

Report card for the Tia River Water Source

Water source context		River flows	
Area	33,089 hectares (30% forested)	Low flow index* (for December)	80th%ile = 15 ML/day (Source. Tia River gauge @ Tia)
Average annual rainfall	976 mm	Flow records	85 years of data (1927 to 2012) from Tia River gauge @ Tia. 10 years of data from Tia River gauge @ Riverglade (discontinued).
Inflowing water source	None	Stream type	Gaining
Receiving water source	Apsley Gorge	* 80 per cent of the time average daily flow exceeds 15 ML/day and this represents low flows.	

Background Information		
Water Source Attributes	Rating	Justification
Relative Instream Value (within catchment)	MEDIUM	- 3 threatened frog species. - significant area of National Park.
Hydrologic Stress	MEDIUM	- within water source = medium. - peak extraction demand is generally less than available flows in December.
Relative Economic Significance of Irrigation (within catchment)	MEDIUM	- medium economic dependence of the local community on water extracted for irrigation. - high value of production from irrigation.
Risk to Instream Value (from extraction)	MEDIUM	- instream values are at moderate risk of being impacted by extractions within the water source.
Licensed water entitlement		
Total surface water entitlement	708.5 ML/year.	
Licensed purpose	99% used for irrigation purposes, 1% other.	
Proportion of extraction management unit	3% of total Extraction Management Unit entitlement.	
These figures and estimates are as at October 2012.		
Existing access arrangements during dry conditions		
Pumping restrictions	8 hours/day at 10 ML/day.	
Cease to pump	No existing cease to pump.	
Reference point	Tia River Gauge @ Tia.	
Water user association	Tia River.	

Recommendations

Draft access rules for surface waters	
Cease to pump	2ML/day at the reference point (approximately the 97 th %ile). Note: This rule applies to all extraction from rivers and creeks in this water source including natural in-river pools within the channels of rivers and creeks.
Daily pumping restrictions	Daily pumping restrictions similar to existing access arrangements as follows: <ul style="list-style-type: none"> • 8 hours/day @ 10 ML/day or less (down to the cease to pump) at the reference point.
Reference point	Tia River Gauge @ Tia
Draft access rules for natural off-river pools	
Cease to pump	Pumping is not permitted when the water level in that natural off-river pool is lower than its full capacity. Note: 'Full capacity' can be approximated by the pool water level at the point where there is no visible flow into and out of that pool. Note: Natural off-river pools include those pools located on flood runners, floodplains and effluents e.g. lakes, lagoons and billabongs.
Reference point	Individual natural off-river pool.
Note: Existing <i>Water Act 1912</i> licence conditions that are more stringent than these access rules will be carried forward.	
Note: These access rules do not apply to: <ul style="list-style-type: none"> - Local water utility access licences - Town water supply access licences - Stock and domestic licences for the first three years of the plan (provided that extraction for stock purposes does not exceed 14 litres per hectare of grazeable area per day) - Water taken from existing dams. Any existing licence conditions associated with a dam will be carried over when the licence is converted under the <i>Water Management Act 2000</i>. 	
Draft trading rules	
INTO water source	Permitted, only if the total licensed entitlement in the water source does not increase (no net gain) from, Apsley Gorge, Apsley River, Bakers Creek, Blue Mountain Creek, Chandler Gorge, Chandler River, Christmas Creek, Coastal Macleay, Collombatti Creek, Commissioners Waters, Dungay Creek, Dyke Creek, Euroka Creek, Five Day Creek, Gara River, Georges River, Gills Bridge Creek, Green Gully, Hickeys Creek, Kunderang Creek, Macleay Gorges, Macleay Valley, Malpas Dam, Mungay Creek, Nulla Nulla Creek, Oaky River, Salisbury Waters, Stockyard Creek, Styx River, Toorumbie Creek, Warbro Creek, Yarrowitch River.
WITHIN water source	Permitted, subject to assessment.
Draft rules for granting access licences	
In-river dams	Not permitted, subject to assessment. Note: Dams require a licence if they are located on a permanent (spring fed) first or second order stream, a third order (or greater) stream, or if they exceed the maximum harvestable right dam capacity for the property.
Aboriginal community development	Permitted up to a total volume of 363ML (commence to pump of 66 ML/day (50th%ile flow (all months)) at the Tia River gauge @ Tia

Conversion to high flows	Not permitted.
Conversion to alluvial aquifer access licence	N/A.

Key factors for decisions

- Medium instream value, medium hydrologic stress, medium risk to instream value and medium economic dependence.
- It is recommended an access rule to ensure an end of system flow due to the presence of one endangered flow dependent frog (Booroolong Frog) and one vulnerable flow dependent frog (Glandular Frog). Note. The endangered flow dependent Stuttering Frog is also thought to be present in the water source.
- It is also sought to ensure that there was a visible flow end of system
- It is recommended pumping restrictions to increase the amount and duration of flow and to reduce the potential social impacts caused by competition between users for water.

Public exhibition

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

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Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (October 2014). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of the Department of Primary Industries or the user's independent adviser.

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