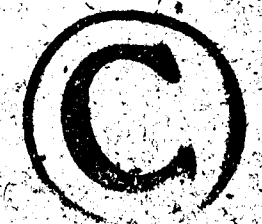
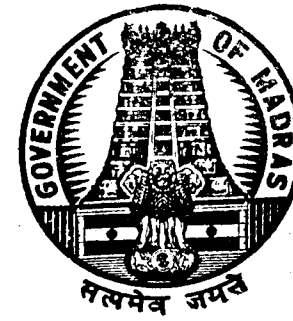


ADMINISTRATION REPORT
OF THE
DEPARTMENT OF PUBLIC HEALTH
ENGINEERING AND MUNICIPAL WORK
MADRAS
1964-65



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ADMINISTRATION REPORT
OF THE
DEPARTMENT OF PUBLIC HEALTH
ENGINEERING AND MUNICIPAL WORKS,
MADRAS
FOR THE YEAR
1964-65

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GOVERNMENT OF MADRAS
1967

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ADMINISTRATION REPORT OF THE DEPARTMENT OF PUBLIC HEALTH
ENGINEERING AND MUNICIPAL WORKS FOR THE YEAR 1964-65.

CHAPTER I.

THE YEAR IN RETROSPECT.

The Government ordered the formation of a separate Public Health Engineering and Municipal Works Department. This Department is placed in charge of the investigation, Design and execution of Water Supply and Drainage Schemes of all Municipalities, Townships and Major Town Panchayats (with a population of 10,000 and above other than Corporation of Madras). In addition to the Water Supply and Drainage Works the Government have ordered that Municipal Works, such as Buildings, Roads, etc., should also be brought under the control of this Department. However few building works alone have been taken over by this Department for want of requisite staff.

The Chief Engineer, Public Health Engineering and Municipal Works continues to hold administrative and technical control of this Department, assisted by the Sanitary Engineer, on the investigation and Design Work by the Superintending Engineer (Public Health Circle) for the execution of Water Supply and Drainage Schemes and by the Deputy Chief Engineer, (Public Health) and other technical personnel for his office work. During the year under review, a separate Ground Water Cell was constituted by Government for investigation of ground water in Madras State. The Chief Engineer is placed in charge of this Ground Water Cell also and he is assisted in this field of work by the Superintending Engineer and other technical personnel attached to the cell.

The Sanitary Engineer is in charge of investigation, Design and Maintenance of Water Supply and Drainage Schemes in all the Municipalities, Townships and Major Panchayats in the State excepting the Corporation of Madras. He also continues to be the Inspecting Officer for all grant-in-aid water-supply and drainage works of the Corporation of Madras. The Superintending Engineer (Public Health Circle) is in charge of execution of Water Supply and Drainage Schemes of all urban areas and institutions other than the Corporation of Madras.

During the year under review, Government accorded administrative approval to 10 Water Supply Schemes and 3 Drainage Schemes. Investigation was in progress for 34 Water Supply Schemes and 10 Drainage Schemes. Outline proposals, detailed plans and estimates were under preparation in the Sanitary Engineer's office for 25 Water Supply Schemes and 7 Drainage Schemes. The Sanitary Engineer submitted to the Chief Engineer detailed estimates for 20 Water Supply Schemes and 3 Drainage Schemes, the total estimated cost being Rs. 369.065 lakhs. Technical sanction was accorded by the Sanitary Engineer to one major work costing Rs. 1.80 lakhs and to 42 miscellaneous works, the total estimated cost being Rs. 5.97 lakhs. The Chief Engineer, accorded technical sanction to estimates relating to 14 Water Supply Schemes, 3 Drainage Schemes, 1 Municipal Building Work and to an estimate for the purchase of Tools and Plant articles for the office of the Chief Engineer (Public Health), the total estimated amount being Rs. 184.610 lakhs. Technical sanction was accorded by the Superintending Engineer (Public Health Circle) for 1 work costing Rs. 1.11 lakhs.

During the year, 102 Water Supply Schemes (including the new schemes and improvements to existing systems) and 25 Drainage Schemes were under execution. The total outlay on all these works was Rs. 146.00 lakhs (Rs. 130.40 lakhs on Water Supply Schemes and Rs. 15.6 lakhs on Drainage Schemes). These works cover 54 Municipalities and 69 Town Panchayats. Besides, an expenditure of Rs. 13.15 lakhs has been incurred during the year for the Water Supply Scheme to the Defence Industries Project at Avadi.

The following Five Water Supply Schemes were put to beneficial use during the year:—

1. Velur Water-Supply Scheme.
2. Namakkal Water-Supply Scheme.
3. Paramakudi Water-Supply Scheme.
4. Dindigul Wayside Water-Supply Scheme.
5. Sankarankoil Water-Supply Scheme (2 to 5 are pilot supplies).

During the year the progress in the execution of many of the Plan Schemes suffered a set back due to short supply of 3" and 4" dia. C.I. pipes. The distribution of these smaller dia. C.I. pipes under R/C. systems is controlled by the Director General of Supplies and Disposals, Government of India. Major portion of the quantity of C.I. pipes allotted by the Director-General of Supplies and Disposals for the period 1st July 1962 to 30th June 1964 was not supplied in full by the manufacturers. Due to the heavy demand for the supply of these smaller dia. pipes, the Director-General of Supplies and Disposals had to control their distribution. On the account of this, this Department could not move the Director General of Supplies and Disposals for further allotment of pipes. However, with a view to complete the Schemes which were in advanced stage of execution, A.C. Pressure Pipes were procured and used in place of C.I. Pipes. The lack of foreign exchange for the import of piglead, water meters and sheet piles also contributed to the delay in the execution of many of the schemes.

The Superintending Engineer (Public Health Circle) continued to be a member of the Environmental Sanitation and Health Education Committee during the year.

The Superintending Engineer (Public Health Circle) with his headquarters at Madras continued to be assisted by a Personal Assistant, Assistant Engineer (Technical), Assistant Engineer (Stores) and 4 Executive Engineers (Public Health) with their headquarters at Madras, Madurai, Coimbatore and Palayamkottai and 17 Assistant Engineers (Public Health) spread over the State. In order to complete the works for the supply of 3 m.g.d. of protected Water Supply to the Defence Industries Project of the Government of India at Avadi, Madras, one Special Public Health Division with an Executive Engineer (Public Health) assisted by 3 Assistant Engineers (Public Health) was also functioning during the year. The headquarters of the Division and Sub-division were at Madras and Ambattur respectively.

