

CHENNAI BASIN

Introduction

The Chennai basin group rivers are situated between latitudes 12° 30' 00'' to 13° 35' 00'' N and longitudes 79° 15' 00'' to 80° 22' 30'' E and is located into the northern part of Tamil Nadu. The Chennai Basin Group of rivers is Araniar, Korattalaiyar or Kosasthalaiyar, Cooum and Adyar and small minor stream on the southern part of the basin. The Chennai basin comprises of 8 sub basins as shown in Plate:CHE-02. The northern part of Chennai basin is occupied by Andhra Pradesh and Pulicat lake, south and west by the Palar river basin and east by Bay of Bengal. The total geographical area of Chennai basin within Tamil Nadu is 6118.34 sq km totally. It covers in the Survey of India toposheets 57'O', 57 'P', 66'C', and 66 'D' and it also covers in Chennai, Kancheepuram, Thiruvallur and Vellore districts. The administrative setup of the Chennai basin group is given below (Figure 1)

SI No	DISTRICT	TALUK	SI No	BLOCK	BLOCK/AREA FALLING WITHIN THE BASIN AREA IN Sq Km
1.	Kancheepuram	Thirukalunkundram	1	Thirukalukundram	71.60
		Tambaram	2	St. Thomas Mount	217.49
		Chengalpattu	3	Thiruporur	411.82
			4	Kattankulathur	158.83
		Kancheepuram	5	Kancheepuram	10.14
			6	Walajabad	73.27
		Sriperumpudur	7	Sriperumpudur	248.69
			8	Kundrathur	203.70

Sl No	DISTRICT	TALUK	Sl No	BLOCK	BLOCK/AREA FALLING WITHIN THE BASIN AREA IN Sq Km
2.	Thiruvallur	Gummidipoondi	9	Gummidipoondi	420.51
		Ponneri	10	Minjur	478.69
			11	Cholavaram	193.85
		Ambattur	12	Puzhal	127.10
			13	Villivakkam	210.61
		Poonamallee	14	Poonamallee	178.33
		Thiruvallur	15	Thiruvallur	194.91
			16	Kadambattur	265.50
		Thiruthani	17	Thiruthani	186.09
			18	Thiruvelangadu	259.78
		Pallipattu	19	Pallipattu	166.22
			20	R.K.Pet	175.95
Utthu Kottai	21	Poondi	332.99		
	22	Ellapuram	250.87		
3	Arakonam	Arakonam	23	Arakonam	103.27
			24	Nemili	243.97
			25	Kaveripakkam	293.90
			26	Sholingur	284.26
			27	Walajah	178.00
4.	Chennai Corporation				178.00
TOTAL AREA 6118.34					

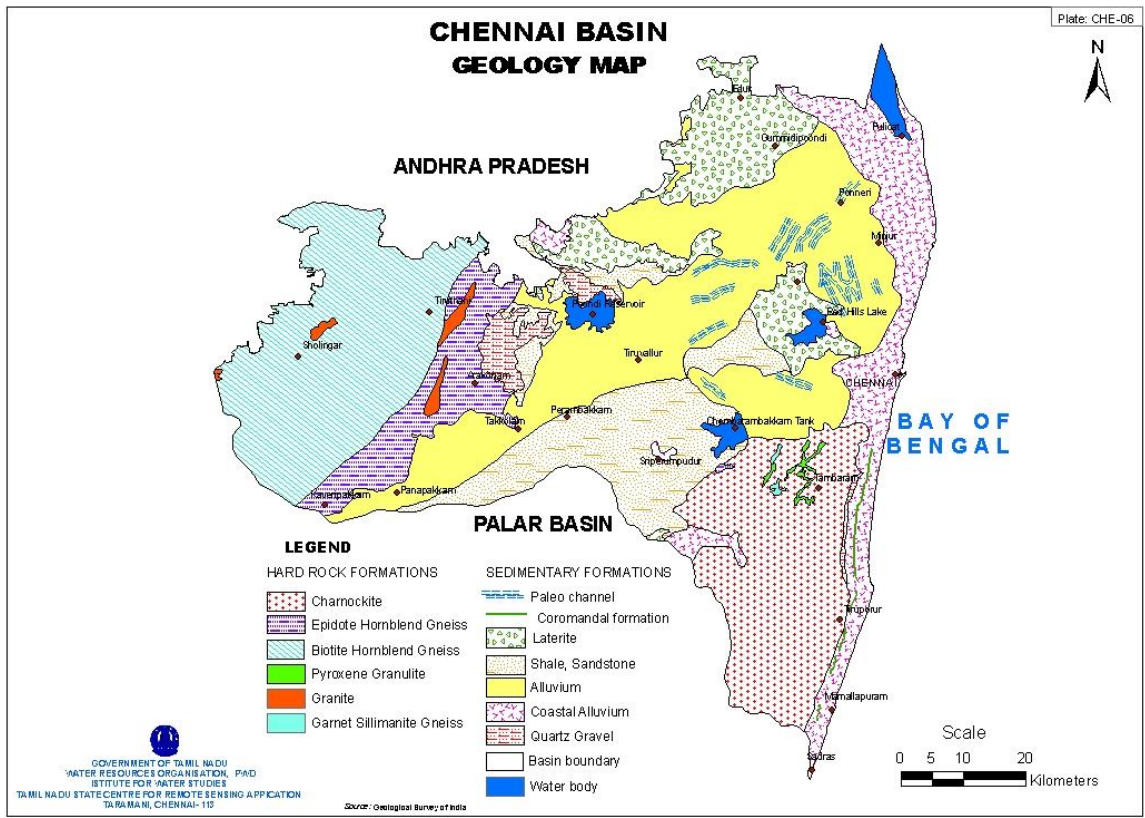


Figure 2 Geology map of Chennai basin

LANDUSE

The IRS P6 FCC of 2004 was used to prepare the Land use map of Chennai basin (Figure 3). The Landuse map is prepared adopting existing classification system developed by National Remote Sensing Agency (NRSA). This map consists of categories like built up land, agricultural land, forest land, and water bodies etc., stratified further.

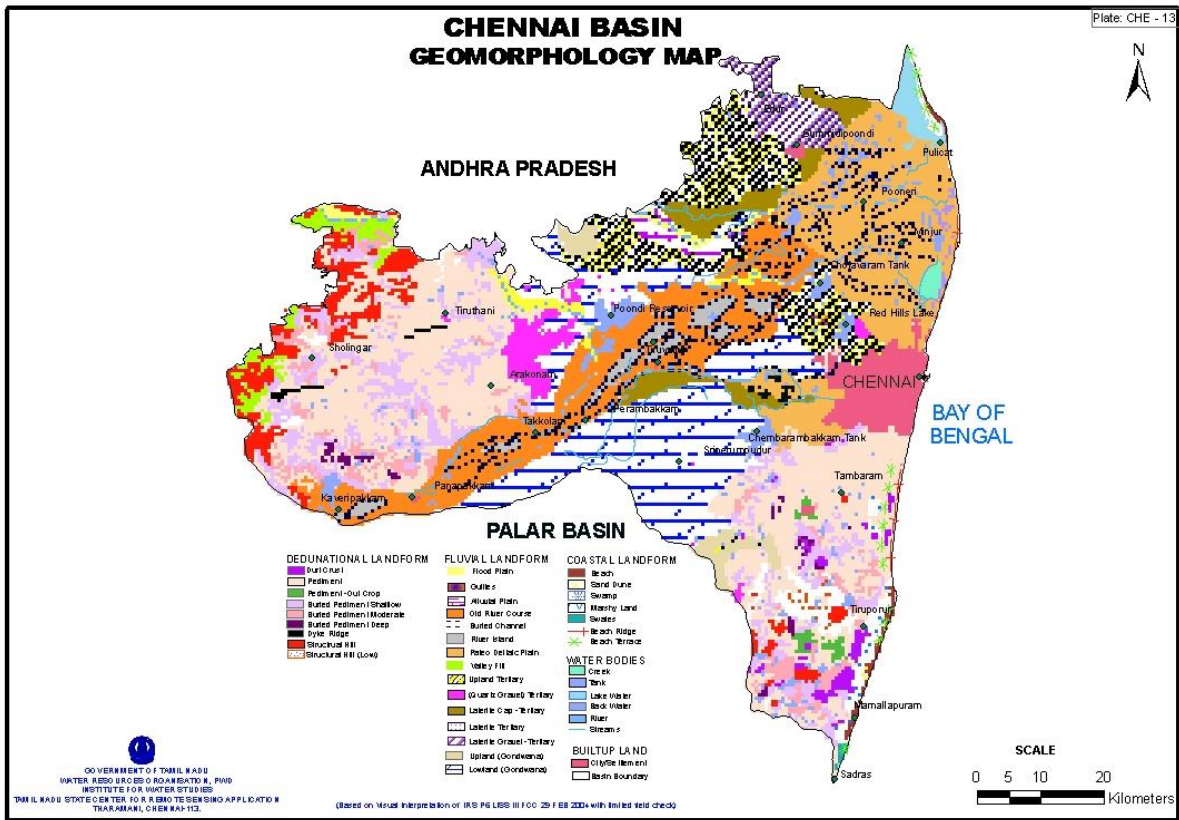


Figure 4 Geomorphology map of Chennai basin

SOILS

The soils of the Chennai basin have been shown in Figure 5. The predominant soil types found in this river basin is Inceptisols, Alfisols, Entisols and Vertisols. Due to different stages of weathering of parent material, the above soil types are met with in combination.

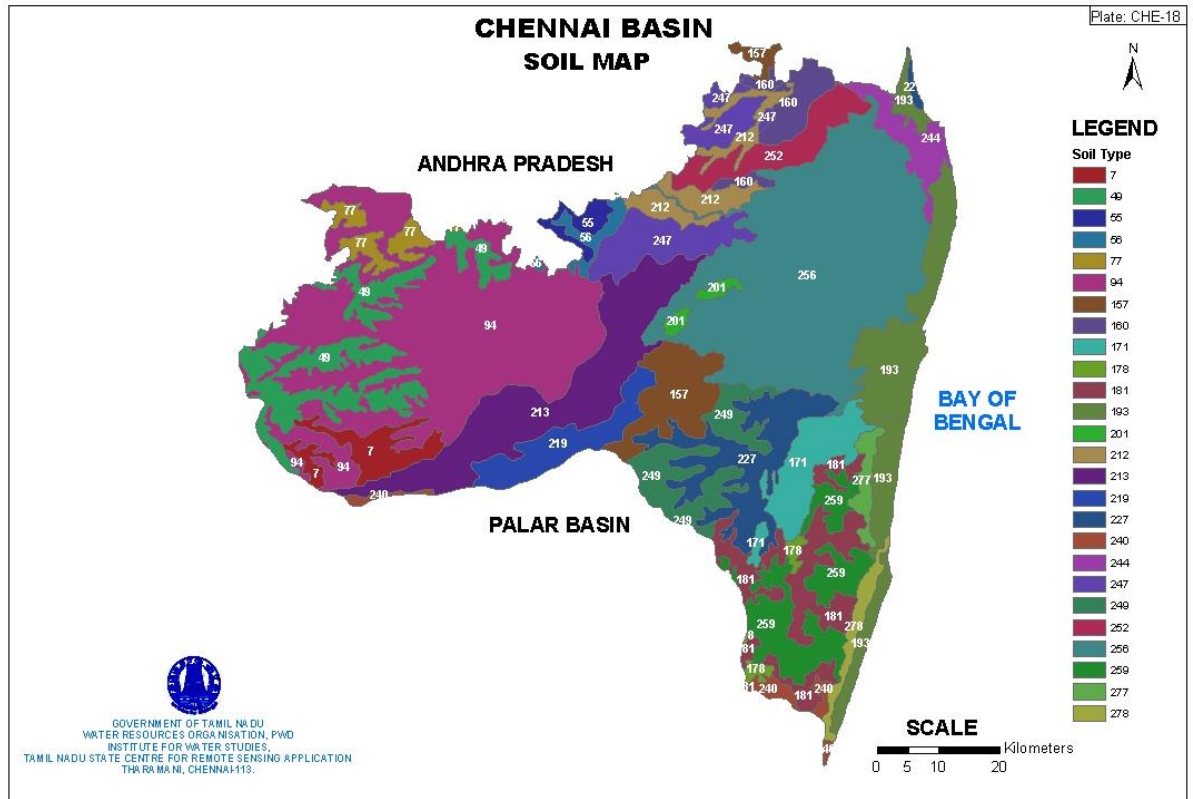


Figure 5 Soil map of the Chennai basin

DEMOGRAPHIC AND SOCIAL CHARACTERISTICS

The urban and rural population for the Chennai basin is worked out based on the Census 2001

The Urban and Rural Population as per census 2001 (in Million)

Sl. No.	Name of the Sub basin	Urban Population in Million in 2007	Rural Population in Million in 2007	Total Population in Million in 2007
1	Adyar	3.786	0.542	4.329
2	Araniyar	0.037	0.129	0.166
3	Cooum	3.141	0.132	3.273
4	Gummidipoondi	0.000	0.103	0.103

5	Kosasthalaiyar	0.636	0.806	1.442
6	Kovalam	0.034	0.140	0.174
7	Nagari	0.030	0.093	0.123
8	Nandhiyar	0.172	0.282	0.454
TOTAL		7.837	2.227	10.064

Population Density

The population density is the highest in Cooum sub basin (6516 Persons per sq.km) and the lowest is at Araniyar sub basin (214 Persons per sq.km).

