



Review of prices for the Water  
Administration Ministerial Corporation  
from 1 October 2021 to 30 June 2025

## Output Measures

September 2021

Water >>



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## **Tribunal Members**

The Tribunal members for this review are:

Ms Carmel Donnelly, Chair

Ms Deborah Cope

Ms Sandra Gamble

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## **Invitation for submissions**

IPART invites written comment on this document and encourages all interested parties to provide submissions addressing the matters discussed.

## **The Independent Pricing and Regulatory Tribunal (IPART)**

We make the people of NSW better off through independent decisions and advice. IPART's independence is underpinned by an Act of Parliament. Further information on IPART can be obtained from [IPART's website](#).

## **Acknowledgment of country**

IPART acknowledges the Traditional Custodians of the lands where we work and live. We pay respect to Elders, past, present and emerging.

We recognise the unique cultural and spiritual relationship and celebrate the contributions of First Nations peoples.

# 1 Output measures

The table outlines the output measures and performance indicators the Independent Pricing and Regulatory Tribunal of NSW (IPART) set for Water Administration Ministerial Corporation (WAMC) for the 2021 determination period. They were recommended by our consultant, Cardno, following extensive consultation with the Department of Planning, Industry and Environment (DPIE), National Resource Access Regulator (NRAR) and Water NSW. The list of output measures is detailed since WAMC does not have an operating licence.

We expect WAMC to report annually on these output measures and performance indicators in the template approved by us. When reporting, WAMC should:

- self-assess whether it has met the outcome measure or performance indicator
- explain how the output measures or performance indicators relate to the proposed outcome in the final column of the table below, and its progress in achieving the outcome
- provide its completed output measures template to us in a form that can be made publicly available on our website.

Further, WAMC should report annually to us (in a template to be approved by us) on its external funding, by activity. Where timeframes for achieving output measures or performance indicators are not listed, they relate to the last year of the 2021 determination period (i.e. 2024–25).

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
W01-01 Surface water quantity monitoring	The provision of a surface water quantity monitoring system; including design, station calibration, data collection, processing, encoding, quality assurance and archiving from the networks of water monitoring stations; the delivery of near real time height and/or flow data from all telemetered sites to the corporate database; and the maintenance and operation of surface water monitoring stations.	<p><b>Output measure (OM1)</b> Number of water monitoring sites: Forecast = 437</p> <p><b>Performance indicators</b> Sites in acceptable condition % of replacement cost of monitoring sites in condition grade 2 or better = 95%</p> <p>% of level data with a quality code better than 40 = 95%</p>	<p>Based on long-term water stewardship/Ministerial corporation sites.</p> <p>Reporting a condition profile aligns with the management approach for the network. Condition grading based on Water NSW Asset Management systems.</p> <p>The quality code reflects Water NSW's own quality control processes. Level data is used as a surrogate for overall data performance as it is the key data collected at surface water quantity monitoring site.</p>	A monitoring network in sufficiently good condition to help ensure its performance meets requirements.
W01-02 Surface water data management and reporting	The data management and reporting of surface water quantity, quality and biological information; including compilation, secure storage, management and publishing of data to customers, stakeholders and the general public.	<p><b>Output measure (OM2)</b> Number of sites subject to data management: Forecast = 437</p> <p><b>Performance indicator</b> % of sites where data is available within 3 hours = 90%</p>	<p>Based on long-term water stewardship / Ministerial corporation sites.</p> <p>This indicator reflects the current level of service within the network.</p>	Timely provision of data enables faster and improved decision making.
W01-03 Surface water quality monitoring	The provision of a surface water quality monitoring program; including design, sample collection, laboratory testing and analysis, test result quality assurance to accepted standards, and test result encoding to make it available for data management and reporting.	<p><b>Output measure (OM3)</b> Number of sites visited per year to collect water quality samples: Forecast = 125</p> <p><b>Output measure (OM4)</b> Number of tests undertaken per year: Forecast = 26,750</p> <p><b>Performance indicator</b> % compliance against monitoring program requirements = 98%</p>	<p>This quantity is calculated from 125 sites, sampled a minimum of 10 times per year, with 6 field measured analytes plus 17 laboratory measured analytes at coastal sites, or 15 laboratory measured analytes at non-coastal sites.</p>	Assurance that the quality of water is known.

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
W01-04 Surface water algal monitoring	The provision of a surface water algal monitoring program; including design, sample collection, laboratory analysis, algal identification and enumeration to accepted standards, and result encoding for provision to regional coordinating committees.	<p><b>Output measure (OM5)</b> Number of tests undertaken per year: Forecast = 10,080</p> <p><b>Performance indicator</b> % samples collected and analysed according to current standards and within agreed timeframe = 95%</p>	<p>It is more meaningful to measure against implementation of the monitoring program rather than test results as the monitoring program is within Water NSW's control.</p> <p>This quantity is calculated from 70 sites, sampled a minimum of 12 times per year, with 12 analytes reported for each sample. Number of algal tests scalable in response to events. This indicator measures the effectiveness of algal monitoring.</p>	Confidence that the algal monitoring program is providing reliable results.
W01-05 Surface water ecological condition monitoring	The provision of a surface water ecological condition monitoring system to assess the health of water sources; including design and application based on the River Condition Index (RCI) for rivers, flood plains and wetlands.	<p><b>Output measure (OM6)</b> Update of River Styles database undertaken to support water sharing plan (WSP) development. Measure by number of plans: Output = 50%</p> <p><b>Performance indicator</b> Update of River Styles completed in time for WSP evaluation = 100%</p> <p><b>Output measure (OM7)</b> Update of RCI undertaken to support WSP development. Measure by number of plans: Output = 50%</p> <p><b>Performance indicator</b> Update of RCI completed in time for WSP evaluation = 100%</p> <p><b>Output measure (OM8)</b> Update of WaQI undertaken to support WSP development. Measure by number of plans: Output = 50%</p> <p><b>Performance indicator</b> Update of WaQI completed in time for WSP evaluation = 100%</p>	<p>This activity creates spatially enabled products that gradually increase in coverage from one year to the next. Updates and additions to the products are also incremental. It is reasonable to expect that models are maintained annually. The number of scenario tests is not a reliable performance measure and has been dropped. DPIE has provided IPART with a schedule for calculation of output measure percentage and timing of performance indicator.</p>	Regularly updated river condition information that is available online. Information that is available at the same spatial scale as stakeholder interests (i.e. the same scale as water sharing plan management units and landholder properties). Accountability for and stakeholder confidence in evidence-based decision making for optimal resource allocation/sharing.

