OPENCHANNELFLOW

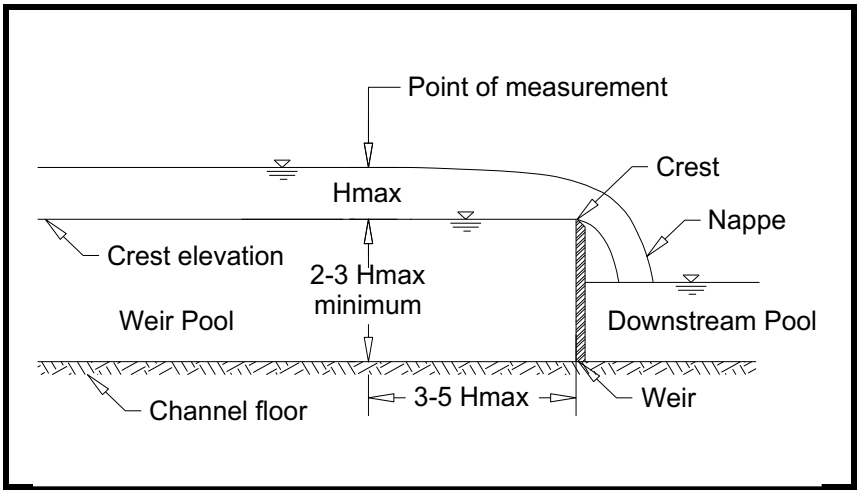
120° V-Notch Weir Discharge Table

±2-5% Accuracy

Formulas (H in feet): CFS = 4.330 $H_{ft.}^{2.5}$ GPM = 1943 $H_{ft.}^{2.5}$ MGD = 2.798 $H_{ft.}^{2.5}$

Formulas (H in meters): L/S = 2391 $H_{m}^{2.5}$ M3/HR = 8606 $H_{m}^{2.5}$

FEET	INCHES	METERS	CFS	GPM	MGD	L/S	M3/HR
0.01	0.12	0.0030	Nappe may cling to downstream weir face				
0.02	0.24	0.0061					
0.03	0.36	0.0091					
0.04	0.48	0.0122					
0.05	0.60	0.0152					
0.06	0.72	0.0183					
0.07	0.84	0.0213					
0.08	0.96	0.0244					
0.09	1.08	0.0274					
0.10	1.20	0.0305					
0.11	1.32	0.0335					
0.12	1.44	0.0366					
0.13	1.56	0.0396					
0.14	1.68	0.0427					
0.15	1.80	0.0457					
0.16	1.92	0.0488					
0.17	2.04	0.0518					
0.18	2.16	0.0549					
0.19	2.28	0.0579					
0.20	2.40	0.0610	0.0775	34.76	0.0501	2.194	7.893
0.21	2.52	0.0640	0.0875	39.27	0.0566	2.478	8.917
0.22	2.64	0.0671	0.0983	44.12	0.0635	2.784	10.02
0.23	2.76	0.0701	0.1099	49.30	0.0710	3.111	11.19
0.24	2.88	0.0732	0.1222	54.84	0.0790	3.460	12.45
0.25	3.00	0.0762	0.1353	60.73	0.0875	3.832	13.79
0.26	3.12	0.0792	0.1493	66.98	0.0965	4.227	15.21
0.27	3.24	0.0823	0.1640	73.61	0.1060	4.645	16.71
0.28	3.36	0.0853	0.1796	80.62	0.1161	5.087	18.30
0.29	3.48	0.0884	0.1961	88.01	0.1267	5.554	19.98
0.30	3.60	0.0914	0.2134	95.80	0.1380	6.045	21.75



Sources: Skrenter, R., Instrumentation Handbook Water and Wastewater Treatment Plants

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Formulas (H in meters): L/S = 2391 $H_{m}^{2.5}$ M3/HR = 8606 $H_{m}^{2.5}$

