

Met 0 8b 10-YEAR SUMMARY SHEETS

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2. For many old stations these sheets are the ONLY record of available data.

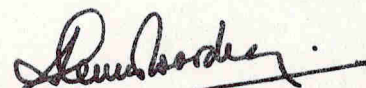
ENTRIES

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4. Every attempt should be made to ensure that any follow-up action is adequately cross-referenced to a previous entry.
5. Retrospectively effective comments MUST be entered on the station's 10-year sheets for all relevant previous decades, not just on the latest decade's sheet.

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RAINFALL at Barrow-in-Furness (Gas Works)

County of North Lancashire Observer Claude Diamond Esq.

River Basin Duddon C. - 1.

Type of Gauge Howard

Annual Average 37.6 in. based on 35 years obs. un-weighted. Period of average 1881-1915 Ref Bog N

Diameter	....	....	11.				5"						
Height	....	....	3.0.				1.0						
Altitude	....	....	17.				17						
Year	....	....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means Totals
January	....	....	5.34	5.65	3.16	4.95	1.93	4.58	3.39	4.35	4.31	3.67	41.33
February	....	....	4.20	.03	4.33	.30	5.16	1.83	6.18	1.02	3.24	1.59	27.88
March	....	....	.47	4.09	3.70	3.28	1.36	2.56	2.22	1.60	2.56	3.77	25.61
April	....	....	2.29	3.61	2.10	2.94	3.80	.56	2.86	.27	2.10	2.92	23.45
May	....	....	2.88	5.29	3.13	3.18	1.31	1.05	1.62	3.27	.48	1.44	23.65
June	....	....	7.87	1.94	1.82	2.67	5.06	3.08	1.88	4.39	2.56	.36	31.63
July	....	....	4.73	5.13	2.24	1.97	1.36	3.08	2.34	5.30	5.86	4.54	37.05
August	....	....	3.67	1.87	3.57	8.62	2.93	3.40	1.46	2.27	2.12	1.16	27.57
September	....	....	2.55	4.69	.63	4.94	7.07	4.87	2.74	2.82	2.83	3.52	36.66
October	....	....	3.85	6.80	4.27	6.17	5.82	2.49	2.66	8.59	1.48	4.88	47.01
November	....	....	9.43	3.00	3.34	2.31	4.31	5.42	2.04	6.38	4.87	5.05	46.15
December	....	....	4.19	4.04	1.36	7.59	4.42	4.74	3.67	5.75	2.02	5.15	42.93
TOTALS	....	....	51.47	45.64	33.65	45.92	44.53	37.66	33.56	46.01	34.43	38.05	410.92
			D.	D.	Dnp	Dnp.	D.	L	d	d	d	d	

1932. Office 2' high 50' S. Inspected 1934:- Large readings are due to improper repair of gauge.  
Recommended that a standard gauge be installed. Site excellent but space round gauge  
should be kept clear and grass cut short.

1933 Big np.  
April 1934 Big np.  
1935 Standard gauge installed & brought into use at new site 15' W of original site, surrounded by  
1935 House 21' high 23' S turf wall (see incl. 29a on file 11556/31)  
old g. discontinued from 31/III.

1935. Footnote; # New gauge March 1935.

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	Parish Church.	Distance from gauge
1932.			Roose	1/2 m.	N. E.	St. George	3/4 m. N. W.



RAINFALL at Barrow-in-furness (Sewage Wks.) (+A) Sandgate

County of North Lancashire

Observer W.C. Percy Esq. C.E.

River Basin Duddon & C. - 1.

F.L. WOOLDRIDGE ESQ. C.E. (1939)

Type of Gauge M.O. (+A)

Annual Average 39.3 in. based on 15 years obs. un-weighted. Period of average 1881-1915 Ref 5  
358646/34

Diameter	...	5.										
Height	...	1.0.										
Altitude	...	20.										
Year	...	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	...	4.32	5.02	2.44	4.12	1.96	4.64	3.18	4.37	4.21	3.54	Totals 37.80
February	...	3.75	.02	3.69	.17	5.17	1.95	6.20	1.05	3.35	1.61	26.96
March	...	.55	3.73	3.10	2.60	1.38	2.75	2.15	1.65	2.65	4.05	24.61
April	...	2.13	2.90	1.90	2.65	3.75	.66	2.90	.30	2.17	3.07	22.43
May	...	2.85	5.00	2.86	3.49	1.25	.95	1.64	3.40	.55	1.55	23.54
June	...	7.32	1.09	1.74	2.45	5.03	3.18	2.04	4.42	2.76	.45	30.48
July	...	4.17	5.27	1.90	1.83	1.25	3.33	2.78	5.33	6.10	5.18	37.14
August	...	3.66	1.40	3.18	5.34	3.00	2.52	1.62	2.35	2.26	1.28	26.61
September	...	2.36	4.03	.83	4.22	7.65	5.05	2.86	2.91	2.75	3.58	36.24
October	...	3.29	6.48	3.63	5.62	5.65	2.43	2.67	8.40	1.69	5.20	45.06
November	...	7.75	2.31	3.19	1.98	4.42	5.35	2.01	6.53	5.03	5.10	43.67
December	...	3.24	3.69	.96	6.50	4.24	4.76	3.76	5.61	2.10	5.22	40.08
TOTALS	...	45.39 D.	40.94 D	29.42 D	40.97 D.	44.75 D.	37.57 D	33.81 D	46.32 D	35.62 D	39.83 D	396.82 D

1934. Barrow paper boy. Works. + Barrow Gas Works.  
40 '0" a.g. 210 yds. S.E.  
Barrow Gas Works 100 '0" a.g. 330 yds. E.  
Inspected 20/9/34. 14c. above ground 1'3" bricks round gauge to be removed! outer curbs  
2133 Recommendations carried out.

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	Parish Church.	Distance from gauge
1932.			Roose	1/2 m.	N.E.	St. Lukes.	310 yds. N.W.



RAINFALL at Barrow-in-Furness (Risedale C. Sch.)

County of N. Lancs. Observer The Headmaster

River Basin 1. Puddon & C.

Type of Gauge Snowdon

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

Diameter .....		5"									
Height .....		1' 0"									
Altitude .....		55'									
Year .....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January .....	4.13	5.08	2.47	3.60	1.58	5.07	3.31	4.03	4.23	3.04	
February .....	3.69	.00	3.26	.08	4.30	1.91	6.38	.93	3.44	1.76	
March .....	.43	3.77	3.88	2.51	1.18	2.90	2.08	1.26	2.86	4.56	
April .....	1.97	2.41	1.79	2.51	3.51	.63	3.05	.28	2.04	4.42	
May .....	2.49	6.49	2.58	3.16	1.20	.90	1.46	3.26	.43	1.55	
June .....	6.53	1.59	1.58	2.32	4.84	2.32	1.93	4.44	2.62	.38	
July .....	3.78	4.75	1.58	1.61	1.04	3.26	2.62	5.04	5.96	4.89	
August .....	3.61	1.20	3.04	5.63	2.74	3.24	1.57	2.13	2.19	1.08	
September .....	2.44	3.96	.61	4.25	7.33	5.05	3.01	2.77	2.71	3.20	
October .....	3.29	5.58	3.61	5.21	5.43	2.20	2.56	8.69	1.59	4.80	
November .....	7.70	2.53	2.78	1.89	4.16	5.26	2.01	6.62	4.88	4.44	
December .....	2.96	3.37	1.14	6.63	3.59	4.69	3.78	5.41	1.84	4.57	
TOTALS .....	43.02 <i>update</i>	40.73 <i>D</i>	28.32 <i>D</i>	39.40 <i>D</i>	40.90 <i>D</i>	37.43 <i>D</i>	33.76 <i>D</i>	44.87 <i>D</i>	34.79 <i>D</i>	38.69 <i>D</i>	

1932. Linnis sitting 9' high 41' NNW. Greenhouse 8½' high 51' SSE. Shed 8½' high 50' S.E.  
Inspected 1934.:- General arrangements ~~(correct)~~ satisfactory. Exposure of the gauge somewhat windwept.  
Recommended that second gauge be tested for soundness and set up on selected site, comparative readings being taken till end of year.

1935/44 1931. Best year. The 1941 record is reasonable. H. Russell

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	Parish Church.	Distance from gauge	Direction
1932			Rosale Barrow	1065 yds 1267 ..	E'S W'N.	St Luke's	(ESE) 640 yds	



RAINFALL at Little Urswick (North View)

County of North Lancashire Observer J. Dobson, Esq.

River Basin Duddon &c. - 1. Miss I. Dobson.

Type of Gauge Glaisher with bottle.

Annual Average 44.4 in. based on 9 years obs. un-weighted. Period of average 1881-1915 Ref. 5  
395140/35

Diameter	....	....	5.										
Height	....	....	1.6.										
Altitude	....	....	130.										
Year	....	....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	....	....	4.91	5.55	3.29	5.10	2.92	5.27	3.65	5.92	4.76	3.60	
February	....	....	4.62	.04	4.72	.27	6.28	2.25	7.73	1.40	4.02	1.78	
March	....	....	.58	4.03	3.80	3.33	1.72	3.14	2.27	2.08	2.86	5.23	
April	....	....	2.41	3.90	3.90	3.88	4.24	.67	3.77	.61	2.55	3.87	
May	....	....	2.68	6.38	6.38	4.04	1.03	1.07	2.07	4.40	.52	1.65	
June	....	....	8.02	1.76	1.76	2.98	5.67	4.23	2.85	5.59	3.13	.78	
July	....	....	6.25	6.27	3.41	1.71	1.77	4.37	3.15	6.28	8.92	4.62	
August	....	....	4.30	2.01	3.69	6.28	4.03	4.55	2.48	2.69	2.72	2.31	
September	....	....	2.39	4.72	.98	5.39	8.82	5.47	3.93	3.38	3.14	4.97	
October	....	....	4.14	7.77	4.49	7.21	7.19	3.96	3.04	10.48	2.33	5.08	
November	....	....	9.84	3.40	3.41	2.19	5.44	6.43	2.61	7.15	6.66	5.82	
December	....	....	4.90	4.61	1.53	7.11	4.79	6.05	3.69	5.75	2.76	7.03	
TOTALS	....	....	55.04	50.44	41.36	49.49	54.00	47.46	41.24	55.73	44.37	46.74	48.57
			D.	D	D	D.	D.	D	D	D	D	D	

House 20' high 45' SSW.  
1936. J. Dobson Esq. died during Summer of 1936. Record carried on by Miss I. Dobson.

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	Parish Church.	Distance from gauge	Direction
1931			Lindale. LMSR.	1m 58 yds	NW	Urswick	553 yds.	NE.

RAINFALL at Askam (Senr Council School)

County of North Lancashire Observer The Headmaster

River Basin Duddon &c. - 1

Type of Gauge

Annual Average 43.4 in. based on 4 years obs. un-weighted. Period of average 1881-1915 Ref 5  
756693/27.

Diameter	5.										
Height	1.0.										
Altitude	37.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	4.34										
February	3.96										
March	5.1										
April	2.60										
May	3.07										
June	6.97										
July	3.48										
August	2.98										
September	2.45										
October	3.34										
November	7.90										
December	3.40										
TOTALS	45.00 D.	#									

N.O. 1932 1 unable to carry on.

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	Parish Church.	Distance from gauge	Direction
1931			Askam	300 yds.	NE	Inceblith	1/2 m.	E.



RAINFALL at Ulverston (Poaka Beck)

County of North Lancashire Observer Claude Diamond, Esq.

River Basin Duddon & C. - 1.

Type of Gauge Howard. (Standard 1935)

Annual Average 52.1 in. based on 35 years obs. un-weighted. Period of average 1881 - 1915 Ref. B. N.

Diameter	11.				5"							
Height	1.6.				1.0							
Altitude	512.				512							
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means	
January	6.00	6.24	3.52	6.31	3.31	5.82	4.11	5.19	5.12	3.72		Totals. 4934
February	4.75	.00	4.86	.41	5.51	2.59	6.79	1.71	3.96	1.79		32.37
March	.61	4.09	4.30	3.30	1.53	3.14	2.53	2.02	3.04	5.12		29.68
April	2.70	4.82	3.16	3.71	3.93	.77	3.43	.52	2.26	3.29		28.59
May	3.55	6.30	4.19	4.26	1.00	1.21	2.04	4.35	.68	1.77		29.35
June	9.35	1.38	2.48	3.01	5.09	4.37	3.04	5.45	3.18	.62		37.97
July	7.08	6.19	4.27	1.73	1.72	4.40	3.32	7.04	8.26	4.40		48.41
August	4.59	1.36	4.76	7.07	4.64	4.52	2.52	3.05	2.89	2.42		37.82
September	2.73	4.94	.95	6.40	9.40	5.72	4.25	3.40	3.15	4.53		45.47
October	4.69	7.65	4.57	6.82	7.88	3.86	2.91	10.81	2.03	5.67		56.89
November	10.85	2.98	3.52	2.42	6.04	5.95	2.34	7.55	5.81	5.74		53.20
December	5.51	4.58	1.80	8.25	4.44	6.24	4.05	5.82	2.68	6.08		49.45
TOTALS	62.41 D.	50.53 D.	42.38 D.	53.69 D.	54.49 D.	48.59 D.	41.33 D.	56.91 D.	43.06 D.	45.15 D.		498.54 98th

1932. House 30' high 20' W. Inspected 1934:- Exposure satisfactory. New gauge should be set up 4ft from present gauge and comparative readings should be taken from both gauges for one year.  
IV/ 1935 Standard g. set up & brought into use; old g. discontinued from 31/III; footnote in B.R.  
1935 " New gauge March 1935.

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	Parish Church.	Distance from gauge	Direction
1932.			Lindal	2 1/2 m.	S. E.	Pennington	1 1/2 m.	E. S. E.



RAINFALL at Broughton-in-Furness (Hesketh Hall)

County of Lancashire Observer G. E. C. Shawfield Esq.

River Basin Duddon & C. - 1.

Type of Gauge Glaisher (1926) Snowden Vef

Annual Average 62.8 in. based on 7 years obs. un-weighted. Period of average 1881-1915 Ref P.O. 591

f. 697983/26

Diameter	....					5"						
Height	....					1' 5"	1' 4"					
Altitude	....					120'	1' 30'					
Year	....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	....					3.86	6.96	6.32	7.60	8.15	4.87	
February	....					8.70	2.76	10.84	3.08	7.75	2.60	
March	....					1.74	4.38	3.25	2.94	4.19	7.69	
April	....					5.14	.92	4.74	.99	3.80	3.44	
May	....					.84	1.35	2.44	6.11	.93	1.27	
June	....					5.06	5.51	4.36	6.46	5.04	1.26	
July	....					2.30	5.13	4.02	10.66	8.85	6.42	
August	....					4.26	5.80	3.30	4.65	2.46	2.34	
September	....					11.68	6.72	4.82	4.56	2.63	6.64	
October	....					10.59	6.16	3.23	14.12	2.62	6.77	
November	....					6.60	8.22	2.50	9.79	8.45	8.17	
December	....					6.28	8.24	7.04	7.61	3.60	9.82	
TOTALS	....					67.03	62.15	56.86	78.57	54.47	61.29	

1935. House 27' high 70' NE.  
1940 Gauge purchased from N+Z see f. 759179/38.

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	Parish Church.	Distance from gauge	Direction
1935			Broughton-in-Furness	3 m	S.S.W	Broughton-in-Furness	3 m	S.S.W

RAINFALL at Alpha

County of..... Observer Claude Diamond, Esq.

River Basin.....

Type of Gauge.....

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

Diameter .....											
Height .....											
Altitude .....											
Year .....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January .....											
February .....											
March .....											
April .....											
May .....											
June .....											
July .....											
August .....											
September .....											
October .....											
November .....											
December .....											
TOTALS .....											

See Sheet No. 3658/5 - gauge moved in 1935  
note Cumberland/4 - continuation record.

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	Parish Church.	Distance from gauge



RAINFALL at Duddon Valley (Seathwaite Sch.)

County of North Lancashire

Observer Mrs. Kelly

River Basin Duddon & C. - 1.

Leadminsters (Mrs. Johnstone)

Type of Gauge M. 2.

Annual Average 77.8 in. based on 44 years obs. un-weighted. Period of average 1881-1915 Ref. S

675913/26

Diameter	5										
Height	1	0	0	6							
Altitude	348	400									
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	13.53	14.44	(8.83)	12.85	5.38	10.69	12.20	13.16			
February	11.61	.32	(8.99)	.75	12.11	3.35	14.93	5.92			
March	1.23	6.30	6.89	5.73	2.09	6.29	4.50	4.01			
April	4.98	5.81	4.59	5.31	5.77	1.30	5.28	#			
May	4.95	4.73	4.02	6.74	1.09	1.75	3.07				
June	9.81	3.34	(2.63)	2.18	5.81	5.77	4.89				
July	9.47	7.18	5.12	(1.95)	3.93	8.49	4.77				
August	5.30	4.25	7.83	(9.42)	4.48	4.42	4.82				
September	2.62	9.99	1.34	(12.28)	11.61	8.01	5.50				
October	6.01	17.10	6.60	12.87	13.00	7.47	4.85				
November	20.41	9.13	(4.41)	3.47	8.13	9.97	3.96				
December	6.56	13.01	.90	12.04	8.31	13.15	6.32				
TOTALS	96.48	95.60	(62.15)	85.62	81.57	80.66	75.09	imp.	NR		

School 30' high 20' N. Note on Form 1249 (Acceptance Form) Jan. 1933. Gauge rather worn through weather, edges corroding.

New gauge sent 16/2/33, old one returned to M.O.

1933. Jan, Feb, June, & Nov. adjusted by surrounding stations.

Inspected 1934:- Exposure and general conditions of observations satisfactory.

1937 School 35' high 34' NNE

1938 Gauge broken 3/38 and not mended until 3/39.

1938 Station T. No reply to circ. I.

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	Parish Church.	Distance from gauge	Direction
1931			Broughton	8m	SSW	Seathwaite	50 yds	N.N.E.



RAINFALL at <sup>2</sup>Duddon Valley (Seathwaite Tarn)

County of North Lancashire Observer Claude Diamond, Esq.

River Basin Duddon & C. - 1.

Type of Gauge Snowden.

