

Rainfall at Seethwaite Borrowdale40  
E-x-100Original Mys.  
6 in + Sea Level 368 ft

YEAR - -	1840	1841	1842	1843	1844	1845	1846	1847	1848	1849	MEANS.
January - -						16.81	17.07	6.29	9.67	24.96	
February - -						3.48	11.51	8.27	30.55	7.55	
March - - -						13.21	17.85	2.53	11.36	5.51	
April - - -						10.57	7.70	6.81	4.19	3.88	
May - - -						4.57	4.40	8.08	3.05	4.52	
June - - -						8.25	6.41	7.27	11.30	3.97	
July - - -						8.65	20.80	3.32	17.76	16.64	
August - -						15.61	10.58	10.48	13.91	9.92	
September -						9.77	4.60	13.28	7.00	4.08	
October - -						15.17	25.43	20.52	17.32	16.14	
November -						20.84	10.46	21.85	14.07	18.75	
December -						24.94	6.70	10.54	20.71	7.55	
TOTALS -						181.87	143.57	129.24	160.89	125.47	

c c c c c

5-9 Phil Jr R. 30

The greatest fall in any one day was in Nov. 1845 being 6.62, 5.98 fell on Sunday in 1846 being Oct. 1847 Oct. 5.33 1848 Dec. 5. 1849 Oct. 3. 78, 1850 Oct. 3. 71, 1851 Jan. 4. 24, 1852 Dec. 4. 57, 1853 July 4. 28

## Rainfall at Seathwaite Field

Exx-101  
40

Original Ms.

<sup>18</sup>  
22 in above ground

YEAR -	1840	1841	1842	1843	1844	1845	1846	1847	1848	1849	MEANS.
January - -								6.16	9.63	23.96	
February - -								8.03	29.98	7.25	
March - - -								2.65	11.18	5.32	
April - - -								6.78	4.12	3.78	
May - - -								8.04	2.97	6.07	
June - - -							<del>6</del>	6.46	7.18	11.19	3.93
July - - -								21.63	3.17	17.53	16.60
August - -								10.87	10.31	13.54	9.27
September -								4.70	12.80	6.92	3.98
October - -								28.22	20.09	16.81	15.88
November -								10.89	21.26	13.54	18.46
December -								6.94	20.33	19.81	7.07
TOTALS -								126.80	157.22	121.57	

c c c c

7-9 Phil Jr 8-38

## RAINFALL AT Seathwaite

Miller's Map No XIX

Rain { By Potter  
 Gauge Diameter 5 in.

Height above Ground, ..... ft. 10 in. Above Mean Sea Level, 385 ft.

YEAR .....	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	MEANS.
January .....	7.34	28.63	27.65	23.12	19.61	4.11	9.66	15.12	13.72	23.40	17.266 +
February .....	2.25	8.15	3.33	20.05	3.84	11.26	1.29	14.30	14.94	2.39	15.80
March .....	4.13	9.36	9.8	4.59	10.13	9.19	1.61	10.37	10.50	20.84	8.170
April .....	15.62	6.08	7.41	2.67	3.04	5.64	6.98	5.02	7.85	12.71	7.635
May .....	7.14	4.53	11.59	8.9	8.29	3.99	5.26	5.02	8.75	1.04	5.650 -
June .....	6.83	11.63	12.33	4.07	13.98	8.05	12.66	8.15	2.19	5.95	8.684
July .....	11.20	14.47	7.65	19.67	6.98	5.62	6.31	9.09	7.57	3.33	9.189
August .....	16.22	13.16	12.37	10.47	10.63	10.82	7.61	5.25	7.82	13.38	10.773
September ...	5.85	4.30	4.64	10.42	12.24	3.67	8.39	7.97	18.39	15.32	9.119
October .....	12.94	20.38	8.44	13.25	14.62	20.00	8.61	7.25	15.60	8.27	12.936
November ...	22.60	3.74	17.47	9.47	9.84	8.70	6.03	7.93	4.24	13.55	10.357
December.....	11.51	7.99	32.83	1.23	22.86	7.23	17.00	20.49	15.59	13.70	15.123
TOTALS.....	143.96	139.60	156.74	113.69	143.48	88.31	105.52	116.60	114.61	147.29	126.980

c c + c c c - c c c c c

1852-Total agrees with ppt by J.F. Miller, who however put h = 6 in instead of 10 in. Dec 11th & 12th 48 hrs = 7.57

RAINFALL AT SeathwaiteField

Rain { by  
Gauge Diameter..... in.

Height above Ground, ..... ft. 22. in. Above Mean Sea Level, 400. ft.

YEAR .....	1850	1851	1852	1853	1854	MEANS.
January .....	6.46	28.06	26.16	22.32		
February .....	14.98	18.27	3.46			
March .....	9.07	1.15	4.43			
April .....	5.55	.74	12.75			
May .....	4.42	10.86	.86			
June .....	11.51	12.36	4.13			
July .....	14.20	7.57	19.37			
August .....	12.62	12.30	10.45			
September ...	4.29	4.76	10.32			
October .....	20.04	8.16	13.29			
November ...	3.58	17.08	9.07			
December.....	7.54	31.47	1.16	48		
TOTALS.....	135.86	150.88	111.61			

C C C C

1852 - Total agrees with ppt by J. F. M. who calls height = 18 in.

Peathwaite in Borrowdale £ **60**

Mitchell

Mr. Dixon

Thy Reb No. 78,

1 ft 6*in*

Searm

+ Ground 10*m* 5*f*. Sea Level. 422 645  
3800 feet.

YEAR - -	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	MEANS.
January - -	23.79	9.00	16.78	20.63	13.23	13.84	25.99	15.66	13.54	17.43	17.079
February - -	9.23	10.27	5.50	14.25	10.11	10.94	19.17	17.05	19.90	23.73	14.755
March - -	17.15	26.08	10.30	8.31	12.14	6.44	13.05	8.32	27.24	3.21	13.224
April - -	5.04	1.82	17.26	10.94	3.04	4.31	5.97	16.92	8.95	10.26	8.351
May - - -	9.80	4.61	8.28	13.30	4.53	16.72	5.06	5.25	6.98	3.16	7.749 -
June - - -	15.87	7.70	15.62	11.01	11.62	1.25	6.57	4.90	3.47	5.13	8.314
July - - -	3.21	14.50	13.67	2.82	7.57	7.00	11.18	10.43	2.32	8.30	8.108
August - -	13.91	25.20	12.81	9.79	9.72	13.06	12.69	13.05	13.70	4.51	12.844
September - -	6.68	17.42	6.38	25.03	16.55	7.19	21.55	12.47	5.77	24.09	14.293
October - -	23.70	9.07	32.13	14.86	6.37	11.70	9.62	13.67	18.30	9.95	14.945
November - -	4.76	35.41	5.14	24.75	16.10	13.03	23.08	2.55	9.43	23.19	15.024
December - -	9.06	13.62	26.16	18.13	23.69	11.05	25.39	13.04	27.51	17.75	10.540 +
TOTALS - -	423.20	182.50	170.03	173.84	134.67	117.49	179.12	133.31	157.11	150.11	184.046

1861 Dec. is stated by Mr. Dixon to be 13.672 but a paper written by you says 13.62

Found to be about 2%. too big (Mansfield Wall 1919)

Seathwaite  
Monthly Gauge  
 I Fletcher

4 in + ground bin + See level 422 ft

YEAR - -	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	MEANS.
January - -						12.44	24.86	10.40	12.24	15.57	
February - -						10.19	17.61	14.75	17.84	22.04	
March - - -						6.33	12.15	7.64	22.07	3.00	
April - - -						3.35	5.50	15.49	7.47	0.14	
May - - -						15.33	11.45	4.41	6.44	2.80	
June - - -						1.10	6.47	4.02	3.26	5.17	
July - - -						6.64	10.72	9.70	2.25	0.50	
August - -						11.96	11.24	13.03	13.05	3.35	
September -						6.97	20.28	11.75	5.34	21.51	
October - -						9.48	9.06	12.48	15.63	8.40	
November -						12.49	21.40	2.04	8.46	20.14	
December -						10.33	22.97	10.25	24.28	14.41	
TOTALS -						106.61	166.71	115.96	138.33	133.03	

c c c c c

## RAINFALL AT

SeathwaiteS. Abberley

Rain { By .....  
 Gauge } Diameter ..... in.

