

Report card for the Upper Hawkesbury River Water Source

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Water source context

Water Sharing Plan:	Greater Metropolitan Region Unregulated River Water Sources
Extraction Management Unit:	Hawkesbury and Lower Nepean Rivers
Area:	41,050.5 ha
Inflowing water source:	Lower Nepean River Water Source Grose River Water Source Wianamatta - South Creek Water Source Cattai Creek Water Source
Receiving water source:	Lower Hawkesbury River Water Source

River flows

Low-flow index:	Dependent on inflows from dam releases and tributaries
Flow records:	Cattai Creek at Cattai Ridge Road gauge (2122951),

Basic landholder rights

Domestic and stock rights estimate:	883.3 ML/yr
Native title rights:	0 ML/yr

Licensed water entitlements

Total surface water entitlement:	57,875 ML/yr (380 ML/yr domestic and stock licences, 37,420 unregulated river licences)
Local water utilities entitlement:	0 ML/yr
Major utilities entitlement:	20,075 ML/yr
Proportion of extraction management unit:	41%

Rules

Managing access licences

Each water access licence has its own share component (volume of the licence) and a water allocation account that acts like a bank account where water is credited or debited.

- Water is credited to an account by an available water determination or if water is traded in (purchased) during the year from other licence holders
- Water is debited from the account when water is extracted or traded out (sold). Total extraction from a work (pump, bore, etc.) will be measured via metering or logbooks.

Carryover and individual account limits

For a major water utility access licence account – carryover is not permitted.

Domestic and stock, unregulated river and aquifer access licence accounts - carryover is permitted up to 1 ML per unit share or 100% of share component (where expressed in ML) at the end of each water year.

Domestic and stock, unregulated river and aquifer access licences - the maximum water account debit in any 3 consecutive water years is the volume of water allocated to the account over those 3 years from available water determinations plus any adjustments made for allocation assignments (trades) or water allocation re-credited into the account.

Table 1. Draft rules for granting access licences

Type	Current rules	Proposed rules
<p>There are limited purposes for which a new licence will be granted. It is anticipated that most water needs will be sourced from the market. One reason a licence may be granted is for Aboriginal cultural purposes. Other reasons are identified in Clause 10 of the Water Management Act General Regulation 2018.</p>		
Aboriginal cultural access licence	Permitted to a limit of 10 ML/yr.	No change.
Aboriginal community development access licence	Prohibited.	No change.

Table 2. Draft surface water access rules

Type	Current rules	Proposed rules
	River flow can be viewed on WaterNSW Real-time Data website . Search for a gauge under Rivers and Streams.	
Cease to pump	<p>Upper Hawkesbury River (Grose River to South Creek) Management Zone</p> <p>Cease to pump when no visible flow at the pump site.</p> <p>Cease to pump when flows are in the very low flow class.</p> <p>Upper Hawkesbury River (South Creek to Cattai Creek) Management Zone</p> <p>Cease to pump when no visible flow at the pump site.</p> <p>Cease to pump when flows are in the very low flow class.</p> <p>Upper Hawkesbury River (Cattai Creek to Colo River) Management Zone</p> <p>Cease to pump when no visible flow at the pump site.</p> <p>Cease to pump when flows are in the very low flow class.</p>	No change.
Flow classes	<p>Upper Hawkesbury River (Grose River to South Creek) Management Zone</p> <p>Very low flow class is when 0.44 ML/day plus the sum of flows at:</p> <ul style="list-style-type: none"> • Nepean River at Yarramundi gauge (2122001) • Grose River at Buralow gauge (212291) <p>are less than or equal to the sum of the upper limit of very low flow class for:</p> <ul style="list-style-type: none"> • Grose River Management Zone in the Hawkesbury and Lower Nepean Rivers Water Source • Lower Nepean River Management Zone in the Hawkesbury and Lower Nepean Rivers Water Source <p>A Class is when flows are above the very low flow class.</p>	<p>The Upper Hawkesbury River (Grose River to South Creek) Management Zone, Upper Hawkesbury River (South Creek to Cattai Creek) Management Zone and Upper Hawkesbury River (Cattai Creek to Colo River) Management Zone are proposed to be merged into a single water source with a single very low flow class.</p> <p>Very low flow class: if flows are less than the sum of the very low flow class in the Lower Nepean River Water Source plus very low flow classes in the tributary systems of:</p> <ul style="list-style-type: none"> • Eastern Creek Management Zone • Lower Wianamatta-South Creek Management Zone • Grose River Water Source • Cattai Creek Water Source