Sl.No	Name of the sub basin	Area (Sq.km)	Total Population in Million	Density Persons/sq.km
1	Adayar	1081.47	4.329	4003
2	Araniyar	774.92	0.166	214
3	Cooum	502.31	3.273	6516
4	Gummidipoondi	331.11	0.103	311
5	Kosasthalaiyar	2013.58	1.442	716
6	Kovalam	460.36	0.174	378
7	Nagari	236.79	0.123	519
8	Nandhiyar	717.8	0.454	632
		6118.34	10.064	1655

HYDROMETEOROLOGICAL CHARACTERISTICS

Rainfall

Raingauge Stations

Chennai basin has an area of 6118.34 sq.km. spread over in four Districts namely Chennai, Thiruvallur, Vellore and Kancheepuram.

Considering the distribution of rain gauge stations and the availability of data, 24 rain gauge stations having long-term records in and around the basin are considered for the detailed analysis. The various agencies maintaining these rain gauge stations, and the number of rain gauge stations maintained by each agency are listed below:

S. No.	Name of the Agency	Numbers
1	Public Works Department	18
2	Revenue	3
3	IMD	2
4	Railway	1
Total		24

The details of the rain gauge stations such as, their location, geographical coordinates and the study period are shown in Table below.

Table– Influencing Raingauge Stations of Chennai Basin considered for analysis

Sl. No	Station Name	District	Taluk	Source	Latitude	Longitude	Data availability period
1	Arakkonam	Vellore	Arakkonam	Revenue	13 ⁰ 04'53"	79 ⁰ 39'53"	1971-2017
2	Chengalpattu	Kancheepuram	Chengalpattu	WRO	12 ⁰ 41'58"	79 ⁰ 58'47"	1971-2017
3	Chembaram-Bakkam	Kancheepuram	Kancheepuram	WRO	13 ⁰ 00'07"	80 ⁰ 05'11"	1971-2017
4	Cholavaram	Thiruvallur	Ponneri	WRO	13 ⁰ 04'36"	80 ⁰ 09'15"	1971-2017
5	Kaveripakkam	Vellore	Arakkonam	WRO	12 ⁰ 57'11"	79 ⁰ 27'42"	1971-2017
6	Korattur Anicut	Kancheepuram	Sriperumpudur	WRO	13 ⁰ 05'37"	80 ⁰ 00'31"	1971-2017
7	Mahabalipuram	Kancheepuram	Thirukkalkundram	WRO	12 ⁰ 36'53"	80 ⁰ 11'01"	1971-2017

8	Meenambakkam	Kancheepuram	Tambaram	IMD	12 ⁰ 59'38"	80 ⁰ 10'44"	1971-2017
9	Nungambakkam	Chennai	Egmore	IMD	13 ⁰ 04'19"	80 ⁰ 14'37"	1971-2017
10	Palar Anicut	Vellore	Walajapet	WRO	12 ⁰ 52'42"	79 ⁰ 22'30"	1971-2017
11	Panapakkam	Vellore	Arakkonam	WRO	12 ⁰ 55'33"	79 ⁰ 34'04"	1971-2017
12	Ponneri	Thiruvallur	Ponneri	Revenue	13 ⁰ 19'53"	80 ⁰ 11'44"	1971-2017
13	Poondi	Thiruvallur	Thiruvallur	WRO	13 ⁰ 12'13"	79 ⁰ 52'34"	1971-2017
14	Ranipet	Vellore	Wallajah	WRO	12 ⁰ 55'41"	79 ⁰ 19'39"	1971-2017
15	Red Hills	Thiruvallur	Ambattur	WRO	13 ⁰ 11'18"	80 ⁰ 11'12"	1971-2017
16	Sathyavedu	State - Andhra Pradesh		WRO	13 ⁰ 26'37"	79 ⁰ 57'16"	1971-2017
17	Sholingur	Vellore	Wallajah	WRO	13 ⁰ 06'42"	79 ⁰ 25'15"	1971-2017
18	Sriperumpudur	Kancheepuram	Sriperumpudur	WRO	12 ⁰ 57'50"	79 ⁰ 56'36"	1971-2017
19	Tambaram	Kancheepuram	Tambaram	Railway	12 ⁰ 55'52"	80 ⁰ 07'14"	1971-2017
20	Thamaraipakkam	Thiruvallur	Thiruvallur	WRO	13 ⁰ 13'46"	80 ⁰ 01'36"	1971-2017
21	Thiruthani	Thiruvallur	Thiruthani	WRO	13 ⁰ 10'41"	79 ⁰ 36'50"	1971-2017
22	Thiruvallur	Thiruvallur	Thiruvallur	Revenue	13 ⁰ 08'18"	79 ⁰ 59'24"	1971-2017
23	Thiruvottiyur	Thiruvallur	Ambattur	WRO	13 ⁰ 10'00"	80 ⁰ 18'30"	1971-2017
24	Vallur Anicut	Thiruvallur	Ponneri	WRO	13 ⁰ 15'40"	80 ⁰ 15'16"	1971-2017

For the purpose of rainfall analysis, month is taken as a time step. Thiessen polygon map for the rain gauge stations have been prepared to study the distribution pattern of rainfall over the basin area (Figure 6).

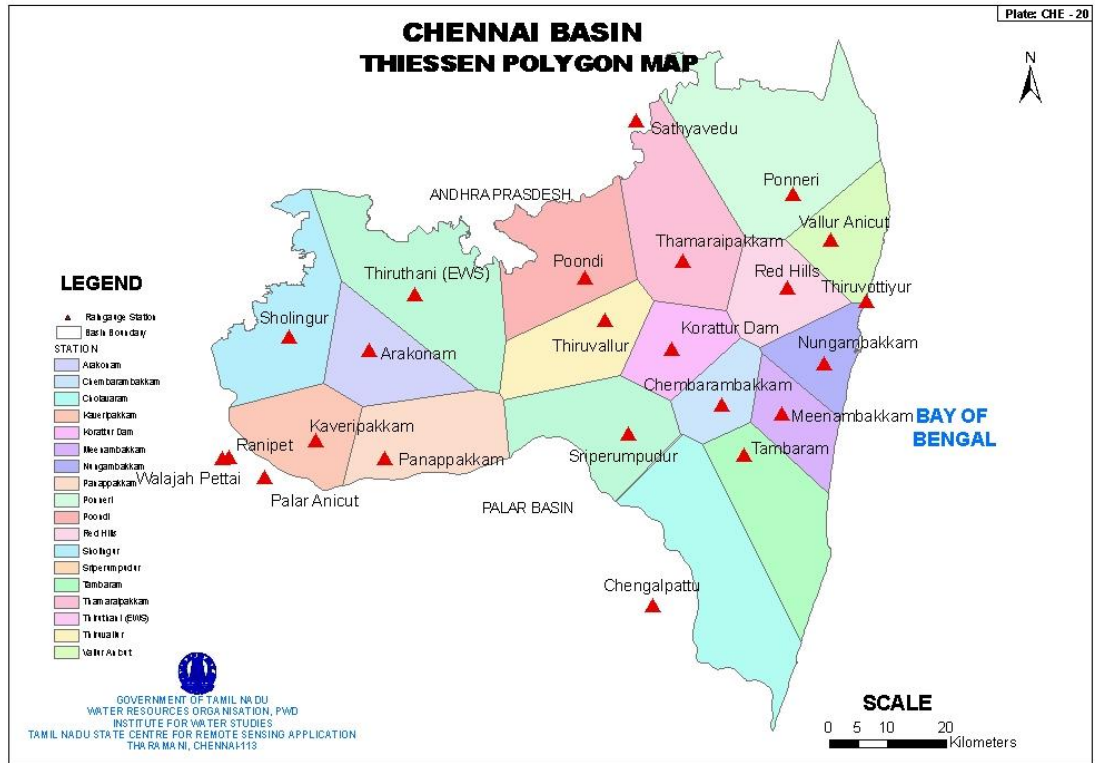


Figure 6 Thiessen polygon map for Chennai basin

Monsoon and non-monsoon periods

Chennai basin lies within the tropical monsoon zone. Based on the hydrometeorological features of the basin, year is divided into 1) Monsoon period spanning from June to December and 2) Non-monsoon period spanning from January to May. The monsoon period is further sub-divided into Southwest monsoon period spanning from June to September (4 months) and Northeast monsoon period spanning from October to December (3 months). Similarly, the non-monsoon period is further sub-divided into Winter period spanning from January to February (2 months) and Summer period spanning from March to May (3 months). As the monsoon period brings heavy rainfall, it improves the recharging of groundwater as well as storage of surface water. Hence, the monsoon period is hydrologically significant for water resources analysis. But in the case of non-monsoon period, the rainfall is insignificant.

Probable rainfall for 25%, 50%, 75%, 90% dependabilities for annual rainfall for all the sub basins have been analysed and tabulated in Table below.

Annual Dependable Rainfall in Chennai Basin					
Sl. No.	Sub basin	25%	50%	75%	90%
1	Adyar	302.24	248.05	203.66	169.07
2	Araniar	296.38	231.57	196.96	130.09
3	Cooum	129.74	106.78	88.02	68.05
4	Gummidipoondi	90.90	72.30	60.30	47.05
5	Kosasthalaiyar	456.97	366.86	310.73	267.54
6	Kovalam	124.01	87.57	72.30	56.64
7	Nagariar	44.52	37.27	26.33	21.83
8	Nandhiyar	144.19	118.24	105.32	84.71

Maximum, minimum and average rainfall

- Maximum rainfall is 2772.45 mm in Cooum sub basin (1994-95).
- Minimum rainfall is 412.85 mm in Nagariar sub basin (2016-17).
- Annual average rainfall varies from 587.56 mm (2016-17) to 2162.17 (2015-16).

Aridity Index for Climatic Classification

A study has also been made on the aridity factor existing in the basin area. The aridity index is defined as the ratio of water deficit to the potential evapotranspiration. The potential evapotranspiration is derived from Penman Monteith method through WATCROP model.(PET is annual evapotranspiration Value). The region is dry humid if the value of aridity index is from 0 to 33.3%, Semi Arid if the value is between 33.3% to 66.67% and arid if the value is above 66.67%. The region is humid if the value is less than 0. The aridity index (I_a) for all the 24 rain gauge stations have been worked out and the classification is shown in Table below.