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
		<p><b>Output measure (OM9)</b> Coverage of river and groundwater HEVAE extended to coastal WSP areas</p> <p><b>Performance indicator</b> River and groundwater HEVAE extended to cover coastal WSP areas in time for plan evaluation = 100%</p> <p><b>Output measure (OM10)</b> Coverage of river and groundwater HEVAE extended to coastal WSP areas</p> <p><b>Performance indicator</b> River and groundwater HEVAE extended to cover coastal WSP areas in time for plan evaluation = 100%</p> <p><b>Output measure (OM11)</b> WaQI extended to coastal WSP areas</p> <p><b>Performance indicator</b> WaQI extended to cover coastal WSP areas in time for plan evaluation = 100%</p> <p><b>Output measure (OM12)</b> WaQI incorporated into the RCI</p> <p><b>Output measure (OM13)</b> River Styles, WaQI, RCI and HEVAE available on DPIE website</p> <p><b>Output measure (OM14)</b> Technical reports for HEVAE and WaQI peer reviewed and published on DPIE website.</p> <p><b>Performance indicator</b> Technical reports for HEVAE and WaQI updates peer reviewed and published on DPIE website within 3 months of completion = 100%</p>		

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
W02-01 Groundwater quantity monitoring	The provision of a groundwater level, pressure and flow monitoring system; including design, site calibration, data collection, entry, audit, quality assurance, archiving, and information provision; and the maintenance and operation of groundwater monitoring bores.	<p><b>Output measure (OM15)</b> Number of water monitoring sites: Forecast = 4,384 (excludes coal seam gas monitoring sites)</p> <p><b>Performance indicators</b> Sites in acceptable condition % of replacement cost of monitoring sites in condition grade 2 or better = 95% % of level or pressure data with a quality code better than 40 = 95%</p>	<p>Reporting a condition profile aligns with the management approach for the network.</p> <p>The quality code reflects Water NSW's own quality control processes. Level or pressure data is used as a surrogate for overall data performance as it is the key data collected.</p>	A monitoring network in sufficiently good condition to help ensure that its performance meets requirements.
W02-02 Groundwater quality monitoring	The provision of a groundwater quality monitoring program; including design, sample collection, laboratory testing and analysis, test result quality assurance to accepted standards, and test result encoding to make it available for data management and reporting.	<p><b>Output measure (OM16)</b> Number of sites visited per year to collect water quality samples: Forecast = 163 (excludes coal seam gas monitoring sites)</p> <p><b>Output measure (OM17)</b> Number of samples undertaken per year: Forecast = 360 (excludes coal seam gas monitoring sites)</p> <p><b>Performance indicator</b> % compliance against monitoring program requirements = 98%</p>	It is more meaningful to measure against implementation of the monitoring program rather than test results as the monitoring program is within Water NSW's control.	Assurance that the quality of water is known.
W02-03 Groundwater data management and reporting	The data management and reporting of groundwater quantity and quality information; including compilation, secure storage, management and publishing of data to customers, stakeholders and the general public.	<p><b>Output measure (OM18)</b> Number of sites subject to data management: Forecast = 4,384 (excludes coal seam gas monitoring sites)</p> <p><b>Performance indicator</b> % of sites where data is available daily = 90%</p>	This indicator reflects the current level of service within the network.	Timely provision of data enables faster and improved decision making.

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
W03-01 Water take data collection	The electronic and manual collection, transmission and initial recording of water take data from licence holders for unregulated and groundwater sources; and the operation and maintenance of government owned meter and telemetry facilities.	None included at this time.		
W03-02 Water take data management and reporting	The data management and reporting of water take for unregulated and groundwater sources including compilation, secure storage, management and publishing of data to authorised parties.	None included at this time.		
W04-01 Surface water modelling	The development, upgrade and application of surface water resource management models for use in water planning and to assess performance in terms of statutory requirements, interstate agreements, regional water supply optimisation and third-party impacts on NSW stakeholders.	<p><b>Output measure (OM19)</b> Number of documented model performance reviews during the year: Output = 5 per year</p> <p><b>Performance indicator</b> % models reviewed and reported against accuracy and reliability criteria set out in modelling guidelines = 100%</p> <p><b>Output measure (OM20)</b> Number of models updated with an additional year of climate and hydrologic data: Output = 15 per year</p>	This could be an internal or external peer review.	Accountability for and stakeholder confidence in evidence-based decision making for optimal resource allocation/sharing.
W04-02 Groundwater modelling	The development, upgrade and use of groundwater resource management models for water sharing and management applications, and for resource impact and balance assessments.	<p><b>Output measure (OM21)</b> Number of documented model performance reviews during the year: Output = 4 per year</p> <p><b>Performance indicator</b> % models meeting accuracy and reliability criteria stipulated by the Australian Groundwater Modelling Guidelines = 100%</p> <p><b>Output measure (OM22)</b> Number of models updated with an additional year of climate and hydrologic data: Output = 2 per year</p>	<p>As for surface water.</p> <p>Accuracy and reliability parameters are as stipulated by the Australian Groundwater Modelling Guidelines.</p> <p>Note that the 22 existing groundwater models are proposed to be consolidated into 8.</p>	As for surface water.

