
APPENDIX H

RAFTS DETENTION MODELLING RESULTS

job number 4403

job title Sector 8

sheet number 1 of 3

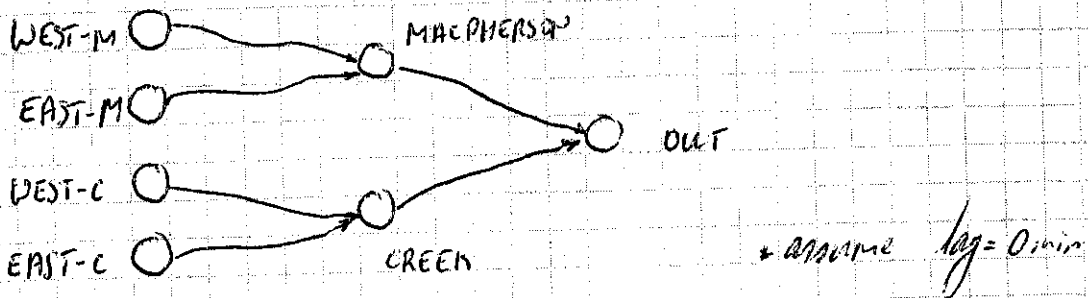
prepared by JNA chk'd M.S.

date 16-5-03

Revise RAFTS Modelling (Australia Only)

pre-development-		Area (ha)	Slope (%)	Impervious (%)
WEST	* Macpherson	4.91	4.0	5%
	* Creek	1.60	4.5	5%
EAST	* Macpherson	0.49	1.0	5%
	* Creek	0.18	3.1	5%

revised predevelopment layout -



revised pre-development results -

CATCHMENT	2yr	5yr	20yr	100yr
WEST-M	0.38	0.54	0.79	1.11
EAST-M	0.03	0.05	0.06	0.10
WEST-C	0.14	0.20	0.31	0.45
EAST-C	0.02	0.03	0.04	0.06
MACPHERSON	0.41	0.58	0.84	1.21
CREEK	0.16	0.23	0.34	0.51
OUT	0.57	0.79	1.19	1.65

job number 4903

job title Sector 8

sheet number 2 of 3

prepared by SNA chkd MLL

date 16-5-03

post-development (with detention) -

revised requirements -

SSR - $400 \text{ m}^3/\text{ha}$

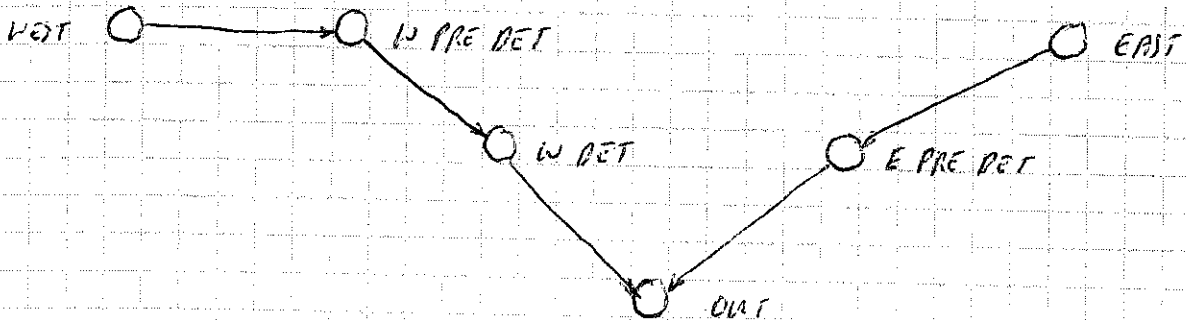
Area of development = 5.04 ha

SSR = 2016 m^3

Sources of Storage -

			FRIT	VEST
* bio-retention swales	607 m^3	---- 20yr ¹	61 m^3	546 m^3
* bio-retention filter	300 m^3	--- 2yr ¹	-	300 m^3
* wash filter	81	-- 2yr ¹	15 m^3	66 m^3
* rainwater tanks	134 m^3	--- 2yr ¹	14 m^3	120 m^3
* stormwater pipes	135 m^3	--- 20yr ¹	13 m^3	122 m^3
* roads	525 m^3	--- 20yr ¹	49 m^3	476 m^3
* detention basin	$2,700 \text{ m}^3$	---- 5yr ¹	-	$2,700 \text{ m}^3$
* subterranean storage	<u>300 m^3</u>	---- 2yr ¹	-	300 m^3
	<u>$4,782 \text{ m}^3$</u>			

Catchment layout -



job number	4903	sheet number	3	of	3
job title	Sector 8	prepared by	SWA	chk'd	MC
		date	16-5-03		

Post-Development (with treatment) Results

NOPE	2yr		5yr		20yr		100yr	
WEST	1.13	-	1.73	-	2.65	-	3.60	-
W PRE DET	1.13	486	1.70	486	2.15	1630	3.46	1630
W DET	0.42	300	0.42	1019	0.46	1648	0.46	3000
EAST	0.11	-	0.16	-	0.22	-	0.29	-
E PRE DET	0.11	29	0.16	29	0.19	152	0.28	152
OLLT	0.53	-	0.57	-	0.61	-	0.70	-
								<u>4782</u>

* Determine Pre-development (all to Creek) peak flows - revised areas

ARI	Q (m ³ /s)	unit	old areas
5	0.75	720 min	300
20	1.08	270 min	100
100	1.54	270 min	100

* Determine Post-development (no detention) peak flows - revised areas

ARI	Q (m ³ /s)	unit	old areas
5	1.89	90 min	100
20	2.87	90 min	100
100	3.85	90 min	100

Run started at: 16th May 2003 11:44:38

RUNTIME RESULTS
#####

Max. no. of links allowed = 2000

Max. no. of routing 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 West 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 4.166
ESTIMATED PEAK FLOW (CUMECS) = 2.14
ESTIMATED TIME TO PEAK (MINS) = 20.00

LINK W Pre Det 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 4.166
ESTIMATED PEAK FLOW (CUMECS) = 2.14
ESTIMATED TIME TO PEAK (MINS) = 20.00

LINK W Det 1.002

ESTIMATED VOLUME (CU METRES*10**3) = 2.699
ESTIMATED PEAK FLOW (CUMECS) = 1.98
ESTIMATED TIME TO PEAK (MINS) = 30.00

LINK East 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.4284
ESTIMATED PEAK FLOW (CUMECS) = 0.21
ESTIMATED TIME TO PEAK (MINS) = 15.00

LINK E Pre Det 2.001

ESTIMATED VOLUME (CU METRES*10**3) = 0.4284
ESTIMATED PEAK FLOW (CUMECS) = 0.21
ESTIMATED TIME TO PEAK (MINS) = 15.00

LINK Output 1.003

ESTIMATED VOLUME (CU METRES*10**3) = 2.990
ESTIMATED PEAK FLOW (CUMECS) = 0.60
ESTIMATED TIME TO PEAK (MINS) = 35.00

Sector 8 - Detention

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

#####

ROUTING INCREMENT (MINS) = 1.00
STORM DURATION (MINS) = 45.
RETURN PERIOD (YRS) = 100.
BX = 1.0000
TOTAL OF FIRST SUB-AREAS (km2) = 3.59
TOTAL OF SECOND SUB-AREAS (km2) = 3.59
TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1 (ha)	#2 (ha)	#1 (%)	#2 (%)	#1 (%)	#2 (%)	#1	#2	#1	#2	
West	3.255	3.255	3.800	3.800	99.00	0.000	.015	.025	.0014	.0247	1.000
W Pre Det	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.001
W Det	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.002

East	0.3350	0.3350	.5000	.5000	99.00	0.000	.015	.025	.0012	.0208	2.000
E Pre Det	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	2.001
Output	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.003

Link Label	Average Intensity (mm/h)	Init. #1 (mm)	Loss #2	Cont. #1 (mm/h)	Loss #2	Excess #1 (mm)	Rain #2	Peak Inflow (m ³ /s)	Time Peak	Link to Lag mins
West	104.68	2.500	25.00	.5000	2.500	75.658	52.133	2.140	20.00	0.000
W Pre Det	104.68	25.00	0.000	2.500	0.000	52.133	0.000	2.140	20.00	0.000
W Det	104.68	25.00	0.000	2.500	0.000	52.133	0.000	1.979	30.00	0.000
East	104.68	2.500	25.00	.5000	2.500	75.658	52.133	0.2077	15.00	0.000
E Pre Det	104.68	25.00	0.000	2.500	0.000	52.133	0.000	0.2077	15.00	0.000
Output	104.68	2.500	0.000	.5000	0.000	75.658	0.000	0.6037	35.00	0.000

SUMMARY OF BASIN RESULTS

Link Label	Time to Peak	Peak Inflow (m ³ /s)	Time to Peak	Peak Outflow (m ³ /s)	Total Inflow (m ³)	Vol. Avail	Basin Vol. Used	Stage Used
W Pre Det	20.00	2.140	30.00	1.979	4166.4	0.0000	1599.9	0.9815
W Det	30.00	1.979	35.00	.4600	2698.5	0.0000	1635.8	0.5953
E Pre Det	15.00	.2077	30.00	.1622	428.37	0.0000	147.66	0.9714

SUMMARY OF BASIN OUTLET RESULTS

Link Label	No. of	S/D Factor (m)	Dia (m)	Width (m)	Pipe Length (m)	Pipe Slope (%)
W Pre Det	1.0	1.000		0.000	0.5000	0.2000
W Det	1.0	1.000		0.000	0.5000	0.2000
E Pre Det	1.0	1.000		0.000	0.5000	0.2000

LINK West

1.000

ESTIMATED VOLUME (CU METRES*10**3) = 4.913
 ESTIMATED PEAK FLOW (CUMECS) = 3.11
 ESTIMATED TIME TO PEAK (MINS) = 25.00

LINK W Pre Det

1.001

ESTIMATED VOLUME (CU METRES*10**3) = 4.913
 ESTIMATED PEAK FLOW (CUMECS) = 3.11
 ESTIMATED TIME TO PEAK (MINS) = 25.00

LINK W Det

1.002

ESTIMATED VOLUME (CU METRES*10**3) = 3.446
 ESTIMATED PEAK FLOW (CUMECS) = 2.79
 ESTIMATED TIME TO PEAK (MINS) = 26.00

LINK East

2.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.5053
 ESTIMATED PEAK FLOW (CUMECS) = 0.26
 ESTIMATED TIME TO PEAK (MINS) = 25.00

LINK E Pre Det

2.001

ESTIMATED VOLUME (CU METRES*10**3) = 0.5053
 ESTIMATED PEAK FLOW (CUMECS) = 0.26
 ESTIMATED TIME TO PEAK (MINS) = 25.00

LINK Output

1.003

ESTIMATED VOLUME (CU METRES*10**3) = 3.814
 ESTIMATED PEAK FLOW (CUMECS) = 0.66
 ESTIMATED TIME TO PEAK (MINS) = 25.00

 Sector 8 - Detention

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

#####

ROUTING INCREMENT (MINS) = 1.00
 STORM DURATION (MINS) = 60.
 RETURN PERIOD (YRS) = 100.
 BK = 1.0000
 TOTAL OF FIRST SUB-AREAS (km2) = 3.59
 TOTAL OF SECOND SUB-AREAS (km2) = 3.59
 TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link	Catch. Area	Slope	% Impervious	Pern	B	Link
------	-------------	-------	--------------	------	---	------