Annual Average 92.7 in. based on 20 years obs. un-weighted. Period of average 1881 - 1915 Ref 3

Diameter	....	11.				5"						
Height	....	1.6.				1.0						
Altitude	....	1221.				1221	1250					
Year	....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means Totals
January	....	16.73	15.22	9.40	13.52	7.45	15.19	11.70	13.00	14.23	5.75	12219
February	....	12.82	22	9.95	1.38	14.17	4.01	15.45	5.37	13.30	5.31	8198
March	....	1.62	7.46	8.93	5.86	2.80	4.84	7.55	7.09	6.90	11.32	6437
April	....	5.52	8.39	5.33	5.45	7.04	5.11	6.17	2.32	6.40	3.55	5528
May	....	5.07	7.70	4.27	7.93	.93	1.96	3.56	8.27	1.36	2.25	4330
June	....	13.55	4.76	3.38	3.45	7.50	5.61	8.02	10.83	7.03	1.29	6542
July	....	12.49	8.70	6.90	3.72	5.36	12.15	5.43	14.81	15.63	9.01	9420
August	....	6.63	5.81	10.12	11.56	6.35	6.32	4.91	5.94	3.75	5.76	6715
September	....	3.28	10.29	1.45	14.29	14.02	9.06	7.98	6.84	4.20	9.31	8072
October	....	9.21	15.86	6.28	15.87	17.16	10.29	5.17	21.46	4.77	11.03	11710
November	....	21.66	7.70	4.89	3.41	10.35	10.60	4.42	18.15	15.25	13.24	10967
December	....	10.73	13.85	1.24	15.44	8.92	15.22	8.95	9.81	3.73	13.96	10185
TOTALS	....	119.31	105.96	72.14	101.88	102.05	100.36	89.31	123.89	96.55	91.78	100323
		W.	W	W.	W.	W.	W	W	W	W	W	

1932. Dam 14' high 100' E. Inspected 1934:- Recommended that a standard gauge be set up in site selected and surrounded by a turf wall; the old gauge to be abandoned at the end of the year.

1934. No readings Dec 28-31 recd. Estimated value 1.00" approved by observing authority.  
1935 New octafund g. set up & brought into use at new site, 210' E of original site, with turf wall  
1935 Jan Dam 14' high 310' W old g. discontinued from 31/III  
Footnote in B.R. 1935 "New gauge March 1935" and "Turf wall March 1935"

<sup>2</sup> Turf wall round gauge (footnote B.R.)

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
1932.			Broughton	7 m.	S.	Seathwaite	12 m.	S.



RAINFALL at Cartmel (Holker Hall)

County of North Lancashire Observer Lord Richard Cavendish

River Basin Leven & C. - 2

Type of Gauge Snowdon

Annual Average 44.5 in. based on 35 years obs. un-weighted. Period of average 1881-1915 Ref B.1.N.  
47.80 31 1916-1950 753476/38 PS 734

Diameter	....	....	5										
Height	....	....	0.9.										
Altitude	....	....	85.										
Year	....	....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	....	....	5.02	5.80	3.30	5.78	2.16	5.32	3.96	5.48	5.35	3.34	
February	....	....	4.39	.02	4.45	.26	6.04	2.33	7.31	1.85	4.19	1.86	
March	....	....	.53	4.16	3.60	2.74	1.50	2.59	2.14	1.88	2.35	4.64	
April	....	....	2.53	3.78	2.52	3.71	3.57	.83	3.69	.66	2.74	3.56	
May	....	....	3.01	6.60	2.65	4.42	.72	1.38	2.24	4.36	1.07	1.41	
June	....	....	7.70	2.34	3.72	2.83	4.30	4.63	2.88	5.02	3.38	.72	
July	...	....	5.96	5.39	3.50	2.00	1.42	5.04	3.40	5.84	6.65	5.00	
August	....	....	3.76	2.34	3.31	5.60	3.67	3.69	2.23	3.02	2.70	1.67	
September	....	....	1.86	5.90	.84	5.74	9.09	6.10	4.14	2.64	2.27	4.91	
October	....	....	3.73	7.24	4.37	6.64	7.56	4.32	3.02	11.34	1.80	5.38	
November	....	....	9.85	3.68	2.37	1.81	5.13	5.16	2.05	7.37	6.91	5.86	
December	....	....	5.74	4.69	1.31	7.29	4.63	6.45	4.37	5.46	2.92	5.53	
TOTALS	....	....	54.08	51.44	35.94	48.92	49.79	47.84	41.43	54.92	42.33	43.88	
			D.	D.	D.	D.	D.	D.	D.	D.	D.	D.	

MET. O. S. RAINMASTER  
RETROSPECTIVE SITE REVIEW

586620

NGR: SD(34)359774

ALT: 85 ft = 26 metres. Date of review: 12.1.1979

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	Parish Church.	Distance from gauge	Direction
1932.			Cartmel	1 m.	S.	Hookborough	1 m.	S.



RAINFALL at Grange-over-Sands (Yaithbarrow)

County of N. Lancashire Observer C. Bateman Esq.

River Basin Leven + C-2

Type of Gauge Shawdon

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

f. 248621/33.

Diameter .....								5			
Height .....								0.8			
Altitude .....								50'			
Year .....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January .....								5.04	4.73	3.20	
February .....								1.77	4.38	1.89	
March .....								1.80	2.05	4.93	
April .....								.80	2.31	3.11	
May .....								3.89	1.02	1.20	
June .....								4.74	3.07	1.00	
July .....								4.90	8.60	5.63	
August .....								4.15	2.28	1.80	
September .....							# 4.30	1.81	1.72	4.34	
October .....							2.97	10.94	1.48	5.16	
November .....							1.93	7.24	7.02	5.38	
December .....							3.38	5.47	2.83	5.50	
TOTALS .....							imp	52.55	41.49	43.14	

1938. Gauge from Clapham (Lvy Tree Cottage) No. 3068/5.  
1940. Wall 10' high 32' NW.  
Wall 15' " 50' N.

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	Parish Church.	Distance from gauge	Direction
from map '38			Grange	1/6 m	S.E	Grange	1/3 m	S.W.



RAINFALL at Ulverston (Pengwerne)

County of North Lancashire Observer C. J. Chapman, Esq.

River Basin Leven & C. - 2

Type of Gauge.....

Annual Average 50.1 in. based on 7 years obs. un-weighted. Period of average 1881-1915 Ref 5

ft. 200 475/40

Diameter	.....	5.										
Height	.....	1.4.	1.	2.			1.4	1	2			
Altitude	.....	138.				124		127				
Year	.....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	.....	5.88	5.99	3.51	6.07	2.84	5.43	4.05	5.83	5.20	3.97	
February	.....	4.97	.03	5.02	.48	6.08	2.66	7.58	1.76	4.29	1.81	
March	.....	.58	4.40	3.91	3.47	1.60	3.04	2.13	2.05	2.70	5.47	
April	.....	2.68	4.35	2.63	3.67	4.48	.82	3.56	.69	2.63	3.39	
May	.....	2.84	6.58	3.92	4.21	1.11 .77	1.32	1.89	4.47	.80	1.49	
June	.....	7.59	1.66	2.15	2.80	5.55	4.25	2.86	5.04	3.61	.82	
July	.....	6.02	5.81	4.47	2.02	1.61	4.54	3.34	6.76	7.67	4.70	
August	.....	3.95	2.11	3.85	6.39	4.17	4.23	2.40	2.87	2.63	2.30	
September	.....	1.81	5.99	.85	5.73	9.92	5.75	5.01	2.91	3.12	5.22	
October	.....	4.05	8.49	4.66	6.52	7.28	4.06	3.05	10.34	2.25	5.71	
November	.....	10.19	3.67	3.33	2.30	5.57	5.97	2.16	7.23	6.72	6.08	
December	.....	5.13	5.71	1.81	7.39	4.53	6.26	4.72	5.58	2.98	6.69	
TOTALS	.....	65.69 D.	54.79 D	40.11 D.	51.05 D.	54.34 D.(7)	48.33 D	42.75 D	56.03 D	44.60 D	47.65 D	

Trees 1/2 west of gauge increasing in size & height.

1935. Trees 28' (?) high 20' S.W.

1935 Printed with query.

1936 Gable end of House approx. 20 ft. at eaves, 35 ft. at ridge. 52 ft. W.

Trees 25 ft. high 36 ft. E., wall about 10 ft. with lean to greenhouse about 20 ft. E.

Gauge moved 1 1/2 yds. from old stand of 1935, 70 ft. W.

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	Parish Church.	Distance from gauge	Direction
			<u>Ulverston</u>	<u>1/4 m</u>	<u>NE.</u>	<u>Ulverston</u>	<u>1 m</u>	<u>N</u>



RAINFALL at Mloverston (Perquerra) Paddock

County of Lanco

Observer C. J. Chapman, Esq.

River Basin Levens - 2

Type of Gauge

Annual Average in. based on years obs. un-weighted. Period of average Ref.

file A200475740

Diameter					8"						
Height					1' 4"	1' 2"					
Altitude					128				†		
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January					3.19	5.67	4.08	6.00	5.16	4.03	
February					6.60	2.84	8.11	1.90	4.29	1.77	
March					1.71	3.18	2.05	2.10	2.78	5.60	
April					4.70	.85	3.61	.73	2.65	3.46	
May					1.21	1.35	1.92	4.65	.82	1.52	
June					5.79	4.37	2.92	5.13	3.60	.80	
July					1.75	4.65	3.41	6.96	7.64	4.71	
August					4.39	4.40	2.43	3.01	2.59	2.33	
September					10.21	6.03	5.07	3.01	3.19	5.33	
October					8.04	4.28	3.15	11.16	2.23	5.71	
November					5.79	6.15	2.19	7.49	6.66	6.33	
December					4.66	6.73	4.89	5.80	3.07	7.38	
TOTALS					58.04	50.50	43.83	57.94	44.66	48.97	

† 1939 printed with foot-note : new measure.  
Station T. end of 1940.

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	Parish Church.	Distance from gauge	Direction



RAINFALL at Haverthwaite (outwood)

County of N. Lancs. Observer Sir Bryan Fell. K.C.M.G.

River Basin Leven & C. - 2

Type of Gauge.....

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....  
f. 732803/38

Diameter	.....							5				
Height	.....							1 0	0.8			
Altitude	.....							65				
Year	.....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	.....							(4.40)	3.9 6.94	5.54	3.65	
February	.....							(8.50)	2.31	5.48	1.91	
March	.....							2.61	2.35	2.88	6.18	
April	.....							4.01	6.9	2.68	3.46	
May	.....							2.05 6	5.59	1.35	1.52	
June	.....							2.86	5.46 6.85	3.73	.85	
July	.....							3.99	7.25 7.90	7.90	5.71	
August	.....							2.83	3.96	3.01	1.88	
September	.....							4.87	2.95	2.21	3.99 4.08	
October	.....							3.28	13.64	2.01	6.69	
November	.....							2.45	8.00	8.91	6.14 5	
December	.....							5.10	6.28 3.6	3.55	7.01	
TOTALS	.....							64.47 (46.95)	48.96 65.52	44.24	49.08 0	

1937 Jan. & Feb. estimated.  
1938. New gauge 15 ft. high 36 ft. S.W.

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
from map '38	54° 14' 1/2	2° 59' 1/2	Haverthwaite	4 1/10 m	N.	Haverthwaite	3/8 m	NNW.



RAINFALL at NEWBY BRIDGE (SWAN HOTEL)

County of North Lancashire

Observer Freshwater Biological Assoc.

River Basin 2 - Leven & C.

Type of Gauge.....

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

732298/38

Diameter ....								5"			
Height ....								1'			
Altitude ....								133'			
Year ....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January ....									6.14	3.42	
February ....									6.00	1.80	
March ....									3.03	7.03	
April ....									3.19	2.98	
May ....									1.54	1.54	
June ....									3.69	(.55)	
July ....								imp.	6.91	4.03	
August ....								4.94	2.78	1.91	
September ....								4.76	2.34	3.74	
October ....								14.93	1.69	6.94	
November ....								9.09	10.40	6.19	
December ....								6.61	3.93	7.13	
TOTALS ....								imp.	51.64	47.26	

1938. Tree 30ft - 70ft S, Hedge 5ft 6in - 25ft E, Fence 3ft 6in - 9ft W.  
1940 June + July adj. from nearby stations.

\* per Capt W.N. McClean, C.E. (Footnote for B.R.)

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	Parish Church.	Distance from gauge.	Direction
1938.			Lakeside	1393yds	NNE	Staveley	1027yds	E.S.E



RAINFALL at Rusland Hall.

County of North Lancashire Observer C. F. Archibald, Esq.

River Basin Leven & C. - 2

Type of Gauge Howard

Annual Average 4.67 in. based on 16 years obs. un-weighted. Period of average 1881 - 1915 Ref 3

820237/28.

Diameter	5.										
Height	1.0.										
Altitude	25.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	7.41	7.68	5.15	7.08							
February	6.58	.02	6.43	.46							
March	.79	5.18	3.65	5.12							
April	3.06	4.32	1.96	5.40							
May	3.90	5.73	3.79	5.25							
June	6.31	2.15	4.21	3.58							
July	6.91	4.37	4.06	2.49							
August	4.63	1.62	4.47	6.90							
September	2.13	6.65	1.23	8.66							
October	4.02	9.68	4.56	9.44							
November	11.70	5.31	3.11	1.76							
December	7.04	6.14	1.68	9.88							
TOTALS	64.48	58.85	44.30	66.02	N.R.	N.R.	N.R.				

Greenhouse 11' high 48' NE. Arches 8' high 26' E, W & S.  
Average too low owing to height of rim above ground 1/7/35.  
Summated. N.R. 1940. 8/12/46

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	Parish Church.	Distance from gauge	Direction
1931			Haverthwaite	4 m	S.	Rusland	1/2 m.	N.



RAINFALL at Cartmel Fell (Tower Wood)  
County of Lancashire Observer Windermere U.D.C.  
Leven s.c.-2  
Type of Gauge M.O.

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

f A 200316/40

Diameter .....										5"	
Height .....										1' 0"	
Altitude .....										150	
Year .....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January .....										(2.80)	
February .....										(2.50)	
March .....										6.38	
April .....										2.72	
May .....										1.06	
June .....										.77	
July .....										5.93	
August .....										1.82	
September .....										4.71	
October .....										7.14	
November .....										7.04	
December .....										7.89	
TOTALS .....										(50.76)	

1940 No near objects liable to shield rain from gauge  
1940 Jan. and Feb. 1-23 estd. for nearby

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.
			Lakeside	2 7/8 m.	S.W.	Winsters.	2 3/11 m.	N.E.



RAINFALL at Cartmell Fell, (Ghyll Head Res.)

County of North Lancashire Observer J. Lupton, Esq.

River Basin Leven & C. - 2 J. N. Leckie Esq.

Type of Gauge B.A.

Annual Average 63.1 in. based on 7 years obs. un-weighted. Period of average 1881-1915 Ref 3

809652/27.

Diameter	8.										
Height	1.0.										
Altitude	425.					420				425	
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	6.43	8.91	9.07	8.77	4.01	7.23	6.53	10.15	8.68	3.80	
February	8.21	10.4	3.88	50	8.53	2.75	8.24	2.77	8.13	3.00	
March	1.01	5.08	5.47	4.02	1.79	3.25	2.64	5.02	2.12	7.51	
April	2.84	5.02	3.08	4.16	5.30	2.04	4.20	73	2.47	3.48	
May	3.59	5.68	2.95	5.02	1.48	1.26	2.20	4.99	1.58	.86	
June	7.66	3.43	2.91	3.58	6.07	5.57	3.62	5.53	4.33	.71	
July	7.32	5.84	4.09	2.59	3.10	5.69	4.69	8.93	7.43	6.19	
August	4.41	2.35	4.00	7.21	4.30	6.81	3.10	4.24	4.65	1.95	
September	2.47	7.73	1.01	7.97	9.47	4.06	5.70	3.31	2.25	4.36	
October	5.31	8.37	5.55	10.50	12.13	5.82	3.76	16.49	2.48	6.98	
November	13.19	4.73	2.34	1.90	5.92	6.30	1.47	9.56	10.22	6.88	
December	8.05	10.00	1.12	10.22	5.32	7.81	6.38	5.09	3.89	7.26	
TOTALS	70.49	67.18	45.47	65.44	66.42	58.59	52.53	76.81	58.23	52.98	#

1934. Open moorland.  
1935. Trees 40' high 240' S.E.  
S.W. (1936)  
1940 Str. Terminated.

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	Parish Church.	Distance from gauge	Direction
1936			Windermere Lakeside	6 m 4 m	S S.W.	Cartmell	3 m	S



RAINFALL at Torver (Greydoncs)

County of N. Lancashire Observer J. C. Appleyard, Esq.

River Basin Leven & C - 2.

Type of Gauge Howard.

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

501499/36

Diameter .....					5"						
Height .....					1' 0"						
Altitude .....					350'						
Year .....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January .....	7.13	7.31	5.01	9.68	3.81 <sup>63</sup>	8.20	1.86	9.61	9.06	4.19	
February .....	9.59	.08	7.73	.70	11.46 <sup>24</sup>	3.08	10.95	3.85	8.18	2.86	
March .....	.84	6.89	5.01	5.54	2.88 <sup>14</sup>	4.87	3.08	4.74	4.56	8.68	
April .....	3.79	4.51	3.48	4.98	6.68 <sup>5</sup>	1.41	4.86	1.73	4.22	3.72	
May .....	3.97	6.54	3.93	2.09	1.06	2.25	2.47	6.30	1.29	1.43	
June .....	8.26	1.99	3.54	3.09	6.32 <sup>84</sup>	5.95	4.08	8.00	4.15	1.32	
July .....	8.72	7.45	5.11	2.93	3.61 <sup>19</sup>	6.32	4.82	10.30	10.02	6.67	
August .....	4.91	1.52	5.24	7.09	5.12 <sup>5</sup>	5.89	3.01	5.23	2.44	3.21	
September .....	2.54	8.79	1.18	7.92	11.33 <sup>10.52</sup>	8.82	5.85	4.75	3.50	6.90	
October .....	5.94	11.60	5.68	12.37	12.34 <sup>13.14</sup>	6.67	3.89	15.73	2.63	7.69	
November .....	12.05	5.40	3.67	2.08	7.58 <sup>6.91</sup>	9.02	2.80	9.92	9.86	8.15	
December .....	7.07	10.24	2.00	10.79	6.91 <sup>3</sup>	9.49	7.10	8.24	4.17	10.21	
TOTALS .....	74.81	71.32	51.58	69.26	77.43 <sup>56</sup>	71.97 <sup>86</sup>	60.77	88.40	64.08	65.03	

1935. House. 30ft high 54ft to SW.  
Oak tree 25ft " 60ft to NE  
Records 1929-1934 received 26/3/36.  
1937 House 30' high 45' S.S.E. Oak Tree 25' high 60' N.N.E.  
1940 Jan. 23-28<sup>h</sup> estd.

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 Direction from gauge		Parish Church.	Distance Direction from gauge	
1935			Torver	1/2 m	N	Torver	1/2 m	N.
					NNW			NNW



RAINFALL at Coniston (School Garden)

County of North Lancashire Observer L. Grace, Esq. Headmaster  
River Basin Leven & C. - 2  
Type of Gauge Standard Coniston MO 527

Annual Average 80.3 in. based on 7 years obs. un-weighted. Period of average 1881-1915 Ref. 777087/27

Diameter	5.	HYD. STA. NO. 38-588008									
Height	1.0.	NGR. SD (34) 303° 975									
Altitude	180.	AKT. 180ft. 55m									
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	6.86	11.27	6.19	13.36	5.23			15.47	12.33	6.71	
February	6.54	.08	12.76	.47	13.63			5.56	10.78	3.74	
March	1.68	6.28	6.32	5.54	4.74			7.13	7.07	10.72	
April	3.61	7.60	5.00	4.43	7.93			1.97	5.84	4.71	
May	6.38	6.35	4.22	5.24	1.19			6.92	1.09	1.28	
June	9.43	2.15	4.42	2.55	6.99			10.81	6.72	1.50	
July	8.91	8.37	6.49	1.53	3.30			14.79	14.19	9.40	
August	4.65	2.27	6.51	9.16	3.89			5.52	2.88	5.01	
September	3.54	10.77	2.17	8.70	10.07			5.21	3.78	10.45	
October	6.62	14.65	6.14	13.57	12.99			22.02	3.67	9.64	
November	7.45	11.10	3.84	1.83	9.91			15.03	15.45	12.92	
December	6.54	15.40	1.94	11.09	7.42			9.83	5.62	13.23	
TOTALS	72.21 D.	96.29 D.	66.00 D.	77.47 77.47	87.29 87.29	NR	NR	120.26 D	89.42 D	89.31 D	

Adopted for Rainmaster  
October 1975.