Height above Ground, ..... ft. .... in. Above Mean Sea Level, ..... ft.

YEAR .....	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	MEANS.
January .....										16.00 15.25 17.50	
February .....										14.50 15.50 24.50	
March .....										7.50 24.75 2.00	
April .....										16.50 8.50 9.00	
May .....										4.50 5.50 2.75	
June .....										4.00 2.75 4.50	
July .....										9.75 1.75 8.00	
August .....										12.25 13.00 3.50	
September ...										8.50 11.50 4.75 22.00	
October .....										10.00 12.50 18.50 8.25	
November ...										19.75 8.75 7.00 21.25	
December .....										23.50 10.75 25.25 16.75	
TOTALS.....										122.50 142.50 140.00	

c c c c

1869 Nov: a great many hail storms which the float catches more than the small one.

## RAINFALL AT Seathwaite

Lat.....

Lon..... County of... Cumberland.....

..... Rain Gauge, by..... Observer ..... Mr. Bickett .....

Diameter .....	•8										
Height .....	1										
Altitude .....	422										
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	14.00	10.50	30.25	27.00	20.25	22.00	10.75	25.50	17.00		
February .....	13.25	16.50	(17.50)	2.00	10.25	8.75	15.75	14.00	11.50		
March .....	8.00	9.25	12.25	6.50	14.75	5.50	13.50	7.75	8.25		
April .....	6.00	6.00	4.75	1.75	4.25	4.25	6.00	5.50	4.00		
May.....	15.00	2.50	9.00	5.25	2.75	7.25	2.00	10.75	9.00		
June.....	4.25	2.50	12.00		2.75	10.50	8.25	10.50	6.00		
July .....	1.50	11.75	5.50		7.25	5.25	5.75	15.25	3.25		
August.....	1.50	8.75	(9.00)		17.75	7.75	9.50	—	9.25		
September.....	12.00	5.00	21.25		15.75	13.50	8.00	—	14.75		
October.....	23.00	5.75	18.75		29.50	10.50	7.75	23.00	15.75		
November.....	8.00	10.50	16.75		12.50	12.00	8.00	28.25	5.75		
December.....	6.50	20.75	19.00	11.50	7.25	13.50	18.25	18.00	5.75	#	
TOTALS.....	113.00	109.75	(176.00)		145.00	115.75	113.50		110.25		

C C C

1873 June - November Gauge out of order

1877 August &amp; September Gauge out of repair

1879 Gauge moved to Castle Lodge

RAINFALL AT Seathwaite

Lat.....

Lon.....

County of...Cumberland...

..... Rain Gauge, by.....

Observer .....

Diameter .....	.4											
Height .....	.6											
Altitude .....	422											
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.	
January.....	10.45	9.91	31.80	28.62	20.77	22.80	10.98	25.65	17.25	3.54	181.77	
February .....	10.12	12.00	(18.43)	2.20	10.58	3.50	15.41	14.26	11.30	7.86	105.66	
March .....	6.69	10.30	13.00	7.23	14.88	5.68	13.68	7.72	8.25	12.18	99.61	
April.....	5.45	4.18	5.36	2.07	4.30	4.54	6.15	5.56	4.10	5.05	46.76	
May .....	11.98	2.74	9.87	5.96	2.97	7.63	2.08	10.90	9.32	4.70	68.15	
June.....	6.50	2.50	12.60	7.00	2.72	11.12	8.40	10.83	6.04	10.00	77.71	
July.....	1.79	9.62	6.10	16.99	7.17	5.20	6.00	15.80	3.20	13.89	85.76	
August.....	1.50	7.43	(9.73)	18.00	18.05	8.16	9.98	11.50	9.50	13.06	106.91	
September.....	10.90	5.45	22.62	12.20	16.46	13.85	8.35	8.93	14.95	16.79	130.50	
October.....	19.88	6.28	19.63	21.30	30.35	11.22	7.15	23.26	16.34	8.62	164.03	
November.....	6.87	11.05	17.77	9.70	13.06	12.35	8.40	29.00	5.71	3.81	117.72	
December.....	(7.00)	21.79	19.34	11.96	6.98	14.00	18.00	18.15	5.00	12.76	134.98	
TOTALS.....	114.12	103.25	186.29	143.23	148.29	120.05	114.58	181.56	110.96	112.26	1334.54	

1870 27 fifteen inches short

— 15 in added

Seathwaite Daily

70

## RAINFALL AT Seathwaite

Lat.....

Lon.....

County of Cumberland.....

Rain Gauge, by..... Observer I Fletcher Esq M P

(Daily)

Diameter.....	5										
Height.....	1										
Altitude.....	422										
YEAR.....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	14.08 13.48	11.95	32.14	28.64	20.82	22.88	10.91	25.65	17.06	3.34	18.747
February.....	13.67	15.99	17.53	3.05	10.50	3.45	16.21	14.42	11.74	7.93	11.449
March.....	9.51	10.26	11.23	7.30	14.24	5.66	12.80	7.74	8.06	12.14	9.894
April.....	6.50	6.36	5.08	1.76	4.72	4.53	6.04	5.43	4.19	4.76	4.937
May.....	13.49	2.63	9.54	5.58	2.82	7.80	2.05	10.92	9.30	4.67	6.980
June.....	6.41	2.82	12.30	7.78	3.02	10.90	8.34	10.51	6.13	9.93	7.814
July.....	7.75	12.67	5.90	16.96	7.20	5.15	6.05	15.45	3.11	13.60	8.774
August.....	2.68	9.10	9.34	18.73	18.60	7.87	9.77	11.79	9.51	12.99	11.038
September.....	12.70	5.53	20.85	19.70	16.06	14.45	8.23	8.98	15.06	16.67	13.223
October.....	24.17	6.24	19.13	21.23	30.18	10.08	7.32	22.92	16.16	8.03	16.546
November.....	8.03	9.91	18.64	10.06	13.29	12.10	8.00	28.47	5.82	3.87	11.819
December.....	7.21	21.79	20.37	11.74	7.34	13.93	18.31	18.12	5.74	12.77	13.732
TOTALS.....	149.60 121.20	115.15	182.05	146.33	148.79	118.80	114.03	180.40	111.88	110.70	134.953

C C C

In Decr. 1873 Mr. Marshall of Leeds wrote stating that Jan 1870 should be 14.08 and May 14.49 and on applying to Mr. Birkett he corroborated it

found to be 2%. too big (manuscript was 1919)

## RAINFALL AT Seathwaite

70

Lat.

Lon.

County of Cumberland

Rain Gauge, by

Observer H. C. Marshall Esq.

Diameter . . . .											
Height . . . .											
Altitude . . . .							420				
Year . . . .	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January . . . .							8.28	24.27	15.70	3.12	
February . . . .							13.03	13.09	10.92	7.80	
March . . . .							13.25	7.17	7.53	10.20	
April . . . .							5.46	4.99	3.57	4.67	
May . . . .							1.88	10.27	8.82	4.38	
June . . . .							7.63	9.86	5.62	10.39	
July . . . .							5.58	14.21	2.81	11.40	
August . . . .							9.28	11.19	8.23	12.50	
September . . . .							13.78	7.50	7.46	15.03	15.74
October . . . .							9.72	7.87	21.87	14.91	8.41
November . . . .							11.75	6.83	26.98	5.49	2.10
December . . . .							12.71	17.66	17.83	5.12	10.99
TOTALS . . . .							104.25	16.97	19.103	75.99	101.70

## RAINFALL AT Seathwaite

80

Lat.

Lon.

