

## **APPENDIX 2.1 -**

### **Sub-catchment Data Summary Tables**

Table A1 – Alcalde Basin Sub-catchment Data

Table B1 – Barelas Basin Subcatchment Data

Table BR1 – Broadway Basin Sub-catchment Data

Table S – Sub-catchment Average Slope Computations

TABLE A1 - ALCALDE BASIN SUBCATCHMENT DATA												
SWMM Subcatchment Property		Alcalde Basin										
Data Element	Data Element Description	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11
Name	User-assigned subcatchment name.	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11
Time Steps	Simulation Options - Time Steps - Reporting	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.
X-Coordinate	Horizontal location of the subcatchment centroid	-	-	-	-	-	-	-	-	-	-	-
Y-Coordinate	Vertical location of the subcatchment centroid	-	-	-	-	-	-	-	-	-	-	-
Description	Optional description of the subcatchment.	-	-	-	-	-	-	-	-	-	-	-
Tag	Optional label used to categorize or classify the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Rain Gage	Name of the rain gage associated with subcatchment	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1
Outlet	Name of the node or subcatchment which receives the subcatchment's runoff	COA24916	COA9083	COA9069	COA24859	COA9045	COA8985	COA25034	COA25105	COA25622	COA25048	COA7518
Area	Area of the subcatchment (ft <sup>2</sup> )	1410271	482697	3854763	540886	3423443	2056902	1666460	961392	1267748	2181462	1582108
Area	Area of the subcatchment (acres)	32.38	11.08	88.49	12.42	78.59	47.22	38.26	22.07	29.10	50.08	36.32
Area	Area of the subcatchment (mi <sup>2</sup> )	0.0506	0.0173	0.1383	0.0194	0.1228	0.0738	0.0598	0.0345	0.0455	0.0782	0.0568
Width	Characteristic width of the overland flow path for sheet flow runoff (ft) (c)	400	400	400	400	400	400	400	400	400		
% Slope	Average percent slope of the subcatchment	0.08000	0.00000	0.20000	0.10714	0.15625	0.12766	0.16667	0.27778	0.21277	0.13514	0.21053
% Imperv	Percent of land area that is impervious	60	55	40	50	55	42	52	57	58	56	67
N- Imperv	Manning's n for overland flow over the impervious portions of subcatchment	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
N- Perv	Manning's n for overland flow over the pervious portions of subcatchment	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Dstore-Imperv	Depth of depression storage on the impervious portion of the subcatchment (in.)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Dstore-Perv	Depth of depression storage on the pervious portion of the subcatchment (in.)	0	0	0	0	0	0	0.18	0.22	0.22	0.14	0
% Zero-Imperv	Percent of the impervious area with no depression storage	0	0	0	0	0	0	0	0	0	0	0
Subarea - Routing	Choice of internal routing of runoff between pervious and impervious areas: (d)	PER	PER	PER	PER	PER	PER	PER	PER	PER	PER	PER
Percent Routed	Percent of runoff routed between subareas	25	10	25	20	25	25	20	20	25	25	10
Infiltration :	Click ellipsis to edit infiltration parameters for the subcatchment.	-	-	-	-	-	-	-	-	-	-	-
CN	SCS Curve Number	56	55	59	55	57	60	71	72	72	70	57
Conductivity	This property has been deprecated and its value is ignored	-	-	-	-	-	-	-	-	-	-	-
Drying Time	Time for a fully saturated soil to completely dry	-	-	-	-	-	-	-	-	-	-	-
LID Controls	Click ellipsis to edit the use of the low impact development controls in the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Groundwater	Click ellipsis to edit groundwater flow parameters for the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Snow pack	Name of snow pack parameter set assigned to the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Land Uses	Click ellipsis to assign land uses to the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Initial Buildup	Click ellipsis to specify initial quantities of pollutant buildup over the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Curb Length	total lengths of curbs. Used only when pollutant buildup is normalized to curb length	-	-	-	-	-	-	-	-	-	-	-
dash indicates a data item not specified for this analysis												
c -characteristic width of the overland flow path for sheet flow runoff (ft). An initial estimate of the characteristic width is give by the subcatchment area divided by the average maximum overland flow length. The maximum overland flow length is the length of the flow path from the furthest drainage point of the subcatchment before the flow becomes channelized. Maximum lengths from several different possible flow paths should be averaged. These paths should reflect slow flow, such as over pervious surfaces, more than rapid flow over pavement, for example. Adjustments should be made to the width parameter to produce good fits to measured runoff hydrographs												
d- IMPERV: runoff from pervious area flows to impervious area. PERV: runoff from impervious area flows to pervious area. OUTLET: runoff from both areas flow directly to outlet												
( r ) includes the subtraction of closed basins A19C, A20C, A21C, A23C												
EXT - Hydrograph computed external to SWMM based on approved master drainage plans												
TOTAL AREA OF ALL SUBCATCHMENTS - square miles		1.3442										
TOTAL AREA MINUS closed basins, outflow basins (square miles)		1.2528										

