



# ERFENIS DAM

COORDINATES (degrees, minutes, seconds)

LATITUDE	LONGITUDE
28°30'27" S	26°46'42" E

## LOCATION

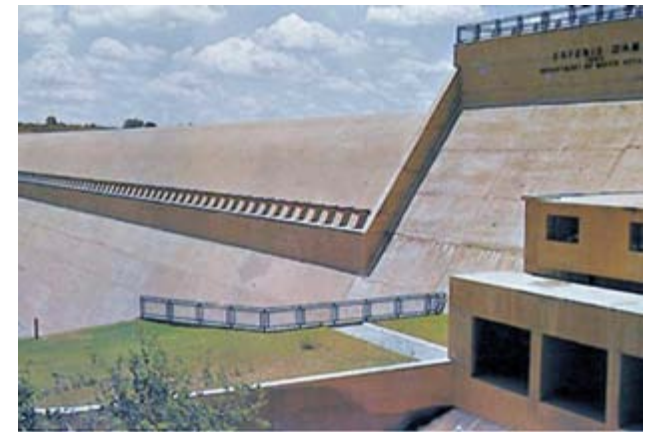
Erfenis Dam is located on the Vet River in quaternary catchment C41E, South Africa.

## DESCRIPTION

Erfenis Dam is a mass gravity concrete structure with an overspill section of 183 m approximately in the middle. The main canal extends from the dam down the left flank of the Vet River. It has a full supply level of 1 331.9 m, a dead storage level of 1 318.2 m and the bottom of reservoir is at 1 313.0 m. The dam is listed as one of the top ten impoundments in South Africa in need of nutrient management, due to the high level of nutrient enrichment.

## PURPOSE

Together with Allemanskraal Dam, Erfenis Dam forms the storage for the Sand–Vet Government Water Scheme. The towns of Brandfort and Bulfontein are also augmented with water from the Vet Canal system.



Erfenis Dam (source: SA Dept of Water Affairs)



## ERFENIS DAM

### PHYSICAL INFORMATION

Dam name	River	Quaternary catchment	FSC* (million m <sup>3</sup> )	SA (km <sup>2</sup> )	Owner	DWA code	Wall height (m)	Wall length (m)
Erfenis	Vet	C41E	212.2	32.9	DWA	C4R002	46	489

\* Live full supply capacity (SANCOLD)

Year of completion	Demands/abstractions (million m <sup>3</sup> /a)			1:50 yield (million m <sup>3</sup> /a)	Maximum spillway capacity (m <sup>3</sup> /s)
	Domestic	Irrigation	Other		
1959	Unknown	53.6 †	Unknown	100 ‡	3 170

† From Reservoir records for 2009 hydrological year

‡ Combined with Allemanskraal Dam, SA Dept of Water Affairs P09000/00/0101

### AREA-CAPACITY RELATIONSHIP

Elevation (m)	Storage (million m <sup>3</sup> )	Surface area (km <sup>2</sup> )
1 333	248.745	36.119
1 332	212.204	32.921
1 330	153.581	27.454
1 328	104.947	21.510
1 326	67.991	15.875
1 324	40.668	11.432
1 322	21.580	7.848
1 319	6.758	3.076
1 318	4.714	2.392
1 313	0.000	0.00

### OPERATING RULE

Erfenis and Allemanskraal Dams are operated as part of the Sand-Vet sub-system. Operating rules allow for these dams to supply their demands until the dams reach their defined minimum operating levels. The sub-system does not support Vaal or the Bloemhof sub-system.