In the investigation of Water Supply and Drainage Projects, the Sanitary Engineer was assisted by two Executive Engineers (Public Health), viz., the Executive Engineer (Public Health), Investigation and Maintenance Division and the Executive Engineer (Public Health), Special Water Resources Division. The Executive Engineer (Public Health), Special Water Resources Division, with head quarters at Madras assisted by 2 Assistant Engineers (Public Health) with head quarters at Madras and Tuticorin respectively was directing the investigation (i) for water-supply requirements of industries in and around the city of Madras and Tuticorin from the river Palar and Tambaraparani respectively (ii) for water-supply arrangements to Ambattur Industrial Estate (iii) for water-supply arrangements to Ennore Marine Diesel Engine Factory and (iv) for water supply arrangements to Tiruchirappalli Small Arms Factory Project. The Executive Engineer (Public Health) Investigation and Maintenance Division with head quarters at Madras, assisted by 4 Assistant Engineers (Public Health) with head quarters at Chingleput, Salem, Tiruchirappalli and Tirunelveli attended to the investigation of other Water Supply and Drainage Projects in progress in the State. The Sanitary Engineer was assisted in the preparation of detailed plans and estimates by one Executive Engineer (Public Health) Designs, 4 Assistant Engineers (Public Health) Technical and One Chief Head Draughtsman. To carry out his duties as the Inspecting Officer for the grant-in-aid works of the Corporation of Madras, the Sanitary Engineer was assisted by 2 Assistant Engineers (Public Health), One for Water Supply Schemes and the other for Drainage Works.

The Public Health Research Unit at Guindy under one Assistant Engineer (Public Health) continued to conduct experimental studies for the treatment and disposal of trade wastes under the immediate supervision of the Professor of Public Health Engineering, College of Engineering, Guindy. During the year, one Special Public Health Research unit with 2 Assistant Engineers (Public Health) and staff was created for a period of one year, for conducting pilot studies at Kodungaiyur Sewage Farm (attached to the Madras City Sewerage System) for evolving methods of treatment for the reclamation of sewage water for industrial use. One Assistant Engineer (Public Health) posted for the work joined duty on 18th November 1964 and continued till the end of the year. The second post of Assistant Engineer (Public Health) was vacant till the end of the year under report.

The Special Water Resources (Public Health) Division, Madras with its two sub-divisions at Madras and Tuticorin were abolished with effect from 28th February 1965 afternoon consequent on the constitution of a separate Ground Water Cell by the Government.

CHAPTER II.

WATER-SUPPLY AND DRAINAGE SCHEMES UNDER OPERATION—
STATISTICAL PARTICULARS.

The following population particulars would show the magnitude of the Water-Supply and Drainage needs in regard to the Municipal, Urban and Panchayat areas :—

	Population.	Percentage.
Madras City	1,729,141	5.2
Municipal Towns	4,321,875	12.8
Other urban areas	2,939,514	8.7
Rural areas	24,696,425	73.3
Total	33,686,953	100

The number of district Municipalities was 74 as against 67 at the end of the previous year. The number of Townships was 13 as against 11 at the end of the previous year.

WATER-SUPPLY PROJECTS IN OPERATION.

(a) *Municipalities*.—Out of 74 municipal towns, 51 towns have protected water-supply projects in operation. Improvements and expansions are necessary in most cases to make them serve adequately for their present requirements. Twenty-three municipal towns are yet to be provided with protected water-supply.

Out of the 51 schemes in operation 10 are gravitational, 37 involve pumping and the other 4 are gravitational-cum-pumping. Out of these 51 schemes, 35 schemes depend on underground water, 8 draw upland impounded water and 8 depend on surface water of rivers and canals.

(b) *Panchayats*.—The following 29 panchayats have protected water-supply. Some of them are in need of expansion and improvements :—

- | | |
|-------------------------|------------------------|
| 1. Arantangi. | 16. Nannagaram. |
| 2. Butlagundu. | 17. Rameswaram. |
| 3. Cape-Comorin. | 18. Sattur. |
| 4. Chennimalai. | 19. Suramangalam. |
| 5. Chinnamanur. | 20. Tiruvettipuram. |
| 6. Ilanji. | 21. Suchindram. |
| 7. Jalakantapuram. | 22. Tiruttani. |
| 8. Karamadai. | 23. Turaiyur. |
| 9. Kamayakavandanpatti. | 24. Tenkasi. |
| 10. Kayalpatnam. | 25. Tiruchendur. |
| 11. Kaveripatnam. | 26. Vanavasi. |
| 12. Kudi Iruppu. | 27. Veerapandiapatnam. |
| 13. Melagaram. | 28. Velur. |
| 14. Manaparai. | 29. Virudhachalam. |
| 15. Nangavalli. | |

(c) *Townships*.—Out of 13 townships in this State, the following five townships are having protected water-supply. Some of them also are in need of expansion and improvements :—

- (1) Bhavanisagar, (2) Courtalam, (3) Kodaikanal, (4) Mettur and (5) Valparai.

DRAINAGE PROJECTS IN OPERATION.

(a) *Municipalities*.—The following three municipal towns are having underground drainage system in operation and all of them require expansion and improvement.—

(1) Coimbatore, (2) Ootacamund and (3) Madurai.

The following eight towns are having open drainage system serving only parts of the towns :—

(1) Chingleput, (2) Nagapattinam, (3) Pudukottai, (4) Salem, (5) Srirangam, (6) Tiruchirappalli, (7) Tuticorin and (8) Vellore.

(b) *Panchayats*.—Paramakudi is the only panchayat having open drainage scheme.

(c) *Township*.—Mettur Township has an underground drainage scheme in operation.

CHAPTER III.

WATER-SUPPLY AND DRAINAGE SCHEMES—CORPORATION OF MADRAS GRANT-IN-AID WORKS.

During the period under review, the Sanitary Engineer continued to be the Inspecting Officer for all Grant-in-aid Water-Supply and Drainage Works of the Madras Corporation in terms of G.O. No. 2164, Public Health, dated 23rd May 1941 and G.O. Ms. No. 3386 Public Health, dated 5th December 1944. The Sanitary Engineer has to offer remarks on the following in addition to his routine inspection of the above grant-in-aid works :—

(i) Scrutiny of Water-Supply and Drainage Schemes for which Government grant or loan is claimed.

(ii) Scrutiny of Annual Budget in respect of the loans and grants for water-supply and drainage works.

(iii) Scrutiny of Administrative Report of the Corporation of Madras so far as it relates to water-supply and drainage schemes.

(iv) Advice on tenders for grant-in-aid works relating to water-supply and drainage costing over Rs. 25,000.

(v) Scrutiny of grant statement for water-supply and drainage works of the Corporation of Madras.

(vi) Passing additions and alteration made by the Corporation involving items of work, not included in the sanctioned estimate but which are contingent upon the proper execution of the scheme and the cost of which will not involve any excess over the sanctioned estimate.

(A) WATER SUPPLY.

I. The following grant-in-aid water-supply works of the Corporation of Madras were sanctioned during the year under review :—

1. Construction of an open lined channel from Poondi to Red Hills (Istage) revised proposals—Sanctioned in G.O. Ms. No. 334, Health dated 17th February 1965—Estimate for Rs. 64.00 lakhs.

2. City Distribution Improvement Schemes No. XII—Sanctioned in G.O. Ms. No. 336, Health, dated 17th February 1965—Estimate for Rs. 3.89 lakhs.