FEET	INCHES	METERS	CFS	GPM	MGD	L/S	M3/HR
0.31	3.72	0.0945	0.2317	104.0	0.1497	6.561	23.61
0.32	3.84	0.0975	0.2508	112.6	0.1621	7.103	25.56
0.33	3.96	0.1006	0.2709	121.6	0.1751	7.671	27.60
0.34	4.08	0.1036	0.2919	131.0	0.1886	8.266	29.74
0.35	4.20	0.1067	0.3138	140.8	0.2028	8.887	31.98
0.36	4.32	0.1097	0.3367	151.1	0.2176	9.535	34.31
0.37	4.44	0.1128	0.3606	161.8	0.2330	10.21	36.74
0.38	4.56	0.1158	0.3854	173.0	0.2491	10.92	39.28
0.39	4.68	0.1189	0.4113	184.6	0.2658	11.65	41.91
0.40	4.80	0.1219	0.4382	196.6	0.2832	12.41	44.65
0.41	4.92	0.1250	0.4661	209.2	0.3012	13.20	47.49
0.42	5.04	0.1280	0.4950	222.2	0.3199	14.02	50.44
0.43	5.16	0.1311	0.5250	235.6	0.3393	14.87	53.50
0.44	5.28	0.1341	0.5561	249.6	0.3594	15.75	56.66
0.45	5.40	0.1372	0.5882	264.0	0.3801	16.66	59.94
0.46	5.52	0.1402	0.6214	278.9	0.4016	17.60	63.32
0.47	5.64	0.1433	0.6557	294.3	0.4238	18.57	66.82
0.48	5.76	0.1463	0.6912	310.2	0.4467	19.57	70.43
0.49	5.88	0.1494	0.7277	326.6	0.4703	20.61	74.16
0.50	6.00	0.1524	0.7654	343.5	0.4947	21.68	78.00
0.51	6.12	0.1554	0.8043	361.0	0.5198	22.78	81.96
0.52	6.24	0.1585	0.8443	378.9	0.5457	23.91	86.03
0.53	6.36	0.1615	0.8855	397.4	0.5723	25.08	90.23
0.54	6.48	0.1646	0.9278	416.4	0.5997	26.28	94.55
0.55	6.60	0.1676	0.9714	436.0	0.6278	27.51	98.98
0.56	6.72	0.1707	1.016	456.0	0.6567	28.78	103.5
0.57	6.84	0.1737	1.062	476.7	0.6865	30.08	108.2
0.58	6.96	0.1768	1.109	497.9	0.7170	31.42	113.0
0.59	7.08	0.1798	1.158	519.6	0.7483	32.79	118.0
0.60	7.20	0.1829	1.207	541.9	0.7804	34.19	123.0
0.61	7.32	0.1859	1.258	564.8	0.8133	35.64	128.2
0.62	7.44	0.1890	1.311	588.2	0.8470	37.12	133.5
0.63	7.56	0.1920	1.364	612.2	0.8816	38.63	139.0
0.64	7.68	0.1951	1.419	636.8	0.9170	40.18	144.6
0.65	7.80	0.1981	1.475	661.9	0.9532	41.77	150.3
0.66	7.92	0.2012	1.532	687.7	0.9903	43.40	156.1
0.67	8.04	0.2042	1.591	714.0	1.028	45.06	162.1
0.68	8.16	0.2073	1.651	741.0	1.067	46.76	168.2
0.69	8.28	0.2103	1.712	768.5	1.107	48.50	174.5
0.70	8.40	0.2134	1.775	796.7	1.147	50.27	180.9
0.71	8.52	0.2164	1.839	825.4	1.189	52.09	187.4
0.72	8.64	0.2195	1.905	854.8	1.231	53.94	194.1
0.73	8.76	0.2225	1.971	884.8	1.274	55.83	200.9
0.74	8.88	0.2256	2.040	915.4	1.318	57.76	207.8
0.75	9.00	0.2286	2.109	946.7	1.363	59.74	214.9
0.76	9.12	0.2316	2.180	978.5	1.409	61.75	222.2
0.77	9.24	0.2347	2.253	1011	1.456	63.80	229.6
0.78	9.36	0.2377	2.327	1044	1.504	65.89	237.1
0.79	9.48	0.2408	2.402	1078	1.552	68.02	244.8
0.80	9.60	0.2438	2.479	1112	1.602	70.19	252.6

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Formulas (H in meters): L/S = 2391 $H_{m}^{2.5}$ M3/HR = 8606 $H_{m}^{2.5}$

