SECTION 7

LOW-LOSS FRACTION

VOLUME/RATING CURVE CALCULATIONS

BASIN #2 CONCEPT DESIGN

&

RAINFALL DATA

OUTFLOW VS DEPTH CALCULATIONS

				HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	WEIR	
			No. of Holes →	1	5	5	5	5	5	5	1	1	← No. of Weir
				HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	WEIR C	
			Discharge Coefficient →	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.8	← Weir Coefficient
				HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	DIST TO WEIR	
			Distance of Holes from Basin Bottom (in) →	0	20.49	32.49	44.49	56.49	68.49	80.49	0	144	← Distance of Top of Riser Pipe from Basin Bottom (in)
				HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	WEIR LENGTH FT	
			Hole Radius (in) →	0.5000	0	0	0	0	0	0	0	1.00	← Riser Pipe Perimeter (ft) =PI*D, 36" Riser Pipe (Using 1.0' weir)
				CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	WEIR ELEV	
			Hole Centerline Elev →	948.042	949.708	950.708	951.708	952.708	953.708	954.708	948	960.0	← Top of Riser Elevation (ft)
ELEV	DEPTH	OUTFLOW										AREA	
948.00	0	0										0	← (sq-ft)
948.50	0.5	0.02		0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
949.00	1	0.03		0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
949.50	1.5	0.03		0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
950.00	2	0.04		0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
950.50	2.5	0.04		0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
951.00	3	0.05		0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
951.50	3.5	0.05		0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
952.00	4	0.05		0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
952.50	4.5	0.06		0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
953.00	5	0.06		0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
954.00	6	0.06		0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
955.00	7	0.07		0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
956.00	8	0.07		0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
957.00	9	0.08		0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
958.00	10	0.08		0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
959.00	11	0.09		0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
960.00	12	0.09		0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
961.00	13	2.89		0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.80	0.00
962.00	14	8.02		0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.92	0.00

↑ ORIFICE

↑ [Σ FLOWS (HOLES+RISER)] (OUTFLOW THROUGH HOLES) ↑ (FLOW OVER TOP OF RISER)

Note:

1. Orifice outflow is based on:
   $Q=CA(2gH)^{0.5}$
   where:
   C = Coefficient, 0.6 used here
   A = Orifice Area
   H = Headwater

2. Weir flow is based on:
   $Q=CLH^{1.5}$
   where:
   C = Coefficient, 2.8 used here
   L = Weir Length, Riser Pipe Perimeter was used here
   H = Headwater

W.O. #3751-1, Portola Center T.T. 15353 & 17300
7/9/2012
BASIN #1 @ NODES 379~381
With 1 @ 1.0" Diameter Orifice

STORAGE CAPACITY CALCS FOR WATER QUALITY/HYDROMOD BASIN AT NODES 380~381

Elevation (ft)	Contour Interval (ft)	Accumulate Depth (ft)	Area (sqft)	Area (acre)	Mean Area (acre)	Volume (ac.ft)	$Volume_{ACCUMULATE}$ (ac.ft)	$Volume_{ACCUMULATE}$ (cuyd)	Qout (cfs)
948.00			508	0.01					0.000
948.50	0.50	0.50	508	0.01	0.01	0.01	0.01	9.41	0.018
949.00	0.50	1.00	508	0.01	0.01	0.01	0.01	18.81	0.026
949.50	0.50	1.50	508	0.01	0.01	0.01	0.02	28.22	0.032
950.00	0.50	2.00	508	0.01	0.01	0.01	0.02	37.63	0.037
950.50	0.50	2.50	508	0.01	0.01	0.01	0.03	47.04	0.041
951.00	0.50	3.00	508	0.01	0.01	0.01	0.03	56.44	0.045
951.50	0.50	3.50	508	0.01	0.01	0.01	0.04	65.85	0.049
952.00	0.50	4.00	508	0.01	0.01	0.01	0.05	75.26	0.052
952.50	0.50	4.50	508	0.01	0.01	0.01	0.05	84.67	0.055
953.00	0.50	5.00	508	0.01	0.01	0.01	0.06	94.07	0.058
954.00	1.00	6.00	508	0.01	0.01	0.01	0.07	112.89	0.064
955.00	1.00	7.00	508	0.01	0.01	0.01	0.08	131.70	0.069
956.00	1.00	8.00	508	0.01	0.01	0.01	0.09	150.52	0.074
957.00	1.00	9.00	508	0.01	0.01	0.01	0.10	169.33	0.079
958.00	1.00	10.00	508	0.01	0.01	0.01	0.12	188.15	0.083
959.00	1.00	11.00	508	0.01	0.01	0.01	0.13	206.96	0.087
960.00	1.00 15' SPILLWAY EL	12.00	508	0.01	0.01	0.01	0.14	225.78	0.091
961.00	1.00	13.00	508	0.01	0.01	0.01	0.15	244.59	2.895
962.00	1.00 SOFFIT	14.00	508	0.01	0.01	0.01	0.16	263.41	8.018

OUTFLOW VS DEPTH CALCULATIONS

				HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	WEIR	
		No. of Holes	→	1	1	5	5	5	5	5	1	1	← No. of Weir
				HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	WEIR C	
		Discharge Coefficient	→	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.8	← Weir Coefficient
				HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	DIST TO WEIR	
Distance of Holes from Basin Bottom (in)			→	0	60	32.49	44.49	56.49	68.49	80.49	0	144	← Distance of Top of Riser Pipe from Basin Bottom (in)
				HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	WEIR LENGTH FT	
		Hole Radius (in)	→	9.0000	16.8	0	0	0	0	0	0	55.00	← Riser Pipe Perimeter (ft) =PI*D, 36" Riser Pipe (Using 55' weir)
				CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	WEIR ELEV	
		Hole Centerline Elev	→	995.25	1000.9	997.208	998.208	999.208	1000.21	1001.21	994.5	1006.5	← Top of Riser Elevation (ft)
ELEV	DEPTH	OUTFLOW										AREA	
994.50	0	0										0	← (sq-ft)
995.00	0.5	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
995.50	1	4.25		4.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
996.00	1.5	7.37		7.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
996.50	2	9.51		9.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
997.00	2.5	11.26		11.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
997.50	3	12.76		12.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
998.00	3.5	14.11		14.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
998.50	4	15.34		15.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
999.00	4.5	16.48		16.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
999.50	5	17.54		17.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1000.50	6	19.50		19.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1001.50	7	44.24		21.27	22.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1002.50	8	60.41		22.91	37.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1003.50	9	72.25		24.44	47.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1004.50	10	82.13		25.88	56.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1005.50	11	90.83		27.24	63.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1006.50	12	98.70		28.54	70.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1007.50	13	259.95		29.78	76.17	0.00	0.00	0.00	0.00	0.00	0.00	154.00	0.00
1008.50	14	548.28		30.97	81.73	0.00	0.00	0.00	0.00	0.00	0.00	435.58	0.00

↑ ORIFICE

↑ [Σ FLOWS (HOLES+RISER)] (OUTFLOW THROUGH HOLES) ↑ (FLOW OVER TOP OF RISER)

Note:

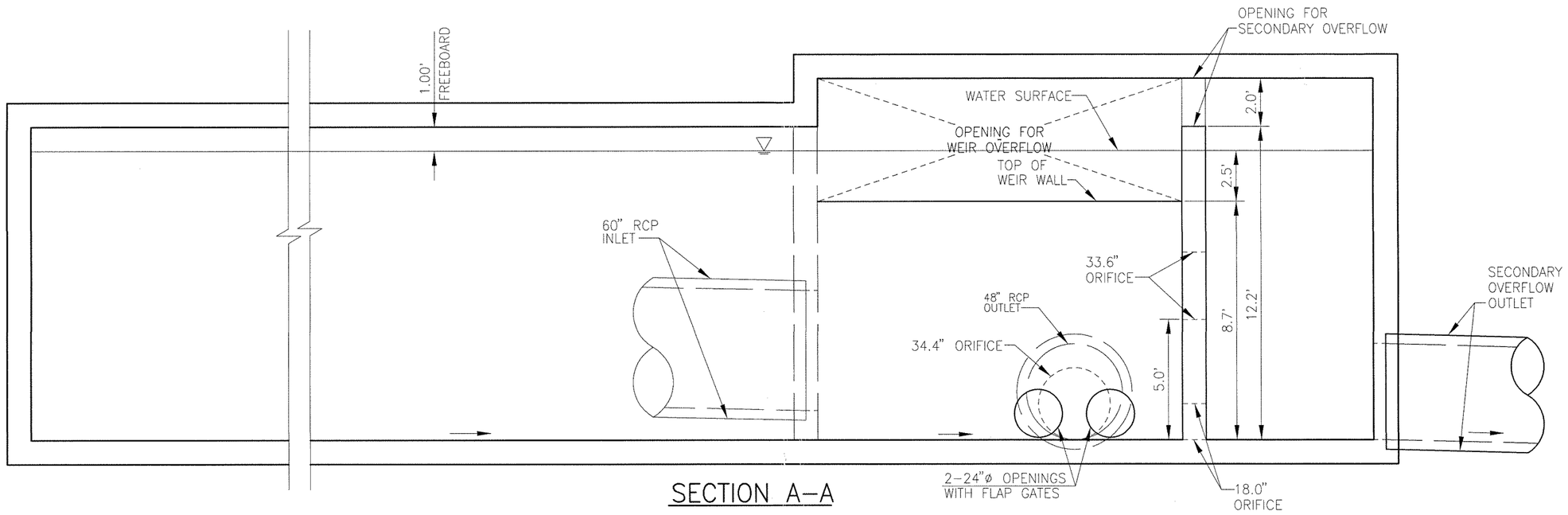
1. Orifice outflow is based on:
   $Q=CA(2gH)^{0.5}$
   where:
   C = Coefficient, 0.6 used here
   A = Orifice Area
   H = Headwater

2. Weir flow is based on:
   $Q=CLH^{1.5}$
   where:
   C = Coefficient, 2.8 used here
   L = Weir Length, Riser Pipe Perimeter was used here
   H = Headwater

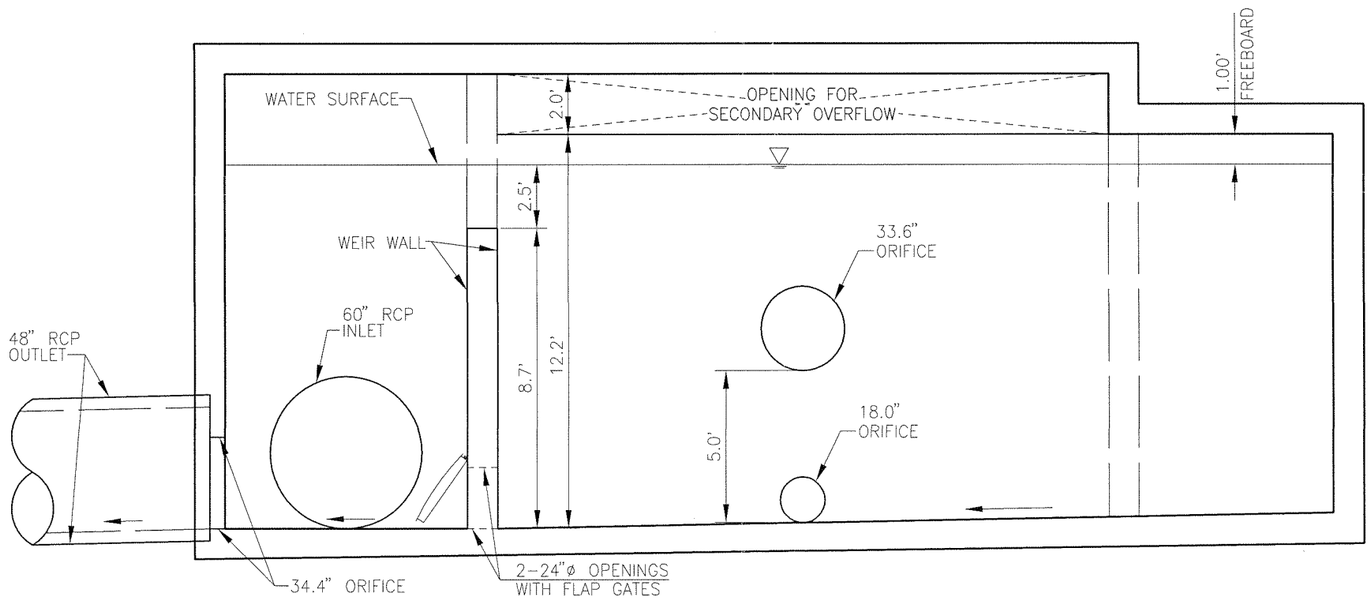
W.O. #3751-1, Portola Center T.T. 15353 & 17300
7/10/2012
BASIN #2 @ NODE 336.11
1-18.0." Diameter at 944.5 Elevation and 1-33.6" Diameter at 951.5 Elevation with 55' Weir at 956.5 Elevation

STORAGE CAPACITY CALCULATIONS FOR WATER QUALITY/HYDROMOD BASIN AT NODE 336.11

Elevation (ft)	Contour Interval (ft)	Accumulate Depth (ft)	Area (sqft)	Area (acre)	Mean Area (acre)	Volume (ac.ft)	$Volume_{ACCUMULATE}$ (ac.ft)	$Volume_{ACCUMULATE}$ (cuyd)	Qout (cfs)
994.50			20000	0.46					0.00
995.00	0.50	0.50	20000	0.46	0.46	0.23	0.23	370.37	0.00 1.30
995.50	0.50	1.00	20000	0.46	0.46	0.23	0.46	740.74	4.25
996.00	0.50	1.50	20000	0.46	0.46	0.23	0.69	1111.11	7.37
996.50	0.50	2.00	20000	0.46	0.46	0.23	0.92	1481.48	9.51
997.00	0.50	2.50	20000	0.46	0.46	0.23	1.15	1851.85	11.26
997.50	0.50	3.00	20000	0.46	0.46	0.23	1.38	2222.22	12.76
998.00	0.50	3.50	20000	0.46	0.46	0.23	1.61	2592.59	14.11
998.50	0.50	4.00	20000	0.46	0.46	0.23	1.84	2962.96	15.34
999.00	0.50	4.50	20000	0.46	0.46	0.23	2.07	3333.33	16.48
999.50	0.50	5.00	20000	0.46	0.46	0.23	2.30	3703.70	17.54
1000.50	1.00	6.00	20000	0.46	0.46	0.46	2.75	4444.44	19.50
1001.50	1.00	7.00	20000	0.46	0.46	0.46	3.21	5185.19	44.24
1002.50	1.00	8.00	20000	0.46	0.46	0.46	3.67	5925.93	60.41
1003.50	1.00	9.00	20000	0.46	0.46	0.46	4.13	6666.67	72.25
1004.50	1.00	10.00	20000	0.46	0.46	0.46	4.59	7407.41	82.13
1005.50	1.00	11.00	20000	0.46	0.46	0.46	5.05	8148.15	90.83
1006.50	1.00 55' SPILLWAY EL	12.00	20000	0.46	0.46	0.46	5.51	8888.89	98.70
1007.50	1.00	13.00	20000	0.46	0.46	0.46	5.97	9629.63	259.95
1008.50	1.00 SOFFIT	14.00	20000	0.46	0.46	0.46	6.43	10370.37	548.28



SECTION A-A

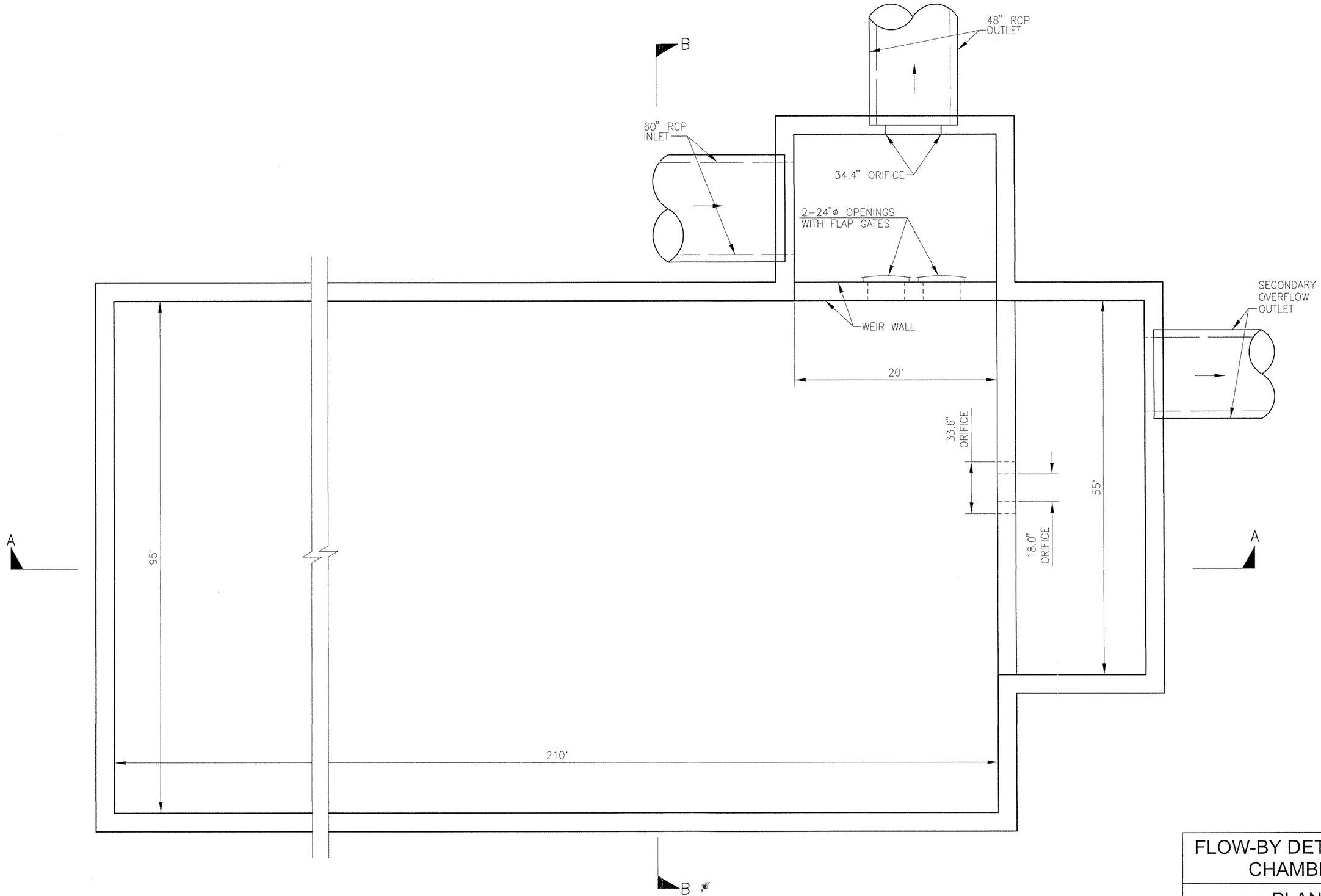


SECTION B-B

FLOW-BY DETENTION CHAMBER

SECTIONS

PLOTTED BY: Ha To Chau DATE: 2/13/2013 9:21 AM FILENAME: F:\0334\Engineering\SY_Storm Drain\SHT01_with diversion to basin 2.dwg



FLOW-BY DETENTION CHAMBER

PLAN

PLOTTED BY: Ha To Chau DATE: 2/13/2013 9:22 AM FILENAME: F:\0334\Engineering\SY_Storm Drain\SHT01_with diversion to basin 2.dwg

Worksheet for 2-Yr (EV) Circular Orifice - 34.404" (Flowby Basin #2)

Project Description

Solve For	Headwater Elevation

Input Data

Discharge	91.70	ft³/s
Centroid Elevation	995.9335	ft
Tailwater Elevation	994.50	ft
Discharge Coefficient	0.605	
Diameter	2.8670	ft

Results

Headwater Elevation	1004.50	ft
Headwater Height Above Centroid	8.57	ft
Tailwater Height Above Centroid	-1.43	ft
Flow Area	6.46	ft²
Velocity	14.20	ft/s

Worksheet for 2-Yr (EV) Rectangular Weir @ Basin #2

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		82.70	ft³/s
Crest Elevation		1003.20	ft
Tailwater Elevation		1003.20	ft
Weir Coefficient		2.80	US
Crest Length		20.00	ft
Number Of Contractions	0		

Results

Headwater Elevation	1004.50	ft
Headwater Height Above Crest	1.30	ft
Tailwater Height Above Crest	0.00	ft
Flow Area	25.94	ft²
Velocity	3.19	ft/s
Wetted Perimeter	22.59	ft
Top Width	20.00	ft

Worksheet for 5-Yr (EV) Circular Orifice - 34.404" (Flowby Basin #2)

Project Description

Solve For	Headwater Elevation

Input Data

Discharge	93.75	ft³/s
Centroid Elevation	995.9335	ft
Tailwater Elevation	994.50	ft
Discharge Coefficient	0.605	
Diameter	2.8670	ft

Results

Headwater Elevation	1004.89	ft
Headwater Height Above Centroid	8.95	ft
Tailwater Height Above Centroid	-1.43	ft
Flow Area	6.46	ft²
Velocity	14.52	ft/s

Worksheet for 5-Yr (EV) Rectangular Weir @ Basin #2

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		122.78	ft³/s
Crest Elevation		1003.20	ft
Tailwater Elevation		1003.20	ft
Weir Coefficient		2.80	US
Crest Length		20.00	ft
Number Of Contractions	0		

Results

Headwater Elevation	1004.89	ft
Headwater Height Above Crest	1.69	ft
Tailwater Height Above Crest	0.00	ft
Flow Area	33.75	ft²
Velocity	3.64	ft/s
Wetted Perimeter	23.38	ft
Top Width	20.00	ft

Worksheet for 10-Yr (EV) Circular Orifice - 34.404" (Flowby Basin #2)

Project Description

Solve For	Headwater Elevation

Input Data

Discharge	94.00	ft³/s
Centroid Elevation	995.9335	ft
Tailwater Elevation	994.50	ft
Discharge Coefficient	0.605	
Diameter	2.8670	ft

Results

Headwater Elevation	1004.94	ft
Headwater Height Above Centroid	9.00	ft
Tailwater Height Above Centroid	-1.43	ft
Flow Area	6.46	ft²
Velocity	14.56	ft/s

Worksheet for 10-Yr (EV) Rectangular Weir @ Basin #2

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		128.02	ft³/s
Crest Elevation		1003.20	ft
Tailwater Elevation		1003.20	ft
Weir Coefficient		2.80	US
Crest Length		20.00	ft
Number Of Contractions	0		

Results

Headwater Elevation	1004.94	ft
Headwater Height Above Crest	1.74	ft
Tailwater Height Above Crest	0.00	ft
Flow Area	34.71	ft²
Velocity	3.69	ft/s
Wetted Perimeter	23.47	ft
Top Width	20.00	ft

Worksheet for 25-Yr (EV) Circular Orifice - 34.404" (Flowby Basin #2)

Project Description

Solve For	Headwater Elevation

Input Data

Discharge	95.65	ft³/s
Centroid Elevation	995.9335	ft
Tailwater Elevation	994.50	ft
Discharge Coefficient	0.605	
Diameter	2.8670	ft

Results

Headwater Elevation	1005.25	ft
Headwater Height Above Centroid	9.32	ft
Tailwater Height Above Centroid	-1.43	ft
Flow Area	6.46	ft²
Velocity	14.82	ft/s

Worksheet for 25-Yr (EV) Rectangular Weir @ Basin #2

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		164.84	ft³/s
Crest Elevation		1003.20	ft
Tailwater Elevation		1003.20	ft
Weir Coefficient		2.80	US
Crest Length		20.00	ft
Number Of Contractions	0		

Results

Headwater Elevation	1005.25	ft
Headwater Height Above Crest	2.05	ft
Tailwater Height Above Crest	0.00	ft
Flow Area	41.08	ft²
Velocity	4.01	ft/s
Wetted Perimeter	24.11	ft
Top Width	20.00	ft

Worksheet for 50-Yr (EV) Circular Orifice - 34.404" (Flowby Basin #2)

Project Description

Solve For	Headwater Elevation

Input Data

Discharge	96.67	ft³/s
Centroid Elevation	995.9335	ft
Tailwater Elevation	994.50	ft
Discharge Coefficient	0.605	
Diameter	2.8670	ft

Results

Headwater Elevation	1005.45	ft
Headwater Height Above Centroid	9.52	ft
Tailwater Height Above Centroid	-1.43	ft
Flow Area	6.46	ft²
Velocity	14.97	ft/s

Worksheet for 50-Yr (EV) Rectangular Weir @ Basin #2

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		189.07	ft³/s
Crest Elevation		1003.20	ft
Tailwater Elevation		1003.20	ft
Weir Coefficient		2.80	US
Crest Length		20.00	ft
Number Of Contractions	0		

Results

Headwater Elevation	1005.45	ft
Headwater Height Above Crest	2.25	ft
Tailwater Height Above Crest	0.00	ft
Flow Area	45.01	ft²
Velocity	4.20	ft/s
Wetted Perimeter	24.50	ft
Top Width	20.00	ft

Worksheet for 100-Yr (EV) Circular Orifice - 34.404" (Flowby Basin #2)

Project Description

Solve For	Headwater Elevation

Input Data

Discharge	97.93	ft³/s
Centroid Elevation	995.9335	ft
Tailwater Elevation	994.50	ft
Discharge Coefficient	0.605	
Diameter	2.8670	ft

Results

Headwater Elevation	1005.70	ft
Headwater Height Above Centroid	9.77	ft
Tailwater Height Above Centroid	-1.43	ft
Flow Area	6.46	ft²
Velocity	15.17	ft/s

Worksheet for 100-Yr (EV) Rectangular Weir @ Basin #2

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		221.45	ft³/s
Crest Elevation		1003.20	ft
Tailwater Elevation		1003.20	ft
Weir Coefficient		2.80	US
Crest Length		20.00	ft
Number Of Contractions	0		

Results

Headwater Elevation	1005.70	ft
Headwater Height Above Crest	2.50	ft
Tailwater Height Above Crest	0.00	ft
Flow Area	50.01	ft²
Velocity	4.43	ft/s
Wetted Perimeter	25.00	ft
Top Width	20.00	ft

Worksheet for 2-Yr (HC) Circular Orifice - 34.404" (Flowby Basin #2)

Project Description

Solve For	Headwater Elevation

Input Data

Discharge	91.95	ft³/s
Centroid Elevation	995.9335	ft
Tailwater Elevation	994.50	ft
Discharge Coefficient	0.605	
Diameter	2.8670	ft

Results

Headwater Elevation	1004.55	ft
Headwater Height Above Centroid	8.61	ft
Tailwater Height Above Centroid	-1.43	ft
Flow Area	6.46	ft²
Velocity	14.24	ft/s

Worksheet for 2-Yr (HC) Rectangular Weir @ Basin #2

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		87.35	ft³/s
Crest Elevation		1003.20	ft
Tailwater Elevation		1003.20	ft
Weir Coefficient		2.80	US
Crest Length		20.00	ft
Number Of Contractions	0		

Results

Headwater Elevation	1004.55	ft
Headwater Height Above Crest	1.35	ft
Tailwater Height Above Crest	0.00	ft
Flow Area	26.90	ft²
Velocity	3.25	ft/s
Wetted Perimeter	22.69	ft
Top Width	20.00	ft

Worksheet for 5-Yr (HC) Circular Orifice - 34.404" (Flowby Basin #2)

Project Description

Solve For	Headwater Elevation

Input Data

Discharge	94.00	ft³/s
Centroid Elevation	995.9335	ft
Tailwater Elevation	994.50	ft
Discharge Coefficient	0.605	
Diameter	2.8670	ft

Results

Headwater Elevation	1004.94	ft
Headwater Height Above Centroid	9.00	ft
Tailwater Height Above Centroid	-1.43	ft
Flow Area	6.46	ft²
Velocity	14.56	ft/s

Worksheet for 5-Yr (HC) Rectangular Weir @ Basin #2

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		128.41	ft³/s
Crest Elevation		1003.20	ft
Tailwater Elevation		1003.20	ft
Weir Coefficient		2.80	US
Crest Length		20.00	ft
Number Of Contractions	0		

Results

Headwater Elevation	1004.94	ft
Headwater Height Above Crest	1.74	ft
Tailwater Height Above Crest	0.00	ft
Flow Area	34.78	ft²
Velocity	3.69	ft/s
Wetted Perimeter	23.48	ft
Top Width	20.00	ft

Worksheet for 10-Yr (HC) Circular Orifice - 34.404" (Flowby Basin #2)

Project Description

Solve For	Headwater Elevation

Input Data

Discharge	95.66	ft³/s
Centroid Elevation	995.9335	ft
Tailwater Elevation	994.50	ft
Discharge Coefficient	0.605	
Diameter	2.8670	ft

Results

Headwater Elevation	1005.26	ft
Headwater Height Above Centroid	9.32	ft
Tailwater Height Above Centroid	-1.43	ft
Flow Area	6.46	ft²
Velocity	14.82	ft/s

Worksheet for 10-Yr (HC) Rectangular Weir @ Basin #2

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		165.22	ft³/s
Crest Elevation		1003.20	ft
Tailwater Elevation		1003.20	ft
Weir Coefficient		2.80	US
Crest Length		20.00	ft
Number Of Contractions	0		

Results

Headwater Elevation	1005.26	ft
Headwater Height Above Crest	2.06	ft
Tailwater Height Above Crest	0.00	ft
Flow Area	41.14	ft²
Velocity	4.02	ft/s
Wetted Perimeter	24.11	ft
Top Width	20.00	ft

Worksheet for 25-Yr (HC) Circular Orifice - 34.404" (Flowby Basin #2)

Project Description

Solve For	Headwater Elevation

Input Data

Discharge	97.92	ft³/s
Centroid Elevation	995.9335	ft
Tailwater Elevation	994.50	ft
Discharge Coefficient	0.605	
Diameter	2.8670	ft

Results

Headwater Elevation	1005.70	ft
Headwater Height Above Centroid	9.77	ft
Tailwater Height Above Centroid	-1.43	ft
Flow Area	6.46	ft²
Velocity	15.17	ft/s

Worksheet for 25-Yr (HC) Rectangular Weir @ Basin #2

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		221.85	ft³/s
Crest Elevation		1003.20	ft
Tailwater Elevation		1003.20	ft
Weir Coefficient		2.80	US
Crest Length		20.00	ft
Number Of Contractions	0		

Results

Headwater Elevation	1005.70	ft
Headwater Height Above Crest	2.50	ft
Tailwater Height Above Crest	0.00	ft
Flow Area	50.07	ft²
Velocity	4.43	ft/s
Wetted Perimeter	25.01	ft
Top Width	20.00	ft

Worksheet for 50-Yr (HC) Circular Orifice - 34.404" (Flowby Basin #2)

Project Description

Solve For	Headwater Elevation

Input Data

Discharge	99.73	ft³/s
Centroid Elevation	995.9335	ft
Tailwater Elevation	994.50	ft
Discharge Coefficient	0.605	
Diameter	2.8670	ft

Results

Headwater Elevation	1006.07	ft
Headwater Height Above Centroid	10.13	ft
Tailwater Height Above Centroid	-1.43	ft
Flow Area	6.46	ft²
Velocity	15.45	ft/s

Worksheet for 50-Yr (HC) Rectangular Weir @ Basin #2

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		272.80	ft³/s
Crest Elevation		1003.20	ft
Tailwater Elevation		1003.20	ft
Weir Coefficient		2.80	US
Crest Length		20.00	ft
Number Of Contractions	0		

Results

Headwater Elevation	1006.07	ft
Headwater Height Above Crest	2.87	ft
Tailwater Height Above Crest	0.00	ft
Flow Area	57.47	ft²
Velocity	4.75	ft/s
Wetted Perimeter	25.75	ft
Top Width	20.00	ft

Worksheet for 100-Yr (HC) Circular Orifice - 34.404" (Flowby Basin #2)

Project Description

Solve For	Headwater Elevation

Input Data

Discharge	101.74	ft³/s
Centroid Elevation	995.9335	ft
Tailwater Elevation	994.50	ft
Discharge Coefficient	0.605	
Diameter	2.8670	ft

Results

Headwater Elevation	1006.48	ft
Headwater Height Above Centroid	10.55	ft
Tailwater Height Above Centroid	-1.43	ft
Flow Area	6.46	ft²
Velocity	15.76	ft/s

Worksheet for 100-Yr (HC) Rectangular Weir @ Basin #2

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		332.07	ft³/s
Crest Elevation		1003.20	ft
Tailwater Elevation		1003.20	ft
Weir Coefficient		2.80	US
Crest Length		20.00	ft
Number Of Contractions	0		

Results

Headwater Elevation	1006.48	ft
Headwater Height Above Crest	3.28	ft
Tailwater Height Above Crest	0.00	ft
Flow Area	65.52	ft²
Velocity	5.07	ft/s
Wetted Perimeter	26.55	ft
Top Width	20.00	ft

Worksheet for Rectangular Weir @ Basin #2 (Secondary Overflow)

Project Description

Solve For	Headwater Elevation

Input Data

Discharge		433.81	ft³/s
Crest Elevation		1003.20	ft
Tailwater Elevation		1003.20	ft
Weir Coefficient		2.80	US
Crest Length		55.00	ft
Number Of Contractions	0		

Results

Headwater Elevation	1005.19	ft
Headwater Height Above Crest	1.99	ft
Tailwater Height Above Crest	0.00	ft
Flow Area	109.70	ft²
Velocity	3.95	ft/s
Wetted Perimeter	58.99	ft
Top Width	55.00	ft

OUTFLOW VS DEPTH CALCULATIONS

			HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	WEIR		
		No. of Holes →	1	5	5	5	5	5	5	1	1	←	No. of Weir
			HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	WEIR C		
		Discharge Coefficient →	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.8	←	Weir Coefficient
			HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	DIST TO WEIR		
Distance of Holes from Basin Bottom (in)		→	0	20.49	32.49	44.49	56.49	68.49	80.49	0	144	←	Distance of Top of Riser Pipe from Basin Bottom (in)
			HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	WEIR LENGTH FT		
		Hole Radius (in) →	2.6250	0	0	0	0	0	0	0	15.00	←	Riser Pipe Perimeter (ft) =PI*D, 36" Riser Pipe (Using 15.0' weir)
			CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	WEIR ELEV		
		Hole Centerline Elev →	1002.22	1003.71	1004.71	1005.71	1006.71	1007.71	1008.71	1002	1014.0	←	Top of Riser Elevation (ft)
ELEV	DEPTH	OUTFLOW									AREA		
1002.00	0	0									0	←	(sq-ft)
1002.50	0.5	0.38	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1003.00	1	0.64	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1003.50	1.5	0.82	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1004.00	2	0.97	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1004.50	2.5	1.09	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1005.00	3	1.21	1.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1005.50	3.5	1.31	1.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1006.00	4	1.41	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1006.50	4.5	1.50	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1007.00	5	1.58	1.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1008.00	6	1.74	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1009.00	7	1.88	1.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1010.00	8	2.02	2.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1011.00	9	2.14	2.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1012.00	10	2.26	2.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1013.00	11	2.38	2.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1014.00	12	2.48	2.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1015.00	13	44.59	2.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	42.00	0.00	
1016.00	14	121.48	2.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	118.79	0.00	

↑ ORIFICE

↑ [Σ FLOWS (HOLES+RISER)] (OUTFLOW THROUGH HOLES) ↑ (FLOW OVER TOP OF RISER)

Note:

1. Orifice outflow is based on:
   $Q=CA(2gH)^{0.5}$
   where:
   C = Coefficient, 0.6 used here
   A = Orifice Area
   H = Headwater

2. Weir flow is based on:
   $Q=CLH^{1.5}$
   where:
   C = Coefficient, 2.8 used here
   L = Weir Length, Riser Pipe Perimeter was used here
   H = Headwater

BASIN #3
F:\0334\Engineering\SY_Hydrology\AES-MAY-2012\05-18-2012\EXCEL\Basin Routing Design_Basin 3.xls
OUTLET-TT 15353 & 17300_BASIN 3
7/9/2012

W.O. #3751-1, Portola Center T.T. 15353 & 17300
7/9/2012
BASIN #3 @ NODE 317.3
With 1 @ 5.25" Diameter Orifice at 1002.0' inv. and 1.5'W x 2.0'H Rect. Orifice at 1009.5' inv.

