

# Report card for Myrtle Creek Water Source

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## Water source context

Water Sharing Plan:	Towamba River Unregulated and Alluvial Water Sources
Extraction Management Unit:	Towamba River Extraction Management Unit
Area:	72 km <sup>2</sup>
Inflowing water source:	Nil
Receiving water source:	Upper Towamba River Water Source
Groundwater-dependent ecosystems:	Present at the commencement of the plan
Average rainfall:	570.0 mm/yr (measured at Bombala weather station)

## River flows

Low-flow index:	10.7 ML/day (80 <sup>th</sup> percentile daily flow)
Flow records:	220004 Towamba gauge in Lower Towamba River WS

## Basic landholder rights

Domestic and stock rights estimate	273.6 ML/yr
Native title rights:	0 ML/yr
Harvestable rights	
estimated 10% rainfall runoff:	Not yet estimated.
estimated current uptake:	Not yet estimated.

## Licensed water entitlements

Total surface water entitlement:	143 ML/yr (38 ML/yr domestic and stock, 105 ML/yr unregulated river)
Total groundwater entitlement:	66 ML/yr
Local water utilities entitlement:	0 ML/yr
Proportion of extraction management unit:	7%

## 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 local 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 <i>Water Management Act General Regulation 2018</i>.</p>		
Aboriginal cultural access licence	Allowed up to 10 ML/yr	No change
Aboriginal community development access licence	Allowed, up to a limit of 310 ML for the entire extraction management unit.	Allowed, up to a limit of 306 ML for the entire extraction management unit.

Table 2 Draft surface water access rules

Type	Current rules	Proposed rules
<p>River flow can be viewed on <a href="#">WaterNSW Real-time Data website</a>. Search for a gauge under Rivers and Streams.</p>		
Cease to pump	<p>Domestic and stock licences (subcategory domestic) must cease pumping when flows are at or below 0.5 ML/day at gauge 220004 Towamba River.</p> <p>Unregulated river and aquifer licences must cease pumping when flows are at or below 5 ML/day at gauge 220004 Towamba River.</p> <p>Aboriginal community development licences must cease pumping when flows are at or below 50 ML/day at gauge 220004 Towamba River.</p> <p>High flow licences must also cease pumping when flows are at or below 50 ML/day at gauge 220004 Towamba River.</p>	<p>Domestic and stock (subcategory domestic) must move to restricted pumping up to 1 kl/day when flows are at or below 6.5 ML/day at gauge 220004 Towamba River..</p> <p>Unregulated river and aquifer licences must cease pumping when flows are at or below 6.5 ML/day at gauge 220004 Towamba River.</p> <p>Aboriginal community development licences must cease pumping when flows are at or below 51 ML/day at gauge 220004 Towamba River.</p> <p>High flow licences are no longer allowed in this water source.</p>
Commence to pump	<p>When the river is rising, unregulated river access licences cannot start pumping until flows are above 15 ML/day.</p>	<p>When the river is rising, unregulated river access licences cannot start pumping until flows are above 34 ML/day.</p>
Extraction from an in-river pool	<p>Must cease pumping if in-river pool is below full capacity.</p>	<p>No change</p>
Flow classes	<p>Flows measured at gauge 220004 Towamba River.</p> <p>Very low flow class: when flow is less than or equal to 0.5 ML/day</p> <p>Low flow class: when flow is above 0.5 ML/day and less than or equal to 5 ML/day</p> <p>A Class: above 5 ML/day and less than or equal to 15 ML/day</p> <p>B Class: above 15 ML/day and less than or equal to 50 ML/day</p> <p>C class: when flow is above 50 ML/day</p>	<p>Flows measured at gauge 220004 Towamba River.</p> <p>Very low flow class: when flow is above 6.5 ML/day</p> <p>A Class: above 6.5 ML/day and less than or equal to 34 ML/day</p> <p>B Class: above 34 ML/day and less than or equal to 51 ML/day</p> <p>C class: when flow is above 51 ML/day</p>

Table 3 Draft alluvial groundwater access rules

Type	Current rules	Proposed rules
Cease to take	Alluvial groundwater access rules are the same as the surface water access rules in Table 2.	Alluvial groundwater access rules are the same as the surface water access rules in Table 2.

