

SALIENT DETAILS

Name of Scheme	Providing Combined Water Supply Scheme to 250 Rural habitations in Andipatty, Kadamalaikundu Mayiladumparai and Theni Unions of Theni District with Vaigai Dam as source.		
Installation Cost	Rs. 162.43 Crore.		
A.M.Cost	Rs. 2.95 Crore		
Per capita cost (Present)	Rs.12,971/-		
Cost per 1000 litres (Intermediate)	Rs.27.83		
Cost per 1000 litres (A.M alone)	Rs.9.13		
POPULATION AND REQUIREMENT	Base Year (2021)	Intermediate (2036)	Ultimate (2051)
Andipatty Union 137 Habitations	74,462	84,424	95,493
Kadamalaikundu Mayiladumparai Union 104 Habitations	59,297	66,584	74,311
Theni Union 9 Habitations	5,935	6,877	8,116
Total	1,39,694	1,57,885	1,77,920
Pro rata supply in lpcd	55	55	55
Requirement (in MLD)			
Andipatty Union 137 Habitations	4.09	4.64	5.25
Kadamalaikundu Mayiladumparai Union 104 Habitations	3.26	3.66	4.09
Theni Union 9 Habitations	0.33	0.38	0.44
Total in MLD	7.68	8.68	9.78
Existing supply in MLD	1.39	1.39	1.39
Net Requirement in MLD	6.29	7.29	8.39
Requirement with min 10 lpm for 12 hours pumping including Transmission Loss @ 10% in MLD			
Andipatty Union 137 Habitations	3.68	4.30	4.97
Kadamalaikundu Mayiladumparai Union 104 Habitations	2.93	3.39	3.85
Theni Union 9 Habitations	0.29	0.35	0.43
Sub Total in MLD	6.90	8.04	9.25
Institutional Demand @ 10% in MLD	0.70	0.81	0.92
Total Clear water requirement including losses in MLD	7.60	8.85	10.17
Treatment losses at 5 % in MLD	0.31	0.44	0.51
Total raw water requirement in MLD	7.91	9.29	10.68
Total raw water requirement in MLD Say	7.90 MLD	9.30 MLD	10.70 MLD
Source	Surface water from the pickup weir at the down stream of Vaigai Dam		
Intake well	Dia: 3.5 m	Depth : 4.8 m	
Location	About 100 m from the existing intake well for Andipatty Town Panchayat Water Supply Scheme.		
Connecting Main	400 mm CI D/ F pipe 60.5 m		
Collection Well cum Pump House	Dia : 6.0 m	Depth : 9.5 m	
	Dia : 8.0 m	Height : 6.0 m	
Raw water Turbine Pumpset	55 HP - 3370 lpm x 52 m (2+1 No) (50% stand bye)(23 hours of pumping)		
Generator room	5m X 4m –1 No		
Generator	200 KVA – 1 No		
Raw water Pumping Main	400 mm DI K7 – 4,050 m		

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Treatment Plant	Capacity : 10.70 MLD
Location	Vaigai dam – Kanavilakku Road Survey No 1190 of Koilpatty Village
Clear Water Sump at Treatment Plant	22.65 LL – 1 No.
Clear water Open well submersible Pumpsets & HSC Pumpsets at Treatment plant site	4 HP with a duty of 239 lpm X 46 m – 2 Nos (1 + 1, 100 % standby) 70 HP with a duty of 2730 lpm X 82 m – 2 Nos (1 + 1, 100 % standby) 75 HP with a duty of 3205 lpm X 76 m – 2 Nos (1 + 1, 100 % standby) 55 HP with a duty of 4213 lpm X 41 m – 2 Nos (1 + 1, 100 % standby)
Pump Room	15 m x 9 m – 1 No

Clear water Pumping Main and Branch Pumping Mains from CWSR to Panchayat Sumps/ Intermediate sumps and Sumps to SR

