

MARE AUX VACOAS RESERVOIR				
FEEDERS				SCHEMATIC DIAGRAM
NATURAL STREAMS :		Grand Ruisseau Ruisseau Gros Cerf Gros Ruisseau & others		
FEEDER CANAL	LENGTH (Km)	RIVER	DESIGN CAPACITY m <sup>3</sup> /s	
Tatamaka	2.0	du Poste (South)	4.25	
Parc-aux-Cerfs	3.2	Citron(South)	9.5	
Pradier	4.1	Des Anguilles & tributaries Feeder Leckraz	2.63	

### History Notes

In 1885, a masonry dam of one metre height was built across Riviere du Tamarin in the marshy land at Mare aux Vacoas draining an area of 13 km<sup>2</sup>.

The purpose of the dam was to store water for domestic water supply. That was how the Mare aux Vacoas Dam has come into existence.

In 1892, the level of the dam was raised to an elevation of 558.54 m (amsl) and the capacity of the reservoir to 2.58 Mm<sup>3</sup>. In 1915, after a prolonged drought, the level of the dam was raised to an elevation of 560.06 m and the storage capacity to 5.27 Mm<sup>3</sup>.

In 1922, Tatamaka feeder canal was constructed to divert water from Riviere du Poste into the MAV reservoir. The carrying capacity of the canal is presently 4.25 m<sup>3</sup>/s and the annual contribution is of the order of 15 Mm<sup>3</sup>.

In 1928, with the contribution of the Tatamaka Feeder Canal, the reservoir capacity was further raised to 16.15 Mm<sup>3</sup>, and finally in 1961 to 27.63 Mm<sup>3</sup> with a water spread area of 5.6 km<sup>2</sup>.

In 1971, Parc aux Cerf Feeder Canal was constructed to divert flow from the upper catchment area of River Citron and North East part of the local catchment. The average annual contribution of the canal is 1.75 Mm<sup>3</sup>.

In 2002, the Pradier Canal was constructed to increase the inflow into MAV reservoir. Its annual contribution is estimated as 4 to 5 Mm<sup>3</sup>.

Contribution of local reservoir catchment is estimated as 11 Mm<sup>3</sup>/year.

A hydrographic survey of the reservoir was carried out for the first time in the year 1996, and the gross storage capacity of the reservoir determined as 25.89 Mm<sup>3</sup>.

The dam was comprehensively rehabilitated in the year 2000.

### Salient features of MAV Dam

<i>Location</i>	:	Across marshy area, called Mare aux Vacoas in the district of Plaines Wilhems and about 25 kms South of Port Louis
<i>Year of Construction</i>	:	In 1885, height and capacity increased in stages (in 1892, 1915, 1922, 1928, 1941) and finally in 1961
<i>Catchment Area</i>	:	19.50 km <sup>2</sup>
<i>Mean Annual Rainfall</i>	:	3330 mm
<i>Regulated Yield</i>	:	33 Mm <sup>3</sup> year approx.
<i>Reservoir Capacity</i>	:	25.89 Mm <sup>3</sup> after hydrographic survey of 1996
<i>Maximum water spread area</i>	:	5.6 km <sup>2</sup>
<i>Full Reservoir Level</i>	:	566.35 m amsl
<i>Feeder Canals</i>	:	(i) Tatamaka canal (1922), capacity 4.25 m <sup>3</sup> /s (ii) Parc aux Cerfs Canal (1971), capacity 9.5 m <sup>3</sup> /s (iii) Pradier Canal (2002), capacity 2.63 m <sup>3</sup> /s
<i>Feeders in local catchment</i>	:	(iv) Ruisseau Gros Cerfs (v) Gros Ruisseau (vi) Grand Ruisseau
<i>Type of Dam</i>	:	Cogliano and Tamarin dams are homogenous earthen embankments Mare Soulier Spillway and Second Spillway dams are of masonry
<i>Maximum height of dam</i>	:	- Cogliano : 10 m; - Tamarin : 11 m; - Mare Soulier : 6 m; and - Second Spillway dam : 3.5 m
<i>Length of Dam</i>	:	2948.50 m
<i>Width of Spillway</i>	:	1063.5 m
<i>Purpose</i>	:	Potable Water Supply

