

### SALIENT DETAILS

Name of Scheme	PROVIDING CWSS TO 8 TOWN PANCHAYATS, 2452 RURAL HABITATIONS IN 11 UNIONS AND BULK PROVISION TO 3 MUNICIPALITIES IN SIVAGANGAI DISTRICT
Installation Cost	Rs.1752.73 Crore.
A.M.Cost	Rs.22.00 Crore
Percapita cost	Rs. 16026/- on present population, Rs. 11295/- (on ultimate population)
Cost per 1000 litres	Rs 59.68/-
Cost per 1000 litres A.M only	Rs 8.67/-

### REQUIREMENT OF WATER

Sl No	Name of Mpty/TP/Union	Population			Requirement in MLD			Design LPCD	Remarks (No. of Habs)
		Base Yr. 2021	Inter.Yr. 2036	Ultir. Yr. 2051	Base Yr. 2021	Inter.Yr. 2036	Ultir. Yr. 2051		
1	Sivagangai Mpty	43,990	49,960	56,740	2.4	2.72	3.09	45	
2	Devakottai Mpty	59,150	72,970	90,290	3.58	4.41	5.46	50	3 M
3	Karaikudi Mpty	123,970	155,230	194,360	3.45	4.32	5.41	23	
4	Knanadukathan TP	5,430	5,670	5,900	0.36	0.39	0.41	55	
5	Kandanur TP	7,990	8,430	8,870	0.53	0.58	0.63	55	
6	Kottaiyur TP	16,880	23,310	32,180	1.02	1.72	2.69	50	
7	Manamadurai TP	39,790	54,510	74,680	2.17	3.77	5.97	45	8 TPs
8	Nattarasankottai TP	6,130	6,530	6,930	0.37	0.41	0.46	50	
9	Pallathur TP	10,080	11,830	13,890	0.55	0.74	0.96	45	
10	Puduvayal TP	13,380	17,870	23,860	0.81	1.30	1.95	50	
11	Tiruppuvanam TP	28,980	37,140	47,610	1.75	2.64	3.78	50	
12	Devakottai Union	53,425	59,900	67,404	2.07	3.07	3.44	32	300
13	Ilayankudi Union	33,087	37,999	40,752	1.44	1.81	2.17	36	110
14	Kalayarkoil Union	58,938	67,337	76,927	2.64	3.53	4.08	37	229
15	Kallal Union	34,706	40,573	47,711	1.51	2.01	2.47	36	93
16	Kannankudi Union	31,753	34,980	38,680	1.27	2.21	2.33	33	245
17	Manamadurai Union	78,811	90,253	103,753	3.34	4.90	5.73	35	265
18	Sakkottai Union	108,165	134,193	163,172	4.06	7.09	8.94	31	290
19	Singampunari Union	65,580	73,880	83,180	2.94	3.75	4.32	37	192
20	Sivagangai Union	130,056	154,104	179,913	5.35	7.20	8.87	34	317
21	Thiruppuvanam Union	102,765	120,824	142,313	4.35	6.05	7.47	35	207
22	Thiruppathur Union	86,480	98,650	112,540	3.87	4.90	5.79	37	204
	<b>Total</b>	<b>1,139,535</b>	<b>1,356,141</b>	<b>1,611,655</b>	<b>49.83</b>	<b>69.52</b>	<b>86.42</b>		<b>2452 RH</b>

