

RAINFALL AT

Penrith, Newton Riggay 80

Lat.

Lon.

County of

Cumberland

Rain Gauge, by

Observer

J. G. Benn. Esq.

M. Eden & Solway - 1

Diameter	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	MEANS.
Height							1' 0				
Altitude							580				
Year.....	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	
January						2.66	5.68	2.95	1.81	1.96	
February						4.20	1.07	1.82	1.38	2.14	
March						2.23	2.54	1.56	2.41	1.42	
April						2.26	3.27	1.70	1.59	2.23	
May						2.50	5.08	1.84	2.60	3.24	
June						1.46	1.69	.23	1.25	.93	
July						1.52	5.89	2.07	5.62	1.84	
August						2.24	1.22	2.72	2.93	3.65	
September.....						4.35	4.06	3.90	.80	1.91	
October						4.20	5.50	2.25	2.90	5.23	
November....						2.24	3.06	3.07	6.52	1.44	
December						1.77	5.09	3.70	3.24	2.83	
TOTALS						31.62	44.15	27.81	33.05	28.82	

80

RAINFALL AT Penrith (Newton Rigg)

Lat.

Lon.

County of Cumberland

Rain Gauge, by

Observer

J. F. Benn. Esq.Eden & Solway - 1

Diameter											8
Height											1.
Altitude											580 ft
Year	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	MEANS.
January	(2.60)	4.85	7.25	2.67	5.70	3.02	1.84	1.94			
February	(5.80)	4.96	3.85	4.22	1.09	1.83	1.37	2.14			
March	(5.50)	2.18	3.38	2.26	2.83	1.53	2.38	1.41			
April	(5.05)	1.83	1.47	2.26	3.21	1.75	1.55	2.25			
May	(3.85)	.69	2.29	2.52	5.04	1.81	2.57	3.20			
June	(6.80)	3.20	.94	1.51	1.67	.27	1.23	.92			
July	(9.40)	3.91	4.87	1.53	5.87	2.07	5.70	1.84			
August	(8.70)	2.75	1.13	2.19	1.15	2.69	2.84	3.66			
September	(6.00)	4.80	3.20	4.31	4.11	3.86	.76	1.90			
October	(5.45)	5.49	2.14	4.11	5.47	2.17	2.84	5.25			
November	(11.70)	4.62	2.36	2.18	3.01	3.07	6.41	1.44			
December	(7.55)	3.29	4.74	1.75	4.99	3.65	3.26	2.81			
TOTALS	(78.40)	42.57	37.62	31.51	44.14	27.66	32.75	28.76			

1883. S^t John Ch. 100 yds. E.

Wall 5' high 20yds surrounding.

81-82 - 1 month fire bank X $\frac{112}{100}$

RAINFALL AT Penrith Newton Riggan

Lat. Lon. County of Cumberland

Eden & Solway - 1.

Rain Gauge, by

Observer J.G. Benn Esq.

Monthly

Met-Council

Diameter	8										
Height	10										
Altitude	580	ft									
Year	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	MEANS.
January	5.77	2.73	2.23	1.47							
February74	.22	1.98	4.56							
March	2.55	1.87	.84	1.63							
April	1.10	1.63	1.07	.41							
May	2.45	1.36	3.32	1.54							
June	2.98	1.82	3.63	2.09							
July	1.71	5.74	1.91	3.16							
August	3.60	6.45	6.69	4.04							
September	3.32	5.54	5.30	3.06							
October	2.79	5.31	5.07	3.82							3.11
November	5.58	4.53	2.40	2.56							5.78
December45	7.72	1.21	4.59							2.46
TOTALS	33.04	44.92	35.65	32.93							

RAINFALL AT Penrith Newton Recigny

Lat.

Lon.

County of Cumberland

Rain Gauge, by

Observer

J G Benn Esq

Eden & Solway - 1.

Met Council

Diameter	8										
Height	10										
Altitude	580	A									
Year	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	MEANS.
January	5.78	2.72	2.25	1.44				(19.70)			31.89
February74	.24	1.99	4.55				(17.60)			25.12
March	2.55	1.86	.82	1.67				(20.50)			27.40
April	1.06	1.61	1.08	.43				(14.30)			18.48
May	2.45	1.36	3.36	1.57				(11.60)			20.34
June	2.92	1.78	3.65	2.11				(15.40)			25.86
July	1.82	5.70	1.90	3.17				(20.90)			33.49
August	3.63	6.46	6.63	3.98				(22.90)			42.60
September	3.30	5.55	5.33	3.07				(18.30)			35.55
October	2.81	5.28	5.01	3.81				(21.20)			31.11
November	5.54	4.57	2.36	2.52				(22.00)			5.78 36.99
December46	7.69	1.23	4.61	#			(24.20)			2.46 38.19
TOTALS	33.06	44.82	35.61	32.93				(228.60)			275.02

$$94-99 = \text{Penrith for Beach} \times \frac{112}{100}$$

RAINFALL AT Penrith Newton Reigby + Newton Rigg
 Lat. Lon. County of Cumberland
 Rain Gauge, by Observer The Meteorological Council
 Eden &c - 1.

