

# How the department has responded to the Natural Resources Commission Review Recommendations for the Water Sharing Plan for the Greater Metropolitan Region Unregulated River Water Sources 2011

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This document outlines how the department has responded to the independent review of the *Water Sharing Plan for the Greater Metropolitan Region Unregulated River Water Sources 2011* under S43A of the *Water Management Act 2000*.

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Water sharing plans are statutory instruments under the *Water Management Act 2000* (the WM Act). They prescribe how water is managed to support sustainable environmental, social, cultural and economic outcomes. They intend to provide certainty regarding rules for water sharing for water users over the life of the water sharing plan, which is typically 10 years, unless it is extended.

The *Water Sharing Plan for the Greater Metropolitan Region Unregulated River Water Sources 2011* (the plan) commenced on 1 July 2011 and was due to expire in July 2021.

The Natural Resources Commission (NRC) has a role under Section 43A of the WM Act to review water sharing plans within five years of expiry and report to the Minister on:

- the extent that the plan's water sharing provisions have materially contributed to the achievement of, or failure to achieve, environmental, social and economic outcomes
- if changes to plan provisions are warranted.

The [final review report](#) is available on the NRC's website.

The NRC may recommend extending or replacing the plans depending on its review findings. In this instance the NRC recommended the replacement of the plan. This replacement must be done by no later than 30 June 2023.

Tables 1 and 2 below outline the recommendation and suggested actions arising from the NRC review and the status of the response to these actions by the department of Planning and Environment – Water (the department).

The Greater Metropolitan Region Groundwater and the Greater Metropolitan Region Unregulated River water sharing plans were reviewed in the same document. The recommendations and suggested actions in Table 1 and Table 2 are relevant to the unregulated river plan.

Table 1. Department response to NRC review recommendations

The Natural Resources Commission recommended (February 2021)	Action taken against NRC recommendation (November 2022)
<p><b>1 Overall</b></p> <p>The unregulated and groundwater plans should be:</p> <ul style="list-style-type: none"> <li>a) extended for a further two years until 30 June 2023, to allow time to complete data collection, analysis and modelling</li> <li>b) Replaced by 1 July 2023 supported by the completion of the recommendations of this review. The replacement process should ensure the plans consider the draft Greater Sydney Water Strategy (GSWS) to ensure water management is integrated across the region.</li> </ul>	<p><b>Closed.</b></p> <p>Plan is on track to be replaced by 1 July 2023.</p> <p>The department considered the GSWS during plan replacement.</p>
<p><b>2 Managing extraction volumes</b></p> <p>To inform the replacement plans by 1 July 2023, the department should develop a comprehensive water balance. This should be developed using an overarching modelling framework, which includes:</p> <ul style="list-style-type: none"> <li>a) reviewing and addressing gaps in current modelling and model inputs</li> <li>b) all surface water and groundwater extraction</li> <li>c) inflows (including treated wastewater and recycled water discharges) and induced recharge (internal and external to the plans)</li> <li>d) up to date evidence regarding recharge, hydrogeology, connectivity, and climate (the hydrological model should use the climatic data developed for the draft GSWS).</li> </ul> <p>The modelling framework should be used to inform revised provisions and assess their ability to achieve outcomes.</p>	<p><b>Closed.</b></p> <p>The department have developed a Source model for the Hawkesbury Nepean River.</p> <p>A consultant was engaged to develop an integrated conceptual water balance model that includes other agency models and uses.</p> <p>The conceptual water balance model illustrates the inputs and outputs in the Hawkesbury Nepean River system.</p> <p>The department has worked collaboratively with Sydney Water using their hydrodynamic model to assess salinity changes in the tidal pool. This will support any proposed changes to access and trade rules in the tidal pool when consultation is possible on proposed rule changes.</p> <p>The climatic data developed for the GSWS is less appropriate to use at the water sharing plans shorter-term scale.</p>
<p><b>3 Managing extraction volumes</b></p> <p>By 1 July 2023, the department should ensure all extraction in the Greater Metropolitan region is managed to protect, preserve and maintain the water sources, aquifer integrity and dependant ecosystems by:</p>	<p><b>Closed.</b></p> <p>The way the LTAAEL has been described in the plan has been revised (Note that Major Utility LTAAELs remain unchanged). The LTAAEL is now divided into a standard LTAAEL and higher-flow LTAAEL.</p>

