

**CWSS TO 33 QUALITY AFFECTED AND 20 WAYSIDE HABITATIONS IN KUMARATCHI
PANCHAYAT UNION IN CUDDALORE DISTRICT.**

SALIENT DETAILS

1 PROJECT COST : Rs. 428.42 Lakhs

**2 ANNUAL
MAINTENANCE
COST** : Rs. 6.00 Lakhs

3 BENEFICIARIES : 33 quality affected habitations and 20 way - side habitations in
Kumaratchi Union of Cuddalore District.

4 POPULATION

Census (2001) : 22,064

Base year (2010) : 23,257

Intermediate : 25,588

Ultimate (2040) : 27,907

	Description	Base year (2010)	Intermediate (2025)	Ultimate (2040)
5	TOTAL DAILY REQUIREMENTS			
	Requirement at the rate of 40 lpcd for QA habitations and 30 lpcd for wayside habitations and minimum of 10 lpm including transmission loss at 10% in pipe-line in litres	966240	1059120	1145520
6	HOURS OF PUMPING & RATE OF SUPPLY			
	Rate of supply for 12 hours pumping to the Habitations	1342 lpm	1471 lpm	1591 lpm
	Rate of supply for 16 hours pumping to sumps	1007 lpm	1104 lpm	1194 lpm

7 SOURCE : Coleroon River

8 HEADWORKS

8.1 Infiltration wells : 1 No. Proposed.

: Diameter : 4.5m

: Depth : 8.0 m

: Expected Yield: 1500 lpm

8.2 Pump set at Head Works : 2.00 HP Openwell Submersible Pumpset 133 lpm x 41 m head.
- 1 No.(Standby - 1 No)

: 20.00 HP Open well submersible P'set 1004 lpm x 52m head - 1 No.
(Standby - 1 No)

8.3 Pump room @ Headworks : 3.00 m x 4.00 m - 1No.

9 PUMPING MAIN

9.1 Pumping Main I –Infiltration well to existing 30,000 litres OHT at Edayar & H

<i>L.S</i>	<i>Size and Class of pipe</i>	<i>length in m</i>
LS 0 to 1450 m	80 mm CI S/S class pipes	1450 m
LS 1450 m to 2090 m	90 mm PVC 4 KSC pipes	640 m
L.S 2090 m to 2360 m	75 mm PVC 4 KSC pipes	270 m
LS 2360 m to 3990 m	63 mm PVC 4 KSC pipes	1630 m

Length of branch pumping main - 63 mm PVC 4 KSC pipes - 465 m

9.2 Pumping Main II –Infiltration well to proposed 50,000 litres sump at Panankattu Colony

<i>L.S</i>	<i>Size and Class of pipes</i>	<i>Length in M</i>
LS 0 m to 1450 m	200 mm CI S/S class pipes	1450 m
LS 1450 m to 8170 m	200 mm HDPF PN 6 pipes	6720 m
LS 8170 m to 11270 m	160 mm PVC 4 KSC pipes	3100 m
LS 11270 m to 14825 m	110 mm PVC 4 KSC pipes	3555 m

Length of branch pumping main - 90 mm PVC 4 KSC pipe - 230 m

10 FEEDER SUMPS, PUMPSETS & PUMPING MAINS TO RURAL HABITATIONS.

Capacity of Sump	Open well Submersible P'set	Feeder Pumping main	Branch Feeder main	No. of beneficiary habitations
Near Ayyanar Koil – 1.00 LL	Towards Jahir Hussain Nagar North 295 lpm x 38m head –5 HP	140mm PVC 4ksc- 1,000m	90mm PVC 4ksc- 750m 75mm PVC 4ksc- 30m	8
		110mm PVC 4ksc- 4,560m	63mm PVC 4ksc- 2,397m	
		90mm PVC 4ksc- 630m	Total -3,177m	
		75mm PVC 4ksc- 425m		
		63mm PVC 4ksc- 150m		
		Total - 6,765m		
Towards Thirunarayur 186 lpm x 20m head –2 HP	90mm PVC 4ksc- 30m 75mm PVC 4ksc- 1,320m	75mm PVC 4ksc- 1,140m	8	
	63mm PVC 4ksc- 45m	63mm PVC 4ksc- 3,714m		
	Total - 1,395m	Total -4,854m		
At Veeranatham-H – 1.20 LL	Towards Periyavattam-H 170 lpm x 27m head - 2 HP	90mm PVC 4ksc- 2,394m	63mm PVC 4ksc- 1,085m	8
		63mm PVC 4ksc- 1,400m	Total -1,085m	
		Total -3,794m		
	Towards Lakshmikudi 195 lpm x 36m head - 3 HP	90mm PVC 4ksc - 4,299m	90mm PVC 4ksc- 1,755m	7
		63mm PVC 4ksc - 260m	63mm PVC 4ksc- 690m	
		Total -4,559m	Total -2,445m	
Towards Elleri 244 lpm x 29m head - 3 HP	110mm PVC 4ksc- 1,332m	63mm PVC 4ksc- 1,852m	4	
	90mm PVC 4ksc- 1,600m	Total -1,852m		
	75mm PVC 4ksc- 800m			
	Total - 3,732m			
At Panankattu Colony – 0.50 LL	Towards T.Puthur 149 lpm x 34m head - 2 HP	90mm PVC 4ksc- 1,770m 75mm PVC 4ksc- 2,370m		7
		63mm PVC 4ksc- 222m	63mm PVC 4ksc- 1,638m	
		Total - 4,362m	Total -1,638m	
	Towards Sozhakkur 96 lpm x 21m head - 1 HP	63mm PVC 4ksc- 1,837m	63mm PVC 4ksc- 756m	5
		Total -1,837m	Total -756m	
Total sumps - 3 Nos.	Total sub. P'sets – 7 Nos. with stand-bye	140mm PVC 4ksc- 1,000m		Total habitations-47
		110mm PVC 4ksc- 5,892m		
		90mm PVC 4ksc-10,723m	90mm PVC 4ksc- 2,505m	
		75mm PVC 4ksc- 4,915m	75mm PVC 4ksc- 1,170m	
		63mm PVC 4ksc- 3,914m	63mm PVC 4ksc- 12,132m	
		Total - 26,444m	Total -15,807m	

11 SERVICE RESERVOIRS (EXISTING)

In Pumping Main I 10,000 litres 1 No.
30,000 litres 2 Nos.
60,000 litres 2 Nos.
Total 5 Nos (6 habitations)

In Pumping Main II 10,000 litres 10 Nos.
15,000 litres 2 Nos.
30,000 litres 25 Nos.
60,000 litres 7 Nos.
1,00,000 litre 1 Nos.
Total 45 Nos (47 habitations)

12 DISTRIBUTION SYSTEM : Water is distributed by utilising the existing D'system.

13 PUBLIC FOUNTAINS : Existing

14 ESTIMATE COST : **Rs. 428.42 Lakhs**

15 MAINTENANCE COST : **Rs. 6.00 Lakhs**