Diameter	8
Height										10
Altitude										
Year	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	MEANS.
January ..	3.09	2.57	2.37	5.59	4.06	1.24	5.45	1.06	2.69	3.39	3.151
February ..	5.03	.93	1.29	8.17	3.37	2.28	2.36	2.43	3.27	2.59	3.172
March63	2.81	2.38	7.66	2.16	3.21	2.38	3.28	3.89	2.92	3.132
April	2.70	2.41	2.45	1.67	2.66	3.41	.91	1.85	1.76	2.36	2.218
May	2.18	1.23	2.68	(2.85)	2.49	.48	5.31	4.22	2.14	1.67	2.525
June	3.61	1.82	1.44	1.44	1.49	1.44	1.06	4.10	1.67	2.65	2.072
July	1.49	1.65	3.43	3.69	1.45	.98	1.70	1.61	2.81	3.90	2.271
August	6.17	2.91	1.48	4.65	3.92	3.34	3.49	2.99	4.08	2.88	3.591
September ..	2.33	1.41	1.73	4.23	.89	2.63	1.26	.37	2.85	2.30	2.000
October	6.33	3.24	2.97	9.48	1.22	2.47	5.90	5.31	1.69	5.45	4.406
November ..	2.93	4.10	2.97	2.51	3.48	3.45	3.33	2.75	2.69	1.59	2.980
December ..	5.93	5.51	5.37	2.82	3.22	1.27	2.49	5.47	2.37	5.01	3.946
TOTALS ..	42.42	30.59	30.56	(54.76)	30.41	26.20	35.64	35.44	31.91	36.71	35.464 3.52

1903 Moved to Newton Rigg about 1 mile distant. Exact date not stated

in May 1903 (num 3 v. 1.2) H.W.S.

RAINFALL at Penrith Newton Rigg

County of Cumberland

Observer W. T. Lawrence Esq

River Basin Eden & Solway I

per MG (1916)

Rain Gauge, by

Diameter ...	8										
Height	1	0									
Altitude ...	559										
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	MEANS.
January ...	4.15	1.12	3.57	3.28	2.86	3.98	4.93	2.26	4.13	3.68	1280
February ...	6.21	3.56	2.19	2.35	5.62	5.60	4.46	1.10	4.33	.74	1063
March	2.09	1.62	3.67	5.46	3.82	1.22	2.45	2.51	1.10	3.05	911
April	2.29	2.24	.60	4.69	1.32	2.11	2.66	3.00	.79	1.75	820
May	2.28	3.22	1.64	1.43	1.88	1.29	3.13	2.25	2.21	1.46	905
June	1.37	3.86	5.19	2.18	1.60	.48	2.32	2.76	1.02	1.82	822
July	4.72	.40	3.48	1.08	3.43	3.82	3.09	1.80	3.82	.97	948
August	6.01	2.83	5.01	1.61	1.57	2.83	1.72	5.12	4.02	2.98	1364
September ..	.39	3.01	1.57	2.02	2.75	1.03	2.30	3.35	8.93	1.85	1643
October ...	2.65	3.44	3.37	3.28	1.23	.57	7.30	5.72	3.82	1.93	877
November ..	3.43	4.35	3.16	3.34	6.07	1.20	5.61	4.17	3.11	1.92	481
December ...	4.13	8.22	5.33	3.71	8.99	6.31	3.41	1.61	4.10	5.24	163
TOTALS ...	39.72	37.87	38.78	34.43	41.14	29.94	43.18	35.65	41.38	36.99	
							mm.				

1912 trees 30 ft high 30 yds

Date.	Lat. N.	Long.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.
	54°40'24"	2°48'42" W	Penrith	2 m	SE	Newton Rigg	1 m	NW - NE WNW

RAINFALL at Penrith Newton Rigg

County of Cumberland

Observer J. Proctor Esq.

River Basin Eden-Solway I.

P. W. Smondrell, Esq. ('26)

Principal ~~Newton Rigg~~ Farm School.

Gauge Rain Gauge, by

Cumberland & Westmorland Farm School.

