to the principles.</p>	<p>R2 The department should prioritise and address the additional findings and suggested actions identified with the ‘AF’ and ‘SA’ prefixes using a risk-based approach.</p>	<p>Additional findings related to specific functional areas pose potential risks to the department giving effect to the principles, but not at the scale of the key findings and recommendations, which apply in many cases across the department. Addressing these in addition to the more systemic findings and recommendations will improve the department’s ability to give effect to the principles.</p>
<p>F5 First application of the review method identified areas for improvement, as well as limitations in the approach used for reviewing non-focus functional areas. The NRC also suggested future reviews should consider applying an outcomes-based approach.</p>	<p>R3 The Water group should review the Section 10 review method and make updates as required. This should consider changes to how the method is operationalised throughout the 5-year period to support reporting under s 10.</p>	<p>Improvements to the method are required to incorporate learnings from the first application and as part of a process of continual improvement. The published method contains a recommendation that the method should be updated over time.</p>

7.2 Additional findings and suggested actions

Table 32. Additional findings and suggested actions

Additional finding	Suggested action	Rationale for action
<p>AF1 Water sharing plan development: The Water group's Replacement Water Sharing Plan Manual covers only unregulated water sources and groundwater sources outside the Murray-Darling Basin. There is no equivalent document covering other water sources. The manual implicitly aligned with most of the relevant principles but did not include detail on information inputs to address principles 5(2)(e) concerning features of Aboriginal significance or 5(2)(f) concerning geographical and other features of major heritage or spiritual significance. There is currently no documented guidance for how the principles should be considered and applied in concurrence.</p>	<p>SA1 The Water group with the Environment and Heritage group should develop process documentation for the development, replacement and concurrence of water sharing plans covering all water source types. It should include explicit guidance with respect to the relevant principles, including 5(2)(e) and (f). This should be addressed with reference to R1.1-1.4.</p>	<p>The department should be transparent about the process used to develop water sharing plans, including all information inputs and how the principles are considered in this process.</p>
<p>AF2 Water supply work approvals: The Licensing Procedure Manual and assessment sheets demonstrate consideration of the principles, but do not directly address principle 5(2)(f) concerning features of major cultural, heritage or spiritual significance.</p>	<p>SA2 WaterNSW and the Water group should update their guidance and assessment documents for water supply work approvals to specifically address identification and protection of features under principle 5(2)(f). This should be addressed with reference to R1.1-1.4.</p>	<p>Current guidance poses the risk that geographical and other features of major non-indigenous cultural heritage and spiritual significance may not be protected and therefore this principle is not given effect.</p>

Additional finding	Suggested action	Rationale for action
<p>AF3 Available water determinations: The review could not determine from the evidence provided how decisions for making available water determinations in groundwater and regulated water sources had considered the principles.</p>	<p>SA3 The Water group and WaterNSW should develop documentation articulating how the available water determination process applies the principles. This includes identifying which parts of the process directly implement the water sharing plan, which parts require discretion and how the principles should be applied where discretion is required. This should be addressed with reference to R1.1-1.4.</p>	<p>Available water determinations are a critical aspect of implementing water sharing plans and the department should be transparent in how these decisions are made.</p>
<p>AF4 Available water determinations: Processes and procedures for making available water determinations in unregulated river water sources were inconsistent with the principles, due to non-implementation of LTAAEL compliance assessments in these water sources.</p>	<p>SA4 The Water group should develop a process to implement LTAAEL compliance assessment in unregulated water sources to enable available water determinations to be made in accordance with the principles.</p>	<p>There is a risk to water sources if extractions are not being managed in compliance with plan limits through compliance assessments and available water determinations. Other growth in use response measures may also be relevant, but these were out-of-scope for this review.</p>
<p>AF5 Mandatory conditions: Section 66(3) has not been implemented in the review period. This section requires that “at the end of each 5-year period, the Minister is to vary each local water utility licence so as to reflect any variation in associated commercial activities, that have occurred during that period in the area in which domestic water is supplied under the licence.”</p>	<p>SA5 The Water group should scope and implement a framework for delivering on section 66(3) of the Act. This should be addressed with reference to R1.1-1.4.</p>	<p>This is a required function. No local water utility licences were varied under this section of the Act during the review period. .</p>

Additional finding	Suggested action	Rationale for action
<p>AF6 Joint private works – irrigation corporations: The functional area was not implemented in full and there is uncertainty about roles and responsibilities. It was not clear whether reform is underway for this functional area.</p>	<p>SA6 The Water group should clarify the roles and responsibilities for the joint private works – irrigation corporations function and implement the function in accordance with the principles. This should be addressed with reference to R1.1-1.4.</p>	<p>Irrigation corporations extract a significant volume of water and are responsible for delivery of town water supplies in some areas. Gaps in implementation in this area lead to a risk that irrigation corporation licence and approvals are not being managed effectively. There is a risk that uncertainty in roles and responsibilities is leading to gaps in implementation being missed.</p>
<p>AF7 Joint private works – private irrigation and drainage: The functional area has not been implemented in full; however, reform is understood to be underway.</p>	<p>SA7 The Water group should ensure that forthcoming reforms to joint private works – private irrigation and drainage functions give effect to the principles. This should be addressed with reference to R1.1-1.4.</p>	<p>The reform of the joint private works – private irrigation and drainage functions will establish the framework for implementation of this function and should ensure that the principles have been considered in development of this framework.</p>
<p>AF8 Water modelling and measurement: The water modelling and measurement functional area could not be reviewed due to time constraints and the need to fully scope the functions contained.</p>	<p>SA8 The Water group should consider prioritisation of water modelling and measurement functions for future review.</p>	<p>This functional area contains important enabling functions that are relied on for the implementation of other functions.</p>

Appendix 1 Sections of the Act contained in each functional area

This appendix contains a brief description for each functional area included in this review, a list of the section numbers of the Act contained in that functional area and whether the section is a function or rule. This information supplements Chapter 5.

Water sharing plan development

The water sharing plan development functional area includes making and replacing water sharing plans, including preparing and exhibiting plans and obtaining concurrence from the Minister of Environment.

Table 33 lists the relevant functions and rules and associated section numbers for this functional area.