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<p>a) using the modelling framework to establish and publish numeric values for comparable, catchment-scale LTAAELs for the unregulated river and groundwater plans that include all forms of extraction managed under the plans</p> <p>b) using the modelling framework to ensure the unregulated river and groundwater plans can function, protect values and achieve objectives under a representative range of climatic conditions over the medium to long term</p> <p>c) basing LTAAELs on sound evidence of ecosystem requirements, recharge, hydrogeological boundaries, and connectivity</p> <p>d) ensuring the water acquired through the Hawkesbury-Nepean River Recovery Project is adequately protected</p> <p>e) ensure mining activities are licenced</p> <p>f) removing clauses 41(7) and 41(8) allowing the LTAAEL to be increased through high flow conversions</p> <p>g) including an amendment provision allowing LTAAELs and Available Water Determinations (AWDs) to be adjusted should volumes managed external to the plans change significantly.</p>	<ol style="list-style-type: none"> <li>1. Standard LTAAEL - to capture extraction that can impact all flows,</li> <li>2. High flow LTAAEL - to capture water take that specifically impacts high flows.</li> </ol> <p>The standard LTAAEL applies to take from all flows and includes all basic landholder rights extraction including harvestable rights. The standard LTAAEL includes:</p> <ul style="list-style-type: none"> <li>• sum of entitlements at commencement of the replacement water sharing plan (except in the Upper Nepean and upstream Warragamba and Hawkesbury Lower Nepean extraction management units where it will be the 1993-99 usage figures consistent with the current plan),</li> <li>• a reduction for entitlement cancelled specifically for an environmental purpose,</li> <li>• domestic and stock basic landholder rights estimated commencement of the 2011 plan, and</li> <li>• an estimate of the maximum harvestable rights at the commencement of the 2011 plan.</li> </ul> <p>This standard LTAAEL is now a fixed volume that is expressed numerically in the final water sharing plan.</p> <p>The higher flow LTAAEL applies to extraction that can only occur from high flows. This volume can vary as licences are converted to higher flows or specific purpose access licences are granted that can only access high flows. By establishing a variable higher flow LTAAEL we can manage extraction whilst encouraging users to shift their extraction away from stressed low flows.</p> <p>There are very limited circumstances under which the standard LTAAEL can vary, and this is associated with licences being converted from the <i>Water Act 1912</i> to <i>Water Management Act 2000</i> licences or licences being cancelled for environmental purposes.</p>

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	<p>This revised LTAAEL definition is being applied across coastal systems when water sharing plans are remade.</p> <ul style="list-style-type: none"> <li>a) Numeric LTAAEL values are published in the final Plan.</li> <li>b) The department is progressing a project to develop 'sustainable LTAAELs' in coastal systems. This project will take several years to complete, and the department has recommended supporting an amendment provision that allows the inclusion of a sustainable LTAAEL if developed in the term of the plan.</li> <li>c) See response under b)</li> <li>d) The department is in the process of clarifying policy decisions in regard to cancelling the licences acquired as part of the Hawkesbury Nepean River Recovery Project to reduce the LTAAEL's. This would convert the bought back licences into planned environmental water.</li> <li>e) Policy work is continuing in this area.</li> <li>f) The higher flow LTAAEL can increase through high flow conversions - The standard LTAAEL will remain fixed with limited change as described above.</li> <li>g) An amendment provision is not required if the amendment is 'in the public interest'.</li> </ul>
<p><b>4 Managing extraction equitably</b></p> <p>By 1 July 2023, the department should ensure the plans facilitate equitable sharing of water by:</p> <ul style="list-style-type: none"> <li>a) clearly defining equity objectives consistent with the Act's requirements</li> <li>b) assessing plan provisions against (a), including access to environmental, drinking water and wastewater releases and LTAAEL compliance provisions</li> </ul>	<p><b>Closed.</b></p> <ul style="list-style-type: none"> <li>a) All water sharing plan provisions are developed with consideration for the water sharing principles and objects of the WM Act. This recommendation has been addressed with improved drafting of objectives, strategies and performance indicator. A document is published with the final water sharing plan that shows how plan provisions</li> </ul>

