

APPENDIX A

HYDROLOGIC CALCULATIONS

Area	Inlet	Area (ft ²)	Imp. Area (ft ²)	Area (acre)	CF	I	i _{corrected}	C	Q
GDI-00	GDI-00	1002170.95	700000.00	23.01	2.33	2.80	6.52	0.75	113.17
GDI-01	GDI-01	15246.00	15246.00	0.35	2.33	2.80	6.52	0.95	2.17
GDI-02	GDI-02	14810.40	14810.40	0.34	2.33	2.80	6.52	0.95	2.11
GDI-03	GDI-03	13939.20	13939.20	0.32	2.33	2.80	6.52	0.95	1.98
GDI-04	GDI-04	13503.60	13503.60	0.31	2.33	2.80	6.52	0.95	1.92
GDI-05	GDI-05	12632.40	12632.40	0.29	2.33	2.80	6.52	0.95	1.80
GDI-06	GDI-06	11761.20	11761.20	0.27	2.33	2.80	6.52	0.95	1.67
GDI-07	GDI-07	10454.40	10454.40	0.24	2.33	2.80	6.52	0.95	1.49
GDI-08	GDI-08	10018.00	10018.00	0.23	2.33	2.80	6.52	0.95	1.43
GDI-09	GDI-09	9147.60	9147.60	0.21	2.33	2.80	6.52	0.95	1.30
GDI-10	GDI-10	27232.27	27232.27	0.63	2.33	2.80	6.52	0.95	3.87
GDI-11	GDI-11	17400.27	17400.27	0.40	2.33	2.80	6.52	0.95	2.48
GDI-12	GDI-12	12381.11	12381.11	0.28	2.33	2.80	6.52	0.95	1.76
GDI-13	GDI-13	16832.08	16832.08	0.39	2.33	2.80	6.52	0.95	2.39
GDI-14	GDI-14	36271.51	36271.51	0.83	2.33	2.80	6.52	0.95	5.16
GDI-15	GDI-15	6927.49	6927.49	0.16	2.33	2.80	6.52	0.95	0.99
GDI-17	GDI-17	9641.19	9641.19	0.22	2.33	2.80	6.52	0.95	1.37
GDI-20	GDI-20	14675.65	14675.65	0.34	2.33	2.80	6.52	0.95	2.09
GDI-22	GDI-22	10346.59	10346.59	0.24	2.33	2.80	6.52	0.95	1.47
GDI-24	GDI-24	14192.22	14192.22	0.33	2.33	2.80	6.52	0.95	2.02
GDI-25	GDI-25	20104.75	5327.19	0.46	2.33	2.80	6.52	0.47	1.42
GDI-26	GDI-26	5119.56	1799.89	0.12	2.33	2.80	6.52	0.53	0.41
GDI-27	GDI-27	43467.84	0.00	1.00	2.33	2.80	6.52	0.30	1.95
GDI-28	GDI-28	167353.34	0.00	3.84	2.33	2.80	6.52	0.30	7.52
GDI-30	GDI-30	12245.24	12245.24	0.28	2.33	2.80	6.52	0.95	1.74
GDI-31	GDI-31	9060.45	9060.45	0.21	2.33	2.80	6.52	0.95	1.29
GDI-32	GDI-32	69736.19	69736.19	1.60	2.33	2.80	6.52	0.95	9.92
GDI-33	GDI-33	1287.82	1287.82	0.03	2.33	2.80	6.52	0.95	0.18
GDI-34	GDI-34	6272.58	6272.58	0.14	2.33	2.80	6.52	0.95	0.89
GDI-35	GDI-35	3053.79	3053.79	0.07	2.33	2.80	6.52	0.95	0.43
GDI-36	GDI-36	17004.30	17004.30	0.39	2.33	2.80	6.52	0.95	2.42
GDI-37	GDI-37	10197.79	10197.79	0.23	2.33	2.80	6.52	0.95	1.45
GDI-38	GDI-38	4600.63	4600.63	0.11	2.33	2.80	6.52	0.95	0.65
GDI-39	GDI-39	12797.17	12797.17	0.29	2.33	2.80	6.52	0.95	1.82
GDI-40	GDI-40	9674.88	9674.88	0.22	2.33	2.80	6.52	0.95	1.38
GDI-41	GDI-41	6938.53	3964.83	0.16	2.33	2.80	6.52	0.67	0.70
GDI-42	GDI-42	14182.75	7136.27	0.33	2.33	2.80	6.52	0.63	1.33
GDI-43	GDI-43	14940.45	6560.42	0.34	2.33	2.80	6.52	0.59	1.31
GDI-44	GDI-44	23013.91	7464.03	0.53	2.33	2.80	6.52	0.51	1.76
GDI-45	GDI-45	58718.08	11403.88	1.35	2.33	2.80	6.52	0.43	3.75
GDI-46	GDI-46	82638.21	16787.09	1.90	2.33	2.80	6.52	0.43	5.35
CB-47	CB-47	18844.61	18844.61	0.43	2.33	2.80	6.52	0.95	2.68
GDI-48	GDI-48	16473.53	16473.53	0.38	2.33	2.80	6.52	0.95	2.34
GDI-49	GDI-49	11682.01	11682.01	0.27	2.33	2.80	6.52	0.95	1.66
CB-50	CB-50	9361.23	9361.23	0.21	2.33	2.80	6.52	0.95	1.33
GDI-51	GDI-51	30380.61	18661.84	0.70	2.33	2.80	6.52	0.70	3.18

