



Australian  
Competition &  
Consumer  
Commission

# WaterNSW

## Annual review of regulated charges: 2016-17

### Draft decision

April 2016

Australian Competition and Consumer Commission

23 Marcus Clarke Street, Canberra, Australian Capital Territory, 2601

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## Abbreviations

2014 Determination	ACCC determination on State Water charges for the 2014-17 regulatory period
2014-17 regulatory period	Regulatory period from 1 July 2014 to 30 June 2017
ABS	Australian Bureau of Statistics
ACCC	Australian Competition and Consumer Commission
AWA	Average water allocations
Basin States	Queensland, New South Wales, Victoria, South Australia and the Australian Capital Territory
BRC	Dumaresq-Barwon Border Rivers Commission
CPI	Consumer price index
Fish River	Fish River Water Supply Scheme
HSP	High security premium
ICDs	Irrigation corporations and districts
IPART	Independent Pricing and Regulatory Tribunal (NSW)
KL	Kilolitre (one thousand litres)
Lowbidgee	Lowbidgee Flood Control and Irrigation District
MAQ	Minimum/Maximum Annual Quantity
MDBA	Murray-Darling Basin Authority
ML	Megalitre (one million litres)
NSW	New South Wales
State Water	State Water Corporation of New South Wales (now WaterNSW)
UOM	Unders and overs mechanism used in annual pricing model
WACC	Weighted average cost of capital
WCIR	Water Charge (Infrastructure) Rules 2010

# 1. Executive summary

The Australian Competition and Consumer Commission (ACCC) has reached its draft decision on WaterNSW's application for review of its regulated charges for 2016-17.

This is the second annual review of WaterNSW's regulated charges conducted by the ACCC and it relates to the ACCC's final decision on WaterNSW's (then, the State Water Corporation of NSW) charges for the 2014-17 regulatory period (the 2014 Determination). In the 2014 Determination, the ACCC set WaterNSW's revenue requirement for each year and decided that a fixed: variable tariff structure was appropriate, where WaterNSW can generally recover 40% of its revenue requirement through fixed charges and 60% through variable (or usage) charges on the volume delivered.

The 2014 Determination set the regulated charges for 2014-15 and included formulae to calculate regulated charges for 2015-16 and 2016-17. This includes the application of a price control mechanism—the unders and overs mechanism (UOM). The UOM adjusts WaterNSW's revenue requirement, allowing a portion of WaterNSW's under-recovery of revenue in 2014-15 and 2015-16 to be recovered in 2016-17 charges (with further recovery in subsequent years). The objective of the UOM is to balance revenue stability for WaterNSW and price stability for WaterNSW's customers. The UOM is described in detail in section 2.2.2 below.

The Water Charge (Infrastructure) Rules 2010 (the WCIR) limit the ACCC's ability to change WaterNSW's charges from those set by the 2014 Determination. The ACCC can only vary the charges set by the 2014 Determination if one or both of the following tests are satisfied:

- it is reasonably necessary to vary the charges, having regard to changes in the demand or consumption forecasts submitted by WaterNSW in its application (the 'change in forecasts' test)
- it is reasonably necessary to vary the charges, having regard to price stability (the 'price stability' test).

## **WaterNSW's application**

WaterNSW's application seeks ACCC approval of charges for 2016-17 as generated by the annual pricing model established by the ACCC in 2014, using WaterNSW's latest input data for inflation and volumes, and adjusting historical usage data (used to forecast future demand) to include outward trade volumes as done in 2015.. The changes in these nominal charges from 2015-16 levels range from a decrease of 0.4% (Border high security) to an increase of 13.1% (Macquarie high security charges).<sup>1</sup>

## **The ACCC's draft decision**

The ACCC accepts WaterNSW's approach but has made minor amendments to the input data for forecast inflation and 2014-15 trade. The ACCC's draft decision accordingly is to determine WaterNSW's regulated charges for 2016-17 so that they are set in accordance with the formulae for calculating regulated charges set by the ACCC's 2014 Determination, with adjustments to take into account certain changes in demand forecasts. The adjustments relate to forecast water usage data for Border, Murray and Murrumbidgee valleys due to the inclusion of volumes of water allocation traded out of NSW (as WaterNSW currently imposes a usage charge on this traded water). Updating the forecasts to include the trade volumes has a downward effect on the usage charges in the Border, Murray and Murrumbidgee valleys.

The draft decision charges are mostly less than 0.3% higher in nominal terms than those proposed in WaterNSW's application due to the updated inflation figure.

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<sup>1</sup> WaterNSW, Application to the ACCC for annual review of regulated charges, 7 March 2016, p. 1.

The increase in charges for Peel valley has been fixed at 10% in real terms for each year of the regulatory period. This reflects the ACCC's decision in its 2014 Determination to cap the rate of charge increases to transition to full cost recovery levels, and is not affected by subsequent changes in demand. The ACCC found in that review that the costs of providing infrastructure services in the Peel were prudent and efficient, but the volume of entitlements and usage from which they could be recovered was relatively small. We note, however, that charges are expected to reach approximately full cost recovery for Peel valley in 2016-17.

In most valleys, low water usage and allocations due to continuing dry conditions meant revenue from usage charges was below forecast and WaterNSW's revenue requirements were not met. Although estimated water usage in 2015-16 was on average 33% below that forecast, increasing WaterNSW's under-recovery, the effect on charges was restrained, partly due to the operation of the UOM. This is because the mechanism adds only a fraction of the accumulated under-recovery onto the revenue requirement for the following year. Other valley-specific factors are outlined in section 5.3 below.

The ACCC acknowledges that its draft decision involves significant charge increases for users in some valleys – in particular, the Peel, Lachlan and Macquarie. However, the ACCC does not consider that the 'price stability' test has been satisfied and therefore does not propose to vary WaterNSW's 2016-17 charges on these grounds. This is consistent with the approach adopted in the review of 2015-16 charges, when the ACCC decided against capping larger charge increases on price stability grounds. Increases in charges for other valleys are modest, averaging 1% in real terms.

#### **Draft 2016-17 charges**

Tables 1.1 and 1.2 below set out the draft nominal charges using a forecast CPI of 1.69%.<sup>2</sup> These charges are calculated by applying the UOM and varied by the inclusion in the 20-year moving average of estimated volumes of water allocation traded out of the Border, Murray and Murrumbidgee valleys to other Basin States.

The ACCC's draft decision on other regulated charges including metering and miscellaneous charges is set out in attachment A.

**Table 1.1: 2015-16 charges (\$2015-16/ML) and draft 2016-17 charges (nominal \$2016-17/ML) – Border, Gwydir, Namoi, Peel, Lachlan, Macquarie, Murray, Murrumbidgee and Lowbidgee valleys**

Valley	High security entitlement charge		General security entitlement charge		Usage charge	
	2015-16	Draft 2016-17	2015-16	Draft 2016-17	2015-16	Draft 2016-17
Border	\$11.20	\$11.18	\$3.90	\$3.93	\$10.18	\$10.69
Gwydir	\$14.00	\$14.20	\$3.44	\$3.49	\$11.89	\$12.20
Namoi	\$16.81	\$17.39	\$7.99	\$8.29	\$19.80	\$20.38
Peel	\$31.65	\$35.40	\$3.48	\$3.89	\$52.27	\$58.47
Lachlan	\$14.84	\$16.55	\$3.24	\$3.30	\$19.33	\$21.22
Macquarie	\$14.35	\$16.28	\$3.51	\$3.65	\$15.89	\$17.08
Murray	\$4.79	\$5.02	\$2.66	\$2.72	\$6.40	\$6.51
Murrumbidgee	\$3.63	\$3.81	\$1.53	\$1.56	\$4.28	\$4.37
Lowbidgee			\$0.78	\$0.84		

<sup>2</sup> Charges in nominal \$2016-17 include an interim inflation adjustment of 1.69% over 2015-16, equal to the CPI increase for the 12 months to December quarter 2015. These nominal charges will be updated in the ACCC's final decision with the actual CPI increase between March quarter 2015 and March quarter 2016.

**Table 1.2: 2015-16 charges (\$2015-16) and draft 2016-17 charges (nominal \$2015-16) – Fish River Water Supply Scheme**

Customer type	Access charge		Usage below MAQ* (per KL)		Usage above MAQ* (per KL)	
	2015-16	Draft 2016-17	2015-16	Draft 2016-17	2015-16	Draft 2016-17
Raw water (EnergyAustralia)	\$0.34 / KL of MAQ	\$0.36 / KL of MAQ	\$0.39	\$0.42		
Raw water (minor customers)	\$68.31**	\$71.65**	\$0.39	\$0.42	\$0.73	\$0.78
Filtered water (minor customers)	\$132.21**	\$138.69**	\$0.72	\$0.79	\$1.38	\$1.48

\* Minor customers have a deemed Minimum Annual Quantity (MAQ) of 200KL.

\*\*The access charge for minor customers is equal to the same per KL access charge payable by major customers, multiplied by the deemed MAQ of 200KL.

