

RAINFALL AT Helensburgh Water WorksObserver Thomas Murray

Rain } By.....

Gauge } Diameter.....in.

Height above Ground,.....ft.....in.

Above Mean Sea Level 295 ft.Firth of Clyde, etc - 2.

YEAR.....									1868	1869	MEANS.
January.....										6.80	
February.....										7.05	
March.....										1.27	
April.....										1.40	
May.....								#	2.90	.55	
June.....									2.90	2.77	
July.....									70	170	
August.....									6.37	97	
September.....									3.60	8.90	
October.....									5.00	1.90	
November.....									5.31	7.17	
December.....									8.80	6.80	
TOTALS.....										47.28	

C. C.

RAINFALL AT

Helenburgh Water Works

Lat.....

Lon..... County of..... *Dumbar*

.....Rain Gauge, by..... Observer... *Thomas Murray*

Firth of Clyde - 2.

Diameter.....						6	.	.	.	.
Height.....						3	.	.	.	.
Altitude.....	<i>295</i>				<i>300</i>	<i>296</i>	.	.	.	.
Year.....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	<i>3.10</i>	<i>3.30</i>	<i>7.50</i>	<i>7.80</i>	<i>5.92</i>	<i>8.30</i>	<i>5.50</i>	<i>8.30</i>	<i>6.30</i>	<i>1.30</i>	<i>5.932</i>
February.....	<i>2.80</i>	<i>8.37</i>	<i>6.70</i>	<i>1.45</i>	<i>1.42</i>	<i>1.80</i>	<i>5.80</i>	<i>6.55</i>	<i>2.10</i>	<i>2.80</i>	<i>3.979</i>
March.....	<i>1.85</i>	<i>3.65</i>	<i>5.30</i>	<i>1.50</i>	<i>4.70</i>	<i>3.12</i>	<i>6.60</i>	<i>3.40</i>	<i>3.75</i>	<i>5.60</i>	<i>3.947</i>
April.....	<i>1.62</i>	<i>5.60</i>	<i>2.10</i>	<i>.39</i>	<i>1.92</i>	<i>2.18</i>	<i>2.80</i>	<i>5.90</i>	<i>3.35</i>	<i>2.35</i>	<i>2.821</i>
May.....	<i>3.15</i>	<i>1.10</i>	<i>2.60</i>	<i>2.90</i>	<i>1.95</i>	<i>3.60</i>	<i>.90</i>	<i>1.97</i>	<i>5.50</i>	<i>3.10</i>	<i>2.677</i>
June.....	<i>2.20</i>	<i>2.35</i>	<i>8.20</i>	<i>3.01</i>	<i>1.02</i>	<i>3.30</i>	<i>3.40</i>	<i>3.80</i>	<i>2.85</i>	<i>5.42</i>	<i>3.335</i>
July.....	<i>2.95</i>	<i>4.85</i>	<i>6.75</i>	<i>4.05</i>	<i>3.20</i>	<i>1.57</i>	<i>3.50</i>	<i>6.40</i>	<i>.82</i>	<i>4.50</i>	<i>3.859</i>
August.....	<i>1.40</i>	<i>3.65</i>	<i>5.65</i>	<i>5.10</i>	<i>5.90</i>	<i>5.00</i>	<i>5.87</i>	<i>7.50</i>	<i>4.60</i>	<i>5.87</i>	<i>5.054</i>
September.....	<i>3.90</i>	<i>1.92</i>	<i>8.35</i>	<i>4.45</i>	<i>7.30</i>	<i>4.10</i>	<i>5.20</i>	<i>2.03</i>	<i>5.30</i>	<i>7.70</i>	<i>5.025</i>
October.....	<i>5.40</i>	<i>6.00</i>	<i>4.80</i>	<i>7.30</i>	<i>8.90</i>	<i>7.50</i>	<i>5.50</i>	<i>7.32</i>	<i>7.45</i>	<i>3.60</i>	<i>6.377</i>
November.....	<i>2.05</i>	<i>4.60</i>	<i>8.65</i>	<i>4.30</i>	<i>6.50</i>	<i>5.85</i>	<i>3.50</i>	<i>7.35</i>	<i>1.90</i>	<i>1.80</i>	<i>4.650</i>
December.....	<i>3.40</i>	<i>5.90</i>	<i>6.12</i>	<i>4.40</i>	<i>2.80</i>	<i>6.30</i>	<i>6.90</i>	<i>7.70</i>	<i>2.80</i>	<i>3.60</i>	<i>4.912</i>
TOTALS.....	<i>35.82</i>	<i>51.29</i>	<i>72.72</i>	<i>46.65</i>	<i>51.53</i>	<i>52.62</i>	<i>55.47</i>	<i>68.22</i>	<i>45.92</i>	<i>47.64</i>	<i>52.785</i>

1879 Valve house 20ft high 50ft NE

RAINFALL AT *Glenburgh Water Works*

Lat. _____

Lon. _____

County of *Dumbar-ton*

Rain Gauge, by _____

Observer *W. E. Murray*

Firth of Clyde 2.