STORAGE CAPACITY CALCULATIONS FOR WATER QUALITY/HYDROMOD BASIN AT NODE 317.3

Elevation (ft)	Contour Interval (ft)	Accumulate Depth (ft)	Area (sqft)	Area (acre)	Mean Area (acre)	Volume (ac.ft)	$Volume_{ACCUMULATE}$ (ac.ft)	$Volume_{ACCUMULATE}$ (cuyd)	Qout (cfs)	
1002.00			11979	0.28					0.00	
1002.50	0.50	0.50	11979	0.28	0.28	0.14	0.14	221.83	0.38	
1003.00	0.50	1.00	11979	0.28	0.28	0.14	0.28	443.67	0.64	
1003.50	0.50	1.50	11979	0.28	0.28	0.14	0.41	665.50	0.82	
1004.00	0.50	2.00	11979	0.28	0.28	0.14	0.55	887.33	0.97	
1004.50	0.50	2.50	11979	0.28	0.28	0.14	0.69	1109.17	1.09	
1005.00	0.50	3.00	11979	0.28	0.28	0.14	0.83	1331.00	1.21	
1005.50	0.50	3.50	11979	0.28	0.28	0.14	0.96	1552.83	1.31	
1006.00	0.50	4.00	11979	0.28	0.28	0.14	1.10	1774.67	1.41	
1006.50	0.50	4.50	11979	0.28	0.28	0.14	1.24	1996.50	1.50	
1007.00	0.50	5.00	11979	0.28	0.28	0.14	1.38	2218.33	1.58	
1008.00	1.00	6.00	11979	0.28	0.28	0.28	1.65	2662.00	1.74	
1009.00	1.00	7.00	11979	0.28	0.28	0.28	1.93	3105.67	1.88	
1010.00	1.00	8.00	11979	0.28	0.28	0.28	2.20	3549.33	2.02	+1.48 = 3.50
1011.00	1.00	9.00	11979	0.28	0.28	0.28	2.48	3993.00	2.14	+ 7.72 = 9.86
1012.00	1.00	10.00	11979	0.28	0.28	0.28	2.75	4436.67	2.26	+17.68 = 19.94
1013.00	1.00	11.00	11979	0.28	0.28	0.28	3.03	4880.33	2.38	+22.83 = 25.21
1014.00	1.00 15' SPILLWAY EL	12.00	11979	0.28	0.28	0.28	3.30	5324.00	2.48	+27.01 = 29.49
1015.00	1.00	13.00	11979	0.28	0.28	0.28	3.58	5767.67	44.59	+30.63 = 75.22
1016.00	1.00 SOFFIT	14.00	11979	0.28	0.28	0.28	3.85	6211.33	121.48	+33.86 = 155.34

Rating Table for Rectangular Orifice - Basin #3

Project Description

Solve For	Discharge

Input Data

Headwater Elevation	1016.00	ft
Centroid Elevation	1010.50	ft
Tailwater Elevation	1009.50	ft
Discharge Coefficient	0.60	
Opening Width	1.50	ft
Opening Height	2.00	ft

Headwater Elevation (ft)	Discharge (ft³/s)	Velocity (ft/s)
1008.00		
1009.00		
1010.00		
1011.00	~~10.21~~ 7.72 (WEIR MAY)	3.40
1012.00	17.68	5.89
1013.00	22.83	7.61
1014.00	27.01	9.00
1015.00	30.63	10.21
1016.00	33.86	11.29

Rating Table for Rectangular Weir - Basin #3

Project Description

Solve For	Discharge

Input Data

Headwater Elevation		1011.00	ft
Crest Elevation		1009.50	ft
Tailwater Elevation		1009.50	ft
Weir Coefficient		2.80	US
Crest Length		1.50	ft
Number Of Contractions	0		

Headwater Elevation (ft)	Discharge (ft³/s)	Velocity (ft/s)
1009.50	0.00	
1010.00	1.48	1.98
1010.50	4.20	2.80
1011.00	7.72	3.43

OUTFLOW VS DEPTH CALCULATIONS

			HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	WEIR		
		No. of Holes →	1	5	5	5	5	5	5	1	1	←	No. of Weir
			HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	WEIR C		
		Discharge Coefficient →	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.8	←	Weir Coefficient
			HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	DIST TO WEIR		
Distance of Holes from Basin Bottom (in)		→	0	20.49	32.49	44.49	56.49	68.49	80.49	0	144	←	Distance of Top of Riser Pipe from Basin Bottom (in)
			HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	WEIR LENGTH FT		
		Hole Radius (in) →	1.2500	0	0	0	0	0	0	0	6.00	←	Riser Pipe Perimeter (ft) =PI*D, 36" Riser Pipe (Using 6.0' weir)
			CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	WEIR ELEV		
		Hole Centerline Elev →	1006.1	1007.71	1008.71	1009.71	1010.71	1011.71	1012.71	1006	1018.0	←	Top of Riser Elevation (ft)
ELEV	DEPTH	OUTFLOW									AREA		
1006.00	0	0									0	←	(sq-ft)
1006.50	0.5	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1007.00	1	0.16	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1007.50	1.5	0.19	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1008.00	2	0.23	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1008.50	2.5	0.25	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1009.00	3	0.28	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1009.50	3.5	0.30	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1010.00	4	0.32	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1010.50	4.5	0.34	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1011.00	5	0.36	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1012.00	6	0.40	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1013.00	7	0.43	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1014.00	8	0.46	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1015.00	9	0.49	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1016.00	10	0.52	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1017.00	11	0.54	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1018.00	12	0.57	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1019.00	13	17.39	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.80	0.00	
1020.00	14	48.13	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	47.52	0.00	

↑ ORIFICE

↑ [Σ FLOWS (HOLES+RISER)] (OUTFLOW THROUGH HOLES) ↑ (FLOW OVER TOP OF RISER)

Note:

1. Orifice outflow is based on:
   $Q=CA(2gH)^{0.5}$
   where:
   C = Coefficient, 0.6 used here
   A = Orifice Area
   H = Headwater

2. Weir flow is based on:
   $Q=CLH^{1.5}$
   where:
   C = Coefficient, 2.8 used here
   L = Weir Length, Riser Pipe Perimeter was used here
   H = Headwater

W.O. #3751-1, Portola Center T.T. 15353 & 17300
6/7/2012
BASIN #4 @ NODE 357
With 1 @ 2.50" Diameter Orifice at 1006.0' inv. and 0.75'W x 1.0'H Rect. Orifice at 1014.0' inv.

STORAGE CAPACITY CALCULATIONS FOR WATER QUALITY/HYDROMOD BASIN AT NODE 357

Elevation (ft)	Contour Interval (ft)	Accumulate Depth (ft)	Area (sqft)	Area (acre)	Mean Area (acre)	Volume (ac.ft)	$Volume_{ACCUMULATE}$ (ac.ft)	$Volume_{ACCUMULATE}$ (cuyd)	Qout (cfs)	
1006.00			3630	0.08					0.00	
	0.50				0.08	0.04	0.04	67.22	0.10	
1006.50		0.50	3630	0.08						
	0.50				0.08	0.04	0.08	134.44	0.16	
1007.00		1.00	3630	0.08						
	0.50				0.08	0.04	0.13	201.67	0.19	
1007.50		1.50	3630	0.08						
	0.50				0.08	0.04	0.17	268.89	0.23	
1008.00		2.00	3630	0.08						
	0.50				0.08	0.04	0.21	336.11	0.25	
1008.50		2.50	3630	0.08						
	0.50				0.08	0.04	0.25	403.33	0.28	
1009.00		3.00	3630	0.08						
	0.50				0.08	0.04	0.29	470.56	0.30	
1009.50		3.50	3630	0.08						
	0.50				0.08	0.04	0.33	537.78	0.32	
1010.00		4.00	3630	0.08						
	0.50				0.08	0.04	0.38	605.00	0.34	
1010.50		4.50	3630	0.08						
	0.50				0.08	0.04	0.42	672.22	0.36	
1011.00		5.00	3630	0.08						
	1.00				0.08	0.08	0.50	806.67	0.40	
1012.00		6.00	3630	0.08						
	1.00				0.08	0.08	0.58	941.11	0.43	
1013.00		7.00	3630	0.08						
	1.00				0.08	0.08	0.67	1075.56	0.46	
1014.00		8.00	3630	0.08						
	1.00				0.08	0.08	0.75	1210.00	0.49	+2.10
1015.00		9.00	3630	0.08					=2.59	
	1.00				0.08	0.08	0.83	1344.44	0.52	+4.22
1016.00		10.00	3630	0.08					=4.74	
	1.00				0.08	0.08	0.92	1478.89	0.54	+5.71
1017.00		11.00	3630	0.08					=6.25	
	1.00				0.08	0.08	1.00	1613.33	0.57	+6.75
1018.00	15' SPILLWAY EL	12.00	3630	0.08					=7.32	
	1.00				0.08	0.08	1.08	1747.78	17.39	+7.66
1019.00		13.00	3630	0.08					=25.05	
	1.00				0.08	0.08	1.17	1882.22	48.13	+8.47
1020.00	SOFFIT	14.00	3630	0.08					=56.60	

Rating Table for Rectangular Orifice - Basin #4

Project Description

Solve For	Discharge

Input Data

Headwater Elevation	1020.00	ft
Centroid Elevation	1014.50	ft
Tailwater Elevation	1014.00	ft
Discharge Coefficient	0.60	
Opening Width	0.75	ft
Opening Height	1.00	ft

Headwater Elevation (ft)	Discharge (ft³/s)	Velocity (ft/s)
1014.00		
1015.00	2.65 2.10 (WEIR MAX)	3.40
1016.00	4.42	5.89
1017.00	5.71	7.61
1018.00	6.75	9.00
1019.00	7.66	10.21
1020.00	8.47	11.29

Worksheet for Rectangular Weir - Basin #4

Project Description

Solve For	Discharge

Input Data

Headwater Elevation		1015.00	ft
Crest Elevation		1014.00	ft
Tailwater Elevation		1014.00	ft
Weir Coefficient		2.80	US
Crest Length		0.75	ft
Number Of Contractions	0		

Results

Discharge	2.10	ft^3/s
Headwater Height Above Crest	1.00	ft
Tailwater Height Above Crest	0.00	ft
Flow Area	0.75	ft^2
Velocity	2.80	ft/s
Wetted Perimeter	2.75	ft
Top Width	0.75	ft

OUTFLOW VS DEPTH CALCULATIONS

				HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	WEIR	
			No. of Holes →	1	5	5	5	5	5	5	1	1	← No. of Weir
				HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	WEIR C	
			Discharge Coefficient →	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.8	← Weir Coefficient
				HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	DIST TO WEIR	
			Distance of Holes from Basin Bottom (in) →	0	20.49	32.49	44.49	56.49	68.49	80.49	0	144	← Distance of Top of Riser Pipe from Basin Bottom (in)
				HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	WEIR LENGTH FT	
			Hole Radius (in) →	3.5469	0	0	0	0	0	0	0	22.00	← Riser Pipe Perimeter (ft) =PI*D, 36" Riser Pipe (Using 22.0' weir)
				CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	WEIR ELEV	
			Hole Centerline Elev →	1013.3	1014.71	1015.71	1016.71	1017.71	1018.71	1019.71	1013	1025.0	← Top of Riser Elevation (ft)
ELEV	DEPTH	OUTFLOW										AREA	
1013.00	0	0										0	← (sq-ft)
1013.50	0.5	0.60		0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1014.00	1	1.11		1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1014.50	1.5	1.45		1.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1015.00	2	1.73		1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1015.50	2.5	1.96		1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1016.00	3	2.17		2.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1016.50	3.5	2.37		2.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1017.00	4	2.54		2.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1017.50	4.5	2.71		2.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1018.00	5	2.87		2.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1019.00	6	3.16		3.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1020.00	7	3.42		3.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1021.00	8	3.67		3.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1022.00	9	3.90		3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1023.00	10	4.12		4.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1024.00	11	4.32		4.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1025.00	12	4.52		4.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1026.00	13	66.31		4.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	61.60	0.00
1027.00	14	179.12		4.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	174.23	0.00

↑ ORIFICE

↑ [Σ FLOWS (HOLES+RISER)] (OUTFLOW THROUGH HOLES) ↑ (FLOW OVER TOP OF RISER)

Note:

1. Orifice outflow is based on:
   $Q=CA(2gH)^{0.5}$
   where:
   C = Coefficient, 0.6 used here
   A = Orifice Area
   H = Headwater

2. Weir flow is based on:
   $Q=CLH^{1.5}$
   where:
   C = Coefficient, 2.8 used here
   L = Weir Length, Riser Pipe Perimeter was used here
   H = Headwater

W.O. #3751-1, Portola Center T.T. 15353 & 17300
7/9/2012
BASIN #5 @ NODE 64
With 1 @ 7.09" Diameter Orifice at 1013.0' inv. and 5.0'W x 2.0'H Rect. Orifice at 1022.0' inv.

STORAGE CAPACITY CALCULATIONS FOR WATER QUALITY/HYDROMOD BASIN AT NODE 64

Elevation (ft)	Contour Interval (ft)	Accumulate Depth (ft)	Area (sqft)	Area (acre)	Mean Area (acre)	Volume (ac.ft)	$Volume_{ACCUMULATE}$ (ac.ft)	$Volume_{ACCUMULATE}$ (cuyd)	Qout (cfs)	
1013.00			15373	0.35					0.00	
1013.50	0.50	0.50	15373	0.35	0.35	0.18	0.18	284.69	0.60	
1014.00	0.50	1.00	15373	0.35	0.35	0.18	0.35	569.37	1.11	
1014.50	0.50	1.50	15373	0.35	0.35	0.18	0.53	854.06	1.45	
1015.00	0.50	2.00	15373	0.35	0.35	0.18	0.71	1138.74	1.73	
1015.50	0.50	2.50	15373	0.35	0.35	0.18	0.88	1423.43	1.96	
1016.00	0.50	3.00	15373	0.35	0.35	0.18	1.06	1708.11	2.17	
1016.50	0.50	3.50	15373	0.35	0.35	0.18	1.24	1992.80	2.37	
1017.00	0.50	4.00	15373	0.35	0.35	0.18	1.41	2277.48	2.54	
1017.50	0.50	4.50	15373	0.35	0.35	0.18	1.59	2562.17	2.71	
1018.00	0.50	5.00	15373	0.35	0.35	0.18	1.76	2846.85	2.87	
1019.00	1.00	6.00	15373	0.35	0.35	0.35	2.12	3416.22	3.16	
1020.00	1.00	7.00	15373	0.35	0.35	0.35	2.47	3985.59	3.42	
1021.00	1.00	8.00	15373	0.35	0.35	0.35	2.82	4554.96	3.67	
1022.00	1.00	9.00	15373	0.35	0.35	0.35	3.18	5124.33	3.90	
1023.00	1.00	10.00	15373	0.35	0.35	0.35	3.53	5693.70	4.12	+14.0 =18.12
1024.00	1.00	11.00	15373	0.35	0.35	0.35	3.88	6263.07	4.32	+39.6 =43.92
1025.00	1.00 15' SPILLWAY EL	12.00	15373	0.35	0.35	0.35	4.23	6832.44	4.52	+68.07 =72.59
1026.00	1.00	13.00	15373	0.35	0.35	0.35	4.59	7401.81	66.31	+83.36 =149.67
1027.00	1.00 SOFFIT	14.00	15373	0.35	0.35	0.35	4.94	7971.19	179.12	+96.26 =275.38

Rating Table for Rectangular Orifice - Basin #5

Project Description

Solve For	Discharge

Input Data

Headwater Elevation	1027.00	ft
Centroid Elevation	1023.00	ft
Tailwater Elevation	1022.00	ft
Discharge Coefficient	0.60	
Opening Width	5.00	ft
Opening Height	2.00	ft

Headwater Elevation (ft)	Discharge (ft³/s)	Velocity (ft/s)
1022.00		
1023.00	14.0 (WEIR)	
1024.00	~~48.13~~ 39.6 (WEIR MAX)	4.81
1025.00	68.07	6.81
1026.00	83.36	8.34
1027.00	96.26	9.63

Rating Table for Rectangular Weir - Basin #5

Project Description

Solve For	Discharge

Input Data

Headwater Elevation		1024.00	ft
Crest Elevation		1022.00	ft
Tailwater Elevation		1022.00	ft
Weir Coefficient		2.80	US
Crest Length		5.00	ft
Number Of Contractions	0		

Headwater Elevation (ft)	Discharge (ft³/s)	Velocity (ft/s)
1022.00	0.00	
1023.00	14.00	2.80
1024.00	39.60	3.96

OUTFLOW VS DEPTH CALCULATIONS

	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	WEIR		
No. of Holes →	1	5	5	5	5	5	5	1	1	←	No. of Weir
	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	WEIR C		
Discharge Coefficient →	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.8	←	Weir Coefficient
	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	DIST TO WEIR		
Distance of Holes from Basin Bottom (in) →	0	20.49	32.49	44.49	56.49	68.49	80.49	0	84	←	Distance of Top of Riser Pipe from Basin Bottom (in)
	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	WEIR LENGTH FT		
Hole Radius (in) →	4.0000	0	0	0	0	0	0	0	5.00	←	Riser Pipe Perimeter (ft) =PI*D, 36" Riser Pipe (Using 5.0' weir)
	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	WEIR ELEV		
Hole Centerline Elev →	1013.33	1014.71	1015.71	1016.71	1017.71	1018.71	1019.71	1013	1020.0	←	Top of Riser Elevation (ft)
									AREA		
									0	←	(sq-ft)

ELEV	DEPTH	OUTFLOW	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	WEIR	ORIFICE
1013.00	0	0										
1013.50	0.5	0.69	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1014.00	1	1.37	1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1014.50	1.5	1.82	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1015.00	2	2.17	2.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1015.50	2.5	2.47	2.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1016.00	3	2.74	2.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1016.50	3.5	2.99	2.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1017.00	4	3.22	3.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1017.50	4.5	3.43	3.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1018.00	5	3.63	3.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1019.00	6	4.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1020.00	7	4.34	4.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1021.00	8	18.65	4.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00	
1022.00	9	44.55	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.60	
1022.00	9	44.55	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.60	
1022.00	9	44.55	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.60	0.00
1022.00	9	44.55	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.60	0.00
1022.00	9	44.55	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.60	0.00
1022.00	9	44.55	4.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.60	0.00
		↑ [Σ FLOWS (HOLES+RISER)]	(OUTFLOW THROUGH HOLES)								↑ (FLOW OVER TOP OF RISER)	↑ ORIFICE

Note:

1. Orifice outflow is based on:
   $Q=CA(2gH)^{0.5}$
   where:
   C = Coefficient, 0.6 used here
   A = Orifice Area
   H = Headwater

2. Weir flow is based on:
   $Q=CLH^{1.5}$
   where:
   C = Coefficient, 2.8 used here
   L = Weir Length, Riser Pipe Perimeter was used here
   H = Headwater

W.O. #3751-1, Portola Center T.T. 15353 & 17300
6/10/2012
BASIN #6 @ NODE 66
With 1 @ 8" Diameter Orifice

STORAGE CAPACITY CALCULATIONS FOR WATER QUALITY/HYDROMOD BASIN AT NODE 66

Elevation (ft)	Contour Interval (ft)	Accumulate Depth (ft)	Area (sqft)	Area (acre)	Mean Area (acre)	Volume (ac.ft)	$Volume_{ACCUMULATE}$ (ac.ft)	$Volume_{ACCUMULATE}$ (cuyd)	Qout (cfs)
1013.00			1260	0.03					0.00
1013.50	0.50	0.50	1260	0.03	0.03	0.01	0.01	23.33	0.69
1014.00	0.50	1.00	1260	0.03	0.03	0.01	0.03	46.67	1.37
1014.50	0.50	1.50	1260	0.03	0.03	0.01	0.04	70.00	1.82
1015.00	0.50	2.00	1260	0.03	0.03	0.01	0.06	93.33	2.17
1015.50	0.50	2.50	1260	0.03	0.03	0.01	0.07	116.67	2.47
1016.00	0.50	3.00	1260	0.03	0.03	0.01	0.09	140.00	2.74
1016.50	0.50	3.50	1260	0.03	0.03	0.01	0.10	163.33	2.99
1017.00	0.50	4.00	1260	0.03	0.03	0.01	0.12	186.67	3.22
1017.50	0.50	4.50	1260	0.03	0.03	0.01	0.13	210.00	3.43
1018.00	0.50	5.00	1260	0.03	0.03	0.01	0.14	233.33	3.63
1019.00	1.00	6.00	1260	0.03	0.03	0.03	0.17	280.00	4.00
1020.00	1.00 5' SPILLWAY ELV	7.00	1260	0.03	0.03	0.03	0.20	326.67	4.34
1021.00	1.00	8.00	1260	0.03	0.03	0.03	0.23	373.33	18.65
1022.00	1.00 SOFFIT	9.00	1260	0.03	0.03	0.03	0.26	420.00	44.55
1023.00	1.00	10.00	1260	0.03	0.03	0.03	0.29	466.67	44.55
1024.00	1.00	11.00	1260	0.03	0.03	0.03	0.32	513.33	44.55
1025.00	1.00	12.00	1260	0.03	0.03	0.03	0.35	560.00	44.55
1026.00	1.00	13.00	1260	0.03	0.03	0.03	0.38	606.67	44.55
1027.00	1.00	14.00	1260	0.03	0.03	0.03	0.40	653.33	44.55

OUTFLOW VS DEPTH CALCULATIONS

			HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	WEIR		
		No. of Holes →	1	5	5	5	5	5	5	1	1	←	No. of Weir
			HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	WEIR C		
		Discharge Coefficient →	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.8	←	Weir Coefficient
			HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	DIST TO WEIR		
		Distance of Holes from Basin Bottom (in) →	0	20.49	32.49	44.49	56.49	68.49	80.49	0	144	←	Distance of Top of Riser Pipe from Basin Bottom (in)
			HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	WEIR LENGTH FT		
		Hole Radius (in) →	1.2813	0	0	0	0	0	0	0	5.00	←	Riser Pipe Perimeter (ft) =PI*D, 36" Riser Pipe (Using 5.0' weir)
			CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	WEIR ELEV		
		Hole Centerline Elev →	998.107	999.708	1000.71	1001.71	1002.71	1003.71	1004.71	998	1010.0	←	Top of Riser Elevation (ft)
ELEV	DEPTH	OUTFLOW									AREA		
998.00	0	0									0	←	(sq-ft)
998.50	0.5	0.11	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
999.00	1	0.16	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
999.50	1.5	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1000.00	2	0.24	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1000.50	2.5	0.27	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1001.00	3	0.29	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1001.50	3.5	0.32	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1002.00	4	0.34	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1002.50	4.5	0.36	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1003.00	5	0.38	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1004.00	6	0.42	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1005.00	7	0.45	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1006.00	8	0.48	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1007.00	9	0.51	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1008.00	10	0.54	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1009.00	11	0.57	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1010.00	12	0.59	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1011.00	13	14.62	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00	0.00	
1012.00	14	40.24	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.60	0.00	

↑ ORIFICE

↑ [Σ FLOWS (HOLES+RISER)] (OUTFLOW THROUGH HOLES) ↑ (FLOW OVER TOP OF RISER)

Note:

1. Orifice outflow is based on:
   $Q=CA(2gH)^{0.5}$
   where:
   C = Coefficient, 0.6 used here
   A = Orifice Area
   H = Headwater

2. Weir flow is based on:
   $Q=CLH^{1.5}$
   where:
   C = Coefficient, 2.8 used here
   L = Weir Length, Riser Pipe Perimeter was used here
   H = Headwater

W.O. #3751-1, Portola Center T.T. 15353 & 17300
7/9/2012
BASIN #7A & #7B @ NODES 67 & 69.7
With 1 @ 2.56" Diameter Orifice at 998.0' inv. and 1.0'W x 1.0'H Rect. Orifice at 1008.0' inv.

STORAGE CAPACITY CALCS FOR WATER QUALITY/HYDROMOD BASIN AT NODES 67 & 69.7

Elevation (ft)	Contour Interval (ft)	Accumulate Depth (ft)	Area (sqft)	Area (acre)	Mean Area (acre)	Volume (ac.ft)	$Volume_{ACCUMULATE}$ (ac.ft)	$Volume_{ACCUMULATE}$ (cuyd)	Qout (cfs)	
998.00			2795	0.06					0.00	
	0.50				0.06	0.03	0.03	51.76	0.11	
998.50		0.50	2795	0.06						
	0.50				0.06	0.03	0.06	103.52	0.16	
999.00		1.00	2795	0.06						
	0.50				0.06	0.03	0.10	155.28	0.20	
999.50		1.50	2795	0.06						
	0.50				0.06	0.03	0.13	207.04	0.24	
1000.00		2.00	2795	0.06						
	0.50				0.06	0.03	0.16	258.80	0.27	
1000.50		2.50	2795	0.06						
	0.50				0.06	0.03	0.19	310.56	0.29	
1001.00		3.00	2795	0.06						
	0.50				0.06	0.03	0.22	362.31	0.32	
1001.50		3.50	2795	0.06						
	0.50				0.06	0.03	0.26	414.07	0.34	
1002.00		4.00	2795	0.06						
	0.50				0.06	0.03	0.29	465.83	0.36	
1002.50		4.50	2795	0.06						
	0.50				0.06	0.03	0.32	517.59	0.38	
1003.00		5.00	2795	0.06						
	1.00				0.06	0.06	0.38	621.11	0.42	
1004.00		6.00	2795	0.06						
	1.00				0.06	0.06	0.45	724.63	0.45	
1005.00		7.00	2795	0.06						
	1.00				0.06	0.06	0.51	828.15	0.48	
1006.00		8.00	2795	0.06						
	1.00				0.06	0.06	0.58	931.67	0.51	
1007.00		9.00	2795	0.06						
	1.00				0.06	0.06	0.64	1035.19	0.54	
1008.00		10.00	2795	0.06						
	1.00				0.06	0.06	0.71	1138.70	0.57	+2.80
1009.00		11.00	2795	0.06					=3.37	
	1.00				0.06	0.06	0.77	1242.22	0.59	+5.89
1010.00	15' SPILLWAY EL.	12.00	2795	0.06					=6.48	
	1.00				0.06	0.06	0.83	1345.74	14.62	+7.61
1011.00		13.00	2795	0.06					=22.25	
	1.00				0.06	0.06	0.90	1449.26	40.24	+9.00
1012.00	SOFFIT	14.00	2795	0.06					=49.24	

Rating Table for Rectangular Orifice - Basin #7 (7A & 7B)

Project Description

Solve For	Discharge

Input Data

Headwater Elevation	1012.00	ft
Centroid Elevation	1008.50	ft
Tailwater Elevation	1008.00	ft
Discharge Coefficient	0.60	
Opening Width	1.00	ft
Opening Height	1.00	ft

Headwater Elevation (ft)	Discharge (ft³/s)	Velocity (ft/s)
1008.00		
1009.00	~~3.40~~ 2.80 (WEIR MAX)	3.40
1010.00	5.89	5.89
1011.00	7.61	7.61
1012.00	9.00	9.00

Rating Table for Rectangular Weir - Basin #7 (7A & 7B)

Project Description

Solve For	Discharge

Input Data

Headwater Elevation		1009.00	ft
Crest Elevation		1008.00	ft
Tailwater Elevation		1008.00	ft
Weir Coefficient		2.80	US
Crest Length		1.00	ft
Number Of Contractions	0		

Headwater Elevation (ft)	Discharge (ft³/s)	Velocity (ft/s)
1008.00	0.00	
1009.00	2.80	2.80

OUTFLOW VS DEPTH CALCULATIONS

					HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	WIER			
No. of Holes				→	1	5	5	5	5	5	5	1	1	←		No. of Weir
					HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	WIER C			
Discharge Coefficient				→	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.8	←		Weir Coefficient
					HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	DIST TO WIER			
Distance of Holes from Basin Bottom (in)				→	0	20.49	32.49	44.49	56.49	68.49	80.49	0	81.4164	←		Distance of Top of Riser Pipe from Basin Bottom (in)
					HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	WIER LENGTH FT			
Hole Radius (in)				→	0.7500	0	0	0	0	0	0	0	1.00	←		Riser Pipe Perimeter (ft) =PI*D, 36" Riser Pipe (Using 1.0' weir)
					CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	WIER ELEV			
Hole Centerline Elev				→	993.063	994.708	995.708	996.708	997.708	998.708	999.708	993	998.0	←		Top of Riser Elevation (ft)
	ELEV	DEPTH	OUTFLOW										AREA			
	993.00	0	0										0	←		(sq-ft)
	993.50	0.5	0.04		0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
	994.00	1	0.06		0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
	994.50	1.5	0.07		0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
	995.00	2	0.08		0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
	995.50	2.5	0.09		0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
	996.00	3	0.10		0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
	996.50	3.5	0.11		0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
	997.00	4	0.12		0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
	997.50	4.5	0.12		0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
	998.00	5	0.13		0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
	999.00	6	2.94		0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.80			
	1000.00	7	8.08		0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.92			
	1000.00	7	8.08		0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.92			
	1000.00	7	8.08		0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.92			
	1000.00	7	8.08		0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.92			
	1000.00	7	8.08		0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.92		0.00	
	1000.00	7	8.08		0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.92		0.00	
	1000.00	7	8.08		0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.92		0.00	
	1000.00	7	8.08		0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.92		0.00	
			↑										↑		↑	
			[Σ FLOWS (HOLES+RISER)]		(OUTFLOW THROUGH HOLES)								(FLOW OVER TOP OF RISER)		ORIFICE	

Note:

1. Orifice outflow is based on:
   $Q=CA(2gH)^{0.5}$
   where:
   C = Coefficient, 0.6 used here
   A = Orifice Area
   H = Headwater

2. Weir flow is based on:
   $Q=CLH^{1.5}$
   where:
   C = Coefficient, 2.8 used here
   L = Weir Length, Riser Pipe Perimeter was used here
   H = Headwater

W.O. #3751-1, Portola Center T.T. 15353 & 17300
7/9/2012
DETENTION BASIN #8 @ NODE 102.1
With 1 @ 1.5" Diameter Orifice

STORAGE CAPACITY CALCULATIONS FOR DETENTION BASIN AT NODE 102.1

Elevation (ft)	Contour Interval (ft)	Accumulate Depth (ft)	Area (sqft)	Area (acre)	Mean Area (acre)	Volume (ac.ft)	Volume$_{ACCUMULATE}$ (ac.ft)	Volume$_{ACCUMULATE}$ (cuyd)	Qout (cfs)
993.00			430	0.01					0.00
	0.50				0.01	0.00	0.00	7.96	0.04
993.50		0.50	430	0.01					
	0.50				0.01	0.00	0.01	15.93	0.06
994.00		1.00	430	0.01					
	0.50				0.01	0.00	0.01	23.89	0.07
994.50		1.50	430	0.01					
	0.50				0.01	0.00	0.02	31.85	0.08
995.00		2.00	430	0.01					
	0.50				0.01	0.00	0.02	39.81	0.09
995.50		2.50	430	0.01					
	0.50				0.01	0.00	0.03	47.78	0.10
996.00		3.00	430	0.01					
	0.50				0.01	0.00	0.03	55.74	0.11
996.50		3.50	430	0.01					
	0.50				0.01	0.00	0.04	63.70	0.12
997.00		4.00	430	0.01					
	0.50				0.01	0.00	0.04	71.67	0.12
997.50		4.50	430	0.01					
	0.50				0.01	0.00	0.05	79.63	0.13
998.00	5' SPILLWAY ELV	5.00	430	0.01					
	1.00				0.01	0.01	0.06	95.56	2.94
999.00		6.00	430	0.01					
	1.00				0.01	0.01	0.07	111.48	8.08
1000.00	SOFFIT	7.00	430	0.01					
	0.00				0.01	0.00	0.07	111.48	8.08
1000.00		7.00	430	0.01					
	0.00				0.01	0.00	0.07	111.48	8.08
1000.00		7.00	430	0.01					
	0.00				0.01	0.00	0.07	111.48	8.08
1000.00		7.00	430	0.01					
	0.00				0.01	0.00	0.07	111.48	8.08
1000.00		7.00	430	0.01					
	0.00				0.01	0.00	0.07	111.48	8.08
1000.00		7.00	430	0.01					
	0.00				0.01	0.00	0.07	111.48	8.08
1000.00		7.00	430	0.01					
	0.00				0.01	0.00	0.07	111.48	8.08
1000.00		7.00	430	0.01					

OUTFLOW VS DEPTH CALCULATIONS

			HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	WEIR		
		No. of Holes →	1	5	5	5	5	5	5	1	1	←	No. of Weir
			HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	WEIR C		
		Discharge Coefficient →	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.8	←	Weir Coefficient
			HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	DIST TO WEIR		
Distance of Holes from Basin Bottom (in)		→	0	20.49	32.49	44.49	56.49	68.49	80.49	0	144	←	Distance of Top of Riser Pipe from Basin Bottom (in)
			HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	WEIR LENGTH FT		
		Hole Radius (in) →	0.7500	0	0	0	0	0	0	0	2.00	←	Riser Pipe Perimeter (ft) =PI*D, 36" Riser Pipe (Using 2.0' weir)
			CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	WEIR ELEV		
		Hole Centerline Elev →	962.063	963.708	964.708	965.708	966.708	967.708	968.708	962	974.0	←	Top of Riser Elevation (ft)
ELEV	DEPTH	OUTFLOW									AREA		
962.00	0	0									0	←	(sq-ft)
962.50	0.5	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
963.00	1	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
963.50	1.5	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
964.00	2	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
964.50	2.5	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
965.00	3	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
965.50	3.5	0.11	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
966.00	4	0.12	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
966.50	4.5	0.12	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
967.00	5	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
968.00	6	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
969.00	7	0.16	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
970.00	8	0.17	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
971.00	9	0.18	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
972.00	10	0.19	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
973.00	11	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
974.00	12	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
975.00	13	5.81	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.60	0.00	
976.00	14	16.06	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.84	0.00	

↑ ORIFICE

↑ [Σ FLOWS (HOLES+RISER)] (OUTFLOW THROUGH HOLES) ↑ (FLOW OVER TOP OF RISER)

Note:

1. Orifice outflow is based on:
   $Q=CA(2gH)^{0.5}$
   where:
   C = Coefficient, 0.6 used here
   A = Orifice Area
   H = Headwater

2. Weir flow is based on:
   $Q=CLH^{1.5}$
   where:
   C = Coefficient, 2.8 used here
   L = Weir Length, Riser Pipe Perimeter was used here
   H = Headwater

BASIN #8A

W.O. #3751-1, Portola Center T.T. 15353 & 17300
7/9/2012
BASIN #8A @ NODE 103
With 1 @ 1.5" Diameter Orifice at 962.0' inv. and 0.25'W x 0.5'H Rect. Orifice at 969.5' inv.

STORAGE CAPACITY CALCULATIONS FOR WATER QUALITY/HYDROMOD BASIN AT NODE 103

Elevation (ft)	Contour Interval (ft)	Accumulate Depth (ft)	Area (sqft)	Area (acre)	Mean Area (acre)	Volume (ac.ft)	$Volume_{ACCUMULATE}$ (ac.ft)	$Volume_{ACCUMULATE}$ (cuyd)	Qout (cfs)	
962.00			1362	0.03					0.000	
	0.50				0.03	0.02	0.02	25.22	0.039	
962.50		0.50	1362	0.03						
	0.50				0.03	0.02	0.03	50.44	0.057	
963.00		1.00	1362	0.03						
	0.50				0.03	0.02	0.05	75.67	0.071	
963.50		1.50	1362	0.03						
	0.50				0.03	0.02	0.06	100.89	0.082	
964.00		2.00	1362	0.03						
	0.50				0.03	0.02	0.08	126.11	0.092	
964.50		2.50	1362	0.03						
	0.50				0.03	0.02	0.09	151.33	0.101	
965.00		3.00	1362	0.03						
	0.50				0.03	0.02	0.11	176.56	0.110	
965.50		3.50	1362	0.03						
	0.50				0.03	0.02	0.13	201.78	0.117	
966.00		4.00	1362	0.03						
	0.50				0.03	0.02	0.14	227.00	0.124	
966.50		4.50	1362	0.03						
	0.50				0.03	0.02	0.16	252.22	0.131	
967.00		5.00	1362	0.03						
	1.00				0.03	0.03	0.19	302.67	0.144	
968.00		6.00	1362	0.03						
	1.00				0.03	0.03	0.22	353.11	0.156	
969.00		7.00	1362	0.03						
	1.00				0.03	0.03	0.25	403.56	0.166	+0.25
970.00		8.00	1362	0.03				=	0.416	
	1.00				0.03	0.03	0.28	454.00	0.177	+0.67
971.00		9.00	1362	0.03				=	0.847	
	1.00				0.03	0.03	0.31	504.44	0.186	+0.90
972.00		10.00	1362	0.03				=	1.086	
	1.00				0.03	0.03	0.34	554.89	0.195	+1.08
973.00		11.00	1362	0.03				=	1.275	
	1.00				0.03	0.03	0.38	605.33	0.204	+1.24
974.00	15' SPILLWAY EL	12.00	1362	0.03				=	1.444	
	1.00				0.03	0.03	0.41	655.78	5.813	+1.38
975.00		13.00	1362	0.03				=	7.193	
	1.00				0.03	0.03	0.44	706.22	16.060	+1.50
976.00	SOFFIT	14.00	1362	0.03				=	17.560	

Rating Table for Rectangular Orifice - Basin #8A

Project Description

Solve For	Discharge

Input Data

Headwater Elevation	976.00	ft
Centroid Elevation	969.75	ft
Tailwater Elevation	969.50	ft
Discharge Coefficient	0.60	
Opening Width	0.25	ft
Opening Height	0.50	ft

Headwater Elevation (ft)	Discharge (ft³/s)	Velocity (ft/s)
969.50		
970.00	~~0.30~~ 0.25 (WEIR MAX)	2.41
970.50	0.52	4.17
971.00	0.67	5.38
971.50	0.80	6.37
972.00	0.90	7.22
972.50	1.00	7.98
973.00	1.08	8.68
973.50	1.17	9.32
974.00	1.24	9.92
974.50	1.31	10.49
975.00	1.38	11.03
975.50	1.44	11.54
976.00	1.50	12.03

Rating Table for Rectangular Weir - Basin #8A

Project Description

Solve For	Discharge

Input Data

Headwater Elevation	970.00	ft
Crest Elevation	969.50	ft
Tailwater Elevation	969.50	ft
Weir Coefficient	2.80	US
Crest Length	0.25	ft
Number Of Contractions	0	

Headwater Elevation (ft)	Discharge (ft³/s)	Velocity (ft/s)
969.50	0.00	
970.00	0.25	1.98

OUTFLOW VS DEPTH CALCULATIONS

			HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	WEIR		
		No. of Holes →	1	5	5	5	5	5	5	1	1	←	No. of Weir
			HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	WEIR C		
		Discharge Coefficient →	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.8	←	Weir Coefficient
			HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	DIST TO WEIR		
Distance of Holes from Basin Bottom (in)		→	0	20.49	32.49	44.49	56.49	68.49	80.49	0	144	←	Distance of Top of Riser Pipe from Basin Bottom (in)
			HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	WEIR LENGTH FT		
		Hole Radius (in) →	0.8750	0	0	0	0	0	0	0	2.00	←	Riser Pipe Perimeter (ft) =PI*D, 36" Riser Pipe (Using 2.0' weir)
			CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	WEIR ELEV		
		Hole Centerline Elev →	962.073	963.708	964.708	965.708	966.708	967.708	968.708	962	974.0	←	Top of Riser Elevation (ft)
ELEV	DEPTH	OUTFLOW									AREA		
962.00	0	0									0	←	(sq-ft)
962.50	0.5	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
963.00	1	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
963.50	1.5	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
964.00	2	0.11	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
964.50	2.5	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
965.00	3	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
965.50	3.5	0.15	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
966.00	4	0.16	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
966.50	4.5	0.17	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
967.00	5	0.18	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
968.00	6	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
969.00	7	0.21	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
970.00	8	0.23	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
971.00	9	0.24	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
972.00	10	0.25	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
973.00	11	0.27	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
974.00	12	0.28	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
975.00	13	5.89	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.60	0.00	
976.00	14	16.14	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.84	0.00	

↑ ORIFICE

↑ [Σ FLOWS (HOLES+RISER)] (OUTFLOW THROUGH HOLES) ↑ (FLOW OVER TOP OF RISER)

Note:

1. Orifice outflow is based on:
   $Q=CA(2gH)^{0.5}$
   where:
   C = Coefficient, 0.6 used here
   A = Orifice Area
   H = Headwater

2. Weir flow is based on:
   $Q=CLH^{1.5}$
   where:
   C = Coefficient, 2.8 used here
   L = Weir Length, Riser Pipe Perimeter was used here
   H = Headwater

W.O. #3751-1, Portola Center T.T. 15353 & 17300
7/9/2012
BASIN #8B @ NODE 113.2
With 1 @ 1.75" Diameter Orifice at 962.0' inv. and 0.5'W x 0.75'H Rect. Orifice at 969.5' inv.

