

RAINFALL AT *Brougham**Westmoreland*Observer *S. Marshall*

Rain { By.....  
 Gauge { .....  
 { Diameter.....in. Height above Ground,.....ft.....in. Above Mean Sea Level .....ft. *From Total book*

YEAR.....						1845					MEANS.
January.....											
February.....											
March.....											
April.....											
May.....											
June.....											
July.....											
August.....											
September.....											
October.....											
November.....											
December.....											
TOTALS ....						35.00					

Brougham

Grp. Vol.

YEAR - -	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	MEANS.
January - -	8.28	6.90	6.70	2.81	.68	2.39	1.80	1.55	5.10		
February - -	1.80	3.92	1.17	1.65	1.01	2.57	1.81	.30	2.35		
March - - -	3.21	.07	.84	.60	2.45	.25	3.38	1.65	2.86		
April - - -	1.91	.63	1.88	.51	.62	1.35	1.82	.50	1.51		
May - - -	.23	2.85	.91	2.83	1.11	4.06	1.25	2.31	.05		
June - - -	2.21	3.33	3.34	4.38	2.10	2.14	3.35	2.66	1.35		
July - - -	3.61	1.61	3.23	1.98	2.98	.64	1.65	3.10	1.80		
August - -	3.04	5.08	2.25	3.27	3.57	3.36	3.50	3.54	3.26		
September -	3.14	2.40	2.51	1.36	.87	3.40	2.07	3.27	3.72		
October - -	2.26	2.54	3.45	3.17	3.59	2.20	2.36	3.53	2.61		
November -	.70	3.75	2.13	3.05	1.85	.80	2.29	2.71	3.50		
December -	.57	7.58	.25	3.90	1.72	4.71	2.84	3.26	3.38		
TOTALS -	31.56	40.66	28.16	29.51	22.55	27.87	28.32	28.38	31.49		

C C C C 22.04 27.88 28.63

From 1850 to 1859. Subsequently 1860

# Borougham Hall Westmoreland

60

March 1860

by Campbell & Warner 1 ft 6 in  
5 + ground 4 ft 6

4 ft 6 in  
I level 400

YEAR - -	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	MEANS.
January - -	5.60	1.00	3.47	6.32	1.16	.70	9.30	1.95	5.57	5.07	
February - -	1.10	3.15	.78	2.90	1.24	.45	3.00	2.95	3.45	6.11	
March - - -	4.40	4.58	2.55	.83	2.40	1.30	1.75	1.07	5.07	1.18	
April - - -	2.23	.82	1.98	2.10	1.35	.70	2.90	3.78	2.73	.50	
May - - - -	2.40	.50	1.20	1.49	1.15	4.05	.20	2.22	1.95	2.33	
June - - - -	4.72	1.89	3.31	3.57	1.70	.45	4.15	1.55	.84	2.09	
July - - - -	1.16	3.95	3.36	.96	1.70	1.70	2.95	3.47	.39	.74	
August - - -	4.25	3.97	2.61	2.91	not kept	1.01	3.90	1.57	4.16	1.34	
September -	.72	5.62	1.85	5.38	3.08	.48	6.15	3.22	1.13	6.64	
October - -	4.57	2.71	6.38	4.20	3.70	4.33	1.96	3.00	3.08	3.31	
November -	2.17	6.55	1.20	2.60	3.65	3.53	4.09	1.59	1.56	4.61	
December -	6.48	2.70	5.10	2.85	1.85	3.18	4.36	1.88	8.62	5.29	
TOTALS -	37.80	37.44	33.79	36.05		24.88	44.71	28.25	38.55	39.21	

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1860. started to be 36.68 on another winter before  
1865 by in centre of garden quite exposed, his funnel  
shaped with floating Indicator

1866 - New 5 in gauge used in Nov: & Dec and records of the previous  
10 months increased by 25 per cent inasmuch as that is the error  
of the old gauge.

1868 above the average

1860 - Total = 36.68 in ppt. by S. Marshall

1864 = August entered as 1.08 by Mr Fletcher



RAINFALL AT Brougham Hall, [Cenrith]

Lat.....

