

Report card for the Tantawangalo Creek 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:	216 km ²
Inflowing water source:	Nil
Receiving water source:	Upper Bega/Bemboka Rivers Water Source
Groundwater-dependent ecosystems:	Identified at plan commencement
Approximate average annual rainfall:	800 – 850 mm

River flows

80 th percentile:	7.4 ML/day
Flow records:	Tantawangalo Creek at Candelo Dam gauge no. 219022 (1971 – present)

Basic landholder rights

Domestic and stock rights estimate:	157 ML/year
Native title rights:	0 ML/year

Licensed water entitlements

Total surface water entitlement:	26 ML/year of Domestic and Stock access licences 3417 ML/year of Unregulated River access licences
Total groundwater entitlement:	0 ML/year
Local water utilities entitlement:	1500 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	Upper Management Zone: prohibited Lower Management Zone: Permitted	Permitted in both Management Zones, up to 10 ML/year per licence, subject to assessment
Aboriginal community development (ACD) access licence	Not permitted in the Upper Management Zone 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 in the Upper Management Zone Permitted, subject to assessment, into C Class up to a total of 500 ML 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 Tributaries • Upper Bega/Bemboka Rivers Tributaries • Candelo Creek • Sandy Creek • Wolumla Creek.

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.		
UPPER MANAGEMENT ZONE		
Daily access rules for local water utility access licence 23486	<ul style="list-style-type: none"> If flows are less than 5ML/day at the Tantawangalo Creek at Candelo Dam Site gauge 219022, no more than 0.2ML/day is permitted to be taken, If flows at the Tantawangalo Creek at Tantawangalo Mountain gauge 219006 are less than or equal to 0.4ML/day, no more than 50% of the flow is permitted to be taken, and If flows at gauge 219006 are at least 0.4ML/day but no more than 2.2ML/day, no more than 0.2ML/day is permitted to be taken, If flows at gauge 219006 are greater than 2.2ML/day, no more than the lesser of the following is permitted to be taken: <ol style="list-style-type: none"> 50% of the flow, up to a maximum of 5ML/day, or the daily flow, minus 2ML 	No change
LOWER MANAGEMENT ZONE		
Cease to pump	Take is not permitted when: <ul style="list-style-type: none"> flow is at or below 5 ML/day at Tantawangalo Creek at Candelo Dam Site (gauge 219022), or there is no visible flow at the point of take. 	No change
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

Flow classes	<p>Flows measured at Tantawangalo Creek @ Candelo Dam Site (gauge 219022)</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 60 ML/d • B Class: greater than 60 ML/day 	<p>Flows measured at Tantawangalo Creek @ Candelo Dam Site (gauge 219022)</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 60 ML/d • B Class: greater than 60 ML/day • C Class: greater than 70ML/day
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.

Table 3 Draft alluvial groundwater access rules – Lower Management Zone

Type	Current rules	Proposed rules
Take of alluvial groundwater	Take is not permitted when there is no visible flow in the river at the location closest to the supply work used for extraction.	<p>No change.</p> <p>If the location closest to the water supply work in the river is a pool, then take is not permitted if the pool is below full capacity.</p>

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 in 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	<p>Not permitted in the Upper Tantawangalo Creek Management Zone.</p> <p>Permitted in the Lower Tantawangalo Creek Management Zone subject to assessment</p>	<p>Prohibited in the Upper Tantawangalo Creek Management Zone.</p> <p>Permitted only on first and second order streams in the Lower Management Zone, subject to assessment.</p>

All surface water works	Not permitted in the Upper Tantawangalo Creek Management Zone.	Not permitted in the Upper Tantawangalo Creek Management Zone unless the water supply work is used solely to take water under a basic landholder right or an Aboriginal Cultural access licence. 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.
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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
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	Upper Management Zone Prohibited Lower Management Zone –permitted from Upper Management Zone only	Upper Management Zone – no change Lower Management Zone – Trade into C Class (70ML/day) permitted up to a total entitlement for the water source of 770 ML
WITHIN water source	Upper Management Zone – Prohibited Lower Management Zone – permitted	No change
Conversion from unregulated river to aquifer access licences	Upper Management Zone – permitted Lower Management Zone – permitted	No change
Conversion of aquifer to unregulated river access licences	Upper Management Zone – prohibited Lower Management Zone – prohibited	No change

Conversions to high flow access licences	Upper Management Zone – Prohibited Lower Management Zone – permitted into B Class at a rate of 3:1 up to a total entitlement for the MZ of 591 ML , subject to assessment.	Upper MZ – no change Lower MZ – permitted into C Class at a rate of 3:1 up to a total entitlement for the MZ of 770 ML , subject to assessment.
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Key factors for decisions

- There is a suitable reference gauge for this water source and an existing cease to pump rule. There is also a considerable volume of entitlement in this water source (4,943 ML).
- The results of the ecological risk assessment showed a high risk to insufficient water for freshwater riverine ecosystems at low flows in Tantawangalo Creek Water Sources, however, the current cease to pump rule that applies in the Lower MZ increased during the life of the current plan and now sits at the 85%ile flow. It was therefore determined not to further increase the cease to pump at this time.
- It is proposed that trade of A Class entitlement in other water sources be permitted into C Class in this water source, allowing trade without increasing stress on low flows in the water source as well as reducing overall extractions from low flows across the plan area.
- The volume of entitlement permitted to be converted has been increased from 591 ML to 770 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](#).