

Administration Report of the
Department of Public Health
Engineering and Municipal works
Madras.

1963-64



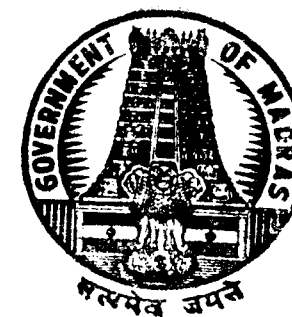
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ADMINISTRATION REPORT
OF THE
DEPARTMENT OF PUBLIC HEALTH
ENGINEERING AND MUNICIPAL WORKS,
MADRAS
FOR THE YEAR
1963-64

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GOVERNMENT OF MADRAS
1966

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**ADMINISTRATION REPORT OF THE DEPARTMENT OF PUBLIC HEALTH
ENGINEERING AND MUNICIPAL WORKS, CHEPAUK, MADRAS-5.**

CHAPTER I.

The Chief Engineer, Public Health Engineering and Municipal Works, continues to hold administrative and technical control of the Public Health Engineering and Municipal Works department, assisted by the Sanitary Engineer, Superintending Engineer (Public Health), and the Deputy Chief Engineer, Public Health. In addition to the water supply and drainage works, Government have ordered that municipal works such as buildings, roads, etc., should also be brought under the control of Chief Engineer, Public Health Engineering and Municipal Works.

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 is also the Inspecting officer for all grant-in-aid on water-supply and drainage works of the Corporation of Madras. The Superintending Engineer (Public Health) is in charge of execution of water-supply and drainage schemes of all the urban areas and institutions other than the Corporation of Madras.

During the year under review, Government accorded administrative approval to 14 water-supply schemes and four drainage schemes. Investigations were in progress for 33 water-supply schemes and 13 drainage schemes. Detailed plans and estimates were under preparation in various stages in the Sanitary Engineer's office for 39 water-supply schemes and 11 drainage schemes. The Sanitary Engineer submitted to the Chief Engineer detailed plans and estimates for 25 water-supply schemes and six drainage schemes costing Rs. 183.48 lakhs for technical sanction. Technical sanction was accorded by the Sanitary Engineer to two major works costing Rs. 3.41 lakhs and to 48 miscellaneous works costing Rs. 4.8 lakhs. The Chief Engineer accorded technical sanction to 30 water-supply schemes and six drainage schemes and for purchase of tools and plant for the Public Health Circle the estimated amount totalling to Rs. 170.675 lakhs. Technical sanction was accorded for four works costing Rs. 83,725 by the Superintending Engineer (Public Health).

During the year 88 water-supply schemes (both new schemes and improvements to existing systems) and 23 drainage schemes were under execution. The total outlay on the water-supply and drainage works were Rs. 89.238 lakhs and Rs. 12.412 lakhs, respectively. These works cover 50 municipalities and 62 panchayats. Besides, an expenditure of Rs. 24.928 lakhs was incurred during the year for the water-supply to the Defence Project, Avadi.

Nine water-supply schemes were put to beneficial use during the year :—

- | | |
|------------------|-----------------------|
| 1. Cape Comorin | } Pilot water-supply. |
| 2. Karur | |
| 3. Mannargudi | |
| 4. Kaviripatnam. | |
| 5. Salem. | |
| 6. Coimbatore. | |
| 7. Pollachi. | |
| 8. Ootacamund. | |
| 9. Thanjavur. | |

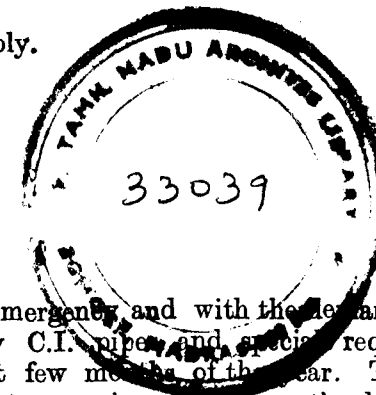
With the declaration of the National Emergency and with the demand exceeding supplies, the procurement of stores notably C.I. pipes and fittings required for the schemes suffered a setback during the first few months of the year. The Director-General of Supplies and Disposals continued to exercise control over the distribution of the C.I. pipes of diameter varying from 3" to 8".

Major quantities of smaller sized pipes, viz., 3" and 4" diameter out of the quantities allotted by the Government of India were not supplied by the manufacturers. On account of this, this department had to procure A. C. pressure pipes and use them in place of C.I. pipes. Also the lack of foreign exchange for the import of components



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such as water meter, heavy duty pumpsets and consumable stores mainly piglead for the plan schemes has to be mentioned as cause for delay in the execution of many of the schemes.

The Superintending Engineer (Public Health), 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) and Assistant Engineer (Stores) and four Executive Engineers (Public Health) with their headquarters at Madras, Madurai, Palayankottai and Coimbatore and 17 Assistant Engineers (Public Health) spread over the State according to the requirements of works. In addition, in order to complete the works for the supply of three million gallons 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 three Assistant Engineers (Public Health) was also functioning during the year. The headquarters of the division and subdivisions were at Madras and Ambattur, respectively. This division was executing all the works connected with the project.

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 headquarters at Madras assisted by two Assistant Engineers (Public Health), one with headquarters at Madras and other with headquarters at Tuticorin was directing the investigations of water-supply for the water-supply requirements of industries in and around the cities of Madras and Tuticorin from the river Palar and Tambaraparani, respectively, water-supply arrangements to Ambattur Industrial Estates and for water-supply arrangements to Ennore Marine Diesel Engine Factory. The Executive Engineer (Public Health), Investigation and Maintenance Division, with headquarters at Madras, assisted by four Assistant Engineers (Public Health) with headquarters at Chingleput, Tiruchirappalli, Salem and Tuticorin, attended to the investigation of other water-supply and drainage projects in progress in the State. The headquarters of the Assistant Engineer (Public Health), Investigation, Tuticorin, was shifted to Tirunelveli with effect from 13th June 1963. The Sanitary Engineer, was assisted in the preparation of detailed plans and estimates by one Executive Engineer (Public Health), Designs, four 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 two Assistant Engineers (Public Health), one for water-supply and the another for drainage works. In addition, one Assistant Engineer, Public Health under the control of the Sanitary Engineer conducted experimental studies for the treatment and disposal of trade wastes under the immediate supervision of the Professor of Public Health Engineering at the College of Engineering, Guindy.

