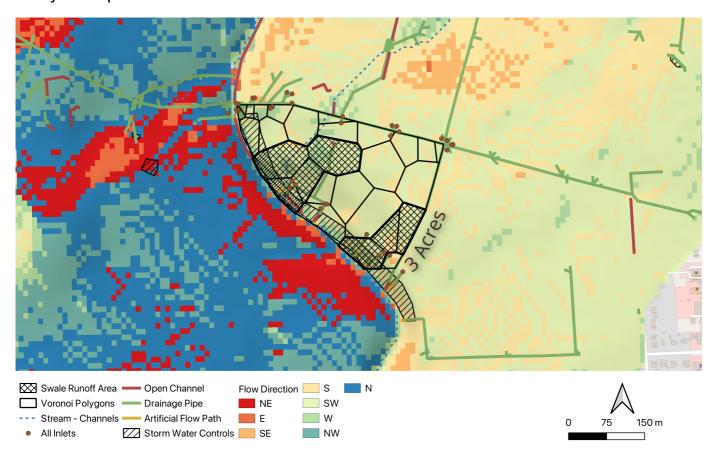
GOL2389-Runoff-Analysis.md 2024-05-06

# Analysis Map



### Swale discharge, stormwater capacity

	swale name	peak discharge capacity (ft^3/s)	volume capacity (ft^3)	rainfall depth to reach volume capacity (in)	potential basin capacity (ft^3)	time to fill (s)
0	Α	5.58	386.22	0.17	0.00	69.22
1	С	21.65	227.58	0.13	188.18	10.51

# soil stormwater capacity

	swale name	soil volume (ft^3)	soil dry capacity (ft^3)	soil wet capacity (ft^3)	ft^3/hr infiltrated	infiltration time (hr)	total capacity w/soil dry (ft^3)	depth to reach volume capacity w/soil dry (in)	total capacity w/soil wet (ft^3)	rainfall depth to reach volume capacity w/soil wet (in)
0	Α	3300.91	1914.53	462.13	12.503456	30.89	2300.75	0.83	848.35	0.20
1	С	1603.08	929.78	224.43	6.072257	37.48	1157.36	0.52	452.01	0.13

### 4/20 Storm runoff

	datetime	storm length (min)	rainfall depth (in)	runoff volume (ft^3)	runoff volume reaching Swale A (ft^3)	runoff volume reaching Swale C (ft^3)
0	2024-04-20 17:51:00.000	60 min	0.07	1425.50	162.43	125.59
1	2024-04-20 18:51:00.000	60 min	0.00	0.00	0.00	0.00
2	2024-04-20 19:51:00.000	60 min	0.02	407.29	46.41	35.88
3	2024-04-20 20:51:00.000	60 min	0.38	7738.43	881.78	681.77
4	2024-04-20 21:51:00.000	60 min	0.22	4480.15	510.51	394.71

# Recurrence Interval runoff for 60 min storm

	recurrence interval (yr)	storm length (min)	rainfall depth (in)	runoff volume (ft^3)	runoff volume reaching Swale A (ft^3)	runoff volume reaching Swale C (ft^3)
0	1	5-min	0.431	8777.01	1000.13	773.27
1	2	5-min	0.524	10670.89	1215.93	940.12
2	5	5-min	0.668	13603.35	1550.08	1198.48
3	10	5-min	0.795	16189.62	1844.78	1426.33
4	25	5-min	0.977	19895.92	2267.11	1752.86
5	50	5-min	1.120	22808.02	2598.93	2009.42
6	100	5-min	1.280	26066.30	2970.21	2296.48
7	200	5-min	1.460	29731.88	3387.90	2619.43
8	500	5-min	1.700	34619.31	3944.81	3050.02
9	1	10-min	0.684	13929.18	1587.21	1227.18
10	2	10-min	0.833	16963.46	1932.96	1494.51
11	5	10-min	1.060	21586.16	2459.71	1901.78
12	10	10-min	1.270	25862.66	2947.01	2278.54
13	25	10-min	1.560	31768.31	3619.94	2798.84
14	50	10-min	1.800	36655.74	4176.86	3229.43
15	100	10-min	2.060	41950.46	4780.18	3695.90
16	200	10-min	2.320	47245.18	5383.51	4162.38
17	500	10-min	2.690	54779.97	6242.08	4826.20
18	1	15-min	0.868	17676.21	2014.17	1557.30
19	2	15-min	1.050	21382.52	2436.50	1883.83
20	5	15-min	1.340	27288.16	3109.44	2404.13

	recurrence interval (yr)	storm length (min)	rainfall depth (in)	runoff volume (ft^3)	runoff volume reaching Swale A (ft^3)	runoff volume reaching Swale C (ft^3)
21	10	15-min	1.590	32379.24	3689.56	2852.66
22	25	15-min	1.950	39710.39	4524.93	3498.55
23	50	15-min	2.240	45616.03	5197.87	4018.85
24	100	15-min	2.550	51928.97	5917.22	4575.03
25	200	15-min	2.90	59056.47	6729.38	5202.97
26	500	15-min	3.38	68831.33	7843.21	6064.15
27	1	30-min	1.24	25251.73	2877.39	2224.72
28	2	30-min	1.49	30342.81	3457.51	2673.25
29	5	30-min	1.89	38488.53	4385.70	3390.90
30	10	30-min	2.24	45616.03	5197.87	4018.85
31	25	30-min	2.74	55798.18	6358.11	4915.91
32	50	30-min	3.13	63740.26	7263.09	5615.62
33	100	30-min	3.56	72496.91	8260.90	6387.09
34	200	30-min	4.05	82475.42	9397.93	7266.22
35	500	30-min	4.75	96730.42	11022.27	8522.11
36	1	60-min	1.61	32786.52	3735.97	2888.55
37	2	60-min	1.96	39914.03	4548.14	3516.49
38	5	60-min	2.49	50707.11	5777.99	4467.38
39	10	60-min	2.97	60481.97	6891.82	5328.56
40	25	60-min	3.65	74329.69	8469.74	6548.57
41	50	60-min	4.19	85326.42	9722.80	7517.39
42	100	60-min	4.79	97545.00	11115.09	8593.87
43	200	60-min	5.49	111800.01	12739.42	9849.76
44	500	60-min	6.52	132775.24	15129.51	11697.71