County of Cumberland

Rain Gauge, by

Observer The Meteor Society

Derwent - 2

Diameter .....	5										
Height .....	1.0										
Altitude .....	422 T										
Year .....	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	MEANS.
January .....	1.18	11.15	21.07	22.09	11.09	16.61	11.34	8.32	12.22	11.417	
February .....	10.87	13.80	17.80	14.68	25.57	3.57	9.20	2.97	9.32		
March .....	15.07	13.44	6.66	13.71	14.51	11.10	4.31	9.62	8.65		
April .....	3.61	0.78	4.80	4.02	9.25	6.69	9.00	7.35	5.38		
May .....	12.94	8.27	6.24	17.09	6.16	7.98	5.55	8.17	5.57		
June .....	15.89	13.30	7.82	14.43	5.97	4.65	2.20	2.35	1.04		
July .....	12.60	20.71	5.84	9.75	11.55	1.03	10.04	10.97	5.67		
August .....	13.09	8.78	10.98	3.29	8.23	8.34	5.20	8.94	11.64		
September .....	4.86	7.75	13.07	11.74	18.59	19.92	15.58	5.62	8.21		
October .....	6.57	8.55	15.34	10.61	12.71	11.05	7.92	14.31	13.48		
November .....	16.17	8.33	19.55	6.50	10.20	13.61	8.62	22.66	6.64		
December .....	14.58	11.93	14.80	19.09	7.42	18.27	11.42	17.25	16.07		
TOTALS .....	127.43	146.09	143.97	134.10	144.25	131.82	100.38	118.53	103.89		

1886 July correction sent 26-VI-98

RAINFALL AT *Seathwaite*

80

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

Lon. \_\_\_\_\_ County of *Cumberland*

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

Observer *M. Dixon**Derwent - 2.*

Diameter .....	<i>H</i>											
Height .....	<i>6</i>											
Altitude .....	<i>422T</i>										<i>129.48</i>	
Year .....	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	MEANS.	
January .....	4.75	1.19	11.85	21.40	23.39	12.33	15.88	11.16	8.13	12.11	12.283	
February .....	17.20	10.03	14.35	18.09	14.84	26.29	3.78	9.62	2.87	9.41	12.648	
March .....	7.41	13.42	14.30	6.61	14.00	15.00	11.46	4.59	8.60	8.83	10.421	
April .....	9.68	3.75	10.12	5.80	4.23	9.05	7.00	9.04	7.31	5.60	7.158	
May .....	6.58	13.86	8.50	6.58	17.19	6.22	7.44	5.10	8.12	5.74	8.583	
June .....	9.75	16.50	13.87	6.24	1.34	6.06	4.78	2.34	2.33	1.05	6.426	
July .....	10.21	13.19	21.47	6.22	11.34	11.38	11.31	9.25	11.50	5.73	11.160	
August .....	4.25	13.66	9.14	11.26	3.39	8.36	8.60	4.28	9.20	11.81	8.395	
September....	9.74	5.08	8.42	13.22	12.33	18.92	19.83	15.42	5.73	8.27	11.696	
October.....	3.33	6.85	9.23	15.71	10.76	13.30	11.23	8.53	14.60	13.75	10.729	
November....	23.05	16.90	18.82	20.14	6.73	10.75	15.00	8.58	22.56	6.78	14.931	
December ....	14.37	14.90	12.39	15.56	19.49	7.45	19.73	9.42	17.24	16.29	14.624	
TOTALS .....	120.82	129.33	152.43	146.83	139.03	145.31	135.93	97.27	118.19	105.37	129.004	

1880 Borrowdale

2½ miles

N.E.

1888 House 11 feet high 10 ft N

RAINFALL AT *Seachwaite***80**

Lat.

Lon.

County of *Cumberland*

Daily Rain Gauge, by

Observer *M. Dixon*

Derwent - 2

Diameter ....	5										
Height .....	1.0										
Altitude ....	4227										
Year .....	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	MEANS.
January ....	4.77	1.26	11.40	21.92	22.57	11.36	15.79	12.11	8.32	12.36	12.180
February ....	17.07	10.27	14.07	18.20	14.96	26.05	3.72	9.57	2.97	9.53	12.635
March .....	7.16	15.52	3.78	6.77	13.98	14.86	9.93	4.52	9.62	8.88	10.502
April .....	9.89	3.75	10.08	5.00	4.15	9.45	6.82	9.22	7.35	5.64	7.135
May .....	6.62	13.31	8.48	6.44	17.30	6.30	8.10	5.55	8.17	5.79	8.606
June .....	9.68	16.38	3.00	8.09	1.47	6.75	4.70	2.20	2.35	1.11	6.579
July .....	10.05	13.04	21.04	6.18	10.01	11.90	10.69	10.04	11.21	5.78	10.994
August .....	4.15	13.53	0.05	11.33	3.36	8.36	8.72	4.75	9.30	11.92	8.447
September....	9.51	5.05	8.18	13.37	11.97	18.90	20.70	15.58	5.77	8.31	11.734
October.....	3.30	6.82	9.14	15.62	10.80	12.79	11.27	7.89	14.51	13.77	10.591
November....	22.70	16.73	18.52	19.84	6.70	10.35	14.78	8.62	22.87	6.82	14.793
December....	15.22	14.92	12.20	14.92	19.22	7.34	18.62	11.58	17.45	16.33	14.809
TOTALS ....	120.12	130.58	149.9	147.68	136.43	144.01	133.84	107.57	119.89	106.24	129.005

1883. Bonnatale Ch. 2½ m N.E.

Wall 5 ft high 36 ft. surrounding.

Bonnatale 290 feet high (manchester Water 1919)

RAINFALL AT *Seathwaite*

80

Lat.

Lon.

County of *Cumberland*

Rain Gauge, by

Observer *H. C. Marshall, Esq.*

Dewint - 2

Diameter .....	55											
Height .....	1.0											
Altitude .....	4209											
Year .....	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	MEANS.	
January .....	4.18	4.44	10.33	20.46	22.04	11.09	15.39	10.76	8.26	11.54	11.449	
February .....	10.84	10.44	12.89	17.53	14.07	24.35	3.16	8.96	2.49	10.36	12.030	
March .....	6.88	13.91	12.84	6.30	13.70	14.64	10.63	3.90	8.03	8.65	9.938	
April .....	9.04	3.58	9.50	4.53	4.26	8.11	6.72	8.96	7.35	5.30	6.735	
May .....	6.08	12.89	8.24	5.59	16.85	6.06	7.67	5.03	6.73	5.39	8.053	
June .....	9.09	15.74	13.44	1.61	1.34	5.99	14.47	2.12	2.28	1.03	6.211	
July .....	9.62	12.45	21.02	5.82	9.90	11.72	12.74	9.69	10.76	5.36	10.908	
August .....	8.78	12.65	8.50	11.43	3.23	8.06	7.95	4.94	8.79	11.97	8.150	
September....	9.06	4.92	8.00	13.10	11.57	18.90	19.60	16.36	5.59	8.03	11.513	
October.....	2.88	6.23	8.63	14.83	10.27	12.62	10.74	7.95	14.99	13.72	10.286	
November....	22.24	16.29	18.25	19.60	6.39	10.01	13.78	8.15	22.20	6.25	14.316	
December....	13.83	14.44	12.06	13.82	18.86	7.12	17.62	10.57	17.16	15.82	14.130	
TOTALS .....	112.52	124.18	143.70	139.64	132.48	138.77	130.46	97.39	114.63	103.42	123.719	

RAINFALL AT Seathwaite

Lat.

Lon.

County of

Cumberland

Rain Gauge, by

Observer

Mr Hughes

R.M.S. gauge

Derwent - 2.

Diameter .....	5													MEANS.
Height .....	10													
Altitude .....	4227'													
Year .....	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899				
January .....	21.57	11.17	14.21	6.71	21.46	5.89	10.90	2.20	16.08	21.35	12.154			
February .....	3.70	2.52	5.07	20.69	25.91	2.18	10.08	12.42	16.48	9.07	10.812			
March .....	12.54	8.17	3.24	8.51	11.24	13.39	19.28	19.99	6.47	9.38	11.221			
April .....	4.49	7.45	3.79	1.47	4.29	8.30	5.67	7.27	11.16	13.28	6.717			
May .....	7.75	5.34	11.94	5.59	8.17	.58	1.17	5.80	6.90	8.78	6.211			
June .....	13.40	3.06	7.87	5.94	7.19	3.18	6.50	9.03	8.40	2.02	6.659			
July .....	13.26	5.66	8.25	10.18	8.08	9.15	8.97	7.88	3.66	6.57	8.166			
August .....	9.59	26.69	15.30	13.25	13.10	15.21	8.73	17.38	19.65	3.94	14.284			
September .....	15.71	20.64	25.36	13.63	.59	5.35	15.26	11.99	10.98	14.02	12.353			
October .....	11.48	15.71	11.85	18.40	13.84	10.78	13.02	8.72	10.65	13.34	12.779			
November .....	25.24	13.71	11.57	11.54	18.23	11.57	4.28	20.85	16.85	15.95	14.979			
December .....	1.17	24.96	8.91	22.53	13.42	14.15	19.27	20.57	23.72	8.76	15.746			
TOTALS .....	139.90	145.08	127.36	138.44	145.52	99.73	123.13	144.19	151.00	126.46	134.081			

The readings of this gauge are printed in Met: Mag:  
from 1896 onwards.