During the year one post of Assistant Engineer (Public Health) was created for a period of three months to assist the Sanitary Engineer as Secretary to the High Power Sub-Committee for the assessment of the requirements of industries for reclaimed water. The Assistant Engineer (Public Health) posted for the work attended this work from 1st October 1963 to 31st December 1963.

CHAPTER II.

Water-supply and drainage projects under operation—Statistical particulars.

The following particulars would convey an idea of the situation in regard to the municipal, urban and panchayat water-supply and drainage projects.

			Population.	Percentage.
Madras City	..	..	1,729,141	5.0
Municipal towns	..	..	4,129,762	12.4
Other urban areas	..	..	3,131,625	9.4
Rural areas	..	..	24,696,425	73.2
Total	..	..	33,686,953	100.0

The number of district municipalities continued to be 67 throughout the year. The number of townships were 11 as against three at the end of the previous year.

Water-supply projects in operation—(a) Municipalities.—Out of 67 municipal towns, 51 towns have water-supply projects in operation. Improvements and expansions are necessary in many cases to make them serve adequately for the present requirements. 16 towns are yet to be provided with protected water-supply.

Out of the 51 schemes in operation, 10 are gravitational, 37-in-volve pumping and the other four are gravitational-cum-pumping. Out of these 51 schemes, 35 schemes depend on underground water, eight draw up land impounded water and eight depend on water surface of rivers and canals.

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

- | | |
|-------------------------|---------------------------|
| 1 Arantangi. | 16 Ponnagaram. |
| 2 Kutlagundu. | 17 Rameswaram. |
| 3 Cape Comorin. | 18 Sattur. |
| 4 Chinnimalai. | 19 Suramangalam. |
| 5 Chinnamanur. | 20 Suchindram. |
| 6 Ilanji. | 21 Tiruvattipuram. |
| 7 Karamadai. | 22 Tiruttani. |
| 8 Jalakandapuram. | 23 Turuvaiyur. |
| 9 Kamayakavanadanpatti. | 24 Tenkasi. |
| 10 Kayalpatnam. | 25 Tiruchendur. |
| 11 Kaveripatnam. | 26 Vanavasi. |
| 12 Kudi Irrupu. | 27 Veerapandian pattinam. |
| 13 Melogaram. | 28 Velur. |
| 14 Manapparai. | 29 Virudhachalam. |
| 15 Nangavelli. | |

(c) Townships.—Out of 11 townships in the State, the following five townships are having protected water-supply. Some of them also are in need of expansion and improvements.—

- | | |
|-----------------|-------------|
| 1 Bhavanisagar. | 4 Mettur. |
| 2 Courtallam. | 5 Valparai. |
| 3 Kodaikanal. | |

Drainage projects in operation—(a) Municipal projects.—The following three municipal towns are having underground drainage system, in operation and all of them require expansion and improvements:—

- | | |
|---------------|------------|
| 1 Coimbatore | 3 Madurai. |
| 2 Ootacamund. | |

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

- | | |
|-----------------|--------------------|
| 1 Chingleput. | 5 Srirangam. |
| 2 Nagapattinam. | 6 Tiruchirappalli. |
| 3 Pudukottai. | 7 Tuticorin. |
| 4 Salem. | 8 Vellore. |

(b) Panchayat projects.—Paramakudi is the only Panchayat having open drainage scheme in Commission.

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

CHAPTER III.

*Water-supply and drainages scheme : Corporation of Madras.**Grant-in-aid works.*

During the period under review the Sanitary Engineer has 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) Formation of Annual Budget in respect of loans and grants, water-supply and drainage works.
- (iii) Scrutiny of Administration 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 drainages work of the Corporation of Madras.
- (vi) Passing additions and alterations 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 not the sanctioned estimate.

A. Water-supply.—(i) The following water-supply schemes of the Madras Corporation have been sanctioned by the Government during the period under review (1963-64):—

- (1) Construction of an open-lined channel from Poondi to Red-Hills I Stage works—sanctioned in G. O. Ms. No. 2170, Health, dated 6th September 1963, for Rs. 55.00 lakhs (1963-64).
- (2) Laying of 15" and 12" sub-main in Bala Arunachala Chetti Street and Avadaram Ramasamy Iyer Street—Estimate for Rs. 65,000 under Zone I approved by the Chief Engineer in his letter No. 7040-E-3/63-4, dated 8th July 1963 (work carried out under Revenue funds of the Corporation in the first instance (1963-64).

(ii) The following works in progress were inspected by the Inspecting officer during the year under review :—

- (1) City Distribution Improvement Scheme Works, viz., Scheme Nos. V, VI, VII, VIII, IX, X and XI.
- (2) Provision of water-supply to Alagappa Nagar and Aminjikarai extensions.
- (3) Further scheme of distribution to Mambalam Town, Planning area.
- (4) Provision of water-supply to Rajah Annamalai puram and other adjacent areas
- (5) Provision of water-supply to Old Mambalam.
- (6) Provision of water-supply to extended areas, viz., Aminjikarai, Ayanavaram and Kodambakkam.
- (7) Sembium Distribution System.
- (8) Providing water-supply to Southern Higher Technical Institute, Guindy.
- (9) Construction of two Numbers of R.C. Overhead tanks at Robinson Park under the scheme, viz., 33-inch pumping main for North Madras.
- (10) Laying trunk main for Zone V.

11. Laying Trunk Main for Zone 8 B.
12. Construction of one number additional underground filter water tank at Kilpauk Pumping Station.
13. Installation of Rapid Mechanical Filter Plant of 30 MGD capacity.
14. Construction of one number R.C. overhead tank at Kilpauk Pumping Station.

