

## Report card for the Styx River Water Source

| Water source context    |                                | River flows   |  |
|-------------------------|--------------------------------|---|--|
| Area                    | 29,495 hectares (76% forested) | <b>Low flow index*</b><br>(for December)  | 80th%ile = 25 ML/day<br>(Source. Styx River Gauge at Jegola (206001). (NOW 2012). (open).  |
| Average annual rainfall | 1,098 mm                       | <b>Flow records</b>   | 90 years of data (1918 to 2012) from Styx River gauge @ Jeogla.<br><br>33 years of data from Serpentine Creek gauge @ Causeway (Hatchery) (discontinued).<br><br>29 years of data from Styx River gauge @ Serpentine (Hyatts Flat) (discontinued). |
| Inflowing water source  | None                           | <b>Stream type</b>  | Gaining  |
| Receiving water source  | Chandler Gorge                 | * 80 per cent of the time average daily flow exceeds 25 ML/day and this represents low flows. |  |

| Background Information  |   |   |
|---|---|---|
| Water Source Attributes   | Rating  | Justification   |
| Relative Instream Value (within catchment)                      | <b>HIGH</b>   | - 8 threatened frog species.<br>- significant area of National Park.  |
| Hydrologic Stress   | <b>LOW</b>  | - within water source = low.<br>- peak extraction demand is significantly less than available flows in December.                      |
| Relative Economic Significance of Irrigation (within catchment) | <b>MEDIUM</b>   | - medium economic dependence of the local community on water extracted for irrigation.<br>- high value of production from irrigation. |
| Risk to Instream Value (from extraction)                        | <b>LOW</b>  | - instream values are at low risk of being impacted by extractions within the water source.   |
| Licensed water entitlement                                      |   |   |
| Total surface water entitlement                                 | 213 ML/year.  |   |
| Licensed purpose  | 81% used for irrigation, 7% used for industrial, 12% other. |   |
| Proportion of extraction management unit                        | 1% of total Extraction Management Unit entitlement.         |   |
| These figures and estimates were made in September 2012.        |   |   |

| Existing access arrangements |                            |
|------------------------------|----------------------------|
| Pumping restrictions         | 8 hours/day at 15 ML/day.  |
| Cease to pump                | No existing cease to pump. |
| Reference point              | Styx River gauge @ Jeogla. |
| Water user association       | None.                      |

## Recommendations

| Draft access rules for surface waters  |   |
|--|---|
| Cease to pump  | <ul style="list-style-type: none"> <li>- Years 1-5: 7ML/day (approximately the 98th%ile).</li> <li>- Years 6-10: 10ML/day (approximately the 95th%ile).</li> </ul> <p><b>Note:</b> 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.</p> <p><b>Note:</b> A trout farm located on Serpentine Creek requires ongoing and continuous access to water to maintain stock. The Panel recommended that the trout farm be exempt from the standard cease to pump rules and an appropriate rule be developed in consultation with the operator and the NOWs Pools Policy.</p> |
| Reference point  | Styx River gauge @ Jeogla (206001).   |
| Draft access rules for natural off-river pools   |   |
| Cease to pump  | <p>Pumping is not permitted when the water level in that natural off-river 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 off-river pools include those pools located on flood runners, floodplains and effluents e.g. lakes, lagoons and billabongs.</p>   |
| Reference point  | Individual natural off-river pool.  |
| <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> |   |
| Draft trading rules  |   |
| INTO water source  | Not permitted.  |
| WITHIN water source  | Permitted, subject to assessment.   |
| Draft rules for granting access licences   |   |
| In-river dams  | Not permitted.  |
| Aboriginal community development   | Permitted up to a total volume of 230 ML (commence to pump of 110 ML/day (50th%ile flow (all months)) at the Styx River Gauge @ Jegola (206001).  |

|  |                |
|--|----------------|
| <b>Conversion to high flows</b>                      | Not permitted. |
| <b>Conversion to alluvial aquifer access licence</b> | N/A.           |

## Key factors for Panel decisions

- High instream value, low hydrologic stress, low risk to instream value and medium economic dependence.
- Panel recommended a more stringent access rule than that identified through the classification process due to the presence of the three threatened flow dependent frog species (Booroolong Frog, Glandular Frog and the Stuttering Frog) and the lifting of existing pumping restrictions.
- A trout farm is located on Serpentine Creek. The trout farm requires ongoing and continuous access to water to continue historic operations. The Panel agreed to exempt the trout farm from the general cease to pump rules and recommended that arrangements be developed in line with the NOWs Pools Policy.

## Public exhibition

The Panel particularly seeks feedback from members of the public 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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