

# RAINFALL AT Sunderland (Zoo Hospital)

80

Lat. \_\_\_\_\_ Lon. \_\_\_\_\_ County of Surrey

Rain Gauge, by \_\_\_\_\_ Observer S. A. E. Harris.

Wear 2

Diameter ....		8		8							
Height .....		8		8							
Altitude ....		109		109 T							
Year .....	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	MEANS.
January .....		1.91	.50	1.41	2.93	1.56	3.22	1.79	1.12		
February ....		3.33	.22	1.92	1.27	.86	.79	.46	1.03		
March .....		3.16	1.33	1.88	2.41	1.99	2.86	1.69	5.56		
April .....		.67	3.82	1.35	1.57	1.63	1.74	.53	1.40		
May .....		1.79	2.30	1.61	.81	3.93	2.40	1.34	.53		
June .....		1.05	3.11	2.69	.75	1.92	.81	.37	2.05		
July .....		2.67	4.69	3.96	3.40	1.38	4.82	1.20	6.46		
August .....		5.25	1.18	2.90	.49	3.25	1.40	1.92	1.96		
September ...		4.30	1.85	4.27	.92	2.56	1.55	5.48	1.45		
October ....		3.39	1.07	1.68	1.70	4.78	3.43	3.09	.53		
November ....		1.12	3.18	.99	1.79	2.29	2.81	2.82	3.80		
December ....		2.12	2.35	2.71	1.29	.86	3.56	3.39	.65		
TOTALS ....		30.76	25.60	27.37	19.33	27.01	29.39	24.08	26.54	NR	

1882 Gauge moved 20ft on April 1

wall 9ft high 27ft S

hospital 30ft " 90ft N.

1887 Bishopwearmouth Ch 500 yards SW

1889 No Reply

Monday Feb 10

# RAINFALL AT Sunderland Fever Hospital

Lat. \_\_\_\_\_ Lon. \_\_\_\_\_ County of Durham

Rain Gauge, by \_\_\_\_\_ Observer Dr. Harris  
H. Scumfeld m.d.

Wear 2

Diameter ....	8		5			5						
Height .....	0 8		1 - 0			1 0 5 0	1 0					
Altitude ....	109 T		105			105						
Year .....	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	MEANS.	
January ....	1.87	.85	2.01	1.68	1.85	3.90	1.03	1.62	1.06	2.53	1.840	
February ....	1.40	.03	1.98	2.50	2.40	1.14	.09	1.32	.79	.97	1.262	
March .....	1.88	4.12	1.44	.66	.72	2.22	1.88	2.75	1.49	1.79	1.895	
April .....	.51	1.67	1.04	.48	.54	1.32	.60	1.46	2.85	1.99	1.216	
May .....	2.19	1.51	2.05	1.33	2.53	.77	.87	1.22	1.11	3.48	1.706	
June .....	3.48	.33	2.71	1.35	3.84	1.39	1.02	2.51	1.40	2.58	2.061	
July .....	1.52	3.71	1.36	3.16	2.33	6.49	2.10	1.25	.36	2.47	2.475	
August .....	5.83	4.00	3.95	1.88	2.99	3.43	.94	3.60	.61	.92	2.815	
September....	1.79	1.84	2.88	1.57	.86	.41	1.93	2.45	1.01	1.83	1.657	
October .....	2.58	1.79	5.33	.92	4.22	4.69	5.65	1.21	2.97	2.62	3.198	
November....	3.56	2.07	1.46	3.24	.50	2.04	1.30	1.89	3.58	1.59	2.123	
December ....	1.41	2.87	1.51	1.47	1.37	2.08	3.78	1.27	1.14	3.59	2.049	
TOTALS . . .	28.02	24.79	27.72	20.24	24.15	29.88	21.19	22.55	18.37	26.36	24.327	

1890 Bishopwearmouth 500 yards SW  
 Wall 9 ft high 36 ft S  
 Hospital 30 " 81 " N

1896 St. Thomas Cl 100 yards N  
 Fountain 12 ft high 9 ft S





RAINFALL at Sunderland and Howley ParkCounty of DurhamObserver H. Remney Esq M.A.River Basin Wear 2