**Next steps**

The ACCC seeks written submissions on this draft decision by **4 May 2016** and intends to publish its final decision in relation to WaterNSW’s application in **late May 2016**.

## 2. Introduction

Under the Water Charge (Infrastructure) Rules 2010 (the WCIR), the Australian Competition and Consumer Commission (ACCC) can approve or determine regulated charges in the Murray-Darling Basin of an operator that:

- is not a member-owned operator and
- provides infrastructure services in respect of water held under water access entitlements (directly or by its customers) in excess of 250GL.<sup>3</sup>

Currently, the ACCC only has responsibility for approving or determining the regulated charges imposed within the Murray-Darling Basin by WaterNSW. The NSW Independent Pricing and Regulatory Tribunal (IPART) has been accredited to take over responsibility for regulating WaterNSW under the WCIR from 1 June 2016.

On 7 March 2015 WaterNSW submitted an application for ACCC review of its regulatory charges for the 2016-17 financial year.

### 2.1. Consultation and timetable for the final decision

The ACCC encourages industry participants, other stakeholders and the public more generally to consider and make submissions on this draft decision.

To foster an informed and consultative process, all submissions will be considered as public submissions and published on the ACCC website. However if a submitter claims that their submission contains confidential information, the ACCC will publish a version of the submission that excludes the confidential information, subject to the WCIR.<sup>4</sup>

Interested parties wishing to submit commercial-in-confidence material to the ACCC should submit both a public and a commercial-in-confidence version of their submission. The public version of the submission should clearly identify the commercial-in-confidence material by replacing the confidential material with an appropriate symbol or 'c-i-c'.

The ACCC expects that claims for commercial in confidence status of information by parties will be limited in nature in order to allow the widest possible participation in the public inquiry.

The *ACCC-AER information policy: the collection, use and disclosure of information* sets out the general policy of the ACCC and the Australian Energy Regulator on the collection, use and disclosure of information. This policy can be downloaded from the ACCC's website.

The ACCC seeks written submissions on this draft decision by **4 May 2016**. The ACCC prefers to receive submissions in electronic form, sent by email to [waternswreview@acc.gov.au](mailto:waternswreview@acc.gov.au), either in PDF or Microsoft Word format which enables the submission text to be searched. Please email with any questions you have concerning this consultation.

The ACCC intends to publish its final decision in relation to the application in late **May 2016**.

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<sup>3</sup> WCIR, Rule 29.

<sup>4</sup> The WCIR provides that the ACCC must not publish a submission if the submitter claimed, when the submission was made, or the ACCC decides that the submission contains confidential information. However, where the submitter claims a submission contains confidential information, the ACCC may publish it without the confidential information. Before doing so, the ACCC must write to the submitter and give them the opportunity to withdraw their claims of confidentiality. If the submitter does not do so, the ACCC may publish that submission without the confidential information. However, the ACCC must not have regard to the omitted information when approving or determining the regulated charges relating to the application.



## 2.2. Assessment framework

### 2.2.1. Water Charge (Infrastructure) Rules 2010

The WCIR sets out a two stage process for approving or determining the regulated charges for WaterNSW for a defined regulatory period.

#### *First stage – approval or determination for whole period*

WaterNSW must apply in writing to the ACCC for approval or determination of its proposed regulatory charges for each year of the regulatory period.<sup>5</sup> After a consultation process, the ACCC must either approve or determine WaterNSW's regulated charges in respect of each year of the regulatory period.<sup>6</sup> The ACCC determined these charges in June 2014 for the three-year period beginning 1 July 2014 (see section 2.2.2).

#### *Second stage – Annual review*

For each year after the first year of the regulatory period, WaterNSW must apply to the ACCC for a review of its regulatory charges for that year (the annual review).<sup>7</sup> This process allows for regulated charges to be updated during the regulatory period. This draft decision relates to the annual review for the third (and last) year of the 2014-17 regulatory period.

The ACCC must not approve changes to the regulated charges decided in the original determination unless it is satisfied that it is reasonably necessary to vary those charges having regard to:

- changes in demand or consumption forecasts (described in this report as the 'change in forecasts' test); and
- price stability (described in this report as the 'price stability' test).<sup>8</sup>

In reviewing the application, the ACCC must undertake a consultation process, including publishing a draft decision and inviting stakeholder submissions.<sup>9</sup>

Within three months of receiving the application, the ACCC must either approve WaterNSW's regulated charges or determine the charges.<sup>10</sup> The ACCC may extend this timeframe by one month at a time provided it informs WaterNSW regarding why it has been unable to make its decision during the required timeframe.<sup>11</sup> In addition, if the ACCC requests further information from WaterNSW during the review, any day in which this information request remains unfilled extends the ACCC's three month period for this application.<sup>12</sup>

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<sup>5</sup> WCIR, Rule 25.

<sup>6</sup> WCIR, Rules 28-29.

<sup>7</sup> WCIR, Rule 34.

<sup>8</sup> WCIR, Rule 37(2).

<sup>9</sup> WCIR, Rule 36.

<sup>10</sup> WCIR, Rule 37(1).

<sup>11</sup> WCIR, Rule 37(5).

<sup>12</sup> WCIR, Rule 37(4).

## 2.2.2. The ACCC's 2014 Determination

In June 2014, the ACCC released its final decision on WaterNSW's charges for the 2014-17 regulatory period (the 2014 Determination).<sup>13</sup> This set the revenue requirement for each year of the regulatory period and the regulated charge amounts for the first year of the regulatory period. The 2014 Determination also included formulae for calculating regulated charges for subsequent years of the regulatory period. The 2014 Determination document set out indicative charges that would result from the application of these formulae if demand forecasts used by the ACCC in making its 2014 Determination were accurate.

### *Revenue requirement*

In making its 2014 Determination, the ACCC was required to be satisfied that WaterNSW's total forecast revenue was reasonably likely to meet the prudent and efficient costs of providing infrastructure services in the regulatory period.<sup>14</sup> The ACCC set this revenue requirement using the Building Block Model. The Building Block Model calculates the revenue requirement for each year of the regulatory period as the total of allowances for operating costs, a return on capital, and a return of capital (depreciation).

The benchmark revenue requirements for each valley are set out at Appendix A of the 2014 Determination.

Consistent with the 2014 Determination, charges for 2016-17 are based on an adjusted revenue requirement which includes (i) the benchmark revenue requirement, and (ii) an adjustment to revenue (which may be negative or positive) based on the outcome of the price control mechanism explained in further detail below.

### *The unders and overs mechanism*

As noted above, the ACCC was required to be satisfied that WaterNSW's revenue for the regulatory period is reasonably likely to meet the prudent and efficient costs of providing infrastructure services in that regulatory period.<sup>15</sup> In practice, the recovery of WaterNSW's revenue requirement is difficult to ensure as its revenue depends partly on water usage which may change significantly through the regulatory period. For example, if water usage is less than the forecast made in the 2014 Determination, then WaterNSW would under-recover its costs of providing infrastructure services. Conversely, if usage is more than the forecasts made in the 2014 Determination, then WaterNSW would over-recover its costs of providing infrastructure services.

To address this, the ACCC determined that WaterNSW infrastructure charges for the Border, Gwydir, Namoi, Lachlan, Macquarie, Murray, Murrumbidgee valleys and the Fish River Water Supply Scheme should be subject to an unders and overs mechanism (the UOM). The UOM consists of price caps that can be partially adjusted for under- or over-collection of revenue. This is a hybrid form of price control in that it has elements of both the price cap and revenue cap approach.

The UOM is designed to reduce WaterNSW's revenue volatility by allowing it to annually adjust its charges to recover a portion of the revenue requirement not recovered because water usage is lower than forecast, or to return a portion of revenue to customers if water usage is higher than forecast.

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<sup>13</sup> ACCC, *Final decision on State Water pricing application 2014-15 to 2016-17*, June 2014.

<sup>14</sup> WCIR, Rule 29.

<sup>15</sup> WCIR, Rule 29(2).

In regard to the recovery of WaterNSW's own costs, the UOM provides that any under or over collection of revenue in a particular year will be added into a rolling unders and overs account. This form of control is symmetrical, as it reduces future charges if WaterNSW has over recovered revenue in the previous regulatory year, and increases them if it has under recovered. If there are a number of dry years in succession, the balance of the rolling unders account may grow significantly. However, the UOM approach smooths out the fluctuations in WaterNSW's charges in any one year.<sup>16</sup>

The value of the unders and overs account will be multiplied by the rate of return (also known as the weighted average cost of capital (WACC)) to determine the amount by which WaterNSW's revenue requirement is to be adjusted in the next year. The increase or decrease in WaterNSW's charges in the next year will therefore reflect the rate of return on the accumulated balance of the unders and overs account, with further adjustments to charges in subsequent years.

In regard to over/under-recovery of the NSW Government's contributions to the Murray-Darling Basin Authority (MDBA) and Border Rivers Commission (BRC), the UOM provides for WaterNSW to recover the full amount in the following year. These contributions currently only affect charges for the Border, Murray and Murrumbidgee valleys.