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TABLE B1 BARELAS BASIN SUBCATCHMENT DATA												
SWMM Subcatchment Property												
Data Element	Data Element Description	B1	B2-O (drains out area)	B3	B4	B5	B6	B7	B8	B9 -O (drains out of area)	B10	B11 (Tingley Pond)
Name	User-assigned subcatchment name.	B1	B2-O	B3	B4	B5	B6	B7	B8	B9-O	B10	B11
Time Steps	Simulation Options - Time Steps - Reporting	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.
X-Coordinate	Horizontal location of the subcatchment centroid	-	-	-	-	-	-	-	-	-	-	-
Y-Coordinate	Vertical location of the subcatchment centroid	-	-	-	-	-	-	-	-	-	-	-
Description	Optional description of the subcatchment.	-	-	-	-	-	-	-	-	-	-	-
Tag	Optional label used to categorize or classify the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Rain Gage	Name of the rain gage associated with subcatchment	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1
Outlet	Name of the node or subcatchment which receives the subcatchment's runoff	COA22127	-	COA9141	COA22174	COA22169	COA9431	COA9426	MHB22410	-	COA22155	TINGLEYPARKSU RGEPOND
Area	Area of the subcatchment (ft <sup>2</sup> )	1746781	142701	221302	260538	2855917	306808	502798	1026639	59758	605011	540693
Area	Area of the subcatchment (acres)	40.10	3.28	5.08	5.98	65.56	7.04	11.54	23.57	1.37	13.89	12.41
Area	Area of the subcatchment (mi <sup>2</sup> )	0.0627	0.0051	0.0079	0.0093	0.1024	0.0110	0.0180	0.0368	0.0021	0.0217	0.0194
Width	Characteristic width of the overland flow path for sheet flow runoff (ft) (c)	400	400	400	400	400	400	400	400	400	400	400
% Slope	Average percent slope of the subcatchment	0.27778	----	0.17544	0.12048	0.15528	0.09174	0.35294	0.14778	----	0.19048	0.90909
% Imperv	Percent of land area that is impervious	67	57	64	47	68	65	56	64	62	64	19
N- Imperv	Manning's n for overland flow over the impervious portions of subcatchment	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
N- Perv	Manning's n for overland flow over the pervious portions of subcatchment	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Dstore-Imperv	Depth of depression storage on the impervious portion of the subcatchment (in.)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Dstore-Perv	Depth of depression storage on the pervious portion of the subcatchment (in.)	0.18	0	0	0.18	0.26	0.1	0.14	0.02	0	0.06	0
% Zero-Imperv	Percent of the impervious area with no depression storage	0	0	0	0	0	0	0	0	0	0	0
Subarea - Routing	Choice of internal routing of runoff between pervious and impervious areas: (d)	PER	PER	PER	PER	PER	PER	PER	PER	PER	PER	PER
Percent Routed	Percent of runoff routed between subareas	25	33	25	25	25	25	20	15	15	25	10
Infiltration :	Click ellipsis to edit infiltration parameters for the subcatchment.	-	-	-	-	-	-	-	-	-	-	-
CN	SCS Curve Number	71	56	65	71	73	69	70	67	56	68	66
Conductivity	This property has been deprecated and its value is ignored	-	-	-	-	-	-	-	-	-	-	-
Drying Time	Time for a fully saturated soil to completely dry	-	-	-	-	-	-	-	-	-	-	-
LID Controls	Click ellipsis to edit the use of the low impact development controls in the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Groundwater	Click ellipsis to edit groundwater flow parameters for the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Snow pack	Name of snow pack parameter set assigned to the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Land Uses	Click ellipsis to assign land uses to the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Initial Buildup	Click ellipsis to specify initial quantities of pollutant buildup over the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Curb Length	total lengths of curbs. Used only when pollutant buildup is normalized to curb length	-	-	-	-	-	-	-	-	-	-	-
dash indicates a data item not specified for this analysis												
c -characteristic width of the overland flow path for sheet flow runoff (ft). An initial estimate of the characteristic width is give by the subcatchment area divided by the average maximum overland flow length. The maximum overland flow length is the length of the flow path from the furthest drainage point of the subcatchment before the flow becomes channelized. Maximum lengths from several different possible flow paths should be averaged. These paths should reflect slow flow, such as over pervious surfaces, more than rapid flow over pavement, for example. Adjustments should be made to the width parameter to produce good fits to measured runoff hydrographs												
d- IMPERV: runoff from pervious area flows to impervious area, PERV: runoff from impervious area flows to pervious area. OUTLET: runoff from both areas flow directly to outlet												
(q) includes the subtraction of closed basins B37C and B38C												
TOTAL AREA OF ALL SUBCATCHMENTS (square miles) = 1.8348												
TOTAL AREA closed basins, outflow basins (square miles) = 1.8151												



