

PODE HOLE ANNUAL RAINFALL

<u>Year</u>	<u>Inches</u>	<u>Remarks</u>
1829	30.25	
1830	34.29	
1831	34.32	Glen Bank broke.
1832	28.87	Glen Bank broke.
1833	24.95	
1834	18.10	
1835	24.20	Dry, July excepted.
1836	26.65	
1837	23.90	
1838	21.10	Glen Bank broke.
1839	31.65	
1840	21.30	
1841	29.45	
1842	32.10	Coal used - 1,350 tons - Several new drainage steam engines erected in the Fens.
1843	29.45	
1844	22.20	
1845	27.25	Low rainfall.
1846	26.10	
1847	25.62	8 year's average - 27 inches.
1848	34.30	"Kesteven" engine wheel lowered 14 inches first time.
1849	27.45	
1850	20.94	
1851	22.25	
1852	31.00	
1853	26.63	Great floods in the Fens and in Cowbit Wash.
1854	17.75	
1855	22.00	Slightly below 1834 - dry.
1856	22.63	
1857	27.88	
1858	17.50	Vernatt's new Sluice opened.
1859	25.25	Similar to 1854.
1860	30.38	
1861	25.75	
1862	24.88	"Holland" engine wheel lowered 14 inches first time.
1863	22.88	First meeting of the newly constituted Drainage Board of the Maxey District. Ordered that the Surveyor take necessary steps for preserving the North Fen from flood water.
1864	17.63	Dry year; similar to 1854.
1865	29.13	Welland landed up by Tides.

FROM 1829 TO 1890

<u>Year</u>	<u>Inches</u>	<u>Remarks</u>
1866	26.75	Welland landed up by Tides. Surveyor ordered to engage a Steam Engine to drain North Fen.
1867	23.38	Welland landed up by Tides.
1868	24.75	Hot dry spring! Pastures burnt up May, June, and July. Rainfall $\frac{3}{8}$ inch.
1869	27.88	May flood.
1870	16.88	Lowest yet recorded.
1871	25.50	
1872	35.50	Glen Bank broke into Bourne South Fen. Quotation of £1-0-6 per ton to supply and deliver best coal to supply North Fen Engine accepted. Broad wheel cart to be used.
1873	19.63	"Holland" engine wheel lowered 18 inches.
1874	16.25	Another ten years since 1864 dry.
1875	32.25	Great changes set in this year.
1876	31.00	North and South Drove Drains cleaned out.
1877	24.25	Glen Bank broke into Bourne North Fen, Great flood in Cowbit Wash, water at Duck Hall 18 inches deep on road.
1878	25.60	
1879	24.35	A most wretched harvest. Glen new Sluice opened.
1880	37.14	Glen Bank broke into Bourne South Fen. Flood in Cowbit Wash 4 inches higher than 1877.
1881	26.13	"Kesteven" wheel lowered 18 inches.
1882	30.50	Glen Bank broke south side. Water at Pode Hole 6ft. 10 ins. in Fen, 8 ft. 4 ins. in Vernatts. Plan and estimate prepared for work for preventing the irruption of flood water into Peakirk village.
1883	30.90	Low water in Welland, $1\frac{1}{2}$ inches below sill of Glen new Sluice.
1884	16.75	Ten years again and dry.
1885	23.90	
1886	30.25	May flood.
1887	15.13	The lowest recorded. Crossgate Bridge rebuilt. New pump for North Fen: New 4ft. dia. Holmes Turbine Pump 150 Fixing pump 100 £ 250
1888	21.50	
1889	26.59	
1890	20.13	