1935. Inspected 12/9/35. Exposure excellent, but gauge worn out.  
Recommended purchase of standard gauge. There is considerable risk of mis-reading with present g.  
1934. Not printed. See Inspection.  
1935. Not printed. Inspected. Gauge is worn out. New MO gauge in use from 1937  
1938. Greenhouse 10ft high S.E. N.  
School House 20 " " 20 " N.W.

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	Parish Church.	Distance from gauge	Direction
1931			Coniston. LMSR.	1/4 m.	W	Coniston	40 yds.	W.



RAINFALL at Boniston (Thwaite Cottage)

County of N. Lancashire

Observer J. B. Cohen

River Basin Leven + C-2

Type of Gauge M. O. Snowdon 1937  
B. A. 1940

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

c 1933				f 261557 / 33							
Diameter				5"	HYD. STA. NO. 38-587960					Adopted for Rainmaster Oct. 1975.	
Height				1'	NGR SD (34) 310 <sup>5</sup> 977 <sup>0</sup>						
Altitude				160'	ALT 150ft 46m						
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January				12.80	5.59	11.15	10.03 <del>9.92</del>	13.42	11.59	5.11	
February				.77	15.38	3.62	13.78	4.88 <sup>3</sup>	11.43	3.63	
March				6.45	2.72	6.44	3.25	6.27	6.53	10.80	
April				5.47	6.48	1.85	5.13	1.63	4.64	4.32	
May				7.10	1.79	1.57	2.82	7.41	1.16	1.38	
June				5.42	8.07	6.08	5.25 <sup>01</sup> <del>5.25</del>	8.86	5.70	1.20	
July			impr	5.47	4.43	6.96	4.77	12.59	12.90	7.90	
August			6.19	7.86	5.38	6.40	4.31 <sup>29</sup> <del>4.31</del>	4.91	2.55	3.82	
September			1.22	11.77	13.25	9.63	7.21	5.00	3.62	9.45	
October			6.84	14.33	15.76	9.05	4.47 <sup>1.0</sup> <del>4.47</del>	20.76 <sup>1.0</sup> <del>20.76</del>	4.13 <del>3.63</del>	9.32	
November			3.91	2.07	8.09	10.45	3.21	12.84 <del>12.84</del>	13.99 <del>14.06</del>	11.87	
December			2.05	13.31	7.28	13.07	6.85	9.03 <del>5.66</del>	5.32	13.05 <sup>4</sup> <del>13.05</del>	
TOTALS			impr.	88.81 <del>88.81</del>	94.22 <del>94.22</del>	86.27 <del>86.27</del>	70.52 <del>70.98</del>	107.85 <del>104.23</del>	83.56 <del>83.14</del>	82.14 <del>82.15</del>	

1933. Gage (official) stands in the middle of a grass lawn measuring about 25' sq, and bordered by railings on E beyond an open field & low hedges on N. S. & W; there are no big trees near.

1935. Sweet briar hedge 5'-6' high 15' S.  
1937 Sweet briar hedge 5.6' high 7yd S.

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	Parish Church.	Distance from gauge	Direction
1933			Boniston	c. 1m.	W.	Boniston.	c. 1m.	W.



RAINFALL at Coniston (Hollywath)

County of Lancs Observer M<sup>rs</sup>. Hext

River Basin 8 N. Lancs. 2.

Type of Gauge Glaisher

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

447617/35

Diameter .....	8"										
Height .....	9"										
Altitude .....	250										
Year .....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January .....	12.99	12.88	9.62	12.66			10.82	14.99	12.27	5.11	
February .....	12.07	06	10.69	.95			15.68	5.20	11.76	4.21	
March .....	1.20	7.68	6.66	6.56			3.29	6.70	7.07	11.85	
April .....	6.71	8.04	4.31	5.72			5.55	2.05	5.79	4.55	
May .....	5.32	6.50	3.88	7.72			3.07	8.22	1.14	1.34	
June .....	10.85	2.20	4.52	3.80			5.98	9.96	6.98	1.50	
July .....	10.69	8.69	6.40	3.98			5.97	14.92	14.00	9.20	
August .....	5.34	1.79	6.81	9.11			4.49	5.58	2.96	5.00	
September .....	2.90	11.23	7.26	14.12			7.99	5.99	3.90	10.44	
October .....	8.25	14.96	7.46	16.30			4.38	23.58	3.65	10.65	
November .....	16.14	8.77	4.13	2.30			3.21	15.05	15.37	12.92	
December .....	9.78	16.09	2.08	16.37			7.17	10.27	5.77	14.96	
TOTALS .....	101.24	98.89	67.82	99.69	NR.	NR	77.60	122.51	90.66	91.73	

Inspected 12/9/35. Site & exposure good. Gauge sound, some doubt as to ear  
leaking. This was tested & found to be sound.  
1937 mountains 1/2 m. N.  
1940 Jan. part estd.

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	Parish Church.	Distance from gauge	Direction
1938			Coniston	2 mi.	S.	Coniston	2 mi.	E.



RAINFALL at *Near Sawrey Low House*  
*Hawkshead (Tower Bank Sawrey)*

County of *North Lancashire* Observer *Miss Alcock-Beck*

River Basin *Leven & C-2* *Mrs. W. H. Baines*

Type of Gauge *Snowdon*

Annual Average *65.3* in. based on *22* years obs. *un-weighted*. Period of average *1881-1915* Ref. *8/5940/28*

Diameter	5.										
Height	1.0.							16		10	
Altitude	342.							320	342		
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	7.46	9.52	6.50	9.99	3.36	8.16	7.45	10.46	9.48	3.42	7580
February	7.60	.04	6.48	.89	10.87	3.01	10.29	3.98	8.20	2.20	5356
March	1.05	5.38	5.30	5.09	2.48	4.84	2.63	4.33	4.40	8.28	4378
April	2.76	5.75	3.48	4.78	6.17	1.38	4.91	1.16	3.09	3.45	3693
May	4.10	6.45	2.88	5.89	.80	1.51	2.55	6.64	1.67	1.41	3390
June	7.67	2.65	3.10	3.37	7.63	5.67	4.21	8.49	4.66	.93	4838
July	8.11	5.26	4.75	2.49	3.15	5.17	4.47	10.94	10.29	6.24	6087
August	4.47	1.71	4.66	6.74	4.99	5.24	4.88	4.07	2.96	2.43	4215
September	2.51	8.56	1.12	9.67	11.26	7.85	5.62	4.67	3.53	5.72	6051
October	5.48	9.60	5.40	11.81	11.02	6.64	3.97	16.78	3.07	7.26	8103
November	13.88	5.90	2.86	1.84	7.60	7.82	2.51	12.99	11.84	7.52	7476
December	7.42	9.45	1.78	12.23	4.93	10.24	5.90	7.68	4.60	9.07	7327
TOTALS	72.51	70.27	48.31	74.79	74.26	67.44	59.39	92.19	67.79	58.03	68494

Gauge moved March 1932

1934. Trees 40' high 10 yds. E.

House 20' high 10" S.W.

1938 House 20' high 10 yds N. Trees 30'-40' high, 10 yds E.

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	Parish Church.	Distance from gauge	Direction
1931			Windermere	5m.	NE'E	Sawrey	3/4 m.	S.E.
1938				4m	NE.		1 m	S.E.



RAINFALL at Hawkshead (Foundation Sch.)

County of North Lancashire Observer J. Lowe Handley, Esq.  
River Basin Leven & C. - 2 Headmaster (1932)  
Type of Gauge B.A.

Annual Average 71.1 in. based on 11 years obs. un-weighted. Period of average 1881-1915 Ref 821963/28

Diameter	5										
Height	1.0			7" see inspection				1' 0"	1' 0"		
Altitude	214							241	241	241	
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	9.26	10.83	6.50	11.11	4.11	8.83	7.77	12.28	11.43	(3.40)	
February	8.47	10.08	7.35	6.64	12.26	3.00	11.03	4.58	10.24	(2.20)	
March	9.96	5.62	5.95	5.84	2.40	4.17	2.72	5.45	5.60	8.53	
April	2.99	5.85	3.55	4.83	5.40	1.17	4.35	1.41	3.26	3.05	
May	4.40	6.37	3.46	6.37	.82	.73	2.69	6.78	1.31	1.17	
June	8.46	2.59	2.25	3.30	7.60	5.43	4.08	7.59	4.70	.82	
July	6.37	6.53	6.55	(3.37)	(3.33)	6.01	4.15	11.17	11.25	6.37	
August	4.05	2.00	4.82	(7.70)	(4.66)	5.26	4.42	4.85	2.44	2.47	
September	2.58	10.30	1.36	10.36	(11.96)	7.86	5.42	4.13	4.36	6.83	
October	6.09	13.00	6.18	12.81	12.99	6.54	4.55	20.92	2.90	7.17	
November	11.86	7.20	3.24	1.91	(7.16)	7.57	2.66	13.55	12.44	9.61	
December	7.08	10.04	1.82	12.44	(5.07)	10.00	(5.33)	6.93	4.63	8.94	
TOTALS	72.57	80.41	53.03	80.73	77.76	66.57	59.17	99.64	74.56	(60.56)	

1934. School wall 5' high 10 yds. W.  
1935. Inspected 12/9/35. Run of gauge 7" above ground, rec. this to be raised to 1 ft & made firm in ground. Recommended that g. should be moved to a rather more open site in the garden  
Gauge moved 20' S on Dec 20<sup>th</sup> & set with run 1 ft above ground  
~~1936 May, Oct, Nov, Dec. estimated.~~ 1935 Wire fence 4' 6" high 15'E; Hedge 6' high 20' N.  
~~up to end of estimation~~ July - Sep, Nov, Dec allocated by surrounding stations  
1937 Wall 5' high 27' W.  
1940 Jan. & Feb. estd. Nov & Dec. adj.

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	Parish Church.	Distance from gauge	Direction
1934			Coniston	4m	W.N.W.	Hawkshead	125 yds.	N.W.



RAINFALL at Hawkshead (Bettyfold)

County of North Lancashire

Observer H.T. Gnossapetius, Esq. <sup>died 1939.</sup>

River Basin Leven & C. - 2.

Type of Gauge M.O. Snowden (Inspection 12/9/31)

Annual Average 18.0 in. based on 4 years obs. up-weighted. Period of average 1881-1915 Ref. S  
661529/26.

Diameter	5.										
Height	1.0.										
Altitude	500.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	5.82	12.32	9.71	12.72	(4.28)	7.64	8.12	11.88			
February	10.44	.02	13.35	.63	12.33	2.81	8.90	4.76			
March	1.01	5.63	5.92	5.50	2.21	4.57	2.59	5.58			
April	2.80	7.24	3.44	4.42	4.89	1.11	4.58	1.15			
May	4.87	5.71	3.65	6.22	.52	.95	2.58	6.88			
June	9.49	2.41	3.24	2.95	7.25	5.82	4.36	8.10			
July	8.44	6.67	5.36	2.79	3.39	5.67	4.01	10.47			
August	5.16	1.69	5.33	6.73	4.71	5.09	4.42	4.54			
September	2.59	9.56	1.09	11.73	10.89	8.50	5.13	4.13			
October	6.66	13.15	5.84	12.80	11.95	6.19	3.47	20.85			
November	14.47	7.10	2.75	1.89	7.24	8.40	2.55	12.63			
December	7.75	14.33	1.65	12.93	5.28	10.74	5.67	8.17	#		
TOTALS	79.50	85.83	61.33	80.71	74.89	67.49	56.38	(99.14)			
	2	2	2	2	2	2	2	2			

House 40' high 25' N. Hedge 6' high 12' S. Wall 6' high 40' W.  
1935. Inspected 12/9. Gauge sound. recommended use of narrow neck bottle for calib. Measure incorrectly graduated above 3 inch mark. New measure recommended.  
1938. Entries in Jan. Mar. Nov. & Dec. amended by sur. Sta.  
1940. Form 1103 returned with note of death of observer

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	Parish Church.	Distance from gauge	Direction
1933.			Bonistone	3m	S.W.	Hawkshead	1m	E.S.E.



RAINFALL at Hawkehead Hill

County of N. Lancashire Observer Miss R.E. Sugden B.A.

River Basin Levens - 2

Type of Gauge M.O. Snowden  
(since Aug. 1933)

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

233383/33.

Diameter	5"										
Height	7"		1'0"	1'0"							
Altitude	600'										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	10.92	13.90	8.04	13.58	4.23	9.85	10.47	13.13	11.23	4.62	
February	10.34	.25	9.60	.69	14.12	3.37	11.57	4.98	11.24	3.00	
March	1.18	6.64	6.29	5.88	2.70	5.45	2.82	6.40	6.04	10.09	
April	4.25	7.77	3.83	4.88	5.67	1.46	5.17	1.38	4.58	3.68	
May	5.10	6.44	4.24	6.47	.76	1.14	3.05	7.55	1.40	1.47	
June	10.23	2.48	3.36	3.57	8.57	6.07	5.06	8.73	5.64	1.21	
July	9.92	7.10	6.23	3.06	4.12	6.66	4.68	12.66	12.02	6.78	
August	5.79	2.13	5.74	7.73	5.99	6.13	4.53	5.08	2.51	3.13	
September	3.05	10.34	1.28	11.79	13.68	9.07	6.15	4.76	5.27	8.36	
October	7.66	14.32	6.29	13.88	14.36	8.78	4.16	22.02	3.54	9.37	
November	14.94	7.95	2.67	2.09	8.53	9.25	2.72	13.58	14.14	11.25	
December	8.92	14.75	1.69	12.45	6.00	12.61	7.47	8.64	5.02	9.94	
TOTALS	92.30	94.07	59.26	86.07	88.73	79.84	67.85	108.96	82.63	72.90	
		D	D	D	D	D	D	D	D	D	

1928-31 late sup. rec. 11/33  
1932. Greenhouse 6½' high 19' NW: wall 10' high 26' SW.  
1935. Inspected 12/9 rel. 9. satisfactory

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
March 23 1933	54° 23'	3° 1' W	Coniston	3m	SwbyW	Hawkehead	1 1/2 m.	ESE



RAINFALL at HIGH WRAY (WRAY CASTLE)

County of North LANCASHIRE

Observer Freshwater Biological Assoc.

River Basin 2 - Leven & C.

Type of Gauge.....

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref

732298/38

Diameter .....								5"			
Height .....								1'			
Altitude .....								195'	202.1	202	
Year .....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January .....								(11.50)	10.82	4.44	
February .....								(4.00)	9.54	2.58	
March .....								4.68	5.08	8.09	
April .....								.92	2.97	3.05	
May .....								6.05	1.09	1.12	
June .....								8.29	4.53	.74	
July .....								10.34	9.10	6.54	
August .....								4.33	2.68	2.20	
September .....								4.13	4.17	6.66	
October .....								18.52	3.54	8.42	
November .....								12.73	13.16	9.03	
December .....								7.30	4.64	10.11	
TOTALS .....								(92.79)	71.32	63.04	
								d	d	d	

1938. Larch Fence 3ft 6in - 8ft all round. Tree 40ft - 40yds W.S.W.  
" Jan. & Feb. wind by river side

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.
1938.			Windermere	2 7/8 m	E.S.E	Wray	1/2 m	S.S.W.



RAINFALL at Hawkshead (Black Fell)\*

County of North Lancashire Observer Miss C. Marshall,

River Basin Leven & C. - 2

Type of Gauge

Annual Average in. based on years obs. un-weighted. Period of average Ref.

662692/26.

Diameter	5.										
Height	1.6.										
Altitude	1055.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	7.50	14.09	7.56	13.08	3.97	<del>10.40</del>					
February	8.64	(.20)	(10.35)	.56	14.06	<del>3.15</del>					
March	1.12	5.60	4.96	6.02	2.60	<del>4.80</del>					
April	2.70	(7.00)	3.60	3.78	4.68	<del>1.02</del>					
May	(5.00)	5.30	3.63	6.79	.61	<del>0.54</del>					
June	8.65	2.30	3.53	3.70	6.84	<del>5.02</del>					
July	7.67	7.95	6.79	2.50	4.10	<del>7.80</del>					
August	3.69	1.70	(4.35)	3.02	4.89	<del>5.65</del>					
September	2.86	10.00	1.20	12.02	11.96	<del>7.90</del>					
October	6.86	12.30	5.68	12.64	13.00	<del>7.56</del>					
November	18.09	7.40	2.90	.60	8.96	<del>8.56</del>					
December	8.00	14.20	(1.74)	14.85	5.96	<del>13.25</del>					
TOTALS	(80.78)	(88.04)	(56.29)	(84.86)	81.63	<del>75.65</del>					

\* Gauge over-exposed on moor. (B. R.)

1931. May estimated. g tampered with

1933 n.p. - low.

1936 - figures for new gauge - No 3031/1.

N.B. Rejected from survey as 10" too low.

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	Parish Church.	Distance from gauge	Direction



RAINFALL at Blackfell (Hawthornhead) m. g.

County of North Lancashire Observer Miss Cordelia Marshall

River Basin Leven & C. 2.

Type of Gauge.....

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

f662692/26

Diameter .....					5						
Height .....					1 0						
Altitude .....					950						
Year .....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January .....					# 4.59	10.40	10.27	14.03			
February .....					13.53	3.15	11.43	4.94			
March .....					2.56	4.80	3.20	5.06			
April .....					4.38	1.02	4.20	.34			
May .....					.52	.54	2.86	6.76			
June .....					6.83	5.02	3.60	7.40			
July .....					4.05	7.80	4.50	10.79?			
August .....					(4.90)	5.65	4.15	4.56			
September .....					12.13	7.90	6.02	4.79			
October .....					12.54	7.56	4.10				
November .....					8.50	8.56	2.34				
December .....					5.45	13.25	4.22				
TOTALS .....					(79.98)	75.65	60.89				

1935 Aug. estimated by surrounding stations.  
N.P. 1935 as return incomplete.

1938. October-gauge given up.

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	Parish Church.	Distance from gauge	Direction
1935			Coniston	3 1/4 mls	S.W.	Braithay	1 1/2 ml	N.E.



RAINFALL at Ambleside (Skelwith Fold)

County of North Lancashire Observer Miss C. Marshall.

River Basin Leven & C. - 2

Type of Gauge

Annual Average 81.0 in. based on 40 years obs. un-weighted. Period of average 1881-1915 Ref 3

662692/26.

