

Appendix A
Pre-Development Conditions
Hydrologic Parameters

Pre-Development Conditions Hydrologic Parameters

The following tables provide the hydrologic parameters for pre-development conditions.

Subbasin 1	Data	CN	Description
Total Area (ac)	7.300	35	Brush-Weed-Grass mixture with Brush the Major Element, Fair condition, Hydrologic Soil Group A
% Impervious	5%		
Equivalent Width (ft)	784.00		
Infiltration Rate (in/hr)	0.300		A Soil Group - Soils having low runoff potential and high infiltration rates even when thoroughly wetted. They consists chiefly of deep, well to excessively drained sand or gravel and have a high rate of water transmission. (SCS Urban Hydrology for Small Watersheds, 2nd Edition, TR-55, June 1986, p A-1.)
Impervious Mannings	0.050		Fallow soil – Source: McCuen, R. et al., (1996), Hydrology, FHWA-SA-96-067, Federal Highway Administration, Washington DC
Pervious Mannings	0.100		Medium to dense brush, in summer, McCuen, 2005, pg 137
Impervious Depression Depth (in)	0.080		Impervious Surfaces, Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.
Pervious Depression Depth (in)	0.300		Forest litter, Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.
Watershed Average Slope (%)	20.730		Computed from WMS (Watershed Modeling System)

Subbasin 2	Data	CN	Description
Total Area (ac)	14.260	35	Brush-Weed-Grass mixture with Brush the Major Element, Fair condition, Hydrologic Soil Group A
% Impervious	5%		
Equivalent Width (ft)	621.00		
Infiltration Rate (in/hr)	0.300		A Soil Group - Soils having low runoff potential and high infiltration rates even when thoroughly wetted. They consists chiefly of deep, well to excessively drained sand or gravel and have a high rate of water transmission. (SCS Urban Hydrology for Small Watersheds, 2nd Edition, TR-55, June 1986, p A-1.)
Impervious Mannings	0.050		Fallow soil – <i>Source: McCuen, R. et al., (1996), Hydrology, FHWA-SA-96-067, Federal Highway Administration, Washington DC</i>
Pervious Mannings	0.100		Medium to dense brush, in summer, McCuen, 2005, pg 137
Impervious Depression Depth (in)	0.080		Impervious Surfaces, <i>Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.</i>
Pervious Depression Depth (in)	0.300		Forest litter, <i>Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.</i>
Watershed Average Slope (%)	18.320		Computed from WMS (Watershed Modeling System)

Subbasin 3	Data	CN	Description
Total Area (ac)	1.350	35	Brush-Weed-Grass mixture with Brush the Major Element, Fair condition, Hydrologic Soil Group A
% Impervious	5%		
Equivalent Width (ft)	134.00		
Infiltration Rate (in/hr)	0.300		A Soil Group - Soils having low runoff potential and high infiltration rates even when thoroughly wetted. They consists chiefly of deep, well to excessively drained sand or gravel and have a high rate of water transmission. (SCS Urban Hydrology for Small Watersheds, 2nd Edition, TR-55, June 1986, p A-1.)
Impervious Mannings	0.050		Fallow soil – <i>Source: McCuen, R. et al., (1996), Hydrology, FHWA-SA-96-067, Federal Highway Administration, Washington DC</i>
Pervious Mannings	0.100		Medium to dense brush, in summer, McCuen, 2005, pg 137
Impervious Depression Depth (in)	0.080		Impervious Surfaces, <i>Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.</i>
Pervious Depression Depth (in)	0.300		Forest litter, <i>Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.</i>
Watershed Average Slope (%)	14.100		Computed from WMS (Watershed Modeling System)

Subbasin 4	Data	CN	Description
Total Area (ac)	0.890	51	Residential, 1-acre lots, Hydrologic Soil Group A
% Impervious	20%		
Equivalent Width (ft)	95.00		
Infiltration Rate (in/hr)	0.300		A Soil Group - Soils having low runoff potential and high infiltration rates even when thoroughly wetted. They consists chiefly of deep, well to excessively drained sand or gravel and have a high rate of water transmission. (SCS Urban Hydrology for Small Watersheds, 2nd Edition, TR-55, June 1986, p A-1.)
Impervious Mannings	0.050		Fallow soil – <i>Source: McCuen, R. et al., (1996), Hydrology, FHWA-SA-96-067, Federal Highway Administration, Washington DC</i>
Pervious Mannings	0.100		Medium to dense brush, in summer, McCuen, 2005, pg 137
Impervious Depression Depth (in)	0.080		Impervious Surfaces, <i>Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.</i>
Pervious Depression Depth (in)	0.300		Forest litter, <i>Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.</i>
Watershed Average Slope (%)	21.670		Computed from WMS (Watershed Modeling System)