TABLE B1 BARELAS BASIN SUBCATCHMENT DATA												
SWMM Subcatchment Property		Barelas Basin										
Data Element	Data Element Description	B12	B13	B14	B15	B16	B17	B18	B19.1	B19.2	B20	B21
Name	User-assigned subcatchment name.	B12	B13	B14	B15	B16	B17	B18	B19.1	B19.2	B20	B21
Time Steps	Simulation Options - Time Steps - Reporting	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.
X-Coordinate	Horizontal location of the subcatchment centroid	-	-	-	-	-	-	-	-	-	-	-
Y-Coordinate	Vertical location of the subcatchment centroid	-	-	-	-	-	-	-	-	-	-	-
Description	Optional description of the subcatchment.	-	-	-	-	-	-	-	-	-	-	-
Tag	Optional label used to categorize or classify the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Rain Gage	Name of the rain gage associated with subcatchment	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1
Outlet	Name of the node or subcatchment which receives the subcatchment's runoff	COA9407	COA13866	COA22429	COA9344	COA9348	COA9310	COA9310	COA9152	COA9248	COA22517	COA24930
Area	Area of the subcatchment (ft <sup>2</sup> )	413824	872617	1229996	1818629	1303149	764903	608804	666538	524223	738847	1346289
Area	Area of the subcatchment (acres)	9.50	20.03	28.24	41.75	29.92	17.56	13.98	15.30	12.03	16.96	30.91
Area	Area of the subcatchment (mi <sup>2</sup> )	0.0148	0.0313	0.0441	0.0652	0.0467	0.0274	0.0218	0.0239	0.0188	0.0265	0.0483
Width	Characteristic width of the overland flow path for sheet flow runoff (ft) (c)	400	400	400	400	400	400	400	400	400	400	400
% Slope	Average percent slope of the subcatchment	0.18519	0.19417	0.38889	0.15228	0.23077	0.00000	0.00000	2.62857	2.79420	0.25000	0.35714
% Imperv	Percent of land area that is impervious	70	61	85	90	86	90	98	85	85	85	70
N- Imperv	Manning's n for overland flow over the impervious portions of subcatchment	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
N- Perv	Manning's n for overland flow over the pervious portions of subcatchment	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Dstore-Imperv	Depth of depression storage on the impervious portion of the subcatchment (in.)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Dstore-Perv	Depth of depression storage on the pervious portion of the subcatchment (in.)	0.26	0.14	0	0.22	0.26	0.26	0.26	0	0	0.18	0
% Zero-Imperv	Percent of the impervious area with no depression storage	0	0	0	0	0	0	0	0	0	0	0
Subarea - Routing	Choice of internal routing of runoff between pervious and impervious areas: (d)	PER	PER	PER	PER	PER	PER	PER	PER	PER	PER	PER
Percent Routed	Percent of runoff routed between subareas	25	25	5	5	10	5	0	0	0	0	25
Infiltration :	Click ellipsis to edit infiltration parameters for the subcatchment.	-	-	-	-	-	-	-	-	-	-	-
CN	SCS Curve Number	73	70	62	72	73	73	73	70	70	71	59
Conductivity	This property has been deprecated and its value is ignored	-	-	-	-	-	-	-	-	-	-	-
Drying Time	Time for a fully saturated soil to completely dry	-	-	-	-	-	-	-	-	-	-	-
LID Controls	Click ellipsis to edit the use of the low impact development controls in the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Groundwater	Click ellipsis to edit groundwater flow parameters for the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Snow pack	Name of snow pack parameter set assigned to the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Land Uses	Click ellipsis to assign land uses to the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Initial Buildup	Click ellipsis to specify initial quantities of pollutant buildup over the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Curb Length	total lengths of curbs. Used only when pollutant buildup is normalized to curb length	-	-	-	-	-	-	-	-	-	-	-
<div><div>-</div><div>dash indicates a data item not specified for this analysis</div><div>c-characteristic width of the overland flow path for sheet flow runoff (ft). An initial estimate of the characteristic width is flow path from the furthest drainage point of the subcatchment before the flow becomes channelized. Maximum lengths rapid flow over pavement, for example. Adjustments should be made to the width parameter to produce good fits to me;</div><div>d- IMPERV: runoff from pervious area flows to impervious area. PERV: runoff</div><div>(q) includes the subtraction of closed basins B37C and B38C</div><div>TOTAL AREA OF ALL SUBCATCHMENTS (square miles) =</div><div>TOTAL AREA closed basins, outflow basins (square miles) =</div></div>												



