

Report card for Rosewood Creek Water Source

Background

Water source context		River flows	
Area	49.65 km ²	Low flow index*	8 ML/day (80 th percentile of August [critical month] days).*
Inflowing water source	None	Flow records	Approximately 32 years— 205019 Never Never Creek at Old Road Crossing (11 years) combined with 205014 Never Never Creek at Glennifer Bridge (25 years of data).
Receiving water source	Thora-North Arm Bellinger	Stream type	Gaining
*80% of the time average daily flow exceeds 48 ML/day in the critical month of August and this represents low flows.			
Catchment boundary definition			
All surface waters and alluvial aquifers in the hydrological catchment of Rosewood. The water source extends from the headwaters of Rosewood Creek to its confluence with 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.			
Groundwater Dependent Ecosystems		Groundwater dependent vegetation ecosystem are present.	
Licensed water entitlement			
Total surface water entitlement	11 ML/year.		
Licences	3 licences to access surface water.		
Proportion of extraction management unit	<1% of the Bellinger River Catchment Extraction Management Unit.		
Total groundwater entitlement	Nil.		
Licences	N/A		
Note: Estimated at January 2020.			

Existing access arrangements during dry conditions	
Cease to take	16 ML/day (95 th percentile), or when there is no visible flow at the point of take or in/out of the take pool.
Reference point	Bellinger River at Thora (205002).

Proposed recommendations

Draft access rules for surface waters	
Cease to take	Less than or equal to 4 ML/day.
Commence to take	24 hours after flows have returned above 4 ML/day.
Reference point	Never Never Creek at Old Crossing Gauge (205019).
Draft access rules for groundwater	
Cease to take	Surface water cease to take rule applies.
Exemption	Rule does not apply to licensed domestic and stock, 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	
Distance conditions	<p>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:</p> <ul style="list-style-type: none"> • minimising interference between bores • protecting groundwater dependent culturally significant sites • contaminated sites • acid sulfate soils • basic landholder rights • protecting groundwater dependent sensitive environmental areas
Exemptions	Exemptions to these rules (e.g. for replacement works) apply in specific circumstances.
Draft licence dealing rules	
Rules	Trade
INTO water source	Not permitted.
WITHIN water source	Permitted
Rules	Conversion
Surface to ground	Permitted.
Ground to surface	Not permitted.
High flows	Not permitted.

Draft rules for granting access licences/works approvals	
Aboriginal cultural access licence	Permitted, no greater than 10ML/yr. per application and subject to assessment.
Aboriginal community development access licence	Not permitted.
In-river dams	Permitted, only in streams less than third order, and subject to assessment.
Alluvial bores	Permitted, subject to assessment and distance rules.

Key factors for decisions

- High instream value, low hydrologic stress, low risk to instream value and low economic dependence.
- In-river dams prohibited in streams of third order or higher to protect high instream values.
- Trading rules are a result of high values of the water source.
- The alluvial aquifers in this water source are highly connected to their adjoining streams and alluvial groundwater extraction can have an impact on the river. As such, access rules apply to aquifer access licences extracting from the alluvial within 40 m of an unregulated river.

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>

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