Label	#1 (ha)	#2	#1 (%)	#2	#1 (%)	#2	#1	#2	#1	#2	No.
West	3.255	3.255	3.800	3.800	99.00	0.000	.015	.025	.0014	.0247	1.000
W Pre Det	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.001
W Det	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.002
East	0.3350	0.3350	.5000	.5000	99.00	0.000	.015	.025	.0012	.0208	2.000
E Pre Det	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	2.001
Output	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.003

Link Label	Average Intensity (mm/h)	Init. #1 (mm)	Loss #2	Cont. #1 (mm/h)	Loss #2	Excess #1 (mm)	Rain #2	Peak Inflow (m ³ /s)	Time to Peak mins	Link Lag
West	90.420	2.500	25.00	.5000	2.500	87.445	63.504	3.105	25.00	0.000
W Pre Det	90.420	25.00	0.000	2.500	0.000	63.504	0.000	3.105	25.00	0.000
W Det	90.420	25.00	0.000	2.500	0.000	63.504	0.000	2.789	26.00	0.000
East	90.420	2.500	25.00	.5000	2.500	87.445	63.504	0.2579	25.00	0.000
E Pre Det	90.420	25.00	0.000	2.500	0.000	63.504	0.000	0.2579	25.00	0.000
Output	90.420	2.500	0.000	.5000	0.000	87.445	0.000	0.6588	25.00	0.000

SUMMARY OF BASIN RESULTS

Link Label	Time to Peak	Peak Inflow (m ³ /s)	Time to Peak	Peak Outflow (m ³ /s)	Total Inflow (m ³)	----- Basin ----- Vol. Avail	Vol. Used	Stage Used
W Pre Det	25.00	3.105	26.00	2.788	4913.5	0.0000	1634.0	1.0025
W Det	26.00	2.788	34.00	.4600	3445.6	0.0000	2134.3	0.7614
E Pre Det	25.00	.2579	25.00	.2388	505.32	0.0000	150.85	0.9924

SUMMARY OF BASIN OUTLET RESULTS

Link Label	No. of	S/D Factor (m)	Dia (m)	Width (m)	Pipe Length (m)	Pipe Slope (%)
W Pre Det	1.0	1.000		0.000	0.5000	0.2000
W Det	1.0	1.000		0.000	0.5000	0.2000
E Pre Det	1.0	1.000		0.000	0.5000	0.2000

LINK West 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 5.911
 ESTIMATED PEAK FLOW (CUMECS) = 3.60
 ESTIMATED TIME TO PEAK (MINS) = 30.00

LINK W Pre Det 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 5.911
 ESTIMATED PEAK FLOW (CUMECS) = 3.60
 ESTIMATED TIME TO PEAK (MINS) = 30.00

LINK W Det 1.002

ESTIMATED VOLUME (CU METRES*10**3) = 4.443
 ESTIMATED PEAK FLOW (CUMECS) = 3.46
 ESTIMATED TIME TO PEAK (MINS) = 30.00

LINK East 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.6081
 ESTIMATED PEAK FLOW (CUMECS) = 0.29
 ESTIMATED TIME TO PEAK (MINS) = 30.00

LINK E Pre Det 2.001

ESTIMATED VOLUME (CU METRES*10**3) = 0.6081
 ESTIMATED PEAK FLOW (CUMECS) = 0.29
 ESTIMATED TIME TO PEAK (MINS) = 30.00

LINK Output 1.003

ESTIMATED VOLUME (CU METRES*10**3) = 4.913
 ESTIMATED PEAK FLOW (CUMECS) = 0.70
 ESTIMATED TIME TO PEAK (MINS) = 30.00

 Sector 8 - Detention

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

#####

ROUTING INCREMENT (MINS) = 1.00
 STORM DURATION (MINS) = 90.
 RETURN PERIOD (YRS) = 100.
 BX = 1.0000
 TOTAL OF FIRST SUB-AREAS (km2) = 3.59
 TOTAL OF SECOND SUB-AREAS (km2) = 3.59

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	CATCH. AREA		SLOPE		% IMPERVIOUS		PERN		B		Link No.
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
West	3.255	3.255	3.800	3.800	99.00	0.000	.015	.025	.0014	.0247	1.000
W Pre Det	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.001
W Det	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.002
East	0.3350	0.3350	.5000	.5000	99.00	0.000	.015	.025	.0012	.0208	2.000
E Pre Det	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	2.001
Output	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.003

Link Label	Average Intensity (mm/h)	INIT. LOSS		CONT. LOSS		EXCESS RAIN		Peak Inflow (m ³ /s)	Time to Peak (mins)	Link Lag
		#1	#2	#1	#2	#1	#2			
West	71.034	2.500	25.00	.5000	2.500	103.33	78.427	3.598	30.00	0.000
W Pre Det	71.034	25.00	0.000	2.500	0.000	78.427	0.000	3.598	30.00	0.000
W Det	71.034	25.00	0.000	2.500	0.000	78.427	0.000	3.463	30.00	0.000
East	71.034	2.500	25.00	.5000	2.500	103.33	78.427	0.2931	30.00	0.000
E Pre Det	71.034	25.00	0.000	2.500	0.000	78.427	0.000	0.2932	30.00	0.000
Output	71.034	2.500	0.000	.5000	0.000	103.33	0.000	0.7003	30.00	0.000

SUMMARY OF BASIN RESULTS

Link Label	Time to Peak	Peak Inflow (m ³ /s)	Time to Peak	Peak Outflow (m ³ /s)	Total Inflow (m ³)	Basin		
						Vol. Avail	Vol. Used	Stage Used
W Pre Det	30.00	3.598	30.00	3.463	5910.8	0.0000	1660.0	1.0184
W Det	30.00	3.463	35.00	.4600	4443.0	0.0000	2496.7	0.8822
E Pre Det	30.00	.2932	30.00	.2803	608.13	0.0000	152.00	1.0000

SUMMARY OF BASIN OUTLET RESULTS

Link Label	No. of	S/D Factor (m)	Dia (m)	Width (m)	Pipe Length (m)	Pipe Slope (%)
W Pre Det	1.0	1.000		0.000	0.5000	0.2000
W Det	1.0	1.000		0.000	0.5000	0.2000
E Pre Det	1.0	1.000		0.000	0.5000	0.2000

LINK West 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 6.704
 ESTIMATED PEAK FLOW (CUMECS) = 3.16
 ESTIMATED TIME TO PEAK (MINS) = 35.00

LINK W Pre Det 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 6.704
 ESTIMATED PEAK FLOW (CUMECS) = 3.16
 ESTIMATED TIME TO PEAK (MINS) = 35.00

LINK W Det 1.002

ESTIMATED VOLUME (CU METRES*10**3) = 5.236
 ESTIMATED PEAK FLOW (CUMECS) = 2.99
 ESTIMATED TIME TO PEAK (MINS) = 36.00

LINK East 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.6895
 ESTIMATED PEAK FLOW (CUMECS) = 0.26
 ESTIMATED TIME TO PEAK (MINS) = 33.00

LINK E Pre Det 2.001

ESTIMATED VOLUME (CU METRES*10**3) = 0.6895
 ESTIMATED PEAK FLOW (CUMECS) = 0.26
 ESTIMATED TIME TO PEAK (MINS) = 33.00

LINK Output 1.003

ESTIMATED VOLUME (CU METRES*10**3) = 5.788
 ESTIMATED PEAK FLOW (CUMECS) = 0.67
 ESTIMATED TIME TO PEAK (MINS) = 36.00

 Sector 8 - Detention

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

#####

STORM DURATION (MINS) = 120.
 RETURN PERIOD (YRS) = 100.
 BX = 1.0000
 TOTAL OF FIRST SUB-AREAS (km2) = 3.59
 TOTAL OF SECOND SUB-AREAS (km2) = 3.59
 TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
	(ha)		(%)		(%)						
West	3.255	3.255	3.800	3.800	99.00	0.000	.015	.025	.0014	.0247	1.000
W Pre Det	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.001
W Det	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.002
East	0.3350	0.3350	.5000	.5000	99.00	0.000	.015	.025	.0012	.0208	2.000
E Pre Det	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	2.001
Output	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.003

Link Label	Average Intensity (mm/h)	Init. Loss		Cont. Loss		Excess Rain		Peak Inflow (m ³ /s)	Time to Peak (mins)	Link Lag (mins)
		#1	#2	#1	#2	#1	#2			
West	59.646	2.500	25.00	.5000	2.500	115.82	90.208	3.163	35.00	0.000
W Pre Det	59.646	25.00	0.000	2.500	0.000	90.208	0.000	3.163	35.00	0.000
W Det	59.646	25.00	0.000	2.500	0.000	90.208	0.000	2.993	36.00	0.000
East	59.646	2.500	25.00	.5000	2.500	115.82	90.208	0.2607	33.00	0.000
E Pre Det	59.646	25.00	0.000	2.500	0.000	90.208	0.000	0.2607	33.00	0.000
Output	59.646	2.500	0.000	.5000	0.000	115.82	0.000	0.6728	36.00	0.000

SUMMARY OF BASIN RESULTS

Link Label	Time to Peak	Peak Inflow (m ³ /s)	Time to Peak	Peak Outflow (m ³ /s)	Total Inflow (m ³)	Basin		
						Vol. Avail	Vol. Used	Stage Used
W Pre Det	35.00	3.163	36.00	2.992	6703.6	0.0000	1642.1	1.0074
W Det	36.00	2.992	42.00	.4600	5235.8	0.0000	2755.1	0.9684
E Pre Det	33.00	.2607	36.00	.2528	689.53	0.0000	151.39	0.9960

SUMMARY OF BASIN OUTLET RESULTS

Link Label	No. of	S/D Factor (m)	Dia (m)	Width (m)	Pipe Length (m)	Pipe Slope (%)
W Pre Det	1.0	1.000		0.000	0.5000	0.2000
W Det	1.0	1.000		0.000	0.5000	0.2000
E Pre Det	1.0	1.000		0.000	0.5000	0.2000

LINK West 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 7.923
 ESTIMATED PEAK FLOW (CUMECS) = 2.26
 ESTIMATED TIME TO PEAK (MINS) = 45.00

LINK W Pre Det 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 7.923
 ESTIMATED PEAK FLOW (CUMECS) = 2.26
 ESTIMATED TIME TO PEAK (MINS) = 45.00

LINK W Det 1.002

ESTIMATED VOLUME (CU METRES*10**3) = 6.455
 ESTIMATED PEAK FLOW (CUMECS) = 2.24
 ESTIMATED TIME TO PEAK (MINS) = 45.00

LINK East 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.8151
 ESTIMATED PEAK FLOW (CUMECS) = 0.18
 ESTIMATED TIME TO PEAK (MINS) = 45.00

LINK E Pre Det 2.001

ESTIMATED VOLUME (CU METRES*10**3) = 0.8151
 ESTIMATED PEAK FLOW (CUMECS) = 0.18
 ESTIMATED TIME TO PEAK (MINS) = 45.00

LINK Output 1.003

ESTIMATED VOLUME (CU METRES*10**3) = 7.133
 ESTIMATED PEAK FLOW (CUMECS) = 0.60
 ESTIMATED TIME TO PEAK (MINS) = 45.00

 Sector 8 - Detention

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

#####

ROUTING INCREMENT (MINS) = 1.00
 STORM DURATION (MINS) = 180.
 RETURN PERIOD (YRS) = 100.
 BX = 1.0000
 TOTAL OF FIRST SUB-AREAS (km2) = 3.59
 TOTAL OF SECOND SUB-AREAS (km2) = 3.59
 TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
West	3.255	3.255	3.800	3.800	99.00	0.000	.015	.025	.0014	.0247	1.000
W Pre Det	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.001
W Det	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.002
East	0.3350	0.3350	.5000	.5000	99.00	0.000	.015	.025	.0012	.0208	2.000
E Pre Det	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	2.001
Output	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.003