Diameter	6										
Height	0.3									- 6	
Altitude	296 ft								300		
Year	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	MEANS.
January	4.85	9.0	5.08	7.90	9.51	4.80	7.85	(4.93)	4.43	4.83	5.508
February	4.45	5.40	5.72	6.38	6.83	6.34	2.98	(4.55)	1.85	3.94	4.814
March	3.50	2.90	6.30	2.70	4.08	2.07	4.10	(2.30)	3.69	2.69	3.433
April	3.12	2.10	2.50	3.50	1.70	2.79	2.39	(2.46)	2.35	3.28	2.619
May	1.90	3.10	2.99	2.88	4.46	3.46	3.38	(1.20)	3.98	3.47	3.072
June	2.15	3.90	5.27	2.80	1.80	1.00	1.47	(1.99)	2.98	1.40	2.376
July	3.10	6.80	5.50	3.39	6.38	2.00	3.20	(3.28)	5.59	2.02	4.126
August	2.50	4.60	3.25	5.12	3.30	3.96	3.42	(4.05)	4.18	8.21	4.259
September	2.12	3.15	5.73	3.32	3.38	8.43	7.03	(3.94)	1.88	1.97	4.065
October .....	.60	3.10	4.80	6.04	6.20	5.15	4.78	(2.74)	1.88	4.00	3.929
November	6.35	7.90	7.65	7.50	7.57	3.65	5.73	(3.40)	7.00	2.51	5.926
December	5.40	6.10	5.84	8.56	8.82	3.50	5.00	(4.16)	5.06	4.40	5.184
TOTALS	40.04	49.95	61.33	59.79	64.03	47.15	51.53	(38.00)	44.87	42.72	(49.94)

1880. Established Church 1 mile ^{W.} S.
 Valve house 20ft high ³⁰50ft NE

1887 estimated from Lyfston & Leven Shipyard
 walls from Lyfston one

RAINFALL AT *Helenburgh Water Works*

Lat. _____

Lon. _____

County of *Dumbarton*

Rain Gauge, by _____

Observer *J. R. Wilson Esq*

Form of Class - 2.

Diameter	6											
Height	0 6											
Altitude	300											
Year	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	MEANS.	
January	8.67	3.90	4.30	2.10	6.20	1.82	3.11	1.40	3.72	7.54	4.276	
February	1.17	1.51	2.33	4.80	9.65	.48	2.30	2.54	3.42	2.98	3.118	
March	4.03	3.11	1.33	2.00	3.59	2.92	4.64	4.94	1.55	4.62	2.273	
April	1.47	1.89	1.21	1.72	1.52	2.32	2.06	1.56	3.77	3.79	2.131	
May	2.10	2.10	4.82	2.74	2.19	.26	.68	2.37	1.82	3.17	2.225	
June	5.08	1.44	4.20	2.02	2.90	2.50	3.25	6.50	3.05	1.98	3.292	
July	3.79	1.12	2.90	3.63	3.55	4.12	4.78	2.22	1.41	3.08	3.060	
August	3.59	5.46	9.20	4.90	4.55	7.39	2.10	5.89	5.98	1.06	5.012	
September....	8.20	8.08	5.93	3.70	.20	1.87	4.22	4.08	6.68	4.80	4.776	
October	3.75	4.40	3.80	6.30	3.20	3.32	2.40	2.69	3.52	3.98	3.736	
November....	8.30	4.55	4.63	3.51	3.68	6.57	1.60	2.73	5.22	3.90	4.469	
December	1.19	8.30	2.79	(5.75)	4.12	4.80	5.47	4.72	7.38	4.86	(4.935)	
TOTALS	51.34	45.86	47.44	(43.17)	45.35	38.37	36.61	41.64	47.52	45.76	(44.206)	

1893 Decr. gauge under repair amount computed

RAINFALL AT Helensburgh Water Works (Valve House)

Lat. Lon. County of Dumbarton

Rain Gauge, by

Observer

J. R. Wilson Esq

read by graduated rule 7th of Clyde - 2.

