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BOROUGH OF



GRAVESEND



ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR 1964

G. P. MERSON
M.B., Ch.B., D.P.H.
Acting Medical Officer of Health



HEALTH COMMITTEE, 1964

THE MAYOR (Councillor Mrs. M.O. Creese, M.B.E., J.P.)

Councillor A. J. Shuttlewood (*Chairman*)

Councillor P. J. Walsh (*Vice-Chairman*)

Alderman R. H. Goodwin

Alderman A. J. Coles

Alderman D. I. McMillan

Councillor C. H. Sutor

Councillor C. A. White, J.P.

Councillor K. C. W. Pearson

Councillor C. J. Hodgson

Councillor R. Farthing

Councillor D. Manley

Councillor J. W. Robinson

Councillor F. G. K. Bowles

HEALTH DEPARTMENT STAFF

Acting Medical Officer of Health
GEORGE POLSON MERSON, M.B., Ch.B., D.P.H.

Chief Public Health Inspector
* K. MCINTYRE, M.A.P.H.I.

Deputy Chief Public Health Inspector
* K. V. SPROAT, M.A.P.H.I.

District Public Health Inspectors
* A. G. BRIMBLE, M.A.P.H.I.
(Resigned 4th October, 1964)
* B. L. M. CLARK, M.A.P.H.I.

Pupil Public Health Inspector
B. GILMOUR

Clerical Staff

A. H. BAKER, Chief Clerk to Public Health Inspector

MISS G. PUTTIFER

MRS. J. WELLS

MISS G. PARKER
(Resigned 31st December, 1963)

MISS M. HYDE
(Commenced 1st January, 1964)
(Resigned 29th February, 1964)

MISS C. BRIGGS
(Commenced 2nd March, 1964)

NOTE - * Hold Meat and Food Inspection Certificate

HEALTH DEPARTMENT,
WOODVILLE TERRACE,
GRAVESEND.

MADAM MAYOR, MR. CHAIRMAN AND GENTLEMEN,

I have pleasure in presenting the Annual Report on the state of the health in Gravesend for the year ending 31st December, 1964.

This is the first full year that I have been acting as Medical Officer of Health.

During the year the health of the residents has been good and there has been no outbreak of serious infectious disease.

The population of Gravesend is now estimated to be 53,590. 1,153 live births were registered during 1964 and 531 deaths occurred in the Borough. The crude birth rate was 21.15 per 1,000 and the death rate 9.90 per 1,000.

At the end of September the Refuse Collection Services were handed over to the Borough Engineer.

In January a Public Enquiry was held into the Peppercroft Street Compulsory Purchase Order. The Order was confirmed with slight modification in December 1964.

In conclusion it is a pleasure to record my thanks to the members of the Public Health Department for their hard work and co-operation during the year.

I am, Madam Mayor, Mr. Chairman and Gentlemen,

Your obedient Servant,

G. P. MERSON,

Acting Medical Officer of Health

SECTION A

STATISTICS AND SOCIAL CONDITIONS OF THE BOROUGH

Area of the Borough (acres)	..	..	..	4,619
Registrar-General's estimate of the Population	..			53,590
Number of separate inhabited houses (at 31.3.65)	..			16,186
Rateable Value (at 31.3.65)	..	..	..	£1,918,430
Sum represented by a Penny Rate	..	..	..	£7,695

Rates (to 31st March, 1965) - 10s. 0d. in the £

Number of Dwelling Houses built during 1964 -

Corporation	Number of Units completed	68
Private Enterprise	Number of Units completed	<u>257</u>
		<u>325</u>

REGISTERED LIVE BIRTHS

			<i>Males</i>	<i>Females</i>	<i>Total</i>
Legitimate	..	..	566	513	1,079
Illegitimate	..	..	<u>38</u>	<u>36</u>	<u>74</u>
Total live births			<u>604</u>	<u>549</u>	<u>1,153</u>

Crude Birth Rate per 1,000 population - 21.15

STILL BIRTHS

			<i>Males</i>	<i>Females</i>	<i>Total</i>
Legitimate	..	..	7	4	11
Illegitimate	..	..	<u>2</u>	<u>-</u>	<u>2</u>
			<u>9</u>	<u>4</u>	<u>13</u>

Still Birth Rate - i.e., Rate per
1,000 total (live and still) births - 24.33

Still Birth Rate per 1,000 population - 0.24

REGISTERED DEATHS - All causes at all ages - 531

<i>Males</i>	<i>Females</i>	<i>Total</i>
260	271	531

Crude Death Rate per 1,000 population - 9.90
(The previous year it was 10.36)

DEATHS FROM PUERPERAL CAUSES - Nil

NATURAL INCREASE IN POPULATION (Excess of Births over Deaths) .. 622

INFANT DEATHS - under 1 year of age

	<i>Males</i>	<i>Females</i>	<i>Total</i>
Legitimate Infants ..	16	10	26
Illegitimate Infants ..	-	1	1
	<u>16</u>	<u>11</u>	<u>27</u>

DEATH RATE OF INFANTS UNDER 1 YEAR OF AGE:-

Infant Mortality Rate, i.e. All infants per 1,000 live births ..	23.41
Legitimate infants per 1,000 legitimate live births ..	24.09
Illegitimate infants per 1,000 illegitimate live births ..	13.51

NEO-NATAL MORTALITY RATE (deaths under 4 weeks per 1,000 total live births) 16.47

EARLY NEO-NATAL MORTALITY RATE (deaths under 1 week per 1,000 total live births 14.74

PERINATAL MORTALITY RATE (stillbirths and deaths under 1 week combined per 1,000 total live and stillbirths) .. 25.72

COMPARATIVE BIRTH AND DEATH RATES

<i>Rates</i>	<i>Gravesend</i>	<i>England and Wales</i>
Birth Rate	19.78	18.40
Death Rate	11.78	11.30
Infant Mortality Rate ..	23.41	20.00
Still Birth Rate ..	00.24	00.30

BOROUGH OF GRAVESEND

BIRTHS AND DEATHS

BIRTH AND DEATH RATES FOR LAST TEN YEARS

YEAR	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
Number of births	773	788	793	855	911	1,040	1,069	1,177	1,178	1,153
Crude Birth Rate (per 1,000 population)	16.66	16.53	16.90	18.32	18.83	21.18	20.86	22.66	22.12	21.15
Number of deaths	496	495	445	485	497	501	502	527	552	531
Crude Death Rate (per 1,000 population)	10.69	10.38	9.48	10.39	10.27	10.20	9.80	10.14	10.36	9.90