#### **WaterNSW's contribution to the Murray-Darling Basin Authority and Border Rivers Commission**

Under a direction from the NSW Treasurer, WaterNSW is required to pay prescribed amounts towards the recovery of the NSW Government's contributions to the MDBA and BRC. These amounts must be paid to the NSW Consolidated Fund on 15 June each year of the 2014-17 period.<sup>17</sup> The NSW Treasurer determined the apportionment of WaterNSW's user shares of the NSW contribution to the MDBA and BRC for each year of the regulatory period prior to the ACCC's 2014 Determination. These user shares are set out in table B1 in attachment B.

In its 2014 Determination, the ACCC decided that, because of the explicit regulatory obligation, if in one year any of the MDBA/BRC contributions are not recovered because water usage is lower than forecast, or over-recovered because water usage is higher than forecast, then this should be fully recovered or repaid via charges in the year immediately following, as far as possible. However, as the unders and overs balance is calculated using estimated usage volumes for the current year, some under-recovery may be recovered in subsequent years when actual usage figures are confirmed.

#### ***Regulated charges***

The 2014 Determination covered the following regulated charges:

- Infrastructure charges for the Border, Gwydir, Namoi, Lachlan, Macquarie, Murray and Murrumbidgee valleys. For these valleys, the charges determined by the ACCC in 2014 were calculated to allow WaterNSW to recover 40% of its revenue through fixed charges (high security entitlement and general security entitlement charges) and 60% through variable charges (usage charges on the volume delivered).
- Infrastructure charges for the Peel (see box 5.1 for further detail on how these charges were determined).
- Infrastructure charges for certain users in the Fish River Water Supply Scheme (Fish River). The ACCC sets charges for one 'major' user—EnergyAustralia—and approximately 280 'minor' users. Users in Fish River do not hold statutory water access entitlements. Rather,

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<sup>16</sup> ACCC, *Final decision on State Water pricing application 2014-15 to 2016-17*, June 2014, Attachment 9.

<sup>17</sup> Direction by NSW Treasurer under Public Finance and Audit Act 1983 (NSW), 28 May 2014

access to water is regulated through a 'minimum annual quantity' (MAQ) for each major customer and (collectively) for minor customers. Access (fixed) charges are set with reference to major customers' actual 'Minimum Annual Quantity' (MAQ), and for each minor customer with reference to a deemed MAQ of 200KL.

The 2014 Determination included different charges for raw and filtered water. For raw water, the ACCC's 2014 Determination requires WaterNSW to recover 55% of its revenue through fixed charges (access charges) and 45% through variable charges (on the volume delivered). For filtered water, the ACCC's 2014 Determination requires WaterNSW to recover 60% of its revenue through fixed charges (access charges) and 40% through usage charges (on the volume delivered).

- Metering service charges.
- Miscellaneous charges—charges for testing meter accuracy under dispute, environmental gauging station charges, Fish River connection and disconnection charges, allocation trade processing charges and the Yanco Creek levy.

While the 2014 Determination included a table setting out indicative charges for 2015-16 and 2016-17 in real \$2013-14, the charges determined for 2015-16 and 2016-17 in the nominal dollars of that year depend on actual CPI movements. In addition, the infrastructure charges for the Border, Gwydir, Namoi, Lachlan, Macquarie, Murray, Murrumbidgee valleys and the Fish River depend on volume forecasts and unders and overs adjustments, calculated according to the price control mechanism described above. The methodology for each regulated charge is explained in further detail in section 5 below.

### 3. WaterNSW application

On 7 March 2016 WaterNSW submitted its application to the ACCC to review its regulated charges for 2016-17. WaterNSW's application included the price control model provided by the ACCC for the purpose of calculating charges, updated to include WaterNSW's revised estimates and forecasts of demand which included water allocation traded to non-NSW buyers.

WaterNSW's application sought ACCC approval of charges determined in accordance with the price control mechanism described above.<sup>18</sup> The nominal charges proposed were based on an assumed inflation rate of 1.5%.

WaterNSW included the results of an analysis of the potential bill impacts on customers for the period 2014-15 to 2016-17 which, it stated, demonstrates the challenges in maintaining an 'overs-and-unders' mechanism where customers have experienced two consecutive years of low water availability. WaterNSW also stated:

WaterNSW, in its application for the 15-16 regulated charges, noted that the adverse price impacts from the formulaic application of the overs-and-unders mechanism are not in the best interests of customers particularly in an environment of low water availability.

The charges proposed by WaterNSW are shown in tables C1 and C2 in attachment C.

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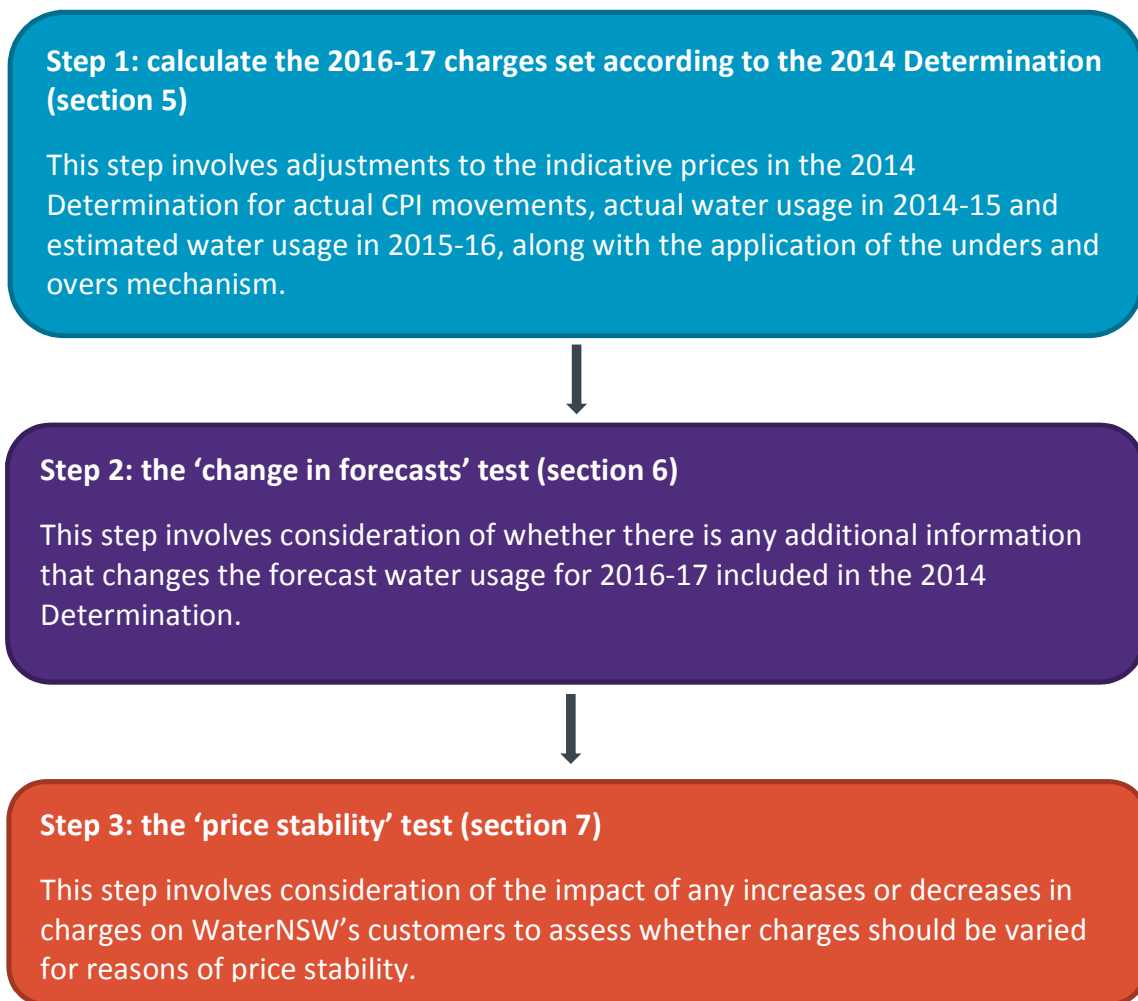
<sup>18</sup> WaterNSW, Application to the ACCC for annual review of regulated charges, 7 March 2015, p. 1.

## 4. Approach to making the draft decision

As noted above, in deciding whether to approve WaterNSW's application, the WCIR requires the ACCC to consider whether it is reasonably necessary to depart from the charges set according to the ACCC's 2014 Determination, having regard to changes in demand and consumption forecasts and price stability.

Under the 2014 Determination, the charges for 2016-17 are the outcomes of the formulae set out in the decision, rather than the indicative charges in tables 1.1, A.1 and B 1-B5 of that determination. These formulae include adjustments for movements in CPI, changes in volume forecasts and the application of the UOM.

The ACCC has undertaken a three-step process in making this Annual Review draft decision. This process is summarised out in the flow chart below.