Diameter	5.										
Height	1.0.										
Altitude	333.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	9.40	15.65	7.39	13.08	3.64	10.33	10.07	13.79	11.90		
February	8.72	10.6	11.48	5.54	13.54	3.12	10.88	4.53	9.87		
March	1.35	6.27	4.76	5.94	2.42	4.64	3.12	5.25	6.11		
April	3.32	8.22	3.57	4.51	4.65	1.20	4.06	.88	3.72		
May	5.40	5.49	3.65	6.76	.62	.64	2.70	6.61	1.60		
June	8.85	2.72	3.66	3.57	6.78	4.97	3.48	8.79	5.52		
July	7.83	7.99	6.81	2.21	4.11	7.40	4.47	11.48	11.03		
August	4.87	1.87	4.01	7.96	4.71	5.33	4.10	4.85	2.31		
September	3.10	9.92	1.09	11.93	11.81	8.87	5.99	4.94	3.32		
October	7.28	12.47	5.62	12.17	12.00	7.44	3.77	20.53	3.56		
November	18.04	7.38	2.77	.26	8.43	8.53	2.31	14.36	13.90		
December	8.54	14.08	(1.53)	12.110	4.85	13.17	5.59	7.76	3.32		
TOTALS	86.70 a	92.12 a	56.34 d.	81.33	77.56 d.	75.64 d	60.54 d	103.77 d	76.16 d	N.R.	

1933 December part estimated by near stations.

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	Parish Church.	Distance from gauge
			Windermere	4 1/2 m	S.E.	Brathay.	1/2 m N.E.



RAINFALL at Shelwith Fold, Ambleside.

County of Lancashire Observer Miss C Marshall

River Basin Leven 8C-2

Type of Gauge

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

Diameter ....											
Height ....											
Altitude ....											
Year ....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January ....									10.96		
February ....									11.02		
March ....									(6.10)		
April ....									3.77		
May ....									1.56		
June ....									5.71		
July ....									10.30		
August ....									2.46		
September ....									3.54		
October ....									3.62		
November ....									14.82		
December ....									4.52		
TOTALS ....									78.38 NP	W.R	

1939 NP check gauge.

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	Parish Church.	Distance from gauge.	Direction
			Windermere.	4 1/2 m.	S.E.	Brathay.	3/4 m.	N.E.



RAINFALL at Heysham Harbour

County ofNorth LancashireObserverL.M. & S. Rly. Co.

River BasinKent & C. - 3.

Type of GaugeSnowdon. M.O. 1940.

Annual Average34.7 in. based on 19 years obs. un-weighted. Period of average1881-1915Ref. S

736493/27

693568/76

Diameter	5										
Height	1.6							1' 10"	1 0		
Altitude	25								36		
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	3.78	4.59	2.65	4.24	1.91	3.37	2.33	4.70	4.05	2.61	3423
February	3.13	.03	2.49	.10	4.07	2.08	4.88	1.42	2.30	1.86	2236
March	.38	2.63	2.25	1.68	1.12	1.63	2.02	1.37	1.76	3.59	1843
April	1.62	2.57	2.08	3.06	2.71	.38	3.11	.33	2.24	2.30	2040
May	1.81	4.70	2.68	3.84	1.44	1.07	1.75	2.95	1.03	1.49	2276
June	6.45	2.01	1.46	2.65	3.21	3.06	2.64	(4.10)	3.39	.32	2929
July	3.61	4.75	2.18	2.25	1.41	3.45	2.53	(4.20)	5.50	3.60	3348
August	2.95	1.19	2.49	3.53	3.39	2.60	1.74	(2.70)	2.27	.87	2373
September	2.97	4.38	.59	4.60	6.88	6.22	3.24	(1.30)	1.46	4.75	3639
October	3.06	6.10	5.42	5.40	6.00	2.68	2.08	(8.60)	1.29	5.10	4573
November	6.91	2.74	1.72	1.55	4.16	4.51	1.73	(5.50)	5.62	5.11	3955
December	3.57	2.51	.67	4.52	2.86	5.03	2.45	(4.50)	2.44	4.72	3327
TOTALS	40.24	38.20	26.68	37.42	39.16	36.08	30.50	(41.67)	33.35	36.32	35962
	d	d	d	d	d	d	d	d	d	d	

Office 15' high 61' W.

1940 Gable of cattle lairage25' 0" high 62' 0" NNE.

Side wall of "15' 0" "24' 0" NNE.

Stone shed9' 0" "24' 0" S.

Timber fence post & rail4' 9" "9' 0" W.

cpl. for 1916-50  
2mms n/3034

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 Direction from gauge		Parish Church.	Distance Direction from gauge
1931			Heysham Harbour	833 yds.	SW.	Heysham.	1,300 yds. NNE
1940			Heysham Harbour	1100 yds	SSW	Heysham	111075 yds NNE



RAINFALL at Morecambe M.W.R.

County of North Lancashire Observer H. Morgans Esq.

River Basin Kent - C - 3 The Down Clerk

Type of Gauge M. 6 No. 72 Chief Sanitary Inspector

Annual Average 37.0 in. based on 34 years obs. un-weighted. Period of average 1881-1915 Ref. S

Diameter	....	4.										
Height	....	1.0.										
Altitude	....	23.		25	23				+ 24	23		
Year	....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	....	4.75	4.68	3.11	4.57	1.77	3.52	2.34	5.07	3.83	2.28	Totals 35.92
February	....	3.79	.05	3.41	.15	4.85	1.38	5.10	1.43	2.70	1.72	24.58
March	....	.47	2.75	3.01	2.06	1.29	1.71	1.65	1.28	1.66	3.59	19.47
April	....	1.90	2.82	2.06	3.29	2.96	.48	3.17	.34	2.33	1.90	21.25
May	....	1.92	5.11	2.76	4.29	1.34	1.97	2.08	3.58	.82	1.79	25.66
June	....	6.79	2.39	2.01	1.55	3.77	3.18	2.91	4.14	3.59	.37	30.70
July	....	4.53	4.86	3.74 6.23	1.94	1.55	2.93	1.94	4.26	5.88	3.38	35.01
August	....	3.87	1.36	2.75	3.93	2.96	2.98	2.27	2.47	1.81	1.20	25.60
September	....	2.53	4.41	.76	4.40	8.38	6.30	2.66	1.32	1.41	4.33	36.90
October	....	3.51	5.24	5.68	6.05	6.10	2.95	1.91	8.67	.97	5.49	46.57
November	....	7.62	3.16	1.79	1.47	4.53	5.36	1.73	5.88	4.84	4.70	41.08
December	....	3.74	2.83	.67	5.28	2.87	5.77	2.46	4.40	2.47	4.45	34.74
TOTALS	....	45.42	39.66	31.75 34.24	38.98	42.37	38.53	30.22	42.84	32.31	35.20	377.28
		D.	D.	D.	D.	D.	D.	D.	D.	D.	D.	

30. X. 31. Inspected see green file. Inspected 21/10/32. Height above M.S.L. is 23.5 ft.  
26/7/33. Inspected by M.O. Inspector. G + site satisfactory.  
1933 July corrected by observer.  
17/6/35 Inspected by M.O. Inspector. G + site satisfactory. Altitude given as 23 1/2 ft.  
and verified as Chief San. Inspector.  
+ Certificate of 23.5.39

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	Parish Church.	Distance from gauge	Direction



RAINFALL at Morecombe (27 Stuart Avenue)

County of Lancashire

Observer H.W. Apperley Esq.

River Basin Kent & C-3

Type of Gauge Snowdon (1940)

Annual Average.....in. based on.....years obs. un-weighted. Period of average..... Ref.....

Diameter .....									5"		
Height .....									1' 0"		
Altitude .....									18'		
Year .....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January .....									(4.40)	2.34	
February .....									2.54	1.95	
March .....									1.72	3.72	
April .....									2.40	1.87	
May .....									.95	1.95	
June .....									3.45	.42	
July .....									6.4	3.69	
August .....									1.96	1.32	
September .....									1.37	4.69	
October .....									1.01	5.47	
November .....									4.96	4.71	
December .....									2.73	4.49	
TOTALS .....									(33.60)	36.62	

1939 Low rustic fence 3' high 3' 6" W.S.W. Thermometer frame 4' 6" high 10' S.E.  
1940 Gauge read at 4 p.m.

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.
			Bare Lane (Radial) Easton Rd, Morecombe (Radial)	1/2 mile	E.N.E.	Morecombe	0.8 mile	W.
				1/3 mile	W.S.W.			



RAINFALL at MORECAMBE (98, BARE LANE)

County of N. LANCASHIRE Observer K.M. Wolstencroft Esq.

River Basin 3 - Kent & C

Type of Gauge Snowdon. H.O 1940.

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

A 38485/39

Diameter .....									5"	5"	
Height .....										0 11 11"	
Altitude .....									20'	20'	
Year .....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January .....	3.88	4.87	3.07	4.33		3.37	2.08	4.50	3.83	2.62	
February .....	3.15	0.04	3.04	0.12		1.77	5.23	1.37	2.66	1.70	
March .....	0.47	2.49	2.25	1.74		1.45	1.87	1.30	1.55	3.30	
April .....	1.81	1.90	1.79	2.84		0.47	3.25	0.25	2.29	1.40	
May .....	2.02	5.47	2.56	4.00		1.38	2.00	3.45	0.84	1.64	
June .....	7.17	1.96	1.54	2.59		3.10	2.70	4.07	3.28	.51	
July .....	5.20	5.00	5.00	2.26		3.20	2.55	4.28	6.02	3.89	
August .....	3.27	1.43	2.47	3.84		3.29	2.49	2.74	2.03	1.59	
September .....	2.41	4.95	0.90	4.06		5.25	2.30	1.32	1.26	4.77	
October .....	3.39	5.38	5.57	5.25		3.26	1.62	8.51	0.93	5.61	
November .....	6.22	2.94	1.52	1.42		4.56	1.77	5.03	5.31	4.60	
December .....	4.03	2.99	0.58	4.13		5.18	2.25	4.49	2.58	4.57	
TOTALS .....	43.02	39.42	30.29	36.58		36.28	30.11	41.31	32.58	36.20	

Back years 1931-1939 copied. 20.1.40  
1940 { Dwelling House 30' high 30' S.  
Hedge 8' high 30' N.  
Shrubs (small) 10' E.  
fairly open to the west.

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.
1940			Bare lane	350 yd.	N.N.W.	Bare	1 ml	N.W.



RAINFALL at <sup>139</sup>MORECAMBE (BARE LANE)

County of N. LANCASHIRE

Observer M.E. Burton Esq., F.R. Met. Soc.

River Basin 3-Kent & c.

Type of Gauge Snowdon

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....  
c.1935 Ref 4056/30.

Diameter ....								5"			
Height ....								1'			
Altitude ....								15'			
Year ....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January ....								4.89	4.37	2.59	
February ....								1.55	2.70	1.87	
March ....								1.38	1.72	3.60	
April ....	Station previously numbered 3050/7 -renumbered owing to revision of river division lines - 4/39.							38	2.33	2.02	
May ....								3.43	2.92	1.61	
June ....								4.42	3.37	4.49	
July ....								4.06	6.46	3.68	
August ....								2.81	2.07	1.47	
September ....								1.43	1.35	4.91	
October ....								8.86	2.98	5.59	
November ....								5.76	5.36	4.76	
December ....								4.61	2.58	4.51	
TOTALS ....								43.88	34.21	37.10	

1935. Hedge 2½ ft - 9 ft N.  
House 20 ft - 8 yds E.  
Bush 3 ft - 9 yds S.  
Bush 1 ft - 4 yds W.

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	Parish Church.	Distance from gauge.	Direction
1935			Bare Lane	1/4 m	N.	Morecambe	3/4 m	W.



RAINFALL at Hest Bank. (Lyndale)

County of N. Lancs. Observer W. Watson

River Basin 3- Kent & C.

Type of Gauge 70. Snowden 1940.

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

82531/30.

Diameter .....	5"										
Height .....	1' 6"										
Altitude .....	97'										
Year .....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January .....	4.38	5.06	3.72	4.85	1.69	4.41	2.67	5.17	4.65	2.36	
February .....	4.02	.02	3.34	.18	5.10	2.01	5.95	1.62	3.20	2.03	
March .....	.50	2.71	2.15	2.16	1.17	1.85	1.56	1.47	1.65	3.81	
April .....	1.83	3.04	2.00	2.85	2.74	.47	2.86	.47	2.56	1.81	
May .....	1.68	5.00	2.81	4.06	1.04	1.63	2.28	3.60	1.06	1.22	
June .....	6.42	2.33	1.68	2.33	4.59	3.26	2.64	4.76	3.36	.37	
July .....	4.31	5.56	3.70	2.28	1.72	3.74	2.67	4.89	5.65	4.00	
August .....	3.09	1.37	2.78	4.17	2.37	3.20	2.69	3.64	1.93	1.60	
September .....	2.11	4.31	.84	4.10	6.67	4.38	3.16	1.76	1.58	5.02	
October .....	2.90	5.80	5.43	5.31	5.76	3.62	1.85	9.43	.84	5.82	
November .....	7.28	3.24	1.80	1.41	4.52	4.92	1.98	6.38	5.01	4.79	
December .....	4.65	3.04	.66	5.47	2.96	6.04	2.54	4.82	2.60	4.46	
TOTALS .....	43.17	41.48	30.91	39.17	40.33	39.53	32.85	48.01	34.09	37.29	

Laurel fence 5' high 36' E & S : wall 8' high 70' W.

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			Hest Bank	1/4 m	NNW.	Slyme with Hest.	4 1/2 yds	S.E.



RAINFALL at Hest Bank (Hatter Drive)

County of N. Lancs.

Observer R. Rhodes, Esq. Dud 12. 2-36

River Basin Hest & C-3

Thos. P. M. Rhodes.

Type of Gauge.....

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

c. 1933

5816342/28

Diameter .....						5					
Height .....						1.0					
Altitude .....						35					
Year .....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January .....				4.02	1.79	4.46	2.77	5.32			
February .....				.15	5.76	2.09	6.21	1.69			
March .....				2.11	.76	1.88	1.66	1.63			
April .....				2.51	(2.75)	.61	3.23	.52			
May .....			2.36	4.04	1.18	1.81	2.31	3.69			
June .....			1.66	2.58	4.81	3.08	2.99	4.71			
July .....			3.11	2.38	1.99	4.23	2.78	4.92			
August .....			3.11	4.29	3.12	3.36	2.18	2.98			
September .....			1.02	4.44	9.52	5.17	4.10	#			
October .....			5.99	6.16	6.73	3.65	2.40				
November .....			1.62	1.49	4.69	5.02	1.87				
December .....			.63	5.38	3.25	5.92	2.54				
TOTALS .....			imp. 39.85	D 46.35	d. 41.28	d. 35.04					

g. from fringe over lands.

obs. moved to Bakewell 9.38

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



RAINFALL at Bolton-le-Sands (Orchard Avenue)

County of Lancashire N.

Observer Sydney Moorhouse

River Basin Kent TC - 3

Type of Gauge M.O.

Annual Average in. based on years obs. un-weighted. Period of average f. A. 200736/40 Ref

Diameter ....										5"	
Height ....										1' 0"	
Altitude ....										5'	
Year ....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January ....											
February ....											
March ....											
April ....											
May ....											
June ....											
July ....											
August ....											
September ....											
October ....											
November ....											
December ....										4.54	
TOTALS ....										..	

1940. Bungalow 21' high 60' E. Various other bungalows grouped round site but none nearer than 75-80'.

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	Parish Church.	Distance from gauge.	Direction
1940			Bolton-le-Sands	1/2 ml	S.W	Bolton-le-Sands	1/2 ml	S.



RAINFALL at Bolton-le-Sands (Hill close)

County of Lancashire (N.) Observer Miss F. M. Horner

River Basin Kent & Co. - 3

Type of Gauge Snowdon

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

\* from 1" map f 228857/33.

Diameter	....	....				5"							
Height	....	....				1' 0"				1' 1"			
Altitude	....	....				80'							
Year	....	....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	....	....					1.93	4.12	2.60	5.51	3.39	2.41	
February	....	....					5.50	2.06	5.99	1.85	3.29	1.69	
March	....	....					1.22	1.80	1.55	1.58	2.00	4.08	
April	....	....					2.63	.66	3.06	.56	2.36	2.06	
May	....	....					1.05	1.87	2.13	3.88	1.10	1.37	
June	....	....					4.06	3.13	2.83	4.00	3.45	.66	
July	....	....					2.20	3.96	2.82	4.20	5.81	5.01	
August	....	....					(2.74)	3.17	2.28	3.91	2.24	1.79	
September	....	....					(9.61)	4.69	3.60	1.61	1.65	5.70	
October	....	....					(6.70)	3.62	1.93	10.20	.88	6.44	
November	....	....					4.57	4.98	1.72	6.64	5.47	5.39	
December	....	....					2.83	5.89	2.34	4.74	2.40	4.89	
TOTALS	....	....					45.04 d.	39.95 d.	32.85 d.	48.68 d.	34.04 d.	41.49 d.	

1935. Vegetables 1' 1 1/2' high 1 1/2' - 2' S.  
Hedge 3' " 12' W.  
Trees 5' " 10' W.  
1937 cabbages 1' high close 2 + S.

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	Parish Church.	Distance from gauge	Direction
1935			Bolton-le-Sands	1/2 m	W	Bolton-le-Sands	500 yds	W.



RAINFALL at Yealand Conyers (Beechfield)

County of North Lancashire Observer <sup>D</sup> Miss F. Roper. died 11/40

River Basin Kent & C. - 3.

Type of Gauge M. O.

Annual Average in. based on years obs. un-weighted. Period of average Ref. 664609/26.

Diameter	5.										
Height	1.0.										
Altitude	250.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	4.97	5.42	3.36	4.25	1.88	2.69	2.55	5.01	3.77		
February	2.88	.07	3.57	.24	5.58	1.39	5.84	1.68	3.07		
March	.62	2.85	2.29	2.00	1.15	1.52	1.10	1.37	1.32		
April	1.96	2.94	2.25	2.41	2.74	.48	3.23	.66	1.95		
May	2.24	5.74	2.68	4.12	.59	1.27	2.47	3.76	.76		
June	7.50	2.04	1.48	2.26	3.93	2.82	2.82	3.83	3.35		
July	5.73	4.60	2.78	2.48	2.70	4.28	2.61	5.13	5.35		
August	2.92	1.51	2.49	4.80	2.31	3.46	2.18	3.22	1.82		
September	2.03	4.63	.86	4.11	8.97	5.64	5.10	1.47	1.85		
October	3.82	5.49	4.58	6.36	6.05	3.54	1.74	10.00	.85		
November	7.16	3.21	1.70	1.14	3.62	4.66	1.57	6.76	6.00		
December	3.88	3.30	.71	6.21	2.98	5.94	2.33	4.33	3.05		
TOTALS	45.71 a	41.80 b	28.75 D.	40.38 D	42.50 D.	37.69 D	33.54 D	47.23 D	33.14 a.p. D low		

1940 Station T. on death of observer.

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
1932.			Barnforth	3m.	S.	Yealand Conyers		N.



RAINFALL at Yealand Conyers (Morecambe Ld.)  
County of North Lancashire Observer J. Rawlinson Ford, Esq.  
River Basin Kent & C. - 3.  
Type of Gauge Howard.  
Annual Average 42.9 in. based on 20 years obs. un-weighted. Period of average 1881-1915 Ref 3

674813/26.