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1891	25.13	No rain in February.
1892	22.75	"Holland" wheel lowered 4 inches - total 3ft. since 1825. New Dredger launched.
1893	18.13	Very dry summer.
1894	22.38	Welland again heavily landed up by Tides.
1895	21.91	February 9th - 35 degrees of frost in Spalding.
1896	22.75	
1897	23.64	Glen North Bank broke at Guthram, highest known flood in Glen.
1898	20.25	
1899	20.91	Portion of Counter Drain cleaned out, inner bank strengthened. North Fen Steam Engine not to work unless water stood at a depth of 6ft. 3ins. on gauge.
1900	28.50	Improvement of River Glen, mud ploughing and casting out.
1901	22.38	Delph Drain deepened and widened.
1902	22.63	
1903	30.74	
1904	22.25	Wet year. Rainfall in October, 6.25 inches.
1905	24.63	"Kesteven" wheel lowered 4 inches - total 3ft. since 1825.
		High tide in Welland January 6th - 17ft. 9ins. on Glen Sluice gauge. River overflowed bank at Pigeon End. Maxey Surveyor instructed to repair the Low Lock Door and clean out the south half of the River Welland.
1906	25.75	
1907	22.46	Dredger "Nesta" launched November.
1908	17.22	Extensive repairs to Vernatts Sea Gates.
1909	24.00	River Glen stops, Tongue End, lowered 2ft.
1910	26.12	Glen North Bank broke near Tongue End, 3rd December.
1911	18.98	Horseshoe, Money and Cuckoo Bridges re-built in Ferro-concrete. New steam engine for North Fen from Messrs. Clayton and Shuttleworth and Company for £180.
1912	29.38	Rainfall August 26th - 2.14 inches in 24 hours.
1913	21.11	Highest recorded flood in Glen 27th August.
1914	21.85	South Drove Drain cleaned out. Crowland Bridge re-built in Ferro-concrete.
		Diesel engine and pump started work, April.

FROM 1891 TO 1940

<u>Year</u>	<u>Inches</u>	<u>Remarks</u>
1915	25.74	North Drove Drain cleaned out. Vernatt's Drain Improvement.
1916	27.89	Delph Drain Improvement commenced.
1917	19.94	Low rainfall (under 20 inches).
1918	26.46	Heavy rainfall - September.
1919	26.49	
1920	24.08	
1921	12.66	Driest year on this record.
1922	26.31	
1923	22.89	
1924	26.45	
1925	23.00	
1926	23.47	Proprietors of Helpston Paper Mills requested to filter their water before entering Board's drains.
1927	29.49	Highest reading ever recorded on Vernatt's Gauge (December) 12ft. 4 ins.
1928	25.29	Old Steam Engines replaced by "William Dennis" Pump.
1929	20.90	New oil engine for North Fen purchased from Messrs. Blackstones of Stamford for £352-8-3.
1930	25.04	
1931	25.77	
1932	25.35	New engine shed at North Fen for £128-10-0.
1933	18.10	
1934	18.63	New Lighter Boat introduced.
1935	23.87	
1936	25.81	
1937	29.86	
1938	19.73	First meeting of the newly constituted North Welland Internal Drainage Board. Repairs undertaken to Risegate Eau Outfall Sluice.
1939	28.14	First meeting of the newly constituted Deeping Fen, Spalding and Pinchbeck Internal Drainage Board. "Dennis" Pump ran 396 hours without stop.
1940	22.38	"Henry Bain" pump installed. Improvement schemes undertaken in Maxey Area at request of Ministry of Agriculture, Fisheries and Food.

PODE HOLE ANNUAL RAINFALL

Year	Inches	Remarks
1941	30.79	Vernatt's Improvement Scheme started. New Pump for Fosdyke Marsh Area. Shoals Drain Improvement Scheme commenced. Vernatt's Scheme completed.
1942	22.21	
1943	18.75	
1944	23.88	
1945	20.17	
1946	27.19	Work commenced on Bourne South Fen Pumping Station. Improvement Scheme for Riseigate Eau.
1947	18.88	First meeting of the newly constituted Baston, Langtoft and the Deepings Internal Drainage Board. Great flood (breach Crowland Bank and River Glen Bank). Considerable scour in Riseigate Eau as result of unprecedented flood conditions. Scheme approved to improve the drains of the Baston Board.
1948	23.16	Work commenced on North and South Drove Drains Scheme.
1949	20.06	Opening of Bourne South Fen Pumping Station.
1950	24.19	Deeping St. James Improvement Scheme undertaken.
1951	27.67	Old Beam Engine at Pinchbeck Marsh operated for longest period on record.
1952	22.64	Improvement of Gravel Drain.
1953	23.15	Demolition of Holland and Kesteven Steam Engines.
1954	29.41	First meeting of the newly constituted Maxey Internal Drainage Board. Opening of Fourth District and Pinchbeck Marsh New Pumping Stations. Two breaches in tidal bank on Fosdyke Marsh.
1955	20.55	Delph Diversion and Counter Drain Washes Improvement Scheme commenced.
1956	23.07	Jordan's Drain Diversion and Hallmeadow Drain Schemes undertaken.
1957	23.95	Lock's Dyke Improvement Scheme completed.
		Opening of the Adventurer's New Pumping Station. Scheme approved for new electric pump for North Fen. New sluice doors fitted at Five Towns Sluice.
1958	31.39	Work started on North and South Drove Drains Improvement Scheme.

