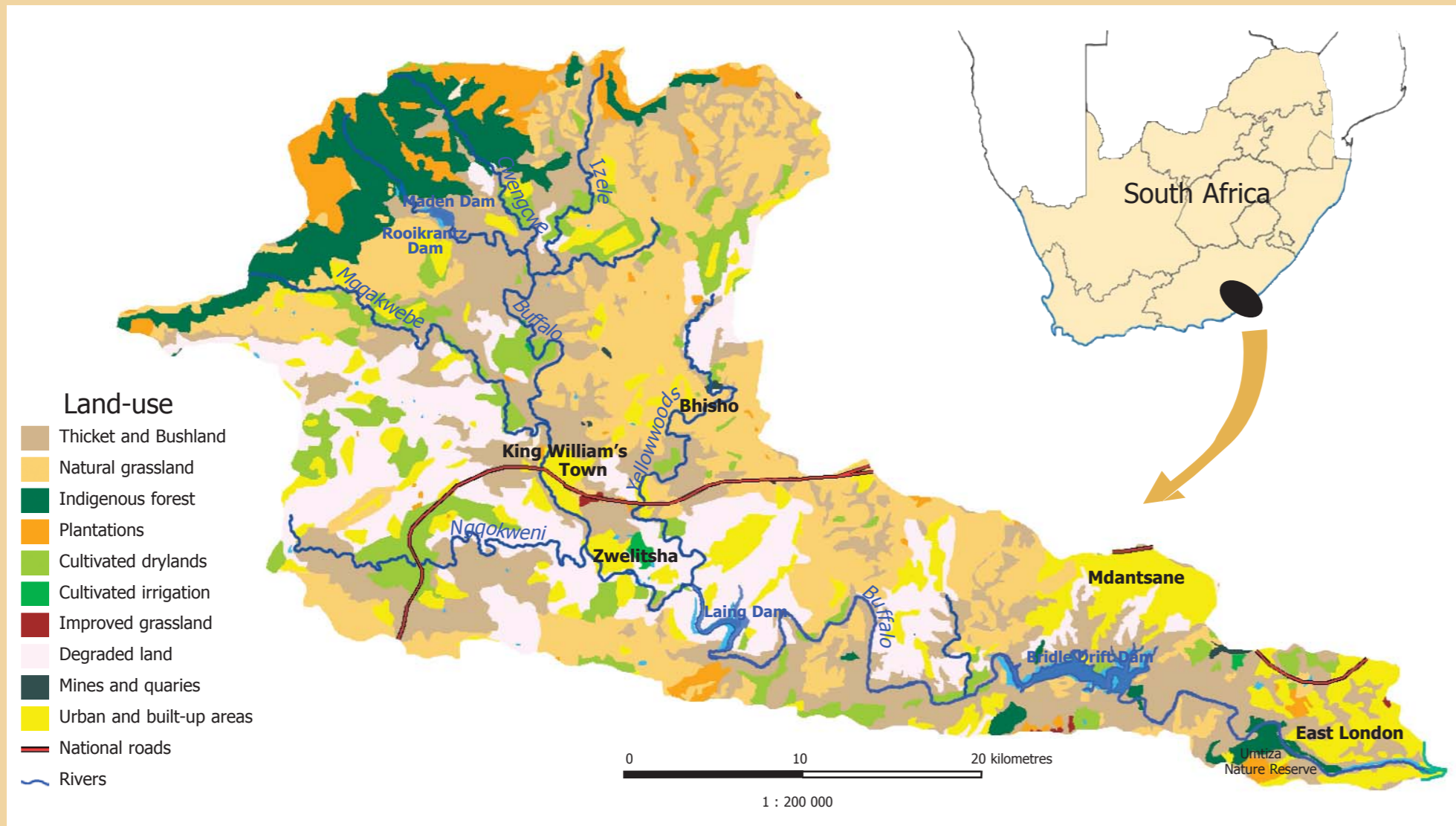


# THE ECOLOGICAL HEALTH OF THE BUFFALO RIVER

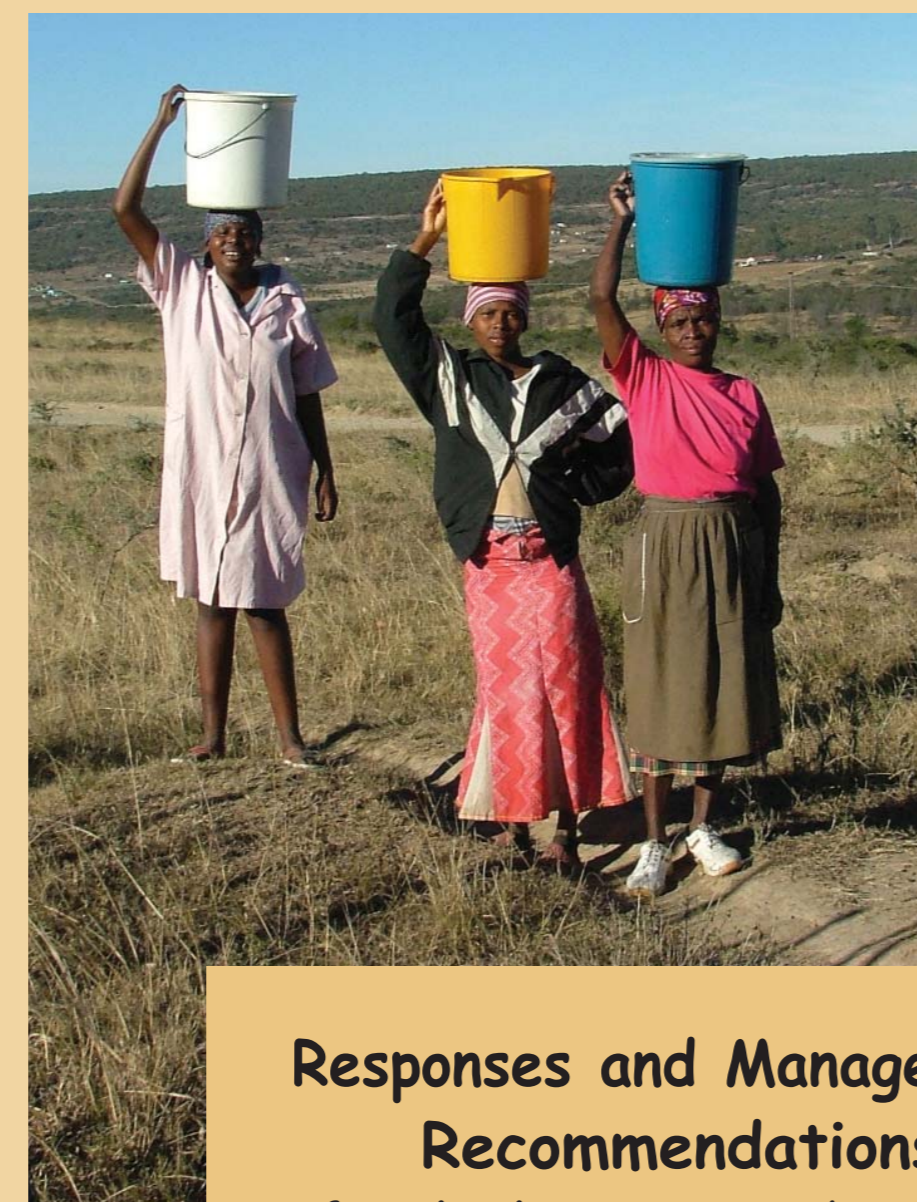
## Explanation of the State-of-Rivers reporting approach



### Catchment overview

Catchment size: 1280 square kilometre  
 Major tributaries: Mgqakwebe, Ngqokweni, Yellowwoods  
 River flow: Easterly direction  
 Dams: Maden, Rooikrantz, Laing and Bridle Drift  
 Length: 125 kilometre  
 Population supported by the catchment: 570 000  
 Geology: Sedimentary rock consisting of mud stones, shales and sandstone which is highly erodable  
 Vegetation: Forest, Savannah, False Machia, Thicket

**Iliso lawonemifudlana egalela kuwo**  
 Ububanzi: 1280 ikhilomitha eziskwere  
 Imilanjana enesixa egalela apha: nguMgqakhwebe, Ingqokweni neYellowwoods  
 Icala obheka ngakulo: ngasempumalanga ukusuka kwiliso Amadama akuwo: YiMaden, yiRooikrans, yiLaing neBridledrift  
 Ubude: Zikhilomitha eziyi - 125  
 Abantu abatya amanzi alo mlambo: 570,000  
 Ijijyolagi: Udongwe, Amadwala, namatye aphuqeka abe yisanti.  
 Izihluma: Amahlathi nezinye izintlobo-ntlobo zezihluma.



### Responses and Management Recommendations

Inform local communities about sustainable use of plants including grazing practices. Remove alien vegetation and control aquatic alien plants, destroy seeds also upstream and follow up. Restore river banks that have collapsed or eroded. Explore public/private partnerships. Upgrade and monitor sewage treatment works, employ and train staff and monitor the success. Start managing on a catchment basis. Rehabilitate wetlands.

