

APPENDIX D

VO6 Model Input & Output Files

Active coordinate

44° 10' 15" N, 80° 24' 15" W (44.170833,-80.404167)

Retrieved: Mon, 16 Jan 2023 18:30:15 GMT



Location summary

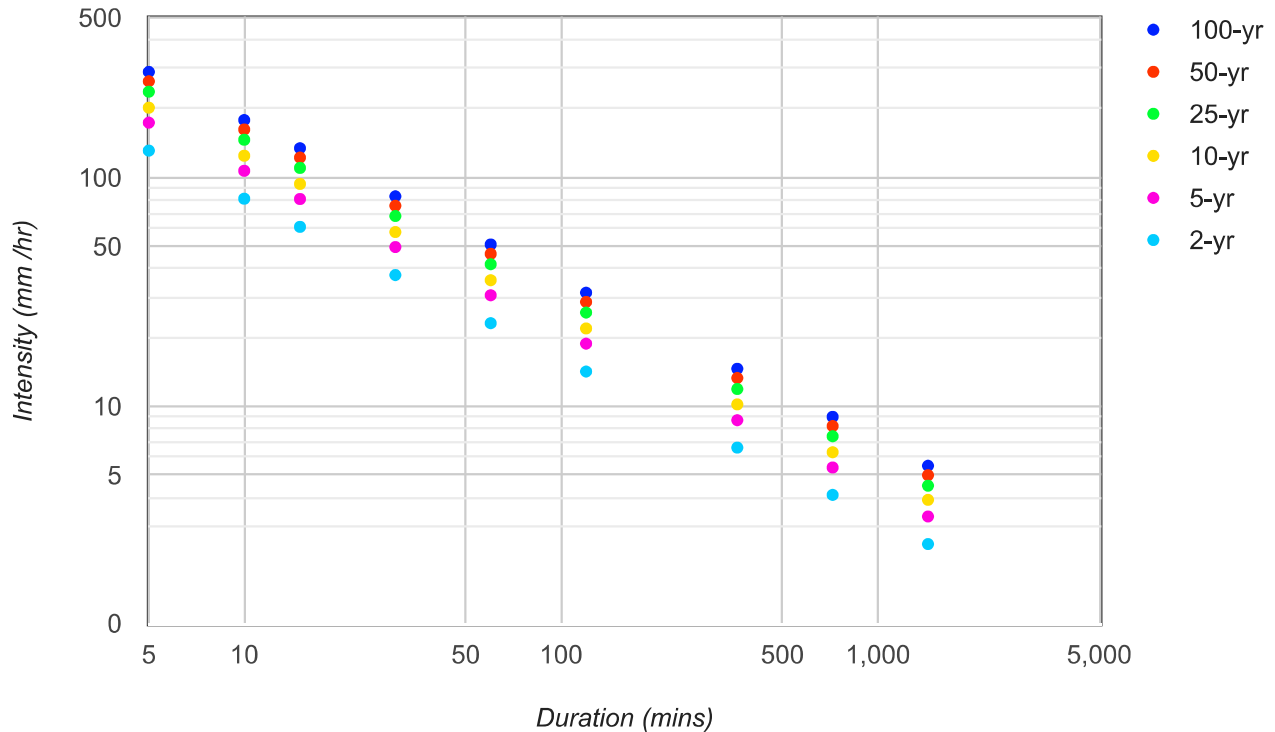
These are the locations in the selection.

IDF Curve: 44° 10' 15" N, 80° 24' 15" W (44.170833,-80.404167)

Results

An IDF curve was found.

Coordinate: 44.170833, -80.404167
IDF curve year: 2010



Coefficient summary

IDF Curve: 44° 10' 15" N, 80° 24' 15" W (44.170833,-80.404167)

Retrieved: Mon, 16 Jan 2023 18:30:15 GMT

Data year: 2010

IDF curve year: 2010

Return period	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
A	23.1	30.6	35.6	41.8	46.4	51.0
B	-0.699	-0.699	-0.699	-0.699	-0.699	-0.699

Statistics**Rainfall intensity (mm hr⁻¹)**

Duration	5-min	10-min	15-min	30-min	1-hr	2-hr	6-hr	12-hr	24-hr
2-yr	131.2	80.8	60.9	37.5	23.1	14.2	6.6	4.1	2.5
5-yr	173.8	107.1	80.6	49.7	30.6	18.8	8.7	5.4	3.3
10-yr	202.2	124.6	93.8	57.8	35.6	21.9	10.2	6.3	3.9
25-yr	237.4	146.3	110.2	67.9	41.8	25.7	11.9	7.4	4.5
50-yr	263.6	162.3	122.3	75.3	46.4	28.6	13.3	8.2	5.0
100-yr	289.7	178.4	134.4	82.8	51.0	31.4	14.6	9.0	5.5

Rainfall depth (mm)

Duration	5-min	10-min	15-min	30-min	1-hr	2-hr	6-hr	12-hr	24-hr
2-yr	10.9	13.5	15.2	18.8	23.1	28.5	39.6	48.8	60.1
5-yr	14.5	17.8	20.2	24.8	30.6	37.7	52.5	64.6	79.6
10-yr	16.9	20.8	23.5	28.9	35.6	43.9	61.0	75.2	92.7
25-yr	19.8	24.4	27.5	33.9	41.8	51.5	71.7	88.3	108.8
50-yr	22.0	27.1	30.6	37.7	46.4	57.2	79.6	98.0	120.8
100-yr	24.1	29.7	33.6	41.4	51.0	62.8	87.5	107.7	132.7

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Last Modified: September 2016

Visual OTTHYMO 6.0 Storm Data - Chicago

Time Step (min)	10
Duration (hour)	3
A	404.147
B	0
C	0.699

Time Step (min)	10
Duration (hour)	3
A	535.364
B	0
C	0.699

Time Step (min)	10
Duration (hour)	3
A	622.842
B	0
C	0.699

Time Step (min)	10
Duration (hour)	3
A	731.314
B	0
C	0.699

Time Step (min)	10
Duration (hour)	3
A	811.794
B	0
C	0.699

Time Step (min)	10
Duration (hour)	3
A	892.273
B	0
C	0.699

2Yr 3hr 10min Chicago

Time (minute)	Rainfall Intensity (mm/hr)
0	3.76
10	4.42
20	5.48
30	7.50
40	13.95
50	80.82
60	17.11
70	10.79
80	8.23
90	6.78
100	5.83
110	5.15
120	4.63
130	4.23
140	3.90
150	3.63
160	3.39
170	3.20

5Yr 3hr 10min Chicago

Time (minute)	Rainfall Intensity (mm/hr)
0	4.98
10	5.86
20	7.26
30	9.93
40	18.47
50	107.07
60	22.67
70	14.30
80	10.90
90	8.98
100	7.72
110	6.82
120	6.14
130	5.60
140	5.16
150	4.80
160	4.50
170	4.24

10Yr 3hr 10min Chicago

Time (minute)	Rainfall Intensity (mm/hr)
0	5.79
10	6.82
20	8.45
30	11.56
40	21.49
50	124.56
60	26.38
70	16.63
80	12.68
90	10.45
100	8.98
110	7.93
120	7.14
130	6.51
140	6.01
150	5.59
160	5.23
170	4.93

25Yr 3hr 10min Chicago

Time (minute)	Rainfall Intensity (mm/hr)
0	6.80
10	8.01
20	9.92
30	13.57
40	25.24
50	146.25
60	30.97
70	19.53
80	14.89
90	12.27
100	10.54
110	9.31
120	8.38
130	7.65
140	7.05
150	6.56
160	6.14
170	5.79

50Yr 3hr 10min Chicago

Time (minute)	Rainfall Intensity (mm/hr)
0	7.55
10	8.89
20	11.01
30	15.06
40	28.01
50	162.35
60	34.38
70	21.68
80	16.53
90	13.62
100	11.70
110	10.34
120	9.30
130	8.49
140	7.83
150	7.28
160	6.82
170	6.42

100Yr 3hr 10min Chicago

Time (minute)	Rainfall Intensity (mm/hr)
0	8.30
10	9.77
20	12.10
30	16.55
40	30.79
50	178.44
60	37.79
70	23.83
80	18.17
90	14.97
100	12.86
110	11.36
120	10.23
130	9.33
140	8.61
150	8.00
160	7.50
170	7.06

Visual OTTHYMO 6.0 Storm Data - SCS

Time Step (min)	15
Duration (hour)	24
Precipitation (mm)	60.13

Time Step (min)	15
Duration (hour)	24
Precipitation (mm)	79.65

Time Step (min)	15
Duration (hour)	24
Precipitation (mm)	92.66

Time Step (min)	15
Duration (hour)	24
Precipitation (mm)	108.8

Time Step (min)	15
Duration (hour)	24
Precipitation (mm)	132.74

Time Step (min)	15
Duration (hour)	24
Precipitation (mm)	132.74

2Yr 24hr 15min SCS	
Time (minute)	Rainfall Intensity (mm/hr)
0	0.00
15	0.66
30	0.66
45	0.66
60	0.66
75	0.66
90	0.66
105	0.66
120	0.66
135	0.78
150	0.78
165	0.78
180	0.78
195	0.78
210	0.78
225	0.78
240	0.78
255	0.96
270	0.96
285	0.96
300	0.96
315	0.96
330	0.96
345	0.96
360	0.96
375	1.08
390	1.08
405	1.08
420	1.08
435	1.32
450	1.32
465	1.32
480	1.32
495	1.56
510	1.56
525	1.68
540	1.68
555	1.92
570	1.92
585	2.16
600	2.16
615	2.77
630	2.77
645	3.73
660	3.73
675	5.77
690	5.77
705	17.80
720	73.60
735	8.66
750	8.66
765	4.45
780	4.45
795	3.25
810	3.25
825	2.53
840	2.53
855	1.80
870	1.80
885	1.80
900	1.80
915	1.80
930	1.80
945	1.80
960	1.80
975	1.08
990	1.08
1005	1.08
1020	1.08
1035	1.08
1050	1.08
1065	1.08
1080	1.08
1095	1.08
1110	1.08
1125	1.08
1140	1.08
1155	1.08
1170	1.08
1185	1.08
1200	1.08
1215	0.72
1230	0.72
1245	0.72
1260	0.72
1275	0.72
1290	0.72
1305	0.72
1320	0.72
1335	0.72
1350	0.72
1365	0.72
1380	0.72
1395	0.72
1410	0.72
1425	0.72
1440	0.72

5Yr 24hr 15min SCS	
Time (minute)	Rainfall Intensity (mm/hr)
0	0.00
15	0.88
30	0.88
45	0.88
60	0.88
75	0.88
90	0.88
105	0.88
120	0.88
135	1.04
150	1.04
165	1.04
180	1.04
195	1.04
210	1.04
225	1.04
240	1.04
255	1.27
270	1.27
285	1.27
300	1.27
315	1.27
330	1.27
345	1.27
360	1.27
375	1.43
390	1.43
405	1.43
420	1.43
435	1.75
450	1.75
465	1.75
480	1.75
495	2.07
510	2.07
525	2.23
540	2.23
555	2.55
570	2.55
585	2.87
600	2.87
615	3.66
630	3.66
645	4.94
660	4.94
675	7.65
690	7.65
705	23.58
720	97.49
735	11.47
750	11.47
765	5.89
780	5.89
795	4.30
810	4.30
825	3.35
840	3.35
855	2.39
870	2.39
885	2.39
900	2.39
915	2.39
930	2.39
945	2.39
960	2.39
975	1.43
990	1.43
1005	1.43
1020	1.43
1035	1.43
1050	1.43
1065	1.43
1080	1.43
1095	1.43
1110	1.43
1125	1.43
1140	1.43
1155	1.43
1170	1.43
1185	1.43
1200	1.43
1215	0.96
1230	0.96
1245	0.96
1260	0.96
1275	0.96
1290	0.96
1305	0.96
1320	0.96
1335	0.96
1350	0.96
1365	0.96
1380	0.96
1395	0.96
1410	0.96
1425	0.96
1440	0.96

10Yr 24hr 15min SCS	
Time (minute)	Rainfall Intensity (mm/hr)
0	0.00
15	1.02
30	1.02
45	1.02
60	1.02
75	1.02
90	1.02
105	1.02
120	1.02
135	1.20
150	1.20
165	1.20
180	1.20
195	1.20
210	1.20
225	1.20
240	1.20
255	1.48
270	1.48
285	1.48
300	1.48
315	1.48
330	1.48
345	1.48
360	1.48
375	1.67
390	1.67
405	1.67
420	1.67
435	2.04
450	2.04
465	2.04
480	2.04
495	2.41
510	2.41
525	2.59
540	2.59
555	2.97
570	2.97
585	3.34
600	3.34
615	4.26
630	4.26
645	5.74
660	5.74
675	8.90
690	8.90
705	27.43
720	113.42
735	13.34
750	13.34
765	6.86
780	6.86
795	5.00
810	5.00
825	3.89
840	3.89
855	2.78
870	2.78
885	2.78
900	2.78
915	2.78
930	2.78
945	2.78
960	2.78
975	1.67
990	1.67
1005	1.67
1020	1.67
1035	1.67
1050	1.67
1065	1.67
1080	1.67
1095	1.67
1110	1.67
1125	1.67
1140	1.67
1155	1.67
1170	1.67
1185	1.67
1200	1.67
1215	1.11
1230	1.11
1245	1.11
1260	1.11
1275	1.11
1290	1.11
1305	1.11
1320	1.11
1335	1.11
1350	1.11
1365	1.11
1380	1.11
1395	1.11
1410	1.11
1425	1.11
1440	1.11

25Yr 24hr 15min SCS	
Time (minute)	Rainfall Intensity (mm/hr)
0	0.00
15	1.20
30	1.20
45	1.20
60	1.20
75	1.20
90	1.20
105	1.20
120	1.20
135	1.41
150	1.41
165	1.41
180	1.41
195	1.41
210	1.41
225	1.41
240	1.41
255	1.74
270	1.74
285	1.74
300	1.74
315	1.74
330	1.74
345	1.74
360	1.74
375	1.96
390	1.96
405	1.96
420	1.96
435	2.39
450	2.39
465	2.39
480	2.39
495	2.83
510	2.83
525	3.05
540	3.05
555	3.48
570	3.48
585	3.92
600	3.92
615	5.00
630	5.00
645	6.75
660	6.75
675	10.44
690	10.44
705	32.20
720	133.17
735	15.67
750	15.67
765	8.05
780	8.05
795	5.88
810	5.88
825	4.57
840	4.57
855	3.26
870	3.26
885	3.26
900	3.26
915	3.26
930	3.26
945	3.26
960	3.26
975	1.96
990	1.96
1005	1.96
1020	1.96
1035	1.96
1050	1.96
1065	1.96
1080	1.96
1095	1.96
1110	1.96
1125	1.96
1140	1.96
1155	1.96
1170	1.96
1185	1.96
1200	1.96
1215	1.31
1230	1.31
1245	1.31
1260	1.31
1275	1.31
1290	1.31
1305	1.31
1320	1.31
1335	1.31
1350	1.31
1365	1.31
1380	1.31
1395	1.31
1410	1.31
1425	1.31
1440	1.31

50Yr 24hr 15min SCS	
Time (minute)	Rainfall Intensity (mm/hr)
0	0.00
15	1.33
30	1.33
45	1.33
60	1.33
75	1.33
90	1.33
105	1.33
120	1.33
135	1.57
150	1.57
165	1.57
180	1.57
195	1.57
210	1.57
225	1.57
240	1.57
255	1.93
270	1.93
285	1.93
300	1.93
315	1.93
330	1.93
345	1.93
360	1.93
375	2.17
390	2.17
405	2.17
420	2.17
435	2.66
450	2.66
465	2.66
480	2.66
495	3.14
510	3.14
525	3.38
540	3.38
555	3.86
570	3.86
585	4.35
600	4.35
615	5.56
630	5.56
645	7.49
660	7.49
675	11.59
690	11.59
705	35.75
720	147.82
735	17.39
750	17.39
765	8.94
780	8.94
795	6.52
810	6.52
825	5.07
840	5.07
855	3.62
870	3.62
885	3.62
900	3.62
915	3.62
930	3.62
945	3.62
960	3.62
975	2.17
990	2.17
1005	2.17
1020	2.17
1035	2.17
1050	2.17
1065	2.17
1080	2.17
1095	2.17
1110	2.17
1125	2.17
1140	2.17
1155	2.17
1170	2.17
1185	2.17
1200	2.17
1215	1.45
1230	1.45
1245	1.45
1260	1.45
1275	1.45
1290	1.45
1305	1.45
1320	1.45
1335	1.45
1350	1.45
1365	1.45
1380	1.45
1395	1.45
1410	1.45
1425	1.45
1440	1.45

100Yr 24hr 15min SCS	
Time (minute)	Rainfall Intensity (mm/hr)
0	0.00
15	1.46
30	1.46
45	1.46
60	1.46

Visual OTTHYMO 6.0 Model Schematic

Pre-Development

1  **PRE-1 (CP TRAIL)**
AREA [ha] - 4.3200
PKFW [m³/s] - 0.0240
TP [hr] - 1.9167
RV [mm] - 3.0175

2  **PRE-2 (NORTH TILE DRAIN)**
AREA [ha] - 13.3300
PKFW [m³/s] - 0.0543
TP [hr] - 2.2500
RV [mm] - 3.0181

3  **PRE-3 (EAST TILE DRAIN)**
AREA [ha] - 2.6600
PKFW [m³/s] - 0.0199
TP [hr] - 1.6667
RV [mm] - 3.0124

5  **PRE-4 (SOUTHEAST TILE DRAIN)**
AREA [ha] - 1.9300
PKFW [m³/s] - 0.0144
TP [hr] - 1.6667
RV [mm] - 3.0123

4  **PRE-5 (SOUTH RESIDENTIAL)**
AREA [ha] - 3.0000
PKFW [m³/s] - 0.0243
TP [hr] - 1.5833
RV [mm] - 3.0074

```

*****
V V I SSSSS U U A L (v 6.2.2008)
V V I SS U U A A L
V V I SS U U A A A A L
V V I SS U U A A L
V V I SSSSS UUUU A A LLLLL
000 TTTT TTTT H H Y Y M M 000 TM
0 0 T T H H Y Y M M 0 0
0 0 T T H H Y Y M M 0 0
000 T H H Y M M 000
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***** D E T A I L E D O U T P U T *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat
Output filename:
C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404df768702\c0ff1
b75-e79e-451f-aa15-0ba289f501df\scena
Summary filename:
C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404df768702\c0ff1
b75-e79e-451f-aa15-0ba289f501df\scena
DATE: 07-31-2023 TIME: 11:14:48
USER:

```

COMMENTS: _____

```

*****
** SIMULATION : 25mm **
*****

```

```

-----
| READ STORM | Filename: C:\Users\kswain\AppData
|             | ata\Local\Temp\
-----

```

```

-----
| Ptotal= 24.99 mm | Comments: 25mm
|-----|

```

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	1.36	1.00	6.91	2.00	4.18	3.00	1.86
0.08	1.45	1.08	11.02	2.08	3.77	3.08	1.78
0.17	1.55	1.17	26.16	2.17	3.43	3.17	1.71
0.25	1.67	1.25	76.07	2.25	3.16	3.25	1.64
0.33	1.81	1.33	33.71	2.33	2.92	3.33	1.58
0.42	1.99	1.42	18.64	2.42	2.72	3.42	1.52
0.50	2.20	1.50	12.61	2.50	2.55	3.50	1.47
0.58	2.47	1.58	9.46	2.58	2.39	3.58	1.43
0.67	2.82	1.67	7.55	2.67	2.26	3.67	1.38
0.75	3.29	1.75	6.28	2.75	2.14	3.75	1.34
0.83	3.97	1.83	5.38	2.83	2.04	3.83	1.30
0.92	5.03	1.92	4.70	2.92	1.94	3.92	1.26

```

-----
| CALIB |
| NASHYD ( 0001) | Area (ha)= 4.32 Curve Number (CN)= 74.0
| ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
|-----|
| U.H. Tp(hrs)= 0.36
-----

```

```

Unit Hyd Qpeak (cms)= 0.458
PEAK FLOW (cms)= 0.024 (i)
TIME TO PEAK (hrs)= 1.917
RUNOFF VOLUME (mm)= 3.018
TOTAL RAINFALL (mm)= 24.991
RUNOFF COEFFICIENT = 0.121

```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB |
| NASHYD ( 0002) | Area (ha)= 13.33 Curve Number (CN)= 74.0
| ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
|-----|
| U.H. Tp(hrs)= 0.62
-----

```

```

Unit Hyd Qpeak (cms)= 0.821
PEAK FLOW (cms)= 0.054 (i)
TIME TO PEAK (hrs)= 2.250
RUNOFF VOLUME (mm)= 3.018
TOTAL RAINFALL (mm)= 24.991
RUNOFF COEFFICIENT = 0.121

```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB |
| NASHYD ( 0003) | Area (ha)= 2.66 Curve Number (CN)= 74.0
| ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
|-----|
| U.H. Tp(hrs)= 0.20
-----

```

```

Unit Hyd Qpeak (cms)= 0.588
PEAK FLOW (cms)= 0.020 (i)
TIME TO PEAK (hrs)= 1.667
RUNOFF VOLUME (mm)= 3.012
TOTAL RAINFALL (mm)= 24.991
RUNOFF COEFFICIENT = 0.121

```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB |
| NASHYD ( 0004) | Area (ha)= 3.00 Curve Number (CN)= 74.0
| ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
|-----|
| U.H. Tp(hrs)= 0.17
-----

```

```

Unit Hyd Qpeak (cms)= 0.674
PEAK FLOW (cms)= 0.024 (i)
TIME TO PEAK (hrs)= 1.583
RUNOFF VOLUME (mm)= 3.007
TOTAL RAINFALL (mm)= 24.991
RUNOFF COEFFICIENT = 0.120

```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB |
| NASHYD ( 0005) | Area (ha)= 1.93 Curve Number (CN)= 74.0
| ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
|-----|
| U.H. Tp(hrs)= 0.20
-----

```

```

Unit Hyd Qpeak (cms)= 0.369
PEAK FLOW (cms)= 0.014 (i)
TIME TO PEAK (hrs)= 1.667
RUNOFF VOLUME (mm)= 3.012
TOTAL RAINFALL (mm)= 24.991

```

RUNOFF COEFFICIENT = 0.121

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
FINISH
-----

```

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*****
V V I SSSSS U U A L (v 6.2.2008)
V V I SS U U A A L
V V I SS U U A A A L
V V I SS U U A A L
V V I SSSSS UUUU A A LLLLL

```

```

000 TTTT TTTT H H Y Y M M 000 TM
O O T T H H Y Y M M 0 0
O O T T H H Y M M 0 0
000 T T H H Y M 000

```

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***** D E T A I L E D O U T P U T *****

Input filename: C:\Program Files (x86)\Visual OTTHYMD 6.2\VO2\voindat

Output filename:
C:\Users\kswain\AppData\Local\Civica\VHS\4c9aa870-2b3a-4142-a551-3404df768702\b9f19
baf-cebe-4e73-8ccc-2c2c59d191d6\scena
Summary filename:
C:\Users\kswain\AppData\Local\Civica\VHS\4c9aa870-2b3a-4142-a551-3404df768702\b9f19
baf-cebe-4e73-8ccc-2c2c59d191d6\scena

DATE: 07-31-2023 TIME: 11:14:47

USER:

COMMENTS:

```

*****
** SIMULATION : A. 2yr 3hr 10min Chicago **
*****

```

```

CHICAGO STORM IDF curve parameters: A= 404.147
Ptotal= 32.13 mm B= 0.000
C= 0.699

```

used in: INTENSITY = $A / (t + B)^C$

Duration of storm = 3.00 hrs
Storm time step = 10.00 min
Time to peak ratio = 0.33

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	3.76	0.833	80.82	1.67	5.83	2.50	3.63
0.17	4.42	1.000	17.11	1.83	5.15	2.67	3.39
0.33	5.48	1.167	10.79	2.00	4.63	2.83	3.20
0.50	7.50	1.333	8.23	2.17	4.23		
0.67	13.95	1.500	6.78	2.33	3.90		

```

CALIB
NASHYD ( 0001) Area (ha)= 4.32 Curve Number (CN)= 74.0
ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.36

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.76	0.833	13.95	1.583	6.78	2.33	4.23
0.167	3.76	0.917	80.82	1.667	6.78	2.42	3.90
0.250	4.42	1.000	80.82	1.750	5.83	2.50	3.90
0.333	4.42	1.083	17.11	1.833	5.83	2.58	3.63
0.417	5.48	1.167	17.11	1.917	5.15	2.67	3.63
0.500	5.48	1.250	10.79	2.000	5.15	2.75	3.39
0.583	7.50	1.333	10.79	2.083	4.63	2.83	3.39
0.667	7.50	1.417	8.23	2.167	4.63	2.92	3.20
0.750	13.95	1.500	8.23	2.250	4.23	3.00	3.20

Unit Hyd Qpeak (cms) = 0.458

PEAK FLOW (cms) = 0.044 (i)
TIME TO PEAK (hrs) = 1.417
RUNOFF VOLUME (mm) = 5.521
TOTAL RAINFALL (mm) = 32.132
RUNOFF COEFFICIENT = 0.172

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

CALIB
NASHYD ( 0002) Area (ha)= 13.33 Curve Number (CN)= 74.0
ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.62

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.76	0.833	13.95	1.583	6.78	2.33	4.23
0.167	3.76	0.917	80.82	1.667	6.78	2.42	3.90
0.250	4.42	1.000	80.82	1.750	5.83	2.50	3.90
0.333	4.42	1.083	17.11	1.833	5.83	2.58	3.63
0.417	5.48	1.167	17.11	1.917	5.15	2.67	3.63
0.500	5.48	1.250	10.79	2.000	5.15	2.75	3.39
0.583	7.50	1.333	10.79	2.083	4.63	2.83	3.39
0.667	7.50	1.417	8.23	2.167	4.63	2.92	3.20
0.750	13.95	1.500	8.23	2.250	4.23	3.00	3.20

Unit Hyd Qpeak (cms) = 0.821

PEAK FLOW (cms) = 0.100 (i)
TIME TO PEAK (hrs) = 1.917
RUNOFF VOLUME (mm) = 5.522
TOTAL RAINFALL (mm) = 32.132
RUNOFF COEFFICIENT = 0.172

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

CALIB
NASHYD ( 0003) Area (ha)= 2.66 Curve Number (CN)= 74.0
ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.20

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.76	0.833	13.95	1.583	6.78	2.33	4.23
0.167	3.76	0.917	80.82	1.667	6.78	2.42	3.90
0.250	4.42	1.000	80.82	1.750	5.83	2.50	3.90
0.333	4.42	1.083	17.11	1.833	5.83	2.58	3.63
0.417	5.48	1.167	17.11	1.917	5.15	2.67	3.63
0.500	5.48	1.250	10.79	2.000	5.15	2.75	3.39

0.583	7.50	1.333	10.79	2.083	4.63	2.83	3.39
0.667	7.50	1.417	8.23	2.167	4.63	2.92	3.20
0.750	13.95	1.500	8.23	2.250	4.23	3.00	3.20

Unit Hyd Qpeak (cms) = 0.508

PEAK FLOW (cms) = 0.038 (i)
TIME TO PEAK (hrs) = 1.167
RUNOFF VOLUME (mm) = 5.512
TOTAL RAINFALL (mm) = 32.132
RUNOFF COEFFICIENT = 0.172

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

CALIB
NASHYD ( 0004) Area (ha)= 3.00 Curve Number (CN)= 74.0
ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.17

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.76	0.833	13.95	1.583	6.78	2.33	4.23
0.167	3.76	0.917	80.82	1.667	6.78	2.42	3.90
0.250	4.42	1.000	80.82	1.750	5.83	2.50	3.90
0.333	4.42	1.083	17.11	1.833	5.83	2.58	3.63
0.417	5.48	1.167	17.11	1.917	5.15	2.67	3.63
0.500	5.48	1.250	10.79	2.000	5.15	2.75	3.39
0.583	7.50	1.333	10.79	2.083	4.63	2.83	3.39
0.667	7.50	1.417	8.23	2.167	4.63	2.92	3.20
0.750	13.95	1.500	8.23	2.250	4.23	3.00	3.20

Unit Hyd Qpeak (cms) = 0.674

PEAK FLOW (cms) = 0.047 (i)
TIME TO PEAK (hrs) = 1.167
RUNOFF VOLUME (mm) = 5.502
TOTAL RAINFALL (mm) = 32.132
RUNOFF COEFFICIENT = 0.171

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

CALIB

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```

NASHYD ( 0005) Area (ha)= 1.93 Curve Number (CN)= 74.0
ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.20

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.76	0.833	13.95	1.583	6.78	2.33	4.23
0.167	3.76	0.917	80.82	1.667	6.78	2.42	3.90
0.250	4.42	1.000	80.82	1.750	5.83	2.50	3.90
0.333	4.42	1.083	17.11	1.833	5.83	2.58	3.63
0.417	5.48	1.167	17.11	1.917	5.15	2.67	3.63
0.500	5.48	1.250	10.79	2.000	5.15	2.75	3.39
0.583	7.50	1.333	10.79	2.083	4.63	2.83	3.39
0.667	7.50	1.417	8.23	2.167	4.63	2.92	3.20
0.750	13.95	1.500	8.23	2.250	4.23	3.00	3.20

Unit Hyd Qpeak (cms) = 0.369

PEAK FLOW (cms) = 0.027 (i)
TIME TO PEAK (hrs) = 1.167
RUNOFF VOLUME (mm) = 5.512
TOTAL RAINFALL (mm) = 32.132
RUNOFF COEFFICIENT = 0.172

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

*****
V V I SSSSS U U A L (v 6.2.2008)
V V I SS U U A A L
V V I SS U U A A A L
V V I SS U U A A L
V V I SSSSS UUUU A A LLLLL

```

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000 TTTT TTTT H H Y Y M M 000 TM
O O T T H H Y Y M M 0 0
O O T T H H Y M M 0 0
000 T T H H Y M 000

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***** D E T A I L E D O U T P U T *****

Input filename: C:\Program Files (x86)\Visual OTTHYMD 6.2\VO2\voindat

Output filename:
C:\Users\kswain\AppData\Local\Civica\VHS\4c9aa870-2b3a-4142-a551-3404df768702\aa690
ac2-c828-4bce-9c71-547d166dd542\scena
Summary filename:
C:\Users\kswain\AppData\Local\Civica\VHS\4c9aa870-2b3a-4142-a551-3404df768702\aa690
ac2-c828-4bce-9c71-547d166dd542\scena

DATE: 07-31-2023 TIME: 11:14:47

USER:

COMMENTS:

```

*****
** SIMULATION : B. 5yr 3hr 10min Chicago **
*****

```

```

CHICAGO STORM IDF curve parameters: A= 535.364
Ptotal= 42.56 mm B= 0.000
C= 0.699

```

used in: INTENSITY = A / (t + B)^C

0.583 9.93 | 1.333 14.30 | 2.083 6.14 | 2.83 4.50
0.667 9.93 | 1.417 10.90 | 2.167 6.14 | 2.92 4.24
0.750 18.47 | 1.500 10.90 | 2.250 5.60 | 3.00 4.24

Duration of storm = 3.00 hrs
Storm time step = 10.00 min
Time to peak ratio = 0.33

Unit Hyd Qpeak (cms) = 0.508

PEAK FLOW (cms) = 0.076 (1)
TIME TO PEAK (hrs) = 1.167
RUNOFF VOLUME (mm) = 10.115
TOTAL RAINFALL (mm) = 42.565
RUNOFF COEFFICIENT = 0.238

(1) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB |
NASHYD (0004) | Area (ha) = 3.00 Curve Number (CN) = 74.0
ID= 1 DT= 5.0 min | Ia (mm) = 7.00 # of Linear Res.(N) = 3.00
U.H. Tp(hrs) = 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 4.98 | 0.833 18.47 | 1.583 8.98 | 2.33 5.60
0.167 4.98 | 0.917 107.07 | 1.667 8.98 | 2.42 5.16
0.250 5.86 | 1.000 107.07 | 1.750 7.72 | 2.50 5.16
0.333 5.86 | 1.083 22.67 | 1.833 7.72 | 2.58 4.80
0.417 7.26 | 1.167 22.67 | 1.917 6.82 | 2.67 4.80
0.500 7.26 | 1.250 14.30 | 2.000 6.82 | 2.75 4.50
0.583 9.93 | 1.333 14.30 | 2.083 6.14 | 2.83 4.50
0.667 9.93 | 1.417 10.90 | 2.167 6.14 | 2.92 4.24
0.750 18.47 | 1.500 10.90 | 2.250 5.60 | 3.00 4.24

Unit Hyd Qpeak (cms) = 0.674

PEAK FLOW (cms) = 0.093 (1)
TIME TO PEAK (hrs) = 1.167
RUNOFF VOLUME (mm) = 10.098
TOTAL RAINFALL (mm) = 42.565
RUNOFF COEFFICIENT = 0.237

(1) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB |

NASHYD (0005) | Area (ha) = 1.93 Curve Number (CN) = 74.0
ID= 1 DT= 5.0 min | Ia (mm) = 7.00 # of Linear Res.(N) = 3.00
U.H. Tp(hrs) = 0.20

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 4.98 | 0.833 18.47 | 1.583 8.98 | 2.33 5.60
0.167 4.98 | 0.917 107.07 | 1.667 8.98 | 2.42 5.16
0.250 5.86 | 1.000 107.07 | 1.750 7.72 | 2.50 5.16
0.333 5.86 | 1.083 22.67 | 1.833 7.72 | 2.58 4.80
0.417 7.26 | 1.167 22.67 | 1.917 6.82 | 2.67 4.80
0.500 7.26 | 1.250 14.30 | 2.000 6.82 | 2.75 4.50
0.583 9.93 | 1.333 14.30 | 2.083 6.14 | 2.83 4.50
0.667 9.93 | 1.417 10.90 | 2.167 6.14 | 2.92 4.24
0.750 18.47 | 1.500 10.90 | 2.250 5.60 | 3.00 4.24

Unit Hyd Qpeak (cms) = 0.369

PEAK FLOW (cms) = 0.055 (1)
TIME TO PEAK (hrs) = 1.167
RUNOFF VOLUME (mm) = 10.115
TOTAL RAINFALL (mm) = 42.565
RUNOFF COEFFICIENT = 0.238

(1) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB |
NASHYD (0002) | Area (ha) = 13.33 Curve Number (CN) = 74.0
ID= 1 DT= 5.0 min | Ia (mm) = 7.00 # of Linear Res.(N) = 3.00
U.H. Tp(hrs) = 0.62

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 4.98 | 0.833 18.47 | 1.583 8.98 | 2.33 5.60
0.167 4.98 | 0.917 107.07 | 1.667 8.98 | 2.42 5.16
0.250 5.86 | 1.000 107.07 | 1.750 7.72 | 2.50 5.16
0.333 5.86 | 1.083 22.67 | 1.833 7.72 | 2.58 4.80
0.417 7.26 | 1.167 22.67 | 1.917 6.82 | 2.67 4.80
0.500 7.26 | 1.250 14.30 | 2.000 6.82 | 2.75 4.50
0.583 9.93 | 1.333 14.30 | 2.083 6.14 | 2.83 4.50
0.667 9.93 | 1.417 10.90 | 2.167 6.14 | 2.92 4.24
0.750 18.47 | 1.500 10.90 | 2.250 5.60 | 3.00 4.24

Unit Hyd Qpeak (cms) = 0.821

PEAK FLOW (cms) = 0.190 (1)
TIME TO PEAK (hrs) = 1.833
RUNOFF VOLUME (mm) = 10.134
TOTAL RAINFALL (mm) = 42.565
RUNOFF COEFFICIENT = 0.238

(1) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB |
NASHYD (0003) | Area (ha) = 2.66 Curve Number (CN) = 74.0
ID= 1 DT= 5.0 min | Ia (mm) = 7.00 # of Linear Res.(N) = 3.00
U.H. Tp(hrs) = 0.20

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 4.98 | 0.833 18.47 | 1.583 8.98 | 2.33 5.60
0.167 4.98 | 0.917 107.07 | 1.667 8.98 | 2.42 5.16
0.250 5.86 | 1.000 107.07 | 1.750 7.72 | 2.50 5.16
0.333 5.86 | 1.083 22.67 | 1.833 7.72 | 2.58 4.80
0.417 7.26 | 1.167 22.67 | 1.917 6.82 | 2.67 4.80
0.500 7.26 | 1.250 14.30 | 2.000 6.82 | 2.75 4.50