# MARE AUX VACOAS RESERVOIR

## DAILY STORAGE VARIATION

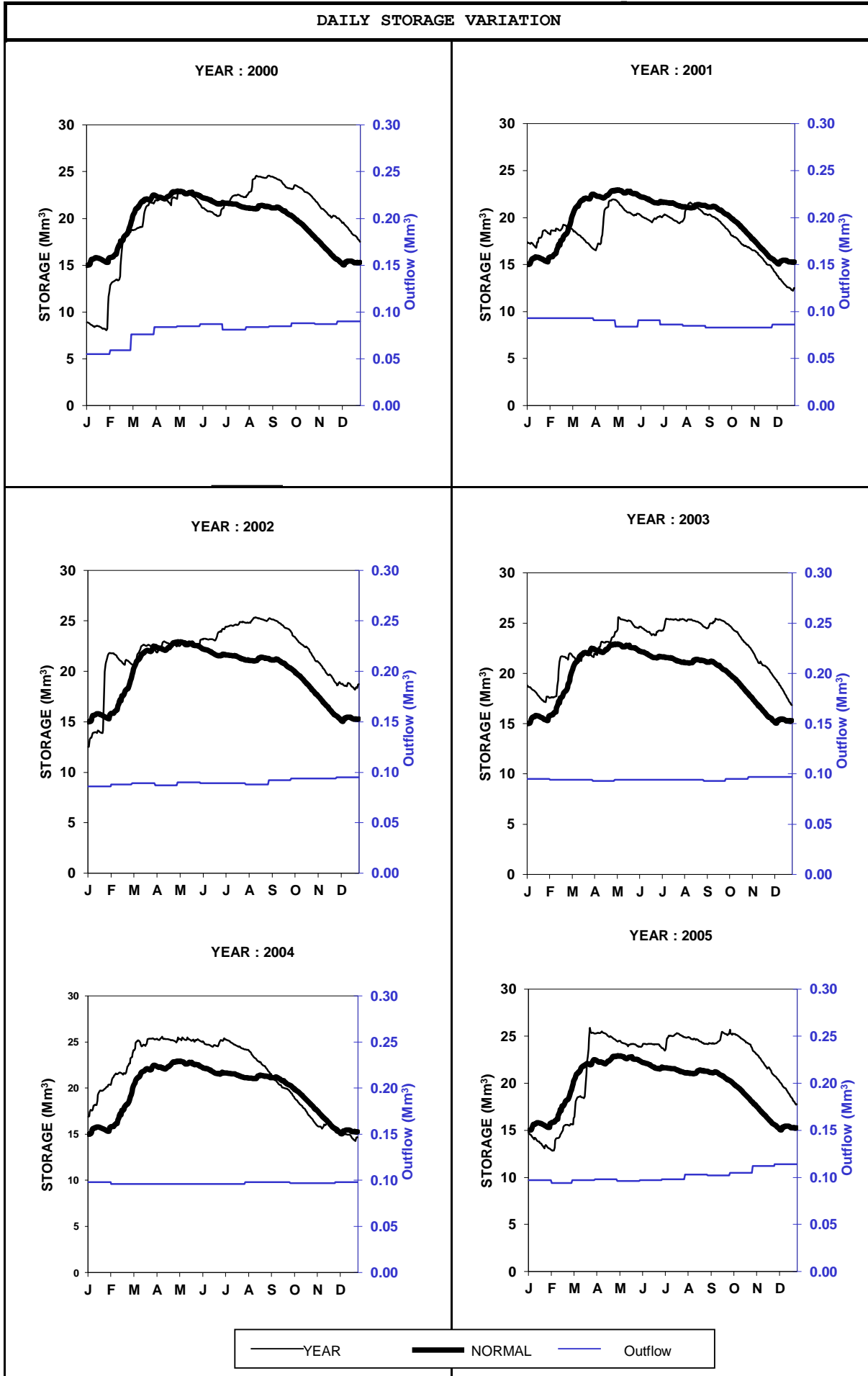


Fig. 5.2 Daily and Normal Storage Variation for Mare Aux Vacoas