TABLE B1 BARELAS BASIN  
SUBCATCHMENT DATA

SWMM Subcatchment Property												
Data Element	Data Element Description	B22	B23	B24	B25	B26	B27	B28	B29	B30	B31	B32
Name	User-assigned subcatchment name.	B22	B23	B24	B25	B26	B27	B28	B29	B30	B31	B32
Time Steps	Simulation Options - Time Steps - Reporting	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.
X-Coordinate	Horizontal location of the subcatchment centroid	-	-	-	-	-	-	-	-	-	-	-
Y-Coordinate	Vertical location of the subcatchment centroid	-	-	-	-	-	-	-	-	-	-	-
Description	Optional description of the subcatchment.	-	-	-	-	-	-	-	-	-	-	-
Tag	Optional label used to categorize or classify the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Rain Gage	Name of the rain gage associated with subcatchment	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1
Outlet	Name of the node or subcatchment which receives the subcatchment's runoff	COA9260	COA9260	COA22584	COA7865	COA25253	COA7740	COA7816	COA25349	COA7714	COA7654	COA7638
Area	Area of the subcatchment (ft <sup>2</sup> )	1455710	407381	803158	1727366	2585041	2244130	2827405	4587290	2256027	1899095	1740505
Area	Area of the subcatchment (acres)	33.42	9.35	18.44	39.65	59.34	51.52	64.91	105.31	51.79	43.60	39.96
Area	Area of the subcatchment (mi <sup>2</sup> )	0.0522	0.0146	0.0288	0.0620	0.0927	0.0805	0.1014	0.1645	0.0809	0.0681	0.0624
Width	Characteristic width of the overland flow path for sheet flow runoff (ft) (c)	400	400	400	400	400	400	400	400	400	400	400
% Slope	Average percent slope of the subcatchment	0.14815	0.11111	0.00000	0.12903	0.00000	0.12987	0.10724	0.11268	0.13793	0.11494	0.17094
% Imperv	Percent of land area that is impervious	70	99	90	96	75	88	70	65	82	85	72
N- Imperv	Manning's n for overland flow over the impervious portions of subcatchment	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
N- Perv	Manning's n for overland flow over the pervious portions of subcatchment	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Dstore-Imperv	Depth of depression storage on the impervious portion of the subcatchment (in.)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Dstore-Perv	Depth of depression storage on the pervious portion of the subcatchment (in.)	0	0	0	0.14	0	0.18	0.1	0.06	0.14	0.18	0.18
% Zero-Imperv	Percent of the impervious area with no depression storage	0	0	0	0	0	0	0	0	0	0	0
Subarea - Routing	Choice of internal routing of runoff between pervious and impervious areas: (d)	PER	PER	PER	PER	PER	PER	PER	PER	PER	PER	PER
Percent Routed	Percent of runoff routed between subareas	5	0	0	0	10	0	15	20	0	0	5
Infiltration :	Click ellipsis to edit infiltration parameters for the subcatchment.	-	-	-	-	-	-	-	-	-	-	-
CN	SCS Curve Number	65	58	66	70	65	71	69	68	70	71	71
Conductivity	This property has been deprecated and its value is ignored	-	-	-	-	-	-	-	-	-	-	-
Drying Time	Time for a fully saturated soil to completely dry	-	-	-	-	-	-	-	-	-	-	-
LID Controls	Click ellipsis to edit the use of the low impact development controls in the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Groundwater	Click ellipsis to edit groundwater flow parameters for the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Snow pack	Name of snow pack parameter set assigned to the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Land Uses	Click ellipsis to assign land uses to the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Initial Buildup	Click ellipsis to specify initial quantities of pollutant buildup over the subcatchment	-	-	-	-	-	-	-	-	-	-	-
Curb Length	total lengths of curbs. Used only when pollutant buildup is normalized to curb length	-	-	-	-	-	-	-	-	-	-	-

- dash indicates a data item not specified for this analysis

c -characteristic width of the overland flow path for sheet flow runoff (ft). An initial estimate of the characteristic width is flow path from the furthest drainage point of the subcatchment before the flow becomes channelized. Maximum lengths rapid flow over pavement, for example. Adjustments should be made to the width parameter to produce good fits to me:

d- **IMPERV**: runoff from pervious area flows to impervious area. **PERV**: runoff

(q) includes the subtraction of closed basins B37C and B38C

**TOTAL AREA OF ALL SUBCATCHMENTS (square miles) =**

**TOTAL AREA closed basins, outflow basins (square miles) =**

TABLE B1 BARELAS BASIN  
SUBCATCHMENT DATA

SWMM Subcatchment Property										
Data Element	Data Element Description	B33	B34	B35 (q)	B36	B37-C (closed basin)	B38-C (closed basin)	B39-O (drains out of area)	B40	B41
Name	User-assigned subcatchment name.	B33	B34	B35 (q)	B36	B37-C	B38-C	B39-O	B40	B41
Time Steps	Simulation Options - Time Steps - Reporting	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.
X-Coordinate	Horizontal location of the subcatchment centroid	-	-	-	-	-	-	-	-	-
Y-Coordinate	Vertical location of the subcatchment centroid	-	-	-	-	-	-	-	-	-
Description	Optional description of the subcatchment.	-	-	-	-	-	-	-	-	-
Tag	Optional label used to categorize or classify the subcatchment	-	-	-	-	-	-	-	-	-
Rain Gage	Name of the rain gage associated with subcatchment	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1
Outlet	Name of the node or subcatchment which receives the subcatchment's runoff	COA6231	COA15184	COA19719	COA6045	-	-	-	COA19719	COA6149
Area	Area of the subcatchment (ft <sup>2</sup> )	2221804	2323042	1397658	1103519	157713	74917	114271	1587262	1081228
Area	Area of the subcatchment (acres)	51.01	53.33	32.09	25.33	3.62	1.72	2.62	36.44	24.82
Area	Area of the subcatchment (mi <sup>2</sup> )	0.0797	0.0833	0.0501	0.0396	0.0057	0.0027	0.0041	0.0569	0.0388
Width	Characteristic width of the overland flow path for sheet flow runoff (ft) (c)	400	400	400	400	400	400	400	400	400
% Slope	Average percent slope of the subcatchment	0.10101	0.20101	0.40080	0.31496	----	----	----	0.80367	0.53333
% Imperv	Percent of land area that is impervious	68	76	82	77	5	5	30	84	94
N- Imperv	Manning's n for overland flow over the impervious portions of subcatchment	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
N- Perv	Manning's n for overland flow over the pervious portions of subcatchment	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Dstore-Imperv	Depth of depression storage on the impervious portion of the subcatchment (in.)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.43
Dstore-Perv	Depth of depression storage on the pervious portion of the subcatchment (in.)	0.06	0.14	0.26	0.06	0.1	0.1	0.26	0.22	0.1
% Zero-Imperv	Percent of the impervious area with no depression storage	0	0	0	0	0	0	0	0	0
Subarea - Routing	Choice of internal routing of runoff between pervious and impervious areas: (d)	PER	PER	PER	PER	PER	PER	PER	PER	PER
Percent Routed	Percent of runoff routed between subareas	10	5	5	5	95	95	33	5	0
Infiltration :	Click ellipsis to edit infiltration parameters for the subcatchment.	-	-	-	-	-	-	-	-	-
CN	SCS Curve Number	68	70	73	68	69	69	73	72	69
Conductivity	This property has been deprecated and its value is ignored	-	-	-	-	-	-	-	-	-
Drying Time	Time for a fully saturated soil to completely dry	-	-	-	-	-	-	-	-	-
LID Controls	Click ellipsis to edit the use of the low impact development controls in the subcatchment	-	-	-	-	-	-	-	-	-
Groundwater	Click ellipsis to edit groundwater flow parameters for the subcatchment	-	-	-	-	-	-	-	-	-
Snow pack	Name of snow pack parameter set assigned to the subcatchment	-	-	-	-	-	-	-	-	-
Land Uses	Click ellipsis to assign land uses to the subcatchment	-	-	-	-	-	-	-	-	-
Initial Buildup	Click ellipsis to specify initial quantities of pollutant buildup over the subcatchment	-	-	-	-	-	-	-	-	-
Curb Length	total lengths of curbs. Used only when pollutant buildup is normalized to curb length	-	-	-	-	-	-	-	-	-

