

# CITY WATER BALANCE PLAN

## Basic Details

### ULB Information



City  
CHENGANNUR (M)



District  
ALAPPUZHA



State  
KERALA



Existing AMRUT City  
No

|                          | Name                 | Designation        | Landline No. | Mobile No. | E-mail ID              |
|--------------------------|----------------------|--------------------|--------------|------------|------------------------|
| <b>Nodal Officer</b>     | Thrissi S Balan      | Assistant Engineer |              | 8330032168 | lsgdcgnrmlty@gmail.com |
| <b>Mayor.Pre</b>         | Mariamma john philip | NA                 | 04792450544  | 9495954302 | seccgnrmlty@gmail.com  |
| <b>Municipal.C/C.Ofc</b> | Prasad C             | NA                 |              | 9447401770 | seccgnrmlty@gmail.com  |
| <b>Head,W.S/S.De</b>     | Venkateshapathy IAS  | NA                 |              | 9447798383 | mdunitkwa@gmail.com    |
| <b>HOD/P.H.de</b>        | Sujith sudhakaran    | NA                 |              | 8606610242 | seccgnrmlty@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 | Joshua sam         | Assistant Engineer |              | 8547638527 | kwaphscnr@gmail.com |

### City profile as per FY 2020-21

|                              |       |  |       |                         |      |
|------------------------------|-------|--|-------|-------------------------|------|
| City population(Census 2011) | 23456 | Households (Census 2011)                             | 5792  | City area (sq. km.)     | 14   |
| Wards in city                | 27    | Slum settlements (No.)                               | 0     | Industries (No.)        | 1    |
| Industrial clusters          | 1     | Population survey conducted in the last five years ? | No    | Survey year             | NA   |
| Survey city population       | NA    | City population in 2021                              | 28147 | Households in 2021(no.) | 6950 |
| Population density           | 2011  | Slum population in 2021                              | 0     | Slum households 2021    | 0    |





### Future Projection

|                         |       |                    |      |                         |   |
|-------------------------|-------|--------------------|------|-------------------------|---|
| City population in 2025 | 30399 | Households in 2025 | 7506 | Slum households in 2025 | 0 |
|-------------------------|-------|--------------------|------|-------------------------|---|

**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 | Joshua sam         |              | 8547638527 | kwaphscnr@gmail.com |

**Uploaded Images**

| # | Type                  | Name                  | Uploaded image(s)   |
|---|-----------------------|-----------------------|---|
| 1 | Women Self Help Group | Women self help group |  |
| 2 | Water Body            | pampa                 |  |
| 3 | Water Body            | varattar              |  |
| 4 | Water Body            | illimala thodu        |  |

## 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 | River | pampa           | 2                           | 4.75                            | Yes              | 3               |

### Water Treatment Plants (WTP)

| # | Location of WTP  | Designed capacity in MLD | Operational capacity in MLD | Water supply source | Technology used for automatic monitoring |
|---|------------------|--------------------------|-----------------------------|---------------------|--|
| 1 | Kunnathumala WTP | 2.25                     | 2.25                        | pampa               | Other(manual)                            |
| 2 | Malayil WTP      | 2.5                      | 2.5                         | pampa               | Other(manual)                            |

### Water Connections

| # | Water connections type       | No. of tap connections provided | No. of households | Water supplied in MLD |
|---|------------------------------|---------------------------------|-------------------|-----------------------|
| 1 | Residential / Households     | 3040                            | 3040              | 4.25                  |
| 2 | Commercial Establishments    | 275                             | NA                | 0.3                   |
| 3 | Industries                   | 1                               | NA                | 0.02                  |
| 4 | Institutional Establishments | 10                              | NA                | 0.1                   |
| 5 | Slums                        | 0                               |                   | 0                     |

### Present Water Supply to Residential/Households incl. Slums

|                             |      |  |      |   |         |
|-----------------------------|------|--|------|---|---------|
| Piped water supply in MLD   | 4.25 | 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                    | 4.25 | Average per capita water supply in LPCD         | 345.192 |

### Estimated Future Water Demand in 2025 (in MLD)



|  |     |  |    |            |     |
|--|-----|--|----|------------|-----|
| Residential/ Households including slums                                      | 6   | Commercial establishments  | 1  | Industries | 0.5 |
| Institutional establishments   | 1   | Slums  | 1  | Total      | 8.5 |
| 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 | Not implemented | No. of water tanks at religious places in your city | 9 |
|---|-----|--------|-----------------|---|---|

### Water Source Quality Assessment

| # | Type       | Name          | Area | Photograph  | Site latitude & longitude | Water quality assessment | Has the source rejuvenated |
|---|------------|---------------|------|---|---------------------------|--------------------------|----------------------------|
| 1 | Water Body | Pampa river   | 2    |  |                           | Good                     | No                         |
| 2 | Water Body | varattar      | 3    |  |                           | Good                     | Yes                        |
| 3 | Water Body | ilimala thodu | 1.5  |   |                           | Bad                      | No                         |

## Used Water

### Sewerage Coverage

| Household connected to sewer network |   |                         |     |                                   |     |
|--------------------------------------|---|-------------------------|-----|-----------------------------------|-----|
| No. of households covered            | 0 | Sewage generated in MLD | 3.4 | Sewage treated through STP in MLD | 3.8 |

| 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 | 0 | Sewage generated in MLD | 0 | Sludge treated through FSSM in KLD | 0 | Grey water recycled in MLD | 0 |
|---------------------------|---|-------------------------|---|------------------------------------|---|----------------------------|---|

### 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 |
|----------------------------|-----------------|--------------------------|-----------------------------|------------------------|---------------|---------------------------|-----------------------|-----------------|
| No data available in table |                 |                          |                             |                        |               |                           |                       |                 |

## City Water Balance Plan Summary

| Current Infrastructure assets/supply<br>FY21-22 (A)                     |      | Projected consumption/demand<br>FY25-26 (B) |      | Estimated gap FY25-26 (C)= (B)-(A)                                   |      |
|---|------|---|------|--|------|
| <b>Water Supply</b>   |      |   |      |  |      |
| Water supplied to households  | 4.25 | Water demand                                | 8.5  | Gap in water supply  | 4.25 |
| Water treatment capacity  | 4.75 | Water to be treated                         | 8.5  | Gap in water treatment   | 3.75 |
| Households with tap connections in slums                                | 0    | Total slum households                       | 0    | Gap in household tap connections                                     | 0    |
| Households covered with Tap connections (City)                          | 3040 | Total households including slums            | 7506 | Gap in households tap connections including slums                    | 4466 |
| <b>Used Water</b>   |      |   |      |  |      |
| Used water being treated  | 3.8  | Used water generation                       | 4.8  | Gap in used water treatment  | 1    |
| Used water being recycled   | 0    | Used water to be recycled (20%)             | 0.96 | Gap in used water recycling  | 0.96 |
| Sewer connections provided (including coverage with septage management) | 0    | Total households                            | 7506 | Gap in household sewer connections/ coverage with septage management | 7506 |