Diameter	5.										
Height	1.0.										
Altitude	278.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	4.83	6.16	3.91	5.05	1.90	4.97	3.56	6.75	4.23	2.24	
February	4.22	.11	3.28	.31	5.72	2.22	6.52	2.50	5.52	2.09	
March	.80	3.31	3.00	2.86	1.47	2.43	1.51	2.25	2.22	4.93	
April	2.63	3.54	2.86	3.36	3.35	.82	4.23	1.01	2.86	2.91	
May	3.34	6.48	3.28	5.41	.67	1.59	3.71	4.05	.90	1.43	
June	8.56	2.32	2.03	2.78	4.95	4.01	3.31	5.28	4.31	.89	
July	6.79	5.39	3.38	3.08	3.35	5.94	3.37	6.27	6.44	6.42	
August	3.45	1.88	3.27	5.46	3.66	4.11	2.44	3.82	2.64	2.27	
September	2.38	5.31	1.06	5.73	10.75	6.03	4.37	2.33	2.07	5.46	
October	3.92	6.27	5.60	7.43	9.27	4.53	1.94	12.99	1.08	6.72	
November	7.84	4.07	2.32	1.36	5.23	5.70	2.17	8.44	7.50	5.38	
December	4.93	2.80	.97	6.85	3.83	7.99	2.85	5.51	3.40	5.44	
TOTALS	53.69	47.64	34.96	49.65	54.15	50.34	39.98	61.20	43.17	46.18	

Wire fence 3' high 1' N.

MET.O.S RAINMASTER  
RETROSPECTIVE SITE REVIEW

584285

NGR: SD(34) 498747

ALT: 278 ft = 85 metres Date of review: 4-1-1979

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	Parish Church.	Distance from gauge	Direction
1932			Carnforth	3m	S.	Yealand	1/3 m	E



RAINFALL at Silverdale (Hawthorn Bank)

County of N. Lancashire Observer Mrs. Nelson

River Basin Hartley - 3

Type of Gauge.....

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

740789/27

Diameter ....						8					
Height ....						1.0					
Altitude ....						50					
Year ....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January ....						4.93	3.41	6.25	4.95	3.12	
February ....						2.23	7.36	2.35	3.88	2.07	
March ....						2.74	1.59	1.78	1.93	4.83	
April ....						.92	3.81	.72	2.31	2.80	
May ....						1.59	2.89	4.13	1.09	1.32	
June ....						4.10	2.10	4.42	3.91	1.28	
July ....						4.78	3.26	5.57	6.55	5.90	
August ....						3.64	2.48	4.17	2.11	1.97	
September ....						8.12	3.91	1.52	1.48	5.09	
October ....						4.54	2.52	10.88	1.57	5.45	
November ....						5.93	2.29	7.28	6.28	5.12	
December ....						8.07	3.58	5.79	3.90	5.36	
TOTALS ....						51.59	39.20	54.86	39.46	44.31	

1936 Gauge previously at Holmfirth (Thongolridge) 3183  
1936 No high objects - low flower beds.  
1940 Jan part estd.

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
1936			Silverdale	1 1/2 ml	E	Silverdale	2 ml	S.S.E.



RAINFALL at Grange-over-Sands (Nutwood)\*

County of North Lancashire Observer J. Steeg, Esq. (died 1/37)

River Basin Kent & C. - 3

Type of Gauge Snowdon

Annual Average 45.0 in. based on 43 years obs. un-weighted. Period of average 1881-1915 Ref 5  
45.46 19 1916-34 1916-1950 742.832/27

Diameter	5										
Height	1.0.										
Altitude	140.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	5.18	5.12	3.47	5.47	2.17						
February	4.87	.00	4.36	.29	6.31						
March	.78	3.57	3.20	2.67	1.27						
April	2.23	3.19	2.26	4.11	3.67						
May	2.65	6.86	2.17	4.51	.60						
June	6.83	1.95	2.77	3.20	5.17						
July	6.24	4.11	3.56	2.62	1.81						
August	3.56	1.98	3.33	5.22	4.16						
September	1.83	6.21	.73	4.97	8.89						
October	4.47	7.01	4.88	6.60	8.25						
November	8.46	3.79	2.60	1.46	4.23						
December	6.52	4.26	1.06	6.88	4.70						
TOTALS	53.12	48.05	34.89	48.00	51.23	N.R.					

1934. " 60' high 20 yds. NW. " 20' " " 56 NW. \* This gauge was at 'Nutwood' during the period Nov. 1873 to 1929 inclusive.  
1937. Mr. J. Steeg died on 21.5 Jan. 1937. No record for 1936 available.  
Station terminated 3/11/37

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	Parish Church.	Distance from gauge	Direction
1931			Grange	1/4 m	S.	St. Paul's	1/2 m	W.



RAINFALL at Grange-over-Sands (Holmcroft)

County of North Lancashire Observer R. Rhodes, Esq.

River Basin Kent & C. - 3.

Type of Gauge

Annual Average 47.0 in. based on 2 years obs. un-weighted. Period of average 1881-1915 Ref 5

816342/28.

Diameter	5.										
Height	1.3.										
Altitude	45.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	4.79	5.01	3.09								
February	4.60	.02	5.14								
March	.57	3.64	3.20								
April	2.30	3.85									
May	2.86	6.89									
June	7.50	1.72									
July	7.99	4.58									
August	3.58	2.09									
September	2.08	5.94									
October	4.82	7.03									
November	9.05	3.80									
December	7.11	4.38									
TOTALS	57.25	48.95									
	D.	D.									

Moves to Westbank (Halter Drive)

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	Parish Church.	Distance from gauge	Direction
1931			Grange	1/2 m.	E	St. Paul's	1/4 m	ENE.



RAINFALL at Lindale (Ellerhow)

County of North Lancashire Observer Lady Tomlinson

River Basin Kent & C. - 3

Type of Gauge Snowden. MO.

Annual Average 51.4 in. based on 8 years obs. un-weighted. Period of average 1881-1915 Ref 5

697083/26.

Diameter	5.										
Height	1.5.					1.5.				1 0	
Altitude	300.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	5.59	6.16	4.16	6.81	2.32	5.49	3.46	6.19	4.20	3.28	
February	5.00	.00	4.27	.34	7.02	2.48	7.20	2.25	4.51	1.69	
March	.68	4.05	4.12	3.58	1.55	2.94	1.77	2.85	2.37	5.34	
April	2.49	3.92	2.86	4.35	4.02	.97	3.68	.78	2.28	3.21	
May	3.35	6.77	2.64	4.84	.47	1.52	2.30	5.61	1.30	1.09	
June	7.03	1.12	2.96	3.52	5.50	3.47	3.48	4.91	2.82	1.19	
July	8.20	6.87	4.14	2.35	1.92	5.85	3.80	7.36	8.47	6.23	
August	4.45	4.47	3.66	5.80	4.30	4.40	2.38	3.29	4.46	1.78	
September	1.82	6.81	.89	5.33	10.74	7.45	5.20	2.58	2.30	4.34	
October	5.07	8.10	4.95	7.53	8.34	4.93	3.13	12.88	1.75	5.72	
November	9.94	3.95	2.75	1.53	4.68	6.35	1.88	7.45	7.92	5.47	
December	5.80	5.67	1.35	7.67	4.88	6.54	4.30	5.60	3.49	5.93	
TOTALS	59.42	57.89	38.75	53.65	55.77	39.42	42.58	61.85	45.79	45.29	

1932 grass upto 1' high 6' all round. Bushes 6' high 20 yds N.E. & S. Trees 80 yds N.E. & S.

1937 Grass 4-6" high 1-50' all round. Trees 30-40' high 50 yds N.E. & S.

MET.0.8 RAINMASTER  
RETROSPECTIVE SITE REVIEW

586380

NGR: SD (34) 412813

ALT: 300 ft = 91 metres. Date of review: 5.1.79

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	Parish Church.	Distance from gauge	Direction
1931			Llange	2 1/2 m	S.	Lindale	1/2 m	S.E.
							1/2 ml	S.



RAINFALL at Carlmeil Fell (The Schoolhouse)

County of North Lancashire Observer R. J. Craggill, Esq.

River Basin Kent & C - 3

Type of Gauge

Annual Average 56.8 in. based on 36 years obs. un-weighted. Period of average 1881-1915 Ref 5

Diameter	....	....	5.										
Height	....	....	1.0.										
Altitude	....	....	220.										
Year	....	....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	....	....	6.57										
February	....	....	6.88										
March	....	....	1.00										
April	....	....	2.88										
May	....	....	3.36										
June	....	....	7.37										
July	....	....	8.17										
August	....	....	#										
September	....	....											
October	....	....											
November	....	....											
December	....	....	Moved to Kendal (Ravensbarn). 3720/5										
TOTALS	....	....											

MET.O.8 RAINMASTER  
RETROSPECTIVE SITE REVIEW

HYD STN  
NUMBER 586271

NGR: SD(3A) 415' 885°

ALT: 220 ft = 67 metres. Date of review: 3/11/78

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	Parish Church.	Distance from gauge



RAINFALL at Pilling Vicarage

County of North Lancashire

Observer Lancashire County Council \*

River Basin Lune - 4

Rev. Myles Atkinson \* (B.R. 1939)

Type of Gauge 7.0

Annual Average in. based on        years obs. un-weighted. Period of average        Ref       

579013/36

Diameter ....								5"			
Height ....								1' 0"			
Altitude ....								19'			
Year ....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January ....								4.20	3.45	2.79	
February ....								1.10	2.20	1.63	
March ....								1.29	1.88	2.89	
April ....								.32	2.17	2.14	
May ....								3.09	.97	1.85	
June ....								4.42	3.07	.58	
July ....								3.72	4.94	3.62	
August ....								3.20	2.42	1.50	
September ....								1.52	1.16	3.47	
October ....								8.37	1.43	4.13	
November ....								5.24	4.83	4.29	
December ....								3.98	2.21	3.87	
TOTALS ....								40.45 D	30.73 D	32.76 D	

Inspected 20.9.38 - Gauge sound and correct - site fairly sheltered.

\* Per Lancashire C.C., Land Drainage Engineer.

Per Land Drainage Engineer

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.
1938.			Pilling	3/4 ml.	S.E.	Pilling	1/4 ml.	S.W.



RAINFALL at Hampson-in-Ellel,

County of North Lancashire Observer John Welch, Esq.

River Basin Lune - 4

Type of Gauge

Annual Average 38.3 in. based on 30 years obs. un-weighted. Period of average 1881-1915 Ref. S  
852964/28.

Diameter	....	....	5.										
Height	....	....	1.0.										
Altitude	....	....	145.										
Year	....	....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	....	....	4.50	4.82	3.43	4.26	2.00	4.00	2.65	5.08	4.49	2.46	Totals. 37.69
February	....	....	3.39	.05	2.97	.15	4.77	2.20	5.20	1.52	2.85	1.93	25.03
March	....	....	.47	2.59	1.83	2.20	1.09	2.17	1.67	1.13	1.89	3.43	18.47
April	....	....	2.22	3.36	2.02	2.85	2.51	.44	2.90	.40	1.89	2.49	21.08
May	....	....	1.92	4.71	2.24	3.87	1.48	1.11	1.80	3.22	1.28	1.51	23.14
June	....	....	7.02	1.23	1.51	2.62	3.64	3.52	2.19	4.79	3.32	.92	30.56
July	....	....	4.70	5.98	2.81	1.90	1.65	3.02	1.88	3.94	5.19	4.28	35.35
August	....	....	3.39	1.65	2.90	5.78	2.45	2.88	2.07	3.88	1.79	2.09	28.88
September	....	....	3.19	5.15	.92	4.47	6.92	4.29	3.11	2.53	1.37	4.56	36.51
October	....	....	3.12	6.15	5.51	5.97	6.32	2.99	1.87	9.45	1.47	4.50	47.35
November	....	....	7.53	3.03	1.92	1.32	3.62	4.96	1.37	4.81	6.18	4.67	39.41
December	....	....	3.31	2.83	.79	5.19	2.63	5.48	2.28	4.42	2.50	4.39	33.82
TOTALS	....	....	44.76	41.55	28.85	40.58	39.08	37.06	28.99	45.17	34.22	37.03	377.29
			D.	D.	D.	D.	D.	D.	D.	D.	D.	D.	42.16

1934 House over 24' high 12 yds N.  
1935 House over 24' high 12 yds N.

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	Parish Church.	Distance from gauge
1931			Galgate	1 m.	N.	Ellel	1 1/4 m. N.



RAINFALL at Quernmore (Brow Top)

County of North Lancashire Observer F. Hill, Esq., C.E.

River Basin Lune - 4

Type of Gauge

Annual Average 43.1 in. based on 46 years obs. un-weighted. Period of average 1881-1915 Ref 678707/26.

Diameter	8.										
Height	1.0.										
Altitude	552.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	6.34	5.17	3.31								
February	4.73	1.04	3.55								
March	.61	2.39	2.43								
April	2.54	2.62	1.64								
May	2.14	5.82	2.78								
June	7.04	1.17	2.18								
July	6.16	8.17	3.40								
August	4.35	1.98	2.56								
September	3.69	6.25	1.19								
October	3.35	5.60	5.11								
November	7.12	3.03	1.91								
December	3.23	2.91	.54	#	vii/34. Gauge moved 0.9 mile down valley near Dama's Gile Res. see Encl 17 <sup>th</sup> 17 <sup>th</sup> . f 678707/26.						
TOTALS	51.30 D.	45.15 D	30.60 D up								

1933 Year. Low np.  
Inspected 1934: — Gauge not standard and is leaking. Recommended that gauge be abandoned and new gauge set up in site selected just to southwest of the road. Its ground is liable to slight flooding the ground should be raised not more than 3 inches for a distance 2 to 3 ft. round gauge and latter be surrounded by a turf wall.

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	Parish Church.	Distance from gauge



RAINFALL at Bowland Forest (High Salter)

County of North Lancashire

River Basin Lune - 4.

Type of Gauge.....

Observer J. T. Sanderson, Esq.

Vernon P. Royle, Esq. (1939)

Annual Average.....in. based on.....years obs. un-weighted.

Period of average.....

Ref.....

664608/26.

Diameter .....	5.										
Height .....	1.0.										
Altitude .....	1014	after July 974						1014		1014	
Year .....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January .....	6.51	6.34	4.98	7.81	4.93	7.24	5.72	9.48	6.05	(3.50)	
February .....	4.43	.14	4.97	.34	8.92	3.26	10.50	2.51	5.12	(3.10)	
March .....	.81	3.41	4.80	3.48	1.82	3.11	2.67	2.00	3.22	7.67	
April .....	3.47	3.69	2.81	3.52	4.50	1.18	4.31	.85	2.63	4.35	
May .....	2.69	5.15	2.44	6.02	1.01	1.84	2.76	5.08	1.22	1.60	
June .....	6.17	1.59	2.32	3.74	6.66	3.56	3.82	6.21	(3.98)	.43	
July .....	6.89	6.22	5.83	3.50	2.94	5.59	2.68	5.05	(6.67)	3.10	
August .....	(2.86)	6.12	2.93	6.89	3.01	3.55	2.91	5.57	(2.64)	3.60	
September .....	(2.35)	7.26	1.99	5.70	10.68	4.37	3.53	2.86	2.37	6.83	
October .....	3.28	8.40	5.71	8.81	9.58	6.37	2.51	12.41	(3.67)	8.53	
November .....	(7.14)	4.60	2.82	1.93	6.70	8.11	1.96	6.99	(4.82)	8.75	
December .....	(2.80)	4.36	.76	9.09	4.05	8.50	3.31	6.62	5.82	7.43	
TOTALS .....	49.40	57.28	42.36	60.83	64.80	56.68	46.68	65.63	(52.28)	(58.89)	

1931. LOW. N.P. Bracketed months allocated. Rejected from survey as 8" too low.  
1932 Low N.P. gauge moved July 30, 1932, o.k. afterwards  
1933. Record OK.  
1940 Jan. + Feb wtd.

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	Parish Church.	Distance from gauge



RAINFALL at Bowland Forest (Whitray)

County of North Lancashire Observer J.T. Sanderson, Esq.  
River Basin Lune - 4 Veron P. Royle, Esq. (1939)  
Type of Gauge

Annual Average 57.5 in. based on 17 years obs. un-weighted. Period of average 1881-1915 Ref S

664608/26.

Diameter	5.										
Height	1.0.										
Altitude	1139.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	10.15	8.24	5.38	7.14	3.24	9.70	6.72	7.65	5.51	3.80	
February	6.82	2.27	4.96	3.36	7.74	4.82	8.30	2.71	8.56	3.54	
March	4.97	4.11	4.62	3.47	1.70	4.78	3.60	1.44	2.79	5.75	
April	4.28	6.17	2.93	3.56	4.82	1.38	2.55	3.30	2.55	3.20	
May	3.17	6.66	2.58	5.33	4.48	1.63	2.67	4.49	1.54	1.97	
June	6.73	2.75	4.30	2.47	5.45	2.90	3.85	(6.50)	3.93	4.2	
July	6.80	5.71	6.72	2.37	2.42	5.69	2.87	2.92	6.45	5.72	
August	5.35	1.81	2.68	4.95	2.68	3.43	3.00	(5.50)	2.06	2.40	
September	2.57	8.63	1.55	6.63	10.50	4.55	3.80	2.81	1.20	5.55	
October	3.50	8.98	5.35	8.70	12.24	6.25	2.87	(15.57)	3.36	8.25	
November	12.28	5.50	2.90	1.90	6.21	7.70	1.76	9.10	9.97	6.54	
December	4.97	4.30	1.30	9.75	4.21	7.73	4.43	7.30	1.76	4.40	
TOTALS	67.59	63.13	45.27	56.63	61.69	60.56	46.42	(66.29)	49.68	51.54	

1938. June, Aug. & Sept. cold. by sun. Stas.

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	Parish Church.	Distance from gauge	Direction



RAINFALL at Bowland Forest (Lower Salter)

County of North LancashireObserver J. T. Sanderson, Esq.

River Basin Lune - 4Devon P. Royle, Esq. (1939)

Type of Gauge.....

Annual Average 52.8 in. based on 14 years obs. un-weighted. Period of average 1881-1915 Ref S  
664608/26.

