

Gingin groundwater allocation plan newsletter

The Department of Water is reviewing and updating the 2002 Interim Gingin groundwater allocation plan. As part of this process we will be producing a series of newsletters to keep you informed of coming events and to provide updates on key issues.

In this edition, please find a brief summary of the recent public consultation meetings and an overview of the recently published report, *Groundwater and surface water interaction along Gingin Brook (2011)*.

To register for upcoming public forums, propose an issue you would like to see covered in an upcoming newsletter, or for more information on the planning process, please contact the Department of Water's Allocation Planning section at <u>allocation.planning@water.wa.gov.au</u>.

For an electronic copy of this newsletter and all Gingin reports, visit our Gingin groundwater allocation plan <u>webpage</u>.

I thank everyone for taking the time to come along to the community information sessions mentioned below to learn more about the groundwater systems in the Gingin area and raise your concerns. I hope you find this newsletter informative.

Don Cummins Regional Manager

Community information session update

Community information sessions about the upcoming *Gingin groundwater allocation plan* were held from 23 to 25 February in Gingin, and on 14 April in the Shire of Dandaragan. Over eighty community members attended the sessions, indicating the high level of interest in the progression of this allocation plan. Presentations were given on the hydrogeology of the Gingin area, along with an overview of the planning process. Regional licensing staff also took questions from participants

Comments raised on the day indicated some of the common areas of interest include:

- declines in wetlands and groundwater dependant ecosystems
- recent low flows in the Gingin Brook and Moore River
- effects of reduced rainfall on future allocations and surface waters
- · population growth predictions for Gingin and coastal areas
- departments working together on issues of water availability, and communication between the department and licensees
- public water and other large abstractions, and their integration into local allocation planning and
- licensing policies and reporting.

Groundwater- surface water interaction along Gingin Brook

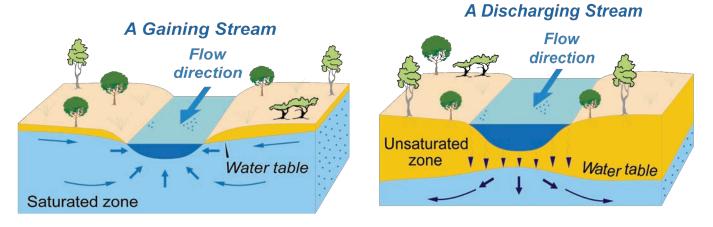
In the February community forum, there was interest in the results of a recent study conducted by the department on the interaction between ground and surface waters along the Gingin Brook. A summary is provided below and the <u>full report</u> is available on our website at <u>www.water.gov.au</u>.

Surface water expressions, including streams, rivers, springs, damplands and wetlands, are valuable ecological and cultural features in a landscape. There are many significant surface water expressions in the Gingin planning area that support important social and environmental values, including the Gingin Brook.

Surface waters interact with groundwater by either being:

- fed by groundwater seeping upwards (a gaining stream); or
- discharged to the aquifer beneath them (a discharging stream).

Both types of connections are found along the Gingin Brook. The brook gains water from the superficial and Leederville aquifers in the middle and lower sections below the Wallering Brook confluence, and from the Mirrabooka aquifer in the upper catchment north and east of the Gingin townsite.



On the Pinjarra Plain, the brook loses water to the superficial aquifer in sandy soils or is perched where the soils are clay rich. Where aquifers are 'disconnected' from the brook on the Pinjarra Plain, summer baseflow is diminished.

Effects on management of groundwater in Gingin:

Gaining streams:

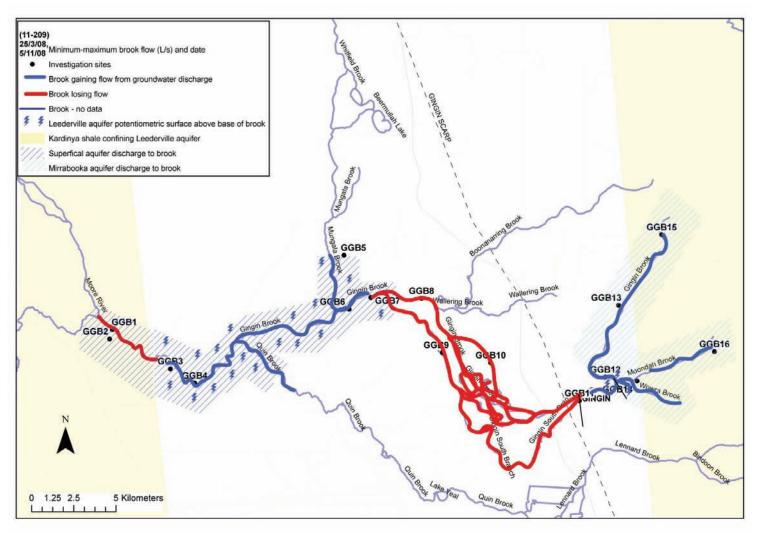
- Gaining streams require contact with the water table, so that groundwater will continue to seep into them and support stream baseflow.
- The department monitors bores in these areas to ensure groundwater levels are maintained and not unsustainably declining due to abstraction.

Discharging streams:

- These features help water enter or 'recharge' our aquifers.

In all streams we need to ensure we manage both the ground and surface water systems to maintain minimum 'environmental flows', especially during periods of low rainfall.

Map showing connection types along the Gingin Brook:



What is an allocation plan?

Allocation plans detail how much water is available for sustainable use within an area and how water use is managed. Consultation is important to clarify water use issues and how these can best be managed.

Allocation plans establish water allocation limits and licensing rules for the proclaimed area consistent with the licensing powers of the *Rights in Water and Irrigation Act 1914.* Groundwater and surface water plans are often presented separately but their management is interconnected.

Gingin groundwater allocation plan community information sessions

Find out about proposed allocation limits and local licensing rules for your area. Sessions will be held in the upcoming months. To register to receive email or postal notification of these sessions please contact: <u>allocation.planning@water.wa.gov.au</u>

The Gingin surface water allocation plan

The 2011 *Gingin surface water allocation plan* details rules for the take of surface waters in the Gingin area, and also lists environmental strategies. This draft plan is available on our <u>website</u>.