Loans and grants.—Loans and grants of about Rs. 38.27 lakhs and Rs. 16.666 lakhs respectively were sanctioned to the Corporation of Madras for expenditure on water-supply works only for the period under review.

B. Drainage schemes.—(i) The plans and estimates for the work of—Laying intercepting sewer along North Beach road and Ibrahimji Sahib street at a cost of Rs. 8.23 lakhs was sanctioned by Government.

(ii) The plans and estimates for the following works were scrutinised :—

(1) Laying intercepting sewer in Old Jail road along Oddurparacheri road—estimate Rs. 3.55 lakhs.

(2) Laying intercepting sewer in Broadway—Estimate Rs. 4.225 lakhs.

(iii) The following works in progress were inspected during the year under review :—

- (1) Saidapet Drainage Scheme.
- (2) Kodambakkam Drainage Scheme.
- (3) Sembium Drainage Scheme.
- (4) Ayanavaram Drainage Scheme.
- (5) Comprehensive improvements to Zone J—Laying 21 inches C.I. pumping main from Law College Pumping station to Rayapuram Pumping station.

Loans and grants.—Loans and grants of Rs. 45.50 lakhs and Rs. 4,90,640 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 were satisfactory during the year under report as there was timely rain during the monsoon period. All the same, the need for additional public fountains and for new mains were felt by the local bodies in view of the extensions made in their areas. As many as 50 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 scheme on a commercial basis and the 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 and drainage scheme 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 system in operation.

Samples of water supplied in the various municipalities and panchayats were periodically tested in the King Institute, Guindy for chemical and bacteriological quality as usual.

CHAPTER V.

General.

(1) *The Madras Municipal Engineering Service and the Madras Municipal Engineering Subordinate Service.*—There have been no alterations in the sanctioned cadre strength either through upgrading or through additional sanction.

The strength of the Madras Municipal Engineering Service at the end of the year under report was seven in the I grade and 16 in the II grade. The strength of the Madras Municipal Engineering Subordinate Service, III grade, was 26.

(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 for each course conducted at the College of Engineering, Guindy, two departmental candidates were deputed to undergo the course which commenced on 21st June 1963, 21st September 1963 and 2nd January 1964 respectively.

(4) *Water Works Plant Operators' Course.*—For the Water Works Plant Operators, Course held at Hyderabad from 6th February to 4th March 1964, the two Senior Supervisors of Madurai and Tiruchirappalli Municipalities were deputed by Government. No departmental candidates were deputed.

(5) *Type designs prepared.*—The following type design was prepared in Sanitary Engineer's office during the years under review :—

San. No. 20/1963—Alternative type design for a single tap fountain.

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. In addition, the Sanitary Engineer was also a Member-Secretary of the High Power Sub-Committee for assessment of requirements of Industries for reclaimed water. The Sanitary Engineer continued to exercise control over the maintenance for the Government Experimental Filter Station at Kilpauk.

APPENDIX 'A' and 'B'.

APPENDIX 'A'.

WATER-SUPPLY PROJECTS.

Details of Pumping Plants.

[illegible]

116/96-2

9	Cuddalore	..	..	1934	2.42	Partial	..	5	Infiltration well in Ponnai river bed.	Pumped	..	Electrical	..	1	40	1,000
10	Cumbum	..	..	1965	47.37	Full	..	10	Periar tail rain waters.	Pumping	..	Do.	..	1	30	735
					<u>38.24</u>									2	30	739
11	Dharapuram	..	..	1958 1963	10.445 11.77	Do.	..	15	Infiltration works sugaravathy river.	Pumped	..	Do.	..	1	20	365
														2	20	365
12	Dindigul	..	..	1890 1896	2.76	Partial	..	10	Odukkam Valley Infiltration Gallery and wells.	Gravitational and pump- ing.	Do.	Do.	..	1	7.5	160
														2	5	160
														3	7.5	160
														1	12.5	35
														1	45	1,200
														2	45	1,200

LOWLIFT.

[illegible]

HIGHLIFT.

	1	80
	1	411
	1	80
	1	409

RAW WATER PUMPSETS.

14	Gobibetipalayam	..	..	1954	1958	15-91	Full	..	15	Surface water from Bhavani river	Do.	Do.	1	12-5	450
													2	12-5	459

CLEAR WATER PUMPSETS.

15 Gudiyatham	..	..	1904 1907	0-50 Full	..	6 Infiltration in koundinya river bed.	Gallery	Do.	..	1 2	30 450
16 Kancheepuram	..	..	1895 1897	2-27 Do.	Do.	15 Infiltration Gallery in Vegavathi river bed.		Do.	Do.	1 2	42 42
16 (a) Kancheepuram ments.	Improve.	..	1940	0-98 ..	..	Palar head works	..	..	..	1 2	1,450 1,456
17 Karaikudi	..	..	1934 1939	0-33 Partial	..	5 Jambainthu Artesian sources.		Do.	Do.	1 2	100 100
Karaikudi Improvements	..	..	1950	0-59	..	15 Infiltration work in the Amaravathi river bed.		Do.	Do.	1 2	19-5 19-5
18 Karur	..	..	..	0-50 Full 0-29	..	5 Borewell near Maha- megam tank.		Do.	Do.	1 2	85 85
19 Kumbakonam	..	..	old 1901 to 1914	5-29 Partial	..	15 Infiltration Gallery in the Cauvery river pedugai.		..	..	1 2	85 85
			New 1941 to 1943	16-81 Full	..			..	..	1 2	1,604 1,604

WATER SUPPLY PROJECT—cont.

Details of Pumping Plants—cont.

[illegible]

1800
1937
1940

9 Cuddalore

116/98-2A

10 Cumbum

11. Databases

THEORY

12 Dindigul ..

13 Ende—Im

THE END OF

14. **Gabichottet**

Introduction

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Io Gudiyaana:

1

16 Kanchhoopu

16 (a) Kang

ments.

17 Karaikudi

1

Karaikudi
16 June

18 ΔΕΡΤ

SECRET

18 Kumbakonam

WATER SUPPLY PROJECT—cont.