STORAGE CAPACITY CALCULATIONS FOR WATER QUALITY/HYDROMOD BASIN AT NODE 113.2

Elevation (ft)	Contour Interval (ft)	Accumulate Depth (ft)	Area (sqft)	Area (acre)	Mean Area (acre)	Volume (ac.ft)	$Volume_{ACCUMULATE}$ (ac.ft)	$Volume_{ACCUMULATE}$ (cuyd)	Qout (cfs)	
962.00			1967	0.05					0.000	
962.50	0.50	0.50	1967	0.05	0.05	0.02	0.02	36.43	0.053	
963.00	0.50	1.00	1967	0.05	0.05	0.02	0.05	72.85	0.077	
963.50	0.50	1.50	1967	0.05	0.05	0.02	0.07	109.28	0.096	
964.00	0.50	2.00	1967	0.05	0.05	0.02	0.09	145.70	0.112	
964.50	0.50	2.50	1967	0.05	0.05	0.02	0.11	182.13	0.125	
965.00	0.50	3.00	1967	0.05	0.05	0.02	0.14	218.56	0.138	
965.50	0.50	3.50	1967	0.05	0.05	0.02	0.16	254.98	0.149	
966.00	0.50	4.00	1967	0.05	0.05	0.02	0.18	291.41	0.159	
966.50	0.50	4.50	1967	0.05	0.05	0.02	0.20	327.83	0.169	
967.00	0.50	5.00	1967	0.05	0.05	0.02	0.23	364.26	0.179	
968.00	1.00	6.00	1967	0.05	0.05	0.05	0.27	437.11	0.196	
969.00	1.00	7.00	1967	0.05	0.05	0.05	0.32	509.96	0.212	
970.00	1.00	8.00	1967	0.05	0.05	0.05	0.36	582.81 = 0.716	0.226	+0.49
971.00	1.00	9.00	1967	0.05	0.05	0.05	0.41	655.67 = 2.150	0.240	+1.91
972.00	1.00	10.00	1967	0.05	0.05	0.05	0.45	728.52 = 2.883	0.253	+2.63
973.00	1.00	11.00	1967	0.05	0.05	0.05	0.50	801.37 = 3.456	0.266	+3.19
974.00	1.00 15' SPILLWAY EL	12.00	1967	0.05	0.05	0.05	0.54	874.22 = 3.948	0.278	+3.67
975.00	1.00	13.00	1967	0.05	0.05	0.05	0.59	947.07 = 9.939	5.889	+4.05
976.00	1.00 SOFFIT	14.00	1967	0.05	0.05	0.05	0.63	1019.93 = 20.609	16.139	+4.47

Rating Table for Rectangular Orifice - Basin #8B

Project Description

Solve For	Discharge

Input Data

Headwater Elevation	976.00	ft
Centroid Elevation	969.88	ft
Tailwater Elevation	969.50	ft
Discharge Coefficient	0.60	
Opening Width	0.50	ft
Opening Height	0.75	ft

Headwater Elevation (ft)	Discharge (ft³/s)	Velocity (ft/s)
969.50		
970.00	~~0.64~~ 0.49 (WEIR)	1.70
970.50	1.43	3.81
971.00	1.91	5.10
971.50	2.30	6.14
972.00	2.63	7.02
972.50	2.92	7.80
973.00	3.19	8.51
973.50	3.44	9.16
974.00	3.67	9.78
974.50	3.88	10.35
975.00	4.09	10.90
975.50	4.28	11.42
976.00	4.47	11.91

Rating Table for Rectangular Weir - Basin #8B

Project Description

Solve For	Discharge

Input Data

Headwater Elevation		970.00	ft
Crest Elevation		969.50	ft
Tailwater Elevation		969.50	ft
Weir Coefficient		2.80	US
Crest Length		0.50	ft
Number Of Contractions	0		

Headwater Elevation (ft)	Discharge (ft³/s)	Velocity (ft/s)
969.50	0.00	
970.00	0.49	1.98

OUTFLOW VS DEPTH CALCULATIONS

			HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	WEIR		
		No. of Holes →	1	0	0	0	5	5	5	1	1	←	No. of Weir
			HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	WEIR C		
		Discharge Coefficient →	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.8	←	Weir Coefficient
			HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	DIST TO WEIR		
Distance of Holes from Basin Bottom (in)		→	0	48	60	84	56.49	68.49	80.49	0	72	←	Distance of Top of Riser Pipe from Basin Bottom (in)
			HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	WEIR LENGTH FT		
		Hole Radius (in) →	1.5000	2	2	3	0	0	0	0	9.42	←	Riser Pipe Perimeter (ft) =PI*D, 36" Riser Pipe
			CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	WEIR ELEV		
		Hole Centerline Elev →	1030.13	1034.17	1035.17	1037.25	1034.71	1035.71	1036.71	1030	1036.0	←	Top of Riser Elevation (ft)
ELEV	DEPTH	OUTFLOW									AREA		
1030.00	0	0									7.069	←	(sq-ft)
1030.12	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.04 at critical depth
1030.50	0.5	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1031.00	1	0.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1031.50	1.5	0.28	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1032.00	2	0.32	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1032.50	2.5	0.36	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1033.00	3	0.40	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1033.50	3.5	0.43	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1034.00	4	0.47	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1034.50	4.5	0.49	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1035.00	5	0.52	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1035.50	5.5	0.55	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1036.00	6	0.57	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1036.50	6.5	9.92	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.33	24.07	
1037.00	7	27.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.38	34.04	
1037.50	7.5	42.33	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.46	41.69	
1038.00	8	48.80	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	74.60	48.14	
1038.50	8.5	54.50	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104.26	53.82	
1039.00	9	59.66	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	137.05	58.95	
1040.00	10	68.82	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	211.01	68.07	

↑ ORIFICE

↑ [Σ FLOWS (HOLES+RISER)] (OUTFLOW THROUGH HOLES) ↑ (FLOW OVER TOP OF RISER)

Note:

1. Orifice outflow is based on:
   $Q=CA(2gH)^{0.5}$
   where:
   C = Coefficient, 0.6 used here
   A = Orifice Area
   H = Headwater

2. Weir flow is based on:
   $Q=CLH^{1.5}$
   where:
   C = Coefficient, 2.8 used here
   L = Weir Length, Riser Pipe Perimeter was used here
   H = Headwater

W.O. #3751-1, Portola Center T.T. 15353 & 17300
7/10/2012
BASIN #9 @ NODE 206
With 1 @ 3.0" Diameter Orifice

STORAGE CAPACITY CALCULATIONS FOR WATER QUALITY/HYDROMOD BASIN AT NODE 206

Elevation (ft)	Contour Interval (ft)	Accumulate Depth (ft)	Area (sqft)	Area (acre)	Mean Area (acre)	Volume (ac.ft)	$Volume_{ACCUMULATE}$ (ac.ft)	$Volume_{ACCUMULATE}$ (cuyd)	Qout (cfs)	
1030.00			6221	0.14					0.00	
1030.12	0.12	0.12	6414	0.15	0.15	0.02	0.02	28.08	0.04	
1030.50	0.38	0.50	7026	0.16	0.15	0.06	0.08	122.66	0.14	
1031.00	0.50	1.00	7831	0.18	0.17	0.09	0.16	260.22	0.22	
1031.50	0.50	1.50	8636	0.20	0.19	0.09	0.26	412.69	0.28	
1032.00	0.50	2.00	9441	0.22	0.21	0.10	0.36	580.07	0.32	
1032.50	0.50	2.50	10438	0.24	0.23	0.11	0.47	764.14	0.36	
1033.00	0.50	3.00	11051	0.25	0.25	0.12	0.60	963.11	0.40	
1033.50	0.50	3.50	11856	0.27	0.26	0.13	0.73	1175.21	0.43	
1034.00	0.50	4.00	12661	0.29	0.28	0.14	0.87	1402.22	0.47	
1034.50	0.50	4.50	13466	0.31	0.30	0.15	1.02	1644.14	0.49	
1035.00	0.50	5.00	14271	0.33	0.32	0.16	1.18	1900.96	0.52	
1035.50	0.50	5.50	15076	0.35	0.34	0.17	1.35	2172.69	0.55	
1036.00	0.50 36" RISER RIM	6.00	15881	0.36	0.36	0.18	1.52	2459.33	0.57	
1036.50	0.50	6.50	16686	0.38	0.37	0.19	1.71	2760.88	9.92	
1037.00	0.50	7.00	17491	0.40	0.39	0.20	1.91	3077.33	27.00	
1037.50	0.50	7.50	18296	0.42	0.41	0.21	2.11	3408.69	42.33	
1038.00	0.50 SPILLWAY	8.00	19101	0.44	0.43	0.21	2.33	3754.96	48.80	
1038.50	0.50	8.50	19906	0.46	0.45	0.22	2.55	4116.14	54.50	+10.10 = 64.6
1039.00	0.50	9.00	20711	0.48	0.47	0.23	2.78	4492.22	59.66	+28.56 = 88.22
1040.00	1.00 TOP	10.00	22321	0.51	0.49	0.49	3.28	5289.11	68.82	+39.91 = 108.73

Rating Table for Rectangular Weir - Basin #9

Project Description

Solve For	Discharge

Input Data

Headwater Elevation		1039.00	ft
Crest Elevation		1038.00	ft
Tailwater Elevation		1038.00	ft
Weir Coefficient		2.80	US
Crest Length		10.20	ft
Number Of Contractions	0		

Headwater Elevation (ft)	Discharge (ft³/s)	Velocity (ft/s)
1038.00 ← CREST	0.00	
1038.25	3.57	1.40
1038.50	10.10 ←	1.98
1038.75	18.55	2.42
1039.00	28.56 ←	2.80
1039.25	39.91 ←	3.13
1039.50	52.47	3.43
1039.75	66.12	3.70
1040.00 ← TOP OF BANK	80.78	3.96

Q_{25} @ NODE 206 = 28.5 CFS < 28.56 CFS

Q_{100} @ NODE 206 = 38.0 CFS < 39.91 CFS

Worksheet for 3" Diameter Orifice at critical depth - Basin #9

Project Description

Friction Method	Manning Formula
Solve For	Discharge

Input Data

Roughness Coefficient	0.015	
Channel Slope	0.01280	ft/ft
Normal Depth	0.12	ft
Diameter	0.25	ft

Results

Discharge	0.04	ft^3/s
Flow Area	0.02	ft^2
Wetted Perimeter	0.38	ft
Hydraulic Radius	0.06	ft
Top Width	0.25	ft
Critical Depth	0.12	ft
Percent Full	48.0	%
Critical Slope	0.01280	ft/ft
Velocity	1.73	ft/s
Velocity Head	0.05	ft
Specific Energy	0.17	ft
Froude Number	1.00	
Maximum Discharge	0.09	ft^3/s
Discharge Full	0.09	ft^3/s
Slope Full	0.00278	ft/ft
Flow Type	Critical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	48.00	%
Downstream Velocity	Infinity	ft/s

Worksheet for 3" Diameter Orifice at critical depth - Basin #9

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	0.12	ft
Critical Depth	0.12	ft
Channel Slope	0.01280	ft/ft
Critical Slope	0.01280	ft/ft

Drainage Area "A" @ Basins #1, #2, #3 & #4

Area-Average Loss Rate (Fm) **and Low Loss Fraction** (Y)

(EXPECTED VALUE)

Basin Number	STORM Frequency	NODE Number	AREA (Acres)	Tc (Minute)	Fm (In/Hr)	Y-bar
Basin #1	2-YEAR	381	1.1	9.40	0.060	0.227
	5-YEAR	381	1.1	9.15	0.050	0.175
	10-YEAR	381	1.1	9.00	0.030	0.137
	25-YEAR	381	1.1	8.83	0.030	0.118
	50-YEAR	381	1.1	8.77	0.030	0.109
	100-YEAR	381	1.1	8.78	0.030	0.102
Basin #2	2-YEAR	336.1	161.3	14.84	0.298	0.520
	5-YEAR	336.1	161.3	14.81	0.248	0.443
	10-YEAR	336.1	161.3	14.81	0.149	0.371
	25-YEAR	336.1	161.3	14.79	0.149	0.332
	50-YEAR	336.1	161.3	14.79	0.149	0.309
	100-YEAR	336.1	161.3	14.77	0.149	0.294
Basin #3	2-YEAR	317.3	36.7	8.53	0.302	0.528
	5-YEAR	317.3	36.7	13.19	0.252	0.452
	10-YEAR	317.3	36.7	12.69	0.151	0.379
	25-YEAR	317.3	36.7	12.43	0.151	0.339
	50-YEAR	317.3	36.7	12.29	0.151	0.317
	100-YEAR	317.3	36.7	12.42	0.151	0.301
Basin #4	2-YEAR	362	10.3	9.11	0.118	0.305
	5-YEAR	362	10.3	8.93	0.099	0.252
	10-YEAR	362	10.3	8.76	0.059	0.208
	25-YEAR	362	10.3	8.67	0.059	0.186
	50-YEAR	362	10.3	8.63	0.059	0.174
	100-YEAR	362	10.3	8.62	0.059	0.165

Drainage Area "B" @ Basin #5

Area-Average Loss Rate (Fm) and Low Loss Fraction (Y)

(EXPECTED VALUE)

STORM Frequency	NODE Number	AREA (Acres)	$AREA_{TOTAL}$ (Acres)	Tc (Minute)	Fm (In/Hr)	Y-bar	$Fm_{average}$ (In/Hr)	$Y\text{-}bar_{average}$
2-YEAR	1.0 ~ 35.5	33.76			0.349	0.612		
	35.5 ~ 62.2	30.93			0.312	0.555		
	62.3 ~ 64.0	9.12	73.81	9.56	0.320	0.572	0.330	0.583
5-YEAR	1.0 ~ 35.5	33.76			0.291	0.553		
	35.5 ~ 62.2	30.93			0.260	0.487		
	62.3 ~ 64.0	9.12	73.81	13.94	0.266	0.503	0.275	0.519
10-YEAR	1.0 ~ 35.5	33.76			0.175	0.487		
	35.5 ~ 62.2	30.93			0.156	0.418		
	62.3 ~ 64.0	9.12	73.81	14.04	0.160	0.432	0.165	0.451
25-YEAR	1.0 ~ 35.5	33.76			0.175	0.449		
	35.5 ~ 62.2	30.93			0.156	0.380		
	62.3 ~ 64.0	9.12	73.81	13.71	0.160	0.392	0.165	0.413
50-YEAR	1.0 ~ 35.5	33.76			0.175	0.425		
	35.5 ~ 62.2	30.93			0.156	0.357		
	62.3 ~ 64.0	9.12	73.81	13.37	0.160	0.368	0.165	0.389
100-YEAR	1.0 ~ 35.5	33.76			0.349	0.612		
	35.5 ~ 62.2	30.93			0.312	0.555		
	62.3 ~ 64.0	9.12	73.81	13.50	0.320	0.572	0.330	0.583

Drainage Area "B" @ Basins #7A & 7B
Drainage Area "C" @ Basins #8, 8A & 8B
Drainage Area "D" @ Basin #9

Area-Average Loss Rate (Fm) **and Low Loss Fraction** (Y)

(EXPECTED VALUE)

Basin Number	STORM Frequency	NODE Number	AREA (Acres)	Tc (Minute)	Fm (In/Hr)	Y-bar
Basins #7A & 7B	2-YEAR	67	9.18	8.83	0.265	0.484
	5-YEAR	67	9.18	11.55	0.221	0.412
	10-YEAR	67	9.18	13.78	0.133	0.345
	25-YEAR	67	9.18	13.41	0.133	0.309
	50-YEAR	67	9.18	10.97	0.133	0.288
	100-YEAR	67	9.18	13.23	0.133	0.273
Basins #8 & #8A	2-YEAR	102	4.2	9.48	0.315	0.544
	5-YEAR	102	4.2	9.32	0.262	0.467
	10-YEAR	102	4.2	9.21	0.158	0.391
	25-YEAR	102	4.2	9.14	0.158	0.351
	50-YEAR	102	4.2	9.08	0.158	0.328
	100-YEAR	102	4.2	9.07	0.158	0.311
Basin #8B	2-YEAR	113.2	6.0	10.84	0.300	0.525
	5-YEAR	113.2	6.0	10.51	0.250	0.449
	10-YEAR	113.2	6.0	10.23	0.150	0.376
	25-YEAR	113.2	6.0	10.05	0.150	0.337
	50-YEAR	113.2	6.0	10.01	0.150	0.315
	100-YEAR	113.2	6.0	9.98	0.150	0.299
Basin #9	2-YEAR	206	12.5	13.24	0.279	0.526
	5-YEAR	206	12.5	12.80	0.232	0.467
	10-YEAR	206	12.5	12.40	0.139	0.405
	25-YEAR	206	12.5	12.20	0.139	0.370
	50-YEAR	206	12.5	12.10	0.139	0.349
	100-YEAR	206	12.5	12.06	0.139	0.334

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**************************************************************************
          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                   AND LOW LOSS FRACTION ESTIMATIONS
==========================================================================
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                          Analysis prepared by:

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                                Irvine,Inc
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                 Three Hughes * Irvine, California 92618 * (949)583-1010

**************************************************************************
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 Problem Descriptions:
  Drainage Area "A" Between Nodes 378.0 ~ 379.0, 100-Year Expected Value
  TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     4.49 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.60       10.00           75.       0.300        0.898
         2         0.50       10.00           75.       0.300        0.898

    TOTAL AREA (Acres) =      1.10

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.030

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.102
==========================================================================

 Problem Descriptions:
  Drainage Area "A" Between Nodes 378.0 ~ 379.0, 50-Year Expected Value
  TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     4.13 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.60       10.00           75.       0.300        0.891
         2         0.50       10.00           75.       0.300        0.891

    TOTAL AREA (Acres) =      1.10
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    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.030

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.109
==============================================================================

 Problem Descriptions:
  Drainage Area "A" Between Nodes 378.0 ~ 379.0, 25-Year Expected Value
  TTM 15353
  W.O. #3751-1

==============================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     3.68 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.60       10.00           75.       0.300        0.882
         2         0.50       10.00           75.       0.300        0.882

    TOTAL AREA (Acres) =      1.10

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.030

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.118
==============================================================================

 Problem Descriptions:
  Drainage Area "A" Between Nodes 378.0 ~ 379.0, 10-Year Expected Value
  TTM 15353
  W.O. #3751-1

==============================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     3.03 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.60       10.00           75.       0.300        0.863
         2         0.50       10.00           75.       0.300        0.863

    TOTAL AREA (Acres) =      1.10

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.030

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.137
==============================================================================

 Problem Descriptions:
  Drainage Area "A" Between Nodes 378.0 ~ 379.0, 5-Year Expected Value
  TTM 15353
  W.O. #3751-1
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==============================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     2.12 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.60       10.00           75.       0.500        0.825
         2         0.50       10.00           75.       0.500        0.825

    TOTAL AREA (Acres) =      1.10

                                  _
    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.050

                                 _
    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.175
==============================================================================

 Problem Descriptions:
  Drainage Area "A" Between Nodes 378.0 ~ 379.0, 2-Year Expected Value
  TTM 15353
  W.O. #3751-1

==============================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     1.44 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.60       10.00           75.       0.600        0.773
         2         0.50       10.00           75.       0.600        0.773

    TOTAL AREA (Acres) =      1.10

                                  _
    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.060

                                 _
    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.227
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**************************************************************************
          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                   AND LOW LOSS FRACTION ESTIMATIONS
==========================================================================
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                                Irvine,Inc
                        Planning * Engineering * Surveying
                 Three Hughes * Irvine, California 92618 * (949)583-1010

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 Problem Descriptions:
  Drainage Area "A" Offsite Between Nodes 331.0 ~ 336.1, 100-Year Expected Value
  TTM 17300 & TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     4.49 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.30        10.00          75.       0.300        0.898
         2         0.80        10.00          75.       0.300        0.898
         3       151.43        50.00          75.       0.300        0.701
         4         0.23        10.00          75.       0.300        0.898
         5         0.59       100.00          83.       0.300        0.605
         6         0.65        10.00          75.       0.300        0.898
         7         1.77       100.00          83.       0.300        0.605
         8         0.71        10.00          75.       0.300        0.898
         9         0.87       100.00          83.       0.300        0.605
        10         0.44        10.00          69.       0.300        0.888
        11         0.10        10.00          75.       0.300        0.898
        12         1.19        10.00          75.       0.300        0.898
        13         0.56       100.00          83.       0.300        0.605
        14         0.30        10.00          69.       0.300        0.888
        15         1.40        10.00          75.       0.300        0.898

    TOTAL AREA (Acres) =    161.34

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.149

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.294
==========================================================================

 Problem Descriptions:
  Drainage Area "A" Offsite Between Nodes 331.0 ~ 336.1, 50-Year Expected Value
  TTM 17300 & TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
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AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 4.13 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.30	10.00	75.	0.300	0.891
2	0.80	10.00	75.	0.300	0.891
3	151.43	50.00	75.	0.300	0.685
4	0.23	10.00	75.	0.300	0.891
5	0.59	100.00	83.	0.300	0.581
6	0.65	10.00	75.	0.300	0.891
7	1.77	100.00	83.	0.300	0.581
8	0.71	10.00	75.	0.300	0.891
9	0.87	100.00	83.	0.300	0.581
10	0.44	10.00	69.	0.300	0.881
11	0.10	10.00	75.	0.300	0.891
12	1.19	10.00	75.	0.300	0.891
13	0.56	100.00	83.	0.300	0.581
14	0.30	10.00	69.	0.300	0.881
15	1.40	10.00	75.	0.300	0.891

TOTAL AREA (Acres) = 161.34

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.149

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.309

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Problem Descriptions:
Drainage Area "A" Offsite Between Nodes 331.0 ~ 336.1, 25-Year Expected Value
TTM 17300 & TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.68 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.30	10.00	75.	0.300	0.882
2	0.80	10.00	75.	0.300	0.882
3	151.43	50.00	75.	0.300	0.663
4	0.23	10.00	75.	0.300	0.882
5	0.59	100.00	83.	0.300	0.546
6	0.65	10.00	75.	0.300	0.882
7	1.77	100.00	83.	0.300	0.546
8	0.71	10.00	75.	0.300	0.882
9	0.87	100.00	83.	0.300	0.546
10	0.44	10.00	69.	0.300	0.872
11	0.10	10.00	75.	0.300	0.882
12	1.19	10.00	75.	0.300	0.882
13	0.56	100.00	83.	0.300	0.546
14	0.30	10.00	69.	0.300	0.872
15	1.40	10.00	75.	0.300	0.882

TOTAL AREA (Acres) = 161.34

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.149

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.332

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Problem Descriptions:
Drainage Area "A" Offsite Between Nodes 331.0 ~ 336.1, 10-Year Expected Value
TTM 17300 & TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.03 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.30	10.00	75.	0.300	0.863
2	0.80	10.00	75.	0.300	0.863
3	151.43	50.00	75.	0.300	0.624
4	0.23	10.00	75.	0.300	0.863
5	0.59	100.00	83.	0.300	0.485
6	0.65	10.00	75.	0.300	0.863
7	1.77	100.00	83.	0.300	0.485
8	0.71	10.00	75.	0.300	0.863
9	0.87	100.00	83.	0.300	0.485
10	0.44	10.00	69.	0.300	0.854
11	0.10	10.00	75.	0.300	0.863
12	1.19	10.00	75.	0.300	0.863
13	0.56	100.00	83.	0.300	0.485
14	0.30	10.00	69.	0.300	0.854
15	1.40	10.00	75.	0.300	0.863

TOTAL AREA (Acres) = 161.34

AREA-AVERAGED LOSS RATE, $\bar{Fm}$ (in./hr.) = 0.149

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.371

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Problem Descriptions:
Drainage Area "A" Offsite Between Nodes 331.0 ~ 336.1, 5-Year Expected Value
TTM 17300 & TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 2.12 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.30	10.00	75.	0.500	0.825
2	0.80	10.00	75.	0.500	0.825
3	151.43	50.00	75.	0.500	0.551
4	0.23	10.00	75.	0.500	0.825
5	0.59	100.00	83.	0.500	0.367
6	0.65	10.00	75.	0.500	0.825
7	1.77	100.00	83.	0.500	0.367
8	0.71	10.00	75.	0.500	0.825

9	0.87	100.00	83.	0.500	0.367
10	0.44	10.00	69.	0.500	0.816
11	0.10	10.00	75.	0.500	0.825
12	1.19	10.00	75.	0.500	0.825
13	0.56	100.00	83.	0.500	0.367
14	0.30	10.00	69.	0.500	0.816
15	1.40	10.00	75.	0.500	0.825

TOTAL AREA (Acres) = 161.34

AREA-AVERAGED LOSS RATE, $\bar{Fm}$ (in./hr.) = 0.248

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.443

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Problem Descriptions:
Drainage Area "A" Offsite Between Nodes 331.0 ~ 336.1, 2-Year Expected Value
TTM 17300 & TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 1.44 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.30	10.00	75.	0.600	0.773
2	0.80	10.00	75.	0.600	0.773
3	151.43	50.00	75.	0.600	0.475
4	0.23	10.00	75.	0.600	0.773
5	0.59	100.00	83.	0.600	0.239
6	0.65	10.00	75.	0.600	0.773
7	1.77	100.00	83.	0.600	0.239
8	0.71	10.00	75.	0.600	0.773
9	0.87	100.00	83.	0.600	0.239
10	0.44	10.00	69.	0.600	0.767
11	0.10	10.00	75.	0.600	0.773
12	1.19	10.00	75.	0.600	0.773
13	0.56	100.00	83.	0.600	0.239
14	0.30	10.00	69.	0.600	0.767
15	1.40	10.00	75.	0.600	0.773

TOTAL AREA (Acres) = 161.34

AREA-AVERAGED LOSS RATE, $\bar{Fm}$ (in./hr.) = 0.298

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.520

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          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                    AND LOW LOSS FRACTION ESTIMATIONS
==========================================================================
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                                  Irvine,Inc
                          Planning * Engineering * Surveying
                       Three Hughes * Irvine, California 92618 * (949)583-1010

**************************************************************************
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 Problem Descriptions:
  Drainage Area "A" Between Nodes 301.0 ~ 317.3, 100-Year Expected Value
  TTM 17300 & TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     4.49 (inches)
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SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	85.00	75.	0.300	0.529
2	0.60	50.00	75.	0.300	0.701
3	0.40	60.00	75.	0.300	0.652
4	0.80	60.00	75.	0.300	0.652
5	0.50	50.00	69.	0.300	0.651
6	1.90	50.00	75.	0.300	0.701
7	0.80	50.00	75.	0.300	0.701
8	0.50	60.00	69.	0.300	0.592
9	0.80	60.00	75.	0.300	0.652
10	0.70	50.00	75.	0.300	0.701
11	1.90	50.00	75.	0.300	0.701
12	1.00	60.00	75.	0.300	0.652
13	1.30	60.00	75.	0.300	0.652
14	0.90	50.00	75.	0.300	0.701
15	2.10	60.00	75.	0.300	0.652
16	1.20	85.00	75.	0.300	0.529
17	0.70	50.00	75.	0.300	0.701
18	1.80	50.00	75.	0.300	0.701
19	0.40	100.00	83.	0.300	0.605
20	3.20	85.00	75.	0.300	0.529
21	0.30	85.00	75.	0.300	0.529
22	0.80	50.00	75.	0.300	0.701
23	1.80	50.00	75.	0.300	0.701
24	1.90	10.00	75.	0.300	0.898
25	1.40	20.00	75.	0.300	0.849
26	2.00	20.00	75.	0.300	0.849
27	0.90	40.00	75.	0.300	0.750
28	0.60	40.00	75.	0.300	0.750
29	0.70	40.00	75.	0.300	0.750
30	1.00	40.00	75.	0.300	0.750

31	0.60	50.00	75.	0.300	0.701
32	0.80	50.00	75.	0.300	0.701
33	0.50	10.00	75.	0.300	0.898
34	0.40	10.00	75.	0.300	0.898
35	0.20	10.00	75.	0.300	0.898
36	0.40	10.00	75.	0.300	0.898

TOTAL AREA (Acres) = 36.70

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.151

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.301

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Problem Descriptions:
Drainage Area "A" Between Nodes 301.0 ~ 317.3, 50-Year Expected Value
TTM 17300 & TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 4.13 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	85.00	75.	0.300	0.505
2	0.60	50.00	75.	0.300	0.685
3	0.40	60.00	75.	0.300	0.634
4	0.80	60.00	75.	0.300	0.634
5	0.50	50.00	69.	0.300	0.635
6	1.90	50.00	75.	0.300	0.685
7	0.80	50.00	75.	0.300	0.685
8	0.50	60.00	69.	0.300	0.574
9	0.80	60.00	75.	0.300	0.634
10	0.70	50.00	75.	0.300	0.685
11	1.90	50.00	75.	0.300	0.685
12	1.00	60.00	75.	0.300	0.634
13	1.30	60.00	75.	0.300	0.634
14	0.90	50.00	75.	0.300	0.685
15	2.10	60.00	75.	0.300	0.634
16	1.20	85.00	75.	0.300	0.505
17	0.70	50.00	75.	0.300	0.685
18	1.80	50.00	75.	0.300	0.685
19	0.40	100.00	83.	0.300	0.581
20	3.20	85.00	75.	0.300	0.505
21	0.30	85.00	75.	0.300	0.505
22	0.80	50.00	75.	0.300	0.685
23	1.80	50.00	75.	0.300	0.685
24	1.90	10.00	75.	0.300	0.891
25	1.40	20.00	75.	0.300	0.840
26	2.00	20.00	75.	0.300	0.840
27	0.90	40.00	75.	0.300	0.737
28	0.60	40.00	75.	0.300	0.737
29	0.70	40.00	75.	0.300	0.737
30	1.00	40.00	75.	0.300	0.737
31	0.60	50.00	75.	0.300	0.685
32	0.80	50.00	75.	0.300	0.685
33	0.50	10.00	75.	0.300	0.891
34	0.40	10.00	75.	0.300	0.891

35	0.20	10.00	75.	0.300	0.891
36	0.40	10.00	75.	0.300	0.891

TOTAL AREA (Acres) = 36.70

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.151

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.317

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Problem Descriptions:
Drainage Area "A" Between Nodes 301.0 ~ 317.3, 25-Year Expected Value
TTM 17300 & TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.68 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	85.00	75.	0.300	0.471
2	0.60	50.00	75.	0.300	0.663
3	0.40	60.00	75.	0.300	0.608
4	0.80	60.00	75.	0.300	0.608
5	0.50	50.00	69.	0.300	0.613
6	1.90	50.00	75.	0.300	0.663
7	0.80	50.00	75.	0.300	0.663
8	0.50	60.00	69.	0.300	0.548
9	0.80	60.00	75.	0.300	0.608
10	0.70	50.00	75.	0.300	0.663
11	1.90	50.00	75.	0.300	0.663
12	1.00	60.00	75.	0.300	0.608
13	1.30	60.00	75.	0.300	0.608
14	0.90	50.00	75.	0.300	0.663
15	2.10	60.00	75.	0.300	0.608
16	1.20	85.00	75.	0.300	0.471
17	0.70	50.00	75.	0.300	0.663
18	1.80	50.00	75.	0.300	0.663
19	0.40	100.00	83.	0.300	0.546
20	3.20	85.00	75.	0.300	0.471
21	0.30	85.00	75.	0.300	0.471
22	0.80	50.00	75.	0.300	0.663
23	1.80	50.00	75.	0.300	0.663
24	1.90	10.00	75.	0.300	0.882
25	1.40	20.00	75.	0.300	0.827
26	2.00	20.00	75.	0.300	0.827
27	0.90	40.00	75.	0.300	0.717
28	0.60	40.00	75.	0.300	0.717
29	0.70	40.00	75.	0.300	0.717
30	1.00	40.00	75.	0.300	0.717
31	0.60	50.00	75.	0.300	0.663
32	0.80	50.00	75.	0.300	0.663
33	0.50	10.00	75.	0.300	0.882
34	0.40	10.00	75.	0.300	0.882
35	0.20	10.00	75.	0.300	0.882
36	0.40	10.00	75.	0.300	0.882

TOTAL AREA (Acres) = 36.70

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.151

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.339

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Problem Descriptions:
Drainage Area "A" Between Nodes 301.0 ~ 317.3, 10-Year Expected Value
TTM 17300 & TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.03 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	85.00	75.	0.300	0.414
2	0.60	50.00	75.	0.300	0.624
3	0.40	60.00	75.	0.300	0.564
4	0.80	60.00	75.	0.300	0.564
5	0.50	50.00	69.	0.300	0.575
6	1.90	50.00	75.	0.300	0.624
7	0.80	50.00	75.	0.300	0.624
8	0.50	60.00	69.	0.300	0.505
9	0.80	60.00	75.	0.300	0.564
10	0.70	50.00	75.	0.300	0.624
11	1.90	50.00	75.	0.300	0.624
12	1.00	60.00	75.	0.300	0.564
13	1.30	60.00	75.	0.300	0.564
14	0.90	50.00	75.	0.300	0.624
15	2.10	60.00	75.	0.300	0.564
16	1.20	85.00	75.	0.300	0.414
17	0.70	50.00	75.	0.300	0.624
18	1.80	50.00	75.	0.300	0.624
19	0.40	100.00	83.	0.300	0.485
20	3.20	85.00	75.	0.300	0.414
21	0.30	85.00	75.	0.300	0.414
22	0.80	50.00	75.	0.300	0.624
23	1.80	50.00	75.	0.300	0.624
24	1.90	10.00	75.	0.300	0.863
25	1.40	20.00	75.	0.300	0.804
26	2.00	20.00	75.	0.300	0.804
27	0.90	40.00	75.	0.300	0.684
28	0.60	40.00	75.	0.300	0.684
29	0.70	40.00	75.	0.300	0.684
30	1.00	40.00	75.	0.300	0.684
31	0.60	50.00	75.	0.300	0.624
32	0.80	50.00	75.	0.300	0.624
33	0.50	10.00	75.	0.300	0.863
34	0.40	10.00	75.	0.300	0.863
35	0.20	10.00	75.	0.300	0.863
36	0.40	10.00	75.	0.300	0.863

TOTAL AREA (Acres) = 36.70

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.151

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.379

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 Problem Descriptions:
  Drainage Area "A" Between Nodes 301.0 ~ 317.3, 5-Year Expected Value
  TTM 17300 & TTM 15353
  W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     2.12 (inches)
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SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	85.00	75.	0.500	0.311
2	0.60	50.00	75.	0.500	0.551
3	0.40	60.00	75.	0.500	0.482
4	0.80	60.00	75.	0.500	0.482
5	0.50	50.00	69.	0.500	0.508
6	1.90	50.00	75.	0.500	0.551
7	0.80	50.00	75.	0.500	0.551
8	0.50	60.00	69.	0.500	0.431
9	0.80	60.00	75.	0.500	0.482
10	0.70	50.00	75.	0.500	0.551
11	1.90	50.00	75.	0.500	0.551
12	1.00	60.00	75.	0.500	0.482
13	1.30	60.00	75.	0.500	0.482
14	0.90	50.00	75.	0.500	0.551
15	2.10	60.00	75.	0.500	0.482
16	1.20	85.00	75.	0.500	0.311
17	0.70	50.00	75.	0.500	0.551
18	1.80	50.00	75.	0.500	0.551
19	0.40	100.00	83.	0.500	0.367
20	3.20	85.00	75.	0.500	0.311
21	0.30	85.00	75.	0.500	0.311
22	0.80	50.00	75.	0.500	0.551
23	1.80	50.00	75.	0.500	0.551
24	1.90	10.00	75.	0.500	0.825
25	1.40	20.00	75.	0.500	0.756
26	2.00	20.00	75.	0.500	0.756
27	0.90	40.00	75.	0.500	0.619
28	0.60	40.00	75.	0.500	0.619
29	0.70	40.00	75.	0.500	0.619
30	1.00	40.00	75.	0.500	0.619
31	0.60	50.00	75.	0.500	0.551
32	0.80	50.00	75.	0.500	0.551
33	0.50	10.00	75.	0.500	0.825
34	0.40	10.00	75.	0.500	0.825
35	0.20	10.00	75.	0.500	0.825
36	0.40	10.00	75.	0.500	0.825