Table 33. *Water Management Act 2000* relevant functions and rules

Relevant functions or rules	Section number	Section name
Function	50	Minister's plans
Function	42	Amendment of management plans
Functions	35-43	Procedures for making plans
Functions	45A	Consolidation of management plans
Functions	46	Making or amendment of management plan
Rules	8-8F	Environmental water
Rules	11-14	Management committees
Rule	15	Preparation of draft management plan
Rule	16	Management plans to be consistent with other instruments
Rule	17	Provisions applicable to all management plans
Rule	19	Application of Division
Rule	20	Core provisions
Rule	21	Additional provisions
Rule	35-43	Procedures for making plans
Rule	52-55	Basic landholder rights

Management plan amendment

The management plan amendment functional area includes amending water sharing plans and floodplain management plans as these are currently the only types of management plans that have been developed under the Act. During the term of each management plan, amendments may be required if deemed necessary in line with s 45(1) of the Act.

Appendix 1 Sections of the Act contained in each functional area

Table 34 lists the relevant functions and rules and associated section numbers for this functional area.

Table 34. *Water Management Act 2000* relevant functions and rules

Relevant functions or rules	Section number	Section name
Function	45	Minister may amend or repeal management plan

Water restrictions

The water restrictions functional area includes making orders to prohibit or restrict take of water if necessary to do so in the public interest, under section 324 of the Act.

Table 35 lists the relevant functions and rules and associated section numbers for this functional area.

Table 35. *Water Management Act 2000* relevant functions and rules

Relevant functions or rules	Section number	Section name
Function	324	Temporary water restrictions

Water supply work approvals

The water supply work approvals functional area includes determining water supply work approvals, imposing mandatory and discretionary conditions and amending, suspending and cancelling approvals.

Table 36 lists the relevant functions and rules and associated section numbers for this functional area.

Table 36. *Water Management Act 2000* relevant functions and rules

Relevant functions or rules	Section number	Section name
Function	95	Determination of applications
Function	97	Grounds of refusal of certain applications
Function	100	Conditions of approvals generally
Function	102	Imposition or change of conditions after approval is granted
Function	107	Amendment of approvals
Function	109	Suspension and cancellation of approvals
Rule	96	Matters affecting consideration of applications
Rule	98	Notice of decision
Rule	99	Procedures in relation to integrated development
Rule	99A	Granting of combined approvals
Rule	103	Revocation of conditions
Rule	104	Duration of approval
Rule	105	Extension of approvals
Rule	106	Land benefited by approval

Appendix 1 Sections of the Act contained in each functional area

Relevant functions or rules	Section number	Section name
Rule	108	Surrender of approvals
Rule	114	Minister may impose fees and charges

Available water determinations

The available water determinations (AWDs) functional area includes making AWDs, the rules of distribution applicable to making of AWDs and keeping a register of AWDs.

Table 37 lists the relevant functions and rules and associated section numbers for this functional area.

Table 37. *Water Management Act 2000* relevant functions and rules

Relevant functions or rules	Section number	Section name
Function	59	Available water determinations
Function	84	Register of available water determinations
Rule	57	Categories of licence
Rule	58	Priorities between different categories of licence
Rule	60	Rules of distribution applicable to making of available water determinations

Compliance enforcement

The *Natural Resources Access Regulator Act 2017* requires the Natural Resources Access Regulator (NRAR) to be accountable for the delivery of water compliance enforcement activities under the Act and *Water Act 1912* in an effective, efficient and transparent manner. It also requires NRAR to maintain public confidence in the enforcement of the Act.

Table 38 lists the relevant functions and rules and associated section numbers for this functional area.

Table 38. *Water Management Act 2000* relevant functions and rules

Relevant functions or rules	Section number	Section name
Function	78 78A	Suspension and cancellation of access licences Notification of intention to suspend, cancel or require payment of penalty
Function	326A	Compliance audits

Appendix 1 Sections of the Act contained in each functional area

Relevant functions or rules	Section number	Section name
Rules (offences)	60A-60I	<p>Taking of water without, or otherwise than authorised by, an access licence</p> <p>Contravention of terms and conditions of an access licence</p> <p>Taking Water for which there is no, or insufficient, water allocation</p> <p>Taking water otherwise than by or from water supply or extraction point nominated in access licence</p> <p>Liability of occupier of premises for certain offences</p> <p>general defence</p> <p>minister may charge for water illegally taken</p> <p>application of Division in relation to interstate licence</p> <p>Access licence required for water used in mining activities</p>
Rules (offences)	91A-91N	<p>Using water without, or otherwise than as authorised by, water use approval</p> <p>Constructing or using water supply work without, or otherwise than as authorised by, a water supply work approval</p> <p>Constructing or using drainage work without, or otherwise than as authorised by, a drainage work approval</p> <p>Constructing or using flood work without, or otherwise than as authorised by, a flood work approval</p> <p>Carrying out controlled activity without, or otherwise than as authorised by, a controlled activity approval</p> <p>Carrying out aquifer interference activity without, or otherwise than as authorised by, an aquifer interference approval</p> <p>Contravention of terms and conditions of approval</p> <p>Failure to install, use or maintain metering equipment</p> <p>Taking water when metering equipment not working</p> <p>Failure to report metering equipment not working</p> <p>Metering records</p> <p>Meter tampering</p> <p>Liability of occupier of premises for certain offences</p> <p>General defence</p> <p>Corporations not required to hold approvals</p>
Rule (offences)	363	Offences by corporations
Rule (offences)	363A	Offences by joint holders of access licence or approval
Rule	363B	Penalties
Rule	364	Proceedings for offences
Rule	364A	Matters to be considered in imposing penalty
Rule	365	Penalty notices
Rule	365A	Continuing offences
Rule	366	Legal proceedings do not affect, and are unaffected by, other action under this Act
Rule	367	Evidentiary certificates
Rule	367A	Evidence of analysis
Rule	367B	Rebuttable presumptions

Appendix 1 Sections of the Act contained in each functional area

Relevant functions or rules	Section number	Section name
Rule	368	Appeals to the Land and Environment Cour

Regulations and orders

The regulations and orders functional area concerns making regulations and orders that are not included within implementation of another functional area, including making regulations under s 400. In the period of review, this has included making and amendment of the *Water Management (General) Regulation 2018* and making of harvestable rights orders.