CAUSES OF DEATH IN GRAVESEND FOR 1964
AS PROVIDED BY THE REGISTRAR GENERAL

				Male	Female	Total
1.	Tuberculosis, Respiratory	..	..	4	1	5
2.	Tuberculosis, Other forms	..	..	-	-	-
3.	Syphilitic disease	..	..	1	-	1
4.	Diphtheria	..	..	-	-	-
5.	Whooping Cough	..	..	-	-	-
6.	Meningococcal infections	..	..	-	-	-
7.	Acute poliomyelitis	..	..	-	-	-
8.	Measles	..	..	-	-	-
9.	Other infective and parasitic diseases			-	-	-
10.	Malignant neoplasm, stomach	..	..	6	4	10
11.	Malignant neoplasm, lung, bronchus	..	..	10	8	18
12.	Malignant neoplasm, breast	..	..	-	10	10
13.	Malignant neoplasm, uterus	..	..	-	2	2
14.	Other malignant and lymphatic neoplasms			27	23	50
15.	Leukaemia, aleukamia	..	..	1	1	2
16.	Diabetes	..	..	1	2	3
17.	Vascular lesions of nervous system	..	..	42	66	108
18.	Coronary disease, angina	..	..	62	32	94
19.	Hypertension with heart disease	..	..	4	3	7
20.	Other heart disease	..	..	19	36	55
21.	Other circulatory disease	..	..	11	18	29
22.	Influenza	..	..	-	-	-
23.	Pneumonia	..	..	8	11	19
24.	Bronchitis	..	..	19	9	28
25.	Other diseases of respiratory system	..	..	3	1	4
26.	Ulcer of stomach and duodenum	..	..	2	-	2
27.	Gastritis, enteritis and diarrhoea	..	..	2	1	3
28.	Nephritis and nephrosis	..	..	-	1	1
29.	Hyperplasia of prostate	..	..	1	-	1
30.	Pregnancy, childbirth, abortion	..	..	-	1	1
31.	Congenital malformations	..	..	7	3	10
32.	Other defined and ill-defined diseases			17	32	49
33.	Motor vehicle accidents	..	..	3	2	5
34.	All other accidents	..	..	8	2	10
35.	Suicide	..	..	2	2	4
36.	Homicide and operations of war	..	..	-	-	-
				<u>260</u>	<u>271</u>	<u>531</u>

INFECTIOUS DISEASE NOTIFIED DURING 1964

Disease	Under one year	One and under 3 years	3 and under 5 years	5 and under 10 years	10 and under 15 years	15 and under 25 years	25 and under 45 years	45 and under 65 years	65 years and over	Total	Number Removed to Hospital
Ophthalmia Neonatorum ..	-	-	-	-	-	-	-	-	-	-	-
Dysentery ..	-	-	-	-	-	-	-	-	-	-	-
Erysipelas ..	-	-	-	-	-	-	-	-	-	-	-
Food Poisoning ..	-	-	-	-	-	-	-	-	-	-	-
Measles ..	14	111	154	211	1	1	1	-	-	493	-
Meningococcal Infection ..	-	-	-	-	-	-	-	-	-	-	-
Pneumonia ..	-	1	-	-	-	-	1	1	-	3	-
Acute Poliomyelitis - Paralytic	-	-	-	-	-	-	-	-	-	-	-
Non-Paralytic	-	-	-	-	-	-	-	-	-	-	-
Puerperal Pyrexia ..	-	-	-	-	-	3	-	-	-	3	1
Scarlet Fever ..	-	-	2	5	-	2	-	-	-	9	-
Whooping Cough ..	3	4	2	5	-	-	-	-	-	14	-
Respiratory Tuberculosis ..	-	1	-	-	-	3	7	1	2	14	5
Non-Respiratory Tuberculosis	-	-	-	-	1	-	1	4	-	6	1
	17	117	158	221	2	9	10	6	2	542	7

SECTION "B"

GENERAL PROVISION OF HEALTH SERVICES IN THE AREA

LABORATORY FACILITIES

The laboratory of the Public Health Laboratory Service for this area is situated at Preston Hall, Maidstone, under the direction of Dr. Furniss.

Routine bacteriological examination of drinking water and swimming pool water and ice cream, and the examination of sterilized milk for the turbidity test, are carried out at this laboratory. Results are tabulated elsewhere in the report.

The following services are provided by the County Council:-

MATERNITY AND CHILD WELFARE CLINICS

- (1) Ante-Natal Clinics.
- (2) Infant Welfare Clinics.
- (3) Diphtheria and Poliomyelitis Immunisation Clinics.
- (4) Dental Clinics.
- (5) Speech Therapy Clinics.
- (6) Child Guidance Clinics.

MIDWIFERY SERVICE

There are nine County Midwives serving the Gravesend area.

Name	Address	Telephone No.
Miss W. M. Hunt	23 Lapis Close, Chalk, Gravesend.	Gravesend 64566
Mrs. F. E. Dudley	25 Arnold Road, Gravesend	" 5976
Miss M. A. Gaskell	1 Lapis Close, Chalk, Gravesend.	" 67772
Mrs. M. E. Langdon	90 Leander Drive, Gravesend	" 63052
Mrs. C. V. Woodward	22 Pelham Road, Gravesend.	" 2254
Miss A. A. Gibson	55 St. Margaret's Crescent, Gravesend.	" 63582
Mrs. M. T. Miller	21 Wye Road, Gravesend.	" 2454
Mrs. J. I. Lewis	24 Havelock Road, Gravesend.	" 67503
Mrs. M. Ward	127 Vigilant Way, Gravesend.	" 5418

GRAVESEND AND NORTH KENT HOSPITAL

The Out-patient Clinics at the Hospital are as follows:-

MONDAY

9.00 a.m.	Medical Clinic	Dr. J. Donaldson Craig
9.30 a.m.	Ear, Nose and Throat Clinic	Mr. Golding Wood
2.00 p.m.	Medical Clinic	Dr. R. Moir

TUESDAY

9.00 a.m.	Dental Clinic	Mr. F. Wilkinson
9.45 a.m.	Dermatology Clinic	Dr. R. Cairns
10.30 a.m.	Ophthalmic Clinic	Mr. J. N. Ormrod
11.30 a.m.	Surgical Clinic	Mr. M. Landau
2.30 p.m.	Fracture Clinic	
3.00 p.m.	Ante-Natal Clinic	Mr. A. M. Hunter
4.00 p.m.	Gynaecological Clinic	Mr. A. M. Hunter

WEDNESDAY

9.00 a.m.	Surgical Clinic	Mr. A. M. G. Tompkin
2.00 p.m.	Psychiatric Clinic	Dr. J. P. Crawford
2.00 p.m.	Psychiatric Clinic	Dr. J. C. Stewart
3.00 p.m.	Psychiatric Clinic	Dr. S. W. Hardwick

THURSDAY

8.45 a.m.	Paediatric Clinic	Dr. F. Elgood
9.30 a.m.	Ophthalmic Clinic	Mr. G. Simmons
9.30 a.m.	Orthopaedic Clinic	Mr. R. H. V. Hafner
1.30 p.m.	Medical Clinic	Dr. J. Donaldson Craig
2.00 p.m.	Orthopaedic Clinic	Mr. R. H. V. Hafner

FRIDAY

8.30 a.m.	Gynaecological Clinic	Mr. G. Dalley
9.00 a.m.	Dental Clinic	Mr. F. Wilkinson
10.15 a.m.	Fracture Clinic	Mr. R. H. V. Hafner
10.30 a.m.	Ante-Natal Clinic	Mr. W. Gross
2.00 p.m.	Surgical Clinic	Mr. Sol. M. Cohen
2.00 p.m.	Psychiatric Clinic	Dr. J. P. Crawford
2.00 p.m.	Psychiatric Clinic	Dr. W. N. L. Haynes

MATERNITY AND CHILD WELFARE

NOTIFICATION OF BIRTHS

The number of live and still births occurring in Gravesend during the year was 1,035. After correction for those whose usual residence is elsewhere (i.e. 165 transferred "out" and 131 transferred "in") the number properly belonging to the Borough was 1,166 (1,153 live births and 13 still births) compared with 975 in the previous year.