## RAINFALL AT

Seathwaite

Lat.

Lon.

County of Cumberland

Derwent - 2.

Rain Gauge, by

Observer

G. J. Symons Esq FRS

Monthly

Diameter .....	4										
Height .....	0 6										
Altitude .....	422 T										
Year .....	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	MEANS.
January .....	21.77	11.07	13.96	7.09	21.66	5.57	11.09	2.25	16.06	21.90	13.242
February .....	3.69	2.56	4.62	20.72	26.26	2.05	10.19	12.93	16.56	9.39	10.897
March .....	12.69	8.23	3.28	7.72	11.30	14.57	19.49	20.39	6.63	9.85	11.115
April .....	4.54	7.56	3.90	1.43	4.37	8.52	5.78	7.49	11.21	13.51	6.824
May .....	7.84	5.40	12.23	5.66	8.41	.58	1.15	5.91	6.93	9.02	6.912
June .....	13.60	3.00	7.94	6.03	7.24	3.04	6.82	9.21	8.50	1.98	6.426
July .....	13.44	5.80	7.68	10.38	8.40	9.30	9.12	7.95	3.70	6.82	8.264
August .....	9.82	26.55	15.50	13.20	13.34	15.49	8.96	18.03	19.63	3.98	14.450
September .....	15.86	20.89	25.67	13.62	.58	5.43	15.78	12.36	11.18	14.45	10.582
October .....	11.62	15.82	11.89	18.82	13.95	11.04	12.87	8.80	10.53	13.49	12.583
November .....	25.57	13.80	11.69	11.76	18.52	11.74	4.32	21.36	16.86	16.12	15.174
December .....	1.20	24.87	8.59	22.87	13.50	14.37	19.49	20.98	24.74	9.05	15.966
TOTALS .....	141.64	145.55	126.95	139.30	147.53	101.70	125.06	147.66	152.53	129.59	135.751

1890 Rosswaite Church 2 1/4 miles NE 1880  
 House 11 ft high 10 ft N

RAINFALL AT Leathwaite

Lat.

Len.

County of

Cumberland

Darwent - 2

Rain Gauge, by

Observer

Weekly

G. J. Lymond Esq. F.R.S.

Diameter .....	5										
Height .....	10										
Altitude .....	4231										
Year .....	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	MEANS.
January .....	21.80	11.34	14.44	6.90				2.25	16.58	21.62	
February .....	3.74	2.60	5.15	20.99				12.71	16.90	9.36	
March .....	12.73	8.35	3.29	8.67				20.27	6.78	9.61	
April .....	4.55	7.63	3.91	1.59				7.34	11.51	18.49	
May .....	7.96	5.46	12.13	5.75				5.89	7.08	8.88	
June .....	13.59	3.08	8.01	6.11				9.15	8.65	1.95	
July .....	13.43	5.82	8.39	10.46				8.93	7.81	3.82	6.60
August .....	9.79	26.99	15.57	13.58				8.82	17.62	19.30	3.93
September .....	15.88	20.86	25.62	13.91				15.67	12.17	11.37	14.20
October .....	11.64	15.92	12.11	18.63				13.14	8.77	11.07	13.35
November .....	25.48	13.89	11.82	11.54				4.27	21.13	16.82	15.98
December .....	1.21	25.25	9.06	22.53				19.29	20.85	24.60	9.43
TOTALS .....	141.80	147.19	129.50	140.66	(147.53)	(101.70)	(125.0)	145.96	154.48	128.40	(136.228)

monthly gauge

Oct 17<sup>th</sup> 1893 New 5 in. gal. iron gauge fixed but identical figures for it and for the R.M.S. gauge were returned until June 1896 when weekly readings were commenced. In 1894 this gauge should have yielded about 147 inches

1893 Rosthwaite Church 2 miles NE

Home 12 ft high 18 ft N

1894-1896 monthly gauge figs need

## RAINFALL AT Seathwaite

Lat.

Derwent - 2.

Long.

County of Cumberland

Rain Gauge, by

Observer

John Marshall Esq

Monthly

Diameter .....	5										
Height .....	1 0										
Altitude .....	420 T										
Year .....	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	MEANS.
January .....	21.86	11.06	13.44	5.95	20.40	4.58	11.13		16.60	21.16	
February .....	3.58	2.43	4.29	20.46	25.45	1.81	10.07		16.46	8.88	
March .....	12.40	7.58	2.78	6.41	11.70	13.45	18.94		5.82	9.32	
April .....	4.43	7.32	3.55	2.18	4.20	8.23	5.55		10.89	12.78	
May .....	7.64	5.14	11.03	5.84	7.13	.51	1.12		6.75	8.73	
June .....	11.97	2.95	7.88	5.30	6.96	3.73	6.44		8.78	1.78	
July .....	13.09	5.37	8.06	10.39	7.42	8.49	9.13		3.53	6.68	
August .....	9.38	25.11	15.05	12.43	11.41	14.89	8.93		22.40	3.95	
September .....	15.84	20.01	22.08	11.89	.51	5.57	15.83		10.94	14.28	
October .....	11.12	15.77	10.17	18.10	16.89	10.61	12.43		15.87	13.35	
November .....	25.46	13.94	10.82	12.69	14.48	11.80	4.22		14.48	16.02	
December .....	1.19	24.29	8.12	22.49	13.34	13.67	19.69		20.78	8.98	
TOTALS .....	137.96	140.97	117.27	133.58	139.84	97.34	123.48	97.0.	141.50	125.91	130.485

1898 Unreliable

RAINFALL AT Dorowdale Leathwaite

Lat.

Lon.

County of Cumberland

Rain Gauge, by

Observer H. S. Wallis & Dr. Mill

Derwent - 2. Weekly

Diameter ..	5										
Height ..	1.0										
Altitude ..	4227'										
Year ..	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	MEANS.
January ..	17.82	9.15	12.87	18.46	16.12	7.99	19.86	5.95	16.78	10.55	135.55
February ..	7.98	5.41	3.72	21.12	10.96	7.79	9.82	8.66	9.45	11.38	9.579
March ..	.93	7.97	8.85	22.24	10.12	11.90	9.37	14.06	11.52	9.00	10.59
April ..	8.80	7.48	6.51	4.96	19.53	12.88	4.05	7.11	4.35	7.49	8.316
May ..	7.62	2.99	5.68	8.02	7.03	7.88	16.06	10.11	7.89	5.65	7.893
June ..	8.22	6.68	1.95	4.05	4.74	7.76	4.58	17.01	8.02	4.66	6.767
July ..	4.12	2.25	7.02	10.76	8.14	3.90	8.87	4.23	8.17	16.67	7.363
August ..	12.05	12.64	7.28	21.10	11.67	9.72	12.89	13.59	14.38	8.35	123.67
September ..	10.48	9.60	5.88	12.07	5.15	8.66	4.35	2.00	17.08	5.48	8.075
October ..	14.57	16.07	10.73	24.65	11.40	11.69	15.84	15.11	4.80	21.07	14.593
November ..	9.94	15.71	9.30	12.01	10.76	13.84	13.82	11.42	12.21	8.56	11.757
December ..	27.24	16.04	15.29	13.70	16.07	11.43	11.74	19.10	12.07	18.79	16.147
TOTALS ..	129.77	111.99	95.08	173.14	131.70	115.44	130.25	128.35	126.72	127.65	127.009 1554

H. S. Wallis

RAINFALL AT Borrowdale Seathwaite

Lat.

Lon.

County of Cumberland

Rain Gauge, by

Observer S. A. Marshall Esq  
M. F. C. Marshall

Derwent - 2.