Table 39 lists the relevant functions and rules and associated section numbers for this functional area.

Table 39. *Water Management Act 2000* relevant functions and rules

Relevant functions or rules	Section number	Section name
Function	54	Harvestable rights orders
Function	115A	Regulations relating to mandatory and other licence conditions
Function	115B	Metering equipment
Function	219	Regulations (in relation to Private drainage boards)
Function	322	Regulations (in relation to Public Utilities)
Function	372A	Metering equipment functions

Water modelling and measurement

The water modelling and measurement functional area includes:

- conducting research, collecting information, and developing technology in relation to water management
- constructing, maintaining, and operating gauging stations and other monitoring equipment.

Table 40 lists the relevant functions and rules and associated section numbers for this functional area.

Table 40. *Water Management Act 2000* relevant functions and rules

Relevant functions or rules	Section number	Section name
Function	372	Functions of Ministerial Corporation

Floodplain management plan development

The floodplain management plan development functional area concerns making and replacement of floodplain management plans. Floodplain management plans are required to deal with identification of existing natural flooding regimes, identification of ecological benefits of flooding, flood works and their management and risks to life and property. They may also deal with other matters

Appendix 1 Sections of the Act contained in each functional area

provided for by the Act. These plans have effect for a 10-year period. A floodplain management plan may also be amended during its 10-year term.

Table 41 lists the relevant functions and rules and associated section numbers for this functional area.

Table 41. *Water Management Act 2000* relevant functions and rules

Relevant functions or rules	Section number	Section name
Function	50	Minister's plans
Function	42	Amendment of management plans
Functions	35-43	Procedures for making plans
Function	45A	Consolidation of management plans
Function	46	Making or amendment of management plan
Rule	15	Preparation of draft management plan
Rule	16	Management plans to be consistent with other instruments
Rule	17	Provisions applicable to all management plans
Rule	28	Application of Division
Rule	29	Core provisions
Rule	30	Additional provisions
Rules	35-43	Procedures for making plans

Management plan suspension

The management plan suspension functional area concerns the suspension of management plans, in whole or in part, in response to severe water shortages.

Table 42 lists the relevant functions and rules and associated section numbers for this functional area.

Table 42. *Water Management Act 2000* relevant functions and rules

Relevant functions or rules	Section number	Section name
Function	49A	Suspension of management plans during severe water shortages
Function	49B	Suspension of Basin management plans during extreme events

Management plan audit and review

The management plan audit and review functional area concerns audits of management plans under s 44 to determine if the plans are being given effect, and reviews of management plans to determine whether the plans remain adequate and appropriate (for floodplain management plans under s 43) or have contributed to achievement of their intended outcomes (for water sharing plans under s 43A). Section 43A of the Act also allows for extension of the duration of water sharing plans following review.

Table 43 lists the relevant functions and rules and associated section numbers for this functional area.

Appendix 1 Sections of the Act contained in each functional area

Table 43. *Water Management Act 2000* relevant functions and rules

Relevant functions or rules	Section number	Section name
Function	43	Duration of management plans
Function	43A	Extension of duration of management plan dealing with water sharing
Function	44	Periodic auditing of management plans

Water access licences

The water access licences functional area concerns determining applications for water access licences including the assessment process, granting or refusal of applications and imposing mandatory and discretionary conditions. The Act also includes functions for amending the share component of an access licence and suspending and cancelling access licences. The water access licences functional area also includes functions relating to the keeping of water allocation accounts and daily extraction accounts.

Table 44 lists the relevant functions and rules and associated section numbers for this functional area.

Table 44. *Water Management Act 2000* relevant functions and rules

Relevant functions or rules	Section number	Section name
Function	63	Determination of applications
Function	64	Notice of decision
Function	67	Imposition of conditions after access licence is granted
Function	68A	Amendment of share or extraction components of access licences and other actions by Minister
Function	68B	Increase of share components of Commonwealth and other access licences arising from arrangements
Function	77	Surrender of access licences
Function	77A	Cancellation of access licences that can no longer be used or are no longer required
Function	78	Suspension and cancellation of access licences
Function	79	Compulsory acquisition of access licences
Function	85	Keeping of water allocation accounts
Function	85AA	Daily extraction accounts
Rule	56	Access licences
Rule	57	Categories of licence
Rule	57A	Special provisions relating to floodplain harvesting access licences
Rule	69	Duration of access licence
Rule	72	Devolution of access licences
Rule	72A	Special provisions relating to co-holdings in access licences
Rule	73	Changes in co-holder's tenancy arrangements

Appendix 1 Sections of the Act contained in each functional area

Relevant functions or rules	Section number	Section name
Rule	74	Exit from co-held access licence
Rule	75	Water return flow rules
Rule	76	Water allocations may be credited
Rule	Division 9	Compensation relating to access licences

Dealings

The dealings functional area concerns the transfer of access licences, entitlement shares and allocations. Dealing rules in water sharing plans restrict and enable trade between and within water sources to protect environment, basic landholder rights users and reduce impacts on other users.

Table 45 lists the relevant functions and rules and associated section numbers for this functional area.

Table 45. *Water Management Act 2000* relevant functions and rules

Relevant functions and rules	Section number	Section name
Function	71M	Transfer of access licences
Function	71N	Term transfers of entitlements under access licences
Rule	71L	How does a dealing take effect?
Function	71Z	Access licence dealing principles

Controlled allocations

The controlled allocations functional area concerns declaring rights to apply for access licences by auction, tender or other means. In water sources with unassigned water a controlled allocation order can make new access licences available. The controlled allocation may relate to one or more licences, a particular class of licence (for example, aquifer access licences) or all licences for a specified water source or plan area.

Table 46 lists the relevant functions and rules and associated section numbers for this functional area.

Table 46. *Water Management Act 2000* relevant functions and rules

Relevant functions and rules	Section number	Section name
Function	65	Controlled allocation of access licences

Access licence and approvals registers

The access licence and approvals registers functional area concerns keeping of registers to record access licences, dealings and approvals. The Act requires that dealings, approvals and Water Access Licences are recorded in registers, with rules applying to access, searches, correction and amendment of the registers.

Appendix 1 Sections of the Act contained in each functional area

Table 47 lists the relevant functions and rules and associated section numbers for this functional area.