V V I SSSSS U U A L (v 6.2.2008)
V V I SS U U A A L
V V I SS U U A A L
V V I SS U U A A L
V V I SSSSS UUUU A A LLLL

000 TTTT TTTT H H Y Y M M O O TM
O O T T H H Y Y M M O O
O O T T H H Y Y M M O O
O O T T H H Y Y M M O O

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***** D E T A I L E D O U T P U T *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat

Output filename:
C:\Users\kswin\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404d4f768702\399bd
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Summary filename:
C:\Users\kswin\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404d4f768702\399bd
829-f22d-4b4f-97a6-80b5e81f50b9\scena

DATE: 07-31-2023 TIME: 11:14:47

USER:

COMMENTS:

** SIMULATION : C. 10yr 3hr 10min Chicago **

CHICAGO STORM | ID# curve parameters: A= 622.842
Ptotal= 49.52 mm | B= 0.000
C= 0.699

used in: INTENSITY = A / (t + B)^C

Duration of storm = 3.00 hrs
Storm time step = 10.00 min
Time to peak ratio = 0.33

TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.00 5.79 | 0.83 124.56 | 1.67 8.98 | 2.50 5.59
0.17 6.82 | 1.00 26.38 | 1.83 7.93 | 2.67 6.01
0.33 8.45 | 1.17 16.63 | 2.00 7.14 | 2.83 4.93
0.50 11.56 | 1.33 12.68 | 2.17 6.51 |
0.67 21.49 | 1.50 10.45 | 2.33 6.01

CALIB |
NASHYD (0001) | Area (ha) = 4.32 Curve Number (CN) = 74.0
ID= 1 DT= 5.0 min | Ia (mm) = 7.00 # of Linear Res.(N) = 3.00
U.H. Tp(hrs) = 0.36

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 5.79 | 0.833 21.49 | 1.583 10.45 | 2.33 6.51
0.167 5.79 | 0.917 124.56 | 1.667 10.45 | 2.42 6.01
0.250 6.82 | 1.000 124.56 | 1.750 8.98 | 2.50 6.01
0.333 6.82 | 1.083 26.38 | 1.833 8.98 | 2.58 5.59
0.417 8.45 | 1.167 26.38 | 1.917 7.93 | 2.67 5.59
0.500 8.45 | 1.250 16.63 | 2.000 7.93 | 2.75 5.23
0.583 11.56 | 1.333 16.63 | 2.083 7.14 | 2.83 5.23
0.667 11.56 | 1.417 12.68 | 2.167 7.14 | 2.92 4.93
0.750 21.49 | 1.500 12.68 | 2.250 6.51 | 3.00 4.93

Unit Hyd Qpeak (cms) = 0.458

PEAK FLOW (cms) = 0.119 (1)
TIME TO PEAK (hrs) = 1.417
RUNOFF VOLUME (mm) = 13.718
TOTAL RAINFALL (mm) = 49.520
RUNOFF COEFFICIENT = 0.277

(1) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 NASHYD (0002) Area (ha)= 13.33 Curve Number (CN)= 74.0
 ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 U.H. Tp(hrs)= 0.62

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	5.79	0.833	21.49	1.583	10.45	2.33	6.51
0.167	5.79	0.917	124.56	1.667	10.45	2.42	6.01
0.250	6.82	1.000	124.56	1.750	8.98	2.59	6.01
0.333	6.82	1.083	26.38	1.833	8.98	2.58	5.59
0.417	8.45	1.167	26.38	1.917	7.93	2.67	5.59
0.500	8.45	1.250	16.63	2.000	7.93	2.75	5.23
0.583	11.56	1.333	16.63	2.083	7.14	2.83	5.23
0.667	11.56	1.417	12.68	2.167	7.14	2.92	4.93
0.750	21.49	1.500	12.68	2.250	6.51	3.00	4.93

Unit Hyd Qpeak (cms)= 0.821
 PEAK FLOW (cms)= 0.261 (i)
 TIME TO PEAK (hrs)= 1.833
 RUNOFF VOLUME (mm)= 13.721
 TOTAL RAINFALL (mm)= 49.520
 RUNOFF COEFFICIENT = 0.277

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 NASHYD (0003) Area (ha)= 2.66 Curve Number (CN)= 74.0
 ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 U.H. Tp(hrs)= 0.20

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	5.79	0.833	21.49	1.583	10.45	2.33	6.51
0.167	5.79	0.917	124.56	1.667	10.45	2.42	6.01
0.250	6.82	1.000	124.56	1.750	8.98	2.59	6.01
0.333	6.82	1.083	26.38	1.833	8.98	2.58	5.59
0.417	8.45	1.167	26.38	1.917	7.93	2.67	5.59
0.500	8.45	1.250	16.63	2.000	7.93	2.75	5.23

0.583 11.56 | 1.333 16.63 | 2.083 7.14 | 2.83 5.23
 0.667 11.56 | 1.417 12.68 | 2.167 7.14 | 2.92 4.93
 0.750 21.49 | 1.500 12.68 | 2.250 6.51 | 3.00 4.93

Unit Hyd Qpeak (cms)= 0.508
 PEAK FLOW (cms)= 0.107 (i)
 TIME TO PEAK (hrs)= 1.167
 RUNOFF VOLUME (mm)= 13.695
 TOTAL RAINFALL (mm)= 49.520
 RUNOFF COEFFICIENT = 0.277

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 NASHYD (0004) Area (ha)= 3.00 Curve Number (CN)= 74.0
 ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	5.79	0.833	21.49	1.583	10.45	2.33	6.51
0.167	5.79	0.917	124.56	1.667	10.45	2.42	6.01
0.250	6.82	1.000	124.56	1.750	8.98	2.59	6.01
0.333	6.82	1.083	26.38	1.833	8.98	2.58	5.59
0.417	8.45	1.167	26.38	1.917	7.93	2.67	5.59
0.500	8.45	1.250	16.63	2.000	7.93	2.75	5.23
0.583	11.56	1.333	16.63	2.083	7.14	2.83	5.23
0.667	11.56	1.417	12.68	2.167	7.14	2.92	4.93
0.750	21.49	1.500	12.68	2.250	6.51	3.00	4.93

Unit Hyd Qpeak (cms)= 0.674
 PEAK FLOW (cms)= 0.131 (i)
 TIME TO PEAK (hrs)= 1.083
 RUNOFF VOLUME (mm)= 13.672
 TOTAL RAINFALL (mm)= 49.520
 RUNOFF COEFFICIENT = 0.276

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB

NASHYD (0005) Area (ha)= 1.93 Curve Number (CN)= 74.0
 ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 U.H. Tp(hrs)= 0.20

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	5.79	0.833	21.49	1.583	10.45	2.33	6.51
0.167	5.79	0.917	124.56	1.667	10.45	2.42	6.01
0.250	6.82	1.000	124.56	1.750	8.98	2.59	6.01
0.333	6.82	1.083	26.38	1.833	8.98	2.58	5.59
0.417	8.45	1.167	26.38	1.917	7.93	2.67	5.59
0.500	8.45	1.250	16.63	2.000	7.93	2.75	5.23
0.583	11.56	1.333	16.63	2.083	7.14	2.83	5.23
0.667	11.56	1.417	12.68	2.167	7.14	2.92	4.93
0.750	21.49	1.500	12.68	2.250	6.51	3.00	4.93

Unit Hyd Qpeak (cms)= 0.369

PEAK FLOW (cms)= 0.078 (i)
 TIME TO PEAK (hrs)= 1.167
 RUNOFF VOLUME (mm)= 13.695
 TOTAL RAINFALL (mm)= 49.520
 RUNOFF COEFFICIENT = 0.277

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 V V I SSSSS U U A L (v 6.2.2008)
 V V I SS U U A A L
 V V I SS U U AAAAA L
 V V I SSSSS UUUU A A LLLL
 000 TTTTT TTTTT H H Y Y M M 000 TM
 0 0 T T H H Y Y M M 0 0
 0 0 T T H H Y M M 0 0
 000 T T H H Y M M 000
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***** D E T A I L E D O U T P U T *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voind.dat
 Output filename:
 C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404d768702\89084
 a94-16a7-4a06-b70b-821e548ca50a\scena
 Summary filename:
 C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404d768702\89084
 a94-16a7-4a06-b70b-821e548ca50a\scena
 DATE: 07-31-2023 TIME: 11:14:47
 USER:
 COMMENTS:

CHICAGO STORM IDF curve parameters: A= 731.314
 B= 0.000
 Ptotal= 58.14 mm C= 0.699

used in: INTENSITY = A / (t + B)^C

Duration of storm = 3.00 hrs
 Storm time step = 10.00 min
 Time to peak ratio = 0.33

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	6.80	0.83	146.25	1.67	10.54	2.50	6.56
0.17	8.01	1.00	146.25	1.83	9.31	2.67	6.14
0.33	9.92	1.17	19.53	2.00	8.38	2.83	5.79
0.50	13.57	1.33	14.89	2.17	7.65		
0.67	25.24	1.50	12.27	2.33	7.05		

CALIB
 NASHYD (0001) Area (ha)= 4.32 Curve Number (CN)= 74.0
 ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 U.H. Tp(hrs)= 0.36

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	6.80	0.833	25.24	1.583	12.27	2.33	7.65
0.167	6.80	0.917	146.25	1.667	12.27	2.42	7.05
0.250	8.01	1.000	146.25	1.750	10.54	2.50	7.05
0.333	8.01	1.083	30.97	1.833	10.54	2.58	6.56
0.417	9.92	1.167	30.97	1.917	9.31	2.67	6.56
0.500	9.92	1.250	19.53	2.000	9.31	2.75	6.14
0.583	13.57	1.333	19.53	2.083	8.38	2.83	6.14
0.667	13.57	1.417	14.89	2.167	8.38	2.92	5.79
0.750	25.24	1.500	14.89	2.250	7.65	3.00	5.79

Unit Hyd Qpeak (cms)= 0.458

PEAK FLOW (cms)= 0.166 (i)
 TIME TO PEAK (hrs)= 1.417
 RUNOFF VOLUME (mm)= 18.628
 TOTAL RAINFALL (mm)= 58.144
 RUNOFF COEFFICIENT = 0.320

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 NASHYD (0002) Area (ha)= 13.33 Curve Number (CN)= 74.0
 ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 U.H. Tp(hrs)= 0.62

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	6.80	0.833	25.24	1.583	12.27	2.33	7.65
0.167	6.80	0.917	146.25	1.667	12.27	2.42	7.05
0.250	8.01	1.000	146.25	1.750	10.54	2.50	7.05
0.333	8.01	1.083	30.97	1.833	10.54	2.58	6.56
0.417	9.92	1.167	30.97	1.917	9.31	2.67	6.56
0.500	9.92	1.250	19.53	2.000	9.31	2.75	6.14
0.583	13.57	1.333	19.53	2.083	8.38	2.83	6.14
0.667	13.57	1.417	14.89	2.167	8.38	2.92	5.79
0.750	25.24	1.500	14.89	2.250	7.65	3.00	5.79

Unit Hyd Qpeak (cms)= 0.821

PEAK FLOW (cms)= 0.361 (i)
 TIME TO PEAK (hrs)= 1.750
 RUNOFF VOLUME (mm)= 18.631
 TOTAL RAINFALL (mm)= 58.144
 RUNOFF COEFFICIENT = 0.320

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 NASHYD (0003) Area (ha)= 2.66 Curve Number (CN)= 74.0
 ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 U.H. Tp(hrs)= 0.20

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	6.80	0.833	25.24	1.583	12.27	2.33	7.65
0.167	6.80	0.917	146.25	1.667	12.27	2.42	7.05
0.250	8.01	1.000	146.25	1.750	10.54	2.50	7.05
0.333	8.01	1.083	30.97	1.833	10.54	2.58	6.56
0.417	9.92	1.167	30.97	1.917	9.31	2.67	6.56
0.500	9.92	1.250	19.53	2.000	9.31	2.75	6.14

0.583 13.57 | 1.333 19.53 | 2.083 8.38 | 2.83 6.14
 0.667 13.57 | 1.417 14.89 | 2.167 8.38 | 2.92 5.79
 0.750 25.24 | 1.500 14.89 | 2.250 7.65 | 3.00 5.79

Unit Hyd Qpeak (cms) = 0.508
 PEAK FLOW (cms) = 0.150 (i)
 TIME TO PEAK (hrs) = 1.167
 RUNOFF VOLUME (mm) = 18.596
 TOTAL RAINFALL (mm) = 58.144
 RUNOFF COEFFICIENT = 0.320

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 NASHYD (0004) | Area (ha)= 3.00 Curve Number (CN)= 74.0
 ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	6.80	0.833	25.24	1.583	12.27	2.33	7.65
0.167	6.80	0.917	146.25	1.667	12.27	2.42	7.95
0.250	8.01	1.000	10.54	1.750	10.54	2.50	7.83
0.333	8.01	1.083	30.97	1.833	10.54	2.58	6.56
0.417	9.92	1.167	30.97	1.917	9.31	2.67	6.56
0.500	9.92	1.250	19.53	2.000	9.31	2.75	6.14
0.583	13.57	1.333	19.53	2.083	8.38	2.83	6.14
0.667	13.57	1.417	14.89	2.167	8.38	2.92	5.79
0.750	25.24	1.500	14.89	2.250	7.65	3.00	5.79

Unit Hyd Qpeak (cms) = 0.674

PEAK FLOW (cms) = 0.186 (i)
 TIME TO PEAK (hrs) = 1.083
 RUNOFF VOLUME (mm) = 18.565
 TOTAL RAINFALL (mm) = 58.144
 RUNOFF COEFFICIENT = 0.319

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB

V V I SSSSS U U A L (v 6.2.2008)
 V V I SS U U A A L
 V V I SS U U A A A L
 V V I SS U U A A L
 V V I SSSSS UUUU A A LLLLL
 000 TTTT TTTT H H Y Y M M O O TM
 0 0 T T H H Y Y M M O O
 0 0 T T H H Y Y M M O O
 000 T T H H Y Y M M O O
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***** D E T A I L E D O U T P U T *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat
 Output filename: (cms) = 0.442 (i)
 C:\Users\kswin\AppData\Local\Civica\VH5\4c9a870-2b3a-4142-a551-3404df768702\0ed26
 c05-3079-450f-b159-58b73a0e6284\scena
 Summary filename:
 C:\Users\kswin\AppData\Local\Civica\VH5\4c9a870-2b3a-4142-a551-3404df768702\0ed26
 c05-3079-450f-b159-58b73a0e6284\scena

DATE: 07-31-2023 TIME: 11:14:47

USER:

COMMENTS:

 ** SIMULATION : E. 50yr 3hr 10min Chicago **

CHICAGO STORM | IDF curve parameters: A= 811.794
 Ptotal= 64.54 mm | B= 0.000
 C= 0.699

NASHYD (0005) | Area (ha)= 1.93 Curve Number (CN)= 74.0
 ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 U.H. Tp(hrs)= 0.20

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	6.80	0.833	25.24	1.583	12.27	2.33	7.65
0.167	6.80	0.917	146.25	1.667	12.27	2.42	7.95
0.250	8.01	1.000	10.54	1.750	10.54	2.50	7.83
0.333	8.01	1.083	30.97	1.833	10.54	2.58	6.56
0.417	9.92	1.167	30.97	1.917	9.31	2.67	6.56
0.500	9.92	1.250	19.53	2.000	9.31	2.75	6.14
0.583	13.57	1.333	19.53	2.083	8.38	2.83	6.14
0.667	13.57	1.417	14.89	2.167	8.38	2.92	5.79
0.750	25.24	1.500	14.89	2.250	7.65	3.00	5.79

Unit Hyd Qpeak (cms) = 0.369

PEAK FLOW (cms) = 0.189 (i)
 TIME TO PEAK (hrs) = 1.167
 RUNOFF VOLUME (mm) = 18.596
 TOTAL RAINFALL (mm) = 58.144
 RUNOFF COEFFICIENT = 0.320

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB

used in: INTENSITY = A / (t + B)^C

Duration of storm = 3.00 hrs
 Storm time step = 10.00 min
 Time to peak ratio = 0.33

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	7.55	0.833	162.35	1.67	11.70	2.50	7.28
0.17	8.89	1.00	34.38	1.83	10.34	2.67	6.82
0.33	11.01	1.17	21.68	2.00	9.30	2.83	6.42
0.50	15.06	1.33	16.53	2.17	8.49		
0.67	28.01	1.50	13.62	2.33	7.83		

CALIB
 NASHYD (0001) | Area (ha)= 4.32 Curve Number (CN)= 74.0
 ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 U.H. Tp(hrs)= 0.36

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	7.55	0.833	28.01	1.583	13.62	2.33	8.49
0.167	7.55	0.917	162.35	1.667	13.62	2.42	7.83
0.250	8.89	1.000	162.35	1.750	11.70	2.50	7.83
0.333	8.89	1.083	34.38	1.833	11.70	2.58	7.28
0.417	11.01	1.167	34.38	1.917	10.34	2.67	7.28
0.500	11.01	1.250	21.68	2.000	10.34	2.75	6.82
0.583	15.06	1.333	21.68	2.083	9.30	2.83	6.82
0.667	15.06	1.417	16.53	2.167	9.30	2.92	6.42
0.750	28.01	1.500	16.53	2.250	8.49	3.00	6.42

Unit Hyd Qpeak (cms) = 0.458

PEAK FLOW (cms) = 0.204 (i)
 TIME TO PEAK (hrs) = 1.417
 RUNOFF VOLUME (mm) = 22.553
 TOTAL RAINFALL (mm) = 64.542
 RUNOFF COEFFICIENT = 0.349

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 NASHYD (0002) | Area (ha)= 13.33 Curve Number (CN)= 74.0
 ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 U.H. Tp(hrs)= 0.62

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	7.55	0.833	28.01	1.583	13.62	2.33	8.49
0.167	7.55	0.917	162.35	1.667	13.62	2.42	7.83
0.250	8.89	1.000	162.35	1.750	11.70	2.50	7.83
0.333	8.89	1.083	34.38	1.833	11.70	2.58	7.28
0.417	11.01	1.167	34.38	1.917	10.34	2.67	7.28
0.500	11.01	1.250	21.68	2.000	10.34	2.75	6.82
0.583	15.06	1.333	21.68	2.083	9.30	2.83	6.82
0.667	15.06	1.417	16.53	2.167	9.30	2.92	6.42
0.750	28.01	1.500	16.53	2.250	8.49	3.00	6.42

Unit Hyd Qpeak (cms) = 0.821

PEAK FLOW (cms) = 0.442 (i)
 TIME TO PEAK (hrs) = 1.750
 RUNOFF VOLUME (mm) = 22.557
 TOTAL RAINFALL (mm) = 64.542
 RUNOFF COEFFICIENT = 0.349

