

Report card for the Upper Bega/Bemboka Rivers Water Source

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Water source context

Water Sharing Plan:	Bega River Area Regulated, Unregulated and Alluvial Water Sources 2023
Extraction Management Unit (EMU):	Bega River Catchment Extraction Management Unit
Area:	7.9 km ²
Inflowing water source:	Upper Bega Bemboka Rivers Tributaries, Sandy Creek, and Tantawangalo Creek (including Candelo Creek) Water Sources
Receiving water source:	Mid Bega River Sands Water Source
Groundwater-dependent ecosystems:	Identified at plan commencement
Approximate average annual rainfall:	750 – 850 mm

River flows

80 th percentile:	10 ML/day
Flow records:	Bega River at Kanoona gauge number 219032 (1998- present)

Basic landholder rights

Domestic and stock rights estimate:	13 ML/year
Native title rights:	0 ML/year

Licensed water entitlements

Total surface water entitlement:	10.5 ML/year of Domestic and Stock access licences 9401 ML/year of Unregulated River access licences
Total groundwater entitlement:	0 ML/year
Local water utilities entitlement:	66 ML/year

Rules

Managing Access Licenses

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

Domestic and stock, local water utility, unregulated river and aquifer access licence accounts:

- Carryover of water remaining in a water allocation account is permitted at the end of each water year up to 1 ML per unit share or 100% of share component (where expressed in ML).
- 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 licenses

Type	Current rules	Proposed rules
<p>There are limited purposes for which a new licence will be granted. It is anticipated that most additional 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 <i>Water Management Act General Regulation 2018</i>.</p>		
Aboriginal cultural access licence	Permitted up to 10 ML/year per licence, subject to assessment	No change
Aboriginal community development (ACD) access licence	Permitted into B Class, up to a total of 500 ML/year for all ACD access licences in the Lower Tantawangalo Creek Management Zone and the following water sources: <ul style="list-style-type: none"> • Lower Bega/Lower Brogo Rivers Tributaries • Mid Bega River Sands • Upper Bega/Bemboka Rivers 	Not permitted

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>Take is not permitted:</p> <ul style="list-style-type: none"> by accredited* licence holders when flow is at or below 2 ML/day at Bega River @ Kanoona (gauge 219032), or by unaccredited licence holders when flow is at or below 5 ML/day at Bega River @ Kanoona (gauge 219032), or when there is no visible flow at the point of take. 	<p>For all licence holders, take is not permitted:</p> <ul style="list-style-type: none"> when flow is at or below 5 ML/day at Bega River @ Kanoona (gauge 219032), or when there is no visible flow at the point of take. <p>It is proposed that there will no longer be a differentiation in access rules between accredited and unaccredited licence holders.</p>
Commence to pump	If flows have been less than the cease to pump level for a period of 30 or more consecutive days, water must not be taken for 24 hours after flows have risen above the cease to pump level.	No change
Access rules for local water utilities	<p>Taking of water by a local water utility must not be more than:</p> <ul style="list-style-type: none"> 0.2ML/day where releases from the Cochrane Dam Drought Reserve are not being made, or 0.1ML/day where releases from the Cochrane Dam Drought Reserve are being made. 	When flows are in A Class or B Class, taking of water by a local water utility must not be more than 0.2ML/day
Flow classes	<p>Flows measured at Bega River @ Kanoona (gauge 219032)</p> <ul style="list-style-type: none"> Very Low Flow Class: equal to or less than 2 ML/day Low Flow Class more than 2ML/day and equal to or less than 5ML/day A Class: greater than 5ML/day and equal to or less than 65 ML/d B Class: greater than 65 ML/day and equal to or less than 160 ML/d C Class: greater than 160 ML/day 	<p>Flows measured at Bega River @ Kanoona (gauge 219032)</p> <ul style="list-style-type: none"> Very Low Flow Class: equal to or less than 5 ML/day A Class: greater than 5 ML/day and equal to or less than 65 ML/d B Class: greater than 65 ML/day and equal to or less than 160 ML/d C Class: greater than 160 ML/day

Total Daily Extraction Limits	<p>The total daily extraction limit from the water source is</p> <ul style="list-style-type: none"> 30ML/day in A class for all access licences, made up of: <ul style="list-style-type: none"> 0.2ML/day for domestic and stock access licences, 0.2ml/day for local water utility access licences, and 29.60 ML/day for unregulated river access licences. 62ML/day in B Class for all access licences made up of: <ul style="list-style-type: none"> 0.2ML/day for domestic and stock access licences, 0.2ml/day for local water utility access licences, and 61.60 ML/day for unregulated river access licences. 	No change
Take from in-river dams	Take is not permitted when the dam is below full capacity unless otherwise specified on the water supply work approval for the dam.	No change.
Take from natural in-river pools	Take is not permitted when the pool is below full capacity.	No change.
Take from natural off-river pools	Take is not permitted when the pool is below 50 % capacity unless otherwise specified on the water supply work approval.	No change.