PARTICULARS OF BIRTHS OCCURRING IN GRAVESEND:

Total number of live and still births occurring in Gravesend	..	..	1,035
Number of live births actually belonging to Gravesend		864	
Number of still births actually belonging to Gravesend		6	
Number of live births (non-residents)		158	
Number of still births (non-residents)		7	
		<hr/>	1,035

NUMBER OF BIRTHS OCCURRING IN HOSPITAL

	Live Births	Still Births
Number of infants born in Hospital - (residents)	305	3
Number of infants born in Hospital - (non-residents)	158	7

HEALTH VISITORS

The following Health Visitors are employed in the Gravesend area and can be contacted at their respective welfare centres:-

Miss N. G. Cappaert, S.R.N., S.C.M.	-	Windmill Street Welfare Centre
Miss M. C. Craddock, S.R.N., S.C.M.	-	Windmill Street Welfare Centre
Miss C. James, S.R.N., S.C.M.	-	"The Nest" Welfare Centre
Mrs. G. O. Curling, S.R.N., S.C.M.	-	"The Nest" Welfare Centre
Miss E. M. Kenworthy, S.R.N., S.C.M.	-	Whitehill Welfare Centre
Miss D. A. Knowles, S.R.N., S.C.M., R.S.C.M.	-	Whitehill Welfare Centre
Miss J. R. L. Morgan, S.R.N.	-	Windmill Street Welfare Centre
Miss M. G. F. White, S.R.N.	-	Windmill Street Welfare Centre
Miss B. Corkill	-	"The Nest" Welfare Centre

The following are specialist Health Visitors for tuberculosis:-

Miss E. M. Martin

Mrs. C. Roe

The school nurse is Mrs. N. D. Shiel.

MATERNITY AND CHILD WELFARE CENTRES

The four Welfare Centres in the Borough are Wrotham
 "The Nest" (Denton and Chalk District), and

The sessions are as follows:-

	WINDMILL STREET	WHITEHILL
	<i>Afternoon</i>	<i>Afternoon</i>
MONDAY	Child Welfare Clinic - Medical Officer in attend- ance; Diphtheria Immuni- sation and Vaccinations; Health Visitors Consul- tations; Baby weighing; Sale of Foods, etc.	Child Welfare Clinic - Medical Officer in attend- ance; Health Visitors Consultations; Baby weighing; Sale of Foods, etc.
TUESDAY		<i>Afternoon</i> Ante-Natal Clinic and Midwives' Clinic combined.
WEDNESDAY	<i>Afternoon</i> Mothercraft and Relaxation	<i>Afternoon</i> Midwives' Clinic. <i>Evening</i> Mothercraft and Relax- ation Classes.
THURSDAY	<i>Afternoon</i> Ante-Natal Clinic; Midwives' Clinic.	<i>Afternoon</i> Child Welfare Clinic - Medical Officer in attend- ance; Health Visitors Consultations; Baby weighing; Sale of Foods, etc.
FRIDAY	<i>Afternoon</i> Child Welfare Clinic - Medical Officer in attend- ance; Diphtheria Immuni- sation and Vaccinations; Health Visitors Consul- tations; Baby weighing; Sale of Foods, etc.	<i>Afternoon</i> ** Mothercraft and Relax- ation Classes.

Road (Central), Whitehill (King's Farm Estate),
St. Christopher's Centre (Riverview Park).

"THE NEST"

ST. CHRISTOPHER'S CENTRE

Afternoon

MONDAY Child Welfare Clinic -
Health Visitors Consul-
tations; Baby weighing;
Sale of Foods, etc.

TUESDAY

Morning

10-12 Child Welfare Clinic;
Immunisations.

Afternoon

2 - 4 Ante-Natal Clinic.

3 - 4 Child Welfare Clinic;
Immunisations.

WEDNESDAY

Afternoon

Child Welfare Clinic -
Medical Officer in attend-
ance; Health Visitors
Consultations; Baby Weigh-
ing; Sale of Foods, etc.

THURSDAY

Morning & Afternoon

Speech Therapy Clinic.

Afternoon

2 - 4 Relaxation Classes.

2 - 4 Child Welfare Clinic;
Immunisations.

FRIDAY

Afternoon

* Ante-Natal Clinic;
Midwives' Clinic.

Afternoon

2 - 4 Child Welfare Clinic;
Immunisations.

* First and third Fridays in each month.

** Except second Friday in each month.

ATTENDANCE AT CHILD WELFARE CENTRES

The attendances at the four Welfare Centres during the year were: -

(a)	Individual children under 1 year of age	..	..	1,072
(b)	Individual children between 1 and 5 years	..	..	2,009
(c)	Total number of attendances of all children under 5 years	22,021

For the year 1963 the figures were: -

(a)	1,007	(b)	1,626	(c)	21,125
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ANTE-NATAL CLINICS

Ante-Natal clinics are held at Windmill Street, Whitehill, "The Nest" and St. Christopher's, Riverview Park. A total number of 1,137 expectant mothers attended and the total attendances were 5,331.

DENTAL TREATMENT

Dental treatment for expectant and nursing mothers, children under five years and school children is provided at the Dental Clinic, Manor Road. (Telephone Gravesend 64157)

The clinic is open at the following times: -

Monday to Friday	A.M.	9.00 - 12 noon
	P.M.	1.30 - 4.30

OPHTHALMIC TREATMENT

The County Ophthalmic Clinic for school children is held at the Gravesend and North Kent Hospital as follows: -

Monday	P.M.	1.30 - 4.00
Tuesday	A.M.	9.30 - 10.30
Thursday	P.M.	1.30 - 4.00

Mr. K. McIntyre, Chief Public Health Inspector, has supplied the statistics relating to Public Health Inspection, Housing, Food, Factory Inspection and Atmospheric Pollution.

SECTION "C"

SANITARY CIRCUMSTANCES OF THE AREA

WATER SUPPLY

PUBLIC DRINKING SUPPLIES

The Medway Water Board supply water to the Borough.

The water has been satisfactory -

(a) in quantity (b) in quality

The water is hard and there is no evidence of plumbo-solvent action.

BACTERIOLOGICAL EXAMINATION

Samples were taken at regular intervals and were found to be satisfactory with the exception of one.

Number of samples taken:-

Raw water	..	..	..	0
Treated water	..	..	..	52

CHEMICAL ANALYSIS

One sample of treated water was taken and reported to be satisfactory.

Note: Tabulated summaries of all water samples taken and results of examination are shown on pages 39, 40, 41, 42 and 43.

CORPORATION BATHING POOL

The Open-air Bathing Pool opened in 1938 has accommodation for 1,200 bathers. The main pool is 150 feet long by 75 feet wide and has two shallow areas and a diving pit. The 400,000 gallons of water in the pool are filtered, aerated and sterilised. Wide surrounds and large areas are provided for sun-bathing, whilst a spectators' terrace surrounds the site. On the first floor of the building a Cafe and Spectators' Gallery are provided, affording a splendid view of the whole site. There is also a Children's Paddling Pool, 50 feet by 50 feet, with its own surround, separated from the main pool by a terrace.

During the 1964 season the following persons used the Pools:-

Bathers and Spectators	122,575
Schoolchildren	20,589
Season Ticket and Pass Holders	17,047
Club Members	5,622
National Sea Training School	1,001
	<hr/>
	166,834

HYGIENIC ARRANGEMENTS AT BATHING POOL

The Medical Officer of Health has continued to keep the hygienic arrangements at the Pool under supervision. "Breakpoint Chlorination", which was put into operation in 1948, appears to be working efficiently.

BACTERIOLOGICAL EXAMINATION OF BATHING POOL WATER

Seventeen samples were taken from the Corporation pool and 16 from school pools. See tabulated summary on pages 42 and 43.

SLIPPER BATHS

The Slipper Baths at the Corporation Bathing Pool were opened in January 1949.