3. Laying sub-mains and feeder mains to areas one and two of zone 8-B—Sanctioned in G.O. Ms. No. 166, Health, dated 22nd January 1965—Estimate for Rs. 12.15 lakhs.

II. The following grant-in-aid water-supply works in progress were inspected during the period under review :—

1. Installation of Rapid Mechanical Filters of 30 m.g.d.

2. Construction one RC over head tank of 1.5 m.g.d. capacity at Kilpauk Pumping Station.

3. Construction of one additional underground filtered watertank, Kilpauk Pumping Station.

4. Laying a separate trunk main for zone 3.

5. Laying a separate trunk main for zone 5.

6. Laying a separate trunk main for zone 8-B.

7. City Water-supply Distribution Improvement Scheme V, VI, VII, VIII, IX, X and

XI.

8. Provision of water-supply to Alagappa Nagar, Aminjikarai Extension.

9. Water-supply to extended area viz., Aminjikarai, Ayanavaram and Kodambakkam.

10. Further scheme of Distribution to Mambalam T.P. area.

11. Providing water-supply to old Mambalam.

12. Provision of water-supply to Southern Higher Technological Institute, Guindy.

13. Construction of Twin Reservoirs at Robinson Park under the scheme 33' pumping main to North Madras.

14. Sembium Distribution system.

15. Construction of an open lined channel from Poondi to Red Hills.

Loans and Grants.—Loans and grants amounting to Rs. 46 lakhs and Rs. 23.70 lakhs respectively were sanctioned to the Corporation of Madras for expenditure on water-supply works.

(B) DRAINAGE SCHEMES.

I. The following grant-in-aid drainage works of Madras Corporation were sanctioned during the year under review :—

1. Laying sewers in Tondiarpet 'F' area—Estimate for Rs. 4.02 lakhs.

2. Laying intercepting sewers in Old Jail Road along Oddan Paracheri Road—Estimate for Rs. 3.65 lakhs.

3. Laying intercepting sewers in Broadway—Estimate for Rs. 4.22 lakhs.

4. Laying 21" dia. pumping main from Law College pumping station to Royapuram pumping station—Estimate for Rs. 7.65 lakhs.

II. The following drainage works in progress were inspected during the period under review :—

1. Saidapet Drainage Scheme.

2. Kodambakkam Drainage Scheme.

3. Sembium Drainage Scheme.

4. Ayanavaram Drainage Scheme.

5. Laying 21" dia. pumping main from Law College pumping station to Royapuram pumping station.

6. Laying intercepting sewer in North Beach Road.

7. Laying 12" C.I. pumping main in Ratta Kully Street from the junction of T.H. Road.

Loans and Grants.—Loans and grants of Rs. 39.26 lakhs and 9.33 lakhs respectively were sanctioned to the Corporation of Madras for expenditure on drainage schemes.

Staff.—The Sanitary Engineer was assisted by two Assistant Engineers and two Junior Engineers in the discharge of his duties as the Inspecting officer for the grant-in-aid water-supply and drainage works of Madras Corporation.

CHAPTER IV.

MAINTENANCE OF SCHEMES.

The water-supply position in the various Municipalities and Panchayats served by the existing schemes was satisfactory during the year under report. The need for additional public fountains and extension of new mains was felt by the Local Bodies for the extended and unserved areas. As many as 520 proposals for the erection of public fountains were approved during the year under report. The grant of house service connections in Municipalities and Panchayats was liberalised to enable the local bodies to run the schemes on a commercial basis and thus make the schemes self-supporting with reference to G.O. No. 2014, Health, dated 14th June 1955.

The Sanitary Engineer and Executive Engineer (Public Health), Investigation and Maintenance Division continued to inspect the various water-supply drainage projects in commission in the local bodies and advice given in regard to their proper maintenance. The Mechanical Expert to the Sanitary Engineer supervised the running and maintenance of pumping installations periodically. Appendices 'A' and 'B' show the salient details of water-supply and drainage systems in operation.

Samples of water supplied in the various Municipalities and Panchayats were periodically tested as usual in the King Institute, Guindy.

CHAPTER V.

GENERAL.

1. *The Madras Municipal Engineering Service and the Madras Municipal Engineering Subordinate Service.*—During the year under report the post of Municipal Engineer at Kumbakonam was upgraded from second grade to first grade. New posts of Municipal Engineer, III grade were created for Courtallam, Dharapuram, Ranipet and Tiruvottiyur.

The strength of the Madras Municipal Engineering Service at the end of the year under report was eight in the I Grade and 15 in the II grade as against 7 and 16 respectively at the end of the previous year. The strength of the Madras Municipal Engineering Subordinate Service III grade was 30 as against 26 at the end of the previous year.

2. *Post Graduate Course in Public Health Engineering.*—For the Post-Graduate Course in Public Health Engineering (leading to M.Sc. Degree in Public Health Engineering) being conducted at the Engineering College, Guindy, no departmental candidate was deputed to undergo the course during the year under report.

3. *Short-term Course in Public Health Engineering.*—For the short-term course in Sanitation and Public Health Engineering covering a period of three months conducted at the College of Engineering, Guindy, ten departmental candidates were deputed to undergo the course which commenced on 29th July 1964, 22nd October 1964 and 16th January 1965 respectively.

4. *Water Works Plant Operator's Course.*—For the Water Works Plant Operators' Course held at Jodhpur (Rajasthan) from 11th February to 10th March 1965 the Municipal Engineer, Tiruvannamalai and the two Electrician Superintendents of Madurai and Tirunelveli Municipalities were deputed by Government.

The Sanitary Engineer continued to be a member of (a) the Public Health Board, (b) the Water and Sewage Purification Committee and (c) the High Power Committee. The Sanitary Engineer continued to exercise control over the maintenance of the Government Experimental Filter station at Kilpauk.

The Sanitary Engineer attended the Conference of Superintending Engineers held at Vaigai Dam in December 1964.