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<p>c) ensuring that planned Warragamba Dam environmental releases, which have been replaced by wastewater releases, continue to be met by either wastewater releases or dam releases.</p>	<p>comply with the water management principles.</p> <p>b) The plan simplifies access rules where possible and provides rules that protect environmental flow releases, drinking water release and replacement flows from consumption. Due to flooding and inability to appropriately consult with water users about rule changes in the Hawkesbury Lower Nepean Rivers Extraction Management Unit and the Nattai River and Stonequarry Creek water sources, the 2011 plan rules are retained in the replacement plan and consultation on changes and possible amendment will be undertaken in the first 5 years of the plan.</p> <p>c) The plan does not currently include rules directing the environmental flow releases from Warragamba Dam. Once infrastructure allows, the Plan can be amended requiring the release from Warragamba Dam. An amendment provision has been included allowing for changes following dam infrastructure changes. Sydney Water discharges daily volumes from its St Mary's Advanced Water Treatment Plant. Following the Western Sydney Recycled Water Initiative - replacement flows up to 33ML/day would be protected from the 43ML/day environmental flows where 33ML/d are replacement flows and the additional 10ML/day for downstream users. The draft plan proposed that up to 33ML/day discharges were protected as replacement flows from the previous Warragamba Dam releases and were included in the access rules. Due to flooding and inability to appropriately consult with water users about rule changes in the Hawkesbury Lower Nepean Rivers EMU, the 2011 plan rules are being retained and consultation and possible amendment will occur in the first 5 years of the plan. The 2011 plan rules protect</p>

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	all of the discharges multiplied by a factor derived from inflows.
<p><b>5 Improving dam releases and transfers</b></p> <p>The department should improve outcomes achieved from environmental and utility releases and transfers by:</p> <ul style="list-style-type: none"> <li>a) immediately reconvening the Environmental Flows Reference Group to advise on relevant aspects of recommendations (b)-(e), and by 1 July 2023, expanding their role in the plan to advise on a coordinated and adaptive approach to setting and managing environmental releases</li> <li>b) by 1 July 2023, reviewing release provisions for the Upper Nepean weirs and revising them to be less prescriptive and more outcomes-focused</li> <li>c) by 1 July 2023, make currently discretionary environmental releases mandatory and establish clear responsibilities for their implementation, including the environmental contingency allowance, high flow releases from Woronora Dam and water recovered under the Hawkesbury-Nepean River Recovery Program</li> <li>d) by 1 July 2023, set environmental release rules for other utilities in consultation with stakeholders based on the findings of required and other relevant studies, which should be overseen by the department</li> <li>e) by 1 July 2027 (Year 5 of the replacement unregulated river plan), using the modelling framework (Recommendation 2) in conjunction with the estuary model to review the transfer and release rules from the Shoalhaven River/Tallowa Dam to optimise environmental outcomes (including estuarine needs) and water security, considering a broader range of scenarios</li> </ul>	<ul style="list-style-type: none"> <li>a) The Environmental Flows Reference Group (EFRG) was established and worked through proposed changes in both plans particularly in relation to the options considered for the GSWS. It is also proposed to utilise this group to have input into the development of the monitoring, evaluation and reporting (MER) requirements to assess the effectiveness of environmental flows.</li> <li>b) The environmental flow releases for the Upper Nepean and Tallowa dams have been reviewed in line with proposals to scale releases based on total dam storage levels proposed in the GSWS.</li> <li>c) A new clause has been included in the plan stating that an Environmental Contingency Allowance (ECA) - total combined volume of 9,000ML/yr - must be set aside in the Nepean Dam, Warragamba Dam, Avon Dam, Cordeaux Dam and Cataract Dam in the Upper Nepean and Upstream Warragamba Extraction Management Unit. To be released for the following purposes:             <ul style="list-style-type: none"> <li>a) pool destratification to disrupt thermal differences between water at the top and bottom of deep natural pools to reduce water quality risks associated with the thermal differences,</li> <li>b) the management of weed proliferation,</li> <li>c) the management of water quality events,</li> <li>d) fish breeding migration to encourage or enable fish migration for fish-breeding events.</li> </ul> </li> </ul> <p>High flow releases from Woronora Dam have been amended and included in the Plan.</p> <ul style="list-style-type: none"> <li>d) The feasibility studies from Sydney Water and Energy Australia were considered and</li> </ul>

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<p>f) completing a public report outlining the environmental releases undertaken and the outcomes achieved every two years to improve transparency.</p>	<p>where appropriate changes included in system operation rules of the Plan. Wingecarribee Dam releases will be reviewed in 5yrs changes proposed if required. The feasibility studies from the Councils had not been completed. Should studies recommend the need for environmental flows from the relevant storages in the future there are discretionary conditions on council work approvals to facilitate this. Clause 39A of the 2011 plan has been removed as it is no longer necessary.</p> <p>e) The department engaged a consultant to analyse proposed changes to the release and transfer rules from Tallowa. These rules have been subsequently updated and included in the plan.</p> <p>f) This reporting is the responsibility of WaterNSW.</p>
<p><b>6 Limiting timing of extraction to protect flows and manage drought</b></p> <p>By 1 July 2023, the department should review all exemptions and simplify daily access rules in the unregulated river plan and connected groundwater plan water sources to minimise the time and volume of exempt extraction.</p>	<p><b>Ongoing.</b></p> <p>The unique exemptions that are in 2011 plan enabled certain industries access to the very low flow class that allowed the extraction of water that would otherwise be reserved for the environment. These exemptions provide users to access very low flows based on circumstances including temperature and crop cycles. The draft plan proposed that these be removed to minimise impacts on the environment. To date, targeted consultation on this matter indicates significant concerns with the impact that the proposed removal of these unique exemptions may have on licence holders in these industry groups.</p> <p>The draft plan included simplified access rules. Publicly exhibited documents specifically sought comment on these and the exemptions and the effect that they may have on industry.</p> <p>Due to significant flooding in the Hawkesbury Nepean River and the inability for community members to engage in the plan replacement process, a decision was reached to retain some of</p>