Type	Current rules	Proposed rules
	<p>Upper Hawkesbury River (South Creek to Cattai Creek) Management Zone</p> <p>Very low flow class is when 0.22 ML/day plus the sum of flows at:</p> <ul style="list-style-type: none"> • Nepean River at Yarramundi gauge (2122001) • Grose River at Burrellow gauge (212291) • the flow at the South Creek at Richmond Road gauge (212297) <p>are less than or equal to the sum of the upper limit of very low flow class for:</p> <ul style="list-style-type: none"> • Grose River Management Zone in the Hawkesbury and Lower Nepean Rivers Water Source • Lower Nepean River Management Zone in the Hawkesbury and Lower Nepean Rivers Water Source • Lower South Creek Management Zone in the Hawkesbury and Lower Nepean Rivers Water Source. <p>A class is when flows are above the very low flow class.</p> <p>Upper Hawkesbury River (Cattai Creek to Colo River) Management Zone</p> <p>Very low flow class is when the sum of flows at:</p> <ul style="list-style-type: none"> • Nepean River at Yarramundi gauge (2122001) • Grose River at Burrellow gauge (212291) • the flow at the South Creek at Richmond Road gauge (212297) • the flow at Cattai Creek at Cattai Ridge Road gauge (2122951) <p>are less than or equal to the sum of the upper limit of very low flow class for:</p>	<ul style="list-style-type: none"> • Colo River Water Source. <p>Sum of flows are the flows at:</p> <ul style="list-style-type: none"> • Nepean River at Yarramundi (2122001) • Grose River at Burrellow (212291) • South Ck at Richmond Rd (212097) • Eastern Ck at Riverstone (212096) • Cattai Creek at Cattai Ridge Road (2122951) • Colo River at Upper Colo gauge (212290) <p>Flow classes in this water source are complex and are used to protect the variable daily environmental releases made from Avon, Cataract, Cordeaux and Nepean Dams allowing them to flow through the entire Upper Hawkesbury River Water Source. A flow class notification system will be used to notify licence holders of daily flow conditions.</p>

Type	Current rules	Proposed rules
	<ul style="list-style-type: none"> Grose River Management Zone in the Hawkesbury and Lower Nepean Rivers Water Source Lower Nepean River Management Zone in the Hawkesbury and Lower Nepean Rivers Water Source Lower South Creek Management Zone in the Hawkesbury and Lower Nepean Rivers Water Source. the upper limit of the Very Low Flow Class for the Cattai Creek Management Zone in the Hawkesbury and Lower Nepean Rivers Water Source <p>A class is when flows are above the very low flow class.</p>	
Extraction from an in-river pool	Must cease pumping if the in-river pool is below full capacity.	No change.
Extraction from an authorised in-river dam pool	Rules specified on the water supply work approval for the in-river dam.	No change
Off-river pools (natural pools, lakes or lagoons)	Extraction from natural pools can only occur if the pool is 100% full.	No change.

Table 3 Exemptions from surface water access rules

Type	Current rules	Proposed rules
Health and hygiene	<p>For an access licence specified in Schedule 2 of the plan, no more than 20 kl/day for the following reasons:</p> <ul style="list-style-type: none"> fruit washing cleaning of dairy plant and equipment for the purposes of hygiene poultry watering and misting cleaning of enclosures used for intensive animal production for the purposes of hygiene. 	Exemption now applies to both fruit and vegetable washing.