APPENDICES

APPENDIX

WATER SUPPLY

Serial number and name of the station.	Project when initiated and when completed.	Cost of Project as executed (Rupees in lakhs).	Project designed as partial or full.	Rate of supply as designated in gallons per head per day.	Source of supply and treatment method.	Supply pumped or gravitational.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
MUNICIPALITIES.						
1 Arkonam	1931 to 1939.	1.93	Full ..	10	Infiltration gallery in Kallar river.	Pumping ..
2 Arcot-Ranipet ..	1955 to 1958.	12.66	Do. -	10	Infiltration well in Palar river.	Do. ..
3 Arni	1960 -	7.28	Do. ..	10	Infiltration gallery in Palar river.	Do. ..
4 Bodinayakanur ..	1937 to 1944.	5.88	Do. ..	15	Hill stream Kottagudi water treated on Paterson Mechanical filters.	Gravitational
5 Chidambaram ..	1900 to 1915.	1.00	Do. ..	15	Rajavankal canal fed storage tank water treated on jewels pressure filters.	Pumping ..
6 Cingleput	1906 to 1926.	2.96	Do. -	15	Infiltration works in Palar river bed.	Do. ..
New						
7 Coimbatore Improve-ments.	1905, 1929, 1953.	46.57	Full ..	20	Sriuvani river water dammed in to lake and diverted through tunnel.	Gravitational
8 Coonoor	1897, 1905, 1936, 1940.	2.50 2.00	Do. ..	20	Baliah river dammed up by masonry dam.	Do. ..
9 Cuddalore	1934 -	2.42	Partial..	5	Infiltration well in Penniar river bed.	Pumping ..
10 Cumbum	1965 -	47.87 38.24	Full ..	10	Periyar rail race waters.	.. ..
11 Dharapuram ..	1958, 1963.	10.445 11.77	Do. -	15	Infiltration works in Amaravathy river.	Pumping ..
12 Dindigul	1890, 1896.	2.76 2.76	Partial..	10	Odukkam Valley Infil-tration gallery and wells.	Gravitational and Pump-ing.

'A'.

Project.

Type of plant.	Unit number.	Horse power.	Duty.		Date of installation.	Whether mechanical recorder is provided to measure the quantity pumped.	Whether chlorination plant is installed or not.	Present condition of plant.
			G.P.M.	Head in feet.				
(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Electrical ..	1	13.5	180	128	November 1939.	Yes ..	No ..	Fair ..
	2	13.5	180	130	Do. -	..	..	Do. ..
Do. ..	1	30.0	500	112	1958 ..	Yes ..	Yes ..	Do. ..
	2	30.0	500	112	Do. -	..	..	Do. ..
Do. ..	1	20.0	480	90	March 1960	Yes ..	Yes ..	Good ..
	2	20.0	480	90	Do. -	..	..	Do. ..
....	..	..	..	..		..	..	..
Electrical ..	1	19/20	360	96	June 1941	Yes ..	Yes ..	Fair ..
	2	19/20	360	96	Do. ..	Do. ..	Do. ..	Do. ..
Do. ..	1	25	240	166	1942 ..	..	..	Do. ..
	2	25	240	166	1960 ..	..	..	Do. ..
SETS.								
	1	30	375	156	March 1961	Yes ..	Yes ..	Good ..
	2	30	375	156	Do. ..	..	..	Do. ..
..	..	..	..	..		..	..	..
..	..	..	..	..		..	..	..
Electrical ..	1	40	1,000	80	22nd July 1960.	Yes ..	Yes ..	Good ..
	2	40	1,000	80	28th August 1960.	..	..	Do. ..
Do. ..	1	30	735	95.5	....	Yes ..	..	Do. ..
	2	30	735	95.5	....	..	..	Do. ..
Do. ..	1	20	365	130	November 1963.	Yes ..	No ..	Do. ..
	2	20	365	130	Do. -	..	..	Do. ..
Do. ..	1	7.5	160	70	17th August 1938.	..	..	Fair ..
	2	5	160	70	4th April 1957.	..	..	Do. ..
	3	7.5	160	60	5th April 1957.	..	..	Do. ..
	4	12.5	35	180	31st August 1960.	..	..	Do. ..

APPENDIX

Water Supply

Serial number and name of the station.	Project when initiated and when completed.	Cost of Project as executed (Rupees in lakhs).	Project designed as partial or full.	Rate of supply as designated in gallons per head per day.	Source of supply and treatment method.	Supply pumped or gravitational.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
MUNICE						
LOW						
13 Erode ments.	Improve. 1912, 1919.	3.50	Full ..	15	Cauvery river raw water treated on jewells Gravity filters.	Pumping ..
HIGH						
RAW WATER						
14 Gobichettipalayam.	1954, 1958.	15.91	Full ...	15	Surface water from Bhavani river.	Pumping ..
CLEAR WATER						
15 Gudiyatham	.. 1904, 1907.	0.50	Full ..	6	Infiltration gallery in Koundiyya river bed.	Pumping ..
16 Kancheepuram	.. 1895, 1897.	2.57	Do. ..	15	Infiltration gallery in Vagavathi river-bed.	Do. ..
Kancheepuram provements.	Im. 1930 ..	0.98	..	..	Palar head works ..	Do. ..
17 Karaikudi	.. 1934, 1939.	0.33	Partial..	5	Jambiuthu Artisian source.	Do. ..
Improvements	.. 1950 ..	0.59	..	..	..	..
18 Karur	.. ..	0.50 0.29	Full ..	15	Infiltration works in the Amaravati river-bed.	Do. ..
19 Kumbakonam old	.. 1901, 1914.	5.29	Partial..	5	Borewell near Mahamagam tank.	Do. ..
Kumbakonam new..	1941, 1953.	16.81	Full ..	15.75	Infiltration gallery in the Cauvery river Padugai.	Do. ..
20 Madurai	 1894 ..	2.90	Do. ..	15	Filter gallery in Arappalayam across Vaigai river.	Do. ..
	1924 ..	18.42	Do. ..	15	Infiltration gallery in the Vaigai river-bed at Kochadi.	Do. ..
					Melakkal water works..	Do. ..
					Arasuradi	Do. ..
					Booster	Do. ..

'A'—cont.

Project—cont.

Type of plant.	Unit number.	Horse power.	Duty.		Date of installation.	Whether mechanical recorder is provided to measure the quantity pumped.	Whether chlorination plant is installed or not.	Present condition of plant.
			G.P.M.	Head in feet.				
(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
PALITIES—cont.								
LIFT.								
Electrical ..	1	10	320	50	1938 ..	..	..	Not used..
	2	30	600	75	1962 ..	..	..	Good ..
	3	30	600	75	1954 ..	..	..	Do. ..
LIFT.								
	1	30	411	136	1938 ..	Yes ..	No ..	Fair ..
	2	30	423	136	1938 ..	..	..	Do. ..
	3	60	610	200	1954 ..	..	..	Do. ..
PUMPSETS.								
Electrical ..	1	12.5	450	54	1960 ..	..	..	Fair ..
	2	12.5	450	54	1960 ..	..	..	Do. ..
PUMPSETS.								
	1	30	450	140	1959 ..	No ..	Yes ..	Fair ..
	2	30	450	140	1959 ..	..	..	Do. ..
Electrical ..	1	30	500	110	1952 ..	..	..	Do. ..
Gas ..	1	15	250	110	1919 ..	Yes ..	No ..	Not worked.
								Good ..
Electrical ..	2	45	500	136	1964 ..	..	..	Fair ..
	1	42	1,450	86/72	1946 ..	Yes ..	No ..	Do. ..
Do. ..	2	42	1,450	87/70	1946 ..	..	..	Do. ..
	1	70	1,030	150	1963 ..	..	..	Do. ..
Do. ..	2	70	1,030	150	1963 ..	..	..	Do. ..
	3	70	1,030	150	1963 ..	..	..	Do. ..
Do. ..	1	5	100	91	27th May 1937.	No ..	No ..	Do. ..
	2	5	100	91	Do. ..	..	..	Do. ..
Do. ..	1	19.5	395	102	22nd July 1959.	Yes ..	Yes ..	Good ..
	2	19.5	395	102	..	..	Do. ..	Do. ..
Do. ..	1	35	650	100	13th August 1943.	..	..	.. ..
	2	35	650	100	Do. ..	Yes ..	Yes ..	Good ..
	3	50	1,604	82	5th September 1953.	..	..	Do. ..
Do. ..	1	40	750	100	April 1952 ..	..	..	Do. ..
	2	40	750	100	Do. ..	..	..	Do. ..
Do. ..	1	170	3,000	85	January 1940.	Yes ..	Yes ..	Do. ..
	2	170	3,000	85	Do. ..	..	..	Do. ..
Do. ..	1	55	300	34	1960 ..	..	..	Do. ..
	2	55	300	34	Do. ..	..	..	Do. ..
Do. ..	1	120	3,100	80	Do. ..	..	..	Do. ..
Do. ..	2	120	3,100	80	Do. ..	..	..	Do. ..