Table 47. *Water Management Act 2000* relevant functions and rules

Relevant functions and rules	Section number	Section name
Function	71	Water Access Licence Register
Function	71A	Dealings and other matters that must be recorded in the Access Register
Function	113	Register of approvals
Rule	71B	When matters required to be recorded in General Division of Access Register have effect
Rule	71C	When matters required to be recorded in General Division of Access Register have effect
Rule	71D	Creation of registered security interests by recording in Access Register
Rule	71E	Minister may register caveats
Rule	71F	Effect of a caveat
Rule	71G	Minister may require production or surrender of access licence certificate before recording matters in Access Register
Rule	71H	Searches of the Access Register
Rule	71I	Correction and amendment of Access Register
Rule	71J	Access to the Access Register
Rule	71K	Minister to supply reasons for certain decisions in relation to Access Register

Flood work approvals

The functional area concerns determining applications for flood work approvals, imposing mandatory and discretionary conditions and amending, suspending and cancelling approvals.

Table 48 lists the relevant chapters functions and rules for this functional area.

Table 48. *Water Management Act 2000* relevant functions and rules

Relevant functions and rules	Section number	Section name
Function	95	Determination of applications
Function	97	Grounds of refusal of certain applications
Function	100	Conditions of approvals generally
Function	102	Imposition or change of conditions after approval is granted
Function	107	Amendment of approvals
Function	109	Suspension and cancellation of approvals
Rule	96	Matters affecting consideration of applications
Rule	98	Notice of decision

Appendix 1 Sections of the Act contained in each functional area

Relevant functions and rules	Section number	Section name
Rule	99	Procedures in relation to integrated development
Rule	99A	Granting of combined approvals
Rule	103	Revocation of conditions
Rule	104	Duration of approval
Rule	105	Extension of approvals
Rule	106	Land benefited by approval
Rule	108	Surrender of approvals
Rule	114	Minister may impose fees and charges

Water use approvals

The water use approvals functional area concerns determining applications for water use approvals and imposing discretionary conditions, and amending, suspending and cancelling approvals. A water use approval authorises its holder to use water for a particular purpose, such as irrigation, at a particular location.

Table 49 lists the relevant chapters functions and rules for this functional area.

Table 49. *Water Management Act 2000* relevant functions and rules

Relevant functions and rules	Section number	Section name
Function	95	Determination of applications
Function	97	Grounds of refusal of certain applications
Function	100	Conditions of approvals generally
Function	102	Imposition or change of conditions after approval is granted
Function	107	Amendment of approvals
Function	109	Suspension and cancellation of approvals
Rule	96	Matters affecting consideration of applications
Rule	98	Notice of decision
Rule	99	Procedures in relation to integrated development
Rule	99A	Granting of combined approvals
Rule	103	Revocation of conditions
Rule	104	Duration of approval
Rule	105	Extension of approvals
Rule	106	Land benefited by approval
Rule	108	Surrender of approvals
Rule	114	Minister may impose fees and charges

Controlled activity approvals

The controlled activity approvals functional area concerns applications for determining controlled activity approvals, imposing discretionary conditions and amending, suspending and cancelling approvals.

Table 50 lists the relevant chapters functions and rules for this functional area.

Table 50. *Water Management Act 2000* relevant functions and rules

Relevant functions and rules	Section number	Section name
Function	95	Determination of applications
Function	97	Grounds of refusal of certain applications
Function	100	Conditions of approvals generally
Function	102	Imposition or change of conditions after approval is granted
Function	107	Amendment of approvals
Function	109	Suspension and cancellation of approvals
Rules	31-33	Controlled activities and aquifer interference
Rule	96	Matters affecting consideration of applications
Rule	98	Notice of decision
Rule	99	Procedures in relation to integrated development
Rule	99A	Granting of combined approvals
Rule	103	Revocation of conditions
Rule	104	Duration of approval
Rule	105	Extension of approvals
Rule	106	Land benefited by approval
Rule	108	Surrender of approvals
Rule	114	Minister may impose fees and charges

Mandatory conditions

The mandatory conditions functional area concerns imposing mandatory conditions on access licences and approvals to give effect to the Act, regulations or management plans. It also covers imposing, amending, revoking and suspending mandatory conditions on access licences and approvals.

Table 51 lists the relevant chapters functions and rules for this functional area.

Table 51. *Water Management Act 2000* relevant functions and rules

Relevant functions and rules	Section number	Section name
Function	67(3)	Impose mandatory conditions after access licence is granted
Function	67(4)	Cause written notice of any conditions imposed, amended, revoked or suspended under this section to be served on the holder of the access licence concerned
Function	102(3)	Impose mandatory conditions after approval is granted

Appendix 1 Sections of the Act contained in each functional area

Relevant functions and rules	Section number	Section name
Function	102(4)	Cause written notice of any conditions imposed, amended, revoked or suspended under this section to be served on the holder of the approval concerned.
Rule	66	Conditions of access licence generally
Rule	100	Conditions of approvals generally
Rule	115	Regulations may impose mandatory conditions

Joint private works – irrigation corporations

The joint private works – irrigation corporation functional area concerns conferral of operating licence for irrigation corporations, approval of applications for inclusion and exclusion of land in area of operations and keeping of a register of licences, audits and management programs by irrigation corporations.

Table 52 lists the relevant chapters functions and rules for this functional area.

Table 52. *Water Management Act 2000* relevant functions and rules

Relevant functions and rules	Section number	Section name
Function	123	Authority conferred by operating licence
Function	130	Inclusion of land in area of operations
Function	134	Exclusion of land from area of operations
Function	138	Register of licences, audits and management programs
Rule	117	Definitions
Rule	119	Assets of irrigation corporations
Rule	123	Terms and conditions of operating licence
Rule	124	Term of operating licence
Rule	125	Contravention of operating licence
Rule	126	Cancellation of operating licence
Rule	128	Applications to include land within area of operations
Rule	129	Objections to inclusion of land within area of operations
Rule	132	Applications to exclude land from area of operations
Rule	133	Objections to exclusion of land from area of operations

Joint private works – private irrigation and drainage

This functional area concerns management of private irrigation districts, private drainage boards and private water trusts including governance functions, receiving and processing petitions to add lands and various financial management functions.

