

## Report card for the Coastal Macleay Water Source

Water source context		River flows	
Area	73,543 hectares (32% forested)	<b>Low flow index*</b> (for November)	80th %ile inflow = 203 ML/day (Source. Macleay River @ Turners Flat (206011)) (open). NOW 2012. Out of water source.
Average annual rainfall	1,457 mm	<b>Flow records</b>	67 years of data (1945 - 2012) from Macleay River @ Turners Flat Gauge.
Inflowing water source	Collombatti Creek, Christmas Creek, Macleay Valley, Euroka Creek, Gills Creek Bridge	<b>Stream type</b>	Estuarine with tidal pool in upper reaches.
Receiving water source	None	* 80 per cent of the time average daily flow exceeds 203ML/day ML/day and this represents low flows.	

### Background Information for Non-Tidal Area

Water Source Attributes	Rating	Justification
Relative Instream Value (within catchment)	<b>HIGH</b>	<ul style="list-style-type: none"> <li>- 5 threatened frog species.</li> <li>- 8 threatened bird species.</li> <li>- 1 threatened wet flora species</li> <li>- significant area of National Park.</li> </ul>
Hydrologic Stress	<b>N/A</b>	- N/A.
Relative Economic Significance of Irrigation (within catchment)	<b>MEDIUM</b>	- medium economic dependence of the local community on water extracted for irrigation.
Risk to Instream Value (from extraction)	<b>N/A</b>	- Risk cannot be calculated due to no hydrologic stress rating.

### Background Information for Tidal Area\*

\* Comprises the tidal pool part of the water source that occurs on the trunk of the Macleay River only.

Water Source Attributes	Rating	Justification
Inflow Sensitivity	<b>MEDIUM</b>	- medium sensitivity of estuary to inflows (low flows) from the upstream catchment.
Estuary Value	<b>MEDIUM</b>	<ul style="list-style-type: none"> <li>- 1 threatened frog species.</li> <li>- 12 threatened bird species.</li> <li>- significant area of National Park.</li> </ul>
Hydrologic Stress	<b>N/A</b>	- N/A.

<b>Relative Economic Significance of Irrigation (within catchment)</b>	<b>MEDIUM</b>	<ul style="list-style-type: none"> <li>- medium economic dependence of the local community on water extracted for irrigation.</li> <li>- high value of production from irrigation.</li> </ul>
<b>Risk to Estuary Value</b>	<b>MEDIUM</b>	<ul style="list-style-type: none"> <li>- estuary values are at moderate risk from extractions within the tidal pool.</li> </ul>
<b>Licensed water entitlement</b>		
<b>Total surface water entitlement</b>	1,840 ML/year*. * Note. Approximately 1, 250ML of the 1, 840 ML/year is held in the vicinity of the tidal pool.	
<b>Licensed purpose</b>	86% for irrigation, 11% for industrial.	
<b>Proportion of extraction management unit</b>	8% of total entitlement in the Extraction Management Unit	
These figures and estimates were made in September 2012.		
<b>Existing access arrangements – Non-Tidal Area</b>		
<b>Pumping restrictions</b>	No existing access arrangements.	
<b>Cease to pump</b>	No existing cease to pump.	
<b>Existing access arrangements –Tidal Area</b>		
<b>Pumping restrictions</b>	12, 10, 8 and 6 hours/day between the 89 <sup>th</sup> and 96 <sup>th</sup> %iles.	
<b>Cease to pump</b>	8 ML/day (98 <sup>th</sup> %ile).	
<b>Reference point</b>	Macleay River Gauge at Turners Flat.	
<b>Water user association</b>	Macleay River.	

## Recommendations

<b>Draft access rules for surface waters (Non-Tidal Management Zone)</b>	
<b>Cease to pump</b>	<p>Pumping is not permitted from natural pools when the water level in the pool is lower than its full capacity.</p> <p><b>Note:</b> '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.</p> <p><b>Note:</b> Natural pools include in-river pools found within the channels of rivers and creeks and off-river pools located on flood runners, floodplains and effluents e.g. lakes, lagoons and billabongs.</p> <p><b>Note:</b> For the minority of pump sites not within a natural pool, these licences will be required to cease to pump when there is no visible flow at that pump site.</p>
<b>Reference point</b>	Individual natural pool.