APPENDIX

Water Supply

Serial number and name of the station.	Project when initiated and when completed.	Cost of project as executed (rupees in lakhs).	Project designed as partial or full.	Rate of supply as designated in gallons per head per day.	Source of supply and treatment method.	Supply pumped or gravitational.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
MUNICIPAL CLEAR WATER						
21 Mannargudi ..	1962 ..	6.77	Partial..	10	Pilot scheme; CHP Channel surface water.	Pumping ..
22 Mayuram ..	1958 ..	-	Full ..	15	Underground ..	Do. ..
23 Melapalayam ..	1958 ..	..	Do. ..	15	Infiltration gallery on Palar River.	Do. ..
24 Mettupalayam ..	1930 .. 1949 ..	2.80	Full ..	5	Bhavani River Water traced on Paterson's gravity filters.	LOW Pumping ..
HIGH						
Combined W.S.S. ..	1961 ..	..	Full ..	..	....	FOR LOW ..
FOR HIGH						
25 Nagapattinam ..	1897 .. 1914 ..	9.5	Full ..	15	Infiltration gallery in Vettar river-bed.	Pumping ..
26 Nagercoil ..	1945 ..	..	Do. ..	12	Reservoir at Mukkudal water treated by Paterson's Mechanical Filters.	Gravitational-cum-pumping.
27 Ootacamund ..	1910 ..	5.50 0.80	Do. ..	20	Impounding Reservoir.	Gravitational
28 Palani ..	1912 .. 1932 ..	1.00	Do. ..	10	Palar river dam water.	Do. ..
29 Palayamkottai ..	1956 ..	2.14	Do. ..	25	Infiltration gallery in Tambarabarani river.	Pumping ..
30 Periyakulam Extension.	1906 .. 1912 .. 1928 ..	3.75	Do. ..	15	Berijam lake water from Kodai Hills treated on slow sand filters.	Gravitational
31 Pollachi ..	1930 .. 1937 ..	6.41	Do. ..	15	Infiltration gallery in Aliyar river-bed.	Pumping ..

A'-cont.

Project—cont.

Type of plant.	Unit number.	Horse-power.	Duty.		Date of installation.	Whether Mechanical Recorder is provided to measure the quantity pumped.	Whether chlorination plant is installed or not.	Presents condition of plant.
(8)	(9)	(10)	Gallons per minute.	Head in feet.	(13)	(14)	(15)	(16)
TIES—cont.								
PUMPSETS—cont.								
Electrical ..	1	5	..	..	..	..	..	Fair hand to the Municipality only on 19th April 1963.
Do. ..	2	5	..	..	..	..	..	Fair ..
Do. ..	1	10	40	85	1958 ..	..	..	Good ..
Do. ..	2	10	40	85	1958 ..	Yes ..	Yes ..	Do. ..
Do. ..	1	15	480	65	May 1958 ..	..	..	Do. ..
Do. ..	2	15	480	65	Do. ..	Yes ..	Yes ..	Do. ..
LIFT.								
Do. ..	1	8	160	57	1947 ..	..	..	Fair ..
Do. ..	2	8	160	57	1947 ..	..	..	Do. ..
LIFT.								
Do. ..	1	13	160	130	1947 ..	..	No ..	Yes ..
Do. ..	2	13	160	130	1947 ..	..	No ..	Yes ..
LIFT.								
Do. ..	1	20	700	105	1961 ..	..	..	..
Do. ..	2	20	700	105	1961 ..	..	..	..
Do. ..	1	40	700	105	1961 ..	..	..	..
Do. ..	2	40	700	105	1961 ..	..	..	..
LIFT.								
Do. ..	1	40	750	120	December 1949.	..	..	Fair ..
Do. ..	2	40	750	120	Do. ..	Yes ..	Yes ..	Do. ..
Do. ..	1	30	565	127	1952 ..	..	Do. ..	Do. ..
Do. ..	2	30	565	127	1952 ..	..	..	Removed ..
Do. ..	3	45	..	..	..	..	..	Good ..
Do. ..	4	45	..	..	..	..	..	Do. ..
Do. ..	..	..	..	..	..	..	..	..
Do. ..	..	..	..	..	..	..	..	..
Do. ..	..	..	..	..	..	..	..	..
Do. ..	1	85	1,250	168	December 1956	Yes ..	Yes ..	Do. ..
Do. ..	2	85	1,250	168	Do. ..	..	..	Do. ..
Do. ..	..	..	..	..	..	..	..	..
Do. ..	1	85	470	348	September 1948.	Yes ..	Yes ..	Do. ..
Do. ..	2	85	470	348	Do. ..	..	..	..

APPENDIX

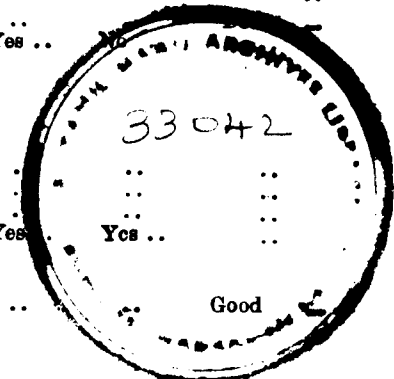
Water Supply.