Aridity Index (I _a) for Climatic Classification						
S. No.	Name of Stations	Annual Ave. Precipitation P mm	PET mm	Total deficit P-PET mm	I _a Aridity Index (%)	Classification
1	Nungambakkam	1404.90	1663.9	-259.00	-15.57	Dry Humid
2	Chengalpattu	1170.38	1663.9	-493.52	-29.66	Dry Humid
3	Chembarambakkam	1566.17	1663.9	-97.73	-5.87	Dry Humid
4	Korattur Anicut	1227.24	1663.9	-436.66	-26.24	Dry Humid
5	Mahabalipuram	1346.19	1663.9	-317.71	-19.09	Dry Humid
6	Meenambakkam	1470.74	1663.9	-193.16	-11.61	Dry Humid
7	Sriperumbudur	1264.30	1663.9	-399.60	-24.02	Dry Humid
8	Tambaram	1335.23	1663.9	-328.67	-19.75	Dry Humid
9	Cholavaram	1287.99	1663.9	-375.91	-22.59	Dry Humid
10	Ponneri	1358.97	1663.9	-304.93	-18.33	Dry Humid
11	Poondi	1150.23	1663.9	-513.67	-30.87	Dry Humid
12	Redhills	1397.72	1663.9	-266.18	-16.00	Dry Humid
13	Sathyavedu (AP)	1378.30	1663.9	-285.60	-17.16	Dry Humid

14	Thamaraipakkam	1182.15	1663.9	-481.75	-28.95	Dry Humid
15	Thiruthani	1013.85	1663.9	-650.05	-39.07	Semi Arid
16	Thiruvallur	1272.52	1663.9	-391.38	-23.52	Dry Humid
17	Thiruvottiyur	917.24	1663.9	-746.66	-44.87	Semi Arid
18	Vallur Anicut	1252.75	1663.9	-411.15	-24.71	Dry Humid
19	Arakkonam	1095.14	1663.9	-568.76	-34.18	Semi Arid
20	Kaveripakkam	961.71	1663.9	-702.19	-42.20	Semi Arid
21	Palar Anicut	1037.50	1663.9	-626.40	-37.65	Semi Arid
22	Panapakkam	1102.35	1663.9	-561.55	-33.75	Semi Arid
23	Ranipet	1035.80	1663.9	-628.10	-37.75	Semi Arid
24	Sholingur	870.49	1663.9	-793.41	-47.68	Semi Arid

Climate

The weather stations considered are furnished below:

Name of the weather station	Maintained by
Thiruthani	PWD (GW)
Nungambakkam	IMD
Meenambakkam	IMD

The climatological values of this river basin are given below.

Climatological Parameters		
S. No	Climatological Parameter	Thiruthani
1	Average monthly temperature Maximum. in. 0 Celsius	34.45
2	Average monthly temperature Minimum. in. 0 Celsius	25.62
3	Average mean temperature in ⁰ Celsius	30.04
4	Average relative humidity in %	69.41
5	Average wind velocity in km/hour	3.61

6	Average Sunshine hours / day	5.78
7	Pan Evaporation in mm	108.34

Name of the basin & FCS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Average
Chennai basin - Thiruthani	105.4	117.6	158.1	174.0	192.2	171.0	151.9	145.7	132.0	117.8	99.0	99.2	138.7

Surface Water Potential

The raingauge stations considered for analysis are given in the table below.

Raingauge stations considered for analysis

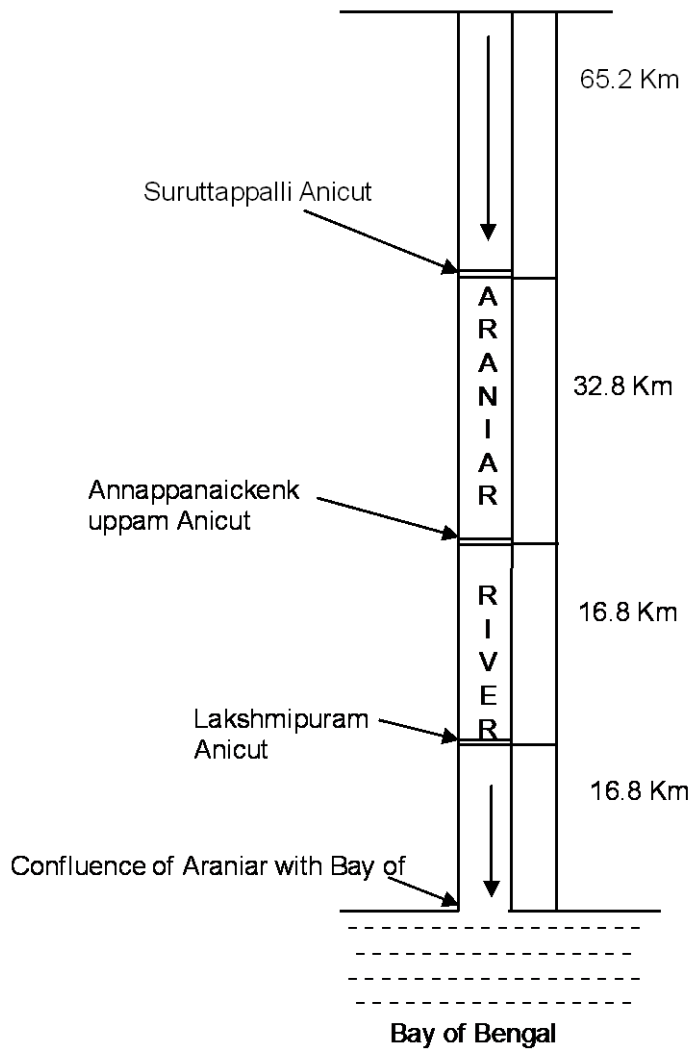
S. No.	Name of sub basins	Sub basin area (Sq.Km.)	No. of Raingauge staions	Name of Raingauge station
1	Adyar	1081.47	4	Sriperumpudur, Tambaram, Chembarambakkam, Meenambakkam
2	Araniar	774.92	1	Ponneri
3	Cooum	502.31	2	Nungambakkam, Korattur Dam
4	Gummidipoondi	331.11	1	Sathyavedu
5	Kosasthalaiyar	2013.58	13	Vallur anicut, Red Hills, Poondi, Thiruvallur, Korattur Dam, Cholavaram, Thiruvottiyur, Thamaraipakkam, Sholingur, Ranipet, Palar Anicut, Kaveripakkam, Panapakkam
6	Kovalam	460.36	2	Chengalpattu, Mahabalipuram
7	Nagariar	236.79	2	Sholingur, Thiruthani
8	Nandhiyar	717.80	2	Thiruthani, Arakonam
Total		6118.34	27	

75% Dependable Surface Water Potential calcu;ated by MRS model is tabulated below.

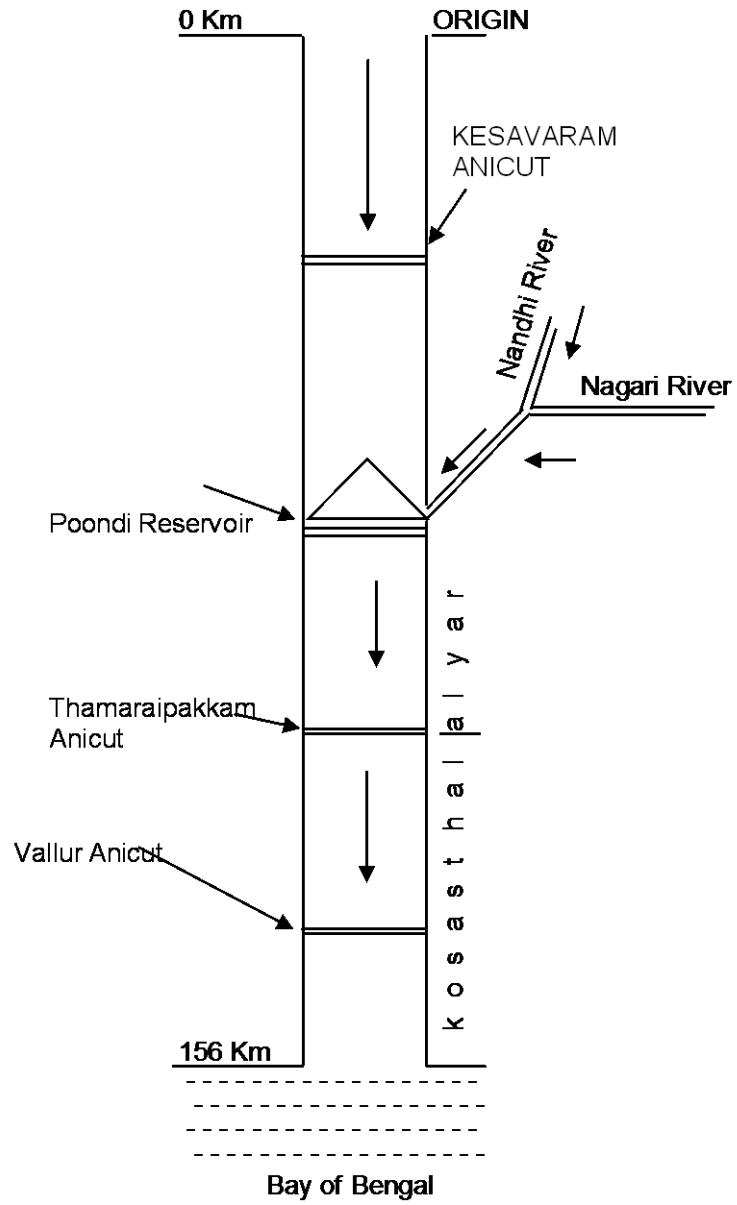
Sl. No.	Name of Sub basin	75% Dependable Surface Water Potential in MCM			
		SW	NE	NM	Annual
1	Adyar	67.03	92.15	44.49	203.66
2	Araniar	32.28	100.11	64.58	196.96

3	Cooum	46.53	40.96	0.53	88.02
4	Gummidipoondi	24.43	34.53	1.34	60.3
5	Kosasthalaiyar	106.97	160.32	43.45	310.73
6	Kovalam	17.85	50.23	4.22	72.3
7	Nagariar	11.78	12.78	1.77	26.33
8	Nandhiyar	59.98	41.13	4.21	105.32
Total		366.85	532.21	164.59	1063.62

