

The uMhlathuze Water Stewardship Partnership (uWASP)

River Basin Assessment and Partnership Formation

Compiled by WWF South Africa, Mondi South Africa, NBI and the uMhlathuze Water Stewardship Partnership (uWASP)

1. Context

The Mhlathuze River Catchment is on the north-east coast of KwaZulu-Natal, approximately 180kms north of Durban. The catchment covers 4209km² starting in the Babanango Hills in the west, descending over steep, rugged terrain and flowing south east through grassland and agricultural land until it reaches the Goedertrouw Dam in the upper-mid catchment. The central area has extensive irrigated agriculture, which extends to the boundaries of the highly developed urban area of the City of Mhlathuze (Richards Bay); and the wide alluvial plains of the Zululand Coastal Plains (DWS, 2015).

The catchment is bounded by the Mfolozi catchment in the north and the Lower Thukela, uMlalazi and Amatikhulu in the south. Almost the entire catchment falls within the King Cetshwayo District Municipality (formerly the uThungulu District Municipality), with all of the local municipal areas deriving benefit from the Mhlathuze River and its tributaries. Agriculture is the biggest water user, followed closely by the urban and industrial usage of the City of Mhlathuze. The 2014 provincial Conservation Plan (EKZN Wildlife) identifies critical biodiversity areas (CBA) within the catchment.

2. The Nature of the Challenge

In general, the catchment is a high risk catchment in terms of water-related issues. It is for this very reason that the catchment has been identified for compulsory licensing, and the uMhlathuze Water Stewardship Partnership has been established. Water scarcity is the top risk, and many other risks are linked to this scarcity. However, water quality is definitely a concern in the lower catchment, within the boundaries of the City of Mhlathuze, and better regulation and monitoring is needed in this region.

Industry underpins the local economy, and requires a very high assurance of supply. Water scarcity is halting development, and could result in large industries and mining operations moving out of the area. In addition, agriculture is a significant employer of the poorer communities in the catchment, and loss of financial viability due to water issues would result in massive job loss.

In addition, there are large areas of alien vegetation in the Mhlathuze catchment, including significant alien vegetation within the headwaters of the Mhlathuze River.

The Goedertrouw Dam – also known as Lake Phobane – is the second largest dam in KwaZulu-Natal, and is set in the uMhlathuze Valley, surrounded by the Mabelebele Mountains. The dam was built to increase assurance of supply to the industrial complex in Richards Bay, and to allow for the expansion of agriculture in the area. The present drought has meant a drastic reduction in the level of the dam. In July 2015 the dam level was at 93%, but poor rain, and the drying up of the surrounding coastal lakes has seen the dam drop to 50% by February 2016, and then to 18.8% by the end of July 2016 (www.zululandobserver.co.za, 28 July 2016).

3. The Required Response

In mid-2016 a group of numerous businesses based in the area, the Department of Water and Sanitation (DWS), the Proto-CMA Pongolo-uMzimkulu, the National Business Initiative, WWF, the Strategic Water Partners Network and the International Water Stewardship Programme (IWaSP) entered into a partnership, known as the uMhlathuze Water Stewardship Partnership (uWASP). The Partnership, which has been constituted through a letter of intent, outlines the parties' intention to cooperate in identifying and implementing measures to support a systematic and long-term approach towards mitigating water risk in the catchment, based on the principles of water stewardship. The objective of the Partnership is to ensure water availability for residential and industrial use, while at the same time securing sustainable livelihoods and environmental integrity of key ecosystems.

Drawing on the status quo assessment completed for the region, the following potential intervention areas have been identified by the various uWASP partners as having the ability to have a significant benefits for water resources in the river basin:

1. Water conservation and water demand management. More specifically, this includes:
 - a. The implementation of large-scale water efficiency, leak reduction and water demand management across domestic, commercial and industrial users
 - b. The implementation of agricultural water efficiency for the various sugar cane, nut and fruit growers in the catchment. Emphasis will be placed here on improved irrigation efficiency (including the infrastructural and operational use of drip irrigation and advanced metering)
2. Large-scale alien invasive vegetation clearing (outside of Working for Water priority areas), in collaboration with landowners and potentially also Fire Protection Associations, Water Use Associations or Farmer Associations, with an emphasis on local employment
3. Support for enhanced management of the coastal lakes located within the catchment boundary
4. The identification of opportunities for water reuse
5. Effective management of water releases from the Goedertrouw Dam to minimise losses, and maximise the limited water available in the dam. This could include a mentorship arrangement or capacity building of junior dam operators by the experienced engineer currently managing releases (soon to retire) or finding an alternative arrangement to retain the current services of the senior engineer involved
6. Facilitating the increased pipeline capacity from the uMhlathuze Weir
7. The development of local environmental champions (focusing on the community-based reporting of leaks, water quality issues and sewage overflows, as well as undertaking of pollution prevention activities by local communities)
8. Support for the implementation of the various infrastructure projects outlined in the Richards Bay Reconciliation Strategy

By emphasising both institutional and financing aspects in relation the above intervention areas, and with a bias towards establishing sustainable business models for each intervention area, the project response aims to move from small and ad hoc efforts to incentivised, institutionalised and scaled efforts, thereby playing a transformative role in the river basin.

