

Run started at: 25th August 2005 9:57:43

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#####          RUNTIME          RESULTS
#####          #####          #####
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Max. no. of links allowed = 2000

Max. no. of routng increments allowed = 30000

Max. no. of rating curve points = 30000

Max. no. of storm temporal points = 30000

Max. no. of channel subreaches = 25

Max link stack level = 25

Input Version number = 600

LINK Site 1.000

ESTIMATED VOLUME (CU METRES\*10\*\*3) = 2.561

ESTIMATED PEAK FLOW (CUMECS) = 2.11

ESTIMATED TIME TO PEAK (MINS) = 15.00

LINK Detention 1.001

ESTIMATED VOLUME (CU METRES\*10\*\*3) = 2.561

ESTIMATED PEAK FLOW (CUMECS) = 2.11

ESTIMATED TIME TO PEAK (MINS) = 15.00

LINK out 1.002

ESTIMATED VOLUME (CU METRES\*10\*\*3) = 2.562

ESTIMATED PEAK FLOW (CUMECS) = 0.27

ESTIMATED TIME TO PEAK (MINS) = 11.00

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Sector 3 - Detention
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Results for period from 0: 0.0 1/ 1/1990

to 5: 0.0 1/ 1/1990

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ROUTING INCREMENT (MINS) = 1.00

STORM DURATION (MINS) = 30.

RETURN PERIOD (YRS) = 100.

BX = 1.0000

5194-report appendix.out.txt

TOTAL OF FIRST SUB-AREAS (km2) = 3.04  
 TOTAL OF SECOND SUB-AREAS (km2) = 1.77  
 TOTAL OF ALL SUB-AREAS (km2) = 4.80

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label No.	Catch. Area		Slope		% Impervious		Pern		B		Link
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
Site 1.000	(ha)		(%)		(%)						
	3.035	1.765	1.500	1.500	99.90	.1000	.015	.025	.0022	.0284	
Detention 1.001	.00001	.00001	.0010	.0010	.0100	.0100	.025	.025	.0020	.0020	
out 1.002	.00001	.00001	.0010	.0010	.1000	.1000	.025	.025	.0020	.0020	

Link Label	Average Intensity (mm/h)	Init. Loss #1 (mm)	Loss #2	Cont. Loss #1 (mm/h)	Loss #2	Excess Rain #1 (mm)	Rain #2	Peak Inflow (m <sup>3</sup> /s)	Time to Peak	Link Lag mins
Site	127.60	1.500	25.00	0.000	2.500	62.298	37.923	2.109	15.00	0.000
Detention	127.60	25.00	1.500	2.500	0.000	37.923	62.298	2.109	15.00	0.000
out	127.60	1.500	1.500	0.000	0.000	62.298	62.298	0.2740	11.00	0.000

SUMMARY OF BASIN RESULTS

Link Label	Time to Peak	Peak Inflow (m <sup>3</sup> /s)	Time to Peak	Peak Outflow (m <sup>3</sup> /s)	Total Inflow (m <sup>3</sup> )	----- Basin -----	Vol. Avail	Vol. Used	Stage Used
Detention	15.00	2.108	3.000	.2740	2561.0		0.0000	1754.7	0.7764

SUMMARY OF BASIN OUTLET RESULTS

Link Label	No. of	S/D Factor (m)	Dia (m)	width (m)	Pipe Length (m)	Pipe Slope (%)
Detention	1.0	1.000		0.000	0.5000	0.2000

LINK Site 1.000

ESTIMATED VOLUME (CU METRES\*10\*\*3) = 3.260  
 ESTIMATED PEAK FLOW (CUMECS) = 1.89  
 ESTIMATED TIME TO PEAK (MINS) = 13.00

LINK Detention 1.001

ESTIMATED VOLUME (CU METRES\*10\*\*3) = 3.260  
 ESTIMATED PEAK FLOW (CUMECS) = 1.89  
 ESTIMATED TIME TO PEAK (MINS) = 13.00

LINK out 1.002

ESTIMATED VOLUME (CU METRES\*10\*\*3) = 3.260  
 ESTIMATED PEAK FLOW (CUMECS) = 0.59  
 ESTIMATED TIME TO PEAK (MINS) = 33.00