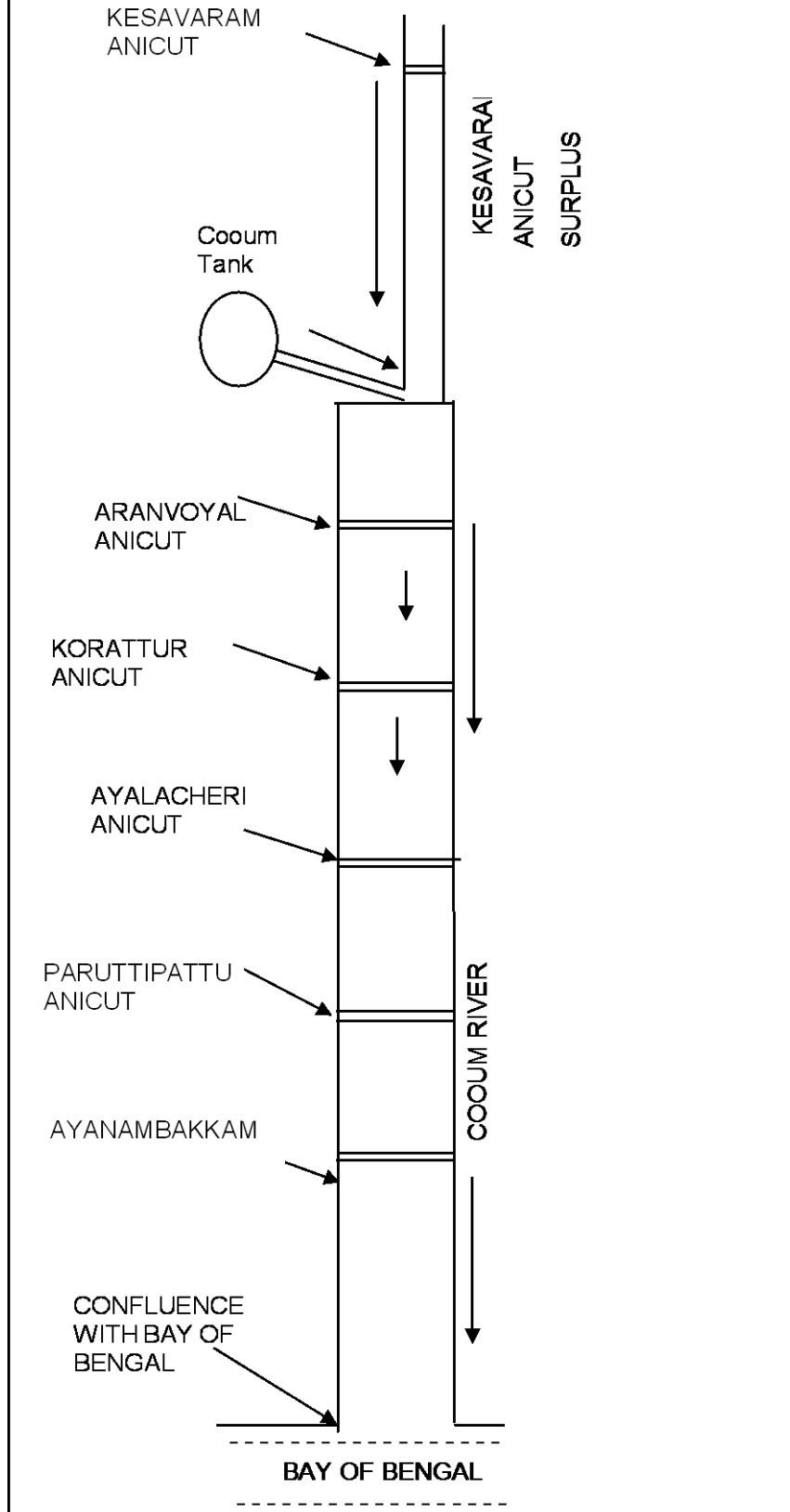
ARANIAR SUB BASIN FLOW DIAGARM



KOSASTHALAIYAR RIVER FLOW DIAGRAM



COOUM SUB BASIN FLOW DIAGARM



Existing water supply systems

HYDRAULIC PARTICULARS OF REDHILLS TANK			
1	Catchment area free	:	14.50 Sq. Miles
2	Catchment Combined	:	37.53 Sq. Miles
3	F.T.L and M.W.L	:	+ 50.20 ft. (or) 15.30m
4	Capacity at F.T.L	:	3300 mcft.
5	Zero Gauge	:	29.00
6	Water spread area at F.T.L	:	20.86 Sq miles
7	Capacity at 38 ft.	:	1126 mcft.
8	Length of Weir - I	:	750 ft.
9	Length of Weir - II	:	584 ft.
10	Lift Shutters - 2 Nos.	:	40 ft. x 13 ft.
11	Sill level	:	+ 37.29 ft.
12	Top of Shutter	:	+ 50.20 ft.
13	Discharge Capacity	:	7500 cusecs (Two vents)
14	Double Shutters - 1 No.	:	15 ft. x 11 ft.
15	Sill level	:	+ 37.27 ft. (or) 11.37m
16	Discharge Capacity	:	1242 cusecs
17	Length of Main Bund	:	2970 m
18	Length of Surapattu Bund	:	1710 m
19	New Bund at Left Flank	:	2000 m
20	New Foreshore Bund	:	410 m
21	Top Bund Level	:	60.63 ft. (or) 18.30m
22	Dead Storage	:	275 M. cft.
23	Tower (Jonnes Toner)		
	Level of I Pair bell mouth	:	+42.51 ft.
	Level of II Pair bell mouth	:	+38.63 ft.
	Level of III Pair bell mouth	:	+31.19 ft.
24	Lowest Inlet	:	+23.76 ft.
25	Area of the Tank	:	7.65 Sq. miles
26	Lowest Bed	:	+20.00 ft.

HYDRAULIC PARTICULARS OF CHOLAVARAM TANK**Cholavaram Tank**

1	F.T.L	:	+ 64.50 ft. or 19.66m
2	M.W.L	:	+ 64.50 ft or 19.66m
3	Capacity at F.T.L	:	881 M.cft
4	T.B.L	:	+69.00 ft to 70.10 ft.
5	Free Catchment Area	:	11.00 Sq. miles
6	Water Spread Area at F.T.L	:	58.38 M.Sq.ft. (2.09 Sq. miles)
Surplus Weirs			
1	Length of Weir - I	:	188.30 ft. (57.40m)
2	Length of Weir - II	:	166.00 ft. (50.60m)
3	Length of Bund	:	3573m
4	Top width of BUnd	:	4.60m
Slopes			
1	Front	:	1.5 : 1
2	Rear	:	2 : 1
3	Capacity at Dead Storage	:	57.10 M.cft.
Head Sluice			
1	No. of Vents	:	10 Nos.
2	Size of Vents	:	3.00 ft. x 4.00 ft (0.91m x 1.22m)
3	Sill Level	:	+46.64 ft. / +14.16m
Lower Supply Channel			
1	Sill Level	:	+14.16m
2	Length of Supply Channel	:	4225m
3	Bed Width of Channel	:	+9.14 ft.
4	Side Slope	:	1.50 : 1
5	F.S.L	:	7.00 ft. (2.13m)
6	Discharge at F.S.L.	:	900 Cusecs
7	Bed Fall	:	1.00 ft. per mile

HYDRAULIC PARTICULARS OF CHEMBARAMBAKKAM TANK

Full Tank Level	: + 85.40 ft. (or) 26.02m
Maximum Water Level	: + 85.40 ft. (or) 26.02m
Top Bund Level	: 28.78m
Top Width of Bund	: 5.0m
Total Length of Bund	: 9185m
Capacity at FTL	: 3645 M.cft (or) 103.15 M.cum
Area of the free basin	: 29.78 Sq.Mile
Combined catchment	: 138 Sq.M (or) 357 Sq.Km
Area of water spread at FTL	: 25.51 M.Sq.m
Zero of guage	: 18.700m (or) 61.40ft
Depth of Water at FTL	: 24ft
Registered Ayacut	: 13,223 Acres
Number of Sluices	: 8 Nos

Surplus Arrangements

1 Regulator - 5 Vents

Length	: 67.0m
Vent size	: 11.0m x 3.05m - 5 Nos
Maximum flood discharging capacity	: 20,410 Cusecs

2 Regulator - 19 Vents

Length	: 71.0m
Vent size	: 2.50m x 2.43m - 19 Nos
Maximum flood discharging capacity	: 12,650 Cusecs

HYDRAULIC PARTICULARS OF TAMARAIPAKKAM ANICUT

1	Latitude	:	13° 8'
2	Longitude	:	79° 54'
3	Length of Anicut	:	626.00 ft.
4	Sill of Anicut	:	+69.40 ft
5	Top of Crest	:	+72.40 ft.
6	Breadth of Crest	:	6.00 ft.
7	Year of Construction	:	1868

Upper Supply Channel (Head Sluice)

1	Number of Vents	:	15
2	Vents size	:	5.00 ft. x 5.70 ft.
3	Vents Sill	:	66.40 ft.
4	Discharge	:	1226 Cusecs
5	Full Supply Level	:	7.00 ft.
6	Length of the Channel	:	13.16 Km
7	Year of Construction	:	1868 (10 Vents)
8	Additional Construction	:	1927 (5 Vents)
9	Bed Fall of Channel	:	2 ft. per mile
10	40 Feet broad from Head Sluice to (2.615 Km) with side Slope	:	1.50 : 1
11	45 Feet broad from (2.615 Km - 7.443 Km) with side Slopes	:	1 : 1
12	50 Feet broad from (7.443 Km) to the end i.e. 13.156 Km with side Slope	:	1 : 1

Hatkins tank list

Name of the tank	Registered ayacut in ha	Capacity in Mm3	Water spread area in ha	No.of fillings
ADYAR SUB BASIN				
1) Aladu large tank	113.34	0.5200	84.61	2.00
2) Annamalicheri tank	57.08	0.2510	77.73	2.00
3) Chembarampakkam tank	5515.00	88.3000	2525.9	1.00
4) Koladi tank	68.41	2.7200	-	2.00

5) Maganiyam Chitheri		95.53	-	-	-
6) Maganiyam Periya eri		55.05	-	-	-
7) Mathur 2		129.94	-	-	-
8) Nallur 3		63.5	-	-	-
9) Navalur Chitheri		63.55	-	-	-
10) Navalur large tank		83.79	-	-	-
11) Panrutti Periya eri		80.96	-	-	-
12) Panruti pundu eri		57.08	-	-	-
13) Perinjambakkam tank		101.20	-	-	-
14) Porur tank		240.73	1.2930	320.13	0.37
15) Vadakkal vannanthangal		101.61	-	-	-
16) Vallam hissa tank		314.53	-	-	-
17) Vellikenithangal		74.46	0.0400	-	2.00
ARANIAR SUB BASIN					
1) A.N Kuppam		137.35	0.2500	19.00	2.00
2) Adilivakkam large tank		57.07	0.0690	217.68	-
3) Akkarambakkam tank		174.46	1.5100	165.10	2.00
4) Aladu periya thangal		62.34	0.3700	92.05	2.00
5) Alapakkam 1		72.54	0.4200	39.60	-
6) Allikudi tank		88.77	0.1913	573.66	2.00
7) Amarambedu 1		67.58	0.0300	16.00	-
8) Amarambedu periya eri		40.66	-	7.00	2.00
9) Amidanallur		150.54	0.3500	-	2.00
10) Amirthamangalam tank		46.94	0.1100	18.00	2.00
11) Ammambakkam large & small		75.69	0.0500	5.20	2.00
12) Ammanbakkam chinna tank		47.63	-	-	-
13) Andavayal tank		50.60	0.3900	80.33	-
14) Annadanakavakkam tank		91.08	0.3200	62.29	-
15) Annamalaichery small tank		41.69	0.0300	10.41	2.00
16) Anuppampattu		40.49	0.1800	-	2.00
17) Appalapuram tank		59.91	0.0800	15.53	-
18) Aramani tank		48.17	0.2200	16.00	-
19) Arani		221.02	2.1000	167.30	2.00
20) Arasurb large tank		271.64	0.6680	106.27	-
21) Arur Kannambakkam		166.77	1.2000	115.29	1.20
22) Asambudur		110.51	0.6400	83.49	2.00
23) Athipattu thangal tank		60.73	0.2300	-	2.00
24) Athirayamangalam large tank		51.03	0.0480	15.81	2.00
25) Athupakkam large tank		51.03	0.0480	15.81	2.00
26) Athupakkam tank		70.45	0.4100	41.65	2.00
27) Avicheri		57.49	0.0700	202.30	3.00
28) Avirivakkam		38.86	0.1600	51.88	2.00
29) Avoor large tank 1		314.93	0.8100	147.70	2.00
30) Avoor large tank 2		314.93	0.8090	1.85	-
31) Ayanallur large tank		277.29	1.2700	179.07	2.00

32) Ayanallur small tank		95.79	0.1900	36.26	2.00
33) Baleswaramthangal		46.54	0.0400	5.20	-
34) Bandikkaranur large tank		55.05	0.0500	13.76	2.00
35) Bandikkaranur small tank		59.10	0.0170	8.73	2.00
36) Budur Anicut thangal		75.27	0.2500	19.00	-
37) Chellamma Kandigaigunda		50.60	-	-	-
38) Chinna bommachikulam		46.35	0.0500	5.95	-
39) Chinnacholiyampakkam tank		90.65	0.0160	5.29	2.00
40) Devadanam 1		392.66	0.2700	171.00	2.00
41) Devandavakkam large tank		48.98	0.1890	230.49	2.00
42) Duranallur		73.27	0.2710	56.71	2.00
43) Edur tank		73.78	0.3080	-	2.00
44) Egamadurai tank		154.09	0.5300	-	2.00
45) Elavembedu large tank		113.16	0.4730	-	2.00
46) Elavoor Hissa Katteri thangal		80.96	0.1570	31.15	2.00
47) Elavoor Katteri		74.07	0.2170	25.94	2.00
48) Elavoor large tank		140.06	0.3480	44.07	2.00
49) Eliambedu tank		85.41	0.4520	89.53	2.00
50) Enadimelpakkam tank		147.51	0.3400	32.35	-
51) Enambakkam		72.05	0.2580	46.49	2.00
52) Equverpalayam Odapperi		131.73	0.3900	23.98	2.00
53) Eramanaickankuppam thangal		63.15	0.1800	32.26	-
54) Erisivan tank		56.67	0.0600	12.09	4.00
55) Errukkuvoy Hissa		100.23	0.4710	42.11	-
56) Goonipalayam Peddacheruvu		45.62	0.2640	220.24	-
57) Guduvancheri Hissa tank		238.61	0.4480	73.63	2.00
58) Gummidipoondi Hissa large tank		501.22	0.7860	64.15	2.00
59) Gummidipoondi Perumanjur tank		92.69	0.1480	12.92	-
60) Gunipalayam East tank		54.91	0.1150	79.39	2.00
61) Illupakkam		99.18	0.4300	53.93	2.00
62) Kadapakkam large tank 1		238.02	0.1400	35.42	2.00
63) Kadapakkam large tank 2		238.02	0.1700	27.06	2.00
64) Kadarvedu tank		54.65	0.2370	33.56	-
65) Kagavakkam Hissa large tank		595.86	0.2810	108.87	-
66) Kalavai 1		61.92	0.3160	478.90	2.00
67) Kallur		182.56	0.5000	95.95	2.00
68) Kalpakkam Periya Eri tank 1		81.36	0.3100	60.16	2.00
69) Kalpakkam Periya Eri tank 2		81.36	0.2990	70.75	-

