

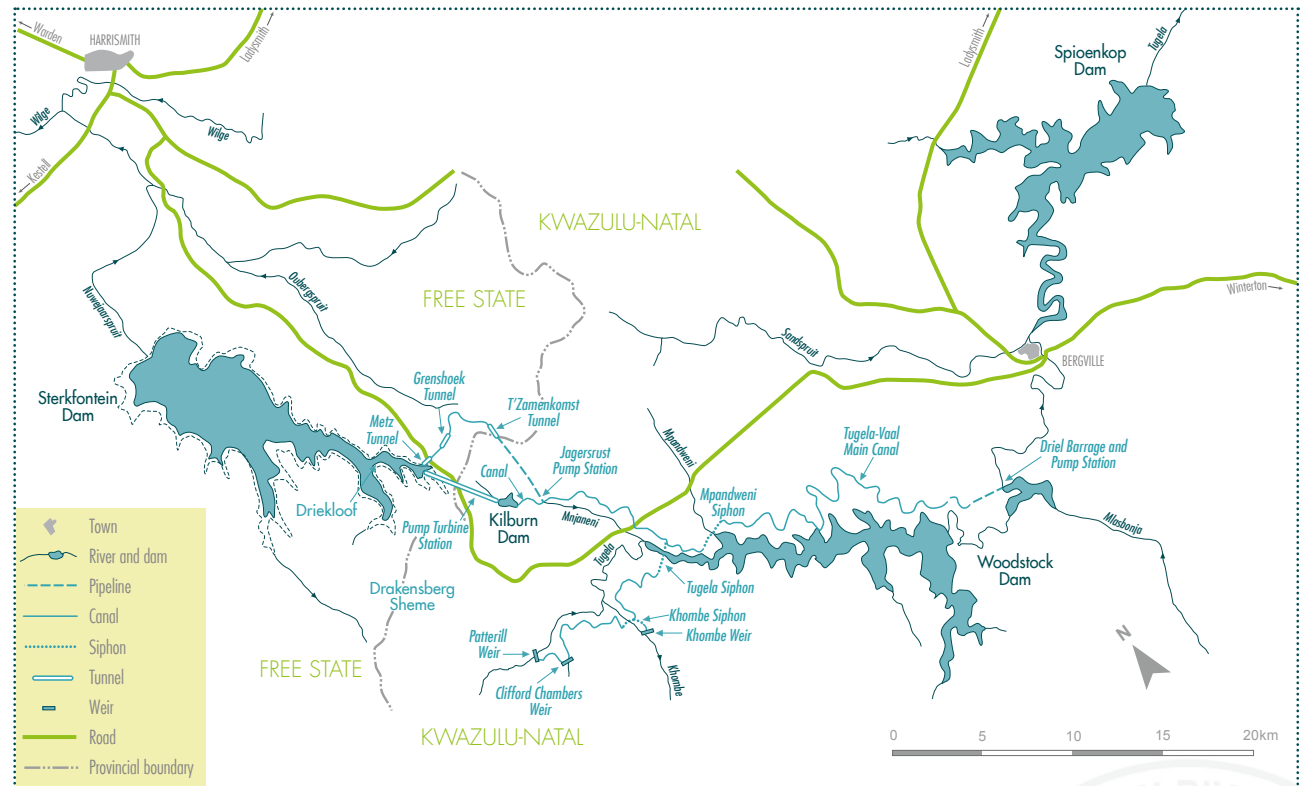
THUKELA–VAAL TRANSFER SCHEME

LOCATION

There are two schemes which transfer water from the Thukela basin to the Vaal River, namely the Thukela–Vaal Transfer Scheme, also sometimes called the Drakensberg Pumped Storage Hydro-electric Scheme, and the Zaaihoek Transfer Scheme. The larger of the two is the Thukela–Vaal Transfer Scheme, which involves Woodstock Dam, Driel Barrage, Kilburn Dam and Driekloof Dam in the Thukela Basin and Sterkfontein Dam and a number of pump stations, pipelines, canals and tunnels. The Zaaihoek Transfer Scheme is dealt with separately.

DESCRIPTION

Run of river flows in the upper Thukela tributaries are conveyed by gravity at a peak rate of $4 \text{ m}^3/\text{s}$ to the Jagersrust pumping station. Water is also pumped from the Driel Barrage at a peak rate of $19 \text{ m}^3/\text{s}$ to Jagersrust. Jagersrust then pumps at a peak rate of about $20 \text{ m}^3/\text{s}$ to Kilburn Dam. From Kilburn it is pumped by Eskom to Driekloof Dam in the Upper Vaal Water Management Area from where it flows directly into Sterkfontein Dam. Woodstock Dam, upstream of the Driel Barrage, provides the storage to regulate the flow into Driel. Refer to the schematic of the Upper Vaal catchment.



General layout

PURPOSE

Eskom uses the Kilburn and Driekloof dams for their Drakensberg Pumped Storage Scheme and transfers additional water for the Thukela–Vaal Transfer Scheme.