- dash indicates a data item not specified for this analysis

c -characteristic width of the overland flow path for sheet flow runoff (ft). An initial estimate of the characteristic width is flow path from the furthest drainage point of the subcatchment before the flow becomes channelized. Maximum lengths rapid flow over pavement, for example. Adjustments should be made to the width parameter to produce good fits to me:

d- **IMPERV**: runoff from pervious area flows to impervious area. **PERV**: runoff

(q) includes the subtraction of closed basins B37C and B38C

TOTAL AREA OF ALL SUBCATCHMENTS (square miles) =  
TOTAL AREA closed basins, outflow basins (square miles) =



TABLE BR1 - BROADWAY  
BASIN SUBCATCHMENT DATA

SWMM Subcatchment Property														
Data Element		Data Element Description		BR1	BR2 (Broadway/ Lomas pond)	BR3	BR4	BR5	BR6	BR7-H1 (Tricore and E. Suites)	BR7-H2 (Tricore and E. Suites)	BR8-H1 (Albq. High)	BR8-H2 (Albq. High)	BR9
										EXT	EXT	EXT	EXT	
Name	User-assigned subcatchment name.			BR1	BR2	BR3	BR4	BR5	BR6	BR7-H1	BR7-H2	BR8-H1	BR8-H2	BR9
Time Steps	Simulation Options - Time Steps - Reporting			3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.
X-Coordinate	Horizontal location of the subcatchment centroid			-	-	-	-	-	-	-	-	-	-	-
Y-Coordinate	Vertical location of the subcatchment centroid			-	-	-	-	-	-	-	-	-	-	-
Description	Optional description of the subcatchment.			-	-	-	-	-	-	-	-	-	-	-
Tag	Optional label used to categorize or classify the subcatchment			-	-	-	-	-	-	-	-	-	-	-
Rain Gage	Name of the rain gage associated with subcatchment			gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1
Outlet	Name of the node or subcatchment which receives the subcatchment's runoff			COA29178	Broad./Lom Pond	COA32865	COA7870	COA7963.05A	COA7766JB	COA7870	COA7963.05A	COA7963.05A	COA33007	COA7717
Area	Area of the subcatchment (ft <sup>2</sup> )			1260062	246918	1621899	1723220	467487	1247297	355339	655883	512488	1188070	2406014
Area	Area of the subcatchment (acres)			28.93	5.67	37.23	39.56	10.73	28.63	8.16	15.06	11.77	27.27	55.23
Area	Area of the subcatchment (mi <sup>2</sup> )			0.0452	0.0089	0.0582	0.0618	0.0168	0.0447	0.0127	0.0235	0.0184	0.0426	0.0863
Width	Characteristic width of the overland flow path for sheet flow runoff (ft) ( c )			400	400	400	400	400	400	400	400	400	400	400
% Slope	Average percent slope of the subcatchment			3.86667	0.54054	2.35294	3.05858	4.10714	0.61538	----	----	----	----	0.23529
% Imperv	Percent of land area that is impervious			75	50	66	75	59	82	85	80	45	64	86
N- Imperv	Manning's n for overland flow over the impervious portions of subcatchment			0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
N- Perv	Manning's n for overland flow over the pervious portions of subcatchment			0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Dstore-Imperv	Depth of depression storage on the impervious portion of the subcatchment (in.)			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Dstore-Perv	Depth of depression storage on the pervious portion of the subcatchment (in.)			0	0.26	0	0	0	0.18	0.4	0.56	0.65	0.53	0.26
% Zero-Imperv	Percent of the impervious area with no depression storage			0	0	0	0	0	0	0	0	0	0	0
Subarea - Routing	Choice of internal routing of runoff between pervious and impervious areas: ( d )			PER	PER	PER	PER	PER	PER	PER	PER	PER	PER	PER
Percent Routed	Percent of runoff routed between subareas			10	0	25	10	0	10	0	0	0	0	5
Infiltration :	Click ellipsis to edit infiltration parameters for the subcatchment.			-	-	-	-	-	-	-	-	-	-	-
CN	SCS Curve Number			74	73	73	77	83	71	77	82	85	81	73
Conductivity	This property has been deprecated and its value is ignored			-	-	-	-	-	-	-	-	-	-	-
Drying Time	Time for a fully saturated soil to completely dry			-	-	-	-	-	-	-	-	-	-	-
LID Controls	Click ellipsis to edit the use of the low impact development controls in the subcatchment			-	-	-	-	-	-	-	-	-	-	-
Groundwater	Click ellipsis to edit groundwater flow parameters for the subcatchment			-	-	-	-	-	-	-	-	-	-	-
Snow pack	Name of snow pack parameter set assigned to the subcatchment			-	-	-	-	-	-	-	-	-	-	-
Land Uses	Click ellipsis to assign land uses to the subcatchment			-	-	-	-	-	-	-	-	-	-	-
Initial Buildup	Click ellipsis to specify initial quantities of pollutant buildup over the subcatchment			-	-	-	-	-	-	-	-	-	-	-
Curb Length	total lengths of curbs. Used only when pollutant buildup is normalized to curb length			-	-	-	-	-	-	-	-	-	-	-
-														
dash indicates a data item not specified for this analysis														