Subbasin 5	Data	CN	Description
Total Area (ac)	9.850	51	Residential, 1-acre lots, Hydrologic Soil Group A
% Impervious	20%		
Equivalent Width (ft)	586.00		
Infiltration Rate (in/hr)	0.300		A Soil Group - Soils having low runoff potential and high infiltration rates even when thoroughly wetted. They consists chiefly of deep, well to excessively drained sand or gravel and have a high rate of water transmission. (SCS Urban Hydrology for Small Watersheds, 2nd Edition, TR-55, June 1986, p A-1.)
Impervious Mannings	0.050		Fallow soil – <i>Source: McCuen, R. et al., (1996), Hydrology, FHWA-SA-96-067, Federal Highway Administration, Washington DC</i>
Pervious Mannings	0.100		Medium to dense brush, in summer, McCuen, 2005, pg 137
Impervious Depression Depth (in)	0.080		Impervious Surfaces, Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.
Pervious Depression Depth (in)	0.300		Forest litter, Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.
Watershed Average Slope (%)	15.740		Computed from WMS (Watershed Modeling System)

Subbasin 6	Data	CN	Description
Total Area (ac)	9.310	51	Residential, 1-acre lots, Hydrologic Soil Group A
% Impervious	20%		
Equivalent Width (ft)	415.00		
Infiltration Rate (in/hr)	0.300		A Soil Group - Soils having low runoff potential and high infiltration rates even when thoroughly wetted. They consists chiefly of deep, well to excessively drained sand or gravel and have a high rate of water transmission. (SCS Urban Hydrology for Small Watersheds, 2nd Edition, TR-55, June 1986, p A-1.)
Impervious Mannings	0.050		Fallow soil – <i>Source: McCuen, R. et al., (1996), Hydrology, FHWA-SA-96-067, Federal Highway Administration, Washington DC</i>
Pervious Mannings	0.100		Medium to dense brush, in summer, McCuen, 2005, pg 137
Impervious Depression Depth (in)	0.080		Impervious Surfaces, <i>Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.</i>
Pervious Depression Depth (in)	0.300		Forest litter, <i>Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.</i>
Watershed Average Slope (%)	12.610		Computed from WMS (Watershed Modeling System)

Subbasin 7	Data	CN	Description
Total Area (ac)	12.560	51	Residential, 1-acre lots, Hydrologic Soil Group A
% Impervious	10.41%		
Equivalent Width (ft)	268.00		
Infiltration Rate (in/hr)	0.150		A Soil Group - Soils having low runoff potential and high infiltration rates even when thoroughly wetted. They consists chiefly of deep, well to excessively drained sand or gravel and have a high rate of water transmission. (SCS Urban Hydrology for Small Watersheds, 2nd Edition, TR-55, June 1986, p A-1.)
Impervious Mannings	0.050		Fallow soil – Source: McCuen, R. et al., (1996), <i>Hydrology, FHWA-SA-96-067, Federal Highway Administration, Washington DC</i>
Pervious Mannings	0.100		Medium to dense brush, in summer, McCuen, 2005, pg 137
Impervious Depression Depth (in)	0.080		Impervious Surfaces, Source: ASCE, (1992), <i>Design & Construction of Urban Stormwater Management Systems, New York, NY.</i>
Pervious Depression Depth (in)	0.300		Forest litter, Source: ASCE, (1992), <i>Design & Construction of Urban Stormwater Management Systems, New York, NY.</i>
Watershed Average Slope (%)	15.480		Computed from WMS (Watershed Modeling System)

Subbasin 8	Data	CN	Description
Total Area (ac)	1.440	35	Brush-Weed-Grass mixture with Brush the Major Element, Fair condition, Hydrologic Soil Group A
% Impervious	5%		
Equivalent Width (ft)	155.00		
Infiltration Rate (in/hr)	0.300		A Soil Group - Soils having low runoff potential and high infiltration rates even when thoroughly wetted. They consists chiefly of deep, well to excessively drained sand or gravel and have a high rate of water transmission. (SCS Urban Hydrology for Small Watersheds, 2nd Edition, TR-55, June 1986, p A-1.)
Impervious Mannings	0.050		Fallow soil – <i>Source: McCuen, R. et al., (1996), Hydrology, FHWA-SA-96-067, Federal Highway Administration, Washington DC</i>
Pervious Mannings	0.100		Medium to dense brush, in summer, McCuen, 2005, pg 137
Impervious Depression Depth (in)	0.080		Impervious Surfaces, <i>Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.</i>
Pervious Depression Depth (in)	0.300		Forest litter, <i>Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.</i>
Watershed Average Slope (%)	13.750		Computed from WMS (Watershed Modeling System)

