

SMARTT SYNDICATE DAM

COORDINATES (degrees, minutes, seconds)

LATITUDE	LONGITUDE
30°26'42" S	23°18'00" E

LOCATION

Smartt Syndicate Dam is located just west of Britstown, Northern Cape Province, South Africa, in quaternary D61M.

DESCRIPTION

Smartt Syndicate Dam is an earth dam with a rock/soil foundation. It has a full supply level of 1 700 m, and a dead storage level and bottom of reservoir at 1 671 m.

PURPOSE

The dam is part of the Smart Syndicate Supply System, which supports 1 818 ha of irrigation. However, only approximately 16% of this area is supported, due to the low assurance of supply.

PHYSICAL INFORMATION

Dam name	River	Quaternary catchment	FSC* (million m ³)	SA (km ²)	Owner	DWA code	Wall height (m)	Wall length (m)
Smartt Syndicate	Ongers Brak River	D61M	101	31.5	Smartt Irrigation Board	D6R002	28	2 082

* Live full supply capacity (SANCOLD)



Smartt Syndicate 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		
1912	Unknown	12.6†	Unknown	Unknown	1 420

† WRC TT380/08

AREA-CAPACITY RELATIONSHIP

Elevation (m)	Storage (million m ³)	Surface area (km ²)
1 705	121.32	34.997
1 700	101.1	31.370
1 696	80.88	27.440
1 690	60.66	23.089
1 680	40.44	18.103
1 675	20.22	11.944
1 671	0.00	0.000

OPERATING RULE

The Smartt Syndicate and Victoria West Dams are operated as a sub-system, known as the Ongers 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.