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Sector 3 - Detention

Results for period from 0: 0.0 1/ 1/1990  
to 5: 0.0 1/ 1/1990

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ROUTING INCREMENT (MINS) = 1.00  
STORM DURATION (MINS) = 60.  
RETURN PERIOD (YRS) = 100.  
BX = 1.0000  
TOTAL OF FIRST SUB-AREAS (km2) = 3.04  
TOTAL OF SECOND SUB-AREAS (km2) = 1.77  
TOTAL OF ALL SUB-AREAS (km2) = 4.80

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label No.	Catch. Area		Slope		% Impervious		Pern		B		Link
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
Site 1.000	(ha) 3.035	1.765	(%) 1.500	1.500	99.90	.1000	.015	.025	.0022	.0284	
Detention 1.001	.00001	.00001	.0010	.0010	.0100	.0100	.025	.025	.0020	.0020	
out 1.002	.00001	.00001	.0010	.0010	.1000	.1000	.025	.025	.0020	.0020	

Link Label	Average Intensity (mm/h)	Init. Loss #1 (mm)	Loss #2 (mm)	Cont. Loss #1 (mm/h)	Loss #2 (mm/h)	Excess Rain #1 (mm)	Rain #2 (mm)	Peak Inflow (m <sup>3</sup> /s)	Time to Peak	Link Lag mins
Site	90.420	1.500	25.00	0.000	2.500	88.920	63.504	2.301	25.00	0.000
Detention	90.420	25.00	1.500	2.500	0.000	63.504	88.920	2.301	25.00	0.000
out	90.420	1.500	1.500	0.000	0.000	88.920	88.920	0.5900	34.00	0.000

SUMMARY OF BASIN RESULTS

Link Label	Time to Peak	Peak Inflow (m <sup>3</sup> /s)	Time to Peak	Peak Outflow (m <sup>3</sup> /s)	Total Inflow (m <sup>3</sup> )	Vol. Avail	Basin Vol. Used	Stage Used
Detention	25.00	2.301	34.00	.5900	3823.7	0.0000	2191.1	0.9695

SUMMARY OF BASIN OUTLET RESULTS

Link Label	No. of	S/D Factor (m)	Dia (m)	width (m)	Pipe Length (m)	Pipe Slope (%)
Detention	1.0	1.000		0.000	0.5000	0.2000

LINK Site 1.000

ESTIMATED VOLUME (CU METRES\*10\*\*3) = 4.571  
ESTIMATED PEAK FLOW (CUMECS) = 2.61  
ESTIMATED TIME TO PEAK (MINS) = 30.00

LINK Detention 1.001

ESTIMATED VOLUME (CU METRES\*10\*\*3) = 4.571  
 ESTIMATED PEAK FLOW (CUMECS) = 2.61  
 ESTIMATED TIME TO PEAK (MINS) = 30.00

LINK out 1.002

ESTIMATED VOLUME (CU METRES\*10\*\*3) = 4.571  
 ESTIMATED PEAK FLOW (CUMECS) = 0.71  
 ESTIMATED TIME TO PEAK (MINS) = 57.00

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Sector 3 - Detention

Results for period from 0: 0.0 1/ 1/1990  
 to 5: 0.0 1/ 1/1990

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ROUTING INCREMENT (MINS) = 1.00  
 STORM DURATION (MINS) = 120.  
 RETURN PERIOD (YRS) = 100.  
 BX = 1.0000  
 TOTAL OF FIRST SUB-AREAS (km2) = 3.04  
 TOTAL OF SECOND SUB-AREAS (km2) = 1.77  
 TOTAL OF ALL SUB-AREAS (km2) = 4.80

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link No.	Catch. Area #1	Catch. Area #2	Slope #1	Slope #2	% Impervious #1	% Impervious #2	Pern #1	Pern #2	B #1	B #2	Link
Site	3.035	1.765	1.500	1.500	99.90	1.000	.015	.025	.0022	.0284	
1.000											
Detention	.00001	.00001	.0010	.0010	.0100	.0100	.025	.025	.0020	.0020	
1.001											
out	.00001	.00001	.0010	.0010	.1000	.1000	.025	.025	.0020	.0020	
1.002											

