



water affairs

Department:
Water Affairs
REPUBLIC OF SOUTH AFRICA



MONITORING OF THE BUFFALO RIVER

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In the buffalo river six sites were selected along this system and its tributaries which are the sites at Yellow woods@Lonsdale Bridge and Mqgakwebe River. Invertebrate samples were not collected at this site, due to absence of flows. At the Buffalo Pass there was no access to the site, therefore water samples were also not collected.

Following are the SASS results of the invertebrates sampled at the Buffalo River (Site per site description):

1. Above Maiden Dam

Species diversity was low and abundance was very low at this site and the SASS 5 results put this site at **fair** condition. The samples were mostly dominated by Betidae. There is no vegetation at this site and the samples were only collected from two biotopes, namely, the stones and the GSM (gravel, sand & mud). The low species diversity at this site may be associated with the lack of habitat, thus leading to the absence of species inhabiting in such areas.



Plate :1. A picture showing biotopes sampled at site Above Maiden Dam.

2. Mgqakwebe River

This site is a tributary of the Buffalo River and the species diversity was very high. According to SASS 5 results this site is at a **Good** condition. Vegetation inverts are not included here due to the absences of this biotope at this site. Only the submerged vegetation was present.



Plate 2. A picture showing biotopes sampled at the site at Mgqakwebe River.

3. Buffalo@ Lonsdale Bridge

There was no water under the bridge and the only area that had water was a small shallow pool below the bridge (see Picture below).



Plate 3. A picture showing low flows at the Lonsdale Bridge (left =Upstream; Right = Downstream).

4. Buffalo@ the bend

Species diversity was very low at this site and this site sits at **Poor** condition. Low species diversity might be caused by the lack of habitat. This site is dominated mostly by bed rock with few GSM and minimal vegetation.



Plate 4: Buffalo at the bend

5. Buffalo@Nxamkwane

This site is at a **fair** condition and the species diversity was low. The site is mostly dominated by stones; therefore low species diversity might be associated with the lack of habitat.



Plate 5. A picture showing biotopes sampled at Nxamkwane River

6. Buffalo Pass

There was no access to this site and the entrance to the site is used as the dumping site (see fig 11).



Plate 6. A picture showing the condition of the Buffalo Pass (left = Upstream; Right = downstream).



Plate 7. A picture showing an illegal dumping site at the buffalo Pass.

Water Quality

Temperature was high throughout the river ranging from 17.8oC to 30.1oC. Dissolved oxygen was low in the entire sites and the pH was constant throughout the river.

Water Samples were also dispatched to the laboratory for further analysis.

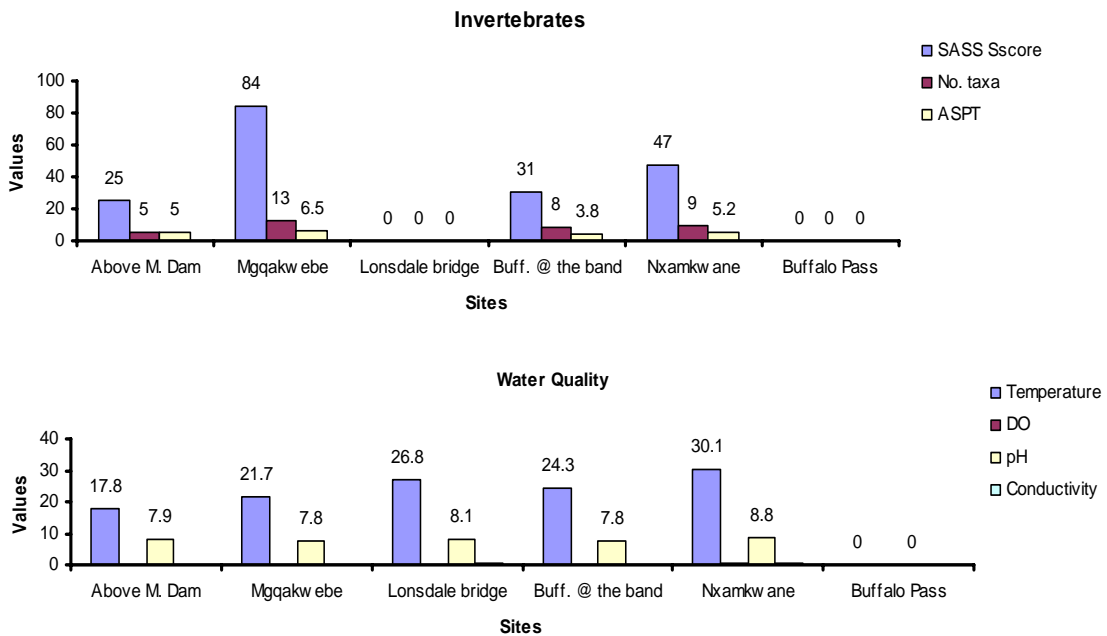


Fig. 1. Graphs showing the invertebrate and the water quality results at the Buffalo River.