Diameter ..	...						5				
Height ..	...						10				
Altitude ..	...						420				
Year ..	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	MEANS.
January ..	17.62	8.74	12.95	18.75	16.30	8.50	19.95	5.65	16.60	10.70	135.76
February ..	7.94	5.69	3.58	21.35	11.23	9.70	9.25	7.95	9.30	9.88	9.587
March ..	7.79	7.98	9.05	22.90	13.55	11.60	9.65	14.10	11.50	6.50	10.762
April ..	8.49	7.64	6.50	4.95	15.35	10.80	4.10	7.05	4.30	4.55	7.373
May ..	7.88	3.00	5.90	8.20	7.65	8.45	16.13	10.50	8.00	4.94	8.065
June ..	8.32	6.75	2.05	3.90	4.70	7.20	4.45	16.65	7.65	4.20	6.587
July ..	4.00	2.25	7.30	10.70	8.20	5.15	8.20	4.35	8.00	15.75	7.390
August ..	12.73	12.61	7.50	21.20	10.45	10.40	13.00	13.55	14.70	7.70	12.384
September ..	10.50	8.03	6.05	12.35	8.00	8.50	4.32	2.10	16.75	4.90	8.150
October ..	14.40	16.33	10.95	25.00	9.80	12.00	16.15	15.80	5.00	20.40	14.583
November ..	10.03	16.02	9.73	10.50	11.47	13.90	13.95	11.65	12.15	8.40	11.780
December ..	27.24	15.60	15.60	13.75	15.95	10.15	11.25	18.98	12.40	15.05	15.587
TOTALS ..	129.94	110.54	97.16	173.55	132.65	116.35	130.40	128.33	126.35	112.97	125.824 3+39

1909 ? small

Hull

RAINFALL AT Borrowdale Seathwaite

Lat.

Long.

County of Cumberland

Rain Gauge, by

Observer The Royal Meteor Soc

Borrowdale - 2.

Diameter ..	5										
Height ..	10										
Altitude ..	420 T										
Year ..	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	MEANS.
January ..	17.89	8.95	12.55	18.18	16.37	9.15	19.93	6.01	16.82	10.63	13.648
February ..	8.30	5.34	3.57	20.85	10.13	9.86	9.34	8.69	9.49	11.45	9.702
March ..	.83	8.71	8.76	22.23	12.51	11.10	9.38	14.10	11.57	9.08	10.827
April ..	8.58	7.37	6.38	4.81	14.60	12.71	4.09	7.16	4.42	7.54	7.766
May ..	7.70	2.77	5.79	7.94	7.68	8.18	16.10	10.18	7.98	5.73	3.005
June ..	8.17	6.63	2.01	3.96	4.39	5.94	4.61	17.04	8.01	4.74	6.550
July ..	4.09	2.27	7.05	10.28	8.29	5.02	8.42	4.28	8.20	16.75	7.465
August ..	12.13	11.78	7.23	21.11	10.94	9.77	12.95	13.65	14.43	8.46	12.243
September ..	10.19	9.32	5.84	10.95	7.48	8.25	4.39	2.03	17.17	5.88	8.120
October ..	14.55	15.97	10.61	23.62	9.21	12.01	15.87	15.11	4.88	21.14	14.297
November ..	9.96	15.57	9.26	9.70	12.52	13.92	13.85	11.43	12.26	8.64	11.711
December ..	27.15	16.01	15.06	12.46	14.69	11.01	11.75	19.13	12.15	18.88	16.829
TOTALS ..	129.54	110.69	94.11	166.09	128.81	116.92	130.66	128.61	127.38	129.62	126.163

Church 3 miles NE  
Kearwick Station 9 - NE

## RAINFALL AT Borrowdale Seathwaite

Lat.

Lon.

County of Cumberland

Rain Gauge, by

Observer H.S. Wallie &amp; D. Mill

Borrowdale - 2. M.

Diameter ..	4										
Height ....	0.6										
Altitude ..	422 T										
Year ..	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	MEANS.
January ..	17.67	8.87	13.00	18.56	16.64	8.70	19.90	5.90	16.81	10.65	13.660
February ..	7.99	5.61	3.62	21.27	10.98	9.45	9.45	8.75	9.51	11.50	9.813
March ..	1.02	7.79	9.07	22.75	13.49	11.89	9.05	14.15	11.65	7.60	10.876
April ..	8.98	7.91	6.57	5.06	15.27	10.45	4.15	7.20	4.40	7.65	7.764
May ..	7.95	3.02	5.82	8.30	7.79	8.20	16.13	10.17	7.94	5.55	8.087
June ..	8.37	6.90	2.02	4.05	4.85	7.21	4.60	17.00	7.89	4.58	6.747
July ..	4.17	2.30	7.28	10.62	8.36	5.23	8.30	4.30	8.10	16.81	7.547
August ..	12.45	12.05	7.42	21.16	10.39	10.56	12.87	13.62	14.34	8.41	12.327
September ..	10.54	9.65	6.09	12.25	7.95	8.61	4.40	2.00	17.05	5.64	8.418
October ..	14.62	16.37	10.91	25.10	9.51	11.86	15.80	15.56	4.90	21.20	14.583
November ..	10.09	16.05	9.65	10.91	11.25	13.67	13.80	11.50	12.25	9.00	11.817
December ..	27.31	15.57	15.52	13.67	16.01	11.00	11.80	19.21	12.20	19.20	16.149
TOTALS ..	131.16	112.09	96.97	173.70	132.49	116.83	130.55	129.26	127.04	127.79	127.788

H.W.

1900 Roosethwaite Church 3 miles N.E  
 House 2 1/2 miles 2 3/4 miles E  
 Keswick Station 9 miles NE

## RAINFALL at Borrowdale Seashwaite

County of Cumberland

Observer D. H. R. Mill

River Basin Derwent 2

Mrs Pepper (11)

Snowdon Rain Gauge, by Basella

Mrs Plaskett (16)

Weekly

Diameter ...	5										
Height .....	1 0										
Altitude ...	422 T	422									
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	MEANS.
January ...	15.21	11.76	11.60	15.76	12.27	16.81	22.83	6.00	15.27		
February ...	22.13	20.61	7.70	10.73	20.94	20.89	12.95	1.94	20.73		
March .....	9.62	6.24	21.20	16.28	13.99	5.35	3.21	6.80	5.63		
April .....	9.21	12.22	3.67	14.15	5.62	9.67	12.29	5.66			
May .....	7.89	8.76	5.06	7.11	7.73	1.18	8.44	6.63			
June .....	2.98	10.96	10.90	11.86	3.11	1.81	5.90	6.47			
July .....	9.11	2.81	10.30	1.74	6.26	11.57	5.83	3.76			
August .....	17.94	10.05	12.65	7.17	8.91	4.17	6.14	18.55			
September ..	1.32	7.42	6.51	4.55	5.12	2.07	6.68	17.89	22.25		
October ...	6.63	13.16	14.63	7.50	3.45	3.30	21.80	22.01			
November ..	9.89	18.07	15.71	13.63	22.94	5.97	19.95	15.65			
December ...	21.78	27.04	23.42	14.06	18.42	21.27	9.90	8.38			
TOTALS ...	133.71	149.10	143.45	124.54	128.76	103.56	133.99	119.74			

Inspected H.R.B. 25/8/20. Is quite sound, good exposure  
in kitchen garden. Wall 5 ft. high 15-25 feet distant.  
Old galvanized g. by Basella. Funnel has hole in it & tube  
broken off but could be repaired.

Date.	Lat. N.	Long.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.

## RAINFALL at Borrowdale Seathwaite

County of Cumberland

Observer D. H. R. Mill

River Basin Derwent 2

Rain Gauge, by

Mrs Pepper (ii)

Mrs Pleskett (16)

m

Diameter ...	4											
Height .....	0.6											
Altitude ...	422 T											
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	MEANS.	
January ...	15.40	11.87	11.62	15.74	12.27	16.80	21.05	6.00	15.85	16.95		
February ...	21.43	21.05	8.00	10.80	20.91	20.50	12.92	2.22	21.56	17.75		
March .....	10.04	6.33	21.30	16.30	14.00	5.32	3.35	7.15	5.94	10.85		
April .....	9.30	12.58	3.69	14.17	5.70	10.17	12.40	6.07	(2.75)	9.75		
May .....	7.95	8.78	4.76	7.19	7.76	1.32	8.40	7.00	(3.00)	2.25		
June .....	3.17	10.87	10.98	11.89	3.14	2.22	7.68	6.75	(4.00)	5.35		
July .....	9.70	2.93	10.37	1.78	6.30	11.80	6.70	3.75	(8.00)	2.50		
August .....	18.61	10.38	13.00	7.20	8.62	4.32	7.00	18.60	(10.00)	6.30		
September ..	1.44	7.77	6.55	4.56	5.13	2.10	7.00	18.39	22.25	15.30		
October ...	6.40	13.20	14.70	7.50	3.41	3.38	26.81	23.75	21.85	2.60		
November ..	10.05	18.04	15.79	13.80	22.94	6.19	19.40	16.65	10.55	12.60		
December ...	21.40	27.10	23.42	14.20	18.42	21.27	9.70	8.53	(23.40)	19.53		
TOTALS ...	(134.89)	150.90	144.18	125.13	128.60	105.39	142.47	124.86	(149.15)	103.75	130.932	

Inspected H.O.C. 25/3/20. Brass tube broken off but gauge otherwise quite sound & well exposed in kitchen garden 3 ft. from weekly gauge. Wall 5 ft. high, 15 - 25 feet distant.