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    TOTAL AREA (Acres) =     36.70

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.252

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.452
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 Problem Descriptions:
  Drainage Area "A" Between Nodes 301.0 ~ 317.3, 2-Year Expected Value
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TTM 17300 & TTM 15353
W.O. #3751-1

*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 1.44 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	85.00	75.	0.600	0.213
2	0.60	50.00	75.	0.600	0.475
3	0.40	60.00	75.	0.600	0.400
4	0.80	60.00	75.	0.600	0.400
5	0.50	50.00	69.	0.600	0.444
6	1.90	50.00	75.	0.600	0.475
7	0.80	50.00	75.	0.600	0.475
8	0.50	60.00	69.	0.600	0.363
9	0.80	60.00	75.	0.600	0.400
10	0.70	50.00	75.	0.600	0.475
11	1.90	50.00	75.	0.600	0.475
12	1.00	60.00	75.	0.600	0.400
13	1.30	60.00	75.	0.600	0.400
14	0.90	50.00	75.	0.600	0.475
15	2.10	60.00	75.	0.600	0.400
16	1.20	85.00	75.	0.600	0.213
17	0.70	50.00	75.	0.600	0.475
18	1.80	50.00	75.	0.600	0.475
19	0.40	100.00	83.	0.600	0.239
20	3.20	85.00	75.	0.600	0.213
21	0.30	85.00	75.	0.600	0.213
22	0.80	50.00	75.	0.600	0.475
23	1.80	50.00	75.	0.600	0.475
24	1.90	10.00	75.	0.600	0.773
25	1.40	20.00	75.	0.600	0.699
26	2.00	20.00	75.	0.600	0.699
27	0.90	40.00	75.	0.600	0.549
28	0.60	40.00	75.	0.600	0.549
29	0.70	40.00	75.	0.600	0.549
30	1.00	40.00	75.	0.600	0.549
31	0.60	50.00	75.	0.600	0.475
32	0.80	50.00	75.	0.600	0.475
33	0.50	10.00	75.	0.600	0.773
34	0.40	10.00	75.	0.600	0.773
35	0.20	10.00	75.	0.600	0.773
36	0.40	10.00	75.	0.600	0.773

TOTAL AREA (Acres) = 36.70

AREA-AVERAGED LOSS RATE, $\bar{Fm}$ (in./hr.) = 0.302

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.528

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          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                    AND LOW LOSS FRACTION ESTIMATIONS
==========================================================================
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                          Analysis prepared by:

                          HUNSAKER & ASSOCIATES
                                Irvine,Inc
                        Planning * Engineering * Surveying
          Three Hughes * Irvine, California 92618 * (949)583-1010

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 Problem Descriptions:
  Drainage Area "A" Between Nodes 361.0 ~ 362.0, 100-Year Expected Value
  TTM 15353
  W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     4.49 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         1.40        20.00          56.       0.300        0.793
         2         0.40        20.00          75.       0.300        0.849
         3         1.40        20.00          56.       0.300        0.793
         4         4.40        20.00          75.       0.300        0.849
         5         0.80        20.00          75.       0.300        0.849
         6         0.30        10.00          75.       0.300        0.898
         7         0.40        20.00          75.       0.300        0.849
         8         0.20        20.00          75.       0.300        0.849
         9         1.00        20.00          75.       0.300        0.849

    TOTAL AREA (Acres) =     10.30

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.059

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.165
==========================================================================

 Problem Descriptions:
  Drainage Area "A" Between Nodes 361.0 ~ 362.0, 50-Year Expected Value
  TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     4.13 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
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TYPE	(Acres)	PERVIOUS AREA	NUMBER	Fp(in./hr.)	YIELD
1	1.40	20.00	56.	0.300	0.785
2	0.40	20.00	75.	0.300	0.840
3	1.40	20.00	56.	0.300	0.785
4	4.40	20.00	75.	0.300	0.840
5	0.80	20.00	75.	0.300	0.840
6	0.30	10.00	75.	0.300	0.891
7	0.40	20.00	75.	0.300	0.840
8	0.20	20.00	75.	0.300	0.840
9	1.00	20.00	75.	0.300	0.840

TOTAL AREA (Acres) = 10.30

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.059

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.174

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Problem Descriptions:
Drainage Area "A" Between Nodes 361.0 ~ 362.0, 25-Year Expected Value
TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.68 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	1.40	20.00	56.	0.300	0.773
2	0.40	20.00	75.	0.300	0.827
3	1.40	20.00	56.	0.300	0.773
4	4.40	20.00	75.	0.300	0.827
5	0.80	20.00	75.	0.300	0.827
6	0.30	10.00	75.	0.300	0.882
7	0.40	20.00	75.	0.300	0.827
8	0.20	20.00	75.	0.300	0.827
9	1.00	20.00	75.	0.300	0.827

TOTAL AREA (Acres) = 10.30

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.059

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.186

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Problem Descriptions:
Drainage Area "A" Between Nodes 361.0 ~ 362.0, 10-Year Expected Value
TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.03 (inches)

SOIL-COVER AREA PERCENT OF SCS CURVE LOSS RATE

TYPE	(Acres)	PERVIOUS AREA	NUMBER	Fp(in./hr.)	YIELD
1	1.40	20.00	56.	0.300	0.754
2	0.40	20.00	75.	0.300	0.804
3	1.40	20.00	56.	0.300	0.754
4	4.40	20.00	75.	0.300	0.804
5	0.80	20.00	75.	0.300	0.804
6	0.30	10.00	75.	0.300	0.863
7	0.40	20.00	75.	0.300	0.804
8	0.20	20.00	75.	0.300	0.804
9	1.00	20.00	75.	0.300	0.804

TOTAL AREA (Acres) = 10.30

AREA-AVERAGED LOSS RATE, $\bar{Fm}$ (in./hr.) = 0.059

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.208

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Problem Descriptions:
Drainage Area "A" Between Nodes 361.0 ~ 362.0, 5-Year Expected Value
TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 2.12 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	1.40	20.00	56.	0.500	0.718
2	0.40	20.00	75.	0.500	0.756
3	1.40	20.00	56.	0.500	0.718
4	4.40	20.00	75.	0.500	0.756
5	0.80	20.00	75.	0.500	0.756
6	0.30	10.00	75.	0.500	0.825
7	0.40	20.00	75.	0.500	0.756
8	0.20	20.00	75.	0.500	0.756
9	1.00	20.00	75.	0.500	0.756

TOTAL AREA (Acres) = 10.30

AREA-AVERAGED LOSS RATE, $\bar{Fm}$ (in./hr.) = 0.099

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.252

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Problem Descriptions:
Drainage Area "A" Between Nodes 361.0 ~ 362.0, 2-Year Expected Value
TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 1.44 (inches)

SOIL-COVER AREA PERCENT OF SCS CURVE LOSS RATE

TYPE	(Acres)	PERVIOUS AREA	NUMBER	Fp(in./hr.)	YIELD
1	1.40	20.00	56.	0.600	0.678
2	0.40	20.00	75.	0.600	0.699
3	1.40	20.00	56.	0.600	0.678
4	4.40	20.00	75.	0.600	0.699
5	0.80	20.00	75.	0.600	0.699
6	0.30	10.00	75.	0.600	0.773
7	0.40	20.00	75.	0.600	0.699
8	0.20	20.00	75.	0.600	0.699
9	1.00	20.00	75.	0.600	0.699

TOTAL AREA (Acres) = 10.30

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.118

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.305

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Basin # 4

Drainage Area "A" Between Nodes 361.0 ~ 362.0, Proposed Condition 100, 50, 25, 10, 5 and 2-Year

Expected Value

Area-Average Loss Rate & Low Loss Fraction Calculation

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**************************************************************************
          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                    AND LOW LOSS FRACTION ESTIMATIONS
==========================================================================
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                              Analysis prepared by:

                              HUNSAKER & ASSOCIATES
                                    Irvine,Inc
                            Planning * Engineering * Surveying
                         Three Hughes * Irvine, California 92618 * (949)583-1010

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 Problem Descriptions:
  Drainage Area "B" Between Nodes 1.0 ~ 35.5, 100-Year Expected Value
  TTM 17300
  W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     4.49 (inches)
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SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.38	85.00	56.	0.300	0.292
2	0.23	85.00	75.	0.300	0.529
3	0.07	60.00	56.	0.300	0.485
4	2.60	60.00	75.	0.300	0.652
5	0.16	60.00	56.	0.300	0.485
6	0.40	60.00	75.	0.300	0.652
7	0.67	60.00	56.	0.300	0.485
8	1.18	60.00	75.	0.300	0.652
9	0.76	50.00	56.	0.300	0.562
10	0.99	50.00	56.	0.300	0.562
11	1.45	50.00	75.	0.300	0.701
12	0.91	50.00	56.	0.300	0.562
13	1.95	50.00	56.	0.300	0.562
14	1.45	50.00	75.	0.300	0.701
15	0.89	50.00	56.	0.300	0.562
16	0.35	50.00	75.	0.300	0.701
17	1.05	50.00	56.	0.300	0.562
18	1.99	50.00	75.	0.300	0.701
19	1.06	85.00	75.	0.300	0.529
20	0.16	85.00	56.	0.300	0.292
21	0.15	85.00	75.	0.300	0.529
22	0.68	60.00	56.	0.300	0.485
23	0.40	60.00	56.	0.300	0.485
24	0.70	60.00	75.	0.300	0.652
25	0.69	50.00	75.	0.300	0.701
26	0.21	50.00	75.	0.300	0.701
27	0.22	50.00	75.	0.300	0.701
28	0.53	85.00	56.	0.300	0.292
29	0.38	85.00	56.	0.300	0.292
30	0.30	85.00	75.	0.300	0.529

31	0.45	60.00	75.	0.300	0.652
32	0.56	60.00	75.	0.300	0.652
33	0.32	50.00	56.	0.300	0.562
34	2.00	50.00	75.	0.300	0.701
35	0.91	50.00	75.	0.300	0.701
36	0.61	50.00	56.	0.300	0.562
37	1.42	50.00	75.	0.300	0.701
38	0.18	85.00	56.	0.300	0.292
39	0.08	85.00	75.	0.300	0.529
40	0.79	85.00	56.	0.300	0.292
41	0.25	85.00	56.	0.300	0.292
42	0.23	85.00	75.	0.300	0.529
43	0.35	85.00	75.	0.300	0.529
44	0.20	85.00	56.	0.300	0.292
45	0.14	85.00	75.	0.300	0.529
46	0.19	85.00	56.	0.300	0.292
47	0.28	85.00	75.	0.300	0.529
48	0.36	10.00	56.	0.300	0.870
49	0.80	50.00	56.	0.300	0.562
50	0.68	60.00	56.	0.300	0.485

TOTAL AREA (Acres) = 33.76

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.175

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.408

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Problem Descriptions:
Drainage Area "B" Between Nodes 1.0 ~ 35.5, 50-Year Expected Value
TTM 17300
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 4.13 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.38	85.00	56.	0.300	0.271
2	0.23	85.00	75.	0.300	0.505
3	0.07	60.00	56.	0.300	0.469
4	2.60	60.00	75.	0.300	0.634
5	0.16	60.00	56.	0.300	0.469
6	0.40	60.00	75.	0.300	0.634
7	0.67	60.00	56.	0.300	0.469
8	1.18	60.00	75.	0.300	0.634
9	0.76	50.00	56.	0.300	0.548
10	0.99	50.00	56.	0.300	0.548
11	1.45	50.00	75.	0.300	0.685
12	0.91	50.00	56.	0.300	0.548
13	1.95	50.00	56.	0.300	0.548
14	1.45	50.00	75.	0.300	0.685
15	0.89	50.00	56.	0.300	0.548
16	0.35	50.00	75.	0.300	0.685
17	1.05	50.00	56.	0.300	0.548
18	1.99	50.00	75.	0.300	0.685
19	1.06	85.00	75.	0.300	0.505
20	0.16	85.00	56.	0.300	0.271

21	0.15	85.00	75.	0.300	0.505
22	0.68	60.00	56.	0.300	0.469
23	0.40	60.00	56.	0.300	0.469
24	0.70	60.00	75.	0.300	0.634
25	0.69	50.00	75.	0.300	0.685
26	0.21	50.00	75.	0.300	0.685
27	0.22	50.00	75.	0.300	0.685
28	0.53	85.00	56.	0.300	0.271
29	0.38	85.00	56.	0.300	0.271
30	0.30	85.00	75.	0.300	0.505
31	0.45	60.00	75.	0.300	0.634
32	0.56	60.00	75.	0.300	0.634
33	0.32	50.00	56.	0.300	0.548
34	2.00	50.00	75.	0.300	0.685
35	0.91	50.00	75.	0.300	0.685
36	0.61	50.00	56.	0.300	0.548
37	1.42	50.00	75.	0.300	0.685
38	0.18	85.00	56.	0.300	0.271
39	0.08	85.00	75.	0.300	0.505
40	0.79	85.00	56.	0.300	0.271
41	0.25	85.00	56.	0.300	0.271
42	0.23	85.00	75.	0.300	0.505
43	0.35	85.00	75.	0.300	0.505
44	0.20	85.00	56.	0.300	0.271
45	0.14	85.00	75.	0.300	0.505
46	0.19	85.00	56.	0.300	0.271
47	0.28	85.00	75.	0.300	0.505
48	0.36	10.00	56.	0.300	0.864
49	0.80	50.00	56.	0.300	0.548
50	0.68	60.00	56.	0.300	0.469

TOTAL AREA (Acres) = 33.76

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.175

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.425

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Problem Descriptions:
Drainage Area "B" Between Nodes 1.0 ~ 35.5, 25-Year Expected Value
TTM 17300
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.68 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.38	85.00	56.	0.300	0.244
2	0.23	85.00	75.	0.300	0.471
3	0.07	60.00	56.	0.300	0.447
4	2.60	60.00	75.	0.300	0.608
5	0.16	60.00	56.	0.300	0.447
6	0.40	60.00	75.	0.300	0.608
7	0.67	60.00	56.	0.300	0.447
8	1.18	60.00	75.	0.300	0.608
9	0.76	50.00	56.	0.300	0.529
10	0.99	50.00	56.	0.300	0.529

11	1.45	50.00	75.	0.300	0.663
12	0.91	50.00	56.	0.300	0.529
13	1.95	50.00	56.	0.300	0.529
14	1.45	50.00	75.	0.300	0.663
15	0.89	50.00	56.	0.300	0.529
16	0.35	50.00	75.	0.300	0.663
17	1.05	50.00	56.	0.300	0.529
18	1.99	50.00	75.	0.300	0.663
19	1.06	85.00	75.	0.300	0.471
20	0.16	85.00	56.	0.300	0.244
21	0.15	85.00	75.	0.300	0.471
22	0.68	60.00	56.	0.300	0.447
23	0.40	60.00	56.	0.300	0.447
24	0.70	60.00	75.	0.300	0.608
25	0.69	50.00	75.	0.300	0.663
26	0.21	50.00	75.	0.300	0.663
27	0.22	50.00	75.	0.300	0.663
28	0.53	85.00	56.	0.300	0.244
29	0.38	85.00	56.	0.300	0.244
30	0.30	85.00	75.	0.300	0.471
31	0.45	60.00	75.	0.300	0.608
32	0.56	60.00	75.	0.300	0.608
33	0.32	50.00	56.	0.300	0.529
34	2.00	50.00	75.	0.300	0.663
35	0.91	50.00	75.	0.300	0.663
36	0.61	50.00	56.	0.300	0.529
37	1.42	50.00	75.	0.300	0.663
38	0.18	85.00	56.	0.300	0.244
39	0.08	85.00	75.	0.300	0.471
40	0.79	85.00	56.	0.300	0.244
41	0.25	85.00	56.	0.300	0.244
42	0.23	85.00	75.	0.300	0.471
43	0.35	85.00	75.	0.300	0.471
44	0.20	85.00	56.	0.300	0.244
45	0.14	85.00	75.	0.300	0.471
46	0.19	85.00	56.	0.300	0.244
47	0.28	85.00	75.	0.300	0.471
48	0.36	10.00	56.	0.300	0.855
49	0.80	50.00	56.	0.300	0.529
50	0.68	60.00	56.	0.300	0.447

TOTAL AREA (Acres) = 33.76

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.175

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.449

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Problem Descriptions:
Drainage Area "B" Between Nodes 1.0 ~ 35.5, 10-Year Expected Value
TTM 17300
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.03 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD

1	0.38	85.00	56.	0.300	0.203
2	0.23	85.00	75.	0.300	0.414
3	0.07	60.00	56.	0.300	0.415
4	2.60	60.00	75.	0.300	0.564
5	0.16	60.00	56.	0.300	0.415
6	0.40	60.00	75.	0.300	0.564
7	0.67	60.00	56.	0.300	0.415
8	1.18	60.00	75.	0.300	0.564
9	0.76	50.00	56.	0.300	0.499
10	0.99	50.00	56.	0.300	0.499
11	1.45	50.00	75.	0.300	0.624
12	0.91	50.00	56.	0.300	0.499
13	1.95	50.00	56.	0.300	0.499
14	1.45	50.00	75.	0.300	0.624
15	0.89	50.00	56.	0.300	0.499
16	0.35	50.00	75.	0.300	0.624
17	1.05	50.00	56.	0.300	0.499
18	1.99	50.00	75.	0.300	0.624
19	1.06	85.00	75.	0.300	0.414
20	0.16	85.00	56.	0.300	0.203
21	0.15	85.00	75.	0.300	0.414
22	0.68	60.00	56.	0.300	0.415
23	0.40	60.00	56.	0.300	0.415
24	0.70	60.00	75.	0.300	0.564
25	0.69	50.00	75.	0.300	0.624
26	0.21	50.00	75.	0.300	0.624
27	0.22	50.00	75.	0.300	0.624
28	0.53	85.00	56.	0.300	0.203
29	0.38	85.00	56.	0.300	0.203
30	0.30	85.00	75.	0.300	0.414
31	0.45	60.00	75.	0.300	0.564
32	0.56	60.00	75.	0.300	0.564
33	0.32	50.00	56.	0.300	0.499
34	2.00	50.00	75.	0.300	0.624
35	0.91	50.00	75.	0.300	0.624
36	0.61	50.00	56.	0.300	0.499
37	1.42	50.00	75.	0.300	0.624
38	0.18	85.00	56.	0.300	0.203
39	0.08	85.00	75.	0.300	0.414
40	0.79	85.00	56.	0.300	0.203
41	0.25	85.00	56.	0.300	0.203
42	0.23	85.00	75.	0.300	0.414
43	0.35	85.00	75.	0.300	0.414
44	0.20	85.00	56.	0.300	0.203
45	0.14	85.00	75.	0.300	0.414
46	0.19	85.00	56.	0.300	0.203
47	0.28	85.00	75.	0.300	0.414
48	0.36	10.00	56.	0.300	0.839
49	0.80	50.00	56.	0.300	0.499
50	0.68	60.00	56.	0.300	0.415

TOTAL AREA (Acres) = 33.76

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.175

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.487

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Problem Descriptions:
Drainage Area "B" Between Nodes 1.0 ~ 35.5, 5-Year Expected Value
TTM 17300

W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 2.12 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.38	85.00	56.	0.500	0.148
2	0.23	85.00	75.	0.500	0.311
3	0.07	60.00	56.	0.500	0.367
4	2.60	60.00	75.	0.500	0.482
5	0.16	60.00	56.	0.500	0.367
6	0.40	60.00	75.	0.500	0.482
7	0.67	60.00	56.	0.500	0.367
8	1.18	60.00	75.	0.500	0.482
9	0.76	50.00	56.	0.500	0.455
10	0.99	50.00	56.	0.500	0.455
11	1.45	50.00	75.	0.500	0.551
12	0.91	50.00	56.	0.500	0.455
13	1.95	50.00	56.	0.500	0.455
14	1.45	50.00	75.	0.500	0.551
15	0.89	50.00	56.	0.500	0.455
16	0.35	50.00	75.	0.500	0.551
17	1.05	50.00	56.	0.500	0.455
18	1.99	50.00	75.	0.500	0.551
19	1.06	85.00	75.	0.500	0.311
20	0.16	85.00	56.	0.500	0.148
21	0.15	85.00	75.	0.500	0.311
22	0.68	60.00	56.	0.500	0.367
23	0.40	60.00	56.	0.500	0.367
24	0.70	60.00	75.	0.500	0.482
25	0.69	50.00	75.	0.500	0.551
26	0.21	50.00	75.	0.500	0.551
27	0.22	50.00	75.	0.500	0.551
28	0.53	85.00	56.	0.500	0.148
29	0.38	85.00	56.	0.500	0.148
30	0.30	85.00	75.	0.500	0.311
31	0.45	60.00	75.	0.500	0.482
32	0.56	60.00	75.	0.500	0.482
33	0.32	50.00	56.	0.500	0.455
34	2.00	50.00	75.	0.500	0.551
35	0.91	50.00	75.	0.500	0.551
36	0.61	50.00	56.	0.500	0.455
37	1.42	50.00	75.	0.500	0.551
38	0.18	85.00	56.	0.500	0.148
39	0.08	85.00	75.	0.500	0.311
40	0.79	85.00	56.	0.500	0.148
41	0.25	85.00	56.	0.500	0.148
42	0.23	85.00	75.	0.500	0.311
43	0.35	85.00	75.	0.500	0.311
44	0.20	85.00	56.	0.500	0.148
45	0.14	85.00	75.	0.500	0.311
46	0.19	85.00	56.	0.500	0.148
47	0.28	85.00	75.	0.500	0.311
48	0.36	10.00	56.	0.500	0.805
49	0.80	50.00	56.	0.500	0.455
50	0.68	60.00	56.	0.500	0.367

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    TOTAL AREA (Acres) =     33.76

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.291

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.553
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 Problem Descriptions:
  Drainage Area "B" Between Nodes 1.0 ~ 35.5, 2-Year Expected Value
  TTM 17300
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     1.44 (inches)
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SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.38	85.00	56.	0.600	0.127
2	0.23	85.00	75.	0.600	0.213
3	0.07	60.00	56.	0.600	0.339
4	2.60	60.00	75.	0.600	0.400
5	0.16	60.00	56.	0.600	0.339
6	0.40	60.00	75.	0.600	0.400
7	0.67	60.00	56.	0.600	0.339
8	1.18	60.00	75.	0.600	0.400
9	0.76	50.00	56.	0.600	0.424
10	0.99	50.00	56.	0.600	0.424
11	1.45	50.00	75.	0.600	0.475
12	0.91	50.00	56.	0.600	0.424
13	1.95	50.00	56.	0.600	0.424
14	1.45	50.00	75.	0.600	0.475
15	0.89	50.00	56.	0.600	0.424
16	0.35	50.00	75.	0.600	0.475
17	1.05	50.00	56.	0.600	0.424
18	1.99	50.00	75.	0.600	0.475
19	1.06	85.00	75.	0.600	0.213
20	0.16	85.00	56.	0.600	0.127
21	0.15	85.00	75.	0.600	0.213
22	0.68	60.00	56.	0.600	0.339
23	0.40	60.00	56.	0.600	0.339
24	0.70	60.00	75.	0.600	0.400
25	0.69	50.00	75.	0.600	0.475
26	0.21	50.00	75.	0.600	0.475
27	0.22	50.00	75.	0.600	0.475
28	0.53	85.00	56.	0.600	0.127
29	0.38	85.00	56.	0.600	0.127
30	0.30	85.00	75.	0.600	0.213
31	0.45	60.00	75.	0.600	0.400
32	0.56	60.00	75.	0.600	0.400
33	0.32	50.00	56.	0.600	0.424
34	2.00	50.00	75.	0.600	0.475
35	0.91	50.00	75.	0.600	0.475
36	0.61	50.00	56.	0.600	0.424
37	1.42	50.00	75.	0.600	0.475
38	0.18	85.00	56.	0.600	0.127
39	0.08	85.00	75.	0.600	0.213
40	0.79	85.00	56.	0.600	0.127
41	0.25	85.00	56.	0.600	0.127

42	0.23	85.00	75.	0.600	0.213
43	0.35	85.00	75.	0.600	0.213
44	0.20	85.00	56.	0.600	0.127
45	0.14	85.00	75.	0.600	0.213
46	0.19	85.00	56.	0.600	0.127
47	0.28	85.00	75.	0.600	0.213
48	0.36	10.00	56.	0.600	0.763
49	0.80	50.00	56.	0.600	0.424
50	0.68	60.00	56.	0.600	0.339

TOTAL AREA (Acres) = 33.76

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.349

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.612

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Basin # 5

Drainage Area "B" Between Nodes 1.0 ~ 35.5, Proposed Condition 100, 50, 25, 10, 5 and 2-Year

Expected Value

Area-Average Loss Rate & Low Loss Fraction Calculation

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**************************************************************************
          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                    AND LOW LOSS FRACTION ESTIMATIONS
==========================================================================
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                          Analysis prepared by:

                          HUNSAKER & ASSOCIATES
                                Irvine,Inc
                        Planning * Engineering * Surveying
                 Three Hughes * Irvine, California 92618 * (949)583-1010

**************************************************************************
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 Problem Descriptions:
  Drainage Area "B" Between Nodes 35.5 ~ 62.2, 100-Year Expected Value
  TTM 17300
  W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     4.49 (inches)
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SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.32	85.00	56.	0.300	0.292
2	0.72	60.00	75.	0.300	0.652
3	1.17	60.00	75.	0.300	0.652
4	0.90	60.00	75.	0.300	0.652
5	0.56	60.00	75.	0.300	0.652
6	0.90	50.00	75.	0.300	0.701
7	2.88	50.00	75.	0.300	0.701
8	0.19	50.00	69.	0.300	0.651
9	0.55	50.00	75.	0.300	0.701
10	0.78	50.00	75.	0.300	0.701
11	0.76	60.00	75.	0.300	0.652
12	2.00	50.00	75.	0.300	0.701
13	0.12	85.00	56.	0.300	0.292
14	0.30	50.00	56.	0.300	0.562
15	0.89	85.00	75.	0.300	0.529
16	1.11	50.00	75.	0.300	0.701
17	1.05	60.00	56.	0.300	0.485
18	0.57	50.00	56.	0.300	0.562
19	0.38	50.00	69.	0.300	0.651
20	0.81	50.00	75.	0.300	0.701
21	0.86	50.00	56.	0.300	0.562
22	0.12	50.00	69.	0.300	0.651
23	1.08	50.00	75.	0.300	0.701
24	0.83	85.00	75.	0.300	0.529
25	0.93	50.00	75.	0.300	0.701
26	0.51	50.00	56.	0.300	0.562
27	0.52	50.00	69.	0.300	0.651
28	1.43	50.00	75.	0.300	0.701

29	0.06	50.00	56.	0.300	0.562
30	0.37	50.00	69.	0.300	0.651
31	0.36	85.00	56.	0.300	0.292
32	0.24	85.00	69.	0.300	0.444
33	0.18	10.00	56.	0.300	0.870
34	0.08	10.00	69.	0.300	0.888
35	0.49	10.00	56.	0.300	0.870
36	0.11	10.00	69.	0.300	0.888
37	0.40	10.00	69.	0.300	0.888
38	0.10	10.00	69.	0.300	0.888
39	0.50	85.00	69.	0.300	0.444
40	0.50	40.00	69.	0.300	0.711
41	0.40	10.00	69.	0.300	0.888
42	0.10	10.00	69.	0.300	0.888
43	0.50	40.00	69.	0.300	0.711
44	0.30	50.00	69.	0.300	0.651
45	0.50	50.00	75.	0.300	0.701
46	0.50	50.00	69.	0.300	0.651
47	0.40	40.00	69.	0.300	0.711
48	0.20	40.00	75.	0.300	0.750
49	0.40	40.00	69.	0.300	0.711
50	1.00	40.00	69.	0.300	0.711

TOTAL AREA (Acres) = 30.93

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.156

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.341

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Problem Descriptions:
Drainage Area "B" Between Nodes 35.5 ~ 62.2, 50-Year Expected Value
TTM 17300
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 4.13 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.32	85.00	56.	0.300	0.271
2	0.72	60.00	75.	0.300	0.634
3	1.17	60.00	75.	0.300	0.634
4	0.90	60.00	75.	0.300	0.634
5	0.56	60.00	75.	0.300	0.634
6	0.90	50.00	75.	0.300	0.685
7	2.88	50.00	75.	0.300	0.685
8	0.19	50.00	69.	0.300	0.635
9	0.55	50.00	75.	0.300	0.685
10	0.78	50.00	75.	0.300	0.685
11	0.76	60.00	75.	0.300	0.634
12	2.00	50.00	75.	0.300	0.685
13	0.12	85.00	56.	0.300	0.271
14	0.30	50.00	56.	0.300	0.548
15	0.89	85.00	75.	0.300	0.505
16	1.11	50.00	75.	0.300	0.685

17	1.05	60.00	56.	0.300	0.469
18	0.57	50.00	56.	0.300	0.548
19	0.38	50.00	69.	0.300	0.635
20	0.81	50.00	75.	0.300	0.685
21	0.86	50.00	56.	0.300	0.548
22	0.12	50.00	69.	0.300	0.635
23	1.08	50.00	75.	0.300	0.685
24	0.83	85.00	75.	0.300	0.505
25	0.93	50.00	75.	0.300	0.685
26	0.51	50.00	56.	0.300	0.548
27	0.52	50.00	69.	0.300	0.635
28	1.43	50.00	75.	0.300	0.685
29	0.06	50.00	56.	0.300	0.548
30	0.37	50.00	69.	0.300	0.635
31	0.36	85.00	56.	0.300	0.271
32	0.24	85.00	69.	0.300	0.420
33	0.18	10.00	56.	0.300	0.864
34	0.08	10.00	69.	0.300	0.881
35	0.49	10.00	56.	0.300	0.864
36	0.11	10.00	69.	0.300	0.881
37	0.40	10.00	69.	0.300	0.881
38	0.10	10.00	69.	0.300	0.881
39	0.50	85.00	69.	0.300	0.420
40	0.50	40.00	69.	0.300	0.697
41	0.40	10.00	69.	0.300	0.881
42	0.10	10.00	69.	0.300	0.881
43	0.50	40.00	69.	0.300	0.697
44	0.30	50.00	69.	0.300	0.635
45	0.50	50.00	75.	0.300	0.685
46	0.50	50.00	69.	0.300	0.635
47	0.40	40.00	69.	0.300	0.697
48	0.20	40.00	75.	0.300	0.737
49	0.40	40.00	69.	0.300	0.697
50	1.00	40.00	69.	0.300	0.697

TOTAL AREA (Acres) = 30.93

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.156

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.357

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Problem Descriptions:
Drainage Area "B" Between Nodes 35.5 ~ 62.2, 25-Year Expected Value
TTM 17300
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.68 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.32	85.00	56.	0.300	0.244
2	0.72	60.00	75.	0.300	0.608
3	1.17	60.00	75.	0.300	0.608
4	0.90	60.00	75.	0.300	0.608

5	0.56	60.00	75.	0.300	0.608
6	0.90	50.00	75.	0.300	0.663
7	2.88	50.00	75.	0.300	0.663
8	0.19	50.00	69.	0.300	0.613
9	0.55	50.00	75.	0.300	0.663
10	0.78	50.00	75.	0.300	0.663
11	0.76	60.00	75.	0.300	0.608
12	2.00	50.00	75.	0.300	0.663
13	0.12	85.00	56.	0.300	0.244
14	0.30	50.00	56.	0.300	0.529
15	0.89	85.00	75.	0.300	0.471
16	1.11	50.00	75.	0.300	0.663
17	1.05	60.00	56.	0.300	0.447
18	0.57	50.00	56.	0.300	0.529
19	0.38	50.00	69.	0.300	0.613
20	0.81	50.00	75.	0.300	0.663
21	0.86	50.00	56.	0.300	0.529
22	0.12	50.00	69.	0.300	0.613
23	1.08	50.00	75.	0.300	0.663
24	0.83	85.00	75.	0.300	0.471
25	0.93	50.00	75.	0.300	0.663
26	0.51	50.00	56.	0.300	0.529
27	0.52	50.00	69.	0.300	0.613
28	1.43	50.00	75.	0.300	0.663
29	0.06	50.00	56.	0.300	0.529
30	0.37	50.00	69.	0.300	0.613
31	0.36	85.00	56.	0.300	0.244
32	0.24	85.00	69.	0.300	0.386
33	0.18	10.00	56.	0.300	0.855
34	0.08	10.00	69.	0.300	0.872
35	0.49	10.00	56.	0.300	0.855
36	0.11	10.00	69.	0.300	0.872
37	0.40	10.00	69.	0.300	0.872
38	0.10	10.00	69.	0.300	0.872
39	0.50	85.00	69.	0.300	0.386
40	0.50	40.00	69.	0.300	0.677
41	0.40	10.00	69.	0.300	0.872
42	0.10	10.00	69.	0.300	0.872
43	0.50	40.00	69.	0.300	0.677
44	0.30	50.00	69.	0.300	0.613
45	0.50	50.00	75.	0.300	0.663
46	0.50	50.00	69.	0.300	0.613
47	0.40	40.00	69.	0.300	0.677
48	0.20	40.00	75.	0.300	0.717
49	0.40	40.00	69.	0.300	0.677
50	1.00	40.00	69.	0.300	0.677

TOTAL AREA (Acres) = 30.93

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.156

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.380

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Problem Descriptions:
Drainage Area "B" Between Nodes 35.5 ~ 62.2, 10-Year Expected Value
TTM 17300
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     3.03 (inches)
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SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.32	85.00	56.	0.300	0.203
2	0.72	60.00	75.	0.300	0.564
3	1.17	60.00	75.	0.300	0.564
4	0.90	60.00	75.	0.300	0.564
5	0.56	60.00	75.	0.300	0.564
6	0.90	50.00	75.	0.300	0.624
7	2.88	50.00	75.	0.300	0.624
8	0.19	50.00	69.	0.300	0.575
9	0.55	50.00	75.	0.300	0.624
10	0.78	50.00	75.	0.300	0.624
11	0.76	60.00	75.	0.300	0.564
12	2.00	50.00	75.	0.300	0.624
13	0.12	85.00	56.	0.300	0.203
14	0.30	50.00	56.	0.300	0.499
15	0.89	85.00	75.	0.300	0.414
16	1.11	50.00	75.	0.300	0.624
17	1.05	60.00	56.	0.300	0.415
18	0.57	50.00	56.	0.300	0.499
19	0.38	50.00	69.	0.300	0.575
20	0.81	50.00	75.	0.300	0.624
21	0.86	50.00	56.	0.300	0.499
22	0.12	50.00	69.	0.300	0.575
23	1.08	50.00	75.	0.300	0.624
24	0.83	85.00	75.	0.300	0.414
25	0.93	50.00	75.	0.300	0.624
26	0.51	50.00	56.	0.300	0.499
27	0.52	50.00	69.	0.300	0.575
28	1.43	50.00	75.	0.300	0.624
29	0.06	50.00	56.	0.300	0.499
30	0.37	50.00	69.	0.300	0.575
31	0.36	85.00	56.	0.300	0.203
32	0.24	85.00	69.	0.300	0.331
33	0.18	10.00	56.	0.300	0.839
34	0.08	10.00	69.	0.300	0.854
35	0.49	10.00	56.	0.300	0.839
36	0.11	10.00	69.	0.300	0.854
37	0.40	10.00	69.	0.300	0.854
38	0.10	10.00	69.	0.300	0.854
39	0.50	85.00	69.	0.300	0.331
40	0.50	40.00	69.	0.300	0.645
41	0.40	10.00	69.	0.300	0.854
42	0.10	10.00	69.	0.300	0.854
43	0.50	40.00	69.	0.300	0.645
44	0.30	50.00	69.	0.300	0.575
45	0.50	50.00	75.	0.300	0.624
46	0.50	50.00	69.	0.300	0.575
47	0.40	40.00	69.	0.300	0.645
48	0.20	40.00	75.	0.300	0.684
49	0.40	40.00	69.	0.300	0.645
50	1.00	40.00	69.	0.300	0.645