Rain Gauge, by \_\_\_\_\_

Diameter ...	5										
Height .....	10										
Altitude ...	105										
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	MEANS.
January ...	2.02	1.38	2.60	3.94	1.78	2.37	.65	3.06	2.00	3.20	
February ...	2.29	.93	2.18	.42	.84	3.03	2.04	.86	1.24	2.18	
March .....	.55	2.05	1.68	2.49	1.84	1.74	2.79	2.30	1.11	2.94	
April .....	1.75	1.27	.10	3.24	.60	.60	1.38	2.60	1.22	1.96	
May .....	2.37	1.01	2.22	2.48	1.18	1.60	2.06	2.83	2.02	1.06	
June .....	1.65	4.81	4.40	1.26	3.48	.43	1.90	.76	.57	1.23	
July .....	2.38	.67	3.77	.37	3.57	2.01	2.77	.75	4.29	1.45	
August .....	2.71	2.29	4.02	.80	2.04	2.06	2.71	5.74	1.16	2.57	
September ..	.57	2.02	1.67	2.54	1.65	1.81	1.49	1.22	4.99	1.23	
October ...	2.60	2.08	3.52	1.54	1.77	1.43	2.85	2.65	2.27	6.05	
November ..	2.71	3.78	1.78	1.12	2.92	1.86	2.73	1.61	1.00	4.86	
December ...	1.95	2.97	1.23	1.17	2.80	6.54	2.50	2.97	4.08	2.93	
TOTALS ...	23.55	25.26	29.17	21.37	24.47	25.48	25.87	27.35	25.95	31.24	
	2	2	2		2	2	2	2	2	2	

1912 5  
1914 4 *Mountain 8 ft high 12 ft SE*

Date.	Lat. N.	Long. W.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.
1914	54° 55'	1° 40' 2"	Sunderland Central	100 250 yds	NW	St Thomas	150 400 yds	N

RAINFALL at Sunderland Mowbray ParkCounty of DurhamObserver H. Penney Esq. M.D.River Basin Wear 2S. A. Stuart Neelathurait  
Medical Officer of HealthShawdon Rain Gauge, by N. 2.  
gauge of gal. iron  
fixed to wall } 18.26.

Diameter ...	5"											
Height .....	3.0			1.0								
Altitude ...	105											
Year .....	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930.	MEANS.
January ...	3.36	3.93	2.63	1.01	1.90	1.42	1.79	0.96	2.13	2.42	3.37	
February ...	.92	.14	2.14	3.33	1.18	2.49	2.07	0.67	.90	.74	1.42	
March .....	3.54	.71	1.51	1.33	1.03	1.48	.89	1.56	1.85	.14	1.93	
April .....	3.17	1.32	1.58	1.73	1.71	2.27	.82	1.37	.86	1.29	1.75	
May .....	3.62	2.29	.97	2.42	6.44	2.29	1.52	1.63	1.63	.89	1.17	
June .....	.61	1.52	1.59	.95	2.32	.03	2.80	3.71	4.01	1.69	1.64	
July .....	4.82	1.86	4.91	1.40	5.40	2.23	2.54	4.60	1.53	2.32	5.06	
August .....	1.69	5.30	2.52	3.46	2.33	2.73	2.30	5.35	3.02	2.41	3.95	
September...	1.26	.93	4.76	1.54	2.19	2.81	2.14	3.03	.81	1.07	3.18	
October .....	2.70	2.03	1.64	2.13	4.27	1.70	2.54	1.74	2.30	2.23	1.51	
November...	.82	2.86	.72	4.18	1.08	2.07	3.79	3.12	2.01	2.77	3.03	
December...	3.57	1.64	3.47	2.28	1.59	3.01	.53	3.02	1.17	2.26	2.36	
TOTALS...	30.07	24.53	28.44	25.76	31.44	24.53	23.73	30.76	22.22	21.23	30.37	

1921 B. gauge "checking" department & "allied to the reading too high" 19.11.22.  
 further 10 ft. high 20 yds. W.  
 then 10 ft. 10 ft. S.  
 10 ft. 15 ft. E.

1922 gauge moved 37 ft. Oct. 100 yds. SW. to new "Shawdon" bridge into use.  
 monument 60 ft. high 100 yds. SW.  
 then 10 ft. 50 yds. W.  
 10 ft. 50 yds. E.