## 5. Step one: calculation of the regulated charges set in the 2014 Determination

The first step taken by the ACCC in undertaking this review was to calculate the 2016-17 charges set according to the ACCC's 2014 Determination using:

- CPI movements to the latest date available (published by the Australian Bureau of Statistics (ABS))
- updated data for water usage volumes, the number of entitlements on issue and water allocation percentages

The calculations include an adjustment to WaterNSW's revenue requirement for 2016-17 following the calculation of any under- or over-recovery incurred by WaterNSW during 2015-16, and the application of the UOM.

### 5.1. Data to be updated

#### 5.1.1. Inflation

The revenue requirements and charges for each year of the regulatory period were specified in the 2014 Determination in real \$2013-14. In this draft decision for 2016-17 charges, all 2016-17 charges are expressed in nominal \$2016-17, reflecting the following movements in the CPI from the 2013-14 base year:

- 2.93% to inflate from \$2013-14 to \$2014-15, based on the actual CPI increase between March quarter 2013 and March quarter 2014
- 1.33% to inflate from \$2014-15 to \$2015-16, based on the actual CPI increase between March quarter 2014 and March quarter 2015
- 1.69% to inflate from \$2015-16 to \$2016-17. This is an interim figure based on the actual CPI increase between December quarter 2014 and December quarter 2015. It will be updated for the ACCC's final decision, after the ABS has released the CPI for March quarter 2016.

WaterNSW's proposed charges were based on an inflation rate of 1.5% for \$2016-17, rather than 1.69% used by the ACCC, so in nominal terms are slightly lower than the ACCC's draft decision charges.

The CPI is used in the pricing model to adjust the benchmark revenue requirement from \$2013-14 to \$2016-17, and to calculate the appropriate nominal weighted average cost of capital to apply to UOM balances.

The following charges and rebates are not subject to the UOM and are adjusted only to reflect movements in CPI:

- Lowbidgee Flood Control and Irrigation District (Lowbidgee) general security entitlement charge – as there are no variable charges in the Lowbidgee
- Peel valley entitlement and usage charges, as increases in these charges are capped at 10% real per annum
- metering service charges

- charges for testing meter accuracy under dispute
- environmental gauging station charges
- Fish River connection and disconnection charges
- allocation trade processing charges
- Irrigation Corporation and District (ICD) rebates.

Tables A4-A6 in attachment A set out the above charges and rebates in nominal \$2016-17.<sup>19</sup>

### 5.1.2. Volume data

In order to calculate the infrastructure charges for those valleys using the UOM (Border, Gwydir, Namoi, Lachlan, Macquarie, Murray and Murrumbidgee valleys and Fish River), updated data for the following volumes are required:

- entitlement volumes—actual for 2014-15, estimate for 2015-16 and forecast for 2016-17 (attachment D)
- water usage— actual for 2014-15 and estimate for 2015-16 (attachment E)
- water allocations—water allocation percentages<sup>20</sup> for 2014-15 (attachment F)
- number of minor customers (for Fish River only).

WaterNSW supplied updated data for the required volumes in its application, and also corrected certain historical trade data (discussed further below).

#### *Usage*

WaterNSW advised that estimated water usage for 2015-16 is based on:

- actual usage recorded up to 31 December 2015 (1,443 GL)
- an estimate/forecast of usage for the period 1 January 2016 to 30 June 2016 (1,405 GL), based on current storage levels, a dryer than average rainfall forecast by the BOM (Bureau of Meteorology), available water within access licences and historical water usage trends.

#### *Entitlement volumes*

WaterNSW's customers hold water access entitlements in all valleys with the exception of Fish River. These are generally high security and general security entitlements. Water access entitlements give customers access to a share of the water resource of a water resource plan area.

WaterNSW provided updated figures for entitlement volumes which it stated are based on the latest estimate of billable entitlements in the WaterNSW Water Accounting System as of January 2016. WaterNSW's forecast of entitlements for 2016-17 is equal to its estimate for 2015-16. The volume of entitlements in most valleys did not change or changed by less than 0.1% from 2014-15 to 2015-16.

There was a notable change in Gwydir, however, where the volume of high security entitlements on issue increased by 4,133 (or 18%). WaterNSW advised that this was due to the NSW Department of Primary Industries (Water) having created new entitlements on completion of water-saving works in

<sup>19</sup> Table A5 includes the Yanco Creek levy which was determined to be \$0.90/ML in nominal terms for each year in the regulatory period and so does not require adjustment.

<sup>20</sup> The allocations for particular entitlement types / valleys are announced by the NSW Minister for Water through the year (referred to as available water determinations).



the Basin Pipe Mallowa Creek project. (These new entitlements were issued to the Commonwealth Environmental Water Holder).<sup>21</sup>

The ACCC considers that WaterNSW’s revised volume figures are reasonable and should be used in determining charges for 2016-17.

## 5.2. Step one—draft decision

### 5.2.1. Border, Gwydir, Namoi, Lachlan, Macquarie, Murray and Murrumbidgee valleys

For the Border, Gwydir, Namoi, Lachlan, Macquarie, Murray and Murrumbidgee valleys there are three infrastructure charges:

- i. high security entitlement charge
- ii. general security entitlement charge
- iii. usage charge.

The methodology set in the 2014 Determination for these valleys is designed to allow WaterNSW to fully recover the costs of providing infrastructure services in these valleys with 40% of its revenue recovered through the 'fixed' entitlement charges, and 60% through the 'variable' usage charge. The 2015-16 charges for all these valleys are subject to the UOM.

Table 5.1 below sets out the 2016-17 charges, calculated in accordance with the methodology set out in the ACCC's 2014 Determination.<sup>22</sup> These charges are expressed in nominal terms, based on the UOM with the updated inflation and volume data described above.

**Table 5.1: 2016-17 charges (in \$2016-17) calculated in accordance with the 2014 Determination - \$/ML and % change from 2015-16 (Border, Gwydir, Namoi, Lachlan, Macquarie, Murray and Murrumbidgee valleys)**

Valley	High security entitlement charge		General security entitlement charge		Usage charge	
	2015-16	2016-17	2015-16	2016-17	2015-16	2016-17
<b>Border*</b>	\$11.18	-0.2%	\$3.93	1.0%	\$11.10	9.0%
<b>Gwydir</b>	\$14.20	1.5%	\$3.49	1.5%	\$12.20	2.5%
<b>Namoi</b>	\$17.39	3.5%	\$8.29	3.8%	\$20.38	2.9%
<b>Lachlan</b>	\$16.55	11.5%	\$3.30	1.7%	\$21.22	9.8%
<b>Macquarie</b>	\$16.28	13.5%	\$3.65	3.8%	\$17.08	7.4%
<b>Murray*</b>	\$5.02	4.8%	\$2.72	2.5%	\$7.42	15.9%
<b>Murrumbidgee*</b>	\$3.81	4.8%	\$1.56	1.8%	\$4.59	7.3%

\* Charges for the Border, Murray and Murrumbidgee valleys set out in table 5.1 (highlighted) are further adjusted in step two (explained in section 6 below).

<sup>21</sup> WaterNSW, response to ACCC information request No.1 of 17 March 2016, received 30 March 2016.

There were other more minor changes in entitlement numbers due variously to correction of previous dealings, Ministerial amendments of share components, issue of new licences, and licence cancellations.

<sup>22</sup> The methodology is set out in ACCC, *Final Decision on State Water Pricing Application: 2014-15 - 2016-17*, June 2014, Appendix B, pp. 68-77. Note that step one here is based on forecast usage excluding trade out of NSW (being the forecast approach used in the 2014 Determination), as distinct from the forecast usage including trade out of NSW which is used in step two.

### *How charges are affected by step one*

The following factors are responsible for the largest contributions to changes in charges:

- Low usage estimates for 2015-16 in most valleys

Usage estimates are significantly below the 20-year average in many valleys: namely, the Macquarie (63% below the 20-year average), Gwydir (46%), Border (42%), Murray (39%) and Namoi (37%). This contributes to a significant under-recovery on revenue from usage charges for 2015-16. Further, several of these valleys have an existing balance of under-recovery carried over from 2014-15. However, the impact of this on charges is moderated by two factors:

- i. While usage revenue is designed to be 60% of total revenue but is highly variable, the remaining 40% is relatively fixed.
- ii. Under the UOM, only the rate of return on the unders and overs balance for WaterNSW costs is added to the 2015-16 revenue requirement.<sup>23</sup>

Estimated usage in the Lachlan valley was only 16% below that forecast (the smallest reduction of all valleys) but this together with several other factors, contributed to a significant rise in charges for Lachlan.

As the UOM allows WaterNSW to recover the full amount of any under-recovery of MDBA/BRC amounts in the following year (not just the rate of return), the low usage has a significant upward effect on charges for the Murray valley in 2016-17.<sup>24</sup>

For Border the low usage estimate for 2015-16 resulted in a UOM adjustment for BRC contributions increasing the revenue requirement by 37%. This added a component to 2016-17 charges (compared to those set according to the 2014 determination). However, the amount added was less than the amount added for 2015-16, so it did not cause any increase in charges compared with 2015-16.<sup>25</sup>

- Actual usage in 2014-15

This had a relatively small effect for most valleys because it affected only one year in the 20-year moving average used for the usage forecast. Low usage in the Lachlan valley in 2014-15 caused the forecast usage for 2016-17 to be 4.8% lower than for 2015-16, with a corresponding upward effect of 4.8% on the usage charge. Above-average usage in the Gwydir valley had a downward effect of 2.1% on the usage charge.

