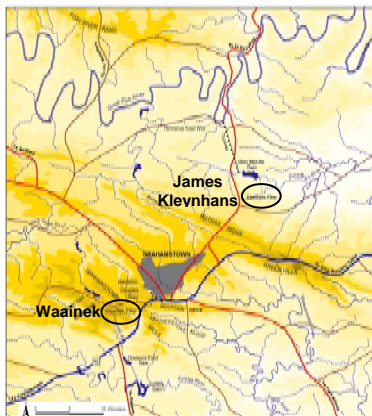


## Where does our water come from?

Grahamstown has two bulk water supplies linked to two completely different river systems (see maps):

### - **Kariega River system:**

This feeds the Settlers and Howisons Poort dams (in Thomas Baines Nature Reserve). The water is fairly clear and low in mineral salts. It is pumped to the Waainek Water Treatment Works, south west of Grahamstown.



Map supplied by Gillian McGregor



### - **Gariep/Fish River system:**

This makes use of Orange (Gariep) River water which is diverted via a long tunnel to the Fish River. It is turbid (cloudy), high in mineral salts and less pleasant tasting. It is taken off at a weir and flows via a tunnel to the Glen Melville

Dam, then is pumped into the James Kleynhans Water Treatment Works, north east of Grahamstown.

## How does our drinking water reach us?

Water from these treatment works is piped into different parts of Grahamstown. This depends on supply dam levels, the state of water mains, and other factors. Makana's ageing infrastructure contributes to huge water losses (some experts estimate about 30%) and theft of copper piping doesn't help. In some areas where water is piped uphill, the low pressure causes frequent water cuts. These factors make the supply uneven and sometimes unreliable.

## What is the chance of running out?

Grahamstown lies on the edge of the Karoo. Rainfall is unreliable, ranging from about 400 – 940 mm per year. Periodic droughts result in very low dam levels at times. A growing population also puts pressure on limited water supplies. Some people think that Makana can simply take more and more Gariep River water, but the Department of Water Affairs has already allocated all this water.

Water restrictions will always be part of life in Grahamstown, especially during dry periods. If water resources are not managed and used responsibly, water shortages will worsen.

## What's in our water?

Makana Municipality drinking water quality varies considerably, and has sometimes dropped below required SANS 241 limits (SA National Standards: guidelines for safe drinking water - limits for chemicals, micro-organisms, etc). Grahamstown's 2010 **Blue Drop** score was just 36%, and Makana's average a shocking 28%. This is mainly due to poor management and unskilled staff. Makana has since signed a contract with the Amatola Water Board to provide assistance with water quality monitoring and certain actions required for bulk water operations. Makana's 2011 **Blue Drop** score improved to 55%. The desired score: 97%.

## Water quality information

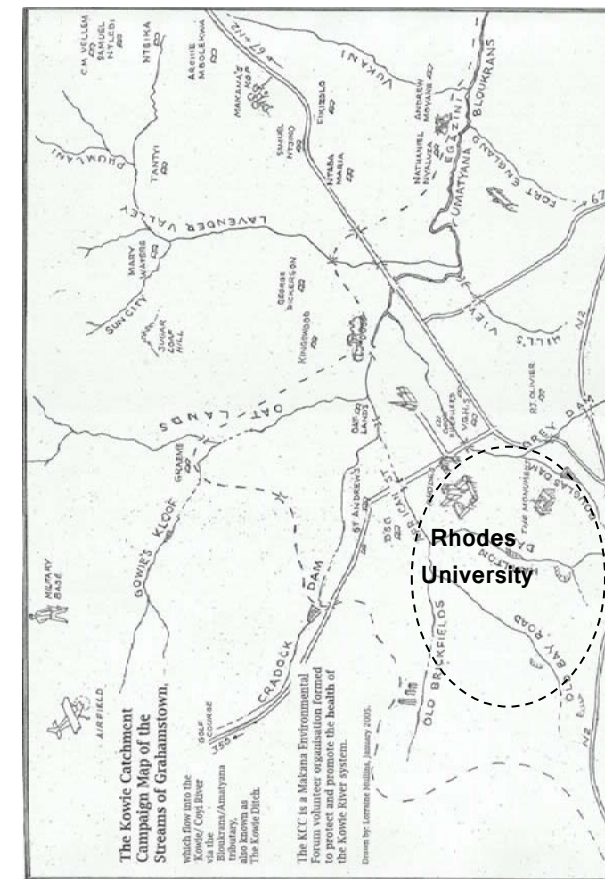
Grahamstown water quality test results are generally available at [www.makana.gov.za](http://www.makana.gov.za). The **Blue Drop** system allows the Dept of Water & Sanitation to regulate municipal drinking water quality management, from water treatment works to tap, as well as assets, plans for potential breakdowns in the system, etc. See [www.dwaf.gov.za](http://www.dwaf.gov.za) - click on "My Water".

