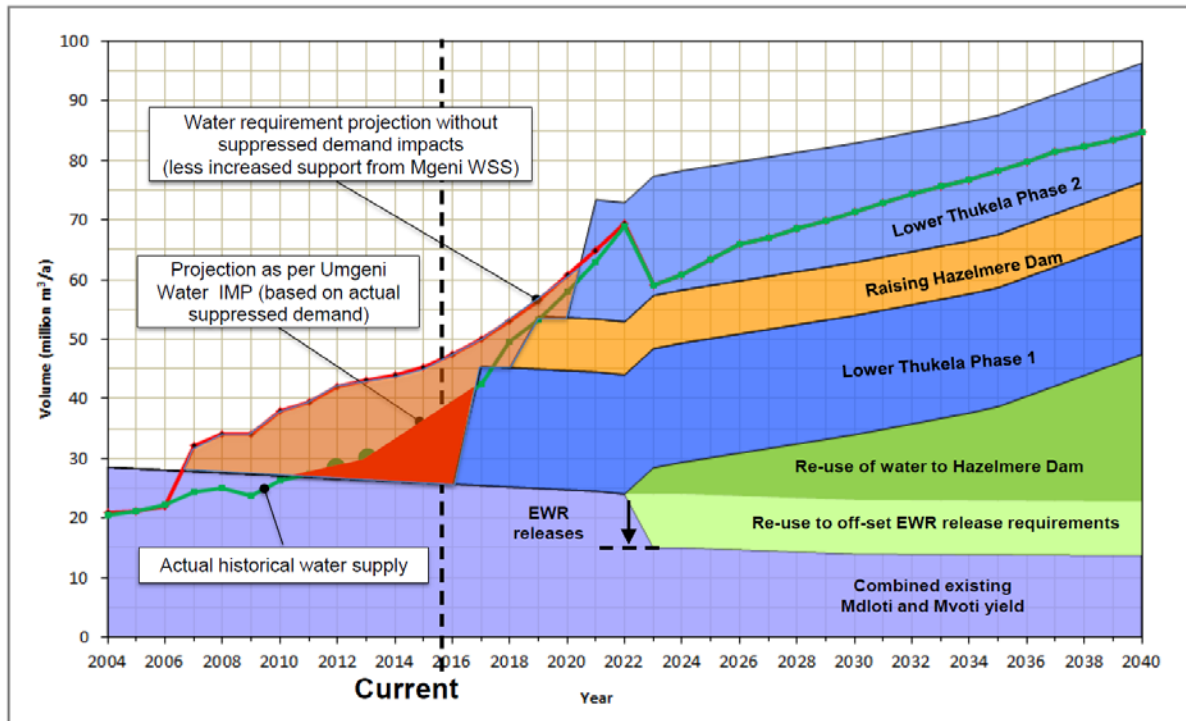


## Fact Sheet 2: Outflow Strategy for eThekweni

The aim of eThekweni Outflow strategy is to supplement the existing water resources in eThekweni (see Figure 1).



**Figure 1: Mdloti – Mvoti water balance**

This will be a mitigation measure to improve the system. In addition the present discharge limits governs the amount of wastewater effluent that can be discharged into the streams. The classification studies carried out by the Department of Water and Sanitation (DWS) shows that eThekweni either have to reuse water or construct outfalls to the sea. Outfalls to the sea are very expensive and could pose environmental issues therefore reuse is considered as the first option.

The eThekweni Municipality's Outflow Strategy investigates several direct and indirect re-use options, including availing treated water for the release of environmental water requirements, summarised below.

### Re-use and desalination options in the North:

- Pumping effluent from Phoenix WWTW to Hazelmere Dam for indirect use, including releases to the environment.
- Indirect re-use from Tongaat WWTW through pumping to a furrow, from where water is abstracted and treated at Tongaat Water Treatment Plant (WTP).
- eThekweni Municipality carried out a viability study in 2009 for the direct re-use of treated effluent from the KwaMashu and Northern WWTWs works, public concerns and negative sentiment halted the process. It seems likely that this option will be pursued to address short-term water supply issues in the area (Fact Sheet 3).
- Possible desalination plants at Tongaat / La Mercy, and the existing Genazzano WWTW site (3 to 12 Mℓ/day) – Fact sheet 4.



### Re-use in the South:

- Indirect re-use through pumping of the Amanzimtoti & Kingsburgh WWTW effluent to blend with the incoming raw water at the Toti WTP.
- Proposed 150 Ml per day desalination plant at Illovu River Estuary on the South Coast (Fact Sheet 5).

### Re-use in the Central area:

- A remix plant is proposed at the Central WWTW. As eThekweni believes that a remix water system could reduce the deficit, they have proposed the installing of a Demonstration Plant providing approximately 6.25 Mℓ/day with a possible ultimate scenario of 100 Mℓ/day where 50% seawater is mixed with 50% sewage (Fact Sheet 6).
- Durban Water Recycling Plant where 47.5 Mℓ/d of municipal wastewater is treated to near potable standard for direct reuse in industrial processes (Fact Sheet 7).

Due to the scarcity of water resources, eThekweni is actively investigating these projects for implementation.