W. Rodger Esq (joined in Nov 07)

J. Andrews Esq

Diameter ..	6					12	6					
Height	6						5					
Altitude ..	300											
Year	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	MEANS.	
January ..	6.14	2.72	3.18	6.50	3.70	3.01	5.70	3.50	5.62	5.20	4.527	
February ..	3.34	1.66	2.25	5.57	4.68	2.97	3.20	3.41	2.67	2.19	3.194	
March ....	.39	1.80	2.80	6.19	2.08	3.95	3.62	5.14	4.72	1.91	3.260	
April	2.67	2.44	1.43	1.18	4.14	2.90	1.22	2.21	1.32	4.17	2.368	
May	3.32	1.82	2.62	2.79	3.58	2.19	5.36	4.21	2.45	3.30	3.164	
June	3.62	3.59	1.74	2.89	2.51	.86	1.43	4.88	2.44	2.97	2.693	
July	3.71	2.30	3.68	4.21	1.97	3.00	2.65	2.80	4.23	3.30	3.185	
August	5.13	4.22	3.06	7.65	4.58	4.94	3.86	6.03	4.15	2.88	4.650	
September ..	3.97	2.52	4.02	3.82	4.20	2.26	2.26	1.91	6.40	2.15	3.351	
October	6.82	4.70	1.98	9.99	2.13	4.34	6.43	4.99	1.19	5.92	4.849	
November ..	5.75	3.50	4.14	2.95	2.86	4.60	4.52	3.39	2.92	2.23	3.686	
December ..	7.50	4.60	5.12	3.78	5.21	3.88	4.30	6.16	4.14	6.38	5.107	
TOTALS ..	52.36	35.87	36.02	57.52	41.64	38.90	44.55	48.63	42.25	42.60	40.34	

1901 St. Columba Church, 1 mile S low

1909. Obs. will place circular fence round each gauge as suggested by Dr. Mill. 28.1.09.

1908 Ross Church 2 miles W

Helensburgh Station 1/2 " S

RAINFALL at Helenburgh, Valve HouseCounty of Dumbarton Observer Jas. AndrewRiver Basin Firth of Clyde & Govan 2.

Rain Gauge, by _____

old gauge.

Diameter ...											
Height											
Altitude ...											
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	MEANS.
January ...	5.20			4.59							
February ...	5.33			3.21							
March	1.80			4.46							
April	3.60			4.01							
May	1.58			4.55							
June	2.36			3.84							
July	4.91			2.22							
August	8.91			2.40							
September ..	1.69			2.57							
October ...	1.70			2.27							
November ..	3.61			5.64							
December ...	4.51			4.11							
TOTALS ...	45.20			43.90							

1910. *Small - not published.*

1913

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

RAINFALL at Helensburgh, Value House check 9.County of DumbartonObserver Gas. N. Stirling Esq. C.E.River Basin Firth of Clyde & Govan. 2.R.D. Brown Esq. C.E. (15)H.M. Brown Esq. C.E. (16)Glaisher Rain Gauge, by _____

Diameter ...			8								
Height			1 0								
Altitude ...			293								
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	MEANS.
January ...				5.56	4.99	4.94	7.62	3.41	7.05	4.97	23.05
February ...				4.83	6.22	8.46	6.92	1.65	7.60	2.13	18.30
March			(23.8)	6.42	6.77	3.96	1.86	3.67	2.01	4.00	11.54.
April				4.95	3.24	3.76	4.87	2.06	.80	3.07	10.80
May				5.05	2.56	1.39	5.45	4.28	3.47	1.53	14.43
June				6.38	3.84	.94	2.11	2.21	4.54	1.83	3.96
July				2.81	2.22	3.11	4.33	3.04	2.38	4.54	1.92
August				5.92	2.47	6.32	2.39	4.49	6.18	5.30	4.24
September ..				4.33	2.72	2.85	1.95	1.90	3.63	6.63	3.96
October ...				7.49	2.89	2.51	3.61	9.65	8.92	6.93	1.02
November ..				5.86	7.51	7.16	3.32	6.77	10.19	8.37	4.96
December...				12.13	5.33	8.72	7.47	7.05	4.07	6.69	8.59
TOTALS ...			(68.79)	53.79	55.39	47.69	61.83	54.98	61.22	44.05	222.08

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* 01 from Dumbarton

Date.	Lat. N.	Long.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.
1915.	56° 0' 57"	4° 43' 24"	Upper Helensburgh	570 yds	SSW	Helensburgh	745 yds	SSW

RAINFALL at Helensburgh, Valve HouseCounty of DumbartonObserver J. N. Sterling Esq. C.E.River Basin Firth of Clyde & Govan 2.Base Surveyor HelensburghGlaisher Rain Gauge, by _____

