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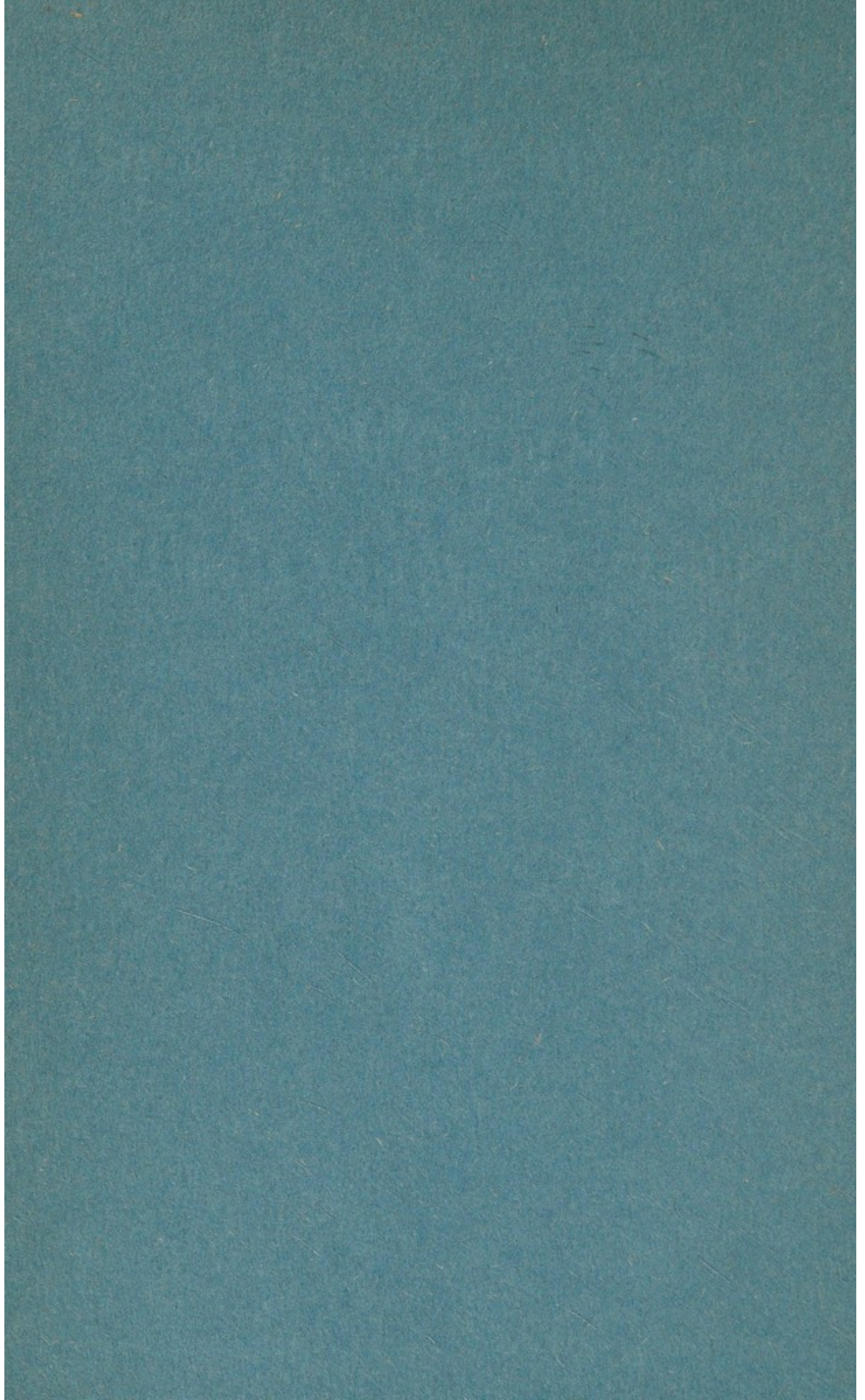


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Lancaster Rural District Council

REPORT
OF THE
Medical Officer of Health
AND THE
Chief Public Health Inspector
for the Year
1970





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(as on 31st December, 1970)

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J. V. DYER, M.B., B.S., L.R.C.P., M.R.C.S., D.P.H.

Deputy Medical Officer of Health :

B. O. WILSON, M.B., Ch.B., D.P.H., D.R.C.O.G.

Chief Public Health Inspector :

CLIFFORD HYDE °

Additional Public Health Inspector :

J. ERIC BARTON °

°Public Health Inspector's Certificate

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Public Health Department,
5 Dalton Square, Lancaster

*To the Chairman and Members of the
Lancaster Rural District Council*

I have the honour to present for your consideration this Annual Report on the health and sanitary conditions of the Lancaster Rural District, in respect of the year ending 31st December, 1970. The form and content are in accordance with the Department of Health Circular 1/71.

The absolute numbers of births and deaths were much the same as in recent years, with deaths exceeding births by 55. After adjustment for the age and sex distribution of the community the birth and death rates for 1,000 population are within a fraction of those for England and Wales as a whole.

The estimated population is lower than for 1969, so halting the annual increase which has taken place ever since the war. This is surprising, as there was a considerable amount of private housing development during the year. The inference is that people migrated from the area. It could be an indication of workers moving because of local trade recessions, or of our children, who having benefited from the educational opportunities available these days, have to settle in more heavily populated parts of the country, in order to exercise their skills and qualifications to the best advantage for themselves and the nation.

In 1969 I commented on the poor acceptance rate of protector vaccines for babies (50%). It was so out of keeping with our hitherto encouraging rate of 88% or so, that a special investigation was made. As was hoped, the figure was incorrect, all due to a variety of reasons, mainly statistical, and I am delighted to record that the true figure is actually in the region of 80—85%. 22.6% of our population consists of retirement pensioners. This high figure causes problems, and a heavy demand on community care services, such as home nursing and home helps. There is a commendable level of self help and village spirit however, so it is only very rarely that tragedy occurs. Your attention is drawn to table 4 on page 12. How better could the advantages of living in our area be illustrated?

One of the most exciting developments has been the construction of the new sewage treatment plant at Crag Bank, in conjunction with our friends of Carnforth Urban District. At the time of writing, these ultra-modern works have been officially opened and are now in use. More land is now opened up for development, but above all, is the pride and knowledge that the effluent entering our beautiful Morecambe Bay has been treated to the highest possible standard. That two comparatively small local authorities should undertake and achieve this, is indeed praiseworthy and in keeping with the spirit of "anti-pollution".

The vigorous policy of housing improvement, as opposed to demolition, has continued, and the total amount approved for financial assistance reached £20,000 during the year.

A cynic once told me that the length of my Annual Report is in inverse ratio to the amount anyone needs. However it is my view that as much relevant information as possible should be given, not only for reference purposes, but also to form the basis of a historical record for future generations.

May I thank the Committee once again for the interest in the field of social and preventive medicine, and acknowledge with sincerity the continued hard work of my colleagues in the Public Health Department.

I have the honour to be,
Ladies and Gentlemen,
Your obedient Servant,
J. V. DYER,
Medical Officer of Health.

STATISTICS AND SOCIAL CONDITIONS OF THE AREA

Total	17,180
Area in acres	23,050
Population (Census 1901)	14,018
Population (mid-year 1970)	17,180
Number of inhabited houses (Census 1901)	2,398
Number of inhabited houses (Census 1970)	4,438

**STATISTICS AND SOCIAL CONDITIONS
OF THE AREA.**

The District is largely rural. Residential areas in several of its various parts. A significant feature is the presence of a large number of small holdings. Other industries are primarily petty handicrafts catering for local and holiday markets. By far the largest industrial undertaking is the Tripoli petroleum refinery at Bahadrapur, which provides employment for a considerable number of people from the Rural District.

DEATHS FROM ALL CAUSES

1970	145
1971	152
1972	148
1973	155
1974	160
1975	165
1976	170
1977	175
1978	180
1979	185
1980	190

STATISTICS AND SOCIAL CONDITIONS OF THE AREA

Area in acres	53,010
Population (Census 1961)	14,018
Registrar General's estimate of home population (mid-year 1970)	17,180
Number of inhabited houses (Census 1931)	2,396
Number of inhabited houses (Census 1961)	4,658
Number of inhabited houses 1970 (according to rate books)	6,339
Rateable Value	£798,241
Sum represented by a penny rate	£3,330

The District is largely rural in character with popular residential areas in several of its sixteen parishes.

Agriculture is the most important, if not the largest industry. Other industries are quarrying, building, textiles and catering for tourists and holiday makers.

By far the largest industrial undertaking is the Trimpell petroleum refinery at Middleton, which provides employment for a considerable number of people from the Rural District.