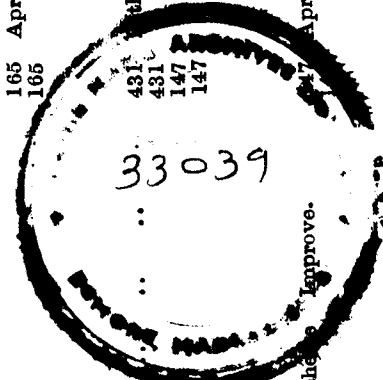
Details of Pumping Plants—cont.

Serial number and name of station.	(1)	(2) Project when initiated and when completed.	(3) Cost of project and executed in lakhs.	(4) Project designed as partial or full.	(5) Rate of supply as designed in gallons per head per day.	(6) Source of supply and treatment method.	(7) Supply pumped or gravitation.	(8) Type of plant.	(9) Unit number.	(10) Horse power.	(11) Duty G.P.M.
MUNICIPALITIES—cont.											
20 Madurai	1894	.. .. .	2.90	Full ..	..	Filter Gallery at Ar. Palayam across Vaigai river.	Pumping ..	Electrical ..	1 2	40 40	750 750
21 Mannargudi	1903	.. .. .	18.42	Full ..	15	Infiltration Gallery in the Vaigai river bed at Kochadi.	Do.	Do.	1 2	170 170	2,000 3,000
22 Mayuram	1903	.. .. .	6.77	Partial ..	10	Melakkal Works.	Do.	Do.	1 2	55 55	300 300
23 Melapalayam	1903	.. .. .	..	Full ..	15	Arasuradi	Do.	Do.	1 2	120 120	3,100 3,100
24 Me'tupalayam	1930 1949	.. .. .	280	Do.	5	Pilot Scheme C.H.P. Churnel surface works.	Do.	Do.	1 2	5 5	..
25 Nagapattinam	1907 to 1914	.. .. .	9.75	Do.	15	Infiltration Gallery in Palar River.	Do.	Do.	1 2	10 10	40 40
26 Nagercoil	1945	.. .. .	..	Do.	12	Infiltration Gallery in Vettar river bed.	Do.	Do.	1 2	40 40	700 700
27 Ootacamund	1910	.. .. .	5.50 0.80	Do.	20	Bhavani river water treated on Paterson's Gravity 66 Filters.	Do.	Do.	1 2	8 8	160 160
28 Palani	1912 to 1922	.. .. .	1.00 2.14	Do.	10	LOWLIFT.	Do.	Do.	1 2	15 15	480 480
29 Palayankottai	1906	.. .. .	..	Do.	25	Electrical ..	Do.	Do.	1 2	13 13	160 160
30 Periakulam Extension	1906 1912 1928	.. .. .	3.75	Do.	15	HIGHLIFT.	Do.	Do.	1 2	15 15	480 480
31 Pollachi	1930 to 1937.	.. .. .	6.41	Full ..	15	LOWLIFT.	Do.	Do.	1 2	20 20	700 700
32 Pudukottai	1900	.. .. .	..	Do.	5	Electrical ..	Do.	Do.	1 2	40 40	700 700
33 Salem	1911	.. .. .	8.27	Do.	15	for HIGHLIFT.	Do.	Do.	1 2	40 40	700 700
33 (a) Mettur Scheme Improvements.	1951	.. .. .	36.67	Do.	15	Electrical ..	Do.	Do.	1 2	20 20	700 700
34 Shenoiath	1945	.. .. .	..	Do.	12	Reservoir at Grav. Mukkul treated by pattern's mechanical filters.	Do.	Do.	1 2	30 30	560 560
35 Sivakasi	1962	.. .. .	23.30	Do.	20	Impounding Reser. Gravitation.	Do.	Do.	..	..	..
36 Srirangam	1909 to 1939.	.. .. .	1.14	Do.	10	Palar River Dam.	Do.	Do.	..	..	..
37 Srivilliputhur	1930 to 1965.	.. .. .	0.38 18.20	Do.	15	Infiltration Gallery Pumping ..	Do.	Do.	1 2	85 85	1,250 1,250
38 Thanjavur Improvements	1891 to 1896.	.. .. .	9.30 2.56	Do.	15	Infiltration gallery in Aliyar River Bed.	Do.	Do.	1 2	10 10	25 25
					5	Pudukulam Rain fed tank water treated on Jewells Pressure filters.	Do.	Do.	1 2	15 15	122 140
					..	Adappakulam Rain fed tank.	Do.	Do.	1 2	10 10	25 25
					..	Infiltration well in Vellar Ammayapatti.	Do.	Do.	1 2	20 20	130 130
					5	Old rain fed Panamurupatti lake water treated on slow sand filters.	Do.	Do.	1 2	310 310	1570 1570
					15	New Mettur Reservoir water treated on Patersons gravity filters.	Do.	Do.	1 2	110 110	1570 1570
					..	Under Ground source-Infiltration well and gallery 720 feet long and 18 feet deep.	Do.	Do.	1 2	13.5 13.5	250 250
					15	Vaipar river Infiltration works.	Do.	Do.	1 2	50 50	490/450 490/450
					10	Infiltration well on the bank of Mallat-tar.	Do.	Do.	1 2	8.5 8.5	250 250
					..		..	..	..	..	..
					15	Infiltration well and Gallery in Payanar River bed.	Do.	Do.	..	..	..
					15	Filter Basin in the Vannar River.	Do.	Do.	1 2	65 65	1100 1100

WATER SUPPLY PROJECTS—cont.

Details of Pumping Plants—cont.