<b>SOURCE, PUMPSETS, CONNECTING MAINS &amp; T'MAIN DETAILS</b>					
CW No.	Well 1	Well 2	Well 3	Well 4	Well 5
Location	Thanneerpalli	Maruthur	Maruthur	Pettavaithalai	Kumaramangalam
Diameter	6.00	6.00	6.00	6.00	6.00
Depth Recommended	14.000	15.000	16.000	16.000	13.000
Yield Recommended in MLD	17.000	18.000	20.000	20.000	14.000
Height of CW above Bed Level	7.700	7.700	7.700	7.700	7.700
Pump House inner dia	8.50 m	8.50 m	8.50 m	8.50 m	8.50 m
Pump House Height	6.00	6.00	6.00	6.00	6.00
VT Pumpset Duty	11425 lpm x 30m - 1+1	11761 lpm x 35m - 1+1	13105 lpm x 34m - 1+1	13441 lpm x 34m - 1+1	8215 lpm x 42m - 1+1
BHP of VT Pump	120	150	150	150	120
Foot Bridge	500 M	700 M	930 M	850 M	810 M
Connecting Main	600 CI/DI LA Class	500 CI/DI LA Class	600 CI/DI LA Class	600 CI/DI LA Class	450 CI/DI LA Class
Connecting Main Length in Metres	950 (500 CI +450 DI)	2170 (700 CI +1470 DI)	2930 (930 CI+ 2000 DI)	3340 (850 CI+ 2490 DI)	5510 (810 CI+4700 DI)

**ABSTRACT FOR TRANSMISSION MAIN**

SL No	Size of the Main	Length in km
1	1219 x 10.0 mm MS pipe	58.41
2	1219 x 11.0 mm MS pipe	5.04
3	1118 x 8.8 mm MS pipe	53.7
	<b>Total</b>	<b>117.15</b>
Transmission main from CS to Pathiripatti Booster Sump	1118x8.8 mm MS pipe from LS 0.00 to LS 35130.00M Int.Stage:VT Pumpset: 2+1 Nos (730 HP) 28974 lpm x 83 M Ulti.Sage:VT Pumpset(2080 HP) 72002 lpm X 99 M	35.13 KM
Transmission main from Pathiripatti Booster Sump Thirunellipatti Ridge Point	From LS 0.00M to LS 5040.00M 1219x11.0 mm MS Int.Stage:VT Pumpset(1860 HP) 57947 lpmx110M Ulti.Sage:VT Pumpset(2500 HP) 72002 lpm X 119 M	5.04 KM
	From LS 5040.00M to LS 35700.00M 1219 x 10.0 mm MS	30.66KM
Transmission main from Thirunellipatti Ridge point to Thenammalpatti Feeder Sump	From LS 0.00 @ Thirunallipatti Ridge Point to LS 27750.00 : 1219 x 10.0 mm MS Pipes GRAVITY MAIN	27.75KM
	From LS 27750.00 to LS 46320.00 1118 x 8.8 mm MS Pipe. GRAVITY MAIN	18.57 KM
	<b>Total</b>	<b>117.15 KM</b>

<b>Feeder Main Pipe abstract</b> (from Thennammal Patti to All the Stand posts and Sumps)	
<b>SIZE</b>	<b>Total length in m</b>
914 x 8.0 mm MS pipe	63850
813 x 7.1 mm MS pipe	17610
711 x 6.3 mm MS pipe	10200
610 x 5.8 mm MS pipe	9700
600 DI K7CL pipe	23280
500 DI K7CL pipe	4620
450 DI K7CL pipe	18880
400 DI K7CL pipe	18450
350 DI K9CL pipe	9550
350 DI K7CL pipe	13996
300 DI K9CL pipe	7300
315 HDPE 6KSC pipe	22990
250 HDPE 6KSC pipe	18300
<b>Total</b>	<b>238726</b>