### Iziphakamiso ema zilandelwe.

Abantu abaphahle lo mlambo mabacacisilwe ngendlela yokulolonga izihluma (ingca nemithi) namadlelo zingatshabalali; Mazitshatyalaliswe izihluma ezinobungozi ezikhula kufuphi nomlambo nezo zikhula apha emlanjeni kunye neembewu zazo ukususela apho ugena khona elwandle ukuya kutsho elisweni lalo mlambo; Mazivuswe iindonga zomlambo kwezo ndawo zidilikileyo nakwezo zithe zakhukuliseka; Makujongwe indlela ekunokuthi kubanjiswane ngayo nabantu nabahlali abakufuphi kulomlambo kunye neenkampani ezizimeleyo; Oobhuqa nemibhobho yabo mababekwe emangathweni wezimini basoloko bebekwe esweni; Makuqeshwe abantu baqeshelwe lomsebenzi ukuze zenzeke zonke ezizinto ngukuthe tyhatyasini; Eli dabi maliqalwe apho aphuma khona la manzi alo mlambo; Imigxobhozo mayiphelisewe.

### Impacts

Impacts include sand mining, rubbish dumping, uncontrolled and excessive removal of wood from the riparian zone for firewood, cattle crossings and trampling of the riparian zone. Soil erosion due to human activities such as removal of vegetation, is also evident, thus increasing sediment which has a negative impact on the river channel, e.g. water not fit for drinking and fish dying. Proper sanitation is inadequate.

### Izinto eziwuntlitha kakubi lo mlambo

Kukumbiwa kwesanti apha kuwo, kukulahlwa kwenkunkuma apha kuwo, kukugawulwa kwemithi yokubasa apha enyeleni lomlambo de iphele, ziinkomo ezinqumla apha kuwo ezithi zixovule izihluma/notyani olukhula apha ecaleni komlambo. Ukhukuliseko lomhlaba olwenza kube kho udaka oluninzi ngaphakathi kwamanzi oluthi lukhule luxabe kule ndawo afanele ukubaleka kuyo amanzi, neentlanzi ezibulawa yiloo nto. Zonke ezi zinto zenza amanzi omlambo angaseleki. Akukho lucoceko nampilo inle xa kunjenge.

### Introduction

The Buffalo River drains the forested Amatola Mountains of the Eastern Cape, crossing the coastal plateau before reaching the Indian Ocean where the East London harbour is situated in the Buffalo Estuary. Presented below is the state of the Buffalo River using the Driving force-Pressure-State-

Impacts-Response framework. This framework describes the human activities which create pressures on the river, the current status and trends of environmental conditions, the consequences on human livelihoods and the natural environment, as well as actions that have to be taken to manage the river properly.

### Intshayelelo

Umlambo i-Qonce (Buffalo River) uphuma kwintaba zakwaMathole eMpuma Koloni, ugwegweleze unxweme ude uye kungena kuLwandle lweNdiya apho isikhululo seenqanawe sikhoyo eMonti.

nangabasemagunyeni. Isikhokelo esiza kusisebenzisa siquka izinto ezenziwa ngabantu ezibe negalelo kwimekombi yalo mlambo. Imeko okuyo wona ngoku nemeko yale ngingqi utyhutyha kuyo; iziphumo zokwenzekileyo kuwo ezibonakala kwintlobo yabantu nakwindalo; kunye namanayathelo anokuthathwa ukulolonga isimo salo mlambo singaphazamiseki.

### Driving forces

High population densities, dense peri-urban and rural settlements, construction of dams, urban and industrial developments are the major driving forces of change in the river.

### Iziphazamiso

Nazi ingxaki: Ingingxano ezilalini nakwindawo ezikufuphi needolophu Ukwakhiwa kwamadama xhaphetshu Uphuhliso kwimizi-mveliso ezidolophini Ukusetyenziswa kwalo mlambo ngokungaphaya kwamandla awo. Unkcnkesho olwenziwa ngamafama arwebayo. Ukukhula kwenani labantu abafuna amanzi aphuma ezitepini, Oompompi bokugutyula iindle, abasetyenziswa bade baphuphume bengasebenzi ngendlela efanelekileyo.