SUMMARY OF VITAL STATISTICS FOR YEAR 1970

	M.	F.	Total
LIVE BIRTHS (Legitimate)	126	84	210
(Illegitimate)	3	9	12
Total	129	93	222
Crude Birth Rate per 1,000 est. population			12.9
Adjusted Birth Rate per 1,000 est. population			15.2
Illegitimate Live Births per cent of total live births			5.0
STILL BIRTHS (Legitimate)	2	1	3
(Illegitimate)	Nil	Nil	Nil
Total	2	1	3
Still Birth Rate per 1,000 total live and still births			13
TOTAL LIVE AND STILL BIRTHS	131	94	225
INFANT DEATHS UNDER ONE YEAR OF AGE			
Legitimate	2	Nil	2
Illegitimate	Nil	Nil	Nil
Total	2	Nil	2
Infant Mortality Rate per 1,000 live births			9
INFANT DEATHS UNDER 4 WEEKS OF AGE			
Neo-Natal Mortality Rate per 1,000 live births		1 Nil	1
Early Neo-Natal Mortality Rate per 1,000 live births			5
INFANT DEATHS UNDER 1 WEEK OF AGE			
Peri-natal Mortality Rate per 1,000 total live and still births		1 Nil	1
Early Neo-Natal Mortality Rate per 1,000 live births			5
INFANT DEATHS UNDER 1 WEEK PLUS STILL BIRTHS			
Peri-natal Mortality Rate per 1,000 total live and still births		3 1	4
Early Neo-Natal Mortality Rate per 1,000 live births			18
DEATHS FROM MATERNAL CAUSES			
Maternal Mortality Rate per 1,000 total live and still births			NIL
DEATHS FROM ALL CAUSES			
Crude Mortality Rate per 1,000 est. population			143 134 277
Adjusted Mortality Rate per 1,000 est. population			16.1 11.6

TABLE 1. COMPARATIVE STATISTICS FOR 1970 AND PERIOD 1965-69

Year	Live births		Deaths (all causes)		Still births		Maternal Mortality		Infant Mortality			
	No. registered	Crude Rate per 1,000 population	No. registered	Crude Rate per 1,000 population	No. registered	Rate per 1,000 total births	No. of deaths registered	Rate per 1,000 total births	No. of deaths registered	Rate per 1,000 live births	No. of deaths registered	Rate per 1,000 live births
1970	222	*12.9	277	†16.1	3	13.0	Nil	Nil	2	9.0	1	5
" 1969	223	12.9	261	15.1	2	9.0	Nil	Nil	6	27.0	4	18
" 1968	228	13.2	271	15.7	3	13.0	Nil	Nil	3	13.0	1	4
" 1967	247	14.5	263	15.5	2	8.0	Nil	Nil	1	4.0	Nil	Nil
" 1966	246	14.9	220	13.3	3	12.0	Nil	Nil	1	4.1	Nil	Nil
" 1965	232	14.5	234	14.6	2	8.5	Nil	Nil	2	8.6	Nil	Nil
Average												
5 years	—	14.0	—	14.4	—	10.1	—	Nil	—	13.3	—	4.4
1965-1969												

* Adjusted live birth-rate (comparability factor 1.18) = 15.2 per 1,000 population.

† Adjusted deathrate (comparability factor 0.72) = 11.6 per 1,000 population.

COMMENTS ON VITAL STATISTICS

1. **Population.** The Registrar General's estimate of the population at mid-year 1970 was 17,180, against 17,310 the year before. There has thus been a halt in the increase which has taken place every year since the last war, despite the fact that the high rate of private building continued. The true position will soon be clear, when the 1971 census figures are published. The proportion of elderly people is twice that of the national figure. No less than 22.6% of our inhabitants are over 65 years of age.
2. **Births.** In 1970 there were 222 registered live births, a decrease of 1 from the previous year, giving a crude birth rate of 12.9 per 1,000 population. The adjusted rate of 15.2 per 1,000 was slightly less than the crude rate for England and Wales, which was 16.0 per 1,000.
3. **Deaths.** The total number of deaths from all causes in 1970 was 277, sixteen more than in the previous year, giving a crude death rate of 16.1 per 1,000 population. The Adjusted death rate was 11.6 per 1,000 compared with 11.7, the rate for England and Wales.

It will be seen from the classified list of causes of death in table 3 that diseases of the heart and circulatory diseases again appeared as the most common cause of death and in this group coronary thrombosis continues to be the chief culprit. This disease is characteristic in that it most often strikes people in middle age, reflecting perhaps the increased tempo of modern life.

4. **Infant Mortality.** The number of deaths of infants under one year of age was 2, equivalent to an infant mortality rate of 9.0 per 1,000 live births. Owing to the smallness of the absolute figures the mortality rate can vary considerably from year to year and the average rate for the preceding five years was 13.3 per 1,000 live births. The rate for England and Wales in 1970 was 18.0.
5. **Long-term Trends in Vital Statistics.** A much more reliable picture of the long-term changes in the birth and death rates in the District can be obtained when the yearly variations, which for statistical reasons may occur at irregular intervals, have been smoothed out as in Table 2 overleaf. This shows the birth and death rates expressed as averages of each 10 year period between 1891-1960, and from these certain trends can be traced and conclusions drawn with reasonable safety. Thus the distinct fall in infant and maternal mortality is in marked contrast to the rising tide of deaths from cancer of the lung and other forms of cancer.

TABLE 2. VITAL STATISTICS LANCASTER R.D.

The principal vital statistics for the seven decennial periods between 1891 and 1960, together with those for 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969 and 1970 are given below:—

	Live Births		Still Births		Deaths (all causes)		Infant Mortality		Maternal Mortality		Cancer (Deaths)	
	No. registered	Rate per 1,000 est. population	No. registered	Rate per 1,000 total births	No. registered	Rate per 1,000 est. population	No. of infant deaths regd.	Rate per 1,000 live births	No. of maternal deaths regd.	Rate per 1,000 live & still-births	No. of deaths registered	Rate per 1,000 est. population
Mean of 10 years												
Estimated population (all ages)												
1891-1900	13,224	374.4	28.3	§	217.5	16.4	46.7	125	§	§	§	§
1901-1910	8,937	199.7	22.3	§	120.2	13.4	19.4	97	§	§	§	§
1911-1920	*9,001)	165.3	18.4	§	120.5	13.8	13.7	83	0.6	§	10.9	1.25
	†8,702)											
1921-1930	9,332	161.5	17.3	§	120.3	12.9	9.6	59	0.6	§	11.6	1.24
1931-1940	*9,829)	135.7	13.8	6.6	135.2	13.7	7.8	57	1.0	7.03	15.4	1.56
	†9,857)											
1941-1950	11,002	165.3	15.0	3.6	148	13.5	6.5	39.4	0.4	2.37	20	1.82
1951-1960	12,719	180.3	14.2	3.1	172.3	13.5	4.8	27.5	0.1	0.53	25.4	2.00
1961	13,930	208	14.9	3	210	15.1	4	19.2	Nil	Nil	37	2.73
1962	14,450	194	13.4	4	234	16.2	4	20.6	Nil	Nil	38	2.63
1963	14,820	168	11.3	2	238	16.1	3	17.9	Nil	Nil	43	2.90
1964	15,420	209	13.6	5	202	13.1	2	9.6	Nil	Nil	27	1.76
1965	16,030	232	14.5	2	234	14.6	2	8.6	Nil	Nil	65	4.05
1966	16,550	246	14.9	3	220	13.3	1	4.1	Nil	Nil	48	2.90
1967	16,990	247	14.5	2	263	15.5	1	4.0	Nil	Nil	55	2.94
1968	17,270	228	13.2	3	271	15.7	3	13.0	Nil	Nil	50	2.90
1969	17,310	223	12.9	2	261	15.1	6	27.0	Nil	Nil	58	3.34
1970	17,180	222	12.9	3	277	16.1	2	9.0	Nil	Nil	53	3.08

* For calculation of birth rate. † For calculation of death rate. § Not available.

NOTE—1. From 1950 deaths from Hodgkin's disease, leukaemia and aleukemia are included in the total of cancer deaths.

2. The population estimates and numbers of registered deaths for the years 1940-49, inclusive, relate to civilians only.

3. The decrease in population at the change of the century was due to boundary alterations.

TABLE 3

**CLASSIFICATION OF CAUSES OF DEATH DURING
THE YEAR 1970**

Cause of Death	M.	F.	Total
B18 Other Infective and Parasitic Diseases	—	1	1
B19(2) Malignant Neoplasm, Oesophagus	—	1	1
B19(3) Malignant Neoplasm, Stomach	6	1	7
B19(4) Malignant Neoplasm, Intestine	5	5	10
B19(6) Malignant Neoplasm, Lung, Bronchus	17	2	19
B19(7) Malignant Neoplasm, Breast	—	3	3
B19(8) Malignant Neoplasm, Uterus	—	1	1
B19(9) Malignant Neoplasm, Prostate	2	—	2
B19(11) Other Malignant Neoplasms	4	6	10
B23 Anaemias	1	1	2
B26 Chronic Rheumatic Heart Disease	1	1	2
B28 Ischaemic Heart Disease	46	40	86
B29 Other Forms of Heart Disease	10	11	21
B30 Cerebrovascular Disease	13	22	35
B31 Influenza	1	2	3
B32 Pneumonia	7	11	18
B33(1) Bronchitis and Emphysema	8	1	9
B34 Peptic Ulcer	—	1	1
B36 Intestinal Obstruction and Hernia	1	1	2
B38 Nephritis and Nephrosis	2	—	2
B42 Congenital Anomalies	1	—	1
B43 Birth Injury, Difficult Labour, etc.	1	—	1
B45 Symptoms and Ill Defined Conditions	1	5	6
B46(1) Other Endocrine etc. Diseases	—	1	1
B46(4) Multiple Sclerosis	1	—	1
B46(6) Other Diseases of Circulatory System	2	8	10
B46(7) Other Diseases of Respiratory System	—	2	2
B46(8) Other Diseases of Digestive System	2	2	4
B46(9) Other Diseases, Genito-Urinary System	2	1	3
B46(11) Diseases of Musculo-Skeletal System	1	1	2
BE47 Motor Vehicle Accidents	3	1	4
BE48 All Other Accidents	4	2	6
BE50 All Other External Causes	1	—	1
TOTAL OF CAUSES	143	134	277

TABLE 4. DEATHS CLASSIFIED BY AGE GROUPS AND PARISH — JANUARY-DECEMBER 1970

PARISH	0-	1-	2-	3-	4-	5-	10-	15-	20-	35-	45-	65-	75-	80+	Total
Ashton-with-Stodday														1	1
Bolton-le-Sands		1									5	22	13	5	46
Cockerham											4		1	5	10
Ellel		1	1								2	2	5	6	17
Heaton-with-Oxcliffe												2	2		4
Middleton											2	3	1	1	7
Overton							1				2	4	2	3	12
Over Wyresdale												1			1
Priest Hutton											2			1	3
Scottforth														2	2
Silverdale										1	10	13	11	41	76
Slyne-with-Hest		1						1		1	8	20	7	26	64
Thurnham									1	1	1	2	1	1	6
Warton											3	6	1	7	17
Yealand Conyers												1	2	1	4
Yealand Redmayne											2	2	2	1	7
TOTALS	3	1	1	1	1	1	1	1	1	3	41	78	48	101	277

SECTION B.

The bacteriological examination of milk, cream and foodstuffs, as well as of specimens of food, nose and throat swabs etc., from individual patients is carried out at the Public Health Laboratory at Preston, Lancashire. Analysis of water, milk and foodstuffs under the Food and Drugs Act 1955 is carried out by the County Analyst, Dr. Walker.