**Proposed Pumping/Gravity mains to Panchayat sumps and SRs:**

Panchayat Union	DVK	SVG	TPT	SGMRI	TPVM	MMDU	ILGD	Kallal	K.KUDI	K.KOIL	SAKKO.	TOTAL (km)
<b>HDPE Pipes</b>												
50/6	233.02	102.95		3.20	67.23	138.28	6.38	28.92	115.15	213.36	0.03	908.51
63/6	91.01	90.51	208.33	174.38	65.53	85.18	130.59	109.48	66.01	126.97	222.69	1370.67
75/6	53.67	64.13	36.49	21.77	53.08	48.49	53.03	40.14	27.79	80.88	66.98	546.43
90/6	20.52	49.53	26.74	20.29	32.22	32.61	23.80	21.55	40.75	39.02	25.06	332.08
90/8	0.60											0.60
110/6	23.43	35.71	14.90	14.34	54.99	44.87	24.73	15.58	14.84	17.66	40.94	301.98
110/8					1.20							1.20
125/6										2.95		2.95
140/6	9.15	22.88	23.82	15.57	19.44	12.04	13.04	0.55	7.32	21.60	23.73	169.14
160/6	7.10	16.26	10.31	19.80	14.64	26.57	19.59	2.06	9.15	3.61	15.25	144.34
160/8				1.60								1.60
180/6	8.15	25.34								8.76		42.25
200/6	8.00	8.84	3.86	12.90	21.49	8.59	12.27	16.88	11.27	24.79	16.01	144.90
200/8					0.90							0.90
225/6	11.75	5.76										17.51
250/6	12.45	6.45			12.08	15.40		9.08	3.63	28.66	8.38	96.13
250/8							0.57					0.57
280/6	10.68	7.26										17.94
315/6		7.66				6.26			10.42		7.95	32.29
<b>SUB TOT(A)</b>	489.53	443.27	324.45	283.85	342.78	418.29	284.00	244.24	306.31	568.24	427.01	4131.97
<b>DI Pipes</b>												
200DI K7			12.78									12.78
250DI K7			19.56	10.37								29.93
300DI K7		4.58	15.72									20.30
350DI K7		3.33								4.03	2.50	9.86
400DI K7		6.41			4.08						3.12	13.61

450DI K7					9.67						4.17	13.84
<b>SUB TOT (B)</b>		14.32		10.37	13.75					4.03	9.79	100.32
TOTAL (A+B)	489.53	457.59	324.45	294.22	356.53	418.29	284.00	244.24	306.31	572.26	436.80	4232.28

### Pumping mains in Town Panchayats from sumps to SRs

TOWN PANCHAYATS	TPVM	MMDU	NTRSK	Kottaiyur	Kanadu kathan	Kandanur	Pallathur	Pudhuvayal	TOTAL (Km)
<b>HDPE Pipes</b>									
50/6			10.12						10.12
63/6	0.07		0.14	0.42	0.93	0.51	2.03	0.63	4.73
75/6	0.30				0.93	3.76			4.99
90/6	0.73					0.87			1.60
110/6				0.38	1.38	0.10	1.14		3.00
140/6	0.33	0.67	1.33	3.19	0.39	1.91	1.26		9.08
160/6	0.12	0.04		0.96			0.15	0.03	1.3
200/6		2.36		2.38			0.06	1.66	6.46
250/6				3.93				0.03	3.96
<b>SUB TOT(A)</b>	1.55	3.07	11.59	11.26	3.63	7.15	4.64	2.35	45.24
<b>DI Pipes</b>									
250DI K7	1.25	2.44							3.69
300DI K7	0.02	0.09							0.11
300DI K9		1.47							1.47
350DI K7		0.03							0.03
<b>SUB TOT(B)</b>	1.27	4.03							5.30
<b>TOT A+B</b>	2.82	7.1	11.59	11.26	3.63	7.15	4.64	2.35	50.54

### DISTRIBUTION SYSTEM AND PUBLIC FOUNTAIN IN RURAL HABITATIONS AND IN TOWNPANCHAYATS:

Sl.No	Unions/TP	Distribution System-90mm HDPE (Length in Km)	Public Fountain (Nos)
Rural habitations			
1	Sivagangai Union	44.00	155
2	Devakottai Union	10.00	213
3	Manamadaurai Union	21.00	80
4	Ilayankudi Union	10.00	60
5	Tiruppuavanam Union	49.00	300
6	kallal Union	4.00	87
7	Sakkottai Union	10.00	196
8	Kalayarkoil Union	39.30	142
9	Kannankudi Union	40.00	360
10	Singampunari Union	9.00	40
11	Tiruppathur Union	14.50	41
<b>Total (A)</b>		<b>250.80</b>	<b>1674</b>