### Uses and Pressures

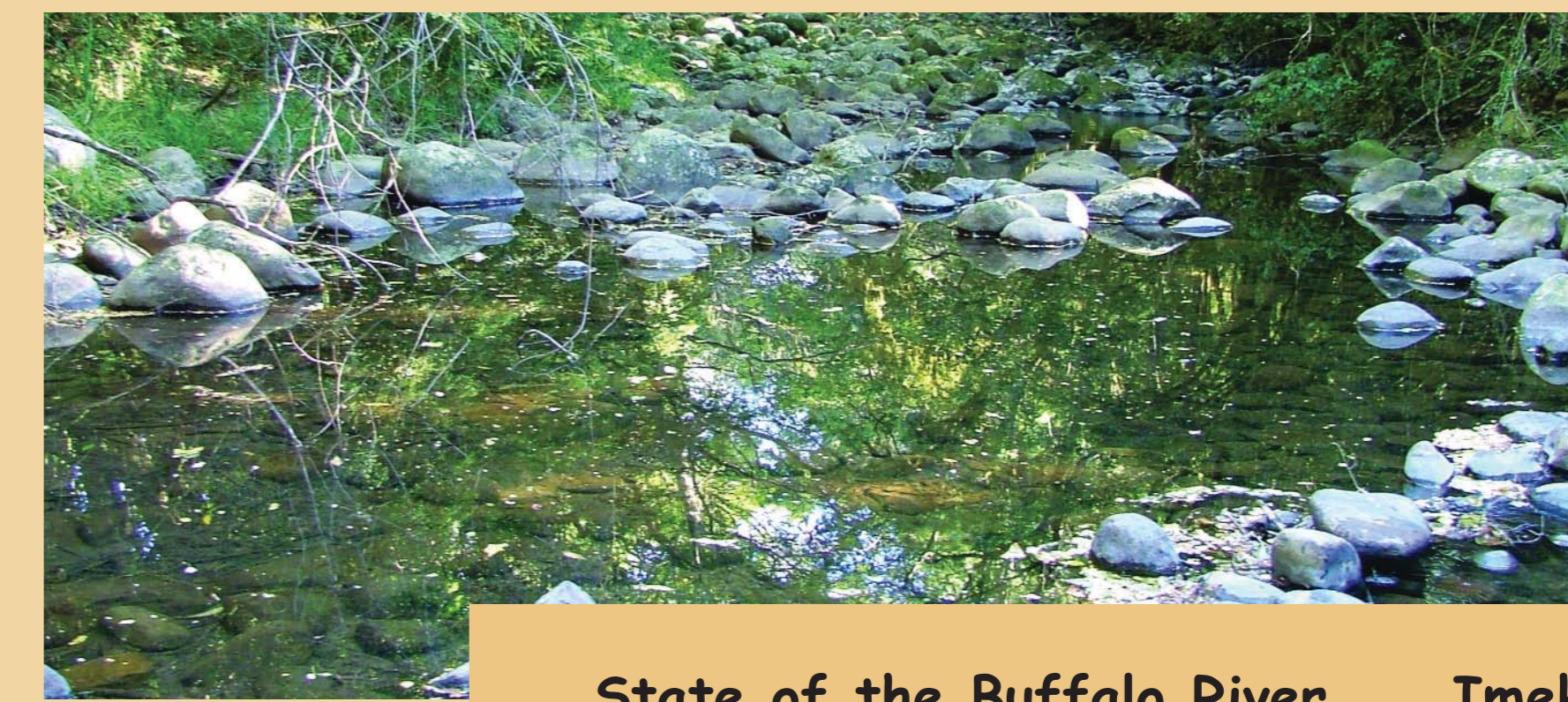
Human related activities such as irrigation by commercial farmers, demand for clean tap water by the growing population and sewage treatment works that are overloaded and malfunctioning exert pressure on the river. Trout and other alien fish species are found in the river and these put pressure on the indigenous fish. Some disturbed areas due to human activities have been invaded by alien vegetation, resulting in undercutting and slumping of river banks, siltation and reduced runoff.

### Lo Mlambo Usetyenziselwa Ni?

Zonke ezizinto zixhithwa ngokungaphaya kwamandla alo mlambo. Itrawuti nezinye intlobo zeentlanzi ezingezizo ezingezizo ezemveli zidakasa kulo mlambo zinciphise ezi zalo mlambo. Kukhula izihluma/utyani eziziphazamiso kwezi ndawo zimoshwe ngabantu, yenza ke loo nto ukuba umlambo ungabaleki ngendlela yawo ngenxa yeendonga zawo ezidilikela ngaphakathi zaza zaxaba indlela yamanzi kwakhula nomhlaba oiyisanti kwezinye indawo nawo waxaba indlela yamanzi.

Rainbow trout, an alien fish species.

Eastern Cape rocky, an endangered species.