Link Label	Average Intensity (mm/h)	Init. Loss		Cont. Loss		Excess Rain		Peak Inflow (m ³ /s)	Time to Peak mins	Link Lag
		#1	#2	#1	#2	#1	#2			
West	46.494	2.500	25.00	.5000	2.500	135.52	108.02	2.261	45.00	0.000
W Pre Det	46.494	25.00	0.000	2.500	0.000	108.02	0.000	2.261	45.00	0.000
W Det	46.494	25.00	0.000	2.500	0.000	108.02	0.000	2.239	45.00	0.000
East	46.494	2.500	25.00	.5000	2.500	135.52	108.02	0.1839	45.00	0.000
E Pre Det	46.494	25.00	0.000	2.500	0.000	108.02	0.000	0.1839	45.00	0.000
Output	46.494	2.500	0.000	.5000	0.000	135.52	0.000	0.5998	45.00	0.000

SUMMARY OF BASIN RESULTS

Link Label	Time to Peak	Peak Inflow (m ³ /s)	Time to Peak	Peak Outflow (m ³ /s)	Total Inflow (m ³)	Basin		
						Vol. Avail	Vol. Used	Stage Used
W Pre Det	45.00	2.261	45.00	2.238	7922.9	0.0000	1611.3	0.9885
W Det	45.00	2.238	51.00	.4600	6454.9	0.0000	2800.1	0.9834
E Pre Det	45.00	.1839	45.00	.1798	815.09	0.0000	148.42	0.9765

SUMMARY OF BASIN OUTLET RESULTS

Link Label	No. of	S/D Factor	Dia (m)	Width (m)	Pipe Length (m)	Pipe Slope (%)
W Pre Det	1.0	1.000		0.000	0.5000	0.2000
W Det	1.0	1.000		0.000	0.5000	0.2000
E Pre Det	1.0	1.000		0.000	0.5000	0.2000

LINK West 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 9.304
 ESTIMATED PEAK FLOW (CUMECS) = 2.01
 ESTIMATED TIME TO PEAK (MINS) = 75.00

LINK W Pre Det 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 9.304
 ESTIMATED PEAK FLOW (CUMECS) = 2.01
 ESTIMATED TIME TO PEAK (MINS) = 75.00

LINK W Det 1.002

ESTIMATED VOLUME (CU METRES*10**3) = 7.830
 ESTIMATED PEAK FLOW (CUMECS) = 1.99
 ESTIMATED TIME TO PEAK (MINS) = 75.00

LINK East 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.9512
 ESTIMATED PEAK FLOW (CUMECS) = 0.18
 ESTIMATED TIME TO PEAK (MINS) = 75.00

LINK E Pre Det 2.001

ESTIMATED VOLUME (CU METRES*10**3) = 0.9512
 ESTIMATED PEAK FLOW (CUMECS) = 0.18
 ESTIMATED TIME TO PEAK (MINS) = 75.00

LINK Output 1.003

ESTIMATED VOLUME (CU METRES*10**3) = 7.322
 ESTIMATED PEAK FLOW (CUMECS) = 0.62
 ESTIMATED TIME TO PEAK (MINS) = 77.00

Sector 8 - Detention

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

#####

ROUTING INCREMENT (MINS) = 1.00
STORM DURATION (MINS) = 270.
RETURN PERIOD (YRS) = 100.
BX = 1.0000
TOTAL OF FIRST SUB-AREAS (km2) = 3.59
TOTAL OF SECOND SUB-AREAS (km2) = 3.59
TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
West	3.255	3.255	3.800	3.800	99.00	0.000	.015	.025	.0014	.0247	1.000
W Pre Det	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.001
W Det	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.002
East	0.3350	0.3350	.5000	.5000	99.00	0.000	.015	.025	.0012	.0208	2.000
E Pre Det	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	2.001
Output	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.003

Link Label	Average Intensity (mm/h)	Init. Loss		Cont. Loss		Excess Rain		Peak Inflow (m ³ /s)	Time to Peak	Link Lag mins
		#1	#2	#1	#2	#1	#2			
West	36.201	2.500	25.00	.5000	2.500	158.27	128.40	2.012	75.00	0.000
W Pre Det	36.201	25.00	0.000	2.500	0.000	128.40	0.000	2.012	75.00	0.000
W Det	36.201	25.00	0.000	2.500	0.000	128.40	0.000	1.994	75.00	0.000
East	36.201	2.500	25.00	.5000	2.500	158.27	128.40	0.1768	75.00	0.000
E Pre Det	36.201	25.00	0.000	2.500	0.000	128.40	0.000	0.1768	75.00	0.000
Output	36.201	2.500	0.000	.5000	0.000	158.27	0.000	0.6218	77.00	0.000

SUMMARY OF BASIN RESULTS

Link Label	Time to Peak	Peak Inflow (m ³ /s)	Time to Peak	Peak Outflow (m ³ /s)	Total Inflow (m ³)	Basin		
						Vol. Avail	Vol. Used	Stage Used
W Pre Det	75.00	2.011	75.00	1.993	9304.5	0.0000	1600.6	0.9819
W Det	75.00	1.993	77.00	.4600	7830.1	0.0000	2839.8	0.9966
E Pre Det	75.00	.1768	75.00	.1735	951.20	0.0000	148.15	0.9747

SUMMARY OF BASIN OUTLET RESULTS

Link Label	No. of	S/D Factor	Dia (m)	Width (m)	Pipe Length (m)	Pipe Slope (%)
W Pre Det	1.0	1.000		0.000	0.5000	0.2000
W Det	1.0	1.000		0.000	0.5000	0.2000
E Pre Det	1.0	1.000		0.000	0.5000	0.2000

LINK West 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 10.45
ESTIMATED PEAK FLOW (CUMECS) = 1.50
ESTIMATED TIME TO PEAK (MINS) = 120.00

LINK W Pre Det 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 10.45
ESTIMATED PEAK FLOW (CUMECS) = 1.50
ESTIMATED TIME TO PEAK (MINS) = 120.00

LINK W Det 1.002

ESTIMATED VOLUME (CU METRES*10**3) = 8.982
ESTIMATED PEAK FLOW (CUMECS) = 1.50
ESTIMATED TIME TO PEAK (MINS) = 120.00

LINK East 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 1.075
ESTIMATED PEAK FLOW (CUMECS) = 0.15
ESTIMATED TIME TO PEAK (MINS) = 120.00

LINK E Pre Det 2.001

ESTIMATED VOLUME (CU METRES*10**3) = 1.075
ESTIMATED PEAK FLOW (CUMECS) = 0.15
ESTIMATED TIME TO PEAK (MINS) = 120.00

LINK Output 1.003

ESTIMATED VOLUME (CU METRES*10**3) = 9.921

ESTIMATED PEAK FLOW (CUMECS) = 0.61
 ESTIMATED TIME TO PEAK (MINS) = 120.00

 Sector 8 - Detention

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

#####

ROUTING INCREMENT (MINS) = 1.00
 STORM DURATION (MINS) = 360.
 RETURN PERIOD (YRS) = 100.
 BX = 1.0000
 TOTAL OF FIRST SUB-AREAS (km2) = 3.59
 TOTAL OF SECOND SUB-AREAS (km2) = 3.59
 TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
West	3.255	3.255	3.800	3.800	99.00	0.000	.015	.025	.0014	.0247	1.000
W Pre Det	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.001
W Det	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.002
East	0.3350	0.3350	.5000	.5000	99.00	0.000	.015	.025	.0012	.0208	2.000
E Pre Det	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	2.001
Output	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.003

Link Label	Average Intensity (mm/h)	Init. Loss		Cont. Loss		Excess Rain		Peak Inflow (m ³ /s)	Time to Peak	Link Lag
		#1	#2	#1	#2	#1	#2			
West	30.317	2.500	25.00	.5000	2.500	176.49	144.57	1.505	120.0	0.000
W Pre Det	30.317	25.00	0.000	2.500	0.000	144.57	0.000	1.505	120.0	0.000
W Det	30.317	25.00	0.000	2.500	0.000	144.57	0.000	1.504	120.0	0.000
East	30.317	2.500	25.00	.5000	2.500	176.49	144.57	0.1509	120.0	0.000
E Pre Det	30.317	25.00	0.000	2.500	0.000	144.57	0.000	0.1509	120.0	0.000
Output	30.317	2.500	0.000	.5000	0.000	176.49	0.000	0.6103	120.0	0.000

SUMMARY OF BASIN RESULTS

Link Label	Time to Peak	Peak Inflow		Peak Outflow		Total Inflow (m ³)	Basin		
		(m ³ /s)	Peak	(m ³ /s)	Peak		Vol. Avail	Vol. Used	Stage Used
W Pre Det	120.0	1.504	120.0	1.504	10450.4	0.0000	1577.7	0.9679	
W Det	120.0	1.504	112.0	.4600	8982.4	0.0000	2998.7	1.0496	
E Pre Det	120.0	.1509	120.0	.1503	1075.3	0.0000	147.12	0.9679	

SUMMARY OF BASIN OUTLET RESULTS

Link Label	No. of	S/D Factor	Dia (m)	Width (m)	Pipe Length (m)	Pipe Slope (%)
W Pre Det	1.0	1.000		0.000	0.5000	0.2000
W Det	1.0	1.000		0.000	0.5000	0.2000
E Pre Det	1.0	1.000		0.000	0.5000	0.2000

LINK West 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 12.17
 ESTIMATED PEAK FLOW (CUMECS) = 1.33
 ESTIMATED TIME TO PEAK (MINS) = 300.00

LINK W Pre Det 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 12.17
 ESTIMATED PEAK FLOW (CUMECS) = 1.33
 ESTIMATED TIME TO PEAK (MINS) = 300.00

LINK W Det 1.002

ESTIMATED VOLUME (CU METRES*10**3) = 10.70
 ESTIMATED PEAK FLOW (CUMECS) = 1.32
 ESTIMATED TIME TO PEAK (MINS) = 300.00

LINK East 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 1.251
 ESTIMATED PEAK FLOW (CUMECS) = 0.13
 ESTIMATED TIME TO PEAK (MINS) = 300.00

LINK E Pre Det 2.001

ESTIMATED VOLUME (CU METRES*10**3) = 1.251
 ESTIMATED PEAK FLOW (CUMECS) = 0.13

ESTIMATED TIME TO PEAK (MINS) = 300.00

LINK Output 1.003

ESTIMATED VOLUME (CU METRES*10**3) = 11.82
ESTIMATED PEAK FLOW (CUMECs) = 0.59
ESTIMATED TIME TO PEAK (MINS) = 300.00

#####
Sector 8 - Detention
#####

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

#####

ROUTING INCREMENT (MINS) = 1.00
STORM DURATION (MINS) = 540.
RETURN PERIOD (YRS) = 100.
BX = 1.0000
TOTAL OF FIRST SUB-AREAS (km2) = 3.59
TOTAL OF SECOND SUB-AREAS (km2) = 3.59
TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Table with columns: Link Label, Catch. Area #1 #2, Slope #1 #2, % Impervious #1 #2, Pern #1 #2, B #1 #2, Link No.