Date.	Lat. N.	Long.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.

RAINFALL at Barrowdale SeathwaiteCounty of CumberlandObserver Royal Meteorological Society  
Dr. H. G. Mill (13)River Basin Derwent 2Rain Gauge, by CasellaMrs Pescott (16)

Diameter ...	5											
Height .....	10											
Altitude ...	423 T											
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	MEANS.	
January ...	15.31	11.17	11.58	15.68	12.13	16.79	22.80	(6.00)	15.36	(15.50)	5966	
February ...	22.18	20.57	7.64	10.53	21.14	20.40	12.87	2.06	20.56	1.57	3706	
March .....	9.76	6.15	21.26	16.22	14.11	5.28	3.22	7.03	6.65	11.30	8700	
April .....	9.52	12.65	3.66	14.11	5.71	9.79	11.93	5.64	(2.77)	12.09	3246	
May .....	7.96	8.66	5.02	7.18	7.70	1.18	8.35	6.77	(3.00)	2.17	2029	
June .....	3.05	10.74	10.88	11.83	3.09	1.86	7.22	6.75	(4.00)	5.86	3388	
July .....	9.16	2.73	10.26	1.75	6.23	11.69	6.54	3.80	(8.00)	3.75	2812	
August .....	18.02	9.93	12.75	7.19	8.86	4.25	7.01	19.83	(10.00)	6.95	4379	
September ..	1.38	7.30	6.51	4.58	5.12	2.08	7.86	18.04	22.25	14.65	6280	
October ...	6.71	13.16	14.53	7.46	3.46	3.26	2.30	21.86	15.55	2.30	6712	
November ..	9.98	18.08	15.64	13.49	22.92	5.91	20.71	16.52	10.51	9.20	5644	
December ...	21.41	27.00	23.42	14.07	18.44	21.01	10.20	8.55	21.33	19.35	5643	
TOTALS ...	136.24	148.14	143.15	124.07	(28.9)	(103.50)	141.75	(22.85)	(38.98)	(104.69)	29028	5827

Inspected H.S.C. 25/8/20. Old galvanized by Casella and now used. Tunnel has hole in it & tube broken off but could be repaired. G. quite sound. Good exposure in kitchen garden.  
G. read weekly 1915-1919.

W.H. Stoddart

Date.	Lat. N.	Long.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.

RAINFALL at Borrowdale Seathwaite ~~field~~County of Cumberland  
River Basin Derwent 2Observer Mif C Marshall  
W. Edmundson 1919

Snowdon Rain Gauge, by Casella

Diameter ...	5											MEANS.
Height .....	1.0											
Altitude ...	423											
Year ...	1910 1911 1912 1913 1914 1915 1916 1917 1918 1919											MEANS.
January .....	16.20 10.85 13.30 4.94 10.75 11.85 21.95											(16.82)
February .....	19.60 20.78 6.47 6.30 18.14 16.25 12.35											1.49
March .....	8.60	16.37 (16.30) 12.55 3.45 3.22										11.14
April .....	8.63 11.04 2.64 13.15 4.75 7.45 9.20											12.80
May .....	7.09 7.00 3.85 6.78 6.68 .95 7.98											2.02
June .....	2.80 9.84 10.01 11.52 2.75 1.70 4.00											5.71
July .....	9.30 2.57 9.80 1.70 5.80 9.60 6.64											3.55
August .....	17.50 9.00 11.95 7.18 9.05 3.59 5.52											7.80
September ..	1.58 6.90 6.23 4.38 5.40 1.64 4.85											14.99
October ...	6.38 13.51 14.30 8.40 3.00 2.95 25.00											2.80
November ..	8.85 16.66 14.74 12.80 16.80 4.53 16.70											# 11.03 9.35
December ...	16.14 16.54 16.18 13.75 17.61 19.17											(21.95) 19.35
TOTALS ...	122.67	125.84 (107.20) 113.28 83.13										106.12 w

1911 March. a broken

1912 Not painted

1913 -

1914 -

1915 -

Inspected by H. P. 25/8/20. G. diam 500, SD 2, 503  
 good exposure in small field. Wall 5 ft. high  
 40 ft. distant all directions. Outhouses 12 ft. high  
 40 ft. East. G. surrounded by iron railing 4 ft.  
 high + 4 ft. from gauge.

Date.	Lat. N.	Long.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.

## RAINFALL at Borrowdale Leathwaite, Garden

County of Cumberland

Observer British Rainfall Organization

River Basin Derwent 2

Air Ministry Station Test

† Snowdonian Rain Gauge, by Casella  
770 bottom boreal cm.Diam.: 5.700  
W 4.98J. Baybridge for Mr.  
H. A. Arnott, Cuthill  
4.65  
2.54  
3.44  
1.76  
1.74  
0.90  
0.79  
0.72  
0.68  
7.14

Diameter ...	5"												1930. MEAN.
Height .....	1.0					1.3					1.6		
Altitude ...	423												
Year .....	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929			
January .....	19.00	25.95	9.80	13.50	10.00	11.10	19.00		(34.00)	3.60	22.56		
February ...	14.63	1.30	9.15	18.10	2.20	13.50	16.00		(14.80)	4.00	1.80		
March .....	16.55	20.05	7.00	8.10	2.30	4.00	7.20		10.20	2.60	7.20		
April.....	10.95	2.40	3.85	8.10	5.75	14.50	(7.00)		1.600	(5.78)	3.17		
May .....	12.05	5.35	6.00	9.33	10.12	12.40	6.13		1.20	8.57	4.60		
June .....	6.60	1.76	8.10	5.00	8.20	4.0	5.04		13.10	6.82	5.76		
July .....	9.90	6.85	10.00	9.20	11.45	3.36	7.05		15.15	13.33	6.24		
August .....	8.29	14.45	10.00	21.00	10.20	10.20	9.25		14.83	16.87	16.15		
September...	9.80	3.25	9.00	13.30	16.25	7.95	11.81		9.60	4.25	9.60		
October.....	1.96	6.75	4.50	23.00	10.00	12.80	7.70		20.50	16.75	25.01		
November...	7.60	5.65	5.40	19.70	14.70	3.65	10.05		25.40	28.70	15.75		
December...	10.75	22.10	18.45	10.20	24.50	11.30	(4.50)		11.80	26.06	12.50		
TOTALS...	128.08	115.86	101.25	155.58	(25.67)	108.15	(10.73)		(176.58)	(85.83)	130.33		

1920 Gauge Inspected - H.E.C. 25-VIII-20. See last sheet. 1926. Bad n.r.p.

† Inspected R. Baker X-25. Gauge fall in stone slab on level ground in small garden to E of farm &amp; facing cottage. Walls 4-5 ft. 15 to 20 ft. away. Low readings accounted for by small capacity of gauge meant for daily reading.

New gauge installed 10/27.

1927. Read unreliable. For reasons see file 631803/261 820297/p. Gauge forced 3/12/27

1928 16/1/28 New Leathwaite gauge of larger capacity in same position as old 5in. 3" cones. Rim is 17 ft 6 in. above ground so that locking gear is not buried. The gauge comes into 46 1/2 in. for estimates. Has corrected for date of reading. 1929 April. Unchecked by surrounding settlers.

