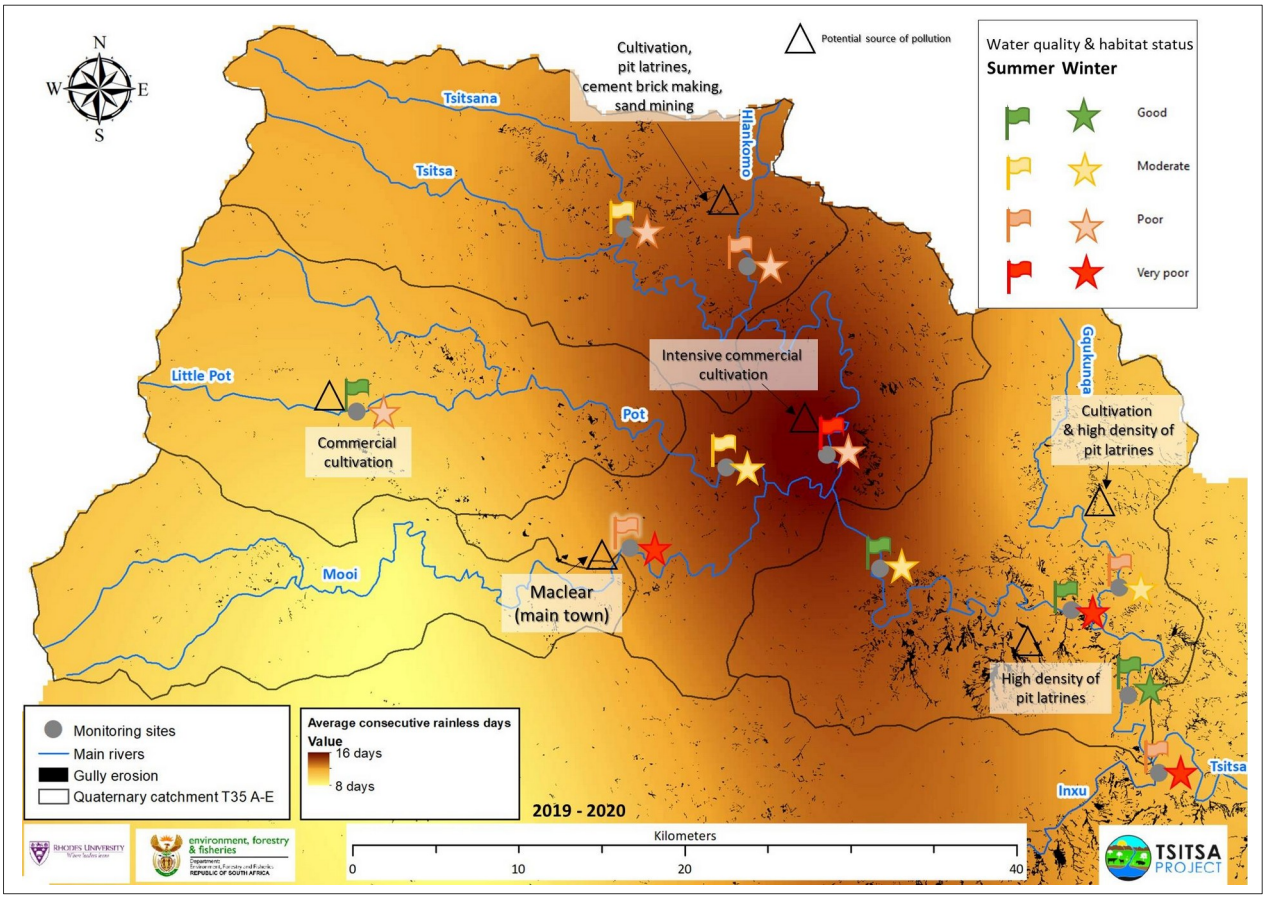
What is happening with water quality in the Tsitsa Catchment?

Water quality is being monitored by the Tsitsa Project at 11 river monitoring sites. The quality of the water is measured using a widely used scientific method for measuring river health, called the South African Scoring System (SASS). This method uses the kinds of invertebrates living in the water to show whether the river is healthy or not.

River health was measured in 2019 (in April), and again in 2020 (in August, because of COVID travel restrictions). The results are shown on the map below. The flags show results from 2019. Green flags mean the site was in a good condition, while yellow means it was “moderate”, orange means “poor” and red means “very poor”. You can see that in 2019, 4 sites were in good condition, 2 were in fair condition, 3 were in poor condition and 2 were in very poor condition.

The stars on the map show the results for 2020. You can see that river health was worse in August 2020, compared to April 2019. Only one site remained in good condition in 2020. The biggest change (from “good” to “very poor”) was recorded in the lower part of the catchment.



Should we be worried?

Firstly, it is important to note that the measurements were made in different seasons (summer vs winter). In winter, habitat condition for water invertebrates is reduced by cold water temperatures and low river flows, which leads to siltation and accumulation of pollution from wastewater plants and agriculture. In summer, there are different factors that affect the results. For example, high rainfall can lead to soil erosion and a high load of sediment in the water.

The researchers who collected the data feel that we do not yet know enough to know if we should be worried. We need to collect more data to understand what is the normal pattern, and what might be causing the changes.

What do you think?

Have you noticed any changes in water quality in your area? What do you think should be done with this information?