



SETUMO DAM

COORDINATES (degrees, minutes, seconds)

| LATITUDE | LONGITUDE |
|-------------|-------------|
| 25°51'30" S | 25°30'01" E |

LOCATION

Setumo Dam is located on the Molopo River near Mmabatho in North West Province, South Africa, in quaternary catchment D41A.

DESCRIPTION

Setumo Dam is an earth dam, with a full supply level of 1 226.3 m, and a dead storage level of 1 213.4 m. The bottom of reservoir is at 1 213.0 m.

PURPOSE

Setumo Dam is used to irrigate oil-bearing trees to produce bio-diesel at the dam.

PHYSICAL INFORMATION

| Dam name | River | Quaternary catchment | FSC* (million m ³) | SA (km ²) | Owner | DWA code | Wall height (m) | Wall length (m) |
|------------|--------|----------------------|--------------------------------|-----------------------|-------|----------|-----------------|-----------------|
| Setumo Dam | Molopo | D41A | 19.6 | 4.4 | DWA | Unknown | 17 | 1 600 |

* Live full supply capacity (ORASECOM)



SETUMO DAM

| Year of completion | Demands/abstractions (million m ³ /a) | | | 1:50 yield (million m ³ /a) | Maximum spillway capacity (m ³ /s) |
|--------------------|--|------------|---------|--|---|
| | Domestic | Irrigation | Other | | |
| 1995 | Unknown | Unknown | Unknown | Unknown | Unknown |

OPERATING RULE

The Setumo, Disaneng and Lotlamoeng Dams are operated as a sub-system, known as the Molopo sub-system South Africa. The operating rule for this sub-system allows the dams to supply the demands imposed upon them until the dams reach their respective minimum operating levels.

AREA-CAPACITY RELATIONSHIP

| Elevation (m) | Storage (million m ³) | Surface area (km ²) |
|---------------|-----------------------------------|---------------------------------|
| 1 226.3 | 20.74 | 4.47 |
| 1 226.0 | 19.56 | 4.37 |
| 1 225.0 | 15.48 | 3.80 |
| 1 223.0 | 9.39 | 2.59 |
| 1 221.0 | 5.16 | 1.65 |
| 1 220.0 | 3.51 | 1.31 |
| 1 218.0 | 1.46 | 0.74 |
| 1 217.0 | 0.94 | 0.52 |
| 1 215.0 | 0.23 | 0.19 |
| 1 213.0 | 0.00 | 0.00 |