c-characteristic width of the overland flow path for sheet flow runoff (ft). An initial estimate of the characteristic width is give by the subcatchment area divided by the average maximum overland flow length. The maximum overland flow length is the length of the flow path from the furthest drainage point of the subcatchment before the flow becomes channelized. Maximum lengths from several different possible flow paths should be averaged. These paths should reflect slow flow, such as over pervious surfaces, more than rapid flow over pavement, for example. Adjustments should be made to the width parameter to produce good fits to measured runoff hydrographs														
d- IMPERV: runoff from pervious area flows to impervious area. PERV: runoff from impervious area flows to pervious area. OUTLET: runoff from both areas flow directly to outlet														
p- This is the total of both pieces of this basin														
EXT - Hydrograph computed external to SWMM based on approved master drainage plans														
TOTAL AREA OF ALL SUBCATCHMENTS (square miles) =				0.8983										
TOTAL AREA MINUS closed basins, outflow basins (square miles) =				0.8875										



TABLE BR1 - BROADWAY  
BASIN SUBCATCHMENT DATA

SWMM Subcatchment Property													
Data Element	Data Element Description	BR10 (Air Quality pond)	BR11	BR12	BR13	BR14	BR15-C (closed basin)	BR16	BR17	BR18	BR19	BR20 (p)	BR21
Name	User-assigned subcatchment name.	BR10	BR11	BR12	BR13	BR14	BR15-C	BR16	BR17	BR18	BR19	BR20	BR21
Time Steps	Simulation Options - Time Steps - Reporting	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.
X-Coordinate	Horizontal location of the subcatchment centroid	-	-	-	-	-	-	-	-	-	-	-	-
Y-Coordinate	Vertical location of the subcatchment centroid	-	-	-	-	-	-	-	-	-	-	-	-
Description	Optional description of the subcatchment.	-	-	-	-	-	-	-	-	-	-	-	-
Tag	Optional label used to categorize or classify the subcatchment	-	-	-	-	-	-	-	-	-	-	-	-
Rain Gage	Name of the rain gage associated with subcatchment	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1	gage 1
Outlet	Name of the node or subcatchment which receives the subcatchment's runoff	COA7963.05M	COA33027	COA33027	COA7656	COA7635	-	COA29132	COA29132	COA6195	COA32878	COA7848	COA7870
Area	Area of the subcatchment (ft <sup>2</sup> )	1587043	424145	971127	1269496	862387	299925	1127866	2141861	1443129	1141684	1052072	1037000
Area	Area of the subcatchment (acres)	36.43	9.74	22.29	29.14	19.80	6.89	25.89	49.17	33.13	26.21	24.15	23.81
Area	Area of the subcatchment (mi <sup>2</sup> )	0.0569	0.0152	0.0348	0.0455	0.0309	0.0108	0.0405	0.0768	0.0518	0.0410	0.0377	0.0372
Width	Characteristic width of the overland flow path for sheet flow runoff (ft) (c)	400	400	400	400	400	400	400	400	400	400	400	400
% Slope	Average percent slope of the subcatchment	5.10345	4.51064	4.78261	1.66667	0.40000	----	3.18584	1.42857	1.40000	1.03704	0.22222	3.25939
% Imperv	Percent of land area that is impervious	31	65	10	70	89	0	13	59	75	75	90	80
N- Imperv	Manning's n for overland flow over the impervious portions of subcatchment	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
N- Perv	Manning's n for overland flow over the pervious portions of subcatchment	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Dstore-Imperv	Depth of depression storage on the impervious portion of the subcatchment (in.)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Dstore-Perv	Depth of depression storage on the pervious portion of the subcatchment (in.)	0	0	0	0	0.26	0.1	0	0	0	0	0.26	0
% Zero-Imperv	Percent of the impervious area with no depression storage	0	0	0	0	0	0	0	0	0	0	0	0
Subarea - Routing	Choice of internal routing of runoff between pervious and impervious areas: (d)	PER	PER	PER	PER	PER	PER	PER	PER	PER	PER	PER	PER
Percent Routed	Percent of runoff routed between subareas	20	0	90	10	0	100	90	10	10	20	0	10
Infiltration :	Click ellipsis to edit infiltration parameters for the subcatchment.	-	-	-	-	-	-	-	-	-	-	-	-
CN	SCS Curve Number	73	73	73	73	73	69	70	73	73	71	73	79
Conductivity	This property has been deprecated and its value is ignored	-	-	-	-	-	-	-	-	-	-	-	-
Drying Time	Time for a fully saturated soil to completely dry	-	-	-	-	-	-	-	-	-	-	-	-
LID Controls	Click ellipsis to edit the use of the low impact development controls in the subcatchment	-	-	-	-	-	-	-	-	-	-	-	-
Groundwater	Click ellipsis to edit groundwater flow parameters for the subcatchment	-	-	-	-	-	-	-	-	-	-	-	-
Snow pack	Name of snow pack parameter set assigned to the subcatchment	-	-	-	-	-	-	-	-	-	-	-	-
Land Uses	Click ellipsis to assign land uses to the subcatchment	-	-	-	-	-	-	-	-	-	-	-	-
Initial Buildup	Click ellipsis to specify initial quantities of pollutant buildup over the subcatchment	-	-	-	-	-	-	-	-	-	-	-	-
Curb Length	total lengths of curbs. Used only when pollutant buildup is normalized to curb length	-	-	-	-	-	-	-	-	-	-	-	-

