



*BASIN PLAN 2012*

## Namoi Surface Water Resource Plan – No Net Reduction in Planned Environmental Water

### **Appendix C**

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# 1. Introduction

Section 10.28 of the Basin Plan states: ‘A water resource plan must ensure that there is no net reduction in the protection of planned environmental water from the protection provided for under state water management law immediately before the commencement of the Basin Plan’.

This is because the environmental outcomes of the Basin Plan are based on modelling that incorporates the planned environmental water (PEW) rules that existed as at 23 November 2012. Any change to PEW rules, or rules that were designed for an environmental purpose, could potentially undermine the environmental outcomes that the Basin Plan is seeking to achieve. The Basin Plan requirement (s10.28) for no net reduction in the protection of PEW ensures this doesn't occur.

However, improved information (from monitoring and system operation) and changes to water policy and governance since the establishment of these rules could provide the opportunity to improve the effectiveness of PEW and enhance environmental outcomes.

NSW has used the water resource plan (WRP) development process to review specific water sharing rules for the regulated water sources which may be refined to provide better outcomes for licence holders and/or the environment.

Proposals to change PEW rules have been developed in close consultation with the Department of Planning, Industry and Environment – Biodiversity and Conservation (DPIE B&C) and NSW Department of Primary Industries—Fisheries (DPI – F) consistent with NSW water sharing plan (WSP) objectives and where possible using environmental water requirements (EWR) in the draft Long Term Water Plans to ensure the best environmental outcomes. Consultation has also occurred through the stakeholder advisory panels (SAP) in each surface WRP area.

In order to demonstrate there has been no net reduction in the protection of PEW, this document establishes the level of protection of PEW in place prior to the commencement of the Basin Plan in November 2012, and compares this baseline with the changes made to water sharing rules that will protect, manage or maintain PEW. These rules have been incorporated into the WRP and included in the relevant WSPs to ensure no net reduction in the protection of PEW.

This report demonstrates that the changes to the WSP rules meet the requirements of s10.28 by addressing:

- legal protection of PEW, under NSW state water management law
- the quantity of water protected, and
- effective use of the water to achieve environmental outcomes.

As such, the WRP will ensure there is no net reduction in the protection of PEW provided under state water management law immediately prior to the commencement of the Basin Plan.

## 2. Removal of Groundwater Sources and WSP changes

Changes have been made to remove the groundwater sources and all rules relating to these groundwater sources from the WSPs in the Namoi WRP area. Additional changes have been made to include the unregulated Peel water sources with the unregulated Namoi water sources. The changes are set out in Table 1

This process will align the NSW water sources and WSPs with the Namoi Alluvium WRP Area, as defined in the Basin Plan 2012.

**Table 1. Water sharing plan changes in the Namoi WRP area.**

Current Water Sharing Plans	Proposed Water Sharing Plans	Comment
<i>Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Sources 2016</i>	<i>Water Sharing Plan for the Upper and Lower Namoi Regulated Rivers Water Source 2020</i>	The name of the WSP and the water sources covered by this plan are unchanged. As the water sharing plan is being remade, the commencement date will be 2020
<i>Water Sharing Plan for the Namoi Unregulated and Alluvial Water Sources 2012</i>	<i>Water Sharing Plan for the Namoi and Peel Unregulated River Water Sources 2012</i>  <i>Water Sharing Plan for the Namoi Alluvial Groundwater Sources 2020</i>	Unregulated water sources from the <i>Water Sharing Plan for the Peel Valley Regulated, Unregulated, Alluvium and Fractured Rock Water Sources 2010</i> have been added and Alluvial Water Sources have been moved. The name of the plan will be changed to reflect the water sources covered by the plan.
<i>Water Sharing Plan for the Peel Valley Regulated, Unregulated, Alluvium and Fractured Rock Water Sources 2010</i>	<i>Water Sharing Plan for the Peel Regulated River Water Source 2020</i>  <i>Water Sharing Plan for the Namoi and Peel Unregulated River Water Sources 2012</i>  <i>Water Sharing Plan for the Namoi Alluvial Groundwater Sources 2020</i>  <i>Water Sharing Plan for the NSW Murray Darling Basin Fractured Rock Groundwater Sources 2020</i>	The Peel Unregulated, Alluvium and Fractured Rock Water Sources have been moved to other water sharing plans. The year of commencement will be changed to 2020.