Town Panchayat			
1	Nattarasankottai TP	2.00	38
2	Tiruppuvanam TP	2.00	20
3	Manamadurai TP	1.50	25
4	Kanadukathan TP	2.00	38
5	Kandanur TP	3.00	52
6	Kottaiyur TP	4.00	104
7	Pallathur TP	4.00	30
8	Puduvayal TP	0.30	77
<b>Total (B)</b>		<b>18.80</b>	<b>384</b>
<b>Total (A)+ (B)</b>		<b>269.60</b>	<b>2058</b>

### INFRASTRUCTURE TO RURAL HABITATIONS:

Sl No	Name of Union Sump	S.P/SUMP	Capacity Litres
1	Sivagangai Un	Stand Post	3.90LL
2	Thirupuvanam Un	Sump	28.15 LL
3	Manamadurai Un	Sump	15.70 LL
4	Kalaiyarkoil Un	Stand Post	2.80 LL
5	Singampunari Union	StandPost	10.80 LL
6	Ilayangudi Un	Sump	5.45 LL
7	Thirupattur Un	Stand Post	2.50 LL
8	Kallal Un	Stand Post	3.70 LL
9	Devakottai Un	Stand Post	1.70 LL,3.00 LL,3.30 LL
10	Kannankudi Un	Stand Post	1.00 LL
11	Sakkottai Un	Stand Post	6.70 LL,1.70 LL
12	Kottaiyur TP		
13	Kanadukadhan TP		
14	Kandanur TP		
15	Pallathur TP		
16	Pudu vayal TP		

### Sumps in Rural Habitations:

Capacity (Litres)	SVG	DVK	MMDU	ILAYAN	TPVM	Kallal	S.kottai	K.koil	K.Gudi	TPPR	SGMRI	Total
No Panchats	41	41	38	29	40	36	26	42	17	40	30	380
Habitation	317	300	265	110	207	93	290	229	245	204	192	2452
5,000			3		1			1				5
10,000		1	3	2	4	1		3				14
15,000		4	2	4	5	5	1					21
20,000	3	1	3	8	7	3		4		2	1	32
25,000	1	6	8	3	2	1	1	7		1	2	32
30,000	5	6	4	3	3	2		3	1	4	1	32
35,000	2	4	4	1	5	1	1			2	1	21
40,000	3	2	3	2	2	2	2	3	2	2	5	28
45,000	2	3			3		1	7		5	4	25
50,000	4		2		2	1	1	1	1	2		14
55,000	2	4	3		2	2	2	1	2	1	2	21
60,000	1		2	1	1	1	1	3	3	1	1	15
65,000	2	2	4	1	1		3	2	1	2	2	20
70,000	1	1			1	1	1		3		1	9
75,000	2		1									3
80,000		1	1		1				3		1	7
85,000	1			1			1			1	2	6
90,000	1						2		1		3	7
95,000				1	3		2					6
1,00,000	3					1						4
1,05,000					3			1		2	1	7
1,10,000											1	1
1,15,000		1								1		2
1,20,000					1		1				1	3
1,25,000	2		1				1	1				5
1,40,000					1					1	1	3
1,45,000										1		1
1,50,000		1			1			1				3
1,55,000							1					1
1,60,000	1											1
1,65,000										1		1
1,75,000	1											1
1,80,000			1									1
1,90,000										1		1
2,00,000						1						1
2,20,000								1				1
2,25,000	1											1
2,30,000	1											1
2,45,000								2				2
2,60,000											1	1
2,65,000			1			1						2
2,80,000								1				1
2,90,000	1											1
3,20,000		1										1
3,30,000								1				1
3,60,000		1										1
4,45,000					1							1

5,85,000										1		1
6,85,000								1				1
7,00,000								1				1
8,25,000	1											1
9,10,000	1											1
TOTAL	42	39	46	27	50	23	22	45	17	31	31	373