- dash indicates a data item not specified for this analysis

c -characteristic width of the overland flow path for sheet flow runoff (ft). An initial estimate of the characteristic v is the length of the flow path from the furthest drainage point of the subcatchment before the flow becomes chan such as over pervious surfaces, more than rapid flow over pavement, for example. Adjustments should be made

d- **IMPERV:** runoff from pervious area flows to impervious area. **PERV:**

p - This is the total of both pieces of this basin

EXT - Hydrograph computed external to SWMM based on approved master drainage plans

**TOTAL AREA OF ALL SUBCATCHMENTS (square miles) =**

**TOTAL AREA MINUS closed basins, outflow basins (square miles) =**

TABLE S						
SUBCATCHMENT AVERAGE SLOPE COMPUTATIONS						
Subcatchment (Basin) Name	Top Elev.	Bottom Elev.	Length	Slope	Slope	Basin Considered Steep if S > 1.0%
	ft	ft	ft	ft/ft	%	
a	b	b	b			
B11 (Tingley Pond)	4950	4945	550	0.00909	0.90909	mild slope
B12	4952	4950	1080	0.00185	0.18519	mild slope
B13	4949	4947	1030	0.00194	0.19417	mild slope
B14	4954	4947	1800	0.00389	0.38889	mild slope
B15	4954	4951	1970	0.00152	0.15228	mild slope
B16	4954	4951	1300	0.00231	0.23077	mild slope
B17	4954	4954	1250	0.00000	0.00000	mild slope
B18	4954	4954	1480	0.00000	0.00000	mild slope
B19.1	4963	4940	875	0.02629	2.62857	steep slope
B19.2	4969	4950	680	0.02794	2.79412	steep slope
B20	4956	4954	800	0.00250	0.25000	mild slope
B21	4954	4947	1960	0.00357	0.35714	mild slope
B22	4956	4954	1350	0.00148	0.14815	mild slope
B23	4954	4953	900	0.00111	0.11111	mild slope
B24	4954	4954	1730	0.00000	0.00000	mild slope
B25	4958	4956	1550	0.00129	0.12903	mild slope
B26	4956	4956	1650	0.00000	0.00000	mild slope
B27	4960	4958	1540	0.00130	0.12987	mild slope
B28	4962	4958	3730	0.00107	0.10724	mild slope
B29	4962	4958	3550	0.00113	0.11268	mild slope
B30	4960	4958	1450	0.00138	0.13793	mild slope
B31	4962	4960	1740	0.00115	0.11494	mild slope
B32	4964	4962	1170	0.00171	0.17094	mild slope
B33	4964	4962	1980	0.00101	0.10101	mild slope
B34	4966	4962	1990	0.00201	0.20101	mild slope
B35	4966	4962	998	0.00401	0.40080	mild slope
B36	4970	4966	1270	0.00315	0.31496	mild slope
B37-C (closed basin)	----	----	----	----	----	----
B38-C (closed basin)	----	----	----	----	----	----
B39-O (drains out of the model)	----	----	----	----	----	----
B40	4980	4966	1742	0.00804	0.80367	mild slope
B41	4984	4974	1875	0.00533	0.53333	mild slope
<b>Broadway Basin</b>						
BR1	5024	4966	1500	0.03867	3.86667	steep slope
BR2 (Broadway-Lomas pond)	4960	4956	740	0.00541	0.54054	mild slope
BR3	5000	4956	1870	0.02353	2.35294	steep slope
BR4	5088	4970	3858	0.03059	3.05858	steep slope
BR5	5092	4977	2800	0.04107	4.10714	steep slope
BR6	4960	4956	650	0.00615	0.61538	mild slope