TOTAL AREA (Acres) = 30.93

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.156

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.418

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Problem Descriptions:
Drainage Area "B" Between Nodes 35.5 ~ 62.2, 5-Year Expected Value
TTM 17300
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 2.12 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.32	85.00	56.	0.500	0.148
2	0.72	60.00	75.	0.500	0.482
3	1.17	60.00	75.	0.500	0.482
4	0.90	60.00	75.	0.500	0.482
5	0.56	60.00	75.	0.500	0.482
6	0.90	50.00	75.	0.500	0.551
7	2.88	50.00	75.	0.500	0.551
8	0.19	50.00	69.	0.500	0.508
9	0.55	50.00	75.	0.500	0.551
10	0.78	50.00	75.	0.500	0.551
11	0.76	60.00	75.	0.500	0.482
12	2.00	50.00	75.	0.500	0.551
13	0.12	85.00	56.	0.500	0.148
14	0.30	50.00	56.	0.500	0.455
15	0.89	85.00	75.	0.500	0.311
16	1.11	50.00	75.	0.500	0.551
17	1.05	60.00	56.	0.500	0.367
18	0.57	50.00	56.	0.500	0.455
19	0.38	50.00	69.	0.500	0.508
20	0.81	50.00	75.	0.500	0.551
21	0.86	50.00	56.	0.500	0.455
22	0.12	50.00	69.	0.500	0.508
23	1.08	50.00	75.	0.500	0.551
24	0.83	85.00	75.	0.500	0.311
25	0.93	50.00	75.	0.500	0.551
26	0.51	50.00	56.	0.500	0.455
27	0.52	50.00	69.	0.500	0.508
28	1.43	50.00	75.	0.500	0.551
29	0.06	50.00	56.	0.500	0.455
30	0.37	50.00	69.	0.500	0.508
31	0.36	85.00	56.	0.500	0.148
32	0.24	85.00	69.	0.500	0.239
33	0.18	10.00	56.	0.500	0.805
34	0.08	10.00	69.	0.500	0.816
35	0.49	10.00	56.	0.500	0.805
36	0.11	10.00	69.	0.500	0.816
37	0.40	10.00	69.	0.500	0.816
38	0.10	10.00	69.	0.500	0.816
39	0.50	85.00	69.	0.500	0.239

40	0.50	40.00	69.	0.500	0.585
41	0.40	10.00	69.	0.500	0.816
42	0.10	10.00	69.	0.500	0.816
43	0.50	40.00	69.	0.500	0.585
44	0.30	50.00	69.	0.500	0.508
45	0.50	50.00	75.	0.500	0.551
46	0.50	50.00	69.	0.500	0.508
47	0.40	40.00	69.	0.500	0.585
48	0.20	40.00	75.	0.500	0.619
49	0.40	40.00	69.	0.500	0.585
50	1.00	40.00	69.	0.500	0.585

TOTAL AREA (Acres) = 30.93

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.260

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.487

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Problem Descriptions:
Drainage Area "B" Between Nodes 35.5 ~ 62.2, 2-Year Expected Value
TTM 17300
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 1.44 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.32	85.00	56.	0.600	0.127
2	0.72	60.00	75.	0.600	0.400
3	1.17	60.00	75.	0.600	0.400
4	0.90	60.00	75.	0.600	0.400
5	0.56	60.00	75.	0.600	0.400
6	0.90	50.00	75.	0.600	0.475
7	2.88	50.00	75.	0.600	0.475
8	0.19	50.00	69.	0.600	0.444
9	0.55	50.00	75.	0.600	0.475
10	0.78	50.00	75.	0.600	0.475
11	0.76	60.00	75.	0.600	0.400
12	2.00	50.00	75.	0.600	0.475
13	0.12	85.00	56.	0.600	0.127
14	0.30	50.00	56.	0.600	0.424
15	0.89	85.00	75.	0.600	0.213
16	1.11	50.00	75.	0.600	0.475
17	1.05	60.00	56.	0.600	0.339
18	0.57	50.00	56.	0.600	0.424
19	0.38	50.00	69.	0.600	0.444
20	0.81	50.00	75.	0.600	0.475
21	0.86	50.00	56.	0.600	0.424
22	0.12	50.00	69.	0.600	0.444
23	1.08	50.00	75.	0.600	0.475
24	0.83	85.00	75.	0.600	0.213
25	0.93	50.00	75.	0.600	0.475
26	0.51	50.00	56.	0.600	0.424
27	0.52	50.00	69.	0.600	0.444

28	1.43	50.00	75.	0.600	0.475
29	0.06	50.00	56.	0.600	0.424
30	0.37	50.00	69.	0.600	0.444
31	0.36	85.00	56.	0.600	0.127
32	0.24	85.00	69.	0.600	0.162
33	0.18	10.00	56.	0.600	0.763
34	0.08	10.00	69.	0.600	0.767
35	0.49	10.00	56.	0.600	0.763
36	0.11	10.00	69.	0.600	0.767
37	0.40	10.00	69.	0.600	0.767
38	0.10	10.00	69.	0.600	0.767
39	0.50	85.00	69.	0.600	0.162
40	0.50	40.00	69.	0.600	0.525
41	0.40	10.00	69.	0.600	0.767
42	0.10	10.00	69.	0.600	0.767
43	0.50	40.00	69.	0.600	0.525
44	0.30	50.00	69.	0.600	0.444
45	0.50	50.00	75.	0.600	0.475
46	0.50	50.00	69.	0.600	0.444
47	0.40	40.00	69.	0.600	0.525
48	0.20	40.00	75.	0.600	0.549
49	0.40	40.00	69.	0.600	0.525
50	1.00	40.00	69.	0.600	0.525

TOTAL AREA (Acres) = 30.93

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.312

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.555

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          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                    AND LOW LOSS FRACTION ESTIMATIONS
==========================================================================
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                            HUNSAKER & ASSOCIATES
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 Problem Descriptions:
  Drainage Area "B" Between Nodes 62.3 ~ 64.0, 100-Year Expected Value
  TTM 17300
  W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     4.49 (inches)
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SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	50.00	69.	0.300	0.651
2	0.50	85.00	69.	0.300	0.444
3	0.60	50.00	69.	0.300	0.651
4	1.10	50.00	69.	0.300	0.651
5	0.80	50.00	69.	0.300	0.651
6	0.30	40.00	69.	0.300	0.711
7	0.60	85.00	75.	0.300	0.529
8	1.20	40.00	75.	0.300	0.750
9	0.30	10.00	69.	0.300	0.888
10	0.10	50.00	69.	0.300	0.651
11	0.30	50.00	75.	0.300	0.701
12	0.30	50.00	69.	0.300	0.651
13	0.10	50.00	75.	0.300	0.701
14	0.60	85.00	69.	0.300	0.444
15	0.30	85.00	75.	0.300	0.529
16	0.39	85.00	69.	0.300	0.444
17	0.03	85.00	75.	0.300	0.529
18	0.40	10.00	69.	0.300	0.888
19	0.10	10.00	75.	0.300	0.898
20	0.20	10.00	75.	0.300	0.898

```
    TOTAL AREA (Acres) =      9.12

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.160

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.352
==========================================================================

 Problem Descriptions:
  Drainage Area "B" Between Nodes 62.3 ~ 64.0, 50-Year Expected Value
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TTM 17300
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 4.13 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	50.00	69.	0.300	0.635
2	0.50	85.00	69.	0.300	0.420
3	0.60	50.00	69.	0.300	0.635
4	1.10	50.00	69.	0.300	0.635
5	0.80	50.00	69.	0.300	0.635
6	0.30	40.00	69.	0.300	0.697
7	0.60	85.00	75.	0.300	0.505
8	1.20	40.00	75.	0.300	0.737
9	0.30	10.00	69.	0.300	0.881
10	0.10	50.00	69.	0.300	0.635
11	0.30	50.00	75.	0.300	0.685
12	0.30	50.00	69.	0.300	0.635
13	0.10	50.00	75.	0.300	0.685
14	0.60	85.00	69.	0.300	0.420
15	0.30	85.00	75.	0.300	0.505
16	0.39	85.00	69.	0.300	0.420
17	0.03	85.00	75.	0.300	0.505
18	0.40	10.00	69.	0.300	0.881
19	0.10	10.00	75.	0.300	0.891
20	0.20	10.00	75.	0.300	0.891

TOTAL AREA (Acres) = 9.12

AREA-AVERAGED LOSS RATE, $\bar{Fm}$ (in./hr.) = 0.160

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.368

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Problem Descriptions:
Drainage Area "B" Between Nodes 62.3 ~ 64.0, 25-Year Expected Value
TTM 17300
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.68 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	50.00	69.	0.300	0.613
2	0.50	85.00	69.	0.300	0.386
3	0.60	50.00	69.	0.300	0.613
4	1.10	50.00	69.	0.300	0.613
5	0.80	50.00	69.	0.300	0.613
6	0.30	40.00	69.	0.300	0.677
7	0.60	85.00	75.	0.300	0.471
8	1.20	40.00	75.	0.300	0.717

9	0.30	10.00	69.	0.300	0.872
10	0.10	50.00	69.	0.300	0.613
11	0.30	50.00	75.	0.300	0.663
12	0.30	50.00	69.	0.300	0.613
13	0.10	50.00	75.	0.300	0.663
14	0.60	85.00	69.	0.300	0.386
15	0.30	85.00	75.	0.300	0.471
16	0.39	85.00	69.	0.300	0.386
17	0.03	85.00	75.	0.300	0.471
18	0.40	10.00	69.	0.300	0.872
19	0.10	10.00	75.	0.300	0.882
20	0.20	10.00	75.	0.300	0.882

TOTAL AREA (Acres) = 9.12

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.160

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.392

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Problem Descriptions:
Drainage Area "B" Between Nodes 62.3 ~ 64.0, 10-Year Expected Value
TTM 17300
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.03 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	50.00	69.	0.300	0.575
2	0.50	85.00	69.	0.300	0.331
3	0.60	50.00	69.	0.300	0.575
4	1.10	50.00	69.	0.300	0.575
5	0.80	50.00	69.	0.300	0.575
6	0.30	40.00	69.	0.300	0.645
7	0.60	85.00	75.	0.300	0.414
8	1.20	40.00	75.	0.300	0.684
9	0.30	10.00	69.	0.300	0.854
10	0.10	50.00	69.	0.300	0.575
11	0.30	50.00	75.	0.300	0.624
12	0.30	50.00	69.	0.300	0.575
13	0.10	50.00	75.	0.300	0.624
14	0.60	85.00	69.	0.300	0.331
15	0.30	85.00	75.	0.300	0.414
16	0.39	85.00	69.	0.300	0.331
17	0.03	85.00	75.	0.300	0.414
18	0.40	10.00	69.	0.300	0.854
19	0.10	10.00	75.	0.300	0.863
20	0.20	10.00	75.	0.300	0.863

TOTAL AREA (Acres) = 9.12

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.160

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.432

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 Problem Descriptions:
  Drainage Area "B" Between Nodes 62.3 ~ 64.0, 5-Year Expected Value
  TTM 17300
  W.O. #3751-1

==============================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     2.12 (inches)
```

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	50.00	69.	0.500	0.508
2	0.50	85.00	69.	0.500	0.239
3	0.60	50.00	69.	0.500	0.508
4	1.10	50.00	69.	0.500	0.508
5	0.80	50.00	69.	0.500	0.508
6	0.30	40.00	69.	0.500	0.585
7	0.60	85.00	75.	0.500	0.311
8	1.20	40.00	75.	0.500	0.619
9	0.30	10.00	69.	0.500	0.816
10	0.10	50.00	69.	0.500	0.508
11	0.30	50.00	75.	0.500	0.551
12	0.30	50.00	69.	0.500	0.508
13	0.10	50.00	75.	0.500	0.551
14	0.60	85.00	69.	0.500	0.239
15	0.30	85.00	75.	0.500	0.311
16	0.39	85.00	69.	0.500	0.239
17	0.03	85.00	75.	0.500	0.311
18	0.40	10.00	69.	0.500	0.816
19	0.10	10.00	75.	0.500	0.825
20	0.20	10.00	75.	0.500	0.825

```
    TOTAL AREA (Acres) =      9.12

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.266

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.503
==============================================================================

 Problem Descriptions:
  Drainage Area "B" Between Nodes 62.3 ~ 64.0, 2-Year Expected Value
  TTM 17300
  W.O. #3751-1

==============================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     1.44 (inches)
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SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	50.00	69.	0.600	0.444
2	0.50	85.00	69.	0.600	0.162
3	0.60	50.00	69.	0.600	0.444
4	1.10	50.00	69.	0.600	0.444
5	0.80	50.00	69.	0.600	0.444
6	0.30	40.00	69.	0.600	0.525
7	0.60	85.00	75.	0.600	0.213

8	1.20	40.00	75.	0.600	0.549
9	0.30	10.00	69.	0.600	0.767
10	0.10	50.00	69.	0.600	0.444
11	0.30	50.00	75.	0.600	0.475
12	0.30	50.00	69.	0.600	0.444
13	0.10	50.00	75.	0.600	0.475
14	0.60	85.00	69.	0.600	0.162
15	0.30	85.00	75.	0.600	0.213
16	0.39	85.00	69.	0.600	0.162
17	0.03	85.00	75.	0.600	0.213
18	0.40	10.00	69.	0.600	0.767
19	0.10	10.00	75.	0.600	0.773
20	0.20	10.00	75.	0.600	0.773

TOTAL AREA (Acres) = 9.12

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.320

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.572

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          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                    AND LOW LOSS FRACTION ESTIMATIONS
==========================================================================
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                           Analysis prepared by:

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 Problem Descriptions:
  Drainage Area "B" Between Nodes 64.0 ~ 68.96, 100-Year Expected Value
  TTM 17300
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     4.49 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.90        20.00          75.       0.300        0.849
         2         1.10        40.00          75.       0.300        0.750
         3         1.60        40.00          75.       0.300        0.750
         4         0.60        40.00          75.       0.300        0.750
         5         0.70        50.00          75.       0.300        0.701
         6         1.50        50.00          75.       0.300        0.701
         7         0.10        10.00          75.       0.300        0.898
         8         0.60        50.00          75.       0.300        0.701
         9         0.70        60.00          75.       0.300        0.652
        10         0.10        10.00          69.       0.300        0.888
        11         0.10        10.00          75.       0.300        0.898
        12         0.45        60.00          69.       0.300        0.592
        13         0.43        60.00          75.       0.300        0.652
        14         0.30        60.00          75.       0.300        0.652

    TOTAL AREA (Acres) =      9.18

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.133

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.273
==========================================================================

 Problem Descriptions:
  Drainage Area "B" Between Nodes 64.0 ~ 68.96, 50-Year Expected Value
  TTM 17300
  W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
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AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 4.13 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	20.00	75.	0.300	0.840
2	1.10	40.00	75.	0.300	0.737
3	1.60	40.00	75.	0.300	0.737
4	0.60	40.00	75.	0.300	0.737
5	0.70	50.00	75.	0.300	0.685
6	1.50	50.00	75.	0.300	0.685
7	0.10	10.00	75.	0.300	0.891
8	0.60	50.00	75.	0.300	0.685
9	0.70	60.00	75.	0.300	0.634
10	0.10	10.00	69.	0.300	0.881
11	0.10	10.00	75.	0.300	0.891
12	0.45	60.00	69.	0.300	0.574
13	0.43	60.00	75.	0.300	0.634
14	0.30	60.00	75.	0.300	0.634

TOTAL AREA (Acres) = 9.18

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.133

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.288

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Problem Descriptions:
Drainage Area "B" Between Nodes 64.0 ~ 68.96, 25-Year Expected Value
TTM 17300
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.68 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	20.00	75.	0.300	0.827
2	1.10	40.00	75.	0.300	0.717
3	1.60	40.00	75.	0.300	0.717
4	0.60	40.00	75.	0.300	0.717
5	0.70	50.00	75.	0.300	0.663
6	1.50	50.00	75.	0.300	0.663
7	0.10	10.00	75.	0.300	0.882
8	0.60	50.00	75.	0.300	0.663
9	0.70	60.00	75.	0.300	0.608
10	0.10	10.00	69.	0.300	0.872
11	0.10	10.00	75.	0.300	0.882
12	0.45	60.00	69.	0.300	0.548
13	0.43	60.00	75.	0.300	0.608
14	0.30	60.00	75.	0.300	0.608

TOTAL AREA (Acres) = 9.18

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.133

AREA-AVERAGED LOW LOSS FRACTION, Y = 0.309

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Problem Descriptions:
Drainage Area "B" Between Nodes 64.0 ~ 68.96, 10-Year Expected Value
TTM 17300
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.03 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	20.00	75.	0.300	0.804
2	1.10	40.00	75.	0.300	0.684
3	1.60	40.00	75.	0.300	0.684
4	0.60	40.00	75.	0.300	0.684
5	0.70	50.00	75.	0.300	0.624
6	1.50	50.00	75.	0.300	0.624
7	0.10	10.00	75.	0.300	0.863
8	0.60	50.00	75.	0.300	0.624
9	0.70	60.00	75.	0.300	0.564
10	0.10	10.00	69.	0.300	0.854
11	0.10	10.00	75.	0.300	0.863
12	0.45	60.00	69.	0.300	0.505
13	0.43	60.00	75.	0.300	0.564
14	0.30	60.00	75.	0.300	0.564

TOTAL AREA (Acres) = 9.18

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.133

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.345

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Problem Descriptions:
Drainage Area "B" Between Nodes 64.0 ~ 68.96, 5-Year Expected Value
TTM 17300
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 2.12 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	20.00	75.	0.500	0.756
2	1.10	40.00	75.	0.500	0.619
3	1.60	40.00	75.	0.500	0.619
4	0.60	40.00	75.	0.500	0.619
5	0.70	50.00	75.	0.500	0.551
6	1.50	50.00	75.	0.500	0.551
7	0.10	10.00	75.	0.500	0.825
8	0.60	50.00	75.	0.500	0.551
9	0.70	60.00	75.	0.500	0.482

10	0.10	10.00	69.	0.500	0.816
11	0.10	10.00	75.	0.500	0.825
12	0.45	60.00	69.	0.500	0.431
13	0.43	60.00	75.	0.500	0.482
14	0.30	60.00	75.	0.500	0.482

TOTAL AREA (Acres) = 9.18

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.221

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.412

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Problem Descriptions:
Drainage Area "B" Between Nodes 64.0 ~ 68.96, 2-Year Expected Value
TTM 17300
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 1.44 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	20.00	75.	0.600	0.699
2	1.10	40.00	75.	0.600	0.549
3	1.60	40.00	75.	0.600	0.549
4	0.60	40.00	75.	0.600	0.549
5	0.70	50.00	75.	0.600	0.475
6	1.50	50.00	75.	0.600	0.475
7	0.10	10.00	75.	0.600	0.773
8	0.60	50.00	75.	0.600	0.475
9	0.70	60.00	75.	0.600	0.400
10	0.10	10.00	69.	0.600	0.767
11	0.10	10.00	75.	0.600	0.773
12	0.45	60.00	69.	0.600	0.363
13	0.43	60.00	75.	0.600	0.400
14	0.30	60.00	75.	0.600	0.400

TOTAL AREA (Acres) = 9.18

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.265

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.484

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          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                    AND LOW LOSS FRACTION ESTIMATIONS
==========================================================================
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                          Analysis prepared by:

                          HUNSAKER & ASSOCIATES
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 Problem Descriptions:
  Drainage Area "C" Node 102, 100-Year Expected Value
  TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     4.49 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.90        50.00          75.       0.300        0.701
         2         0.30        85.00          75.       0.300        0.529
         3         1.00        50.00          75.       0.300        0.701
         4         2.00        50.00          75.       0.300        0.701

    TOTAL AREA (Acres) =      4.20

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.158

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.311
==========================================================================

 Problem Descriptions:
  Drainage Area "C" Node 102, 50-Year Expected Value
  TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     4.13 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.90        50.00          75.       0.300        0.685
         2         0.30        85.00          75.       0.300        0.505
         3         1.00        50.00          75.       0.300        0.685
         4         2.00        50.00          75.       0.300        0.685

    TOTAL AREA (Acres) =      4.20
```

AREA-AVERAGED LOSS RATE, $\bar{Fm}$ (in./hr.) = 0.158

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.328

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Problem Descriptions:
Drainage Area "C" Node 102, 25-Year Expected Value
TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.68 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	50.00	75.	0.300	0.663
2	0.30	85.00	75.	0.300	0.471
3	1.00	50.00	75.	0.300	0.663
4	2.00	50.00	75.	0.300	0.663

TOTAL AREA (Acres) = 4.20

AREA-AVERAGED LOSS RATE, $\bar{Fm}$ (in./hr.) = 0.158

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.351

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Problem Descriptions:
Drainage Area "C" Node 102, 10-Year Expected Value
TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.03 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	50.00	75.	0.300	0.624
2	0.30	85.00	75.	0.300	0.414
3	1.00	50.00	75.	0.300	0.624
4	2.00	50.00	75.	0.300	0.624

TOTAL AREA (Acres) = 4.20

AREA-AVERAGED LOSS RATE, $\bar{Fm}$ (in./hr.) = 0.158

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.391

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Problem Descriptions:
Drainage Area "C" Node 102, 5-Year Expected Value
TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     2.12 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.90       50.00           75.       0.500        0.551
         2         0.30       85.00           75.       0.500        0.311
         3         1.00       50.00           75.       0.500        0.551
         4         2.00       50.00           75.       0.500        0.551

    TOTAL AREA (Acres) =      4.20

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.262

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.467
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   Problem Descriptions:
  Drainage Area "C" Node 102, 2-Year Expected Value
  TTM 15353
  W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     1.44 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.90       50.00           75.       0.600        0.475
         2         0.30       85.00           75.       0.600        0.213
         3         1.00       50.00           75.       0.600        0.475
         4         2.00       50.00           75.       0.600        0.475

    TOTAL AREA (Acres) =      4.20

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.315

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.544
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          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                   AND LOW LOSS FRACTION ESTIMATIONS
==========================================================================
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                          Analysis prepared by:

                          HUNSAKER & ASSOCIATES
                                Irvine,Inc
                        Planning * Engineering * Surveying
                 Three Hughes * Irvine, California 92618 * (949)583-1010

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   Problem Descriptions:
  Drainage Area "C" Node 113.2, 100-Year Expected Value
  TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     4.49 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.70        50.00          75.       0.300        0.701
         2         2.10        50.00          75.       0.300        0.701
         3         0.80        50.00          75.       0.300        0.701
         4         2.40        50.00          75.       0.300        0.701

    TOTAL AREA (Acres) =      6.00

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.150

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.299
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 Problem Descriptions:
  Drainage Area "C" Node 113.2, 50-Year Expected Value
  TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     4.13 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.70        50.00          75.       0.300        0.685
         2         2.10        50.00          75.       0.300        0.685
         3         0.80        50.00          75.       0.300        0.685
         4         2.40        50.00          75.       0.300        0.685
```

TOTAL AREA (Acres) = 6.00

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.150

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.315

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Problem Descriptions:
Drainage Area "C" Node 113.2, 25-Year Expected Value
TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.68 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.70	50.00	75.	0.300	0.663
2	2.10	50.00	75.	0.300	0.663
3	0.80	50.00	75.	0.300	0.663
4	2.40	50.00	75.	0.300	0.663

TOTAL AREA (Acres) = 6.00

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.150

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.337

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Problem Descriptions:
Drainage Area "C" Node 113.2, 10-Year Expected Value
TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.03 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.70	50.00	75.	0.300	0.624
2	2.10	50.00	75.	0.300	0.624
3	0.80	50.00	75.	0.300	0.624
4	2.40	50.00	75.	0.300	0.624

TOTAL AREA (Acres) = 6.00

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.150

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.376

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Problem Descriptions:
Drainage Area "C" Node 113.2, 5-Year Expected Value

TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 2.12 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.70	50.00	75.	0.500	0.551
2	2.10	50.00	75.	0.500	0.551
3	0.80	50.00	75.	0.500	0.551
4	2.40	50.00	75.	0.500	0.551

TOTAL AREA (Acres) = 6.00

AREA-AVERAGED LOSS RATE, $\bar{Fm}$ (in./hr.) = 0.250

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.449

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Problem Descriptions:
Drainage Area "C" Node 113.2, 2-Year Expected Value
TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 1.44 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.70	50.00	75.	0.600	0.475
2	2.10	50.00	75.	0.600	0.475
3	0.80	50.00	75.	0.600	0.475
4	2.40	50.00	75.	0.600	0.475

TOTAL AREA (Acres) = 6.00

AREA-AVERAGED LOSS RATE, $\bar{Fm}$ (in./hr.) = 0.300

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.525

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**************************************************************************
          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                    AND LOW LOSS FRACTION ESTIMATIONS
==========================================================================
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                              Analysis prepared by:

                              HUNSAKER & ASSOCIATES
                                    Irvine,Inc
                            Planning * Engineering * Surveying
                         Three Hughes * Irvine, California 92618 * (949)583-1010

**************************************************************************
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 Problem Descriptions:
  Drainage Area "D" Node 206, 100-Year Expected Value
  TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     4.49 (inches)
```

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	40.00	69.	0.300	0.711
2	2.00	50.00	69.	0.300	0.651
3	0.50	50.00	56.	0.300	0.562
4	0.60	50.00	69.	0.300	0.651
5	0.60	40.00	69.	0.300	0.711
6	0.60	40.00	69.	0.300	0.711
7	0.60	50.00	69.	0.300	0.651
8	0.10	50.00	75.	0.300	0.701
9	1.40	50.00	69.	0.300	0.651
10	0.40	50.00	56.	0.300	0.562
11	0.20	50.00	75.	0.300	0.701
12	0.30	40.00	56.	0.300	0.639
13	0.10	40.00	69.	0.300	0.711
14	0.20	40.00	69.	0.300	0.711
15	0.70	40.00	75.	0.300	0.750
16	0.10	40.00	56.	0.300	0.639
17	1.60	40.00	69.	0.300	0.711
18	0.40	40.00	56.	0.300	0.639
19	0.70	40.00	75.	0.300	0.750
20	0.10	85.00	56.	0.300	0.292
21	0.40	85.00	69.	0.300	0.444

```
    TOTAL AREA (Acres) =     12.50

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.139

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.334
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 Problem Descriptions:
  Drainage Area "D" Node 206, 50-Year Expected Value
  TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     4.13 (inches)
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SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	40.00	69.	0.300	0.697
2	2.00	50.00	69.	0.300	0.635
3	0.50	50.00	56.	0.300	0.548
4	0.60	50.00	69.	0.300	0.635
5	0.60	40.00	69.	0.300	0.697
6	0.60	40.00	69.	0.300	0.697
7	0.60	50.00	69.	0.300	0.635
8	0.10	50.00	75.	0.300	0.685
9	1.40	50.00	69.	0.300	0.635
10	0.40	50.00	56.	0.300	0.548
11	0.20	50.00	75.	0.300	0.685
12	0.30	40.00	56.	0.300	0.627
13	0.10	40.00	69.	0.300	0.697
14	0.20	40.00	69.	0.300	0.697
15	0.70	40.00	75.	0.300	0.737
16	0.10	40.00	56.	0.300	0.627
17	1.60	40.00	69.	0.300	0.697
18	0.40	40.00	56.	0.300	0.627
19	0.70	40.00	75.	0.300	0.737
20	0.10	85.00	56.	0.300	0.271
21	0.40	85.00	69.	0.300	0.420

```
    TOTAL AREA (Acres) =     12.50

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.139

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.349
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 Problem Descriptions:
  Drainage Area "D" Node 206, 25-Year Expected Value
  TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     3.68 (inches)
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SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD

1	0.90	40.00	69.	0.300	0.677
2	2.00	50.00	69.	0.300	0.613
3	0.50	50.00	56.	0.300	0.529
4	0.60	50.00	69.	0.300	0.613
5	0.60	40.00	69.	0.300	0.677
6	0.60	40.00	69.	0.300	0.677
7	0.60	50.00	69.	0.300	0.613
8	0.10	50.00	75.	0.300	0.663
9	1.40	50.00	69.	0.300	0.613
10	0.40	50.00	56.	0.300	0.529
11	0.20	50.00	75.	0.300	0.663
12	0.30	40.00	56.	0.300	0.610
13	0.10	40.00	69.	0.300	0.677
14	0.20	40.00	69.	0.300	0.677
15	0.70	40.00	75.	0.300	0.717
16	0.10	40.00	56.	0.300	0.610
17	1.60	40.00	69.	0.300	0.677
18	0.40	40.00	56.	0.300	0.610
19	0.70	40.00	75.	0.300	0.717
20	0.10	85.00	56.	0.300	0.244
21	0.40	85.00	69.	0.300	0.386

TOTAL AREA (Acres) = 12.50

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.139

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.370

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Problem Descriptions:
Drainage Area "D" Node 206, 10-Year Expected Value
TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.03 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	40.00	69.	0.300	0.645
2	2.00	50.00	69.	0.300	0.575
3	0.50	50.00	56.	0.300	0.499
4	0.60	50.00	69.	0.300	0.575
5	0.60	40.00	69.	0.300	0.645
6	0.60	40.00	69.	0.300	0.645
7	0.60	50.00	69.	0.300	0.575
8	0.10	50.00	75.	0.300	0.624
9	1.40	50.00	69.	0.300	0.575
10	0.40	50.00	56.	0.300	0.499
11	0.20	50.00	75.	0.300	0.624
12	0.30	40.00	56.	0.300	0.584
13	0.10	40.00	69.	0.300	0.645
14	0.20	40.00	69.	0.300	0.645
15	0.70	40.00	75.	0.300	0.684
16	0.10	40.00	56.	0.300	0.584
17	1.60	40.00	69.	0.300	0.645
18	0.40	40.00	56.	0.300	0.584

19	0.70	40.00	75.	0.300	0.684
20	0.10	85.00	56.	0.300	0.203
21	0.40	85.00	69.	0.300	0.331

TOTAL AREA (Acres) = 12.50

AREA-AVERAGED LOSS RATE, $\bar{Fm}$ (in./hr.) = 0.139

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.405

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Problem Descriptions:
Drainage Area "D" Node 206, 5-Year Expected Value
TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 2.12 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	40.00	69.	0.500	0.585
2	2.00	50.00	69.	0.500	0.508
3	0.50	50.00	56.	0.500	0.455
4	0.60	50.00	69.	0.500	0.508
5	0.60	40.00	69.	0.500	0.585
6	0.60	40.00	69.	0.500	0.585
7	0.60	50.00	69.	0.500	0.508
8	0.10	50.00	75.	0.500	0.551
9	1.40	50.00	69.	0.500	0.508
10	0.40	50.00	56.	0.500	0.455
11	0.20	50.00	75.	0.500	0.551
12	0.30	40.00	56.	0.500	0.543
13	0.10	40.00	69.	0.500	0.585
14	0.20	40.00	69.	0.500	0.585
15	0.70	40.00	75.	0.500	0.619
16	0.10	40.00	56.	0.500	0.543
17	1.60	40.00	69.	0.500	0.585
18	0.40	40.00	56.	0.500	0.543
19	0.70	40.00	75.	0.500	0.619
20	0.10	85.00	56.	0.500	0.148
21	0.40	85.00	69.	0.500	0.239

TOTAL AREA (Acres) = 12.50

AREA-AVERAGED LOSS RATE, $\bar{Fm}$ (in./hr.) = 0.232

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.467

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Problem Descriptions:
Drainage Area "D" Node 206, 2-Year Expected Value
TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)

AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 1.44 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	40.00	69.	0.600	0.525
2	2.00	50.00	69.	0.600	0.444
3	0.50	50.00	56.	0.600	0.424
4	0.60	50.00	69.	0.600	0.444
5	0.60	40.00	69.	0.600	0.525
6	0.60	40.00	69.	0.600	0.525
7	0.60	50.00	69.	0.600	0.444
8	0.10	50.00	75.	0.600	0.475
9	1.40	50.00	69.	0.600	0.444
10	0.40	50.00	56.	0.600	0.424
11	0.20	50.00	75.	0.600	0.475
12	0.30	40.00	56.	0.600	0.509
13	0.10	40.00	69.	0.600	0.525
14	0.20	40.00	69.	0.600	0.525
15	0.70	40.00	75.	0.600	0.549
16	0.10	40.00	56.	0.600	0.509
17	1.60	40.00	69.	0.600	0.525
18	0.40	40.00	56.	0.600	0.509
19	0.70	40.00	75.	0.600	0.549
20	0.10	85.00	56.	0.600	0.127
21	0.40	85.00	69.	0.600	0.162

TOTAL AREA (Acres) = 12.50

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.279

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.526

==========

Drainage Area "A" @ Basins #1, #2, #3 & #4

Area-Average Loss Rate (Fm) **and Low Loss Fraction** (Y)

(HIGH CONFIDENCE)

Basin Number	STORM Frequency	NODE Number	AREA (Acres)	Tc (Minute)	Fm (In/Hr)	Y-bar
Basin #1	2-YEAR	381	1.1	9.17	0.020	0.197
	5-YEAR	381	1.1	9.00	0.020	0.194
	10-YEAR	381	1.1	8.83	0.020	0.118
	25-YEAR	381	1.1	8.78	0.020	0.102
	50-YEAR	381	1.1	8.70	0.020	0.093
	100-YEAR	381	1.1	8.65	0.020	0.056
Basin #2	2-YEAR	336.1	161.3	14.84	0.099	0.542
	5-YEAR	336.1	161.3	14.81	0.099	0.491
	10-YEAR	336.1	161.3	14.79	0.099	0.332
	25-YEAR	336.1	161.3	14.77	0.099	0.294
	50-YEAR	336.1	161.3	14.76	0.099	0.271
	100-YEAR	336.1	161.3	14.74	0.099	0.110
Basin #3	2-YEAR	317.3	36.7	13.07	0.102	0.549
	5-YEAR	317.3	36.7	12.88	0.102	0.499
	10-YEAR	317.3	36.7	12.63	0.102	0.339
	25-YEAR	317.3	36.7	12.42	0.102	0.301
	50-YEAR	317.3	36.7	12.16	0.102	0.278
	100-YEAR	317.3	36.7	12.16	0.102	0.114
Basin #4	2-YEAR	362	10.3	8.92	0.039	0.289
	5-YEAR	362	10.3	8.76	0.039	0.247
	10-YEAR	362	10.3	8.68	0.039	0.186
	25-YEAR	362	10.3	8.61	0.039	0.165
	50-YEAR	362	10.3	8.56	0.039	0.153
	100-YEAR	362	10.3	8.53	0.039	0.085

Drainage Area "B" @ Basin #5

Area-Average Loss Rate (Fm) **and Low Loss Fraction** (Y)

(HIGH CONFIDENCE)

STORM Frequency	NODE Number	AREA (Acres)	$AREA_{TOTAL}$ (Acres)	Tc (Minute)	Fm (In/Hr)	Y-bar	$Fm_{average}$ (In/Hr)	$Y\text{-}bar_{average}$
2-YEAR	1.0 ~ 35.5	33.76			0.141	0.622		
	35.5 ~ 62.2	30.93			0.117	0.567		
	62.3 ~ 64.0	9.12	73.81	14.56	0.125	0.581	0.129	0.594
5-YEAR	1.0 ~ 35.5	33.76			0.141	0.586		
	35.5 ~ 62.2	30.93			0.117	0.525		
	62.3 ~ 64.0	9.12	73.81	14.02	0.125	0.543	0.129	0.555
10-YEAR	1.0 ~ 35.5	33.76			0.141	0.449		
	35.5 ~ 62.2	30.93			0.117	0.380		
	62.3 ~ 64.0	9.12	73.81	13.7	0.125	0.392	0.129	0.413
25-YEAR	1.0 ~ 35.5	33.76			0.141	0.408		
	35.5 ~ 62.2	30.93			0.117	0.341		
	62.3 ~ 64.0	9.12	73.81	13.66	0.125	0.352	0.129	0.373
50-YEAR	1.0 ~ 35.5	33.76			0.141	0.384		
	35.5 ~ 62.2	30.93			0.117	0.318		
	62.3 ~ 64.0	9.12	73.81	13.46	0.125	0.327	0.129	0.349
100-YEAR	1.0 ~ 35.5	33.76			0.141	0.192		
	35.5 ~ 62.2	30.93			0.117	0.147		
	62.3 ~ 64.0	9.12	73.81	13.20	0.125	0.153	0.129	0.168

Drainage Area "B" @ Basins #7A & 7B
Drainage Area "C" @ Basins #8, 8A & 8B
Drainage Area "D" @ Basin #9

Area-Average Loss Rate (Fm) **and Low Loss Fraction** (Y)

(HIGH CONFIDENCE)

Basin Number	STORM Frequency	NODE Number	AREA (Acres)	Tc (Minute)	Fm (In/Hr)	Y-bar
Basins #7A & 7B	2-YEAR	67	9.18	14.29	0.090	0.496
	5-YEAR	67	9.18	13.73	0.090	0.449
	10-YEAR	67	9.18	13.37	0.090	0.309
	25-YEAR	67	9.18	13.14	0.090	0.273
	50-YEAR	67	9.18	13.00	0.090	0.253
	100-YEAR	67	9.18	12.86	0.090	0.108
Basins #8 & #8A	2-YEAR	102	4.2	9.30	0.105	0.568
	5-YEAR	102	4.2	9.20	0.105	0.517
	10-YEAR	102	4.2	9.11	0.105	0.351
	25-YEAR	102	4.2	9.08	0.105	0.311
	50-YEAR	102	4.2	9.04	0.105	0.288
	100-YEAR	102	4.2	9.00	0.105	0.117
Basin #8B	2-YEAR	113.2	6.0	10.47	0.100	0.546
	5-YEAR	113.2	6.0	10.22	0.100	0.496
	10-YEAR	113.2	6.0	10.05	0.100	0.337
	25-YEAR	113.2	6.0	9.94	0.100	0.299
	50-YEAR	113.2	6.0	9.89	0.100	0.276
	100-YEAR	113.2	6.0	9.82	0.100	0.113
Basin #9	2-YEAR	206	12.5	12.73	0.117	0.522
	5-YEAR	206	12.5	12.39	0.117	0.490
	10-YEAR	206	12.5	12.17	0.117	0.370
	25-YEAR	206	12.5	12.05	0.117	0.334
	50-YEAR	206	12.5	11.95	0.117	0.312
	100-YEAR	206	12.5	11.87	0.117	0.159

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          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                   AND LOW LOSS FRACTION ESTIMATIONS
==========================================================================
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                          Analysis prepared by:

                          HUNSAKER & ASSOCIATES
                                Irvine,Inc
                        Planning * Engineering * Surveying
                 Three Hughes * Irvine, California 92618 * (949)583-1010