(b) Ambulance Facilities. Ambulance Services are administered by the Divisional Health Officer of the Lancashire County Council. Health Division No. 2, Lancaster; the telephone number of the ambulance station is 37093001.

(c) Health Visiting Services. The services of District Nurses, Midwives, and Home Help, to look after patients in their own homes, are provided by the Lancashire County Council, acting as the Local Health Authority. These services for the Lancaster Rural District are administered from the Divisional Health Office at Squire Road, Lancaster, Lancaster 1292.

(d) Treatment Centres and Clinics. The following Centres and Clinics, among others, have been established by the Lancashire County Council:

**GENERAL PROVISION OF HEALTH SERVICES
IN THE AREA**

- (1) Memorial Hall, North Lane.
 - (2) The Village Institute, Garsdale.
 - (3) Garsdale Memorial Hall, Garsdale.
 - (4) Congregational Church Hall, Horton-le-Sands.
 - (5) Parish Hall, Coketham.
 - (6) Memorial Hall, Overton.
- The following clinics are administered by the North Lane and South Westwood Hospital Management Committee:
- (1) Tuberculosis—Boscawen Hospital, Lancaster.
 - (2) Venereal Diseases—Social Treatment Centre, Royal Lancaster Infirmary.
- (c) Hospitals.
- Infectious Diseases:—Boscawen Hospital, at Squire Road, Lancaster.
- Other Cases:—The Lancaster Royal Infirmary, The Queen Victoria Hospital, Moor Road, Lancaster. Moor Hospital, Royal Albert Hospital, Lancaster.

(a) **Laboratory Facilities.** The bacteriological examination of milk, water, ice cream and foodstuffs, as well as of specimens of faces, nose and throat swabs, etc., from individual patients is carried out at the Public Health Laboratory at Preston. Chemical analysis of water, milk and foodstuffs, under the Food and Drugs Act 1955 is carried out by the County Analyst, Dr. Walker.

(b) **Ambulance Facilities.** Ambulance Services are administered by the Divisional Health Office of the Lancashire County Council, Health Division No. 2; Lancaster; the telephone number of the ambulance station is Broughton 2678.

(c) **Domiciliary Services.** The services of District Nurses Midwives, and Home Helps, to look after patients in their own homes, are provided by the Lancashire County Council, acting as the Local Health Authority. These services for the Lancaster Rural District are administered from the Divisional Health Office at Slyne Road, Lancaster. Lancaster 2392.

(d) **Treatment Centres and Clinics.** The following Centres and Clinics catering for the area have been established by the Lancashire County Council:—

School Clinics:

- (1) Market Street, Carnforth.
- (2) Ashton Road, Lancaster.
- (3) Ryelands House, Lancaster.
- (4) Euston Road, Morecambe.

Child Welfare Centres:

- (1) Memorial Hall, Hest Bank.
- (2) The Village Institute, Galgate.
- (3) Gaskell Memorial Hall, Silverdale.
- (4) Congregational Church Hall, Bolton-le-Sands.
- (5) Parish Hall, Cockerham.
- (6) Memorial Hall, Overton.

The following clinics are administered by the North Lancs. and South Westmorland Hospital Management Committee:—

- (1) Tuberculosis—Beaumont Hospital, Lancaster.
- (2) Venereal Diseases—Special Treatment Centre, Royal Lancaster Infirmary.

(e) **Hospitals.**

Infectious Diseases:—Beaumont Hospital, at Slyne Road, Lancaster.

Other Cases:—The Lancaster Royal Infirmary, The Queen Victoria Hospital, Morecambe, Lancaster Moor Hospital, Royal Albert Hospital, Lancaster.

PREVALENCE OF, AND CONTROL OVER
INFECTIOUS AND OTHER DISEASES

TABLE 5. CASES OF INFECTIOUS DISEASE NOTIFIED DURING 1970

NOTIFIABLE DISEASES	Total cases at all ages	AGE PERIOD — YEARS															25 and over	Age unknown	Total Deaths
		0-	1-	2-	3-	4-	5-	10-	15-	20-	25-	35-	45-	55-	65 and over				
Measles (excluding rubella)	78	2	15	13	9	7	28	2	1	NIL	1	NIL	1	NIL	NIL	NIL	NIL	NIL	
Dysentery	2	NIL	1	NIL	NIL	NIL	NIL	NIL	NIL	1	NIL	NIL	1	NIL	NIL	NIL	NIL	NIL	
Scarlet Fever	4	NIL	NIL	NIL	NIL	2	2	NIL	NIL	NIL	NIL	NIL	1	NIL	NIL	NIL	NIL	NIL	
Acute meningitis	1	NIL	NIL	NIL	NIL	NIL	NIL	NIL	1	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	
NOTIFIABLE DISEASES																			
	Total cases at all ages	AGE PERIODS — YEARS															65 and over	Age unknown	Total Deaths
Food Poisoning	2	NIL	NIL	NIL	NIL	NIL	NIL	NIL	2	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	
NOTIFIABLE DISEASES																			
	Total cases at all ages	AGE PERIODS — YEARS															25 and over	Age unknown	Total
Infective Jaundice	7	NIL	NIL	NIL	NIL	4	NIL	NIL	2	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	1	NIL
Tuberculosis — Respiratory	5	NIL	NIL	NIL	NIL	1	NIL	NIL	NIL	1	1	1	1	1	1	1	NIL	NIL	NIL
Other	1	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	1	NIL

TABLE 6. INCIDENCE OF CERTAIN INFECTIOUS DISEASES LANCASTER R.D., 1945-1969

YEAR or period of Years	Scarlet Fever	Diphtheria	Measles	Whooping Cough	Acute Polio- myelitis	Dysentery	Food Poison- ing	Resp. Tubercu- losis	Non-resp. Tubercu- losis	Tubercu- losis (All Forms)
Mean of 5 years 1945-49	7.0	2.4	37.6	11.0	0.6	Nil	Nil	9.2	3.0	12.2
Mean of 5 years 1950-54	9.8	0.2	61.4	19.0	1.2	1.8	6.0	9.0	3.0	12.0
Mean of 5 years 1955-59	5.8	Nil	107	8.4	0.4	1.0	1.2	7.2	1.8	9.4
Mean of 5 years 1960-64	6.0	Nil	80	5.2	0.2	3.3	0.4	4.2	1.8	6.0
Mean of 5 years 1965-69	6.2	Nil	105	1.2	Nil	5.8	0.4	3.0	0.6	3.6
1970	4	Nil	78	Nil	Nil	2	2	5	1	6

1. **Diphtheria and Scarlet Fever.**

No cases of diphtheria have occurred in the area since 1950. To maintain this satisfactory position, it is still essential for parents to ensure that their children are immunised in early infancy against this once dreaded disease.

Four cases of scarlet fever were notified during the year, all of a minor nature only.

2. **Measles and Whooping Cough.**

78 cases of Measles were notified during the year. This infectious disease typically appears in alternate years, as can be seen in Table 6. Although vaccination against Measles is now available, there were setbacks in its distribution in 1968 and 1969, so this high figure was not unexpected. Measles must be taken seriously. It not only has a definite mortality rate, but can leave children with a variety of disabling conditions.

No cases of whooping cough were notified in 1970, the second clear year. As will be seen from Table 6 this disease is becoming less common and also less severe in nature since pertussis vaccine came into regular use. By means of a triple vaccine children can be immunised against diphtheria, whooping cough and tetanus simultaneously and oral poliomyelitis vaccine can be administered at the same time.

3. **Dysentery and Food Poisoning.**

Once again very few of these illnesses were notified. In an area such as ours with holiday camps, caravan and camping sites, food hygiene is one of our great concerns. Should a severe outbreak ever occur, it could have serious effects on the tourist industry for many years, apart from the effects on the patients.

4. **Tuberculosis**

Five new cases of respiratory tuberculosis were notified in 1970. No deaths were ascribed to this disease.

Since 1957 vaccination against tuberculosis has been carried out on school leavers after routine tuberculin skin testing. About 80% of children were vaccinated in their 13th year of age, each year.

5. **Brucellosis.**

In rural areas a considerable proportion of all milk retailed is still sold as raw milk and the prejudice against pasteurised milk remains very strong. The detailed investigation of milk herds for the detection of individual animals infected with *Brucella Abortus* has again been conscientiously carried out by your public health inspectors. In the course of the last eight years this infection has been detected in 91 cows in Lancaster Rural District so that the risk of drinking raw milk from herds in this area cannot be treated lightly.

Although in the meantime pasteurisation of milk is the only safeguard to the consumer, the scheme introduced by the Ministry of Agriculture Fisheries and Food in July, 1966 has led to the establishment of *Brucella* free herds. A most gratifying number of such herds are in our District. Further to this, is the recent announcement that we are to be included in the first brucellosis eradication areas, next year.

6. **Trend of Incidence of Infectious Disease, 1945-1970.**

Table 6 shows the average number of cases of infectious diseases notified in quinquennial periods from 1945.

7. **Immunisation and Vaccination Schemes.**

Under the National Health Service a comprehensive free service for immunisation and vaccination of the public is available. Protection against diphtheria, whooping cough, rubella, measles, tetanus, poliomyelitis, smallpox, and tuberculosis is available at the school clinics and child welfare centres. This service is also available from family doctors, except for vaccination against tuberculosis.

Whilst on the whole the local response to these various preventative measures has been fairly well maintained, there is still much room for improvement.

Number of children resident in the area protected during 1970 against Diphtheria, Whooping Cough, Tetanus Polio myelitis, and Measles

	PRIMARY — BY YEAR OF BIRTH						RE-INFORCEMENT — BY YEAR OF BIRTH					
	1970	1969	1968	1967	1966 1963	Others under 16 Total	1970	1969	1968	1967	1966 1963	Others under 16 Total
Children protected against:—												
Diphtheria	10	117	31	2	7	—	2	33	4	176	7	222
Whooping Cough	10	105	25	2	2	—	2	18	2	7	1	30
Tetanus	10	117	31	2	7	0	2	34	4	177	34	251
Polio myelitis	4	112	45	2	13	—	2	8	1	158	35	204
Measles	—	45	63	14	21	17	—	—	—	—	—	—
Rubella	—	—	—	—	—	12	—	—	—	—	—	—

SANITARY CIRCUMSTANCES
OF THE DISTRICT.
ANNUAL REPORT OF THE
CHIEF PUBLIC HEALTH INSPECTOR

Annual Report of the Chief Public Health Inspector upon the Sanitary Circumstances of the District

HOUSING

Completed Council Housing Schemes.