### 3. No net reduction in the protection of PEW

There has been no reduction in the overall volume of PEW within the Namoi WRP area as a result of changes made since the Basin Plan commenced in 2012. Specifically the WRP has demonstrated that under the annual permitted take method (section 5.5), take is within the SDL. NSW defines PEW in the WSP as:

the long-term average annual commitment of water as planned environmental water, resulting from compliance with the long-term average annual extraction limit and the long-term average sustainable diversion limit in Part 7.

As the permitted take is within the SDL and PEW is the water that is not included in the SDL, over the long term the overall volume of PEW is not reduced.

The following are the proposed WSP amendments, by water source, where NSW will demonstrate that there is no reduction in the protection of PEW as part of the WRP.

#### 3.1. Upper Namoi regulated water sources

The allowable water allocation account volume in the Upper Namoi water source is proposed to be increased from 1.0ML per unit share to 1.5ML per unit share i.e. allow carryover of 50% per unit share. However annual usage however remains capped at 100% per unit share and therefore the long term annual average extraction limit and sustainable diversion limit are maintained.

#### 3.2. Lower Namoi regulated water sources

The rule allowing water user access to supplementary water events in the *Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Sources 2016* (WSP) was amended in 2015 as a trial, to the 30 June 2019. The amendment changed the existing sharing arrangement from 90:10 (90% environmental water: 10% for extraction) to 50:50 for the period July to October each year. For the remainder of the year the existing supplementary water sharing arrangement was not changed from the existing 50% environmental: 50% extraction arrangement. The rule implemented when the WSP commenced in 2003 is often referred to as 90:10 rule.

The trial ended on 30 June 2019, however approval is being sought to extend the trial to 31 December 2019.

The aim of the trial was to assess if increasing access to supplementary water events on the July to October period impacted on the protection of the environmental component of the supplementary flow events. A scientific study was undertaken during the trial period by NSW agencies and partner organisations. This study concluded that the 50:50 sharing arrangement did not provide adequate protection of the environmental component of the supplementary flow compared with the existing 90:10 rule.

A revised set of supplementary water event rules is being investigated with the aim of having these in place for WRP accreditation. If a revised set of rules that maintains planned environmental water protection cannot be determined in this period, the supplementary water event sharing rule will revert back to the existing sharing arrangement of 90% environmental water: 10% for extraction

#### 3.3. Namoi unregulated water source

Access rules in the Phillips Creek, Mooki River, Quirindi Creek and Warrah Creek water sources have been amended to make the management regime simpler and to bring it into line with the majority of unregulated water sources in NSW. As part of this amendment the level of protection in place prior to the commencement of the Basin Plan has been maintained. The Mooki River and Quirindi Creek water sources have access rules linked to an operational gauge that have been implemented to manage the majority of licensed extraction within the water source. Also new rules which do not permit draw down of pools have been included in the unregulated water sources which provide an improvement in the protection of PEW.

### 3.4. Peel regulated water source

There have been no changes to the planned environmental rules in the Peel regulated water source from those in the *Water Sharing Plan for the Peel Valley Regulated, Unregulated, Alluvium and Fractured Rock Water Sources 2010*. These rules were in force when the Basin Plan was made. No further reference will be made to the Peel regulated water source.

### 3.5. Peel unregulated water sources

The proposal to change the commence/cease to pump (CtP) for the Cockburn River unregulated water users is drafted in the amended WSP. The intent of the CtP in place at the time of the making of the Basin Plan was to ensure that the river pools were maintained but not connected. The proposed change will continue to maintain the original intent of the rules and will allow the CtP to be clearly defined. This will make the rules less ambiguous and improve the implementation and enforcement in the Cockburn River. In the long-term the CtP changes (from height & visible flow to a defined volume) will offer greater reliability of protection to instream pools within the Cockburn water source. The moving of the measurement point will be a vast improvement in the accuracy of measurement of low flows when compared with the current site.