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 NASHYD (0003) | Area (ha)= 2.66 Curve Number (CN)= 74.0
 ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 U.H. Tp(hrs)= 0.20

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	7.55	0.833	28.01	1.583	13.62	2.33	8.49
0.167	7.55	0.917	162.35	1.667	13.62	2.42	7.83
0.250	8.89	1.000	162.35	1.750	11.70	2.50	7.83
0.333	8.89	1.083	34.38	1.833	11.70	2.58	7.28
0.417	11.01	1.167	34.38	1.917	10.34	2.67	7.28
0.500	11.01	1.250	21.68	2.000	10.34	2.75	6.82

0.583 15.06 | 1.333 21.68 | 2.083 9.30 | 2.83 6.82
 0.667 15.06 | 1.417 16.53 | 2.167 9.30 | 2.92 6.42
 0.750 28.01 | 1.500 16.53 | 2.250 8.49 | 3.00 6.42

Unit Hyd Qpeak (cms) = 0.508

PEAK FLOW (cms) = 0.185 (i)
 TIME TO PEAK (hrs) = 1.167
 RUNOFF VOLUME (mm) = 22.514
 TOTAL RAINFALL (mm) = 64.542
 RUNOFF COEFFICIENT = 0.349

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 NASHYD (0004) | Area (ha)= 3.00 Curve Number (CN)= 74.0
 ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
 U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	7.55	0.833	28.01	1.583	13.62	2.33	8.49
0.167	7.55	0.917	162.35	1.667	13.62	2.42	7.83
0.250	8.89	1.000	162.35	1.750	11.70	2.50	7.83
0.333	8.89	1.083	34.38	1.833	11.70	2.58	7.28
0.417	11.01	1.167	34.38	1.917	10.34	2.67	7.28
0.500	11.01	1.250	21.68	2.000	10.34	2.75	6.82
0.583	15.06	1.333	21.68	2.083	9.30	2.83	6.82
0.667	15.06	1.417	16.53	2.167	9.30	2.92	6.42
0.750	28.01	1.500	16.53	2.250	8.49	3.00	6.42

Unit Hyd Qpeak (cms) = 0.674

PEAK FLOW (cms) = 0.230 (i)
 TIME TO PEAK (hrs) = 1.083
 RUNOFF VOLUME (mm) = 22.477
 TOTAL RAINFALL (mm) = 64.542
 RUNOFF COEFFICIENT = 0.348

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB

NASHYD (0085) Area (ha)= 1.93 Curve Number (CN)= 74.0
ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.20

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	7.55	0.833	28.01	1.583	13.62	2.33	8.49
0.167	7.55	0.917	162.35	1.667	13.62	2.42	7.83
0.250	8.89	1.000	162.35	1.750	11.70	2.50	7.83
0.333	8.89	1.083	34.38	1.833	11.70	2.58	7.28
0.417	11.01	1.167	34.38	1.917	10.34	2.67	7.28
0.500	11.01	1.250	21.68	2.000	10.34	2.75	6.82
0.583	15.06	1.333	21.68	2.083	9.30	2.83	6.82
0.667	15.06	1.417	16.53	2.167	9.30	2.92	6.42
0.750	28.01	1.500	16.53	2.250	8.49	3.00	6.42

Unit Hyd Qpeak (cms)= 0.369

PEAK FLOW (cms)= 0.135 (i)
TIME TO PEAK (hrs)= 1.167
RUNOFF VOLUME (mm)= 22.514
TOTAL RAINFALL (mm)= 64.542
RUNOFF COEFFICIENT = 0.349

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

used in: INTENSITY = A / (t + B)^C

Duration of storm = 3.00 hrs
Storm time step = 10.00 min
Time to peak ratio = 0.33

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	8.30	0.83	178.44	1.67	12.86	2.50	8.00
0.17	9.77	1.00	37.79	1.83	11.36	2.67	7.50
0.33	12.10	1.17	23.83	2.00	10.23	2.83	7.06
0.50	16.55	1.33	18.17	2.17	9.33		
0.67	30.79	1.50	14.97	2.33	8.61		

CALIB
NASHYD (0001) Area (ha)= 4.32 Curve Number (CN)= 74.0
ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.36

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	8.30	0.833	30.79	1.583	14.97	2.33	9.33
0.167	8.30	0.917	178.44	1.667	14.97	2.42	8.61
0.250	9.77	1.000	178.44	1.750	12.86	2.50	8.61
0.333	9.77	1.083	37.79	1.833	12.86	2.58	8.00
0.417	12.10	1.167	37.79	1.917	11.36	2.67	8.00
0.500	12.10	1.250	23.83	2.000	11.36	2.75	7.50
0.583	16.55	1.333	23.83	2.083	10.23	2.83	7.50
0.667	16.55	1.417	18.17	2.167	10.23	2.92	7.06
0.750	30.79	1.500	18.17	2.250	9.33	3.00	7.06

Unit Hyd Qpeak (cms)= 0.458

PEAK FLOW (cms)= 0.244 (i)
TIME TO PEAK (hrs)= 1.333
RUNOFF VOLUME (mm)= 26.684
TOTAL RAINFALL (mm)= 70.941
RUNOFF COEFFICIENT = 0.376

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

0.583 16.55 | 1.333 23.83 | 2.083 10.23 | 2.83 7.50
0.667 16.55 | 1.417 18.17 | 2.167 10.23 | 2.92 7.06
0.750 30.79 | 1.500 18.17 | 2.250 9.33 | 3.00 7.06

Unit Hyd Qpeak (cms)= 0.508

PEAK FLOW (cms)= 0.223 (i)
TIME TO PEAK (hrs)= 1.167
RUNOFF VOLUME (mm)= 26.639
TOTAL RAINFALL (mm)= 70.941
RUNOFF COEFFICIENT = 0.376

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0004) Area (ha)= 3.00 Curve Number (CN)= 74.0
ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	8.30	0.833	30.79	1.583	14.97	2.33	9.33
0.167	8.30	0.917	178.44	1.667	14.97	2.42	8.61
0.250	9.77	1.000	178.44	1.750	12.86	2.50	8.61
0.333	9.77	1.083	37.79	1.833	12.86	2.58	8.00
0.417	12.10	1.167	37.79	1.917	11.36	2.67	8.00
0.500	12.10	1.250	23.83	2.000	11.36	2.75	7.50
0.583	16.55	1.333	23.83	2.083	10.23	2.83	7.50
0.667	16.55	1.417	18.17	2.167	10.23	2.92	7.06
0.750	30.79	1.500	18.17	2.250	9.33	3.00	7.06

Unit Hyd Qpeak (cms)= 0.674

PEAK FLOW (cms)= 0.278 (i)
TIME TO PEAK (hrs)= 1.083
RUNOFF VOLUME (mm)= 26.594
TOTAL RAINFALL (mm)= 70.941
RUNOFF COEFFICIENT = 0.375

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB

NASHYD (0085) Area (ha)= 1.93 Curve Number (CN)= 74.0
ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.20

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	8.30	0.833	30.79	1.583	14.97	2.33	9.33
0.167	8.30	0.917	178.44	1.667	14.97	2.42	8.61
0.250	9.77	1.000	178.44	1.750	12.86	2.50	8.61
0.333	9.77	1.083	37.79	1.833	12.86	2.58	8.00
0.417	12.10	1.167	37.79	1.917	11.36	2.67	8.00
0.500	12.10	1.250	23.83	2.000	11.36	2.75	7.50
0.583	16.55	1.333	23.83	2.083	10.23	2.83	7.50
0.667	16.55	1.417	18.17	2.167	10.23	2.92	7.06
0.750	30.79	1.500	18.17	2.250	9.33	3.00	7.06

Unit Hyd Qpeak (cms)= 0.369

PEAK FLOW (cms)= 0.162 (i)
TIME TO PEAK (hrs)= 1.167
RUNOFF VOLUME (mm)= 26.639
TOTAL RAINFALL (mm)= 70.941
RUNOFF COEFFICIENT = 0.376

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

V V I SSSSS U U A L (v 6.2.2008)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

000 TTTT TTTT H H Y Y M M 000 TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
000 T T H H Y Y M M 000

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***** D E T A I L E D O U T P U T *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voind.dat

Output filename:
C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404d768702\02a48
f1c-300d-4158-88bd-9776be62833b\scena
Summary filename:
C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404d768702\02a48
f1c-300d-4158-88bd-9776be62833b\scena

DATE: 07-31-2023 TIME: 11:14:47

USER:

COMMENTS:

** SIMULATION : F. 100yr 3hr 10min Chicago **

CHICAGO STORM IDF curve parameters: A= 892.273
B= 0.000
C= 0.699
Ptotal= 70.94 mm

CALIB
NASHYD (0002) Area (ha)= 13.33 Curve Number (CN)= 74.0
ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.62

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	8.30	0.833	30.79	1.583	14.97	2.33	9.33
0.167	8.30	0.917	178.44	1.667	14.97	2.42	8.61
0.250	9.77	1.000	178.44	1.750	12.86	2.50	8.61
0.333	9.77	1.083	37.79	1.833	12.86	2.58	8.00
0.417	12.10	1.167	37.79	1.917	11.36	2.67	8.00
0.500	12.10	1.250	23.83	2.000	11.36	2.75	7.50
0.583	16.55	1.333	23.83	2.083	10.23	2.83	7.50
0.667	16.55	1.417	18.17	2.167	10.23	2.92	7.06
0.750	30.79	1.500	18.17	2.250	9.33	3.00	7.06

Unit Hyd Qpeak (cms)= 0.821

PEAK FLOW (cms)= 0.528 (i)
TIME TO PEAK (hrs)= 1.750
RUNOFF VOLUME (mm)= 26.689
TOTAL RAINFALL (mm)= 70.941
RUNOFF COEFFICIENT = 0.376

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
NASHYD (0003) Area (ha)= 2.66 Curve Number (CN)= 74.0
ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.20

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	8.30	0.833	30.79	1.583	14.97	2.33	9.33
0.167	8.30	0.917	178.44	1.667	14.97	2.42	8.61
0.250	9.77	1.000	178.44	1.750	12.86	2.50	8.61
0.333	9.77	1.083	37.79	1.833	12.86	2.58	8.00
0.417	12.10	1.167	37.79	1.917	11.36	2.67	8.00
0.500	12.10	1.250	23.83	2.000	11.36	2.75	7.50

```

*****
V V I SSSSS U U A A L (v 6.2.2008)
V V I SS U U A A A L
V V I SS U U A A A L
V V I SSSSS UUUU A A LLLL
000 TTTT TTTT H H Y Y M M 000 TM
O O T T H H Y Y M M O O
O O T T H H Y Y M M O O
000 H H Y Y M M 000
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```

**** DETAILED OUTPUT ****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat
Output filename:
C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa87b-2b3a-4142-a551-3404df687802\b299a
050-b945-44da-a305-72352edaf52f\scena
Summary filename:
C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa87b-2b3a-4142-a551-3404df687802\b299a
050-b945-44da-a305-72352edaf52f\scena

```

DATE: 07-31-2023 TIME: 11:14:47

USER:

COMMENTS:

```

*****
** SIMULATION : G. 2yr 24hr 15min SCS Type II **
*****

```

```

-----
| READ STORM | Filename: C:\Users\kswain\AppData\Local\Temp\
-----

```

```

-----
| Ptotal= 60.13 mm | d445773c-22c1-4d0c-9d13-42c088d17a5\719a2500
| Comments: G. 2yr 24hr 15min SCS Type II
-----

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.25	1.08	12.50	8.66	18.75	1.08
0.25	0.66	6.50	1.08	12.75	4.45	19.00	1.08
0.50	0.66	6.75	1.08	13.00	4.45	19.25	1.08
0.75	0.66	7.00	1.08	13.25	3.25	19.50	1.08
1.00	0.66	7.25	1.32	13.50	3.25	19.75	1.08
1.25	0.66	7.50	1.32	13.75	2.53	20.00	1.08
1.50	0.66	7.75	1.32	14.00	2.53	20.25	0.72
1.75	0.66	8.00	1.32	14.25	1.80	20.50	0.72
2.00	0.66	8.25	1.56	14.50	1.80	20.75	0.72
2.25	0.78	8.50	1.56	14.75	1.80	21.00	0.72
2.50	0.78	8.75	1.68	15.00	1.80	21.25	0.72
2.75	0.78	9.00	1.68	15.25	1.80	21.50	0.72
3.00	0.78	9.25	1.92	15.50	1.80	21.75	0.72
3.25	0.78	9.50	1.92	15.75	1.80	22.00	0.72
3.50	0.78	9.75	2.16	16.00	1.80	22.25	0.72
3.75	0.78	10.00	2.16	16.25	1.80	22.50	0.72
4.00	0.78	10.25	2.77	16.50	1.80	22.75	0.72
4.25	0.96	10.50	2.77	16.75	1.80	23.00	0.72
4.50	0.96	10.75	3.73	17.00	1.80	23.25	0.72
4.75	0.96	11.00	3.73	17.25	1.80	23.50	0.72
5.00	0.96	11.25	5.77	17.50	1.80	23.75	0.72
5.25	0.96	11.50	5.77	17.75	1.80	24.00	0.72
5.50	0.96	11.75	17.80	18.00	1.08		
5.75	0.96	12.00	73.60	18.25	1.08		
6.00	0.96	12.25	8.66	18.50	1.08		

```

-----
| CALIB |
| NASHYD ( 0001) | Area (ha)= 4.32 Curve Number (CN)= 74.0
| ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 0.36
-----

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr hrs mm/hr hrs mm/hr
0.083 0.00 6.167 0.96 12.250 73.60 18.33 1.08
0.167 0.00 6.250 0.96 12.333 8.67 18.42 1.08
0.250 0.00 6.333 1.08 12.417 8.66 18.50 1.08
0.333 0.66 6.417 1.08 12.500 8.66 18.58 1.08
0.417 0.66 6.500 1.08 12.583 8.66 18.67 1.08

```

0.500	0.66	6.583	1.08	12.667	8.66	18.75	1.08
0.583	0.66	6.667	1.08	12.750	8.66	18.83	1.08
0.667	0.66	6.750	1.08	12.833	4.45	18.92	1.08
0.750	0.66	6.833	1.08	12.917	4.45	19.00	1.08
0.833	0.66	6.917	1.08	13.000	4.45	19.08	1.08
0.917	0.66	7.000	1.08	13.083	4.45	19.17	1.08
1.000	0.66	7.083	1.08	13.167	4.45	19.25	1.08
1.083	0.66	7.167	1.08	13.250	4.45	19.33	1.08
1.167	0.66	7.250	1.08	13.333	3.25	19.42	1.08
1.250	0.66	7.333	1.32	13.417	3.25	19.50	1.08
1.333	0.66	7.417	1.32	13.500	3.25	19.58	1.08
1.417	0.66	7.500	1.32	13.583	3.25	19.67	1.08
1.500	0.66	7.583	1.32	13.667	3.25	19.75	1.08
1.583	0.66	7.667	1.32	13.750	3.25	19.83	1.08
1.667	0.66	7.750	1.32	13.833	2.53	19.92	1.08
1.750	0.66	7.833	1.32	13.917	2.53	20.00	1.08
1.833	0.66	7.917	1.32	14.000	2.53	20.08	1.08
1.917	0.66	8.000	1.32	14.083	2.53	20.17	1.08
2.000	0.66	8.083	1.32	14.167	2.53	20.25	1.08
2.083	0.66	8.167	1.32	14.250	2.53	20.33	0.72
2.167	0.66	8.250	1.32	14.333	1.80	20.42	0.72
2.250	0.66	8.333	1.56	14.417	1.80	20.50	0.72
2.333	0.78	8.417	1.56	14.500	1.80	20.58	0.72
2.417	0.78	8.500	1.56	14.583	1.80	20.67	0.72
2.500	0.78	8.583	1.56	14.667	1.80	20.75	0.72
2.583	0.78	8.667	1.56	14.750	1.80	20.83	0.72
2.667	0.78	8.750	1.56	14.833	1.80	20.92	0.72
2.750	0.78	8.833	1.68	14.917	1.80	21.00	0.72
2.833	0.78	8.917	1.68	15.000	1.80	21.08	0.72
2.917	0.78	9.000	1.68	15.083	1.68	21.17	0.72
3.000	0.78	9.083	1.68	15.167	1.80	21.25	0.72
3.083	0.78	9.167	1.68	15.250	1.80	21.33	0.72
3.167	0.78	9.250	1.68	15.333	1.80	21.42	0.72
3.250	0.78	9.333	1.92	15.417	1.80	21.50	0.72
3.333	0.78	9.417	1.92	15.500	1.80	21.58	0.72
3.417	0.78	9.500	1.92	15.583	1.80	21.67	0.72
3.500	0.78	9.583	1.92	15.667	1.80	21.75	0.72
3.583	0.78	9.667	1.92	15.750	1.80	21.83	0.72
3.667	0.78	9.750	1.92	15.833	1.80	21.92	0.72
3.750	0.78	9.833	2.16	15.917	1.80	22.00	0.72
3.833	0.78	9.917	2.16	16.000	1.80	22.08	0.72
3.917	0.78	10.000	2.16	16.083	1.80	22.17	0.72
4.000	0.78	10.083	2.16	16.167	1.80	22.25	0.72
4.083	0.78	10.167	2.16	16.250	1.80	22.33	0.72
4.167	0.78	10.250	2.16	16.333	1.80	22.42	0.72
4.250	0.78	10.333	2.77	16.417	1.80	22.50	0.72
4.333	0.96	10.417	2.77	16.500	1.80	22.58	0.72
4.417	0.96	10.500	2.77	16.583	1.80	22.67	0.72
4.500	0.96	10.583	2.77	16.667	1.80	22.75	0.72
4.583	0.96	10.667	2.77	16.750	1.80	22.83	0.72

Unit Hyd Qpeak (cms) = 0.458

```

PEAK FLOW (cms) = 0.143 (i)
TIME TO PEAK (hrs) = 12.500
RUNOFF VOLUME (mm) = 19.826
TOTAL RAINFALL (mm) = 60.130
RUNOFF COEFFICIENT = 0.330

```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| CALIB |
| NASHYD ( 0002) | Area (ha)= 13.33 Curve Number (CN)= 74.0
| ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 0.62
-----

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr hrs mm/hr hrs mm/hr
0.083 0.00 6.167 0.96 12.250 73.60 18.33 1.08
0.167 0.00 6.250 0.96 12.333 8.67 18.42 1.08
0.250 0.00 6.333 1.08 12.417 8.66 18.50 1.08
0.333 0.66 6.417 1.08 12.500 8.66 18.58 1.08
0.417 0.66 6.500 1.08 12.583 8.66 18.67 1.08
0.500 0.66 6.583 1.08 12.667 8.66 18.75 1.08
0.583 0.66 6.667 1.08 12.750 8.66 18.83 1.08
0.667 0.66 6.750 1.08 12.833 4.45 18.92 1.08