There are separate sections for males and females - 7 baths being allocated to males and 3 to females.

FACTORIES ACT, 1961

The Council has the duty to enforce certain provisions of Parts I, IV and VIII of the Factories Act, 1961.

Administrative arrangements include the following:-

Part I - Health (General Provisions)

- (1) Registration of all factories.
- (2) Inspection of sanitary conveniences in all factories.
- (3) Inspection with regard to cleanliness, overcrowding, temperature, ventilation and drainage of floors in all factories in which mechanical power is not used.

Part IV - Basement Bakehouses

- (1) The quinquennial examination of basement bakehouses and the renewal or cancellation of Certificates of Suitability.

Part VIII - Home Work

- (1) Examination of lists, supplied to the Council by employers of outworkers in certain specified trades.
- (2) Notification of name and place of employment of any home worker employed outside the Borough to the Council in whose district his employment is situated.
- (3) Inspection of premises in which the outworker pursues his occupation.

The provisions of the Act, so far as they affect local authorities, have been enforced.

PRESCRIBED PARTICULARS OF THE ADMINISTRATION
OF THE FACTORIES ACT, 1961
PART I

1. Inspections for purposes of provisions as to Health
(including inspections made by Public Health Inspectors)

Premises	Number on Register	Inspections	Written Notices	Owners Prosecuted
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by local authorities	22	9	-	-
(ii) Factories not included in (i) in which Section 7 is enforced by local authorities	119	68	-	-
(iii) Other premises in which Section 7 is enforced by the local authority (excluding outworkers premises)	5	-	-	-
	146	77	-	-

2. Cases in which defects were found:-

Particulars	Number of cases in which defects were found				Number of cases in which prosecutions were instituted
	Found	Remedied	Referred To H.M. Inspector	By H.M. Inspector	
Want of cleanliness ..	-	1	-	-	-
Overcrowding	-	-	-	-	-
Unreasonable temperature	-	-	-	-	-
Inadequate ventilation ..	-	-	-	-	-
Ineffective drainage of floors	-	-	-	-	-
Sanitary Conveniences:-					
(a) insufficient ..	-	-	-	-	-
(b) unsuitable or defective ..	-	1	-	-	-
(c) not separate for sexes	-	-	-	-	-
Other offences against the Act (not including offences relating to Outwork) ..	-	-	-	-	-
	-	2	-	-	-

PART VIII OF THE ACT
OUTWORK - SECTION 133 AND 134

Nature of Work	No. of outworkers in August list required by Sec. 133(1) (c)	No. of cases in default in sending lists to the Council	No. of prosecutions for failure to supply lists	No. of instances of work in unwholesome premises	Notices served	Prosecutions
Wearing apparel (making, etc.)	12	-	-	-	-	-
Furniture and Upholstery	2	-	-	-	-	-
Table linen	1	-	-	-	-	-
	15	-	-	-	-	-

1.	Total number of outworkers notified to Gravesend Council in 1964 (under 1(c) of Sec. 133 Factories Act, 1961)	..	..	..	..	7
2.	Total number of outworkers notified by Gravesend Council to other Councils (under 2 of Sec. 133 Factories Act, 1961)	..	..	..	..	3
3.	Total number of outworkers notified to Gravesend by other Councils	..	..	..	..	11
4.	Total number of outworkers employed in Gravesend	..	..	..	..	15
5.	Total number of inspections of work places (under Sec. 134(1) Factories Act, 1961)	..	..	..	..	-

BASEMENT BAKEHOUSES
PART IV OF THE ACT

Certificates of suitability are in operation in respect of two basement bakehouses.

PUBLIC HEALTH INSPECTION

SUMMARY OF VISITS BY PUBLIC HEALTH INSPECTORS

Dwelling house inspections	..	..	..	1,221
" " re-inspections	..	..	..	1,092
Visits to other premises:-				
Clean Air Act	..	..	..	57
Factories (with power)	..	..	..	76
Factories (without power)	..	..	..	9
Infectious diseases	..	..	..	32
Offensive trades	..	..	..	3
Offices, Shops & Railway Premises Act	..	..	..	49
Outworkers	..	..	..	18
Pet Shops	..	..	..	7
Piggeries	..	..	..	-
Public conveniences and urinals	..	..	..	46
Rodent control	..	..	..	140
Schools	..	..	..	13
Shops Acts	..	..	..	2
Tents, Vans, Sheds	..	..	..	-
Food premises	..	..	..	2,259
Miscellaneous visits	..	..	..	607
Visited for purposes of meat and food inspection:-				
Meat depots	..	..	..	21
Shops and other premises	..	..	..	118
				5,770

NOTICES SERVED

		<i>Informal</i>	<i>Statutory</i>
In respect of dwelling houses	..	240	32
In respect of other premises	..	46	-

NUISANCES AND DEFECTS REMEDIED

HOUSES:

Accumulations removed	18
Dustbins provided	130
Cesspools repaired	2
Chimney stacks - repaired	3
- new pots provided	2
Dampness - sub-floor ventilation provided	2
- damp-proof courses provided	17
- external walls repointed or rendered	14
Doors and door sills repaired or renewed	8
Drainage - relaid	23
- unstopped	40
- I.C. chambers or covers provided or repaired	8
- soil and ventilating pipes removed	2
- soil and ventilating pipes provided or repaired	8
- gullies, etc. provided or repaired	10
- sewers unstopped	27
Floors relaid or repaired	13
Guttering or rainwater pipes renewed or repaired	13
Lavatory basins renewed or repaired	1
Paving relaid or repaired	2
Roofs repaired	30
Rooms, passages and staircases - walls repaired	36
- ceilings repaired	7
- staircases repaired	4
Sinks - new provided	1
- waste pipes renewed or repaired	5
Stoves and fireplaces renewed or repaired	3
Verminous premises disinfested	32
Water supply - water pipes, etc. repaired	6
Water closets - repaired and/or cleansed	3
- new pans	3
- pans cleansed or unstopped	2
- cisterns provided or repaired	6
- seats renewed or repaired	4
Windows - renewed or repaired	15
- sashcords and weights provided or repaired	10
- sills renewed or repaired	17

FOOD PREMISES:

Premises repaired or cleansed	28
Utensils, equipment, etc., repaired or cleansed ..	7
Improvements	12
Personal cleanliness contraventions	3

THE RAG FLOCK AND OTHER FILLING MATERIALS ACT, 1951

Two premises are registered within the district and these have been kept under supervision.

PET ANIMALS ACT, 1951

Four premises are licensed within the district and 7 visits of inspection were made.

HOUSE AND TRADE REFUSE REMOVAL AND DISPOSAL

A further study into this service was carried out by Messrs. S. J. Noel-Brown & Co. Ltd., at a fee of £800, to establish target performance values for the purpose of establishing a bonus incentive scheme.

This service, together with salvage collection and disposal and the staffing and cleansing of the public conveniences, were transferred to the Borough Engineer & Surveyor's Department on 1st October, 1964.

RODENT CONTROL

All infested premises notified to the Health Department or discovered during the course of inspection during the year were dealt with. The cost of disinfection at business premises by the Council's Rodent Officer is charged to the occupiers, but the work at dwelling houses is carried out free.

