

**ESTIMATION OF Water Demand**

Based on WSD's Departmental Instruction No. 1309 (DI1309)

Accommodation Type	Fresh Water	Salt Water	
<b>Residential - Public Housing</b>			
Population	53,100	53,100	
Unit flow factor (m <sup>3</sup> /person/day)	0.230	0.070	
Daily Flow, (m <sup>3</sup> /day)	12,213	3,717	
<b>Residential - Private Housing (R1)</b>			
Population	2,100	2,100	
Unit flow factor (m <sup>3</sup> /person/day)	0.230	0.070	
Daily Flow, (m <sup>3</sup> /day)	483	147	
<b>Residential - Private Housing (R2)</b>			
Population	15,900	15,900	
Unit flow factor (m <sup>3</sup> /person/day)	0.300	0.070	
Daily Flow, (m <sup>3</sup> /day)	4,770	1,113	
<b>Residential - Private Housing (R3)</b>			
Population	14,400	14,400	
Unit flow factor (m <sup>3</sup> /person/day)	0.390	0.070	
Daily Flow, (m <sup>3</sup> /day)	5,616	1,008	
<b>Residential - EDA</b>			
Population	2,340	2,340	
Unit flow factor (m <sup>3</sup> /person/day)	0.300	0.070	
Daily Flow, (m <sup>3</sup> /day)	702	164	
<b>Primary School</b>			
No. of School	8	8	
No. of Student per school	765	765	
Total Student and Staff No.	6,624	6,624	
Unit flow factor (m <sup>3</sup> /person/day)	0.025	0.025	
Daily Flow, (m <sup>3</sup> /day)	166	166	
<b>Storage and Workshop</b>			
G.F.A. (ha)	38.3	38.3	
Population	1,636	1,636.0	
Unit flow factor (m <sup>3</sup> /employee/day)	0.13	0.050	EPD's guidelines
Daily Flow, (m <sup>3</sup> /day)	213	82	
<b>G &amp; IC</b>			
G.F.A. (ha)	4.6	4.6	
Population	904	904	
Unit flow factor (m <sup>3</sup> /employee/day)	0.23	0.050	
Daily Flow, (m <sup>3</sup> /day)	208	45	
<b>Irrigation*</b>			
G.F.A. (ha)	38.0	-	
Unit flow factor (m <sup>3</sup> /ha/day)	50.00	-	Daily requirement of 10mm. Assuming 50% of area is landscape
Daily Flow, (m <sup>3</sup> /day)	1,900	-	
<b>Commercial Uses</b>			
G.F.A. (ha)	5.5	5.5	
Population	7,640	7,640	
Unit flow factor (m <sup>3</sup> /employee/day)	0.23	0.050	EPD's guidelines
Daily Flow, (m <sup>3</sup> /day)	1,757	382	
<b>Service Trades</b>			
Population	85,500	-	
Unit flow factor (m <sup>3</sup> /person/day)	0.040	-	
Daily Flow, (m <sup>3</sup> /day)	3,420	-	
<b>Total daily demand (m<sup>3</sup>/day)</b>	<b>30,745</b>	<b>6,660</b>	

\* Include the irrigation demand for agricultural, district open space and local open space