70) Kalpattu 1		76.91	0.3300	46.49	-
71) Kamanamkottai Hissa rajaneri		288.20	0.8300	57.02	-
72) Kanagambakkam tank		61.46	0.0500	-	2.00
73) Kanalur Pudu tank		60.30	0.1900	32.01	2.00
74) Kanchivoyal		43.25	0.0800	19.52	3.00
75) Kanganmedu		50.20	0.1200	15.53	2.00
76) Kannigaipper & Neivelim Small		561.31	0.1080	305.80	2.00
77) Karadiputhur		92.70	0.1150	13.76	2.00
78) Karanai Eri		85.81	0.2200	29.75	2.00
79) Karuniagaram		185.35	0.4300	72.61	-
80) Katchur natteri		187.15	0.7844	175.00	2.00
81) Kattavur Hissa Tank		228.30	1.1900	161.96	-
82) Kattur		512.88	0.9300	146.70	-
83) Killikodi tank		118.20	0.5000	73.26	2.00
84) Kilmeni		53.03	0.4310	56.71	1.00
85) Kilmudalambedu tank		244.77	1.1846	121.33	2.00
86) Kirappakkam hissa		193.49	0.7690	111.5	2.00
87) Kollanur		110.91	0.3200	26.01	-
88) Kollur tank		46.14	0.0950	-	2.00
89) Kolor large tank		270.00	0.7900	130.17	2.00
90) Kolor small tank		127.51	0.4500	97.35	2.00
91) Korakantandalam Jadayeri		40.57	0.1450	225.36	2.00
92) Kudinelvoyal tank		42.85	0.2050	45.00	-
93) Kumaranjeri tank		66.39	0.5500	87.86	2.00
94) Kumarasiralapakkam tank		75.70	0.1900	33.47	-
95) Kummangalam		181.70	0.3500	60.06	2.00
96) Lachivakkam tank		227.90	-	-	-
97) Lakshnipuram		55.03	0.0900	18.60	2.00
98) Madarapakkam tank		84.60	0.3800	48.00	2.00
99) Maduravasal tank		214.13	1.3000	125.60	-
100) Malandur		96.34	0.2630	28.82	-
101) Mamandur Kottavakkam tank		48.57	-	-	-
102) Mambakkam Hissa eri		215.20	1.2800	78.09	1.50
103) Manallur large tank		318.01	1.3500	120.86	-
104) Manallur Pudu eri		42.08	0.0874	10.75	2.00
105) Manappuram tank		50.20	0.2400	66.38	2.00
106) Mangalam 3		80.13	0.0600	-	2.00
107) Manjankarani Large tank 1		98.36	0.2600	46.02	2.00
108) Manjankarani Large tank 2		98.36	0.1230	-	2.00
109) Marathur		114.97	-	33.56	2.00
110) Medur large tank 1		794.22	1.4200	152.20	2.00
111) Medur large tank 2		794.22	1.4100	-	2.00
112) Melkalani Hissa Katteri		291.86	0.9870	129.60	2.00
113) Melmudalambedu tank		227.44	0.6100	71.02	-

114) Melpakkam Pettai Cheruvu	42.50	0.1230	17.38	2.00
115) Meyyar large tank	94.99	0.2820	158.78	-
116) Meyyur vepperi tank	65.00	0.2340	30.40	2.00
117) Minjur	80.15	0.3400	38.40	1.50
118) Mukkarambakkam tank	235.59	1.6800	184.90	-
119) Nallur periyar eri 2 tank 1	450.95	0.0300	8.27	2.00
120) Nallu periyar eri 2 tank 2	450.95	0.0254	16.73	-
121) Narasingapuram	47.23	0.2380	29.19	2.00
122) Neidavayal	86.63	0.3000	65.18	2.00
Bommasamudram				
123) Neidavayal Large	354.60	0.9000	125.70	2.00
124) Nelvoy 1	118.20	0.0950	7.80	2.00
125) Nelvoy 2	118.20	-	-	-
126) Nelvoy red amman	120.34	0.8330	138.90	2.00
127) Neyveli thangal	67.60	0.1590	41.83	2.00
128) Odappy	75.26	0.1600	583.90	2.00
129) Onbakkam	73.27	0.1900	46.02	2.00
130) Pakkam Periya eri 3	85.01	0.1200	25.85	2.00
131) Palavakkam Hissa large tank	92.07	0.6240	41.46	2.00
132) Palavakkam tank	185.8	0.6300	111.57	-
133) Palavakkamkuppam thangal	65.98	0.0980	11.13	2.00
134) Palaya Gummidipoondi thamarai	83.38	0.3360	33.93	2.00
135) Pallipalayam	91.89	-	-	-
136) Panapakkam 1	98.37	-	-	-
137) Panapakkam 2	98.37	-	-	-
138) Panapakkam 5	195.10	0.2300	44.62	2.00
139) Panapakkam big tank	199.49	0.0400	17.00	2.00
140) Panayanjeri tank	180.94	0.9300	100.70	-
141) Paranamedu tank	57.48	0.1180	15.52	-
142) Parathanbedu tank	65.86	0.1910	18.22	2.00
143) Peddamanjeri tank 1	47.20	0.1390	13.00	2.00
144) Peddamanjeri tank 2	47.20	0.0230	5.00	2.00
145) Pennalurpet Big	128.77	0.6770	280.60	2.30
146) Pennalurpet Small	77.85	0.1100	36.26	2.00
147) Perandur tank	316.14	1.8760	525.10	2.00
148) Peravallur tank	80.15	0.2570	50.02	-
149) Peria Obulapuram large tank	61.12	0.0900	24.26	2.00
150) Periakarambur hissa large tank 1	210.90	0.7700	148.05	-
151) Periakarambur hissa large tank 2	210.90	0.0104	56.02	2.00
152) Perianathamthattan odai	69.22	0.1460	25.94	2.00
153) Perittivakkam large	53.02	0.0790	52.06	2.00
154) Periyabommachi kulam	67.19	0.0600	8.08	-

tank					
155) Periyapuliur peria eri		133.39	0.6900	36.01	-
156) Periyaveppathur large & small		156.25	0.0600	15.53	2.00
157) Perumbedu tank		416.54	1.4100	171.08	-
158) Perunjeri		44.13	0.0900	-	2.00
159) Peruvoyal large tank		116.40	-	-	-
160) Peruvoyal Putheri		54.48	0.0400	21.00	1.00
161) Pondavakkam large		103.62	-	-	-
162) Pondavakkam mongani thangal		242.88	-	-	-
163) Pondavakkam pudueri		40.84	0.1429	18.78	2.00
164) Ponthavakkam Eri		50.60	0.2290	-	2.00
165) Pooovalambedu tank		101.75	0.3500	115.04	3.00
166) Poovali big tank		112.66	0.3240	32.63	2.00
167) Pralayambakkam		190.05	0.3940	56.82	2.00
168) Puducheri 1		44.40	0.2480	128.00	2.00
169) Pudevoyal		147.75	0.2480	35.88	2.00
170) Puvami large tank		136.01	0.2500	51.79	2.00
171) Rallapady Large tank		53.08	0.1470	23.24	-
172) Rettembedu tank		175.68	0.3400	56.92	2.00
173) Seekanyam large tank 1		169.61	0.6200	89.90	2.00
174) Seekanyam large tank 2		169.61	0.0200	7.80	2.00
175) Seethanjeri tank		49.45	0.1230	7.95	2.00
176) Seliyambedu Aleri		71.65	0.1900	33.66	2.00
177) Sengarai Ammaneri tank		7.29	0.0520	2.60	2.00
178) Sengarai ayyaneri		55.04	0.0660	7.80	4.00
179) Sengarai Hissa Large tank		357.84	1.8000	93.34	2.00
180) Senjiagaram 1		73.65	0.2140	-	4.00
181) Senjiagaram 2		27.52	0.0387	7.80	1.50
182) Senjiagamodai thangal		12.54	0.0178	5.20	2.00
183) Sennankaranai		150.18	0.3360	38.86	4.00
184) Sennavaram tank		40.00	-	12.92	2.00
185) Serappedu tank		85.41	0.1530	20.73	-
186) Senthilpakkam Tank		44.93	0.0087	1.95	2.00
187) Sinnambedu large tank		625.25	-	-	-
188) Sinnambedu small tank		46.14	0.2560	35.88	-
189) Siralapakkam large tank 1		135.61	0.3100	62.20	2.00
190) Siralapakkam large tank 2		135.61	0.02	5.21	-
191) Sirunai Yerrakulam tank		33.59	0.0220	5.20	2.00
192) Sirupalaverkadu large		238.02	0.0800	26.96	2.00
193) Sittarasur thangal		69.35	0.068	-	2.00
194) Somapattu tank		119.07	1.1200	129.51	2.00
195) Sonaputhur tank		42.45	0.1830	26.77	2.00
196) Soorapundi tank		84.97	0.1300	33.40	2.00
197) Srinivasapuram		54.24	0.5680	235.61	-
Kasthurinadiugunda					

198) Srinivasapuram Pudu Eri		59.10	0.083	455.85	-
199) Sulameni Tholapudu tank		50.19	0.0960	15.61	-
200) Tangal Purumpulam		160.30	0.2800	69.64	2.00
201) Thathamanni		136.01	0.7300	102.20	2.00
202) Therwali Abai Tank 1		48.98	0.0158	2.60	2.00
203) Therwali Abai Tank 2		48.98	-	3.9	2.00
204) Thervalikuttankulam thangal		46.54	-	0.28	2.00
205) Thervey big tank 1		45.68	0.8300	57.02	-
206) Thervey big tank 2		45.68	0.2320	57.02	2.00
207) Thimmaboopalapuram 1		59.07	-	-	-
208) Thimmaboopalapuram 2		89.05	-	514.76	2.00
209) Thirunilai 1		93.89	0.5390	-	2.00
210) Thirupalaivanam tank		85.01	0.2500	60.99	3.00
211) Thiruvellavayal large tank 1		75.71	0.3300	-	1.00
212) Thiruvellavayal large tank 2		75.71	0.0203	27.05	-
213) Thottakadu Large tank 1		113.34	0.2000	35.61	2.00
214) Thottakadu Large tank 2		113.34	0.0300	4.28	2.00
215) Umippedu large tank		63.69	0.2900	37.19	2.00
216) Uppundavayal		118.61	0.0300	38.86	2.00
217) Uthukottai Hissa tank		369.98	2.0800	119.19	2.00
218) Vadakkunnallur		81.75	0.3900	40.53	2.00
219) Vadamadurai tank		571.57	6.4700	414.70	-
220) Vairavankuppam tank		44.52	0.0300	7.90	2.00
221) Valudalambedu Large & Small		102.41	0.2000	31.14	2.00
222) Vanamallee		62.84	0.2700	21.00	2.00
223) Vanjivakkam Large tank		239.23	0.8600	151.83	-
224) Vayalur chinna thamarai tank		77.32	0.0700	12.83	2.00
225) Vayalur Eri		386.99	1.6500	209.6	2.00
226) Vayalur peria Eri		153.42	0.8200	172.00	2.00
227) Vayalur Vairavam thangal		40.88	0.0800	28.82	2.00
228) Velagapuram		124.25	0.6500	105.40	2.00
229) Velapakkam peria eri 1		59.10	0.0650	14.88	-
230) Velambakkam Large tank 1		47.77	0.0700	16.18	2.00
231) Velambakkam Large tank 2		47.77	0.0300	6.51	2.00
232) Vellathukottai tank		88.24	0.1010	133.17	2.00
233) Vellathurkottai Eracheruvu		103.00	0.1330	169.02	-
234) Velur large		116.18	0.3300	63.04	2.00
235) Velur small (Amman eri)		57.89	0.0900	18.22	2.00
236) Vembedu		83.79	0.3100	38.86	2.00
237) Vidathandalam tank		80.96	-	-	-
COOUM SUB BASIN					
1) Agaram 1		54.66	0.2700	27.01	1.18
2) Aharambakkam		54.66	0.1300	31.01	0.97
3) Aranvoyal Big		103.11	1.0300	62.02	1.00
4) Arumbakkam Periya Eri 2		82.94	0.4810	39.42	2.00

