

The river guardians of Groot Marico



Bridget Corrigan

Landowners and community members are taking a stand for the conservation of the Groot Marico River, one of the last remaining free-flowing rivers in the country.

Article by Petro Kotzé.

The Crocodile (West)-Marico is one of the most developed and economically active water management areas (WMA) in South Africa. Mostly located in the North West Province, parts of it fall in the northern regions of Gauteng and the south-western corner of the Limpopo province, and include the urban areas of northern Johannesburg, Midrand and Tshwane. This WMA is the single largest contributor to our national wealth (25% of the gross domestic product).

The Crocodile and Marico rivers are the two main rivers in this WMA, which at their confluence form the Limpopo River that flows eastwards to the Indian Ocean. The latter, again, is an international river that is

shared by Botswana, Zimbabwe and Mozambique. The headwaters of the west flowing Molopo River, a tributary of the Orange River, also forms part of the WMA. Moreover, the area boasts a number of unique features, including the Cradle of Humankind, Pilanesberg Nature Reserve and dolomitic eye system at the source of the Molopo, Molemane and Marico rivers.

Intensive development for economic purposes has come with a hefty price tag. Approximately 30% of the North West province has been transformed to other non-natural land uses and it is rapidly approaching a critical threshold in its state of biodiversity (60% natural habitat remaining). The major driver of this change has been agriculture (73%), while urban expansion (24%) and mining (3%) contribute further. At the current rate of habitat loss, there will be no natural habitat left in the province in 60 years' time. It is estimated that about 40% of the

province's ecosystems are under severe pressure, while 11 of the 61 vegetation types and 14 of the 18 river types in the province have been classified as threatened in terms of their ecosystem status.

This state of affairs has not gone unnoticed. Following their relatively recent entry into the arena of freshwater conservation, the Endangered Wildlife Trust (EWT) has launched the Crocodile-Marico Catchment Conservation Project, funded in part by the Elizabeth Wakeman Henderson Charitable Trust and, more recently, Rand Merchant Bank. Activities are guided by the National Freshwater Ecosystem Priorities Areas (NFEPA) project, which identifies a national network of freshwater ecosystems that should be priority conservation areas.

The EWT pilot project is taking place together with the local Marico Catchment Conservation Association (MCCA), a group of community members and landowners situated



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A tufa waterfall on a private farm located in the area surrounding the headwaters of the Groot Marico River is one of the area's many special features. It is formed when water runs over dolomite rock, absorbs calcium and deposits rock formations quicker than it erodes the surrounding rock.

around the headwaters of the last remaining free-flowing river in the semi-arid north-western region of the country, the Groot Marico. The area has rural characteristics and comprises limited dryland farming, vegetable production and grazing and much of the unique dolomitic eyes characterising the unique biodiversity of the Marico

system are located here.

If the programme is successful, it can be applied to other areas in the WMA to improve the province's significantly under-representative Protected Areas (PA) network, under which only 2,84% of the province was classified in 2008.

The initiative calls for land-owners in the specific FEPA to have

their property declared as Protected Environments or Nature Reserves and to sign Biodiversity Stewardship Agreements. "As the principal stakeholders, the community must ultimately take ownership of their catchment," says Bridget Corrigan, Healthy Rivers Project Executant of the Source to Sea Programme at EWT.