Subbasin 9	Data	CN	Description
Total Area (ac)	4.970	35	Brush-Weed-Grass mixture with Brush the Major Element, Fair condition, Hydrologic Soil Group A
% Impervious	5%		
Equivalent Width (ft)	302.00		
Infiltration Rate (in/hr)	0.300		A Soil Group - Soils having low runoff potential and high infiltration rates even when thoroughly wetted. They consists chiefly of deep, well to excessively drained sand or gravel and have a high rate of water transmission. (SCS Urban Hydrology for Small Watersheds, 2nd Edition, TR-55, June 1986, p A-1.)
Impervious Mannings	0.050		Fallow soil – Source: McCuen, R. et al., (1996), <i>Hydrology, FHWA-SA-96-067, Federal Highway Administration, Washington DC</i>
Pervious Mannings	0.100		Medium to dense brush, in summer, McCuen, 2005, pg 137
Impervious Depression Depth (in)	0.080		Impervious Surfaces, Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.
Pervious Depression Depth (in)	0.300		Forest litter, Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.
Watershed Average Slope (%)	13.060		Computed from WMS (Watershed Modeling System)

Subbasin 10	Data	CN	Description
Total Area (ac)	34.220	35	Brush-Weed-Grass mixture with Brush the Major Element, Fair condition, Hydrologic Soil Group A
% Impervious	5%		
Equivalent Width (ft)	975.00		
Infiltration Rate (in/hr)	0.300		A Soil Group - Soils having low runoff potential and high infiltration rates even when thoroughly wetted. They consists chiefly of deep, well to excessively drained sand or gravel and have a high rate of water transmission. (SCS Urban Hydrology for Small Watersheds, 2nd Edition, TR-55, June 1986, p A-1.)
Impervious Mannings	0.050		Fallow soil – <i>Source: McCuen, R. et al., (1996), Hydrology, FHWA-SA-96-067, Federal Highway Administration, Washington DC</i>
Pervious Mannings	0.100		Medium to dense brush, in summer, McCuen, 2005, pg 137
Impervious Depression Depth (in)	0.080		Impervious Surfaces, Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.
Pervious Depression Depth (in)	0.300		Forest litter, Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.
Watershed Average Slope (%)	19.120		Computed from WMS (Watershed Modeling System)

Subbasin 11	Data	CN	Description
Total Area (ac)	32.520	35	Brush-Weed-Grass mixture with Brush the Major Element, Fair condition, Hydrologic Soil Group A
% Impervious	5%		
Equivalent Width (ft)	448.00		
Infiltration Rate (in/hr)	0.300		A Soil Group - Soils having low runoff potential and high infiltration rates even when thoroughly wetted. They consists chiefly of deep, well to excessively drained sand or gravel and have a high rate of water transmission. (SCS Urban Hydrology for Small Watersheds, 2nd Edition, TR-55, June 1986, p A-1.)
Impervious Mannings	0.050		Fallow soil – <i>Source: McCuen, R. et al., (1996), Hydrology, FHWA-SA-96-067, Federal Highway Administration, Washington DC</i>
Pervious Mannings	0.100		Medium to dense brush, in summer, McCuen, 2005, pg 137
Impervious Depression Depth (in)	0.080		Impervious Surfaces, <i>Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.</i>
Pervious Depression Depth (in)	0.300		Forest litter, <i>Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.</i>
Watershed Average Slope (%)	17.850		Computed from WMS (Watershed Modeling System)

Subbasin 12	Data	CN	Description
Total Area (ac)	13.060	51	Residential, 1-acre lots, Hydrologic Soil Group A
% Impervious	18.13%		
Equivalent Width (ft)	315.00		
Infiltration Rate (in/hr)	0.300		A Soil Group - Soils having low runoff potential and high infiltration rates even when thoroughly wetted. They consists chiefly of deep, well to excessively drained sand or gravel and have a high rate of water transmission. (SCS Urban Hydrology for Small Watersheds, 2nd Edition, TR-55, June 1986, p A-1.)
Impervious Mannings	0.050		Fallow soil – Source: McCuen, R. et al., (1996), <i>Hydrology, FHWA-SA-96-067, Federal Highway Administration, Washington DC</i>
Pervious Mannings	0.100		Medium to dense brush, in summer, McCuen, 2005, pg 137
Impervious Depression Depth (in)	0.080		Impervious Surfaces, Source: ASCE, (1992), <i>Design & Construction of Urban Stormwater Management Systems, New York, NY.</i>
Pervious Depression Depth (in)	0.300		Forest litter, Source: ASCE, (1992), <i>Design & Construction of Urban Stormwater Management Systems, New York, NY.</i>
Watershed Average Slope (%)	13.480		Computed from WMS (Watershed Modeling System)