Serial number and name of the station.	Project when initiated and when completed.	Cost of project as executed (rupees in lakhs).	Project designed as partial or full.	Rate of supply as designated in gallon per head per day.	Source of supply and treatment method.	Supply pumped or gravitational.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
MUNICIPALITY FOR HIGH.						
32 Pudukottai ..	1900 ..	..	Full ..	5	Pudukulam rains bed tank water treated on jewells pressure filters; Adappankulam Rain bed tank.	Pumping ..
33 Salem ..	1911 ..	8.27	Do.	5	Infiltration well in Vellar Ammayapatti. Old rainfed Pannamara-thupatti lake water treated on slow sand filters.	Do. .. Gravitational
INTAKE						
33a Mettur scheme Improvements.	1951 ..	36.67	Full ..	15	New Mettur Reservoir Water treated on Patterson's Gravity filters.	Pumping..
34 Shenkottah ..	1945 ..	..	..	..	Underground source. Infiltration well and gallery 720' long and 18' deep.	Do. ..
35 Sivakasi ..	1962 ..	23.30	Do. ..	15	Vaipar River. Infiltration works.	Do. ..
36 Srirangam ..	1909 .. 1939	1.14	Do. ..	10	Infiltration well on the Bank of Malattar.	Do. ..
37 Improvements—Srivilliputhur.	1930, 1950, 1965.	0.38 18.20	Do. ..	15	Infiltration well and gallery in Payanar river-bed.	Gravitational.
MAIN PUMPING STATION						
38 Thanjavur—Improvements.	1891 to 1895.	9.30 2.56	Full ..	15	Filter basin in the Vannar river.	Pumping..
39 Tiruchirappalli—Improvements.	1896 .. 1951	9.30 17.13	Do. ..	15	Infiltration well and gallery in the Cauvery river-bed.	Do. ..
SUB-PUMPING STATION						
40 Sankarankoil ..	1965 ..	31.39	Full ..	15	Surface water from Kohamabiar.	Gravitational
41 Tindivanam ..	1949 ..	17.63	Do. ..	10	Infiltration gallery ..	Pumping ..

'A'—cont.

Project—cont.

Type of plant.	Unit number.	Horse-power.	Gallon per minute.	Head in feet.	Date of installation.	Whether Mechanical Recorder is provided to measure the quantity pumped.	Whether chlorination plant is installed or not.	Present condition of plant.
(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
TIES—cont.								
LIFT—cont.								
Electrical ..	1	15	122	120	January 1936.	..	..	Fair ..
..	2	10	140	135	August 1947.	..	..	Do.
..	3	10	140	135	Do. ..	..	..	Do.
..	4	10	25	150	March 1949 ..	..	..	Good ..
Do. ..	1	20	130	165	April 1961 ..	..	..	..
..	2	20	130	165	Do. ..	Yes ..	..	..
Booster-station.								
Electrical ..	1	310	1,570	431	20th April 1952	..	..	..
..	2	310	1,570	431	Do. ..	..	..	..
..	1	110	1,570	147	Do. ..	Yes ..	Yes ..	..
..	2	110	1,570	147	Do. ..	..	..	..
TOWER.								
Electrical ..	1	110	1,570	147	April 1952 ..	..	..	Good ..
Do. ..	1	13.5	250	120	October 1943.	..	..	Fair ..
..	2	13.5	250	120	Do. ..	..	..	Do.
..	3	15	250	120	May 1962 ..	Yes ..	Yes ..	..
Do. ..	1	50	490/450	180/190	..	..	..	..
..	2	50	490/450	180/190	..	..	..	..
Do. ..	1	8.5	250	65	April 1940 ..	Yes ..	Yes ..	Do.
..	2	8.5	250	65	Do. ..	Do. ..	Do. ..	Do.
Do. ..	..	..	..	..	..	..	..	..
AT KAMBASAMPATTI.								
Electrical ..	1	65	1,100	130	July 1942 ..	..	..	Fair ..
..	2	65	1,100	130	Do. ..	Yes ..	Yes ..	Do.
Do. ..	1	120	1,800	150	1932 ..	..	..	Do.
..	2	100	2,150	106	April 1933 ..	..	..	Do.
..	3	100	2,150	106	May 1933 ..	..	..	Do.
..	4	100	1,500	150	October 1946.	..	..	Do.
AT PALAKARAI.								
..	1	25	500	75	1946 ..	..	..	Fair ..
..	2	20	..	..	1946 ..	Yes ..	Yes ..	Do.
Electrical ..	..	..	..	..	..	..	..	..
Do. ..	1	40	650	140	September 1959	..	..	Good ..
..	2	40	650	140	Do. ..	Yes ..	Yes ..	Do.



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APPENDIX

Water Supply

Serial number and name of the station.	Project when initiated and when completed.	Cost of project as executed (rupees in lakhs).	Project designed as partial or full.	Rate of supply as designated in gallon per head per day.	Source of supply and treatment method.	Supply pumped or gravitational.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
MUNICE SUB-PUMPING STATION						
42 Tiruppur—Improvements.	1928 .. 1940	1.84	Partial.	5	Infiltration gallery in the Kovilvelli Yeri.	Pumping ..
	1950 ..	0.49	..	..	Headworks, Nadur Booster Station No. I.	Do. ..
43 Tiruvannamalai ..	1900 .. 1954 ..	3.45	Full .. Do. ..	5	Pugalur Booster Station No. II. Infiltration well and gallery in Periyayeri.	Do. .. Do. ..
44 Tiruvallur ..	.. 1930	1.43	Full ..	5	Infiltration well and gallery in Coovam River.	Do. ..
45 Tuticorin ..	.. 1890 .. 1920	2.00	Do. ..	15	Infiltration well and gallery in the river Tambaraparani at Vallanad Head Works.	Do. ..
HEAD WORKS RAW						
46 Tirunelveli ..	.. 1961	37.03	Full ..	15	Tambaraparani surface works.	Pumping ..
CLEAR WATER						
					Pettai Booster station.	Pumping ..
					Palayamkottai Booster station.	Do. ..

'A'—cont.

Project—cont.

Type of plant.	Unit number.	Horse power.	Duty.		Date of installation.	Whether mechanical recorder is provided to measure the quantity pumped.	Whether chlorination plant is installed or not.	Present condition of plant.
			G.P.M.	Head in feet.				
(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
PALITIES—cont.								
AT PALAKARAI—cont.								
Electrical ..	1	3	110	44	January 1939.	..	..	Fair Not..
	2	3	110	44	Do.	..	..	Fairbeing.
	3	5	150	44	August 1943 ..	..	..	Fairused..
	4	5	150	44	Do.	..	..	Fairpresent.
Do. ..	1	100	1,150	147	1962 ..	Yes ..	Yes ..	Good ..
	2	100	1,150	147	1962 ..	..	..	Do. ..
	1	100	1,150	200	1962 ..	..	..	Do. ..
	2	100	1,200	200	1962 ..	Yes ..	..	Do. ..
Do. ..	1	110	1,095	184	1962 ..	..	..	Do. ..
	2	110	1,095	184	1962 ..	Yes ..	..	Do. ..
Do. ..	1	20	230/290	116	1943 ..	..	..	Fair ..
	2	17	100	82	1957 ..	..	..	Do. ..
Oil ..	..	20/22	110/200	125/150	1934 ..	Yes ..	No ..	Not being worked.
Electrical ..	1	7.5	105	92	October 1959.	..	..	Fair ..
	2	7.5	105	92	Do. ..	..	..	Do. ..
	3	12.5	110	150	May 1960 ..	..	..	Good ..
	4	5	70	50	1952 ..	Yes ..	Yes ..	Fair ..
Oil ..	1	75	833	230	1929 ..	..	..	Do. ..
	2	75	833	230	Do. ..	..	..	Do. ..
Electrical ..	3	46	450	230	March 1944 ..	..	..	Do. ..
	1	150	1,400	230	..	..	..	..
	2	150	1,400	230	November 1957	..	..	Good ..
	1	45	1,400	55	December 1960	..	..	Do. ..
	1	45	462	230	..	..	..	Do. ..
	2	45	1,400	55	December 1960	Yes ..	No ..	Do. ..
WATER PUMP HOUSE.								
Electrical ..	1	20	1,100	40	13th April 1961.	..	..	Good ..
	2	20	1,100	40	Do. ..	..	..	Do. ..
PUMP HOUSE.								
Electrical ..	1	30	766	85	Do. ..	Yes ..	..	Good ..
	2	30	766	85	Do. ..	..	..	Do. ..
	3	10	265	64	Do. ..	..	..	Do. ..
	4	10	265	64	Do. ..	Yes ..	Yes ..	Do. ..
Do. ..	1	5	190	40	Do. ..	..	..	Do. ..
	2	5	190	40	Do. ..	..	..	Do. ..
Do. ..	1	3	115/90	40/50	Do. ..	..	..	Do. ..
	2	3	115/90	40/50	Do. ..	Yes ..	..	Do. ..