```

0.750	0.66	6.833	1.08	12.917	4.45	19.00	1.08
0.833	0.66	6.917	1.08	13.000	4.45	19.08	1.08
0.917	0.66	7.000	1.08	13.083	4.45	19.17	1.08
1.000	0.66	7.083	1.08	13.167	4.45	19.25	1.08
1.083	0.66	7.167	1.08	13.250	4.45	19.33	1.08
1.167	0.66	7.250	1.08	13.333	3.25	19.42	1.08
1.250	0.66	7.333	1.32	13.417	3.25	19.50	1.08
1.333	0.66	7.417	1.32	13.500	3.25	19.58	1.08
1.417	0.66	7.500	1.32	13.583	3.25	19.67	1.08
1.500	0.66	7.583	1.32	13.667	3.25	19.75	1.08
1.583	0.66	7.667	1.32	13.750	3.25	19.83	1.08
1.667	0.66	7.750	1.32	13.833	2.53	19.92	1.08
1.750	0.66	7.833	1.32	13.917	2.53	20.00	1.08
1.833	0.66	7.917	1.32	14.000	2.53	20.08	1.08
1.917	0.66	8.000	1.32	14.083	2.53	20.17	1.08
2.000	0.66	8.083	1.32	14.167	2.53	20.25	1.08
2.083	0.66	8.167	1.32	14.250	2.53	20.33	0.72
2.167	0.66	8.250	1.32	14.333	1.80	20.42	0.72
2.250	0.66	8.333	1.56	14.417	1.80	20.50	0.72
2.333	0.78	8.417	1.56	14.500	1.80	20.58	0.72
2.417	0.78	8.500	1.56	14.583	1.80	20.67	0.72
2.500	0.78	8.583	1.56	14.667	1.80	20.75	0.72
2.583	0.78	8.667	1.56	14.750	1.80	20.83	0.72
2.667	0.78	8.750	1.56	14.833	1.80	20.92	0.72
2.750	0.78	8.833	1.68	14.917	1.80	21.00	0.72
2.833	0.78	8.917	1.68	15.000	1.80	21.08	0.72
2.917	0.78	9.000	1.68	15.083	1.80	21.17	0.72
3.000	0.78	9.083	1.68	15.167	1.80	21.25	0.72
3.083	0.78	9.167	1.68	15.250	1.80	21.33	0.72
3.167	0.78	9.250	1.68	15.333	1.80	21.42	0.72
3.250	0.78	9.333	1.92	15.417	1.80	21.50	0.72
3.333	0.78	9.417	1.92	15.500	1.80	21.58	0.72
3.417	0.78	9.500	1.92	15.583	1.80	21.67	0.72
3.500	0.78	9.583	1.92	15.667	1.80	21.75	0.72
3.583	0.78	9.667	1.92	15.750	1.80	21.83	0.72
3.667	0.78	9.750	1.92	15.833	1.80	21.92	0.72
3.750	0.78	9.833	2.16	15.917	1.80	22.00	0.72
3.833	0.78	9.917	2.16	16.000	1.80	22.08	0.72
3.917	0.78	10.000	2.16	16.083	1.80	22.17	0.72
4.000	0.78	10.083	2.16	16.167	1.80	22.25	0.72
4.083	0.78	10.167	2.16	16.250	1.80	22.33	0.72
4.167	0.78	10.250	2.16	16.333	1.80	22.42	0.72
4.250	0.78	10.333	2.77	16.417	1.80	22.50	0.72
4.333	0.96	10.417	2.77	16.500	1.80	22.58	0.72
4.417	0.96	10.500	2.77	16.583	1.80	22.67	0.72
4.500	0.96	10.583	2.77	16.667	1.80	22.75	0.72
4.583	0.96	10.667	2.77	16.750	1.80	22.83	0.72


```

*****
V V I SSSSS U U A A L (v 6.2.2008)
V V I SS U U A A L
V V I SS U U A A A A L
V V I SS U U A A L
V V I SSSSS UUUUU A A LLLLL
000 TTTT TTTT H H Y Y M M 000 TM
O O T T H H Y Y M M O O
O O T T H H Y M M O O
000 H H Y M M 000
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```

**** D E T A I L E D O U T P U T ****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename:
C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404df687802\efaf7
858-d707-4e3c-8562-e2d6d87538e6\scena
Summary filename:
C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404df687802\efaf7
858-d707-4e3c-8562-e2d6d87538e6\scena

```

DATE: 07-31-2023 TIME: 11:14:47

USER:

COMMENTS:

```

*****
** SIMULATION : H. Syr 24hr 15min SCS Type II **
*****

```

```

READ STORM | Filename: C:\Users\kswain\AppData\Local\Temp\

```

```

d445773c-22c1-4d8c-9d13-42c2088d17a5\7c8bcbe6
Ptotal= 79.65 mm | Comments: H. Syr 24hr 15min SCS Type II

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.25	1.43	12.50	11.47	18.75	1.43
0.25	0.88	6.50	1.43	12.75	5.89	19.00	1.43
0.50	0.88	6.75	1.43	13.00	5.89	19.25	1.43
0.75	0.88	7.00	1.43	13.25	4.30	19.50	1.43
1.00	0.88	7.25	1.75	13.50	4.30	19.75	1.43
1.25	0.88	7.50	1.75	13.75	3.35	20.00	1.43
1.50	0.88	7.75	1.75	14.00	3.35	20.25	0.96
1.75	0.88	8.00	1.75	14.25	2.39	20.50	0.96
2.00	0.88	8.25	2.07	14.50	2.39	20.75	0.96
2.25	1.04	8.50	2.07	14.75	2.39	21.00	0.96
2.50	1.04	8.75	2.23	15.00	2.39	21.25	0.96
2.75	1.04	9.00	2.23	15.25	2.39	21.50	0.96
3.00	1.04	9.25	2.55	15.50	2.39	21.75	0.96
3.25	1.04	9.50	2.55	15.75	2.39	22.00	0.96
3.50	1.04	9.75	2.87	16.00	2.39	22.25	0.96
3.75	1.04	10.00	2.87	16.25	1.43	22.50	0.96
4.00	1.04	10.25	3.66	16.50	1.43	22.75	0.96
4.25	1.27	10.50	3.66	16.75	1.43	23.00	0.96
4.50	1.27	10.75	4.94	17.00	1.43	23.25	0.96
4.75	1.27	11.00	4.94	17.25	1.43	23.50	0.96
5.00	1.27	11.25	7.65	17.50	1.43	23.75	0.96
5.25	1.27	11.50	7.65	17.75	1.43	24.00	0.96
5.50	1.27	11.75	23.58	18.00	1.43		
5.75	1.27	12.00	97.49	18.25	1.43		
6.00	1.27	12.25	11.47	18.50	1.43		

```

CALIB
NASHYD ( 0001) Area (ha)= 4.32 Curve Number (CN)= 74.0
ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.36

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

---- TRANSFORMED HYETOGRAPH ----
TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr hrs mm/hr
0.083 0.00 6.167 1.27 12.250 97.49 18.33 1.43
0.167 0.00 6.250 1.27 12.333 11.48 18.42 1.43
0.250 0.00 6.333 1.43 12.417 11.47 18.50 1.43
0.333 0.88 6.417 1.43 12.500 11.47 18.58 1.43
0.417 0.88 6.500 1.43 12.583 11.47 18.67 1.43

```

0.500	0.88	6.583	1.43	12.667	11.47	18.75	1.43
0.583	0.88	6.667	1.43	12.750	11.47	18.83	1.43
0.667	0.88	6.750	1.43	12.833	5.89	18.92	1.43
0.750	0.88	6.833	1.43	12.917	5.89	19.00	1.43
0.833	0.88	6.917	1.43	13.000	5.89	19.08	1.43
0.917	0.88	7.000	1.43	13.083	5.89	19.17	1.43
1.000	0.88	7.083	1.43	13.167	5.89	19.25	1.43
1.083	0.88	7.167	1.43	13.250	5.89	19.33	1.43
1.167	0.88	7.250	1.43	13.333	4.30	19.42	1.43
1.250	0.88	7.333	1.75	13.417	4.30	19.50	1.43
1.333	0.88	7.417	1.75	13.500	4.30	19.58	1.43
1.417	0.88	7.500	1.75	13.583	4.30	19.67	1.43
1.500	0.88	7.583	1.75	13.667	4.30	19.75	1.43
1.583	0.88	7.667	1.75	13.750	4.30	19.83	1.43
1.667	0.88	7.750	1.75	13.833	3.35	19.92	1.43
1.750	0.88	7.833	1.75	13.917	3.35	20.00	1.43
1.833	0.88	7.917	1.75	14.000	3.35	20.08	1.43
1.917	0.88	8.000	1.75	14.083	3.35	20.17	1.43
2.000	0.88	8.083	1.75	14.167	3.35	20.25	1.43
2.083	0.88	8.167	1.75	14.250	3.35	20.33	0.96
2.167	0.88	8.250	1.75	14.333	2.39	20.42	0.96
2.250	0.88	8.333	2.07	14.417	2.39	20.50	0.96
2.333	1.04	8.417	2.07	14.500	2.39	20.58	0.96
2.417	1.04	8.500	2.07	14.583	2.39	20.67	0.96
2.500	1.04	8.583	2.07	14.667	2.39	20.75	0.96
2.583	1.04	8.667	2.07	14.750	2.39	20.83	0.96
2.667	1.04	8.750	2.07	14.833	2.39	20.92	0.96
2.750	1.04	8.833	2.23	14.917	2.39	21.00	0.96
2.833	1.04	8.917	2.23	15.000	2.39	21.08	0.96
2.917	1.04	9.000	2.23	15.083	2.39	21.17	0.96
3.000	1.04	9.083	2.23	15.167	2.39	21.25	0.96
3.083	1.04	9.167	2.23	15.250	2.39	21.33	0.96
3.167	1.04	9.250	2.23	15.333	2.39	21.42	0.96
3.250	1.04	9.333	2.55	15.417	2.39	21.50	0.96
3.333	1.04	9.417	2.55	15.500	2.39	21.58	0.96
3.417	1.04	9.500	2.55	15.583	2.39	21.67	0.96
3.500	1.04	9.583	2.55	15.667	2.39	21.75	0.96
3.583	1.04	9.667	2.55	15.750	2.39	21.83	0.96
3.667	1.04	9.750	2.55	15.833	2.39	21.92	0.96
3.750	1.04	9.833	2.87	15.917	2.39	22.00	0.96
3.833	1.04	9.917	2.87	16.000	2.39	22.08	0.96
3.917	1.04	10.000	2.87	16.083	2.39	22.17	0.96
4.000	1.04	10.083	2.87	16.167	2.39	22.25	0.96
4.083	1.04	10.167	2.87	16.250	2.39	22.33	0.96
4.167	1.04	10.250	2.87	16.333	1.43	22.42	0.96
4.250	1.04	10.333	3.66	16.417	1.43	22.50	0.96
4.333	1.04	10.417	3.66	16.500	1.43	22.58	0.96
4.417	1.27	10.500	3.66	16.583	1.43	22.67	0.96
4.500	1.27	10.583	3.66	16.667	1.43	22.75	0.96
4.583	1.27	10.667	3.66	16.750	1.43	22.83	0.96

```

Unit Hyd Qpeak (cms) = 0.458
PEAK FLOW (cms) = 0.239 (i)
TIME TO PEAK (hrs) = 12.500
RUNOFF VOLUME (mm) = 32.601
TOTAL RAINFALL (mm) = 79.650
RUNOFF COEFFICIENT = 0.409

```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

CALIB
NASHYD ( 0002) Area (ha)= 13.33 Curve Number (CN)= 74.0
ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.62

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

---- TRANSFORMED HYETOGRAPH ----
TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr hrs mm/hr
0.083 0.00 6.167 1.27 12.250 97.49 18.33 1.43
0.167 0.00 6.250 1.27 12.333 11.48 18.42 1.43
0.250 0.00 6.333 1.43 12.417 11.47 18.50 1.43
0.333 0.88 6.417 1.43 12.500 11.47 18.58 1.43
0.417 0.88 6.500 1.43 12.583 11.47 18.67 1.43

```

0.750	0.88	6.833	1.43	12.917	5.89	19.00	1.43
0.833	0.88	6.917	1.43	13.000	5.89	19.08	1.43
0.917	0.88	7.000	1.43	13.083	5.89	19.17	1.43
1.000	0.88	7.083	1.43	13.167	5.89	19.25	1.43
1.083	0.88	7.167	1.43	13.250	5.89	19.33	1.43
1.167	0.88	7.250	1.43	13.333	4.30	19.42	1.43
1.250	0.88	7.333	1.75	13.417	4.30	19.50	1.43
1.333	0.88	7.417	1.75	13.500	4.30	19.58	1.43
1.417	0.88	7.500	1.75	13.583	4.30	19.67	1.43
1.500	0.88	7.583	1.75	13.667	4.30	19.75	1.43
1.583	0.88	7.667	1.75	13.750	4.30	19.83	1.43
1.667	0.88	7.750	1.75	13.833	3.35	19.92	1.43
1.750	0.88	7.833	1.75	13.917	3.35	20.00	1.43
1.833	0.88	7.917	1.75	14.000	3.35	20.08	1.43
1.917	0.88	8.000	1.75	14.083	3.35	20.17	1.43
2.000	0.88	8.083	1.75	14.167	3.35	20.25	1.43
2.083	0.88	8.167	1.75	14.250	3.35	20.33	0.96
2.167	0.88	8.250	1.75	14.333	2.39	20.42	0.96
2.250	0.88	8.333	2.07	14.417	2.39	20.50	0.96
2.333	1.04	8.417	2.07	14.500	2.39	20.58	0.96
2.417	1.04	8.500	2.07	14.583	2.39	20.67	0.96
2.500	1.04	8.583	2.07	14.667	2.39	20.75	0.96
2.583	1.04	8.667	2.07	14.750	2.39	20.83	0.96
2.667	1.04	8.750	2.07	14.833	2.39	20.92	0.96
2.750	1.04	8.833	2.23	14.917	2.39	21.00	0.96
2.833	1.04	8.917	2.23	15.000	2.39	21.08	0.96
2.917	1.04	9.000	2.23	15.083	2.39	21.17	0.96
3.000	1.04	9.083	2.23	15.167	2.39	21.25	0.96
3.083	1.04	9.167	2.23	15.250	2.39	21.33	0.96
3.167	1.04	9.250	2.23	15.333	2.39	21.42	0.96
3.250	1.04	9.333	2.55	15.417	2.39	21.50	0.96
3.333	1.04	9.417	2.55	15.500	2.39	21.58	0.96
3.417	1.04	9.500	2.55	15.583	2.39	21.67	0.96
3.500	1.04	9.583	2.55	15.667	2.39	21.75	0.96
3.583	1.04	9.667	2.55	15.750	2.39	21.83	0.96
3.667	1.04	9.750	2.55	15.833	2.39	21.92	0.96
3.750	1.04	9.833	2.87	15.917	2.39	22.00	0.96
3.833	1.04	9.917	2.87	16.000	2.39	22.08	0.96
3.917	1.04	10.000	2.87	16.083	2.39	22.17	0.96
4.000	1.04	10.083	2.87	16.167	2.39	22.25	0.96
4.083	1.04	10.167	2.87	16.250	2.39	22.33	0.96
4.167	1.04	10.250	2.87	16.333	1.43	22.42	0.96
4.250	1.04	10.333	3.66	16.417	1.43	22.50	0.96
4.333	1.04	10.417	3.66	16.500	1.43	22.58	0.96
4.417	1.27	10.500	3.66	16.583	1.43	22.67	0.96
4.500	1.27	10.583	3.66	16.667	1.43	22.75	0.96
4.583	1.27	10.667	3.66	16.750	1.43	22.83	0.96

Unit Hyd Qpeak (cms) = 0.821

```

PEAK FLOW (cms) = 0.495 (1)
TIME TO PEAK (hrs) = 12.833
RUNOFF VOLUME (mm) = 32.601
TOTAL RAINFALL (mm) = 79.650
RUNOFF COEFFICIENT = 0.409

```



```

*****
V V I SSSSS U U A A L (v 6.2.2008)
V V I SS U U A A A L
V V I SS U U A A A L
V V I SSSSS UUUUU A A LLLLL
OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y M M O O
O O T T H H Y M M O O
OOO H H Y M M OOO
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```

**** D E T A I L E D O U T P U T ****

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Output filename:
C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa87b-2b3a-4142-a551-3404df768702\d9cb4
bfa-2b7a-4ebf-aa5a-341b801f5fb4\scena
Summary filename:
C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa87b-2b3a-4142-a551-3404df768702\d9cb4
bfa-2b7a-4ebf-aa5a-341b801f5fb4\scena

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DATE: 07-31-2023 TIME: 11:14:47

USER:

COMMENTS: _____

 ** SIMULATION : I. 10yr 24hr 15min SCS Type I **

```

-----
| READ STORM | Filename: C:\Users\kswain\AppData\Local\Temp\
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```

```

-----
| Ptotal= 92.66 mm | d445773c-22c1-4d9c-9d13-42c2088d17a5\944daaa
| Comments: I. 10yr 24hr 15min SCS Type II
-----

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.25	1.67	12.50	13.34	18.75	1.67
0.25	1.02	6.50	1.67	12.75	6.86	19.00	1.67
0.50	1.02	6.75	1.67	13.00	6.86	19.25	1.67
0.75	1.02	7.00	1.67	13.25	5.00	19.50	1.67
1.00	1.02	7.25	2.04	13.50	5.00	19.75	1.67
1.25	1.02	7.50	2.04	13.75	3.89	20.00	1.67
1.50	1.02	7.75	2.04	14.00	3.89	20.25	1.11
1.75	1.02	8.00	2.04	14.25	2.78	20.50	1.11
2.00	1.02	8.25	2.41	14.50	2.78	20.75	1.11
2.25	1.20	8.50	2.41	14.75	2.78	21.00	1.11
2.50	1.20	8.75	2.59	15.00	2.78	21.25	1.11
2.75	1.20	9.00	2.59	15.25	2.78	21.50	1.11
3.00	1.20	9.25	2.97	15.50	2.78	21.75	1.11
3.25	1.20	9.50	2.97	15.75	2.78	22.00	1.11
3.50	1.20	9.75	3.34	16.00	2.78	22.25	1.11
3.75	1.20	10.00	3.34	16.25	1.67	22.50	1.11
4.00	1.20	10.25	4.26	16.50	1.67	22.75	1.11
4.25	1.48	10.50	4.26	16.75	1.67	23.00	1.11
4.50	1.48	10.75	5.74	17.00	1.67	23.25	1.11
4.75	1.48	11.00	5.74	17.25	1.67	23.50	1.11
5.00	1.48	11.25	8.90	17.50	1.67	23.75	1.11
5.25	1.48	11.50	8.90	17.75	1.67	24.00	1.11
5.50	1.48	11.75	27.43	18.00	1.67		
5.75	1.48	12.00	113.42	18.25	1.67		
6.00	1.48	12.25	13.34	18.50	1.67		