Type	Current rules	Proposed rules
Water Shortage	<p>Can access the very low flow Class for any purpose if:</p> <ul style="list-style-type: none"> • there have been several consecutive days in the very low flow class. The number of consecutive days is dependent on the temperature and the month,, or • temperatures are $<4^{\circ}\text{C}$ or $\geq 31^{\circ}\text{C}$ taken from the Bureau of Meteorology forecast at 4 pm or later for the following day at Richmond. <p>Access to the very low flow class is provided for three consecutive days and is subject to any individual daily extraction limits applied to a licence.</p>	Remove this exemption
Survival Watering	<p>Can access the very low flows for cropping purposes during years 1 to 5 of the Plan. Purposes include:</p> <ul style="list-style-type: none"> • New plantings (15kL/ha per day) • Herbicide application to turf (minimum volume) • Vegetable and turf washing (20kL/day) • Watering turf in leadup to harvest (15kL/ha per day) <p>This rules has expired and was to be reviewed by the Minister by year 5 of the plan.</p>	Remove this exemption
Domestic use	For domestic consumption under a domestic and stock access licence, up to 1 kl/day.	No change.
Harvestable rights	From a run-off harvesting dam.	No change.
Specific licences	For an access licence specified in Schedule 2 or schedule 3A of the plan.	No change.

Table 4 Draft rules for constructing surface water supply works

Type	Current rules	Proposed rules
In-river dams	Prohibited.	No change.
Lagoons	A water supply work approval must not be granted or amended to take water out of a lagoon	No change
Works near coastal wetlands listed under <i>State Environmental Planning Policy (Resilience and Hazards) 2021</i>	No current rule.	Prohibited within 3km upstream of a Ramsar wetland or 200m of a coastal wetland identified on the Coastal Wetlands and Littoral Rainforest Area Map available on the NSW Planning Portal at www.planningportal.nsw.gov.au .

Table 5 Draft water trading (dealing) rules

Type	Current rules	Proposed rules
Trading covers conversion of access licence to a new category (for example from unregulated river to aquifer), assignment of rights dealings (trading of a licence), share component dealings between water sources (trading of entitlement between water sources), water allocation dealings (trading an annual allocation) and water supply works dealings (relocation of an extraction point).		
INTO water source	Permitted from, Lower Nepean Rive, subject to no net gain	Permitted from upstream water sources.
WITHIN water source	Permitted	No change
Surface water to groundwater	Prohibited	No change
Groundwater to surface water	Prohibited	No change
Convert to high flow	Prohibited	No change

Key factors for decisions

- The Upper Hawkesbury River Water Source has high ecological values and high likelihood of extraction from low flows impacting the ecological values, with an overall high risk to low flows.
- The Upper Hawkesbury River (Grose River to South Creek) Management Zone, Upper Hawkesbury River (South Creek to Cattai Creek) Management Zone and Upper Hawkesbury

River (Cattai Creek to Colo River) Management Zone are proposed to be merged into a single water source; the Upper Hawkesbury River Water with one set of access and trade rules.

- The Upper Hawkesbury River Water Source receives variable daily releases made for environmental purposes from Avon, Cataract, Cordeaux and Nepean Dam. As such, this water source is subject to complex access rules used to protect these releases. These rules will be implemented through a system that announces the daily flow class. Licence holders can use the announcement to determine if they can access water.
- It is proposed to allow trade into the water source so long as the trade occurs in a downstream direction. This considers the high likelihood in the water source with the downstream movement of entitlement maintaining or improving this metric.

Public exhibition

The Department of Planning and Environment seeks feedback from the public on the suitability of the proposed rules for this water source.

The draft Greater Metropolitan Region Unregulated River Water Sharing Plan and supporting fact sheets are available from the department's [Public Exhibition website](#).