Table 53 lists the relevant chapters functions and rules for this functional area.

Appendix 1 Sections of the Act contained in each functional area

Table 53. *Water Management Act 2000* relevant functions and rules

Relevant functions and rules	Section number	Section name
Function	142	Petition
Function	143	Constitution of private irrigation districts
Function	144	Addition of lands to private irrigation districts
Function	145	Alteration of private irrigation district
Function	147	Supplementary petitions and objections
Function	149A	Filling of casual vacancies
Function	150	Removal of members of private irrigation board from office and appointment of administrator
Function	151	Abolition of private irrigation districts
Function	152	Winding-up of private irrigation boards
Function	156	Private irrigation board may apply to take over water supply works
Function	196	By-laws
Function	201 (2)	Appointment and election of directors
Function	205	Amendment of boundaries
Function	218	Accounts
Function	223	Appointment and election of members
Function	224	Alteration of water supply districts
Function	225	Removal of land from water supply district
Function	226	Union of trusts
Function	229	Supply of water
Function	233	Supplementary rating powers
Function	235	Accounts
Function	238	Minister may remove members and Governor may dissolve trust

Hunter Valley Flood Mitigation Scheme

This functional area concerns the management of the Hunter Valley Flood Mitigation Scheme (HVFMS). The scheme is a system of flood protection and mitigation infrastructure in place since 1955 to protect life and property across the Lower and Upper Hunter Valley in NSW.

Table 54 lists the relevant chapters functions and rules for this functional area.

Table 54. *Water Management Act 2000* relevant functions and rules

Relevant functions and rules	Section number	Section name
Function	255	Restriction on use of lands adjacent to levee banks
Function	256	Construction of fences, structures and flood works
Function	257	Accounts to be kept in special deposit account
Function	258	Allocation of money

Appendix 1 Sections of the Act contained in each functional area

Relevant functions and rules	Section number	Section name
Function	263	Consultation with Local Land Services as to works program
Function	264	Consultation with local council as to works program
Function	269	Works to protect public and local government works to be approved by the Minister
Function	270	Major flood grates to be maintained and operated by local councils
Function	271	Maintenance of minor floodgates
Function	372	Functions of Ministerial Corporation
Rule	374	Application of <i>Public Works Act 1912</i>

Water supply authorities

The water supply authorities functional area concerns the constitution of water supply authorities and functions including approving water supply authority determinations.

Table 55 lists the relevant chapters functions and rules for this functional area.

Table 55. *Water Management Act 2000* relevant functions and rules

Relevant functions and rules	Section number	Section name
Function	286	Constitution of water supply authorities
Function	315	Determinations by water supply authority
Rule	288	Provisions relating to constitution and procedure of water supply authorities
Rule	292	Functions of water supply authority

WAMC works and land functions

The WAMC works and land functions functional area concerns constructing, maintaining and operating water management works, and acquiring rights to water and acquiring or leasing land on behalf of the government.

Table 56 lists the relevant chapters functions and rules for this functional area.

Table 56. *Water Management Act 2000* relevant functions and rules

Relevant functions and rules	Section number	Section name
Function	372	Functions of Ministerial Corporation
Function	375	Acquisition of land

Section 388 Committees

The Section 388 Committees functional area concerns establishing advisory and other committees for the purposes of the Act.

Table 57 lists the relevant chapters functions and rules for this functional area.

Appendix 1 Sections of the Act contained in each functional area

Table 57. *Water Management Act 2000* relevant functions and rules

Relevant functions and rules	Section number	Section name
Function	388	Committees

Appendix 2 Reference List

- Alluvium Consulting. (2021a). *Review method for Floodplain Management Plans under Section 43 of the Water Management Act 2000 (NSW)*.
- Alluvium Consulting. (2021b). *Water Management Act 2000 Section 10 Review Method*.
- Australian Academy of Science. (2019). *Investigation of the causes of mass fish kills in the Menindee region NSW over the summer of 2018-2019*.
- Craik, W., & Claydon, G. (2020). *Independent Panel Assessment of the Management of the 2020 Northern Basin First Flush Event*.
- Department of Industry. (2017). *Securing our water: NSW Government water reform action plan*.
- Department of Industry. (2018a). *NSW Floodplain Harvesting Policy*.
- Department of Industry. (2018b). *Incident response guide for the Gwydir Surface Water Resource Plan Area SW15*.
- Department of Industry. (2018c). *NSW Extreme Events Policy: Policy framework for the management of NSW Murray-Darling Basin water resources during extreme events*.
- Department of Planning and Environment. (2021a). *NSW Water Strategy*.
- Department of Planning and Environment. (2021b). *Roles and responsibilities agreement*.
- Department of Planning and Environment. (2022a). *Greater Sydney Water Strategy*.
- Department of Planning and Environment. (2022b). *Lower Hunter Water Security Plan*.
- Department of Planning and Environment. (2022c). *NSW Groundwater Strategy*.
- Department of Planning and Environment. (2022a). *Amendments to floodplain management plans – Fact sheet*.
- Department of Planning and Environment. (2022b). *Replacement water sharing plan manual*.
- Department of Planning and Environment. (2022c). *Water sharing plan amendment protocol – Fact sheet*.
- Department of Planning, Industry and Environment. (2020). *Rural floodplain management plans technical manual for plans developed under the Water Management Act 2000. V2.1*.
- Department of Planning, Industry and Environment. (2021). *Murray Darling catchments – Surface water and storage monitoring network review*.
- Department of Planning, Industry and Environment. (2019). *NSW Government response to the Vertessy Report and the Natural Resources Commission’s review of the Barwon-Darling Water Sharing Plan*.
- Department of Planning, Industry and Environment. (2020). *NSW Non-Urban Water Metering Policy*.
- Department of Primary Industries. (2017). *Strategy for the controlled allocation of groundwater*.