The Council's completed housing schemes provide accommodation as detailed below:—

Bolton-le-Sands	74 houses, 20 flats, and 10 bungalows.
Cockerham	10 houses.
Ellel	140 houses, 8 flats, 4 shops and houses and 10 bungalows.
Heaton-with-Oxcliffe	4 houses.
Middleton	56 houses and 2 shops and houses.
Overton	16 houses.
Over Wyresdale	4 houses.
Priest Hutton	4 houses.
Scotforth	4 houses.
Silverdale	26 houses, 8 flats, and 6 bungalows.
Slyne-with-Hest	77 houses, 6 flats, 1 shop and house, and 5 bungalows.
Thurnham	22 houses.
Warton	76 houses, 16 flats, and 10 bungalows.
Yealand Redmayne	28 houses, and 5 bungalows.

Total 541 houses, 58 flats, 7 shops and houses, and 46 bungalows.

Total number of all dwellings:— 652.

Current Council Housing Schemes.

At the end of 1970 there were no Council housing schemes either in hand or contemplated, there being at that time a total of 72 applicants for houses, flats or bungalows and 30 such applicants were housed during the year.

Private Buildings.

	1965	1966	1967	1968	1969	1970
Ashton-with-Stodday	1	1	NIL	NIL	NIL	NIL
Bolton-le-Sands	76	34	34	31	23	25
Cockerham	6	4	1	3	3	NIL
Ellel	28	30	24	11	2	2
Heaton-with-Oxcliffe	2	1	NIL	NIL	NIL	NIL
Middleton	1	NIL	5	5	NIL	1
Overton	25	28	1	1	6	NIL
Over Wyresdale	1	NIL	NIL	NIL	NIL	1
Priest Hutton	1	1	1	NIL	NIL	NIL
Scotforth	NIL	1	NIL	NIL	NIL	NIL
Silverdale	12	15	26	19	9	12
Slyne-with-Hest	64	38	24	19	7	9

Thurnham	.....	NIL	1	NIL	4	4	2
Warton	.....	64	44	20	11	12	8
Yealand Conyers	.....	NIL	NIL	NIL	NIL	1	NIL
Yealand Redmayne	.....	4	2	NIL	NIL	2	NIL

At the end of December, 1970, it is estimated that a further 53 properties were in the course of construction.

Inspections of Dwelling Houses.

Number of houses inspected under the provisions of the Housing Acts	.....	190
Number of inspections involved	.....	431
Number of houses found not in all respects fit	.....	19
Number rendered fit after service of Notice	.....	19
Number found to be unfit for human habitation	.....	NIL
Number demolished as a result of formal or informal action	.....	NIL
Number closed as a result of formal or informal action	.....	NIL

Overcrowding. Nothing can be added to what has been said in previous years, overcrowding no longer presenting a serious problem. It is likely, of course, that an isolated case will be discovered from time to time, and it is felt that such cases should receive high priority when a Council house in the locality becomes available for letting.

Slum Clearance

The Ministry of Housing and Local Government in Circular 92/69 dated the 24th November, 1969, requested all Local Housing Authorities to consider what they could and ought to be doing to clear remaining slums, and to inform him what their programmes for the next 4 years were to be.

It was felt that, having regard to the extent of which house owners in general in this District already have taken advantage of Improvement Grants, and the fact that, as far as can be ascertained, all dwelling houses within the District which have not so far been modernised, are worthy of improving, thus they cannot be regarded as slum property. Therefore a NIL return was made regarding any programme of action during the next 4 years. Any individual unfit house that may come to light will be dealt with as the law permits, by the serving of a Time and Place Notice in the first place.

Over 100 unfit houses have been dealt with formally under the provisions of the various Housing Acts since the War, and there can be no question that Improvement Grants have played an important part in the preservation of many dwellings, which otherwise would have been subject to demolition orders or closing orders.

Improvement of Houses

The increased rate of applications made for discretionary grants has persisted throughout the year, as predicted, whilst the rate for Standard Grants remains about the same as for 1969. As emphasized in previous reports, now that we are faced with the comparatively small hard core of houses not yet provided with standard amenities, further progress is largely limited to those houses where a change of occupancy has taken place, or changed family circumstances freeing a bedroom to be used as a bathroom. Taking these facts into consideration, the progress made during the year in this particular respect, can be regarded as reasonable and satisfactory.

The increased number of Discretionary Grants dealt with is an equally satisfactory trend, since most of these schemes include works of preservation, and thus they are directly concerned with the conservation of dwelling houses. Costs of such works are necessarily considerable, and therefore the amounts of the grants are also comparatively greater, but when the high costs of replacement houses are taken into consideration, and this is the only ultimate alternative to full improvement, then it is felt that such costs are more than justified.

The coming into operation of the Housing Act, 1969, brought new benefits to house owners in so far as, in respect of Standard Grants, the total normal maximum amount was increased from £155 to £200 per house and the higher limit Grants were increased to a maximum of £450 per house. These latter Grants are applicable in any one of the following circumstances :—

1. If it is necessary to provide a bathroom either by building an extension or converting an outbuilding.
2. If main drainage is not available and it thus becomes necessary to construct a septic tank.
3. If in order to carry out the Standard Improvement, it becomes necessary to provide for the first time a piped water supply.

As regards Discretionary Grants the statutory maximum was raised from £400 per house to £1,000 per house, although as you are aware, this Authority decided that the maximum Discretionary Grant would be raised to £600 per house. It should be mentioned

also, that for the first time, certain works of repair may be regarded as Grant earning, providing that the costs of repairs or replacements are not more than half of the total approved expense.

The following details summarise the applications for grants and the payments of grants during 1970.

1. Discretionary Grants.

Total number of applications received	35
Total number of applications approved	35
Total amount of Grants approved	£16,421
Average amount per dwelling	£469
Completed Discretionary Grant schemes	23
Total amount of Grants paid	£9,243
Average amount per dwelling	£402

2. Standard Grants.

Total number of applications received	19
Total number of applications approved	19
Schemes completed	21
Total amount of Standards Grants paid	£3,308
Average amount per dwelling	£157

Housing General.

It is estimated that there are now within the District approximately 6,339 inhabited dwellings compared with 6,279 at the end of 1969. Of these, there are 4,339 of there-abouts which have been built since the Great War, practically all of which are equipped with modern amenities such as bathrooms, hot water supplies and internal W.C.'s. Of the remaining 2,000 dwellings, it is estimated that there are now approximately 300 dwellings without these amenities. These latter are almost all stone built with the exception of the greater part of Millhead in the Parish of Warton and certain houses comprising part of Main Road, Galgate in the Parish of Ellel, which are brick built, so that it can be stated that they are almost all substantial buildings well worthy of improvement.

WATER SUPPLIES

The following Authorities supply water in the district:—

Lune Valley Water Board. Lune Valley Water Board supplies the parishes of Scotforth, Slyne-with-Hest, Bolton-le-Sands, Middleton, Overton, Ellel, Priest Hutton, Yealand Conyers, Yealand Redmayne, Silverdale, Warton and Heaton-with-Oxcliffe, and part of Ashton-with-Stodday.

Fylde Water Board. Supplies the parishes of Cockerham, Thurnham and part of Ashton-with-Stodday.

Part of the parish of Over Wyresdale is supplied by private mains which are the property of the Earl of Sefton.

Origin and particulars of Water. Lune Valley Water Board (the parishes of Scotforth, Slyne-with-Hest, Bolton-le-Sands, Middleton, Overton, part of Ashton-with-Stodday and Heaton-with-Oxcliffe). The water supplied in these parishes is either moorland water from the gathering grounds in Over Wyresdale, which is subjected to mechanical filtration and chlorination at Langthwaite and Scotforth filter houses before distribution obtained from the Thirlmere pipe line or abstracted from the River Lune. The Thirlmere water is from moorlands and of about 2 degrees of hardness, being subjected to rough screening and chlorination near its source. The only exception to the above detail is in respect of certain mains carrying raw water from either of the gathering grounds of the reservoirs, or from the reservoirs, to the filterhouse supplying Bailrigg Lane area in the same parish.

Lune Valley Water Board (parishes of Ellel, Priest Hutton, Yealand Conyers, Yealand Redmayne, Silverdale and a small part of Warton). This water is also obtained from the Thirlmere pipe line.

Lune Valley Water Board (Warton parish). The water supplied to the Warton parish is obtained from the Reservoir at Withets. The gathering ground is of a moorland nature but is liable to animal pollution. The board however provides an effective chlorination and filtration plant, and there is also a connection to the Thirlmere pipe line.

Fylde Water Board. This is also moorland water from the gathering grounds in the Pennine Range, and is subjected to chlorination and filtration before distribution.

New Services. During the year 60 services were laid to new dwellings. A mains supply is now provided to 6,248 dwellings, being about 98 per cent of all the dwellings in the district. The remaining 147 houses, etc., obtain supplies from other sources such as roof water, wells and springs.