* Licence holders are accredited for undertaking works to improve river health: e.g. fencing off waterways, establishing riparian vegetation, improved effluent management.

Table 3 Draft alluvial groundwater access rules

Type	Current rules	Proposed rules
Take of alluvial groundwater	<p>Take is not permitted:</p> <ul style="list-style-type: none"> by accredited* licence holders if flow is at or below 2 ML/day at Bega River @ Kanoona (gauge 219032), or by unaccredited licence holders if flow is at or below 5 ML/day at Bega River @ Kanoona (gauge 219032), or 	<p>For all licence holders, take is not permitted:</p> <ul style="list-style-type: none"> when flow is at or below 5 ML/day at Bega River @ Kanoona (gauge 219032), or if there is no visible flow in the river at the location closest to the supply work used for extraction.

- if there is no visible flow in the river at the location closest to the supply work used for extraction.

* Refer to footnote below Table 2

Table 4 Draft exemptions from access rules

Type	Current rules	Proposed rules
Health and hygiene	<p>For an access licence specified in the plan, no more than 20 kl/day for the following purposes:</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. 	<p>No change to the access rule except for the addition of “vegetable washing” (maximum take of 20 kl/day) as an exempt purpose.</p>
Domestic use	<p>No exemptions beyond year 3 of the plan.</p>	<p>Up to 1 kl/day may be taken for domestic use under a domestic and stock access licence.</p>
Stock use	<p>No exemptions beyond year 3 of the plan.</p>	<p>Take of stock water under an access licence is no longer exempt from the access rules.</p>
Specific purpose	<p>For an access licence specified in Schedule 3 of the plan.</p>	<p>For access licences listed the schedule of the plan.</p>
Aquifer interference activities	<p>Take may occur for an access licence that nominates an aquifer interference approval.</p>	<p>Access rules do not apply to the take of surface water under an access licence for which a planning approval is in force if:</p> <ul style="list-style-type: none"> • the licence holder complies with an approved water management plan, and • in the Minister’s opinion, the licence holder is not reasonably capable of complying with the access rules.

Note: Water taken under basic landholder rights (domestic and stock rights, harvestable rights and native title rights) are not subject to the access and trade rules set by water sharing plans and therefore have not been listed in the above table.

Table 5 Draft rules for constructing surface water supply works

Type	Current rules	Proposed rules
In-river dams	Permitted, subject to assessment.	Prohibited
All surface water works	Permitted, subject to assessment.	Not permitted within 200 m upstream of coastal wetlands defined in the <i>State Environmental Planning Policy (Resilience and Hazards) 2021</i> or within 3 km upstream of Ramsar wetlands, unless assessed to pose no more than minimal harm.

Note: the distance rules for groundwater water supply works are detailed in the [Report Card for the Draft Rules for Groundwater Water Supply Works](#).

Table 6 Draft water trading (dealing) rules

Type	Current rules	Proposed rules
<p>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).</p>		
INTO water source	Prohibited	No change
WITHIN water source	Permitted, subject to assessment	No change
Conversion from unregulated river to aquifer access licences	Permitted, subject to assessment	No change
Conversion of aquifer to unregulated river access licences	Not permitted	No change
Conversions to high flow access licences	Permitted into C Class up to a total entitlement for the water source of 1,650 ML	Permitted into C Class (160ML/day) up to a total entitlement for the water source of 1,760 ML

Key factors for decisions

- The results of the ecological risk assessment showed a high risk to insufficient water for freshwater riverine ecosystems in Upper Bega/Bemboka water source at low flows - despite there already being cease to pump rules in place. This suggests that the current cease to pump rules may not adequately protect low flows and that trade in should not be allowed.
- Research shows that when flows falls below the 95th percentile flow, a significant amount of the riverine habitat dries out. If these low flows persist, there is a high risk of the loss of riverine ecosystems and reduced diversity.
- As many licence holders are able to extract flows down to 2ML/day, and then further extraction is permitted below that level for basic landholder rights or health and hygiene purposes, low flows in the Upper Bega/Bemboka Rivers water source are currently not adequately protected.
- The draft water sharing plan proposes to increase the cease to pump level for all license holders to 5ML/day referenced to the gauge number 219032 (Bega River@Kanoona). Extraction below this will still be able to occur for basic landholder rights or health and hygiene purposes. This change aims to balance ecological and economic needs.
- Given significant volume of entitlement in the water source (9,475 ML) limiting trade into the water source and facilitating trade out of low flows within the water source (by allowing high flow conversion) was considered important.
- The volume of entitlement permitted to be converted has been increased from 1650ML to 1,760 ML to encourage licence holders in these areas to move their extraction out of low flows.

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 Water Sharing Plan for the Bega River Area Regulated, Unregulated and Alluvial Water Sources 2023 and supporting fact sheets are available from the department's [Public Exhibition website](#).