

CITY WATER BALANCE PLAN

Basic Details

ULB Information

 City THIRUVANANTHAPURAM	 District THIRUVANANTHAPURAM	 State KERALA	 Existing AMRUT City Yes
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	Name	Designation	Landline No.	Mobile No.	E-mail ID
Nodal Officer	Ganga RS	Executive Engineer	04712320821	9447586832	gangarslsgd@gmail.com
Mayor.Pre	Arya Rajendran S	NA	04712320821	9447377477	tvmmayor@gmail.com
Municipal.C/C.Ofc	Binu Francis	NA	04712332085	9447303769	tvpmcorp@gmail.com
Head,W.S/S.De	S VENKATESAPATHY IAS	NA		9447798383	mdunitkwa@gmail.com
HOD/P.H.de	Saji V	NA	0471-2322303	9447797878	sephcircletvpm@gmail.com

Parastatal Agency

Any parastatal agency engaged? : **Yes**

No. Of Parastatal Agency : **1**

#	Organization name	Nodal officer name	Designation	Landline no.	Mobile no.	E-mail ID
1	Kerala Water Authority	Saji V	Superintending Engineer	0471-2322303	9447797878	sephcircletvpm@gmail.com

City profile as per FY 2021-22

City population(Census 2011)	957675	Households (Census 2011)	292022	City area (sq. km.)	214.72
Wards in city	100	Slum settlements (No.)	169	Industries (No.)	24922
Industrial clusters	2	Population survey conducted in the last five years ?	No	Survey year	NA
Survey city population	NA	City population in 2021	992499	Households in 2021(no.)	303065
Population density	4622	Slum population in 2021	96139	Slum households 2021	23738


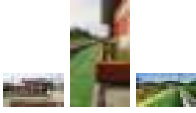

Future Projection

City population in 2025	1071899	Households in 2025	327310	Slum households in 2025	25637
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Engineering College/ Organization/ Experts Working in Water Sector in the ULB

#	Type	Entity name	Nodal officer name	Landline no.	Mobile no.	E-mail ID
1	Organization	Kerala Water Authority	Saji V	0471-2322303	9447797878	sephcircletvpm@gmail.com

Uploaded Images

#	Type	Name	Uploaded image(s)
1	Water Body	Amayizhanjan Thodu	
2	Park	Poundkadavu park	
3	Sewage Treatment Plant/ Water Treatment Plant	Medical College Sewerage Treatment Plant	

Water Supply

Major Water Sources Details

#	Type	Name / Location	No. of water tapping points	Quantity of water tapped in MLD	Location outside	Distance in km.
1	Dam	Aruvikkara Dam	2	341.2	Yes	15
2	Lake	Vellayini Lake	1	8.632	No	NA
3	River	Karamana River	4	71.91	No	NA

Water Treatment Plants (WTP)

#	Location of WTP	Designed capacity in MLD	Operational capacity in MLD	Water supply source	Technology used for automatic monitoring
1	Aruvikkara	74	74	Aruvikkara Dam	Other(Pulsator)
2	Aruvikkara	75	75	Aruvikkara Dam	Other(Lamella plate settler)
3	Aruvikkara	72	72	Aruvikkara Dam	Other(Conventional type rapid sand filter)
4	Aruvikkara	86	86	Aruvikkara Dam	Other(Conventional type rapid sand filter)
5	Vizhinjam	3.3	3.3	Vellayini Lake	Other(Conventional type rapid sand filter)
6	Vellayini	5	5	Vellayini Lake	Other(Conventional type rapid sand filter)
7	Choorattukotta	1	1	Karamana River	Other(Conventional type rapid sand filter)
8	Vilappil	1	1	Karamana River	Other(Conventional type rapid sand filter)
9	PTP	13.5	13.5	Karamana River	Other(Conventional type rapid sand filter)
10	PTP	16	16	Karamana River	Other(Conventional type rapid sand filter)
11	Vellayambalam	36	30	Karamana River	Other(Conventional type rapid sand filter)

Water Connections

#	Water connections type	No. of tap connections provided	No. of households	Water supplied in MLD
1	Residential / Households	253737	253737	126.85
2	Commercial Establishments	23409	NA	30.45
3	Industries	139	NA	1.74
4	Slums	2877	2877	11.42
5	Institutional Establishments	5852	NA	7.61

Present Water Supply to Residential/Households incl. Slums

Piped water supply in MLD	126.85	Water supply directly through tankers in MLD	0	Water supply through tubewell & borewell in MLD	0
Treated water supply in MLD	0	Total water supply in MLD	126.85	Average per capita water supply in LPCD	152.883

Estimated Future Water Demand in 2025 (in MLD)

Residential/Households including slums	168.16	Commercial establishments	40	Industries	3.475
Institutional establishments	15	Slums	20	Total	226.635
Are you going to met the 100% future demand through subsurface water source?		Yes		How much future demand in MLD will be met through subsurface water source?	NA

WB Rejuvenation & RWH

Rainwater Harvesting (RWH)

Is rainwater harvesting included in bylaws?	Yes	Status	Implemented	No. of water tanks at religious places in your city	19
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Water Source Quality Assessment

#	Type	Name	Area	Photograph	Site latitude & longitude	Water quality assessment	Has the source rejuvenated
1	Water Body	Amayuzhanjan Thodu	0.33			Bad	No
2	Water Body	Akkulam	0.73			Bad	No
3	Water Body	Karamana River	9.5			Bad	No
4	Water Body	Vellayani lake	3.98			Bad	No

Used Water

Sewerage Coverage

Household connected to sewer network					
No. of households covered	53637	Sewage generated in MLD	101.48	Sewage treated through STP in MLD	56

Household not connected to sewer network					
No. of households covered	0	Sewage generated in MLD	0	Sewage treated through STP in MLD	0

Septage Coverage

No. of households covered	273673	Sewage generated in MLD	0	Sludge treated through FSSM in KLD	0	Grey water recycled in MLD	0
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Sewage Treatment Plants (STP)

#	Location of STP	Designed capacity in MLD	Operational capacity in MLD	Reused capacity in MLD	Reuse purpose	Revenue from reused water	Automatic monitoring?	Technology used
1	Muttathara	107	56	0.05	Others (Internal gardening)	0	Yes	Activated sludge process with extended aeration
2	Medical College	5	2	0	Others (Not applicable)	0	Yes	MBBR

City Water Balance Plan Summary

Current Infrastructure assets/supply FY21-22 (A)		Projected consumption/demand FY25-26 (B)		Estimated gap FY25-26 (C)= (B)-(A)	
Water Supply					
Water supplied to households	126.85	Water demand	226.635	Gap in water supply	99.785
Water treatment capacity	382.8	Water to be treated	226.635	Gap in water treatment	-156.165
Households with tap connections in slums	2877	Total slum households	25637	Gap in household tap connections	22760
Households covered with Tap connections (City)	253737	Total households including slums	327310	Gap in households tap connections including slums	73573
Used Water					
Used water being treated	56	Used water generation	134.528	Gap in used water treatment	78.528
Used water being recycled	0.05	Used water to be recycled (20%)	26.906	Gap in used water recycling	26.856
Sewer connections provided (including coverage with septage management)	327310	Total households	327310	Gap in household sewer connections/ coverage with septage management	0