

100-Year Maximum Q = 1,120 cfs
 500-Year Maximum Q = 1,330 cfs

Typical Marsh Creek flows (excluding spring runoff or heavy storms) = 5 cfs - 15 cfs

The amount of water able to pass through the sedimentation ponds before overtopping the sharp crested weir to the east, or the canal to the west would 50cfs+/-

The amount of water able to pass through the sedimentation ponds, over the sharp crested weir to the east, or the canal to the west before causing any localized site flooding would be 110cfs+/-

Changes in flow rates through the settling basins and the amount that overlaps the existing sharp-crested weir may be modified using the wooden dams in the sharp-crested weir

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 Southern Region

Settling Basin Calculations

Single Basin Volume is 33,257 cubic feet, and the surface area per basin is 10,000 square feet

Particle Diameter	Particle	Settling Velocity (ft/s)
0.0033	Sand	0.06
0.00033	Fine Sand	0.033
3.3E-05	Silt	0.00033
3.3E-06	Clay	3.3E-06

%Removed (Both Basins)

Diverted Marsh Creek Flow (cfs)	Inflow per Basin (cfs)	Settling Velocity (ft/s)	Sand	Fine Sand	Silt	Clay
1	0.5	9.92E-05	100%	100%	100%	3%
2	1	1.98E-04	100%	100%	100%	2%
3	1.5	2.98E-04	100%	100%	100%	1%
4	2	3.97E-04	100%	100%	83%	1%
5	2.5	4.96E-04	100%	100%	67%	1%
10	5	9.92E-04	100%	100%	33%	0%
15	7.5	1.49E-03	100%	100%	22%	0%
20	10	1.98E-03	100%	100%	17%	0%
30	15	2.98E-03	100%	100%	11%	0%
40	20	3.97E-03	100%	100%	8%	0%
50	25	4.96E-03	100%	100%	7%	0%
60	30	5.95E-03	100%	100%	6%	0%
70	35	6.94E-03	100%	100%	5%	0%
80	40	7.94E-03	100%	100%	4%	0%
90	45	8.93E-03	100%	100%	4%	0%
100	50	9.92E-03	100%	100%	3%	0%
110	55	1.09E-02	100%	100%	3%	0%
120	60	1.19E-02	100%	100%	3%	0%
130	65	1.29E-02	100%	100%	3%	0%
140	70	1.39E-02	100%	100%	2%	0%
150	75	1.49E-02	100%	100%	2%	0%