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	the 2011 rules (including the exemptions) in the 2023 replacement plan. An amendment is included in the replacement plan to enable the review of these exemptions to ensure impacts on both industry and the environment are minimised.
<p><b>7 Limiting timing of extraction to protect flows and manage drought</b></p> <p>By 1 July 2023, the department should develop simple and transparent access rules for the unregulated river plan and connected groundwater plan water sources to manage extraction consistent with the priorities of the WM Act. This should include:</p> <ul style="list-style-type: none"> <li>a) using instantaneous cease to pump rules to protect very low flows, connectivity, and basic landholder rights, ensuring rules are practical to implement, comply with and are enforceable</li> <li>b) develop simple, outcome-focused rules to protect environmental releases recommended by the Environmental Flows Reference Group (Recommendation 5) and town water supply</li> <li>c) strategic use of active management rules and developing and implementing practical total daily extraction limits (TDELs) and individual daily extraction limits (IDELs) only where required</li> <li>d) installing required infrastructure to implement provisions, including required gauging stations and notification system</li> <li>e) addressing drafting errors.</li> </ul>	<p><b>Ongoing.</b></p> <ul style="list-style-type: none"> <li>a) The department will work with WaterNSW on implementation requirements for the plan, such as access notifications.</li> <li>b) Objectives and outcomes for the environmental flow releases have been developed. The access rules in the Plan will protect environmental flow releases to meet these objectives.</li> <li>c) Active management, TDELs and IDELs are not included in the plan.</li> <li>d) A gauge review has been undertaken and the department will work with WaterNSW and Sydney Water on the suitability of the existing gauging network and on other implementation requirements such as an access notification system.</li> <li>e) Drafting errors have been addressed in the plan.</li> </ul>
<p><b>8 Limiting timing of extraction to protect flows and manage drought</b></p>	<p><b>Closed.</b></p> <p>S60I/ 60A of the WM Act requires a licence to be held for any water taken during mining activity.</p>



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<p>By 1 July 2023, the department should ensure that, if licensees are unable to comply with access licences at any time, extraction is appropriately mitigated, including:</p> <ul style="list-style-type: none"> <li>a) amend Clause 57(3) parts (a) and (b) of the unregulated river plan on planned environmental water, which allow for cease to pump exemptions for aquifer interference activities that are either approved by the <i>Environment, Planning and Assessment Act 1979</i> or the Minister, to require 100 percent mitigation of any exemptions</li> <li>b) link groundwater plan daily access exemption provisions to unregulated river Plan provisions where appropriate and consider including mitigation requirements</li> <li>c) in the unregulated river and groundwater plans, account for mitigation daily (the timescale at which cease to pump rules operate).</li> </ul>	<p>Mines are unable to cease taking during CTP times, but their take is measured or estimated and reported via their development consent conditions including site water management plans. Mitigation and reporting of take daily is not practical but mitigation can occur on a longer time scale and would be a condition of their development consent.</p> <p>Smaller aquifer interference activities do not always require an approval.</p> <p>The plan includes an amendment provision to add or modify provisions relating to the management of aquifer interference activities including the granting of aquifer interference approvals.</p>
<p><b>9 Limiting timing of extraction to protect flows and manage drought</b></p> <p>By 1 July 2023, the department should:</p> <ul style="list-style-type: none"> <li>a) estimate extraction each year to ensure compliance with LTAAELs to determine if adjustments are necessary</li> <li>b) include rules following the department’s consideration of how AWDs can be used to manage extraction during drought, including under predicted climate change</li> <li>c) examine and simplify the combined role of the AWDs and carryover activities.</li> </ul>	<p><b>Ongoing.</b></p> <ul style="list-style-type: none"> <li>a) Extraction figures will be available once the NSW Non-Urban Metering Framework is implemented in the Greater Metropolitan region, 1 December 2024. The department is looking at surface water LTAAEL compliance calculations for the WaterNSW Major Utilities LTAAEL.</li> <li>b) Setting the standard LTAAEL at a fixed volume will ensure the planned environmental water components do not decrease in a drying climate during the life of the plan.</li> </ul> <p>The appropriateness of access rules has been considered based on the longest record of flow available including the most recent 2019/20 drought. Plans operate for 10 years at which time they may be reviewed. The plan also includes an amendment provision for climate change as work progresses in this area.</p>