Serial number and name of station.	Head in feet.	Date of installation.	Present condition of plant.	Pumping from head works per day in the year in gallons.		Capital cost of the pump- ing plant.	Maintenance cost of the pumping works during the period.	Whether mechanical recorder is provided to measure the quantity pumped.	Whether plant is installed or not.	Remarks.
				(15)	(16)					
MUNICIPALITIES—cont.										
20 Madurai	100	April 1953	Good	..	..	..	..	..	..	..
	100	Do.	Do.	..	..	..	..	..	..	..
	85	January 1940	Do.	4.05	23,60,000	88,870	48,136	Yes	Yes	..
	85	Do.	Do.	..	..	..	..	..	..	..
	34	1960	Do.	..	..	..	..	..	..	..
	34	Do.	Do.	..	..	..	..	..	..	..
	80	..	Do.	..	..	..	..	..	..	..
	80	..	Do.	..	..	..	..	..	..	..
21 Mannargudi	..	..	Fair	..	..	..	..	..	..	..
	..	..	Do.	..	..	..	..	..	..	..
22 Mayuram	85	1955	Good	..	..	..	..	..	..	..
	85	Do.	Do.	40	15,000	18,000	2,680	Yes	Yes	..
23 Melapalayam	65	May 1958	Do.	..	..	..	..	..	..	..
	65	Do.	Do.	7	1,44,000	3,52,800	5,067	Yes	Yes	..
LOWLIFT.										
24 Mettupalayam	57	1947	Fair	..	..	..	..	..	..	..
	57	Do.	Do.	..	..	..	..	..	..	..
HIGHLIFT.										
	130	1947	Fair	..	..	13,000	22,376	No	Yes	..
	130	Do.	Do.	32	1,00,000	3,68,000	..	..	..	..
LOWLIFT.										
	105	1961	..	..	..	..	..	..	..	..
	105	Do.	..	..	..	..	..	..	..	..
HIGHLIFT.										
	120	December 1949	Fair	..	..	..	..	..	..	..
	120	Do.	Do.	8	5,83,000	10,38,000	24,620	Yes	Yes	..
Combined Water supply Scheme.										
25 Nagapattinam	..	..	..	..	..	..	..	..	..	..



DR-211-N63
N6631

WATER SUPPLY PROJECT—cont.

Details of Pumping Plants—cont.

Serial number and name of station.	(1)	(2) Project when initiated and when completed.	(3) Cost of project and executed in lakhs.	(4) Project designed as partial or full.	(5) Rate of supply as designed in gallons per head per day.	(6) Source of supply and treatment method.	(7) Supply pumped or gravity.	(8) Type of plant.	(9) Draft number.	(10) Horse power.	(11) Duty G.P.M.
MUNICIPALITIES—cont.											
MAIN PUMPING STATION AT KUMBARAMPATTI.											
39 Tiruchirappalli Improvements ..	1896 to 1951.	9-30 Full 17-13	..	..	15	Infiltration wells and gallery in the Cauvery River bed.	..	Electrical ..	1 2 3 4	120 100 100 100	1800 2150 2150 1500
SUB-PUMPING STATION AT PALAKKARAI.											
40 Tirunelveli ..	1961	37-00 Full	..	..	16	Thamiraparani surface works.	..	Electrical ..	1 2	25 20	500 ..
HEADWORKS RAW WATER PUMP HOUSE.											
41 Tirunelveli ..	1961	37-00 Full	..	..	16	Thamiraparani surface works.	..	Electrical ..	1 2	20 20	1100 1100
CLEAR WATER PUMP HOUSE.											
42 Tirunelveli ..	1961	37-00 Full	..	..	16	Thamiraparani surface works.	..	Electrical ..	1 2	20 20	1100 1100
BOOSTER STATION.											
Pettai ..	..	..	..	..	..	..	..	..	..	..	..
Palayamkottai ..	..	..	..	..	..	..	..	..	..	..	..
41 Thiruppur Improvement Scheme. to 1940. 1950	1928 to 1940. 1950	1-04 Partial ..	0-49	..	5	Infiltration gallery in the Kollivyeri.	..	..	1 2 3 4	5 5 3 3	180 190 115/90 115/90
42 Tiruvallur ..	1930	1-43 Full	..	..	5	Infiltration gallery in the Kollivyeri.	..	..	1 2 3 4	5 5 3 3	180 190 115/90 115/90
43 Tiruvallur ..	1930	1-43 Full	..	..	5	Infiltration gallery in the Kollivyeri.	..	..	1 2 3 4	5 5 3 3	180 190 115/90 115/90
44 Tuticorin ..	1890 to 1920.	2-00 Do.	..	..	15	Infiltration well and gallery in the River Thamiraparani at Vallanad.	..	..	1 2 3 4	75 75 46 46	833 833 450 450
45 Tindivanam ..	1959	.. Do.	..	..	15	Old Rainfed Tank Water treated on and pump.	..	..	1 2 3 4	40 40 40 40	650 650 600 600
46 Vellore ..	1902 to 1907.	1-39 Do.	..	..	15	Old Rainfed Tank Water treated on and pump.	..	..	1 2 3 4	50 50 75 75	1300 1300 1000 1000
47 Virudhunagar ..	1929 to 1938.	6-41 Do.	..	..	10	Infiltration gallery across Arjuna River.	..	..	1 2	25 35	345 345
48 Walajapet ..	1945 to 1946.	1-10 Do.	..	..	5	Infiltration well in the Palar River.	..	..	1 2	10 10	100 100

PANCHAYATS.

1 Arantangi (Thanjavur district).	1938 to 1950.	2-57 Partial ..	..	..	5	Infiltration well in the Vellar River.	..	..	1 2	5 5	100 100
2 Batalagundu (Madurai district).	1940 to 1942.	0-95 Full ..	..	..	5	Infiltration well in the Manjalar.	..	..	1 2	5 5	146 146
3 Chennimalai (Coimbatore district).	1957	1-50 Do. ..	..	..	10	Existing well near L.B.P. canal.	..	..	1 2	5 5	40 40
4 Chinnamanur (Madurai district).	..	..	..	..	..	..	..	..	..	..	..
5 Ilanji (Tirunelveli district).	..	..	..	..	..	..	..	..	..	..	..
6 Karamnadi (Coimbatore district).	..	..	..	..	..	..	..	..	..	..	..
7 Kayalpatnam (Tirunelveli district).	..	..	..	..	..	..	..	..	..	..	..
8 Mannaparai (Tiruchirappalli district).	1937 to 1939.	0-15 Full ..	..	..	5	Infiltration well in Mamundiar River.	..	..	1 2	4 4	54 54
9 Melagaram (Tirunelveli district).	..	..	..	..	..	..	..	..	..	..	..