WATER SAMPLES, 1970

Address	Source	Result	
January, 1970			
Manor Crescent, Slyne-with-Hest	L.V.W.B.	Highly	Satisfactory
Greenwood Avenue, Bolton-le-Sands	L.V.W.B.	Highly	Satisfactory
Yealand Road, Yealand Conyers	L.V.W.B.	Highly	Satisfactory
Victoria Terrace, Glasson Dock, Thurnham	F.W.B.	Highly	Satisfactory
Conder Green, Ashton-with-Stodday	F.W.B.	Highly	Satisfactory
February, 1970			
Dolphinholme Village, Ellel	L.V.W.B.	Highly	Satisfactory
Beech Avenue, Galgate, Ellel	L.V.W.B.	Highly	Satisfactory
Main Street, Cockerham	F.W.B.	Highly	Satisfactory
Conder Green, Ashton-with-Stodday	F.W.B.	Highly	Satisfactory
Main Street, Warton	L.V.W.B.	Highly	Satisfactory
Greenwood Avenue, Bolton-le-Sands	L.V.W.B.	Highly	Satisfactory
Yealand Road, Yealand Conyers	L.V.W.B.	Highly	Satisfactory
William Street, Millhead, Warton	L.V.W.B.	Highly	Satisfactory
April, 1970			
Manor Crescent, Slyne-with-Hest	L.V.W.B.	Highly	Satisfactory
Main Street, Warton	L.V.W.B.	Highly	Satisfactory
Yealand Road, Yealand Conyers	L.V.W.B.	Highly	Satisfactory
Greenwood Avenue, Bolton-le-Sands	L.V.W.B.	Highly	Satisfactory
Slyne Road, Bolton-le-Sands	L.V.W.B.	Highly	Satisfactory
William Street, Millhead, Warton	L.V.W.B.	Highly	Satisfactory
Manor Crescent, Slyne-with-Hest	L.V.W.B.	Highly	Satisfactory
Main Street, Warton	L.V.W.B.	Highly	Satisfactory
William Street, Millhead, Warton	L.V.W.B.	Highly	Satisfactory
Yealand Road, Yealand Conyers	L.V.W.B.	Highly	Satisfactory
May, 1970			
Conder Cottages, Ashton-with-Stodday	F.W.B.	Highly	Satisfactory
Main Street, Cockerham	F.W.B.	Highly	Satisfactory
Beech Avenue, Galgate, Ellel	L.V.W.B.	Highly	Satisfactory
Hall Grove, Middleton	L.V.W.B.	Highly	Satisfactory
Dolphinholme Village, Ellel	L.V.W.B.	Highly	Satisfactory
Main Street, Overton	L.V.W.B.	Highly	Satisfactory
Burrow Heights, Scotforth	L.V.W.B.	Highly	Satisfactory
June, 1970			
Dolphinholme Village, Ellel	L.V.W.B.	Highly	Satisfactory
Main Street, Cockerham	F.W.B.	Highly	Satisfactory
Victoria Terrace, Glasson Dock, Thurnham	F.W.B.	Highly	Satisfactory
Conder Green, Ashton-with-Stodday	F.W.B.	Highly	Satisfactory
Beech Avenue, Galgate, Ellel	L.V.W.B.	Highly	Satisfactory
Manor Crescent, Slyne-with-Hest	L.V.W.B.	Highly	Satisfactory
Oakwood Grove, Bolton-le-Sands	L.V.W.B.	Highly	Satisfactory
Yealand Road, Yealand Conyers	L.V.W.B.	Highly	Satisfactory
William Street, Millhead, Warton	L.V.W.B.		Unsatisfactory
Main Street, Warton	L.V.W.B.		Unsatisfactory
July, 1970			
Yealand Road, Yealand Conyers	L.V.W.B.	Highly	Satisfactory
William Street, Millhead, Warton	L.V.W.B.	Highly	Satisfactory

Address	Source	Result
Main Street, Warton	L.V.W.B.	Highly Satisfactory
Manor Crescent, Slyne-with-Hest	L.V.W.B.	Highly Satisfactory
Oakwood Grove, Bolton-le-Sands	L.V.W.B.	Highly Satisfactory
July, 1970		
Main Street, Cockerham	F.W.B.	Highly Satisfactory
Conder Green, Ashton-with-Stodday	F.W.B.	Highly Satisfactory
Beech Avenue, Galgate, Ellel	L.V.W.B.	Highly Satisfactory
Dolphinholme Village, Ellel	L.V.W.B.	Highly Satisfactory
Victoria Terrace, Glasson Dock, Thurnham	F.W.B.	Highly Satisfactory
September, 1970		
Main Street, Warton	L.V.W.B.	Highly Satisfactory
Main Road, Slyne	L.V.W.B.	Highly Satisfactory
Littlefell Lane, Scotforth	L.V.W.B.	Highly Satisfactory
Chapel Street, Galgate, 'Ellel	L.V.W.B.	Highly Satisfactory
Main Street, Warton	L.V.W.B.	Highly Satisfactory
Oakwood Grove, Bolton-le-Sands	L.V.W.B.	Highly Satisfactory
Yealand Road, Yealand Conyers	L.V.W.B.	Highly Satisfactory
Manor Crescent, Slyne-with-Hest	L.V.W.B.	Highly Satisfactory
Main Street, Warton	L.V.W.B.	Highly Satisfactory
Littlefell Lane, Scotforth	L.V.W.B.	Highly Satisfactory
Stainton Street, Millhead, Warton	L.V.W.B.	Unsatisfactory
October, 1970		
Oakwood Grove, Bolton-le-Sands	L.V.W.B.	Highly Satisfactory
Silverdale Road, Yealand Redmayne	L.V.W.B.	Highly Satisfactory
Manor Crescent, Slyne-with-Hest	L.V.W.B.	Highly Satisfactory
Main Street, Warton	L.V.W.B.	Highly Satisfactory
Conder Green, Ashton-with-Stodday	F.W.B.	Highly Satisfactory
Beech Avenue, Galgate, Ellel	L.V.W.B.	Highly Satisfactory
Dolphinholme Village, Ellel	L.V.W.B.	Highly Satisfactory
Main Street, Cockerham	F.W.B.	Highly Satisfactory
Victoria Terrace, Glasson Dock, Thurnham	F.W.B.	Highly Satisfactory
Stainton Street, Millhead, Warton	L.V.W.B.	Unsatisfactory
November, 1970		
Manor Crescent, Slyne-with-Hest	L.V.W.B.	Highly Satisfactory
William Street, Millhead, Warton	L.V.W.B.	Highly Satisfactory
Main Street, Warton	L.V.W.B.	Highly Satisfactory
Hall Grove, Middleton	L.V.W.B.	Highly Satisfactory
Main Street, Overton	L.V.W.B.	Highly Satisfactory
December, 1970		
Beech Avenue, Galgate, Ellel	L.V.W.B.	Highly Satisfactory
Main Street, Cockerham	F.W.B.	Highly Satisfactory
Victoria Terrace, Glasson Dock, Thurnham	F.W.B.	Highly Satisfactory
Conder Green, Ashton-with-Stodday	F.W.B.	Highly Satisfactory
Manor Crescent, Slyne-with-Hest	L.V.W.B.	Highly Satisfactory
Oakwood Grove, Bolton-le-Sands	L.V.W.B.	Highly Satisfactory
William Street, Millhead, Warton	L.V.W.B.	Unsatisfactory
Main Street, Warton	L.V.W.B.	Unsatisfactory
Main Street, Warton	L.V.W.B.	Highly Satisfactory
Silverdale Road, Yealand Redmayne	L.V.W.B.	Unsatisfactory
Silverdale Road, Yealand Redmayne	L.V.W.B.	Highly Satisfactory
Stainton Street, Millhead, Warton	L.V.W.B.	Highly Satisfactory

The laboratory reports upon samples of water taken from the area, supplied by the Fylde Water Board, once again, were all highly satisfactory. The same excellent results were obtained in respect of samples from the Lune Valley Water Board area, except as regards Warton and Millhead and areas supplied from the Thirlmere Pipeline, in both cases towards the end of the year.

As regards the Warton and Millhead supply, the Water Board agreed to increase the Chlorine dose, and subsequent samples proved to be satisfactory.

At the time of writing, it is understood that serious consideration is being given to the installation of a chlorination plant at each of the three draw-off points from the Thirlmere Aqueduct. viz:—Borwick Meter House, Welby Crag Meter House and Greenbank Meter House. Thirlmere Water is chlorinated near its source, and at present, receives no further treatment, so that the advisability of implementing this proposal is obvious.

It is pleasing to report that 32 premises in Scotforth Parish, including the 4 Council Houses at Langthwaite Terrace, are now supplied with filtered water.

With regard to the lack of supply or shortage of supply to certain elevated properties in the Parish of Silverdale, particularly when some burst or other abnormal draw-off has occurred, the Lune Valley Water Board have made a start in earnest on the construction of a storage reservoir on Wallings Lane. This scheme, when completed, will ensure a constant supply to all properties, during such crisis periods as described above.

The latest information available in connection with this scheme is that it should be in commission early in the new year.

Assistance in Provision of Separate Water Services for Houses.

Section 96 of the Housing Act, 1964 gave power to a Local Authority, if they think fit, to give assistance in respect of the provision of a separate water service pipe for a house which has a piped supply of water from a water main, but no separate service pipe. Since this legislation became operative the following numbers of dwelling houses in the District have so benefited at an average cost of £20 per house, which qualifies for an average grant of £10 per house, on the basis of the grant being 50% of the final costs of the work, under normal circumstances.

1965	—	3 Dwelling Houses
1966	—	10 Dwelling Houses
1967	—	9 Dwelling Houses.
1968	—	8 Dwelling Houses
1969	—	2 Dwelling Houses
1970	—	7 Dwelling Houses
<hr/>		
Total	—	39 Dwelling Houses
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SEWERAGE AND DRAINAGE

The Public Health Department is indebted to the Surveyor for the following information relating to the methods of drainage and sewage disposal:—

Cockerham. Cockerham village and Housing site is sewered and the sewage treated by means of a septic tank and rotary filter. The effluent is pumped from the works via a 4ins. diam. rising main, direct to the tidal River Cocker. This method of disposal of the effluent was brought into operation in mid-January 1958. The Sewage Disposal Works at Cockerham, is seriously overloaded, and consistently produces effluents which have overall very polluting characteristics and is only tolerated by reason of the discharge being to tidal waters. It will be necessary eventually to extend the works, or alternatively reconstruct and enlarge each unit of the works.

Thurnham (Higher Thurnham). The sewage from the few houses in this hamlet is discharged into a number of separate tanks, the effluents eventually finding their way into drainage dykes. No complaints regarding pollution of the dykes have been received and no such pollution has been noted.