FEET	INCHES	METERS	CFS	GPM	MGD	L/S	M3/HR
0.81	9.72	0.2469	2.557	1148	1.652	72.41	260.5
0.82	9.84	0.2499	2.636	1183	1.704	74.66	268.7
0.83	9.96	0.2530	2.718	1220	1.756	76.96	276.9
0.84	10.08	0.2560	2.800	1257	1.810	79.30	285.3
0.85	10.20	0.2591	2.884	1294	1.864	81.68	293.9
0.86	10.32	0.2621	2.970	1333	1.919	84.11	302.6
0.87	10.44	0.2652	3.057	1372	1.976	86.57	311.5
0.88	10.56	0.2682	3.146	1412	2.033	89.08	320.5
0.89	10.68	0.2713	3.236	1452	2.091	91.63	329.7
0.90	10.80	0.2743	3.327	1493	2.150	94.23	339.1
0.91	10.92	0.2774	3.421	1535	2.211	96.87	348.6
0.92	11.04	0.2804	3.515	1578	2.272	99.55	358.2
0.93	11.16	0.2835	3.612	1621	2.334	102.3	368.0
0.94	11.28	0.2865	3.709	1665	2.397	105.1	378.0
0.95	11.40	0.2896	3.809	1709	2.462	107.9	388.1
0.96	11.52	0.2926	3.910	1755	2.527	110.7	398.4
0.97	11.64	0.2957	4.013	1801	2.593	113.6	408.9
0.98	11.76	0.2987	4.117	1848	2.661	116.6	419.5
0.99	11.88	0.3018	4.223	1895	2.729	119.6	430.3
1.00	12.00	0.3048	4.330	1943	2.798	122.6	441.2
1.01	12.12	0.3078	4.439	1992	2.869	125.7	452.3
1.02	12.24	0.3109	4.550	2042	2.941	128.8	463.6
1.03	12.36	0.3139	4.662	2092	3.013	132.0	475.1
1.04	12.48	0.3170	4.776	2144	3.087	135.3	486.7
1.05	12.60	0.3200	4.892	2195	3.162	138.5	498.5
1.06	12.72	0.3231	5.009	2248	3.237	141.9	510.4
1.07	12.84	0.3261	5.128	2301	3.314	145.2	522.5
1.08	12.96	0.3292	5.249	2356	3.392	148.6	534.8
1.09	13.08	0.3322	5.371	2410	3.471	152.1	547.3
1.10	13.20	0.3353	5.495	2466	3.551	155.6	559.9
1.11	13.32	0.3383	5.621	2523	3.633	159.2	572.8
1.12	13.44	0.3414	5.748	2580	3.715	162.8	585.7
1.13	13.56	0.3444	5.877	2638	3.799	166.4	598.9
1.14	13.68	0.3475	6.008	2697	3.883	170.2	612.2
1.15	13.80	0.3505	6.141	2756	3.969	173.9	625.8
1.16	13.92	0.3536	6.275	2816	4.056	177.7	639.5
1.17	14.04	0.3566	6.411	2877	4.144	181.6	653.3
1.18	14.16	0.3597	6.549	2939	4.233	185.5	667.4
1.19	14.28	0.3627	6.689	3002	4.323	189.4	681.6
1.20	14.40	0.3658	6.830	3065	4.414	193.4	696.0
1.21	14.52	0.3688	6.974	3130	4.507	197.5	710.6
1.22	14.64	0.3719	7.118	3195	4.601	201.6	725.4
1.23	14.76	0.3749	7.265	3261	4.696	205.8	740.3
1.24	14.88	0.3780	7.414	3327	4.792	210.0	755.5
1.25	15.00	0.3810	7.564	3395	4.889	214.2	770.8
1.26	15.12	0.3840	7.716	3463	4.987	218.5	786.3
1.27	15.24	0.3871	7.870	3532	5.087	222.9	802.0
1.28	15.36	0.3901	8.026	3602	5.187	227.3	817.9
1.29	15.48	0.3932	8.184	3673	5.289	231.8	833.9
1.30	15.60	0.3962	8.343	3745	5.392	236.3	850.2