Table 4 Exemptions from surface water access rules

Type	Current rules	Proposed rules
<b>Health and hygiene</b>	For an access licence specified in Schedule 2 of the plan, no more than 20 kl/day for the following reasons: <ul style="list-style-type: none"> <li>• fruit washing</li> <li>• cleaning of dairy plant and equipment for the purposes of hygiene</li> <li>• poultry watering and misting</li> <li>• cleaning of enclosures used for intensive animal production for the purposes of hygiene.</li> </ul>	No change.
<b>Domestic use</b>	Domestic and stock licences (subcategory domestic) must cease pumping when flows are at or below 0.5 ML/day at gauge 220004 Towamba River.	For domestic consumption under a domestic and stock access licence, up to 1 kl/day.
<b>Harvestable rights</b>	From a run-off harvesting dam.	No change.
<b>Specific purpose</b>	For an access licence specified in Schedule 2 of the plan.	No change.
<b>In-river pools or dams</b>	Take may only occur if the dam or pool is at or above full capacity unless otherwise specified in the conditions of the access licence.	No change.
<b>Off-river pools</b>	Take is permitted.	No change.

Table 5 Exemptions from alluvial groundwater access rules

Type	Current rules	Proposed rules
<b>Health and hygiene</b>	<p>For an access licence specified in Schedule 3 of the plan, no more than 20 kl/day for the following reasons:</p> <ul style="list-style-type: none"> <li>• fruit washing</li> <li>• cleaning of dairy plant and equipment for the purposes of hygiene</li> <li>• poultry watering and misting</li> <li>• cleaning of enclosures used for intensive animal production for the purposes of hygiene.</li> </ul>	No change, but alluvial groundwater licences to which this exemption applies are now specified in Schedule 2 of the plan.
<b>Domestic use</b>	Domestic and stock licences (subcategory domestic) must cease pumping when flows are at or below 0.5 ML/day at gauge 220004 Towamba River.	For domestic consumption under a domestic and stock access licence, up to 1 kl/day.
<b>Specific purpose</b>	For an access licence specified in Schedule 3 of the plan.	For an access licence specified in Schedule 2 of the plan.
<b>Location</b>	For groundwater works greater than 40m from the river	No change.

Table 6 Draft rules for the location of surface water extraction infrastructure

Type	Current rules	Proposed rules
<b>In-river dams</b>	Allowed on first and second order streams	No change.
<b>Water supply works near coastal wetlands</b>	Allowed	Allowed, if there is no more than minimal harm to the wetland.

Table 7 Draft rules for groundwater water supply works

Type	Current rules	Proposed rules
<p><b>Rules to minimise interference between bores</b></p>	<p>Water supply works (bores) must not be granted or amended within:</p> <ul style="list-style-type: none"> <li>• 100 m from a bore that is nominated on an aquifer access licence on another landholding</li> <li>• 100 m from a bore that is used to extract basic landholder rights on another landholding</li> <li>• 50 m from a property boundary (unless negotiated in writing with neighbour)</li> <li>• 500 m from a bore nominating a local or major water utility access licence</li> <li>• 100 m from a government monitoring bore.</li> </ul> <p>These distance restrictions do not apply if:</p> <ul style="list-style-type: none"> <li>• the bore is used solely for basic landholder rights</li> <li>• the bore is a replacement bore</li> <li>• the bore is used for monitoring, environmental remediation activities or emergency services</li> <li>• the location of the bore at a lesser distance will have no more than minimal detrimental effect on existing extraction.</li> </ul>	<p>Water supply works (bores) must not be granted or amended within:</p> <ul style="list-style-type: none"> <li>• 200 m from a bore that is nominated on an aquifer access licence on another landholding</li> <li>• 200 m from a bore that is used to extract basic landholder rights on another landholding</li> <li>• 100 m from a property boundary (unless negotiated in writing with neighbour)</li> <li>• 500 m from a bore nominating a local or major water utility access licence</li> <li>• 100 m from a government monitoring bore.</li> </ul> <p>These distance restrictions do not apply if:</p> <ul style="list-style-type: none"> <li>• the bore is used solely for basic landholder rights</li> <li>• the bore is a replacement bore</li> <li>• the bore is used for monitoring, environmental remediation activities or emergency services</li> <li>• the location of the bore at a lesser distance will have no more than minimal detrimental effect on existing extraction.</li> </ul>