The following report summarises the work carried out by the Rodent Officer during the year 1964:-

Number of properties inspected	..	298
Number of properties found to be infested by:		
(a) Rats	..	156
(b) Mice	..	51
Number of properties treated	..	207

TREATMENT AGAINST RATS IN SEWERS

Test Baiting:

Number of manholes tested	..	196
Number of manholes showing bait taken	..	25

Treatment with Poison:

Number of manholes treated	..	245
Number of manholes showing complete takes		2
Number of manholes showing partial takes		28

SECTION D

HOUSING

1. Inspection of dwelling houses during the year: -

(1) Total number inspected for housing defects (under Public Health or Housing Acts)	.. ..	1,125
(2) Number of Inspections made for the purpose	.. ..	2,108
(3) Number found to be in a state so dangerous or injurious to health as to be unfit for human habitation	.. ..	-
(4) Number found not to be in all respects reasonably fit for human habitation	.. ..	97

2. Remedy of defects: -

(1) After informal action by Local Authority	.. ..	56
(2) After formal notice under Public Health Acts:-		
(a) by owners	.. ..	20
(b) by Local Authority in default of owners	.. ..	-

3. Demolition and Closure Procedure: -

(1) Number of dwelling houses in respect of which Demolition Orders were made	.. ..	-
(2) Number of dwelling houses demolished in pursuance of Demolition Orders	.. ..	-
(3) Number of dwelling houses demolished as a result of informal procedure	.. ..	-
(4) Number of dwelling houses or parts of dwelling houses in respect of which Closing Orders were made	.. ..	4
(5) Number of dwelling houses or parts of dwelling houses closed in pursuance of Closing Orders	.. ..	5
(6) Number of dwelling houses in respect of which Closing Orders were determined	.. ..	3
(7) Number of dwelling houses demolished which were previously reported as closed	.. ..	1

HOUSING ACT 1957, PART III

Peppercroft Street Compulsory Purchase Order 1963

A Public Enquiry was held into this Order and it was subsequently confirmed with some modifications. The number of unfit properties finally included in this Order was 255.

Rehousing

Thirty families were rehoused as a result of procedure under the Housing Act, 1957.

The rehousing of families from the Wakefield Street Area Compulsory Purchase Order was completed this year.

RENT ACT 1957 - FIRST SCHEDULE

Part I - Applications for Certificates of Disrepair:

(1)	Number of applications for certificates	2
(2)	Number of decisions not to issue certificates ..	Nil
(3)	Number of decisions to issue certificates -	
	(a) in respect of some but not all defects ..	Nil
	(b) in respect of all defects	2
(4)	Number of undertakings given by landlords	2
(5)	Number of undertakings refused by Local Authority ..	Nil
(6)	Number of certificates issued	Nil

Part II - Applications for Cancellation of Certificates:

(1)	Applications by landlords to Local Authority for cancellation of certificates	Nil
(2)	Objections by tenants to cancellation of certificates	Nil
(3)	Decisions by Local Authority to cancel in spite of tenants' objection	Nil
(4)	Certificates cancelled by Local Authority	Nil

OFFICES, SHOPS AND RAILWAY PREMISES ACT, 1963

This Act, which came into force during 1964, makes fresh provisions for securing the health safety and welfare of persons employed in certain non-industrial premises.

At 31st December, 1964, 508 premises had been registered in the following categories:-

Offices	..	..	..	107
Retail shops	..	..	..	339
Wholesale shops and warehouses			..	16
Catering establishments	..		..	46

SECTION "E"

INSPECTION AND SUPERVISION OF FOOD

Inspection of food premises is being maintained and the following is a summary of the visits made and notices served:-

	No. of Premises	No. of Visits	Number of Notices Served
Bakehouses	9	28	1
Butchers	42	247	4
Cake and bread shops	28	64	2
Canteens	36	30	1
Catering premises	60	440	10
Confectioners	69	140	3
Cooked meat shops	22	107	1
Dairies and milkshops	80	123	-
Licensed premises, clubs, etc. ..	105	144	7
Fish-frying establishments	13	46	-
Fishmongers	15	54	1
Greengrocers	45	158	3
Ice cream premises	139	223	1
Provision dealers	103	455	5
	<hr/> 766	<hr/> 2,259	<hr/> 39

Note: Where premises carry on more than one type of business they are recorded under each appropriate type.

FOOD AND DRUGS ACT, 1955, SECTION 16

Premises registered:

(a) for the sale of ice cream	134
(b) for the manufacture and sale of ice cream	5
(c) for the preparation or manufacture of sausages, or potted, pressed, pickled or preserved food	65

THE MILK AND DAIRIES (GENERAL) REGULATIONS, 1959

Registered dairies	1
Registered milk distributors	79

THE MILK (SPECIAL DESIGNATION) REGULATIONS, 1960 AND 1963

Licenses issued under these Regulations, to operate until 31st December, 1965, are as follows:-

Dealers' (Pasteurisers) Licences	..	1
Dealers' (Tuberculin Tested) Licences	..	1
Dealers' (Prepacked Milk) Licences	..	79

BIOCHEMICAL EXAMINATION OF MILK

Samples of milk were taken and submitted for biochemical examination and the results were as follows:-

Designation	No. of Samples		Results	
Pasteurised	62	Methylene Blue Test	Satisfactory	62
			Unsatisfactory	-
		Phosphatase Test	Satisfactory	62
			Unsatisfactory	-
Tuberculin Tested (Pasteurised)	31	Methylene Blue Test	Satisfactory	30
			Unsatisfactory	1
		Phosphatase Test	Satisfactory	31
			Unsatisfactory	-
Sterilised	24	Turbidity Test	Satisfactory	24
			Unsatisfactory	-

BACTERIOLOGICAL EXAMINATION OF ICE CREAM

Samples of ice cream were taken and submitted for bacteriological examination and the results were as follows:-

			Number of Samples
Grade 1	..	..	34
Grade 2	..	..	7
Grade 3	..	..	5
Grade 4	..	..	1
			<hr/> 47 <hr/>

Inspection of Food

The following food was surrendered as unfit for human consumption:-

(a) Carcase meat and offal:

Beef	213 lbs.	Pork	84 lbs.
Kidneys	35 lbs	Spleen	145 lbs
Liver	54 lbs.		

(b) Frozen foods:

Fish	900 packets	Pies	6 packets
Meat	397 packets	Sponges	6 packets
Mousse	30 packets	Vegetables	108 packets
Pastry	68 packets		

(c) Miscellaneous

Baby Food	211 tins	Jam	69 tins
Bacon	155 lbs.		44 jars
Beverages	1 tin	Marmalade	3 tins
	4 jars		5 jars
Biscuits	9 packets	Meat	1079 tins
Butter	6 lbs.	Milk	659 tins
Cereals	67 tins	Mincemeat	2 jars
	30 packets	Peanut Butter	1 tin
Cheese	7 lbs.	Pickles	22 jars
Chicken	53 lbs	Puddings	212 tins
	7 jars	Salad Cream	7 bottles
Coffee	1 tin	Sauce	1 bottle
Cream	69 tins	Soup	801 tins
	3 cartons	Spaghetti	1 tin
Custard Powder	7 packets	Sugar	8 lbs.
Fish	168 lbs	Syrup	1 tin
	374 tins	Turkey	35 lbs.
Fruit	1635 tins	Vegetables	2151 tins
Ham	95 lbs.		5 packets