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
W04-03 Water resource accounting	The development and update of water resource accounts and information on NSW water sources, for use by external stakeholders, and for internal water planning, management and evaluation processes.	<p><b>Output measure (OM23)</b> Publication of detailed General Purpose Water Allocation Reports (GPWARs): Output = 9 (covering 11 sources) per year</p> <p><b>Performance indicator</b> GPWARs published within 12 months of the end of the water year = 100%</p> <p><b>Output measure (OM24)</b> Reports to meet state and federal compliance reporting obligations.</p>	<p>GPWARs and the associated data are the cornerstone of water accounting delivery. The environmental water register provides transparency for recovered water use in the Murray–Darling Basin (Basin).</p> <p>DPIE has provided IPART with a schedule of expected reports.</p>	Stakeholder confidence in consistent, repeatable and comparable water accounts.
W05-01 Systems operation and water availability management	The preparation and implementation of the procedures and systems required to deliver the provisions of water management plans; and operational oversight to ensure plan compliance, the available water determinations and the assessment of compliance with long term extraction limits.	<p><b>Output measure (OM25)</b> A theme-based WSP implementation program established and published.</p> <p><b>Output measure (OM26)</b> Annual implementation effectiveness reviews completed for each theme and communicated to key stakeholders (water agencies, Murray–Darling Basin Authority (MDBA), NRC, industry and public) through annual reports and DPIE Water website update.</p> <p><b>Output measure (OM27)</b> Manage Long Term Average Annual Extraction Limit (LTAAEL) in priority WSPs where it is exceeded Report back: Number of times that there is non-compliance with the long-term average annual extraction limit, as defined in each WSP. i.e. 1, X Water Sharing Plan</p>	<p>DPIE needs to demonstrate that WSP are being implemented and are effective in a clear and transparent process.</p> <p>This program addresses recommendations from audits/reviews and key stakeholder feedback on NSW WSP implementation.</p> <p>Effective LTAAEL implementation enables DPIE Water to assess if diversions from regulated water sources are within WSP limits and determine growth in use. This particularly applies to valleys where floodplain harvesting will be brought into the entitlement framework.</p>	<p>Sustainable operation and use of water resources. Stakeholders kept updated on WSP implementation progress – improved public confidence and transparency in WSP implementation.</p> <p>Extraction managed to sustainable levels.</p>

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
		<p>Output = 0 per year</p> <p><b>Performance indicator</b> 100% compliance with LTAAEL assessed annually for priority water sharing plans in accordance with rules set out in respective WSPs, and AWDs reflect an appropriate reduction in allocations where LTAAEL is exceeded. Report back: WSP non-compliance addressed through the required management action, as defined in each WSP i.e. 100%, AWDs reduced to be compliant with the extraction limit.</p> <p><b>Output measure (OM28)</b> Snowy licence review implemented by 2022.</p> <p><b>Output measure (OM29)</b> AWDs and allocation statements released for each WSP</p> <p><b>Performance indicator</b> AWDs published on website within 1 week of being made = 100%</p>	<p>This indicator is included to provide insight into the performance in managing to LTAAEL. The outputs (zero exceedances) and 100% compliances are somewhat aspirational. Reporting this information is expected to provide better understanding of performance.</p> <p>AWDs are reflected in publicly available, date-stamped, Water Allocation Statements. Performance is measured by comparing scheduled and actual release dates.</p>	<p>AWDs allow water users and market participants to make informed business decisions and water availability manage risks.</p> <p>Stakeholders are updated on allocations.</p>
W05-02 Blue-green algae management	The provision of an algal risk management system; including oversight, coordination and training, the issue of algal alerts and the development of algal risk management plans.	<p><b>Output measure (OM30)</b> Algal risk management plans for each region are implemented.</p> <p><b>Performance indicators</b> % reports meeting weekly timeframe to regional algal coordinating committees and state algal coordinator of alert levels based on algal data = 100% % actions implemented in accordance with algal risk management plan and guidelines = 100%</p>	Measures provide for risk-based planning for blue-green algae management and effective implementation of these plans.	Effect management of risk associated with blue-green algae.

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
W05-03 Environmental water management	The development and collaborative governance of environmental flow strategies and assessments; and the use of environmental water to achieve environmental outcomes.	<p><b>Output measure (OM31)</b> Prerequisite policy measures – adaptive process in place to recognise return flows from environmental water.</p> <p><b>Performance indicator</b> Agreement – eWater managers, Water NSW and SCBEWC agree the process for recognising return flows.</p> <p><b>Performance indicator</b> Annual report on PPMs implementation published on DPIE website.</p> <p><b>Output measure (OM32)</b> Northern Basin – Interim Unregulated Flow Management Plan for the North-west implemented as demonstrated by: Review report published and Procedures Manual for the Interim Unregulated Flow Management Plan for the North-west adopted by Water NSW and in place.</p> <p><b>Output measure (OM33)</b> Snowy Licence – Evaluate using the Mowamba River to provide environmental water to the Snowy River.</p> <p><b>Output measure (OM34)</b> Snowy licence – Investigate more flexible delivery to achieve better environmental outcomes and deliver an average annual flow consistent with the intent of SWIOID.</p>	Clarified water sharing processes for environmental water managers, extractive water users and NRAR. Enhanced protections for environmental water. Enhanced regulatory and policy structure to facilitate improved environmental water management. Greater transparency and certainty in decision making in environmental water management.	Environmental watering activities are better able to achieve their intended environmental outcomes. Greater community confidence in how environmental water portfolios are managed. Healthy ecosystem function and environmental assets. In developing a more comprehensive set of ecological objectives, the strategies for increased flows developed by the governments focused on repairing flow related processes.