**TABLE S**  
**SUBCATCHMENT AVERAGE SLOPE COMPUTATIONS**

Subcatchment (Basin) Name	Top Elev.	Bottom Elev.	Length	Slope	Slope	Basin Considered Steep if S > 1.0%
	ft	ft	ft	ft/ft	%	
a	b	b	b			
BR7-H1 (Tricore and Embassy Suites - hydrograph computed external to model)	---	---	---	---	---	assume steep slope
BR7-H2 (Tricore and Embassy Suites - hydrograph computed external to model)	---	---	---	---	---	assume steep slope
BR8-H1 (Albq. High - hydrograph computed external to model)	---	---	---	---	---	assume steep slope
BR8-H2 (Albq. High - hydrograph computed external to model)	---	---	---	---	---	assume steep slope
BR9	4962	4958	1700	0.00235	0.23529	mild slope
BR10 (Air Quality pond)	5024	4950	1450	0.05103	5.10345	steep slope
BR11	5066	4960	2350	0.04511	4.51064	steep slope
BR12	5030	4986	920	0.04783	4.78261	steep slope
BR13	4992	4962	1800	0.01667	1.66667	steep slope
BR14	4970	4964	1500	0.00400	0.40000	mild slope
BR15-C (closed basin)	---	---	---	---	---	---
BR16	5028	4992	1130	0.03186	3.18584	steep slope
BR17	4996	4976	1400	0.01429	1.42857	steep slope
BR18	4980	4973	500	0.01400	1.40000	steep slope
BR19	4972	4958	1350	0.01037	1.03704	steep slope
BR20	4960	4956	1800	0.00222	0.22222	mild slope
BR21	5142	5070	2209	0.03259	3.25939	steep slope

a - See Drainage Basin Maps

b - Each basin was visually observed on the drainage basin maps. If a basin had a very small steep area, that was ignored and the average of the remainder of the basin was adopted for the average basin slope. Conversely, if most of basin was steep then the steep portion was selected to compute average basin slope. If the basin approximately half steep and half mild slope then the average was based both areas

TABLE S						
SUBCATCHMENT AVERAGE SLOPE COMPUTATIONS						
Subcatchment (Basin) Name	Top Elev.	Bottom Elev.	Length	Slope	Slope	Basin Considered Steep if S > 1.0%
	ft	ft	ft	ft/ft	%	
a	b	b	b			
<b>Alcalde Basin</b>						
A1	4949	4948	1250	0.00080	0.08000	mild slope
A2	4949	4949	650	0.00000	0.00000	mild slope
A3	4952	4950	1000	0.00200	0.20000	mild slope
A4	4952	4949	2800	0.00107	0.10714	mild slope
A5	4954	4949	3200	0.00156	0.15625	mild slope
A6	4955	4952	2350	0.00128	0.12766	mild slope
A7	4958	4955	1800	0.00167	0.16667	mild slope
A8	4958	4956	720	0.00278	0.27778	mild slope
A9	4960	4958	940	0.00213	0.21277	mild slope
A10	4960	4957	2220	0.00135	0.13514	mild slope
A11	4959	4957	950	0.00211	0.21053	mild slope
A12	4962	4960	2850	0.00070	0.07018	mild slope
A13	4960	4958	1700	0.00118	0.11765	mild slope
A14-H (Sawmill Development - hydrograph computed external to model)	----	----	----	----	----	----
A15	4964	4960	2180	0.00183	0.18349	mild slope
A16-C (closed basin)	----	----	----	----	----	----
A17-C (closed basin)	----	----	----	----	----	----
A18	4960	4956	2220	0.00180	0.18018	mild slope
A19-C (closed basin)	----	----	----	----	----	----
A20-C (closed basin)	----	----	----	----	----	----
A21-C (closed basin)	----	----	----	----	----	----
A22-O (drains out of the model)	----	----	----	----	----	----
A23-C (closed basin)	----	----	----	----	----	----
A-24-O (drains out of model)	----	----	----	----	----	----
<b>Barelas Basin</b>						
B1	4949	4944	1800	0.00278	0.27778	mild slope
B2-O (drains out of the model)	----	----	----	----	----	----
B3	4946	4945	570	0.00175	0.17544	mild slope
B4	4947	4946	830	0.00120	0.12048	mild slope
B5	4951	4946	3220	0.00155	0.15528	mild slope
B6	4950	4949	1090	0.00092	0.09174	mild slope
B7	4952	4949	850	0.00353	0.35294	mild slope
B8	4948	4945	2030	0.00148	0.14778	mild slope
B9 -O (drains out of the model)	----	----	----	----	----	----
B10	4947	4945	1050	0.00190	0.19048	mild slope