Diameter .....	5.										
Height .....	1.0.										
Altitude .....	572.										
Year .....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January .....	6.87	7.59	6.24	7.68	2.43	6.03	5.38	9.40	(5.78)	(2.68)	
February .....	6.49	2.9	6.19	2.8	8.46	2.69	9.50	2.58	5.70	(1.98)	
March .....	(1.03)	4.70	3.90	3.13	1.89	2.87	1.25	2.20	2.57	4.35	
April .....	(3.43)	4.43	2.68	3.48	4.61	77	3.36	1.11	(2.50)	2.17	
May .....	2.17	4.77	2.22	5.74	1.02	79	1.96	4.74	1.88	3.67	
June .....	6.15	1.66	2.55	3.04	5.44	3.00	2.35	5.26	3.97	4.3	
July .....	6.31	6.41	5.27	3.42	3.56	4.18	2.10	3.64	(6.29)	5.27	
August .....	2.99	2.12	3.06	6.59	2.78	3.02	2.14	5.10	2.65	2.77	
September .....	2.90	8.60	1.37	5.64	10.08	4.14	3.53	2.11	2.27	6.85	
October .....	3.97	8.57	5.62	9.84	10.38	6.46	1.95	13.28	(3.10)	7.85	
November .....	8.92	4.39	2.57	1.97	6.56	7.31	1.60	6.62	(9.10)	5.60	
December .....	4.98	4.27	0.71	8.21	2.17	8.47	1.85	6.86	2.20	4.20	
TOTALS .....	56.21	57.80	42.38	59.02	59.38	49.73	37.47	62.90	(47.92)	(47.82)	

1940 Jan + Feb estd.

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 Lancaster (Strathspey)

County of North Lancashire Observer A.B.S. Welch, Esq.

River Basin Lune - 4

Type of Gauge Snowdon

Annual Average 38.7 in. based on 26 years obs. un-weighted. Period of average 1881-1915 Ref 5

Diameter	5.										
Height	1-0.										
Altitude	87.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	4.47	4.72									
February	3.36	.07									
March	.52	2.88									
April	1.96	2.58									
May	2.05	5.24									
June	6.75	1.86									
July	5.86	5.41									
August	3.56	1.83									
September	3.23	4.31									
October	3.65	5.78									
November	7.25	3.03									
December	3.58	2.98									
TOTALS	46.24	40.69	#								
	D.	2									

Bushes 6' high 10' SSE.  
Unable to continue after 1932

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	Parish Church.	Distance from gauge	Direction
1931			Lancaster	1 m.	NNW	Lancaster	1 m.	NNW



RAINFALL at Lancaster (The Friends School)

County of North Lancashire Observer G. A. Watson, Esq.  
River Basin Lune - 4. A. Darlington Esq. (1926).  
Type of Gauge Snowdon W. H. Hammond (1937)  
Annual Average 36.2 in. based on 2 years obs. un-weighted. Period of average 1881-1915 Ref S  
R. H. S. Randle (1940) 748782/27

Diameter	5.										
Height	1-0.										
Altitude	55.		50				50				
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	4.20	4.97	3.23	4.18	1.46		(3.07)	(5.06)			
February	3.01	.06	3.00	.15	5.42		5.17	1.43			
March	.53	2.62	2.00	1.47	1.53		1.60	.62			
April	1.77	2.84	1.79	2.73	2.83			(.40)			
May	1.75	5.08	2.81	4.05	1.45		1.95	3.17			
June	6.24	1.69	1.46	2.25	3.38		1.77	4.24			
July	5.54	5.87	3.98	1.77	2.03		2.67	(4.35)			
August	3.09	1.51	2.73	3.81	2.97			(3.25)			
September	3.19	5.07	.87	3.76	7.45			(1.76)			
October	3.39	5.37	5.00	6.33	5.44		1.85	7.66			
November	6.65	2.89	1.58	1.43	4.19	4.01	1.56	5.44			
December	3.63	2.46	.68	5.27	2.59	impv	2.70	(4.90)			
TOTALS	42.99	39.85	29.13	37.20	40.74	impv	impv	(42.28)	N.R.	imp	

Building 30' high 30' N.  
Tree 45' " 60' E.  
Tree 35' " 45' S.  
Tree 15' " 80' W.

1937. Owing to reorganization at the school no record is available until November 1936, when a new rain gauge was installed on 4/11/36.

1937 Park Jan. estimated by nearby clms.

1938 not printed too many adjustments.

1940 Meeting House Wall 15' Roof 25' Distance 18' N.N.W.  
Tree 50' high 30' SW

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	Parish Church.	Distance from gauge	Direction
1931			Lancaster	100 yds.	W	Lancaster	1/4 m.	NNE.



RAINFALL at Lancaster (Blea Tarn Res.)

County ofNorth LancashireObserverF. Hill, Esq. C.E.

River BasinLune - 4

Type of GaugeM.O.

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

678707/26.

Diameter	8.				5						
Height	1.0.				1.0						
Altitude	410.				330						
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means Total
January	4.73	5.60	3.80	4.95	1.89	4.34	2.80	5.70	4.04	1.47	39.32
February	3.69	1.08	3.70	1.13	5.60	2.14	5.25	1.63	2.92	1.86	27.00
March	5.7	2.99	2.09	2.09	1.35	2.05	1.75	1.34	1.89	3.49	19.61
April	2.14	2.93	2.13	3.04	2.80	53	3.18	4.9	2.12	2.17	21.53
May	2.08	5.59	2.61	4.25	1.48	1.52	1.88	3.49	1.08	1.20	25.18
June	6.59	1.35	1.66	2.67	3.98	3.20	2.84	5.04	3.42	3.9	31.14
July	5.56	5.25	3.13	2.40	1.89	3.51	2.41	4.71	5.29	4.56	38.71
August	3.60	1.78	2.79	4.57	2.94	3.63	2.24	3.89	2.57	2.32	30.33
September	3.08	5.67	1.08	4.68	7.62	4.53	3.48	2.42	1.63	4.97	39.16
October	3.67	7.18	4.64	6.11	8.29	3.37	1.98	12.37	1.46	4.68	53.75
November	7.26	3.30	2.02	1.57	5.67	6.36	1.78	5.60	6.09	4.88	44.53
December	3.79	3.19	.65	5.17	2.56	5.83	2.28	4.33	2.65	4.91	35.36
TOTALS	46.76	44.91	30.30	41.63	46.07	41.01	31.87	51.01	35.16	36.90	405.62
	D.	D	D	D	D.	D	D	D	D	D	

Inspected 1934:- Gauge standard but nearly worn out. Recommended that new gauge as replacement be set up in site selected nearer the reservoir and surrounded by standard turf wall

1934. 5<sup>th</sup> Oct 1934:- Standard g set up 34 yds NW.  
Tree 250 yds. S.W.

1935. Railings 5' high 65' E.

NB. Rejected from Survey as 4" too low.

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	Parish Church.	Distance from gauge
1937			Galgate (Castle) Lancaster	2 1/2 m	S.W.	Sestforth & Pauls	1 1/3 m
				2 1/2 m	NNW		N.W.



RAINFALL at Lancaster (Greg Obsy.) M.W.R.  
County of North Lancashire The Corporation died 12.3.40.  
Observer (Neville Holden, Esq. FRAS)  
River Basin Lune-4.  
Type of Gauge (+A)  
Annual Average 40.7 in. based on 37 years obs. un-weighted. Period of average 188-1915 Ref S

Diameter	8.										
Height	1.0.										
Altitude	312.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	4.70	4.78	3.57	5.07	1.76	4.27	2.77	5.42	4.10		
February	3.77	.05	4.08	.15	5.36	2.09	5.73	1.55	2.94		
March	.56	2.46	2.23	2.16	1.46	2.03	1.56	1.37	2.06		
April	2.25	3.30	2.08	3.10	2.81	.56	3.26	47	2.49		
May	2.16	5.76	3.10	4.58	1.50	1.35	2.06	3.47	1.30		
June	6.59	1.62	1.67	2.65	4.13	3.33	2.68	4.57	3.69		
July	5.92	5.30	4.47	2.27	2.32	3.43	2.30	4.39	#		
August	3.56	1.96	2.98	4.64	2.82	3.30	2.64	3.90			
September	3.56	5.68	1.05	5.24	9.01	5.30	2.68	2.01			
October	3.80	5.97	5.04	6.40	6.66	3.60	1.77	9.53			
November	7.14	3.26	1.81	1.46	4.25	5.07	1.53	6.05			
December	3.96	3.11	0.70	5.15	2.48	5.26	2.39	4.69			
TOTALS	47.97	43.25	32.78	42.87	44.56	39.59	31.37	47.42	imp. hp.		
	D.	D.	D.	D.	D.	D.	D.	D.			

Inspected Mr Billen v11.37. stole found inside of funnel - since repaired  
1939 up. imp. Station terminated.

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



RAINFALL at Lancaster (Lune Aqueduct)

County of North Lancashire Observer L.M.S. Rly.

River Basin Lune - 4.

Type of Gauge glass

Annual Average 38.4 in. based on 10 years obs. un-weighted. Period of average 1881-1915 Ref 5

756496/27.

Diameter	8										
Height	3.7			1' 0"							
Altitude	74			1' 0"							
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	4.17	4.75	3.24	4.75	1.52	4.17	2.50	5.03	4.15	2.05	3633
February	3.60	.00	3.61	.16	5.10	2.31	5.45	1.62	2.89	2.02	2676
March	.47	2.70	2.09	1.98	1.32	1.71	1.50	3.16	1.88	3.75	2056
April	2.11	2.65	1.71	2.76	2.86	.50	3.03	.42	2.18	2.01	2023
May	2.08	5.55	3.20	4.22	1.47	1.43	1.90	3.26	.95	1.38	2544
June	6.82	1.69	1.60	2.45	4.00	3.13	2.54	4.49	3.15	.63	3050
July	5.90	5.68	3.81	2.40	2.42	3.30	2.36	4.21	6.74	4.33	4115
August	3.26	1.95	2.72	4.43	2.73	3.38	1.98	3.15	2.07	1.62	2729
September	2.78	5.04	.92	4.46	8.12	5.03	3.17	1.57	1.58	5.87	3854
October	3.54	5.80	5.54	5.93	6.29	3.38	1.76	8.79	.96	5.29	4728
November	6.74	2.99	1.74	1.37	4.16	4.96	1.57	5.51	5.20	4.68	3892
December	3.82	2.86	.53	5.18	2.64	5.24	2.58	4.88	2.26	4.39	3438
TOTALS	45.29	41.66	30.71	40.09	42.63	38.54	30.34	46.09	34.01	38.02	38738
	2	2	4D	D.	D.	D	d	D	D	D	

1932.

1933. Fruit bushes 5'6" high 19'0" N.W.  
Dwelling house 21'0" high 65'4" N.E.

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	Parish Church.	Distance from gauge	Direction
1931			Green Ayre	1 1/2 m.	SW	St. Luke's	1 m.	SW.



RAINFALL at Baton (Eccowack House)

County of N. Lancs. Observer J. H. Massey Esq.

River Basin 4 - Lune

Type of Gauge M.O.

Annual Average in. based on        years obs. un-weighted. Period of average        Ref. 905301/29.

Diameter	5"										
Height	1' 0"				1.6.						
Altitude	150'										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January		5.38	4.12	5.23	1.79	4.94					
February		.08	4.37	.29	5.60	2.99					
March		2.75	2.28	2.43	1.40	2.23					
April		3.05	1.98	3.18	2.92	.72					
May		6.11	2.28	4.65	1.36	1.91					
June		1.40	1.35	1.99	4.13	3.38					
July		6.06	4.12	2.63	2.83	4.68					
August		1.93	2.97	5.75	2.92	3.62					
September		5.40	.99	5.17	8.57	#					
October		6.26	5.68	6.74	6.61						
November		3.28	2.28	1.52	4.62						
December		3.29	.73	5.63	2.90						
TOTALS		44.99	33.15	45.21	45.65						
		D	D	D	D						

Recorder a low/mk 1929, '30 & '31. Returns in file  
Bought m.o. gauge XII/31.  
Glass houses 10' high 36' N.  
1937. Recd T. 7/4/37 on notification that Mr. Massey had moved to Bentley, Hants where he was continuing to record.

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	Parish Church.	Distance from gauge	Direction
1932			Caton	1/2 m	NNE	Brookhouse	1 m	E.



RAINFALL at Morecambe (Bare Lane)

County of Lancashire Observer M. E. Burton Esq. F.R. Met. Soc.

River Basin Lune - H

Type of Gauge Snowdon

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

f 4056/30

Diameter	.....					5"						
Height	.....					1' 0"						
Altitude	.....					15'						
Year	.....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	.....						4.13	2.39				
February	.....						1.94	5.44				
March	.....						1.72	1.65				
April	.....					2.60	.50	3.04	Station renumbered 3034/3 owing to revision of river div. lines - 4/39.			
May	.....					1.34	1.75	2.03				
June	.....					3.98	3.15	2.63				
July	.....					1.77	3.54	2.48				
August	.....					2.81	3.03	2.27				
September	.....					8.92	5.82	2.86				
October	.....					6.41	3.22	2.09				
November	.....					4.21	5.07	1.85				
December	.....					2.73	5.63	2.42				
TOTALS	.....					imp.	39.50	31.15				

1935. Hedge 2 1/2' high 9' N.  
House 20' .. 8 yds E.  
Laurel Bush 3' .. 9 yds S.  
Rose Bush 1' .. 4 yds W

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	Parish Church.	Distance from gauge	Direction
1935			Bare Tape	1/4 m	N.	Morecambe	3/4 m	W.



RAINFALL at Tackham Fells (Moor Cock Farm)

County of N Lancs Observer Lancashire County Council \*  
River Basin Lune - H R. Lune Catchment Board \*  
Type of Gauge Octapent

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

579013/36

Diameter .....								5"			
Height .....								1'4½"			
Altitude .....								816.			
Year .....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January .....								7.30	6.00	2.35	
February .....								2.00	4.07	(1.90)	
March .....								1.20	2.54	3.40	
April .....								.60	1.48	.85	
May .....								3.05	.50	1.40	
June .....								5.01	2.95	2.15	
July .....								4.05	6.05	5.85	
August .....								4.04	2.10	2.10	
September .....								2.04	1.50	5.30	
October .....								10.04	1.95	3.45	
November .....								6.03	5.20	4.45	
December .....								5.04	2.35	4.35	
TOTALS .....								50.40 np	36.69 np	37.55 np low.	

1938. not printed too low.  
1939 np: low.  
1940 Feb adj.

\* Per Lancashire C.C., Land Drainage Engineer. (B.R. 1939)

\* Per Land Drainage Engineer

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	Parish Church.	Distance from gauge	Direction
1938.			High Bentham	2 3/8 mls.	N	High Bentham	2 3/4	N



RAINFALL at Wray (Wray House)

County of North Lancashire Observer Baldwin Bent, Esq., C.E.

River Basin Lune - 4.

Type of Gauge Snowdon

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

816272/28.

Diameter	.....	5.										
Height	.....	1.6.				1.0						
Altitude	.....	170.										
Year	.....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	.....	5.16	6.09	4.34	5.51	2.12	4.82	4.56	6.75	4.36	2.11	
February	.....	4.68	.08	4.78	.26	7.19	2.18	6.94	2.09	3.65	1.81	
March	.....	.69	2.83	2.33	2.52	1.39	2.13	1.49	1.43	2.15	4.24	
April	.....	3.15	3.30	1.89	2.78	3.84	.69	3.36	.96	2.51	2.50	
May	.....	1.54	4.48	1.83	4.61	1.18	1.99	2.23	3.78	.70	1.19	
June	.....	5.05	1.15	1.53	2.36	4.21	2.93	3.31	4.42	3.21	.63	
July	.....	4.29	4.73	4.43	2.73	2.96	4.61	2.38	4.24	6.21	5.81	
August	.....	2.58	1.51	2.47	5.83	1.86	3.02	1.82	3.79	2.25	3.08	
September	.....	2.20	5.40	1.21	3.62	8.95	3.51	3.51	1.92	2.18	7.12	
October	.....	2.71	5.96	4.54	7.00	8.49	5.29	1.48	10.32	1.49	5.82	
November	.....	6.22	3.87	1.89	.88	4.50	5.39	1.17	5.92	5.84	5.24	
December	.....	3.61	2.95	.56	6.06	3.21	6.79	1.85	5.55	2.95	5.09	
TOTALS	.....	41.88	41.85	31.80	44.16	49.90	43.35	34.10	51.17	37.50	44.64	
		D.	D.	D.	D.	D.	D.	D.	D.	D.	D.	

Wall 7' high 12' E.  
Inspected 1934:- Gauge sound & exposure excellent. Measure ~~time~~ reads too little. Recommended that it be replaced by one of taper pattern.  
Jan 1<sup>st</sup> 1934. g moved. 39 yds. N. Sept. 19<sup>th</sup> 1934. Inspected & reported "exposure excellent."  
1934 Building 16' high 38' 6" SW.

NB. Rejected from Survey as 5" too low.

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

Date.	Lat. N.	Long. W	Railway Station.	Distance from gauge	Direction	Parish Church.	Distance from gauge	Direction
1931	54° 6'	2° 37'	Horroby	1m 16 yds.	NW	Wray	177 yds.	SE.



RAINFALL at Wennington (Tatham Rectory)

County of North Lancashire Observer Rev. A. S. Roberts, d. 10. 40.

River Basin Lune - 4. Rev. D. L. Jones.

Type of Gauge ing.

Annual Average 40.2 in. based on 10 years obs. un-weighted. Period of average 1881-1915 Ref 5

682671/26.

Diameter	5.										
Height	1.3.					1.0		1.3			
Altitude	150.		170	150 <i>on top</i>		170					
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	5.40	6.04	3.96	4.90	.86	4.02	3.93	5.80			
February	4.75	.08	4.37	.24	6.55	2.55	6.32	1.79			
March	.60	2.75	2.25	2.31	1.19	2.12	1.25	1.20			
April	3.12	3.23	1.92	2.42	3.40	.50	3.12	.98			
May	1.50	4.55	1.84	4.02	1.14	2.09	2.01	3.59			
June	5.47	1.37	1.62	2.32	4.17	2.74	3.24	4.15			
July	4.89	5.02	4.53	2.50	2.99	4.17	2.55	4.19			
August	3.34	1.73	2.76	5.23	2.17	2.97	1.75	3.99			
September	1.89	5.56	1.38	3.37	8.99	3.50	2.74	1.75			
October	2.88	5.70	4.78	6.77	8.10	5.07	1.40	10.23			
November	6.11	3.21	1.83	1.00	4.31	4.56	1.35	5.82			
December	4.27	2.43	.52	5.89	2.50	5.96	1.26	5.03			
TOTALS	44.22 D	41.67 D	31.76 D	40.97 D	46.37 D	40.25 D	30.92 D	48.52 D	N.R	NR	

Church 70' high 70'S. Trees 80' high 80'SSW.

Inspected 1934:- Exposure and general conditions satisfactory. Various repairs to gauge recommended.  
*Probably Tatham 9/1934 but may send in 1935 return.*

1936. Observations taken in new hegatti Gauge & measure glass.

1937 Trees 70' high 90'S.W.

1942 Station regarded as brimmed

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	Parish Church.	Distance from gauge	Direction
1931			Wennington	1m.	ESE	Tatham	70'	S.



RAINFALL at Weekon Reservoir (No. 1)

County of North Lancashire Observer Fylde Water Board

River Basin Wyre & C. - S.

Type of Gauge Snowdon

Annual Average 36.6 in. based on 46 years obs. ~~un~~-weighted. Period of average 1881-1915 Ref S  
697676/26.

