

APPENDIX A. SUBCATCHMENT IMPERVIOUSNESS & SOILS PARAMETERS

Table A-1. Percent Imperviousness by Land Use		
Source: HRPDC "Regional Stormwater Loading Study," September 1999, by CH2M-Hill		
LUCODE	Land Use	Percent Imperviousness
RR	Single-Family Residential - Rural	5
SRR	Single-Family Residential - Semi-Rural	10
SRL	Single-Family Residential - Suburban Low	15
SRM	Single-Family Residential - Suburban Medium	25
RM	Single-Family Residential - Urban	40
RMF	Multi-Family Residential	50
CMU	Office/Light Industrial	60
COM	Commercial	85
MIL	Military	30
PUB	Schools, Government Buildings	25
IND	Industrial	85
RD	Roads	90
ROW	Right-of-Ways	1
VAC	Vacant	1
GRS	Open Space - Grass	1
FOR	Forest	1
AGC	Agricultural - Cropland	1
AGP	Agricultural - Pasture	1
WET	Wetlands	100
WAT	Water Features	100

**Table A-2. Imperviousness Computations by Land Use
St. Julian Creek Watershed**

12/2/2004

Note: These computations were performed in GIS using the City's land use data.

The actual imperviousness used in the SWMM modeling may be adjusted to reflect conditions that are not otherwise reflected in the GIS land use coverage.

From GIS		Percent Imperviousness	
ID	Acres	2003 Land Use	Future Land Use
10000	49.83	60.45	60.45
10010	45.31	42.18	42.18
10020	48.03	34.30	34.30
10040	62.60	29.86	29.86
10050	45.49	42.65	42.65
10060	30.46	29.42	29.42
10070	39.29	23.63	53.71
10080	28.05	34.29	60.17
10090	9.80	60.23	75.89
10100	39.72	49.98	51.73
10110	93.08	70.15	70.15
10120	82.66	30.91	30.91
10130	74.53	29.11	29.11
10140	32.50	29.50	29.50
10150	35.57	30.52	30.52
10160	44.11	31.10	31.10
10170	46.84	43.14	43.14
10180	31.57	33.76	33.76
10190	22.97	30.21	30.21
10200	27.14	49.09	49.09
10205	17.31	9.39	9.39
10210	25.18	27.59	37.98
10220	21.73	34.49	34.70
10225	38.84	23.10	28.52
10230	16.39	18.29	20.63
10240	35.32	30.32	30.35
10250	27.66	47.39	47.39
10260	47.39	39.62	39.62
10265	5.81	28.52	28.52
10270	16.89	26.80	26.80
10280	14.63	28.35	28.35
10290	8.17	37.04	37.04
10293	7.05	42.65	42.65
10295	7.38	28.22	28.22

**Table A-2. Imperviousness Computations by Land Use
St. Julian Creek Watershed**

12/2/2004

Note: These computations were performed in GIS using the City's land use data.

The actual imperviousness used in the SWMM modeling may be adjusted to reflect conditions that are not otherwise reflected in the GIS land use coverage.

From GIS		Percent Imperviousness	
ID	Acres	2003 Land Use	Future Land Use
10300	10.66	26.84	26.84
10310	9.45	28.26	28.26
10320	21.99	42.46	42.46
10330	18.17	25.43	25.43
10340	33.23	35.96	35.96
10350	21.03	15.94	15.94
10360	17.69	25.18	25.18
10370	28.04	37.42	37.42
10380	13.88	36.05	36.05
10390	23.50	27.38	27.38
10400	19.34	16.99	16.99
10410	14.22	22.46	22.46
10420	27.84	27.63	27.63
10430	30.01	39.44	39.44
10440	23.20	46.23	46.23
10450	11.84	27.38	27.38
10455	9.90	20.74	20.74
10460	12.13	31.29	31.29
10465	14.77	31.31	31.31
10470	16.88	52.80	52.80
10475	16.93	23.29	23.32
10480	18.63	23.45	34.79
10490	11.73	23.14	23.14
10500	19.44	27.90	27.90
10510	11.06	33.45	33.45
10520	20.23	25.66	25.66
10530	16.64	47.17	54.39
10540	24.22	33.39	33.64
10550	39.20	66.38	66.38
10555	36.13	38.77	48.44
10560	35.16	19.72	27.05
10570	15.41	6.11	6.11
10580	26.77	57.55	57.55
10590	55.04	25.93	32.80
10600	4.72	21.00	21.00
10605	8.60	37.28	37.28

**Table A-2. Imperviousness Computations by Land Use
St. Julian Creek Watershed**

12/2/2004

Note: These computations were performed in GIS using the City's land use data.