Thurnham (Lower Thurnham). This hamlet is sewered, and as far as can be ascertained, there is no treatment of the sewage prior to its discharge into a drainage dyke. Nevertheless, observations over a long period have not indicated that the contamination of the dyke is of anything but a minor nature. This opinion is agreed by the Lancashire River Authority inspector, and, at least for the present, there is no evidence to justify any action being taken against the owner of this private sewerage system.

Thurnham (Glasson Dock), and Ellel (Galgate). Glasson Dock is sewered by two separate systems and sewage is discharged crude into the sea via two outfalls.

Galgate is sewered and the sewage is conveyed by means of a long pipe discharging in the tidal portion of the River Conder at Conder Green.

In each instance the effluent is seriously polluting in character and the 9" diameter outfall from Galgate, laid to a very flat gradient, is inadequate for the flow. This sewer requires frequent attention and to facilitate maintenance four new manholes have been constructed on its length.

The ultimate form of development of Glasson Dock and Galgate requires determination before the final scheme for sewerage and sewage treatment can be designed.

Dolphinholme is sewered and the sewage treated by means of a septic tank near Common Bank Farm, and two rotary percolating filters and humus tank by the side of the River Wyre.

Dolphinholme Sewage Disposal Works. The final effluent has been of excellent quality, the River Authority's qualitative conditions of consent being complied with.

These were constructed during 1967 and it was then hoped that on site trenching of the humus sludge produced would prove to be a satisfactory means of drainage and disposal for a period of some years at least, and so avoid the cost of drying beds and removal. In practice the sludge did not dry and resulted in the available trenching area having been used and creating a morass which tended to be washed to the river in heavy rainfall. Matters are not helped by the site being a far-from-ideal location for evaporative drying of any sludge, and with gravel clarifiers being used the humus sludge containing a higher proportion of fines than would normally be the case. The position had to be corrected and during the year control has been achieved by using a sludge pump and tank on an old refuse vehicle chassis and removal by this means of the sludge to tip disposal.

Over Wyresdale. This Parish being of a scattered nature (1 person to 45 acres) has no drainage system, and no pollution has been found.

Middleton. Most of the developed part of this Parish is now sewered. All sewers from the village drain to the pumping station near Garden Terrace, which ejects the sewage through a rising main and gravity sewer to the sewage treatment works at Middleton Tower Holiday Camp. These works were acquired from the Holiday Camp and adopted as a public sewage disposal works in May 1946.

The effluent from these works, together with some storm water, is pumped via a 6in. diameter rising main into the 18in. diameter sea outfall pipe of an adjoining factory under a terminable agreement, which limits the daily maximum volume of discharge.

The design work is in hand, together with arrangements to purchase the land required for the settling tanks, plus a sufficient area to accommodate a full treatment plant being agreed. Pumps and rising mains are to be in permanent installation and will be eventually linked to permanent treatment plant, irrespective of location, but the settling tanks are a temporary provision and will be designed to provide a controlled discharge satisfactory to the Lancashire River Authority to the dyke system at Overton. If possible, however, these settling tanks will be designed for eventual use as storm water and emergency tanks.

The scheme will relieve the Middleton Works from the all year round pressure from both villages but temporarily retain the Holiday Camp on the Middleton Works during its 18 week season and enable investigations to proceed into possible separation of surface water from the foul sewers in the camp in view of the connection of this with the design of pumps and rising mains.

As in past years in heavy rainfall there has been overflowing of sewage at Garden Terrace Pumping Station, Middleton, and also in the vicinity of the treatment works, due to overloading of the pumps at these locations, and attention when such danger seems imminent is provided as a routine duty.

Heaton-with Oxcliffe. All the dwellings in this Parish are separately drained into some form of septic tank, usually provided with a filter compartment. In most cases, however, the only means of disposal of the effluent is by discharging into the open drainage dykes, as the land is far too heavy to allow effective soakage. Furthermore, owing to the level of the water in the dykes, proper downward filtration is rarely possible, and the filter beds mostly are submerged, and merely acting as mechanical filters. As a result, the dykes are frequently silted up with humus and require constant attention from the many owners involved in order to maintain them in a reasonable condition.

As the above conditions cause serious concern to the Council and the Pollution Division of the Lancashire River Authority, and are aggravated in certain combinations of rainfall and high tide, when Oxcliffe Dyke cannot freely discharge to the River Lune, the following proposals are under consideration with a hope of collaboration by the Borough of Morecambe and Heysham in an endeavour to improve the situation.

1. Pump control, possibly by screw pumps, of Oxcliffe Dyke to lift all water above a pre-determined level over the breast wall when the tidal flaps are closed, the operation level to be set to safeguard the affected properties.
2. Instead of all roof water going into foul sewers and so increasing sewer sizes and also having to be pumped at all times, and only road water going to Oxcliffe Dyke, in the large areas off Westgate now with outline approval, all to go to Oxcliffe Dyke other than an allowance of roof water for flushing the foul sewers if considered necessary.
3. Resulting from the reduced flow in the Westgate foul sewers by the acceptance of (2), the possibility of discharging to these sewers the small volume of foul sewage from existing properties and the very minor area considered for further development in the Rural District in this vicinity.
4. The possibility of the pumping station in (1) being paid for by all developers who add any surface water in future to Oxcliffe Dyke.

Despite protests made against large scale development which would increase surface water run-off to Oxcliffe Dyke being permitted in the Westgate area of Morecambe and Heysham, approval has been given for further building to be proceeded with/without control conditions on Oxcliffe Dyke, in a manner such as detailed above being imposed. In connection with this it is of interest that in Circular 94/69 dated the 12th December, 1969, the Ministry of Housing and Local Government expresses concern over this very problem of development being permitted with planning permission and creating problems of flooding in down-stream areas.

Overton. Most of the village is sewered, and the sewage is pumped to the Middleton treatment works, and all the above matters relating to proposals for Middleton apply to Overton.

No serious difficulties have been experienced in the sewage system for the village, and at Sunderland Point in this parish, there are a few private outfall pipes discharging direct into the tidal River Lune.

Scotforth. This Parish is also of a scattered nature (1 person to 8½ acres) and has no drainage system.

Ashton-with-Stodday. There is no sewage scheme for this Parish which has only 36 properties in it.

Slyne-with-Hest. The greatest part of this parish is sewered and the sewage is fully treated at the disposal works at Hest Bank. A good standard of purification is maintained, the effluent on analysis complying with the Lancashire River Authority's qualitative conditions of consent.

Some difficulty is experienced, however, in the drying out of primary sludge, this not being satisfactory after up to three months on some drying beds.

At Sunningdale Crescent pumping station the new submersible pump which was installed during 1969, has proved to be most efficient, and silently deals with the extremely large volume of infiltration and surface water which used to have both ejectors running continuously at times at this station and resulted in complaints about the noise.

The remaining ejector, now on relief and stand-by, is to be replaced with a second submersible pump to secure full reliability at the station, and work is in hand on this conversion.

Bolton-le-Sands. The greater part of this Parish is sewered, the sewage being discharged crude into the mill race channel on the tidal foreshore at the end of St. Nicholas Lane. This outlet is not up to the modern standards of sewage disposal, and during 1959 representations were made by the Lancashire River Board, regarding this discharge of crude sewage.

As a result of the Ministry's disapproval in 1961 of the scheme for a disposal works off St. Nicholas Lane, the Council decided to instruct the Consulting Engineer to prepare a joint sewerage and sewage disposal scheme for the parishes of Bolton-le-Sands and Warton and the Urban District of Carnforth.

The contract for this major scheme which includes gravity sewers, pumping mains, pumping stations and a new sewage treatment works sited at Crag Bank, Carnforth, was let to Messrs. C. V. Buchan & Co. Ltd., of Macclesfield, and the starting date for the works was the 1st October, 1968 with a programmed date for completion on the 30th September, 1970, but which will not be achieved before mid-1971 due to difficulties encountered during construction works.

In the Rural District the scheme provides for full modern treatment for sewage from 1,998 existing properties now discharging to tidal waters and 182 existing properties to be served for the first time. With future development within the area served by the scheme some 3,000 properties may ultimately be connected.

In the Parish of Bolton-le-Sands two new pumping stations will serve the Coastal Road properties, and one for the group of dwellings on the shore at St. Michaels Lane. The existing pumping stations at Rydal Road and Monkswell are adapted to the new scheme, and the combined flow from these five is collected at a major pumping station in St. Nicholas Lane from which up to 1,200 gallons per minute of sewage will be pumped to the treatment plant, wet weather flow in excess of this capacity being overflowed by gravity via a new 36 in. diameter outfall to the shore.

Excluded from connection are ten dwellings and four caravan sites having 58 water closets, these being located between the railway and the coast in the parish of Bolton-le-Sands and here the existing arrangement of septic tank treatment still continue.

Interesting features of the scheme included a crossing under the main railway and a canal crossing, a further canal crossing for incorporation in the works having been carried out in advance of this scheme.

Part of the works are also constructed in tunnel due to restrictions in deep openings on the the section of the A.6 at Bolton-le-Sands. Approximately 500 yards of 5 ft. 6 in. internal diameter tunnel, including about 200 yards on curve has been constructed and the tunnel lined out to 39 in. internal diameter.

Warton. The Millhead portion of Warton is sewered and the sewage disposed of to the Carnforth Works. The remainder of the Parish, with the exception of the Western end of Sands Lane, is also sewered and disposed of crude into the semi-tidal waters of the River Keer.

As mentioned above the sewage from this parish will be dealt with in the combined Bolton-le-Sands, Carnforth, Warton scheme. A brief outline of this scheme, as it affects the parish of Warton is as follows:—

An ancillary pumping station serves Sands Lane, and this flow together with the flow at present in the outfall sewer is collected at a pumping station at the rear of Gardner Road and

near the "Shovel Inn". At this pumping station there is separation of wet weather flows in excess of the capacity of the dry weather pumps, of which there are two, each capable of lifting 345 gallons per minute up to the new pumping station at Millhead which in turn comprises duplicate pumps, each capable of raising 1,500 gallons per minute up to the treatment works from Carnforth. Millhead and Warton.

The wet weather pumps at Gardner Road are in duplicate, and each is capable of lifting 6,000 gallons per minute of excess flows through a 21 in. diameter pipeline into the River Keer.