Diameter ...	8										
Height	1.0										
Altitude ...	559										
Year	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930 MEANS.
January ...	4.61	7.00	3.70	2.49		4.72	4.04	3.83	5.94	.66	6.46
February ...	3.63	20	3.29	5.24	71	6.55	2.79	1.39	3.28	.61	.48
March	5.87	5.02	2.37	1.59		1.49	1.93	2.96	3.72	.18	2.24
April	3.24	1.02	2.50	3.04	1.85	5.33	1.82	1.84	0.81	1.30	1.77
May	4.66	1.74	1.27	3.28	3.78	5.12	2.21	2.18	1.50	1.96	1.77
June	1.27	4.6	2.22	71	1.44	1.15	2.90	2.68	5.40	1.57	3.74
July	4.36	2.60	4.08	2.67		1.61	3.17	4.89	3.24	4.90	5.25
August	(2.00)	5.30	2.29	7.47	2.21	3.11	3.86	6.91	5.93	4.11	8.33
September...	2.06	1.39	4.48	4.35		3.50	4.17	7.67	2.03	1.79	3.34
October.....	3.00	2.42	1.05	6.26	3.46	4.64	2.53	3.48	6.48	4.88	5.36
November...	2.92	1.99	1.45	4.85	3.12	1.34	5.67	3.08	5.58	6.82	4.87
December...	2.75	5.35	7.34	3.53		3.96	0.93	1.11	2.67	9.62	3.98
TOTALS...	(40.3)	34.49	36.04	45.48	imp	41.52	36.02	42.02	46.58	38.30	47.59
	d	d	d	d		d	d	d	d	d	d

1920 Aug. partly estimated.

1929 Prospectus 26/4/29. Gauge very old and top badly distorted.
 Split in side seam also. File 313408/28
 Hedge 6' high 18' NE.

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

Reference No. _____

Date.	Lat. N.	Long. W.	Railway Station.	Distance from gauge	Direction	Parish Church.	Distance from gauge	Direction
	54° 40' 24"	2° 48' 42"	Penrith	2 mi	NW	Newton Rigg	1 mi	NNW

RAINFALL at Penrith (Newton Rigg) M.W.R.

County of Cumberland.

Observer Cumberland County Council.

River Basin Eden & Solway - I.

Type of Gauge.....

Annual Average 36.4 in. based on 35 years obs. un-weighted. Period of average 1881-1915 Ref. B of N.

Diameter	8.									5	
Height	1.0.										
Altitude	560.										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	3.79	5.81	3.57	3.58	1.89	3.50	4.69	4.55	4.18	1.89	37.45
February	3.07	1.12	3.65	2.22	4.49	2.20	4.54	1.20	2.91	.78	23.18
March	.92	3.12	2.27	2.19	1.03	1.54	1.82	1.50	3.04	3.74	21.17
April	2.59	2.92	1.22	3.24	3.17	.84	2.24	.39	1.17	1.69	19.50
May	3.10	2.68	2.79	3.01	.88	1.23	2.00	2.23	.61	1.65	20.18
June	5.60	.76	1.62	2.32	3.28	2.63	1.53	4.04	2.74	.54	25.06
July	4.33	5.20	2.34	1.72	1.33	4.64	1.75	3.95	4.96	4.82	35.07
August	3.30	1.16	1.81	2.66	1.79	1.41	2.24	2.68	2.54	1.68	21.27
September	1.83	4.34	1.41	3.35	5.68	4.06	2.44	1.87	1.55	3.79	30.55
October	2.11	5.93	3.41	5.04	5.98	4.22	2.74	8.77	2.73	4.19	45.12
November	6.07	2.29	1.76	.58	3.75	3.77	.69	5.95	5.29	3.29	33.44
December	2.38	3.31	.46	6.13	2.29	4.55	2.78	3.99	1.33	2.98	30.20
TOTALS	39.09	37.64	26.31	34.04	35.56	34.62	29.52	41.12	33.05	31.04	34199
	D.	N									

Inspected 24/10/32. Gauge leaking badly, thick grass round gauge.

New gauge sent 7/11/32

Inspected 6/7/37. Gauge is over-exposed to S.W. winds, in which direction there is open grassland for some distance with a slight downward slope. A turf wall would be advisable.

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

Station No. 3607

RAINFALL at Penrith (Newton Rigg) M.W.R.

41

County of Cumberland

Observer Cumberland County Council

River Basin Eden & Solway

Type of Gauge

Annual Average 36.4 in. based on 35 years obs. un-weighted. Period of average 1881-1915 Ref. B of N

File No.