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	<p>The department will work toward priorities in the State Water Strategy. Priority 4 of the State Water Strategy is to increase resilience to changes in water availability (variability and climate change). The 2021/22 action plan looks to improve and apply our understanding of climate variability and change. Including work to determine a methodology and progressively incorporate climate risk data into water sharing plan and environmental water management decision making.</p> <p>c) Available water determinations and carryover rules were reviewed. No changes proposed.</p>
<p><b>10 Accounting for spatial variation in values and risks</b></p> <p>By 1 July 2023, the department should use best available evidence, to reassess the socioeconomic, cultural and environmental value of all management zones/water sources in the plans including:</p> <ul style="list-style-type: none"> <li>a) fine scale High Ecological Values Aquatic Ecosystems (HEVAE) mapping consistent with data used for other NSW Government planning processes</li> <li>b) reviewing trade limitations with a view to manage trade across broader areas provided environmental outcomes can be maintained</li> <li>c) the full range of economic benefits and impacts of water extraction and presence of water in-stream when considering the economic dependence of water sources, such as:             <ul style="list-style-type: none"> <li>i. benefits and impacts of secure water supply and time on water restrictions for town water supplies including residential and industrial uses</li> <li>ii. benefits and impacts of flow and water quality on industries and water uses such as tourism, ecosystem services and recreation and community activities.</li> </ul> </li> </ul> <p>Where necessary, the department should then amend both plans' rules to address any changes to</p>	<p><b>Closed.</b></p> <ul style="list-style-type: none"> <li>a) The department has adopted the High Ecological Value Aquatic Ecosystem (HEVAE) framework. HEVAE aims to identify and define a range of instream values (or level of importance) for freshwater river reaches in NSW. These values enable the prioritisation of areas for focused water management, to benefit all water users including the environment. The department has adopted four criteria, diversity, distinctiveness, naturalness and vital habitat. Each of the four criteria relies on state-wide availability of instream value data, to enable the production of consistent spatial mapping outcomes.</li> <li>b) Trade rules have been reviewed using the new risk assessment data. Limitations have been removed or reduced in a number of water sources where risk was shown to have reduced.</li> <li>c) Plan rules were reviewed in line with the GSWS and the economic and social importance of Sydney's drinking water supply.</li> </ul>

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<p>classifications and ensure that the high value environmental ecosystems are protected by the plan rules, without unnecessarily inhibiting trade.</p>	
<p><b>11 Accounting for spatial variation in values and risks</b></p> <p>By 1 July 2023, the department should:</p> <ul style="list-style-type: none"> <li>a) better define connectivity terminology with respect to spatial and temporal variation and needs of different aquifer types</li> <li>b) strengthen the evidence base across the plan area regarding the extent and spatial variability of connectivity through on ground studies and mapping</li> <li>c) specifically refer to known areas of high connectivity and lower connectivity, and distinguish between discharging and receiving groundwater systems, and gaining and losing streams to better manage the unregulated river and groundwater plans as a whole.</li> </ul>	<p><b>Closed.</b></p> <ul style="list-style-type: none"> <li>a) The water sharing plan is a statutory document setting the rules for water sharing. It is not the place for definitions that are not critical to the operation of the rules. NSW's definitions of connectivity are included in the <i>Macro water sharing plan - the approach for groundwater. A report to support community consultation.</i></li> <li>b) and c) Where updated connectivity data is available to inform plan development, it was utilised. Any improved understanding of connectivity is reflected in documentation supporting plan development, public exhibition and plan commencement.</li> </ul>
<p><b>12 Accounting for spatial variation in values and risks</b></p> <p>By 1 July 2021, the department should:</p> <ul style="list-style-type: none"> <li>a) establish clear objectives for estuaries across the unregulated river plan area</li> <li>b) initiate detailed data collection in the Hawkesbury and Shoalhaven estuaries (including but not limited to the studies identified in 78(9) of the unregulated river plan) and use this in the estuary model described in Section 4.7 to model estuary behaviour</li> <li>c) by 1 July 2022, use (b) to develop estuarine flow requirements in consultation with the Environmental Flows Reference Group (Recommendation 5) – as part of this, the</li> </ul>	<ul style="list-style-type: none"> <li>a) Plan objectives cater for water sources that include estuaries.</li> <li>b) The department has identified flow gauges held by other agencies and collected flow data, the department has collated data for water quality from different agencies and Councils for use in risk assessment. We have also sought the use of the hydrodynamic model held by Sydney Water to further understand the salinity dynamics under different flow regimes and extractions in the Hawkesbury tidal pool.</li> <li>c) EFRG has been utilised to develop environmental flow regimes, these have been incorporated into the Plan rules to protect</li> </ul>