## 4. Background to changes proposed to PEW rules in the Namoi WRP area

### 4.1. Upper Namoi regulated water source

As part of the identification of issues to be considered in the development of the Namoi water resource plan and associated changes to the NSW WSPs, Upper Namoi Water Users identified the allowable water allocation account volume in the Upper Namoi as an issue. Under current WSP rules, the maximum volume that may be held in the water allocation account, at any time cannot be more than 1.0 ML per unit of share. This means water users have to forfeit the volume in their account if 100 percent allocation is made. The proposal is to increase the maximum volume that may be held in the water allocation account in Upper Namoi at any time from 1.0 ML per unit of share to 1.5 ML per unit of share i.e. allow carryover of 50% per unit share. However annual usage however remains capped at 100% per unit share and therefore the long term annual average extraction limit is maintained.

### 4.2. Lower Namoi regulated water source

The water users of the Lower Namoi raised the issue of supplementary access rules as part of the development of the Namoi water resource plan and associated changes to the NSW WSPs. Lower Namoi water users are seeking permanent implementation of the trial of sharing supplementary flow events at 50:50 between environment and consumptive across the whole water year. Alternatively they are seeking a rule set that enables a greater volume of water to be made available for water users than the rule that was in place when the Basin Plan was made. This rule set enables a sharing of supplementary flow events at 90:10 between environment and consumptive during 1 July to 31 October and 50:50 during 1 November to 30 June each year.

The 2015 amendment allowing the trial of the 50:50 sharing arrangement stated that the supplementary flow sharing arrangements should revert back to pre-amendment situation from 1 July 2019. The trial ending date may be extended to 31 December 2019. Alternative flow sharing options are being investigated by NSW Government agencies and Lower Namoi water users. The alternative flow sharing options include comprehensive assessments of potential impacts to PEW and environmental outcomes. Any potential WSP amendments will need to demonstrate the same or better environmental outcomes as those in place when the Basin Plan was made.

If there are amendments to the supplementary access rules this report will be amended to reflect the change.

### 4.3. Namoi unregulated WSP

Prior to the commencement of the Basin Plan in November 2012, unregulated surface water in the Namoi Valley, excluding the Peel Valley was managed by the *Water Sharing Plan for the Phillips Creek, Mooki River, Quirindi Creek and Warrah Creek Water Sources 2003* and the *Water Sharing Plan for the Namoi Unregulated and Alluvial Water Sources 2012*.

The WSP for the for the Phillips Creek, Mooki River, Quirindi Creek and Warrah Creek Water Sources expired in 2016 and the water source was incorporated into the valley wide macro WSP for the Namoi Unregulated water sources. As a result the broader provisions of the macro plan were adopted for the Phillips Creek, Mooki River, Quirindi Creek and Warrah Creek Water Sources. These include provisions relating to account management rules, planned environmental water and compliance with the Long Term Average Annual Extraction Limit (LTAAEL). Key changes that relate to PEW are further discussed below.

## 4.4. Peel unregulated water sources

Changes are proposed to the rules for the Cease to Pump (CtP) reference for the Cockburn River water sources. The change in the CtP for the Cockburn River is unlikely to affect PEW. The intent of the CtP in place prior to this proposed amendment was to ensure that the pools are maintained but not connected. The proposed change will continue to maintain the original intent and will allow the CtP to be clearly defined, making it less ambiguous for water users and easier for NSW government operators to implement and enforce.

The proposed changes do not impact on the PEW. In the long-term the CtP changes (from height & visible flow to a defined volume) will offer greater reliability of protection to instream pools within the Cockburn water source. Accuracy at low flows will be a vast improvement from the current upstream site: WaterNSW indicates that ratings will be within 10% or better of real flows at low stages, thus making cease to flow values close to correct and more easily identified.

