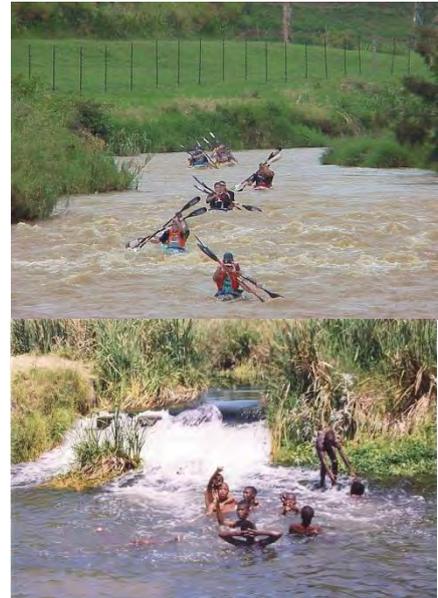


# BAYNE' SPRUIT REHABILITATION PROJECT

*Reclaiming valuable water resources in the Msunduzi Local Municipality for people, business and recreation*

## Background

The Bayne's Spruit is a relatively small tributary of the Msunduzi River. It has its headwaters in the residential area of Northdale and flows about 9 km through the Willowton Industrial Area before joining the Msunduzi River just east of the residential suburb of Sobantu. It is part of the Pietermaritzburg urban catchment but its water flows from the Msunduzi into the uMngeni River and the Inanda Dam, Durban's primary water supply. Water from the Msunduzi River is extracted for irrigation purposes, but it is better known as the starting point of the famous annual Duzi Canoe Marathon. The Bayne's Spruit has served historically as a valuable resource to the Sobantu community for fishing, swimming and irrigation purposes.



## Challenges

The Bayne's Spruit has high density formal residential development in its upper catchment, a concentration of trade effluent regulated industries in the middle reaches, and informal settlements and high density formal residential areas downstream. Some natural areas within the Bayne's Spruit riparian corridor remain intact but the majority are degraded and poorly maintained. The Bayne's Spruit has been subjected to illegal discharges of industrial effluent, illegal dumping and extensive littering by those living along its banks. This pollution is exacerbated by poor storm water and sanitation infrastructure due to pipe misalignments, root intrusions, silt deposits, and the inappropriate disposal of litter and refuse through the sewer network. *Escherichia coli* (commonly known as E. coli) levels in this stream are consistently high (reaching 141 400 E.coli/100ml in January 2012 – more than 1000x recommended levels) and the Bayne's Spruit is rated amongst the worst and most polluted streams in South Africa. The water is unsuitable for any domestic or agricultural purposes and it poses major challenges to downstream users too.



## Ecological Infrastructure Interventions

Msunduzi Local Municipality, in partnership with a broad range of local stakeholders, will spearhead an investment in ecological infrastructure through the **Bayne's Spruit Rehabilitation Project**. This project aims to restore existing areas of ecological infrastructure, such as wetlands and floodplains, through the:

- Identification of strategic sites for construction of artificial wetlands
- Re-vegetation of stream banks to control erosion
- Establishment of riparian forests
- Control of listed alien invasive plants.

The municipality also plans to strengthen existing, and establish new, partnerships with Community Based Organisations representing residential, commercial and industrial interests to address issues of illegal dumping and effluent discharge, and to raise awareness around ecological infrastructure to enhancing water security.

## Potential Benefits

Due to the consistently high pollution loads introduced into the uMngeni system by the Bayne's Spruit even moderate improvements to water quality arising from rehabilitation of this streams ecological infrastructure is likely to benefit water quality in the uMngeni catchment. The success of this project should improve local economic activities, enhance the quality of life of local residents, and ensure the sustainability of the annual Duzi Canoe Marathon. The ultimate, and possibly most telling objective of the project, would be for an improvement in the water quality to a level where the established farming community within Sobantu are once again able to irrigate their crops from the Bayne's Spruit.

**For more information about the project, please contact**

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*Photo source: DUCT Presentation (Feb 2013), and Msunduzi Presentation (Feb 2013)*



*Source of photos: DUCT presentation (25 February 2013)*

