

AGE  
352  
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41

a gauge height for which 1,010 second-feet had been computed by the method indicated from seven previous measurements, the largest of which gave only 174 second-feet. That is, the difference between the computed and measured discharge was only 5 per cent. of the measured discharge, the maximum error generally assumed for individual current meter measurements.

While it is intended primarily merely to present this data as representing actual results obtained, several points might be noted:

(1) The average flow obtained from the preliminary records is in every case within a very small percentage of the revised results. This is true even in the case of Fall River, where only two measurements were available for the preliminary computations.

(2) The records of minimum flow as obtainable in the preliminary computations are generally more largely in error than the records of maximum flow. Naturally, irregularities of the stream bed have greater effect on the distribution and direction of the current at periods of low flow. However, the revised records of minimum flow are

in most cases more accurate than the revised estimates of maximum flow, and the errors of the preliminary records of maximum flow may ultimately be slightly greater than they appear at present.

(3) In general, the preliminary computations of maximum flow for the period are within a small percentage of the revised results. Greater differences may develop when further measurements for higher water stages are secured, though high-water measurements already obtained and used in obtaining the revised results, as for example, in the case of the St. Croix River seem to indicate a comparatively small error in the preliminary computations.

(4) After a reasonable number of well-distributed measurements have been obtained at a station where permanent conditions obtain, the increase in accuracy for additional measurements is small. For example, 10 measurements on the Indian River gave results identical with the results obtained for 13 measurements, except in the case of the minimum flow, where there is a small difference.

Table Showing Comparative Results for Computations of Flow of Certain Streams in Nova Scotia.

River.	Basis of Preliminary Records.	Basis of Revised Records.	Period in Days.	Preliminary Records.			Revised Records.			Differences. <small>M.O.</small>		
				Max. Sec.-ft.	Min. Sec.-ft.	Mean Sec.-ft.	Max. Sec.-ft.	Min. Sec.-ft.	Mean Sec.-ft.	Percent. of Revised Records	Max.	Min.
Archib'd Brook	5 measurements, 47 sec.-feet to 135 sec.-ft.	9 measurements, 3.4 sec.-feet to 135 sec.-ft.	152	707	8	75	560	7	72	26	14	4
Fall River ...	2 measurements, 64 sec.-ft. and 93 sec.-ft.	6 measurements, from 1 sec.-ft. to 93 sec.-ft.	121	135	14	60	135	10	58	0	40	3
Gaspereau ..	9 measurements, 55 sec.-feet to 375 sec.-ft.	12 measurements, 26 sec.-feet to 1,536 sec.-ft.	317	3,396	46	385	2,975	41	382	14	12	0.8
Indian .....	10 measurements, 77 sec.-feet to 1,597 sec.-ft.	13 measurements, 5 sec.-feet to 1,597 sec.-ft.	327	1,597	47	173	1,597	45	173	0	4.4	0
Lahave .....	4 measurements, 184 sec.-feet to 2,982 sec.-ft.	5 measurements, 184 sec.-feet to 2,982 sec.-ft.	202	4,313	197	1,134	4,388	184	1,125	1.7	7	0.8
Medway ....	3 measurements, 246 sec.-feet to 3,084 sec.-ft.	4 measurements, 246 sec.-feet to 3,084 sec.-ft.	226	3,232	186	1,473	3,232	176	1,426	0	5.7	3.3
Northeast ..	9 measurements, 33 sec.-feet to 382 sec.-ft.	13 measurements, 17 sec.-feet to 382 sec.-ft.	327	391	18	89	387	21	90	1	14.3	1.1
Philip .....	5 measurements, 134 sec.-feet to 531 sec.-ft.	6 measurements, 58 sec.-feet to 531 sec.-ft.	273	3,694	72	316	3,780	56	308	2.3	29	2.6
St. Croix ....	7 measurements, 61 sec.-feet to 174 sec.-ft.	10 measurements, 6 sec.-feet to 1,065 sec.-ft.	316	1,010	20	206	1,064	33	205	5	40	0.5
St. Marys ...	5 measurements, 412 sec.-feet to 4,370 sec.-ft.	9 measurements, 49 sec.-feet to 4,370 sec.-ft.	245	13,800	219	1,405	13,730	116	1,352	0.05	89	4