Lon.....

County of.....

Westmorland

Rain Gauge, by.....

Observer.....

W. Geo. Campbell  
1877 Mt. A. Lodge

Diameter .....	.5	.	6					.5	5	.	.	
Height .....	1	.	5	5				4	5	5	.	.
Altitude .....	470	.						470	.	.	.	
YEAR .....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.	
January.....	3.54	2.74	6.21	7.36	3.32	5.43	1.12		2.68	.98		
February.....	3.69	2.71	4.98	1.00	2.00	2.2	2.64		1.10	1.83		
March .....	.85	3.06	1.54	1.32	2.24	1.21	3.73		2.15	1.97		
April .....	1.00	2.17	1.43	.57	2.73	.79	2.11		1.68	1.26		
May .....	3.28	1.08	2.92	1.64	1.42	.94	.99		3.94	1.34		
June .....	1.92	2.72	2.30	1.54	1.25	3.43	2.40		2.40	3.62		
July .....	.85	3.93	5.45	2.37	2.91	3.42	1.70		.51	4.02		
August.....	3.21	2.03	3.29	3.55	4.13	1.78	4.99		4.28	3.59		
September.....	3.57	2.80	4.39	1.33	5.57	3.86	1.18		3.71	1.87		
October.....	7.49	3.30	5.19	4.08	5.74	2.49	4.30		3.98	1.07		
November.....	2.63	1.23	7.32	1.62	2.50	2.42	3.95	6.13	2.88	1.32		
December.....	1.44	3.04	4.61	1.48	2.34	2.67	5.42	2.82	2.49	2.33		
TOTALS .....	33.47	30.83	49.63	27.86	36.15	28.66	34.53		31.80	25.20		

1877 Mt. Lodge only came to the gardens in Nov.  
1878 Bushes 5ft high, 6ft distant

# RAINFALL AT

*Brougham Hall* **80**

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

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

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

*Westmoreland*

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

Observer *W<sup>d</sup> A. Lodge*

*Eden - 1.*

Diameter ....	<i>5</i>										
Height .....	<i>5.5</i>										
Altitude ....	<i>470</i>										
Year .....	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	MEANS.
January ....	<i>.65</i>	<i>.38</i>	<i>2.10</i>	<i>4.67</i>	<i>5.90</i>	<i>2.45</i>					
February ....	<i>4.34</i>	<i>4.13</i>	<i>2.23</i>	<i>5.73</i>	<i>4.41</i>	<i>4.47</i>					
March .....	<i>1.43</i>	<i>2.91</i>	<i>2.70</i>	<i>2.97</i>	<i>3.31</i>	<i>2.09</i>					
April .....	<i>1.70</i>	<i>.73</i>	<i>4.03</i>	<i>1.54</i>	<i>1.62</i>	<i>2.36</i>					
May .....	<i>1.18</i>	<i>2.08</i>	<i>.84</i>	<i>.68</i>	<i>2.13</i>	<i>2.10</i>					
June .....	<i>1.54</i>	<i>2.06</i>	<i>3.21</i>	<i>3.27</i>	<i>1.01</i>	<i>1.23</i>					
July .....	<i>4.74</i>	<i>3.55</i>	<i>4.43</i>	<i>3.99</i>	<i>5.42</i>	<i>.72</i>					
August .....	<i>1.14</i>	<i>4.23</i>	<i>2.92</i>	<i>2.63</i>	<i>1.44</i>	<i>2.08</i>					
September ....	<i>4.56</i>	<i>3.55</i>	<i>1.77</i>	<i>4.16</i>	<i>3.69</i>	<i>3.17</i>					
October .....	<i>1.07</i>	<i>2.14</i>	<i>2.61</i>	<i>4.52</i>	<i>2.17</i>	<i>3.60</i>					
November ....	<i>4.92</i>	<i>6.18</i>	<i>4.98</i>	<i>4.00</i>	<i>2.22</i>	<i>2.12</i>					
December ....	<i>4.34</i>	<i>3.68</i>	<i>3.19</i>	<i>3.31</i>	<i>3.76</i>	<i>1.67</i>					
TOTALS ....	<i>31.61</i>	<i>35.62</i>	<i>35.01</i>	<i>44.47</i>	<i>37.08</i>	<i>28.06</i>	<i>91.6</i>				