Link Label	Average Intensity (mm/h)	Init. Loss #1 (mm)	Init. Loss #2 (mm)	Cont. Loss #1 (mm/h)	Cont. Loss #2 (mm/h)	Excess Rain #1 (mm)	Excess Rain #2 (mm)	Peak Inflow (m <sup>3</sup> /s)	Time to Peak	Link Lag mins
Site	59.646	1.500	25.00	0.000	2.500	117.79	90.208	2.340	35.00	0.000
Detention	59.646	25.00	1.500	2.500	0.000	90.208	117.79	2.340	35.00	0.000
out	59.646	1.500	1.500	0.000	0.000	117.79	117.79	0.7100	63.00	0.000

SUMMARY OF BASIN RESULTS

Link Label	Time to Peak	Peak Inflow (m <sup>3</sup> /s)	Time to Peak	Peak Outflow (m <sup>3</sup> /s)	Total Inflow (m <sup>3</sup> )	Basin Vol. Avail	Basin Vol. Used	Stage Used
Detention	35.00	2.339	63.00	.7100	5171.9	0.0000	2236.3	0.9895

SUMMARY OF BASIN OUTLET RESULTS

Link	No.	S/D	Dia	width	Pipe	Pipe
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Label of Factor (m) (m) (m) Length (m) Slope (%)  
 Detention 1.0 1.000 0.000 0.5000 0.2000

LINK Site 1.000

ESTIMATED VOLUME (CU METRES\*10\*\*3) = 6.089  
 ESTIMATED PEAK FLOW (CUMECS) = 1.57  
 ESTIMATED TIME TO PEAK (MINS) = 45.00

LINK Detention 1.001

ESTIMATED VOLUME (CU METRES\*10\*\*3) = 6.089  
 ESTIMATED PEAK FLOW (CUMECS) = 1.57  
 ESTIMATED TIME TO PEAK (MINS) = 45.00

LINK out 1.002

ESTIMATED VOLUME (CU METRES\*10\*\*3) = 6.089  
 ESTIMATED PEAK FLOW (CUMECS) = 0.59  
 ESTIMATED TIME TO PEAK (MINS) = 61.00

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Sector 3 - Detention

Results for period from 0: 0.0 1/ 1/1990  
 to 5: 0.0 1/ 1/1990

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ROUTING INCREMENT (MINS) = 1.00  
 STORM DURATION (MINS) = 180.  
 RETURN PERIOD (YRS) = 100.  
 BX = 1.0000  
 TOTAL OF FIRST SUB-AREAS (km2) = 3.04  
 TOTAL OF SECOND SUB-AREAS (km2) = 1.77  
 TOTAL OF ALL SUB-AREAS (km2) = 4.80

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label No.	Catch. Area		Slope		% Impervious		Pern		B		Link
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
Site 1.000	(ha)		(%)		(%)						
	3.035	1.765	1.500	1.500	99.90	.1000	.015	.025	.0022	.0284	
Detention 1.001	.00001	.00001	.0010	.0010	.0100	.0100	.025	.025	.0020	.0020	
out 1.002	.00001	.00001	.0010	.0010	.1000	.1000	.025	.025	.0020	.0020	

Link Label	Average Intensity (mm/h)	Init. Loss #1 (mm)	Loss #2	Cont. Loss #1 (mm/h)	Loss #2	Excess Rain #1 (mm)	Rain #2	Peak Inflow (m^3/s)	Time to Peak	Link Lag mins
Site	46.494	1.500	25.00	0.000	2.500	137.98	108.02	1.566	45.00	0.000
Detention	46.494	25.00	1.500	2.500	0.000	108.02	137.98	1.566	45.00	0.000
out	46.494	1.500	1.500	0.000	0.000	137.98	137.98	0.5900	61.00	0.000

SUMMARY OF BASIN RESULTS

Link Label	Time to Peak	Peak Inflow (m <sup>3</sup> /s)	Time to Peak	Peak Outflow (m <sup>3</sup> /s)	Total Inflow (m <sup>3</sup> )	----- Vol. Avail	Basin Vol. Used	----- Stage Used
Detention	45.00	1.566	57.00	.5900	6088.8	0.0000	2110.3	0.9338