```

-----
| CALIB |
| NASHYD ( 0001) | Area (ha)= 4.32 Curve Number (CN)= 74.0
| ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 0.36
-----

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr hrs mm/hr
0.00 0.00 6.167 1.48 12.250 13.42 18.33 1.67
0.167 0.00 6.250 1.48 12.333 13.36 18.32 1.67
0.250 0.00 6.333 1.67 12.417 13.34 18.50 1.67
0.333 1.02 6.417 1.67 12.500 13.34 18.58 1.67
0.417 1.02 6.500 1.67 12.583 13.34 18.67 1.67

```

0.500	1.02	6.583	1.67	12.667	13.34	18.75	1.67
0.583	1.02	6.667	1.67	12.750	13.34	18.83	1.67
0.667	1.02	6.750	1.67	12.833	6.86	18.92	1.67
0.750	1.02	6.833	1.67	12.917	6.86	19.00	1.67
0.833	1.02	6.917	1.67	13.000	6.86	19.08	1.67
0.917	1.02	7.000	1.67	13.083	6.86	19.17	1.67
1.000	1.02	7.083	1.67	13.167	6.86	19.25	1.67
1.083	1.02	7.167	1.67	13.250	6.86	19.33	1.67
1.167	1.02	7.250	1.67	13.333	5.00	19.42	1.67
1.250	1.02	7.333	2.04	13.417	5.00	19.50	1.67
1.333	1.02	7.417	2.04	13.500	5.00	19.58	1.67
1.417	1.02	7.500	2.04	13.583	5.00	19.67	1.67
1.500	1.02	7.583	2.04	13.667	5.00	19.75	1.67
1.583	1.02	7.667	2.04	13.750	5.00	19.83	1.67
1.667	1.02	7.750	2.04	13.833	3.89	19.92	1.67
1.750	1.02	7.833	2.04	13.917	3.89	20.00	1.67
1.833	1.02	7.917	2.04	14.000	3.89	20.08	1.67
1.917	1.02	8.000	2.04	14.083	3.89	20.17	1.67
2.000	1.02	8.083	2.04	14.167	3.89	20.25	1.67
2.083	1.02	8.167	2.04	14.250	3.89	20.33	1.11
2.167	1.02	8.250	2.04	14.333	2.78	20.42	1.11
2.250	1.02	8.333	2.41	14.417	2.78	20.50	1.11
2.333	1.20	8.417	2.41	14.500	2.78	20.58	1.11
2.417	1.20	8.500	2.41	14.583	2.78	20.67	1.11
2.500	1.20	8.583	2.41	14.667	2.78	20.75	1.11
2.583	1.20	8.667	2.41	14.750	2.78	20.83	1.11
2.667	1.20	8.750	2.41	14.833	2.78	20.92	1.11
2.750	1.20	8.833	2.59	14.917	2.78	21.00	1.11
2.833	1.20	8.917	2.59	15.000	2.78	21.08	1.11
2.917	1.20	9.000	2.59	15.083	2.78	21.17	1.11
3.000	1.20	9.083	2.59	15.167	2.78	21.25	1.11
3.083	1.20	9.167	2.59	15.250	2.78	21.33	1.11
3.167	1.20	9.250	2.59	15.333	2.78	21.42	1.11
3.250	1.20	9.333	2.97	15.417	2.78	21.50	1.11
3.333	1.20	9.417	2.97	15.500	2.78	21.58	1.11
3.417	1.20	9.500	2.97	15.583	2.78	21.67	1.11
3.500	1.20	9.583	2.97	15.667	2.78	21.75	1.11
3.583	1.20	9.667	2.97	15.750	2.78	21.83	1.11
3.667	1.20	9.750	2.97	15.833	2.78	21.92	1.11
3.750	1.20	9.833	3.34	15.917	2.78	22.00	1.11
3.833	1.20	9.917	3.34	16.000	2.78	22.08	1.11
3.917	1.20	10.000	3.34	16.083	2.78	22.17	1.11
4.000	1.20	10.083	3.34	16.167	2.78	22.25	1.11
4.083	1.20	10.167	3.34	16.250	2.78	22.33	1.11
4.167	1.20	10.250	3.34	16.333	1.67	22.42	1.11
4.250	1.20	10.333	4.26	16.417	1.67	22.50	1.11
4.333	1.48	10.417	4.26	16.500	1.67	22.58	1.11
4.417	1.48	10.500	4.26	16.583	1.67	22.67	1.11
4.500	1.48	10.583	4.26	16.667	1.67	22.75	1.11
4.583	1.48	10.667	4.26	16.750	1.67	22.83	1.11

4.667	1.48	10.750	4.26	16.833	1.67	22.92	1.11
4.750	1.48	10.833	5.74	16.917	1.67	23.00	1.11
4.833	1.48	10.917	5.74	17.000	1.67	23.08	1.11
4.917	1.48	11.000	5.74	17.083	1.67	23.17	1.11
5.000	1.48	11.083	5.74	17.167	1.67	23.25	1.11
5.083	1.48	11.167	5.74	17.250	1.67	23.33	1.11
5.167	1.48	11.250	5.74	17.333	1.67	23.42	1.11
5.250	1.48	11.333	8.90	17.417	1.67	23.50	1.11
5.333	1.48	11.417	8.90	17.500	1.67	23.58	1.11
5.417	1.48	11.500	8.90	17.583	1.67	23.67	1.11
5.500	1.48	11.583	8.90	17.667	1.67	23.75	1.11
5.583	1.48	11.667	8.90	17.750	1.67	23.83	1.11
5.667	1.48	11.750	8.90	17.833	1.67	23.92	1.11
5.750	1.48	11.833	27.43	17.917	1.67	24.00	1.11
5.833	1.48	11.917	27.43	18.000	1.67	24.08	1.11
5.917	1.48	12.000	27.43	18.083	1.67	24.17	1.11
6.000	1.48	12.083	113.41	18.167	1.67	24.25	1.11
6.083	1.48	12.167	113.42	18.250	1.67		

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Unit Hyd Qpeak (cms)= 0.458
PEAK FLOW (cms)= 0.310 (i)
TIME TO PEAK (hrs)= 12.500
RUNOFF VOLUME (mm)= 41.952
TOTAL RAINFALL (mm)= 92.660
RUNOFF COEFFICIENT = 0.453

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(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB |
| NASHYD ( 0002) | Area (ha)= 13.33 Curve Number (CN)= 74.0
| ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 0.62
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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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----- TRANSFORMED HYETOGRAPH -----
TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr hrs mm/hr
0.00 0.00 6.167 1.48 12.250 13.42 18.33 1.67
0.167 0.00 6.250 1.48 12.333 13.36 18.42 1.67
0.250 0.00 6.333 1.67 12.417 13.34 18.50 1.67
0.333 1.02 6.417 1.67 12.500 13.34 18.58 1.67
0.417 1.02 6.500 1.67 12.583 13.34 18.67 1.67

```

0.750	1.02	6.833	1.67	12.917	6.86	19.00	1.67
0.833	1.02	6.917	1.67	13.000	6.86	19.08	1.67
0.917	1.02	7.000	1.67	13.083	6.86	19.17	1.67
1.000	1.02	7.083	1.67	13.167	6.86	19.25	1.67
1.083	1.02	7.167	1.67	13.250	6.86	19.33	1.67
1.167	1.02	7.250	1.67	13.333	5.00	19.42	1.67
1.250	1.02	7.333	2.04	13.417	5.00	19.50	1.67
1.333	1.02	7.417	2.04	13.500	5.00	19.58	1.67
1.417	1.02	7.500	2.04	13.583	5.00	19.67	1.67
1.500	1.02	7.583	2.04	13.667	5.00	19.75	1.67
1.583	1.02	7.667	2.04	13.750	5.00	19.83	1.67
1.667	1.02	7.750	2.04	13.833	3.89	19.92	1.67
1.750	1.02	7.833	2.04	13.917	3.89	20.00	1.67
1.833	1.02	7.917	2.04	14.000	3.89	20.08	1.67
1.917	1.02	8.000	2.04	14.083	3.89	20.17	1.67
2.000	1.02	8.083	2.04	14.167	3.89	20.25	1.67
2.083	1.02	8.167	2.04	14.250	3.89	20.33	1.11
2.167	1.02	8.250	2.04	14.333	2.78	20.42	1.11
2.250	1.02	8.333	2.41	14.417	2.78	20.50	1.11
2.333	1.20	8.417	2.41	14.500	2.78	20.58	1.11
2.417	1.20	8.500	2.41	14.583	2.78	20.67	1.11
2.500	1.20	8.583	2.41	14.667	2.78	20.75	1.11
2.583	1.20	8.667	2.41	14.750	2.78	20.83	1.11
2.667	1.20	8.750	2.41	14.833	2.78	20.92	1.11
2.750	1.20	8.833	2.59	14.917	2.78	21.00	1.11
2.833	1.20	8.917	2.59	15.000	2.78	21.08	1.11
2.917	1.20	9.000	2.59	15.083	2.78	21.17	1.11
3.000	1.20	9.083	2.59	15.167	2.78	21.25	1.11
3.083	1.20	9.167	2.59	15.250	2.78	21.33	1.11
3.167	1.20	9.250	2.59	15.333	2.78	21.42	1.11
3.250	1.20	9.333	2.97				


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V V I SSSSS U U A A L (v 6.2.2008)
V V I SS U U A A A L
V V I SS U U A A A L
V V I SSSSS UUUUU A A LLLLL
000 TTTT TTTT H H Y Y M M 000 TM
O O T T H H Y Y M M O O
O O T T H H Y M M O O
000 H H Y M M 000
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**** D E T A I L E D O U T P U T ****

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Output filename:
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Summary filename:
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DATE: 07-31-2023 TIME: 11:14:47

USER:

COMMENTS:

** SIMULATION : J. 25yr 24hr 15min SCS Type I **

READ STORM | Filename: C:\Users\kswain\AppData\Local\Temp\

ptotal-108.80 mm | d445773c-22c1-4d8c-9d13-42c2088d17a5\l1047ef
Comments: J. 25yr 24hr 15min SCS Type II

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.25	1.96	12.50	15.67	18.75	1.96
0.25	1.20	6.50	1.96	12.75	8.05	19.00	1.96
0.50	1.20	6.75	1.96	13.00	8.05	19.25	1.96
0.75	1.20	7.00	1.96	13.25	5.88	19.50	1.96
1.00	1.20	7.25	2.39	13.50	5.88	19.75	1.96
1.25	1.20	7.50	2.39	13.75	4.57	20.00	1.96
1.50	1.20	7.75	2.39	14.00	4.57	20.25	1.31
1.75	1.20	8.00	2.39	14.25	3.26	20.50	1.31
2.00	1.20	8.25	2.83	14.50	3.26	20.75	1.31
2.25	1.41	8.50	2.83	14.75	3.26	21.00	1.31
2.50	1.41	8.75	3.05	15.00	3.26	21.25	1.31
2.75	1.41	9.00	3.05	15.25	3.26	21.50	1.31
3.00	1.41	9.25	3.48	15.50	3.26	21.75	1.31
3.25	1.41	9.50	3.48	15.75	3.26	22.00	1.31
3.50	1.41	9.75	3.92	16.00	3.26	22.25	1.31
3.75	1.41	10.00	3.92	16.25	1.96	22.50	1.31
4.00	1.41	10.25	5.00	16.50	1.96	22.75	1.31
4.25	1.74	10.50	5.00	16.75	1.96	23.00	1.31
4.50	1.74	10.75	6.75	17.00	1.96	23.25	1.31
4.75	1.74	11.00	6.75	17.25	1.96	23.50	1.31
5.00	1.74	11.25	10.44	17.50	1.96	23.75	1.31
5.25	1.74	11.50	10.44	17.75	1.96	24.00	1.31
5.50	1.74	11.75	32.20	18.00	1.96		
5.75	1.74	12.00	133.17	18.25	1.96		
6.00	1.74	12.25	15.67	18.50	1.96		

CALIB NASHYD (0001) Area (ha)= 4.32 Curve Number (CN)= 74.0
ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.36

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.167	1.74	12.250	13.17
0.167	0.00	6.250	1.74	12.333	15.68
0.250	0.00	6.333	1.96	12.417	15.67
0.333	1.20	6.417	1.96	12.500	15.67
0.417	1.20	6.500	1.96	12.583	15.67

0.500	1.20	6.583	1.96	12.667	15.67
0.583	1.20	6.667	1.96	12.750	15.67
0.667	1.20	6.750	1.96	12.833	8.05
0.750	1.20	6.833	1.96	12.917	8.05
0.833	1.20	6.917	1.96	13.000	8.05
0.917	1.20	7.000	1.96	13.083	8.05
1.000	1.20	7.083	1.96	13.167	8.05
1.083	1.20	7.167	1.96	13.250	8.05
1.167	1.20	7.250	1.96	13.333	5.88
1.250	1.20	7.333	2.39	13.417	5.88
1.333	1.20	7.417	2.39	13.500	5.88
1.417	1.20	7.500	2.39	13.583	5.88
1.500	1.20	7.583	2.39	13.667	5.88
1.583	1.20	7.667	2.39	13.750	5.88
1.667	1.20	7.750	2.39	13.833	4.57
1.750	1.20	7.833	2.39	13.917	4.57
1.833	1.20	7.917	2.39	14.000	4.57
1.917	1.20	8.000	2.39	14.083	4.57
2.000	1.20	8.083	2.39	14.167	4.57
2.083	1.20	8.167	2.39	14.250	4.57
2.167	1.20	8.250	2.39	14.333	3.26
2.250	1.20	8.333	2.83	14.417	3.26
2.333	1.41	8.417	2.83	14.500	3.26
2.417	1.41	8.500	2.83	14.583	3.26
2.500	1.41	8.583	2.83	14.667	3.26
2.583	1.41	8.667	2.83	14.750	3.26
2.667	1.41	8.750	2.83	14.833	3.26
2.750	1.41	8.833	3.05	14.917	3.26
2.833	1.41	8.917	3.05	15.000	3.26
2.917	1.41	9.000	3.05	15.083	3.26
3.000	1.41	9.083	3.05	15.167	3.26
3.083	1.41	9.167	3.05	15.250	3.26
3.167	1.41	9.250	3.05	15.333	3.26
3.250	1.41	9.333	3.48	15.417	3.26
3.333	1.41	9.417	3.48	15.500	3.26
3.417	1.41	9.500	3.48	15.583	3.26
3.500	1.41	9.583	3.48	15.667	3.26
3.583	1.41	9.667	3.48	15.750	3.26
3.667	1.41	9.750	3.48	15.833	3.26
3.750	1.41	9.833	3.92	15.917	3.26
3.833	1.41	9.917	3.92	16.000	3.26
3.917	1.41	10.000	3.92	16.083	3.26
4.000	1.41	10.083	3.92	16.167	3.26
4.083	1.41	10.167	3.92	16.250	3.26
4.167	1.41	10.250	3.92	16.333	3.26
4.250	1.41	10.333	5.00	16.417	3.26
4.333	1.41	10.417	5.00	16.500	3.26
4.417	1.74	10.500	5.00	16.583	3.26
4.500	1.74	10.583	5.00	16.667	3.26
4.583	1.74	10.667	5.00	16.750	3.26

Unit Hyd Qpeak (cms) = 0.458
PEAK FLOW (cms) = 0.404 (i)
TIME TO PEAK (hrs) = 12.500
RUNOFF VOLUME (mm) = 54.244
TOTAL RAINFALL (mm) = 108.800
RUNOFF COEFFICIENT = 0.498

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB NASHYD (0002) Area (ha)= 13.33 Curve Number (CN)= 74.0
ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.62

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.167	1.74	12.250	13.17
0.167	0.00	6.250	1.74	12.333	15.68
0.250	0.00	6.333	1.96	12.417	15.67
0.333	1.20	6.417	1.96	12.500	15.67
0.417	1.20	6.500	1.96	12.583	15.67
0.500	1.20	6.583	1.96	12.667	15.67
0.583	1.20	6.667	1.96	12.750	15.67
0.667	1.20	6.750	1.96	12.833	8.05

0.750	1.20	6.833	1.96	12.917	8.05
0.833	1.20	6.917	1.96	13.000	8.05
0.917	1.20	7.000	1.96	13.083	8.05
1.000	1.20	7.083	1.96	13.167	8.05
1.083	1.20	7.167	1.96	13.250	8.05
1.167	1.20	7.250	1.96	13.333	5.88
1.250	1.20	7.333	2.39	13.417	5.88
1.333	1.20	7.417	2.39	13.500	5.88
1.417	1.20	7.500	2.39	13.583	5.88
1.500	1.20	7.583	2.39	13.667	5.88
1.583	1.20	7.667	2.39	13.750	5.88
1.667	1.20	7.750	2.39	13.833	4.57
1.750	1.20	7.833	2.39	13.917	4.57
1.833	1.20	7.917	2.39	14.000	4.57
1.917	1.20	8.000	2.39	14.083	4.57
2.000	1.20	8.083	2.39	14.167	4.57
2.083	1.20	8.167	2.39	14.250	4.57
2.167	1.20	8.250	2.39	14.333	3.26
2.250	1.20	8.333	2.83	14.417	3.26
2.333	1.41	8.417	2.83	14.500	3.26
2.417	1.41	8.500	2.83	14.583	3.26
2.500	1.41	8.583	2.83	14.667	3.26
2.583	1.41	8.667	2.83	14.750	3.26
2.667	1.41	8.750	2.83	14.833	3.26
2.750	1.41	8.833	3.05	14.917	3.26
2.833	1.41	8.917	3.05	15.000	3.26
2.917	1.41	9.000	3.05	15.083	3.26
3.000	1.41	9.083	3.05	15.167	3.26
3.083	1.41	9.167	3.05	15.250	3.26
3.167	1.41	9.250	3.05	15.333	3.26
3.250	1.41	9.333	3.48	15.417	3.26
3.333	1.41	9.417	3.48	15.500	3.26
3.417	1.41	9.500	3.48	15.583	3.26
3.500	1.41	9.583	3.48	15.667	3.26
3.583	1.41	9.667	3.48	15.750	3.26
3.667	1.41	9.750	3.48	15.833	3.26
3.750	1.41	9.833	3.92	15.917	3.26
3.833	1.41	9.917	3.92	16.000	3.26
3.917	1.41	10.000	3.92	16.083	3.26
4.000	1.41	10.083	3.92	16.167	3.26
4.083	1.41	10.167	3.92	16.250	3.26
4.167	1.41	10.250	3.92	16.333	3.26
4.250	1.41	10.333	5.00	16.417	3.26
4.333	1.74	10.417	5.00	16.500	3.26
4.417	1.74	10.500	5.00	16.583	3.26
4.500	1.74	10.583	5.00	16.667	3.26
4.583	1.74	10.667	5.00	16.750	3.26
4.667	1.74	10.750	5.00	16.833	3.26
4.750	1.74	10.833	6.75	16.917	3.26
4.833	1.74	10.917	6.75	17.000	3.26

Unit Hyd Qpeak (cms) = 0.821

PEAK FLOW (cms) = 0.839 (i)
TIME TO PEAK (hrs) = 12.750
RUNOFF VOLUME (mm) = 54.244
TOTAL RAINFALL (mm) = 108.800
RUNOFF COEFFICIENT = 0.499

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB NASHYD (0003) Area (ha)= 2.66 Curve Number (CN)= 74.0
ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.20

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.167	1.74	12.250	13.17
0.167	0.00	6.250	1.74	12.333	15.68
0.250	0.00	6.333	1.96	12.417	15.67
0.333	1.20	6.417	1.96	12.500	15.67
0.417	1.20	6.500	1.96	12.583	15.67
0.500	1.20	6.583	1.96	12.667	15.67
0.583	1.20	6.667	1.96	12.750	15.67
0.667	1.20	6.750	1.96	12.833	8.05
0.750	1.20	6.833	1.96	12.917	8.05
0.833	1.20	6.917	1.96	13.000	8.05
0.917	1.				