Yealand Conyers. There are no public sewers in this small Parish. The largest group of houses, are, however, drained into a septic tank with rotary percolating filter. No pollution of water courses takes place. Several cesspools are emptied by the Council at the request of the owners and the contents disposed of on the land.

Yealand Redmayne. The Housing Site and part of the village is sewered to a disposal tank, which drains into a duplicate system of land drains.

A new effluent disposal area was brought into use during 1955 and it would appear that what had become a very difficult problem before that date, has been successfully overcome.

Priest Hutton. There is no public drainage system for this Parish. All the property is drained into cesspools or septic tanks and filters.

All but four houses in this Parish have been provided with modern septic tank drainage systems, and pollution of the stream is now less evident.

Silverdale. The whole of Silverdale being built on solid rock, has no public sewers, with the exception of the systems draining the Council Housing Sites and a few properties adjoining. In the great majority of cases each house has its own Septic Tank or Cesspool, and regular arrangements exist for emptying the cesspools and disposing of the contents onto land. This arrangement in the past has proved very satisfactory but in recent years some concern has been expressed over the practise of disposing of Septic Tank effluents into surface water through the fissures in the limestone strata throughout Silverdale. As a result the University of Lancaster was asked whether an investigation into this matter could be of interest in connection with their field studies. The University has co-operated and their representative has promised to try to produce permeability grids which would give the rate and direction of percolation of sub-soil waters for the area.

If successful this information will be of immense value, particularly in relation to the remaining areas to be developed at Silverdale, and the enthusiastic help and assistance given by the University is greatly appreciated.

A most thorough preliminary report has been prepared and the remaining investigation should be completed by 1971.

GENERAL.

There are approximately 6,290 houses on the water carriage system, 4465 being connected to the sewers and 1,823 to septic tanks, cesspools, etc. There are also 50 houses which have closets other than water closets.

A new appointment has been made of Sewage Works Manager for the combined treatment works for Carnforth U.D.C. and the Parishes of Bolton-le-Sands and Warton at Crag Bank, and Mr. J. Hurst was the successful applicant.

Grant aided improvement works continued to add to the number of closet conversions carried out during 1970. Thus, by the year end 5 such conversions had been completed, all of which involved the construction of a septic tank system of sewage disposal.

DRAINAGE INSPECTIONS.

(a) **New Drainage.** 122 visits of inspections of new drainage work and proposed drainage work were made during the year, all these visits being concerned with septic tank drainage or trial holes in connection with proposed septic tanks, the supervision of which remains the responsibility of this Department.

(b) **Existing Drainage.** During the year, the assistance and advice of a Public Health Inspector was requested on 227 occasions when some defect in the drainage arrangements of a particular house or other property was causing a nuisance. These visits were apart from the many occasions when similar troubles were attended to by Public Health Department Workmen as routine duties. Once again I pay tribute to the skill and loyalty of these hard working servants of the Council.

REFUSE COLLECTION AND DISPOSAL

Generally speaking, throughout 1970, in spite of factors which acted disadvantageously towards the successful management of a Refuse Collection and Disposal Service, I think it can be

correctly stated that there were fewer complaints received than for many years. Doubtless, this was due largely to the successful operation of the bonus scheme, which is now applicable to all Refuse Collectors and the Tip Attendant.

The factors which acted adversely against the scheme were firstly the lack of a reserve collection vehicle for a considerable part of the year, secondly the overtime embargo which was enforced by the Union for a month or so prior to recent wage settlement and thirdly shortage of manpower, brought about by the flu epidemic during the early part of the year.

Another new vehicle, a twin to that purchased during the previous year was brought into use at the beginning of June and intended to serve the southern Rural Round. This vehicle, a Karrier "Bantam" Dual-Tip Junior model with packer plate, is excellent on such a round, it having a turning circle of 32 ft. an overall width of 6ft. 10 in., a maximum height of 8 ft. 9 in., and a loading capacity of 12 cubic yards, which is equivalent to approximately 170 bins.

Requests have increased during the year for special collections of disused furniture, household equipment, etc., which are too big to be placed into dustbins but which nevertheless, the householder can dispose of in a proper manner, either by informing this department or ringing Smith Green Depot direct—Galgate 397. These facilities which have been provided since the coming into operation of the Civic Amenities Act 1967, have brought about a noticeable improvement in the matter of illegal dumps being created, although there are still the occasional offenders in this respect. One such case concerning an abandoned car was successfully prosecuted during the year, a fine of £20 and costs were awarded.

During 1970, the much improved conditions at Cote Stones Tip, Warton, which is by far the largest tip operated by this Authority, were maintained and fingertipping has been successfully continued. At this tip a W.C. has been installed at the canteen in place of the dry lavatory which was previously in use. The other small tips in the District viz Parkside Tip, Ellel; Mainstones Quarry Tip, Ellel and Sunderland Point Tip have been as reasonably maintained as circumstances will allow, fingertipping being practised at the latter two tips.

SANITARY INSPECTIONS (excluding visits made in connection with Housing Act matters as detailed on Page 24.)

Premises visited or purpose of visit	No. of visits
Houses, Public Health Act matters	431
Re Water supplies	94
Re Drains and Sewers	349
Re Infectious Disease	44
Caravan Sites	126
Factories and Workshops	51
Ice Cream Premises	110
Milk Samples	59
Other Food Premises	284
Shops Act Inspections	13
Visits re Offices, Shops and Railway Premises Act 1963	59
Miscellaneous Visits	776
Total number of Visits	2,396
Number of defects or nuisances discovered	175
Number of defects remedied or nuisances abated	177
Number of Informal Notices served	101
Number of Formal Notices served	2
Legal Proceedings	1

CARAVAN SITES

Licensed Caravan Sites within the District again gave very little trouble to this Department in their supervision. There are now 18-Caravan Sites of more than 5-Caravans, involving a total of 1,762 Caravans, all these Sites being licensed under the Caravan Sites and Control of Development Act 1960, and subject to the Council's 1960 Conditions, based upon the model standards issued by the Minister. In addition to these there are 19-Sites of 5-Caravans or less, involving a further 56-Caravans, which have been granted licences subject to the reduced standards, so that the total number of caravans that can be accommodated on licensed sites in the District is now 1,818.

By far the greatest caravan problem was shared by this Authority, Lancaster Corporation and Morecambe and Heysham Corporation, this being the greatly increased number of "Gipsy" type Caravans, mostly on land jointly owned by the two Corporations and being developed as an Industrial Estate in the Parish of Heaton-with-Oxcliffe. During previous years the maximum numbers of such caravans involved being 3 or 4, these

only for a short period—perhaps a week or so—before and after Appleby Fair, but for almost 2-months of the summer of 1970 the average number increased to 15 or thereabouts, and at one time there were over 2-dozen caravans with their Attendant and varied vehicles. It is emphasised that such numbers and such duration of stay have certainly not been normal to this District in any previous year and, upon interrogation, many of the occupiers admitted that they had been turned off land in various Lancashire Boroughs, notably Preston. The true Romany Gipsy who has created little trouble or cause for complaint in the past, forms an almost insignificant minority of the present day itinerant population who are mainly tinkers in every sense of the word. The amount of litter and debris created and left behind by these people has to be seen to be believed. Whilst it is agreed that some provision should be made for the true Gipsy, the reluctance shown by Local Authorities throughout the Country to cater for these Tinkers, is well understood having regard to their behaviour last summer in this locality.

Details of the main sites licensed are given below:—

Name of site	No. of Caravans Licensed
Ocean Edge Park Caravan Site, Middleton	631
	(501 in Lancaster R.D.)
Morecambe Lodge, Bolton-le-Sands	186
Shorefields Caravan Site, Middleton Sands	140
Cockerham Sands Caravan Park, Cockerham	240
Scout Crag Caravan Site, Warton	145
Vickers Holiday Camp, Heaton-with-Oxcliffe	90
	(In Lancaster R.D.)
Old Glasson Farm, Thurnham	75
Bolton Holmes Farm, Bolton-le-Sands	64
Red Bank Farm, Bolton-le-Sands	38
Detron Gate Farm, Bolton-le-Sands	60
Bottomdale, Slyne	34
Bottoms Farm, Silverdale	15
Shorefields, Slyne-with-Hest	15
Glen Cottage, Green Lane, Heaton-with-Oxcliffe	14
Sandside Farm, Bolton-le-Sands	34
Bank End Farm, Cockerham	30
Ovangle Farm, Heaton-with-Oxcliffe	25

SCHOOLS.

Further progress and modernisation achieved during the year in question is summarised below:—

1. **Bolton-le-Sands Church of England School.** Phase 2 of the building programme comprising the main hall and kitchen having been completed during 1969, phase 3, which entails the addition of 2 new classrooms was commenced during 1970 and it is anticipated that this work will be completed around midsummer 1971.

2. **Priest Hutton School.** Work is now in an advanced state on the provision of indoor toilet accommodation, which it is expected will be completed for use early in 1971.

3. **Archbishop Hutton School, Warton.** The first part of the new School intended for the infants section was completed and occupied during 1970.

4. **Yealand Redmayne Church of England School.** Two internal W.C.'s and 2 drinking fountains have been provided at this school during the year.

5. **Slyne-with-Hest Church of England School.** Approval has been given for a scheme to provide one additional classroom at this school but it is fast becoming still more overcrowded, and application has been made for the scheme mentioned above to be increased to the provision of 2 additional classrooms. Such schemes, when approved, come up for bi-annual review when the priority of the work is decided. It is to be hoped that such important amenities in a fast growing area will not be delayed too long before the final go-ahead is given.

Swimming Baths. There are no public swimming baths in the district, but one is privately owned. This is at Middleton Tower Holiday Camp. There is continuous circulation of water at this bath, and a recently renewed chlorination plant.

Two samples of this bath water were taken during the height of the season and the results were in each case satisfactory.

Smoke Abatement. There are seven factory and works chimneys in the district (excluding Messrs. Trimpell Ltd., and I.C.I. Ltd.) and no action has been necessary regarding smoke abatement.

Offensive Trades. There are no offensive trades carried on in this district.

Common Lodging Houses. There is no Common Lodging House in the District.