### OHTs in Rural Habitations:

Capacity (Litres)	St Ht (m)	SVG	DVK	MMDU	ILAYAN	TPVM	Kallal	S.kottai	K.koil	K.Gudi	TPPR	SGMRI	Total
No of PTs		41	41	38	29	40	36	26	42	17	40	30	380
Habitation		317	300	265	110	207	93	290	229	245	204	192	2452
10,000	7.5	41	96	78	45	54	17	67	46	71	20	35	570
10,000	12										1		1
10,000	16										1		1
20,000	7.5	13	7	13	13	28	6	24	4	1	4	4	117
30,000	12	4		2	2	11	2	9	3		2		35
30,000	16										2		2
40,000	12	1			1	5	1	3	1			1	13
50,000	12					3			1				4
50,000	16										1		1
60,000	12	1		2		3							6
70,000	16										1		1
80,000	12								2				2
80,000	3										1		1
1,10,000	12								1				1
1,80,000	16							2					2
2,00,000	16							1					1
2,50,000	12										1		1
Total		60	103	95	61	104	26	106	58	72	34	40	759

### Pump Rooms in Rural Habitations:

Size(mxm)	2x2	3X3	4X3	5x4	6x4	9X5	TOTAL
Sivagangai	29	11		2			42
Devakottai	30	6	3				39
Manamadurai	31	12	3			1	47
Ilayangudi	24	2	1				27
Thiruppuvanam	42	5	2			2	51
Kallal	14	9					23
Sakkottai	26	4					30
Kalayarkoil	26	11		1			38
Kannangudi	8	9					17
Tirupathur	24			6		1	31
Singampuneri	25		6		1		32
TOTAL	279	69	15	9	1	4	377



**PUMP ROOM FOR TOWNPANCHAYATS:**

TOWNPANCHAYAT	SIZE (5m X 4m)
Nattarasankottai	1
Thiruppuvanam	1
Manamadurai	1
Kanadu kathan	1
Kandanur	1
Kottaiyur	1
Pallathur	1
Puduvayal	1
TOTAL	8

**COMPOUND WALL FOR TOWN PANCHAYATS:**

TOWNPANCHAYAT	SIZE (15m X 15m)	SIZE (20m X 20m)	SIZE (45m X 45m)	TOTAL
Nattarasan kottai		1		1
Thiruppu vanam	3			3
Mana madurai		2	1	3
Kanadu kathan		1		1
Kandanur		1		1
Kottaiyur		1		1
Pallathur		1		1
Puduvayal		1		1
TOTAL	3	8	1	12

**ABSTRACT OF INFRASTRUCTURES TO BE PROVIDED IN THIS MEGA PROJECT**

Sl.No	Description	Quantity
1	Collector Well-cum- Pump House with 400m-300mm MS Radial arm in 2 tiers	5 Nos
2	Connecting Main 600mm,500mm & 450mm CI Pipe	3.79 Km
3	Connecting Main 600mm,500mm & 450mm DI Pipe	11.11 Km
4	38.85 LL Sump	2 Nos
5	5.00 LL Baby Sump-cum- Pump House	2 Nos
6	MCC Building 15m x 9m	2 Nos
7	Office Building	2 Nos
8	Watchman Quarters	3 Nos
9	Standpost/MSR in Unions	14 Nos
10	Pump rooms of various dimensions in Unions and Town Panchayat	385 Nos
11	RCC Sumps of Various Capacities in Unions and Town Panchayat	381 Nos
12	RCC OHTs of Various Capacities in Unions and Town Panchayat	768 Nos
13	Compound wall of various dimensions in Unions and Town Panchayat	402 Nos
14	Transmission Main (1118x8.8mm MS, 1219x10.00 mm MS & 1219x11.00mm MS)	117.15 Km
15	Feeder Main and Pumping Main (MS, DI and HDPE Main of various sizes)	238.73 Km
16	Branch Pumping Mains/ Gravity Mains	4282.82 Km
17	Distribution system in Rural Habitations and Town Panchayats	269.60 Km
	Pipeline total length	<b>4908.30Km</b>
18	Single Tap Public Fountain in Rural Habitations and Town Panchayats	2058 Nos