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 Problem Descriptions:
  Drainage Area "A" Between Nodes 378.0 ~ 379.0, 100-Year High Confidence
  TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC III:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     5.63 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.60       10.00       75.(AMC II)     0.200       0.944
         2         0.50       10.00       75.(AMC II)     0.200       0.944

    TOTAL AREA (Acres) =      1.10

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.020

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.056
==========================================================================

 Problem Descriptions:
  Drainage Area "A" Between Nodes 378.0 ~ 379.0, 50-Year High Confidence
  TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     5.07 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.60       10.00          75.        0.200       0.907
         2         0.50       10.00          75.        0.200       0.907

    TOTAL AREA (Acres) =      1.10

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.020
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    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.093
==========================================================================

 Problem Descriptions:
  Drainage Area "A" Between Nodes 378.0 ~ 379.0, 25-Year High Confidence
  TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     4.49 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA     NUMBER    Fp(in./hr.)     YIELD
         1         0.60       10.00            75.       0.200        0.898
         2         0.50       10.00            75.       0.200        0.898

    TOTAL AREA (Acres) =      1.10

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.020

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.102
==========================================================================

 Problem Descriptions:
  Drainage Area "A" Between Nodes 378.0 ~ 379.0, 10-Year High Confidence
  TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     3.68 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA     NUMBER    Fp(in./hr.)     YIELD
         1         0.60       10.00            75.       0.200        0.882
         2         0.50       10.00            75.       0.200        0.882

    TOTAL AREA (Acres) =      1.10

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.020

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.118
==========================================================================

 Problem Descriptions:
  Drainage Area "A" Between Nodes 378.0 ~ 379.0, 5-Year High Confidence
  TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC I:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     2.12 (inches)
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    SOIL-COVER      AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA     NUMBER    Fp(in./hr.)    YIELD
         1          0.60       10.00       75.(AMC II)     0.200        0.806
         2          0.50       10.00       75.(AMC II)     0.200        0.806

    TOTAL AREA (Acres) =      1.10

                                 _
    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.020

                                  _
    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.194
==============================================================================

 Problem Descriptions:
  Drainage Area "A" Between Nodes 378.0 ~ 379.0, 2-Year High Confidence
  TTM 15353
  W.O. #3751-1

==============================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC I:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     2.05 (inches)

    SOIL-COVER      AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA     NUMBER    Fp(in./hr.)    YIELD
         1          0.60       10.00       75.(AMC II)     0.200        0.803
         2          0.50       10.00       75.(AMC II)     0.200        0.803

    TOTAL AREA (Acres) =      1.10

                                 _
    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.020

                                  _
    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.197
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          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                    AND LOW LOSS FRACTION ESTIMATIONS
==========================================================================
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                          Analysis prepared by:

                          HUNSAKER & ASSOCIATES
                                Irvine,Inc
                        Planning * Engineering * Surveying
                 Three Hughes * Irvine, California 92618 * (949)583-1010

**************************************************************************
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 Problem Descriptions:
  Drainage Area "A" Offsite Between Nodes 331.0 ~ 336.1, 100-Year High Confidence
  TTM 17300 & TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC III:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     5.63 (inches)
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SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.30	10.00	75.(AMC II)	0.200	0.944
2	0.80	10.00	75.(AMC II)	0.200	0.944
3	151.43	50.00	75.(AMC II)	0.200	0.887
4	0.23	10.00	75.(AMC II)	0.200	0.944
5	0.59	100.00	83.(AMC II)	0.200	0.916
6	0.65	10.00	75.(AMC II)	0.200	0.944
7	1.77	100.00	83.(AMC II)	0.200	0.916
8	0.71	10.00	75.(AMC II)	0.200	0.944
9	0.87	100.00	83.(AMC II)	0.200	0.916
10	0.44	10.00	69.(AMC II)	0.250	0.934
11	0.10	10.00	75.(AMC II)	0.200	0.944
12	1.19	10.00	75.(AMC II)	0.200	0.944
13	0.56	100.00	83.(AMC II)	0.200	0.916
14	0.30	10.00	69.(AMC II)	0.250	0.934
15	1.40	10.00	75.(AMC II)	0.200	0.944

```
    TOTAL AREA (Acres) =    161.34

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.099

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.110
==========================================================================

 Problem Descriptions:
  Drainage Area "A" Offsite Between Nodes 331.0 ~ 336.1, 50-Year High Confidence
  TTM 17300 & TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
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AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 5.07 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.30	10.00	75.	0.200	0.907
2	0.80	10.00	75.	0.200	0.907
3	151.43	50.00	75.	0.200	0.724
4	0.23	10.00	75.	0.200	0.907
5	0.59	100.00	83.	0.200	0.639
6	0.65	10.00	75.	0.200	0.907
7	1.77	100.00	83.	0.200	0.639
8	0.71	10.00	75.	0.200	0.907
9	0.87	100.00	83.	0.200	0.639
10	0.44	10.00	69.	0.250	0.898
11	0.10	10.00	75.	0.200	0.907
12	1.19	10.00	75.	0.200	0.907
13	0.56	100.00	83.	0.200	0.639
14	0.30	10.00	69.	0.250	0.898
15	1.40	10.00	75.	0.200	0.907

TOTAL AREA (Acres) = 161.34

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.099

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.271

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Problem Descriptions:
Drainage Area "A" Offsite Between Nodes 331.0 ~ 336.1, 25-Year High Confidence
TTM 17300 & TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 4.49 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.30	10.00	75.	0.200	0.898
2	0.80	10.00	75.	0.200	0.898
3	151.43	50.00	75.	0.200	0.701
4	0.23	10.00	75.	0.200	0.898
5	0.59	100.00	83.	0.200	0.605
6	0.65	10.00	75.	0.200	0.898
7	1.77	100.00	83.	0.200	0.605
8	0.71	10.00	75.	0.200	0.898
9	0.87	100.00	83.	0.200	0.605
10	0.44	10.00	69.	0.250	0.888
11	0.10	10.00	75.	0.200	0.898
12	1.19	10.00	75.	0.200	0.898
13	0.56	100.00	83.	0.200	0.605
14	0.30	10.00	69.	0.250	0.888
15	1.40	10.00	75.	0.200	0.898

TOTAL AREA (Acres) = 161.34

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.099

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.294

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Problem Descriptions:
Drainage Area "A" Offsite Between Nodes 331.0 ~ 336.1, 10-Year High Confidence
TTM 17300 & TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.68 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.30	10.00	75.	0.200	0.882
2	0.80	10.00	75.	0.200	0.882
3	151.43	50.00	75.	0.200	0.663
4	0.23	10.00	75.	0.200	0.882
5	0.59	100.00	83.	0.200	0.546
6	0.65	10.00	75.	0.200	0.882
7	1.77	100.00	83.	0.200	0.546
8	0.71	10.00	75.	0.200	0.882
9	0.87	100.00	83.	0.200	0.546
10	0.44	10.00	69.	0.250	0.872
11	0.10	10.00	75.	0.200	0.882
12	1.19	10.00	75.	0.200	0.882
13	0.56	100.00	83.	0.200	0.546
14	0.30	10.00	69.	0.250	0.872
15	1.40	10.00	75.	0.200	0.882

TOTAL AREA (Acres) = 161.34

AREA-AVERAGED LOSS RATE, $\bar{Fm}$ (in./hr.) = 0.099

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.332

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Problem Descriptions:
Drainage Area "A" Offsite Between Nodes 331.0 ~ 336.1, 5-Year High Confidence
TTM 17300 & TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC I:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.03 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.30	10.00	75.(AMC II)	0.200	0.840
2	0.80	10.00	75.(AMC II)	0.200	0.840
3	151.43	50.00	75.(AMC II)	0.200	0.504
4	0.23	10.00	75.(AMC II)	0.200	0.840
5	0.59	100.00	83.(AMC II)	0.200	0.198
6	0.65	10.00	75.(AMC II)	0.200	0.840
7	1.77	100.00	83.(AMC II)	0.200	0.198
8	0.71	10.00	75.(AMC II)	0.200	0.840

9	0.87	100.00	83.(AMC II)	0.200	0.198
10	0.44	10.00	69.(AMC II)	0.250	0.834
11	0.10	10.00	75.(AMC II)	0.200	0.840
12	1.19	10.00	75.(AMC II)	0.200	0.840
13	0.56	100.00	83.(AMC II)	0.200	0.198
14	0.30	10.00	69.(AMC II)	0.250	0.834
15	1.40	10.00	75.(AMC II)	0.200	0.840

TOTAL AREA (Acres) = 161.34

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.099

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.491

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Problem Descriptions:
Drainage Area "A" Offsite Between Nodes 331.0 ~ 336.1, 2-Year High Confidence
TTM 17300 & TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC I:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 2.05 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.30	10.00	75.(AMC II)	0.200	0.803
2	0.80	10.00	75.(AMC II)	0.200	0.803
3	151.43	50.00	75.(AMC II)	0.200	0.454
4	0.23	10.00	75.(AMC II)	0.200	0.803
5	0.59	100.00	83.(AMC II)	0.200	0.092
6	0.65	10.00	75.(AMC II)	0.200	0.803
7	1.77	100.00	83.(AMC II)	0.200	0.092
8	0.71	10.00	75.(AMC II)	0.200	0.803
9	0.87	100.00	83.(AMC II)	0.200	0.092
10	0.44	10.00	69.(AMC II)	0.250	0.801
11	0.10	10.00	75.(AMC II)	0.200	0.803
12	1.19	10.00	75.(AMC II)	0.200	0.803
13	0.56	100.00	83.(AMC II)	0.200	0.092
14	0.30	10.00	69.(AMC II)	0.250	0.801
15	1.40	10.00	75.(AMC II)	0.200	0.803

TOTAL AREA (Acres) = 161.34

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.099

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.542

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          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                    AND LOW LOSS FRACTION ESTIMATIONS
==========================================================================
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                          Analysis prepared by:

                          HUNSAKER & ASSOCIATES
                                Irvine, Inc
                        Planning * Engineering * Surveying
                 Three Hughes * Irvine, California 92618 * (949)583-1010

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 Problem Descriptions:
  Drainage Area "A" Between Nodes 301.0 ~ 317.3, 100-Year High Confidence
  TTM 17300 & TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC III:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     5.63 (inches)
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SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	85.00	75.(AMC II)	0.200	0.837
2	0.60	50.00	75.(AMC II)	0.200	0.887
3	0.40	60.00	75.(AMC II)	0.200	0.873
4	0.80	60.00	75.(AMC II)	0.200	0.873
5	0.50	50.00	69.(AMC II)	0.250	0.839
6	1.90	50.00	75.(AMC II)	0.200	0.887
7	0.80	50.00	75.(AMC II)	0.200	0.887
8	0.50	60.00	69.(AMC II)	0.250	0.816
9	0.80	60.00	75.(AMC II)	0.200	0.873
10	0.70	50.00	75.(AMC II)	0.200	0.887
11	1.90	50.00	75.(AMC II)	0.200	0.887
12	1.00	60.00	75.(AMC II)	0.200	0.873
13	1.30	60.00	75.(AMC II)	0.200	0.873
14	0.90	50.00	75.(AMC II)	0.200	0.887
15	2.10	60.00	75.(AMC II)	0.200	0.873
16	1.20	85.00	75.(AMC II)	0.200	0.837
17	0.70	50.00	75.(AMC II)	0.200	0.887
18	1.80	50.00	75.(AMC II)	0.200	0.887
19	0.40	100.00	83.(AMC II)	0.200	0.916
20	3.20	85.00	75.(AMC II)	0.200	0.837
21	0.30	85.00	75.(AMC II)	0.200	0.837
22	0.80	50.00	75.(AMC II)	0.200	0.887
23	1.80	50.00	75.(AMC II)	0.200	0.887
24	1.90	10.00	75.(AMC II)	0.200	0.944
25	1.40	20.00	75.(AMC II)	0.200	0.929
26	2.00	20.00	75.(AMC II)	0.200	0.929
27	0.90	40.00	75.(AMC II)	0.200	0.901
28	0.60	40.00	75.(AMC II)	0.200	0.901

29	0.70	40.00	75.(AMC II)	0.200	0.901
30	1.00	40.00	75.(AMC II)	0.200	0.901
31	0.60	50.00	75.(AMC II)	0.200	0.887
32	0.80	50.00	75.(AMC II)	0.200	0.887
33	0.50	10.00	75.(AMC II)	0.200	0.944
34	0.40	10.00	75.(AMC II)	0.200	0.944
35	0.20	10.00	75.(AMC II)	0.200	0.944
36	0.40	10.00	75.(AMC II)	0.200	0.944

TOTAL AREA (Acres) = 36.70

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.102

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.114

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Problem Descriptions:
Drainage Area "A" Between Nodes 301.0 ~ 317.3, 50-Year High Confidence
TTM 17300 & TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 5.07 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	85.00	75.	0.200	0.563
2	0.60	50.00	75.	0.200	0.724
3	0.40	60.00	75.	0.200	0.678
4	0.80	60.00	75.	0.200	0.678
5	0.50	50.00	69.	0.250	0.675
6	1.90	50.00	75.	0.200	0.724
7	0.80	50.00	75.	0.200	0.724
8	0.50	60.00	69.	0.250	0.619
9	0.80	60.00	75.	0.200	0.678
10	0.70	50.00	75.	0.200	0.724
11	1.90	50.00	75.	0.200	0.724
12	1.00	60.00	75.	0.200	0.678
13	1.30	60.00	75.	0.200	0.678
14	0.90	50.00	75.	0.200	0.724
15	2.10	60.00	75.	0.200	0.678
16	1.20	85.00	75.	0.200	0.563
17	0.70	50.00	75.	0.200	0.724
18	1.80	50.00	75.	0.200	0.724
19	0.40	100.00	83.	0.200	0.639
20	3.20	85.00	75.	0.200	0.563
21	0.30	85.00	75.	0.200	0.563
22	0.80	50.00	75.	0.200	0.724
23	1.80	50.00	75.	0.200	0.724
24	1.90	10.00	75.	0.200	0.907
25	1.40	20.00	75.	0.200	0.861
26	2.00	20.00	75.	0.200	0.861
27	0.90	40.00	75.	0.200	0.770
28	0.60	40.00	75.	0.200	0.770
29	0.70	40.00	75.	0.200	0.770
30	1.00	40.00	75.	0.200	0.770

31	0.60	50.00	75.	0.200	0.724
32	0.80	50.00	75.	0.200	0.724
33	0.50	10.00	75.	0.200	0.907
34	0.40	10.00	75.	0.200	0.907
35	0.20	10.00	75.	0.200	0.907
36	0.40	10.00	75.	0.200	0.907

TOTAL AREA (Acres) = 36.70

AREA-AVERAGED LOSS RATE, $\bar{Fm}$ (in./hr.) = 0.102

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.278

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Problem Descriptions:
Drainage Area "A" Between Nodes 301.0 ~ 317.3, 25-Year High Confidence
TTM 17300 & TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 4.49 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	85.00	75.	0.200	0.529
2	0.60	50.00	75.	0.200	0.701
3	0.40	60.00	75.	0.200	0.652
4	0.80	60.00	75.	0.200	0.652
5	0.50	50.00	69.	0.250	0.651
6	1.90	50.00	75.	0.200	0.701
7	0.80	50.00	75.	0.200	0.701
8	0.50	60.00	69.	0.250	0.592
9	0.80	60.00	75.	0.200	0.652
10	0.70	50.00	75.	0.200	0.701
11	1.90	50.00	75.	0.200	0.701
12	1.00	60.00	75.	0.200	0.652
13	1.30	60.00	75.	0.200	0.652
14	0.90	50.00	75.	0.200	0.701
15	2.10	60.00	75.	0.200	0.652
16	1.20	85.00	75.	0.200	0.529
17	0.70	50.00	75.	0.200	0.701
18	1.80	50.00	75.	0.200	0.701
19	0.40	100.00	83.	0.200	0.605
20	3.20	85.00	75.	0.200	0.529
21	0.30	85.00	75.	0.200	0.529
22	0.80	50.00	75.	0.200	0.701
23	1.80	50.00	75.	0.200	0.701
24	1.90	10.00	75.	0.200	0.898
25	1.40	20.00	75.	0.200	0.849
26	2.00	20.00	75.	0.200	0.849
27	0.90	40.00	75.	0.200	0.750
28	0.60	40.00	75.	0.200	0.750
29	0.70	40.00	75.	0.200	0.750
30	1.00	40.00	75.	0.200	0.750
31	0.60	50.00	75.	0.200	0.701
32	0.80	50.00	75.	0.200	0.701

33	0.50	10.00	75.	0.200	0.898
34	0.40	10.00	75.	0.200	0.898
35	0.20	10.00	75.	0.200	0.898
36	0.40	10.00	75.	0.200	0.898

TOTAL AREA (Acres) = 36.70

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.102

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.301

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Problem Descriptions:
Drainage Area "A" Between Nodes 301.0 ~ 317.3, 10-Year High Confidence
TTM 17300 & TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.68 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	85.00	75.	0.200	0.471
2	0.60	50.00	75.	0.200	0.663
3	0.40	60.00	75.	0.200	0.608
4	0.80	60.00	75.	0.200	0.608
5	0.50	50.00	69.	0.250	0.613
6	1.90	50.00	75.	0.200	0.663
7	0.80	50.00	75.	0.200	0.663
8	0.50	60.00	69.	0.250	0.548
9	0.80	60.00	75.	0.200	0.608
10	0.70	50.00	75.	0.200	0.663
11	1.90	50.00	75.	0.200	0.663
12	1.00	60.00	75.	0.200	0.608
13	1.30	60.00	75.	0.200	0.608
14	0.90	50.00	75.	0.200	0.663
15	2.10	60.00	75.	0.200	0.608
16	1.20	85.00	75.	0.200	0.471
17	0.70	50.00	75.	0.200	0.663
18	1.80	50.00	75.	0.200	0.663
19	0.40	100.00	83.	0.200	0.546
20	3.20	85.00	75.	0.200	0.471
21	0.30	85.00	75.	0.200	0.471
22	0.80	50.00	75.	0.200	0.663
23	1.80	50.00	75.	0.200	0.663
24	1.90	10.00	75.	0.200	0.882
25	1.40	20.00	75.	0.200	0.827
26	2.00	20.00	75.	0.200	0.827
27	0.90	40.00	75.	0.200	0.717
28	0.60	40.00	75.	0.200	0.717
29	0.70	40.00	75.	0.200	0.717
30	1.00	40.00	75.	0.200	0.717
31	0.60	50.00	75.	0.200	0.663
32	0.80	50.00	75.	0.200	0.663
33	0.50	10.00	75.	0.200	0.882
34	0.40	10.00	75.	0.200	0.882

35	0.20	10.00	75.	0.200	0.882
36	0.40	10.00	75.	0.200	0.882

TOTAL AREA (Acres) = 36.70

AREA-AVERAGED LOSS RATE, $\bar{Fm}$ (in./hr.) = 0.102

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.339

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Problem Descriptions:
Drainage Area "A" Between Nodes 301.0 ~ 317.3, 5-Year High Confidence
TTM 17300 & TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC I:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.03 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	85.00	75.(AMC II)	0.200	0.210
2	0.60	50.00	75.(AMC II)	0.200	0.504
3	0.40	60.00	75.(AMC II)	0.200	0.420
4	0.80	60.00	75.(AMC II)	0.200	0.420
5	0.50	50.00	69.(AMC II)	0.250	0.478
6	1.90	50.00	75.(AMC II)	0.200	0.504
7	0.80	50.00	75.(AMC II)	0.200	0.504
8	0.50	60.00	69.(AMC II)	0.250	0.388
9	0.80	60.00	75.(AMC II)	0.200	0.420
10	0.70	50.00	75.(AMC II)	0.200	0.504
11	1.90	50.00	75.(AMC II)	0.200	0.504
12	1.00	60.00	75.(AMC II)	0.200	0.420
13	1.30	60.00	75.(AMC II)	0.200	0.420
14	0.90	50.00	75.(AMC II)	0.200	0.504
15	2.10	60.00	75.(AMC II)	0.200	0.420
16	1.20	85.00	75.(AMC II)	0.200	0.210
17	0.70	50.00	75.(AMC II)	0.200	0.504
18	1.80	50.00	75.(AMC II)	0.200	0.504
19	0.40	100.00	83.(AMC II)	0.200	0.198
20	3.20	85.00	75.(AMC II)	0.200	0.210
21	0.30	85.00	75.(AMC II)	0.200	0.210
22	0.80	50.00	75.(AMC II)	0.200	0.504
23	1.80	50.00	75.(AMC II)	0.200	0.504
24	1.90	10.00	75.(AMC II)	0.200	0.840
25	1.40	20.00	75.(AMC II)	0.200	0.756
26	2.00	20.00	75.(AMC II)	0.200	0.756
27	0.90	40.00	75.(AMC II)	0.200	0.588
28	0.60	40.00	75.(AMC II)	0.200	0.588
29	0.70	40.00	75.(AMC II)	0.200	0.588
30	1.00	40.00	75.(AMC II)	0.200	0.588
31	0.60	50.00	75.(AMC II)	0.200	0.504
32	0.80	50.00	75.(AMC II)	0.200	0.504
33	0.50	10.00	75.(AMC II)	0.200	0.840
34	0.40	10.00	75.(AMC II)	0.200	0.840
35	0.20	10.00	75.(AMC II)	0.200	0.840
36	0.40	10.00	75.(AMC II)	0.200	0.840

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    TOTAL AREA (Acres) =     36.70

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.102

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.499
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 Problem Descriptions:
  Drainage Area "A" Between Nodes 301.0 ~ 317.3, 2-Year High Confidence
  TTM 17300 & TTM 15353
  W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC I:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     2.05 (inches)
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SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	85.00	75.(AMC II)	0.200	0.148
2	0.60	50.00	75.(AMC II)	0.200	0.454
3	0.40	60.00	75.(AMC II)	0.200	0.366
4	0.80	60.00	75.(AMC II)	0.200	0.366
5	0.50	50.00	69.(AMC II)	0.250	0.445
6	1.90	50.00	75.(AMC II)	0.200	0.454
7	0.80	50.00	75.(AMC II)	0.200	0.454
8	0.50	60.00	69.(AMC II)	0.250	0.356
9	0.80	60.00	75.(AMC II)	0.200	0.366
10	0.70	50.00	75.(AMC II)	0.200	0.454
11	1.90	50.00	75.(AMC II)	0.200	0.454
12	1.00	60.00	75.(AMC II)	0.200	0.366
13	1.30	60.00	75.(AMC II)	0.200	0.366
14	0.90	50.00	75.(AMC II)	0.200	0.454
15	2.10	60.00	75.(AMC II)	0.200	0.366
16	1.20	85.00	75.(AMC II)	0.200	0.148
17	0.70	50.00	75.(AMC II)	0.200	0.454
18	1.80	50.00	75.(AMC II)	0.200	0.454
19	0.40	100.00	83.(AMC II)	0.200	0.092
20	3.20	85.00	75.(AMC II)	0.200	0.148
21	0.30	85.00	75.(AMC II)	0.200	0.148
22	0.80	50.00	75.(AMC II)	0.200	0.454
23	1.80	50.00	75.(AMC II)	0.200	0.454
24	1.90	10.00	75.(AMC II)	0.200	0.803
25	1.40	20.00	75.(AMC II)	0.200	0.715
26	2.00	20.00	75.(AMC II)	0.200	0.715
27	0.90	40.00	75.(AMC II)	0.200	0.541
28	0.60	40.00	75.(AMC II)	0.200	0.541
29	0.70	40.00	75.(AMC II)	0.200	0.541
30	1.00	40.00	75.(AMC II)	0.200	0.541
31	0.60	50.00	75.(AMC II)	0.200	0.454
32	0.80	50.00	75.(AMC II)	0.200	0.454
33	0.50	10.00	75.(AMC II)	0.200	0.803
34	0.40	10.00	75.(AMC II)	0.200	0.803
35	0.20	10.00	75.(AMC II)	0.200	0.803
36	0.40	10.00	75.(AMC II)	0.200	0.803

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    TOTAL AREA (Acres) =     36.70
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    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.102

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.549
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Basin # 3

Drainage Area "A" Between Nodes 301.0 ~ 317.3, Proposed Condition 100, 50, 25, 10, 5 and 2-Year

High Confidence

Area-Average Loss Rate & Low Loss Fraction Calculation

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          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                   AND LOW LOSS FRACTION ESTIMATIONS
==========================================================================
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 Problem Descriptions:
  Drainage Area "A" Between Nodes 361.0 ~ 362.0, 100-Year High Confidence
  TTM 15353
  W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC III:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     5.63 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA     NUMBER    Fp(in./hr.)    YIELD
         1         1.40        20.00       56.(AMC II)     0.200        0.875
         2         0.40        20.00       75.(AMC II)     0.200        0.929
         3         1.40        20.00       56.(AMC II)     0.200        0.875
         4         4.40        20.00       75.(AMC II)     0.200        0.929
         5         0.80        20.00       75.(AMC II)     0.200        0.929
         6         0.30        10.00       75.(AMC II)     0.200        0.944
         7         0.40        20.00       75.(AMC II)     0.200        0.929
         8         0.20        20.00       75.(AMC II)     0.200        0.929
         9         1.00        20.00       75.(AMC II)     0.200        0.929

    TOTAL AREA (Acres) =     10.30

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.039

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.085
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 Problem Descriptions:
  Drainage Area "A" Between Nodes 361.0 ~ 362.0, 50-Year High Confidence
  TTM 15353
  W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     5.07 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA     NUMBER    Fp(in./hr.)    YIELD
```

1	1.40	20.00	56.	0.200	0.805
2	0.40	20.00	75.	0.200	0.861
3	1.40	20.00	56.	0.200	0.805
4	4.40	20.00	75.	0.200	0.861
5	0.80	20.00	75.	0.200	0.861
6	0.30	10.00	75.	0.200	0.907
7	0.40	20.00	75.	0.200	0.861
8	0.20	20.00	75.	0.200	0.861
9	1.00	20.00	75.	0.200	0.861

TOTAL AREA (Acres) = 10.30

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.039

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.153

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Problem Descriptions:
Drainage Area "A" Between Nodes 361.0 ~ 362.0, 25-Year High Confidence
TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 4.49 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	1.40	20.00	56.	0.200	0.793
2	0.40	20.00	75.	0.200	0.849
3	1.40	20.00	56.	0.200	0.793
4	4.40	20.00	75.	0.200	0.849
5	0.80	20.00	75.	0.200	0.849
6	0.30	10.00	75.	0.200	0.898
7	0.40	20.00	75.	0.200	0.849
8	0.20	20.00	75.	0.200	0.849
9	1.00	20.00	75.	0.200	0.849

TOTAL AREA (Acres) = 10.30

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.039

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.165

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Problem Descriptions:
Drainage Area "A" Between Nodes 361.0 ~ 362.0, 10-Year High Confidence
TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.68 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	1.40	20.00	56.	0.200	0.773

2	0.40	20.00	75.	0.200	0.827
3	1.40	20.00	56.	0.200	0.773
4	4.40	20.00	75.	0.200	0.827
5	0.80	20.00	75.	0.200	0.827
6	0.30	10.00	75.	0.200	0.882
7	0.40	20.00	75.	0.200	0.827
8	0.20	20.00	75.	0.200	0.827
9	1.00	20.00	75.	0.200	0.827

TOTAL AREA (Acres) = 10.30

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.039

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.186

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Problem Descriptions:
Drainage Area "A" Between Nodes 361.0 ~ 362.0, 5-Year High Confidence
TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC I:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.03 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	1.40	20.00	56.(AMC II)	0.200	0.739
2	0.40	20.00	75.(AMC II)	0.200	0.756
3	1.40	20.00	56.(AMC II)	0.200	0.739
4	4.40	20.00	75.(AMC II)	0.200	0.756
5	0.80	20.00	75.(AMC II)	0.200	0.756
6	0.30	10.00	75.(AMC II)	0.200	0.840
7	0.40	20.00	75.(AMC II)	0.200	0.756
8	0.20	20.00	75.(AMC II)	0.200	0.756
9	1.00	20.00	75.(AMC II)	0.200	0.756

TOTAL AREA (Acres) = 10.30

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.039

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.247

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Problem Descriptions:
Drainage Area "A" Between Nodes 361.0 ~ 362.0, 2-Year High Confidence
TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC I:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 2.05 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	1.40	20.00	56.(AMC II)	0.200	0.712
2	0.40	20.00	75.(AMC II)	0.200	0.715

3	1.40	20.00	56.(AMC II)	0.200	0.712
4	4.40	20.00	75.(AMC II)	0.200	0.715
5	0.80	20.00	75.(AMC II)	0.200	0.715
6	0.30	10.00	75.(AMC II)	0.200	0.803
7	0.40	20.00	75.(AMC II)	0.200	0.715
8	0.20	20.00	75.(AMC II)	0.200	0.715
9	1.00	20.00	75.(AMC II)	0.200	0.715

TOTAL AREA (Acres) = 10.30

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.039

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.283

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Basin # 4

Drainage Area "A" Between Nodes 361.0 ~ 362.0, Proposed Condition 100, 50, 25, 10, 5 and 2-Year

High Confidence

Area-Average Loss Rate & Low Loss Fraction Calculation

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          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                AND LOW LOSS FRACTION ESTIMATIONS
==========================================================================
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                        Analysis prepared by:

                        HUNSAKER & ASSOCIATES
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              Three Hughes * Irvine, California 92618 * (949)583-1010

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 Problem Descriptions:
  Drainage Area "B" Between Nodes 1.0 ~ 35.5, 100-Year High Confidence
  TTM 17300
  W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC III:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     5.63 (inches)
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SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.38	85.00	56.(AMC II)	0.300	0.606
2	0.23	85.00	75.(AMC II)	0.200	0.837
3	0.07	60.00	56.(AMC II)	0.300	0.710
4	2.60	60.00	75.(AMC II)	0.200	0.873
5	0.16	60.00	56.(AMC II)	0.300	0.710
6	0.40	60.00	75.(AMC II)	0.200	0.873
7	0.67	60.00	56.(AMC II)	0.300	0.710
8	1.18	60.00	75.(AMC II)	0.200	0.873
9	0.76	50.00	56.(AMC II)	0.300	0.751
10	0.99	50.00	56.(AMC II)	0.300	0.751
11	1.45	50.00	75.(AMC II)	0.200	0.887
12	0.91	50.00	56.(AMC II)	0.300	0.751
13	1.95	50.00	56.(AMC II)	0.300	0.751
14	1.45	50.00	75.(AMC II)	0.200	0.887
15	0.89	50.00	56.(AMC II)	0.300	0.751
16	0.35	50.00	75.(AMC II)	0.200	0.887
17	1.05	50.00	56.(AMC II)	0.300	0.751
18	1.99	50.00	75.(AMC II)	0.200	0.887
19	1.06	85.00	75.(AMC II)	0.200	0.837
20	0.16	85.00	56.(AMC II)	0.300	0.606
21	0.15	85.00	75.(AMC II)	0.200	0.837
22	0.68	60.00	56.(AMC II)	0.300	0.710
23	0.40	60.00	56.(AMC II)	0.300	0.710
24	0.70	60.00	75.(AMC II)	0.200	0.873
25	0.69	50.00	75.(AMC II)	0.200	0.887
26	0.21	50.00	75.(AMC II)	0.200	0.887
27	0.22	50.00	75.(AMC II)	0.200	0.887
28	0.53	85.00	56.(AMC II)	0.300	0.606
29	0.38	85.00	56.(AMC II)	0.300	0.606
30	0.30	85.00	75.(AMC II)	0.200	0.837

31	0.45	60.00	75.(AMC II)	0.200	0.873
32	0.56	60.00	75.(AMC II)	0.200	0.873
33	0.32	50.00	56.(AMC II)	0.300	0.751
34	2.00	50.00	75.(AMC II)	0.200	0.887
35	0.91	50.00	75.(AMC II)	0.200	0.887
36	0.61	50.00	56.(AMC II)	0.300	0.751
37	1.42	50.00	75.(AMC II)	0.200	0.887
38	0.18	85.00	56.(AMC II)	0.300	0.606
39	0.08	85.00	75.(AMC II)	0.200	0.837
40	0.79	85.00	56.(AMC II)	0.300	0.606
41	0.25	85.00	56.(AMC II)	0.300	0.606
42	0.23	85.00	75.(AMC II)	0.200	0.837
43	0.35	85.00	75.(AMC II)	0.200	0.837
44	0.20	85.00	56.(AMC II)	0.300	0.606
45	0.14	85.00	75.(AMC II)	0.200	0.837
46	0.19	85.00	56.(AMC II)	0.300	0.606
47	0.28	85.00	75.(AMC II)	0.200	0.837
48	0.36	10.00	56.(AMC II)	0.300	0.916
49	0.80	50.00	56.(AMC II)	0.300	0.751
50	0.68	60.00	56.(AMC II)	0.300	0.710

TOTAL AREA (Acres) = 33.76

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.141

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.192

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Problem Descriptions:
Drainage Area "B" Between Nodes 1.0 ~ 35.5, 50-Year High Confidence
TTM 17300
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 5.07 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.38	85.00	56.	0.300	0.324
2	0.23	85.00	75.	0.200	0.563
3	0.07	60.00	56.	0.300	0.509
4	2.60	60.00	75.	0.200	0.678
5	0.16	60.00	56.	0.300	0.509
6	0.40	60.00	75.	0.200	0.678
7	0.67	60.00	56.	0.300	0.509
8	1.18	60.00	75.	0.200	0.678
9	0.76	50.00	56.	0.300	0.583
10	0.99	50.00	56.	0.300	0.583
11	1.45	50.00	75.	0.200	0.724
12	0.91	50.00	56.	0.300	0.583
13	1.95	50.00	56.	0.300	0.583
14	1.45	50.00	75.	0.200	0.724
15	0.89	50.00	56.	0.300	0.583
16	0.35	50.00	75.	0.200	0.724
17	1.05	50.00	56.	0.300	0.583
18	1.99	50.00	75.	0.200	0.724
19	1.06	85.00	75.	0.200	0.563
20	0.16	85.00	56.	0.300	0.324

21	0.15	85.00	75.	0.200	0.563
22	0.68	60.00	56.	0.300	0.509
23	0.40	60.00	56.	0.300	0.509
24	0.70	60.00	75.	0.200	0.678
25	0.69	50.00	75.	0.200	0.724
26	0.21	50.00	75.	0.200	0.724
27	0.22	50.00	75.	0.200	0.724
28	0.53	85.00	56.	0.300	0.324
29	0.38	85.00	56.	0.300	0.324
30	0.30	85.00	75.	0.200	0.563
31	0.45	60.00	75.	0.200	0.678
32	0.56	60.00	75.	0.200	0.678
33	0.32	50.00	56.	0.300	0.583
34	2.00	50.00	75.	0.200	0.724
35	0.91	50.00	75.	0.200	0.724
36	0.61	50.00	56.	0.300	0.583
37	1.42	50.00	75.	0.200	0.724
38	0.18	85.00	56.	0.300	0.324
39	0.08	85.00	75.	0.200	0.563
40	0.79	85.00	56.	0.300	0.324
41	0.25	85.00	56.	0.300	0.324
42	0.23	85.00	75.	0.200	0.563
43	0.35	85.00	75.	0.200	0.563
44	0.20	85.00	56.	0.300	0.324
45	0.14	85.00	75.	0.200	0.563
46	0.19	85.00	56.	0.300	0.324
47	0.28	85.00	75.	0.200	0.563
48	0.36	10.00	56.	0.300	0.879
49	0.80	50.00	56.	0.300	0.583
50	0.68	60.00	56.	0.300	0.509

TOTAL AREA (Acres) = 33.76

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.141

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.384

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Problem Descriptions:
Drainage Area "B" Between Nodes 1.0 ~ 35.5, 25-Year High Confidence
TTM 17300
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 4.49 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.38	85.00	56.	0.300	0.292
2	0.23	85.00	75.	0.200	0.529
3	0.07	60.00	56.	0.300	0.485
4	2.60	60.00	75.	0.200	0.652
5	0.16	60.00	56.	0.300	0.485
6	0.40	60.00	75.	0.200	0.652
7	0.67	60.00	56.	0.300	0.485
8	1.18	60.00	75.	0.200	0.652
9	0.76	50.00	56.	0.300	0.562
10	0.99	50.00	56.	0.300	0.562

11	1.45	50.00	75.	0.200	0.701
12	0.91	50.00	56.	0.300	0.562
13	1.95	50.00	56.	0.300	0.562
14	1.45	50.00	75.	0.200	0.701
15	0.89	50.00	56.	0.300	0.562
16	0.35	50.00	75.	0.200	0.701
17	1.05	50.00	56.	0.300	0.562
18	1.99	50.00	75.	0.200	0.701
19	1.06	85.00	75.	0.200	0.529
20	0.16	85.00	56.	0.300	0.292
21	0.15	85.00	75.	0.200	0.529
22	0.68	60.00	56.	0.300	0.485
23	0.40	60.00	56.	0.300	0.485
24	0.70	60.00	75.	0.200	0.652
25	0.69	50.00	75.	0.200	0.701
26	0.21	50.00	75.	0.200	0.701
27	0.22	50.00	75.	0.200	0.701
28	0.53	85.00	56.	0.300	0.292
29	0.38	85.00	56.	0.300	0.292
30	0.30	85.00	75.	0.200	0.529
31	0.45	60.00	75.	0.200	0.652
32	0.56	60.00	75.	0.200	0.652
33	0.32	50.00	56.	0.300	0.562
34	2.00	50.00	75.	0.200	0.701
35	0.91	50.00	75.	0.200	0.701
36	0.61	50.00	56.	0.300	0.562
37	1.42	50.00	75.	0.200	0.701
38	0.18	85.00	56.	0.300	0.292
39	0.08	85.00	75.	0.200	0.529
40	0.79	85.00	56.	0.300	0.292
41	0.25	85.00	56.	0.300	0.292
42	0.23	85.00	75.	0.200	0.529
43	0.35	85.00	75.	0.200	0.529
44	0.20	85.00	56.	0.300	0.292
45	0.14	85.00	75.	0.200	0.529
46	0.19	85.00	56.	0.300	0.292
47	0.28	85.00	75.	0.200	0.529
48	0.36	10.00	56.	0.300	0.870
49	0.80	50.00	56.	0.300	0.562
50	0.68	60.00	56.	0.300	0.485