Food and Drugs Act, 1955

Samples taken during the year and submitted for analysis were as follows:-

Article	Number of Samples		Result of Analyses	
	Formal	Informal	Genuine	Not Genuine
Ammoniated tincture of quinine	-	2	2	-
Buttered rolls	-	1	1	-
Cake mix	-	1	-	1
Candied peel	-	1	1	-
Chicken pate with wine	-	1	1	-
Coffee	-	2	2	-
Confectionery	-	5	5	-
Cow heel	-	1	1	-
Cream	-	2	2	-
Dates	-	1	1	-
Egg noodles	-	1	1	-
Faggots	-	1	1	-
Figs	-	1	1	-
Fish cakes	-	1	1	-
Fruit drink	-	1	1	-
Fruit, tinned	-	1	1	-
Ginger	-	1	1	-
Glace cherries	-	1	1	-
Ham	-	1	1	-
Honey	-	1	-	1
Ice cream	-	2	2	-
Ice cream powder	-	1	1	-
Jam	-	1	1	-
Jelly	-	1	1	-
Meat pies	-	1	1	-
Medical preparations	-	9	9	-
Milk	3	8	10	1
Olive oil	-	1	1	-
Onions, pickled	-	1	-	1
Orangeade powder	-	1	1	-
Pie filling	-	1	1	-
Potato chips	-	1	1	-
Carried forward	3	55	54	4

Article	Number of Samples		Result of Analyses	
	Formal	Informal	Genuine	Not Genuine
Brought forward	3	55	54	4
Processed peas	-	1	1	-
Salmon, smoked	-	1	1	-
Salmon, tinned	-	1	1	-
Soup, dehydrated	-	1	1	-
Split peas	-	1	1	-
Stuffing	-	1	1	-
Tea	-	2	2	-
Tomato chutney	-	1	-	1
Tomatoes, tinned	-	1	1	-
Tumeric	-	1	1	-
Tuna fish, tinned	-	1	1	-
Whisky	-	1	1	-
Vegetable salad	-	1	1	-
	3	69	67	5

Particulars of Samples Adulterated or
otherwise giving rise to Irregularity

Sample
No.

- 353 Milk: Possibility of the presence of a trace of added water.
A further formal sample taken from the same source was satisfactory.
- 388 Pickled Onions: Not labelled. This irregularity was taken up with the retailer.
- 389 Honey: Not labelled. This irregularity was taken up with the retailer.
- 396 Cake Mix: Misleading label. The distributor was informed.
- 411 Tomato Chutney: Added colour and preservative declared but not present. The distributor was notified.

Complaints

- (a) A tin of Blackberry and Apple Pie Filling, containing a foreign body. A warning letter was sent to the manufacturer.
- (b) Joint of Bacon, alleged to be unsound. A warning letter was sent to the retailer concerned.
- (c) Dirty Milk Bottle. A warning letter was sent to the dairy concerned.
- (d) Angel Cake affected with Mould. A letter of warning was sent to the retailer.

SECTION "F"

PREVALENCE AND CONTROL OVER INFECTIOUS AND "OTHER DISEASES"

INFECTIOUS DISEASES

The following notifiable infectious diseases were recorded:-

Measles	493
Whooping Cough	14
Tuberculosis - Respiratory	14
- Non-Respiratory	6
Pneumonia	3
Scarlet Fever	9
Erysipelas	-
Puerperal Pyrexia	3
Acute Poliomyelitis-Paralytic	-
Dysentery	-
Meningococcal Infection	-
	542

DIPHTHERIA IMMUNISATION

The following is a return of the number of children resident in the Borough who were immunised against Diphtheria during the year ended 31st December, 1964:-

Year of Birth	Primary Inoculation	Re-inforcing Inoculations
1964	427	-
1963	517	8
1962	51	400
1961	10	124
1960	8	48
1955 - 1959	15	522
1950 - 1954	2	8
	1,030	1,110

SMALLPOX PREVENTION

Vaccination is carried out at the Kent County Council Clinics and by General Practitioners.

The following is a return of the number of persons who were vaccinated against Smallpox at the Kent County Council Clinics during the year ended 31st December, 1964

Primary Vaccination	Re-Vaccination School Age but under 8 years
619	4

WHOOPIING COUGH IMMUNISATION

The following is a return of the number of persons who were immunised against Whooping Cough during the year ended 31st December, 1964.

Year of Birth	Primary Immunisation
1964	426
1963	510
1962	48
1961	9
1960	6
1955 - 1959	23
1950 - 1954	1
	<hr/> 1,023

POLIOMYELITIS VACCINATION

The following table gives the number of persons resident in the Borough who received injections against Poliomyelitis during the year ended 31st December, 1964:-

Year of Birth	2 Injections (Salk)	3rd & 4th doses (Salk & Oral)	3 Orals (Complete Course)
1964	-	-	69
1963	-	9	651
1962	-	7	117
1961	-	-	46
1949 - 1960	-	606	74
1923 - 1948	-	3	41
Others	-	6	30
	-	631	1,028

NOTIFICATION OF NEW CASES OF TUBERCULOSIS

In 1964, 20 fresh cases were notified. The following table gives comparative particulars over the last ten years:-

Year	Estimated Population of Registrar General	Pulmonary	Non- Pulmonary	Total
1955	46,390	36	3	39
1956	47,670	31	5	36
1957	46,930	29	6	35
1958	46,660	27	1	28
1959	48,370	29	3	32
1960	49,110	21	5	26
1961	51,240	20	3	23
1962	51,950	26	6	32
1963	53,250	13	4	17
1964	53,590	14	6	20

The sources from which the notifications of Tuberculosis were received:-

Chest Physicians	..	13
Private Medical Practitioners	..	-
Hospitals and Institutions	..	7

AGE AND SEX DISTRIBUTION OF TUBERCULOUS PATIENTS

The following table shows the age and sex distribution of our 20 new cases:-

Age Periods	Pulmonary		Non-Pulmonary	
	Male	Female	Male	Female
0 - 1	-	-	-	-
1 - 5	-	1	-	-
5 - 10	-	-	1	-
10 - 15	-	-	-	-
15 - 20	-	-	-	-
20 - 25	1	1	-	1
25 - 35	3	2	-	-
35 - 45	1	1	-	1
45 - 55	-	-	2	-
55 - 65	2	-	1	-
65 & over	-	2	-	-
	7	7	4	2

TUBERCULOSIS DEATHS AND DEATH RATE

There were 5 deaths registered from Pulmonary Tuberculosis. This gives a death rate of .09 per 1,000 population for all forms of tuberculosis.

The following table compares the figures for 1964 with those of previous years:-

Year	Pulmonary		Non-Pulmonary		TOTAL Rate per 1,000 Pop.
	Number of deaths	Rate per 1,000 Pop.	Number of deaths	Rate per 1,000 Pop.	
1955	9	.19	-	-	.19
1956	4	.08	1	.02	.10
1957	7	.14	-	-	.14
1958	5	.11	2	.04	.15
1959	5	.10	-	-	.10
1960	9	.18	-	-	.18
1961	10	.19	-	-	.19
1962	8	.15	-	-	.15
1963	3	.05	-	-	.05
1964	5	.09	-	-	.09

TUBERCULOSIS REGISTER

The names of 53 persons were removed from the register for the following reasons:-

Deaths	..	..	8
Left the District	..	..	10
Recovered	..	..	32
Diagnosis not Confirmed	..	..	-
Refused Public Medical Treatment	..	..	2
Lost sight of	..	..	1
Emigrated	..	..	-
De-notified	..	..	-
			<hr/> 53 <hr/>

Four hundred and twenty-five persons remained on the Register at the 31st December, 1964. They consist of the following:-

	Males	Females	Total
Pulmonary	226	161	387
Non-Pulmonary	22	16	38
	<hr/> 248 <hr/>	<hr/> 177 <hr/>	<hr/> 425 <hr/>

MASS RADIOGRAPHY

Two routine visits of the radiography unit in connection with regular chest X-ray examinations of men over the age of 45 were made during 1964.

