

The salient details of the scheme are as follows:

Name of the Scheme	Combined Water Supply Scheme to Aruppukottai, Sattur and Virudhunagar Municipalities in Virudhunagar District		
Installation Cost	Rs. 436.00 Crore (Excluding Annual Maintenance cost)		
Annual Maintenance Cost (Base Year 2020)	Rs. 8.00 Crore		
Annual Maintenance Cost (Intermediate Year 2020)	Rs. 8.38 Crore		
Per Capita Cost (present population)	Rs.22389/-		
Cost per 1,000 Litres (Intermediate year 2035)	For Total Cost	For A.M. Only	For EB only
	Rs.56.28	Rs 9.95	Rs. 7.91
Proportionate Installation Cost & Annual Maintenance Cost	Name of Beneficiaries	Installation Cost (Rs.in crore)	A.M. Cost (Base Yr. 2020) (Rs.in crore)
	Aruppukottai Municipality	222.36	4.08
	Sattur Municipality	52.32	0.96
	Virudhunagar Municipality	161.32	2.96
	Total	436.00	8.00
Population and Requirement	Base Year (2020)	Intermediate (2035)	Ultimate (2050)
Aruppukottai Municipality	98000	109000	124000
Sattur Municipality	33970	37770	41990
Virudhunagar Municipality	78000	86000	94000
Total	209970	232770	259990
Pro rata Supply	135 lpcd		
Requirement of clear water including 10% transmission loss and 5 % firefighting demand (in Mld)			
Aruppukottai Municipality		11.62	13.84
Sattur Municipality		2.62	3.25
Virudhunagar Municipality		8.66	9.85
Total		22.90	26.94
Requirement of Raw water including 5% treatment loss (in	--	24.04	28.28

MLD)			
Rate of supply (Raw Water) at 23 hours pumping	--	17421 lpm	20493 lpm
Rate of supply (Clear Water) at 23 hours pumping		16594lpm	19522 lpm
Source	Surface water from River Tamirabarani near Seevalaperi Village. Intake well (8m dia) cum pump house (12.00m dia)- 1 No. 2 No. of Turbine pumpset-55 HP,8711 Lpm x 21m + 1 No. stand bye		
Raw Water Pumping Main	711mm x 6.3mm MS Pipes – 750 M		
Treatment Works	Full scale Treatment Units Capacity – 24.04 MLD		
Clear water sump	Clear water sump –9.25 LL Sump cum pump house – 2.50 LL Clear water pump set from WTP to BS I @ Sillankulam 2 Nos. of Turbine pumpset -155 HP,8297 lpm x 64m Head +1 Nos stand bye		
Clear Water Pumping main to BS I Sillankulam	711mm x 6.3mm MS Pipes -27.55 km		
Booster station I @ Sillankulam	Sump -9.25 LL	Sump cum pumphouse- 2.50 LL	2 Nos. of Turbine pumpset- 110 HP, 8297 lpm x46 m Head +1 No. stand bye
Clear Water Pumping main from BS I to BS II @ Vannimadai	711mm x 6.3 mm MS Pipes -56.40 km		
Booster Station II @ Vannimadai	Sump -8.25 LL	Sump cum pumphouse -3.50 LL	1)To Sennelkudi BS III-2 Nos. of Turbine pumpset- 125 HP, 7348 lpm x59 m Head + 1 No. stand bye 2) To Sattur – 1 Nos. of Sub pumpset- 22.50 HP, 1899 lpm x 37 m Head + 1 No stand bye
Pumping Main from BS II @ Vannimadai sump to BS III @ Sennelkudi sump	711 x6.3 mm MS pipe – 25.40 km 600 DI K9 Class - 3.20 km		
Pumping Main from Vannimadai sump to Sump at Sattur Municipality	250mm DI K9 pipe- 10.92 km		

Booster Station III @ Sennalkudi	Sump - 10.35 LL	1) To Aruppukottai-2 Nos. of HSC pumpset- 55 HP X 4210 lpm x 44m Head + 1 No stand bye 2) To Virudhunagar-1 No. of HSC pumpset-75 HP - 6275 lpm x 41 m Head + 1 No stand bye 3) Pump room 15 x 9 m	
Pumping Main from Sennalkudi sump to Sump at Aruppukottai Municipality	450mm DI K9 pipe- 17.850 km		
Pumping Main from Sennalkudi sump to Sump at Virudhunagar Municipality	400mm DI K9 pipe- 11.070 km		
Aruppukottai Municipality	Sump - 8.20 LL	Pump room 15m x9m	1) Pump set I-1 No. of HSC Pumpset - 50 HP X 4907 lpm x 33 m head +1 No stand bye 2) Pump set II-1 No. of HSC Pumpset - 22.5 HP 2842 lpm x 25 m head + 1 No stand bye 3) Pump set III-1 No. of HSC Pumpset 50 HP 4248 lpm x 39 m head + 1 No stand bye
Sattur Municipality	Sump -1.45 LL	Pump room 3mx4m	1) 1 No. of OW Submersible Pump set 2 HP x 150 lpm x 25 m head +1 No stand bye 2) 1 No. of OW Submersible Pump set 10 HP x 914 lpm x 30 m head +1 No stand bye 3) 1 No. of OW Submersible Pump set 7.50 HP x 835 lpm x 31 m head +1 No stand bye
Virudhunagar Municipality	Sump 6.20 LL	Pump room 15m x9m	1) Pump set I- 1 No. of HSC Pumpset - 22.5 HP 3011 lpm x 24 m head +1 No. stand