Subbasin 13	Data	CN	Description
Total Area (ac)	24.930	51	Residential, 1-acre lots, Hydrologic Soil Group A
% Impervious	18.46%		
Equivalent Width (ft)	340.00		
Infiltration Rate (in/hr)	0.300		A Soil Group - Soils having low runoff potential and high infiltration rates even when thoroughly wetted. They consists chiefly of deep, well to excessively drained sand or gravel and have a high rate of water transmission. (SCS Urban Hydrology for Small Watersheds, 2nd Edition, TR-55, June 1986, p A-1.)
Impervious Mannings	0.050		Fallow soil – Source: McCuen, R. et al., (1996), <i>Hydrology, FHWA-SA-96-067, Federal Highway Administration, Washington DC</i>
Pervious Mannings	0.100		Medium to dense brush, in summer, McCuen, 2005, pg 137
Impervious Depression Depth (in)	0.080		Impervious Surfaces, Source: ASCE, (1992), <i>Design & Construction of Urban Stormwater Management Systems, New York, NY.</i>
Pervious Depression Depth (in)	0.300		Forest litter, Source: ASCE, (1992), <i>Design & Construction of Urban Stormwater Management Systems, New York, NY.</i>
Watershed Average Slope (%)	16.600		Computed from WMS (Watershed Modeling System)

Subbasin 14	Data	CN	Description
Total Area (ac)	83.130	51	Residential, 1-acre lots, Hydrologic Soil Group A
% Impervious	20%		
Equivalent Width (ft)	763.000		
Infiltration Rate (in/hr)	0.300		A Soil Group - Soils having low runoff potential and high infiltration rates even when thoroughly wetted. They consists chiefly of deep, well to excessively drained sand or gravel and have a high rate of water transmission. (SCS Urban Hydrology for Small Watersheds, 2nd Edition, TR-55, June 1986, p A-1.)
Impervious Mannings	0.050		Fallow soil – <i>Source: McCuen, R. et al., (1996), Hydrology, FHWA-SA-96-067, Federal Highway Administration, Washington DC</i>
Pervious Mannings	0.100		Medium to dense brush, in summer, McCuen, 2005, pg 137
Impervious Depression Depth (in)	0.080		Impervious Surfaces, <i>Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.</i>
Pervious Depression Depth (in)	0.300		Forest litter, <i>Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.</i>
Watershed Average Slope (%)	17.570		Computed from WMS (Watershed Modeling System)

Subbasin 15	Data	CN	Description
Total Area (ac)	13.520	35	Brush-Weed-Grass mixture with Brush the Major Element, Fair condition, Hydrologic Soil Group A
% Impervious	5%		
Equivalent Width (ft)	360.00		
Infiltration Rate (in/hr)	0.300		A Soil Group - Soils having low runoff potential and high infiltration rates even when thoroughly wetted. They consists chiefly of deep, well to excessively drained sand or gravel and have a high rate of water transmission. (SCS Urban Hydrology for Small Watersheds, 2nd Edition, TR-55, June 1986, p A-1.)
Impervious Mannings	0.050		Fallow soil – Source: McCuen, R. et al., (1996), <i>Hydrology, FHWA-SA-96-067, Federal Highway Administration, Washington DC</i>
Pervious Mannings	0.100		Medium to dense brush, in summer, McCuen, 2005, pg 137
Impervious Depression Depth (in)	0.080		Impervious Surfaces, Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.
Pervious Depression Depth (in)	0.300		Forest litter, Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.
Watershed Average Slope (%)	17.450		Computed from WMS (Watershed Modeling System)

Subbasin 16	Data	CN	Description
Total Area (ac)	10.900	35	Brush-Weed-Grass mixture with Brush the Major Element, Fair condition, Hydrologic Soil Group A
% Impervious	5%		
Equivalent Width (ft)	314.00		
Infiltration Rate (in/hr)	0.300		A Soil Group - Soils having low runoff potential and high infiltration rates even when thoroughly wetted. They consists chiefly of deep, well to excessively drained sand or gravel and have a high rate of water transmission. (SCS Urban Hydrology for Small Watersheds, 2nd Edition, TR-55, June 1986, p A-1.)
Impervious Mannings	0.050		Fallow soil – <i>Source: McCuen, R. et al., (1996), Hydrology, FHWA-SA-96-067, Federal Highway Administration, Washington DC</i>
Pervious Mannings	0.100		Medium to dense brush, in summer, McCuen, 2005, pg 137
Impervious Depression Depth (in)	0.080		Impervious Surfaces, <i>Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.</i>
Pervious Depression Depth (in)	0.300		Forest litter, <i>Source: ASCE, (1992), Design & Construction of Urban Stormwater Management Systems, New York, NY.</i>
Watershed Average Slope (%)	17.790		Computed from WMS (Watershed Modeling System)