INNOCULATION AGAINST TUBERCULOSIS

A substantial number of children have been vaccinated with B.C.G.

VENEREAL DISEASES

Dr. C. D. Routh, the Medical Officer in charge of the Gravesend Clinic, has kindly supplied the following statistics:-

	Males	Females	Total
New Patients - Gravesend			
Syphilis	2	-	2
Gonorrhoea	24	13	37
Other conditions	55	54	109
	<u>81</u>	<u>67</u>	<u>148</u>
Total number of New Patients from all areas		..	327
Total number of attendances from all areas		..	1,382
Discharged cured (all districts):			
Syphilis .. .. .	..	..	6
Gonorrhoea .. .. .	..	..	33
Other conditions .. .. .	..	..	187

VENEREAL DISEASE CLINIC - (South-Eastern Metropolitan Hospital Board)

Dr. C. D. Routh is in attendance at the Gravesend Clinic, 22 Cobham Street (telephone Gravesend 3061), at the following times:-

TUESDAY

Male	11.00 a.m. to 1.00 p.m.
Female	1.00 p.m. to 2.00 p.m.

SATURDAY

Male and Female	9.00 a.m. to 10.30 a.m.
-------------------------	-------------------------

BOROUGH MORTUARY

During the year, 113 bodies were received and 110 post-mortem examinations performed.

CORONER'S INQUESTS

H.M. Coroner has kindly supplied the following information for the year 1964:-

Total number of inquests	..	..	..	34
Number of inquests without post-mortems	..	..	..	-
Number of post-mortems without inquests	..	..	..	77

Verdicts:-

Accidental deaths	..	..	..	29
Suicides	..	..	..	5
Found drowned	..	..	..	-
Other verdicts	..	..	..	-

BACTERIOLOGICAL EXAMINATION OF DRINKING WATER

	Date taken	Probable numbers Coliform bacilli	per 100 ml. Bact. Coli (type I)	Plate count per ml.
1. Leith Park Road Pumping Station (treated)	20. 1.64	None		
	17. 2.64	None		
	23. 3.64	None		
	20. 4.64	None		
	11. 5.64	None		
	8. 6.64	None		
	7. 7.64	None		
	18. 8.64	None		
	21. 9.64	None		
	19. 10.64	None		
	17. 11.64	None		
	14. 12.64	None		
				None
				None

BACTERIOLOGICAL EXAMINATION OF DRINKING WATER

	Number of Samples	Date taken	Probable numbers per 100 ml. Coliform bacilli	Bact. Coli (type I)	Plate count per ml.
2. Domestic Supplies (treated)	4	20. 1.64	None		
	3	17. 2.64	None		
	1	17. 2.64	2 or more	None	
	4	23. 3.64	None		
	3	20. 4.64	None		
	3	11. 5.64	None		
	4	8. 6.64	None		
	3	7. 7.64	None		None
	3	18. 8.64	None		
	3	21. 9.64	None		
	3	19. 10.64	None		
	3	17. 11.64	None		
	3	14. 12.64	None		

CHEMICAL ANALYSIS OF DRINKING WATER

Date taken:	16.12.64
Appearance:	Clear, bright
Odour:	None
	Parts per million
Free ammonia	0.016
Albuminoid ammonia	0.012
Nitrite	Absent
Nitrate	1.0
Chlorine as Chlorides	17
Total hardness	244
Permanent hardness	-
Oxygen absorbed from Permanganate in 4 hours at 80°F	0.05
Total solids	325
pH value	7.2

The microscopic examination revealed the presence of a very little mineral or vegetable matter.

OPINION:

Chemically, this water is satisfactory.

BACTERIOLOGICAL EXAMINATION OF BATHING POOL WATER

	Date taken	Where taken	Probable numbers per 100 ml.		Plate count per ml.
			Coliform bacilli	Bact. Coli (type 1)	
(a) Corporation Pool	25.5.64	Deep end Shallow end Paddling pool	None	None	None
			None	None	None
			None	None	None
	22.6.64	Deep end Shallow end Paddling pool	None	None	None
			None	None	None
			None	None	None
	21.7.64	Deep end Shallow end Paddling pool	None	None	None
			None	None	None
			None	None	4
	18.8.64	Deep end Shallow end Paddling pool	None	None	Uncountable
			None	None	1
			None	None	None
	7.9.64	Deep end Shallow end	None	None	2
			None	None	0
	15.9.64	Deep end Shallow end Paddling pool	None	None	None
			None	None	None
			None	None	None

BACTERIOLOGICAL EXAMINATION OF BATHING POOL WATER

	Date taken	Where taken	Probable numbers per 100 ml. Coliform bacilli	Bact. Coli (type I)	Plate count per ml.
(b) School Pools	25.5.64	Westcourt	None		1
		Whitehill	None		1
		Cecil Road	None		None
	22.6.64	Westcourt	None		None
		Whitehill	None		None
		Cecil Road	None		None
		King's Farm	None		None
	21.7.64	Westcourt	None		None
		Whitehill	None		630
		Cecil Road	None		60
		King's Farm	None		10
	15.9.64	Westcourt	None		None
		Whitehill	None		None
		Cecil Road	None		None
		King's Farm	None		None
		St. Joseph's	None		None

ATMOSPHERIC POLLUTION

Data extracted from the Analyst's monthly reports was supplied to the Thameside Joint Committee in the form shown in the following tables

(See notes at end of tables for details of abbreviations)

Site: Dashwood Lane Nurseries

Month	Rain mm	pH Value	Deposit (grams per 100 square metres)								
			TWIM	S/CS2	Ash	OCM	TWSM	Ca	Cl	SO4	TS
1963											
Oct.	27.59	6.17	202	3	153	46	322	51	14	152	524
Nov.	77.43	5.52	184	3	143	39	314	39	44	141	498
Dec.	9.54	7.08	235	4	176	56	343	76	33	142	578
1964											
Jan.	29.43	5.85	376	2	283	91	473	81	42	238	849
Feb.	25.63	5.86	335	6	259	70	458	91	30	227	793
Mar.	57.81	5.87	331	3	235	92	298	52	37	183	629
Total	227.43	36.35	1663	21	1249	394	2208	390	200	1083	3871
Mean	37.91	6.06	277	4	208	66	368	65	33	181	645
Apr.	62.00	5.61	277	4	157	116	269	27	29	148	546
May	37.02	6.09	374	3	288	83	327	49	18	162	701
June	110.13	5.42	500	7	381	113	424	50	29	166	924
July	20.80	6.89	478	4	402	72	311	55	18	128	789
Aug.	23.00	7.12	343	4	261	78	293	56	18	122	636
Sep.	9.00	5.41	305	2	201	102	270	42	14	116	575
Total	261.95	36.54	2277	24	1690	564	1894	279	126	842	4171
Mean	43.66	6.09	213	4	282	94	316	47	21	140	695

Site: Swimming Pool

Month	Rain mm	pH Value	Deposit (grams per 100 square metres)								
			TWIM	S/CS2	Ash	OCM	TWSM	Ca	Cl	SO4	TS
1963 Oct.	25.66	6.10	269	5	185	79	347	63	22	166	616
Nov.	69.22	5.21	195	7	142	46	400	45	53	161	595
Dec.	-	-	-	-	-	-	-	-	-	-	-
1964 Jan.	25.40	5.65	372	8	267	97	464	89	45	229	836
Feb.	21.71	5.54	338	6	250	82	408	75	33	200	746
Mar.	51.06	5.74	336	4	190	142	332	46	37	178	668
Total	192.69	28.24	1510	30	1034	446	1951	318	190	934	3461
Mean	38.54	5.65	302	6	207	89	390	64	38	187	692
Apr.	55.53	5.53	277	6	210	61	321	48	34	163	598
May	27.90	5.88	469	5	338	126	371	56	18	173	840
June	93.70	5.44	381	7	280	93	410	42	32	185	791
July	9.21	6.24	415	5	314	96	451	57	21	138	866
Aug.	13.00	6.28	277	8	206	63	255	58	16	127	532
Sep.	5.00	5.37	286	4	198	84	290	54	16	130	576
Total	204.34	34.74	2105	35	1546	523	2098	315	137	916	4203
Mean	34.06	5.79	351	6	258	87	350	53	23	153	701

NOTE: Results for December 1963 were excessive, due to building operations on the site, and have not been included.