4. The uMhlathuze Water Stewardship Partnership

uWASP currently consists of the following organisations that have committed to support the activities of the partnership, through the signing of a Letter of Intent:

- The International Water Stewardship Programme (IWaSP)
- Grindrod
- Mondi South Africa
- The National Business Initiative (NBI)
- The Pongola-Umzimkulu Catchment Management Agency
- Richards Bay Minerals
- The Strategic Water Partners Network (SWPN)
- Tongaat Hulett
- Transnet
- WWF South Africa

The project has also been endorsed by the Minister and acting Director-General of the Department of Water and Sanitation (DWS).

5. Institutional Considerations

The Mhlathuze River Catchment falls within the Pongola-Umzimkulu Catchment Management Agency (CMA), a CMA that is currently in the process of being established. The City of Mhlathuze, the local government authority for the town of Richards Bay, serves as the water services authority within its jurisdiction, with Mhlathuze Water serving as the bulk water services provider for the region as a whole. The District Municipality, King Cetshwayo District Municipality, serves as an additional water service authority within the catchment. The Department of Water and Sanitation serves as the Regulator and is the owner of Goedertrouw government water scheme.

The key role-players within the the Mhlathuze River Catchment include the following organisations:

- City of uMhlathuze Local Municipality
- Major industrial and commercial companies, including: Grindrod, Mondi, Transnet, Tongaat Hulett, Richards Bay Minerals (RBM), Richards Bay Coal Terminal (RBCT), Sappi, Foskor, South32, Tronox and Exxaro
- The Department of Water and Sanitation (at a national and provincial level)

- The Pongola-Umzimkulu Catchment Management Agency
- Mhlathuze Water
- Working for Water (Mhlathuze Water)
- King Cetshwayo District Municipality
- The Zululand Chamber of Commerce and Industry (ZCCI)
- uMhlathuze Agriculture Irrigators Forum
- Richards Bay Industrial Development Zone (IDZ)
- The South African Sugar Association (SASA)
- The various water use associations and farmers associations present in the catchment

6. Investment Options

Interventions of this scale require a coordinated mix of existing and new investment from local, provincial, national, international and private sector sources. They might be in the form of grants, loans, in-kind contributions, water bonds, water pricing and tariff adjustments, insurance rebates, payments for ecosystem services (PES), penalties/fines, off-set arrangements and land purchases. Specifically identified options include:

- Existing municipal, provincial, and national public sector operational and capital budgets
- Incorporating costs into existing water tariffs through adjustments
- Commercial loans
- Cofinancing of alien invasive clearing through the use of Fire Protection Associations and Natural Resource Management grants
- The Green Climate Fund (GCF)
- Performance contracting, where viable
- A concessionary funding mechanism, for example infrastructure funding at no interest rate and grant funding for proposal preparation

At the same time, there are a number of key infrastructure projects that require development in the catchment. These infrastructure projects are outlined within the Reconciliation Strategy for Richards Bay and its surrounding towns, as developed and approved by the Department of Water and Sanitation in February 2016. Key infrastructure projects in this regard include:

- The raising of the Goedertrouw Dam Wall
- The development of a dam on the Nseleni River
- The development of a dam on the Mfule River
- Increased capacity of the Thukela Transfer

- The establishment of the Arboretum effluent re-use project
- The development of uMfolozi on-channel storage
- The development of uMfolozi off-channel storage

A variety of financing sources and funding models will presumably be required to bring the above infrastructure projects to fruition, in support of long-term water availability in the catchment. This long term viability is particularly important as weather extremes and higher mean and maximum temperatures threaten existing water supplies and storage options in the region. Investment opportunities to support water availability, economic development and climate resilience must therefore be prioritised.

7. Timing

Water conservation and water demand management interventions across all sectors (domestic, commercial, industrial and agricultural), as well as alien invasive clearing, are viewed as two immediate priorities that need to be implemented at scale based on a viable financing model. Improvement coastal lake management and the cultivation of environmental champions are also viewed as important short to medium term interventions.

The development of the infrastructure projects within the Richards Bay Reconciliation Strategy is a key priority, but these projects are at varying levels of development and will require completed feasibility studies, environmental approvals and sufficient funding before project construction can occur.