Independent Grahamstown water quality test results, provided by the Environmental Health and Biotechnology Research Group, are posted on the KCC website [www.kowiecachmentcampaign.org.za](http://www.kowiecachmentcampaign.org.za).



## Why should we care?

We all live in a river catchment, no matter where we are. Grahamstown was established in a valley that has many small streams - also called the 'Kowie Ditches'. These run into the upper reaches of the Bloukrans/Amatyana River, which flows into the Kowie/iQoyi River. Most of Grahamstown's 'streams' are highly modified and carry unacceptable levels of pollution – sewage leaks, spilled oil, chemicals, and vast amounts of litter – downstream.



Belmont Valley farmers draw from this river system to irrigate vegetables and food crops, which may end up on our own dinner plates! Further down, Bathurst and Port Alfred communities draw from the Kowie River for drinking water supplies. Damage to streams and river catchments means damage to our health and wellbeing.

## For Love Of Water @ RU

**FIND OUT MORE:** get “water-wise”, find out about your local water supply. Useful local resources:

- Research and Learning: RU Institute for Water Research (IWR), RU Environmental Health and Biotechnology Research Group, Albany Museum, Dept of Environmental Science, Catchment Research Group (CRG), Institute for Environmental Biotechnology Rhodes University (EBRU), RU Environmental Learning Research Centre (ELRC), KCC [www.kowiecachmentcampaign.org.za](http://www.kowiecachmentcampaign.org.za) online publication “Grahamstown's Water Supply - a Brief History 1812-2008”.
- Tips for water-saving & rainwater harvesting: visit [www.ru.ac.za/greenliving/action/waterwise](http://www.ru.ac.za/greenliving/action/waterwise) & links
- Other water resources: [www.ru.ac.za/environment](http://www.ru.ac.za/environment) & links such as [resources/waterresources](#) & [resources/local/watersupply](#)

**LINK UP:** with experts, colleagues, friends and family to find out what can and is being done.

- Local organisations: Kowie Catchment Campaign (KCC), SEACC Student Forum, Galela Amanzi.
- Regulatory bodies: Dept of Water & Sanitation (DWS), Amatola Water Board.

**OBSERVE:** keep an eye open for leaks, misuse, mismanagement.

- Report: Toll free numbers **080 111 4444, 080 111 8888**

**WALK THE TALK:** don't just talk, **do something** about it!



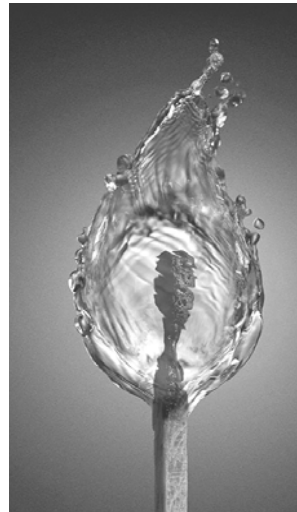
## What can we do?

Civil society needs to monitor and hold public service providers accountable. This is especially important in Makana where the municipality is both ‘referee and player’ - Water Service Authority and Water Service Provider.

Ignoring an issue because you are only planning to stay for a few years in a town does not help you or the community. Wherever you go, similar water problems exist.

Buying bottled drinking water is a temporary and unsustainable solution, is expensive, and creates mountains of plastic waste. Rethink what you do.

**Become part of the solution.**



**FLOW at RU** is a Rhodes University student initiative, in collaboration with local research and learning facilities, environmental bodies, and the RU Safety, Health & Environmental Officer. This pamphlet aims to inform students, staff and community about Grahamstown's water, so that they can make responsible choices.

**For more info:**

[srcenvironmental@ru.ac.za](mailto:srcenvironmental@ru.ac.za) and [environment@ru.ac.za](mailto:environment@ru.ac.za)

## Grahamstown's Water