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
W05-04 Water plan performance assessment and evaluation	The assessment, audit and evaluation of the water management plans' appropriateness, efficiency and effectiveness in achieving economic, social and environmental objectives.	<p><b>Output measure (OM35)</b> WSP risk assessments prepared: Output = 25</p> <p><b>Performance indicator</b> WSPs with risk assessments available prior to remake date = 100%</p> <p><b>Output measure (OM36)</b> WSPs included in the scope of monitoring programs: Output = Monitoring data for all inland (Basin) WSPs, at least 6 coastal WSPs (approximately 50% of coastal WSP remakes during the period)</p> <p><b>Performance indicator</b> WSPs with monitoring outcomes available prior to evaluation and remake date = 100%</p>	<p>Risk assessments are scheduled by region, to align with WSP completion schedules (6 months before WSP remake dates).</p> <p>Monitoring outputs are scheduled according to overarching MER plans to align with WSP evaluation and reporting schedules.</p>	<p>Prepare information for external (NRC and MDBA) reporting.</p> <p>Provide evidence that supports decision making during WSP remake and development</p> <p>Support an adaptive management framework for WSPs to meet the requirements of the <i>NSW Water Management Act 2000</i> (and <i>Water Act 2007</i> (Cth) when WRPs commence)</p>
W06-01 Water plan development (coastal)	The development, review, amendment, and extension or replacement of water management plans, and the consultation activities associated with developing these plans for coastal water sources.	<p><b>Output measure (OM37)</b> NRC review report submitted for plans due to expire within the 2021 IPART period to Minister and Minister endorses Department recommendation for coastal WSPs to be replaced or extended. Output = 7 Anticipated coastal WSPs approved for replacement or extension: Bega, Murrah, Richmond, Towamba, Tweed, GMR Unreg, GMR GW</p> <p><b>Performance indicator</b> Review report submitted on time = 100%</p> <p><b>Output measure (OM38)</b> WSP rules are reviewed and updates proposed where required as part of plan replacement: Output = 13</p>	<p>The NRC review is a statutory requirement under the Act and must be completed prior to a plan expiring to inform whether the plan is extended for a further ten years or replaced.</p> <p>A number of plans are due to expire during the IPART determination period.</p> <p>The Department undertakes work to inform any proposed changes to plan rules as part of the plan replacement.</p>	<p>If the output measure is achieved it will demonstrate the statutory review requirements have been met and a plan remains in place for the water source(s) beyond its expiry.</p> <p>If the output measure is achieved it will demonstrate the Department has progressed this work to inform the draft plan that is placed on public exhibition.</p>

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
		<p>Anticipated WSPs that have work progressed to review and update rules where required to inform draft plan for public exhibition: CC, Coffs, Hunter, LNC, Bega, Murrah, Richmond, Towamba, Tweed, GMR Unreg, GMR GW, 2 additional plans brought forward from those due to expire in 2026.</p> <p><b>Performance indicator</b> WSP rules reviewed and updates proposed in line with expected timing = 100%</p>		
		<p><b>Output measure (OM39)</b> Public exhibition of draft replacement coastal WSPs is completed: Output = 11 Anticipated coastal WSPs that have public exhibition completed: CC, Coffs, Hunter, LNC, Bega, Murrah, Richmond, Towamba, Tweed, GMR Unreg, GMR GW.</p> <p><b>Performance indicator</b> Public exhibition completed in line with expected timing = 100%</p>	<p>Public exhibition is a statutory requirement as part of replacing a plan and provides for important stakeholder input to the planning process. It marks a key milestone in the planning process.</p>	<p>If the output measure is achieved it will demonstrate the statutory exhibition requirements have been met and the planning is progressing for replacement of the plan in the required statutory timeframes (within 2 years).</p>
		<p><b>Output measure (OM40)</b> Replacement coastal WSP submitted for approval to commence: Output = 11 Anticipated 11 coastal WSPs submitted to the Minister for approval to commence: CC, Coffs, Hunter, LNC, Bega, Murrah, Richmond, Towamba, Tweed, GMR Unreg, GMR GW.</p> <p><b>Performance indicator</b> Replacement WSPs submitted for approval in line with expected timing = 100%</p>	<p>As part of the approval process for replacement of a plan the plan must receive concurrence from the Minister for the Environment as well as approval from the Minister for Water. It marks a key milestone in the planning process.</p>	<p>If the output measure is achieved it will demonstrate the planning is progressing for replacement of the plan in the required statutory timeframes (within 2 years).</p>

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
		<p><b>Output measure (OM41)</b> Commencement of coastal WSPs: Output = 11 Anticipated coastal WSPs approved by the Minister to commence and have been submitted to the NSW legislation website for upload: CC, Coffs, Hunter, LNC, Bega, Murrah, Richmond, Towamba, Tweed, GMR Unreg, GMR GW.</p> <p><b>Performance indicator</b> Commencement of WSPs occur in line with expected timing = 100%</p>	<p>Once approved through the Ministers the plan will formally commence meaning the statutory requirements have been met and water sharing arrangements are continued under the Act for the plan area. The plans inform licence and approval conditions as well as trade and application provisions.</p>	<p>If the output measure is achieved it will demonstrate the planning process has government support and statutory timeframes for plan replacement have been met.</p>
		<p><b>Output measure (OM42)</b> Amendment to coastal WSPs commenced as required.</p>	<p>Plans may need to be amended during their 10-year term. This process can take some dependent on the type of amendment. Approvals for amendments mirrors plan replacements. Amendments can be identified within plans or arise on an ad hoc basis.</p>	<p>If the output measure is achieved it will demonstrate the Department has progressed plan amendments in line with plan provisions or as required to address issues arising. This measure ensures the plans remain current and implementable.</p>
W06-02 Water plan development (inland)	The development, review, amendment, and extension or replacement of water management plans; the development of additional planning instruments to comply with the Commonwealth Water Act; and the consultation activities associated with developing these plans for inland water sources.	<p><b>Output measure (OM43)</b> NRC review report submitted for plans due to expire within the 2021 IPART period to Minister and Minister endorses Department recommendation for inland WSPs to be replaced or extended. Output = 13 Anticipated inland WSPs approved for replacement or extension: Castlereagh, IS, LMD, Murray, NW NSW, NSW BR, BD, Belubula, Gwydir, Lachlan, Macq Bogan, Murrumbidgee, Namoi/Peel.</p> <p><b>Performance indicator</b> Review report submitted on time = 100%</p>	<p>The NRC review is a statutory requirement under the Act and must be completed prior to a plan expiring to inform whether the plan is extended for a further 10 years or replaced. A number of plans are due to expire during the IPART determination period.</p>	<p>If the output measure is achieved it will demonstrate the statutory review requirements have been met and a plan remains in place for the water source(s) beyond its expiry.</p>