## 5. Maintaining the level of protection for PEW

### 5.1. Legal protection of PEW

There have been no changes to rules within Part 3 (environmental water provisions) of the *Water sharing Plan for the Upper Namoi and Lower Namoi Regulated River water source 2020* and the *Water Sharing Plan for the Peel Regulated River Water Source* or within Part 4 of the *Water Sharing Plan for the Namoi and Peel Unregulated River water sources 2012* when compared with the comparable water sharing plans which have identified, established and maintained planned environment water (PEW rules) since the Basin Plan commenced in 2012.

The NSW Natural Resource Access Regulator (NRAR) has been established to be an independent, transparent and effective regulator with total carriage of the compliance and enforcement of water management legislation in NSW. The principal objectives of the NRAR are:

- to ensure effective, efficient, transparent and accountable compliance and enforcement measures for the natural resources management legislation
- to maintain public confidence in the enforcement of the natural resources management legislation.

This increased level of compliance monitoring will also increase the protection of PEW across NSW as increased compliance activity will lead to reduced non-compliance by water users. Further information on NRAR can be found at <https://www.industry.nsw.gov.au/natural-resources-access-regulator>.

The *Water Management (General) Regulation 2018* and associated metering policies and practices will also increase the protection of PEW in NSW. More accurate metering and in some unregulated systems the introduction of metering, will ensure that only the prescribed volume of water can be taken. This will ensure the volume of PEW stipulated by the various WSPs will be protected.

The *Water Management (General) Regulation 2018* and associated metering policies require that:

- all authorised works (including open channels and closed pipe), except pumps less than 100 mm, to have a meter that is pattern-approved and installed in accordance with Australian Standard 4747 by December 2021;
- from April 2019, all new and replacement meters are pattern-approved and installed and validated by a duly qualified person in accordance with the requirements of the Australian Standard 4747;
- users with works that meet the infrastructure size or multiple works thresholds who wish to keep their existing meters will need to demonstrate, by the roll-out date, that the meter is pattern-approved and validated, or accurate. They will also need to install a data logger and tamper evident seal, if not already installed.

The new metering requirements will be implemented in a staged manner. The staged roll-out takes a risk-based approach, aiming to ensure the largest water users in NSW are metered and telemetered in the first year of the roll-out. The roll-out will also allow time for the market to adjust to meet demand for both pattern-approved meters and certified meter installers.

The roll-out dates are:

- Stage 1: Surface water users with pumps of 500 mm or larger must comply by 1 December 2019
- Stage 2: Remaining users in northern inland regions must comply by 1 December 2020
- Stage 3: Remaining users in southern inland regions must comply by 1 December 2021.

### 5.1.1. Upper Namoi regulated water source

In the Upper Namoi water source is proposed to be increased from 1.0ML per unit share to 1.5ML per unit share. As previously stated, the level of protection of PEW is maintained as there is no change in the Upper Namoi extraction limit, therefore maintaining the protection of PEW.

While there is an increase in the allowable account limit the maintenance of the annual extraction limit remains in place as specified in clause 31 of the *Water Sharing Plan for the Upper and Lower Namoi Regulated Rivers Water Source 2020*.

### 5.1.2. Lower Namoi regulated water source

As previously mentioned if there are amendments to the supplementary access rules in the *Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated Rivers Water Source 2020* this report will be amended to reflect the change.

### 5.1.3. Namoi unregulated WSP

New access rules for the Mooki River, Qurindi Creek, Phillip Creek and Warrah Creek water source were established in 2016 in the *Water Sharing Plan for the Namoi Unregulated and Alluvial Water Sources 2012*. The rules achieve a number of objectives:

- improve implementation of the rules
- make the management regime simpler and enforceable
- bring them into line with the majority of unregulated water sources in NSW

Whilst the previous access rules were set out in the *Water Sharing Plan for the Phillips Creek, Mooki River, Qurindi Creek and Warrah Creek Water Sources 2003* (repealed), they were never brought into effect. To do so required the making of flow class announcements by the Minister (Clause 19), which did not occur. As a result of the access rules and flow classes not being announced by the Minister between 2003 and 2016, the total daily extraction limit for each flow class could not and were not implemented.

