

How to Read a Staff Gage

Staff gages are used for a quick visual indication of the surface level in reservoirs, rivers and streams. A staff gage is similar to the typical household yard stick but with measurements displayed both to the nearest foot (one foot intervals) and to the nearest tenth of a foot. A typical staff gage associated with Project 184 is a Style C enamel gage plate that is 2.5 inches wide by 3.33 inches long. The gage plates are stacked with various lengths depending on the depth of water. The measurements are graduated to hundredth of a foot with the larger numbers marking the nearest one foot intervals and the smaller numbers marking the tenth of a foot interval (see graphic 1).

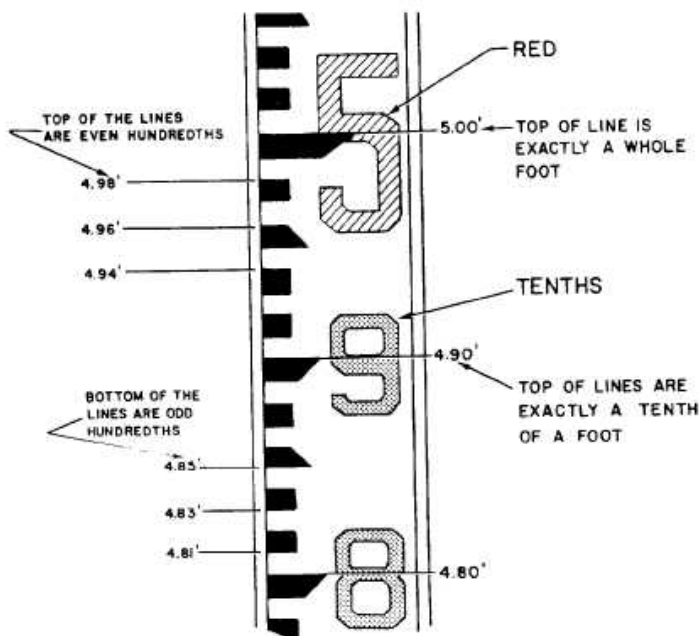
Some staff gages are placed in stilling wells so the water level remains constant. If the water level fluctuates, take the reading at the mid-point range between the high and low water levels.

How to Read a Rating Table

The rating tables can be used to convert the staff gage reading to cfs. The vertical axis under ght (gage height) corresponds to tenth of a foot interval (e.g., 2.4, 2.5, 2.6 etc.) and the horizontal axis corresponds to hundredth of a foot interval (e.g., .00, .01, etc.). In the example below, a staff gage reading of 2.43 (yellow) corresponds to 1.24 cfs (in blue).

ght	.00	.01	.02	.03	.04	.05
	2.4	1.08*	1.13	1.18	1.24	1.29

Example data, each table is different.



Graphic 1

EL DORADO IRRIGATION DISTRICT

#A-43 ECHO LAKE SPILL TO UPPER TRUCKEE 2007 WY

Rating Table 1 from 10/01/2007 00:00

Scale Offset = 1.00

DISCHARGE IN CUBIC FEET PER SECOND

ght	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09	1st diff	2nd diff
1.1								0*	.010	.020		
1.2	.030	.040	.050	.060	.070	.080	.090	.100*	.118	.138	.131	
1.3	.161	.186	.215	.246	.282	.321*	.378	.442	.516	.599	.533	.402
1.4	.693	.799	.918	1.05	1.20	1.37	1.55	1.76	1.98	2.23	1.82	1.28
1.5	2.51	2.81	3.14	3.51*	3.83	4.18	4.54	4.94	5.36	5.80	3.77	1.96
1.6	6.28*	6.84	7.43	8.07	8.75	9.47	10.2	11.1	11.9	12.9	7.57	3.80
1.7	13.9	14.9*	15.6	16.4	17.2	18.0	18.8	19.7	20.6	21.5	8.65	1.07
1.8	22.5*	23.4	24.3	25.3	26.2	27.2	28.3	29.3	30.4	31.5	10.1	1.48
1.9	32.6	33.8	35.0	36.2	37.4	38.7	40.0*	41.3	42.6	43.9	12.6	2.49
2.0	45.3	46.6	48.0	49.5	50.9	52.4	54.0	55.5	57.1	58.7	15.1	2.48
2.1	60.4	62.0	63.7	65.5	67.2	69.0	70.9	72.7	74.6	76.6	18.2	3.05
2.2	78.5	80.5	82.5	84.6	86.7	88.8	91.0	93.2	95.4	97.7	21.5	3.33
2.3	100.0*	102.6	105.2	107.9	110.6	113.4	116.2	119.1	122.0	125.0	28.0	6.51
2.4	128.0*	131.2	134.5	137.8	141.2	144.7	148.2	151.7	155.4	159.0	34.8	6.80
2.5	162.8*	166.0	169.3	172.6	176.0	179.4	182.8	186.3	189.8	193.4	34.2	-6.00
2.6	197.0*	200.9	204.9	209.0	213.1	217.2	221.4	225.7	230.0	234.4	41.8	7.60
2.7	238.8	243.3	247.8	252.4	257.1	261.8	266.6	271.4	276.3	281.3	47.5	5.70
2.8	286.3	291.4	296.5	301.7	307.0	312.3	317.7	323.2	328.7	334.3	53.6	6.10
2.9	339.9	345.6	351.4	357.2	363.1	369.1	375.2	381.3	387.4	393.7	60.1	6.50
3.0	400.0*											

* skeletal rating point