Appendix 2 Reference list

- Independent Commission Against Corruption. (2020). *Investigation into complaints of corruption in the management of water in NSW and systemic non-compliance with the Water Management Act 2000.*
- Matthews, K. (2017). *Independent investigation into NSW water management and compliance – Final report.*
- Murray-Darling Basin Authority. (2017). *The Murray-Darling Basin Water Compliance Review.*
- Murray-Darling Basin Authority. (2018). *Murray-Darling Basin Compliance Compact.*
- Natural Resources Access Regulator. (2018). *Guidelines for controlled activities on waterfront land: Riparian corridors.*
- Natural Resources Access Regulator. (2019). *Natural Resources Access Regulator Regulatory Priorities March 2019-March 2021.*
- Natural Resources Access Regulator. (2020). *Enforceable undertakings guide.*
- Natural Resources Access Regulator. (2021a). *Natural Resources Access Regulator Regulatory Policy.*
- Natural Resources Access Regulator. (2021b). *Natural Resources Access Regulator Regulatory priorities 2021-22.*
- Natural Resources Access Regulator. (2022). *Natural Resources Access Regulator Regulatory Priorities 2022-23.*
- Natural Resources Access Regulator. (n.d.). *Prosecution guidelines.*
- Natural Resources Commission. (2022). *Evaluation framework for the review of water sharing plans under Section 43A of the Water Management Act 2000.*
- Natural Resources Commission. (2023). *Audit framework for water management plan audits.*
- NSW Ombudsman. (2018). *Water: Compliance and enforcement – A special report to Parliament under section 31 of the Ombudsman Act 1974.*
- Productivity Commission. (2020). *National Water Reform 2020.*
- State Emergency Service. (2021). *New South Wales State Flood Plan.*
- Vertessy, R., Barma, D., Baumgartner, L., Mitrovic, S., Sheldon, F., & Bond, N. (2019). *Independent assessment of the 2018-19 fish deaths in the lower Darling – Final report.*

Appendix 3 How the method was applied

Context

The s 10 review was conducted using the published method developed in 2021 (the review method).

Adjustments were required when applying the review method due to this being the first application of the published review method and the timeframe available to complete the review being shorter than the method was originally designed for. The method was developed with an expectation that evidence would be gathered during the period of the review and collated towards the end of the 5-year period for the purpose of conducting the review. This was not possible, so the method was adjusted where required to enable an effective review to be delivered within the short timeframe.

The method was also adjusted to allow for an external service provider to be engaged to support the review being completed in the required timeframe. These adjustments mostly related to review governance. Further adjustments to review governance will need to be considered whenever the method is applied to ensure it aligns with current agency and departmental structures and reporting lines.

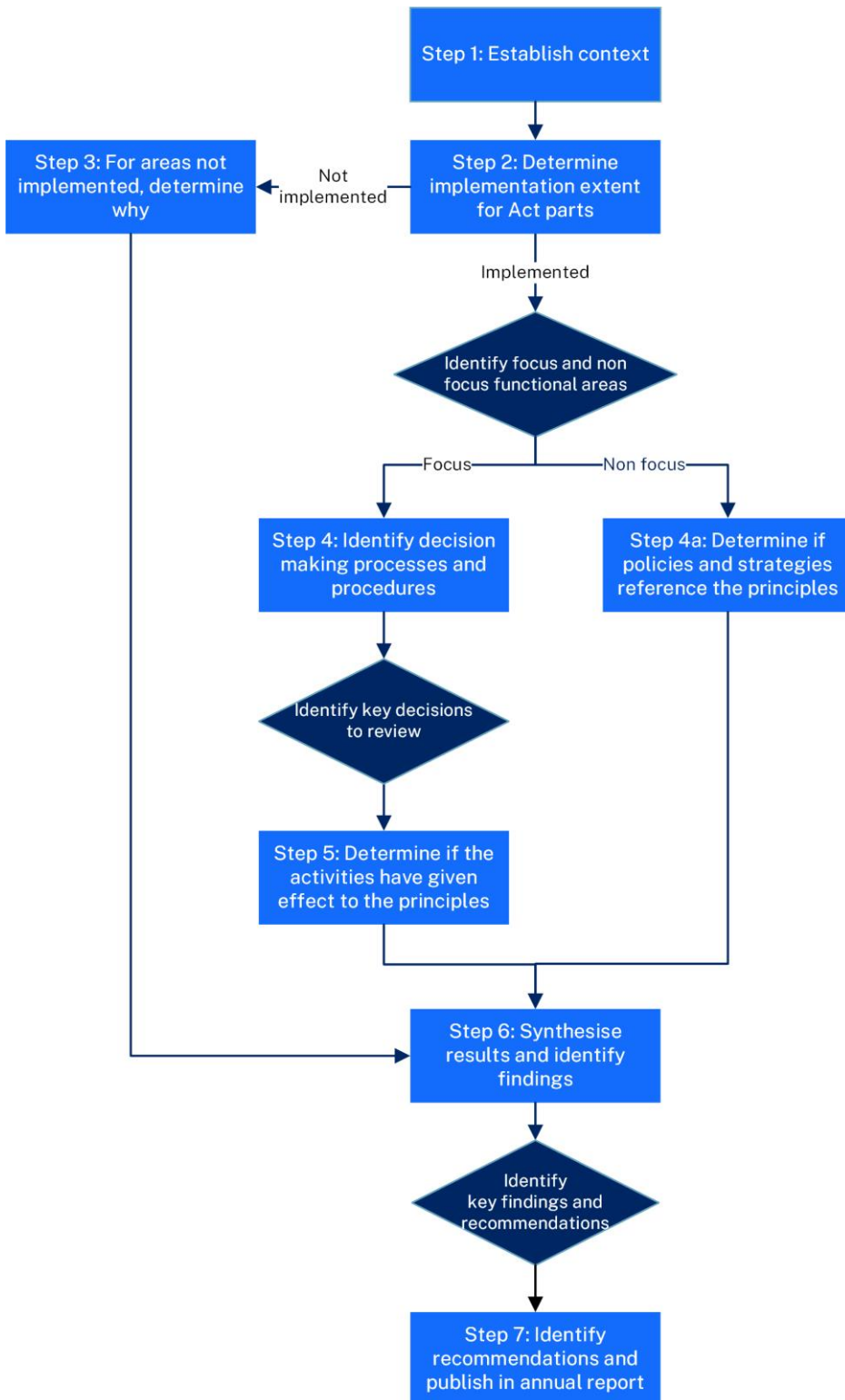
Method steps

The review method was designed as a series of 7 steps with evidence collected at each step and a series of prioritisations using rubrics to inform the focus of subsequent steps.