5) Arungulam Periya Eri	127.38	1.0020	66.80	1.00
6) Athipattu 2	84.34	0.4200	45.02	-
7) Chittrambakkam Thangal	68.14	0.4000	24.01	0.83
8) Egattur	148.18	1.1600	120.00	0.62
9) Elambakkam	130.31	0.3700	46.02	1.17
10) Elambakkam Thangal	40.49	0.1400	8.00	1.45
11) Erayamanfalam Etteri	49.39	0.1700	186.00	1.17
12) Govidamedu	189.58	0.2300	13.01	2.00
13) Guruswaminaidu eri	50.99	0.1610	12.04	2.00
14) Iluppur Sannalari	41.34	0.0400	6.00	2.00
15) Kadambathur	101.62	0.2300	18.01	1.00
16) Kaliyanur Chitheri	48.58	0.0800	5.00	-
17) Kannur Big	65.09	0.0900	182.00	2.00
18) Kilnallthur	55.47	0.1000	10.00	1.19
19) Koppur kudippi thangal	61.60	0.5600	40.02	0.41
20) Kottaiyur Big	112.10	0.2900	25.01	1.11
21) Kottaiyur Kadapperi	112.15	0.0300	0.90	2.00
22) Kottaiyur Murusan Thangal	112.15	0.0100	0.30	2.00
23) Kumavalam	43.72	0.3100	-	1.00
24) Kunnathur	47.04	0.2500	17.01	0.80
25) Manjikuppam	86.23	0.5200	72.03	0.76
26) Mappedu Big	226.32	1.5300	220.10	0.86
27) Mappedu Kankanthangal	48.58	0.2800	23.01	1.18
28) Mappedu Karai Thangal	112.55	0.2000	15.01	1.00
29) Melnallathur	68.60	0.2700	16.01	1.25
30) Melvilagam	121.05	0.2400	29.01	0.59
31) Mudiyyur Big	44.53	0.2000	181.00	1.10
32) Narasamanagalam Puthaneri	41.70	0.1700	8.00	0.76
33) Narasamangalam Thangal	58.60	0.1600	10.00	2.00
34) Nayapakkam Big	40.49	0.3100	30.01	0.73
35) Memili 4	160.11	0.7630	63.67	1.50
36) Nemiliagaram	90.69	0.1600	21.01	1.25
37) Nungambakkam	89.07	0.2600	31.01	1.12
38) Nungambakkam Kadapperi	61.60	0.2200	13.01	1.18
39) Panambakkam	65.79	0.2000	21.01	1.30
40) Panambakkam Small Tank	46.11	0.1100	6.00	0.92
41) Panambakkam Chitheri	107.36	0.0660	8.20	3.00
42) Pandravedu Hissa Tank	155.66	0.9440	74.49	2.00
43) Pattarai Perumbudur	264.78	1.1000	110.00	0.30
44) Periyakuppam	144.94	0.3400	18.01	-
45) Perumalpattu	42.68	0.2300	30.01	0.56
46) Polivakkam	130.30	0.3300	96.04	2.00
47) Pondur 1	267.21	2.3600	177.00	0.60
48) Pudumavilangai tank	59.51	0.3500	20.01	2.00
49) Puduvalur Big	42.13	0.2600	30.01	0.65
50) Pungathur	91.50	0.3100	33.01	1.38
51) Ramankoilkulam	43.72	0.0600	110.00	2.00

52) Satharai		182.30	1.1500	126.00	1.29
53) Selai		139.61	0.1300	22.01	1.38
54) Senji		177.49	1.6800	160.10	0.71
55) Sonnavaram		153.89	0.3100	30.01	1.17
56) Thenkarani		46.56	0.0400	2.00	2.00
57) Thenkarani Jamberi		46.56	0.0400	2.00	0.75
58) Thirumanikuppam Agaram		47.18	0.2700	-	0.68
59) Thirumanikuppam Big		101.21	0.4300	48.02	0.87
60) Thirupandaiyur Big		54.66	0.2200	26.01	1.37
61) Thodukadu Big		59.39	0.2000	15.01	2.00
62) Thodukadu Parangusapuram		40.82	0.2600	16.01	1.00
63) Valasavettikadu		52.60	0.1500	14.01	0.53
64) Vayalur periya eri 1		68.06	0.3400	32.01	1.08
65) Velleri Thangal Big		47.50	0.1800	15.01	2.00
66) Vengathur		213.13	1.1900	112.00	0.86
67) Venmanambudur		94.33	0.2000	32.01	2.00
68) Veppampattu		48.32	0.0600	3.00	2.00
Sevakkathangal					
69) Veppanjattu		89.22	0.2500	15.01	1.84
70) Vidaiyur & Vidaiyur Chitheri		187.45	0.2020	93.04	1.10
<u>KOSASTHALAIYAR, NAGARI AND NANDHIYAR SUB BASINS</u>					
1) Agaram raveleri Tank		99.36	0.1000	-	-
2) Aloor big Tank		102.17	0.5540	47.62	1.80
3) Aloor small Tank		40.03	0.0820	-	1.70
4) Alamathi Tank		57.88	0.2500	-	1.00
5) Alamelumangapuram Tank		49.38	0.8480	69.92	2.00
6) Alathur periya eri 3 Tank 1		152.40	0.6480	-	2.00
7) Alathur periya eri 3 Tank 2		152.40	0.7300	-	-
8) Alinjivakkam 1		97.17	0.1300	7.00	2.00
9) Alinjivakkam Tank		49.80	0.1300	5.00	-
10) Ambathur Tank		145.75	4.8600	399.79	-
11) Amirthapuram Tank		49.01	0.2520	18.69	2.00
12) Ammaneri Tank		44.67	0.1920	67.03	2.00
13) Ammayarkuppan Tank		20.30	0.0980	30.01	-
14) Amoor 1		247.00	1.1980	145.55	-
15) Andivaragapuram Tank		183.30	0.2740	371.15	1.42
16) Arakianbedu Tank		50.61	-	-	-
17) Arapatheri		89.87	0.6100	18.95	0.03
18) Ariyalur 2		56.67	0.1260	-	2.00
19) Ariyathur Tank		43.32	0.1000	10.00	-
20) Arumandai Tank		94.72	0.9840	-	-
21) Arumbakkam 2		157.00	0.4100	44.52	-
22) Arumbakkam Kadapperia		106.38	0.2900	27.51	-
Tella cheruvu					
23) Arungulam Periya Eri and Kasam		45.84	0.6400	57.02	-
24) Athangikavanoor Tank		74.90	0.2800	41.02	-

25) Athimanjeri Tank	61.42	0.5410	40.22	1.00
26) Athivakkam 2	74.59	0.2000	25.01	-
27) Attarambakkam Tank	58.30	0.1300	10.00	-
28) Ayalur Big	53.85	0.0400	81.03	2.00
29) Ayalur Mettu Thangal	50.85	0.1100	20.01	1.20
30) Ayanambakkam Tank	183.69	0.8200	-	-
31) Ayapakkam Tank	93.50	3.9800	-	-
32) Ayathur Thangal	67.73	0.1700	49.02	2.00
33) Ayyaneri	163.78	0.7700	32.01	1.54
34) Balapuram Tank	42.21	0.1750	17.01	1.00
35) Boodur Tank	95.53	0.2120	-	-
36) C.Agraharam	70.30	0.2690	29.12	2.00
37) Chakkaramallur Tank	58.00	0.4070	44.02	-
38) Cherathur Tank	92.04	0.5150	31.01	-
39) Cherukkanur Big Tank	91.26	1.0770	-	-
40) Cherukkanur Chitheri	46.50	0.6330	-	1.00
41) chinnakadambur Periya Eri	57.68	0.3250	16.41	2.00
42) Chinnamandali Tank	125.31	0.1900	18.01	-
43) Chithathur 3	93.25	0.3200	55.02	1.10
44) Chittambakkam Tank	162.75	0.3700	56.02	2.00
45) Chivadu Tank	142.81	0.1270	14.07	3.00
46) Cholavaram Tank	1740.64	0.7080	542.79	1.00
47) Coom Big	929.26	5.1900	334.10	1.38
48) Ekkadu big	334.00	0.8900	85.03	1.04
49) Ekkadu Kalamani Eri	141.30	0.1200	21.01	2.00
50) Ekkadu Pudu Eri	334.00	0.8900	41.02	1.00
51) Eraiyur Chitheri 3	40.62	0.0900	8.00	2.00
52) Eraiyur Periya Eri 1	57.89	0.1000	6.00	2.00
53) Erumbi	63.18	0.6780	44.02	2.00
54) Ganeshapuram Tank	78.58	0.3320	29.01	-
55) Gnayar Tank	377.18	0.9200	121.04	-
56) Gulawadi Pattarai tank	67.43	0.0580	7.40	-
57) Gulawadi Tank	61.11	0.1760	29.01	-
58) Guler Mavoor Tank	60.55	0.2590	28.01	-
59) Guruvoyal Tank	98.79	0.0700	17.01	-
60) Harichandirapuram Tank	96.20	0.3900	37.01	-
61) J.S. Ramapuram Chitheri	45.41	0.1030	11.00	-
62) Jageermangalam Assaneri	158.78	0.2600	31.01	-
63) Jageermangalam big & small	169.59	0.0420	11.00	-
Tank 1				
64) Jageermangalam big & small	169.59	0.2100	30.01	-
Tank 2				
65) Kadapakkam Tank	169.61	0.3390	55.78	1.00
66) Kadavoor Tank	41.29	0.0810	17.38	-
67) Kairandur	125.91	0.3700	64.02	0.90
68) Kakkalur Big	177.78	1.2900	126.00	1.00
69) Kalambakkam 1	134.82	0.1700	22.00	1.00

