

Cumulative Frequency Analysis of Precipitation data from the Wareham Cranberry Experiment Station for the period October 1, 1988 to October 1, 2010.

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The Buzzards Bay NEP analyzed precipitation data for East Wareham collected by the UMass Cranberry Experiment Station that was available for the past 22 years to calculate the 95th percentile storm. There are 3,000 24-hr rainfall events for this 22-year record, but 232 of these are "trace" measurements, with no numeric value recorded. Including these trace rainfalls in the analysis, the 95th percentile rainfall is 1.40 inches. Excluding these trace events (as is typically done to define storm size storms for regulations), results in a 95th percentile rainfall of 1.45 inches. However, if all events under 0.1 inches are discarded, which was suggested as a possible methodology by EPA (=1/3 of all measurable rain events in East Wareham), then the 95th percentile value is 1.72 inches.

interval (inches)	Frequency (with trace)	Cumulative Frequency	percent <=high value	percent <=high value, exclude <=0.1
0.0 - 0.1	1020	1020	36.9%	
0.1 - 0.2	392	1412	51.0%	22.4%
0.2 - 0.3	263	1675	60.5%	37.5%
0.3 - 0.4	183	1858	67.1%	48.0%
0.4 - 0.5	168	2026	73.2%	57.6%
0.5 - 0.6	133	2159	78.0%	65.2%
0.6 - 0.7	104	2263	81.8%	71.2%
0.7 - 0.8	88	2351	85.0%	76.2%
0.8 - 0.9	68	2419	87.4%	80.1%
0.9 - 1.0	45	2464	89.0%	82.7%
1.0 - 1.1	60	2524	91.2%	86.1%
1.1 - 1.2	41	2565	92.7%	88.4%
1.2 - 1.3	23	2588	93.5%	89.8%
1.3 - 1.4	29	2617	94.6%	91.4%
1.4 - 1.5	21	2638	95.3%	92.6%
1.5 - 1.6	19	2657	96.0%	93.7%
1.6 - 1.7	15	2672	96.6%	94.6%
1.7 - 1.8	12	2684	97.0%	95.2%
1.8 - 1.9	13	2697	97.5%	96.0%
1.9 - 2.0	11	2708	97.9%	96.6%
2.0 - 2.1	5	2713	98.0%	96.9%