The water sharing plan access rule that did have effect during the term of that Plan was the rule permitting water to be taken only if there is visible flow in the river in the vicinity of the work (clause 22 of the *Water Sharing Plan for the Phillips Creek, Mooki River, Qurindi Creek and Warrah Creek Water Sources 2003* (repealed)). The rule permitting water to be taken only if there is visible flow still applies under the *Water Sharing Plan for the Namoi and Peel Unregulated Water Sources 2012* to the relevant water sources through clause 47(3).

The changes to PEW rules in the Namoi Unregulated WSP were made to provide simplified water sharing rules that can be clearly implemented and enforced. This has improved the legal protection of PEW compared to the arrangements in place before 2012. These changes are summarised in Table 2.

**Table 2. Legal protection of PEW under Namoi Unregulated WSP.**

WSP PEW provisions	Protection under operation of pre-Basin plan WSP (23 November 2012)	Protection under WSP and WRP
<p>Changes to flow classes and access rules</p>	<p><i>The WSP for the Phillips Creek, Mooki River, Quirindi Creek and Warrah Creek Water Sources 2003</i>, Cl. 17 (Part 3) established flow classes for each management zones.</p> <p>Cl 18 states that all flows referred to (Cl 17) relate to ‘estimated flows at the flow reference point at the downstream end of each zone.’</p> <p>Cl 19 specifies that an announcement of daily flow classes will be made by the Minister based on the flow at a flow gauging station, correlated to the flow reference point established in Cl 18.</p> <p>Therefore, a flow class will not apply on any particular day unless the Minister has made a relevant announcement of the flow clause under Cl 19.</p> <p>Because the flow classes were not implemented the total daily extraction limits for each flow class (Part 10, Division 3) could not and therefore were not implemented.</p> <p>A condition was included on the licences and approvals specifying water must not be taken in any period of very low flow which has been announced by the Minister. However flow classes were not able to be determined for each management zone and therefore never announced.</p> <p>The extraction in the water source was instead managed by the mandatory conditions given effect through licence conditions and approvals which restricted access if there was no visible flow in the river in the vicinity of the work. As such, the mandatory condition was the only rule operating to protect PEW under various flow conditions in the pre-Basin Plan WSP.</p>	<p><i>The WSP for the Phillips Creek, Mooki River, Quirindi Creek and Warrah Creek Water Sources 2003</i>, expired in 2016, and the water source incorporated in the Water Sharing Plan for the Namoi Unregulated and Alluvial Water Sources 2012.</p> <p>In the new WSP the very low flow class (effectively the cease to pump rule) were set as follows</p> <ul style="list-style-type: none"> <li>• 2 ML/d for Quirindi Creek at Greenacres gauge and</li> <li>• Less than or equal to 100 ML/day on a rising river or less than or equal to 50 ML/day on a falling river for Mooki River at Breeza gauge</li> <li>• visible flow at the pump site for the Phillip and Warrah Creek</li> </ul> <p>These change increases the capacity for compliance while maintaining the level of protection compared to that in place prior to the commencement of the Basin Plan as extraction was being managed based on no visible flow at a pump site rather than a flow volume at a gauge. The rule reflects the operational practice in place prior to the commencement of the Basin Plan and therefore the level of protection of PEW has been maintained.</p> <p>In addition, new water sharing rules were applied to the water source in 2016 to manage extraction from in- river and off-river pools. The access rules protect pools from being drawn down, which are important for drought refuge and general ecosystem health. These new rules provide an increase in the protection for PEW.</p>
<p>New access rules for in-river and off-river pools</p>	<p>There were no specific rules for protecting in-river and off-river pools.</p>	<p>Cl. 47 (4) (Part 8) establishes new provisions to manage access to in river and off river pools have also been adopted, providing clarification on when access is permitted, and thereby ensuring increased legal protection of PEW in these pools.</p>