These 7 steps were implemented as per the method; however, 2 steps were done in parallel instead of sequentially due to the much shorter timeframe available compared with the timeframe the method was designed for. Refer to Figure 6 for a summary of the steps of the review method and the order steps were implemented.

Appendix 3 How the method was applied

Figure 6. Review method steps applied for the section 10 review showing method steps and key decision points



Each of the 7 steps of the method was comprised of between 3 and 7 'activities' with relevant sources of evidence required to conduct the activity. These activities are all detailed in Attachment 2 of the review method and were all implemented for this review, except for the adjustments to some activities outlined below.

Establishing context (Step 1)

Step 1 was conducted as per the review method and involved establishing the context for the review by sourcing and synthesising information on what events potentially influenced the department's ability to give effect to the principles. The method included a rubric for prioritising information to include in the final report; however, for this review all information obtained during Step 1 was summarised in the report and used to inform Step 2.

Implementation of the Act (Step 2)

The purpose of Step 2 is to determine the extent to which the parts of the Act have been implemented. The method outlined that the first part of this step is to identify the relevant parts of the Act and collate information on implementation of the Act parts. These would then be prioritised into 'focus areas' at the end of Step 2.

The review method does not specify at what scale these areas should be defined. It was determined that the structure of the Act in chapters, parts and divisions did not provide a suitable basis for grouping and prioritisation as it does not fully align with coherent areas of activity or agency responsibility. Sections of the Act were considered too fine scale to be efficient for review or to be meaningful to stakeholders.

'Functional areas' were defined to group together related functions under the Act to enable efficient review and a meaningful scale for development of findings.

Twenty-six functional areas were defined by the department to cover all functions under the Act, with the exception of those functions that are discretionary and not currently implemented (Figure 7).

Refer to section 3.3.4 of the report for considerations when developing the functional areas.

Appendix 1 contains detailed information about the functions and rules of the Act for each functional area reviewed.

Rubric 2 of the method was adapted and used as a decision support tool to assist with prioritising functional areas for more detailed review, defined as 'focus functional areas.'

The rubric included information on the following:

- contextual information gathered during Step 1
- estimate of resources invested per functional area
- risks if the principles are not fully given effect
- risks to department reputation if not prioritised
- area of impact of the functions
- resources required to review, indicated by number of business units involved in delivering the function (as a measure of complexity) and the presence of existing reviews on the function (providing ready access to evidence).

Appendix 3 How the method was applied

Figure 7. Functional areas of the *Water Management Act 2000* identified for the section 10 review, with focus functional areas in darker blue



Step 2 of the review method was not designed to be a detailed audit of implementation of the Act. The purpose is to review implementation to the extent needed to inform the review of any required activities that may not be currently implemented and may impact on how the principles are given effect.

Evidence sourced to assess the implementation status of all functional areas included:

- reports from independent audits and reviews, including by NRC on water management plans
- internally or externally published departmental reports on performance of the function
- strategy or policy documents relating to the relevant functions
- data from the water register and planning portal
- procedure documentation including procedure manuals, assessment sheets and tools
- demonstrated output of a function such as briefs on specific decisions, completed assessment sheets, published orders
- information provided during interviews with departmental staff.

Detailed information on what evidence was sourced for each functional area is provided in the evidence package, available on request.

Determine cause of implementation gaps (Step 3)

The purpose of Step 3 is to understand why and parts of the Act have not been implemented or why implementation has been delayed. Delays in Act implementation are a risk to application of the principles.

The review conducted Step 3 according to the review method by investigating issues with implementation identified in Step 2 to identify the causes of the implementation gaps. This included conducting interviews where necessary to understand barriers to implementation.

Treatment of focus and non-focus functional areas

The published method involved identifying priority areas for further investigation in step 2 but does not include any consideration of other areas not prioritised.

With acknowledgement that this is the first s 10 review since 2011, it was determined that all functions of the Act should have some review rather than being excluded after Step 2 if not prioritised as a focus area. Therefore, an additional step was developed to consider how the non-focus functional areas identified in Step 2 were giving effect to the principles. This involved reviewing non-focus functional areas at the highest level in the hierarchy of instruments, but not progressing to lower levels of processes and decisions. Where no documents were available in the highest level of the hierarchy, no assessment was undertaken for a non-focus area.

All functional areas were reviewed to address the question:

- how do relevant strategies and policies consider the principles?

Focus functional areas were prioritised for a more detailed review, which included addressing the additional questions:

- how do processes and procedures consider the principles?
- have decisions and actions followed processes and given effect to the principles?

For focus functional areas, the review of strategies and policies occurred in Step 5, and for non-focus functional areas this occurs in a new Step 4a.

Determine if policies and strategies have referenced the principles (Step 4a)

To assess strategies and policies, the review determined if the relevant documents contained references to the principles. This did not include interpretation of the content to determine if there was implicit alignment with the principles, as was undertaken for focus areas. It is acknowledged that this level of assessment for non-focus areas is not capable of answering with sufficient assurance if the activities under a functional area gave effect to the principles. Rather, it is intended to provide information on potential risks at a high level and to inform potential focus areas for future review.

For some non-focus functional areas where there was no policy or strategy, procedure documentation was reviewed, although only to determine if the principles were referenced. This assessment did not include interpretation of the content to determine if there was implicit alignment with the principles, as was undertaken for focus areas.

Appendix 3 How the method was applied

Standards were developed to provide a consistent framework for assessing evidence and communicating findings. Refer to section 3.3.7 of the report for detail on how the standards were applied. The standards were developed after an initial assessment of the evidence to identify the range of results and then applied to all functional areas.

The lower level of assurance possible from the approach to non-focus areas is represented throughout the report and findings by outlined symbols, compared with solid-coloured symbols for the focus area assessment.

Identify processes and procedures applied in decisions (Step 4)

The aim of Step 4 is to understand how processes and procedures guide or inform the application of the principles in making decisions. It highlights the absence or presence of guidance in decision making processes.

The review method included developing a list of all relevant processes or procedures, including evidence in the form of policies, manuals and instructions. These processes would be categorised with reference to the type of activity, with clarification provided from the Working Group.

The timeframe for this review did not allow for obtaining information on all processes and procedures for all functional areas. Many processes were not documented as procedures and this would have required significant work to interview and document processes.