APPENDIX 'A'—cont.

WATER SUPPLY PROJECTS—cont.

Details of Pumping Plants—cont.

Serial number and name of station.	Head in feet.	(12)	Date of installation.	(13)	Present condition of plant.	(14)	Cost of 1600 gallons of water pumped in horse power.	(15)	Pumping from head works per day in the year in gallons.		(17)	Maximum.	(18)	Capital cost of the pump- ing plant.	(19)	Maintenance cost of the pumping units during the period.	(20)	Whether mechanical recorder is provided to measure the quantity pumped.	(21)	Whether plant is installed or not.	(22)	Remarks.	
									Minimum.	(16)													
PANCHAYATS—cont.																							
MAINPUMPING STATION AT KUMBASAMPATTI.																							
39 Tiruchirappalli Improvements..	150	1932	..	..	Fair	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	106	April 1933	..	..	Do.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	106	May 1933	..	..	Do.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	160	October 1946	..	..	Do.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
SUB-PUMPING STATION AT PALAKKARAI.																							
	75	1946	..	..	Fair	..	..	..	..	..	..	..	..	..	..	1,86,621	Yes	Yes	..	..	..	..	
	..	1946	..	..	Do.	..	9	45,61,000	63,01,500	..	..	..	..	..	..	..	..	..	..	..	..	..	
HEAD WORKS RAW WATER PUMP HOUSE.																							
40 Tirunelveli ..	40	13th April 1961..	..	..	Good	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	40	Do.	..	..	Do.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
CLEAR WATER PUMP HOUSE.																							
	85	13th April 1961..	..	..	Good	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	85	Do.	..	..	Do.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	64	Do.	..	..	Do.	..	7.2	3,00,000	6,00,000	..	..	..	..	..	..	17,643	Yes	Yes	..	..	..	..	
	64	Do.	..	..	Do.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
BOOSTER STATION.																							
Pettai ..	40	13th April 1961 ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	40	Do.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	40/50	Do.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Palayamkottai ..	40/50	Do.	..	..	..	..	64	6,600	13,500	..	..	..	..	..	..	2,173	Yes	Yes	..	..	..	..	
(Not being used at present).																							
Thiruppur Improvement Scheme																							
	44	January 1939 ..	..	..	Fair	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	44	Do.	..	..	Do.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	44	August 1943 ..	..	..	Do.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	44	Do.	..	..	Do.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	147	1962 ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	147	Do.	..	..	..	..	21	8,53,000	10,98,000	..	..	..	..	..	..	86,808	Yes	Yes	..	..	..	..	
	200	Do.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	200	Do.	..	..	..	..	14	9,70,000	11,02,000	..	..	..	..	..	..	50,400	Yes	Yes	..	..	..	..	
	184	1962 ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	184	Do.	..	..	..	..	15	9,68,000	10,45,900	..	..	..	..	..	..	56,400	Yes	..	..	..	..	..	
42 Tiruvallur ..	92	October 1959 ..	..	..	Fair	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	92	Do.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	150	May 1960 ..	..	..	Good	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	50	1952 ..	..	..	Fair	..	19	1,12,500	1,37,500	10,000	..	..	..	..	..	9,035	Yes	Yes	..	..	..	..	

41 Tiruvannamalai	116	1943 ..	Do. ..	..	..	..	..	..	..	..	..
	82	1957 ..	Do. ..	..	..	..	..	..	..	..	..
	125/150	1934 ..	..	..	..	..	..	..	..	..	..
44 Tuticorin ..	230	1929 ..	Fair ..	..	..	..	..	..	..	..	..
	230	1929 ..	Do. ..	..	..	..	..	..	..	..	..
	230	March 1944 ..	Do. ..	..	..	..	..	..	..	..	..
	230	November 1957..	Good ..	..	..	..	..	..	..	..	..
	230	Do. ..	Do. ..	..	..	..	..	..	..	..	..
	55	December 1960..	Do. ..	..	..	..	..	..	..	..	..
	230	..	Do. ..	15	11,99,000	18,27,000	..	90,519	Yes	No	..
	55	December 1960..	Do. ..	16	1,65,000	2,25,000	96,860	16,486	Yes	Yes	..
45 Tindivanam ..	140	September 1959..	Do. ..	..	..	..	..	..	..	..	..
	140	Do. ..	Do. ..	..	..	..	..	..	..	..	..
	152	1932 ..	..	..	..	..	..	..	..	..	..
	152	1932 ..	..	..	..	..	..	..	..	..	..
	146	1955 ..	Good ..	..	..	..	..	..	..	..	..
	146	1962 ..	Do. ..	13	1,50,000	1,80,000	4,38,500	41,000	No	Yes	..

47 Virudhunagar ..	187	1937 ..	Do. ..	19.4	1,44,000	4,25,000	..	25,512	Yes	Yes	..
	187	1937 ..	Do. ..	..	..	..	..	..	..	..	..
48 Walajpet ..	125	May 1946 ..	Fair ..	..	..	..	..	..	..	..	..
	125	Do. ..	Do. ..	28	77,597	1,18,834	..	11,371	No	No	..

PANCHAYATS.