Drainline "GDI-37"	Inlet Area #s	Q (cfs)	Q _{cum} (cfs)
OUTFALL 1			14.25
GDI-44		1.76	14.25
GDI-43	GDI-24, GDI-33	1.31	12.49
GDI-42	GDI-25, GDI-34	1.33	8.98
GDI-41	GDI-35	0.70	5.33
GDI-40		1.38	4.20
GDI-36		2.42	2.82
GDI-26		0.41	0.41

DRAINLINE "GDI-24"	Inlet Area #s	Q (cfs)	Q _{cum} (cfs)
GDI-43			2.20
GDI-33		0.18	2.20
GDI-24		2.02	2.02

DRAINLINE "GDI-25"	Inlet Area #s	Q (cfs)	Q _{cum} (cfs)
GDI-42			2.31
GDI-34		0.89	2.31
GDI-25		1.42	1.42

DRAINLINE "GDI-35"	Inlet Area #s	Q (cfs)	Q _{cum} (cfs)
GDI-41			0.43
GDI-35		0.43	0.43

Drainline "GDI-00"	Inlet Area #s	Q (cfs)	Q _{cum} (cfs)
OUTFALL 2			153.14
GDI-45	GDI-46	3.75	153.14
GDI-51	CB-50	3.18	144.04
GDI-31	GDI-39	1.29	139.53
GDI-30		1.74	136.42
GDI-38	GDI-37	0.65	134.67
GDI-32		9.92	132.57
SDMH-23	GDI-28	0.00	122.65
SDMH-54	GDI-27	0.00	115.13
SMDH-53		0.00	113.17
SMDH-52		0.00	113.17
GDI-00		113.17	113.17

DRAINLINE "GDI-27"	Inlet Area #s	Q (cfs)	Q _{cum} (cfs)
SDMH-53			1.95
GDI-27		1.95	1.95

DRAINLINE "GDI-28"	Inlet Area #s	Q (cfs)	Q _{cum} (cfs)
SDMH-54			7.52
GDI-28		7.52	7.52

DRAINLINE "GDI-37"	Inlet Area #'s	Q (cfs)	Q _{cum} (cfs)
GDI-38			1.45
GDI-37		1.45	1.45

DRAINLINE "GDI-39"	Inlet Area #'s	Q (cfs)	Q _{cum} (cfs)
GDI-31			1.82
GDI-39		1.82	1.82

DRAINLINE "CB-50"	Inlet Area #'s	Q (cfs)	Q _{cum} (cfs)
GDI-51			1.33
CB-50		1.33	1.33

DRAINLINE "GDI-45"	Inlet Area #'s	Q (cfs)	Q _{cum} (cfs)
GDI-45			5.35
GDI-46		5.35	5.35

Drainline "GDI-12"	Inlet Area #'s	Q (cfs)	Q _{cum} (cfs)
OUTFALL 3			4.24
GDI-11		2.48	4.24
GDI-12		1.76	1.76

Drainline "GDI-20"	Inlet Area #'s	Q (cfs)	Q _{cum} (cfs)
DMH-21			2.09
GDI-20		2.09	2.09

DRAINLINE "GDI-17"	Inlet Area #'s	Q (cfs)	Q _{cum} (cfs)
DMH-18			1.37
GDI-17		1.37	1.37

DRAINLINE "GDI-15"	Inlet Area #'s	Q (cfs)	Q _{cum} (cfs)
DMH-16			0.99
GDI-15		0.99	0.99

OUTFALL 5			5.16
GDI-14		5.16	5.16

DRAINLINE "GDI-13"	Inlet Area #'s	Q (cfs)	Q _{cum} (cfs)
OUTFALL 4			2.39
GDI-13		2.39	2.39

DRAINLINE "GDI-10"	Inlet Area #'s	Q (cfs)	Q _{cum} (cfs)
EX-9			3.87
GDI-10		3.87	3.87

DRAINLINE "GDI-9"	Inlet Area #'s	Q (cfs)	Q _{cum} (cfs)
EX-8			1.30
GDI-9		1.30	1.30

DRAINLINE "GDI-8"	Inlet Area #'s	Q (cfs)	Q _{cum} (cfs)
EX-7			1.43
GDI-8		1.43	1.43

DRAINLINE "GDI-7"	Inlet Area #'s	Q (cfs)	Q _{cum} (cfs)
EX-6			1.49
GDI-7		1.49	1.49

DRAINLINE "GDI-6"	Inlet Area #'s	Q (cfs)	Q _{cum} (cfs)
EX-5			1.67
GDI-6		1.67	1.67

DRAINLINE "GDI-5"	Inlet Area #'s	Q (cfs)	Q _{cum} (cfs)
EX-4			1.80
GDI-5		1.80	1.80

DRAINLINE "GDI-4"	Inlet Area #'s	Q (cfs)	Q _{cum} (cfs)
EX-3			1.92
GDI-4		1.92	1.92

DRAINLINE "GDI-3"	Inlet Area #'s	Q (cfs)	Q _{cum} (cfs)
EX-2			1.98
GDI-3		1.98	1.98

DRAINLINE "GDI-2"	Inlet Area #'s	Q (cfs)	Q _{cum} (cfs)
EX-1			2.11
GDI-2		2.11	2.11

Drainline "CB-47"	Inlet Area #'s	Q (cfs)	Q _{cum} (cfs)
GDI-48		2.34	5.03
CB-47		2.68	2.68

DRAINLINE "GDI-49"	Inlet Area #'s	Q (cfs)	Q _{cum} (cfs)
OUTFALL 6			3.13
SDMH-23		3.13	3.13
GDI-22		1.47	1.47
GDI-49		1.66	1.66