The actual imperviousness used in the SWMM modeling may be adjusted to reflect conditions that are not otherwise reflected in the GIS land use coverage.

From GIS		Percent Imperviousness	
ID	Acres	2003 Land Use	Future Land Use
10610	14.05	51.61	59.84
10620	14.65	49.79	49.79
10630	13.02	53.05	53.05
10640	13.35	35.40	35.40
10650	16.19	46.60	50.75
10660	24.36	52.20	57.39
10670	40.94	54.15	54.15
10680	12.32	61.71	66.81
10690	9.88	67.00	67.00
10700	13.96	58.25	58.25
10710	6.04	61.97	61.97
10720	53.00	17.34	30.85
10730	21.67	42.80	42.80
10740	16.17	49.41	49.41
10750	17.83	43.52	43.52
10760	9.85	45.24	45.24
10765	16.47	36.59	36.59
10770	23.15	40.49	40.74
10780	13.99	32.85	36.98
10785	28.31	23.82	29.88
10790	61.58	27.14	36.24
10800	10.96	34.92	34.92
10810	21.92	27.41	32.24
10830	48.40	2.24	58.39
10840	13.71	36.72	49.28
10845	16.17	40.94	40.94
10850	14.70	39.13	42.91
10860	34.70	4.73	58.89
10870	6.62	36.63	61.73
10880	7.07	38.16	53.30
10890	6.63	70.85	70.85
10900	14.76	62.97	69.68
10910	27.77	38.99	38.99
10920	18.09	36.80	36.80
10930	19.34	31.42	62.04
10950	13.09	53.01	62.72

**Table A-2. Imperviousness Computations by Land Use
St. Julian Creek Watershed**

12/2/2004

Note: These computations were performed in GIS using the City's land use data.

The actual imperviousness used in the SWMM modeling may be adjusted to reflect conditions that are not otherwise reflected in the GIS land use coverage.

From GIS		Percent Imperviousness	
ID	Acres	2003 Land Use	Future Land Use
10960	20.02	56.99	56.99
10970	10.96	37.61	37.61
10980	24.14	45.23	45.23
10990	18.07	65.40	65.40
11000	10.02	76.28	76.28
11010	28.49	59.97	59.97
11020	12.67	47.38	47.38
11030	36.11	40.81	40.81
11040	24.82	39.84	39.84
11050	15.27	39.16	39.16
11060	12.22	39.88	39.88