Table with columns: Link Label, Average Intensity, Init. Loss #1 #2, Cont. Loss #1 #2, Excess Rain #1 #2, Peak Inflow, Time to Peak, Link Lag

SUMMARY OF BASIN RESULTS

Table with columns: Link Label, Time to Peak, Peak Inflow, Time to Peak, Peak Outflow, Total Inflow, Basin Vol. Avail, Basin Vol. Used, Stage Used

SUMMARY OF BASIN OUTLET RESULTS

Table with columns: Link Label, No. of, S/D Factor, Dia, Width, Pipe Length, Pipe Slope

Run completed at: 16th May 2003 11:44:40

Run started at: 16th May 2003 12:14:51

RUNTIME RESULTS
#####

Max. no. of links allowed = 2000

Max. no. of routing 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 West 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 4.166
ESTIMATED PEAK FLOW (CUMECS) = 2.14
ESTIMATED TIME TO PEAK (MINS) = 20.00

LINK East 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.4284
ESTIMATED PEAK FLOW (CUMECS) = 0.21
ESTIMATED TIME TO PEAK (MINS) = 15.00

LINK Output 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 4.595
ESTIMATED PEAK FLOW (CUMECS) = 2.33
ESTIMATED TIME TO PEAK (MINS) = 15.00

Sector 8 - Developed

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

#####

ROUTING INCREMENT (MINS) = 1.00
STORM DURATION (MINS) = 45.
RETURN PERIOD (YRS) = 100.
BX = 1.0000
TOTAL OF FIRST SUB-AREAS (km2) = 3.59
TOTAL OF SECOND SUB-AREAS (km2) = 3.59
TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
West	3.255	3.255	3.800	3.800	99.00	0.000	.015	.025	.0014	.0247	1.000
East	0.3350	0.3350	.5000	.5000	99.00	0.000	.015	.025	.0012	.0208	2.000
Output	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.001

Link Label	Average Intensity (mm/h)	Init. Loss		Cont. Loss		Excess Rain		Peak Inflow (m^3/s)	Time to Peak (mins)	Link Lag
		#1	#2	#1	#2	#1	#2			
West	104.68	2.500	25.00	.5000	2.500	75.658	52.133	2.140	20.00	0.000
East	104.68	2.500	25.00	.5000	2.500	75.658	52.133	0.2077	15.00	0.000
Output	104.68	2.500	0.000	.5000	0.000	75.658	0.000	2.334	15.00	0.000

LINK West 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 4.913
ESTIMATED PEAK FLOW (CUMECS) = 3.11
ESTIMATED TIME TO PEAK (MINS) = 25.00

LINK East 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.5053
 ESTIMATED PEAK FLOW (CUMECS) = 0.26
 ESTIMATED TIME TO PEAK (MINS) = 25.00

LINK Output 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 5.419
 ESTIMATED PEAK FLOW (CUMECS) = 3.36
 ESTIMATED TIME TO PEAK (MINS) = 25.00

 Sector 8 - Developed

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

#####

ROUTING INCREMENT (MINS) = 1.00
 STORM DURATION (MINS) = 60.
 RETURN PERIOD (YRS) = 100.
 BX = 1.0000
 TOTAL OF FIRST SUB-AREAS (km2) = 3.59
 TOTAL OF SECOND SUB-AREAS (km2) = 3.59
 TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
West	3.255	3.255	3.800	3.800	99.00	0.000	.015	.025	.0014	.0247	1.000
East	0.3350	0.3350	.5000	.5000	99.00	0.000	.015	.025	.0012	.0208	2.000
Output	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.001

Link Label	Average Intensity (mm/h)	Init. Loss		Cont. Loss		Excess Rain		Peak Inflow (m^3/s)	Time to Peak	Link Lag mins
		#1	#2	#1	#2	#1	#2			
West	90.420	2.500	25.00	.5000	2.500	87.445	63.504	3.105	25.00	0.000
East	90.420	2.500	25.00	.5000	2.500	87.445	63.504	0.2579	25.00	0.000
Output	90.420	2.500	0.000	.5000	0.000	87.445	0.000	3.363	25.00	0.000

LINK West 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 5.911
 ESTIMATED PEAK FLOW (CUMECS) = 3.60
 ESTIMATED TIME TO PEAK (MINS) = 30.00

LINK East 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.6081
 ESTIMATED PEAK FLOW (CUMECS) = 0.29
 ESTIMATED TIME TO PEAK (MINS) = 30.00

LINK Output 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 6.519
 ESTIMATED PEAK FLOW (CUMECS) = 3.89
 ESTIMATED TIME TO PEAK (MINS) = 30.00

 Sector 8 - Developed

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

#####

ROUTING INCREMENT (MINS) = 1.00
 STORM DURATION (MINS) = 90.
 RETURN PERIOD (YRS) = 100.
 BX = 1.0000
 TOTAL OF FIRST SUB-AREAS (km2) = 3.59
 TOTAL OF SECOND SUB-AREAS (km2) = 3.59
 TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
West	3.255	3.255	3.800	3.800	99.00	0.000	.015	.025	.0014	.0247	1.000
East	0.3350	0.3350	.5000	.5000	99.00	0.000	.015	.025	.0012	.0208	2.000
Output	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.001

Link Label	Average Intensity (mm/h)	Init. Loss		Cont. Loss		Excess Rain		Peak Inflow (m ³ /s)	Time to Peak	Link Lag
		#1 (mm)	#2 (mm)	#1 (mm/h)	#2 (mm/h)	#1 (mm)	#2 (mm)			
West	71.034	2.500	25.00	.5000	2.500	103.33	78.427	3.598	30.00	0.000
East	71.034	2.500	25.00	.5000	2.500	103.33	78.427	0.2931	30.00	0.000
Output	71.034	2.500	0.000	.5000	0.000	103.33	0.000	3.891	30.00	0.000

LINK West 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 6.704
 ESTIMATED PEAK FLOW (CUMECS) = 3.16
 ESTIMATED TIME TO PEAK (MINS) = 35.00

LINK East 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.6895
 ESTIMATED PEAK FLOW (CUMECS) = 0.26
 ESTIMATED TIME TO PEAK (MINS) = 33.00

LINK Output 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 7.393
 ESTIMATED PEAK FLOW (CUMECS) = 3.42
 ESTIMATED TIME TO PEAK (MINS) = 35.00

 Sector 8 - Developed

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

#####

ROUTING INCREMENT (MINS) = 1.00
 STORM DURATION (MINS) = 120.
 RETURN PERIOD (YRS) = 100.
 BX = 1.0000
 TOTAL OF FIRST SUB-AREAS (km2) = 3.59
 TOTAL OF SECOND SUB-AREAS (km2) = 3.59
 TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1 (ha)	#2 (ha)	#1 (%)	#2 (%)	#1 (%)	#2 (%)	#1	#2	#1	#2	
West	3.255	3.255	3.800	3.800	99.00	0.000	.015	.025	.0014	.0247	1.000
East	0.3350	0.3350	.5000	.5000	99.00	0.000	.015	.025	.0012	.0208	2.000
Output	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.001

Link Label	Average Intensity (mm/h)	Init. Loss		Cont. Loss		Excess Rain		Peak Inflow (m ³ /s)	Time to Peak	Link Lag
		#1 (mm)	#2 (mm)	#1 (mm/h)	#2 (mm/h)	#1 (mm)	#2 (mm)			
West	59.646	2.500	25.00	.5000	2.500	115.82	90.208	3.163	35.00	0.000
East	59.646	2.500	25.00	.5000	2.500	115.82	90.208	0.2607	33.00	0.000
Output	59.646	2.500	0.000	.5000	0.000	115.82	0.000	3.424	35.00	0.000

LINK West 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 7.923
 ESTIMATED PEAK FLOW (CUMECS) = 2.26
 ESTIMATED TIME TO PEAK (MINS) = 45.00

LINK East 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.8151
 ESTIMATED PEAK FLOW (CUMECS) = 0.18
 ESTIMATED TIME TO PEAK (MINS) = 45.00

LINK Output 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 8.738
 ESTIMATED PEAK FLOW (CUMECS) = 2.44
 ESTIMATED TIME TO PEAK (MINS) = 45.00

 Sector 8 - Developed

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

#####

ROUTING INCREMENT (MINS) = 1.00
 STORM DURATION (MINS) = 180.
 RETURN PERIOD (YRS) = 100.
 BX = 1.0000
 TOTAL OF FIRST SUB-AREAS (km2) = 3.59
 TOTAL OF SECOND SUB-AREAS (km2) = 3.59
 TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
	(ha)		(%)		(%)						
West	3.255	3.255	3.800	3.800	99.00	0.000	.015	.025	.0014	.0247	1.000
East	0.3350	0.3350	.5000	.5000	99.00	0.000	.015	.025	.0012	.0208	2.000
Output	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.001

Link Label	Average Intensity (mm/h)	Init. Loss (mm)		Cont. Loss (mm/h)		Excess Rain (mm)		Peak Inflow (m ³ /s)	Time to Peak (mins)	Link Lag (mins)
		#1	#2	#1	#2	#1	#2			
West	46.494	2.500	25.00	.5000	2.500	135.52	108.02	2.261	45.00	0.000
East	46.494	2.500	25.00	.5000	2.500	135.52	108.02	0.1839	45.00	0.000
Output	46.494	2.500	0.000	.5000	0.000	135.52	0.000	2.445	45.00	0.000

LINK West 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 9.304
 ESTIMATED PEAK FLOW (CUMECS) = 2.01
 ESTIMATED TIME TO PEAK (MINS) = 75.00

LINK East 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.9512
 ESTIMATED PEAK FLOW (CUMECS) = 0.18
 ESTIMATED TIME TO PEAK (MINS) = 75.00

LINK Output 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 10.26
 ESTIMATED PEAK FLOW (CUMECS) = 2.19
 ESTIMATED TIME TO PEAK (MINS) = 75.00

 Sector 8 - Developed

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

#####

ROUTING INCREMENT (MINS) = 1.00
 STORM DURATION (MINS) = 270.
 RETURN PERIOD (YRS) = 100.
 BX = 1.0000
 TOTAL OF FIRST SUB-AREAS (km2) = 3.59
 TOTAL OF SECOND SUB-AREAS (km2) = 3.59
 TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
	(ha)		(%)		(%)						
West	3.255	3.255	3.800	3.800	99.00	0.000	.015	.025	.0014	.0247	1.000
East	0.3350	0.3350	.5000	.5000	99.00	0.000	.015	.025	.0012	.0208	2.000
Output	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.001

Link Label	Average Intensity (mm/h)	Init. Loss (mm)		Cont. Loss (mm/h)		Excess Rain (mm)		Peak Inflow (m ³ /s)	Time to Peak (mins)	Link Lag (mins)
		#1	#2	#1	#2	#1	#2			
West	36.201	2.500	25.00	.5000	2.500	158.27	128.40	2.012	75.00	0.000
East	36.201	2.500	25.00	.5000	2.500	158.27	128.40	0.1768	75.00	0.000
Output	36.201	2.500	0.000	.5000	0.000	158.27	0.000	2.188	75.00	0.000

LINK West 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 10.45
 ESTIMATED PEAK FLOW (CUMECS) = 1.50
 ESTIMATED TIME TO PEAK (MINS) = 120.00

LINK East 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 1.075
 ESTIMATED PEAK FLOW (CUMECS) = 0.15
 ESTIMATED TIME TO PEAK (MINS) = 120.00

LINK Output 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 11.53
ESTIMATED PEAK FLOW (CUMECS) = 1.66
ESTIMATED TIME TO PEAK (MINS) = 120.00

#####
Sector 8 - Developed
#####

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

#####

ROUTING INCREMENT (MINS) = 1.00
STORM DURATION (MINS) = 360.
RETURN PERIOD (YRS) = 100.
BX = 1.0000
TOTAL OF FIRST SUB-AREAS (km2) = 3.59
TOTAL OF SECOND SUB-AREAS (km2) = 3.59
TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Table with columns: Link Label, Catch. Area #1 #2, Slope #1 #2, % Impervious #1 #2, Pern #1 #2, B #1 #2, Link No. Rows: West, East, Output

