

# RAINFALL AT *Woodford, Haggan Lane* **80**

Lat. \_\_\_\_\_ Lon. \_\_\_\_\_ County of *Essex*  
 Rain Gauge, by \_\_\_\_\_ Observer *W. B. Bryan Esq. C.E.*

*Len - 1.*

Diameter ....					8						
Height .....					1.0						
Altitude ....					176 <sup>+</sup>						
Year .....	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	MEANS.
January .....					2.16	1.14	3.48	1.10	.78	.80	
February .....					1.17	2.50	.47	.38	.62	1.39	
March .....					1.22	1.43	1.16	1.53	2.76	1.30	
April .....					1.10	1.74	1.08	1.05	1.96	1.50	
May .....					.60	2.75	3.69	1.48	.94	4.02	
June .....					1.90	1.49	.29	.71	2.94	2.73	
July .....					2.40	.57	2.27	.75	4.48	1.65	
August .....					.84	1.65	.64	1.54	4.13	1.52	
September .....					1.66	4.25	1.23	1.64	.68	1.73	
October .....					.80	3.12	2.00	.75	1.10	3.50	
November .....					1.37	2.76	2.65	2.96	4.00	.70	
December .....					2.69	.80	3.56	1.23	1.07	1.26	
TOTALS .....					17.91	24.20	22.51	15.15	25.46	22.10	

*Annual average rejected from London Survey as 1' too.*

# RAINFALL AT *Woodford Hagger Lane*

Lat. \_\_\_\_\_

Lon. \_\_\_\_\_

County of \_\_\_\_\_

*Essex*

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

 Observer *W.B. Bryan Esq C.E.*
*Sea - 1.*

Diameter ....	8	*										
Height .....	1	0										
Altitude ....	176	ft										
Year .....	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	MEANS.	
January ....	2.22	1.72	.47	1.49	2.67	1.61	.59	1.83	.68	2.26	1.554	
February ....	.77	.00	1.48	2.64	1.70	.10	.26	2.27	1.01	1.72	1.195	
March .....	1.48	1.46	1.07	.37	.97	1.46	2.61	3.03	1.13	.54	1.412	
April .....	1.28	.78	.98	.10	1.52	1.12	.38	1.34	1.36	2.50	1.134	
May .....	1.33	3.24	1.24	.51	1.61	.33	.26	1.12	2.10	1.34	1.308	
June .....	2.81	1.23	2.60	.64	1.77	.28	2.10	1.59	1.18	1.10	1.530	
July .....	4.95	2.70	1.34	1.87	3.36	3.34	1.17	.68	.64	1.40	2.145	
August .....	3.10	3.91	3.37	1.83	3.16	2.38	1.57	2.19	1.00	.47	2.298	
September ....	.59	.80	1.92	.69	.91	1.09	4.80	2.24	.38	2.22	1.564	
October .....	1.04	3.91	3.52	3.40	3.95	2.44	2.97	.56	3.12	2.28	2.719	
November ....	1.61	1.74	2.28	2.25	2.64	2.43	1.14	1.04	1.66	4.15	2.094	
December ....	.34	2.80	1.23	1.89	2.36	2.02	3.24	2.44	2.34	1.36	2.002	
TOTALS . . .	21.52	24.29	21.50	17.68	26.62	18.60	21.09	20.33	16.58	21.34	20.955	

*Annual Average (London Survey) Rejected as 1° low.*

# RAINFALL AT Woodford Haddon Lane

Lat. ....

Lon. ....

County of Essex

Rain Gauge, by .....

Observer W.B. Bryan Esq. Ch.

Sea - 1.

W. Blackburn Esq. Ch.  
Mal Water Board

Diameter ..	8										
Height ....	1008										
Altitude ..	176										
Year ....	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	MEAN.
January ..	2.55	.57	.69	1.94	2.09	1.12	3.91	.78	1.15	.62	1.542
February ..	3.89	1.16	1.25	.72	2.54	.83	1.91	1.10	1.52	.55	1.547
March ....	.62	2.14	1.63	2.16	1.72	3.01	.95	.87	1.94	2.55	1.759
April .....	.79	1.85	.35	1.85	.95	1.89	.52	3.46	2.52	1.68	1.586
May .....	1.03	1.43	2.85	1.93	.77	.77	1.74	1.81	1.48	1.41	1.624
June .....	1.79	.96	3.05	5.62	.71	3.37	2.20	1.47	2.21	3.65	2.503
July .....	1.38	1.94	1.39	6.64	2.22	1.59	.72	2.35	3.71	3.22	2.516
August ....	2.41	1.60	4.03	4.18	1.87	2.22	1.05	1.69	2.67	1.59	2.331
September ..	.75	1.59	.80	2.50	1.12	1.84	1.87	.83	1.73	2.15	1.518
October ....	1.80	2.36	1.39	6.27	1.40	1.02	3.10	2.48	1.52	3.83	2.517
November ..	1.79	.63	1.56	1.59	1.59	2.64	3.68	1.94	.76	.77	1.695
December ..	2.75	2.91	1.28	1.24	1.45	.71	2.03	3.49	1.66	2.61	2.013
TOTALS ..	21.55	19.14	20.27	36.64	19.45	21.01	23.68	22.27	22.87	24.63	23.151

