the Rio Grande at of the Humber would be safer to than that of the and in surface geo-

g), 272,000 square

, it is known that land. If, theretheir sites replaced

on was 39, 20 inches, poration is known the rainfall.

the River Humber in its water-shed, mile, or 648,000

iles, from which it feet per second or being taken as

in years of great

on the Croton and e rainfall:

TABLE VI.

Yield in Persen'a to of Reinfall of the Croton Basin, 337 Square Miles, and the Sudbury Basin, 76 Square Miles.

Croton,			Sudbury.		
Year.	Rainfall.	Run-off Per Cent.	Rainfall.	Yield Per Cent.	Humber Rainfall
1870 1871	46.63 48.94	48 43			46,19
1872	40.74	47	For 16 Years.		32.73
1873	43.87	64			25.34
1874	42.37	63	İ		31.61
1875	43.66	63	45.49	44.0	24.34
1876	40.68	61	49.56	44.9	29.73
1877	46 0.3	48	44.02	48.2	32.40
1878	54.14	53	57.93	57.9 - 52.6	25.61
1879	46.08	50	41.42	45.3	48 49
1880	38.52	40	38.18	31.9	29.36
1881	46.33	44	44.17	46.5	35.32
1882	55,20	46	39.39	45.9	26,90
1883	43 15	37	32.78	34.1	24 83
1884	53.71	47	47.14	50.4	34.13
1885	45.99	42	43,55	43.4	$\frac{28.55}{32.91}$
1886	47.59	47	46.04	49.5	35.08
1887		11	42.70	56.7	25.76
1888	E.n. 17	For 17 Years.		62.2	$\frac{25.76}{26.28}$
1889	FOF 14	For 17 Tears,		58.2	31.22
1890			49.95 53.00	50.9	$\frac{31.22}{37.37}$

The above tables have been taken from the report of chief engineer, Walter S. Church, to the Aqueduct Commission of New York City, and the reports of the Water Board, Boston. It will be seen from the table that while the average yield of each has been 49.5 per cent, of the rainfall, the flow has in some years fallen below 40 per cent., 32 per cent, on the Sudbury area, 37 per cent, on the Croton.

The minimum yield of the Sudbury during this period was 11.19 inches in 1883, not quite half the average, and the minimum on the Croton 15.32 inches or 67 per cent. of the average.

The larger the area of the water-shed the less the variation in flow. As the Humber basin is larger than the Croton, we may safely assume that the minimum yearly flow in the river will be about 70 per cent. of the average or 283 cubic feet per second, equal to 152,712,000 Imperial gallons per day.