

Water Supply

Existing Situation

The municipality of Pallavapuram meets its water supply requirements through surface and sub surface sources. The main source of water for Palavaram is Palar River at a distance of 64 km from the town. The water is only chlorinated and no treatment facility is available at the source. The source is been maintained by the TWAD board under the Pallavaram – Tambaram combined water supply scheme. The subsurface sources are primarily borewells.

The distribution system is maintained by the Pallavapuram Municipality. There are 11 nos of storage reservoirs of combined capacity 5.4 ML, located at various strategic locations within the municipal limits. Water is supplied for alternate days.

Source of Water Supply

The town is served by both ground and surface sources of water. Due to the insufficient availability of water from the main source, the Palar River, tapping of ground water through bore wells, hand pumps and open wells is practiced to augment the current supplies. Water is also supplied in tanker lorries to the unserved areas.

Surface water source. The primary source of water supply to Pallavapuram Municipality is the Palar River. A Combined Water supply Scheme for Alandur and Pallavapuram was designed and implemented to supply Pallavapuram with a daily quantity of 5.45 ML. However, the supply is only 3.10 MLD during the normal season and 2.50 MLD during the summer months.

The present water supply system was designed in the year 1972 as commissioned in the year 1983 for a design population of 75, 147 for 1986 and for an ultimate population of 143, 984 at 2001. The beneficiaries are namely Alandur Municipality, Pallavapuram Pammal, Anakaputhur, Municipality, Chitlapakkam town panchayat, I.A.F. Tambaram Contonment Board and Vandalur Zoo.

The total quantity of water supplied by TWAD in the normal is 3.10 MLD and during summer, it is 2.5 MLD. The average gross per capita supply works out 24 lpd during normal season and 10 lpd during summers (Aprial, May, June and July). The requirement is 27.7 MLD

(5 MGD) for intermediate (1986) and 34.05 MLD (7.5 MGD) for the ultimate project year (2001). Due to the ground water potentiality, the quantity has been restricted.

Other Sources. There are 312 bore wells with hand pumps and 41 bore wells with power pumps in different parts of the town extracting water of around 1.47 MLD and 0.41 MLD respectively. The average ground water depth in Pallavaram is 9 – 18 m below the found level and goes down much more during summer. It is estimated that around 1,5000 liters of water could be extracted from a bore well in a day.

Distribution System

Storage Facilities. The water is collected in the service reservoir through the feeder mains. Four new elevated service reservoirs (OHT – 1.9 MLD Cap.) and four new ground level reservoirs (GLSR – 1.3 ML Cap.) were constructed through the aforementioned.

The transmitted water is stored in the newly constructed sumps and pumped to the Elevated Storage Reservoir (ESR). The location of Ground Level Service Reservoir (GLSR's) and ESR's and its respective capacity and levels is presented in the respectively. The total capacity is 1.3 ML and 5.3 ML for GLSR and ESR respectively.

There ar 11 nos of ESR's and the zoning of water supply is dependent on the location of the ESR.

Table - Storage Reservoirs – ESR's

Storage Reservoirs	Year of Completion	Average GL	Maximum Water Level	Lowest Water Level	Capacity
	Year	m	m	m	ML
Munvar Avenue		17	32.6	29	0.2
Kannabiran Koil Street					0.5
New Colony	1972	23	36.4	33.4	0.2
Radha Nagar	1972	23	33.4	30.4	0.6
Gayathri Nagar	1990	24.5	26	23	0.5
Shanthi Nagar		21	36.45	33	0.5

Bharathi Nagar	1982	29.5	40	37	0.5
Eswari Nagar	1990				0.3
Nehur Nagar	1982	33.25	42	39	0.5
N.G.O. Colony		16.5	34.95	31.5	0.5
Katcheri Malai	Not functioning	27.6	36.1	32.6	0.7
Total					5.4

Distribution Arrangements. The total length of the distribution network is 130 km., with PVC as the predominant material. It is noted that, almost about 61 km., of distribution network was laid during the year 1991 – 2006. The abstract of the distribution network is presented in the table. Seven Private lorries are used by the municipality to serve the areas with inadequate water during drought, which is generally in the months of April, May

Per Capita Supply Levels

The gross supply in the town is 3.5 MLD with respect to the total need of about 13 MLD, working with a norm of 90 lpcd. Water is supplied once in two days owing to the shortage in supply from the source. The main issue is that, water from the source is being shared by the way side villages and a leakage loss of about 25 percent is expected through the passage. Thus the net per capita supply is just about 24 lpcd during normal season and about 10 lpcd in summers and droughts which is usually in the months of April and May.