Table with columns: Link Label, Average Intensity, Init. Loss #1 #2, Cont. Loss #1 #2, Excess Rain #1 #2, Peak Inflow, Time to Peak, Link Lag. Rows: West, East, Output

LINK West 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 12.17
ESTIMATED PEAK FLOW (CUMECS) = 1.33
ESTIMATED TIME TO PEAK (MINS) = 300.00

LINK East 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 1.251
ESTIMATED PEAK FLOW (CUMECS) = 0.13
ESTIMATED TIME TO PEAK (MINS) = 300.00

LINK Output 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 13.42
ESTIMATED PEAK FLOW (CUMECS) = 1.46
ESTIMATED TIME TO PEAK (MINS) = 300.00

#####
Sector 8 - Developed
#####

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

#####

ROUTING INCREMENT (MINS) = 1.00
STORM DURATION (MINS) = 540.
RETURN PERIOD (YRS) = 100.
BX = 1.0000
TOTAL OF FIRST SUB-AREAS (km2) = 3.59
TOTAL OF SECOND SUB-AREAS (km2) = 3.59
TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Table with columns: Link Label, Catch. Area #1 #2, Slope #1 #2, % Impervious #1 #2, Pern #1 #2, B #1 #2, Link No. Rows: West, East, Output

Table with columns: Link Label, Average Intensity, Init. Loss #1 #2, Cont. Loss #1 #2, Excess Rain #1 #2, Peak Inflow, Time to Peak, Link Lag. Rows: West, East, Output

West	23.631	2.500	25.00	.5000	2.500	205.79	168.51	1.325	300.0	0.000
East	23.631	2.500	25.00	.5000	2.500	205.79	168.51	0.1313	300.0	0.000
Output	23.631	2.500	0.000	.5000	0.000	205.79	0.000	1.457	300.0	0.000

Run completed at: 16th May 2003 12:14:52

Run started at: 16th May 2003 12:06:57

 RUNTIME RESULTS
 #####

Max. no. of links allowed = 2000
 Max. no. of routing 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 West 1.000
 ESTIMATED VOLUME (CU METRES*10**3) = 3.462
 ESTIMATED PEAK FLOW (CUMECS) = 1.11
 ESTIMATED TIME TO PEAK (MINS) = 44.00
 LINK East 2.000
 ESTIMATED VOLUME (CU METRES*10**3) = 0.3572
 ESTIMATED PEAK FLOW (CUMECS) = 0.14
 ESTIMATED TIME TO PEAK (MINS) = 40.00
 LINK Output 1.001
 ESTIMATED VOLUME (CU METRES*10**3) = 3.819
 ESTIMATED PEAK FLOW (CUMECS) = 1.24
 ESTIMATED TIME TO PEAK (MINS) = 40.00

 Sector 8 - Existing
 #####

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

#####

ROUTING INCREMENT (MINS) = 1.00
 STORM DURATION (MINS) = 45.
 RETURN PERIOD (YRS) = 100.
 BX = 1.0000
 TOTAL OF FIRST SUB-AREAS (km2) = 0.36
 TOTAL OF SECOND SUB-AREAS (km2) = 6.82
 TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
West	0.3260	6.180	3.800	3.800	99.00	0.000	.015	.070	.0004	.0757	1.000
East	0.0300	0.6400	2.000	2.000	99.00	0.000	.015	.070	.0002	.0321	2.000
Output	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.001

Link Label	Average Intensity (mm/h)	Init. Loss		Cont. Loss		Excess Rain		Peak Inflow (m^3/s)	Time to Peak	Link Lag
		#1	#2	#1	#2	#1	#2			
West	104.68	2.500	25.00	.5000	2.500	75.658	52.133	1.107	44.00	0.000
East	104.68	2.500	25.00	.5000	2.500	75.658	52.133	0.1370	40.00	0.000
Output	104.68	2.500	0.000	.5000	0.000	75.658	0.000	1.242	40.00	0.000

LINK West 1.000
 ESTIMATED VOLUME (CU METRES*10**3) = 4.184
 ESTIMATED PEAK FLOW (CUMECS) = 1.27
 ESTIMATED TIME TO PEAK (MINS) = 45.00
 LINK East 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.4313
 ESTIMATED PEAK FLOW (CUMECS) = 0.15
 ESTIMATED TIME TO PEAK (MINS) = 43.00

LINK Output 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 4.615
 ESTIMATED PEAK FLOW (CUMECS) = 1.42
 ESTIMATED TIME TO PEAK (MINS) = 45.00

 Sector 8 - Existing

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

#####

ROUTING INCREMENT (MINS) = 1.00
 STORM DURATION (MINS) = 60.
 RETURN PERIOD (YRS) = 100.
 BX = 1.0000
 TOTAL OF FIRST SUB-AREAS (km2) = 0.36
 TOTAL OF SECOND SUB-AREAS (km2) = 6.82
 TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
West	0.3260	6.180	3.800	3.800	99.00	0.000	.015	.070	.0004	.0757	1.000
East	0.0300	0.6400	2.000	2.000	99.00	0.000	.015	.070	.0002	.0321	2.000
Output	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.001

Link Label	Average Intensity (mm/h)	Init. Loss		Cont. Loss		Excess Rain		Peak Inflow (m ³ /s)	Time to Peak	Link Lag mins
		#1	#2	#1	#2	#1	#2			
West	90.420	2.500	25.00	.5000	2.500	87.445	63.504	1.268	45.00	0.000
East	90.420	2.500	25.00	.5000	2.500	87.445	63.504	0.1518	43.00	0.000
Output	90.420	2.500	0.000	.5000	0.000	87.445	0.000	1.418	45.00	0.000

LINK West 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 5.157
 ESTIMATED PEAK FLOW (CUMECS) = 1.28
 ESTIMATED TIME TO PEAK (MINS) = 52.00

LINK East 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.5290
 ESTIMATED PEAK FLOW (CUMECS) = 0.15
 ESTIMATED TIME TO PEAK (MINS) = 44.00

LINK Output 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 5.686
 ESTIMATED PEAK FLOW (CUMECS) = 1.42
 ESTIMATED TIME TO PEAK (MINS) = 52.00

 Sector 8 - Existing

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

#####

ROUTING INCREMENT (MINS) = 1.00
 STORM DURATION (MINS) = 90.
 RETURN PERIOD (YRS) = 100.
 BX = 1.0000
 TOTAL OF FIRST SUB-AREAS (km2) = 0.36
 TOTAL OF SECOND SUB-AREAS (km2) = 6.82
 TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
West	0.3260	6.180	3.800	3.800	99.00	0.000	.015	.070	.0004	.0757	1.000
East	0.0300	0.6400	2.000	2.000	99.00	0.000	.015	.070	.0002	.0321	2.000
Output	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.001

Link Label	Average Intensity (mm/h)	Init. Loss (mm)		Cont. Loss (mm/h)		Excess Rain (mm)		Peak Inflow (m ³ /s)	Time to Peak	Link Lag mins
		#1	#2	#1	#2	#1	#2			
West	71.034	2.500	25.00	.5000	2.500	103.33	78.427	1.283	52.00	0.000
East	71.034	2.500	25.00	.5000	2.500	103.33	78.427	0.1516	44.00	0.000
Output	71.034	2.500	0.000	.5000	0.000	103.33	0.000	1.419	52.00	0.000

LINK West 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 5.908
ESTIMATED PEAK FLOW (CUMECS) = 1.34
ESTIMATED TIME TO PEAK (MINS) = 60.00

LINK East 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.6112
ESTIMATED PEAK FLOW (CUMECS) = 0.16
ESTIMATED TIME TO PEAK (MINS) = 51.00

LINK Output 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 6.519
ESTIMATED PEAK FLOW (CUMECS) = 1.48
ESTIMATED TIME TO PEAK (MINS) = 59.00

Sector 8 - Existing

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

#####

ROUTING INCREMENT (MINS) = 1.00
STORM DURATION (MINS) = 120.
RETURN PERIOD (YRS) = 100.
BX = 1.0000
TOTAL OF FIRST SUB-AREAS (km2) = 0.36
TOTAL OF SECOND SUB-AREAS (km2) = 6.82
TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area (ha)		Slope (%)		% Impervious (%)		Pern		B		Link No.
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
West	0.3260	6.180	3.800	3.800	99.00	0.000	.015	.070	.0004	.0757	1.000
East	0.0300	0.6400	2.000	2.000	99.00	0.000	.015	.070	.0002	.0321	2.000
Output	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.001

Link Label	Average Intensity (mm/h)	Init. Loss (mm)		Cont. Loss (mm/h)		Excess Rain (mm)		Peak Inflow (m ³ /s)	Time to Peak	Link Lag mins
		#1	#2	#1	#2	#1	#2			
West	59.646	2.500	25.00	.5000	2.500	115.82	90.208	1.341	60.00	0.000
East	59.646	2.500	25.00	.5000	2.500	115.82	90.208	0.1584	51.00	0.000
Output	59.646	2.500	0.000	.5000	0.000	115.82	0.000	1.484	59.00	0.000

LINK West 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 7.053
ESTIMATED PEAK FLOW (CUMECS) = 1.16
ESTIMATED TIME TO PEAK (MINS) = 73.00

LINK East 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.7274
ESTIMATED PEAK FLOW (CUMECS) = 0.12
ESTIMATED TIME TO PEAK (MINS) = 54.00

LINK Output 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 7.781
ESTIMATED PEAK FLOW (CUMECS) = 1.28
ESTIMATED TIME TO PEAK (MINS) = 73.00

Sector 8 - Existing

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

#####

ROUTING INCREMENT (MINS) = 1.00
 STORM DURATION (MINS) = 180.
 RETURN PERIOD (YRS) = 100.
 BX = 1.0000
 TOTAL OF FIRST SUB-AREAS (km2) = 0.36
 TOTAL OF SECOND SUB-AREAS (km2) = 6.82
 TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
West	0.3260	6.180	3.800	3.800	99.00	0.000	.015	.070	.0004	.0757	1.000
East	0.0300	0.6400	2.000	2.000	99.00	0.000	.015	.070	.0002	.0321	2.000
Output	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.001

Link Label	Average Intensity (mm/h)	Init. Loss		Cont. Loss		Excess Rain		Peak Inflow (m ³ /s)	Time to Peak	Link Lag
		#1	#2	#1	#2	#1	#2			
West	46.494	2.500	25.00	.5000	2.500	135.52	108.02	1.163	73.00	0.000
East	46.494	2.500	25.00	.5000	2.500	135.52	108.02	0.1245	54.00	0.000
Output	46.494	2.500	0.000	.5000	0.000	135.52	0.000	1.281	73.00	0.000

LINK West 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 8.137
 ESTIMATED PEAK FLOW (CUMECS) = 1.38
 ESTIMATED TIME TO PEAK (MINS) = 90.00

LINK East 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.8461
 ESTIMATED PEAK FLOW (CUMECS) = 0.16
 ESTIMATED TIME TO PEAK (MINS) = 90.00

LINK Output 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 8.983
 ESTIMATED PEAK FLOW (CUMECS) = 1.54
 ESTIMATED TIME TO PEAK (MINS) = 90.00