Table A-3. Subcatchment Soil Texture					
St. Julian Creek Watershed					
12/02/2004					
ID	ACRES	Soil Type	SUCT	HYDCON	SMDMAX
10000	49.83	Sandy Loam	4.33	0.86	0.246
10010	45.31	Loamy Sand	2.41	2.35	0.312
10020	48.03	Sandy Loam	4.33	0.86	0.246
10040	62.61	Sandy Loam	4.33	0.86	0.246
10050	45.49	Sandy Loam	4.33	0.86	0.246
10060	30.46	Sandy Loam	4.33	0.86	0.246
10070	39.29	Sandy Loam	4.33	0.86	0.246
10080	28.05	Sandy Loam	4.33	0.86	0.246
10090	9.80	Water-Clay	12.45	0.02	0.079
10100	39.72	Sandy Loam	4.33	0.86	0.246
10110	93.08	Sandy Loam	4.33	0.86	0.246
10120	82.67	Sandy Loam	4.33	0.86	0.246
10130	74.53	Sandy Loam	4.33	0.86	0.246
10140	32.50	Sandy Loam	4.33	0.86	0.246
10150	35.57	Sandy Loam	4.33	0.86	0.246
10160	44.11	Sandy Loam	4.33	0.86	0.246
10170	46.84	Sandy Loam	4.33	0.86	0.246
10180	31.57	Sandy Loam	4.33	0.86	0.246
10190	22.97	Sandy Loam	4.33	0.86	0.246
10200	27.14	Sandy Loam	4.33	0.86	0.246
10205	17.31	Sandy Loam	4.33	0.86	0.246
10210	25.18	Sandy Loam	4.33	0.86	0.246
10220	21.74	Sandy Loam	4.33	0.86	0.246
10225	38.84	Sandy Loam	4.33	0.86	0.246
10230	16.39	Sandy Loam	4.33	0.86	0.246
10240	35.32	Loamy Sand	2.41	2.35	0.312
10250	27.66	Loamy Sand	2.41	2.35	0.312
10260	47.39	Loamy Sand	2.41	2.35	0.312
10265	5.81	Loamy Sand	2.41	2.35	0.312
10270	16.89	Loamy Sand	2.41	2.35	0.312
10280	14.63	Loamy Sand	2.41	2.35	0.312
10290	8.18	Loamy Sand	2.41	2.35	0.312
10293	7.05	Loamy Sand	2.41	2.35	0.312
10295	7.38	Loamy Sand	2.41	2.35	0.312
10300	10.66	Loamy Sand	2.41	2.35	0.312
10310	9.45	Loamy Sand	2.41	2.35	0.312
10320	21.99	Loamy Sand	2.41	2.35	0.312
10330	18.17	Loamy Sand	2.41	2.35	0.312
10340	33.23	Loamy Sand	2.41	2.35	0.312
10350	21.03	Loamy Sand	2.41	2.35	0.312

Table A-3. Subcatchment Soil Texture					
St. Julian Creek Watershed					
12/02/2004					
ID	ACRES	Soil Type	SUCT	HYDCON	SMDMAX
10360	17.69	Sandy Loam	4.33	0.86	0.246
10370	28.04	Sandy Loam	4.33	0.86	0.246
10380	13.88	Sandy Loam	4.33	0.86	0.246
10390	23.50	Sandy Loam	4.33	0.86	0.246
10400	19.34	Sandy Loam	4.33	0.86	0.246
10410	14.22	Sandy Loam	4.33	0.86	0.246
10420	27.84	Sandy Loam	4.33	0.86	0.246
10430	30.01	Sandy Loam	4.33	0.86	0.246
10440	23.20	Sandy Loam	4.33	0.86	0.246
10450	11.84	Sandy Loam	4.33	0.86	0.246
10455	9.90	Sandy Loam	4.33	0.86	0.246
10460	12.13	Sandy Loam	4.33	0.86	0.246
10465	14.77	Sandy Loam	4.33	0.86	0.246
10470	16.88	Sandy Loam	4.33	0.86	0.246
10475	16.93	Sandy Loam	4.33	0.86	0.246
10480	18.63	Sandy Loam	4.33	0.86	0.246
10490	11.73	Sandy Loam	4.33	0.86	0.246
10500	19.44	Sandy Loam	4.33	0.86	0.246
10510	11.06	Sandy Loam	4.33	0.86	0.246
10520	20.23	Loamy Sand	2.41	2.35	0.312
10530	16.64	Sandy Loam	4.33	0.86	0.246
10540	24.22	Loamy Sand	2.41	2.35	0.312
10550	39.20	Loamy Sand	2.41	2.35	0.312
10555	36.13	Loamy Sand	2.41	2.35	0.312
10560	35.16	Loamy Sand	2.41	2.35	0.312
10570	15.41	Loamy Sand	2.41	2.35	0.312
10580	26.78	Loamy Sand	2.41	2.35	0.312
10590	55.04	Loamy Sand	2.41	2.35	0.312
10600	4.72	Loamy Sand	2.41	2.35	0.312
10605	8.60	Loamy Sand	2.41	2.35	0.312
10610	14.05	Loamy Sand	2.41	2.35	0.312
10620	14.65	Sandy Loam	4.33	0.86	0.246
10630	13.02	Sandy Loam	4.33	0.86	0.246
10640	13.35	Sandy Loam	4.33	0.86	0.246
10650	16.19	Sandy Loam	4.33	0.86	0.246
10660	24.36	Sandy Loam	4.33	0.86	0.246
10670	40.94	Sandy Loam	4.33	0.86	0.246
10680	12.32	Sandy Loam	4.33	0.86	0.246
10690	9.88	Sandy Loam	4.33	0.86	0.246
10700	13.96	Sandy Loam	4.33	0.86	0.246
10710	6.04	Sandy Loam	4.33	0.86	0.246
10720	53.00	Loamy Sand	2.41	2.35	0.312