Type	Current rules	Proposed rules
<p><b>Rules for bores located near contamination sources</b></p>	<p>Water supply works (bores) must not be granted or amended within:</p> <ul style="list-style-type: none"> <li>• 250 m of a contamination source identified within the plan</li> <li>• 250 m from the edge of a plume of a contamination source listed in the plan</li> <li>• 250 m and 500 m from the edge of a plume associated with a contamination source identified within the plan, unless no drawdown of water will occur within 250 m of that plume</li> <li>• more than 500 metres from the plume associated with a contamination source identified in the plan, if a greater distance is specified by the Minister to be necessary to protect the water source, the environment or public health or safety.</li> </ul> <p>These distances restrictions do not apply if:</p> <ul style="list-style-type: none"> <li>• the location of the bore is adequate to protect the water source, the environment and public health and safety</li> <li>• the bore is used for the purpose of monitoring, environmental remediation activities or emergency services.</li> </ul>	<p>Water supply works (bores) must not be granted or amended within:</p> <ul style="list-style-type: none"> <li>• 500 m of a contamination source identified within the plan</li> <li>• 250 m from the edge of a plume of a contamination source listed in the plan</li> <li>• 250 m and 500 m from the edge of a plume associated with a contamination source identified within the plan, unless no drawdown of water will occur within 250 m of that plume</li> <li>• 250 m of an onsite sewage disposal system unless the water supply work is: <ul style="list-style-type: none"> <li>— constructed with cement grout in the borehole annulus to a minimum depth of 20 m from the ground surface</li> <li>— located at a sufficient distance from the on-site sewage disposal system to prevent migration of septic contamination in the aquifer.</li> </ul> </li> </ul> <p>These distances restrictions do not apply if:</p> <ul style="list-style-type: none"> <li>• the location of the bore is adequate to protect the water source, the environment and public health and safety</li> <li>• the bore is used for the purpose of monitoring, environmental remediation activities or emergency services.</li> </ul>

Type	Current rules	Proposed rules
<p><b>Rules for bores located near high priority groundwater-dependent ecosystems</b></p>	<p>Water supply works (bores) must not be granted or amended within:</p> <ul style="list-style-type: none"> <li>• 40 m of the top of the high bank of a river</li> <li>• 40 m of a first-, second- or third-order stream</li> <li>• 200 m of any high-priority, groundwater-dependent ecosystem</li> <li>• 500 m of a Karst environment</li> <li>• the bed of a third-order or higher stream.</li> </ul> <p>These distances restrictions do not apply if the bore is:</p> <ul style="list-style-type: none"> <li>• used for basic landholder rights</li> <li>• a replacement groundwater work</li> <li>• used for the purpose of monitoring, environmental remediation activities or emergency services.</li> </ul>	<p>In addition to the current rules, a proposed rule will be included that a water supply work approval must not be granted or amended in this water source unless the minister's opinion is that there will be no more than minimal harm to any wetland mapped under the <i>State Environment Planning Policy (Resilience and Hazards) 2021</i>.</p>
<p><b>Rules for bores located near potential acid sulfate soils</b></p>	<p>No current rule.</p>	<p>New bores cannot be in an area classed as having a high probability of the occurrence of acid sulfate soils if there is significant risk of acidification of the water sources.</p>