SUMMARY OF BASIN OUTLET RESULTS

Link Label	No. of	S/D Factor (m)	Dia (m)	width (m)	Pipe Length (m)	Pipe Slope (%)
Detention	1.0	1.000		0.000	0.5000	0.2000

LINK Site 1.000

ESTIMATED VOLUME (CU METRES\*10\*\*3) = 7.166  
 ESTIMATED PEAK FLOW (CUMECS) = 1.43  
 ESTIMATED TIME TO PEAK (MINS) = 75.00

LINK Detention 1.001

ESTIMATED VOLUME (CU METRES\*10\*\*3) = 7.167  
 ESTIMATED PEAK FLOW (CUMECS) = 1.43  
 ESTIMATED TIME TO PEAK (MINS) = 75.00

LINK out 1.002

ESTIMATED VOLUME (CU METRES\*10\*\*3) = 7.167  
 ESTIMATED PEAK FLOW (CUMECS) = 0.59  
 ESTIMATED TIME TO PEAK (MINS) = 84.00

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 Sector 3 - Detention

Results for period from 0: 0.0 1/ 1/1990  
 to 10: 0.0 1/ 1/1990

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ROUTING INCREMENT (MINS) = 1.00  
 STORM DURATION (MINS) = 360.  
 RETURN PERIOD (YRS) = 100.  
 BX = 1.0000  
 TOTAL OF FIRST SUB-AREAS (km2) = 3.04  
 TOTAL OF SECOND SUB-AREAS (km2) = 1.77  
 TOTAL OF ALL SUB-AREAS (km2) = 4.80

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area #1	Catch. Area #2	Slope #1	Slope #2	% Impervious #1	% Impervious #2	Pern #1	Pern #2	B #1	B #2	Link
No.											
site	(ha)		(%)		(%)						
1.000	3.035	1.765	1.500	1.500	99.90	.1000	.015	.025	.0022	.0284	

Detention	.00001	.00001	.0010	.0010	.0100	.0100	.025	.025	.0020	.0020
1.001										
out	.00001	.00001	.0010	.0010	.1000	.1000	.025	.025	.0020	.0020
1.002										

Link Label	Average Intensity (mm/h)	Init. Loss #1 (mm)	Loss #2	Cont. Loss #1 (mm/h)	Loss #2	Excess #1 (mm)	Rain #2	Peak Inflow (m <sup>3</sup> /s)	Time to Peak	Link Lag mins
site	30.317	1.500	25.00	0.000	2.500	180.40	144.57	1.112	120.0	0.000
Detention	30.317	25.00	1.500	2.500	0.000	144.57	180.40	1.112	120.0	0.000
out	30.317	1.500	1.500	0.000	0.000	180.40	180.40	0.5900	128.0	0.000

SUMMARY OF BASIN RESULTS

Link Label	Time to Peak	Peak Inflow (m <sup>3</sup> /s)	Time to Peak	Peak Outflow (m <sup>3</sup> /s)	Total Inflow (m <sup>3</sup> )	----- Vol. Avail	Basin Vol. Used	----- Stage Used
Detention	120.0	1.111	128.0	.5900	8026.0	0.0000	2029.7	0.8981

SUMMARY OF BASIN OUTLET RESULTS

Link Label	No. of	S/D Factor (m)	Dia (m)	width (m)	Pipe Length (m)	Pipe Slope (%)
Detention	1.0	1.000		0.000	0.5000	0.2000

LINK Site 1.000

ESTIMATED VOLUME (CU METRES\*10\*\*3) = 9.381  
 ESTIMATED PEAK FLOW (CUMECS) = 0.98  
 ESTIMATED TIME TO PEAK (MINS) = 300.00

LINK Detention 1.001

ESTIMATED VOLUME (CU METRES\*10\*\*3) = 9.381  
 ESTIMATED PEAK FLOW (CUMECS) = 0.98  
 ESTIMATED TIME TO PEAK (MINS) = 300.00

LINK out 1.002

ESTIMATED VOLUME (CU METRES\*10\*\*3) = 9.381  
 ESTIMATED PEAK FLOW (CUMECS) = 0.59  
 ESTIMATED TIME TO PEAK (MINS) = 308.00

Run completed at: 25th August 2005 9:57:44