Underground Sleeping Rooms and Houses Let in Lodgings. There are none in the district.

Shops and Offices. As from April, 1956, the routine inspection of premises under the provisions of the Shops Act, 1950, on behalf of the Lancashire County Council, was undertaken by the Council. Thus, in addition to matters dealt with directly, such as sanitary accommodation, ventilation and temperature, enquiries were made concerning the employment of young persons. During 1970, 13 such inspections and enquiries were carried out. By far the greater number of shops in the District are entirely family businesses with living accommodation attached to the business premises, and not involving the employment of any person other than members of the family.

Offices, Shops and Railway Premises Act 1963. Most of the provisions of the Offices, Shops and Railway Premises Act 1963 came into operation on the 1st August, 1964. From that date, the owner or occupier of any such premises was legally responsible for maintaining them in accordance with the standards laid down by the Act and the various regulations made under the Act. The standards referred to include the cleanliness, ventilation, sanitary conveniences, washing facilities, lighting, drinking water, storage of clothing, seating accommodation, the guarding of dangerous parts of machinery, the provision of first-aid box, working space, temperature, and fire precautions. The general provisions of the Act, other than fire precautions, are administered by the Local Authority except premises normally administered by the Factory Inspector and certain other exceptions.

During 1970, four additional premises were registered under the Act bringing the total number of registered premises at the year end to 78, 65 of which received a general inspection. Copies of all these application forms have been forwarded to the Fire Authority.

FACTORIES ACT, 1961.

Prescribed Particulars on the Administration of the Factories Act, 1961.

Part VIII of the Act

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

Premises (1)	Number On Register (2)	Number of			Occupiers prosecuted (5)
		Inspections (3)	Written notices (4)		
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities.	5	5	Nil	Nil	Nil
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority.	63	39	Nil	Nil	Nil
(iii) Other Premises in which Section 7 is enforced by the Local Authority (excluding out-workers' premises)	Nil	Nil	Nil	Nil	Nil
Total	68	44	Nil	Nil	Nil

2—Cases in which DEFECTS were found.

(If defects are discovered at the premises on two, three or more separate occasions they should be reckoned as two, three or more "cases.")

Particulars (1)	Number of cases in which defects were found				Number of cases in which prosecutions were instituted (6)
	Found (2)	Remedied (3)	Referred To H.M. Inspector (4)	By H.M. Inspector (5)	
Want of cleanliness (S.1)	Nil	Nil	Nil	Nil	Nil
Overcrowding (S.2)	Nil	Nil	Nil	Nil	Nil
Unreasonable temperature (S.3)	Nil	Nil	Nil	Nil	Nil
Inadequate ventilation (S.4)	Nil	Nil	Nil	Nil	Nil
Ineffective drainage of floors (S.6)	Nil	Nil	Nil	Nil	Nil
Sanitary Conveniences (S.7)					
(a) Insufficient	Nil	Nil	Nil	Nil	Nil
(b) Unsuitable or defective	Nil	Nil	Nil	Nil	Nil
(c) Not separate for sexes	Nil	Nil	Nil	Nil	Nil
Other offences against the Act (not including offences relating to Out-work)	Nil	Nil	Nil	Nil	Nil
Total	Nil	Nil	Nil	Nil	Nil

Part I of the Act.

Out-work — None in the District.

(Sections 133 and 134)

INSPECTION AND SUPERVISION OF FOOD.

All samples for bacteriological examination are sent to the Public Health Laboratory at Preston.

MILK. The systematic programme of sampling of milk distributed throughout the District was maintained during 1970

A summary of the results of the various tests and examinations carried out during the year is given below:—

(a) Raw Milk.

1. Tuberculosis Biological Tests

No. of Samples	NIL
No. Positive	NIL
No. Negative	NIL

2. Methylene Blue Reduction Test

No. of Samples	38
No. Satisfactory	31
No. Unsatisfactory	7

(b) Heat Treated Milk

1. Phosphatase Test

No. of Samples	10
No. Satisfactory	10
No. Unsatisfactory	NIL

2. Methylene Blue Reduction Test

No. of Samples	10
No. Satisfactory	10
No. Unsatisfactory	NIL

3. Turbidity Test

No. of Samples	1
No. Satisfactory	1
No. Unsatisfactory	NIL

Repeat samples were taken of all unsatisfactory samples and two of these again were found unsatisfactory and were referred to the Milk Officer of the Ministry of Agriculture, Fisheries and Food.

Under the provisions of the Milk (Special Designation) Regulations 1960, which came into operation on the 1st October, 1960, all dealers' licences, other than those issued by the Minister, are issued by the Food and Drugs Authority for the area, i.e. The County Council. The registration of dairies other than Dairy Farms and of distributors of milk remains the responsibility of the District Council. There are in all 39 distributors of milk operating in the district, of which 17 are producer retailers, 12 are dairymen operating from premises in the district, 3 are shopkeepers in the district and 7 are distributors operating from premises outside the district.

For the second year in succession it was only found necessary to take individual cow samples from 1 herd following an adverse report upon a sample of the bulk supply. In point of fact, the infected animal had already been removed from the herd and all the samples taken were reported negative. The retail herds within the District were quite heavily sampled in-so-far as 38 samples were taken by the Authority as stated above and 32 were taken by the Lancashire County Council in addition to which quite a number of samples were taken by the Lancaster Corporation and Morecambe and Heysham Corporation. This is surely real evidence of the effects of the publicity given to the subject of brucellosis and the brucellosis eradication campaign that was started in 1967. In this latter respect it is very gratifying to report that to date 83 herds out of a total of 228 dairy herds had been notified to this Department as having been registered as accredited herds under the Scheme.

I give below a brief tabulated version of the results of brucellosis investigations carried out within this District for the years 1963 to 1970:—

Year	Number of cows discovered secreting infected milk	Number of Herds involved	Number of samples of milk from individual Cows which were required to be taken
1963	3	3	156
1964	35	9	275
1965	17	6	219
1966	16	6	343
1967	9	4	168
1968	11	6	321
1969	NIL	NIL	16
1970	NIL	NIL	10

Ice Cream. 110 visits of inspection were made during 1970 of the 53 premises in the District registered for the sale of ice cream and 1 for its manufacture and sale. Three samples were taken for bacteriological examination during the year, all of which were reported Grade 1.

Meat Inspection. There was no meat inspection carried out in the District during 1970, the only Slaughterhouse, that at Cockerham, becoming totally disused during 1969.

SHRIMP PICKING. Shrimp Picking was carried out at 25 of the premises registered for this purpose during the year and 25 visits of inspection were made to such premises in use. In all cases it was found that the regulations which are applicable, were being observed and no action was necessary.

OTHER FOOD PREMISES

During 1970, 284 visits were made to the food premises within the Rural District, and once again no serious infringements of the Food Hygiene Regulations were found.

It has become quite obvious that discussions with shopkeepers and staff, that have been an important part of routine visiting in previous years, has quite clearly borne fruit. Most shopkeepers are now fully familiar with their equipment, such as fridges and frozen food counters which was not the case 2 years ago. Unfortunately, when this equipment was supplied to shops, it tended to give the general public a false sense of security, in so far as they were under the illusion that, when food was placed in a fridge, it was quite safe, and required no further attention.

As a result of this attitude, shopkeepers were questioned, and where necessary made aware of the need to (a) load the refrigerators correctly; (b) Rotate the stocks correctly; (c) Ensure that the refrigerator was in fact working at the required temperature. This first item was essential, as some types of display refrigerators were found to be working at a satisfactory temperature below the "load line" but if, due to ignorance, goods were placed above this line, the temperature frequently increased dramatically. This was often due to the fluorescent lighting fitted to the display section at the top of the refrigerator and the general room temperature of the store. Once these points were explained to the people concerned, they started to take much more care, and it is pleasing to report that it is now rare to find an overloaded refrigerator or a shopkeeper who is unfamiliar with the correct operation of his equipment. Another improvement in respect of shops throughout the District is the noticeable absence of dogs. About 18 months ago, cards were printed for display in shop windows requesting that "Dogs should be left Outside". When these were first distributed some shopkeepers, although very much in favour of this, were apprehensive of the effect on trade it may have from some customers. Nevertheless, they were persuaded to put up the notices, and it was found that the majority of customers took a very sensible attitude and left their dogs outside. This system is working very well, and now we get frequent requests from shopkeepers for replacement cards which are supplied on demand.

Finally, more and more shopkeepers are contacting the Public Health Inspector for assistance and advice, which, of course is welcomed, as it shows confidence in the Department's understanding of their problems. They are fully aware that advice gained before embarking on expensive alterations to premises or the purchasing of new equipment is of great benefit to all concerned.

List of Food Premises.

General grocers and provision dealers	45
Greengrocers and fruiterers	5
Fishmongers	1
Meat Shops	6
Bakers and confectioners	7
Fried fish shops	6
Shops selling mainly sugar confectionery, minerals, ice cream, etc.	10
Licensed premises, clubs, canteens, restaurants, cafes, etc.	56
Shrimp-pickers — outworkers	36

172

Adulteration. This part of food inspection is dealt with by the Lancashire County Council.

Bakehouses. There are now three bakehouses in the District situated, one each at Bolton-le-Sands, Hest Bank and Middleton. On the whole a good standard of general cleanliness is maintained.

Rodent and other Pests Control Work. The services of the Council Rodent Control Operator were again much in demand, as the figures below indicate.

Number of Domestic Premises treated for Rats during the year	119
Number of visits so involved	476
Number of Domestic Premises treated for Mice during the year	53
Number of visits so involved	212
Number of business or school premises treated for Rats during the year	15
Number of visits so involved	60
Number of business or school premises treated for Mice during the year	10
Number of visits so involved	40

The service to domestic premises is a free one but a charge has to be made for business and other premises.

In addition to this work, requests for assistance in dealing with wasps nests and other pests were made by 16 householders and this work, which was equally appreciated, entailed over 42 visits.

The various sewerage systems were test baited for rats, and once again I am pleased to report that the level of infestation was remarkably low. The refuse tips also were baited at least once a quarter, this work involving in all 16 treatments and 64 visits.