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<p>Hawkesbury-Nepean tidal pool should be managed as a discrete area</p> <p>d) by 1 July 2023, include provisions to achieve the estuarine flow requirements defined in (c), including clear agency responsibilities.</p>	<p>these flows into the estuary. MER is also being developed and will be reviewed in 5 years.</p> <p>d) Estuarine flow requirements have not been developed specifically, however the protection of environmental flow releases are included in the plan.</p>
<p><b>14 Accounting for spatial variation in values and risks</b></p> <p>By 1 July 2023, the department should define specific ‘high’ flow thresholds where appropriate in the unregulated river plan area, with cease to pump thresholds at levels that do not increase hydrological stress or impact environmental outcomes but will allow some trade into high flows.</p>	<p>The plan includes high flow conversions and the granting of high flow Aboriginal community development licences in several water sources. These licences can only be granted up to a limit with this limit ensuring no increases in hydrological stress ratings and aim to reduce hydrologic stress in low flows.</p>
<p><b>15 Supporting outcomes for Aboriginal people</b></p> <p>Amend the plans to reflect all current native title claimants and Indigenous Land Use Agreement holders comprehensively and reflect this consistently across both plans. Undertake detailed engagement with these Native Title groups to determine water allocations and access options.</p>	<p><b>Closed.</b></p> <p>The plan reflects current Native Title determinations and can be amended to reflect the outcome of pending claims.</p> <p>Targeted consultation has addressed understanding water licensing, water availability and options for aboriginal communities. Aboriginal organisations and community representatives were invited to make a submission on the draft plan during public exhibition.</p>
<p><b>16 Supporting outcomes for Aboriginal people</b></p> <p>Undertake subsequent work with Aboriginal stakeholders and Traditional Owners to further understand all water-related values (for surface and groundwater) and better protect them through plan provisions.</p>	<p><b>Ongoing.</b></p> <p>The department reached out to several Aboriginal organisations in the plan area. Consultation will continue with Aboriginal organisations over the life of the plan.</p> <p>The department will work toward priorities in the State Water Strategy. Priority 2 of the State Water Strategy is the Recognise First Nations/Aboriginal People’s rights and values and increase access to and ownership of water for cultural and economic purposes.</p> <p>The NSW Government recognises First Nations/Aboriginal People’s rights to water and</p>

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	<p>our aim is to secure a future where water for First Nations/Aboriginal People is embedded within the water planning and management regime in NSW, delivering cultural, spiritual, social, environmental and economic benefit to communities.</p> <p>Actions under the State Water Strategy include:</p> <ul style="list-style-type: none"> <li>• Strengthening the role of First Nations/Aboriginal People in water planning and management.</li> <li>• Developing a state-wide Aboriginal water strategy.</li> <li>• Providing for Aboriginal ownership of and access to water for cultural and economic purposes.</li> <li>• Working with First Nations/Aboriginal People to improve shared water knowledge.</li> <li>• Working with First Nations/Aboriginal People to maintain and preserve water-related cultural sites and landscapes.</li> </ul> <p>The department is committed to providing greater opportunities for Aboriginal water management and participation in water sharing. A new Aboriginal water directorate has been established within the department and work is progressing on an Aboriginal Water Strategy, which will identify the ways in which we can achieve the priorities under the State Water Strategy.</p>
<p><b>17 Supporting outcomes for Aboriginal people</b></p> <p>Reserve unallocated water for Aboriginal specific licences or other Aboriginal water access options, before being offered to the market on commercial terms.</p>	<p><b>In progress.</b></p> <p>This issue has been incorporated into Aboriginal Water Strategy development.</p>
<p><b>18 Supporting outcomes for Aboriginal people</b></p> <p>Finalise an NSW Aboriginal Water Strategy in 2021 to provide consistent, transparent guidelines and</p>	<p><b>Closed.</b></p> <p>Action as in recommendation 16.</p>