*Annual Average (London Survey) Rejected as 1" low.*

+ Inspected

RAINFALL at Woodford Hagg LaneCounty of EssexObserver Met Water BoardBlackburn Cl.  
WoodRiver Basin Thames Lea 1Copper M.O. Rain Gauge, by StanleyTham.  $\left\{ \begin{array}{l} 8.10 \\ 8.00 \\ 8.06 \\ 8.02 \end{array} \right\} (8.06)$  glass correct except .015-.013

Diameter ...	8											
Height .....	0 8											
Altitude ...	176 ft											
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	MEANS.	TOTAL
January ...	1.38	1.33	3.20	2.55	.47	3.93	1.16	1.12	2.89	3.23		16.19
February ...	2.31	1.44	1.49	.74	2.20	3.03	3.10	.83	1.08	2.71		8.40
March .....	.90	1.74	2.66	1.93	4.11	.80	3.87	1.54	.88	2.95		7.72
April .....	1.31	1.40	.05	2.52	.70	.97	1.07	2.12	3.14	3.65		9.24
May .....	2.04	1.23	.95	1.26	1.88	2.95	1.77	2.82	2.45	.89		9.98
June .....	2.41	2.65	3.49	.30	1.38	1.25	1.92	1.57	.81	1.62		7.43
July .....	2.26	.42	1.22	1.81	1.26	4.14	1.93	3.55	6.09	1.78		5.92
August .....	2.06	1.37	4.23	1.76	1.16	1.49	5.02	4.11	1.37	2.32		13.35
September ..	.72	1.39	1.92	1.46	.80	1.68	.99	1.60	4.88	1.17		12.82
October ...	2.01	2.74	1.91	3.43	1.08	1.64	2.90	3.18	1.05	.66		8.64
November ...	3.09	3.24	1.52	2.31	2.92	2.42	4.45	1.53	1.95	1.42		7.79
December ...	2.93	3.97	2.66	.75	6.22	5.21	2.48	.85	2.35	3.25		9.35
TOTALS ...	23.42	22.92	25.30	21.12	24.18	29.51	30.66	24.82	28.94	25.15		8.93
	D	D	D	D	D	D	D	D	D	D		109.57

*Annual Average (London Survey) Rejected as 1" low.*+ Inspected cs. 19.XII.13 Perfect exposure in open level meadow, 100 yds E of Reservoir.  
Slight hole in funnel tube repaired

Date.	Lat. N.	Long. E	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.
	51.35.36	0.039	Woodthrust					



RAINFALL at Woodford, Hagger LaneCounty of EssexObserver W. H. Water BoardRiver Basin Thames

Northern District

8.07  
8.05  
8.06  
8.00Copper Ind Rain Gauge, by Stanley

Vial glass certified (Stanley)

new funnel and funnel X.25 glass certified

Diameter ...	8											
Height .....	8											
Altitude ...	176											
Year .....	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	<del>1930</del>	TOTALS
January ...	2.52	1.78	2.23	1.69	2.15	1.76	2.64	1.37	3.42	1.07	2.47	21.90
February ...	1.53	1.44	1.68	2.22	1.58	2.56	3.08	3.37	1.56	1.41	1.78	17.21
March .....	1.43	1.03	1.36	1.68	1.58	1.55	1.23	2.20	1.19	1.00	1.50	11.75
April .....	3.18	1.24	2.31	1.20	2.30	2.10	3.55	1.75	1.93	1.22	1.61	21.39
May .....	1.54	1.41	1.54	1.77	2.69	1.58	1.25	1.57	2.23	1.83	3.16	18.57
June .....	1.48	1.54	1.46	1.45	2.03	1.12	3.43	2.88	2.53	1.95	1.97	17.84
July .....	3.48	1.10	3.21	2.23	2.48	3.83	2.58	2.55	2.11	1.63	2.67	26.87
August .....	1.75	1.16	2.39	1.99	1.75	2.06	2.59	3.96	2.12	1.71	3.00	24.48
September...	3.38	2.20	1.71	1.10	2.13	1.95	1.32	4.47	1.54	1.41	2.81	22.02
October .....	1.19	1.75	1.76	3.97	2.36	2.50	2.22	1.40	3.36	2.68	1.08	22.27
November...	1.95	1.58	1.95	1.10	1.63	1.34	4.15	1.99	2.00	4.91	4.29	24.89
December...	2.18	1.88	2.12	1.60	2.04	2.53	1.42	3.00	2.31	4.03	1.99	23.10
TOTALS...	25.41	13.11	20.72	20.00	22.72	22.88	27.46	30.51	24.30	20.85	27.33	252.29