Diameter	...	...	5.										
Height	...	...	1.0.										
Altitude	...	...	133.										
Year	...	...	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	...	...	4.09	4.71	3.11	3.58	1.91	3.88	2.34	4.27	4.06	2.05	Totals 34.00
February	...	...	3.25	.03	3.30	.08	4.53	2.25	4.85	1.34	2.92	1.92	24.47
March	...	...	.34	2.61	2.41	2.02	1.19	2.53	1.40	1.48	2.30	2.89	19.17
April	...	...	2.76	2.78	2.18	2.50	2.59	.99	3.11	.32	2.72	2.32	22.27
May	...	...	2.07	5.53	2.30	3.86	1.73	.87	1.85	3.55	.87	1.76	24.39
June	...	...	7.05	1.07	2.01	2.70	4.23	4.31	2.72	4.48	2.96	.68	32.23
July	...	...	3.75	4.53	2.82	2.25	.91	2.77	1.53	4.23	5.57	3.18	31.54
August	...	...	5.32	1.31	3.02	4.20	2.75	2.54	1.51	3.53	2.40	1.78	28.36
September	...	...	2.63	5.56	.66	4.30	7.36	4.11	2.58	1.89	1.13	4.23	34.45
October	...	...	3.03	6.73	5.50	5.64	7.52	2.86	2.69	8.42	1.73	4.44	48.56
November	...	...	7.79	3.06	2.36	1.82	4.63	4.52	1.66	5.18	5.23	4.76	41.01
December	...	...	3.09	2.66	.77	5.22	2.72	5.52	2.47	4.42	2.89	3.13	32.89
TOTALS	...	...	45.17 D	40.58 D	30.44 D	38.17 D	42.07 D	37.15 D	28.71 D	43.11 D	34.80 D	33.14 D	373.34 224

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	Parish Church.	Distance from gauge	Direction
1931			Kirkham	2 1/2 m.	SW	Weekton	1/2 m.	NW.



RAINFALL at FULWOOD W.W. (HAIGHTON RES.)

County of North Lancashire

Observer The Engineer & Surveyor\*

River Basin 5 - Wyre & C.

Type of Gauge.....

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

866811/39

Diameter .....									5"		
Height .....									1'		
Altitude .....									264'		
Year .....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January .....									(4.80)	3.05	
February .....									(3.30)	2.02	
March .....									1.95	3.21	
April .....									2.12	2.81	
May .....									.95	1.49	
June .....									3.28	1.06	
July .....									6.46	5.34	
August .....									1.89	2.52	
September .....									1.56	4.99	
October .....									1.73	4.30	
November .....									6.26	5.51	
December .....									2.97	4.22	
TOTALS .....									(37.27) d	40.52 D	

1938. Iron fence - 3ft 3in - 23ft 4in E. Sloping Bank 8ft 10in - 25ft S.W. Tree 18ft 10in - 40ft N.  
1940 Jan. covered for snow.  
April 4<sup>th</sup> estd.

\* Per Lancashire C.C., Land Drainage Engineer.

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	Parish Church.	Distance from gauge.
1933			Gruinsargh	4700'	35° S of E	Gruinsargh	5300' 57° S of E.



RAINFALL at Blackpool (Met. Observatory) *Stanley Park (11.2.1937)*

County of North Lancashire

Observer E. W. Rees Jones, Esq. M.D.

River Basin Wyre & C. - S.

*Medical Officer of Health.*

Type of Gauge M.O.

Annual Average 33.4 in. based on 35 years obs. un-weighted. Period of average 1881-1915 Ref B. 1 N

Diameter	5.					5"					
Height	1.0.					1.0					
Altitude	67.					65'					
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	3.46	4.34	2.22	3.19	1.80	3.61	2.38	3.77	3.87	2.60	3124
February	2.98	.05	3.00	.05	3.54	2.21	5.02	1.13	2.28	1.86	2212
March	.39	2.18	2.29	1.96	.98	1.86	1.36	1.37	2.16	2.70	1725
April	2.14	2.76	1.61	2.13	2.25	.95	3.07	.24	2.51	1.93	1959
May	1.55	4.70	2.02	3.48	1.25	.75	1.80	2.79	.76	1.95	2105
June	7.37	1.29	1.48	2.44	3.50	4.15	2.25	4.06	3.01	.51	3006
July	3.08	4.09	1.95	3.07	.65	2.43	1.97	3.61	5.01	3.32	2918
August	3.66	1.43	3.17	4.13	2.04	2.15	2.02	3.90	2.25	1.25	2600
September	2.51	4.46	0.66	5.00	6.16	4.35	2.02	1.53	1.44	2.85	3098
October	2.51	5.30	4.86	4.95	5.72	2.19	2.78	7.19	1.68	4.15	4133
November	6.83	2.51	2.04	1.98	4.38	4.01	1.52	5.04	4.36	5.32	3799
December	2.69	2.05	0.85	5.12	2.71	4.97	2.43	3.69	2.46	3.26	3023
TOTALS	39.92	39.17	35.16	26.15	37.50	34.98	33.63	28.62	38.32	31.79	3170
	D.	D.	D.	D.	D.	D.	D.	D.	D.	D.	33702

Inspected 20/10/32. Flat bottomed measure.  
28/7/33 Inspected by M.O. Inspector. Instruments and site very good.  
Inspected 20/9/34. g. in good order, except for leak in outer can. Proposed to transfer site to the Sunken Rose garden, Stanley Pk during 1935.  
Inspected 19.6.35. as at previous inspection 20/9/34.  
Inspected 14.5.36. All instruments had been moved to new site by April, 1937.  
Gauge moved 1 m. S., April, 1937

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	Parish Church.	Distance from gauge



RAINFALL at <sup>Broughton</sup>~~Barton~~ (Newsham House)

County of North Lancashire Observer W. B. S. Smith, Esq.

River Basin Wyre &c - S.

Type of Gauge Snowdon

Annual Average 38.2 in. based on 12 years obs. un-weighted. Period of average 1881-1915 Ref S  
8427/30.

Diameter	....	....	5.										
Height	....	....	1. 0.										
Altitude	....	....	104.										
								101		101'	101		
Year	....	....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	....	....	4.24	4.24	3.03	3.78	1.96	3.85	2.60	4.51	4.84	3.06	
February	....	....	3.61	.05	3.82	.14	5.05	2.18	5.39	1.66	3.32	2.04	
March	....	....	.41	2.56	2.45	2.31	1.44	2.47	1.51	1.17	2.04	2.89	
April	....	....	2.62	2.87	2.07	3.15	2.82	1.22	3.14	.53	2.48	2.44	
May	....	....	2.24	4.55	2.38	3.44	1.32	.99	2.53	3.68	1.18	1.94	
June	....	....	5.99	1.06	1.99	2.82	4.32	4.22	2.71	4.37	3.25	.76	
July	....	....	4.21	4.16	3.29	1.66	1.65	4.22	1.77	4.93	6.26	5.16	
August	....	....	4.68	1.86	3.03	5.19	2.20	2.62	1.97	3.80	1.99	2.05	
September	....	....	3.44	6.64	1.03	4.31	7.58	4.16	2.73	1.85	1.24	4.61	
October	....	....	2.84	7.00	4.74	5.71	7.17	3.21	2.43	9.30	1.82	4.41	
November	....	....	7.05	2.80	2.07	2.19	4.38	4.57	1.85	5.57	5.58	5.25	
December	....	....	2.85	2.39	0.80	5.56	3.35	5.30	2.39	4.76	3.19	4.04	
TOTALS	....	....	44.18	40.18	30.20	40.26	42.94	39.01	31.02	46.13	37.19	38.65	
			D.	D.	D.	D.	D.	D.	D.	D.	D.	D.	

\* Trees 15' high 27'E: walls 9' high 60'N, 70'W & 75'E. Plantations 80' outside walls 45' high.  
1936. Station name was incorrectly called to Barton during last decade.  
1940.\* fruit trees removed.

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	Parish Church.	Distance from gauge	Direction
1931.			Barton	1/4 m.	NE	St. Laurence's	1/2 m.	NE.



RAINFALL at Kirkham (Elswick Lodge)

County of North Lancashire Observer L. G. King, Esq.

River Basin Wyre & C. - S.

Type of Gauge.....

Annual Average 35.0 in. based on 36 years obs. ~~un~~-weighted. Period of average 1881-1915 Ref S

817772/28.

Diameter .....	<u>5.</u>										
Height .....	<u>1.4</u>							<u>1.0</u>			
Altitude .....	<u>52.</u>										
Year .....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January .....	<u>3.86</u>	<u>3.67</u>	<u>2.39</u>	<u>3.30</u>	<u>1.83</u>	<u>3.33</u>	<u>2.09</u>	<u>3.34</u>	<u>3.67</u>	<u>2.61</u>	
February .....	<u>2.86</u>	<u>.06</u>	<u>2.28</u>	<u>.02</u>	<u>3.37</u>	<u>2.01</u>	<u>4.88</u>	<u>1.18</u>	<u>2.45</u>	<u>2.33</u>	
March .....	<u>.30</u>	<u>2.17</u>	<u>2.40</u>	<u>1.75</u>	<u>.96</u>	<u>2.21</u>	<u>1.43</u>	<u>1.05</u>	<u>1.91</u>	<u>2.73</u>	
April .....	<u>2.23</u>	<u>2.38</u>	<u>1.93</u>	<u>2.50</u>	<u>2.31</u>	<u>.86</u>	<u>3.21</u>	<u>.29</u>	<u>2.37</u>	<u>2.12</u>	
May .....	<u>2.04</u>	<u>5.14</u>	<u>2.36</u>	<u>3.46</u>	<u>1.32</u>	<u>.94</u>	<u>1.91</u>	<u>3.49</u>	<u>1.22</u>	<u>1.55</u>	
June .....	<u>6.86</u>	<u>1.10</u>	<u>2.17</u>	<u>2.34</u>	<u>4.21</u>	<u>4.53</u>	<u>2.79</u>	<u>4.44</u>	<u>3.35</u>	<u>0.00</u>	
July .....	<u>4.39</u>	<u>4.19</u>	<u>2.81</u>	<u>1.40</u>	<u>1.42</u>	<u>3.33</u>	<u>1.41</u>	<u>4.00</u>	<u>6.66</u>	<u>4.25</u>	
August .....	<u>4.68</u>	<u>1.44</u>	<u>2.98</u>	<u>4.29</u>	<u>2.45</u>	<u>2.67</u>	<u>1.42</u>	<u>2.75</u>	<u>2.09</u>	<u>1.85</u>	
September .....	<u>2.61</u>	<u>5.27</u>	<u>.66</u>	<u>4.63</u>	<u>6.39</u>	<u>4.59</u>	<u>2.42</u>	<u>1.63</u>	<u>1.13</u>	<u>4.17</u>	
October .....	<u>2.61</u>	<u>7.24</u>	<u>5.31</u>	<u>5.33</u>	<u>6.69</u>	<u>2.28</u>	<u>2.74</u>	<u>7.19</u>	<u>1.63</u>	<u>4.28</u>	
November .....	<u>7.41</u>	<u>2.41</u>	<u>1.90</u>	<u>1.69</u>	<u>4.23</u>	<u>4.03</u>	<u>1.48</u>	<u>4.51</u>	<u>4.70</u>	<u>4.55</u>	
December .....	<u>2.33</u>	<u>1.93</u>	<u>1.01</u>	<u>5.07</u>	<u>3.09</u>	<u>4.37</u>	<u>1.71</u>	<u>3.98</u>	<u>2.57</u>	<u>3.26</u>	
TOTALS .....	<u>42.18</u> <u>D.</u>	<u>37.00</u> <u>D.</u>	<u>28.20</u> <u>D.</u>	<u>35.78</u> <u>D.</u>	<u>38.27</u> <u>D.</u>	<u>35.15</u> <u>D.</u>	<u>27.49</u> <u>D.</u>	<u>37.85</u> <u>D.</u>	<u>33.75</u> <u>D.</u>	<u>33.70</u> <u>D.</u>	

1940 Jan part estd.

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	Parish Church.	Distance from gauge	Direction
<u>1938</u>			<u>Kirkham</u>	<u>6</u>				



RAINFALL at Blackpool (Gosforth Rd.)

County of North Lancashire Observer K. Rowson Esq.,

River Basin Wyre & C - 5

Type of Gauge Snowdon.

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

699164/37

Diameter	....	....						5					
Height	....	....						1 0					
Altitude	....	....						65					
Year	....	....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	....	....								3.99	4.02	2.52	
February	....	....								1.35	2.43	1.14	
March	....	....								1.55	2.05	2.80	
April	....	....								30	2.75	1.90	
May	....	....								2.86	.83	2.24	
June	....	....								4.14	3.52	.90	
July	....	....								3.91	5.42	2.98	
August	....	....								3.55	2.49	1.44	
September	....	....								1.66	1.53	2.75	
October	....	....								7.00	1.90	3.87	
November	....	....								5.23	4.36	5.52	
December	....	....								4.01	2.38	3.53	
TOTALS	....	....								39.55	33.68	31.59	#

1937 Garage 15' high 15'S: Quarry 8' high 10'N: House 29' high 25'W:  
Trees 16' high 11'E.

1.12.37. Gauge moved 2'N.W.

This observer has a 0-24 in. automatic gauge, <sup>home made</sup> will probably read  
2 inches for 1938

1940 Jan part obl.

1941 No record. T. for Duration. It is still during 1942 Cyl

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	Parish Church.	Distance from gauge	Direction
1937			Biopham	1/2 mb.	E.S.E.	St. Stephens	1/2 mb.	N.W.



RAINFALL at St. Michael's-on-Wyre <sup>(Fairway)</sup>

County of North Lancashire

Observer Ven. Archdeacon Hornby.

River Basin Wyre & C.-S.

E.W. Hornby Esq. (1936)

Type of Gauge Standard

Annual Average 36.0 in. based on 31 years obs. ~~un~~-weighted. Period of average 1881-1915 Ref S

84304/31.

Diameter	5.											
Height	1.0.											
Altitude	26.											
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means	
											Totals	
January	4.51	(4.00)	3.12	3.85	1.71	4.19	2.42	4.26	3.99	2.51	3456	
February	3.40	(1.08)	3.03	.13	4.40	2.25	5.40	1.34	2.87	1.50	2437	
March	.34	(2.30)	2.33	2.06	1.01	2.33	1.30	1.23	1.89	3.10	1789	
April	2.09	(2.62)	1.82	2.86	2.37	.79	3.10	.43	2.32	1.79	1484	
May	2.06	(4.80)	1.98	3.50	1.10	.88	1.69	3.39	.97	1.88	2225	
June	6.64	(1.20)	1.62	2.08	4.70	3.66	2.57	4.38	2.90	.62	3037	
July	5.27	(4.10)	3.19	1.60	1.23	4.33	1.28	3.97	5.85	4.08	3490	
August	4.37	(1.50)	2.86	4.94	2.30	2.98	1.63	3.41	1.97	1.73	2769	
September	3.23	(6.00)	.63	4.15	6.85	4.26	2.58	1.51	1.25	4.75	3521	
October	2.94	(7.20)	5.27	5.49	6.72	2.65	2.63	8.15	1.43	4.66	4714	
November	7.42	(2.50)	2.28	1.70	4.54	4.08	1.47	5.49	5.31	4.97	3976	
December	2.87	(2.35)	.83	5.34	3.28	5.31	2.39	4.16	2.54	3.75	3282	
TOTALS	45.14 D.	38.62 D.	28.96 D.	37.40 D.	40.21 D.	37.71 D.	28.46 D.	41.72 D.	33.29 D.	35.34 D.	36685	

open site.

1926. Ven. Arch. Hornby died 4/4/26. gauge moved 1.5.36 3/4 mi W. FROM OLD HOUSE  
1926. Record being carried on at site close to original Vicarage site - letter of 7.9.36.  
1937 Bush 4ft, 15ft at Home 20ft, 40ft E

1932 cpl for Aug 1916-18 M 3056  
N.G.R. OLD HOUSE SD 465.411.  
N.G.R. VICARAGE SD 459.411.  
N.G.R. FAIRWAY SD 455.410.

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	Parish Church.	Distance from gauge	Direction
1931			Brock	4m	E.	St. Michael's	300 yds. W.	
1937			Brock	4m		St Michael	1/4 mi	E



RAINFALL at FULWOOD W. W (BARNSFOLD RES.)

County of North Lancashire

Observer The Engineer & Surveyor\*

River Basin 5- Wyre & C.

Type of Gauge.....

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....

Ref

866811/39

Diameter ....									5"		
Height ....									1'		
Altitude ....									508'		
Year ....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January ....									(6.20)	2.16	
February ....									(4.50)	2.02	
March ....									2.27	4.06	
April ....									2.85	3.58	
May ....									1.02	1.99	
June ....									3.86	.91	
July ....									8.48	7.09	
August ....									2.10	2.96	
September ....									2.14	6.33	
October ....									2.05	4.46	
November ....									6.87	6.05	
December ....									3.41	5.86	
TOTALS ....									(45.75) d	47.47 p	

1939. Low Wall 2ft 9in - 87ft 9in N17°E. Building 14ft 2in - 119ft N17°E.

\* Per Lancashire C.C., Land Drainage Engineer.

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.
1939			Longridge	6000'	57° S of E.	White Chapel	6000'	7° S of W.



RAINFALL at Fleetwood.

County of North Lancashire Observer Engineer & Surveyor

River Basin Wyre & C - S.

Type of Gauge Glaisher

Annual Average 33.4 in. based on 7 years obs. un-weighted. Period of average 1881-1915 Ref S

846637/28.

Diameter	8.										
Height	2.6.										
Altitude	27.		25						25'	25	
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	3.65	4.23	2.00	3.42	1.93	3.97	2.39	3.97	3.62	3.01	
February	3.00	06	3.03	.08	3.41	2.07	5.17	1.17	2.27	1.77	
March	.83	2.09	2.17	1.82	.89	1.88	1.48	1.35	1.64	2.80	
April	2.10	2.93	1.78	2.26	2.22	.52	3.17	.36	2.57	1.78	
May	1.57	4.93	2.32	3.18	1.05	.80	1.66	2.98	.60	2.45	
June	6.83	1.87	1.08	2.52	3.12	3.47	2.50	3.80	2.93	.49	
July	3.42	4.90	2.21	2.67	1.26	2.38	2.08	2.37	4.73	3.37	
August	3.49	1.83	2.80	4.18	1.82	2.45	2.11	1.79	2.19	1.12	
September	2.29	4.13	.81	4.11	6.50	4.30	2.22	1.43	1.92	2.58	
October	2.65	6.26	5.12	5.85	6.41	1.92	1.88	9.27	1.59	4.20	
November	7.30	2.41	2.44	1.91	3.98	4.08	1.83	4.90	4.56	4.61	
December	2.68	2.22	.59	5.23	2.19	4.55	1.94	4.01	2.42	4.03	
TOTALS	39.81 D.	37.86 D.	26.35 D.	37.23 D.	34.78 D.	32.39 D.	28.43 D.	37.40 D.	31.04 D.	32.21 D.	

1933 gauge in grounds of Parish Church.

1940 Jan part estd.

In November 1938 the self-recording rain-gauge was moved to the Memorial Park and readings from the 8" gauge abandoned. It continued to receive separate rain/fall returns from 1) The Engineer & 2) The Town Clerk. In 1946 it transpired that what we are reading was 1) a return made up from traces of wetly self-recording gauge & 2) a return from 5" clock gauge. Both at the Memorial Park. The last printed record is for 1939.