 Sector 8 - Existing

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

#####

ROUTING INCREMENT (MINS) = 1.00
 STORM DURATION (MINS) = 270.
 RETURN PERIOD (YRS) = 100.
 BX = 1.0000
 TOTAL OF FIRST SUB-AREAS (km2) = 0.36
 TOTAL OF SECOND SUB-AREAS (km2) = 6.82
 TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
West	0.3260	6.180	3.800	3.800	99.00	0.000	.015	.070	.0004	.0757	1.000
East	0.0300	0.6400	2.000	2.000	99.00	0.000	.015	.070	.0002	.0321	2.000
Output	.00001	0.000	.0010	0.000	0.000	0.000	.025	0.00	.0021	0.000	1.001

Link Label	Average Intensity (mm/h)	Init. Loss		Cont. Loss		Excess Rain		Peak Inflow (m ³ /s)	Time to Peak	Link Lag
		#1	#2	#1	#2	#1	#2			
West	36.201	2.500	25.00	.5000	2.500	158.27	128.40	1.383	90.00	0.000
East	36.201	2.500	25.00	.5000	2.500	158.27	128.40	0.1570	90.00	0.000
Output	36.201	2.500	0.000	.5000	0.000	158.27	0.000	1.540	90.00	0.000

LINK West 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 9.493
 ESTIMATED PEAK FLOW (CUMECS) = 1.21
 ESTIMATED TIME TO PEAK (MINS) = 127.00

LINK East 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.9780
 ESTIMATED PEAK FLOW (CUMECS) = 0.14
 ESTIMATED TIME TO PEAK (MINS) = 120.00

LINK Output 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 10.47
ESTIMATED PEAK FLOW (CUMECS) = 1.34
ESTIMATED TIME TO PEAK (MINS) = 126.00

#####
Sector 8 - Existing

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

#####

ROUTING INCREMENT (MINS) = 1.00
STORM DURATION (MINS) = 360.
RETURN PERIOD (YRS) = 100.
BX = 1.0000
TOTAL OF FIRST SUB-AREAS (km2) = 0.36
TOTAL OF SECOND SUB-AREAS (km2) = 6.82
TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Table with columns: Link Label, Catch. Area #1 #2, Slope #1 #2, % Impervious #1 #2, Pern #1 #2, B #1 #2, Link No. Rows: West, East, Output

Table with columns: Link Label, Average Intensity, Init. Loss #1 #2, Cont. Loss #1 #2, Excess Rain #1 #2, Peak Inflow, Time to Peak, Link Lag. Rows: West, East, Output

LINK West 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 10.95
ESTIMATED PEAK FLOW (CUMECS) = 1.09
ESTIMATED TIME TO PEAK (MINS) = 311.00

LINK East 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 1.131
ESTIMATED PEAK FLOW (CUMECS) = 0.12
ESTIMATED TIME TO PEAK (MINS) = 300.00

LINK Output 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 12.08
ESTIMATED PEAK FLOW (CUMECS) = 1.21
ESTIMATED TIME TO PEAK (MINS) = 309.00

#####
Sector 8 - Existing

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

#####

ROUTING INCREMENT (MINS) = 1.00
STORM DURATION (MINS) = 540.
RETURN PERIOD (YRS) = 100.
BX = 1.0000
TOTAL OF FIRST SUB-AREAS (km2) = 0.36
TOTAL OF SECOND SUB-AREAS (km2) = 6.82
TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Table with columns: Link Label, Catch. Area #1 #2, Slope #1 #2, % Impervious #1 #2, Pern #1 #2, B #1 #2, Link No. Rows: West, East, Output

Table with columns: Link Label, Average Intensity, Init. Loss #1 #2, Cont. Loss #1 #2, Excess Rain #1 #2, Peak Inflow, Time to Peak, Link Lag. Rows: West, East, Output

West	23.631	2.500	25.00	.5000	2.500	205.79	168.51	1.093	311.0	0.000
East	23.631	2.500	25.00	.5000	2.500	205.79	168.51	0.1211	300.0	0.000
Output	23.631	2.500	0.000	.5000	0.000	205.79	0.000	1.209	309.0	0.000

Run completed at: 16th May 2003 12:06:58

Run started at: 16th May 2003 10:10:44

RUNTIME RESULTS
#####

Max. no. of links allowed = 2000
Max. no. of routing 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 West-M 1.000
ESTIMATED VOLUME (CU METRES*10**3) = 2.612
ESTIMATED PEAK FLOW (CUMECS) = 0.91
ESTIMATED TIME TO PEAK (MINS) = 40.00

LINK East-M 2.000
ESTIMATED VOLUME (CU METRES*10**3) = 0.2579
ESTIMATED PEAK FLOW (CUMECS) = 0.07
ESTIMATED TIME TO PEAK (MINS) = 45.00

LINK Macpherson 1.001
ESTIMATED VOLUME (CU METRES*10**3) = 2.869
ESTIMATED PEAK FLOW (CUMECS) = 0.97
ESTIMATED TIME TO PEAK (MINS) = 40.00

LINK West-Ck 3.000
ESTIMATED VOLUME (CU METRES*10**3) = 0.8572
ESTIMATED PEAK FLOW (CUMECS) = 0.37
ESTIMATED TIME TO PEAK (MINS) = 36.00

LINK East-Ck 4.000
ESTIMATED VOLUME (CU METRES*10**3) = 0.9672E-01
ESTIMATED PEAK FLOW (CUMECS) = 0.05
ESTIMATED TIME TO PEAK (MINS) = 33.00

LINK Creek 3.001
ESTIMATED VOLUME (CU METRES*10**3) = 0.9539
ESTIMATED PEAK FLOW (CUMECS) = 0.41
ESTIMATED TIME TO PEAK (MINS) = 36.00

LINK Output 1.002
ESTIMATED VOLUME (CU METRES*10**3) = 3.823
ESTIMATED PEAK FLOW (CUMECS) = 1.38
ESTIMATED TIME TO PEAK (MINS) = 40.00

Sector 8 - Existing
#####

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

#####

ROUTING INCREMENT (MINS) = 1.00
STORM DURATION (MINS) = 45.
RETURN PERIOD (YRS) = 100.
BX = 1.0000
TOTAL OF FIRST SUB-AREAS (km2) = 0.36
TOTAL OF SECOND SUB-AREAS (km2) = 6.82
TOTAL OF ALL SUB-AREAS (km2) = 7.18

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
West-M	0.2500	4.660	4.000	4.000	99.00	0.000	.015	.070	.0004	.0637	1.000
East-M	0.0200	0.4700	1.000	1.000	99.00	0.000	.015	.070	.0002	.0386	2.000
Macpherson	0.0001	0.000	1.000	0.000	0.000	0.000	.070	0.00	.0001	0.000	1.001
West-Ck	0.0800	1.520	4.500	4.500	99.00	0.000	.015	.070	.0002	.0336	3.000
East-Ck	0.0100	0.1700	3.100	3.100	99.00	0.000	.015	.070	0.000	.0129	4.000
Creek	.00001	0.000	1.000	0.000	0.000	0.000	.070	0.00	.0001	0.000	3.001
Output	.00001	0.000	1.000	0.000	0.000	0.000	.070	0.00	.0001	0.000	1.002

Link Label	Average Intensity (mm/h)	Init. Loss		Cont. Loss		Excess Rain		Peak Inflow (m ³ /s)	Time to Peak	Link Lag
		#1	#2	#1	#2	#1	#2			
West-M	104.68	2.500	25.00	.5000	2.500	75.658	52.133	0.9097	40.00	0.000
East-M	104.68	2.500	25.00	.5000	2.500	75.658	52.133	0.0686	45.00	0.000
Macpherson	104.68	25.00	0.000	2.500	0.000	52.133	0.000	0.9746	40.00	0.000
West-Ck	104.68	2.500	25.00	.5000	2.500	75.658	52.133	0.3657	36.00	0.000
East-Ck	104.68	2.500	25.00	.5000	2.500	75.658	52.133	0.0470	33.00	0.000
Creek	104.68	25.00	0.000	2.500	0.000	52.133	0.000	0.4115	36.00	0.000
Output	104.68	25.00	0.000	2.500	0.000	52.133	0.000	1.377	40.00	0.000

LINK West-M 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 3.176
ESTIMATED PEAK FLOW (CUMECS) = 1.05
ESTIMATED TIME TO PEAK (MINS) = 45.00

LINK East-M 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.3131
ESTIMATED PEAK FLOW (CUMECS) = 0.08
ESTIMATED TIME TO PEAK (MINS) = 49.00

LINK Macpherson 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 3.489
ESTIMATED PEAK FLOW (CUMECS) = 1.13
ESTIMATED TIME TO PEAK (MINS) = 45.00

LINK West-Ck 3.000

ESTIMATED VOLUME (CU METRES*10**3) = 1.031
ESTIMATED PEAK FLOW (CUMECS) = 0.42
ESTIMATED TIME TO PEAK (MINS) = 38.00

LINK East-Ck 4.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.1174
ESTIMATED PEAK FLOW (CUMECS) = 0.06
ESTIMATED TIME TO PEAK (MINS) = 35.00

LINK Creek 3.001

ESTIMATED VOLUME (CU METRES*10**3) = 1.149
ESTIMATED PEAK FLOW (CUMECS) = 0.47
ESTIMATED TIME TO PEAK (MINS) = 38.00

LINK Output 1.002

ESTIMATED VOLUME (CU METRES*10**3) = 4.638
ESTIMATED PEAK FLOW (CUMECS) = 1.56
ESTIMATED TIME TO PEAK (MINS) = 43.00

Sector 8 - Existing

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

#####

ROUTING INCREMENT (MINS) = 1.00
STORM DURATION (MINS) = 60.
RETURN PERIOD (YRS) = 100.
BX = 1.0000
TOTAL OF FIRST SUB-AREAS (km2) = 0.36
TOTAL OF SECOND SUB-AREAS (km2) = 6.82
TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
West-M	0.2500	4.660	4.000	4.000	99.00	0.000	.015	.070	.0004	.0637	1.000
East-M	0.0200	0.4700	1.000	1.000	99.00	0.000	.015	.070	.0002	.0386	2.000
Macpherson	0.0001	0.000	1.000	0.000	0.000	0.000	.070	0.00	.0001	0.000	1.001

West-Ck	0.0800	1.520	4.500	4.500	99.00	0.000	.015	.070	.0002	.0336	3.000
East-Ck	0.0100	0.1700	3.100	3.100	99.00	0.000	.015	.070	0.000	.0129	4.000
Creek	.00001	0.000	1.000	0.000	0.000	0.000	.070	0.000	.0001	0.000	3.001
Output	.00001	0.000	1.000	0.000	0.000	0.000	.070	0.000	.0001	0.000	1.002

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
West-M	90.420	2.500	25.00	.5000	2.500	87.445	63.504	1.045	45.00	0.000
East-M	90.420	2.500	25.00	.5000	2.500	87.445	63.504	0.0823	49.00	0.000
Macpherson	90.420	25.00	0.000	2.500	0.000	63.504	0.000	1.126	45.00	0.000
West-Ck	90.420	2.500	25.00	.5000	2.500	87.445	63.504	0.4200	38.00	0.000
East-Ck	90.420	2.500	25.00	.5000	2.500	87.445	63.504	0.0565	35.00	0.000
Creek	90.420	25.00	0.000	2.500	0.000	63.504	0.000	0.4733	38.00	0.000
Output	90.420	25.00	0.000	2.500	0.000	63.504	0.000	1.557	43.00	0.000

LINK West-M 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 3.916
 ESTIMATED PEAK FLOW (CUMECS) = 1.05
 ESTIMATED TIME TO PEAK (MINS) = 45.00

LINK East-M 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.3872
 ESTIMATED PEAK FLOW (CUMECS) = 0.09
 ESTIMATED TIME TO PEAK (MINS) = 55.00