Inspected C.S. 2.11.21 everything in good condition. Position as before.

" F.W. 6.11.23. Satisfactory.

" G.S. 20.11.25 Excellent exposure. Some condensation occurs <sup>in gauge</sup> and the water in funnel can be measured as well as that in bottle.

Inspected 20.11.27 See green file

1929. Engine House 30 ft. high 205 ft. E.

Boiler House 20 " " 165 " E.

Sheds 70 " " 200 " N.E.

N.B. Annual Average (London Survey) Reported as 1" low.  
Average reworked 1927-1932 = 23.01 O.K.

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

No. of Map

Reference No.

Date.	Lat. N.	Long. East	Railway Station.	Distance from gauge	Direction from gauge	Parish Church.	Distance from gauge	Direction from gauge
1929	51° 35' 36"	0° 23' 39"	Woodb. Ely			St. Peter's	1/2 mi	S.

## RAINFALL at Woodford (Hagger Lane)

County of Essex Observer Mel. Water BoardRiver Basin Thames - Lea - 1.Type of Gauge                     Annual Average 23.0 in. based on 6 years obs. un-weighted. Period of average 1881-1915 Ref. S

853894/23

Diameter	8.											
Height	0.9.	1.0.										
Altitude	176.											
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Totals.	Means
January	1.34	1.47	1.27	1.50	1.51	1.03	3.38	2.85	5.29	2.62	2526	
February	1.93	2.0	1.02	1.1	1.97	1.25	4.25	64	90	1.41	1378	
March	1.18	1.35	2.08	2.03	1.36	1.15	2.84	34	1.33	3.09	1445	
April	3.30	2.07	77	1.92	2.87	1.17	2.66	12	2.57	1.56	1901	
May	2.54	3.24	1.70	1.47	1.16	1.15	3.02	1.73	1.61	1.62	1724	
June	1.34	50	4.16	.97	3.54	3.80	2.54	47	1.78	.73	1953	
July	2.68	2.16	.97	1.33	.88	2.35	2.01	1.35	2.37	3.05	1915	
August	5.71	1.76	44	1.89	1.71	32	2.60	1.90	2.93	.03	1929	
September	1.72	2.14	2.77	1.21	3.29	2.31	1.54	3.21	1.51	.95	2065	
October	.62	5.05	1.55	1.16	2.78	1.79	2.32	2.62	5.56	2.79	2624	
November	1.95	1.15	.91	1.95	3.54	3.30	1.27	2.99	4.70	6.24	2820	
December	.63	4.9	.52	4.96	2.57	2.04	3.56	3.29	1.18	1.12	2036	
TOTALS	23.94	21.58	18.16	19.50	26.18	23.46	31.89	21.51	31.73	25.21	24316	KM.

1931 E. House 30' high 205' E Inspected 5/3/34. 8" tape measure required. Gauge should be set up with rim 1ft above ground.  
 B. House 20' " 165' E  
 Shaft 70' " 200' N  
 † Inspected 16/2/38 by Mr. Bennett. Gauge surrounded by turf wall.

Position of Station on reduced Ordnance Survey Map, } No. of Map..... Reference No.....  
1 mile to 1 inch Series

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction from gauge	Parish Church.	Distance from gauge	Direction from gauge
1931						St. Peters	1/3 mile	S

BRITISH RAINFALL ORGANIZATION, EXHIBITION ROAD, LONDON, S.W.7.

Station No. 1230RAINFALL at Woodford (Haggas Lane)

41

County of Essex Observer Mt. Water BoardRiver Basin Thames Lea-1

Type of Gauge.....