Inspected 9.8.18.16. E. in iron fencing, 3 yds diameter + 4 ft. high,  
 of fence with 5 in. spaces, on grass plot to S of lake. Excellent exposure  
 natural syphon gauge working alongside.

Position of Station on reduced Ordnance Survey  
 Map, 2 miles to 1 inch Series

No. of Map

Reference No.

Date.	Lat. N.	Long. W.	Railway Station.	Distance from gauge	Direction from gauge	Parish Church.	Distance from gauge	Direction from gauge
1920	54° 55'	1° 5'	Sunderland	200 yds	NW	St Thomas	300 yds	N
1922			Central	350 yds	NW	-	450 yds	N

RAINFALL at Sunderland, (Mowbray Pk.)County of DurhamObserver Medical Officer of Health,River Basin Wear- 2.Type of Gauge London (T/A) (1926)Annual Average 25.6 in. based on 37 years obs. un-weighted. Period of average 1881-1918 Ref. S

716242/26.

Diameter	5.										
Height	1.0.										
Altitude	105.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	2.37	.65	1.72	1.70	2.32	2.38	2.39	1.89	3.74	2.14	
February	1.19	.71	2.16	.39	2.31	2.49	2.92	.83	1.48	2.22	
March	1.23	2.59	1.02	2.24	.58	1.77	3.22	.13	2.00	1.47	
April	3.01	1.02	.80	3.70	2.57	1.53	2.26	.14	.76	1.62	
May	2.28	4.20	1.14	.96	.97	1.64	2.75	2.83	1.08	1.19	
June	2.84	.98	1.86	1.85	2.17	2.64	1.82	2.48	1.57	1.35	
July	3.85	2.26	1.71	1.59	.36	2.50	2.67	2.51	2.70	6.88	
August	2.30	2.09	.99	3.28	1.71	2.65	1.78	1.37	2.01	1.41	
September	3.16	1.69	1.58	1.27	4.53	2.26	1.89	1.74	(1.20)	1.42	
October	1.21	3.14	3.69	2.90	3.35	1.37	1.87	3.05		2.47	
November	1.71	.92	4.16	2.25	3.09	2.46	1.93	2.34		3.04	
December	1.15	.61	1.90	3.42	2.29	1.54	5.48	2.72		2.36	
TOTALS	26.30	20.86	22.73	25.55	26.25	26.23	30.98	22.08	np. (imp.)	27.57	
	D.	D.	D.	D.	D.	D.	D.	D.		D.	

1931. War memorial 60' high 50 yds S.W. Tree 10' high 10 yds W. & SE  
Artificial Lake 15 yds. N.

1937

1940. gauge moved Jan. 2nd. 1940. 20 yds. E. War memorial 60' high 70 yds W.S.W. Tree 12' high,  
[15' East.]

Position of Station on reduced Ordnance Survey Map,  
1 mile to 1 inch Series

No. of Map.....

Reference No.....

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction from gauge	Parish Church.	Distance from gauge	Direction from gauge
1931.			central	380 yds.	N.N.W.	St. Thomas's	440 yds.	N.



Station No. 3550

RAINFALL at Sunderland (Mowbray Pk)

41

County of Durham

Observer Medical Officer of Health

River Basin Wear - 2

Type of Gauge Snowdon

Annual Average 25.6 in. based on 37 years obs. un-weighted. Period of average 1881-1915 Ref S