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FEET	INCHES	METERS	CFS	GPM	MGD	L/S	M3/HR
1.31	15.72	0.3993	8.505	3817	5.497	240.9	866.6
1.32	15.84	0.4023	8.668	3890	5.602	245.5	883.3
1.33	15.96	0.4054	8.833	3964	5.709	250.2	900.1
1.34	16.08	0.4084	9.000	4039	5.817	254.9	917.1
1.35	16.20	0.4115	9.169	4115	5.926	259.7	934.3
1.36	16.32	0.4145	9.340	4192	6.036	264.5	951.7
1.37	16.44	0.4176	9.512	4269	6.148	269.4	969.3
1.38	16.56	0.4206	9.687	4347	6.261	274.3	987.1
1.39	16.68	0.4237	9.863	4427	6.375	279.3	1005
1.40	16.80	0.4267	10.04	4507	6.490	284.4	1023
1.41	16.92	0.4298	10.22	4588	6.606	289.5	1042
1.42	17.04	0.4328	10.40	4669	6.724	294.6	1060
1.43	17.16	0.4359	10.59	4752	6.843	299.9	1079
1.44	17.28	0.4389	10.77	4836	6.964	305.1	1098
1.45	17.40	0.4420	10.96	4920	7.085	310.5	1117
1.46	17.52	0.4450	11.15	5005	7.208	315.8	1136
1.47	17.64	0.4481	11.34	5091	7.332	321.3	1156
1.48	17.76	0.4511	11.54	5178	7.457	326.8	1176
1.49	17.88	0.4542	11.73	5266	7.584	332.3	1196
1.50	18.00	0.4572	11.93	5355	7.712	337.9	1216
1.51	18.12	0.4602	12.13	5445	7.841	343.6	1236
1.52	18.24	0.4633	12.33	5535	7.971	349.3	1257
1.53	18.36	0.4663	12.54	5627	8.103	355.1	1278
1.54	18.48	0.4694	12.74	5719	8.236	360.9	1299
1.55	18.60	0.4724	12.95	5813	8.370	366.8	1320
1.56	18.72	0.4755	13.16	5907	8.506	372.7	1341
1.57	18.84	0.4785	13.37	6002	8.643	378.7	1363
1.58	18.96	0.4816	13.59	6098	8.781	384.8	1385
1.59	19.08	0.4846	13.80	6195	8.921	390.9	1407
1.60	19.20	0.4877	14.02	6293	9.062	397.1	1429
1.61	19.32	0.4907	14.24	6392	9.204	403.3	1451
1.62	19.44	0.4938	14.46	6491	9.348	409.6	1474
1.63	19.56	0.4968	14.69	6592	9.493	416.0	1497
1.64	19.68	0.4999	14.91	6693	9.639	422.4	1520
1.65	19.80	0.5029	15.14	6796	9.787	428.8	1543
1.66	19.92	0.5060	15.37	6899	9.936	435.4	1567
1.67	20.04	0.5090	15.61	7004	10.09	441.9	1590
1.68	20.16	0.5121	15.84	7109	10.24	448.6	1614
1.69	20.28	0.5151	16.08	7215	10.39	455.3	1638
1.70	20.40	0.5182	16.32	7323	10.54	462.1	1663
1.71	20.52	0.5212	16.56	7431	10.70	468.9	1687
1.72	20.64	0.5243	16.80	7540	10.86	475.8	1712
1.73	20.76	0.5273	17.05	7650	11.02	482.7	1737
1.74	20.88	0.5304	17.29	7761	11.18	489.7	1762
1.75	21.00	0.5334	17.54	7873	11.34	496.8	1788
1.76	21.12	0.5364	17.79	7986	11.50	503.9	1813
1.77	21.24	0.5395	18.05	8100	11.66	511.1	1839
1.78	21.36	0.5425	18.30	8215	11.83	518.4	1865
1.79	21.48	0.5456	18.56	8331	12.00	525.7	1891
1.80	21.60	0.5486	18.82	8447	12.16	533.0	1918

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FEET	INCHES	METERS	CFS	GPM	MGD	L/S	M3/HR
1.81	21.72	0.5517	19.08	8565	12.33	540.5	1945
1.82	21.84	0.5547	19.35	8684	12.51	548.0	1972
1.83	21.96	0.5578	19.62	8804	12.68	555.5	1999
1.84	22.08	0.5608	19.89	8925	12.85	563.2	2026
1.85	22.20	0.5639	20.16	9046	13.03	570.8	2054
1.86	22.32	0.5669	20.43	9169	13.20	578.6	2082
1.87	22.44	0.5700	20.71	9293	13.38	586.4	2110
1.88	22.56	0.5730	20.98	9417	13.56	594.3	2138
1.89	22.68	0.5761	21.26	9543	13.74	602.2	2167
1.90	22.80	0.5791	21.55	9670	13.93	610.2	2196
1.91	22.92	0.5822	21.83	9798	14.11	618.3	2225
1.92	23.04	0.5852	22.12	9926	14.29	626.4	2254
1.93	23.16	0.5883	22.41	10056	14.48	634.6	2283
1.94	23.28	0.5913	22.70	10187	14.67	642.8	2313
1.95	23.40	0.5944	22.99	10319	14.86	651.1	2343
1.96	23.52	0.5974	23.29	10452	15.05	659.5	2373
1.97	23.64	0.6005	23.59	10585	15.24	668.0	2403
1.98	23.76	0.6035	23.89	10720	15.44	676.5	2434
1.99	23.88	0.6066	24.19	10856	15.63	685.0	2465
2.00	24.00	0.6096	24.49	10993	15.83	693.7	2496

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