Annual Average 23.0 in. based on 6 years obs. un-weighted. Period of average 1881-1915 Ref. SFile No. 883893/28

Diameter	8"			245	223						
Height	1' 0"										
Altitude	176'										
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	Means
January	2.79	2.06	4.69	1.67	1.98	1.68	1.86	3.95	.96	1.20	
February	2.09	1.13	1.17	.75	1.60	2.70	1.46	1.67	.99	3.44	
March	2.68	2.09	.44	.08	.92	1.33	5.51	.92	.85	.65	
April	1.74	.92	1.18	1.38	.93	1.47	1.74	1.45	1.61	1.89	
May	1.62	2.61	1.55	.45	3.04	3.25	.92	2.35	2.27	1.46	
June	1.43	.18	1.38	2.10	1.82	3.22	2.44	3.54	.69	1.24	
July	2.67	1.32	1.92	1.69	3.06	2.43	1.94	1.01	2.44	3.16	
August	4.25	2.13	1.56	2.31	1.39	3.85	.08	3.54	1.18	1.80	
September	.65	1.32	1.83	3.15	1.40	3.00	1.57	1.36	.39	2.31	
October	.63	4.26	2.71	3.01	1.98	1.18	.21	1.98	5.16	.40	
November	2.41	2.22	1.79	3.77	.38	3.54	.88	2.10	2.12	4.64	
December	1.94	2.25	1.40	.97	2.64	1.91	2.35	2.56	1.56	1.57	
TOTALS	24.90	22.49	21.62	21.33	21.16	29.56	20.96	26.23	20.12	23.76	
	D	D	D	D	D	D	D	D	D	D	

Totals

22.74

17.00

15.27

14.33

19.52

18.04

21.64

22.09

16.98

21.52

23.85

17.15

23.13

19.44

§ Turf wall round gauge.

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.



RAINFALL at <sup>st</sup> Woodford (Hagger Lane) Station No. 1230 TF 86 51  
 County of Essex Observer Met. Water Board  
 River Basin Thames Lea - 1  
 Type of Gauge M.O. (N.K.I. average)

Annual Average 23.0 in. based on 6 years obs. w/ reweighted. Period of average 1881-1915 Ref. S  
 " " 24.49 " " 31 " " within 1925-57 " " 1916-57 File No. 55893/28 E 346/46  
 E 22620/35

Diameter ...	8"	5"	245	223								
Height ...	1' 0"											
Altitude ...	176'											
Year ...	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	Means	
January ...	2.56	1.65	.89	1.13	2.65	3.48	1.45	2.42	1.89	1.74		19.86
February ...	5.71	.82	1.67	2.44	1.81	.46	3.01	2.54	.11	2.31		20.88
March ...	3.42	3.51	.49	2.34	1.26	1.04	1.13	1.08	1.52	1.28		17.07
April ...	2.79	1.27	2.42	.27	.35	1.14	.24	1.62	2.26	.60		12.96
May ...	2.11	.96	1.23	1.83	4.48	.68	1.52	2.41	1.86	1.97		19.05
June ...	.70	1.64	1.55	3.00	2.01	2.96	.93	5.28	.80	2.00		20.86
July ...	1.18	.64	3.71	2.77	.63	4.01	3.89	2.31	1.76	3.67		24.5
August ...	4.00	2.89	1.94	3.65	1.01	6.48	1.69	3.01	1.13	3.90		28.60
September ...	3.22	3.18	2.00	1.70	2.04	2.26	2.20	3.94	.03	4.38		24.95
October ...	1.08	2.59	3.25	2.30	3.12	1.96	2.16	2.12	1.34	5.09		25.51
November ...	4.61	3.77	.79	3.51	.65	.52	2.05	1.87	3.12	3.52		24.41
December ...	2.04	2.43	.62	1.58	1.62	2.66	1.67	3.07	3.04	2.60		21.23
TOTALS ...	33.42	25.35	20.46	26.52	21.83	26.54	21.94	31.67	19.36	33.06		259.95
	D	D	D	D	D	D	D	D	D	D		

Ins. 24.11.53. R. Sound. 9. in pit not turf wall 3" deep 11"4" diameter

Inspected Sept 1956 Mr. Duck. Gauge sound, we assume cal. fixed. Lts on orthodoxy on top of reservoir but brick drain design surround (about 30 ft away) & gauge in pit.

Considered satisfactory

Ins. II 1957 J.A.O.K. Satisfactory

Ins. 10.10.60 J.G.H.H. Turf wall is really a pit. Satisfactory etc.

<sup>st</sup> Turf wall round gauge

\* amended 17/3/65

Position of Station on Ordnance One-Inch map: No. of Map... 161 National Grid Reference 51/892901

Date.	Lat. N.	Long.	Railway Station.	Distance Direction from gauge	Parish Church.	Distance Direction from gauge.

Summary of Earlier Records from 10-year Sheets:

1916-1950, P - Rejected

Record D, or d	1910-19	1920-30	1931-40	1941-50	1951-60
	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓ but dgs