LINK Macpherson 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 4.303
 ESTIMATED PEAK FLOW (CUMECS) = 1.13
 ESTIMATED TIME TO PEAK (MINS) = 45.00

LINK West-Ck 3.000

ESTIMATED VOLUME (CU METRES*10**3) = 1.277
 ESTIMATED PEAK FLOW (CUMECS) = 0.43
 ESTIMATED TIME TO PEAK (MINS) = 40.00

LINK East-Ck 4.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.1431
 ESTIMATED PEAK FLOW (CUMECS) = 0.06
 ESTIMATED TIME TO PEAK (MINS) = 36.00

LINK Creek 3.001

ESTIMATED VOLUME (CU METRES*10**3) = 1.420
 ESTIMATED PEAK FLOW (CUMECS) = 0.48
 ESTIMATED TIME TO PEAK (MINS) = 40.00

LINK Output 1.002

ESTIMATED VOLUME (CU METRES*10**3) = 5.723
 ESTIMATED PEAK FLOW (CUMECS) = 1.57
 ESTIMATED TIME TO PEAK (MINS) = 44.00

 Sector 8 - Existing

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

#####

ROUTING INCREMENT (MINS) = 1.00
 STORM DURATION (MINS) = 90.
 RETURN PERIOD (YRS) = 100.
 BX = 1.0000
 TOTAL OF FIRST SUB-AREAS (km2) = 0.36
 TOTAL OF SECOND SUB-AREAS (km2) = 6.82
 TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1 (ha)	#2	#1 (%)	#2 (%)	#1 (%)	#2 (%)	#1	#2	#1	#2	
West-M	0.2500	4.660	4.000	4.000	99.00	0.000	.015	.070	.0004	.0637	1.000
East-M	0.0200	0.4700	1.000	1.000	99.00	0.000	.015	.070	.0002	.0386	2.000
Macpherson	.00001	0.000	1.000	0.000	0.000	0.000	.070	0.000	.0001	0.000	1.001
West-Ck	0.0800	1.520	4.500	4.500	99.00	0.000	.015	.070	.0002	.0336	3.000
East-Ck	0.0100	0.1700	3.100	3.100	99.00	0.000	.015	.070	0.000	.0129	4.000
Creek	.00001	0.000	1.000	0.000	0.000	0.000	.070	0.000	.0001	0.000	3.001
Output	.00001	0.000	1.000	0.000	0.000	0.000	.070	0.000	.0001	0.000	1.002

Link Label	Average Intensity (mm/h)	Init. Loss		Cont. Loss		Excess Rain		Peak Inflow (m ³ /s)	Time to Peak	Link Lag mins
		#1 (mm)	#2 (mm)	#1 (mm/h)	#2 (mm/h)	#1 (mm)	#2 (mm)			
West-M	71.034	2.500	25.00	.5000	2.500	103.33	78.427	1.052	45.00	0.000
East-M	71.034	2.500	25.00	.5000	2.500	103.33	78.427	0.0880	55.00	0.000
Macpherson	71.034	25.00	0.000	2.500	0.000	78.427	0.000	1.131	45.00	0.000
West-Ck	71.034	2.500	25.00	.5000	2.500	103.33	78.427	0.4270	40.00	0.000
East-Ck	71.034	2.500	25.00	.5000	2.500	103.33	78.427	0.0554	36.00	0.000
Creek	71.034	25.00	0.000	2.500	0.000	78.427	0.000	0.4801	40.00	0.000
Output	71.034	25.00	0.000	2.500	0.000	78.427	0.000	1.575	44.00	0.000

LINK West-M 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 4.463
 ESTIMATED PEAK FLOW (CUMECS) = 1.06
 ESTIMATED TIME TO PEAK (MINS) = 57.00

LINK East-M 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.4457
 ESTIMATED PEAK FLOW (CUMECS) = 0.09
 ESTIMATED TIME TO PEAK (MINS) = 64.00

LINK Macpherson 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 4.909
 ESTIMATED PEAK FLOW (CUMECS) = 1.15
 ESTIMATED TIME TO PEAK (MINS) = 57.00

LINK West-Ck 3.000

ESTIMATED VOLUME (CU METRES*10**3) = 1.455
 ESTIMATED PEAK FLOW (CUMECS) = 0.45
 ESTIMATED TIME TO PEAK (MINS) = 45.00

LINK East-Ck 4.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.1655
 ESTIMATED PEAK FLOW (CUMECS) = 0.06
 ESTIMATED TIME TO PEAK (MINS) = 43.00

LINK Creek 3.001

ESTIMATED VOLUME (CU METRES*10**3) = 1.620
 ESTIMATED PEAK FLOW (CUMECS) = 0.51
 ESTIMATED TIME TO PEAK (MINS) = 45.00

LINK Output 1.002

ESTIMATED VOLUME (CU METRES*10**3) = 6.529
 ESTIMATED PEAK FLOW (CUMECS) = 1.60
 ESTIMATED TIME TO PEAK (MINS) = 49.00

 Sector 8 - Existing

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

#####

ROUTING INCREMENT (MINS) = 1.00
 STORM DURATION (MINS) = 120.
 RETURN PERIOD (YRS) = 100.
 BX = 1.0000
 TOTAL OF FIRST SUB-AREAS (km2) = 0.36
 TOTAL OF SECOND SUB-AREAS (km2) = 6.82
 TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1 (ha)	#2 (ha)	#1 (%)	#2 (%)	#1 (%)	#2 (%)	#1	#2	#1	#2	
West-M	0.2500	4.660	4.000	4.000	99.00	0.000	.015	.070	.0004	.0637	1.000
East-M	0.0200	0.4700	1.000	1.000	99.00	0.000	.015	.070	.0002	.0386	2.000
Macpherson	.00001	0.000	1.000	0.000	0.000	0.000	.070	0.00	.0001	0.000	1.001
West-Ck	0.0800	1.520	4.500	4.500	99.00	0.000	.015	.070	.0002	.0336	3.000
East-Ck	0.0100	0.1700	3.100	3.100	99.00	0.000	.015	.070	0.000	.0129	4.000
Creek	.00001	0.000	1.000	0.000	0.000	0.000	.070	0.00	.0001	0.000	3.001
Output	.00001	0.000	1.000	0.000	0.000	0.000	.070	0.00	.0001	0.000	1.002

Link Label	Average Intensity (mm/h)	Init. Loss		Cont. Loss		Excess Rain		Peak Inflow (m ³ /s)	Time to Peak	Link Lag mins
		#1 (mm)	#2 (mm)	#1 (mm/h)	#2 (mm/h)	#1 (mm)	#2 (mm)			
West-M	59.646	2.500	25.00	.5000	2.500	115.82	90.208	1.065	57.00	0.000
East-M	59.646	2.500	25.00	.5000	2.500	115.82	90.208	0.0934	64.00	0.000
Macpherson	59.646	25.00	0.000	2.500	0.000	90.208	0.000	1.154	57.00	0.000

West-Ck	59.646	2.500	25.00	.5000	2.500	115.82	90.208	0.4534	45.00	0.000
East-Ck	59.646	2.500	25.00	.5000	2.500	115.82	90.208	0.0618	43.00	0.000
Creek	59.646	25.00	0.000	2.500	0.000	90.208	0.000	0.5142	45.00	0.000
Output	59.646	25.00	0.000	2.500	0.000	90.208	0.000	1.595	49.00	0.000

LINK West-M 1.000

ESTIMATED VOLUME (CU METRES*10**3) = 5.340
 ESTIMATED PEAK FLOW (CUMECS) = 0.90
 ESTIMATED TIME TO PEAK (MINS) = 67.00

LINK East-M 2.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.5276
 ESTIMATED PEAK FLOW (CUMECS) = 0.08
 ESTIMATED TIME TO PEAK (MINS) = 75.00

LINK Macpherson 1.001

ESTIMATED VOLUME (CU METRES*10**3) = 5.868
 ESTIMATED PEAK FLOW (CUMECS) = 0.97
 ESTIMATED TIME TO PEAK (MINS) = 68.00

LINK West-Ck 3.000

ESTIMATED VOLUME (CU METRES*10**3) = 1.745
 ESTIMATED PEAK FLOW (CUMECS) = 0.34
 ESTIMATED TIME TO PEAK (MINS) = 52.00

LINK East-Ck 4.000

ESTIMATED VOLUME (CU METRES*10**3) = 0.1972
 ESTIMATED PEAK FLOW (CUMECS) = 0.05
 ESTIMATED TIME TO PEAK (MINS) = 45.00

LINK Creek 3.001

ESTIMATED VOLUME (CU METRES*10**3) = 1.942
 ESTIMATED PEAK FLOW (CUMECS) = 0.38
 ESTIMATED TIME TO PEAK (MINS) = 50.00

LINK Output 1.002

ESTIMATED VOLUME (CU METRES*10**3) = 7.810
 ESTIMATED PEAK FLOW (CUMECS) = 1.30
 ESTIMATED TIME TO PEAK (MINS) = 65.00

 Sector 8 - Existing

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

#####

ROUTING INCREMENT (MINS) = 1.00
 STORM DURATION (MINS) = 180.
 RETURN PERIOD (YRS) = 100.
 BX = 1.0000
 TOTAL OF FIRST SUB-AREAS (km2) = 0.36
 TOTAL OF SECOND SUB-AREAS (km2) = 6.82
 TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
	(ha)		(%)		(%)						
West-M	0.2500	4.660	4.000	4.000	99.00	0.000	.015	.070	.0004	.0637	1.000
East-M	0.0200	0.4700	1.000	1.000	99.00	0.000	.015	.070	.0002	.0386	2.000
Macpherson	.00001	0.000	1.000	0.000	0.000	0.000	.070	0.00	.0001	0.000	1.001
West-Ck	0.0800	1.520	4.500	4.500	99.00	0.000	.015	.070	.0002	.0336	3.000
East-Ck	0.0100	0.1700	3.100	3.100	99.00	0.000	.015	.070	0.000	.0129	4.000
Creek	.00001	0.000	1.000	0.000	0.000	0.000	.070	0.00	.0001	0.000	3.001
Output	.00001	0.000	1.000	0.000	0.000	0.000	.070	0.00	.0001	0.000	1.002

Link Label	Average Intensity (mm/h)	Init. Loss		Cont. Loss		Excess Rain		Peak Inflow (m^3/s)	Time to Peak	Link Lag
		#1	#2	#1	#2	#1	#2			
		(mm)		(mm/h)		(mm)		mins		
West-M	46.494	2.500	25.00	.5000	2.500	135.52	108.02	0.8955	67.00	0.000
East-M	46.494	2.500	25.00	.5000	2.500	135.52	108.02	0.0849	75.00	0.000
Macpherson	46.494	25.00	0.000	2.500	0.000	108.02	0.000	0.9735	68.00	0.000
West-Ck	46.494	2.500	25.00	.5000	2.500	135.52	108.02	0.3399	52.00	0.000
East-Ck	46.494	2.500	25.00	.5000	2.500	135.52	108.02	0.0467	45.00	0.000
Creek	46.494	25.00	0.000	2.500	0.000	108.02	0.000	0.3830	50.00	0.000
Output	46.494	25.00	0.000	2.500	0.000	108.02	0.000	1.300	65.00	0.000

LINK West-M 1.000
 ESTIMATED VOLUME (CU METRES*10**3) = 6.172
 ESTIMATED PEAK FLOW (CUMECS) = 1.11
 ESTIMATED TIME TO PEAK (MINS) = 90.00