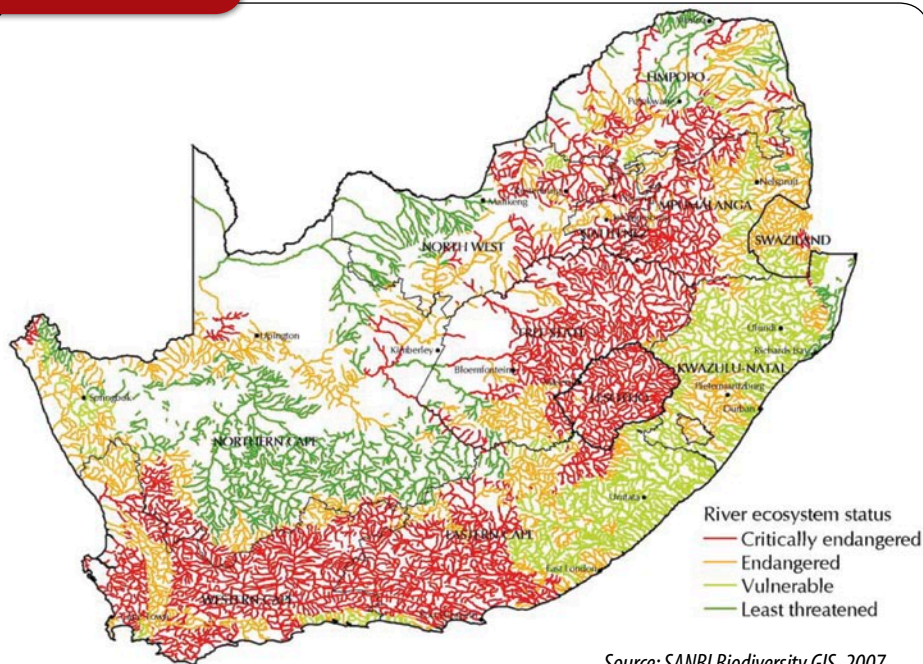
CONSERVATION FROM THE GROUND

Biodiversity Stewardship recognises landowners or users as custodians of their land, including the biodiversity and natural resources. It entails voluntary, legal agreements which promote the wise use and management of these resources and the services it provides; in other words, sustainable use of their properties. These sites can then contribute to the protected areas and biodiversity targets that need to be met by provincial departments.

An initiative of the national department of Environmental Affairs in partnership with key conservation organisations, the Biodiversity

THREATENED RIVERS MAP OF SOUTH AFRICA

Only 22% of South Africa's river length has been identified as FEPAs. By treating less than a quarter of our rivers as priority areas and ensuring they are minimally used, South Africa will be able to conserve natural examples of its diverse freshwater ecosystems while contributing to sustainable development of water resources in the country. Throughout South Africa, freshwater ecosystems are under severe pressure with more than 80% of our rivers being threatened. Where rivers fall within protected areas, they often form the boundary of that area, and not the focus, which is usually terrestrial. Nature reserves or conservation agreements only protect 7% of the total river length in South Africa (not including privately owned areas) and about one third of South Africa's main rivers define the boundaries of protected areas rather than occur within them, and therefore cannot be considered sufficiently protected.



Source: SANBI Biodiversity GIS, 2007

THE BIOSPHERE RESERVE

A Biosphere Reserve is a representative ecological area with three mutually reinforcing functions: conservation, sustainable development and logistic support for scientific research and education. Collectively, all biosphere reserves form a world network linked by exchanges of experience and knowledge. They are part of a UNESCO Scientific Programme, governed by a “soft” law, the Statutory Framework for Biosphere Reserves, adopted by the UNESCO General Conference and which all countries are committed to apply.

In the case of a perceived problem, like plans to construct a mine within the site, the Biosphere Reserve status should be used as a platform for dialogue to arrive at an optimal solution. Examples in South Africa include the Cape West-Coast-, Kogelberg-, Waterberg- and Kruger to Canyon-Biosphere Reserves.

Source: www.unesco.org

Stewardship South Africa (BSSA) programme was originally pioneered in the Western Cape by the Botanical Society of South Africa and Cape Nature, but has since found its way to KwaZulu-Natal, Mpumalanga, the Eastern Cape, Gauteng and the Northern Cape.

There are a range of stewardship options, all of which are voluntary and can be tailored to the specific needs of the landowners. The higher categories offer more incentives (benefits) and support by the relevant department but they also offer more restrictions and require greater commitments from the landowners. In essence, says Corrigan, you have to understand what people need from their land. If they need, for example, to have a large area for cattle grazing you would rather go for a more flexible option.

Properties can be secured through

Conservation Areas, Biodiversity Agreements, Protected Environments or Nature Reserves (listed from lowest to highest protection offered). Conservation Area status, for example is suitable for any land, requires no defined period of commitment and entails few land-use limitations. At the other end of the spectrum, Nature Reserve status is suitable for priority areas adjacent to statutory reserves and which contain critically important species, habitats and self-contained sites. Landowners have to commit for a minimum of 30 years while no further development or land-use rights will be allowed. Owners retain the title, and access and resident rights are unrestricted (see table). In return, owners could receive (depending on the provincial agreement) sustainable assistance with biodiversity services and other benefits.

