

MAZELSPOORT SCHEME

LOCATION

The Mazelspoort Scheme, located on the Modder River downstream of Rustfontein Dam, supplies water from Mazelspoort Weir to Bloemfontein.

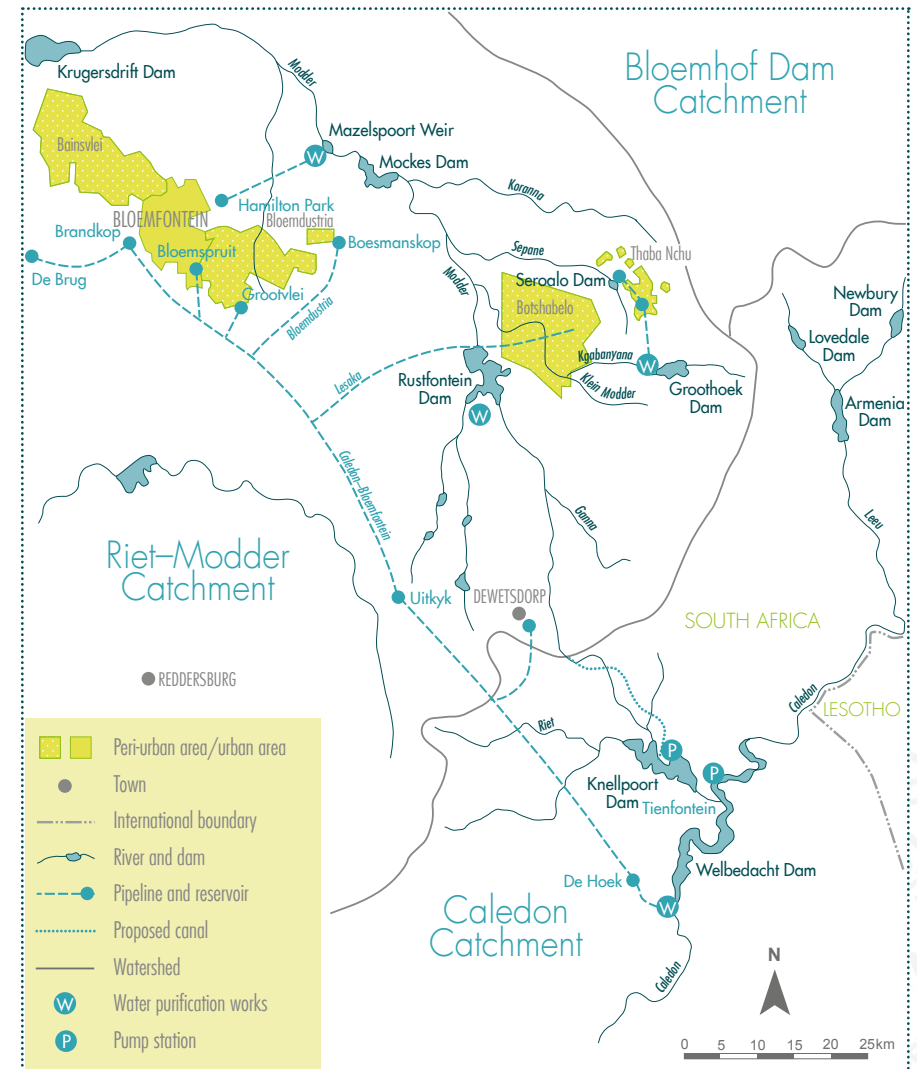
DESCRIPTION

Upstream of Mazelspoort Weir, water is released from Mockes Dam. Mockes Dam is supported by Rustfontein Dam, as well as transfers from Knellpoort Dam. At the Mazelspoort Weir, water is pumped to a reservoir at Hamilton Park where it is treated at the wastewater treatment works and used to augment domestic requirements in Bloemfontein. It is owned by the Municipality of Mangaung.

The Mazelspoort Scheme and the Caledon–Modder Transfer Scheme form one integrated supply system in the Modder River.

PURPOSE

The scheme serves to supply approximately 25% of Mangaung's water requirements, with a net demand of 38 million m³.



Mazelspoort Scheme (adapted from ORASECOM, 2007a)

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PHYSICAL INFORMATION: DAMS

| Name | River | FSC (million m ³) | Wall height (m) | Wall length (m) | Maximum spillway capacity (m ³ /s) |
|------------------|------------|-------------------------------|-----------------|-----------------|---|
| Mockes | Modder | 6 | 18 | 713 | 991 |
| Rustfontein | Modder | 71 | 26 | 210 | 1,090 |
| Knellpoort | Rietspruit | 136 | 50 | 200 | 1,070 |
| Mazelspoort Weir | Modder | n/a | Unknown | Unknown | Unknown |

PHYSICAL INFORMATION: LOSSES

| Description | Estimated losses (million m ³ /a) |
|----------------------------------|--|
| Knellpoort to Rustfontein losses | 2.07 |
| Rustfontein to Mockes losses | 2.10 |
| Mazelspoort losses | 1.92 |
| Total | 6.09 |