(Kalambakkam)					
70) Kalambakkam 2		58.94	0.0990	19.51	-
(Kalambakkam)					
71) Kaliyanur Periya Eri		72.87	0.0400	2.00	1.83
72) Kalyanakuppam Big		104.45	0.1500	24.01	1.00
73) Kalyanakuppam Kosavan		104.45	0.1400	23.01	1.00
74) Kanjipadi Tank		59.48	0.3270	28.01	-
75) Karalapakkam Tank		95.02	0.9400	67.59	-
76) Karamangalam Big Tank		62.70	0.2250	84.73	2.00
77) Karanai 3		124.70	0.3000	44.02	-
78) Karikkalavakkam		91.05	0.4600	35.01	1.00
79) Karimbedu Tank		51.00	-	-	-
80) Kaveri Rajapuram Big Tank		54.01	0.2210	38.02	-
81) Kaveri Rajapuram Digue		40.62	0.1970	7.80	-
Cheruvu					
82) Kesavanallathur		109.72	0.1700	25.01	0.18
83) Kilambakkam Tank		122.67	0.2300	39.02	-
84) Kilanur Maduru		210.06	1.0300	100.00	1.30
85) Kikondaiyur Thangal		38.05	0.0500	3.00	-
86) Kilkoodar Tank		101.20	0.5120	82.46	-
87) Koduvalli Tank		110.52	0.4400	57.02	-
88) Koduvallipanchan Thangal		40.49	0.0400	29.01	-
89) Kolathur 2		95.00	0.7870	69.08	1.55
90) Kolathur Periya Eri		71.66	-	-	-
91) Kommukambedu		131.96	0.3800	53.02	1.00
92) Konnasamudram Tank		125.49	0.3770	32.08	3.00
93) Koppur Sippaneri		50.60	0.1600	7.00	1.16
94) Koramangalam Otteri		40.50	-	-	-
95) Kovankulathur		92.30	0.2800	600.20	1.43
96) Kovilpudugai		215.79	2.2800	611.24	0.18
97) Krishnapuram		46.15	0.0800	10.00	1.62
98) Krishnasamudram Tank		209.25	2.0000	360.10	2.00
99) Kunnathur 1		47.93	1.1400	82.03	-
100) Kunnalam Tank		43.72	0.3100	22.01	-
101) Kuppam 1		45.23	0.3790	34.70	3.00
102) Lakshampuram (Kuppam)		45.25	0.3350	30.01	-
103) Madhavaram		248.26	0.9010	130.17	2.00
104) Madur Periya Eri 1		95.42	1.2820	98.14	-
105) Maduravoyal Tank		212.55	-	-	-
106) Magaral		78.09	0.4000	69.03	-
107) Magaral Nadu Thangal		55.87	0.2900	12.00	-
108) Magaral Vizhu Thangal		72.00	0.4700	130.10	-
109) Mahakaligapuram Tank		87.01	0.3620	43.02	-
110) Mamandoor Periya Eri		49.28	0.6330	47.74	1.50
111) Mamandur 2		47.57	0.5780	41.62	-
112) Mambakkam 2		40.80	0.3700	-	-
113) Manavoor Hissa Tank		848.31	2.7600	213.00	-

114) Manjampakkam 1		44.52	0.0340	7.43	2.00
115) Mappedu Putheri		48.58	0.0500	43.02	2.00
116) Mathikettan (Thirumalaipet)		57.06	1.4200	-	-
117) Mathur 4		80.55	0.0310	9.30	2.00
118) Melakondaiyur		103.26	0.3800	41.02	1.20
119) Melanur		108.00	0.1400	27.01	2.00
120) Melmanambedu Tank		77.73	-	-	-
121) Melpakkam 2		46.56	0.0900	72.02	1.84
122) Melsingilimedu Tank		48.98	2.0000	-	1.00
123) Mirasakalindapuram		45.31	0.3100	29.01	1.20
124) Mittnamalli Tank		72.00	0.2800	115.04	-
125) Morai Tank		46.38	0.7100	70.84	-
126) Mosur 2		45.22	0.2400	37.01	1.40
127) Murambedu Tank		43.32	0.1190	31.51	-
128) Murukkambattu Tank		105.02	0.9410	40.52	2.00
129) Mylarwada Tank		63.18	0.6330	-	0.60
130) Nabalur buderi		44.76	0.4290	38.27	1.00
131) Nallathur 1		64.87	0.3010	29.71	-
132) Nallathur periya eri 2		61.87	0.2050	17.41	3.00
133) Nambakkam Big		98.87	0.2400	22.01	2.00
134) Narthawada Tank		95.34	0.3740	39.02	-
135) Natchiyarkuppam Tank		75.48	0.4320	89.04	1.00
136) Nayapakkam Putheri		42.91	0.1500	13.01	2.00
137) Nedugal Tank		40.68	0.3740	41.93	1.00
138) Neiveli Tank		67.61	0.3900	41.02	-
139) Nemili Periya Eri 1		159.93	0.6950	59.02	-
140) Nerkundram 2		49.78	0.0500	12.30	-
141) Netteri (Thiruvelangadu)		47.88	0.3550	15.01	-
142) Neyveli		87.04	0.2200	22.01	2.00
143) Nochili Tank		72.96	0.2990	17.85	2.00
144) Nolambur 1		94.33	-	-	-
145) Oragadam Thamaraiikulam		65.59	-	-	-
146) Orathur 3		240.53	0.2400	40.02	-
147) Othikkadu		106.48	0.3400	64.03	1.20
148) Padiyanallur Tank		267.21	0.8210	-	-
149) Padmanabapuram Tank		43.78	0.3780	26.01	-
150) Pakassala Lakshmiapuram		237.58	0.3850	42.02	-
Tank					
151) Pakasalaammal Tank		172.83	0.2230	36.01	-
152) Pakkam Chitheri 2		143.52	0.3800	46.02	1.00
153) Pakkam Periya Eri 1		631.58	1.8700	121.00	1.24
154) Pakkam Thangal		133.12	0.4700	38.02	1.00
155) Palarvedu Thangal		102.00	0.0600	42.76	-
156) Palavedu Tank		193.49	0.0500	131.46	-
157) Palayanur 2		220.47	0.9700	85.03	-
158) Pallipattu Periya Eri		276.96	0.7280	123.70	3.00
159) Panapakkam Big & Small		207.60	0.1700	26.01	-

Tank					
160) Pandeswaram Tank		158.27	0.5100	66.94	0.28
161) Pandravedu Tank		85.90	2.3900	148.58	1.35
162) Parathur		148.18	0.3700	100.00	1.00
163) Peddanagapudi Tank		54.16	0.3700	46.02	-
164) Peddaramapuram Tank		48.92	0.3650	32.01	-
165) Periyakadambur Chitheri		52.68	0.2670	-	-
166) Periyakalakattur Big Tank		763.09	4.4400	206.00	-
167) Periyakalakattur Chitheri		53.52	0.2330	30.21	-
168) Periyamullaivoyal Tank		197.09	0.8200	91.03	-
169) Perumanallur Tank		92.63	0.6500	44.26	2.00
170) Perumbakkam 1		87.72	0.4900	72.03	2.00
171) Perungavoor Tank		260.73	0.7250	101.04	-
172) Pinnapakkam		121.46	0.1400	36.01	2.00
173) Podatturpat Tank		238.43	2.2100	126.55	1.00
174) Pommadhukulam Tank		42.50	0.2300	103.04	0.53
175) Pommadhukulam Puduthangal		63.39	0.0210	3.53	-
176) Ponnangulam Tank		71.70	0.0350	7.00	-
177) Ponpadi Tank		143.48	1.6100	279.10	-
178) Poonapattu		45.75	0.1000	12.00	1.35
179) Poondi Krishnapuram Tank		41.51	-	-	-
180) Pooninangadu Big		176.87	1.2800	198.10	1.00
181) Pooningadu Putheri		56.60	0.2870	22.31	2.00
182) Poorivakkam Tank		157.26	0.4300	63.03	-
183) Porambakkam		87.04	0.1700	29.01	2.00
184) Pulavanallur Tank		53.85	0.0830	11.00	-
185) Puliur Big		132.86	0.6000	62.02	2.00
186) Pullarambakkam Large		319.43	1.7500	118.00	1.00
187) Puthagaram 3		50.79	-	-	-
188) Putur		102.43	0.3500	52.02	1.68
189) Rajanagaram Tank		18.65	0.2800	24.01	1.43
190) Rajanaidukuppam Tank		45.92	0.2000	26.01	1.70
191) Ramapuram big & small		133.75	1.7900	143.06	-
Tank 1					
192) Ramapuram big & small		133.75	0.0620	7.70	-
Tank 2					
193) Ramapuram Tank		40.00	-	-	-
194) Ramathandalam		93.12	0.1600	95.04	2.00
195) Rangapuram		44.53	0.2600	15.01	1.54
196) Sadayankuppam Tank		169.63	0.5000	55.78	2.00
197) Sanakuppam 2		64.77	-	-	-
198) Santhanagopalapuram Eri		41.25	0.1800	14.43	1.00
199) Santhanagopalapuram Tank		41.36	0.1890	11.00	-
200) Sathrajapuram Tank		70.27	0.6200	27.51	-
201) Sembudu Pudu Eri		163.38	-	-	-
202) Sembiyamanali Tank		82.98	0.2590	62.29	2.00
203) Sendarabakkam Tank		52.09	-	-	-

204) Sendrampalayam	141.30	0.5400	38.02	1.65
205) Segalathur Agraharam	70.07	0.6770	72.93	-
206) Senneerkuppam Tank	105.24	-	-	-
207) Silambu Tank	80.10	0.4200	13.01	1.65
208) Sirugumi Tank	52.93	0.2710	40.72	2.00
209) Sirungavoor Tank	99.18	1.0600	73.20	1.00
210) Siruvakkam Tank	97.57	0.2550	49.11	2.00
211) Sivanvayal	110.12	0.6600	72.73	1.30
212) Sothupakkam Tank	85.39	0.5000	-	-
213) Sreevilasapuram	54.46	0.2400	22.01	0.85
214) Srikaligapuram Tank	63.18	0.3600	45.02	1.47
215) Sundarasalavaram Tank	85.81	-	-	-
216) Suriyanagaram Tank	102.00	0.7780	-	-
217) Tamaraipakkam	228.70	0.6800	95.04	1.27
218) Tekkanur Chitheri	55.31	0.2880	54.00	-
219) Thadaperumbakkam Tank	231.11	0.7900	97.43	-
220) Thadikandigai	89.22	0.1460	13.32	2.00
221) Thadur Big Tank	55.44	0.0710	-	2.00
222) Thadur Small Tank	44.04	-	17.61	-
223) Thamaraikani	101.20	0.0780	13.48	-
224) Thandalam 2	102.20	0.4700	71.03	1.00
225) Thaneerkulam	197.17	1.0000	86.03	1.00
226) Thinnanur 2	40.00	-	-	-
227) Thirubandalam Periya Eri	112.96	1.3900	143.00	-
228) Thirumullaivayal Perannai	98.77	-	-	-
Thangal				
229) Thirunilai 2	102.79	0.1300	-	-
230) Thirupachur Tank	364.37	1.1600	70.03	-
231) Thirur Hissa	170.02	0.6300	550.20	1.46
232) Thiruthani Small Tank	75.30	0.6110	-	2.00
233) Thozhudavoor Chitheri Thangal	171.23	0.1860	28.01	-
234) Thozhur	269.64	0.7600	80.03	1.00
235) Thumbikulam Tank	49.56	0.6040	41.12	1.00
236) Vadathur	248.18	1.1500	147.00	2.00
237) Valanjeri Big	146.85	0.4500	41.12	2.60
238) Valasaravakkam Tank	50.61	-	-	-
239) Vallanur Periya Eri	120.82	0.6000	-	-
240) Vanganur Tank	63.20	0.3070	20.01	-
241) Vayalanallur Tank	77.72	-	-	-
242) Vazhudigaimedu Seetha	59.11	-	-	-
Thangal				
243) Vediankadu Tank	57.32	0.4430	28.01	2.00
244) Veeraganallur	41.79	0.6040	-	-
245) Veeramangalam 3	164.58	0.6870	26.01	2.00
246) Veeranamur Tank	187.34	0.3320	-	0.87
247) Veeraraghavapuram	130.24	0.1200	62.02	1.00
248) Veliagaram Periya Eri	143.43	0.8750	72.08	1.50

249) Vellanoor Chitheri	43.77	-	-	-
250) Vellanoor Kandigai Eri	57.07	-	-	-
251) Vellathur Kanmoy	156.17	0.6300	55.02	0.81
252) Vellivayal 2	97.94	0.1610	-	-
253) Velliyur	325.51	0.2700	27.01	1.26
254) Vengal Tank	178.05	1.1060	-	1.87
255) Vengudi Tank	49.76	0.0600	4.00	-
256) Venugopalakrishnapuram tank	41.29	1.0190	201.20	0.70
257) Vilakkampadi 1	116.36	0.6160	32.01	1.20
258) Villanthangal	44.53	0.1130	11.00	-
259) Villapakkam Big	51.31	0.1500	69.03	1.58
260) Villapakkam Urani Thangal	51.31	0.1500	65.03	1.58
261) Vitchoor Tank	313.64	0.7590	-	-

Occurrence of groundwater in eight sub basins of Chennai River basin

1. Adayar sub basin

The Adayar originates from Chembarambakkam tank and Porur tank . It carries flood water and drainage of Chennai city. The surplus of Somangalam odai, Manimangalam surplus and Guduvancherry odai are discharges in the Adayar river .It originates from Sriperumpudur block and passes through Poonamalle and Chennai city and confluence at bay of Bengal. This has no direct irrigation, only it carries flood discharge during north east monsoon. The sedimentary formations of gondwana quaternary and alluvial deposits are found in the eastern part. They contain shale, clay, sandy clay, gravel and fine to coarse sand. There is no ground water potential for Chennai Corporation. It has an area of about 1082 sq km. There are 23 observation wells are in this sub basin. The winter water level varies from 1.90 to 7.00 m and the summer water level ranges from 2.30 to 10.50m below ground level.