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<p>resourcing for Aboriginal water management across NSW, comprising the following at a minimum:</p> <ul style="list-style-type: none"> <li>a) Improve recognition of native title by including a common provision to undertake preliminary amendments to a plan within six months of a native title determination or other agreement that includes water allocation</li> <li>b) allow additional time to undertake detailed engagement with Traditional Owners, make water allocations and final plan amendments; considering native title claims proactively as part of water sharing planning</li> <li>c) identify Aboriginal water values and uses, objectives and outcomes by undertaking extensive engagement with Aboriginal stakeholders in all plan areas; prioritising allocations to protect values; adopting cultural landscape-scale principles; integrating identified values into ongoing water planning and management</li> <li>d) co-design Aboriginal specific licences or other water access options with key Aboriginal stakeholders that meet identified needs for a range of cultural, environmental, social and economic uses.</li> </ul>	<p>There are no native title determinations in the plan area. The plan therefore indicates that on commencement, the amount of water required to satisfy native title rights is estimated as OML/yr.</p> <p>The plan will be amended as soon as practical to give effect to, or in connection with, a determination made after the plan commences. Amendments commonly take approximately six months to process as they require approval by multiple Ministers.</p>
<p><b>19 Supporting outcomes for Aboriginal people</b></p> <p>By 1 July 2022, the department should improve MER to increase transparency and support the achievement of plan outcomes in line with the water management principles and priorities of the WM Act. This should include:</p> <ul style="list-style-type: none"> <li>a) completing relevant studies identified in the 2011 plans</li> <li>b) developing a publicly available research plan for the completion of further studies required to improve the knowledge base and for adaptive management – required studies should also be included in the plans</li> </ul>	<p><b>In progress.</b></p> <p>The department is developing a monitoring, evaluation and reporting (MER) framework for coastal water sharing plans. The framework will help coordinate activities conducted by multiple agencies. In this way, MER activities can deliver on specific agency requirements and contribute to a broader understanding of water management and river and wetland health over time. The implementation of any MER programs is dependent on having a defined, long term budget. While every effort is made to maintain a MER program, the ability to implement aspects in a MER is limited by resources.</p>

The Natural Resources Commission recommended (February 2021)	Action taken against NRC recommendation (November 2022)
<p>c) developing plan-specific, publicly available MER frameworks consistent with the coastal and state-wide guidelines. The framework should include linked and specific, measurable, achievable, relevant and time-bound (SMART) objectives, strategies and performance indicators, define roles and responsibilities, set timely public reporting requirements and include adaptive management processes.</p>	<p>The department has undertaken two studies to support efficient and effective use of scarce monitoring funds throughout NSW. The 'prioritisation' study is designed to deliver advice on which water sources should be targeted for monitoring activities and why, while the 'transferability' study is designed to deliver a model that will allow us to know with high probability which water sources are so similar to each other that they can be considered synonymous. The two projects combined will allow us to maximise the results from monitoring activities, and transparently share the results with stakeholders.</p> <p>Implementation of the MER program will commence in late 2022. This will clarify the roles and responsibilities, reporting requirements, governance arrangements and timeframes associated with the program.</p> <p>The MER plan will include SMART objectives, strategies and performance indicators that are linked to the WM Act's outcomes. This will align with the WM Act priorities.</p>

Table 2. Department response to NRC Review suggested actions

NRC suggested actions for the department to support the replacement Plan (May 2021)	Action taken against NRC suggested actions (November 2022)
<p><b>A Managing extraction volumes</b></p> <p>Finalise the reasonable use guidelines for domestic and stock use by 1 July 2022 and include the agreed standards as part of the replacement plans.</p>	<p><b>In progress.</b></p> <p>A project is underway to review the need and options for regulation of take under domestic and stock basic landholder rights. The project is aimed at determining the most appropriate framework for managing take under these rights, according to the level of risk, and may or may not result in reasonable use guidelines.</p>

