

An assessment of the freshwater natural capital in KwaZulu-Natal for conservation planning

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Abstract

Freshwater conservation planning, while lagging behind terrestrial conservation planning, is beginning to be implemented in a complementary manner to the latter. Ezemvelo KZN Wildlife is currently preparing an aquatic conservation plan for the freshwater systems of KwaZulu-Natal. The development of a freshwater conservation plan requires an initial understanding of the broad characteristics of the resource and associated biodiversity. Within KwaZulu-Natal, which is water-rich relative to the remaining provinces in South Africa, there are approximately 585 000 ha of mapped freshwater wetlands, 17% of which fall within protected areas. At the 1:500 000 scale, there are in excess of 18 400 km of perennial and ephemeral rivers mapped, and just over 1 000 km (5.6%) of these fall within existing formal protected areas. The river systems feed into 79 estuaries covering a mapped area of over 30 600 ha, of which 41% amounting to almost 12 400 ha are found largely within protected areas, although this does not reflect the actual number protected. These freshwater resources provide over 28% of South Africa's total average MAR. Protection of this resource requires the protection of freshwater biodiversity, and the processes which maintain these ecosystems. Currently the greatest threats to this resource are river regulation and land transformation.

Keywords: KwaZulu-Natal, freshwater resource assessment, aquatic diversity, freshwater conservation planning