APPENDIX

Water Supply

Serial number and name of the station.	Project when initiated and when completed.	Cost of project as executed (Rupees in lakhs).	Project designed as partial or full.	Rate of supply as designated in gallons per head per day.	Source of supply and treatment method.	Supply pumped or gravitational.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
MUNICI CLEAR WATER						
47 Udumalpet	1957	23.56	Full ..	15	(Gravitational Scheme from Palar Reservoir Project.)	Pumping ..
48 Vellore	1902 1907	1.39	Do. ..	15	Old Rainfed treated on slow sand filters supplemented by In-filtration Gallery outside tank bund.	Gravitational cum-pumping.
					New infiltration works in Palar river.	Do. ..
49 Virudhunagar ..	1929 1938	6.41	Do. ..	10	Infiltration gallery acrossing Arjuna river.	Pumping ..
50 Walajapet	1945 1946	1.10	Do. ..	5	Infiltration in Palar river.	Do. ..
PANCHA						
1 Aranthangi	1938 1950	2.57	Partial..	5	Infiltration well in the Vellar river.	Pumping ..
2 Batlagundu	1940 1942	0.95	Full ..	5	Infiltration well in the Manjalar.	Do. ..
3 Chennimalai	1957	1.50	Do. ..	10	Existing well near L.B.P. Canal.	Do. ..
4 Karamadai	1961	..	Do. ..	10	Gurbinal water supply for Mettupalayam and Karamadai.	Do. ..
5 Manaparai	1937 1939	0.15	Do. ..	5	Infiltration well in Mamundiar river.	Do. ..
6 Rameswaram	1914 1922	1.57	Do. ..	10	Infiltration well in fresh water treats in sands dunes.	Do. ..
7 Sattur	1962	6.39	Do. ..	15	Vaipar river from In-filtration works.	Do. ..
8 Tiruvattipuram ..	1959	4.85	Do. ..	5	Infiltration well in Cheyyar river.	Do. ..
9 Vellor (Salem District).	1957	4.24	Do. ..	10	Infiltration well in Cauvery river.	Do. ..
10 Suchindram	(Gravitational Scheme).					TOWN
A. RIVER						
1 Mettur	1928	..	Full ..	30	Mettur Reservoir treated on Patterson's rapid gravity fields.	Pumping ..

B. LAKE SIDE

A'—cont.

Project—cont.

Type of plant.	Unit number.	Horse power.	Duty.		Date of installation.	Whether mechanical recorder is provided to measure the quantity pumped.	Whether chlorination plant is installed or not.	Present condition of plant.
(8)	(9)	(10)	G.P.M.	Head in feet.	(13)	(14)	(15)	(16)
PALITIES—cont.								
PUMP HOUSE—cont.								
Gas	1	50	600	152	1932	..	(Not being worked).	..
	2	50	600	152	Do. ..	..	Do.	..
Electrical ..	1	75	1,300	146	1955	..	..	Good ..
	2	75	1,300	146	1962	No ..	Yes ..	Do. ..
Do. ..	1	35	345	187	1937	..	..	Do. ..
	2	35	345	187	Do. ..	Yes ..	No ..	Do. ..
Do. ..	1	10	100	125	May 1946 ..	..	..	Fair ..
	2	10	100	125	Do. ..	No ..	No ..	Do. ..
YATS.								
Electrical ..	1	5	100	80	May 1950 ..	..	..	Fair ..
	2	5	100	80	Do. ..	Yes ..	Yes ..	Do. ..
Do. ..	1	5	146	60	January 1942.	..	..	Good ..
	2	5	146	60	Do. ..	Yes ..	Yes ..	Do. ..
Do. ..	1	5	40	138	December 1958	No ..	No ..	Do. ..
	2	5	40	138	Do. ..	Do. ..	Do. ..	Do. ..
Do. ..	1	12.5	313	75	....	..	..	..
	2	12.5	313	75	....	..	..	..
Do. ..	1	4	54	90.5	July 1939 ..	..	..	Fair ..
	2	4	54	90.5	Do. ..	No ..	Yes ..	Do. ..
						..	..	..
Do. ..	1	10	297	71	....	..	..	..
	2	10	297	71	....	..	..	..
Do. ..	1	7.5	117	16	February 1957	Yes ..	Yes ..	Good ..
	2	7.5	117	16	Do. ..	Do. ..	Do. ..	Do. ..
Do. ..	1	10	150	127	....	Yes ..	..	..
	2	10	150	127	....	..	..	..
SHIPS.								
SIDE PUMPING STATION.								
Electrical ..	1	50	500	120	1924	..	..	Fair ..
	2	50	500	120	Do. ..	..	..	Do. ..
	3	50	500	120	Do. ..	..	..	Do. ..
PUMPING STATION.								
Electrical ..	1	30	900	75	1955	..	..	Do. ..
	2	25	830	65	1926	..	..	Do. ..

APPENDIX

Water Supply

Serial number and name of the station.	Project when initiated and when completed.	Cost of project as executed (Rupees in lakhs).	Project designed as partial or full.	Rate of supply as designated in gallons per head per day.	Source of supply and treatment method.	Supply pumped or gravitational.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
TOWN						
C. HIGH LIFT						
2 Kodaikanal	1950	1.43	Full ..	20	Pumba River --	Gravitational-cum-pumping.
3 Valparai	1953	0.62	Do. ..	15	Well in Stanmore stream existing well lower down the water works Nadumalai river through hydraulic ram.	Pumping --
4 Virdhachalam ..	1965	5.01	Do. ..	10	Infiltration works in Manimuthar river.	Do. --
5 Kaveripatnam ..	1960	3.28 4.53	Do. ..	10	Surface flows of Panniar river through infiltration.	Do. --

'A'—cont.