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	Parish Church.	Distance from gauge	Direction
1931			Fleetwood LMSR	570 yds	NE	St. Peter's.		



RAINFALL at Fleetwood (Memorial Park) M.W.R.

County of N. Lancashire Observer The Town Clerk.  
River Basin Wyre & C-5 The Borough Council (1934)  
Type of Gauge Sudden The Town Clerk (1938)

Annual Average in. based on years obs. un-weighted. Period of average Ref.

c 1933											
Diameter			5"			5"					
Height			1' 0"			1' 0"					
Altitude			21'			21'					
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
								+			1934-40
January				3.45	1.93	3.60	2.62	4.19	3.62	2.77	22.18
February				.05	3.47	2.22	5.18	1.15	2.27	1.77	16.11
March				2.01	.93	1.92	1.34	1.36	1.62	2.81	11.99
April				2.44	2.35	.66	3.26	.42	2.56	1.78	13.47
May				2.63	1.19	.88	1.89	3.15	1.00	2.45	13.19
June				2.81	3.85	3.51	2.76	4.21	2.97	.49	20.60
July				2.85	.90	2.92	2.23	3.35	4.74	3.37	20.36
August				4.32	2.26	2.57	2.20	2.54	2.19	1.12	17.20
September				4.66	6.59	4.52	2.32	1.54	1.29	2.58	23.50
October			C 4.74	6.16	6.27	1.99	2.10	8.50	1.59	4.20	30.81
November			2.91	1.83	4.38	4.43	1.77	5.39	4.56	4.65	27.01
December			.75	5.68	2.84	4.55	2.51	4.01	2.96	4.03	26.58
TOTALS			imp.	38.89	36.96	33.77	30.18	39.81	31.37	32.02	2430.0
				D.	D.	D.	D.	D.	D.	D.	

Inspected 18<sup>th</sup> June 1935 site good. Run at 11" above ground, observer 29.  
to reset at 12"

Inspected 13.5.36. No change.

+ Inspected 27/6/38 Gauge oversheltered. New site selected 100 yds S.  
Gauge to be moved 1/1/39.

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	Parish Church.	Distance from gauge	Direction



RAINFALL at Garstang (Barnacre Reservoir)

County of North Lancashire Observer Fylde Water Board

River Basin Wyre & C. - S.

Type of Gauge Snowdon

Annual Average 45.7 in. based on 35 years obs. un-weighted. Period of average 1881-1915 Ref S  
697676/26.

Diameter	5.											
Height	1.0.											
Altitude	616.											
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means	
January	5.29	5.13	3.67	4.84	2.48	4.59	3.29	5.83	4.49	2.76		Totals 42.57
February	4.78	.07	3.82	.20	6.47	2.57	6.54	2.02	3.74	1.73		31.94
March	.48	2.87	2.55	2.74	1.25	3.00	1.59	1.24	2.44	3.98		22.14
April	2.98	3.32	2.42	2.91	2.94	.88	3.34	.60	2.36	2.68		24.43
May	2.71	5.15	2.40	4.26	1.20	1.30	2.22	4.00	1.23	1.89		26.36
June	7.64	1.50	2.83	2.57	6.02	5.58	2.89	5.47	3.76	.95		39.21
July	5.95	5.96	3.33	2.75	2.04	5.54	2.24	5.57	6.89	5.30		45.57
August	4.52	1.84	2.93	6.72	3.28	4.15	2.81	3.85	2.10	2.96		35.16
September	3.69	7.47	1.09	4.91	7.90	5.15	3.29	2.94	1.89	5.38		43.71
October	3.70	8.41	6.22	7.69	8.54	3.71	2.65	11.13	1.80	5.04		58.89
November	9.11	3.92	2.77	1.80	5.01	5.22	2.22	6.05	6.21	5.51		47.82
December	4.03	3.13	.98	6.52	3.56	6.51	3.04	5.39	3.17	5.08		41.41
TOTALS	54.88 D.	48.77 D.	35.01 D.	47.91 D.	50.69 D.	48.20 D.	36.12 D.	54.09 D.	40.28 D.	43.26 D.		459.21 42.57

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	Parish Church.	Distance from gauge	Direction
1931			Garstang	4 m.	SW	Calder Vale	3 m.	SE.



RAINFALL at Garstang (Grizedale Reservoir)

County of North Lancashire Observer Fylde Water Board

River Basin Wyre & C - S

Type of Gauge Snowdon

Annual Average 43.6 in. based on 35 years obs. un-weighted. Period of average 1881-1915 Ref B. 171  
697676/26.

Diameter	....	....	5.										
Height	....	....	1.0.										
Altitude	....	....	517										
Year	....	....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	....	....	4.88	4.76	3.42	4.32	1.98	3.93	2.98	5.09	4.43	2.77	Totals 38.56
February	....	....	3.97	1.08	3.59	1.16	5.25	2.16	5.61	1.69	3.29	1.55	27.35
March	....	....	4.46	2.68	2.46	2.47	1.15	2.66	1.55	1.08	2.07	3.60	20.18
April	....	....	2.89	2.98	2.28	2.77	2.83	1.81	3.07	1.42	2.18	2.34	22.57
May	....	....	2.68	5.14	2.38	3.86	1.08	1.30	2.25	3.96	1.12	1.78	25.55
June	....	....	7.44	1.44	2.83	2.36	5.89	4.99	2.75	5.12	3.68	1.83	37.33
July	....	....	5.47	5.88	3.06	2.63	1.80	5.00	2.08	4.94	6.54	4.95	42.35
August	....	....	4.27	1.82	2.54	6.40	3.10	3.97	2.85	3.68	1.90	2.43	32.96
September	....	....	3.59	6.98	1.16	4.65	7.79	4.95	3.02	2.92	1.59	5.08	41.73
October	....	....	3.42	7.97	6.06	6.82	7.26	3.40	2.55	9.82	1.64	4.78	53.72
November	....	....	8.98	3.43	2.64	1.73	4.41	4.52	2.06	5.15	5.64	4.76	43.32
December	....	....	3.29	2.93	1.98	6.33	3.24	5.66	2.89	4.97	2.86	4.64	37.79
TOTALS	....	....	51.34 D.	46.09 D	33.40 D.	44.50 D.	45.78 D.	43.35 D	33.66 D	48.84 D	36.94 D	39.51 D	423.41 426

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	Parish Church.	Distance from gauge	Direction
1931			Garstang	LLm	SW	Calder Vale	3m	S.E.



RAINFALL at Garstang (Calder Intake)

County of North Lancashire Observer Fylde Water Board.

River Basin Wyre & C. - S.

Type of Gauge M.O. Snowdon (1937)

Annual Average 46.6 in. based on 29 years obs. un-weighted. Period of average 1881-1915 Ref 5  
697676/26.

Diameter	5.											
Height	1.0.											
Altitude	632.											
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means	
January	5.36	4.90	3.69	4.60	2.55	4.00	3.05	5.80	5.30	1.65		Totals 40.90
February	4.90	0.9	3.24	.20	5.90	2.50	6.50	1.95	4.00	1.55		30.83
March	4.1	2.96	2.68	2.71	1.24	3.06	1.50	1.30	2.50	4.00		22.36
April	3.05	3.22	2.50	2.95	3.00	.87	3.25	.53	2.75	2.85		24.97
May	2.86	5.52	2.64	4.45	1.30	1.54	2.38	3.95	1.65	1.55		27.84
June	7.63	1.51	2.86	2.57	6.25	4.60	2.95	7.50	4.00	.90		40.77
July	6.10	5.52	3.55	2.70	1.56	5.02	2.40	5.55	7.28	5.35		45.03
August	5.23	1.67	2.75	6.60	3.35	4.10	3.00	4.07	2.30	2.53		35.60
September	3.75	7.60	1.25	4.70	8.30	5.11	3.60	3.35	1.80	5.65		45.11
October	3.85	8.78	6.57	7.95	7.95	4.05	2.80	10.60	1.92	4.75		59.22
November	9.48	3.83	2.57	1.90	4.75	5.25	2.53	5.90	6.05	5.80		48.06
December	3.89	3.16	1.04	6.60	3.20	5.85	2.75	4.43	3.11	5.30		39.33
TOTALS	56.51	48.76	35.34	47.93	49.35	45.95	36.71	54.93	42.66	41.88		460.02 42.12

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	Parish Church.	Distance from gauge	Direction
1931			Garstang	4m.	SW	Calder Vale	3m	SE.



RAINFALL at Garotang (Grizedale Intake)

County of N. Lancs. Observer Fylde Water Board.

River Basin 5. Wyre & c.

Type of Gauge M.O. Sumner (1937)

Annual Average 46.6 in. based on 45 years obs. un-weighted. Period of average 1881-1915 Ref 5

697676/26.

Diameter	5"										
Height	1' 0"										
Altitude	644'										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	5.16	4.70	3.25	4.45	2.30	4.55	3.00	5.15	5.40	1.83	Totals. 39.79
February	4.45	.07	3.86	.20	5.50	2.65	6.48	1.65	3.80	1.78	30.44
March	.48	2.88	2.56	2.94	1.23	3.03	1.75	1.22	2.40	3.90	22.39
April	3.13	3.20	2.55	2.92	2.93	.92	3.30	.40	2.90	3.25	25.50
May	2.84	5.49	2.73	4.00	1.25	1.58	2.40	4.00	1.60	1.70	27.59
June	7.60	1.63	3.01	2.43	5.87	4.48	2.65	7.40	3.96	.75	39.78
July	6.00	5.40	3.22	2.68	1.67	5.01	2.02	5.40	7.05	5.20	43.65
August	4.57	1.91	2.75	6.70	3.02	4.10	2.70	4.05	1.90	2.50	34.20
September	3.85	7.30	1.34	4.87	8.10	5.05	3.50	3.30	1.85	5.57	44.73
October	3.80	8.41	6.46	7.50	8.30	4.00	2.95	10.40	1.97	4.60	58.39
November	9.14	3.59	2.75	1.77	4.73	5.35	2.55	5.50	5.93	5.60	46.91
December	3.52	2.92	1.01	6.90	3.15	6.55	2.83	4.20	3.07	5.20	39.35
TOTALS	54.54	47.50	35.49	47.36	48.05	47.27	36.13	52.67	41.83	41.88	452.72

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			Garotang	4m	SW	Calder Vale	3m.	SE



678707/26.

1931 Cottages 30' high 170' N.N.W.



RAINFALL at Abbeystead Gardens.

County of North Lancashire Observer Mr. Geo. Penk.

River Basin Wyre & C. - S.

Type of Gauge MO.

Annual Average 50.1 in. based on 21 years obs. un-weighted. Period of average 1891-1915 Ref. S

Diameter	....	....	5.										
Height	....	....	1.0.	1.	2.							1	0
Altitude	....	....	420										
Year	....	....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means Totals
January	....	....	6.89	6.13	4.04	5.84	2.97	5.31	4.15	6.56	5.32	4.12	51.33
February	....	....	5.62	.18	6.05	.32	7.25	3.37	7.50	2.03	4.25	2.03	38.60
March	....	....	.82	3.57	2.82	3.60	1.65	2.99	2.04	1.80	3.57	4.96	27.82
April	....	....	4.05	3.95	2.57	3.61	3.36	1.15	4.03	.95	2.89	4.15	30.71
May	....	....	2.94	5.64	2.59	4.91	1.94	2.07	2.37	4.04	1.50	1.47	29.47
June	....	....	8.48	1.51	2.98	2.89	5.70	5.05	3.67	6.12	4.65	.80	41.85
July	....	....	5.51	6.25	4.62	2.77	2.97	5.85	2.45	5.45	6.68	6.32	48.87
August	....	....	5.34	1.95	3.63	7.32	3.63	3.28	3.27	4.15	2.35	3.61	38.53
September	....	....	3.65	8.79	1.29	4.93	9.27	5.87	3.93	2.90	2.34	7.34	50.31
October	....	....	4.19	7.92	6.05	8.89	8.86	4.89	2.56	11.56	2.74	4.74	62.40
November	....	....	9.50	3.70	3.49	2.03	5.36	6.73	1.74	5.54	7.38	5.79	51.26
December	....	....	4.22	3.35	1.02	7.26	3.69	6.64	2.49	5.94	2.96	5.81	43.38
TOTALS	....	....	61.21 D.	52.94 D	41.15 D	54.37 D.	56.65 D.	53.20 D	40.20 D	57.04 D	46.63 D	51.14 D	514.53

Hedge 4' high 27' N : Trees 30' high 36' W

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	Direction	Parish Church.	Distance	Direction
				from gauge			from gauge	
1931			Bay Horse	6m	W	Wynedale	1½m	W



RAINFALL at Damas Ghylle Res.

County of N. Lancs. Observer J. Hice Esq., C.E.,

River Basin 5. Wyre &c.

Type of Gauge M.O.

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

comp 1934. f 678707/26.

Diameter .....				5							
Height .....				1 0							
Altitude .....				590							
Year .....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January .....					2.16	5.23	3.22	5.64	5.16	2.90	
February .....					6.36	3.27	6.53	1.88	3.55	3.05	
March .....					1.49	2.45	1.99	1.62	2.22	4.06	
April .....					2.77	.83	3.65	.70	2.74	3.05	
May .....					1.66	2.02	2.00	3.67	.98	1.72	
June .....					4.49	3.90	3.41	5.73	3.80	.94	
July .....					2.67	5.03	2.82	5.66	5.67	5.42	
August .....					3.05	3.98	2.95	4.22	2.46	3.00	
September .....					8.86	4.84	4.25	2.45	2.05	6.34	
October .....					7.47	4.41	2.13	12.12	1.84	5.39	
November .....					4.36	6.32	2.09	5.56	6.72	5.47	
December .....				6.34	2.99	6.61	2.46	5.31	3.03	5.70	
TOTALS .....				imp	48.33	48.89	37.50	54.56	40.22	47.04	

N.B. Site Selected.

Attendant's house 304°80' NE. Dues 100' S.

1936 Revision Embankment about 407° N.N.W.

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	Parish Church.	Distance from gauge	Direction
1934			Galgate	3m.	WSW.	Queensmore	2m	NNW



RAINFALL at Quernmore (Old Gauge Basin)

County of North Lancashire Observer F. Hill, Esq. C.E.

River Basin Wyre & C - S.

Type of Gauge M.O.

Annual Average 46.1 in. based on 46 years obs. un-weighted. Period of average 1891 - 1937 Ref S

678707/26.

Diameter	8.											
Height	1.0.											
Altitude	963.											
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means	
January	6.42	6.31	4.33	5.93	3.03	4.29	3.85	8.98	5.10	2.80		Totals 51.64
February	5.23	1.09	5.55	1.19	7.31	3.06	7.55	3.05	4.56	1.92		38.51
March	1.67	2.51	2.65	3.03	1.81	3.05	1.52	2.01	2.20	5.20		24.65
April	2.72	3.32	2.67	3.50	3.30	1.02	4.44	1.10	3.90	3.98		29.95
May	2.17	5.17	3.10	5.33	1.78	2.30	2.50	4.48	1.10	1.67		29.60
June	7.03	1.19	2.64	3.81	5.15	4.08	(4.50)	6.30	4.63	1.03		40.36
July	6.45	8.43	5.10	8.42	3.45	7.85	(4.00)	7.10	10.20	6.10		62.10
August	4.65	2.21	3.51	6.69	3.10	4.68	3.13	4.20	2.80	3.95		38.92
September	3.87	7.33	2.01	5.85	8.85	5.97	4.90	2.90	2.50	8.70		52.88
October	4.54	7.76	6.42	7.45	9.21	6.15	2.00	16.98	2.13	5.63		68.27
November	(8.12)	5.33	2.15	1.50	5.08	6.19	1.90	6.40	7.10	7.16		50.93
December	(3.71)	5.15	1.05	7.09	2.70	7.33	2.27	7.65	4.70	6.30		47.95
TOTALS	55.58	54.80 M	41.18 M	53.79 M	54.77 M	56.57 M	42.56 M	71.15	50.92	54.44 M		535.76 48.6

1931. Nov + Dec allocated.  
1937 June + July allocated.

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
			Galgate	4 m	N.S.W.	Quernmore	2 m 3 m	N.W.



RAINFALL at Quennmore (Hare Syke)

County of North Wales Observer F. Hill Esq., C.E.

River Basin Wynne - 5

Type of Gauge M.O.

Annual Average.....in. based on.....years obs. un-weighted. Period of average.....Ref.....

678707/26

Diameter	.....					5						
Height	.....					1 0						
Altitude	.....					1610						
Year	.....	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	.....					#	6.70	5.70	10.20	5.60	3.70	
February	.....						4.01	10.20	3.87	6.40	2.10	
March	.....						3.98	1.90	3.30	3.05	7.60	
April	.....						2.80	5.80	2.60	4.30	4.30	
May	.....						2.33	2.90	5.20	1.70	1.40	
June	.....						4.73	(6.00)	8.10	4.90	1.20	
July	.....						9.52	(4.00)	8.60	10.51	6.90	
August	.....						5.90	4.10	6.10	3.20	6.10	
September	.....						7.60	5.40	3.60	2.80	12.00	
October	.....						8.30	2.60	17.10	2.90	6.80	
November	.....						9.30	2.23	8.60	8.02	8.90	
December	.....						9.80	4.20	8.10	5.10	9.60	
TOTALS	.....						74.97 M	55.03 M	85.37 M	58.49	70.60	

1937 June + July allocated.

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
1936			Galgate	7 mls	W.S.W.	Quennmore	6 mls	W.N.W.



RAINFALL at Wyresdale (Wardstone)

County of North Lancashire Observer F. Hill, Esq., C.E.

River Basin Wyre & C. - S.

Type of Gauge M.O.

Annual Average 60.8 in. based on 45 years obs. un-weighted. Period of average 1881-1915 Ref S  
678707/26.

Diameter	8.										
Height	1.0.										
Altitude	1440.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	7.81	7.54	5.51	6.21	3.78						
February	6.72	1.19	6.72	.33	8.43						
March	1.21	3.83	3.91	3.29	2.17						
April	3.87	4.21	2.96	3.79	3.63						
May	3.09	6.30	3.30	6.98	2.10						
June	8.17	2.11	3.59	4.72	5.45						
July	7.29	9.71	7.27	4.29	4.16						
August	5.77	3.53	3.44	7.89	4.07						
September	4.98	8.81	2.81	7.09	9.17						
October	5.77	8.91	7.30	8.71	42.98						
November	8.09	6.74	2.62	2.14							
December	3.83	6.43	1.47	7.63							
TOTALS	66.60	68.31	50.90	63.07	imp.						

Inspected 1934 :- It was not possible to see the actual position of the gauge which gives deficient catch Very (but) difficult to find suitable site on land draining to Tarnbrook. Suitable sites are available just outside the catchment area 1) to the east of Wardstone on land draining to Rushbed Gutter 2) to the east of Grit Fell on land draining to Udale Beck. The former is preferable. Alternatively a site could be found on land draining to Hare Syke A weekly record from a site on Marsham Fell would be useful. In all these cases a turf wall round the gauge is necessary.

1935. Record discontinued.

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	Parish Church.	Distance from gauge	Direction
			Luton	5 1/2 m	NW	Abbeystead	3 1/4 m	S.W.