- Low water allocations for general security customers

Below-average water allocation percentages for general security in 2014-15 can lead to an increase in the average water allocation (AWA) ratio and therefore the high security premium.<sup>26</sup> This had a limited impact on charges for most valleys, as the forecast AWA ratio for 2016-17 is a moving average of the 20 years up to 2014-15. However, in the Lachlan and Macquarie, allocations of only 2% for general security customers in 2014-15 displaced high allocations (100% or more) in 1994-95 from the 20-year moving average. This resulted in a

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<sup>23</sup> The rate of return is 4.26% in real terms, or 6.02% in nominal terms for this draft decision.

<sup>24</sup> Note that such an effect reflects the influence of just one factor, whereas the overall change in charges from 2015-16 depends on the combined impact of all the changing factors.

<sup>25</sup> Murray and Murrumbidgee valleys, by contrast, had small over-recoveries from 2014-15 which helped to keep down their charges for 2015-16.

<sup>26</sup> The average water allocation (AWA) ratio is the ratio of the 20 year average water allocation percentage for high security entitlements to the 20 year average water allocation percentage for general security entitlements. The High Security Premium (HSP) equals the AWA ratio times a Water Sharing Plan ratio set out in the 2014 Determination. The general security entitlement charge is multiplied by the HSP to derive the high security entitlement charge.

material change to the AWA ratio (and therefore the high security premium) for these two valleys, resulting in an upward effect of over 9% on the high security entitlement charge for these two valleys.<sup>27</sup>

- Differences in the 2014 Determination's benchmark revenue requirements from 2015-16 to 2016-17
  - The benchmark revenue requirements for 2016-17 were generally within 2% of the 2015-16 amount according to the 2014 Determination. The exception was the Murray valley's MDBA contribution was 11% lower, contributing a significant downward influence to its charges because its MDBA amount is 61% of the Murray valley's total revenue requirements.

### 5.2.2. Peel valley

Similar to most other valleys, there are three infrastructure charges for users in the Peel valley—a high security entitlement charge, general security entitlement charge and usage charge.

As there is a set cap on charge increases in the Peel (see Box 5.1 below), the UOM does not apply in the Peel valley.

#### **Box 5.1 How Peel valley charges were determined**

The appropriate level of charges for the Peel valley was considered in detail by the ACCC in its 2014 Determination. In making this determination, the ACCC was required to balance a number of objectives and principles set out in the *Water Act 2007* (the Water Act) and WCIR. A primary consideration for the ACCC was setting charges in a manner that allowed recovery of efficient costs for WaterNSW and promoted efficiency in the use of water resources and infrastructure assets.

Peel valley's charges for high security entitlements and usage are more than twice as high as the next highest charge in other NSW valleys. Costs charged to users in the Peel valley are primarily for the operation of the Chaffey dam which WaterNSW manages for the benefit of Peel valley users. The Chaffey dam is relatively small (at 62 GL capacity before the current augmentation project), but many of the costs of operating a dam are relatively fixed regardless of size. In the Peel, the user share of these costs is recovered through charges on relatively low volumes of entitlement and usage.

When IPART first regulated the Peel as a separate valley in 2000, Peel charges recovered only 25% of the relevant costs.<sup>28</sup> Subsequently charges for Peel increased faster than other valleys as IPART's approach was based on cost-reflective pricing at the valley level, with a gradual move to full cost recovery. The ACCC continued this approach with its 2014 Determination, consistent with the Basin Water Charging Objectives and Principles set out in the *Water Act 2007*.

However, the ACCC considered that as Peel valley's charges were considerably higher than other valleys, and it had not yet achieved full cost recovery, an immediate move to full cost recovery would impose an excessive price shock. The ACCC considered that this would constitute a perverse pricing outcome and implemented a 10% cap on real charge increases each year. The charges set out in the 2014 Determination were expected to result in an under-recovery in 2014-15 and 2015-16, but to move to approximately full cost recovery by 2016-17.<sup>29</sup>

<sup>27</sup> Forecast water allocations and AWA ratios are shown in attachment F.

<sup>28</sup> NSW IPART, Department of Land And Water Conservation: Bulk Water Prices from 1 July 2000, September 2000, p.18.

<sup>29</sup> This refers to recovery of the 'user share' of costs. Total costs for each valley also include a component paid by the NSW Government according to pre-determined user and government shares for different activities.

The table below shows the derivation of the entitlement and usage charges for Peel valley users for 2016-17 (in \$2016-17) from the charges for the previous year in \$2015-16, showing the two steps – adjustment for 10% real increase, and a CPI adjustment.

**Table 5.2: Derivation of Peel valley draft 2016-17 charges from 2015-16 charges (\$/ML)**

Charge	High security entitlement	General security entitlement	Usage
<b>2015-16 charge (\$2015-16)</b> (as listed in ACCC's final decision on annual review of 2015-16 charges, table 1.1)	\$31.65	\$3.48	\$52.27
<b>2016-17 charge (\$2015-16) after adding capped 10% real increase</b>	\$34.82	\$3.83	\$57.50
<b>2016-17 charge (\$2016-17) after adding annual CPI adjustment of 1.69%</b>	\$35.40	\$3.89	\$58.47

### 5.2.3. Fish River

Infrastructure charges for Fish River are also adjusted by a UOM which, broadly, operates in the same way as the UOM for the other valleys. However, the application of the UOM is more complex due to the different charge structure for Fish River customers, where there are:

- different charges for raw and filtered water
- access and usage charges for each type of water
- access (fixed) charges specified separately for major and minor customers (as explained in 2.2.2)

The ACCC sets the charges for EnergyAustralia (the single major customer for raw water) and 280 minor customers. However, charges set by the ACCC depend partly on the volumes used by other customers whose charges are regulated by IPART, as both groups share certain joint costs.<sup>30</sup> WaterNSW submitted updated volume information for all Fish River customers in its application for this annual review.

Table 5.3 below sets out the Fish River charges calculated in accordance with the methodology set out in the ACCC's 2014 Determination with updated data. Charges increased by between 4.9% and 9% in nominal terms. The largest charge increases were for usage charges for all customers, which increased by about 9% for usage below the MAQ and 7% for usage above the MAQ. The increase was due to a combination of factors – actual usage in 2014-15 being lower than normal, estimated usage in 2015-16 lower than forecast, and a higher revenue requirement for 2016-17 (from the 2014 Determination).

<sup>30</sup> IPART is responsible for setting charges for three major customers in Fish River - the Lithgow and Oberon councils and the former Sydney Catchment Authority (now part of WaterNSW). When the ACCC made its 2014 Determination, IPART intended to use information from the ACCC's review of charges in Fish River in its own review of charges. However, on 14 July 2014, IPART announced that it was deferring its review of these charges and that the 2013-14 charges for the Lithgow and Oberon councils and SCA will apply until 1 July 2017. Any under or over-recovery of revenue due to IPART setting charges different from those determined by the ACCC for major customers will not affect customers whose charges are regulated by the ACCC. This is because the ACCC's UOM calculates estimated revenue for 2014-15 on the basis of the charges set according to the ACCC's 2014 Determination, rather than the actual charges set by IPART.

**Table 5.3: 2016-17 charges set according to the 2014 Determination – Fish River Water Supply Scheme**

Customer type	Access charge		Usage below MAQ* (per KL)		Usage above MAQ* (per KL)	
<b>Raw water (EnergyAustralia)</b>	\$0.36 / KL MAQ	4.9%	\$0.42	8.7%		
<b>Raw water (minor customers)</b>	\$71.65**	4.9%	\$0.42	8.7%	\$0.78	6.9%
<b>Filtered water (minor customers)</b>	\$138.69**	4.9%	\$0.79	9.0%	\$1.48	7.0%

\* Minor customers have a deemed MAQ of 200KL.

\*\*The access charge for minor customers is equal to the same per KL access charge payable by major customers, multiplied by the deemed MAQ of 200KL.

## 6. Step two: the ‘change in forecasts’ test

The second step taken by the ACCC in undertaking this review involved consideration of any additional information that changed the demand or consumption forecasts adopted in the 2014 Determination.

The ACCC's draft decision is that the ‘change in forecasts’ test is satisfied and therefore the charges that would result from the application of the formulae in the 2014 Determination should be varied in order to take into account the volume of water allocation traded out of NSW.

### 6.1. Interstate trade

In December 2014, WaterNSW advised the ACCC that during 2015-16 it had imposed usage charges on customers trading water allocation to persons who do not hold a NSW water access licence with an associated water supply works and complying metering. This is the case with water allocation trades from NSW to other Basin States. WaterNSW stated that this approach to imposing the usage charge had previously been endorsed by IPART in its 2010 determination of WaterNSW's charges.