“The aim,” says Daan van der Merwe, MCCA chairperson, “is to make your land available for conservation while still being able to use it.” He adds that in the Marico area reaction from landowners has, in general, been positive. About 80 landowners have become members of the MCCA and have pledged their land as part of the initiative, covering an area of approximately 25 000 ha in the Groot Marico district. A provisional agreement has also been reached between the MCCA and the local kgosi’s to include the 350 000 ha of communal land in the application. An application to have the properties declared as either Protected Environments or Nature Reserves has been handed in to the MEC of the North-West Department of Economic Development, Environment, Conservation and Tourism (NWDEDECT). “Ideally you want this entire FEPA declared a Nature Reserve, but it will depend on the willingness of the landowners and the balance between conservation and economic needs,” says Corrigan.

The draft proposal must still be made available for public comment, after which it will be gazetted.

Corrigan says that the Biodiversity Stewardship site will then be secure, and a management plan can be put in place. Elements that can be built into such a plan include the rehabilitation of degraded sites and riparian zones and the removal of alien vegetation.

Once the area has been proclaimed, development in the relatively pristine headwaters of the Groot Marico would be severely limited. Indeed, it was the prospect of mining activity in the Marico area in 2010 that spurred community members into action, and saw the formation of the MCCA. Due to massive community opposition, African Nickel retracted most of their prospecting rights applications in respect to certain minerals (nickel ore, copper, cobalt, chrome, ore, platinum group metals and gold) on farms on and around Groot Marico.

“We believe that a healthy environment makes for happy people,” says van der Merwe. He adds that the area is very special, not only from a biodiversity point of view but also because it is still relatively

The Groot Marico is the last remaining free-flowing river in the semi-arid north-western regions of the country.



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Giela Jonker

Above: The project will also focus on the conservation of endangered aquatic species, such as the Marico Barb (*Barbus motebensis*) and it is envisaged that the protected areas will serve as fish sanctuaries.

Below: The Crocodile (West) and Marico WMA and the area's Freshwater Ecosystem Priorities Areas.

undeveloped and the head-water is still pure. Peter Phefo, traditional councillor agrees that what makes the river special is that it is so clean. Many of the Koffiekraal community members, where Phefo stays, rely on using water directly from the river. "We need to proclaim it a protected area to sustain the people of the area," he says. He adds that the river, that used to be known as Madikwena, or the 'Mother of Crocodiles', also has significant cultural value for the

communities dependent on it.

"There isn't another way to do it," says property owner and part-time olive farmer, Danie Steyn, "at the end of the day the responsibility rests with the landowner." Steyn, whose property is located downstream of Marico town tells that they are experiencing "many" problems with water quality. "It used to always be clean and we could swim and drink from it, but today things are different," he says. Even though the headwater of the river is still clean, the water downstream for the town is polluted by, among others, sewage.