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
		<p><b>Output measure (OM44)</b> WSP rules are reviewed and updates proposed where required as part of plan replacement. Associated updates to WRPs are also identified. Output = 13 Anticipated inland WSPs (and associated WRPs) to have work progressed to review and update rules where required to inform draft replacement plan for public exhibition: Castlereagh, IS, LMD, Murray, NW NSW, NSW BR, BD, Belubula, Gwydir, Lachlan, Macq Bogan, Murrumbidgee, Namoi/Peel.</p> <p><b>Performance indicator</b> WSP rules reviewed and updates proposed in line with expected timing = 100%</p> <p><b>Output measure (OM45)</b> Public exhibition of draft replacement inland WSPs (and any associated WRP updates) is completed Output = 13</p> <p>Anticipated inland replacement WSPs (and associated WRPs) to have public exhibition completed (Castlereagh, IS, LMD, Murray, NW NSW, NSW BR, BD, Belubula, Gwydir, Lachlan, Macq Bogan, Murrumbidgee, Namoi/Peel)</p> <p><b>Performance indicator</b> Public exhibition completed in line with expected timing = 100%</p> <p><b>Output measure (OM46)</b> Replacement inland WSP submitted for approval to commence and amended WRP submitted for accreditation to Commonwealth: Output = 13</p>	<p>The Department undertakes work to inform any proposed changes to plan rules as part of the plan replacement. In inland areas there may also be flow on to the relevant WRP.</p> <p>Public exhibition is a statutory requirement as part of replacing a plan and provides for important stakeholder input to the planning process. It marks a key milestone in the planning process.</p>	<p>If the output measure is achieved it will demonstrate the Department has progressed this work to inform the draft plan(s) that are placed on public exhibition.</p> <p>If the output measure is achieved it will demonstrate the statutory exhibition requirements have been met and the planning is progressing for replacement of the plan in the required statutory timeframes (within 2 years).</p>

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
		<p>Anticipated up to 13 inland WSPs to be submitted to the Minister for approval to commence: Castlereagh, IS, LMD, Murray, NW NSW, NSW BR, BD, Belubula, Gwydir, Lachlan, Macq Bogan, Murrumbidgee, Namoi/Peel. Relevant WRPs are submitted to the MDBA for accreditation assessment of amendments.</p> <p><b>Performance indicator</b> Replacement WSPs submitted for approval in line with expected timing = 100%</p>	<p>As part of the approval process for replacement of a plan the plan must receive concurrence from the Minister for the Environment as well as approval from the Minister for Water. It marks a key milestone in the planning process. Any changes to inland WSPs may result in amendments being required to the associated WRP. This amendment then requires Commonwealth accreditation.</p>	<p>If the output measure is achieved it will demonstrate the planning is progressing in order for replacement of the plan in the required statutory timeframes (within 2 years) and Commonwealth accreditation requirements are being progressed.</p>
		<p><b>Output measure (OM47)</b> Replacement inland WSP has commenced. Output = 13 Anticipated inland WSPs to be approved by the Minister to commence and have been submitted to the NSW legislation website for upload: Castlereagh, IS, LMD, Murray, NW NSW, NSW BR, BD, Belubula, Gwydir, Lachlan, Macq Bogan, Murrumbidgee, Namoi/Peel. Relevant WRPs are accredited by the Commonwealth Minister for Water</p> <p><b>Performance indicator</b> Replacement WSPs are commenced in line with expected timing = 100%</p>	<p>Once approved through the Ministers the plan will formally commence meaning that the statutory requirements have been met and water sharing arrangements are continued under the Act for the plan area. The plans inform licence and approval conditions as well as trade and application provisions.</p>	<p>If the output measure is achieved it will demonstrate the planning process has government support and statutory timeframes for plan replacement have been met.</p>
		<p><b>Output measure (OM48)</b> Amendment to inland WSPs/WRPs commenced as required (separate to those undertaken as part of plan replacement processes during the IPART period)</p>		