WSP PEW provisions	Protection under operation of pre-Basin plan WSP (23 November 2012)	Protection under WSP and WRP
Mandatory Conditions	Cl. 22 (Part 4), Cl. 61A and 67 (Part 12) specify extraction from a river by an approved water supply work is permitted only if there is visible flow in the river in the vicinity of the work.	These provisions were removed from the Mandatory Conditions and incorporated into a single access rule, Cl.47 (Part 8), These provisions are conditioned on licences and approvals.
Rules for in-river dams	<p>Cl 70 (3) states works approvals must not be granted for any new in-river dams within the water source.</p> <p>The Water Management Act 2000 (WMA 2000) defines in-river dams as those dams on third order streams and higher.</p>	<p>Cl 52 states works approvals must not be granted or amended to authorize an in-river dam on a third order stream or higher within the water source.</p> <p>The drafting improves clarity but does not result in any material change. That is no new in-river dams (as defined under the WMA 2000) are permitted under the current rules.</p>

#### 5.1.4. Peel unregulated water sources

There is an improvement in the legal protection of PEW as a result of the change in the Cockburn CTP. The change in rule set provides greater clarity of the rules as they are more clearly defined from the existing level and visible flow to a flow at a telemetered gauging station (Table 3). The amended rule set is less ambiguous for water users and simpler for NSW government operators to implement and enforce.

**Table 3. Cockburn water source Commence/Cease to Pump, Current and Proposed Conditions.**

Current rules	Average annual % days access available	Comment	
Very Low Flow Class 0.25 m or less at Kootingal gauge or no visible flow at the rock bar	35%		
A class Unrestricted access available when river height is greater than 0.25m at Kootingal and visible flow at the rock bar	65%	Access is available 24 hours a day	
Proposed rule set	Average annual % days access available	Comment	
<i>Very Low Flow Class</i> No access available when flows are below 0.3 ML/day at Kootingal Less than or equal to 2.5 ML/day on a rising river and less than or equal to 0.3 ML/day on a falling river	24%	Flow protection of very low flows has increased 11%	Flow protection is now in place on 39% of days compared to 35% of days under the current rules
<i>A class</i> Greater than 2.5 ML/day on a rising river and greater than 0.3 ML/day on a falling river Clause 47A(4) restricts pumping to 12 hours a day	15%	Limited irrigation for 15% of days	
Unrestricted access available when flows are greater than 2.5 ML/day at Kootingal	61%	This represents a reduction of 4% of days with full access	This represents an additional 4% of days of flow protection

## 5.2. No reduction in the quantity of PEW

At the valley scale the annual quantity of PEW available for environmental purposes over the long term does not change. Under NSW state water management law, PEW is defined under s8 of the NSW Water Management Act 2000 (WMA 2000). Often PEW is described as long-term average annual volume of water in excess of the WSP long-term annual average extraction limit (LTAAEL). There has been no change to LTAAELs for the WSPs within the Namoi WRP Area. Maintaining the existing extraction limits in both the regulated and unregulated water sources therefore ensures there is no reduction in the overall quantity of PEW provided for in the plan. The WSP rules that maintain PEW, by limiting extraction to the LTAAEL, are reflected in the WRP to meet the requirements s10.11. As such, the WRP will ensure the same quantity of PEW is provided for under the plan as that provided under the WSPs in place prior to the commencement of the Basin Plan.

### 5.2.1. Upper Namoi regulated water source

In the Upper Namoi water source is proposed to be increased from 1.0ML per unit share to 1.5ML per unit share. As previously stated, the level of protection of PEW is maintained as there is no change in the Upper Namoi extraction limit, therefore maintaining the protection of PEW.

While there is an increase in the allowable account limit the maintenance of the annual extraction limit remains in place as specified in clause 31 of the *Water Sharing Plan for the Upper and Lower Namoi Regulated Rivers Water Source 2020*.

### 5.2.2. Lower Namoi regulated water source

The Namoi WSP continues to protect the same proportion of supplementary water from 1 July 2019, for the environment by specifying no more than 90% during July to October and 50% for the rest of year, of each supplementary event can be extracted. The development of an acceptable alternative flow sharing rule is currently being discussed with the stakeholders. If no acceptable alternate is agreed with NSW Government agencies the rule revert back to what it was in November 2012 which was 90:10 between environment and consumptive during 1 July to 31 October and 50:50 during 1 November to 30 June.