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V V I SSSSS U U A A L (v 6.2.2008)
V V I SS U U A A A L
V V I SS U U A A A L
V V I SS U U A A A L
V V I SSSSS UUUUU A A LLLLL
000 TTTT TTTT H H Y Y M M 000 TM
O O T T H H Y Y M M O O
O O T T H H Y Y M M O O
O O H H Y Y M M 000
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DATE: 07-31-2023 TIME: 11:14:47

USER:

COMMENTS:

** SIMULATION : K. 50yr 24hr 15min SCS Type I **

READ STORM | Filename: C:\Users\kswain\AppData\Local\Temp\

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Ptotal=120.77 mm | Comments: K. 50yr 24hr 15min SCS Type II

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.25	2.17	12.50	17.39	18.75	2.17
0.25	1.33	6.50	2.17	12.75	6.94	19.00	2.17
0.50	1.33	6.75	2.17	13.00	8.94	19.25	2.17
0.75	1.33	7.00	2.17	13.25	6.52	19.50	2.17
1.00	1.33	7.25	2.66	13.50	6.52	19.75	2.17
1.25	1.33	7.50	2.66	13.75	5.87	20.00	2.17
1.50	1.33	7.75	2.66	14.00	5.87	20.25	1.45
1.75	1.33	8.00	2.66	14.25	3.62	20.50	1.45
2.00	1.33	8.25	3.14	14.50	3.62	20.75	1.45
2.25	1.57	8.50	3.14	14.75	3.62	21.00	1.45
2.50	1.57	8.75	3.38	15.00	3.62	21.25	1.45
2.75	1.57	9.00	3.38	15.25	3.62	21.50	1.45
3.00	1.57	9.25	3.86	15.50	3.62	21.75	1.45
3.25	1.57	9.50	3.86	15.75	3.62	22.00	1.45
3.50	1.57	9.75	4.35	16.00	3.62	22.25	1.45
3.75	1.57	10.00	4.35	16.25	2.17	22.50	1.45
4.00	1.57	10.25	5.56	16.50	2.17	22.75	1.45
4.25	1.93	10.50	5.56	16.75	2.17	23.00	1.45
4.50	1.93	10.75	7.49	17.00	3.62	23.25	1.45
4.75	1.93	11.00	7.49	17.25	2.17	23.50	1.45
5.00	1.93	11.25	11.59	17.50	2.17	23.75	1.45
5.25	1.93	11.50	11.59	17.75	2.17	24.00	1.45
5.50	1.93	11.75	35.75	18.00	2.17		
5.75	1.93	12.00	147.82	18.25	2.17		
6.00	1.93	12.25	17.39	18.50	2.17		

CALIB NASHYD (0001) Area (ha)= 4.32 Curve Number (CN)= 74.0
ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.36

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME	RAIN	TIME	RAIN	TIME	RAIN		
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr		
0.00	0.00	6.167	1.93	12.250	147.82	18.33	2.17
0.167	0.00	6.250	1.93	12.333	17.41	18.42	2.17
0.250	0.00	6.333	2.17	12.417	17.39	18.50	2.17
0.333	1.33	6.417	2.17	12.500	17.39	18.58	2.17
0.417	1.33	6.500	2.17	12.583	17.39	18.67	2.17

0.500	1.33	6.583	2.17	12.667	17.39	18.75	2.17
0.583	1.33	6.667	2.17	12.750	17.39	18.83	2.17
0.667	1.33	6.750	2.17	12.833	8.94	18.92	2.17
0.750	1.33	6.833	2.17	12.917	8.94	19.00	2.17
0.833	1.33	6.917	2.17	13.000	8.94	19.08	2.17
0.917	1.33	7.000	2.17	13.083	8.94	19.17	2.17
1.000	1.33	7.083	2.17	13.167	8.94	19.25	2.17
1.083	1.33	7.167	2.17	13.250	8.94	19.33	2.17
1.167	1.33	7.250	2.17	13.333	6.52	19.42	2.17
1.250	1.33	7.333	2.66	13.417	6.52	19.50	2.17
1.333	1.33	7.417	2.66	13.500	6.52	19.58	2.17
1.417	1.33	7.500	2.66	13.583	6.52	19.67	2.17
1.500	1.33	7.583	2.66	13.667	6.52	19.75	2.17
1.583	1.33	7.667	2.66	13.750	6.52	19.83	2.17
1.667	1.33	7.750	2.66	13.833	5.87	19.92	2.17
1.750	1.33	7.833	2.66	13.917	5.87	20.00	2.17
1.833	1.33	7.917	2.66	14.000	5.87	20.08	2.17
1.917	1.33	8.000	2.66	14.083	5.87	20.17	2.17
2.000	1.33	8.083	2.66	14.167	5.87	20.25	2.17
2.083	1.33	8.167	2.66	14.250	5.87	20.33	1.45
2.167	1.33	8.250	2.66	14.333	3.62	20.42	1.45
2.250	1.33	8.333	3.14	14.417	3.62	20.50	1.45
2.333	1.57	8.417	3.14	14.500	3.62	20.58	1.45
2.417	1.57	8.500	3.14	14.583	3.62	20.67	1.45
2.500	1.57	8.583	3.14	14.667	3.62	20.75	1.45
2.583	1.57	8.667	3.14	14.750	3.62	20.83	1.45
2.667	1.57	8.750	3.14	14.833	3.62	20.92	1.45
2.750	1.57	8.833	3.38	14.917	3.62	21.00	1.45
2.833	1.57	8.917	3.38	15.000	3.62	21.08	1.45
2.917	1.57	9.000	3.38	15.083	3.62	21.17	1.45
3.000	1.57	9.083	3.38	15.167	3.62	21.25	1.45
3.083	1.57	9.167	3.38	15.250	3.62	21.33	1.45
3.167	1.57	9.250	3.38	15.333	3.62	21.42	1.45
3.250	1.57	9.333	3.86	15.417	3.62	21.50	1.45
3.333	1.57	9.417	3.86	15.500	3.62	21.58	1.45
3.417	1.57	9.500	3.86	15.583	3.62	21.67	1.45
3.500	1.57	9.583	3.86	15.667	3.62	21.75	1.45
3.583	1.57	9.667	3.86	15.750	3.62	21.83	1.45
3.667	1.57	9.750	3.86	15.833	3.62	21.92	1.45
3.750	1.57	9.833	4.35	15.917	3.62	22.00	1.45
3.833	1.57	9.917	4.35	16.000	3.62	22.08	1.45
3.917	1.57	10.000	4.35	16.083	3.62	22.17	1.45
4.000	1.57	10.083	4.35	16.167	3.62	22.25	1.45
4.083	1.57	10.167	4.35	16.250	3.62	22.33	1.45
4.167	1.57	10.250	4.35	16.333	2.17	22.42	1.45
4.250	1.57	10.333	5.56	16.417	2.17	22.50	1.45
4.333	1.57	10.417	5.56	16.500	2.17	22.58	1.45
4.417	1.93	10.500	5.56	16.583	2.17	22.67	1.45
4.500	1.93	10.583	5.56	16.667	2.17	22.75	1.45
4.583	1.93	10.667	5.56	16.750	2.17	22.83	1.45

4.667	1.93	10.750	5.56	16.833	2.17	22.92	1.45
4.750	1.93	10.833	7.49	16.917	2.17	23.00	1.45
4.833	1.93	10.917	7.49	17.000	2.17	23.08	1.45
4.917	1.93	11.000	7.49	17.083	2.17	23.17	1.45
5.000	1.93	11.083	7.49	17.167	2.17	23.25	1.45
5.083	1.93	11.167	7.49	17.250	2.17	23.33	1.45
5.167	1.93	11.250	7.49	17.333	2.17	23.42	1.45
5.250	1.93	11.333	11.59	17.417	2.17	23.50	1.45
5.333	1.93	11.417	11.59	17.500	2.17	23.58	1.45
5.417	1.93	11.500	11.59	17.583	2.17	23.67	1.45
5.500	1.93	11.583	11.59	17.667	2.17	23.75	1.45
5.583	1.93	11.667	11.59	17.750	2.17	23.83	1.45
5.667	1.93	11.750	11.59	17.833	2.17	23.92	1.45
5.750	1.93	11.833	35.75	17.917	2.17	24.00	1.45
5.833	1.93	11.917	35.75	18.000	2.17	24.08	1.45
5.917	1.93	12.000	35.75	18.083	2.17	24.17	1.45
6.000	1.93	12.083	147.81	18.167	2.17	24.25	1.45
6.083	1.93	12.167	147.82	18.250	2.17		

Unit Hyd Qpeak (cms) = 0.458
PEAK FLOW (cms) = 0.476 (i)
TIME TO PEAK (hrs) = 12.500
RUNOFF VOLUME (mm) = 63.756
TOTAL RAINFALL (mm) = 120.770
RUNOFF COEFFICIENT = 0.528
(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB NASHYD (0002) Area (ha)= 13.33 Curve Number (CN)= 74.0
ID= 1 DT= 5.0 min Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.62

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME	RAIN	TIME	RAIN	TIME	RAIN		
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr		
0.00	0.00	6.167	1.93	12.250	147.82	18.33	2.17
0.167	0.00	6.250	1.93	12.333	17.41	18.42	2.17
0.250	0.00	6.333	2.17	12.417	17.39	18.50	2.17
0.333	1.33	6.417	2.17	12.500	17.39	18.58	2.17
0.417	1.33	6.500	2.17	12.583	17.39	18.67	2.17

0.500	1.33	6.583	2.17	12.667	17.39	18.75	2.17
0.583	1.33	6.667	2.17	12.750	17.39	18.83	2.17
0.667	1.33	6.750	2.17	12.833	8.94	18.92	2.17
0.750	1.33	6.833	2.17	12.917	8.94	19.00	2.17
0.833	1.33	6.917	2.17	13.000	8.94	19.08	2.17
0.917	1.33	7.000	2.17	13.083	8.94	19.17	2.17
1.000	1.33	7.083	2.17	13.167	8.94	19.25	2.17
1.083	1.33	7.167	2.17	13.250	8.94	19.33	2.17
1.167	1.33	7.250	2.17	13.333	6.52	19.42	2.17
1.250	1.33	7.333	2.66	13.417	6.52	19.50	2.17
1.333	1.33	7.417	2.66	13.500	6.52	19.58	2.17
1.417	1.33	7.500	2.66	13.583	6.52	19.67	2.17
1.500	1.33	7.583	2.66	13.667	6.52	19.75	2.17
1.583	1.33	7.667	2.66	13.750	6.52	19.83	2.17
1.667	1.33	7.750	2.66	13.833	5.87	19.92	2.17
1.750	1.33	7.833	2.66	13.917	5.87	20.00	2.17
1.833	1.33	7.917	2.66	14.000	5.87	20.08	2.17
1.917	1.33	8.000	2.66	14.083	5.87	20.17	2.17
2.000	1.33	8.083	2.66	14.167	5.87	20.25	2.17
2.083	1.33	8.167	2.66	14.250	5.87	20.33	1.45
2.167	1.33	8.250	2.66	14.333	3.62	20.42	1.45
2.250	1.33	8.333	3.14	14.417	3.62	20.50	1.45
2.333	1.57	8.417	3.14	14.500	3.62	20.58	1.45
2.417	1.57	8.500	3.14	14.583	3.62	20.67	1.45
2.500	1.57	8.583					


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V V I SSSSS U U A A L (v 6.2.2008)
V V I SS U U A A A L
V V I SS U U A A A L
V V I SSSSS UUUUU A A LLLLL
000 TTTT TTTT H H Y Y M M 000 TM
O O T T H H Y Y M M O O
O O T T H H Y M M O O
000 H H Y M M 000
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DATE: 07-31-2023 TIME: 11:14:47

USER:

COMMENTS:

** SIMULATION : L 100yr 24hr 15min SCS Type **

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TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.25	2.39	12.50	19.11	18.75	2.39
0.25	1.46	6.50	2.39	12.75	9.82	19.00	2.39
0.50	1.46	6.75	2.39	13.00	9.82	19.25	2.39
0.75	1.46	7.00	2.39	13.25	7.17	19.50	2.39
1.00	1.46	7.25	2.92	13.50	7.17	19.75	2.39
1.25	1.46	7.50	2.92	13.75	5.58	20.00	2.39
1.50	1.46	7.75	2.92	14.00	5.58	20.25	1.59
1.75	1.46	8.00	2.92	14.25	3.98	20.50	1.59
2.00	1.46	8.25	3.45	14.50	3.98	20.75	1.59
2.25	1.73	8.50	3.45	14.75	3.98	21.00	1.59
2.50	1.73	8.75	3.72	15.00	3.98	21.25	1.59
2.75	1.73	9.00	3.72	15.25	3.98	21.50	1.59
3.00	1.73	9.25	4.25	15.50	3.98	21.75	1.59
3.25	1.73	9.50	4.25	15.75	3.98	22.00	1.59
3.50	1.73	9.75	4.78	16.00	3.98	22.25	1.59
3.75	1.73	10.00	4.78	16.25	2.39	22.50	1.59
4.00	1.73	10.25	6.11	16.50	2.39	22.75	1.59
4.25	2.12	10.50	6.11	16.75	2.39	23.00	1.59
4.50	2.12	10.75	8.23	17.00	2.39	23.25	1.59
4.75	2.12	11.00	8.23	17.25	2.39	23.50	1.59
5.00	2.12	11.25	12.74	17.50	2.39	23.75	1.59
5.25	2.12	11.50	12.74	17.75	2.39	24.00	1.59
5.50	2.12	11.75	39.29	18.00	2.39		
5.75	2.12	12.00	162.47	18.25	2.39		
6.00	2.12	12.25	19.11	18.50	2.39		

| CALIB |
| NASHYD (0001) | Area (ha)= 4.32 Curve Number (CN)= 74.0
| ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 0.36

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.167	2.12	12.250	162.47	18.33	2.39
0.167	0.00	6.250	2.12	12.333	19.13	18.42	2.39
0.250	0.00	6.333	2.39	12.417	19.11	18.50	2.39
0.333	1.46	6.417	2.39	12.500	19.11	18.58	2.39
0.417	1.46	6.500	2.39	12.583	19.11	18.67	2.39