2. Araniyar sub basin

Araniyar originates from Andhrapredesh State and passes through Ellapuram and Minjur block and confluence at Bay of Bengal. Araniyar reservoir was regulated by Andhrapredesh state and most of the ayacut under this reservoir lies in Tamil Nadu state. The sedimentary formations of gondwana, quaternary and alluvial deposits are found in the eastern part. They contain shale, clay, sandy clay, gravel and fine to coarse sand. The area of this sub basin is 775 sq km. There are ten observation wells are in this sub basin. The winter water level varies from 2.60 to 8.30 m and the summer water level varies from 3.20 m to 10.70m

3. Cooum sub basin

Cooum is a surplus course of Cooum tank. The Kaveripakkam surplus water from Kesavapuram anicut across Palar which passes through Kaveripakkam tank and Cooum tank. Cooum river passes through Kadambathur block, Poonamalle, Chennai and Puzhal block and confluence at Bay of Bengal. The sedimentary formations of Gondwana, Quaternary and alluvial deposits are found in the eastern part. They contain shale, clay, sandy clay, gravel and fine to coarse sand. The Madhavaram block potential has been considered for Puzhal block. The sub basin has an area extent of 502 sq km. There are twelve observation wells in this sub basin. The winter water level varies from 2.70m to 7.90m and the summer water level ranges from 3.30m to 10.10m.

4. Gummidipoondi sub basin

This sub basin originates from Ellapuram block and passes through Gummidipoondi. The basin area underlined by crystalline rocks of Archaean age comprising granite gneiss, charnockite and associated basic igneous and metamorphic rocks. It has an area of about 331 sq km. There is one observation well present in this sub basin. The winter water level varies from 4.60m to 5.90m and the summer water level ranges from 5.90m to 6.10m below ground level.

5. Kosathalaiyar sub basin

Kosathalaiyar originates from Kesavapuram anicut. It passes through Poondi reservoir wherein the Nandhi river and Nagari river confluence. The Tamarapakkam and Vallur anicut are across Kosathalaiyar river. It has a length of about 155km and confluence at Bay of Bengal. The basin area underlined by crystalline rocks of Archaean age comprising granite gneiss, charnockite and associated basic igneous and metamorphic rocks. The area of this sub basin is 2014 sq km. There are eighteen observation wells are in this sub basin. The winter water level varies from 2.40m to 9.00 m and the summer water level varies from 2.90m to 10.50m

6. Kovalam sub basin

Kovalam sub basin originates from Kattankulathur and passes through Thiruporur block. It has an reserved forest area. The sub basin confluence at east by Bay of Bengal. The basin area underlined by formation of Archaean age. Crystalline rocks of Archaean age, comprising granite gneiss, charnockite and associated basic igneous and metamorphic rocks. The sub basin has an area extent of 460 sq km. There are five observation wells are in this sub basin. The winter water level varies from 2.60m to 5.70m and the summer water level ranges from 3.20m to 7.00m.

7. Nagari sub basin

The Nagari sub basin falls in the north western part of the basin. There are hills in the sub basin. The Nagari river passes through Pallipattu block. The basin area underlined by crystalline rocks of Archaean age comprising granite gneiss, charnockite and associated basic igneous and metamorphic rocks. It has an area of about 237 sq.km. There are three observation wells are in this sub basin. The winter water level varies from 4.30m to 5.90 m and the summer water level ranges from 5.10m to 7.80m below ground level.

8. Nandhiyar sub basin

Nandhiyar sub basin originates from Sholingur block and passes through Arakonam block and ends at Sholingur anicut.. The basin area underlined by crystalline rocks of Archaean age, comprising granite gneiss, charnockite and associated basic igneous and metamorphic rocks .The area of this sub basin is 718 sq km. There are four observation wells are in this sub basin. The winter water level varies from 4.00 m to 8.20 m and the summer water level varies from 5.30m to 9.40m

Aquifer parameter

The predominant rock types found in this basin is crystalline rocks of Archaean age comprising gneiss, charnockite and associated igneous and metamorphic rocks. Results of lithological details of available boreholes drilled by various Government agencies, the pump test details of boreholes and chemical analysis of groundwater samples collected from the observation wells and the bore wells were studied in details to know the hydro geological conditions of the basin.

Aquifer Transmissivity and Hydraulic Conductivity

Igneous and metamorphic hard rock formation

The aquifer parameters of this terrain are provided based on the observation well in that terrain. Based on the pump test data analysis the average aquifer parameters are furnished below.

Aquifer parameter in Hard Rocks

Sl No	Aquifer Parameter	Minimum	Maximum
1.	Transmissivity (T) (m ² /day)	0.25	375
2.	Well Yield (liters per second.)	0.30	30.00

3.	Specific Capacity (lpm/m draw down)	0.27	1316
4.	Storativity (S)	2.60×10^{-6}	3.60×10^{-2}

Upper Gondwana formation

The upper gondwana formations comprising of impervious formation like shale, clay etc. do not contribute much to ground water because of its low transmissivity and compact nature of formation. The aquifer parameters of this formation are provided based on the observation well in that formation. Based on the pump test data analysis the average aquifer parameters are furnished below.

Aquifer parameter in Gondwana formation.

Sl No	Aquifer Parameter	Minimum	Maximum
1.	Transmissivity (T) (m^2/day)	1.70	872
2.	Well Yield (liters per second.)	1.00	33.00
3.	Specific Capacity (lpm/m draw down)	6.00	322
4.	Storativity (S)	2.90×10^{-4}	4.50×10^{-3}

Cretaceous –marine fossiliferous limestone formation

The cretaceous formation consisting of lime stone, shale, sand stone etc. are forms moderate source of ground water. The aquifer parameters of this formation are provided based on the observation well in that formation. Based on the pump test data analysis the average aquifer parameters are furnished below.

Aquifer parameter in Cretaceous formation.

Sl No	Aquifer Parameter	Minimum	Maximum
1.	Transmissivity (T) (m^2/day)	296	545
2.	Well Yield (liters per second.)	3.00	31.00

3.	Specific Capacity (lpm/m draw down)	4.00	217
4.	Storativity (S)	1.80×10^{-3}	2.40×10^{-2}

Alluvial formation

These are occurs in the coastal region. The aquifer parameters of this formation are provided based on the observation well in that formation. Based on the pump test data analysis the average aquifer parameters are furnished below.

Aquifer parameter in Alluvial formation.

Sl No	Aquifer Parameter	Minimum	Maximum
1.	Transmissivity (T) (m^2/day)	8	4180
2.	Well Yield (liters per second.)	1.00	39.00
3.	Specific Capacity (lpm/m draw down)	7.00	942
4.	Storativity (S)	1.20×10^{-3}	7.50×10^{-4}

Water Level Fluctuations

The fluctuations differ from well to well and are found to be in the range of 3.20m to 7.00m.

Groundwater Potential in the Study Area

Distict wise wise groundwater balance potential of the basin is given in the table below. The total available groundwater potential as on March 2013 is worked out as 743.63 Mcum.

Ground Water Potential Calculation			
Name of District covered	Area covered in %	Net water available	Ground water potential District wise
Chennai	2.91	1,496.90	43.55

Kanchipuram	22.81	105,447.62	24051.68
Thiruvallur	56.25	70,462.05	39632.99
Vellore	18.03	58,970.76	10634.97
			74363.19
		Total M.Cum	743.63

Ha.m
M.cum

PRESENT AND FUTURE WATER DEMANDS

Total water demand is the sum of the sectoral demands such as domestic demand, irrigation demand, livestock demand and industrial demand.

Domestic water demand:

Projected Domestic water demand is calculated and tabulated in the table below.

Year		Population	Demand	
			MLD	MCM
2011	Urban	6430068	659.962	297.92
	Rural	3906584	156.263	
2017	Urban	7241301	743.225	335.51
	Rural	4399448	175.978	
2020	Urban	7684526	804.49	357.71
	Rural	4388157	175.526	
2030	Urban	9367395	980.67	430.84
	Rural	4993173	199.727	
2040	Urban	11418802	1195.43	519.28
	Rural	5681605	227.264	
2050	Urban	15675568	1195.43	542.63
	Rural	7280590	291.224	

Industrial water demand

Industrial water demand is calculated based on the requirement of Small, Medium and Large scale industries in the basin. The recommendations of the industries department i.e., 2500 cum/day/unit for large and medium scale industries and 2.5 cum/day/unit for small scale industries are adopted for estimating the industrial demand.

WATER DEMAND CALCULATION FOR SMALL, MEDIUM AND LARGE INDUSTRIES BASED ON INDUSTRY CENSUS AS TAKEN FROM IWS

Sl. No.	Type of industry	Average Rate of Water consumption as given in IWS m ³ /day	2010		2017		2020		2030		2040		2050	
			No. of industry as per IWS	Water Demand	No. of industry	Water Demand	No. of industry	Water Demand	No. of industry	Water Demand	No. of industry	Water Demand	No. of industry	Water Demand
1	Small scale industry	2.5	112910	103.03	193508	176.58	243764	222.43	526269	480.22	1136175	1036.76	2452916	2238.29
2	Medium & large scale industry	2500	778	709.93	1333	1216.36	1680	1533	3626	3308.73	7829	7143.96	16902	15423.08
Total Demand in M.Cum				812.96		1392.94		1755.43		3788.95		8180.72		17661.37

Livestock water demand

The projected livestock water demand is given in Table below

Sl. No.	Name	Standard Norms in lpcd	Demand 2017	Demand 2020	Demand 2030	Demand 2040	Demand 2050
1	Cattle	110	44.75	45.32	47.26	49.28	51.39
2	Buffalo	150	21.42	18.73	11.98	7.67	4.9
3	Sheep	20	5.82	5.8	5.74	5.68	5.63
4	Goats	20	8.02	8.58	10.73	13.41	16.77
5	Horses & Ponies	150	0.111	0.111	0.111	0.111	0.111
6	Donkeys	40	0.041	0.041	0.041	0.041	0.041
7	Pigs	40	2.57	2.23	1.4	0.88	0.55
8	Dogs	15	1.885	2.509	6.507	16.877	43.776
9	Rabbits	15	0.063	0.063	0.063	0.063	0.063
10	Poultry	0.25	0.98	1.25	2.85	6.49	14.76
	Total		85.66	84.634	86.682	100.502	137.991

WATER BALANCING
Water Potential, Demand and Deficit (Both Long & Short Term)

Sl. No	Name of the basin	Area of the basin (in Sq.Km)	No. of Sub basins	Year	Demand of water in various sectors (MCM)						Water availability (MCM)					Surplus / Deficit in Mcum
					Irrigation	Domestics	Industries	Live stock	Others	Total	Surface water potential	Ground water potential	Quantity of recycled water from Sewage	Quantity of water from desilting	Total	
1	Chennai	6118.34	8	2017	1359.00	335.51	1392.94	85.660	0.00	3173.11	1062.00	743.632	-	49.32	1854.95	-1318.16
				2020	1359.00	357.71	1755.43	84.634	0.00	3556.77	1062.00	743.632	-	49.32	1854.95	-1701.82
				2030	1359.00	430.84	3788.95	86.682	0.00	5665.47	1062.00	743.632	-	49.32	1854.95	-3810.52
				2040	1359.00	519.28	8180.72	100.502	0.00	10159.50	1062.00	743.632	-	49.32	1854.95	-8304.55
				2050	1359.00	542.63	17661.37	137.991	0.00	19700.99	1062.00	743.632	-	49.32	1854.95	-17846.04