### 5.2.3. Namoi unregulated WSP

Whilst the previous access rules were set out in the *Water Sharing Plan for the Phillips Creek, Mooki River, Quirindi Creek and Warrah Creek Water Sources 2003* (repealed), they were never brought into effect. To do so required the making of flow class announcements by the Minister (Clause 19), which did not occur. As a result of the access rules and flow classes not being announced by the Minister between 2003 and 2016, the total daily extraction limit for each flow class could not and were not implemented.

The water sharing plan access rule that did have effect during the term of that Plan was the rule permitting water to be taken only if there is visible flow in the river in the vicinity of the work (clause 22 of the *Water Sharing Plan for the Phillips Creek, Mooki River, Quirindi Creek and Warrah Creek Water Sources 2003* (repealed)). The rule permitting water to be taken only if there is visible flow still applies under the *Water Sharing Plan for the Namoi and Peel Unregulated Water Sources 2012* to the relevant water sources through clause 47(3).

As the annual extraction limit, the volume of entitlement and the implemented access rules in these systems has remained the same, there is no reduction in the volume of PEW.

### 5.2.4. Peel unregulated water sources

The proposed changes in the CtP for the Cockburn River will also not affect the PEW quantity. As the water user account limits and volumes and the extraction limit for the Cockburn water source has not changed, the available quantity of PEW will remain unchanged. In fact the reduced pumping access (Table 3) may reduce annual extraction in the system over the long term.

## 5.3. No reduction in the effectiveness of PEW

### 5.3.1. Upper Namoi regulated water source

In the Upper Namoi the proposed change in the allowable water allocation account volume from 1.0ML per unit share to 1.5ML per unit share will not change the effectiveness of PEW as the maintenance of the extraction limit ensures the effectiveness of PEW is maintained.

### 5.3.2. Lower Namoi regulated water source

The Namoi WSP continues to protect the same proportion of supplementary water from 1 July 2019, for the environment by specifying no more than 90% during July to October and 50% for the

rest of year, of each supplementary event can be extracted. The development of an acceptable alternative flow sharing rule is currently being discussed with the stakeholders. If no acceptable alternate is agreed with NSW Government agencies the rule revert back to what it was in November 2012 which was 90:10 between environment and consumptive during 1 July to 31 October and 50:50 during 1 November to 30 June.

In the Lower Namoi if there is a change in the supplementary access rule away from the 90:10 sharing between July and October and 50:50 for the rest of the year, this report will be modified to reflect the outcome and demonstrate no reduction in the effectiveness of PEW.

### 5.3.3. Namoi unregulated WSP

The 2003 WSP for the *Phillips Creek, Mooki River, Quirindi Creek and Warrah Creek Water Sources* specified flow classes which set extraction limits for various components of the hydrograph. However flow classes were never brought into effect and therefore the pre-Basin Plan WSP did not operate to protect the effectiveness of the PEW at these different flow levels

Extraction was managed by a mandatory condition that specified water could not be taken if there was no visible flow in the river in the vicinity of the work. These conditions were given effect through license conditions and approvals.

The changes made to PEW rules in the unregulated system have maintained the effectiveness of PEW provided for under the previous plan. This has been done by maintaining the visible flow access rule in the Phillip and Warrah Creek. Effectiveness have also been maintained in the Quirindi creek and Mooki River compared to pre Basin Plan rules as the access rule are implemented by specifying a gauge as the flow reference point instead of the end of system. Extraction in this management zone was previously managed by the mandatory condition requiring a visible flow in the river in the vicinity of the work. These changes clarify the rules that protect low flows.

New water sharing rules were introduced to the water source when the plan was expired in 2016 to protect in- river and off-river pools. The access rules protect pools from being drawn down, which are important for drought refuge and general ecosystem health, improving the effectiveness of PEW.

### 5.3.4. Peel unregulated water sources

In the Peel unregulated system the proposed change in the Cockburn CTP will see the no reduction in the effectiveness of PEW as the change and associated rules reduce the opportunity to access flows and the additional rules ensure the instream pools are maintained. In particular reducing the allowable pumping period to 12 hours a day increases the available PEW when pumping is not allowed.