1 Arantangi ..	80	May 1950 ..	Fair ..	28	51,000	69,000	..	9,535	Yes	Yes	..
	80	Do. ..	Do. ..	..	..	..	..	..	..	..	..
2 Batalegundu ..	60	January 1942 ..	Good ..	12	1,20,706	1,47,848	..	11,718	Yes	Yes	..
	60	Do. ..	Do. ..	..	..	..	..	..	..	..	..
3 Chennai (Chennai district).	138	December 1958..	Do. ..	103	30,000	35,000	1,65,000	13,120	No	No	..
	138	Do. ..	Do. ..	..	..	..	..	..	..	..	..
Composite water-supply for Cambum, etc., villages—Headworks under the control of Superintending Engineer (Public Health).											
4 Chinamanur ..	75	..	..	..	..	..	..	..	..	..	..
	75	..	..	..	..	..	..	..	..	..	..
5 Uanji ..	75	..	..	..	..	..	..	..	..	..	..
	75	..	..	..	..	..	..	..	..	..	..
6 Karamadi ..	75	..	..	..	..	..	..	..	..	..	..
	75	..	..	..	..	..	..	..	..	..	..
Composite water-supply scheme—Headworks under the control of Superintending Engineer (Public Health).											
7 Kavalpatnam ..	90-5	July 1939 ..	Fair ..	132	10,625	44,625	4,890	13,307	No	Yes	..
	90-5	Do. ..	Do. ..	..	..	..	..	..	..	..	..
Composite water-supply scheme for Tenkasi, Courtallam, etc., villages—Headworks under the control of Superintending Engineer (Public Health).											
9 Melagaram ..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..

WATER-SUPPLY PROJECTS—cont.

DETAILS OF PUMPING PLANTS—cont.

Serial number and name of station.	(1)	(2) Project initiated and when completed.	(3) Cost of project and area covered in lakhs.	(4) Project designed as partial or full.	(5) Rate of supply as designed in gallons per head per day.	(6) Source of supply and treatment method.	(7) Supply pumped or gravitational.	(8) Type of plant.	(9) Unit number.	(10) Horse power.	(11) Duty C.P.M.
PANCHAYATS—cont.											
10 Rameswaram (Ramanathapuram district).	..	1914 to 1922.	1.57	Full	..	10 Infiltration wells in fresh water tracts in sand dunes, Vaipar River from infiltration works.	..	..	..	..	..
11 Sattur (Ramanathapuram district).	..	..	..	..	..	..	..	..	..	..	..
12 Tenkasi (Tirunelveli district).	..	1962	6.39	Do.	15	..	..	Electrical	1	10	297
13 Tiruchendur (Tirunelveli district).	..	..	..	..	..	..	..	..	2	1	297
14 Tiruvottipuram (North Arcot district).	..	..	..	..	..	..	..	..	..	..	..
15 Veerapandiapatnam (Tirunelveli district).	..	..	..	..	..	..	..	..	..	..	..
16 Velur (Salem district).	..	..	..	..	..	..	..	..	..	..	..
17 Suchindram (Kanyakumari district).	..	..	..	..	..	..	..	..	..	..	..
18 Kamayagoundanpatti, (Madurai district).	..	..	..	..	..	..	..	..	..	..	..
Composite water-supply scheme—Headworks under the control of Superintending Engineer (Public Health).											
Composite water-supply scheme—Headworks under the control of Superintending Engineer (Public Health).											
1959	..	4.85	Full	..	5	Infiltration well in Chayyar River.	..	Electrical	1	7.5	117
Composite water-supply scheme—Headworks under the control of Superintending Engineer (Public Health).	..	..	..	..	..	..	..	..	2	7.5	113
1957	..	4.24	Full	..	10	Infiltration Cauvery River.	..	Electrical	1	1	10
Gravitational scheme.	..	..	..	..	..	..	..	..	2	2	10
Cumbum, etc., villages—Composite water-supply scheme—Head works under the control of Superintending Engineer (Public Health).											

TOWNSHIPS.

A. River side Pumping Station.											
1 Mettur	..	1928	..	Full	30	Mettur Reservoir treated on Patteesons repaid gravity fields.	..	Electrical	1	50	500
	..	..	..	..	..	..	..	..	2	50	500
	..	..	..	..	..	..	..	..	3	50	500
B. Lake side Pumping Station.											
	..	..	..	..	..	..	..	Electrical	1	30	900
	..	..	..	..	..	..	..	..	2	25	830
C. High lift Pumping Station.											
	..	..	..	..	..	..	..	Electrical	1	25	1.0
	..	..	..	..	..	..	..	..	2	25	170
	..	..	..	..	..	..	..	..	3	15	120
	..	..	..	..	..	..	..	..	4	15	120
	..	..	..	..	..	..	..	..	1	7.5	35
	..	..	..	..	..	..	..	..	2	7.5	35
	..	..	..	..	..	..	..	..	1	10	20
	..	..	..	..	..	..	..	..	2	10	20

WATER-SUPPLY PROJECTS—cont.

DETAILS OF PUMPING PLANTS—cont.

Serial number and name of station.	(12) Head in feet.	(13) Date of installation.	(14) Present condition of plant.	(15) Cost of 1000 gallons of water pumped in horse power.	(16) Minimum.	(17) Maximum.	(18) Capital cost of the pump- ing plant.	(19) Maintenance cost of the pumping units during the period.	(20) Whether mechanical recorder is provided to measure the quantity pumped.	(21) Whether plant is chlorinated or not.	(22) Remarks.
PANCHAYAT—cont.											
10 Rameswaram (Ramanathapuram district).	..	..	Fair	..	..	..	..	..	..	..	..
11 Sattur (Ramanathapuram district).	71	..	..	..	..	..	..	..	..	..	..
12 Tenkasi (Tirunelveli district).	71	..	..	..	..	..	..	..	..	..	..
Composite water-supply scheme—Head works under the control of Superintending Engineer (Public Health).											
Composite water-supply scheme—Head works under the control of Superintending Engineer (Public Health).											
16 February 1957	..	Good	..	3	96,000	1,20,000	..	10,253	Yes	..	..
16 Do.	..	Do.	..	..	..	..	..	..	..	..	..
Composite water-supply scheme—Headworks under the control of Superintending Engineer (Public Health).											
150	137	..	..	..	..	..	..	..	..	..	..
150	137	..	..	..	..	..	..	..	..	..	..
Gravitational scheme.											
17 Suchindram (Kanyakumari district).	..	..	..	..	..	..	..	..	..	..	..
18 Kamayagoundanpatti (Madurai district).	..	..	..	..	..	..	..	..	..	..	..
Cumbum, etc., villages—Composite water-supply scheme—Head works under the control of Superintending Engineer (Public Health).											

