

CWSS TO VELLORE CORPORATION,
11 MUNICIPALITIES, 5 TOWN PANCHAYATS AND
944 RURAL HABITATIONS IN VELLORE DISTRICT
WITH RIVER CAUVERY AS SOURCE

SALIENT DETAILS

1. POPULATION AND REQUIREMENTS:

1. No	Name of beneficiary	Population as per				Requirement in MLD		
		2001 census	Base year 2012	Inter. Year 2027	Ulti. year 2042	Base year 2012	Inter. Year 2027	Ulti. year 2042
1.	Vellore Corporation	424098	518181	590929	662607	69.96	79.79	89.46
2.	11 Municipalities	647251	776910	924450	1088750	69.92	83.21	97.99
3.	5 Town Panchayats	66471	75200	86600	97400	5.27	6.07	6.81
4.	944 rural habitations	467242	498080	547888	597696	19.92	21.91	23.91
	TOTAL	1605062	1868371	2149867	2446453	165.07	190.98	218.16
Deduct Existing supply						48.87	48.87	48.87
Net Requirement						116.20	142.11	169.29
Add for Industrial demand @ 10%						12.00	15.00	17.00
Sub Total						128.20	157.11	186.29
Add for line loss @ 10%						12.82	15.71	18.63
Sub Total						141.02	172.82	204.92
Add for 5% for Treatment loss						6.98	8.18	10.08
TOTAL REQUIREMENT						148.00	181.00	215.00
Hours of Pumping		:	23 hours					
Clear water pumpset upto Kadathur B.S.R.		:	23 hours					
Gravity main designed for		:	24 hours					
Urban Feeders		:	20 hours					
Rural Feeders		:	12 hours					
HEAD WORKS		:	Thottilpatti Village upstream side of Sekkanur barrage across River Cauvery near Mettur Dam					
a) Leading Channel		:	80 m length (39 m width at LS 0 and 3.50 m from 40 m Average depth 3.09 m)					
b) Off take well cum pump house		:	1 No – Size 37.04 m x 10.90 m x 20.0 m					
c) Raw water pumpset		:	150 HP Turbine 21860 lpm x 23 m (6Nos + 3 Nos (Stand by))					
d) Raw water pumping main		:	1700 mm dia M.S. Pipe 100 m					

TREATMENT PLANT		
a) Aerator	:	Cascade-1 No
b) Stilling Chamber	:	1 No 7.00 m dia x 6.40 m depth
c) Measuring Channel	:	10 m length x 1.50 m depth width 1.25 m
d) Flash mixers	:	2 Nos 3.20 m dia 5.80 M DEPTH
e) Dividing chamber	:	1 No 5.10 m dia x 6.10 m depth
f) Clariflocculator	:	2 Nos 57.00 m dia
FILTER HOUSE		
Filter beds	:	22 Nos (Twin Beds) 1 No stand by
WASH WATER TANK	:	1 No 10.00 LL capacity sump 12.00 m staging height
CLEAR WATER SUMP CUM PUMPHOUSE	:	2 Nos -45.00 LL capacity Sump Baby sump – 1 No 31.60 x 4.0 x 5.0 m Pump house -1 No 37.90 x 10.00 x 7.00 m
CLEAR WATER PUMPSET	:	6 Nos + 3 Nos (Standby) Each 20872 lpm x 74 m head
PUMPING MAIN AND BOOSTER MAIN	:	
PUMPING MAIN I Treatment plant to Booster station I @ Komburankadu	:	1500 mm dia M.S pipe – 7150 m
BOOSTER MAIN I Booster station I Booster station II @ Palakkanur	:	1500 mm dia M.S pipe – 7200 m
BOOSTER MAIN II Booster station II Booster station III @ Muthampatti	:	1500 mm dia M.S pipe – 44160 m
BOOSTER MAIN III Booster station III Kadathur MBR	:	1500 mm dia M.S pipe – 22190 m
Total		80700 m
BOOSTER STATION	:	3 Nos
	:	Sump – 45.00 LL -2 Nos @ Each Booster station
	:	Baby sump – 1 No 31.60 x 4.0 x 5.0 m
	:	Pump house – 1 No 37.90 x 10.0 x 7.0 m
		Pumpsets: a) 20872 lpm x 110 m head (6 Nos + 3 Nos standby) at Komburankadu b) 20872 lpm x 102 m head (6 Nos + 3 Nos standby) at Pallakanur c) 20872 lpm x 79 m head (6 Nos + 3 Nos standby) at Muthampatti
BREAK PRESSURE TANK	:	3 Nos
		1 No @ LS 165965 m Sump capacity : 12.15 LL
		1 No @ LS 212800 m (Pallikonda) Sump capacity : 9.00 LL
		1 No @ LS 260400 m Sump capacity : 0.60 LL

GRAVITY MAIN	:	227.93 KM (MS 1600 mm to 700 mm) (DI 600 mm to 200 mm)
		1600 mm dia MS - 59850 m
		1500 mm dia MS - 4450 m
		1400 mm dia MS - 9000 m
		1300 mm dia MS - 11685 m
		1200 mm dia MS - 29300 m
		1100 mm dia MS - 1750 m
		1300 mm dia MS - 4000 m
		1200 mm dia MS - 13700 m
		1100 mm dia MS - 2100 m
		1000 mm dia MS - 350 m
		700 mm dia MS - 9050 m
		600 mm dia DI - 8600 m
		500 mm dia DI - 5225 m
		400 mm dia DI - 1275 m
		350 mm dia DI - 3300 m
		450 mm dia DI - 46200 m
		200 mm dia DI - 2030 m
		Total: 227930 m
BRANCH GRAVITY MAIN		700 mm - 100 mm – 161.02 Km
COLLECTION SUMPS		Urban Sumps – 45 Nos Booster Sumps – 5 Nos Rural Sumps - 118 Nos Total - 168 Nos
PUMP ROOM		159 Nos of various sizes
FEEDER MAIN		
Urban areas		500 mm DI to 100 mm DI – 184.75 Km
Rural areas		944.33 Km
PUMPSETS		Urban areas 43 Nos of various duties
		Rural areas 134 Nos of various duties
SERVICE RESERVOIRS		Urban areas 31 Nos (0.30 LL to 9.60 LL capacity)
		Rural Areas – 4 Nos 0.30 LL – 2 Nos, 0.60 LL – 1 No, 1.00 LL – 1 No
DISTRIBUTION SYSTEM		313.51 Km

Cost of the Project	:	Rs. 1295.00 crores
Annual Maintenance cost	:	Rs. 58.20 crores
Per capita Cost	:	Rs. 7948 for present population
Cost per 1000 litres	:	Rs. 25.13
Funds	:	NRDWP – Rs. 95.00 crores TN State (MNP) – Rs. 147.90 crores Municipality – Rs. 1044.90 a) TNUDF – Rs. 250.00 crores b) HUDCO – Rs. 690.41 crores c) IUDM – Rs. 104.49 crores Town Panchayat – Rs. 7.20 crores Total - Rs. 1295.00 crores