

VOLUME CALCULATIONS

BASIN 7 POND

STAGE, VOLUME, DISCHARGE

Volume = from irregular pond (proposed 2.5:1 slopes & pl

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
89	0	0	0.0000
90.00	1.00	0.0717961	2.5904
91.00	2.00	0.1491632	4.4560
92.00	3.00	0.2327901	5.7447
93.00	4.00	0.3233869	6.7932
94.00	5.00	0.4224139	7.7003
95.00	6.00	0.5323186	8.5112
96.00	7.00	0.6596643	9.2513
97.00	8.00	0.8051623	9.9364
98.00	9.00	0.9648687	10.5772
99.00	10.00	1.1395111	11.1814
100.00	11.00	1.3298802	11.7546
100.50	11.50	1.5321367	12.0309

Orifice Equation

$$Q = CA \text{ SQRT}(2gH)$$

C = 0.6

Diameter (in) 11.75

Area (ft²)= 0.753

g = 32.2

H (Ft) = Depth of water above center of orifice

Q (CFS)= Flow