			bye 2) Pump set II-1 No. of HSC Pumpset - 30 HPX 3301 lpm x 28 m head + 1 No stand bye 3) Pump set II-1 No. of HSC Pumpset - 30 HPX 3127 lpm x 29 m head + 1 No stand bye
Feeder Mains to Service Reservoirs			
To Aruppukottai Municipality To Sattur Municipality To Virudhunagar Municipality	10.250 km (100 to 350 mm DI K9 pipes) 6.100 km (100 to 250 mm DI K9 pipes) 7.400 km(100 to 350 mm DI K9 pipes)		
Service Reservoirs	Existing (capacity and no.s)	Proposed (capacity and no.s)	
Aruppukottai Municipality	7 nos 10 LL -2 Nos, 5.00 LL -1 No, 4.00LL-1No,3.00LL-1 no 2.00LL-2Nos	2 nos 13.70 LL -1 No, 2.00 LL -1 No	
Sattur Municipality	5 nos 6.00 LL -1 No, 3.00 LL -1 No, 2.00LL-1No, 1.00LL-2Nos	2 nos 3.00 LL -1 No, 2.00 LL - 1 No	
Virudhunagar Municipality	10 nos 10.00 LL -2Nos, 3.00 LL -2Nos, 2.00LL-5Nos.	1no. 4.80 LL -1 No	

The salient details of the components in the WTP are submitted below:

Aerator	:	3 Trays with Collection Tray of Size 3.20m,5.20m,7.20m& 9.20m
Raw water channel		8.5 m x 1.8m x 1.00 m
Stilling chamber	:	6.00m x 4.00m x 2.10m
Raw water measuring channel	:	10m x 1.8m x 1.00m
Dividing chamber	:	1 No-2.30m dia, 4.20m depth
Flash mixer	:	2 Nos-1.80m dia, 3.60m depth
Clariflocculator	:	2 Nos- 25.00 m dia each
Clarified water channel	:	11.0 m x 0.6 m x 0.80m
Clarified combined water channel	:	11.0 m x 1.2 m x 0.80m

Filter house with filter beds	:	8 nos + 2 Nos stand bye Twin Bed - 4.20 m x 3.00 m each
Clear water sump	:	9.25 LL
sump cum pumphouse	:	2.50 LL
Recycling sump	:	1.55 LL
Wash water tank	:	1.60LL
Clear water Pumpset	:	2 Nos. of 155 HP Vertical turbine Pumpset - duty 8297 lpm x 64 m Head. 2+1 Nos, 1 no. of stand bye Pumpset.

FEEDER MAIN ABSTRACT

SL. NO	PIPE	LENGTH IN M		
		APK	VNR	SATTUR
1	350 MM DI K9 CL	5030	-	940
2	300 MM DI K9 CL	1340	-	3690
3	250 MM DI K9 CL	910	-	1370
4	200 MM DI K9 CL	740	1030	40
5	150 MM DI K9 CL	2200	2300	1000
6	100 MM DI K9 CL	30	2800	320
	TOTAL	10250	6130	7360

D SYSTEM ABSTRACT

SL. NO	PIPE	LENGTH IN M		
		APK	VNR	SATTUR
1	400 DI K7 CL	1724	-	-
2	350 DI K7 CL	441	-	-
3	300 DI K7 CL	954	888	462
4	250 DI K7 CL	3748	3753	207
5	200 DI K7 CL	2024	2366	1176
6	150 DI K7 CL	1348	4308	381
7	100 DI K7 CL	3028	7815	3873
8	315 HDPE PN 6	2204		341
9	280 HDPE PN 6	1319		
10	250 HDPE PN 6	2957	418	385
11	200 HDPE PN 6	5655	597	1098
12	160 HDPE PN 6	4779	2350	785
13	140 HDPE PN 6	7572	5405	1663
14	110 HDPE PN 6	79438	75939	30171
	TOTAL	117191	103839	40542