FROM 1941 TO 1966

Year	Inches	Remarks
1959	17.98	Pode Hole Bridge and Cuckoo Bridge re-built. Crowland and Cowbit Washes Improvement Scheme commenced at Lock's Mill.
1960	29.97	Rasens Dyke Improvement. Reconstruction of Cottages at Pode Hole. Flooding in Northborough. Maxey Board complained to Welland River Board that the chief cause of flooding was excessive flow in the new Maxey Cut impeding discharge of Clayfield Drain.
1961	21.47	Westlode and Pennygate Drain Improvement Schemes. Tidal surge 20th March, 1961 - two breaches in Vernatt's Bank. Heightening of Vernatt's Drain Bank commenced.
1962	18.23	Work commenced on new pumping station at Pode Hole:- three new diesel pumps. New inner safety doors fitted at Riseigate Eau and Five Towns Sluices. Overflow weirs placed in Gravel Drain.
1963	20.14	New freshwater intake tunnel from River Welland near Cross Drain. Freshwater supply scheme for Baston and Langtoft area. Opening of new Five Towns Pumping Station. Scheme approved for new pumping station at outfall of Riseigate Eau.
1964	16.77	Barron's Bridge reconstruction. Improvement of Blue Gowt Outfall Drain and Crowland Common Main Drain.
1965	25.96	Official opening of new diesel engine pumping station at Pode Hole. Improvement of Fantail Drain, Sir John's Dyke and 5th District Cradge Dyke. New pump for Fosdyke Marsh and new pump for Frampton and Kirton Marsh.
1966	26.50	Newborough Wash Improvement Scheme. Reconstruction of Stowgate Bridge. Coolin's Drain Improvement Scheme. King Street Dyke made Main River.

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Year	Inches	Remarks
1967	20.42	Work in progress on new Pumping Station for Crowland and Cowbit Washes. Improvement of Green Drain and 6th District Cross Road Dyke. Category 'B' Drains taken over by the Board after improvement. New house for Pump Attendant at Pode Hole. "William Dennis" and "Henry Bain" Pumps demolished.
1968	26.43	Official opening of the new Pumping Station for Crowland and Cowbit Washes. Frognall Drain and Hallmeadow Drain Improvement Schemes. Severe "blow" of "black-lands" in March. 11th July - 4.51 inches of rainfall recorded in Spalding. New tidal doors fitted at Risegate Eau Outfall.
1969	25.09	Improvement of the New River, Crowland and Cowbit Washes. Improvement to Hallmeadow Drain, Frognall Drain, Tallington Drain, Old Sea Drain and Deeplake Hole. New method of roding with bucket mower attached to hydraulic excavator. Very wet spring - moisture deficit in the Fen virtually nil since July, 1968. Drainage Scheme for Godsey Lane, Market Deeping.
1970	20.77	Improvement of Westlode Drain and Broughton's Drain. Piping-in of Park Road Dyke to drain Spalding. Hill Marsh, Pinchbeck, Improvement Scheme. New Flail Mower attached to tractor for cutting "batters". New Wilder-Powell weedcutter. New pumping stations for Surfleet and Surfleet Marsh.
1971	20.04	North and South Drove Drains Improvement Scheme (1971) commenced at Pode Hole. Reconstruction of Town End Tunnel, Deeping St. James. Improvement of 5th District Cross Road Dyke. Maxey Board strongly opposed scheme of Welland and Nene River Authority to divert storm water from Bretton through Brook Drain.