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
		<p><b>Output measure (OM49)</b> Water Resource Plans accredited in line with Basin Plan 2012 (Basin Plan) and Commonwealth Water Act requirements. Output = 20</p> <p><b>Performance indicator</b> WSPs accredited in line with expected timing = 100%</p> <p><b>Output measure (OM50)</b> NSW WSPs commenced prior to accreditation of NSW WRPs Output = 9 Anticipated regulated river inland WSPs replaced/amended ahead of associated WRP accreditation: Belubula, Peel, Namoi, Gwydir, Macquarie Castlereagh, Murray, Murrumbidgee, MLD, Lachlan.</p>	<p>Plans may need to be amended during their 10-year term. This process can take some time dependent on the type of amendment. Approvals for amendments mirrors plan replacements. Amendments can be identified within plans or arise on an ad hoc basis.</p> <p>NSW is required to meet Basin Plan requirements relating to water resource planning. 20 WRPs have been submitted by NSW for accreditation assessment. As part of the planning process it is usual that these plans may need to be withdrawn and resubmitted in order to address accreditation assessment feedback.</p> <p>It is a statutory requirement that state legislation must be commenced prior to the accreditation of the WRPs. It requires the WSPs that form part of the WRP to be commenced. NSW is yet to commence the regulated river WSPs that were submitted as part of the WRPs.</p>	<p>If the output measure is achieved it will demonstrate the Department has progressed plan amendments in line with plan provisions or as required to address issues arising. This ensures the plans remain current and implementable.</p> <p>If the output measure is achieved it will demonstrate the Commonwealth has formally provided accreditation feedback on the NSW WRPs, and ultimately NSW has met accreditation requirements.</p> <p>If the output measure is achieved it will demonstrate the Department has resolved any likely accreditation issues relevant to the WSPs and there is NSW government support for the plans to commence.</p>
W06-03 Floodplain management plan development	The development, review, amendment, and extension or replacement of Floodplain Management Plans (FMPs), in collaboration with the Office of Environment and Heritage.	<p><b>Output measure (OM51)</b> S43 review report submitted for southern FMPs due to expire within the 2021 IPART period to Minister and Minister endorses Department recommendation for FMPs to be replaced or extended with 3/4 WMA200 compliant FMPs Output = 10</p> <p><b>Output measure (OM52)</b></p>	<p>The S43 review is a statutory requirement under the Act and must be completed within the fifth year after the plan was made to inform amendment or replacement of the plan.</p> <p>A number of plans are due to expire during the IPART determination period.</p> <p>The Minister has noted intent to progress amendments to 3 northern FMPs as required (Gwydir, Barwon Darling, Upper Namoi).</p>	If the output measure is achieved it will demonstrate the statutory review requirements have been met and the plan provisions remain adequate and appropriate for ensuring effective implementation of the water management principles.

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
		<p>S43 review reports submitted in line with statutory 5-year timeframe for 3 northern FMPs. Output = 3</p> <p><b>Output measure (OM53)</b> FMP rules are reviewed and updates proposed where required as part of plan replacement/amendment Output = 10</p> <p>Work with staff under W06-02 for associated updates to WRPs to be identified. This is anticipated to include technical investigations of floodway network, flood behaviour and environmental, cultural, socio-economic and existing floodplain assets.</p> <p>Anticipated up to 7 FMPs (and associated WRPs) to have work progressed to review and update rules where required to inform draft replacement plan/plan amendments for public exhibition (10 historic southern valley FMPs anticipated to be replaced by 3/4 FMPs. Gwydir, Barwon Darling and Upper Namoi anticipated to require amendment).</p> <p><b>Output measure (OM54)</b> Public exhibition of draft replacement FMPs and amended FMPs (and any associated WRP updates) is completed Output = 7</p>	<p>The Department undertakes work to inform any proposed changes to plan rules as part of the plan replacement. In inland areas there may also be flow on to the relevant WRP, which will be picked up under W06-02.</p> <p>Public exhibition is a statutory requirement as part of replacing a plan and provides for important stakeholder input to the planning process. It marks a key milestone in the planning process.</p>	<p>If the output measure is achieved it will demonstrate the Department has progressed this work to inform the draft plan(s)/plan amendments that are placed on public exhibition.</p> <p>If the output measure is achieved it will demonstrate the statutory exhibition requirements have been met and the planning is progressing.</p> <p>If the output measure is achieved it will demonstrate the planning is progressing.</p>

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
		<p>Anticipated that up to 4 FMP replacements/amendments (and associated WRPs) have public exhibition completed (10 historic southern valley FMPs anticipated to be replaced by 3/4 FMPs. Gwydir, Barwon Darling and Upper Namoi anticipated to require amendment)</p> <p><b>Output measure (OM55)</b> Replacement FMP/amended FMPs submitted for approval to commence Output = 4 (Note amended WRP submitted for accreditation to Commonwealth under W06-02)</p> <p><b>Output measure (OM56)</b> Replacement/amended FMP is commenced Output = 7 (Note amended WRP is accredited under W06-02) Anticipated that up to 4 FMP replacements and 3 FMP amendments WSPs are approved by the Minister to commence and have been submitted to the NSW legislation website for upload (Note relevant WRPs are accredited by the Commonwealth Minister for Water under W06-02)</p>	<p>As part of the approval process for replacement of a plan the plan must receive concurrence from the Minister for the Environment as well as approval from the Minister for Water. It marks a key milestone in the planning process. Any changes to inland WSPs may result in amendments being required to the associated WRP. This amendment then requires Commonwealth accreditation. This component of the work will be picked up in W06-02.</p> <p>Once approved through the Ministers the plan will formally commence meaning the statutory requirements have been met and water sharing arrangements are continued under the Act for the plan area. The plans inform licence and approval conditions as well as trade and application provisions.</p>	<p>If the output measure is achieved it will demonstrate the planning process has government support and statutory timeframes for plan replacement have been met.</p>
W06-04 Drainage plan development	The development, review, amendment, and extension or replacement of Drainage Management Plans, to address water quality problems associated with drainage systems.	None included at this time.		

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
W06-05 Regional planning and management strategies	The development, evaluation and review of regional water strategies, metropolitan water plans and other planning instruments, including the associated stakeholder engagement	<p><b>Output measure (OM57)</b> Regional water strategies completed and in place Output = 10</p> <p><b>Output measure (OM58)</b> Regional Water Strategy Action Plans developed Output = 10</p> <p><b>Performance indicators</b> Action Plan published within 3 months of each Regional Water Strategy being finalised = 100% Action Plan reported against annually = 100%</p> <p><b>Output measure (OM59)</b> Regional water strategies updated on a rolling annual cycle and associated Action Plan updated. Output equates to review on 4-year cycle and one-third within 2021 period. Output = 4</p> <p><b>Output measure (OM60)</b> Forward program for implementation and MER and public reporting published by June 2021</p> <p><b>Output measure (OM61)</b> Completion of Greater Sydney Water Strategy in 2021, including: a water efficiency and conservation framework a performance and monitoring framework.</p>	While at least 4 of the 12 strategies will be a draft of the final strategy for public review and approval by Government, the latter process takes several months and is not totally within the control of the Department. It is therefore proposed to remove this milestone, and pick up on the commitment by the Minister to the Premier to have 9 of the 12 Strategies completed by the end of 2021.	Water strategies that: deliver and manage water for local communities enable economic prosperity recognise and protect Aboriginal water rights, interests and access to water protect and enhance the environment identify least cost policy and infrastructure options.