Diameter ...	5"			8								
Height	10			10								
Altitude ...	293			293								
Year	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930.	MEANS.
January ...	8.56	10.24	7.12	6.75	7.02	6.10	7.48	7.47	13.09	3.02	7.17	84.02
February ...	8.59	1.99	5.79	6.73	1.74	4.72	7.51	5.02	6.00	3.21	4.44	51.74
March	5.73	7.18	2.74	2.50	1.70	3.26	5.63	5.59	5.85	2.07	3.32	45.57
April	2.40	1.57	3.80	5.09	3.35	6.83	2.76	4.06	2.92	1.76	2.38	36.92
May	6.23	3.65	5.38	2.42	5.18	7.88	3.66	3.90	2.49	3.77	2.83	47.39
June	2.45	7.3	2.88	1.55	3.46	1.31	4.12	5.93	7.62	3.99	3.82	37.86
July	3.96	5.86	4.84	4.20	5.63	2.41	3.09	4.72	4.74	4.95	3.42	47.83
August	6.26	8.09	2.89	8.33	4.71	4.60	5.22	7.88	5.36	7.43	6.96	67.73
September...	3.91	3.23	3.20	8.68	6.66	4.72	4.20	8.90	5.14	2.09	4.78	55.51
October	3.20	5.45	2.82	8.31	4.59	5.16	7.95	7.61	8.88	8.20	8.65	70.82
November...	6.52	5.06	4.89	5.53	5.26	1.17	8.10	6.27	9.50	8.37	7.56	68.23
December...	5.32	11.37	5.22	5.70	8.38	4.86	3.95	1.96	6.49	14.08	5.67	73.00
TOTALS...	63.13	64.42	51.57	65.79	57.68	53.02	63.67	69.31	78.08	62.94	57.00	66.61
	D	D	D	D	D	D	D	D	D	D	D	D

1928. Gauge set in hollow in grass & clear of all objects within quite a wide radius.

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
	56° 1' 0"	4° 45' 25"	Upper Helensburgh	570 yds	SSW	Helensburgh	1745 yds	SSW

RAINFALL at Helensburgh (Value House) M.W.R.County of Dumbarton Observer J.N. Stirling, C.E.River Basin 2. Firth of Clyde & Coast.Type of Gauge GlaisherAnnual Average 53.0 in. based on 22 years obs. ^{overlap with 5319} un-weighted. Period of average 1881-1915 Ref 138 N.

Diameter	8.											
Height	1.0											
Altitude	293.											
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means	
January	6.49	8.78	6.41	7.61	3.06	5.83	9.03	8.19	4.22	2.90	6.25	2
February	5.41	1.05	5.61	1.15	7.43	3.32	6.78	3.77	6.66	3.08	43.26	1
March	1.67	2.89	2.79	3.36	2.28	3.29	2.35	5.51	4.77	4.69	33.60	1
April	2.95	4.61	2.83	3.44	4.10	1.54	2.71	1.86	2.94	3.31	29.29	1
May	5.34	5.29	4.00	4.14	1.70	2.06	1.59	4.44	1.83	1.05	28.50	1
June	7.07	1.37	2.64	3.25	3.61	1.85	4.30	6.28	2.95	1.72	34.06	1
July	3.59	3.29	5.03	2.47	2.47	5.41	3.98	4.87	5.53	3.79	40.43	1
August	2.82	2.91	4.52	4.80	3.61	4.01	4.22	2.44	1.88	2.66	33.87	1
September	1.49	5.24	1.79	6.09	7.89	3.75	2.29	5.00	4.82	3.72	42.08	1
October	4.38	7.81	3.35	9.76	12.32	7.25	3.17	10.30	3.20	6.80	68.34	1
November	7.54	5.93	4.01	2.38	5.43	5.11	1.13	10.15	8.99	7.10	57.77	1
December	5.53	8.99	1.33	8.93	4.86	9.20	3.44	6.44	3.92	6.73	59.37	1
TOTALS	54.28	55.16	43.37	57.38	57.76	52.62	45.99	68.27	51.71	46.55	533.89	1
	D.	D.	D.	D.	D.	D.	D.	D.	D.	D.	D.	1

1931. Gauge set in hollow grass stem of sycamore within quite a wide radius.
 940 gauge part cast.

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.			Helensburgh (uff)	1/2 m	N.E.	Foot Sinclair St.	5140 ft.	N. 20° E.

Station No. M.W.R. 5320RAINFALL at Helensburgh (Valve House)

41

County of DumbartonObserver J. N. Stirling Esq. C.E.River Basin 2-Firth of Clyde & CowlA. D. Rennie (Borough Engineer) 1945Type of Gauge GlaisherBorough Engineer 1948Annual Average 52.9 in. based on 22 years obs. ^{overlap with 5319} ~~un-weighted~~. Period of average 1881-1915 Ref B.A.N.