FROM 1967 TO 1975

Year	Inches	Remarks
1972	18.21	Reconstruction of Platts Bridge over the Vernatt's Drain. Experiments with Diuron to control submerged weeds. Proposals to amalgamate Deeping Fen, Maxey, Baston and North Welland Internal Drainage Boards. The winter of 1971/72 very dry and little pumping required at Pode Hole.
1973	20.21	Another very dry winter with little pumping required at Pode Hole. New additional pump at Crowland and Cowbit Wash Pumping Station. Additional drains to be "taken-over" in the interior of Deeping Fen. Last meeting of the North Welland Internal Drainage Board. Last meeting of the Baston, Langtoft and the Deepings Internal Drainage Board. Last meeting of the Maxey Internal Drainage Board. Last meeting of the Deeping Fen, Spalding and Pinchbeck Internal Drainage Board. First meeting of the newly constituted Welland and Deepings Internal Drainage Board.
1974	22.29	Improvement of Coll Drain, Gosberton. Scheme to lower pumps at Bourne South Fen. Underpinning of Railway Bridge and Luck's Bridge, South Drove Drain. The third very dry winter.
1975		Another dry winter with little pumping required. Reconstruction of Bourne South Fen Pumping Station to lower pumps due to shrinkage of peat. The "coming-to-light" of The Great Northern Railway Act of 1846. Improvement of the Gravel Drain to take run-off from residential development at Market Deeping. High water levels in April in Bretton River, Glington.

PODE HOLE RAINFALL

..... 1829 to June 1975

	<u>Monthly Average</u>	<u>Monthly Recorded</u>		<u>Actual Monthly</u>			
		<u>Highest</u>	<u>Lowest</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
<u>January</u>	1.95	(1956) 4.89	0.25 (1858) (1880)	1.92	0.60	1.50	2.02
<u>February</u>	1.59	(1900) 5.25	0.00 (1891)	1.11	0.66	1.59	0.76
<u>March</u>	1.56	(1947) 4.23	0.19 (1929) (1944)	2.48	0.61	0.98	3.54
<u>April</u>	1.65	(1829) 4.87	0.13 (1893)	1.29	1.56	0.30	2.85
<u>May</u>	1.90	(1843) 5.60	0.15 (1836)	1.57	3.84	0.67	2.39
<u>June</u>	2.05	(1861) 5.63	0.12 (1925) (1962)	1.23	3.52	2.21	0.44
<u>July</u>	2.49	(1875) 9.00	0.25 (1885) (1952)	1.47	2.98	2.13	
<u>August</u>	2.50	(1878) 6.75	0.05 (1947)	0.50	0.53	3.42	
<u>September</u>	2.10	(1880) 5.91	0.25 (1843) (1855) (1890)	1.82	2.33	2.22	
<u>October</u>	2.32	(1865) (1880) 5.75	0.13 (1888)	0.28	1.43	3.62	
<u>November</u>	2.22	(1852) 5.25	0.42 (1909)	2.34	0.72	2.73	
<u>December</u>	1.97	(1910) 4.97	0.25 (1843)	2.20	1.43	0.91	
<u>Yearly Average</u>	24.31						

LENGTH OF DRAINS MAINTAINED

	<u>Miles</u>	<u>Chains</u>
Kirton and Frampton Marsh	5	4
Fosdyke Marsh	3	22
Five Towns District	23	12
Risegate Eau District	43	46
Spalding and Pinchbeck District	26	67
Deeping Fen	5	67
1st District	3	35
2nd District	6	45
3rd District	5	61
4th District	13	3
5th District	13	29
6th District	113	54
General District	7	49
Crowland Common	10	15
Deeping St. James	22	64
Bourne and Thurlby District	28	25
Crowland and Cowbit Washes	28	38
Baston, Langtoft and Deepings District	55	21
Maxey District		
	415	30