File No. 716242/26

Diameter	5"		025	725								
Height	1'0"			1								
Altitude	105'			41								
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	Means	
January	4.10	2.38	3.08	.72	4.75	1.66	1.32	6.78	.59	1.51		
February	5.90	1.73	.40	1.64	1.03	.49	2.14	.71	.38	2.52		
March	2.15	.78	.61	.75	.39	1.06	4.40	.58	1.18	.87		
April	0.99	.35	.73	1.83	1.19	1.30	2.36	1.41	1.30	1.65		
May	1.31	1.08	1.90	1.78	3.23	1.71	3.01	1.29	.52	1.82		
June	.84	1.01	1.67	2.26	(2.11)	3.57	1.87	4.51	.96	1.01		
July	1.37	3.16	2.42	3.13	(2.20)	3.68	2.77	1.19	1.57	4.31		
August	2.02	1.35	4.72	1.37	(4.63)	3.59	.32	4.77	7.89	6.42		
September	.63	3.22	3.30	5.18	2.08	3.56	1.55	2.27	.51	3.38		
October	3.77	2.45	1.60	3.34	2.34	.71	.27	1.33	2.59	.98		
November	2.84	.89	2.95	4.17	.42	3.24	1.93	1.54	3.00	4.44		
December	.18	1.78	1.14	1.17	1.02	2.41	2.12	1.92	2.08	4.52		
TOTALS	25.60	20.18	24.52	27.40	(25.39)	26.98	24.06	28.30	16.57	33.45		10

1941: - Max Hm. 60' high, 50 yds S.W. Time 10' high to g.d.w.

1945 June July &amp; Aug part catch - gauge stolen

1950 Ridge 6 ft. high 6 ft. S.W. 01604

26. add. for snow.

Position of Station on reduced Ordnance Survey Map,  
1 mile to 1 inch Series

No. of Map

Reference No.

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction from gauge	Parish Church.	Distance from gauge.	Direction from gauge.
1941			Central	380 yds	N.W.	St. Thomas's St. Paul's, 1950	440 yds	N.W.

BRITISH RAINFALL ORGANIZATION

Station No. 3550RAINFALL at Sunderland (Howley Park) (THORNHOLME) V.S.I. **51**County of Durham Observer Medical Officer of HealthRiver Basin Wear-2Type of Gauge SnowdonAnnual Average 25.6 in. based on 37 years obs. on-weighted. Period of average 1881-1915 Ref. S" " 25.26 " " 5 " " 1952-56 " " 1916-1950 " " 716.242/26File No. 716.242/26

Diameter ...	5"		025	725								
Height ...	1' 0"			1								
Altitude ...	130'			51								
Year ...	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	Means	
January ...	1.33	1.75	.91	2.56	1.79	3.39	1.61	1.42	2.86	4.77		
February ...	2.36	.68	2.21	1.83	2.14	1.73	1.50	3.71	.65	1.92		
March ...	3.33	1.24	.02	1.20	1.50	.61	1.07	4.01	.39	1.73		
April ...	1.18	1.52	2.24	.32	.77	.94	.45	1.73	1.40	.88		
May ...	4.23	1.37	1.54	2.25	1.57	.39	1.61	3.11	.42	1.92		
June ...	1.39	1.38	1.73	2.49	2.79	3.13	1.98	2.49	2.87	.27		
July ...	1.24	.85	2.53	1.85	.97	3.31	3.10	2.79	1.54	3.58		
August ...	4.37	1.69	4.50	4.51	.84	7.40	3.67	2.10	.53	2.28		
September ...	.82	4.02	1.12	1.91	.94	2.09	3.64	1.81	.55	1.98		
October ...	1.01	2.25	1.08	3.89	1.19	1.53	1.66	1.03	1.00	6.72		
November ...	4.82	3.33	.91	2.84	1.65	.92	1.05	.86	3.03	2.40		
December ...	2.49	2.68	.92	1.39	2.46	2.01	1.17	2.96	2.51	2.21		
TOTALS ...	28.57	22.76	19.71	27.04	18.61	27.45	22.51	28.02	17.75	30.66		
	D	D	D	D	D	D	D	D	D	D		

V.S.I. Gauge found 22.V. 733" SW of Howley Park.

Howley Park site badly off as new gauge is slightly less off site some years later. Sale uncertain probably -1954 916  
21.10.02

Position of Station on Ordnance One-Inch map :

No. of Map.....

National Grid Reference

N2(45) 392561

Date.	Lat. N.	Long.	Railway Station.	Distance Direction from gauge	Parish Church.	Distance Direction from gauge.
1951			Sunderland	2600' NE	St George's	880' E

Summary of Earlier Records from 10-year Sheets :

Record D, or d	1910-19	1920-30	1931-40	1941-50	1951-60
C 1952	✓	✓	✓ np 39	✓	
V but-13		V but d 27	✓	but d 44-45-	