Sl No	Description of Pipe	Length in m						
		Andipatty Union	Kadamalaikundu Mayiladumparai & Theni Union				Total	
		Proposed	Existing	Proposed	Total	Existing	Proposed	Total
1	50 HDPE 6KSC	44675	-	15320	15320	-	48805	48805
2	50 HDPE 10KSC	3450	-			-	3450	3450
3	63 HDPE 6KSC	46930	-	35600	35600	-	93220	93220
4	63 HDPE 8KSC	-	-	1170	1170	-	1170	1170
5	75 HDPE 6KSC	26185	-	12755	12755	-	37660	37660
6	75 HDPE 8KSC	-	-	4430	4430	-	4430	4430
7	90 HDPE 6KSC	13040	-	8360	8360	-	25130	25130
8	90 HDPE 8KSC	-	-	450	450	-	450	450
9	110 HDPE 6KSC	12430	-	11430	11430	-	21910	21910
10	110 HDPE 8KSC	-	-	70	70	-	70	70
11	140 HDPE 6KSC	610	-	3175	3175	-	3785	3785
12	160 HDPE 6KSC	-	-	20	20	-	20	20
13	40 GI MEDIUM	570	-			-	570	570
14	50 GI MEDIUM	-	-	11860	11860	-	11860	11860
15	65 GI MEDIUM	-	-	2040	2040	-	2040	2040
16	80 GI MEDIUM	100	-			-	100	100
17	100 GI MEDIUM	-	-	1440	1440	-	1440	1440
	Sump to SR	147990	0	108120	108120	0	256110	256110
18	100 mm DI K7 Pipes	41270	-	21550	21550	-	62820	62820
19	150 mm DI K7 Pipes	16750	1080	16585	17665	1080	33335	33335
20	200 mm DI K7 Pipes	19660	-	3750	3750	-	23410	23410
21	200 mm DI K9 Pipes	4900	-	-	-	-	4900	4900
22	250 mm DI K7 Pipes	5650	-	4250	4250	-	9900	9900
23	300 mm DI K7 Pipes	9950	-	22100	22100	-	32050	32050
24	300 mm DI K9 Pipes	-	-	2250	2250	-	2250	2250
25	350 mm DI K7 Pipes	-	-	6750	6750	-	6750	6750
	Sump to Sump	98180	1080	77235	78315	1080	175415	176495
	Grand Total	246170	1080	185355	186435	1080	431525	432605
	Panchayat Sumps / MSR							
1	Capacity from 5000 to 550000 litres – Proposed	28 Nos		13Nos	41 Nos			
2	Capacity from 10000 to	1 No		12 Nos	13 Nos			

	160000 litres – Existing							
3	70000 Litres MSR	1 No			1 No			
4	Pump Rooms – Proposed	25 Nos		12 Nos	37 Nos			
5	Pumpsets – Proposed	37 Sets		39 Nos	76 Nos			
6	Compound Walls – Proposed - 7mx 7m – 25 m x 25m	29 Nos		11 Nos	40 Nos			
Sl No	Description	Andipatty Union	Kadamalaikundu Mayiladumparai &Theni Union			Total		
I	Pump Rooms – Proposed	25	12			37		
a	2 m X 2 m Size	15	--			15		
b	3 m X 3 m Size	8	5			13		
c	4 m X 3 m Size	1	--			1		
d	5 m X 4 m Size	1	5			6		
e	6 m X 4 m Size	--	1			1		
f	9 m X 5 m Size	--	1			1		
II	Pumpsets – Proposed	37	39			76		
III	Compound Walls - Proposed	29	11			40		
a	7 m X 7 m Size	8	---			8		
b	10 m X 10 m Size	13	2			15		
c	12 m X 12 m Size	6	4			10		
d	15 m X 15 m Size	--	3			3		
e	20 m X 15 m Size	1	1			2		
f	20 m X 20 m Size	---	1			1		
g	25 m X 25 m Size	1	---			1		

Service Reservoirs

Sl No	Capacity in Litres	Andipatty Union			K.Mayiladumparai&TheniU nion			Total		
		Existing	Proposed	Total	Existing	Proposed	Total	Existing	Proposed	Total
1	10000	77	25	102	42	7	49	119	32	151
2	15000	8	--	8	--	--	--	8	--	8
3	20000	2	2	4	--	1	1	2	3	5
4	30000	79	1	80	46	1	47	125	2	127
5	60000	13	--	13	8	1	9	21	1	22
6	100000	4	--	4	5	--	5	9	--	9
	Total	183	28	211	101	10	111	284	38	322

Sl No	Union	Distribution System - Length in KM			Public Fountains		
		Existing – 63 mm – 90 mm PVC Pipes	Proposed – 90 mm HDPE Pipes	Total	Existing	Proposed	Total
1	Andipatty Union	164	16.0	180.0	500	61	561
2	Kadamalaikundu Mayiladumparai & Theni Union	125	8.5	133.5	312	30	342
	Total	289	24.5	312.0	812	91	903

Funding	Loan Assistance by NABARD – NIDA & MNP
Maintenance	By TWAD Board, after complete satisfactory Contractor's Maintenance period of five year.