Project—cont.

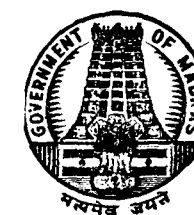
Type of plant.	Unit number.	Horse power.	Duty.		Date of installation.	Whether mechanical recorder is provided to measure the quantity pumped.	Whether chlorination plant is installed or not.	Present condition of plant.
(8)	(9)	(10)	G.P.M.	Head in feet.	(13)	(14)	(15)	(16)
SHIPS—cont.								
PUMPING STATION.								
Electricity ..	1	25	170	120	1926 --	--	(Not worked). Do.	Fair --
	2	25	170	120	Do.	--	Do.	Do. --
	3	15	120	120	1955 ..	Yes --	Yes --	Do. --
	4	15	120	120	Do.	--	--	--
Do. ..	1	7.5	35	300	1950 --	No --	Yes --	Fair --
	2	7.5	35	300	Do.	--	--	--
Do. --	1	10	20	275	June 1948	No --	Yes --	Do. --
	2	10	20	275	Do.	--	--	Do. --
Do. --	1	7.5	188	75	....	--	--	Good --
	2	7.5	188	75	....	--	--	Do. --
Do. --	1	5	110	76	--	--	--	Do. --
	2	5	110	76	--	--	--	Do. --

APPENDIX 'B'.
Drainage Project.

Serial number and name of Station.	(2) When installed.	(3) Cost of schemes as executed Rs. in lakhs.	(4) Type of Project open and method of disposal.	(5) Pumping or Gravitational.	Details of pumping unit.					(11) Present condition of plant.
					(6) Type of Plant.	(7) Number of units.	(8) Horse Power (H.P.).	(9) Gallons per minute (G.P.M.).	(10) Head in Feet.	
MUNICIPALITIES—										
1 Chingleput ..	1938	3.60	Open drainage partial.	Gravitational	..	..	..	..	..	..
2 Coimbatore ..	1950	21.41	Underground drainage and sewage farm.	Do. ..	..	..	..	..	..	..
3 Madurai ..	1929	50.00	Underground drainage and sewage farm.	MAIN PUMPING STATION, No. I. Pumping ..	Electricity ..	1	215	..	178	Good.
SUB-PUMPING STATION, No. II—SOUTH VELI STREET.										
Do. ..										
Electricity ..										
Do. ..										
Do. ..										
SUB-PUMPING STATION, No. III—WEST VELI STREET.										
Electricity ..										
Do. ..										
Do. ..										
Do. ..										
SUB-PUMPING STATION, No. IV.										
Electricity ..										
Do. ..										
Do. ..										
Do. ..										
SUB-PUMPING STATION, No. V										
Electricity ..										
Do. ..										
Do. ..										
Do. ..										
SUB PUM ING STATION, No. VI—ARASANONBUKARA STREET.										
Electricity ..										
Do. ..										
Do. ..										
Do. ..										
SUB-PUMPING STATION, No. VII.										
Electricity ..										
Do. ..										
Do. ..										
Do. ..										

4 Nagapattinam ..	1941	11.03	Open drainage partial. Disposal in sea.	Pumping	Electricity ..	1	30	1046	46	Good.
5 Ootacamund ..	..	..	Under ground drainage.	Gravitational	Do. ..	..	..	..	..	Good.
6 Pudukkottai ..	1894	..	Open drainage.	Do. ..	Do. ..	..	..	..	..	Good.
7 Salem ..	1922	1.75 and 3.50	Open drainage partial.	Do. ..	Do. ..	..	..	..	..	Good.
8 Srirangam ..	1948	2.50	Open drainage with intercepting sewage.	Pumping	Electricity ..	1	15	394	53	Fair.
9 Tuticorin ..	1938	0.17	Open drainage with sewage farm.	Pumping	Electricity ..	2	5.5	197	34	Fair.
10 Vellore ..	1924	7.60	Open drainage intercepting sewers and sewage farm.	Do. ..	Do. ..	..	..	..	..	Fair.
11 Virudhunagar ..	15th October 1958 and 18th May 1961.	..	Open drainage partial.	Do. ..	Electricity ..	1	5.00	210	26	Fair.
PANCHAYATS--	..	..	Open drainage partial.	Gravitational	Do. ..	..	..	..	..	..
1 Paramakudi ..	..	..	Underground drainage with sewage farm.	Pumping	Electricity ..	1	28	250	110	Fair.
TOWNSHIPS--	..	..	Ejector unit.	Do. ..	Do. ..	..	..	..	..	Fair.
1 Mettur ..	1928	..	Do. ..	Do. ..	Do. ..	..	..	..	..	..
..	..	..	Do. ..	Do. ..	Do. ..	..	..	..	..	..

Chief Engineer, Public Health Engineering and
Municipal Works, Cherpauk, Madras-5.



EDUCATION AND PUBLIC HEALTH DEPARTMENT
(Public Health.)

G.O. No. 585, 30th March 1966

Administration Report—Department of Public Health Engineering and Municipal Works—
1964-65—Reviewed,

READ—the following paper :—

Letter from the Chief Engineer (Public Health Engineering, Municipal Works and
Buildings), dated 10th January 1966, No. 13256-CI (4)/65-8.

Order—No. 585 Education and Public Health (Public Health), dated 30th March 1966.
Recorded.

2. (i) In 51 Municipal Towns, 29 Panchayats and 5 Townships Water Supply Schemes were in operation during the period under review. Drainage schemes were in operation in 11 municipal towns, one panchayat and one township during the period.

(ii) Water Supply Schemes for 30 municipalities (including improvements) and 7 panchayats and Drainage Schemes for 5 municipalities and 3 panchayats were under execution during the period.

(iii) Detailed plans and estimates were prepared by the Sanitary Engineer during the period for 17 Water Supply Schemes and 3 Drainage Projects in stages.

(iv) During the period 34 Water Supply Schemes and 10 Drainage Projects were under investigation.

3. The year under review was the sixteenth year for the execution of Municipal Water Supply and Drainage Schemes on a planned basis, with reference to the priority fixed by the Government for the schemes.

(By order of the Governor)

M. A. RASHEED KHAN,
Deputy Secretary to Government.

To the Chief Engineer (Public Health Engineering and Municipal Works), Madras-5.

- .. Director of Medical Services, Madras-6.
- .. Director of Public Health, Madras-6.
- .. Director, King Institute, Guindy, through the Director of Medical Services, Madras-6.
- .. Inspector of Municipalities, Madras-1.
- .. Director of Rural Development, Madras-9.
- .. Rural Development and Local Administration Department, Madras-9.
- .. Librarian, Secretariat Library, Madras-9.
- .. Public Department.
- .. Director of Stationery and Printing and others (as per distribution list in G.O. No. 1841, Health, dated 28th May 1951).

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