<b>Draft access rules for surface waters (Tidal Management Zone *)</b>	
<b>* Comprises the tidal pool part of the water source that occurs on the trunk of the Macleay River only.</b>	
<b>Cease to pump</b>	<p>Years 1-3: 13ML/day (approximately the 98th%ile).</p> <p>Years 4-6: 19ML/day (approximately the 97th%ile).</p> <p>Years 7-10: 30ML/day (approximately the 96th%ile).</p> <p><b>Note:</b> These rules apply to all extraction from the tidal area (reach of Macleay River) including natural in-river pools within the channel of Macleay River. There are no off-river pools in this management zone.</p> <p><b>Note:</b> The Panel supported implementing a salinity based CtP for access to the Tidal Management Zone (measured as electrical conductivity) should sufficient data become available to guide establishment of a suitable monitoring site and salinity threshold on which to base a CtP.</p> <p>In the absence of sufficient data the Panel supported the inclusion of an amendment provision in the plan that provides the flexibility to transition to a salinity based CtP should sufficient data become available during the life of the plan.</p> <p>Stakeholders will be consulted over a suitable threshold prior to changing to a salinity based CtP. It is the NOWs view that any CtP threshold should be set at a level that ensures the extent and location of the tidal pool remains unchanged for at least 95% of the time.</p>
<b>Reference point</b>	Macleay River Gauge at Turners Flat (206011).
<p><b>Note:</b> Existing <i>Water Act 1912</i> licence conditions that are more stringent than these access rules will be carried forward.</p> <p><b>Note:</b> These access rules do not apply to:</p> <ul style="list-style-type: none"> <li>- Local water utility access licences</li> <li>- Town water supply access licences</li> <li>- 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)</li> <li>- 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>.</li> </ul>	
<b>Draft trading rules for surface waters (Non-Tidal Management Zone)</b>	
<b>INTO management zone</b>	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, 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, Tia River, Toorumbie Creek, Warbro Creek, Yarrowitch River.
<b>WITHIN management zone</b>	Permitted, subject to assessment.

<b>Draft trading rules for surface waters (*Tidal Management Zone)</b>	
* Comprises the tidal pool part of the water source that occurs on the trunk of the Macleay River only.	
<b>INTO management zone</b>	<p>Permitted, but only up to a maximum of between 500ML and 1 000ML of surface water entitlement from, Apsley Gorge, Apsley River, Bakers Creek, Blue Mountain Creek, Chandler Gorge, Chandler River, Christmas Creek, 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, Tia River, Toorumbec Creek, Warbro Creek, Yarrawitch River.</p> <p><b>SPECIFIC COMMENT SOUGHT:</b></p> <p>It is the NOWs view that the tidal pool can accommodate additional extraction without adversely impacting on existing users and water source values, of between 500ML and 1000ML per year.</p> <p>Specific comment is sought from stakeholders on an appropriate level of entitlement (between 500ML and 1000ML) that may be traded into the management zone and potentially extracted. Matters for consideration include:</p> <ul style="list-style-type: none"> <li>• The NOW considers an increase of up to 1 000ML of the level of surface water entitlement on commencement of the plan unlikely to impact on existing users and/or management zone values.</li> <li>• The water source is at the bottom end of the catchment so all entitlement traded in would come from connected upstream water sources and therefore hydrological stress on the system will not be increased.</li> </ul>
<b>WITHIN management zone</b>	Permitted, subject to assessment.
<b>Draft rules for granting access licences (*Tidal and Non-Tidal Management Zones)</b>	
* Comprises the tidal pool part of the water source that occurs on the trunk of the Macleay River only.	
<b>In-river dams</b>	<p>Not permitted, due to high conservation values.</p> <p><b>Note:</b> 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.</p>
<b>Aboriginal community development</b>	Not permitted due to the absence of a gauge.
<b>Conversion to high flows</b>	Not permitted due to the absence of a gauge.
<b>Conversion to alluvial aquifer access licence</b>	Permitted, subject to assessment.

## Key factors for decisions

- a consistent set of access rules for the Macleay Valley and Coastal Macleay Water Sources and a consistent cease to pump is recommended.



## Public exhibition

The Panel particularly seeks feedback from members of the public on:

- The amount of entitlement that may be traded into the tidal management zone of the water source.
- Proposed cease to pump and trading rules

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