

## Report card for Bellinger River Water Source

### Background

Water source context		River flows	
<b>Area</b>	45.81 km <sup>2</sup>	<b>Low flow index*</b>	122 ML/day (80 <sup>th</sup> percentile of November [critical month] days)*
<b>Inflowing water source</b>	Never Never Creek, Thora—North Arm—Bellinger, Boggy Creek	<b>Flow records</b>	13 years—Bellinger River at Fosters Gauge (205016)
<b>Receiving water source</b>	Coastal Bellinger, Coastal Floodplain Alluvial	<b>Stream type</b>	Gaining
*80% of the time average daily flow exceeds 122 ML/day in the critical month of November and this represents low flows.			
Catchment boundary definition			
The Bellinger River Water Source is made up of the surface water and upriver alluvial within the hydrological catchment of Bellinger River at and between the confluence of Rosewood River and the tidal limit of the Bellinger River.			
Upriver alluvial aquifer description			
The upriver alluvial aquifer consists of medium to coarse grained sand, silts and gravel deposits. Groundwater from the aquifer is typically highly connected to the surface water. As a result of this connection, coupled with the coarser sediments, water quality is typically good with high yields potentially obtainable in some areas.			
<b>Groundwater Dependent Ecosystems</b>		Nil at commencement of the Plan.	
Licensed water entitlement			
<b>Total surface water entitlement</b>	901 ML/year.		
<b>Licences</b>	35 licences to access surface water.		
<b>Proportion of extraction management unit</b>	63% of the Bellinger River Catchment Extraction Management Unit.		
<b>Total groundwater entitlement</b>	70 ML/year.		
<b>Licences</b>	1 licence to access groundwater.		
Local water utility licence also exists in this water source—1300 ML/year under one local water utility license.			
Note: Estimated at January 2020.			

Existing access arrangements during dry conditions	
<b>Cease to take</b>	16 ML/day (95 <sup>th</sup> percentile).
<b>Take restrictions</b>	8 hours/day when flow is between 16 ML/day and 32 ML/day (80 <sup>th</sup> percentile).
<b>Reference point</b>	Bellinger River at Thora gauge (205002).

## Proposed recommendations

Draft access rules for surface waters	
<b>Cease to take</b>	Less than or equal to 56 ML/day (estimated 95 <sup>th</sup> percentile critical month), or when there is no visible flow at the location of take
<b>Commence to take</b>	24 hours after flows have returned above 56 ML/day.
<b>Take restrictions</b>	Take is permitted for a maximum 8 hours a day when flows are between 56 ML and 122 ML. Take is unrestricted when flow is greater than 122 ML/day
<b>Reference point</b>	Bellinger River at Fosters Gauge (205016).
<b>Exemptions</b>	Rule does not apply to licensed domestic and stock, local water utilities, pumping related to specific food or animal safety/care or extraction from dams in accordance with conditions of approval .

Draft access rules for groundwater	
<b>Cease to take</b>	Surface water cease to take rule applies.
<b>Commence to take</b>	Surface water commence to take rule applies.
<b>Exemptions</b>	Rule does not apply to licensed domestic and stock and town, local water utilities, pumping related to specific food or animal safety/care or extraction from take pool in accordance with conditions of approval.

Draft distance rules for groundwater	
<b>Distance rules</b>	A standard suite of rules have been adopted for the upriver alluvials. Distance criteria will apply to new and replacement bores (not current) in relation to: <ul style="list-style-type: none"> <li>• minimising interference between bores</li> <li>• protecting groundwater dependent culturally significant sites</li> <li>• contaminated sites</li> <li>• acid sulfate soils</li> <li>• basic landholder rights</li> <li>• protecting groundwater dependent sensitive environmental areas.</li> </ul>
<b>Exemptions</b>	Exemptions to these rules (e.g. for replacement works) apply in specific circumstances.

<b>Draft licence dealing rules</b>		
<b>Rules</b>	<b>Trade</b>	
	<b>Tidal Management Zone</b>	<b>Non-tidal Management Zone</b>
<b>INTO water source</b>	Permitted but only up to a maximum additional entitlement of 54 ML in this water source.	Permitted but only up to a maximum additional entitlement of 54 ML in this water source.
<b>WITHIN water source</b>	Permitted, subject to assessment.	Permitted, subject to assessment.
<b>Rules</b>	<b>Conversion</b>	
<b>Surface to ground</b>	Permitted.	
<b>Ground to surface</b>	Not permitted.	
<b>High flows</b>	Permitted.	
<b>Draft rules for granting access licences/works approvals</b>		
<b>Aboriginal cultural access licence</b>	Permitted, no greater than 10ML/yr. per application and subject to assessment.	
<b>Aboriginal community development access licence</b>	Permitted, subject to assessment.	
<b>In-river dams</b>	Permitted, subject to assessment.	
<b>Alluvial bore</b>	Permitted, subject to assessment and distance rules.	

## Key factors for decisions

- Medium instream value, low hydrologic stress and low risk to instream value.
- Commence to take rule adopted to promote instream value after very low flows have occurred.
- New flow reference point gauge was adopted for the water source, which is in a more suitable location.
- Applications for Aboriginal community development access licences accepted for consideration.
- Access rules for the Tidal Management Zone determined by Non-tidal Management Zone access rules.
- Trading rules and rules for granting new licences will apply to aquifer access licences.

## Public exhibition

Feedback is particularly sought on the suitability of the proposed access and trading rules.

The draft Bellinger River Area water sharing plan and other fact sheets are available from <https://www.industry.nsw.gov.au/water>