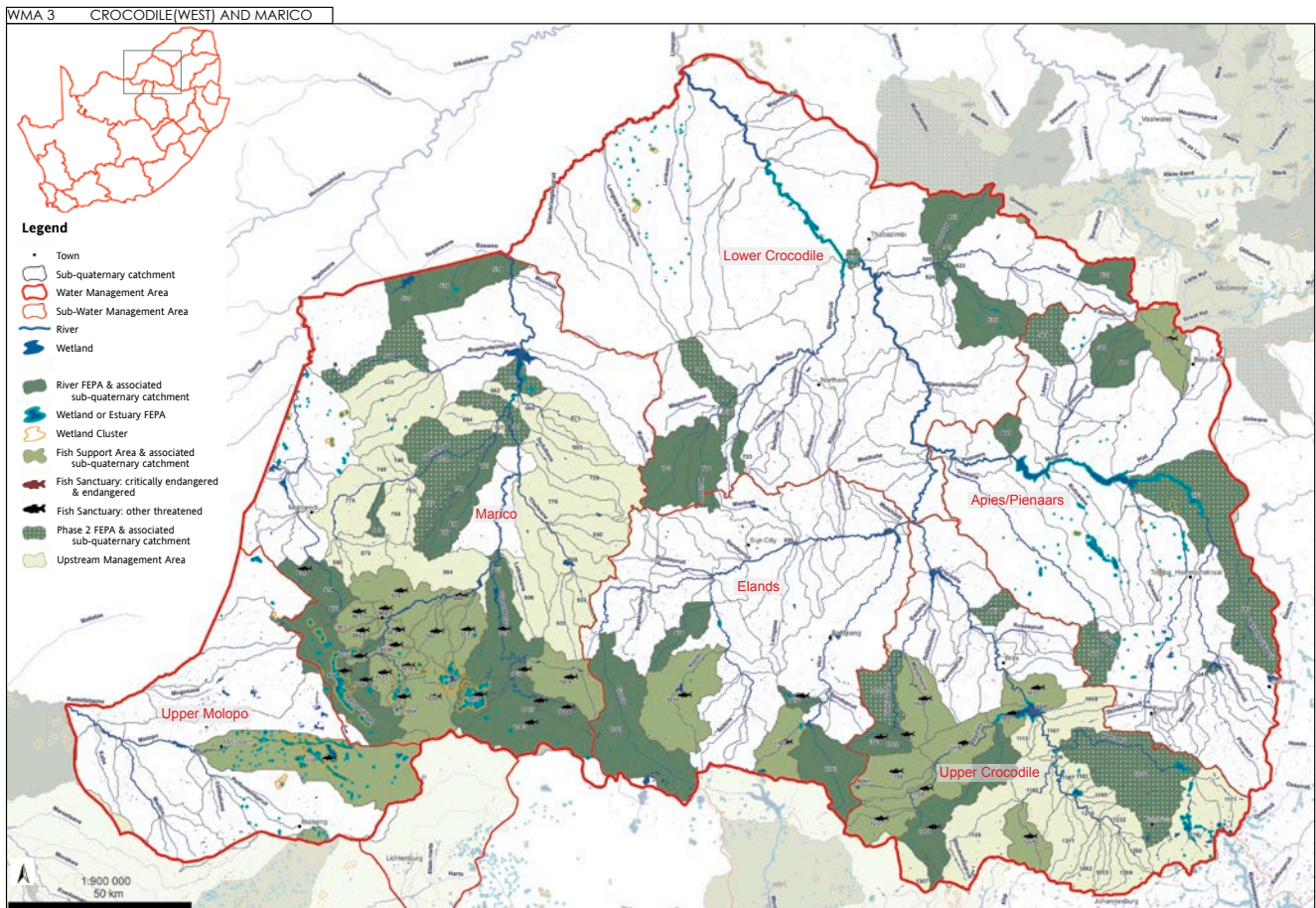
WHAT LIES AHEAD?

The expected outcomes of the project include the protection of river segments in Biodiversity Stewardship agreements with a joint management plan in place, the reestablishment and protection of various red data fish species though

the development of fish sanctuaries and the development of sustainable use options with the relevant stakeholders to ensure long-term protection of the system.

"At the moment," says Corrigan, "there is no formal Biodiversity Stewardship Programme in the North West Province." She adds that, although it will not prevent the proclamation of Nature Reserves or Protected Areas, having a formal Stewardship Unit in the North West would streamline future applications in the province and would assist the province to reach their Protected Areas Expansion targets for 2013.

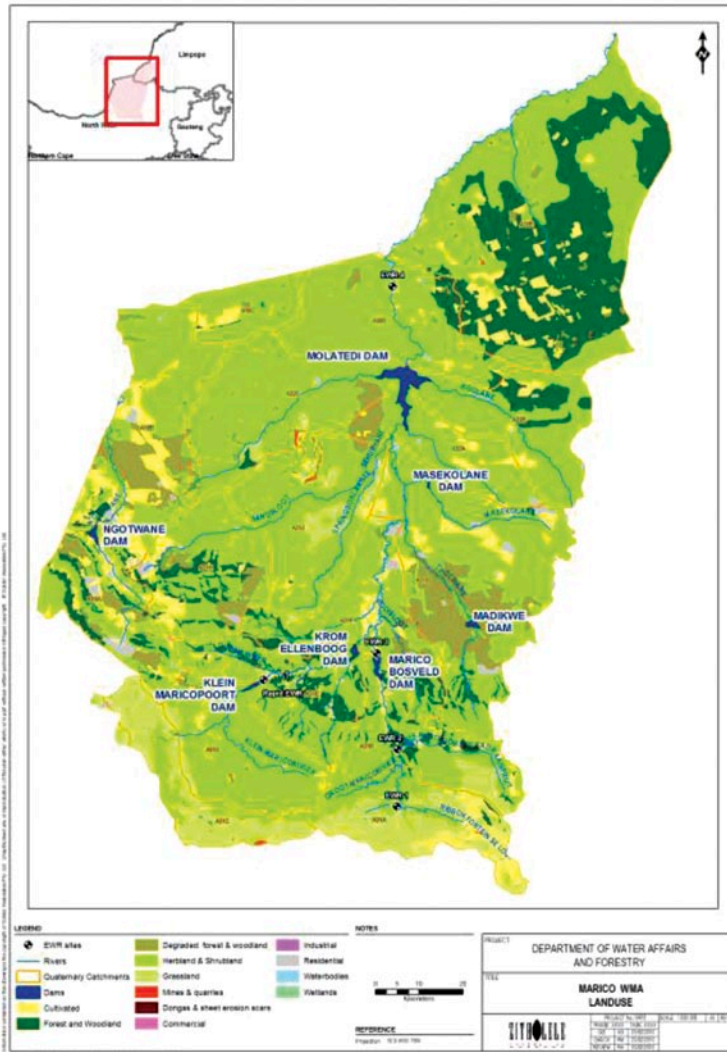
It is thus hoped that a major outcome of the project is the establishment of a formal house for the stewardship programme with a clear understanding of the roles and responsibilities of all relevant people. It is envisaged that NWDEDECT will champion the development of the Biodiversity Stewardship concept in