Although WaterNSW receives revenue in the form of usage charges imposed on those trading water allocation from NSW to interstate, the volumes of water allocation traded out of NSW were not included in the usage data provided to the ACCC for the purposes of the ACCC's 2014 Determination. The usage volumes that the ACCC relied upon in making its 2014 Determination (and in particular, for the forecasts) were derived from information supplied by WaterNSW on volumes used by customers in NSW.

WaterNSW has provided retrospective data on interstate trade volumes. In its application as part of the annual review of regulated charges for 2015-16, WaterNSW advised that it can only provide actual data from 2004-05 when its predecessor, the State Water Corporation of NSW, was created. However, it extrapolated this data by applying the average trade volume from 2004-05 to 2014-15 to each of the earlier years back to 1994-95, for each valley, for the purpose of establishing the 20-year moving average.

The ACCC took account of this trade data in its annual review for 2015-16 charges, and varied the demand forecasts accordingly to include outward trade as part of usage.

In its 2016-17 pricing application WaterNSW provided updated trade data with estimates for 2015-16, but also submitted corrections to some of the earlier estimates for years back to 1994-95. These comprise two types of correction:

#### **Border:**

WaterNSW advised that, prior to the current arrangements that commenced in 2009 in the Border Rivers, interstate trade between NSW and Queensland was restricted to those customers that had common ownership of properties in both NSW and Queensland. Any interstate usage that was undertaken was attributed to the NSW licence, so that usage figures prior to 2009 (submitted to the ACCC as part of the 2014 price review) already included interstate trade undertaken.<sup>31</sup>

<sup>31</sup> WaterNSW, note in pricing model provided with application ('Demand and Allocations data' sheet).

Therefore trade prior to 2009 has now been set to zero, rather than the average of later years which had been used in the first annual review. The ACCC considers that this methodology for Border trade is more appropriate as trade (outside of common ownership) was not possible in those years.

**Border, Murray and Murrumbidgee:**

WaterNSW advised that there was a spreadsheet error affecting the totals for trade data between 2006-07 and 2009-10 in the data submitted for the 2015-16 annual price review. The data has been corrected in the 2016-17 application.

**6.2. Step two—draft decision**

The ACCC considers that the amended information provided by WaterNSW on water allocation traded out of the Border, Murray and Murrumbidgee valleys to other Basin states is reasonable and calculated in accordance with appropriate methodology.

The ACCC considers that data used to forecast demand should be adjusted to include the trade volumes, since WaterNSW’s revenue from usage charges includes charges on both local usage and allocations traded out of NSW. WaterNSW would over-recover revenue beyond its requirements unless charges are calculated on the basis of the adjusted data.

The ACCC's draft decision is that the ‘change in forecasts’ test is satisfied and therefore, the charges that would result from the application of the formulae in the 2014 Determination should be varied in order to take into account the volume of water allocation traded from NSW to other Basin States.

**Table 6.1: Charges calculated by steps one and two of annual review process – nominal \$2016-17 / ML and percentage change from 2015-16 (Border, Gwydir, Namoi, Peel, Lachlan, Macquarie, Murray, Murrumbidgee and Lowbidgee valleys)**

Valley	High security entitlement charge		General security entitlement charge		Usage charge	
	Value	% Change	Value	% Change	Value	% Change
Border	\$11.18	-0.2%	\$3.93	1.0%	\$10.69	4.9%
Gwydir	\$14.20	1.5%	\$3.49	1.5%	\$12.20	2.5%
Namoi	\$17.39	3.5%	\$8.29	3.8%	\$20.38	2.9%
Peel	\$35.40	11.9%	\$3.89	11.9%	\$58.47	11.9%
Lachlan	\$16.55	11.5%	\$3.30	1.7%	\$21.22	9.8%
Macquarie	\$16.28	13.5%	\$3.65	3.8%	\$17.08	7.4%
Murray	\$5.02	4.8%	\$2.72	2.5%	\$6.51	1.6%
Murrumbidgee	\$3.81	4.8%	\$1.56	1.8%	\$4.37	2.2%
Lowbidgee			\$0.84	7.4%		

Charges for Fish River are unaffected by the trade adjustments in step two and remain as set out for step one in table 5.3.

**6.2.1. How charges are affected by step two**

Charges are varied as a result of updating forecast usage by including in its calculation the volume of water allocation traded out of NSW. The inclusion of these volumes for the years 1995-96 to 2014-15 has increased the 20-year moving average used to forecast usage in 2016-17. This has a downward effect on usage charges for 2016-17, but does not affect entitlement charges. The

downward effect (compared with the charges shown in table 5.1) is 3% for Border, 11% for Murray and 4% for Murrumbidgee. The effect on the usage charge for Murray is largest because the interstate water allocation trade from the Murray valley is the most significant relative to its usage volumes, as shown in table E3 in attachment E.



## 7. Step three: the ‘price stability’ test

The ACCC's draft decision is that the price stability test has not been satisfied, and it is not reasonably necessary to vary charges on these grounds for any valley. This is based primarily on consideration of the likely impact on WaterNSW's customers' bills, and concern for longer term charges if charges for 2016-17 were to be limited.

The ACCC has decided to determine charges in accordance with its 2014 Determination, as varied by the changes in demand forecasts due to the inclusion of interstate water allocation trade volumes.

### 7.1. Meaning of price stability

The charges resulting after stages one and two are as shown in tables 6.1 (for Border, Gwydir, Namoi, Peel, Lachlan, Macquarie, Murray, Murrumbidgee and Lowbidgee) and 5.3 (for Fish River).

In annual reviews, the ACCC must have regard to price stability when deciding whether to vary the charges set according to the 2014 Determination. The WCIR does not define the term ‘price stability’. However, in assessing whether charges should be varied on the grounds of price stability, the ACCC has considered the impact of charge increases on WaterNSW's customers' bills.

### 7.2. Expected impact on customer bills

The ACCC recognises that charges in some valleys are set to increase by between 7 and 14% (in nominal terms) under this draft decision and that such increases are significant. The highest percentage increases (and the only increases over 6%) are for:

- high security entitlement and usage charges in the Macquarie valley (13.5% and 7.4% nominal, respectively)
- high security entitlement and usage charges in the Lachlan valley (11.5% and 9.8% nominal)
- usage charges for Fish River (6.9 to 9.0% nominal).

The ACCC considers that, in assessing whether charges should be capped on the grounds of price stability, it should focus on the likely impact of the charge increases on WaterNSW's customers.

The ACCC considers that an analysis of expected bills is the most appropriate method of assessing the impact of charge increases on WaterNSW's customers, given that customers will face a combination of fixed and variable charges. Accordingly, the ACCC analysed the likely impact of the charge increases set out in tables 6.1 and 5.3 on WaterNSW's customers in order to assess whether it is reasonably necessary to cap charge increases for reasons of price stability.

In conducting this analysis, the ACCC made the following assumptions:

- a 500 ML entitlement per user, for users in the Border, Gwydir, Namoi, Peel, Lachlan, Macquarie, Murray and Murrumbidgee valleys
- Minimum Annual Quantity (MAQ) for the major customer in Fish River – EnergyAustralia, and 200 KL per annum for minor customers
- usage based on the average water allocation for each valley, and average usage for each Fish River customer type, calculated using the 20-year moving average

- figures for 2015-16 and 2016-17 are in real terms, at \$2015-16 price levels.

In its 2014 Determination, the ACCC applied a uniform 10% cap (in real terms)<sup>32</sup> on annual charge increases in the Peel valley, in part to take account of the significantly higher charges in that valley (in particular the high security entitlement charge and the usage charge) relative to other valleys. Similarly, IPART has previously determined that price caps of 10% were appropriate for users in valleys with a high absolute level of charges.

The ACCC's analysis shows that most WaterNSW customers in other valleys face expected bill increases of less than 2% in real terms. The largest increases are for high security entitlement holders in the Lachlan valley (8.8% in real terms) and in the Macquarie valley (8.5% in real terms). The impact on expected bills is shown in full in attachment G.

The ACCC notes the largest increases are less than 10% in real terms, and the absolute value of charges in the Lachlan and Macquarie valleys will continue to be considerably less than charges in the Peel.

Further, if the ACCC were to cap the 2016-17 charge increases on the grounds of price stability and allow WaterNSW to carry the balance of its unders and overs account into later years, this could result in more significant charge increases in subsequent years and therefore would not necessarily bring about greater price stability in the longer term.

As such, there is little basis for varying charges for reasons of price stability in the Lachlan and Macquarie valleys, or in any other valley.

### 7.3 Step three—draft decision

The ACCC's draft decision is that the price stability test has not been satisfied and that it is not reasonably necessary to vary from the approach to setting charges set out in the 2014 Determination for reasons of price stability.

Accordingly, the ACCC's draft decision is for WaterNSW's 2016-17 regulated charges to be those set according to the 2014 Determination, as varied due to changes in forecasts (step 2). These charges are set out in attachment A.

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<sup>32</sup> Given the forecast rate of inflation of 1.69%, the equivalent nominal increase for Peel valley charges is 11.9%.