Position of Station on reduced Ordnance Survey } No. of Map \_\_\_\_\_ Reference No. \_\_\_\_\_  
Map, 2 miles to 1 inch Series

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

## RAINFALL at Borrowdale Seathwaite

County of Cumberland

Observer British Rainfall Organization  
Mr. Edmondson

River Basin Derwent 2

Air Ministry

<sup>1</sup> Similar to 9" Rain Gauge, by  
<sup>2</sup> No pipe to ground; anti condensation  
M. Drain: 4.00 miles

+ flat bottom 1" Brookehouse Standard 1" 2"  
5" open 750' 948' -  
461' 463-465' 247' 243' 250'

J. Cambridge for M.O.

Diameter ...	4												
Height .....	0.6					0.9							
Altitude ...	422												
Year .....	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	M.EANS.		
January ...	20.34	30.00	10.50	15.30	12.30	12.70	20.10	(7.00)	(35.00)	3.71	21.75	197.70	
February ...	17.00	1.72	13.20	18.65	2.90	16.60	19.00	(1.00)	(15.19)	3.89	1.75	121.50	
March .....	19.66	26.00	8.20	6.00	3.00	4.70	7.92	(12.50)	10.68	2.15	6.84	107.65	
April .....	13.80	2.70	4.60	9.30	6.90	16.00	(8.00)	(10.00)	6.26	5.90	4.12	87.58	
May .....	14.00	6.50	8.65	10.65	12.30	14.60	7.44	(7.50)	12.26	8.60	4.20	95.60	
June .....	7.70	1.25	9.90	5.90	10.40	4.6	9.15	(1.00)	13.77	6.77	5.20	80.50	
July .....	13.00	7.00	11.50	9.78	14.00	3.70	11.08	(1.50)	15.86	3.87	6.10	117.39	
August .....	9.10	18.00	10.65	22.60	12.80	11.28	8.10	(5.50)	14.74	16.18	15.15	154.20	
September...	11.70	4.00	10.70	16.70	19.90	9.20	12.30	(18.50)	10.50	4.68	8.75	126.93	
October....	2.40	7.70	5.90	26.80	11.70	16.30	8.25	(5.00)	20.00	18.25	23.01	155.31	
November...	9.70	5.70	6.70	22.00	16.00	4.70	19.03	(16.00)	26.60	8.60	14.25	110.28	
December...	12.80	27.35	20.20	13.00	25.60	12.60	(5.00)	(1.50)	12.29	24.02	11.75	169.11	
TOTALS...	151.20	137.92	121.30	176.68	147.80	123.04	(135.37)	(50.00)	182.15	136.52	122.87	1585.75	

1920 Gauge Inspected H.E.G. 25. VIII-20. See Cast sheet.

<sup>1</sup> Inspected R. Colm x.25. Gauge fixed in ground 1 yard to E of Bourdon g. on level site. Water at 4.4 ft 18-20 ft away. Record satisfactory.

1926. April set up - q. tampered with. Rec. adjusted for date of reading.  
1927. Record computed from monthly rainfall maps, with ref to monthly & annual percentage maps from the nearest stations. The estimated values are in substantial agreement with observer's figure for long monthly amounts & little value - gauge never read at 1st month. Annual total sufficiently agreed with amounts to be printed in brackets.

1928. Gauge measured 16/1/26 when total for Jan was 20.72 in. Jan & Feb adjusted for day of reading. Gauge overflowing & captured on 3/4/26

Position of Station on reduced Ordnance Survey Map, 2 miles to 1 inch Series } No. of Map \_\_\_\_\_ Reference No. \_\_\_\_\_

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction	Parish Church.	Distance from gauge
						Inn on leading 9/21 to low from about July 1929.	

## RAINFALL at Borrowdale Seathwaite, Field

County of Cumberland

Observer Miss C. Marshall &amp; Elmonson

River Basin Derwent 2

J. Bainbridge for M.O.

Snowdonia Rain Gauge, by Casella  
Fonthill on VVDeans: 5.02  
4.98

Elev. feet, N.S.J. Corrected +66 = 212

Diameter ...	5"											
Height .....	1.0					1.2						
Altitude ...	423											
Year .....	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930.	MISSED
January ...	19.20	27.95	10.80	14.00	10.80	10.70	19.50	(30.00)	3.60	(21.25)		
February ...	14.50	1.45	13.10	18.60	2.30	18.80	16.20	(11.00)		(1.70)		
March .....	16.60	25.25	7.90	5.45	2.70	4.10	6.90	9.40	2.16	6.52		
April .....	12.10	2.70	4.65	9.00	5.00	15.00	7.71	8.75	4.82	9.15		
May .....	12.45	6.45	8.00	10.00	10.20	12.90	6.79	(1.00)	6.55	14.50		
June .....	6.85	1.20	9.00	6.00	8.30	4.44	8.56	11.90	6.45	5.60		
July .....	10.50	6.90	11.10	9.70	10.20	3.31	11.15	14.65	11.95	6.20		
August .....	8.70	14.40	10.30	22.35	11.00	10.35	9.50	12.75	12.10	15.14		
September...	10.50	3.50	9.60	14.10	17.00	8.00	12.40	9.50	6.26	8.40		
October.....	2.20	7.20	5.35	25.00	10.80	15.30	7.60	16.70	16.25	22.10		
November...	8.10	5.70	6.25	20.70	15.00	4.25	15.20	17.40		14.10		
December...	11.65	25.40	19.40	11.50	23.30	12.20	(4.75)	10.85		11.20		
TOTALS...	133.35	128.10	115.25	166.40	126.65	110.38	(125.66)	(150.90)	imp.	(119.86)		

1920 Gauge Inspected H. &amp; B. 25. VIII. 20. See last sheet.

† Inspected & Calibrated X. 26. Gauge field is stone slab on level ground in field  
6 miles of house 20 yrs. from house. 6' 6" to E. W. Not so good exposure as  
other gauges would be good weather.

1927 Record unreliable. For reasons see file 631803/25 &amp; 620297/28.

1928 Gauge 31/12/27 Jan & Mar. estimates. Feb. corrected for date of  
reading. Gauge contains probably, leaks 25.2.28. Not printed

1929. Feb. gauge broken. November overflowing &amp; over can burst. See gauge repair.

1930. gauge repair Jan Feb. Values estimated by adj. stns.

Position of Station on reduced Ordnance Survey } No. of Map \_\_\_\_\_ Reference No. \_\_\_\_\_  
Map, 2 miles to 1 inch Series }

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

## RAINFALL at Borrowdale (Seathwaite)

County of Cumberland.

Observer T. Bainbridge for M.O.

River Basin Derwent - 2

Type of Gauge

Annual Average 129.5 in. based on 35 years obs. un-weighted. Period of average 1881-1915 Ref. B.M.N.

820297/28.

Diameter	4										
Height	0.9										
Altitude	422										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	11.25	18.32									
February	13.75										
March	1.60										
April	5.90										
May	6.95										
June	11.75										
July	15.90										
August	7.20										
September	7.95										
October	9.75										
November	22.76										
December	13.65										
TOTALS	128.41	W.M.C. #									

1981. Typ. leaking.  
1932 gauge leaking & 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 from gauge	Parish Church	Distance from gauge	Direction from gauge

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

## RAINFALL at Borrowdale (Seathwaite) garden

County of Cumberland

Observer F. Bainbridge for M.O.

River Basin Derwent - 2.

Type of Gauge.

Annual Average 122.0 in. based on 35 years obs. un-weighted. Period of average 1881-1915 Ref. A.W.Sheat.

820297/28.

Diameter	6.											
Height	1.6.											
Altitude	423.											
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means	
January	12.50	22.74	16.50	20.50	13.00	16.00	22.00	20.00	16.25	(2.85)		12324
February	14.05	.00	(15.75)	2.50	(25.50)	6.50	19.00	6.75	21.00	(8.75)		14954
March	1.75	9.90	(3.50)	7.75	(3.50)	8.75	(5.00)	11.50	11.50			8380
April	6.10	11.25	5.00	6.50	8.25	2.60	7.45	2.00	(6.50)			10575
May	7.15	7.50	4.50	11.75	1.25	2.00	(3.10)	11.75	(1.50)			4515
June	12.06	5.25	4.00	6.00	9.00	(8.00)	8.75	13.75	12.00	(1.75)		6745
July	16.25	10.50	10.00	4.00	7.25	15.50	7.45	21.00	14.00	(11.50)		3725
August	7.50	(7.25)	7.00	15.00	8.50	5.00	6.00	8.75	4.00	(7.75)		5366
September	8.50	(7.00)	2.00	16.25	18.00	12.00	11.00	7.50	4.50			6850
October	10.30	19.00	9.00	21.00	24.50	15.50	6.00	29.25	4.75			7125
November	23.10	10.00	3.00	5.00	14.50	19.00	4.50	20.50	25.00			10530
December	14.50	27.25	4.00	21.50	8.00	19.25	8.15	10.75	5.00	(1.50)		7710
TOTALS	133.76	147.64	80.25	137.75	(41.25)	128.10	(109.00)	163.50	126.00	(112.10)		10265
												18970

1932. Aug &amp; Sept. adjusted by surrounding stations.

1933. Feb &amp; March allocated by near stations.

18/11/35 Extract from acceptance form - Outer case of gauge leaking. Needs repair.