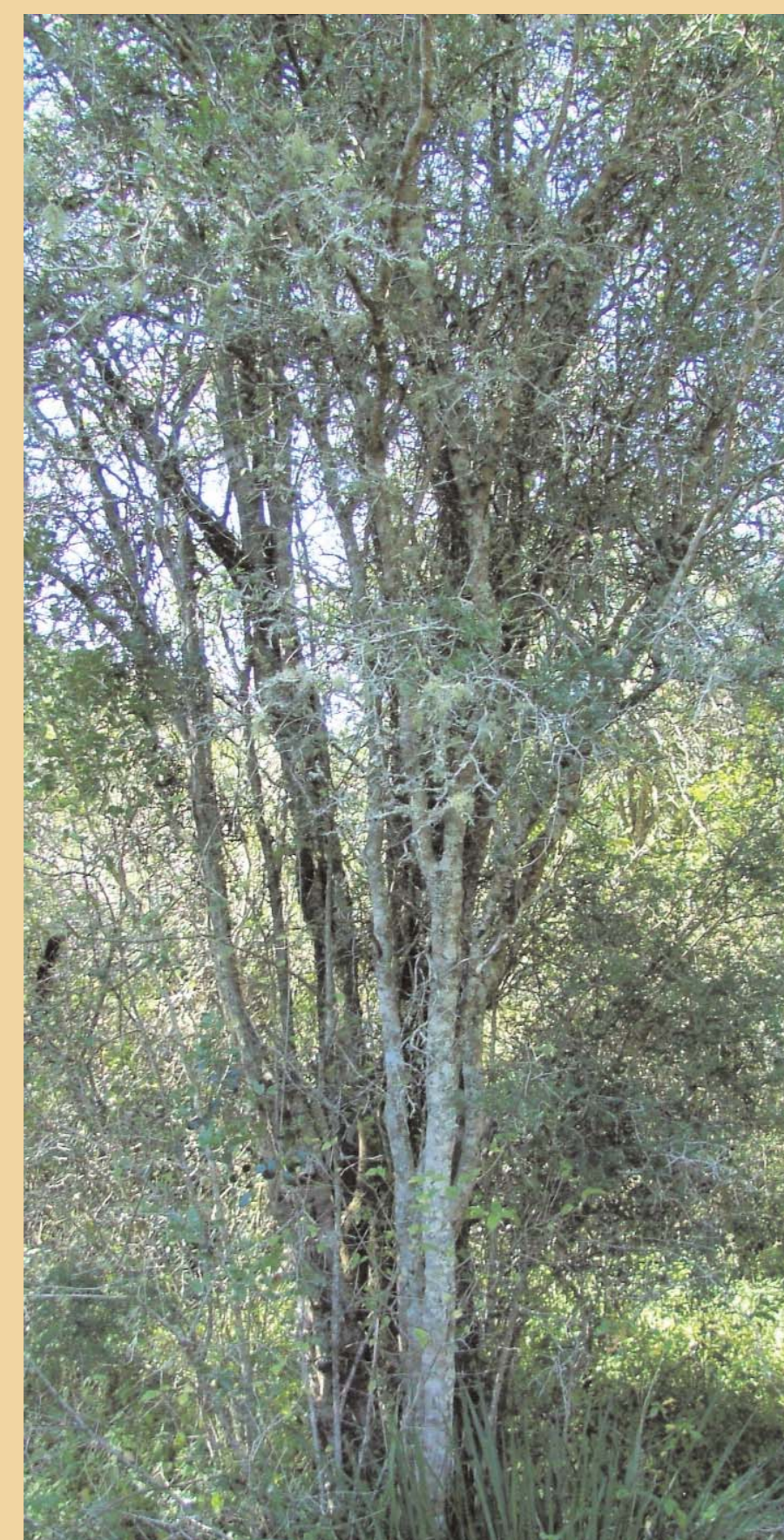


### State of the Buffalo River

The Buffalo River is almost pristine in its upper reaches. Industrial effluents, inadequate treatment, overloaded sewage treatment works and poor management of the sewage systems result in the discharge of untreated effluent into the river, especially in the middle and lower reaches. High nutrient loads cause eutrophication and result in potentially toxic algal blooms.

### Imeko yomlambo i-Qonce

Apho uphuma khona, kwaMathole, imeko yawo iseyileya xa hamba mnene. Izinto zonakala apha embindini ukuya kutsho apho utyekezela khona elwandle - wonke lo monakalo wenziwa zizibi ezivela kwimizi-mveliso namabibi avela koobhuqa abaphuphumayo. Ezi tyuwa ziza nala mabibi zicutha iokayini apha emlanjeni, yenze loo nto kukhule izihluma ezityhefu apha emlanjeni.



The Umtiza tree is an indigenous species found only in the Buffalo catchment.