## Attachment A: Draft 2016-17 charges and ICD rebates

Note: Charges in nominal \$2016-17 include forecast of CPI increase at 1.69%.

**Table A1: Draft charges – nominal \$2016-17/ML and percentage change from 2015-16 (Border, Gwydir, Namoi, Peel, Lachlan, Macquarie, Murray, Murrumbidgee and Lowbidgee valleys)**

Valley	High security entitlement charge		General security entitlement charge		Usage charge	
Border	\$11.18	-0.2%	\$3.93	1.0%	\$10.69	4.9%
Gwydir	\$14.20	1.5%	\$3.49	1.5%	\$12.20	2.5%
Namoi	\$17.39	3.5%	\$8.29	3.8%	\$20.38	2.9%
Peel	\$35.40	11.9%	\$3.89	11.9%	\$58.47	11.9%
Lachlan	\$16.55	11.5%	\$3.30	1.7%	\$21.22	9.8%
Macquarie	\$16.28	13.5%	\$3.65	3.8%	\$17.08	7.4%
Murray	\$5.02	4.8%	\$2.72	2.5%	\$6.51	1.6%
Murrumbidgee	\$3.81	4.8%	\$1.56	1.8%	\$4.37	2.2%
Lowbidgee			\$0.84	7.4%		

**Table A2: MDBA/BRC component of draft charges – nominal \$2016-17/ML and percentage change from 2015-16**

Valley	High security entitlement charge		General security entitlement charge		Usage charge	
Border	\$4.24	-4.5%	\$1.49	-3.4%	\$4.05	0.4%
Murray	\$3.23	6.2%	\$1.75	3.9%	\$4.18	3.0%
Murrumbidgee	\$0.72	8.4%	\$0.30	5.3%	\$0.83	5.7%

Note: The MDBA charge component is included in the charges in table A1 above, not additional to it.

**Table A3: Draft charges – nominal \$2016-17 and percentage change from 2015-16 (Fish River)**

Customer type	Access charge		Usage below MAQ (per KL)*		Usage above MAQ (per KL)*	
Raw water - major customers	\$0.36 / KL of MAQ	4.9%	\$0.42	8.7%		
Raw water - minor customers	\$71.65**	4.9%	\$0.42	8.7%	\$0.78	6.9%
Filtered water - minor customers	\$138.69**	4.9%	\$0.79	9.0%	\$1.48	7.0%

\* Minor customers have a deemed MAQ of 200KL.

\*\*The access charge for minor customers is equal to the same per KL access charge payable by major customers, multiplied by the deemed MAQ of 200KL.

**Table A4: Draft charges – metering service charges per annum 2016-17 (\$2016-17)**

Type of meter	Cth-funded meters with telemetry	Cth-funded meters without telemetry	WaterNSW-funded meters with telemetry	WaterNSW-funded meters without telemetry
50 mm	400.14	416.27	1,349.56	1,081.00
80 mm	400.28	416.41	1,357.66	1,089.10
100 mm	401.04	417.17	1,402.88	1,134.32
150 mm	421.84	437.97	1,504.19	1,235.64
200 mm	444.44	460.57	1,564.25	1,295.69
250 mm	450.14	466.27	1,642.67	1,374.12
300 mm	452.14	468.27	1,761.74	1,493.18
350 mm	464.77	480.91	2,210.63	1,942.07
400 mm	517.34	533.47	2,596.43	2,327.87
450 mm	626.32	642.07	2,796.24	2,527.30
500 mm	635.77	651.52	2,993.89	2,724.94
600 mm	670.08	685.84	3,383.87	3,114.94
700 mm	683.82	699.58	3,753.47	3,484.53
750 mm	685.50	701.25	3,853.54	3,584.61
800 mm	723.52	739.27	4,441.49	4,172.54
900 mm	778.01	793.76	4,670.01	4,401.08
1000 mm	783.51	799.26	4,997.48	4,728.55
Channel	7,666.53		13,634.51	

**Table A5: Draft charges – miscellaneous 2016-17 (\$2016-17)**

Type of charge	Charge (\$)
Charges for testing meter accuracy under dispute	1,716.66
Environmental gauging station charges	8,822.35
Fish River connection charges	475.29
Fish River disconnection charges	264.04
Allocation trade processing – charge per application	39.16
Allocation trade processing – charge per ML of allocation traded	0.52
Allocation trade processing – cap on total charge	154.56
Yanco Creek levy – per ML of entitlement	0.90

**Table A6: Draft ICD rebates 2016-17 (\$2016-17)**

<b>Valley / Irrigation Corporation or District</b>	<b>ICD Rebate (\$)</b>
<b>Lachlan valley</b>	
Jemalong	62,874
<b>Murray valley</b>	
Murray Irrigation	924,016
Western Murray	32,287
West Corurgan	51,279
Moirra	25,623
Eagle Creek	9,037
<b>Murrumbidgee valley</b>	
Murrumbidgee Irrigation	648,025
Coleambally	284,380
<b>Total rebates</b>	<b>2,037,521</b>

## Attachment B: Revenue requirements and recovery

**Table B1: Revenue Requirements 2015-16 and 2016-17 (\$'000, real \$2013-14)**

Valley	WaterNSW costs			MDBA/BRC			MDBA/BRC contributions as % of total revenue requirement for 2016-17
	2015-16	2016-17	% change	2015-16	2016-17	% change	
Border	1,501	1,508	0.5%	700	700	0.0%	31.7%
Gwydir	4,905	4,973	1.4%	0	0		0.0%
Namoi	5,166	5,200	0.7%	0	0		0.0%
Peel	1,309	1,313	0.3%	0	0		0.0%
Lachlan	6,927	7,067	2.0%	0	0		0.0%
Macquarie	6,644	6,769	1.9%	0	0		0.0%
Murray	5,950	5,845	-1.8%	10,400	9,300	-10.6%	61.4%
Murrumbidgee	9,955	9,925	-0.3%	2,300	2,100	-8.7%	17.5%
Fish River	9,548	9,653	1.1%	0	0		0.0%
Lowbidgee	561	592	5.6%				

**Table B2: Revenue recovery through unders and overs mechanism (\$'000 nominal)**

Valley	UOM balance at beginning of 2015-16*	Adjustment to UOM balance due to actual volumes for 2014-15 Q4	Over/under-recovery in 2015-16	UOM balance at end of 2015-16	Total amount to recover in 2016-17**	UOM balance carried forward
Border	-646	24	-667	-1,289	334	-1,033
—of which BRC costs	0	8	-264	-256	-272	0
Gwydir	-1,148	94	-1,378	-2,432	146	-2,432
Namoi	-1,832	8	-1,215	-3,039	183	-3,039
Lachlan	-753	-264	-687	-1,705	103	-1,705
Macquarie	-2,728	12	-2,661	-5,376	324	-5,376
Murray	50	1,951	-3,961	-1,960	1,406	-672
—of which MDBA costs	0	1,224	-2,513	-1,288	-1,366	0
Murrumbidgee	331	381	-1,612	-899	277	-676
—of which MDBA costs	0	71	-295	-223	-237	0
Fish River	-1,147	-1,235	-2,198	-4,579	276	-4,579
<b>Total</b>	<b>-7,872</b>	<b>973</b>	<b>-14,379</b>	<b>-21,278</b>	<b>3,049</b>	<b>-19,511</b>

Notes: An over-recovery is a positive figure, and under-recovery is negative in this table.

Peel and Lowbidgee are not subject to the unders and overs mechanism.

\* Based on actual usage in the first three quarters of 2014-15 and estimated usage in the last quarter of 2014-15.

\*\* According to the 2014 Determination, the change to required revenue due to the UOM is calculated as:

- for WaterNSW components – the UOM balance at end of 2015-16, multiplied by the WACC
- for BRC / MDBA components – the total UOM balance, plus the balance multiplied by WACC.

## Attachment C: WaterNSW application

Note: Nominal \$2016-17 in attachment C includes forecast CPI increase at 1.5% used in WaterNSW's application.

**Table C1: WaterNSW proposed charges – nominal \$2016-17/ML and percentage change from 2015-16 (Border, Gwydir, Namoi, Peel, Lachlan, Macquarie, Murray, Murrumbidgee and Lowbidgee valleys)**

Valley	High security entitlement charge	General security entitlement charge	Usage
Border	\$11.15	\$3.92	\$10.66
Gwydir	\$14.17	\$3.48	\$12.16
Namoi	\$17.34	\$8.27	\$20.32
Peel	\$35.33	\$3.89	\$58.36
Lachlan	\$16.51	\$3.29	\$21.17
Macquarie	\$16.23	\$3.63	\$17.02
Murray	\$5.01	\$2.72	\$6.54
Murrumbidgee	\$3.80	\$1.56	\$4.37
Lowbidgee		\$0.84	

**Table C2: WaterNSW proposed charges – nominal \$2016-17 (Fish River)**

Customer type	Access charge	Usage below MAQ* (per KL)	Usage above MAQ* (per KL)
Raw water — major customers (EnergyAustralia)	\$0.36 / KL of MAQ	\$0.42	\$0.78
Raw water – minor customers	\$71.46**	\$0.42	
Filtered water – minor customers	\$138.32**	\$0.78	\$1.47

\* Minor customers have a deemed MAQ of 200KL.

