

**CWSS TO VELLUR AND 24 OTHER RURAL HABITATIONS IN MUSIRI
UNION OF THIRUCHIRAPPALLI DISTRICT**

SALIENT DETAILS

1)	Population	<u>Present</u> 2012	<u>Intermediate</u> 2027	<u>Ultimate</u> 2042
	:	13031	14336	15633
2)	Percapita supply	:	30 LPCD	
3)	Sustainability of water		10 LPCD	
4)	Requirement of water with 10 % losses in the system	0.430 MLD	0.473 MLD	0.516 MLD
5)	Hours of Pumping	:	16 Hours for head works 10 Hours for Group Sumps.	
6)	Rate of discharge for 16 hours		Intermediate	Ultimate
			491 LPM	539 LPM
7)	Head Works.	:	1 Number of Infiltration wells 4.50 m dia X 9 m depth in river cauvery flowing near Vellur Village	
		:	Ave. Bed level	80.40 M
			LSWL	79.40 M
			FVL	72.40 M
			Diameter	4.50 m ID X 9 M DEPTH
			Scour depth level	
			Well bottom	71.40 M
			Well Top	83.40 M
	Pump Room	:	Size : 6 M x 4 M	
	Pumpsets	:	Submersible Pumpset 491 LPM X 48 M head (100% Standbye)	
8)	Pumping Main	:	LS 0 M - LS 450 M 150 MM CI LA CI 450 M	
			LS 450 M - LS 2010 M 140 MM PVC 6 KSC 1560 M	
			LS 2010 M - LS 6210 M 110 MM PVC 6 KSC 4200 M	
			LS 6210 M - LS 9560 M 110 MM PVC 4 KSC 3350 M	
			LS 9560 M - LS 12350 M 90 MM PVC 4 KSC <u>2790 M</u>	
			TOTAL LENGTH	<u>12350 M</u>

9 **Branch mains from Pumping main**

Branch LS	Feeding point	Pipe details
450 M	Group sump I Vellur	90 MM PVC 6 KSC 20 M
2010 M	GROUP SUMP ii Vellur	75 MM PVC 6 KSC 30 M
9560 M	Group sump Rakkampatty	50 MM PVC 6 KSC 40 M

10 **Group sumps**

SI No		Group sump I Vellur	Group sump II Vellur	GS Thandalai puthur	GS near Rakkam patti
1	Av.Ground level	84.45 M	83.40 M	95.41M	92.83 M
2	Foot valve level	84.25 M	83.20 M	95.21 M	92.63 M
3	Maximum water level	86.75 M	85.70 M	97.71 M	95.13 M
4	Capacity of sump	0.60 LL	0.60 LL	0.60 LL	0.10 LL
5	Detention time	6 Hours	6 Hours	6 Hours	6 Hours
6	Habitations covered	10 Nos.	7 Nos.	5 Nos.	3 Nos.
7	Pumpsets(open well submersible pumpset) (100 % Standbye)	102 LPM x 35 M (DIR.I) 2) 161 LPM X 33 M (DIR.II)	227LPM x 20 M (DIR.I) 2) 45 LPM X 37 M (DIR.II)	209LPMX 45 M	48 LPM X 29 M
9	Pump room	6 m x 4 m	3M x 3 M	3M x 3 M	3M x 3 M

11) **Booster main From group sumps**

a. Group sump I Vellur to existing SR Umayalpuram (Direction I)

63 mm OD PVC pipe 4 KSC - 3480 M

b. Group sump I Vellure to existing SR Karuppampatty (Direction II)

90 mm PVC pipe 4 KSC 2610 m

75 MM PVC pipe 4 KSC 2660 m

5270 m

C.Group sump II Vellur to existing SR Mangarapettai

90 mm PVC pipe 4 KSC	330 m
75 MM PVC pipe 4 KSC	705 m
63 MM PVC Pipe 4 KSC	1205 m
	2240 m

C.Group sump II Vellur to existing SR Karruppukoilkottam

63 mm PVC puipe 4 KSC	2160 m
50 MM PVC 6 KSC Pipe	3380 m
	5540 m

d.GS Thandalaiputhur to existing SR Thiruthalaiyur North

90 mm PVC pipe 6 KSC	1380 m
90 MM PVC pipe 4 KSC	4230 m
75 MM PVC Pipe 4 KSC	300 m
	5910 m

e.G.S. Near Rakkampatty (H) to existing SR Kathiyampatty

63 mm PVC puipe 4 KSC	1110 m
50 MM PVC 6 KSC Pipe	2460 m
	3570 m

12) Branch mains from booster main (All group sumps)

50 MM PVC 6 KSC Pipe	6590 M
75 MM PVC 6 KSC pipe	3720 M
Total	10310 M

13) SERVICE RESERVOIRS	Existing	proposed	Total
1.00 LL	1	-	1
0.60 LL	1	-	1
0.30 LL	8	1	9
0.10 LL	13	1	14
Total	23	2	25

14) Distribution system and Public fountains

	Existing	proposed	Total
Distribution system	21825 m	500 m	22325 m

	Public fountain	116 Nos	2 Nos.	118 Nos
11	Cost of installation	Rs. 308.30	lakhs	
12	Annual maintenance cost	Rs.7.66	lakhs	
13	PER CAPITA COST			
	Present	2366		
	Intermediate	2151		
	Ultimate	1972		
	Cost / 1000 lits of water	10.50		