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
W06-06 Development of water planning and regulatory framework	The development of the operational and regulatory requirements and rules for water access.	<p><b>Output measure (OM62)</b> Provide a register of regulatory and policy instruments progressed during the year. Output = 5</p> <p><b>Output measure (OM63)</b> Policies and regulations supporting the water planning and regulatory framework are developed and reviewed using a risk-based approach. <b>Performance indicator</b> A risk-based framework is used 100% of the time for informing the priorities for development of water policy and regulatory instruments.</p> <p><b>Output measure (OM64)</b> Timely public access to key policies and regulatory instruments. <b>Performance indicator</b> Key policies and regulatory instruments are published on the Department's website within 4 weeks of their approval = 90%</p>	<p>Measure of delivery of work that is undertaken in a highly dynamic policy environment. Register to include sufficient information to understand the policy alignment, status, priority and level of effort associated with each activity.</p> <p>Effective and efficient water planning and regulation requires the ongoing review and improvement of policy and regulatory settings. Policy and regulation must be adaptive and responsive to existing and emerging risks, including environmental, social, economic, cultural, or compliance and governance-based risks. A risk-based approach to policy and regulatory development helps to achieve a responsive, efficient and effective water planning and management framework.</p> <p>To realise effective regulation, water users and the community need good and timely access to the policies, plans and regulations that are in force and as they are developed.</p>	An effective and efficient water planning and management framework.
W06-07 Cross border and national commitments	The development of interstate water sharing arrangements and the implementation of operational programs to meet national and interstate commitments.	<p><b>Output measure (OM65)</b> DPIE Water publishes on its website an annual statement on interjurisdictional participation and performance against interstate agreements.</p> <p><b>Output measure (OM66)</b> Additional IPART performance indicator annual statement published.</p>	Improved transparency for stakeholders.	National and interstate agreements successfully negotiated and implemented.

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
W07-01 Water management works	The undertaking of water management works to reduce the impacts arising from water use or remediate water courses	<p><b>Output measure (OM67)</b> Length of river remediated Output = 12km</p> <p><b>Performance indicators</b> High priority areas of erosion identified and remediated = 90% Channel capacity at Tumut = &gt;=9,200 ML/day</p> <p><b>Output measure (OM68)</b> Rolling 3-year average of salt diverted from the Murray River system = &gt;50,000 t/year</p> <p><b>Performance indicator</b> Maintain net credit (EC) balance for NSW on the BSM2030 Salinity Register = &gt;20 EC</p>	<p>Bank stability is maintained and not adversely impacted by power production activities undertaken by Snowy-Hydro Ltd.</p> <p>Optimal salt interception scheme operations ensures salinity impacts on the River system are mitigated.</p>	<p>Maintain channel capacity to enable adequate delivery of water to downstream users. Riparian and in-stream environment values are improved.</p> <p>Improved water quality in the river system. No adverse impacts to the receiving environment. Social and economic benefits are maintained. Assists in meeting NSW obligations to Schedule B of the Murray–Darling Basin Agreement.</p>
W08-01 Regulation systems management	The management, operation, development and maintenance of the register for access licences, approvals, trading and environmental water.	<p><b>Performance indicators</b> System availability = 95% Security and privacy of user data measured through audit = No major non-conformances</p>	<p>An output measure is less meaningful as there is little incremental cost in adding new users. Performance measures are more useful as they provide insight into the quality of the service. Water NSW has existing licence obligations regarding maintaining an access register. The target for system availability is suggested only. Water NSW does not have historic data on which to inform the measure.</p>	System is efficient and effective at supporting water management activities.
W08-02 Consents management and licence conversion	The transcribing of water sharing provisions into licence conditions and the conversion of licences to the <i>Water Management Act 2000</i> .	<p><b>Output measure (OM69)</b> WSP rules are enforceable because the plan mandatory conditions are reflected on the licence</p> <p><b>Performance indicators</b> Rule changes are reviewed to identify whether condition changes are necessary within 3 months of the event requiring = 100%</p>	When rules required to be implemented through mandatory conditions are created, amended or revoked, this is given effect by reviewing and updating the conditions imposed in the licence or approval.	WSP rules are enforceable because the plan mandatory conditions are reflected on the licence.

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
		Necessary changes to conditions are notified to the licence/approval holder within 6 months of the event requiring notification = 100%	The rules may be specified in the <i>Water Management Act 2000</i> , regulations or management plans (water sharing plan or floodplain management plan). These rules may be added, amended or removed from these instruments.	
W08-03 Compliance management	The on-ground and remote monitoring activities (including investigations and taking statutory actions) to ensure compliance with legislation, including licence and approval conditions.	<p><b>Output measure (OM70)</b> Publish on NRAR website compliance activity by water sharing plan on a quarterly basis including observed levels of compliance and non-compliance. Output = 100% coverage of WSPs per month</p> <p><b>Output measure (OM71)</b> Publish annual progress reports Output = 5</p> <p><b>Output measure (OM72)</b> Community benchmarking survey (2 yearly) Output = 2</p> <p><b>Output measure (OM73)</b> Water licence holders audited and/or inspected each year Output = 1,722 per year</p>	<p>Output measures are selected as they are within NRAR's control and link to statutory objectives relating to maintaining public confidence, accountability and transparency.</p> <p>Awareness, trust and confidence of customers and the public are important foundations for a compliance culture. NRAR has completed the first survey of this type in 2019–20.</p> <p>The output is calculated as 4.5% of the number of licence holders reported in NRAR's 2019–20 progress report; 38,270. The 4.5% audit rate is selected as it is consistent with other jurisdictions and reflects a stronger program than has historically been undertaken in NSW. This indicator relates to NRAR's statutory objectives for effectiveness and maintaining public confidence. This measure is within NRAR's control.</p>	<p>Output measures will demonstrate the compliance efforts of NRAR and where these are undertaken and will promote confidence in water compliance frameworks.</p> <p>Increased understanding of customer knowledge and perspectives to inform compliance activities.</p> <p>This output measure will provide strong visibility and presence in the regulated community. Therefore it will maintain confidence in the enforcement of water laws consistent with NRAR's statutory objectives, and enable NRAR to obtain a reasonable understanding of general compliance rates, which is important information that supports water user social licence.</p>