Diameter	5"				604	740					
Height	1' 0"					1					
Altitude	560'					41					
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	Means
January	49	5.13	5.66	3.17	3.53	3.25	4.52	7.12	2.07	2.40	34.94 ✓
February	4.52	2.21	2.61	1.38	3.37	2.83	.90	2.82	2.60	100	23.24 ✓
March	2.38	1.91	1.03	.51	1.48	1.26	5.59	2.64	1.19	100	17.99 ✓
April	60	2.28	2.08	1.43	1.51	1.06	6.13	2.46	3.60	2.76	21.15 ✓
May	2.26	2.45	3.53	1.59	3.29	1.03	3.17	1.19	2.39	100	20.90 ✓
June	.23	.80	3.10	2.56	3.45	2.15	2.69	4.66	.60	1.51	20.24 ✓
July	1.21	2.62	2.60	2.61	2.35	3.53	3.00	1.11	2.33	3.36	21.36 ✓
August	4.70	3.26	5.56	2.30	1.68	6.49	.08	4.00	1.92	100	29.99 ✓
September	1.12	3.53	4.23	4.80	3.60	5.18	3.02	3.04	.91	7.25	29.43 ✓
October	4.78	3.65	5.25	3.89	5.58	.80	1.09	2.19	5.45	3.44	32.68 ✓
November	2.59	.88	2.25	6.22	.18	5.01	4.26	2.43	6.15	4.34	29.97 ✓
December	1.62	4.28	2.08	3.93	1.91	3.39	(.80)	4.27	6.66	100	29.94 ✓
TOTALS	26.50	33.00	39.98	34.39	31.93	35.98	36.25	37.93	35.84	100	311.83

1947 Dec et. no 36

1950 suspected by F.K. Lumb 22/3/50 gauge altered from E- to be moved a few feet.

00014

Total 1941-49 = 31183

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

BRITISH RAINFALL ORGANIZATION

A.M. Form 1903. Air Ministry, Meteorological Office.

Station No. 3607 M.W.R. (232) 51

RAINFALL at Penrith (Newton Rigg)

County of Cumberland

Observer Cumberland County Council

River Basin Eden + Solway - 1

Type of Gauge

Annual Average 36.4 in. based on 35 years obs. w-weighted. Period of average 1881-1915
1916-1950 Ref. BofN P
34.93 " " 24 " " 1931-1955 (not 1950) File No.

Diameter ...	5"			604	740						
Height ...	1' 0"					1					
Altitude ...	560'					51					
Year ...	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	Means
January ...	3.23	3.28	1.00	3.16	1.98	2.55	4.08	1.99	2.55	4.89	28.71 729.234
February ...	3.72	.54	.87	2.47	1.24	.76	2.93	4.19	.35	3.14	20.21 513.334
March ...	3.18	1.16	.38	2.60	.86	1.35	2.95	.86	2.02	1.03	16.39 416.306
April ...	1.73	1.95	2.31	.84	.44	.70	.35	.82	3.21	2.65	15.00 381.000
May ...	1.65	1.78	2.49	3.67	2.78	1.29	1.71	3.80	1.34	2.14	23.15 588.010
June51	1.67	2.80	3.01	1.97	2.49	1.05	3.52	3.77	0.96	21.75 552.450
July ...	2.37	2.12	3.16	3.12	.99	(3.58) inc.	3.52	2.90	3.53	3.10	28.39 721.106
August ...	4.71	4.54	3.77	4.38	2.78	7.05	4.60	3.30	.60	3.56	39.29 997.966
September ...	3.27	2.59	3.92	5.70	2.14	2.99	4.51	4.30	1.02	2.36	32.80 833.120
October79	4.84	1.75	8.32	2.43	2.23	3.33	3.59	4.07	3.45	34.80 883.920
November ...	8.92	2.07	1.50	8.36	2.04	1.52	.97	.73	4.94	6.69	37.74 958.596
December ...	5.77	3.50	1.73	3.98	5.06	4.54	3.67	3.05	5.43	4.71	41.44 1052.576
TOTALS ...	39.85	30.04	26.18	49.61	24.71	NP. 05 inc.	33.67	33.05	32.83	38.68	339.67 8627.618
	D	D	D	D	D	D	D	D	D	D	

1956: NP. inc.

Ink, 2.11.58 R.W. Glynne - Satisfactory.

Position of Station on Ordnance One-Inch map : No. of Map National Grid Reference 35493510

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

Summary of Earlier Records from 10-year Sheets :

1916-1950, P - accepted

Record D, or d	1910-19 18	1920-30 18	1931-40 18	1941-50 18	1951-60
	✓ ✓ but -10-18	NP 2+	✓	✓	✓