

SALIENT DETAILS

PROVIDING COMBINED WATER SUPPLY SCHEME TO 1153 RURAL HABITATIONS IN 9 UNIONS AND PERAVURANI, ADIRAMPATTINAM & PERUMAGALUR TOWN PANCHAYATS IN THANJAVUR DISTRICT WITH RIVER KOLLIDAM AS SOURCE

1.POPULATION:-

Sl. No	Unions	No. of habitations	Population		
			Present 2015	Intermediate 2030	Ultimate 2045
1	Pattukottai	300	129473	141891	154329
2	Madukkur	203	81303	89104	96909
3	Sethubavachatram	253	114025	124968	135920
4	Peravurani	247	109340	119834	130345
	Total	1003	434141	475797	517503
WAY SIDE HABITATIONS					
1	Papanasam	10	6123	6709	7298
2	Thiruvaiyaru	29	25912	28400	30887
3	Thanjavur	38	20065	21991	23920
4	Orathanadu	60	29073	31864	34654
5	Thiruvonam	13	3935	4314	4691
	Total	150	85108	93278	101450
TOWN PANCHAYATS					
1	Peravurani TP		24000	27000	31000
2	Adhirampattinam TP		32000	35000	41000

3	Perumagallur TP		7000	8000	9000
	Total		63000	70000	81000
	GRAND TOTAL	1153	582249	639075	699953

3. Sustainability available

:0/10/20/25IPCD
467/74/467/145

Habitations

- a. Along Coastal Area - 428 Habs.
b. Quality Affected Area - 39 Habs.
Total -467 Habs.
c. Inside Project Area - 686 Habs.(74+467+145)

4. REQUIREMENT OF WATER (FOR 18 HOURS PUMPING):

Sl. No.	Union	No. of habitations	Requirement in litres including 10 % losses		Rate of pumping for 18 hours in LPM	
			Inter Mediate 2030	Ultimate 2045	Inter mediate 2030	Ultimate 2045
1	Pattukottai	300	6468175	7025558	5992	6509
2	Madukkur	203	3577709	3878561	3311	3597
3	Sethubavachatram	253	7172307	7800861	6633	7223
4	Peravurani	247	5750788	6252670	5334	5791
	Sub Total-1	1003	22968979	24957650	21270	23120
WAY SIDE HABITATIONS						
1	Papanasam	10	405896	441531	377	408
2	Thiruvaiyaru	29	1718207	1868671	1592	1728
3	Thanjavur	38	857982	930054	799	862

4	Orathanadu	60	1239489	1344205	1151	1247
5	Thiruvonam	13	167516	181531	156	170
	Sub Total-2	150	4389090	4765992	4075	4415
	Total (for Rural Habitations)	1153	27358069	29723642	25345	27535
TOWN PANCHAYATS						
1	Peravurani TP		1173000	1569000	1086	1453
2	Adhirampattinam TP		1865000	2459000	1727	2277
3	Perumagallur		792000	891000	733	825
	Total (Town Panchyats)		3830000	4919000	3546	4555
	TOTAL		31188069	34642642	28891	32090
	Industrial demand at 10 %		3118807	3464264	2888	3208
	Grand Total		34306876	38106906	31779	35298
	Net requirement in MLD		34.31 mld	38.11 mld		

5. Hours of Pumping:

Head works and Booster sumps : 18 Hours
Group sumps : 12 Hours

6. Rate of discharge for 18 hours of pumping :

Intermediate : 31779 **LPM**
Ultimate : 35298 **LPM**

7. Head works:

Sl.No	Description	Details of Well		Location
		Dia	Depth	
1	Collector Well-I	6.00 m	17.00 m	Annaikudi

2	Collector Well-II	6.00 m	12.00 m	Veeramangudi
3	Collector well -III	6.00 m	12.00 m	Semmangudi

8. Connecting main and Pumping main details:

Sl. No.	Description	LPM (Inter/Ult.)	Length	Type of pipe	Pumpset
I	<u>CONNECTING MAINS FROM COLLECTOR WELLS TO COMMON COLLECTION SUMP AT VEERAMANGUDI</u>				
1	Collector well I at Anaikudi	12750/14250	2050 m	500 DI K7	65 HP 6375 LPM X 31 m (2+1)
2	Collector well II at Veeramangudi	9241/10500	650 m	500 DIK7	35 HP 4621 lpm X 22 m (2+1)
3	Collector well III at Semmangudi	9788/10548	3200 m	500 DIK7	80 HP 4894 lpm X 28 m (2+1)
II	<u>PUMPING MAINS</u>				
1	Collection sump at Veeramangudi to Karambiyam Booster sump	37453/40774	73710 m	800 mm MS	515 HP 18827lpm x 88 m (2+1)
2	<u>FROM KARAMBIYAM BS</u>				
i	<u>Direction I</u> To Vandakottai	8650/9800	12150 m 7075 m 5300 m 900 m 1100 m 7200 m Total 33725 m	500 mm DI 450 mm DI 160 PVC 140 PVC 110 PVC 90 PVC	55 HP 4325 lpm x 41 m (2+1)
3	<u>Direction II</u> To Kalanivasal	9817/10749	1200 m 12069 m 4350 m 17366 m 1500 m Total 47385 m	500 mm DI k7 450 mm DI k7 400 mm DI K7 350 mm DI K7 110 PVC 4 KSC	110 HP 4909 lpm X 66 M (2+1)
4	<u>Direction III</u> To Paingal	8376/9367	4500 m 9500 m 8315 m	500 mm DI k9 500 mm DI k7 450 mm DI k7	90 HP 4188 X 69 M (2+1)

			2690 m 16146 m 5820 m 150 m 2100 m 4500 m Total 53721 m	400 mm DI K7 350 mm DI K7 300 mm DI K7 250 mm DI K7 200 mm PVC 160 mm PVC	
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9. TAPPING SUMPS FOR WAYSIDE HABTIATIONS:

Sl.No	Sump details	Length of pipes	Size and type of pipes
1	Collection sump to Rajendram GS	21595 m	250DI, & 200PVC to 50PVC
2	Soorakkottai TS to Melaulur GS	17895m	160 PVC to 63PVC
3	Pudur TS to Kovilur GS I	17840m	160 PVC to 50 PVC

10. BOOSTER SUMPS:

I	Sump With Pump House At Top With Turbine Pumpset
	Collection sump at head works in Veeramangudi(21.20 LL)
2	Karambiyam (18.05LL)
II	Sump - with open well pump set Arrangements
1	Rettavayal (1.60LL)

11. TAPPING SUMPS:

	Sump - with open well pump set Arrangements
1	Soorakottai (0.70 LL)
2	Pudur (0.80 LL)
3	Siramelkudi (0.25 LL)
4	Poovalur (0.30 LL)

12. GROUP SUMPS:

Group sumps are proposed for every panchayats and the total length of Feeder main for all the SRs are 1151 Km

13. Cost of Installation : Rs.495.70 crore

14. Annual Maintenance cost : Rs.9.19 crore

15. Per capita cost : Rs.8514/-

16. Cost /1000 Lits : Rs. 20.54/-