the North West, using the National Standards developed through Biodiversity Stewardship South Africa (BSSA). This will be done in collaboration with the North West Parks and Tourism Board and MCCA.

The declaration of the protected areas at the headwaters of the Groot Marico River will also serve as the foundation for the establishment of a UNESCO Biosphere Reserve (see sidebar) and, if successful, the Biodiversity Stewardship initiative can be applied in other areas. Two sites have already been earmarked. These are the Sondagsrivier/Vaalwaterspruit FEPA in Limpopo province (situated at the northeast border of the Crocodile-Marico WMA) and the Hex River/Sterkstroom FEPA in Gauteng. “In these areas we would try and establish or support land-owners associations first, and then take it from there,” says Corrigan.

“We will never be done,” she adds. The EWT will always be providing support to the Marico Protected areas and the communities as they need it as it will remain one of our key sites. The EWT will, however, aim to empower the landowners, as main stakeholders of the area, to carry the main responsibility for the conservation of the natural area that they are dependent on. □



Land use in the Marico system.

Stewardship options

Option	Level 1: Conservation Area	Level 2: Biodiversity Agreements	Level 3: Protected Environment	Level 4: Nature Reserves
Which option applies to your land?	<ul style="list-style-type: none"> Any natural land is suitable If rare or endangered habitats, rather progress to higher level of conservation security 	<ul style="list-style-type: none"> Suitable for any conservation-worthy land Not excluding small and isolated fragments 	<ul style="list-style-type: none"> Large landscapes requiring some form of conservation management, but unsuitable to restrict other forms of land use. Buffers to statutory PAs 	<ul style="list-style-type: none"> Priority areas adjacent to statutory reserves or sufficiently large to be self-contained ecosystems Containing critically important species, habitats
Legal status / duration	<ul style="list-style-type: none"> Flexible option with no defined period of commitment 	<ul style="list-style-type: none"> Minimum period of 5 - 10 years suggested, but may be in perpetuity if so requested 	<ul style="list-style-type: none"> Legal declaration under the PA act The duration is not prescribed 	<ul style="list-style-type: none"> Minimum of 30 years to in perpetuity
Possible land use limitations	<ul style="list-style-type: none"> Very few, but the area needs to maintain its natural character 	<ul style="list-style-type: none"> Land must be managed in a way that will support natural processes 	<ul style="list-style-type: none"> No limitation on activities other than those listed in the gazetting notice 	<ul style="list-style-type: none"> No further development or land use rights Access and resident rights unrestricted Owners retain title
Benefits to the landowners	<ul style="list-style-type: none"> Advice and support through basic extension services Assistance with management plans and farm maps 	<ul style="list-style-type: none"> Specific agreements for fire, alien, plant and animal management Advanced extension services (e.g. alien clearing planning) 	<ul style="list-style-type: none"> Specific agreements for fire, alien, plant and animal management Advanced extension services (e.g. alien clearing planning) 	<ul style="list-style-type: none"> Sustainable assistance with habitat management Recognition and marketing exposure Lobbying on your behalf for incentives e.g. rates exemptions

Source: Information as supplied by Ezemvelo KZN Wildlife. Other provinces may differ.