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
		<p><b>Performance indicators</b> Incoming public reports assessed and prioritised within 5 days working days of receipt = 90%</p> <p>High priority cases assigned to an investigator within 15 working days of receipt = 90%</p> <p>Public informants will be contacted (by letter or a telephone call) within 15 working days of lodging an alleged breach with NRAR = 90%</p>	<p>This provides a driver for NRAR effectiveness. This measure relates to NRAR's statutory objectives for effectiveness. This measure is within NRAR's control.</p> <p>This performance indicator will drive NRAR processes to operate effectively and in a timely manner. This measure relates to NRAR's statutory objectives for effectiveness. This measure is within NRAR's control.</p> <p>This performance indicator drives NRAR to operate transparently and with accountability. This measure relates to NRAR's statutory objectives for transparency, accountability and maintaining public confidence. This measure is within NRAR's control.</p>	<p>This performance indicator will contribute to the timely and effective resolution of these reports, which will in turn contribute to maintaining confidence in water compliance and contribute to water users social licence to operate.</p> <p>This performance indicator will contribute to the timely and effective resolution of cases and will contribute to maintaining confidence in water compliance.</p> <p>This performance indicator will ensure transparency and accountability to public informants (and the wider public) reports and will contribute to maintaining confidence in water compliance.</p>
W09-01 Water consents transactions	Transactions undertaken on a fee for service basis; including dealings, assessments, changes to conditions and new applications for water licences and approvals.	<p><b>Output measure (OM74)</b> Water access licence applications Forecast = Water NSW Water access licences: 210 per year Water NSW Water access licence dealings: 862 per year NRAR Water access licences: 16 per year:</p> <p><b>Performance indicator</b> Water Access Licence – applications determined within 45 days = 80%</p> <p><b>Output measure (OM75)</b> Works and Use Approvals – applications Forecast = Water NSW: 2,097 per year</p>	Performance indicators are selected as they are within DPIE and NRAR's control and seek to ensure that applications for licences and approvals are undertaken in a timely manner.	Legal water access, trade and take through accurate and timely processing of licences and approvals.

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
		<p>NRAR: 131 per year</p> <p><b>Performance indicator</b> Works and Use Approvals – applications determined within 65 days = 80%</p> <p><b>Output measure (OM76)</b> Approval extensions Forecast = Water NSW: 13,079 (2021–22 to 2024–25) NRAR: 269 per year</p> <p><b>Performance indicator</b> Approvals extensions – applications determined within 25 days = 80%</p>		
W10-01 Customer management	All customer liaison activities; including responding to calls to licensing and compliance information lines; and producing communication and education materials such as website content and participation in customer forums.	<p><b>Output measure (OM77)</b> Number of customer enquiries received Forecast = NRAR: 6,981 calls per year and 14,259 emails per year</p> <p><b>Performance indicator</b> Emails responded to within 24 hours = 90%</p> <p><b>Output measure (OM78)</b> Number of complaints received per year (Water NSW) Forecast = 389</p> <p><b>Performance indicators</b> Complaints resolved within 28 days = 90%</p> <p>Achieve 68% score for 'Skyline' composite measure and publish regularly the results</p>	<p>Measuring the number of customer enquiries received provides insight into the magnitude of the resources needed to respond to customer enquiries.</p> <p>The performance indicator for enquiry response time seeks to ensure that customers are being provided information in a timely manner. Note that Water NSW has customer obligations under its operating licence. DPIE/NRAR do not have these same obligations.</p> <p>The performance indicator for complaints resolution time seeks to ensure that complaints are being resolved in a timely manner.</p>	<p>The desired outcome is that WAMC services are transparently provided and that customers are informed which helps maintain accountability of WAMC.</p> <p>Services are delivered in a way that meets customer expectations.</p>

Activity	Activity description	Draft output measures/performance indicators	Rationale for measures/indicators and comments	Outcome that the outputs will help deliver
W10-03 Billing management	The management of billing requirements and subcontracted billing, revenue collection and debtor management service delivery, and responding to queries on billing activities.	<b>Output measure (OM79)</b> Expected number of accounts billed in each year Forecast = 38,915 per year <b>Performance indicator</b> % accounts billed in the year = 95%	<p>The measure is based on customer perception from the annual research program survey and built up from 4 sub-measures: the suitability of services provided, satisfaction with services provided, value for money and quality of relationships. Results should be shared via the principal customer communication channels (e.g. Water NSW website, annual report).</p> <p>Measuring the number of accounts billed provides insight into the magnitude of the billing requirement. The performance indicator tests that accounts are billed as planned.</p>	The desired outcome is customers pay for the services received and WAMC receives the revenue it requires. The desired outcome is also that billing is straightforward for customers.

Source: Cardno, *WAMC Expenditure Review – Final Report for IPART*, March 2021, pp 187–204; and Cardno, *WAMC Expenditure Review – Supplementary Report for IPART*, June 2021, p 20.

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**ISBN** 978-1-76049-526-8