NRC suggested actions for the department to support the replacement Plan (May 2021)		Action taken against NRC suggested actions (November 2022)
<b>B</b>	<p><b>Managing extraction volumes</b></p> <p>Policies around exempt and externally managed extraction should be finalised to inform the replacement plans’ development, for example stormwater harvesting and construction and maintenance dewatering.</p>	<p><b>In progress.</b></p> <p>Policies around exempt and externally managed extraction are being progressed by the department.</p>
<b>C</b>	<p><b>Improving dam releases and transfers</b></p> <p>The NSW Government should undertake planned upgrades allowing environmental releases from Warragamba Dam to ensure the unregulated river Plan can deliver environmental outcomes downstream of Warragamba Dam.</p>	<p>No action required in the water sharing plan. This recommendation refers to an infrastructure upgrade outside the scope of the water sharing plan.</p>
<b>D</b>	<p><b>Improving plan delivery</b></p> <p>Continue to develop state-wide evaluation framework and monitoring plan, considering and addressing key gaps and prioritising MER activities based on values and risk. The framework, monitoring plans and reporting should be publicly available to improve transparency.</p>	<p>See response for Recommendation 19.</p>
<b>E</b>	<p><b>Improving plan delivery</b></p> <p>Adopt additional mechanisms to support metering and measure water extraction and movement across the plan area, such as remote sensing, to improve calculation of LTAAEL compliance and support adaptive management.</p>	<p><b>In progress.</b></p> <p>The NSW Non-Urban Metering Framework comes into effect in the Plan area on 1 December 2024. Users will be required to install accurate, tamper-free meters and telemetry devices in accordance with the regulation. The department in conjunction with the Natural Resource Access Regulator (NRAR) and WaterNSW are supporting water users as they transition to the new framework.</p>



NRC suggested actions for the department to support the replacement Plan (May 2021)	Action taken against NRC suggested actions (November 2022)
<p><b>F Improving plan delivery</b></p> <p>The department should adopt state-wide processes that support the plan remake and implementation by:</p> <ul style="list-style-type: none"> <li>a) enhancing communication of water sharing plans through active, simple, and consistent language and modes of communication</li> <li>b) improving implementation using clear and consistent governance, roles and responsibilities, and timelines.</li> </ul>	<p><b>Ongoing.</b></p> <p>The water sharing plan template has been updated to improve readability.</p> <ul style="list-style-type: none"> <li>a) As part of public engagement pre and post remake, the department follows a programme of effective communication. Much of this involves the delivery of public documents, for example, rule summary sheets, background documents, guides to water sharing. These documents assist to communicate the rules of the plan in 'plain English'. These documents are periodically reviewed for their effectiveness. Departmental staff are also available to advise on the rules and assist licences understand rules.</li> <li>b) Implementation programmes the department is now developing for water sharing plans will. Assist in clarifying governance, roles, responsibilities for the delivery of key provisions of a plan.</li> </ul>
<p><b>G Improving plan delivery</b></p> <p>By 1 July 2023, the department should liaise with WaterNSW and the NRAR to ensure that unregulated river and groundwater plan provisions are practical, enforceable, and can readily be placed on access licences where relevant. Access licences should reflect plan provisions.</p>	<p><b>Closed.</b></p> <p>The department has been working with WaterNSW during the development of both the unregulated river and groundwater plans. WaterNSW has provided valuable advice relating to the practicality of plan provisions and the how they support systems operations.</p> <p>The department has provided both the unregulated river and groundwater plans to NRAR to comment on the enforceability of provisions.</p> <p>The department has also done internal reviews to ensure the rules translate into mandatory condition on licences and approvals.</p>
<p><b>H Improving plan delivery</b></p> <p>As part of the plan replacement, the department should develop well-evidenced and resourced processes for stakeholder engagement in the plan area. This should be part of a strengthened state-wide stakeholder engagement strategy.</p>	<p><b>Closed.</b></p> <p>A communication and engagement plan was developed and supporting material produced to help explain the change to the water sharing plan.</p> <p>An external consultant was engaged to help deliver the public exhibition component of the plans.</p>

NRC suggested actions for the department to support the replacement Plan (May 2021)	Action taken against NRC suggested actions (November 2022)
<p><b>I Improving plan delivery</b></p> <p>By 1 July 2023, the department should adopt integrated catchment management approaches that support the plans' replacement and implementation.</p>	<p>Water sharing plans are developed in accordance with the requirements of the Act and cannot direct catchment actions not related to water sharing.</p> <p>That said, the department will work toward priorities in the State Water Strategy. Priority 4 of the State Water Strategy is to increase resilience to changes in water availability (variability and climate change). Action 4.4 under this priority is to better integrate land use planning and water management.</p> <p>The Government will work to better integrate strategic land use planning with water management frameworks and outcomes. Taking steps to:</p> <ul style="list-style-type: none"> <li>a) Establish processes to support communication and early engagement to better inform land use, agriculture and industry investment decisions based on a clear understanding of water availability and constraints, and water allocation risk over the immediate and longer term.</li> <li>b) Develop new planning policies, if required, to integrate land use and water cycle management decisions.</li> <li>c) Identify opportunities for the planning system to support water resource health and resilience in a changing climate; for example, through strategic recognition of critical groundwater resources in coastal areas and mitigate impacts from urban development.</li> <li>d) Improve access to information about water availability to support development.</li> </ul>