TOWNSHIPS—cont.

A. Riverside Pumping Station—cont.											
1 Mettur	..	120 1924	..	Fair	..	..	..	..	..	..	..
	..	120 1924	..	Do.	..	..	..	..	..	..	..
	..	120 1924	..	Do.	..	..	..	..	..	..	..
B. Lake side Pumping Station—cont.											
75 1955	..	..	..	Fair	..	..	..	..	..	..	..
65 1926	..	..	..	Do.	..	..	..	..	..	..	..
C. High lift Pumping Station—cont.											
120 1926	..	..	..	..	..	..	..	..	..	..	..
120 1926	..	..	..	..	..	..	..	..	..	..	..
120 1955	..	..	..	Fair	25	5,72,000	13,80,000	63,520	Yes	..	..
300 1950	..	..	..	Do.	..	..	..	..	..	..	..
300 1950	..	..	..	Do.	50	8,000	13,000	65	No	..	..
275 June 1948	..	..	..	Do.	137	15,000	20,000	4,803	No	..	..
275	..	..	..	Do.	..	..	9,560	..	..	..	..

APPENDIX 'B'.
DRAINAGE PROJECT.
DETAILS OF PUMPING UNIT.

Serial number and name of station.	(1)	(2) When installed.	(3) Cost of scheme in rupees lakhs.	(4) Type of project open drainage (or) sewage and method of disposal.	(5) Pumping or gravitational.	(6) Type of plant.	(7) Number of unit.	(8) Horse power (H.P.)	(9) Gallons per min (H.P.)	(10) Head in feet.	(11) Present condition of plant.	(12) Remarks.
MUNICIPALITIES.												
1 Chingleput ..	..	1938	3.60	Open drainage (Partial).	Gravitational.	..	..	..	..	..	..	..
2 Coimbatore ..	..	1950	21.41	Under ground drainage and sewage farm.	Do.	..	..	..	..	..	..	..
3 Madurai ..	..	1929	50.00	Do.	Pumping.	Electric.	1 2	315.0 195.0	..	178 120	Good. Do.	..
..	..	..	..	..	..	Electric.	1 2 3	3.5 3.5 5.5	250 250 750	13 13 13	Fair. Do. Do.	..
..	..	..	..	..	..	Electric.	1 2 3	3.5 3.5 5.5	250 250 750	13 13 13	Fair. Do. Do.	..
..	..	..	..	..	..	Electric.	1 2 3	3.5 3.5 5.5	200 200 700	19 19 19	Fair. Do. Do.	..
..	..	..	..	..	..	Electric.	1 2 3	5.5 5.5 11.5	250 250 750	30 30 20	Fair. Do. Do.	..
..	..	..	..	..	..	Electric.	1 2 3	3.5 3.5 5.5	170 170 500	22 22 20	Fair. Do. Do.	..
..	..	..	..	..	..	Electric.	1 2 3	7.5 7.5 10.0	200 200 400	30 30 30	Fair. Do. Do.	..

Madurai Block.

4 Nagepettinam ..	..	1941	11.3	Open drainage partial disposal in sea.	Pumping.	Electric.	1 2 3	30.0 30.0 75.0	1,045 1,045 1,480	45 45 79	..	..
5 Ootacamund ..	..	..	..	Underground drainage.	Gravitational.	..	..	..	..	..	..	..
6 Pudukottai ..	..	1894	..	Open drainage.	Do.	..	..	..	..	..	..	..
7 Salem ..	..	1932	{ 1.75 3.50	Open partial ..	Do.	..	..	..	..	..	..	..
8 Srirangam ..	..	1945	2.30	Open drainage with intercepting sewers.	Pumping	Electric.	1 2 3	5.0 12.5 5.0	125 150 125	30 60 30	Fair. Do. Do.	..
9 Tuticorin ..	..	1938	0.167	Open drainage with sewage farm.	Pumping	Electric.	1 2 3	3.0 6.0 6.0	165 210 330	25 27 32	Fair. Do. Do.	..
10 Vellore ..	..	1924	7.60	Open drainage with intercepting sewers and sewage farm.	Do.	..	1 2 3	40.9 20.0 25.0	1,400 900 1,180	41 32 42.5	Fair. Do. Do.	..
11 Virudhunagar ..	..	15th October 1958 to 13th May 1961.	..	Open drainage partial.	Do.	..	1 2	10.0 20.0	360 640	40 60	..	..

PANCHAYATS.

1 Paramakudi ..	..	..	..	Open drainage partial.	Gravitational.	..	..	..	..	..	..	..
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TOWNSHIPS.

1 Mettur ..	..	1928	..	Under ground drainage with sewage farm.	Pumping	Electric.	1 2 3	28.0 28.0 28.0	250 250 250	110 110 110	Fair. Do. Do.	..
..	..	..	..	..	..	Electric Unit.	1 2	7.5 5.0	20 20	..	..	..



EDUCATION AND PUBLIC HEALTH DEPARTMENT.

(Public Health.)

G.O. No. 263, 18th February 1966.

Administration Report—Department of Public Health Engineering and Municipal Works, 1963-64—Reviewed.

the following paper :—

Letter from the Chief Engineer (Public Health Engineering and Municipal Works), dated 6th November 1965, No. 268/CI(4)/65-6.

Order—No. 263, Health, 18th February 1966.

Recorded.

2. (i) In 51 municipal towns, 29 panchayats and five 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 scheme for 23 municipalities (including improvements) and 17 panchayats and drainage schemes for four municipalities and three panchayats were under execution during the period.

(iii) Detailed plans and estimates were prepared by the Sanitary Engineer during the period for 18 Water-supply Schemes and for four drainage projects in stages.

(iv) During the period 33 water-supply schemes and 13 drainage projects were under investigation.

3. The year under review was the fifteenth 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.

„ Librarian, Secretariat Library, Madras-9.

„ Public Department.

„ Director of Stationery and Printing, Madras-1.