Type	Current rules	Proposed rules
<p><b>Rules for bores located near groundwater-dependent, culturally significant sites</b></p>	<p>Water supply work approval will not be granted or amended to authorise the construction of a water supply work which, in the Minister’s opinion, is located within:</p> <p>(a) 100 metres of a groundwater dependent culturally significant site in the case of a water supply work used solely to take water pursuant to basic landholder rights, or</p> <p>(b) 200 metres of a groundwater dependent culturally significant site in the case of a water supply work not used solely to take water pursuant to basic landholder rights. This location distance restriction does not apply if:</p> <ul style="list-style-type: none"> <li>• the bore is used solely for a basic landholder right</li> <li>• the bore is a replacement bore</li> <li>• the bore is used for monitoring, environmental remediation activities or emergency services</li> <li>• the location of the bore at a lesser distance will have no more than minimal harm to any groundwater-dependent, culturally significant sites.</li> </ul>	<p>Water supply works (bores) must not be granted or amended within 200 m of groundwater-dependent, culturally significant sites.</p> <p>This location distance restriction does not apply if:</p> <ul style="list-style-type: none"> <li>• the bore is used solely for a basic landholder right</li> <li>• the bore is a replacement bore</li> <li>• the bore is used for monitoring, environmental remediation activities or emergency services</li> <li>• the location of the bore at a lesser distance will have no more than minimal harm to any groundwater-dependent, culturally significant sites.</li> </ul>

Type	Current rules	Proposed rules
<p><b>Rules for bores used solely for basic landholder rights</b></p>	<p>Water supply works (bores) used solely for basic landholder rights must not be granted or amended if the bore is located within:</p> <ul style="list-style-type: none"> <li>• 100 m of a government monitoring bore</li> <li>• 40 m from the top of the high bank of a river</li> <li>• 100 m of any other high-priority, groundwater-dependent ecosystem</li> <li>• 100 m of a groundwater-dependent, culturally significant area.</li> </ul> <p>These location distance restrictions do not apply if:</p> <ul style="list-style-type: none"> <li>• the bore is a replacement bore</li> <li>• a lesser distance would result in no more than minimal harm to any high-priority, groundwater-dependent ecosystem</li> <li>• a lesser distance would result in no more than minimal harm to any groundwater-dependent, culturally significant area.</li> </ul>	<p>No change.</p>
<p><b>Replacement groundwater works</b></p>	<p>A replacement water supply work (bore) must be located within:</p> <ul style="list-style-type: none"> <li>• 20 m of the existing bore</li> <li>• no closer to the river than the bore being replaced if within 40 m of the top of the high bank of the river.</li> </ul> <p>The replacement bore must not have a greater internal diameter or excavation footprint than the existing bore, unless the existing bore's internal diameter is:</p> <ul style="list-style-type: none"> <li>• no longer manufactured, in which case it may be no greater than 120% of the current internal diameter</li> <li>• less than 100 mm, in which case the internal diameter must be no more than 100 mm.</li> </ul>	<p>No change.</p>

Table 8 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	No trade into this water source.	Trade allowed into this water source from Upper Towamba River Water Source, as long as the total volume of entitlement is not more than 209 ML/yr.
WITHIN water source	Allowed	No change
Surface to ground	Allowed	No change
Ground to surface	Not allowed	No change
Convert to high flow	Not allowed	Allowed, to a combined limit of 44 unit shares.

## Key factors for decisions

- Myrtle Creek experiences medium stress from extraction and a medium ecological value. High flow conversions are allowed in this water source to reduce the medium stress on low flows.
- This water source is upstream of Lower Towamba River Water Source, which experiences a medium level of stress from extraction. The cease to pump has been raised from 5 ML/day to 6.5 ML/day to alleviate this stress.
- Trade is now allowed into the water source, only if water is traded out – so that the maximum volume of entitlement is not more than 209 ML/year. This is to prevent an increase in stress from extraction in the water source.

## 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 Towamba River Water Sharing Plan and supporting fact sheets are available from the department’s [Public Exhibition website](#).