An alternative approach was developed where only the processes that related to critical decision points were identified for assessment in Step 4. Critical decision points were identified in consultation with the Working Group, and with reference to documentation such as audit and review recommendations.

A modified rubric was used to identify key decisions according to the following criteria:

- contribution: in the context of the process being implemented, the extent to which the decision makes up the opportunities to consider and apply the principles
- impact: area or size of resource impacted by decisions
- capacity to review: ease of access to information required to review.

It is acknowledged that by using this approach there is a risk that by not fully mapping out the processes before identifying decision points that the decisions selected may not be the key decisions in the relevant function processes for considering the principles.

All activities within Step 4 other than the categorisation and prioritisation step were conducted according to the method.

Determine if the activities have given effect to the principles (Step 5)

Step 5 addresses the primary review question and determines if the decisions and actions taken to implement the Act were effective in giving effect to the principles.

The decision points identified in Step 4 with the modified rubric were the prioritised decisions used for the focus of Step 5. From these decision points, a sample of individual example decisions were selected for review against the principles. The review method did not specify how decisions should be selected for review.

Appendix 3 How the method was applied

Decisions were chosen using either stratified, random selection where there were a large number of decisions to select from or targeted selection where the number of decisions to select from was smaller. Efforts were made to ensure that the selection was representative of the types of decisions involved.

There were limitations in the number of sample decisions available for review given the timeframe, which affects the representativeness of the sample, even where their selection was random.

Once decisions were selected for assessment (Activity 5.1) all other activities for Step 5 were conducted according to the method.

The review method does not provide standards for assessing how effective activities have been in 'giving effect to the principles'. Refer to section 3.3.7 of the report for how an addition the method was developed to establish standards for review steps 4 and 5.

Synthesise results (Step 6)

The review method outlined that the synthesis is to illustrate key areas of risks, success and opportunities for improvements. The synthesis chapter was structured to reflect these requirements.

The review method also included that results should be synthesised by plan type, region and water source. However, the amount and type information gathered in the review did not lend itself to this type of synthesis.

A Review Panel was convened to determine the key findings and recommendations, as outlined in the method.

Identify and publish findings and recommendations (step 7)

The findings and recommendations are included in this report as per Step 7 of the method. A summary of the report will be published in the department's Annual Report later in 2023.

Adjustments to the review method

Adjustments made to the review method are summarised in Table 58. All aspects of the review method were implemented in full, except for the exceptions and additions listed below.

Table 58. Summary of all adjustments to the review method and rationale for change

Review method process	Amended review process	Rationale
Definition of 'the department'	The definition of 'the department' in the method included the Natural Resources Commission (NRC) and Independent Pricing and Regulatory Tribunal (IPART). These entities were not included in the definition of the 'department' for this review.	Advice was received that NRC and IPART are not defined as 'the department' and should not be included in the review. Work by NRC is included where relevant for completeness. IPART is not included.

Appendix 3 How the method was applied

Review method process	Amended review process	Rationale
<p>Rubric 1 to support organising context information (Activity 1.6)</p>	<p>The rubric was not used.</p>	<p>The context information obtained through step 1 of the project was identified to not require prioritisation to support moving to the next step of the review. All context information obtained has been summarised in the report and was used to inform step 2.</p>
<p>Identifying the scale of ‘areas’ for review (Activity 2.2)</p>	<p>The concept of ‘functional areas’ was developed as an addition to the method as a meaningful scale for areas of the review.</p>	<p>It was determined that chapters and parts were too broad for the purpose of grouping for review, whereas Act sections was too fine scale. Functional areas group like functions together based on how those functions are implemented.</p>
<p>Changes to rubric 2 (Activity 2.6)</p>	<p>Rubric 2 was adjusted to identify focus functional areas from the 26 functional areas identified.</p> <p>The method provides a rubric to prioritise focus areas using the following criteria: context, resources invested, impact, risk and resources required to review. These broad criteria were used but were defined for this review, and based on information available for all functional areas.</p>	<p>The method states that these rubrics are a guide only and that they may need adjustment.</p> <p>Adjustments to the rubric were made to use information available, and to align with the ‘functional area’ approach.</p>
<p>Defining ‘standards’ for assessing giving effect to the principles (Activity 4.2 and 5.3)</p>	<p>The review method did not provide a framework for evaluating how a given strategy, policy or decision gives effect to the principles. A framework was developed that clearly defined for each level of the hierarchy how the evidence demonstrated giving effect to the principles (see 3.3.7).</p>	<p>The review required a way to assess all functional areas in giving effect to the principles in a way that enabled collation and comparison across all functional areas and to support consistency and transparency.</p>

Appendix 3 How the method was applied

Review method process	Amended review process	Rationale
<p>Adjustment to how decisions and processes were prioritised (Activity 4.2 and 5.3)</p>	<p>Prioritisation of processes and decisions to be assessed for how they give effect to the principles was adjusted to consider the critical decisions in a functional area and their relevant processes, rather than review all processes for all functional areas and then decisions. The review method suggested a categorisation of processes but stated that this should be developed during the review.</p>	<p>The review method suggested categorisation of processes was found to be not appropriate for the work implemented under the Act. It was also not possible to document and categorise all processes for all functional areas. The approach of identifying critical decision points, and assessing the processes for these decisions, was more targeted, ensuring that critical decisions are assessed in step 5 but not requiring all processes to be mapped in step 4.</p>
<p>Selection of decisions for assessment</p>	<p>A process was developed for each focus functional area to select a sample of decisions for review. The process was either a stratified, random sample or a targeted selection depending on the number of decisions to select from and the nature of the critical decision points.</p>	<p>The review method did not include any process for determining which decisions should be assessed for how they give effect to the principles.</p>
<p>Rubric 6a and 6b – assessing information sources (Activity 5.1)</p>	<p>The rubrics were not used.</p>	<p>The rubric aimed to capture the source of information from which for work and activities were to be reviewed. This was not required.</p>
<p>Synthesis of results variation (Activity 6.2)</p>	<p>The review method included a synthesis of results by plan type, region and water source.</p>	<p>The amount and type information gathered in the review did not lend itself to this type of synthesis. However, the review method did outline that the synthesis is to illustrate key areas of risks, success and opportunities for improvements and this is how the synthesis chapter is structured.</p>