\*\*The access charge for minor customers is equal to the same per KL access charge payable by major customers, multiplied by the deemed MAQ of 200KL.

## Attachment D: Entitlement holdings

**Table D1: Updated high security entitlement forecasts (ML) for 2016-17 and % change from 2015-16**

Valley	2015-16 high security entitlement*	Forecast 2016-17 high security entitlement	% change
Border	3,122	3,122	0.0%
Gwydir	22,707	26,840	18.2%
Namoi	8,882	8,874	-0.1%
Peel	17,382	17,367	-0.1%
Lachlan	57,512	57,514	0.0%
Macquarie	42,719	42,707	0.0%
Murray	261,515	261,883	0.1%
Murrumbidgee	438,339	438,331	0.0%

\* 2015-16 high security entitlement figures as forecast for the purpose of determining 2015-16 charges.

**Table D2: Updated general security entitlement forecasts (ML) for 2016-17 and % change from 2015-16 forecast**

Valley	2015-16 general security entitlement*	Forecast 2016-17 general security entitlement	% change
Border	263,238	263,238	0.0%
Gwydir	509,665	511,609	0.4%
Namoi	256,212	256,212	0.0%
Lachlan	633,256	633,256	0.0%
Peel	30,528	30,428	-0.3%
Macquarie	632,466	632,466	0.0%
Murray	2,081,742	2,081,716	0.0%
Murrumbidgee	2,267,963	2,267,963	0.0%

\* 2015-16 general security entitlement figures as forecast for the purpose of determining 2015-16 charges.



## Attachment E: Water usage

**Table E1: Actual, forecast and estimated water usage volumes (ML)—Border, Gwydir, Namoi, Peel, Lachlan, Macquarie, Murray and Murrumbidgee valleys**

Valley	Actual 2014-15 usage	Forecast 2015-16 usage*	Estimated 2015-16 usage	% difference 2015-16 forecast and estimated usage	Forecast 2016-17 usage**
Border	44,447	156,230	90,751	-42%	150,262
Gwydir	152,705	261,298	140,000	-46%	266,675
Namoi	67,401	166,374	105,000	-37%	167,762
Peel	6,065	11,530	7,000	-39%	11,238
Lachlan	175,398	225,552	190,000	-16%	214,829
Macquarie	90,815	267,387	100,000	-63%	263,576
Murray	1,745,574	1,589,430	970,471	-39%	1,611,248
Murrumbidgee	1,934,079	1,779,057	1,402,228	-21%	1,788,129
<b>Total usage</b>	<b>4,216,483</b>	<b>4,456,858</b>	<b>3,005,450</b>	<b>-33%</b>	<b>4,473,718</b>

\* Forecast usage for 2015-16 is taken from the annual review of regulated charges for 2015-16, which updated the 2014 Determination forecasts to include water allocations traded out of NSW.

\*\* Forecast usage for 2016-17 is derived using the 20-year average usage volumes from 1995-96 to 2014-15, as varied to include water allocations traded out of NSW.

**Table E2: Actual, forecast and estimated water usage volumes (ML)—Fish River**

Customer	Actual 2014-15 usage	Forecast 2015-16 usage*	Estimated 2015-16 usage	% difference 2015-16 forecast and estimated usage	Forecast 2016-17 usage**
Raw water – Major customers	3,656	9,236	3,900	-58%	8,910
Raw water – minor customers	65	49	65	33%	50
Filtered water – minor customers	80	120	80	-33%	119
	4,553	10,326	4,845	-53%	9,963

Note: Usage includes customers regulated by IPART.

\* Forecast usage for 2015-16 is taken from the annual review of regulated charges for 2015-16.

\*\* Forecast usage for 2016-17 is derived using the 20-year average usage volumes from 1995-96 to 2014-15.

**Table E3: Volumes of water allocations traded to non-NSW buyers**

Source valley	Average volume traded 1995-96 to 2014-15	Volume traded as % of usage forecast 2016-17	Estimated volume traded 2015-16	Volume traded out as % of usage estimate 2015-16
Border	5,591	3.7%	751	0.8%
Murray	198,336	12.3%	164,471	16.9%
Murrumbidgee	84,840	4.7%	2,228	0.2%

## Attachment F: Water allocations

Note: In tables F1 and F2, 'water allocations' mean the amount of water allocated to entitlements, expressed as a percentage. 'Average water allocation (AWA)' is the 20 year average of actual 'water allocations' and is used to generate a 'Forecast water allocation for upcoming years.

Note: In table F3, the 'AWA ratio' is the ratio of the AWA for high security entitlements to the AWA for general security entitlements.

**Table F1: Forecast water allocations for 2016-17—high security entitlements**

Valley	Forecast 2015-16 water allocation (%) <sup>*</sup>	Forecast 2016-17 water allocation—updated (%) <sup>**</sup>	% change
Border	100	100	0.0
Gwydir	100	100	0.0
Namoi	100	100	0.0
Peel	100	98	-1.6
Lachlan	83	83	0.0
Macquarie	100	100	0.0
Murray	95	95	-0.1
Murrumbidgee	98	97	-0.2

<sup>\*</sup> The forecast 2015-16 water allocation was derived from 'water allocations' from 1994-95 to 2013-14.

<sup>\*\*</sup> The forecast 2016-17 water allocation was derived from 'water allocations' from 1995-96 to 2014-15.

**Table F2: Forecast water allocations for 2016-17—general security entitlements**

Valley	Forecast 2015-16 water allocation (%) <sup>*</sup>	Forecast 2016-17 water allocation—updated (%) <sup>**</sup>	% change
Border	45	45	1.1
Gwydir	45	45	0.0
Namoi	59	60	0.3
Peel	65	63	-3.8
Lachlan	44	40	-8.8
Macquarie	46	42	-8.5
Murray	66	65	-2.3
Murrumbidgee	67	65	-3.1

<sup>\*</sup> The forecast 2015-16 water allocation was derived from 'water allocations' from 1994-95 to 2013-14.

<sup>\*\*</sup> The forecast 2016-17 water allocation was derived from 'water allocations' from 1995-96 to 2014-15.

**Table F3: Forecast AWA ratios**

Valley	Forecast 2015-16 AWA ratio	Forecast 2016-17 AWA ratio	Change
Border	2.25	2.22	-1.1%
Gwydir	2.25	2.25	0.0%
Namoi	1.68	1.68	-0.3%
Peel	1.53	1.57	2.4%
Lachlan	1.87	2.05	9.7%
Macquarie	2.17	2.38	9.3%
Murray	1.44	1.48	2.2%
Murrumbidgee	1.45	1.50	2.9%

## Attachment G: Expected bills for customers

Notes: Expected bills are displayed in real terms, in \$2015-16.

In conducting this analysis, the ACCC made the following assumptions about expected bills:

- a 500ML entitlement per customer, for customers in the Border, Gwydir, Namoi, Peel, Lachlan, Macquarie, Murray and Murrumbidgee valleys.
- minimum annual quantities for Fish River based on water sharing plan for major customers, and a deemed 200 KL MAQ for minor customers
- usage based on the average water allocation for each valley and the forecast usage for each Fish River customer type, calculated using the 20-year moving average up to 2014-15.

**Table G1: Final Decision - Expected bills – high security entitlement holder (real \$2015-16) – Border, Gwydir, Namoi, Peel, Lachlan, Macquarie, Murray and Murrumbidgee valleys**

Valley	Total bill at 2015-16 charges	Total bill at 2016-17 charges	% Change
Border	10,691	10,750	0.6%
Gwydir	12,945	12,981	0.3%
Namoi	18,304	18,570	1.5%
Peel	41,555	45,711	10.0%
Lachlan	15,397	16,746	8.8%
Macquarie	15,121	16,402	8.5%
Murray	5,443	5,514	1.3%
Murrumbidgee	3,900	3,967	1.7%

**Table G2: Final Decision - Expected bills – general security entitlement holder (real \$2015-16) – Border, Gwydir, Namoi, Peel, Lachlan, Macquarie, Murray and Murrumbidgee valleys**

Valley	Total bill at 2015-16 charges	Total bill at 2016-17 charges	% change
Border	4,242	4,300	1.4%
Gwydir	4,368	4,387	0.4%
Namoi	9,899	10,054	1.6%
Peel	18,180	19,998	10.0%
Lachlan	5,512	5,820	5.6%
Macquarie	5,102	5,328	4.4%
Murray	3,393	3,403	0.3%
Murrumbidgee	2,161	2,169	0.4%
Lowbidgee	391	413	5.6%

**Table G3: Final Decision - Expected bills – Fish River customers (real \$2015-16)**

Customer	Total bill at 2015-16 charges	Total bill at 2016-17 charges	% change
EnergyAustralia – raw water	5,105,556	5,352,391	4.8%
Minor customers – raw water	500	525	5.1%
Minor customer – filtered water	791	833	5.3%