



SETUMO DAM

COORDINATES (degrees, minutes, seconds)

LATITUDE	LONGITUDE
25° 51' 30" S	25° 30' 45" 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 the 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)	FSA (km ²)	Owner	DWA code	Wall height (m)	Wall length (m)
Setumo Dam	Molopo	D41A	19.60	4.40	DWA	Unknown	17	1,600

* Live full supply capacity (ORASECOM, 2007a, WRYM datasets and DWA, 1990)



Setumo Dam (source: SA Dept of Water Affairs)



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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. 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