Abbreviations:

TWIM	Total water insoluble matter
S/CS2	Soluble carbon disulphide
OCM	Other combustible matter
TWSM	Total water soluble matter
Ca	Calcium
Cl	Chloride
SO4	Calculated as sulphate
TS	Total solids

ATMOSPHERIC POLLUTION

Site	Rainfall inches	Measurement of Deposited Matter by Deposit Gauges		
		Insoluble Deposit (tons per square mile)	Soluble Deposit	Total Deposit
DASHWOOD LANE NURSERIES				
1964				
January	1.16	9.60	12.06	21.66
February	1.01	8.54	11.67	20.21
March	2.28	8.44	7.60	16.04
April	2.44	7.05	6.87	13.92
May	1.46	9.53	8.34	17.87
June	4.34	12.75	10.81	23.56
July	0.82	12.20	7.94	20.14
August	0.91	8.75	7.47	16.22
September	0.35	7.78	6.88	14.66
October	1.64	9.06	12.21	21.27
November	1.23	6.96	8.60	15.57
December	1.42	6.94	9.54	16.47
Mean	1.59	8.97	9.17	18.13
SWIMMING POOL				
1964				
January	1.00	9.48	11.84	21.32
February	0.85	8.62	10.40	19.02
March	2.01	8.57	8.46	17.03
April	2.19	7.05	8.10	15.24
May	1.10	11.97	9.46	21.43
June	3.69	9.71	10.47	20.18
July	0.36	10.58	11.51	22.10
August	0.53	7.07	6.51	13.59
September	0.20	7.30	7.38	14.69
October	1.44	12.67	13.83	26.50
November	1.07	8.05	11.88	19.93
December	1.08	6.26	8.62	14.89
Mean	1.29	8.94	9.88	18.83

INVESTIGATION OF ATMOSPHERIC POLLUTION,
SMOKE AND SULPHUR DIOXIDE BY VOLUMETRIC METHOD

SITE: - 3 Woodville Terrace

			SMOKE		SULPHUR DIOXIDE	
			Microgrammes per cubic metre		Microgrammes per cubic metre	
			Average value	Highest value	Average value	Highest value
31.12.63	-	3. 2.64	221	370	225	656
4. 2.64	-	2. 3.64	216	843	219	697
3. 3.64	-	6. 4.64	103	202	134	303
7. 4.64	-	4. 5.64	54	162	89	209
5. 5.64	-	1. 6.64	25	70	85	283
2. 6.64	-	29. 6.64	21	40	46	124
30. 6.64	-	27. 7.64	35	172	76	200
28. 7.64	-	31. 8.64	29	89	103	391
1. 9.64	-	28. 9.64	28	65	55	129
29. 9.64	-	2. 11.64	134	318	161	347
3. 11.64	-	30. 11.64	130	401	147	712
1. 12.64	-	4. 1.65	152	523	189	533

INVESTIGATION OF ATMOSPHERIC POLLUTION

SMOKE AND SULFUR DIOXIDE AT VOLCANIC STATION

(Data for 1954-1955)

Date		Time		Wind		Direction		Speed		Temperature		Humidity		Pressure		Remarks	
Month		Day		Hour		Minute		Mph		F		%		In		Notes	
1954		10		10		10		10		10		10		10		10	
1954		11		11		11		11		11		11		11		11	
1954		12		12		12		12		12		12		12		12	
1954		13		13		13		13		13		13		13		13	
1954		14		14		14		14		14		14		14		14	
1954		15		15		15		15		15		15		15		15	
1954		16		16		16		16		16		16		16		16	
1954		17		17		17		17		17		17		17		17	
1954		18		18		18		18		18		18		18		18	
1954		19		19		19		19		19		19		19		19	
1954		20		20		20		20		20		20		20		20	
1954		21		21		21		21		21		21		21		21	
1954		22		22		22		22		22		22		22		22	
1954		23		23		23		23		23		23		23		23	
1955		24		24		24		24		24		24		24		24	
1955		25		25		25		25		25		25		25		25	
1955		26		26		26		26		26		26		26		26	
1955		27		27		27		27		27		27		27		27	
1955		28		28		28		28		28		28		28		28	
1955		29		29		29		29		29		29		29		29	
1955		30		30		30		30		30		30		30		30	
1955		31		31		31		31		31		31		31		31	
1955		1		1		1		1		1		1		1		1	
1955		2		2		2		2		2		2		2		2	
1955		3		3		3		3		3		3		3		3	
1955		4		4		4		4		4		4		4		4	
1955		5		5		5		5		5		5		5		5	
1955		6		6		6		6		6		6		6		6	
1955		7		7		7		7		7		7		7		7	
1955		8		8		8		8		8		8		8		8	
1955		9		9		9		9		9		9		9		9	
1955		10		10		10		10		10		10		10		10	
1955		11		11		11		11		11		11		11		11	
1955		12		12		12		12		12		12		12		12	
1955		13		13		13		13		13		13		13		13	
1955		14		14		14		14		14		14		14		14	
1955		15		15		15		15		15		15		15		15	
1955		16		16		16		16		16		16		16		16	
1955		17		17		17		17		17		17		17		17	
1955		18		18		18		18		18		18		18		18	
1955		19		19		19		19		19		19		19		19	
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1955		31		31		31		31		31		31		31		31	
1956		1		1		1		1		1		1		1		1	
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1956		8		8		8		8		8		8		8		8	
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1956		26		26		26		26		26		26		26		26	
1956		27		27		27		27		27		27		27		27	
1956		28		28		28		28		28		28		28		28	
1956		29		29		29		29		29		29		29		29	
1956		30		30		30		30		30		30		30		30	
1956		31		31		31		31		31		31		31		31	
1957		1		1		1		1		1		1		1		1	
1957		2		2		2		2		2		2		2		2	
1957		3		3		3		3		3		3		3		3	
1957		4		4		4		4		4		4		4		4	
1957		5		5		5		5		5		5		5		5	
1957		6		6		6		6		6		6		6		6	
1957		7		7		7		7		7		7		7		7	
1957		8		8		8		8		8		8		8		8	
1957		9		9		9		9		9		9		9		9	
1957		10		10		10		10		10		10		10		10	
1957		11		11		11		11		11		11		11		11	
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1957		14		14		14		14		14		14		14		14	
1957		15		15		15		15		15		15		15		15	
1957		16		16		16		16		16		16		16		16	
1957		17		17		17		17		17		17		17		17	
1957		18		18		18		18		18		18		18		18	
1957		19		19		19		19		19		19		19		19	
1957		20		20		20		20		20		20		20		20	
1957		21		21		21		21		21		21		21		21	
1957		22		22		22		22		22		22		22		22	
1957		23		23		23		23		23		23		23		23	
1957		24		24		24		24		24		24		24			



