

Report card for Kalang River Water Source

Background

| Water source context | | River flows | |
|--|---|---|---|
| Area | 210.82 km ² | Low flow index* | 122 ML/day (80 th percentile of November [critical month] days).* |
| Inflowing water source | Spicketts Creek | Flow records | 13 years—Bellinger River at Fosters Gauge (205016). |
| Receiving water source | Coastal Kalang | Stream type | 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 Kalang River Water Source comprises all surface waters and alluvial aquifers of the hydrological catchment of Kalang River at and above the tidal limit. Small tributaries comprised in the water source include Roses Creek, Woodys Creek, Middle Camp Creek and Bean Creek. The water source intersects Juugawaarri Nature Reserve, Gladstone State Forest and Roses Creek State Forest. | | | |
| 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 present. | |
| Licensed water entitlement | | | |
| Total surface water entitlement | 18 ML/year. | | |
| Licences | 2 licences to access surface water. | | |
| Proportion of extraction management unit | 1% of the Bellinger River Catchment Extraction Management Unit. | | |
| Total groundwater entitlement | 3 ML/year. | | |
| Licences | 1 licence to access groundwater. | | |
| Note: Estimated at January 2020. | | | |

| Existing access arrangements during dry conditions | |
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| Cease to take | 4 ML/day (98 th percentile), or when there is no visible flow at the point of take or in/out of the take pool. |
| Reference point | Sunny Corner Road (staff gauge). |

Proposed recommendations

| Draft access rules for surface waters | | |
|---------------------------------------|---|---|
| Conditions | Tidal Management Zone | Non-tidal Management Zone |
| Cease to take | Less than or equal to 43 ML/day (estimated 98 th percentile critical month) or when there is no visible flow at the point of take. | Less than or equal to 43 ML/day (estimated 98 th percentile critical month) or when there is no visible flow at the point of take. |
| Commence to take | 24 hours after flows have returned above 43 ML/day. | 24 hours after flows have returned above 43 ML/day. |
| Reference point | Bellinger River at Fosters Gauge (205016). | Bellinger River at Fosters Gauge (205016). |
| Exemptions | 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 | | |
| Cease to take | Surface water cease to take rule applies. | |
| Commence to take | Surface water commence to take rule applies. | |
| Exemption | Rule does not apply to licensed domestic and stock and 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.</p> <p>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 | |
| | Tidal Management Zone | Non-tidal Management Zone |
| INTO water source | Permitted from Spicketts Creek only. | Permitted, from Spicketts Creek only. |
| WITHIN water source | Permitted, subject to assessment. | Permitted, subject to assessment. |
| Conversion | | |
| Surface to ground | Permitted. | |
| Ground to surface | Not permitted. | |
| High flows | 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 licences | Permitted, subject to assessment | |
| 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 due to high instream values.
- This water source is now referenced to a telemetered gauge.
- High flow licence conversion applications accepted due to the use of a telemetered flow reference point.
- Applications for Aboriginal community development licenses accepted for consideration.
- 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 40m 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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