TOTAL AREA (Acres) = 33.76

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.141

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.408

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Problem Descriptions:
Drainage Area "B" Between Nodes 1.0 ~ 35.5, 10-Year High Confidence
TTM 17300
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.68 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD

1	0.38	85.00	56.	0.300	0.244
2	0.23	85.00	75.	0.200	0.471
3	0.07	60.00	56.	0.300	0.447
4	2.60	60.00	75.	0.200	0.608
5	0.16	60.00	56.	0.300	0.447
6	0.40	60.00	75.	0.200	0.608
7	0.67	60.00	56.	0.300	0.447
8	1.18	60.00	75.	0.200	0.608
9	0.76	50.00	56.	0.300	0.529
10	0.99	50.00	56.	0.300	0.529
11	1.45	50.00	75.	0.200	0.663
12	0.91	50.00	56.	0.300	0.529
13	1.95	50.00	56.	0.300	0.529
14	1.45	50.00	75.	0.200	0.663
15	0.89	50.00	56.	0.300	0.529
16	0.35	50.00	75.	0.200	0.663
17	1.05	50.00	56.	0.300	0.529
18	1.99	50.00	75.	0.200	0.663
19	1.06	85.00	75.	0.200	0.471
20	0.16	85.00	56.	0.300	0.244
21	0.15	85.00	75.	0.200	0.471
22	0.68	60.00	56.	0.300	0.447
23	0.40	60.00	56.	0.300	0.447
24	0.70	60.00	75.	0.200	0.608
25	0.69	50.00	75.	0.200	0.663
26	0.21	50.00	75.	0.200	0.663
27	0.22	50.00	75.	0.200	0.663
28	0.53	85.00	56.	0.300	0.244
29	0.38	85.00	56.	0.300	0.244
30	0.30	85.00	75.	0.200	0.471
31	0.45	60.00	75.	0.200	0.608
32	0.56	60.00	75.	0.200	0.608
33	0.32	50.00	56.	0.300	0.529
34	2.00	50.00	75.	0.200	0.663
35	0.91	50.00	75.	0.200	0.663
36	0.61	50.00	56.	0.300	0.529
37	1.42	50.00	75.	0.200	0.663
38	0.18	85.00	56.	0.300	0.244
39	0.08	85.00	75.	0.200	0.471
40	0.79	85.00	56.	0.300	0.244
41	0.25	85.00	56.	0.300	0.244
42	0.23	85.00	75.	0.200	0.471
43	0.35	85.00	75.	0.200	0.471
44	0.20	85.00	56.	0.300	0.244
45	0.14	85.00	75.	0.200	0.471
46	0.19	85.00	56.	0.300	0.244
47	0.28	85.00	75.	0.200	0.471
48	0.36	10.00	56.	0.300	0.855
49	0.80	50.00	56.	0.300	0.529
50	0.68	60.00	56.	0.300	0.447

TOTAL AREA (Acres) = 33.76

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.141

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.449

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Problem Descriptions:
Drainage Area "B" Between Nodes 1.0 ~ 35.5, 5-Year High Confidence
TTM 17300

W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC I:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.03 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.38	85.00	56.(AMC II)	0.300	0.139
2	0.23	85.00	75.(AMC II)	0.200	0.210
3	0.07	60.00	56.(AMC II)	0.300	0.369
4	2.60	60.00	75.(AMC II)	0.200	0.420
5	0.16	60.00	56.(AMC II)	0.300	0.369
6	0.40	60.00	75.(AMC II)	0.200	0.420
7	0.67	60.00	56.(AMC II)	0.300	0.369
8	1.18	60.00	75.(AMC II)	0.200	0.420
9	0.76	50.00	56.(AMC II)	0.300	0.462
10	0.99	50.00	56.(AMC II)	0.300	0.462
11	1.45	50.00	75.(AMC II)	0.200	0.504
12	0.91	50.00	56.(AMC II)	0.300	0.462
13	1.95	50.00	56.(AMC II)	0.300	0.462
14	1.45	50.00	75.(AMC II)	0.200	0.504
15	0.89	50.00	56.(AMC II)	0.300	0.462
16	0.35	50.00	75.(AMC II)	0.200	0.504
17	1.05	50.00	56.(AMC II)	0.300	0.462
18	1.99	50.00	75.(AMC II)	0.200	0.504
19	1.06	85.00	75.(AMC II)	0.200	0.210
20	0.16	85.00	56.(AMC II)	0.300	0.139
21	0.15	85.00	75.(AMC II)	0.200	0.210
22	0.68	60.00	56.(AMC II)	0.300	0.369
23	0.40	60.00	56.(AMC II)	0.300	0.369
24	0.70	60.00	75.(AMC II)	0.200	0.420
25	0.69	50.00	75.(AMC II)	0.200	0.504
26	0.21	50.00	75.(AMC II)	0.200	0.504
27	0.22	50.00	75.(AMC II)	0.200	0.504
28	0.53	85.00	56.(AMC II)	0.300	0.139
29	0.38	85.00	56.(AMC II)	0.300	0.139
30	0.30	85.00	75.(AMC II)	0.200	0.210
31	0.45	60.00	75.(AMC II)	0.200	0.420
32	0.56	60.00	75.(AMC II)	0.200	0.420
33	0.32	50.00	56.(AMC II)	0.300	0.462
34	2.00	50.00	75.(AMC II)	0.200	0.504
35	0.91	50.00	75.(AMC II)	0.200	0.504
36	0.61	50.00	56.(AMC II)	0.300	0.462
37	1.42	50.00	75.(AMC II)	0.200	0.504
38	0.18	85.00	56.(AMC II)	0.300	0.139
39	0.08	85.00	75.(AMC II)	0.200	0.210
40	0.79	85.00	56.(AMC II)	0.300	0.139
41	0.25	85.00	56.(AMC II)	0.300	0.139
42	0.23	85.00	75.(AMC II)	0.200	0.210
43	0.35	85.00	75.(AMC II)	0.200	0.210
44	0.20	85.00	56.(AMC II)	0.300	0.139
45	0.14	85.00	75.(AMC II)	0.200	0.210
46	0.19	85.00	56.(AMC II)	0.300	0.139
47	0.28	85.00	75.(AMC II)	0.200	0.210
48	0.36	10.00	56.(AMC II)	0.300	0.831
49	0.80	50.00	56.(AMC II)	0.300	0.462
50	0.68	60.00	56.(AMC II)	0.300	0.369

TOTAL AREA (Acres) = 33.76

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.141

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.586

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Problem Descriptions:
Drainage Area "B" Between Nodes 1.0 ~ 35.5, 2-Year High Confidence
TTM 17300
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC I:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 2.05 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.38	85.00	56.(AMC II)	0.300	0.133
2	0.23	85.00	75.(AMC II)	0.200	0.148
3	0.07	60.00	56.(AMC II)	0.300	0.356
4	2.60	60.00	75.(AMC II)	0.200	0.366
5	0.16	60.00	56.(AMC II)	0.300	0.356
6	0.40	60.00	75.(AMC II)	0.200	0.366
7	0.67	60.00	56.(AMC II)	0.300	0.356
8	1.18	60.00	75.(AMC II)	0.200	0.366
9	0.76	50.00	56.(AMC II)	0.300	0.445
10	0.99	50.00	56.(AMC II)	0.300	0.445
11	1.45	50.00	75.(AMC II)	0.200	0.454
12	0.91	50.00	56.(AMC II)	0.300	0.445
13	1.95	50.00	56.(AMC II)	0.300	0.445
14	1.45	50.00	75.(AMC II)	0.200	0.454
15	0.89	50.00	56.(AMC II)	0.300	0.445
16	0.35	50.00	75.(AMC II)	0.200	0.454
17	1.05	50.00	56.(AMC II)	0.300	0.445
18	1.99	50.00	75.(AMC II)	0.200	0.454
19	1.06	85.00	75.(AMC II)	0.200	0.148
20	0.16	85.00	56.(AMC II)	0.300	0.133
21	0.15	85.00	75.(AMC II)	0.200	0.148
22	0.68	60.00	56.(AMC II)	0.300	0.356
23	0.40	60.00	56.(AMC II)	0.300	0.356
24	0.70	60.00	75.(AMC II)	0.200	0.366
25	0.69	50.00	75.(AMC II)	0.200	0.454
26	0.21	50.00	75.(AMC II)	0.200	0.454
27	0.22	50.00	75.(AMC II)	0.200	0.454
28	0.53	85.00	56.(AMC II)	0.300	0.133
29	0.38	85.00	56.(AMC II)	0.300	0.133
30	0.30	85.00	75.(AMC II)	0.200	0.148
31	0.45	60.00	75.(AMC II)	0.200	0.366
32	0.56	60.00	75.(AMC II)	0.200	0.366
33	0.32	50.00	56.(AMC II)	0.300	0.445
34	2.00	50.00	75.(AMC II)	0.200	0.454
35	0.91	50.00	75.(AMC II)	0.200	0.454
36	0.61	50.00	56.(AMC II)	0.300	0.445
37	1.42	50.00	75.(AMC II)	0.200	0.454
38	0.18	85.00	56.(AMC II)	0.300	0.133
39	0.08	85.00	75.(AMC II)	0.200	0.148
40	0.79	85.00	56.(AMC II)	0.300	0.133
41	0.25	85.00	56.(AMC II)	0.300	0.133

42	0.23	85.00	75.(AMC II)	0.200	0.148
43	0.35	85.00	75.(AMC II)	0.200	0.148
44	0.20	85.00	56.(AMC II)	0.300	0.133
45	0.14	85.00	75.(AMC II)	0.200	0.148
46	0.19	85.00	56.(AMC II)	0.300	0.133
47	0.28	85.00	75.(AMC II)	0.200	0.148
48	0.36	10.00	56.(AMC II)	0.300	0.801
49	0.80	50.00	56.(AMC II)	0.300	0.445
50	0.68	60.00	56.(AMC II)	0.300	0.356

TOTAL AREA (Acres) = 33.76

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.141

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.622

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          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                AND LOW LOSS FRACTION ESTIMATIONS
======================================================================
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                          Analysis prepared by:

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 Problem Descriptions:
  Drainage Area "B" Between Nodes 35.5 ~ 62.2, 100-Year High Confidence
  TTM 17300 & TTM 15353
  W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC III:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     5.63 (inches)
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SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.32	85.00	56.(AMC II)	0.300	0.606
2	0.72	60.00	75.(AMC II)	0.200	0.873
3	1.17	60.00	75.(AMC II)	0.200	0.873
4	0.90	60.00	75.(AMC II)	0.200	0.873
5	0.56	60.00	75.(AMC II)	0.200	0.873
6	0.90	50.00	75.(AMC II)	0.200	0.887
7	2.88	50.00	75.(AMC II)	0.200	0.887
8	0.19	50.00	69.(AMC II)	0.250	0.839
9	0.55	50.00	75.(AMC II)	0.200	0.887
10	0.78	50.00	75.(AMC II)	0.200	0.887
11	0.76	60.00	75.(AMC II)	0.200	0.873
12	2.00	50.00	75.(AMC II)	0.200	0.887
13	0.12	85.00	56.(AMC II)	0.300	0.606
14	0.30	50.00	56.(AMC II)	0.300	0.751
15	0.89	85.00	75.(AMC II)	0.200	0.837
16	1.11	50.00	75.(AMC II)	0.200	0.887
17	1.05	60.00	56.(AMC II)	0.300	0.710
18	0.57	50.00	56.(AMC II)	0.300	0.751
19	0.38	50.00	69.(AMC II)	0.250	0.839
20	0.81	50.00	75.(AMC II)	0.200	0.887
21	0.86	50.00	56.(AMC II)	0.300	0.751
22	0.12	50.00	69.(AMC II)	0.250	0.839
23	1.08	50.00	75.(AMC II)	0.200	0.887
24	0.83	85.00	75.(AMC II)	0.200	0.837
25	0.93	50.00	75.(AMC II)	0.200	0.887
26	0.51	50.00	56.(AMC II)	0.300	0.751
27	0.52	50.00	69.(AMC II)	0.250	0.839
28	1.43	50.00	75.(AMC II)	0.200	0.887
29	0.06	50.00	56.(AMC II)	0.300	0.751
30	0.37	50.00	69.(AMC II)	0.250	0.839

31	0.36	85.00	56.(AMC II)	0.300	0.606
32	0.24	85.00	69.(AMC II)	0.250	0.756
33	0.18	10.00	56.(AMC II)	0.300	0.916
34	0.08	10.00	69.(AMC II)	0.250	0.934
35	0.49	10.00	56.(AMC II)	0.300	0.916
36	0.11	10.00	69.(AMC II)	0.250	0.934
37	0.40	10.00	69.(AMC II)	0.250	0.934
38	0.10	10.00	69.(AMC II)	0.250	0.934
39	0.50	85.00	69.(AMC II)	0.250	0.756
40	0.50	40.00	69.(AMC II)	0.250	0.863
41	0.40	10.00	69.(AMC II)	0.250	0.934
42	0.10	10.00	69.(AMC II)	0.250	0.934
43	0.50	40.00	69.(AMC II)	0.250	0.863
44	0.30	50.00	69.(AMC II)	0.250	0.839
45	0.50	50.00	75.(AMC II)	0.200	0.887
46	0.50	50.00	69.(AMC II)	0.250	0.839
47	0.40	40.00	69.(AMC II)	0.250	0.863
48	0.20	40.00	75.(AMC II)	0.200	0.901
49	0.40	40.00	69.(AMC II)	0.250	0.863
50	1.00	40.00	69.(AMC II)	0.250	0.863

TOTAL AREA (Acres) = 30.93

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.117

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.147

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Problem Descriptions:
Drainage Area "B" Between Nodes 35.5 ~ 62.2, 50-Year High Confidence
TTM 17300 & TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 5.07 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.32	85.00	56.	0.300	0.324
2	0.72	60.00	75.	0.200	0.678
3	1.17	60.00	75.	0.200	0.678
4	0.90	60.00	75.	0.200	0.678
5	0.56	60.00	75.	0.200	0.678
6	0.90	50.00	75.	0.200	0.724
7	2.88	50.00	75.	0.200	0.724
8	0.19	50.00	69.	0.250	0.675
9	0.55	50.00	75.	0.200	0.724
10	0.78	50.00	75.	0.200	0.724
11	0.76	60.00	75.	0.200	0.678
12	2.00	50.00	75.	0.200	0.724
13	0.12	85.00	56.	0.300	0.324
14	0.30	50.00	56.	0.300	0.583
15	0.89	85.00	75.	0.200	0.563
16	1.11	50.00	75.	0.200	0.724
17	1.05	60.00	56.	0.300	0.509
18	0.57	50.00	56.	0.300	0.583
19	0.38	50.00	69.	0.250	0.675
20	0.81	50.00	75.	0.200	0.724

21	0.86	50.00	56.	0.300	0.583
22	0.12	50.00	69.	0.250	0.675
23	1.08	50.00	75.	0.200	0.724
24	0.83	85.00	75.	0.200	0.563
25	0.93	50.00	75.	0.200	0.724
26	0.51	50.00	56.	0.300	0.583
27	0.52	50.00	69.	0.250	0.675
28	1.43	50.00	75.	0.200	0.724
29	0.06	50.00	56.	0.300	0.583
30	0.37	50.00	69.	0.250	0.675
31	0.36	85.00	56.	0.300	0.324
32	0.24	85.00	69.	0.250	0.480
33	0.18	10.00	56.	0.300	0.879
34	0.08	10.00	69.	0.250	0.898
35	0.49	10.00	56.	0.300	0.879
36	0.11	10.00	69.	0.250	0.898
37	0.40	10.00	69.	0.250	0.898
38	0.10	10.00	69.	0.250	0.898
39	0.50	85.00	69.	0.250	0.480
40	0.50	40.00	69.	0.250	0.730
41	0.40	10.00	69.	0.250	0.898
42	0.10	10.00	69.	0.250	0.898
43	0.50	40.00	69.	0.250	0.730
44	0.30	50.00	69.	0.250	0.675
45	0.50	50.00	75.	0.200	0.724
46	0.50	50.00	69.	0.250	0.675
47	0.40	40.00	69.	0.250	0.730
48	0.20	40.00	75.	0.200	0.770
49	0.40	40.00	69.	0.250	0.730
50	1.00	40.00	69.	0.250	0.730

TOTAL AREA (Acres) = 30.93

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.117

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.318

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Problem Descriptions:
Drainage Area "B" Between Nodes 35.5 ~ 62.2, 25-Year High Confidence
TTM 17300 & TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 4.49 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.32	85.00	56.	0.300	0.292
2	0.72	60.00	75.	0.200	0.652
3	1.17	60.00	75.	0.200	0.652
4	0.90	60.00	75.	0.200	0.652
5	0.56	60.00	75.	0.200	0.652
6	0.90	50.00	75.	0.200	0.701
7	2.88	50.00	75.	0.200	0.701
8	0.19	50.00	69.	0.250	0.651
9	0.55	50.00	75.	0.200	0.701
10	0.78	50.00	75.	0.200	0.701

11	0.76	60.00	75.	0.200	0.652
12	2.00	50.00	75.	0.200	0.701
13	0.12	85.00	56.	0.300	0.292
14	0.30	50.00	56.	0.300	0.562
15	0.89	85.00	75.	0.200	0.529
16	1.11	50.00	75.	0.200	0.701
17	1.05	60.00	56.	0.300	0.485
18	0.57	50.00	56.	0.300	0.562
19	0.38	50.00	69.	0.250	0.651
20	0.81	50.00	75.	0.200	0.701
21	0.86	50.00	56.	0.300	0.562
22	0.12	50.00	69.	0.250	0.651
23	1.08	50.00	75.	0.200	0.701
24	0.83	85.00	75.	0.200	0.529
25	0.93	50.00	75.	0.200	0.701
26	0.51	50.00	56.	0.300	0.562
27	0.52	50.00	69.	0.250	0.651
28	1.43	50.00	75.	0.200	0.701
29	0.06	50.00	56.	0.300	0.562
30	0.37	50.00	69.	0.250	0.651
31	0.36	85.00	56.	0.300	0.292
32	0.24	85.00	69.	0.250	0.444
33	0.18	10.00	56.	0.300	0.870
34	0.08	10.00	69.	0.250	0.888
35	0.49	10.00	56.	0.300	0.870
36	0.11	10.00	69.	0.250	0.888
37	0.40	10.00	69.	0.250	0.888
38	0.10	10.00	69.	0.250	0.888
39	0.50	85.00	69.	0.250	0.444
40	0.50	40.00	69.	0.250	0.711
41	0.40	10.00	69.	0.250	0.888
42	0.10	10.00	69.	0.250	0.888
43	0.50	40.00	69.	0.250	0.711
44	0.30	50.00	69.	0.250	0.651
45	0.50	50.00	75.	0.200	0.701
46	0.50	50.00	69.	0.250	0.651
47	0.40	40.00	69.	0.250	0.711
48	0.20	40.00	75.	0.200	0.750
49	0.40	40.00	69.	0.250	0.711
50	1.00	40.00	69.	0.250	0.711

TOTAL AREA (Acres) = 30.93

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.117

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.341

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Problem Descriptions:
Drainage Area "B" Between Nodes 35.5 ~ 62.2, 10-Year High Confidence
TTM 17300 & TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.68 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD

1	0.32	85.00	56.	0.300	0.244
2	0.72	60.00	75.	0.200	0.608
3	1.17	60.00	75.	0.200	0.608
4	0.90	60.00	75.	0.200	0.608
5	0.56	60.00	75.	0.200	0.608
6	0.90	50.00	75.	0.200	0.663
7	2.88	50.00	75.	0.200	0.663
8	0.19	50.00	69.	0.250	0.613
9	0.55	50.00	75.	0.200	0.663
10	0.78	50.00	75.	0.200	0.663
11	0.76	60.00	75.	0.200	0.608
12	2.00	50.00	75.	0.200	0.663
13	0.12	85.00	56.	0.300	0.244
14	0.30	50.00	56.	0.300	0.529
15	0.89	85.00	75.	0.200	0.471
16	1.11	50.00	75.	0.200	0.663
17	1.05	60.00	56.	0.300	0.447
18	0.57	50.00	56.	0.300	0.529
19	0.38	50.00	69.	0.250	0.613
20	0.81	50.00	75.	0.200	0.663
21	0.86	50.00	56.	0.300	0.529
22	0.12	50.00	69.	0.250	0.613
23	1.08	50.00	75.	0.200	0.663
24	0.83	85.00	75.	0.200	0.471
25	0.93	50.00	75.	0.200	0.663
26	0.51	50.00	56.	0.300	0.529
27	0.52	50.00	69.	0.250	0.613
28	1.43	50.00	75.	0.200	0.663
29	0.06	50.00	56.	0.300	0.529
30	0.37	50.00	69.	0.250	0.613
31	0.36	85.00	56.	0.300	0.244
32	0.24	85.00	69.	0.250	0.386
33	0.18	10.00	56.	0.300	0.855
34	0.08	10.00	69.	0.250	0.872
35	0.49	10.00	56.	0.300	0.855
36	0.11	10.00	69.	0.250	0.872
37	0.40	10.00	69.	0.250	0.872
38	0.10	10.00	69.	0.250	0.872
39	0.50	85.00	69.	0.250	0.386
40	0.50	40.00	69.	0.250	0.677
41	0.40	10.00	69.	0.250	0.872
42	0.10	10.00	69.	0.250	0.872
43	0.50	40.00	69.	0.250	0.677
44	0.30	50.00	69.	0.250	0.613
45	0.50	50.00	75.	0.200	0.663
46	0.50	50.00	69.	0.250	0.613
47	0.40	40.00	69.	0.250	0.677
48	0.20	40.00	75.	0.200	0.717
49	0.40	40.00	69.	0.250	0.677
50	1.00	40.00	69.	0.250	0.677

TOTAL AREA (Acres) = 30.93

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.117

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.380

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Problem Descriptions:
Drainage Area "B" Between Nodes 35.5 ~ 62.2, 5-Year High Confidence
TTM 17300 & TTM 15353

W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC I:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.03 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.32	85.00	56.(AMC II)	0.300	0.139
2	0.72	60.00	75.(AMC II)	0.200	0.420
3	1.17	60.00	75.(AMC II)	0.200	0.420
4	0.90	60.00	75.(AMC II)	0.200	0.420
5	0.56	60.00	75.(AMC II)	0.200	0.420
6	0.90	50.00	75.(AMC II)	0.200	0.504
7	2.88	50.00	75.(AMC II)	0.200	0.504
8	0.19	50.00	69.(AMC II)	0.250	0.478
9	0.55	50.00	75.(AMC II)	0.200	0.504
10	0.78	50.00	75.(AMC II)	0.200	0.504
11	0.76	60.00	75.(AMC II)	0.200	0.420
12	2.00	50.00	75.(AMC II)	0.200	0.504
13	0.12	85.00	56.(AMC II)	0.300	0.139
14	0.30	50.00	56.(AMC II)	0.300	0.462
15	0.89	85.00	75.(AMC II)	0.200	0.210
16	1.11	50.00	75.(AMC II)	0.200	0.504
17	1.05	60.00	56.(AMC II)	0.300	0.369
18	0.57	50.00	56.(AMC II)	0.300	0.462
19	0.38	50.00	69.(AMC II)	0.250	0.478
20	0.81	50.00	75.(AMC II)	0.200	0.504
21	0.86	50.00	56.(AMC II)	0.300	0.462
22	0.12	50.00	69.(AMC II)	0.250	0.478
23	1.08	50.00	75.(AMC II)	0.200	0.504
24	0.83	85.00	75.(AMC II)	0.200	0.210
25	0.93	50.00	75.(AMC II)	0.200	0.504
26	0.51	50.00	56.(AMC II)	0.300	0.462
27	0.52	50.00	69.(AMC II)	0.250	0.478
28	1.43	50.00	75.(AMC II)	0.200	0.504
29	0.06	50.00	56.(AMC II)	0.300	0.462
30	0.37	50.00	69.(AMC II)	0.250	0.478
31	0.36	85.00	56.(AMC II)	0.300	0.139
32	0.24	85.00	69.(AMC II)	0.250	0.166
33	0.18	10.00	56.(AMC II)	0.300	0.831
34	0.08	10.00	69.(AMC II)	0.250	0.834
35	0.49	10.00	56.(AMC II)	0.300	0.831
36	0.11	10.00	69.(AMC II)	0.250	0.834
37	0.40	10.00	69.(AMC II)	0.250	0.834
38	0.10	10.00	69.(AMC II)	0.250	0.834
39	0.50	85.00	69.(AMC II)	0.250	0.166
40	0.50	40.00	69.(AMC II)	0.250	0.567
41	0.40	10.00	69.(AMC II)	0.250	0.834
42	0.10	10.00	69.(AMC II)	0.250	0.834
43	0.50	40.00	69.(AMC II)	0.250	0.567
44	0.30	50.00	69.(AMC II)	0.250	0.478
45	0.50	50.00	75.(AMC II)	0.200	0.504
46	0.50	50.00	69.(AMC II)	0.250	0.478
47	0.40	40.00	69.(AMC II)	0.250	0.567
48	0.20	40.00	75.(AMC II)	0.200	0.588
49	0.40	40.00	69.(AMC II)	0.250	0.567
50	1.00	40.00	69.(AMC II)	0.250	0.567

TOTAL AREA (Acres) = 30.93

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.117

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.525

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Problem Descriptions:
Drainage Area "B" Between Nodes 35.5 ~ 62.2, 2-Year High Confidence
TTM 17300 & TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC I:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 2.05 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.32	85.00	56.(AMC II)	0.300	0.133
2	0.72	60.00	75.(AMC II)	0.200	0.366
3	1.17	60.00	75.(AMC II)	0.200	0.366
4	0.90	60.00	75.(AMC II)	0.200	0.366
5	0.56	60.00	75.(AMC II)	0.200	0.366
6	0.90	50.00	75.(AMC II)	0.200	0.454
7	2.88	50.00	75.(AMC II)	0.200	0.454
8	0.19	50.00	69.(AMC II)	0.250	0.445
9	0.55	50.00	75.(AMC II)	0.200	0.454
10	0.78	50.00	75.(AMC II)	0.200	0.454
11	0.76	60.00	75.(AMC II)	0.200	0.366
12	2.00	50.00	75.(AMC II)	0.200	0.454
13	0.12	85.00	56.(AMC II)	0.300	0.133
14	0.30	50.00	56.(AMC II)	0.300	0.445
15	0.89	85.00	75.(AMC II)	0.200	0.148
16	1.11	50.00	75.(AMC II)	0.200	0.454
17	1.05	60.00	56.(AMC II)	0.300	0.356
18	0.57	50.00	56.(AMC II)	0.300	0.445
19	0.38	50.00	69.(AMC II)	0.250	0.445
20	0.81	50.00	75.(AMC II)	0.200	0.454
21	0.86	50.00	56.(AMC II)	0.300	0.445
22	0.12	50.00	69.(AMC II)	0.250	0.445
23	1.08	50.00	75.(AMC II)	0.200	0.454
24	0.83	85.00	75.(AMC II)	0.200	0.148
25	0.93	50.00	75.(AMC II)	0.200	0.454
26	0.51	50.00	56.(AMC II)	0.300	0.445
27	0.52	50.00	69.(AMC II)	0.250	0.445
28	1.43	50.00	75.(AMC II)	0.200	0.454
29	0.06	50.00	56.(AMC II)	0.300	0.445
30	0.37	50.00	69.(AMC II)	0.250	0.445
31	0.36	85.00	56.(AMC II)	0.300	0.133
32	0.24	85.00	69.(AMC II)	0.250	0.134
33	0.18	10.00	56.(AMC II)	0.300	0.801
34	0.08	10.00	69.(AMC II)	0.250	0.801
35	0.49	10.00	56.(AMC II)	0.300	0.801
36	0.11	10.00	69.(AMC II)	0.250	0.801
37	0.40	10.00	69.(AMC II)	0.250	0.801
38	0.10	10.00	69.(AMC II)	0.250	0.801
39	0.50	85.00	69.(AMC II)	0.250	0.134
40	0.50	40.00	69.(AMC II)	0.250	0.534
41	0.40	10.00	69.(AMC II)	0.250	0.801

42	0.10	10.00	69.(AMC II)	0.250	0.801
43	0.50	40.00	69.(AMC II)	0.250	0.534
44	0.30	50.00	69.(AMC II)	0.250	0.445
45	0.50	50.00	75.(AMC II)	0.200	0.454
46	0.50	50.00	69.(AMC II)	0.250	0.445
47	0.40	40.00	69.(AMC II)	0.250	0.534
48	0.20	40.00	75.(AMC II)	0.200	0.541
49	0.40	40.00	69.(AMC II)	0.250	0.534
50	1.00	40.00	69.(AMC II)	0.250	0.534

TOTAL AREA (Acres) = 30.93

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.117

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.567

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          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                   AND LOW LOSS FRACTION ESTIMATIONS
==========================================================================
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                          Analysis prepared by:

                          HUNSAKER & ASSOCIATES
                                Irvine,Inc
                        Planning * Engineering * Surveying
                 Three Hughes * Irvine, California 92618 * (949)583-1010

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 Problem Descriptions:
  Drainage Area "B" Between Nodes 62.3 ~ 64.0, 100-Year High Confidence
  TTM 15353
  W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC III:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     5.63 (inches)
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SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	50.00	69.(AMC II)	0.250	0.839
2	0.50	85.00	69.(AMC II)	0.250	0.756
3	0.60	50.00	69.(AMC II)	0.250	0.839
4	1.10	50.00	69.(AMC II)	0.250	0.839
5	0.80	50.00	69.(AMC II)	0.250	0.839
6	0.30	40.00	69.(AMC II)	0.250	0.863
7	0.60	85.00	75.(AMC II)	0.200	0.837
8	1.20	40.00	75.(AMC II)	0.200	0.901
9	0.30	10.00	69.(AMC II)	0.250	0.934
10	0.10	50.00	69.(AMC II)	0.250	0.839
11	0.30	50.00	75.(AMC II)	0.200	0.887
12	0.30	50.00	69.(AMC II)	0.250	0.839
13	0.10	50.00	75.(AMC II)	0.200	0.887
14	0.60	85.00	69.(AMC II)	0.250	0.756
15	0.30	85.00	75.(AMC II)	0.200	0.837
16	0.39	85.00	69.(AMC II)	0.250	0.756
17	0.03	85.00	75.(AMC II)	0.200	0.837
18	0.40	10.00	69.(AMC II)	0.250	0.934
19	0.10	10.00	75.(AMC II)	0.200	0.944
20	0.20	10.00	75.(AMC II)	0.200	0.944

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    TOTAL AREA (Acres) =      9.12

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.125

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.153
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 Problem Descriptions:
  Drainage Area "B" Between Nodes 62.3 ~ 64.0, 50-Year High Confidence
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TTM 15353
W.O. #3751-1

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==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     5.07 (inches)
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SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	50.00	69.	0.250	0.675
2	0.50	85.00	69.	0.250	0.480
3	0.60	50.00	69.	0.250	0.675
4	1.10	50.00	69.	0.250	0.675
5	0.80	50.00	69.	0.250	0.675
6	0.30	40.00	69.	0.250	0.730
7	0.60	85.00	75.	0.200	0.563
8	1.20	40.00	75.	0.200	0.770
9	0.30	10.00	69.	0.250	0.898
10	0.10	50.00	69.	0.250	0.675
11	0.30	50.00	75.	0.200	0.724
12	0.30	50.00	69.	0.250	0.675
13	0.10	50.00	75.	0.200	0.724
14	0.60	85.00	69.	0.250	0.480
15	0.30	85.00	75.	0.200	0.563
16	0.39	85.00	69.	0.250	0.480
17	0.03	85.00	75.	0.200	0.563
18	0.40	10.00	69.	0.250	0.898
19	0.10	10.00	75.	0.200	0.907
20	0.20	10.00	75.	0.200	0.907

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    TOTAL AREA (Acres) =      9.12

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.125

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.327
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 Problem Descriptions:
  Drainage Area "B" Between Nodes 62.3 ~ 64.0, 25-Year High Confidence
  TTM 15353
  W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     4.49 (inches)
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SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	50.00	69.	0.250	0.651
2	0.50	85.00	69.	0.250	0.444
3	0.60	50.00	69.	0.250	0.651
4	1.10	50.00	69.	0.250	0.651
5	0.80	50.00	69.	0.250	0.651
6	0.30	40.00	69.	0.250	0.711
7	0.60	85.00	75.	0.200	0.529
8	1.20	40.00	75.	0.200	0.750
9	0.30	10.00	69.	0.250	0.888

10	0.10	50.00	69.	0.250	0.651
11	0.30	50.00	75.	0.200	0.701
12	0.30	50.00	69.	0.250	0.651
13	0.10	50.00	75.	0.200	0.701
14	0.60	85.00	69.	0.250	0.444
15	0.30	85.00	75.	0.200	0.529
16	0.39	85.00	69.	0.250	0.444
17	0.03	85.00	75.	0.200	0.529
18	0.40	10.00	69.	0.250	0.888
19	0.10	10.00	75.	0.200	0.898
20	0.20	10.00	75.	0.200	0.898

TOTAL AREA (Acres) = 9.12

AREA-AVERAGED LOSS RATE, $\bar{Fm}$ (in./hr.) = 0.125

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.352

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Problem Descriptions:
Drainage Area "B" Between Nodes 62.3 ~ 64.0, 10-Year High Confidence
TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.68 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	50.00	69.	0.250	0.613
2	0.50	85.00	69.	0.250	0.386
3	0.60	50.00	69.	0.250	0.613
4	1.10	50.00	69.	0.250	0.613
5	0.80	50.00	69.	0.250	0.613
6	0.30	40.00	69.	0.250	0.677
7	0.60	85.00	75.	0.200	0.471
8	1.20	40.00	75.	0.200	0.717
9	0.30	10.00	69.	0.250	0.872
10	0.10	50.00	69.	0.250	0.613
11	0.30	50.00	75.	0.200	0.663
12	0.30	50.00	69.	0.250	0.613
13	0.10	50.00	75.	0.200	0.663
14	0.60	85.00	69.	0.250	0.386
15	0.30	85.00	75.	0.200	0.471
16	0.39	85.00	69.	0.250	0.386
17	0.03	85.00	75.	0.200	0.471
18	0.40	10.00	69.	0.250	0.872
19	0.10	10.00	75.	0.200	0.882
20	0.20	10.00	75.	0.200	0.882

TOTAL AREA (Acres) = 9.12

AREA-AVERAGED LOSS RATE, $\bar{Fm}$ (in./hr.) = 0.125

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.392

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Problem Descriptions:

Drainage Area "B" Between Nodes 62.3 ~ 64.0, 5-Year High Confidence
TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC I:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.03 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	50.00	69.(AMC II)	0.250	0.478
2	0.50	85.00	69.(AMC II)	0.250	0.166
3	0.60	50.00	69.(AMC II)	0.250	0.478
4	1.10	50.00	69.(AMC II)	0.250	0.478
5	0.80	50.00	69.(AMC II)	0.250	0.478
6	0.30	40.00	69.(AMC II)	0.250	0.567
7	0.60	85.00	75.(AMC II)	0.200	0.210
8	1.20	40.00	75.(AMC II)	0.200	0.588
9	0.30	10.00	69.(AMC II)	0.250	0.834
10	0.10	50.00	69.(AMC II)	0.250	0.478
11	0.30	50.00	75.(AMC II)	0.200	0.504
12	0.30	50.00	69.(AMC II)	0.250	0.478
13	0.10	50.00	75.(AMC II)	0.200	0.504
14	0.60	85.00	69.(AMC II)	0.250	0.166
15	0.30	85.00	75.(AMC II)	0.200	0.210
16	0.39	85.00	69.(AMC II)	0.250	0.166
17	0.03	85.00	75.(AMC II)	0.200	0.210
18	0.40	10.00	69.(AMC II)	0.250	0.834
19	0.10	10.00	75.(AMC II)	0.200	0.840
20	0.20	10.00	75.(AMC II)	0.200	0.840

TOTAL AREA (Acres) = 9.12

AREA-AVERAGED LOSS RATE, $\bar{Fm}$ (in./hr.) = 0.125

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.543

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Problem Descriptions:
Drainage Area "B" Between Nodes 62.3 ~ 64.0, 2-Year High Confidence
TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC I:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 2.05 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	50.00	69.(AMC II)	0.250	0.445
2	0.50	85.00	69.(AMC II)	0.250	0.134
3	0.60	50.00	69.(AMC II)	0.250	0.445
4	1.10	50.00	69.(AMC II)	0.250	0.445
5	0.80	50.00	69.(AMC II)	0.250	0.445
6	0.30	40.00	69.(AMC II)	0.250	0.534
7	0.60	85.00	75.(AMC II)	0.200	0.148
8	1.20	40.00	75.(AMC II)	0.200	0.541

