



## *South Pacific HELP Symposium*

---



### **Determination of Mean Daily Discharge for the Faleaseela River, Implications for population water demand**



**\*M. Ngau Chun, I. Eti, M. A. Titimaea**



# *South Pacific HELP Symposium*

---

## **1. INTRODUCTION**

### **★ PURPOSE**

**To define a methodology in the assessment and quantifying of a water source in a catchment area**

### **★ APPLICATION**

**Methodology used in the development and planning of stakeholders' interests – SWA, EPC, MOH**



# *South Pacific HELP Symposium*

---

## **2. DATA COLLECTION**

- ★ **Hydrological Data** – assessing the quantity of the resource;
- ★ **Social – Economic Data** – consumption, per person and population



# *South Pacific HELP Symposium*

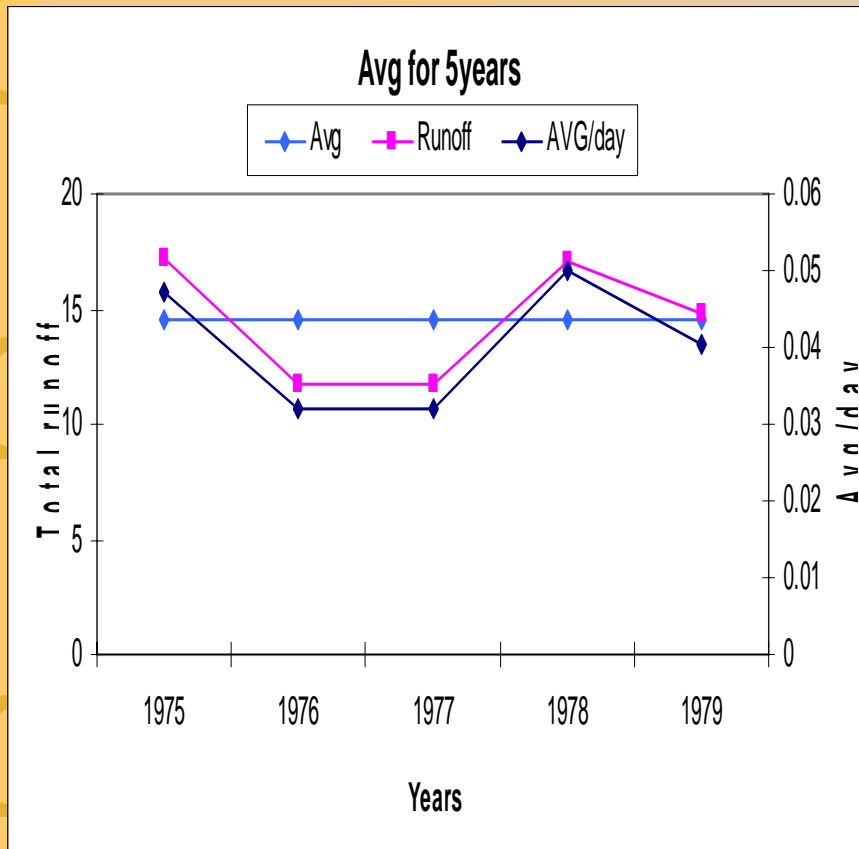
---

## **3. METHODOLOGY & ANALYSIS**

- ★ **Methodology – comparative method, volume runoff against consumption rate;**
- ★ **Analysis – trend analysis of consumption (population) against the estimate quantity of the resource for Faleaseela; and implications for future population growth**



# South Pacific HELP Symposium



**Faleaseela Total Runoff for 5years**

YEARS	RUNOFF	AVG/month	AVG/day
1975	17.220	1.435	0.0472
1976	11.700	0.975	0.0321
1977	11.727	0.977	0.0321
1978	17.099	1.425	0.0499
1979	14.76	1.23	0.0404

**5 Yr Avg**

14.5012



## *South Pacific HELP Symposium*

---

### 4. CONCLUSION

- ★ Average estimate of the quantity of water by volume at Faleaseela is 14.5 million m<sup>3</sup>/yr ;
- ★ SWA extract about .5 million cubic meters/yr (18l/s);
- ★ For a population of 4,508 persons (Census, 2001) requires .4 million m<sup>3</sup>/yr or 80 % of the SWA drawing rate; and
- ★ About 77.2 % of water available from Faleaseela is to be developed