

Q&A

River Health Ecological Monitoring Program - Report Card 2015-16

What does this Report Card show?

- This Report Card presents the results from monitoring over 2015-16 for both the freshwater sub-catchments and the estuarine part of the Georges River (Liverpool weir to Botany Bay). It is based on scientists collecting data to provide a catchment scale assessment of three river health indicators: water quality, vegetation along river banks and macroinvertebrates. The results provide an indicative condition of the site at the time of sampling.
- The Report Card shows the overall Georges River Freshwater and Estuary grade is C+. This indicates a slight decline in ecological condition over the past few years. However, this result does not indicate significant change and the overall ecological condition of the catchment remained 'Fair'.
- There were periods of intense rainfall & flooding in the Georges River and in urban creeks throughout the catchment. This resulted in degraded water quality caused by an influx of stormwater.
- Highly urbanised areas of the Georges River catchment continue to be impacted by stormwater runoff and degraded vegetation along the river banks, which is reflected in the grades.
- Large areas of the upper reaches of the Georges River catchment with intact native forests, remain in good to excellent condition.
- The overall Georges River estuary grade was "C+", this equates to a 'Fair' condition for the area between Liverpool Weir & the estuary mouth at Botany Bay. The upper estuary recorded a decline in water quality, as it is heavily influenced by stormwater influxes from highly urbanised areas, and was more susceptible to temporary increases in algal blooms. Whereas, the lower estuary is regularly flushed by tides and the water quality recorded was the same or improved on previous years.
- Ecosystem health is being monitored to determine the condition of waterways, allowing land managers to identify areas requiring further investigation.
- The community has been very supportive and integral to the delivery of the program. They have also been involved in a number of sampling events.
- The GRCCC are playing a leading role in bringing partners, including local councils, the community, government stakeholders and universities together to improve the river as a whole on a regional scale.
- The River Health Program receives ongoing funding by GRCCC member Councils.

Where is the Georges River Catchment?

The catchment is defined as the whole area of land which drains into the Georges River. The Georges River starts near Appin, approximately 60km south-west of Sydney, and then flows north towards Liverpool, and then east into Botany Bay. The catchment covers an area of approximately 960km² and is one of the most highly urbanised catchments in Australia with over 1.2 million people living within it.

What do changes in the grade represent?

Grade fluctuations reflect changed conditions at the site and time of sampling. This can be due to natural variation, level of catchment disturbance or pollution events.

What are the primary threats impacting the health of the river?

Primary threats are urban stormwater runoff, loss of vegetation and industrial discharge including sewage wastewater. A high degree of urbanisation within the lower and middle Georges River catchment has resulted in a loss of vegetation and an increase in hard surfaces (concrete, bitumen, etc), resulting in an increase in nutrient and pollution enriched rainwater (stormwater) and also soils and sediments running off into the river. In addition, increased industrial and residential pressure contributes to erosion and the loss of biodiversity along the riverbanks.

Why are macroinvertebrates (commonly known as ‘waterbugs’) used to indicate ecological health?

Macroinvertebrates have relatively long life cycles and are sensitive to changes in the ecosystem. The presence or absence of pollution-sensitive macroinvertebrate species gives us an indication of past and present water quality conditions.

Who collected the information?

Field data is collected and analysed by the GRCCC qualified environmental scientist. Council staff and members of the local community are also trained in field sampling techniques and collection during community days. Since 2009, community volunteers have contributed 4,900 hours to the program, which included training and sampling.

How is the data being used?

Councils across the Georges River catchment have used the data to identify on ground works needed to improve water quality and vegetation along river banks and for environmental reporting and planning purposes.

Why do we need a ‘snapshot’ of river health?

This ‘snapshot’ provides a reference point from which a greater understanding of the catchment can be gained. This will further help GRCCC member councils identify areas where investments in stormwater and environmental restoration can be of most benefit. The program is an instrument to drive community action and on ground works to protect and improve the Georges River. The collection of data on a regional scale is the only way to develop a consistent approach to sampling and a comprehensive understanding of the factors affecting the Georges River catchment as well as the broader Botany Bay catchment.

Do these results mean the river is safe for swimming?

This study is designed to give an indication of ecosystem health and is not relevant to human health or recreational usage. The sampling that was undertaken measures parameters that are specific to aquatic ecosystem condition only.

What’s next?

- River Health monitoring will continue to be undertaken by GRCCC staff
- Community volunteers are encouraged to get involved in sampling and will be trained by our staff
- A public community sampling day will be held during the forthcoming sampling season in Autumn 2017. Volunteers can contact the GRCCC to register their interest in participating (email: info@georgesriver.org.au).
- River Health volunteers will be equipped with the knowledge and skills to perform scientifically rigorous ecosystem monitoring
- Children accompanied by their parents who will be responsible for their behaviour and safety can attend public sampling events
- Community participants must have at least a medium level of fitness and anyone from any area can participate

Who is the GRCCC?

The Georges River Combined Councils' Committee Inc was formed in 1979 by councils with a collective responsibility for the health of the Georges River Catchment. The GRCCC represents local government in the Georges River Catchment of NSW. Member councils include Bayside Council, Sutherland Shire, Georges River Council, City of Canterbury-Bankstown, Liverpool City, Fairfield City, Campbelltown City and Wollondilly Shire councils. The GRCCC is proudly hosted by Georges River Council, 2009-2020.