9	0.30	10.00	69.(AMC II)	0.250	0.801
10	0.10	50.00	69.(AMC II)	0.250	0.445
11	0.30	50.00	75.(AMC II)	0.200	0.454
12	0.30	50.00	69.(AMC II)	0.250	0.445
13	0.10	50.00	75.(AMC II)	0.200	0.454
14	0.60	85.00	69.(AMC II)	0.250	0.134
15	0.30	85.00	75.(AMC II)	0.200	0.148
16	0.39	85.00	69.(AMC II)	0.250	0.134
17	0.03	85.00	75.(AMC II)	0.200	0.148
18	0.40	10.00	69.(AMC II)	0.250	0.801
19	0.10	10.00	75.(AMC II)	0.200	0.803
20	0.20	10.00	75.(AMC II)	0.200	0.803

TOTAL AREA (Acres) = 9.12

AREA-AVERAGED LOSS RATE, $\bar{Fm}$ (in./hr.) = 0.125

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.581

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          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                    AND LOW LOSS FRACTION ESTIMATIONS
==========================================================================
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                            Analysis prepared by:

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 Problem Descriptions:
  Drainage Area "B" Between Nodes 64.0 ~ 68.96, 100-Year High Confidence
  TTM 17300
  W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC III:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     5.63 (inches)
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SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	20.00	75.(AMC II)	0.200	0.929
2	1.10	40.00	75.(AMC II)	0.200	0.901
3	1.60	40.00	75.(AMC II)	0.200	0.901
4	0.60	40.00	75.(AMC II)	0.200	0.901
5	0.70	50.00	75.(AMC II)	0.200	0.887
6	1.50	50.00	75.(AMC II)	0.200	0.887
7	0.10	10.00	75.(AMC II)	0.200	0.944
8	0.60	50.00	75.(AMC II)	0.200	0.887
9	0.70	60.00	75.(AMC II)	0.200	0.873
10	0.10	10.00	69.(AMC II)	0.250	0.934
11	0.10	10.00	75.(AMC II)	0.200	0.944
12	0.45	60.00	69.(AMC II)	0.250	0.816
13	0.43	60.00	75.(AMC II)	0.200	0.873
14	0.30	60.00	75.(AMC II)	0.200	0.873

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    TOTAL AREA (Acres) =      9.18

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.090

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.108
==========================================================================

 Problem Descriptions:
  Drainage Area "B" Between Nodes 64.0 ~ 68.96, 50-Year High Confidence
  TTM 17300
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
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AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 5.07 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	20.00	75.	0.200	0.861
2	1.10	40.00	75.	0.200	0.770
3	1.60	40.00	75.	0.200	0.770
4	0.60	40.00	75.	0.200	0.770
5	0.70	50.00	75.	0.200	0.724
6	1.50	50.00	75.	0.200	0.724
7	0.10	10.00	75.	0.200	0.907
8	0.60	50.00	75.	0.200	0.724
9	0.70	60.00	75.	0.200	0.678
10	0.10	10.00	69.	0.250	0.898
11	0.10	10.00	75.	0.200	0.907
12	0.45	60.00	69.	0.250	0.619
13	0.43	60.00	75.	0.200	0.678
14	0.30	60.00	75.	0.200	0.678

TOTAL AREA (Acres) = 9.18

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.090

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.253

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Problem Descriptions:
Drainage Area "B" Between Nodes 64.0 ~ 68.96, 25-Year High Confidence
TTM 17300
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 4.49 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	20.00	75.	0.200	0.849
2	1.10	40.00	75.	0.200	0.750
3	1.60	40.00	75.	0.200	0.750
4	0.60	40.00	75.	0.200	0.750
5	0.70	50.00	75.	0.200	0.701
6	1.50	50.00	75.	0.200	0.701
7	0.10	10.00	75.	0.200	0.898
8	0.60	50.00	75.	0.200	0.701
9	0.70	60.00	75.	0.200	0.652
10	0.10	10.00	69.	0.250	0.888
11	0.10	10.00	75.	0.200	0.898
12	0.45	60.00	69.	0.250	0.592
13	0.43	60.00	75.	0.200	0.652
14	0.30	60.00	75.	0.200	0.652

TOTAL AREA (Acres) = 9.18

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.090

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.273

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 Problem Descriptions:
  Drainage Area "B" Between Nodes 64.0 ~ 68.96, 10-Year High Confidence
  TTM 17300
  W.O. #3751-1

*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     3.68 (inches)
```

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	20.00	75.	0.200	0.827
2	1.10	40.00	75.	0.200	0.717
3	1.60	40.00	75.	0.200	0.717
4	0.60	40.00	75.	0.200	0.717
5	0.70	50.00	75.	0.200	0.663
6	1.50	50.00	75.	0.200	0.663
7	0.10	10.00	75.	0.200	0.882
8	0.60	50.00	75.	0.200	0.663
9	0.70	60.00	75.	0.200	0.608
10	0.10	10.00	69.	0.250	0.872
11	0.10	10.00	75.	0.200	0.882
12	0.45	60.00	69.	0.250	0.548
13	0.43	60.00	75.	0.200	0.608
14	0.30	60.00	75.	0.200	0.608

```
    TOTAL AREA (Acres) =      9.18

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.090

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.309

 Problem Descriptions:
  Drainage Area "B" Between Nodes 64.0 ~ 68.96, 5-Year High Confidence
  TTM 17300
  W.O. #3751-1

*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC I:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     3.03 (inches)
```

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	20.00	75.(AMC II)	0.200	0.756
2	1.10	40.00	75.(AMC II)	0.200	0.588
3	1.60	40.00	75.(AMC II)	0.200	0.588
4	0.60	40.00	75.(AMC II)	0.200	0.588
5	0.70	50.00	75.(AMC II)	0.200	0.504
6	1.50	50.00	75.(AMC II)	0.200	0.504
7	0.10	10.00	75.(AMC II)	0.200	0.840
8	0.60	50.00	75.(AMC II)	0.200	0.504
9	0.70	60.00	75.(AMC II)	0.200	0.420
10	0.10	10.00	69.(AMC II)	0.250	0.834

11	0.10	10.00	75.(AMC II)	0.200	0.840
12	0.45	60.00	69.(AMC II)	0.250	0.388
13	0.43	60.00	75.(AMC II)	0.200	0.420
14	0.30	60.00	75.(AMC II)	0.200	0.420

TOTAL AREA (Acres) = 9.18

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.090

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.449

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Problem Descriptions:
Drainage Area "B" Between Nodes 64.0 ~ 68.96, 2-Year High Confidence
TTM 17300
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC I:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 2.05 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	20.00	75.(AMC II)	0.200	0.715
2	1.10	40.00	75.(AMC II)	0.200	0.541
3	1.60	40.00	75.(AMC II)	0.200	0.541
4	0.60	40.00	75.(AMC II)	0.200	0.541
5	0.70	50.00	75.(AMC II)	0.200	0.454
6	1.50	50.00	75.(AMC II)	0.200	0.454
7	0.10	10.00	75.(AMC II)	0.200	0.803
8	0.60	50.00	75.(AMC II)	0.200	0.454
9	0.70	60.00	75.(AMC II)	0.200	0.366
10	0.10	10.00	69.(AMC II)	0.250	0.801
11	0.10	10.00	75.(AMC II)	0.200	0.803
12	0.45	60.00	69.(AMC II)	0.250	0.356
13	0.43	60.00	75.(AMC II)	0.200	0.366
14	0.30	60.00	75.(AMC II)	0.200	0.366

TOTAL AREA (Acres) = 9.18

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.090

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.496

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          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                   AND LOW LOSS FRACTION ESTIMATIONS
==========================================================================
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                          Analysis prepared by:

                          HUNSAKER & ASSOCIATES
                                Irvine,Inc
                        Planning * Engineering * Surveying
                 Three Hughes * Irvine, California 92618 * (949)583-1010

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 Problem Descriptions:
  Drainage Area "C" Node 102, 100-Year High Confidence
  TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC III:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     5.63 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.90       50.00       75.(AMC II)     0.200       0.887
         2         0.30       85.00       75.(AMC II)     0.200       0.837
         3         1.00       50.00       75.(AMC II)     0.200       0.887
         4         2.00       50.00       75.(AMC II)     0.200       0.887

    TOTAL AREA (Acres) =      4.20

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.105

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.117
==========================================================================

 Problem Descriptions:
  Drainage Area "C" Node 102, 50-Year High Confidence
  TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     5.07 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.90       50.00          75.        0.200       0.724
         2         0.30       85.00          75.        0.200       0.563
         3         1.00       50.00          75.        0.200       0.724
         4         2.00       50.00          75.        0.200       0.724
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    TOTAL AREA (Acres) =      4.20

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.105

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.288
==========================================================================

 Problem Descriptions:
  Drainage Area "C" Node 102, 25-Year High Confidence
  TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     4.49 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.90        50.00          75.       0.200        0.701
         2         0.30        85.00          75.       0.200        0.529
         3         1.00        50.00          75.       0.200        0.701
         4         2.00        50.00          75.       0.200        0.701

    TOTAL AREA (Acres) =      4.20

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.105

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.311
==========================================================================

 Problem Descriptions:
  Drainage Area "C" Node 102, 10-Year High Confidence
  TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     3.68 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.90        50.00          75.       0.200        0.663
         2         0.30        85.00          75.       0.200        0.471
         3         1.00        50.00          75.       0.200        0.663
         4         2.00        50.00          75.       0.200        0.663

    TOTAL AREA (Acres) =      4.20

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.105

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.351
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 Problem Descriptions:
  Drainage Area "C" Node 102, 5-Year High Confidence
  TTM 15353
  W.O. #3751-1


==============================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC I:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     3.03 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.90        50.00       75.(AMC II)     0.200       0.504
         2         0.30        85.00       75.(AMC II)     0.200       0.210
         3         1.00        50.00       75.(AMC II)     0.200       0.504
         4         2.00        50.00       75.(AMC II)     0.200       0.504

    TOTAL AREA (Acres) =      4.20

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.105

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.517
==============================================================================

 Problem Descriptions:
  Drainage Area "C" Node 102, 2-Year High Confidence
  TTM 15353
  W.O. #3751-1

==============================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC I:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     2.05 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.90        50.00       75.(AMC II)     0.200       0.454
         2         0.30        85.00       75.(AMC II)     0.200       0.148
         3         1.00        50.00       75.(AMC II)     0.200       0.454
         4         2.00        50.00       75.(AMC II)     0.200       0.454

    TOTAL AREA (Acres) =      4.20

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.105

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.568
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          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                   AND LOW LOSS FRACTION ESTIMATIONS
==========================================================================
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                          Analysis prepared by:

                          HUNSAKER & ASSOCIATES
                                Irvine,Inc
                        Planning * Engineering * Surveying
                 Three Hughes * Irvine, California 92618 * (949)583-1010

**************************************************************************
--------------------------------------------------------------------------

 Problem Descriptions:
  Drainage Area "C" Node 113.2, 100-Year High Confidence
  TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC III:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     5.63 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA     NUMBER    Fp(in./hr.)    YIELD
         1         0.70        50.00       75.(AMC II)     0.200       0.887
         2         2.10        50.00       75.(AMC II)     0.200       0.887
         3         0.80        50.00       75.(AMC II)     0.200       0.887
         4         2.40        50.00       75.(AMC II)     0.200       0.887

    TOTAL AREA (Acres) =      6.00

                                 _
    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.100

                                  _
    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.113
==========================================================================

 Problem Descriptions:
  Drainage Area "C" Node 113.2, 50-Year High Confidence
  TTM 15353
  W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     5.07 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA     NUMBER    Fp(in./hr.)    YIELD
         1         0.70        50.00          75.        0.200       0.724
         2         2.10        50.00          75.        0.200       0.724
         3         0.80        50.00          75.        0.200       0.724
         4         2.40        50.00          75.        0.200       0.724
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```
    TOTAL AREA (Acres) =      6.00

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.100

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.276
================================================================================

 Problem Descriptions:
  Drainage Area "C" Node 113.2, 25-Year High Confidence
  TTM 15353
  W.O. #3751-1

================================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     4.49 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA     NUMBER    Fp(in./hr.)     YIELD
         1         0.70        50.00           75.       0.200        0.701
         2         2.10        50.00           75.       0.200        0.701
         3         0.80        50.00           75.       0.200        0.701
         4         2.40        50.00           75.       0.200        0.701

    TOTAL AREA (Acres) =      6.00

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.100

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.299
================================================================================

 Problem Descriptions:
  Drainage Area "C" Node 113.2, 10-Year High Confidence
  TTM 15353
  W.O. #3751-1

================================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     3.68 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA     NUMBER    Fp(in./hr.)     YIELD
         1         0.70        50.00           75.       0.200        0.663
         2         2.10        50.00           75.       0.200        0.663
         3         0.80        50.00           75.       0.200        0.663
         4         2.40        50.00           75.       0.200        0.663

    TOTAL AREA (Acres) =      6.00

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.100

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.337
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 Problem Descriptions:
  Drainage Area "C" Node 113.2, 5-Year High Confidence
  TTM 15353
  W.O. #3751-1

===============================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC I:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     3.03 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.70        50.00       75.(AMC II)     0.200       0.504
         2         2.10        50.00       75.(AMC II)     0.200       0.504
         3         0.80        50.00       75.(AMC II)     0.200       0.504
         4         2.40        50.00       75.(AMC II)     0.200       0.504

    TOTAL AREA (Acres) =      6.00

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.100

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.496
===============================================================================

 Problem Descriptions:
  Drainage Area "C" Node 113.2, 2-Year High Confidence
  TTM 15353
  W.O. #3751-1

===============================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC I:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     2.05 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA    NUMBER    Fp(in./hr.)    YIELD
         1         0.70        50.00       75.(AMC II)     0.200       0.454
         2         2.10        50.00       75.(AMC II)     0.200       0.454
         3         0.80        50.00       75.(AMC II)     0.200       0.454
         4         2.40        50.00       75.(AMC II)     0.200       0.454

    TOTAL AREA (Acres) =      6.00

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.100

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.546
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          NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
                AND LOW LOSS FRACTION ESTIMATIONS
==========================================================================
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                          HUNSAKER & ASSOCIATES
                               Irvine,Inc
                        Planning * Engineering * Surveying
                Three Hughes * Irvine, California 92618 * (949)583-1010

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Problem Descriptions:
 Drainage Area "D" Node 206, 100-Year High Confidence
 TTM 15353
 W.O. #3751-1

==========================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC III:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     5.63 (inches)
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SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	40.00	69.(AMC II)	0.250	0.863
2	2.00	50.00	69.(AMC II)	0.250	0.839
3	0.50	50.00	56.(AMC II)	0.300	0.751
4	0.60	50.00	69.(AMC II)	0.250	0.839
5	0.60	40.00	69.(AMC II)	0.250	0.863
6	0.60	40.00	69.(AMC II)	0.250	0.863
7	0.60	50.00	69.(AMC II)	0.250	0.839
8	0.10	50.00	75.(AMC II)	0.200	0.887
9	1.40	50.00	69.(AMC II)	0.250	0.839
10	0.40	50.00	56.(AMC II)	0.300	0.751
11	0.20	50.00	75.(AMC II)	0.200	0.887
12	0.30	40.00	56.(AMC II)	0.300	0.792
13	0.10	40.00	69.(AMC II)	0.250	0.863
14	0.20	40.00	69.(AMC II)	0.250	0.863
15	0.70	40.00	75.(AMC II)	0.200	0.901
16	0.10	40.00	56.(AMC II)	0.300	0.792
17	1.60	40.00	69.(AMC II)	0.250	0.863
18	0.40	40.00	56.(AMC II)	0.300	0.792
19	0.70	40.00	75.(AMC II)	0.200	0.901
20	0.10	85.00	56.(AMC II)	0.300	0.606
21	0.40	85.00	69.(AMC II)	0.250	0.756

```
    TOTAL AREA (Acres) =     12.50

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.117

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.159
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 Problem Descriptions:
  Drainage Area "D" Node 206, 50-Year High Confidence
  TTM 15353
  W.O. #3751-1

*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     5.07 (inches)
```

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	40.00	69.	0.250	0.730
2	2.00	50.00	69.	0.250	0.675
3	0.50	50.00	56.	0.300	0.583
4	0.60	50.00	69.	0.250	0.675
5	0.60	40.00	69.	0.250	0.730
6	0.60	40.00	69.	0.250	0.730
7	0.60	50.00	69.	0.250	0.675
8	0.10	50.00	75.	0.200	0.724
9	1.40	50.00	69.	0.250	0.675
10	0.40	50.00	56.	0.300	0.583
11	0.20	50.00	75.	0.200	0.724
12	0.30	40.00	56.	0.300	0.657
13	0.10	40.00	69.	0.250	0.730
14	0.20	40.00	69.	0.250	0.730
15	0.70	40.00	75.	0.200	0.770
16	0.10	40.00	56.	0.300	0.657
17	1.60	40.00	69.	0.250	0.730
18	0.40	40.00	56.	0.300	0.657
19	0.70	40.00	75.	0.200	0.770
20	0.10	85.00	56.	0.300	0.324
21	0.40	85.00	69.	0.250	0.480

```
    TOTAL AREA (Acres) =     12.50

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.117

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.312

 Problem Descriptions:
  Drainage Area "D" Node 206, 25-Year High Confidence
  TTM 15353
  W.O. #3751-1

*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     4.49 (inches)
```

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	40.00	69.	0.250	0.711
2	2.00	50.00	69.	0.250	0.651

3	0.50	50.00	56.	0.300	0.562
4	0.60	50.00	69.	0.250	0.651
5	0.60	40.00	69.	0.250	0.711
6	0.60	40.00	69.	0.250	0.711
7	0.60	50.00	69.	0.250	0.651
8	0.10	50.00	75.	0.200	0.701
9	1.40	50.00	69.	0.250	0.651
10	0.40	50.00	56.	0.300	0.562
11	0.20	50.00	75.	0.200	0.701
12	0.30	40.00	56.	0.300	0.639
13	0.10	40.00	69.	0.250	0.711
14	0.20	40.00	69.	0.250	0.711
15	0.70	40.00	75.	0.200	0.750
16	0.10	40.00	56.	0.300	0.639
17	1.60	40.00	69.	0.250	0.711
18	0.40	40.00	56.	0.300	0.639
19	0.70	40.00	75.	0.200	0.750
20	0.10	85.00	56.	0.300	0.292
21	0.40	85.00	69.	0.250	0.444

TOTAL AREA (Acres) = 12.50

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.117

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.334

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Problem Descriptions:
Drainage Area "D" Node 206, 10-Year High Confidence
TTM 15353
W.O. #3751-1

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*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
AND LOW LOSS FRACTION ESTIMATIONS FOR AMC II:

TOTAL 24-HOUR DURATION RAINFALL DEPTH = 3.68 (inches)

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	40.00	69.	0.250	0.677
2	2.00	50.00	69.	0.250	0.613
3	0.50	50.00	56.	0.300	0.529
4	0.60	50.00	69.	0.250	0.613
5	0.60	40.00	69.	0.250	0.677
6	0.60	40.00	69.	0.250	0.677
7	0.60	50.00	69.	0.250	0.613
8	0.10	50.00	75.	0.200	0.663
9	1.40	50.00	69.	0.250	0.613
10	0.40	50.00	56.	0.300	0.529
11	0.20	50.00	75.	0.200	0.663
12	0.30	40.00	56.	0.300	0.610
13	0.10	40.00	69.	0.250	0.677
14	0.20	40.00	69.	0.250	0.677
15	0.70	40.00	75.	0.200	0.717
16	0.10	40.00	56.	0.300	0.610
17	1.60	40.00	69.	0.250	0.677
18	0.40	40.00	56.	0.300	0.610
19	0.70	40.00	75.	0.200	0.717
20	0.10	85.00	56.	0.300	0.244
21	0.40	85.00	69.	0.250	0.386

```
    TOTAL AREA (Acres) =     12.50

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.117

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.370
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 Problem Descriptions:
  Drainage Area "D" Node 206, 5-Year High Confidence
  TTM 15353
  W.O. #3751-1

================================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC I:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     3.03 (inches)
```

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	40.00	69.(AMC II)	0.250	0.567
2	2.00	50.00	69.(AMC II)	0.250	0.478
3	0.50	50.00	56.(AMC II)	0.300	0.462
4	0.60	50.00	69.(AMC II)	0.250	0.478
5	0.60	40.00	69.(AMC II)	0.250	0.567
6	0.60	40.00	69.(AMC II)	0.250	0.567
7	0.60	50.00	69.(AMC II)	0.250	0.478
8	0.10	50.00	75.(AMC II)	0.200	0.504
9	1.40	50.00	69.(AMC II)	0.250	0.478
10	0.40	50.00	56.(AMC II)	0.300	0.462
11	0.20	50.00	75.(AMC II)	0.200	0.504
12	0.30	40.00	56.(AMC II)	0.300	0.554
13	0.10	40.00	69.(AMC II)	0.250	0.567
14	0.20	40.00	69.(AMC II)	0.250	0.567
15	0.70	40.00	75.(AMC II)	0.200	0.588
16	0.10	40.00	56.(AMC II)	0.300	0.554
17	1.60	40.00	69.(AMC II)	0.250	0.567
18	0.40	40.00	56.(AMC II)	0.300	0.554
19	0.70	40.00	75.(AMC II)	0.200	0.588
20	0.10	85.00	56.(AMC II)	0.300	0.139
21	0.40	85.00	69.(AMC II)	0.250	0.166

```
    TOTAL AREA (Acres) =     12.50

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.117

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.490
================================================================================

 Problem Descriptions:
  Drainage Area "D" Node 206, 2-Year High Confidence
  TTM 15353
  W.O. #3751-1

================================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC I:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     2.05 (inches)
```

SOIL-COVER TYPE	AREA (Acres)	PERCENT OF PERVIOUS AREA	SCS CURVE NUMBER	LOSS RATE Fp(in./hr.)	YIELD
1	0.90	40.00	69.(AMC II)	0.250	0.534
2	2.00	50.00	69.(AMC II)	0.250	0.445
3	0.50	50.00	56.(AMC II)	0.300	0.445
4	0.60	50.00	69.(AMC II)	0.250	0.445
5	0.60	40.00	69.(AMC II)	0.250	0.534
6	0.60	40.00	69.(AMC II)	0.250	0.534
7	0.60	50.00	69.(AMC II)	0.250	0.445
8	0.10	50.00	75.(AMC II)	0.200	0.454
9	1.40	50.00	69.(AMC II)	0.250	0.445
10	0.40	50.00	56.(AMC II)	0.300	0.445
11	0.20	50.00	75.(AMC II)	0.200	0.454
12	0.30	40.00	56.(AMC II)	0.300	0.534
13	0.10	40.00	69.(AMC II)	0.250	0.534
14	0.20	40.00	69.(AMC II)	0.250	0.534
15	0.70	40.00	75.(AMC II)	0.200	0.541
16	0.10	40.00	56.(AMC II)	0.300	0.534
17	1.60	40.00	69.(AMC II)	0.250	0.534
18	0.40	40.00	56.(AMC II)	0.300	0.534
19	0.70	40.00	75.(AMC II)	0.200	0.541
20	0.10	85.00	56.(AMC II)	0.300	0.133
21	0.40	85.00	69.(AMC II)	0.250	0.134

TOTAL AREA (Acres) = 12.50

AREA-AVERAGED LOSS RATE, $\bar{F}m$ (in./hr.) = 0.117

AREA-AVERAGED LOW LOSS FRACTION, $\bar{Y}$ = 0.522

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Basin #9

Drainage Area "D" Node 206, Proposed Condition 100, 50, 25, 10, 5 and 2-Year

High Confidence

Area-Average Loss Rate & Low Loss Fraction Calculation

Effective Area Calculation
(EXPECTED VALUE)

DESIGNATED AREA	STORM Frequency	NODE Number	$AREA_{EFF.(NO\ DET.)}$ (Acres) **1**	$Q_{PEAK(NO\ DET.)}$ (cfs) **2**	Q_{PEAK} (cfs) **3**	$AREA_{EFF.}$ (Acres) **(1/2) x 3**
	2-YEAR	330	130.34	404.23	168.97	54.48
	5-YEAR	330	130.34	404.23	207.37	66.86
	10-YEAR	330	130.34	404.23	207.37	66.86
	25-YEAR	330	130.34	404.23	241.73	77.94
	50-YEAR	330	130.34	404.23	264.79	85.38
	100-YEAR	330	130.34	404.23	296.7	95.67
	2-YEAR	336.4	109.24	202.64	102.70	55.36
	5-YEAR	336.4	122.69	263.28	116.20	54.15
	10-YEAR	336.4	123.30	295.55	142.71	59.54
	25-YEAR	336.4	134.57	354.58	168.20	63.84
	50-YEAR	336.4	142.09	391.35	186.41	67.68
	100-YEAR	336.4	152.41	432.92	250.94	88.34
Area "B"	2-YEAR	69.01	51.78	47.34	2.57	2.81
	5-YEAR	69.01	73.65	78.30	4.12	3.88
	10-YEAR	69.01	75.00	127.13	54.46	32.13
	25-YEAR	69.01	75.43	165.21	90.69	41.41
	50-YEAR	69.01	75.76	187.47	110.14	44.51
	100-YEAR	69.01	76.38	201.06	127.63	48.49

Effective Area Calculation
(EXPECTED VALUE)

DESIGNATED AREA	STORM Frequency	NODE Number	$AREA_{EFF.(NO\ DET.)}$ (Acres) **1**	$Q_{PEAK(NO\ DET.)}$ (cfs) **2**	Q_{PEAK} (cfs) **3**	$AREA_{EFF.}$ (Acres) **(1/2) x 3**
Area "C"	2-YEAR	114	9.89	6.89	0.28	0.40
	5-YEAR	114	10.18	11.58	0.65	0.57
	10-YEAR	114	9.97	18.50	4.56	2.46
	25-YEAR	114	10.00	27.15	12.75	4.70
	50-YEAR	114	10.02	33.53	21.65	6.47
	100-YEAR	114	10.00	29.06	15.26	5.25
Area "D"	2-YEAR	206	11.39	6.55	0.32	0.56
	5-YEAR	206	11.44	11.35	0.41	0.41
	10-YEAR	206	11.48	18.31	0.51	0.32
	25-YEAR	206	11.51	23.78	0.60	0.29
	50-YEAR	206	11.52	27.06	3.62	1.54
	100-YEAR	206	11.54	28.98	8.04	3.20

Effective Area Calculation
(HIGH CONFIDENCE)

DESIGNATED AREA	STORM Frequency	NODE Number	$AREA_{EFF.(NO\ DET.)}$ (Acres) **1**	$Q_{PEAK(NO\ DET.)}$ (cfs) **2**	Q_{PEAK} (cfs) **3**	$AREA_{EFF.}$ (Acres) **(1/2) x 3**
	2-YEAR	330	130.34	404.23	168.97	54.48
	5-YEAR	330	130.34	404.23	207.37	66.86
	10-YEAR	330	130.34	404.23	241.73	77.94
	25-YEAR	330	130.34	404.23	296.70	95.67
	50-YEAR	330	130.34	404.23	346.43	111.70
	100-YEAR	330	130.34	404.23	404.23	130.34
	2-YEAR	336.4	110.53	231.10	106.17	50.78
	5-YEAR	336.4	123.33	297.70	142.94	59.22
	10-YEAR	336.4	134.58	356.73	171.32	64.63
	25-YEAR	336.4	152.41	435.04	208.11	72.91
	50-YEAR	336.4	168.47	502.83	244.85	82.04
	100-YEAR	336.4	187.17	581.46	288.37	92.83
Area "B"	2-YEAR	69.01	74.42	87.38	4.06	3.46
	5-YEAR	69.01	75.05	129.73	47.97	27.75
	10-YEAR	69.01	75.81	167.84	93.58	42.27
	25-YEAR	69.01	76.39	203.61	129.79	48.69
	50-YEAR	69.01	77.17	231.81	157.72	52.51
	100-YEAR	69.01	77.13	264.86	187.36	54.56

Effective Area Calculation
(HIGH CONFIDENCE)

DESIGNATED AREA	STORM Frequency	NODE Number	$AREA_{EFF.(NO\ DET.)}$ (Acres) **1**	$Q_{PEAK(NO\ DET.)}$ (cfs) **2**	Q_{PEAK} (cfs) **3**	$AREA_{EFF.}$ (Acres) **(1/2) x 3**
Area "C"	2-YEAR	114	9.92	12.95	0.41	0.31
	5-YEAR	114	9.97	18.97	4.32	2.27
	10-YEAR	114	10.00	24.48	9.89	4.04
	25-YEAR	114	10.01	29.54	16.49	5.59
	50-YEAR	114	10.02	33.53	21.65	6.47
	100-YEAR	114	10.03	38.28	26.46	6.93
Area "D"	2-YEAR	206	11.46	12.44	0.40	0.37
	5-YEAR	206	11.48	18.54	0.76	0.47
	10-YEAR	206	11.50	24.01	0.87	0.42
	25-YEAR	206	11.53	29.20	8.77	3.46
	50-YEAR	206	11.54	33.26	18.58	6.45
	100-YEAR	206	11.55	37.97	26.32	8.01

Orange County Rainfall Intensity for Design Storm Events

Storm Event	Rainfall Input	Coefficient		Duration (minutes)													
		a	b	5	10	15	20	25	30	40	50	60	90	120	180	360	1440
				Non-Mountainous (inches/hour)													
100-Year HC[1]	100-Year	15.560	-0.573	6.24	4.16	3.30	2.80	2.46	2.18	1.88	1.65	1.45	1.18	1.00	0.81	0.56	0.23
	50-Year	13.521	-0.566	5.40	3.67	2.92	2.48	2.19	1.96	1.68	1.48	1.30	1.06	0.90	0.73	0.50	0.21
100-Year EV[2]	25-Year	11.995	-0.566	4.80	3.26	2.59	2.20	1.94	1.74	1.49	1.31	1.15	0.94	0.80	0.65	0.45	0.19
50-Year EV	15-Year	11.160	-0.569	4.44	3.01	2.39	2.03	1.79	1.60	1.37	1.20	1.06	0.86	0.73	0.59	0.41	0.17
25-Year EV	10-Year	10.209	-0.573	4.08	2.73	2.16	1.83	1.61	1.44	1.23	1.09	0.95	0.77	0.66	0.53	0.37	0.15
10-Year EV	5-Year	7.870	-0.562	3.12	2.16	1.72	1.46	1.29	1.18	0.99	0.87	0.78	0.63	0.53	0.44	0.30	0.13
5-Year EV	5-Year * 0.7			2.18	1.51	1.20	1.02	0.90	0.83	0.69	0.61	0.55	0.44	0.37	0.31	0.21	0.09
	2-Year	5.702	-0.574	2.28	1.52	1.20	1.02	0.90	0.80	0.69	0.60	0.53	0.43	0.37	0.30	0.20	0.09
2-Year EV	2-Year * 0.7			1.60	1.06	0.84	0.72	0.63	0.56	0.48	0.42	0.37	0.30	0.26	0.21	0.14	0.06
				Mountainous (inches/hour)													
100-Year HC	100-Year			9.36	6.15	4.53	3.61	3.12	2.68	2.36	2.13	1.94	1.71	1.53	1.32	1.03	0.47
	50-Year			8.52	0.00	0.00	0.00	0.00	2.38	0.00	0.00	1.73	0.00	0.00	1.17	0.92	0.42
100-Year EV	25-Year			7.56	4.62	3.47	2.76	2.34	2.08	1.82	1.54	1.51	1.32	1.19	1.03	0.80	0.37
50-Year EV	15-Year			6.72	4.09	3.02	2.48	2.10	1.90	1.59	1.43	1.38	1.17	1.04	0.94	0.73	0.33
25-Year EV	10-Year			6.00	3.82	2.81	2.26	1.95	1.68	1.49	1.33	1.22	1.06	0.96	0.83	0.65	0.29
10-Year EV	5-Year			4.80	3.08	2.09	1.80	1.55	1.36	1.19	1.07	0.99	0.85	0.78	0.67	0.52	0.24
5-Year EV	5-Year * 0.7			3.36	2.16	1.46	1.26	1.09	0.95	0.83	0.75	0.69	0.60	0.55	0.47	0.37	0.17
	2-Year			3.12	2.08	1.53	1.21	1.02	0.90	0.78	0.70	0.66	0.58	0.52	0.45	0.35	0.16
2-Year EV	2-Year * 0.7			2.18	1.46	1.07	0.85	0.71	0.63	0.55	0.49	0.46	0.41	0.36	0.31	0.24	0.11

Note:

1. HC: High Confidence, See Definition in OCHM Addendum No. 1, 1995
2. EV: Expected Value, See Definition in OCHM Addendum No. 1, 1995
3. The rainfall intensities for duration listed in Table E-1 are read from that table directly
4. The non-mountainous area rainfall intensities for other durations are calculated based on regression equation (See OCHM Figure B-3).
5. The mountainous area rainfall intensities for other durations are read from OCHM Figure B-4.

Orange County Rainfall Depth for Design Storm Events

Storm Event	Rainfall Input	5 min	30 min	1 hour	3 hour	6 hour	24 hour
		Non-Mountanous (inches)					
100-Year HC[1]	100-Year[3]	0.52	1.09	1.45	2.43	3.36	5.63
	50-Year[3]	0.45	0.98	1.30	2.19	3.02	5.07
100-Year EV[2]	25-Year[3]	0.40	0.87	1.15	1.94	2.71	4.49
50-Year EV	15-Year[4]	0.37	0.80	1.06	1.78	2.47	4.13
25-Year EV	10-Year[3]	0.34	0.72	0.95	1.59	2.20	3.68
10-Year EV	5-Year[3]	0.26	0.59	0.78	1.31	1.81	3.03
5-Year EV	5-Year * 0.7	0.18	0.41	0.55	0.92	1.27	2.12
	2-Year[3]	0.19	0.40	0.53	0.89	1.22	2.05
2-Year EV	2-Year * 0.7	0.13	0.28	0.37	0.62	0.85	1.44
		Mountanous (inches)					
100-Year HC	100-Year	0.78	1.34	1.94	3.96	6.19	11.27
	50-Year	0.71	1.19	1.73	3.52	5.51	10.02
100-Year EV	25-Year	0.63	1.04	1.51	3.08	4.81	8.76
50-Year EV	15-Year	0.56	0.95	1.38	2.82	4.40	8.01
25-Year EV	10-Year	0.50	0.84	1.22	2.48	3.87	7.05
10-Year EV	5-Year	0.40	0.68	0.99	2.01	3.14	5.71
5-Year EV	5-Year * 0.7	0.28	0.48	0.69	1.41	2.20	4.00
	2-Year	0.26	0.45	0.66	1.34	2.09	3.81
2-Year EV	2-Year * 0.7	0.18	0.32	0.46	0.94	1.46	2.67

Note:

1. HC: High Confidence, See Definition in OCHM Addendum No. 1, 1995
2. EV: Expected Value, See Definition in OCHM Addendum No. 1, 1995
3. The rainfall depth is read from OCHM Table B.2 for both Mountanous and Non-Mountanous area
4. 15-Year rainfall depth is derived by Orange County

Orange County Rainfall Depth for Multi-Day Design Storm Events

Storm Event	Rainfall Input	5 min	30 min	1 hour	3 hour	6 hour	24 hour	2 Day	3 Day	4 Day	5 Day
		Non-Mountanous (inches)									
100-Year HC[1]	100-Year[3]	0.52	1.09	1.45	2.43	3.36	5.63	8.22	9.35	9.95	10.38
	50-Year[3]	0.45	0.98	1.30	2.19	3.02	5.07	7.35	8.35	8.86	9.25
100-Year EV[2]	25-Year[3]	0.40	0.87	1.15	1.94	2.71	4.49	6.46	7.33	7.75	8.09
50-Year EV	15-Year[4]	0.37	0.80	1.06	1.78	2.47	4.12				
25-Year EV	10-Year[3]	0.34	0.72	0.95	1.59	2.20	3.68	5.23	5.92	6.22	6.50
10-Year EV	5-Year[3]	0.26	0.59	0.78	1.31	1.81	3.03	4.24	4.79	5.01	5.23
5-Year EV	5-Year * 0.7	0.18	0.41	0.55	0.92	1.27	2.12	2.97	3.35	3.51	3.66
	2-Year[3]	0.19	0.40	0.53	0.89	1.22	2.05	2.76	3.08	3.21	3.36
2-Year EV	2-Year * 0.7	0.13	0.28	0.37	0.62	0.85	1.44	1.93	2.16	2.25	2.35
		Mountanous (inches)									
100-Year HC	100-Year	0.78	1.34	1.94	3.96	6.19	11.27	16.52	18.98	20.05	20.99
	50-Year	0.71	1.19	1.73	3.52	5.51	10.02	14.68	16.79	17.74	18.63
100-Year EV	25-Year	0.63	1.04	1.51	3.08	4.81	8.76	12.81	14.58	15.40	16.24
50-Year EV	15-Year	0.56	0.95	1.38	2.82	4.40	8.01				
25-Year EV	10-Year	0.50	0.84	1.22	2.48	3.87	7.05	10.26	11.58	12.23	12.98
10-Year EV	5-Year	0.40	0.68	0.99	2.01	3.14	5.71	8.25	9.23	9.75	10.40
5-Year EV	5-Year * 0.7	0.28	0.48	0.69	1.41	2.20	4.00	5.78	6.46	6.83	7.28
	2-Year	0.26	0.45	0.66	1.34	2.09	3.81	5.33	5.89	6.22	6.66
2-Year EV	2-Year * 0.7	0.18	0.32	0.46	0.94	1.46	2.67	3.73	4.12	4.35	4.66

Note:

1. HC: High Confidence, See Definition in OCHM Addendum No. 1, 1995
2. EV: Expected Value, See Definition in OCHM Addendum No. 1, 1995
3. The rainfall depth is read from OCHM Table B.2 for both Mountanous and Non-Mountanous area
4. 15-Year rainfall depth is derived by Orange County