File No.

Diameter	8"				664	976					
Height	1'0"					1					
Altitude	293'					41					
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	50MS Means
January	1.35	7.44	5.33	8.00	4.32	7.45	6.10	8.84	6.63	5.04	60.50
February	5.27	1.60	6.12	2.54	8.49	4.25	1.61	5.81	5.55	5.77	47.01
March	3.28	5.33	3.93	1.52	4.09	3.37	4.71	4.97	2.94	3.41	37.55
April	2.57	2.29	4.37	3.62	2.63	2.19	6.81	3.25	6.34	3.31	37.38
May	3.48	3.28	4.52	4.04	4.94	2.18	5.55	2.02	2.55	1.52	34.08
June	1.23	2.93	3.52	4.21	4.63	4.18	4.45	4.87	1.06	3.09	34.17
July	3.58	3.58	3.40	5.20	4.73	4.05	5.25	4.94	4.03	4.05	45.87
August	5.73	5.83	9.53	3.84	2.69	4.01	0.04	7.84	4.81	6.23	50.55
September	1.85	5.98	3.84	5.01	6.38	6.89	5.52	7.54	1.94	10.79	55.77
October	6.14	7.94	10.02	5.24	6.67	.60	2.89	11.17	8.11	7.29	66.07
November	5.29	1.33	3.17	8.23	0.84	6.95	8.95	4.60	5.74	3.42	48.52
December	3.79	7.65	3.21	5.90	5.90	6.36	2.20	7.29	10.16	3.00	56.46
TOTALS	43.56 D	55.18 D	60.99 D	57.35 D	56.31 D	52.48 D	55.08 D	73.14 D	59.86 D	59.92 D	573.87

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.

BRITISH RAINFALL ORGANIZATION

RAINFALL at Gleensburgh (Valve House) M.Y.R. Station No. 5320
 County of Dumbarton Observer Burgh Engineer
 River Basin Loth of Clyde & Govan, 2
 Type of Gauge Glaisher

51

Annual Average 53.0 in. based on 22 years obs. ^{omitted with 53.19} un-weighted. Period of average 1871-1915 Ref. Ref. N. P.
57.59 " " 35 " " 1916-1950 File No. 1916-1950

Diameter ...	8"				664	976					
Height ...	1' 0"					1					
Altitude ...	293'					51					
Year ...	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	Means
January ...	6.40	5.61	2.95	7.74	3.23	4.51	7.79	5.37	2.55	4.79	
February ...	3.43	2.26	2.61	5.53	3.35	1.88	4.29	3.53	2.07	4.34	
March ...	3.57	4.18	1.88	3.39	2.11	3.20	6.65	1.34	3.24	3.11	
April ...	2.89	2.80	2.56	3.20	3.66	2.06	2.74	2.04	3.90	4.96	
May ...	2.33	1.70	3.43	4.69	3.48	3.03	2.87	4.55	1.43	2.85	
June ...	2.01	3.31	1.51	3.33	3.76	2.69	2.35	3.51	2.58	3.53	
July ...	3.67	2.78	6.00	4.17	1.44	5.37	6.78	5.52	7.07	4.92	
August ...	3.95	5.01	4.72	5.43	1.15	5.80	4.49	6.21	1.67	3.14	
September ...	4.32	3.55	5.76	8.07	5.02	5.19	3.16	4.68	1.83	3.24	
October ...	1.92	5.81	3.98	10.35	5.01	4.45	5.60	5.31	4.71	3.56	
November ...	7.59	3.54	9.05	6.81	2.74	2.77	2.14	2.34	5.39	6.06	
December ...	9.59	7.00	5.71	8.78	8.38	7.49	6.81	5.65	8.55	5.12	
TOTALS ...	51.67	47.55	50.16	71.49	43.33	48.44	54.87	50.05	44.99	44.62	
	D	D	D	D	D	D	D	D	D	D	

Ins. Mr. Baillie 2/6/60. Gauge found but no contents contained. Small bolts which need to be replaced by larger ones. Insure and starter good.

Info 15/8/60
4/11/60

Position of Station on Ordnance One-Inch map: No. of Map..... National Grid Reference N3(26)303836

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

Summary of Earlier Records from 10-year Sheets:

1916-1950, P. accepted *and*

Record	1910-19	1920-30	1931-40	1941-50	1951-60
D, or d	c 12 imp ✓	✓ ✓	✓ ✓	✓ ✓	