1939 April & May adjusted for date of reading. *See. The old gauge is ruined through*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

## RAINFALL at Borrowdale (Seathwaite) garden new.g.

County of Cumberland

Observer F. Barnbridge for M.D.

River Basin Derwent - 2

Type of Gauge

a 3628-oldg.

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

Ref.

820297/28

Diameter										5		
Height										1 0		
Altitude										423		
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means	
January			123.24					# 18.00	15.50	(2.85)	159.59	
February			83.30					6.50	19.75	8.75	118.30	
March			45.15					10.25	10.75	15.75	219.0	
April			47.45					1.75	(6.25)	4.75	60.20	
May			37.25					11.50	1.25	1.75	5.75	
June			53.06					13.25	11.75	1.75	79.81	
July			71.25					20.00	13.50	11.50	116.25	
August			56.25					8.50	4.75	7.75	77.25	
September			84.75					7.25	5.00	(13.50)	110.50	
October			105.30					23.00	4.50	14.50	152.30	
November			77.10					19.50	23.50	14.25	134.35	
December			102.65 <sup>+ top from Old gauge.</sup>					10.00	5.00	15.00	132.65	
TOTALS			884.75					154.50	121.50	(112.10)	1274.85	M.

1938 with check gauge.

1940. Sept. gauge had been tampered with.

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 Borrowdale (Seathwaite) Field,

County of Cumberland.

Observer F. Bainbridge, for M.O.

River Basin Derwent - 2

Miss C. Marshall

Type of Gauge

122-4

Annual Average 122.5 in. based on 42 years obs. un-weighted. Period of average 1881-1915 Ref. S

820247/28

Diameter	5.										
Height	1.0.										
Altitude	423.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	18.51	16.00	20.75	13.25							
		(15.50)									
February	.00	(18.80)	260	25.50							
		(8.25)									
March	9.19	23.75	7.80	3.50							
April	10.50	5.00	6.50	8.50							
May	7.25	4.50	11.80	(1.25)							
June	5.00	4.00	6.25	9.00							
July	15.80	9.25	10.00	4.00	7.50						
August	7.15	(7.25)	7.00	15.25	8.75						
September	7.50	(6.25)	2.00	17.00	18.25						
October	10.10	18.75	9.00	21.50	(25.00)						
November	22.80	9.75	3.00	5.25	(15.00)						
December	14.20	27.25	4.00	(21.50)	(8.00)						
TOTALS	1931	138.95	88.25	(140.20)	(143.50) mp						

1931. H.P. Jan. gauge bent. June gauge mended.

1932. Aug &amp; Sept affected by snowdrifts total.

1933. Feb &amp; March allocated by near stations

1935. Not printed in view of anomalies — no records received after Oct 1935 when Mr. Bainbridge reported that the gauge required replacement.

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

52446

Station No. M.3628/1

## RAINFALL at Bramdale (Seathwaite) ✓ 41

County of Cumberland Observer F. Bambridge for M.O.

River Basin Derwent - 2

Type of Gauge Octagonal 28 in (1938) no 583  
+ great protection

Annual Average 124.2 in. based on 35 years obs. un-weighted. Period of average 1881-1915. Ref. A.W. Shuk

\* see all gauge = average not used with new gauge. File No. 820297/28

Diameter	5"				592	446					
Height	1' 0"						1				
Altitude	423'						41				
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	Means
January	(4.50)	8.00	18.75	21.50	11.00	20.00	(4.00)	18.00	12.50	12.00	14.025
February	12.50	(3.60)	13.00	4.75	15.50	(10.75)	(2.50)	8.75	(11.00)	14.25	9.560
March	5.00	(3.60)	4.75	2.00	10.50	(1.25)	(9.00)	12.00	5.00	10.00	7.450
April	6.50	7.25	8.50	5.50	3.50	4.25	14.00	5.00	(15.50)	11.00	8.100
May	8.00	9.50	9.75	7.25	12.00	2.75	4.50	5.50	(6.20)	3.50	6.295
June	1.00	2.00	8.25	11.75	9.00	11.75	5.75	10.00	2.50	9.00	7.650
July	4.00	10.50	8.25	5.00	8.00	12.00	7.50	8.00	6.25	9.00	7.850
August	15.50	13.50	19.00	10.25	3.00	13.75	0.00	12.50	8.00	17.00	11.250
September	(3.00)	16.00	15.00	12.75	11.50	24.00	11.25	16.00	5.50	2.00	14.100
October	13.50	18.50	15.25	12.25	12.50	1.00	2.50	11.50	12.00	11.25	11.025
November	8.75	3.50	9.25	20.00	1.25	23.00	25.75	14.00	18.50	12.50	13.650
December	9.50	19.50	5.25	10.50	9.50	14.25	9.75	12.50	23.50	6.00	12.025
TOTALS	(91.75)	(120.35)	134.00	123.50	107.25	144.75	106.50	137.75	126.45	148.50	123.580

1941 Jan 2 Sept estd. from nearby site. 70004 70004 20004  
 1942 Feb & Mar. " " 1946 Tan. part est'd. Feb. & March afforeseen  
 1947 Jan Feb March approximated & included for Feb. " " General average.  
 40104 30004

\* 117.6 computed for new g. by Dr Cornish (1943-46).

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

Station No. 36281 m

51

## RAINFALL at Borrowdale (Leathwaite)

County of Cumberland

Observer G. Bainbridge for M.O.

River Basin Derwent - 2

J. Edmondson, Esq. Ref. 1957

Type of Gauge. Detachable 27" (or 26") + post producer.

Annual Average 122.00 in. based on 5 years obs. w.g.-weighted. Period of average 1916-1950 Ref. A.M.S.  
131.56 " 35 " 1916-1950 File No. 820297/28

Diameter ...	5"				392	446					
Height ...	1' 0"						1				
Altitude ...	423'						51				
Year ...	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	Means
January	11.50	12.25	8.50	10.00	11.50	7.00	17.25	13.50	10.50	15.00	
February	12.50	4.75	7.00	8.50	3.60	3.00	9.25	14.50	6.50	12.00	
March	11.75	7.75	3.00	9.25	3.50	5.00	11.00	4.00	8.50	4.00	
April	7.50	7.75	6.75	3.50	6.75	3.00	4.50	4.50	9.00	9.00	
May	2.50	6.00	3.75	7.400	8.50	9.25	(5.40)	9.00	2.00	4.50	
June	2.25	7.75	4.75	14.50	(7.06)	4.25	4.75	7.50	5.00	5.00	
July	11.00	7.75	14.50	13.00	5.50	12.50	11.00	8.75	12.00	13.50	
August	13.00	17.75	11.00	11.50	4.25	17.50	13.50	9.00	1.00	6.00	
September	17.00	11.00	25.50	(20.50)	9.00	6.25	14.00	12.00	2.00	7.00	
October	3.00	9.50	8.25	26.50	9.00	13.75	19.00	20.00	14.20	5.00	
November	24.50	5.00	23.00	(27.00)	4.75	6.25	5.25	3.75	16.00	(28.00)	
December	23.50	10.50	8.25	(17.00)	17.25	19.00	17.00	10.50	28.00	15.00	
TOTALS ...	139.00	107.75	124.25	(165.2)	90.50	106.75	131.90	117.00	114.70	124.00	
	M	M	M	M+A	M	M	M	M	M	M	

1954 Imp. g. anticipated well, sup. rain gauge. Dec. ady temp Nov. n. plow. Head about 3.5° SW.

1955 June est. M. O. 3b. Mar. - during the winter will be required. Site of tree SW 40°

Inspected 1.8.56 Mr. Deeks. Gauge sound, uncoated by lip rod only. Site of tree SW 40°

Recomm. remove tree

1956 May est. 103.

00134 01004

02004

00024

Position of Station on Ordnance One-Inch map :			No. of Map .....	National Grid Reference 35/234119		
Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Parish Church.	Distance from gauge.

Summary of Earlier Records from 10-year Sheets :

1916-1950, P - acceptable

Record D, or d		1910-19	1920-30	1931-40	1941-50	1951-60
				C. 1938	1938	✓