Table A-3. Subcatchment Soil Texture					
St. Julian Creek Watershed					
12/02/2004					
ID	ACRES	Soil Type	SUCT	HYDCON	SMDMAX
10730	21.67	Loamy Sand	2.41	2.35	0.312
10740	16.17	Sandy Loam	4.33	0.86	0.246
10750	17.83	Sandy Loam	4.33	0.86	0.246
10760	9.85	Sandy Loam	4.33	0.86	0.246
10765	16.47	Sandy Loam	4.33	0.86	0.246
10770	23.15	Loamy Sand	2.41	2.35	0.312
10780	13.99	Loamy Sand	2.41	2.35	0.312
10785	28.31	Loamy Sand	2.41	2.35	0.312
10790	61.58	Sandy Loam	4.33	0.86	0.246
10800	10.96	Sandy Loam	4.33	0.86	0.246
10810	21.92	Sandy Loam	4.33	0.86	0.246
10830	48.40	Sandy Loam	4.33	0.86	0.246
10840	13.71	Sandy Loam	4.33	0.86	0.246
10845	16.17	Sandy Loam	4.33	0.86	0.246
10850	14.70	Sandy Loam	4.33	0.86	0.246
10860	34.70	Sandy Loam	4.33	0.86	0.246
10870	6.62	Sandy Loam	4.33	0.86	0.246
10880	7.07	Sandy Loam	4.33	0.86	0.246
10890	6.63	Sandy Loam	4.33	0.86	0.246
10900	14.76	Sandy Loam	4.33	0.86	0.246
10910	27.77	Sandy Loam	4.33	0.86	0.246
10920	18.09	Sandy Loam	4.33	0.86	0.246
10930	19.34	Sandy Loam	4.33	0.86	0.246
10950	13.09	Sandy Loam	4.33	0.86	0.246
10960	20.02	Sandy Loam	4.33	0.86	0.246
10970	10.97	Sandy Loam	4.33	0.86	0.246
10980	24.14	Sandy Loam	4.33	0.86	0.246
10990	18.08	Sandy Loam	4.33	0.86	0.246
11000	10.02	Sandy Loam	4.33	0.86	0.246
11010	28.50	Sandy Loam	4.33	0.86	0.246
11020	12.67	Sandy Loam	4.33	0.86	0.246
11030	36.11	Sandy Loam	4.33	0.86	0.246
11040	24.82	Sandy Loam	4.33	0.86	0.246
11050	15.27	Sandy Loam	4.33	0.86	0.246
11060	12.22	Sandy Loam	4.33	0.86	0.246
Portsmouth Subcatchments					
21529	1.73	Sandy Loam	4.33	0.86	0.246
21528	1.75	Sandy Loam	4.33	0.86	0.246
22511	40.51	Sandy Loam	4.33	0.86	0.246
22512	56.84	Sandy Loam	4.33	0.86	0.246
22522	84.37	Sandy Loam	4.33	0.86	0.246
22523	141.05	Sandy Loam	4.33	0.86	0.246

Table A-3. Subcatchment Soil Texture					
St. Julian Creek Watershed					
12/02/2004					
ID	ACRES	Soil Type	SUCT	HYDCON	SMDMAX
21520	106.54	Sandy Loam	4.33	0.86	0.246
20150	50.49	Sandy Loam	4.33	0.86	0.246
20530	59.89	Sandy Loam	4.33	0.86	0.246
22524	33.79	Sandy Loam	4.33	0.86	0.246
22516	22.30	Sandy Loam	4.33	0.86	0.246
128 Subcatchments					