RAINFALL at *Penrith, Brongham Gardens.*County of *Westmoreland*Observer *Mr. J. H. Lane*River Basin *Eden 1*No. *5187* Rain Gauge, by *Cassell*

An. A.J. 1916-50 34.20"

Diameter ...											5	
Height .....											0 5 3 5'	
Altitude.....											470	
Year .....	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	MEANS.	
January.....										3.50		
February ...										.51		
March .....										1.90		
April .....										1.38		
May .....										1.41		
June .....										1.14		
July .....										.93		
August .....										2.59		
September...										1.33		
October.....										1.96		
November...										2.60		
December ...										5.08		
TOTALS ...										24.03		

1919 Stone wall 10ft 90ft wall.

Date.	Lat. N.	Long.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.
1919			Penrith	1 mi	W	St. Ninians Brongham	2 mi	NE



RAINFALL at Pennith Brougham GardensCounty of WestmorlandObserver Mr. J. H. Lane (private)River Basin Eden 1

SNOWDON

NR StiffRain Gauge, by Cassells[ord Brougham & House  
1920 B.R. Curtis (gdn.)An. Av. 1916-50 34.20"

Diameter ...	5"										
Height .....	0.5"		5.0						4'6"		
Altitude ...	470								450'		
Year .....	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930. MEANS.
January ...	4.05	5.27	2.39	2.41	2.79	5.18	4.00	4.00	6.74		
February ...	2.65	(20)	2.47	4.62	.66	5.64	2.62	1.96	3.99		
March .....	4.27	4.13	1.95	2.01	.90	1.37	1.84	3.60	3.51		
April .....	3.21	.69	2.58	2.71	1.76	2.62	2.13	2.08	0.68		
May .....	4.52	1.64	1.28	2.77	3.93	4.31	1.78	1.92	1.20		
June .....	1.24	.30	1.54	1.63	1.40	.26	3.13	2.88	4.27		## notated imp
July .....	4.27	2.05	3.81	2.25	3.27	1.90	2.96	3.59	3.31		8.64
August .....	1.31	4.33	2.17	7.40	1.66	3.14	4.13	7.55	7.02		7.24
September...	2.26	1.30	2.51	3.27	4.52	3.66	4.41	6.70	1.43		3.13
October .....	2.06	2.26	.82	6.13	3.19	4.18	3.83	3.90	6.25		4.96
November...	2.61	1.86	1.30	4.00	2.88	1.03	6.58	2.07	6.34		3.59
December...	2.80	4.25	6.98	3.55	6.65	4.39	.47	1.06	2.15		2.97
TOTALS...	35.25	28.28	30.10	42.75	33.61	38.68	37.88	41.31	46.89	NR	imp

1920. Wall 9 ft high 307 ft W

1921. 1 ft above map

1927. Last incorrect.

1930 Inspected June Gauge on wall. Recommended that it be moved to 1 ft above ground. Measure in use taken above .30 in. mark.

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 from gauge	Parish Church.	Distance from gauge	Direction from gauge
1920			Pennith	1 mi	W	Brougham St. Nicholas	2 mi	N E

RAINFALL at Penith (Brougham Castle Gdn)County of WestmorlandObserver Mr. B.R. GulesRiver Basin 1 - EdenType of Gauge SnowdonAnnual Average 33.2 in. based on 15 years obs. un-weighted. Period of average 1881-1915 Ref. 765224/27  
34.20 1916-50

Diameter	5"										
Height	4' 8"										
Altitude	70 450'										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	5.24										
February	2.75										
March	1.11										
April	1.75										
May	2.33										
June	4.31										
July	4.59										
August	3.43										
September	1.71										
October	1.89										
November	5.95										
December	2.46										
TOTALS	35.52	#									

Gardens closed, no observations now taken

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
1926			Penith	1m	W.	Brougham, S. Miners	2m	NE.