LINK East-M 2.000
 ESTIMATED VOLUME (CU METRES*10**3) = 0.6069
 ESTIMATED PEAK FLOW (CUMECS) = 0.10
 ESTIMATED TIME TO PEAK (MINS) = 90.00

LINK Macpherson 1.001
 ESTIMATED VOLUME (CU METRES*10**3) = 6.779
 ESTIMATED PEAK FLOW (CUMECS) = 1.21
 ESTIMATED TIME TO PEAK (MINS) = 90.00

LINK West-Ck 3.000
 ESTIMATED VOLUME (CU METRES*10**3) = 2.042
 ESTIMATED PEAK FLOW (CUMECS) = 0.40
 ESTIMATED TIME TO PEAK (MINS) = 87.00

LINK East-Ck 4.000
 ESTIMATED VOLUME (CU METRES*10**3) = 0.2321
 ESTIMATED PEAK FLOW (CUMECS) = 0.05
 ESTIMATED TIME TO PEAK (MINS) = 81.00

LINK Creek 3.001
 ESTIMATED VOLUME (CU METRES*10**3) = 2.274
 ESTIMATED PEAK FLOW (CUMECS) = 0.44
 ESTIMATED TIME TO PEAK (MINS) = 86.00

LINK Output 1.002
 ESTIMATED VOLUME (CU METRES*10**3) = 9.053
 ESTIMATED PEAK FLOW (CUMECS) = 1.65
 ESTIMATED TIME TO PEAK (MINS) = 90.00

 Sector 8 - Existing

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

#####

ROUTING INCREMENT (MINS) = 1.00
 STORM DURATION (MINS) = 270.
 RETURN PERIOD (YRS) = 100.
 BX = 1.0000
 TOTAL OF FIRST SUB-AREAS (km2) = 0.36
 TOTAL OF SECOND SUB-AREAS (km2) = 6.82
 TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
West-M	0.2500	4.660	4.000	4.000	99.00	0.000	.015	.070	.0004	.0637	1.000
East-M	0.0200	0.4700	1.000	1.000	99.00	0.000	.015	.070	.0002	.0386	2.000
Macpherson	.00001	0.000	1.000	0.000	0.000	0.000	.070	0.00	.0001	0.000	1.001
West-Ck	0.0800	1.520	4.500	4.500	99.00	0.000	.015	.070	.0002	.0336	3.000
East-Ck	0.0100	0.1700	3.100	3.100	99.00	0.000	.015	.070	0.000	.0129	4.000
Creek	.00001	0.000	1.000	0.000	0.000	0.000	.070	0.00	.0001	0.000	3.001
Output	.00001	0.000	1.000	0.000	0.000	0.000	.070	0.00	.0001	0.000	1.002

Link Label	Average Intensity (mm/h)	Init. Loss		Cont. Loss		Excess Rain		Peak Inflow (m ³ /s)	Time to Peak	Link Lag mins
		#1	#2	#1	#2	#1	#2			
West-M	36.201	2.500	25.00	.5000	2.500	158.27	128.40	1.112	90.00	0.000
East-M	36.201	2.500	25.00	.5000	2.500	158.27	128.40	0.0973	90.00	0.000
Macpherson	36.201	25.00	0.000	2.500	0.000	128.40	0.000	1.209	90.00	0.000
West-Ck	36.201	2.500	25.00	.5000	2.500	158.27	128.40	0.3963	87.00	0.000
East-Ck	36.201	2.500	25.00	.5000	2.500	158.27	128.40	0.0471	81.00	0.000
Creek	36.201	25.00	0.000	2.500	0.000	128.40	0.000	0.4422	86.00	0.000
Output	36.201	25.00	0.000	2.500	0.000	128.40	0.000	1.648	90.00	0.000

LINK West-M 1.000
 ESTIMATED VOLUME (CU METRES*10**3) = 7.166
 ESTIMATED PEAK FLOW (CUMECS) = 0.96
 ESTIMATED TIME TO PEAK (MINS) = 120.00

LINK East-M 2.000
 ESTIMATED VOLUME (CU METRES*10**3) = 0.7131
 ESTIMATED PEAK FLOW (CUMECS) = 0.08
 ESTIMATED TIME TO PEAK (MINS) = 132.00

LINK Macpherson 1.001
 ESTIMATED VOLUME (CU METRES*10**3) = 7.879
 ESTIMATED PEAK FLOW (CUMECS) = 1.04
 ESTIMATED TIME TO PEAK (MINS) = 120.00

LINK West-Ck 3.000
 ESTIMATED VOLUME (CU METRES*10**3) = 2.339
 ESTIMATED PEAK FLOW (CUMECS) = 0.35
 ESTIMATED TIME TO PEAK (MINS) = 120.00

LINK East-Ck 4.000
 ESTIMATED VOLUME (CU METRES*10**3) = 0.2634
 ESTIMATED PEAK FLOW (CUMECS) = 0.04
 ESTIMATED TIME TO PEAK (MINS) = 120.00

LINK Creek 3.001
 ESTIMATED VOLUME (CU METRES*10**3) = 2.602
 ESTIMATED PEAK FLOW (CUMECS) = 0.39
 ESTIMATED TIME TO PEAK (MINS) = 120.00

LINK Output 1.002
 ESTIMATED VOLUME (CU METRES*10**3) = 10.48
 ESTIMATED PEAK FLOW (CUMECS) = 1.43
 ESTIMATED TIME TO PEAK (MINS) = 120.00

 Sector 8 - Existing

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) = 0.36
 TOTAL OF SECOND SUB-AREAS (km2) = 6.82
 TOTAL OF ALL SUB-AREAS (km2) = 7.18

SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
West-M	0.2500	4.660	4.000	4.000	99.00	0.000	.015	.070	.0004	.0637	1.000
East-M	0.0200	0.4700	1.000	1.000	99.00	0.000	.015	.070	.0002	.0386	2.000
Macpherson	.00001	0.000	1.000	0.000	0.000	0.000	.070	0.00	.0001	0.000	1.001
West-Ck	0.0800	1.520	4.500	4.500	99.00	0.000	.015	.070	.0002	.0336	3.000
East-Ck	0.0100	0.1700	3.100	3.100	99.00	0.000	.015	.070	0.000	.0129	4.000
Creek	.00001	0.000	1.000	0.000	0.000	0.000	.070	0.00	.0001	0.000	3.001
Output	.00001	0.000	1.000	0.000	0.000	0.000	.070	0.00	.0001	0.000	1.002

Link Label	Average Intensity (mm/h)	Init. Loss (mm)		Cont. Loss (mm/h)		Excess Rain (mm)		Peak Inflow (m^3/s)	Time to Peak	Link Lag mins
		#1	#2	#1	#2	#1	#2			
West-M	30.317	2.500	25.00	.5000	2.500	176.49	144.57	0.9612	120.0	0.000
East-M	30.317	2.500	25.00	.5000	2.500	176.49	144.57	0.0848	132.0	0.000
Macpherson	30.317	25.00	0.000	2.500	0.000	144.57	0.000	1.040	120.0	0.000
West-Ck	30.317	2.500	25.00	.5000	2.500	176.49	144.57	0.3482	120.0	0.000
East-Ck	30.317	2.500	25.00	.5000	2.500	176.49	144.57	0.0405	120.0	0.000
Creek	30.317	25.00	0.000	2.500	0.000	144.57	0.000	0.3887	120.0	0.000
Output	30.317	25.00	0.000	2.500	0.000	144.57	0.000	1.429	120.0	0.000

LINK West-M 1.000
 ESTIMATED VOLUME (CU METRES*10**3) = 8.282
 ESTIMATED PEAK FLOW (CUMECS) = 0.84
 ESTIMATED TIME TO PEAK (MINS) = 307.00

LINK East-M 2.000
 ESTIMATED VOLUME (CU METRES*10**3) = 0.8214
 ESTIMATED PEAK FLOW (CUMECS) = 0.08
 ESTIMATED TIME TO PEAK (MINS) = 320.00


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LINK Macpherson          1.001
ESTIMATED VOLUME (CU METRES*10**3) =          9.104
ESTIMATED PEAK FLOW      (CUMECS) =           0.92
ESTIMATED TIME TO PEAK   (MINS) =           308.00

LINK West-Ck             3.000
ESTIMATED VOLUME (CU METRES*10**3) =          2.711
ESTIMATED PEAK FLOW      (CUMECS) =           0.30
ESTIMATED TIME TO PEAK   (MINS) =           300.00

LINK East-Ck             4.000
ESTIMATED VOLUME (CU METRES*10**3) =          0.3063
ESTIMATED PEAK FLOW      (CUMECS) =           0.04
ESTIMATED TIME TO PEAK   (MINS) =           300.00

LINK Creek               3.001
ESTIMATED VOLUME (CU METRES*10**3) =          3.018
ESTIMATED PEAK FLOW      (CUMECS) =           0.34
ESTIMATED TIME TO PEAK   (MINS) =           300.00

LINK Output              1.002
ESTIMATED VOLUME (CU METRES*10**3) =          12.12
ESTIMATED PEAK FLOW      (CUMECS) =           1.25
ESTIMATED TIME TO PEAK   (MINS) =           300.00

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Sector 8 - Existing

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)   =          540.
RETURN PERIOD (YRS)     =          100.
BX                       =          1.0000
TOTAL OF FIRST SUB-AREAS (km2) =          0.36
TOTAL OF SECOND SUB-AREAS (km2) =          6.82
TOTAL OF ALL SUB-AREAS (km2) =          7.18

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SUMMARY OF CATCHMENT AND RAINFALL DATA

Link Label	Catch. Area		Slope		% Impervious		Pern		B		Link No.
	#1	#2	#1	#2	#1	#2	#1	#2	#1	#2	
	(ha)		(%)		(%)						
West-M	0.2500	4.660	4.000	4.000	99.00	0.000	.015	.070	.0004	.0637	1.000
East-M	0.0200	0.4700	1.000	1.000	99.00	0.000	.015	.070	.0002	.0386	2.000
Macpherson	0.0001	0.000	1.000	0.000	0.000	0.000	.070	0.00	.0001	0.000	1.001
West-Ck	0.0800	1.520	4.500	4.500	99.00	0.000	.015	.070	.0002	.0336	3.000
East-Ck	0.0100	0.1700	3.100	3.100	99.00	0.000	.015	.070	0.000	.0129	4.000
Creek	.00001	0.000	1.000	0.000	0.000	0.000	.070	0.00	.0001	0.000	3.001
Output	.00001	0.000	1.000	0.000	0.000	0.000	.070	0.00	.0001	0.000	1.002

Link Label	Average Intensity (mm/h)	Init. Loss		Cont. Loss		Excess Rain		Peak Inflow (m ³ /s)	Time to Peak	Link Lag mins
		#1	#2	#1	#2	#1	#2			
		(mm)		(mm/h)		(mm)				
West-M	23.631	2.500	25.00	.5000	2.500	205.79	168.51	0.8447	307.0	0.000
East-M	23.631	2.500	25.00	.5000	2.500	205.79	168.51	0.0785	320.0	0.000
Macpherson	23.631	25.00	0.000	2.500	0.000	168.51	0.000	0.9209	308.0	0.000
West-Ck	23.631	2.500	25.00	.5000	2.500	205.79	168.51	0.3013	300.0	0.000
East-Ck	23.631	2.500	25.00	.5000	2.500	205.79	168.51	0.0354	300.0	0.000
Creek	23.631	25.00	0.000	2.500	0.000	168.51	0.000	0.3368	300.0	0.000
Output	23.631	25.00	0.000	2.500	0.000	168.51	0.000	1.251	300.0	0.000

Run completed at: 16th May 2003 10:10:46