0.500	1.46	6.583	2.39	12.667	19.11	18.75	2.39
0.583	1.46	6.667	2.39	12.750	19.11	18.83	2.39
0.667	1.46	6.750	2.39	12.833	9.82	18.92	2.39
0.750	1.46	6.833	2.39	12.917	9.82	19.00	2.39
0.833	1.46	6.917	2.39	13.000	9.82	19.08	2.39
0.917	1.46	7.000	2.39	13.083	9.82	19.17	2.39
1.000	1.46	7.083	2.39	13.167	9.82	19.25	2.39
1.083	1.46	7.167	2.39	13.250	9.82	19.33	2.39
1.167	1.46	7.250	2.39	13.333	7.17	19.42	2.39
1.250	1.46	7.333	2.92	13.417	7.17	19.50	2.39
1.333	1.46	7.417	2.92	13.500	7.17	19.58	2.39
1.417	1.46	7.500	2.92	13.583	7.17	19.67	2.39
1.500	1.46	7.583	2.92	13.667	7.17	19.75	2.39
1.583	1.46	7.667	2.92	13.750	7.17	19.83	2.39
1.667	1.46	7.750	2.92	13.833	5.58	19.92	2.39
1.750	1.46	7.833	2.92	13.917	5.58	20.00	2.39
1.833	1.46	7.917	2.92	14.000	5.58	20.08	2.39
1.917	1.46	8.000	2.92	14.083	5.58	20.17	2.39
2.000	1.46	8.083	2.92	14.167	5.58	20.25	2.39
2.083	1.46	8.167	2.92	14.250	5.58	20.33	1.59
2.167	1.46	8.250	2.92	14.333	3.98	20.42	1.59
2.250	1.46	8.333	3.45	14.417	3.98	20.50	1.59
2.333	1.73	8.417	3.45	14.500	3.98	20.58	1.59
2.417	1.73	8.500	3.45	14.583	3.98	20.67	1.59
2.500	1.73	8.583	3.45	14.667	3.98	20.75	1.59
2.583	1.73	8.667	3.45	14.750	3.98	20.83	1.59
2.667	1.73	8.750	3.45	14.833	3.98	20.92	1.59
2.750	1.73	8.833	3.72	14.917	3.98	21.00	1.59
2.833	1.73	8.917	3.72	15.000	3.98	21.08	1.59
2.917	1.73	9.000	3.72	15.083	3.98	21.17	1.59
3.000	1.73	9.083	3.72	15.167	3.98	21.25	1.59
3.083	1.73	9.167	3.72	15.250	3.98	21.33	1.59
3.167	1.73	9.250	3.72	15.333	3.98	21.42	1.59
3.250	1.73	9.333	4.25	15.417	3.98	21.50	1.59
3.333	1.73	9.417	4.25	15.500	3.98	21.58	1.59
3.417	1.73	9.500	4.25	15.583	3.98	21.67	1.59
3.500	1.73	9.583	4.25	15.667	3.98	21.75	1.59
3.583	1.73	9.667	4.25	15.750	3.98	21.83	1.59
3.667	1.73	9.750	4.25	15.833	3.98	21.92	1.59
3.750	1.73	9.833	4.78	15.917	3.98	22.00	1.59
3.833	1.73	9.917	4.78	16.000	3.98	22.08	1.59
3.917	1.73	10.000	4.78	16.083	3.98	22.17	1.59
4.000	1.73	10.083	4.78	16.167	3.98	22.25	1.59
4.083	1.73	10.167	4.78	16.250	3.98	22.33	1.59
4.167	1.73	10.250	4.78	16.333	2.39	22.42	1.59
4.250	1.73	10.333	6.11	16.417	2.39	22.50	1.59
4.333	1.73	10.417	6.11	16.500	2.39	22.58	1.59
4.417	2.12	10.500	6.11	16.583	2.39	22.67	1.59
4.500	2.12	10.583	6.11	16.667	2.39	22.75	1.59
4.583	2.12	10.667	6.11	16.750	2.39	22.83	1.59

Unit Hyd Qpeak (cms) = 0.458

PEAK FLOW (cms) = 0.551 (i)

TIME TO PEAK (hrs) = 12.500

RUNOFF VOLUME (mm) = 73.542

TOTAL RAINFALL (mm) = 132.740

RUNOFF COEFFICIENT = 0.554

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| NASHYD (0002) | Area (ha)= 13.33 Curve Number (CN)= 74.0
| ID= 1 DT= 5.0 min | Ia (mm)= 7.00 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 0.62

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

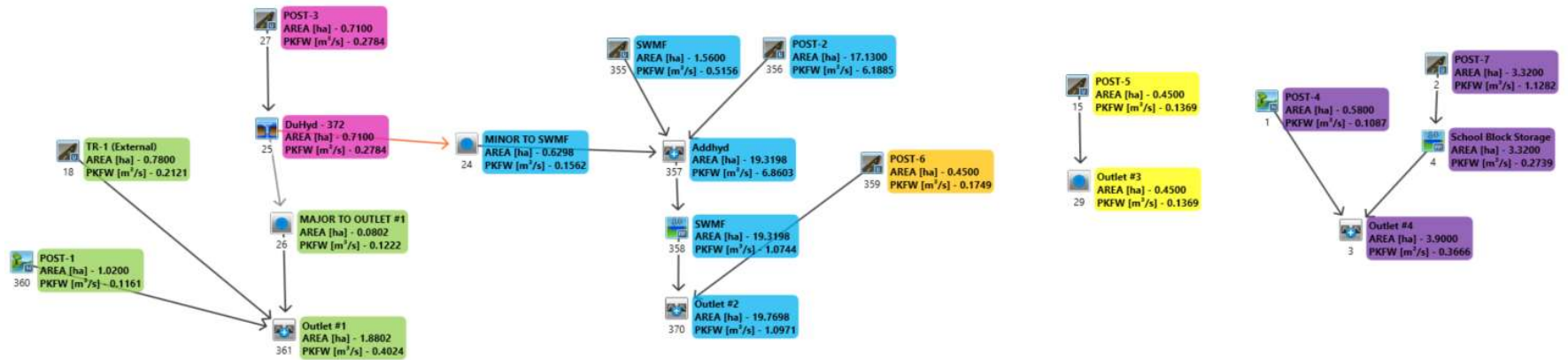
----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.167	2.12	12.250	162.47	18.33	2.39
0.167	0.00	6.250	2.12	12.333	19.13	18.42	2.39
0.250	0.00	6.333	2.39	12.417	19.11	18.50	2.39
0.333	1.46	6.417	2.39	12.500	19.11	18.58	2.39
0.417	1.46	6.500	2.39	12.583	19.11	18.67	2.39
0.500	1.46	6.583	2.39	12.667	19.11	18.75	2.39
0.583	1.46	6.667	2.39	12.750	19.11	18.83	2.39
0.667	1.46	6.750	2.39	12.833	9.82	18.92	2.39

0.750	1.46	6.833	2.39	12.917	9.82	19.00	2.39
0.833	1.46	6.917	2.39	13.000	9.82	19.08	2.39
0.917	1.46	7.000	2.39	13.083	9.82	19.17	2.39
1.000	1.46	7.083	2.39	13.167	9.82	19.25	2.39
1.083	1.46	7.167	2.39	13.250	9.82	19.33	2.39
1.167	1.46	7.250	2.39	13.333	7.17	19.42	2.39
1.250	1.46	7.333	2.92	13.417	7.17	19.50	2.39
1.333	1.46	7.417	2.92	13.500	7.17	19.58	2.39
1.417	1.46	7.500	2.92	13.583	7.17	19.67	2.39
1.500	1.46	7.583	2.92	13.667	7.17	19.75	2.39
1.583	1.46	7.667	2.92	13.750	7.17	19.83	2.39
1.667	1.46	7.750	2.92	13.833	5.58	19.92	2.39
1.750	1.46	7.833	2.92	13.917	5.58	20.00	2.39
1.833	1.46	7.917	2.92	14.000	5.58	20.08	2.39
1.917	1.46	8.000	2.92	14.083	5.58	20.17	2.39
2.000	1.46	8.083	2.92	14.167	5.58	20.25	2.39
2.083	1.46	8.167	2.92	14.250	5.58	20.33	1.59
2.167	1.46	8.250	2.92	14.333	3.98	20.42	1.59
2.250	1.46	8.333	3.45	14.417	3.98	20.50	1.59
2.333	1.73	8.417	3.45	14.500	3.98	20.58	1.59
2.417	1.73	8.500	3.45	14.583	3.98	20.67	1.59
2.500	1.73	8.583	3.45	14.667	3.98	20.75	1.59
2.583	1.73	8.667	3.45	14.750	3.98	20.83	1.59
2.667	1.73	8.750	3.45	14.833	3.98	20.92	1.59
2.750	1.73	8.833	3.72	14.917	3.98	21.00	1.59
2.833	1.73	8.917	3.72	15.000	3.98	21.08	1.59
2.917	1.73	9.000	3.72	15.083	3.98	21.17	1.59
3.000	1.73	9.083	3.72	15.167	3.98	21.25	1.59
3.083	1.73	9.167	3.72	15.250	3.98	21.33	1.59
3.167	1.73	9.250	3.72	15.333	3.98	21.42	1.59
3.250	1.73	9.333	4.25	15.417	3.98	21.50	1.59
3.333	1.73	9.417	4.25	15.500	3.98	21.58	1.59
3.417	1.73	9.500	4.25	15.583	3.98	21.67	1.59
3.500	1.73	9.583	4.25	15.667	3.98	21.75	1.59
3.583	1.73	9.667	4.25	15.750	3.98	21.83	1.59
3.667	1.73	9.750					

Visual OTTHYMO 6.0 Model Schematic

Post-Development



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*****
V V I SSSSS U U A L (v 6.2.2008)
V V I SS U U A A A L
V V I SS U U A A A L
V V I SS U U A A L
V V I SSSSS UUUU A A LLLL
000 TTTT TTTT H H Y Y M M 000 TM
O O T T H H Y Y M M O O
O O T T H H Y Y M M O O
000 T T H H Y Y M M 000
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```

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMD 6.2\VO2\voindat
Output filename:
C:\Users\kswain\AppData\Local\Civica\VHS\4c9aa870-2b3a-4142-a551-3404df768702\6eb4c
179-fe21-4a7b-a233-22aa160a3e8a\scena
Summary filename:
C:\Users\kswain\AppData\Local\Civica\VHS\4c9aa870-2b3a-4142-a551-3404df768702\6eb4c
179-fe21-4a7b-a233-22aa160a3e8a\scena
DATE: 08-15-2023 TIME: 08:21:47
USER:
COMMENTS:

```

```

*****
** SIMULATION : 25mm **
*****
| READ STORM | Filename: C:\Users\kswain\AppData\Local\Temp\

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	1.36	1.00	6.91	2.00	4.18	3.00	1.86
0.08	1.45	1.08	11.02	2.08	3.77	3.08	1.78
0.17	1.55	1.17	26.16	2.17	3.43	3.17	1.71
0.25	1.67	1.25	76.07	2.25	3.16	3.25	1.64
0.33	1.81	1.33	33.71	2.33	2.92	3.33	1.58
0.42	1.99	1.42	18.64	2.42	2.72	3.42	1.52
0.50	2.20	1.50	12.61	2.50	2.55	3.50	1.47
0.58	2.47	1.58	9.46	2.58	2.39	3.58	1.43
0.67	2.82	1.67	7.55	2.67	2.26	3.67	1.38
0.75	3.29	1.75	6.28	2.75	2.14	3.75	1.34
0.83	3.97	1.83	5.38	2.83	2.04	3.83	1.30
0.92	5.03	1.92	4.70	2.92	1.94	3.92	1.26

```

| CALIB |
| STANDHYD ( 0001) | Area (ha)= 0.58 Curve Number (CN)= 72.3
| ID= 1 DT= 5.0 min | Ia (mm)= 4.86 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 0.20
Unit Hyd Qpeak (cms)= 0.111
PEAK FLOW (cms)= 0.005 (i)
TIME TO PEAK (hrs)= 1.583
RUNOFF VOLUME (mm)= 3.443
TOTAL RAINFALL (mm)= 24.991
RUNOFF COEFFICIENT = 0.138
(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

```

| CALIB |
| STANDHYD ( 0002) | Area (ha)= 3.32
| ID= 3 DT= 5.0 min | Total Imp(%)= 55.00 Dir. Conn.(%)= 55.00
IMPervIOUS PERVIOUS (i)
Surface Area (ha)= 1.83 1.49
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 148.77 40.00
Mannings n = 0.013 0.250
Max. Eff. Inten. (mm/hr)= 76.07 3.45

```

```

over (min) 5.00 35.00
Storage Coeff. (min)= 3.62 (ii) 30.77 (ii)
Unit Hyd. Tpeak (min)= 5.00 35.00
Unit Hyd. peak (cms)= 0.25 0.04
PEAK FLOW (cms)= 0.32 0.01 *TOTALS*
TIME TO PEAK (hrs)= 1.33 2.00 0.317 (iii)
RUNOFF VOLUME (mm)= 23.99 3.23 14.64
TOTAL RAINFALL (mm)= 24.99 24.99 24.99
RUNOFF COEFFICIENT = 0.96 0.13 0.59

```

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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```

| RESERVOIR( 0004) |
| IN= 2 OUT= 1 |
| DT= 5.0 min |
OVERFLOW IS OFF
OUTFLOW STORAGE | OUTFLOW STORAGE
(cms) (ha.m.) | (cms) (ha.m.)
0.0000 0.0000 | 0.1200 0.1370
0.0350 0.0750 | 0.1700 0.1500
0.1000 0.0950 | 0.2800 0.1600
0.1100 0.1120 | 0.0000 0.0000
AREA OPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW: ID= 2 ( 0002) 3.320 0.317 1.33 14.64
OUTFLOW: ID= 1 ( 0004) 3.320 0.016 2.75 14.48
PEAK FLOW REDUCTION [Qout/Qin](%)= 5.12
TIME SHIFT OF PEAK FLOW (min)= 85.00
MAXIMUM STORAGE USED (ha.m.)= 0.0348

```

```

| ADD HYD ( 0003) |
| 1 + 2 = 3 |
AREA OPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID= 1 ( 0001): 0.58 0.005 1.58 3.44
+ ID2= 2 ( 0004): 3.32 0.016 2.75 14.48
ID= 3 ( 0003): 3.90 0.019 1.75 12.84

```

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
| CALIB |
| STANDHYD ( 0355) | Area (ha)= 1.56
| ID= 1 DT= 5.0 min | Total Imp(%)= 50.00 Dir. Conn.(%)= 50.00
IMPervIOUS PERVIOUS (i)
Surface Area (ha)= 0.78 0.78
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 101.98 40.00
Mannings n = 0.013 0.250
Max. Eff. Inten. (mm/hr)= 76.07 3.45
over (min) 5.00 35.00
Storage Coeff. (min)= 2.88 (ii) 30.03 (ii)
Unit Hyd. Tpeak (min)= 5.00 35.00
Unit Hyd. peak (cms)= 0.28 0.04
PEAK FLOW (cms)= 0.14 0.00 *TOTALS*
TIME TO PEAK (hrs)= 1.33 2.00 0.145 (iii)
RUNOFF VOLUME (mm)= 23.99 3.23 13.60
TOTAL RAINFALL (mm)= 24.99 24.99 24.99
RUNOFF COEFFICIENT = 0.96 0.13 0.54

```

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

```

| CALIB |
| STANDHYD ( 0356) | Area (ha)= 17.13
| ID= 1 DT= 5.0 min | Total Imp(%)= 69.00 Dir. Conn.(%)= 61.00
IMPervIOUS PERVIOUS (i)
Surface Area (ha)= 11.82 5.31
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 337.93 40.00
Mannings n = 0.013 0.250
Max. Eff. Inten. (mm/hr)= 76.07 6.55
over (min) 5.00 30.00
Storage Coeff. (min)= 5.92 (ii) 26.91 (ii)

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```

Unit Hyd. Tpeak (min)= 5.00 30.00
Unit Hyd. peak (cms)= 0.19 0.04
PEAK FLOW (cms)= 1.49 0.05 *TOTALS* 1.496 (iii)
TIME TO PEAK (hrs)= 1.33 1.92 1.33
RUNOFF VOLUME (mm)= 23.99 4.27 16.30
TOTAL RAINFALL (mm)= 24.99 24.99 24.99
RUNOFF COEFFICIENT = 0.96 0.17 0.65

```

```

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

```

| CALIB |
| STANDHYD ( 0027) | Area (ha)= 0.71
| ID= 1 DT= 5.0 min | Total Imp(%)= 73.50 Dir. Conn.(%)= 67.00
IMPervIOUS PERVIOUS (i)
Surface Area (ha)= 0.52 0.19
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 68.00 40.00
Mannings n = 0.013 0.250
Max. Eff. Inten. (mm/hr)= 76.07 6.40
over (min) 5.00 25.00
Storage Coeff. (min)= 2.28 (ii) 23.46 (ii)
Unit Hyd. Tpeak (min)= 5.00 25.00
Unit Hyd. peak (cms)= 0.30 0.05
PEAK FLOW (cms)= 0.09 0.00 *TOTALS* 0.093 (iii)
TIME TO PEAK (hrs)= 1.33 1.83 1.33
RUNOFF VOLUME (mm)= 23.99 4.22 17.45
TOTAL RAINFALL (mm)= 24.99 24.99 24.99
RUNOFF COEFFICIENT = 0.96 0.17 0.70

```

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

```

| DUHYD ( 0025) |
| Inlet Cap.= 0.156 |
| #of Inlets= 1 |
| Total(cms)= 0.2 |
AREA OPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
TOTAL HYD (ID= 1): 0.71 0.09 1.33 17.45
MAJOR SYS. (ID= 2): 0.00 0.00 0.00 0.00
MINOR SYS. (ID= 3): 0.71 0.09 1.33 17.45
NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

```

| Junction Command(0024) |
AREA OPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW: ID= 9( 0025) 0.71 0.09 1.33 17.45
OUTFLOW: ID= 2( 0024) 0.71 0.09 1.33 17.45

```

```

| ADD HYD ( 0357) |
| 1 + 2 = 3 |
AREA OPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID= 1 ( 0024): 0.71 0.093 1.33 17.45
+ ID2= 2 ( 0355): 1.56 0.145 1.33 13.60
ID= 3 ( 0357): 2.27 0.238 1.33 14.80

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| ADD HYD ( 0357) |
| 3 + 2 = 1 |
AREA OPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID= 3 ( 0357): 2.27 0.238 1.33 14.80
+ ID2= 2 ( 0356): 17.13 1.496 1.33 16.30
ID= 1 ( 0357): 19.40 1.734 1.33 16.12

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.


```

RESERVOIR( 0358) OVERFLOW IS OFF
IN= 2---) OUT= 1
DT= 5.0 min
-----
OUTFLOW STORAGE      OUTFLOW STORAGE
(cms) (ha.m.) (cms) (ha.m.)
0.0000 0.0000 0.7600 0.9520
0.0420 0.1820 1.3600 1.2980
0.0630 0.3560 1.8900 1.5720
0.3940 0.7050 4.0000 1.9390
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW: ID= 2 ( 0357) 19.400 1.734 1.33 16.12
OUTFLOW: ID= 1 ( 0358) 19.400 0.052 4.00 16.07
-----
PEAK FLOW REDUCTION [Qout/Qin](%)= 2.98
TIME SHIFT OF PEAK FLOW (min)=160.00
MAXIMUM STORAGE USED (ha.m.)= 0.2618

```

```

CALIB
STANDHYD ( 0359) Area (ha)= 0.45
ID= 1 DT= 5.0 min Total Imp(X)= 71.30 Dir. Conn.(%)= 66.10

```

```

-----
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.32 0.13
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 54.77 40.00
Mannings n = 0.013 0.250
-----
Max. Eff. Inten. (mm/hr)= 76.07 5.67
over (min) 5.00 25.00
Storage Coeff. (min)= 1.99 (ii) 24.23 (ii)
Unit Hyd. Tpeak (min)= 5.00 25.00
Unit Hyd. peak (cms)= 0.31 0.05
-----
*TOTALS*
PEAK FLOW (cms)= 0.06 0.00 0.060 (iii)
TIME TO PEAK (hrs)= 1.33 1.83 1.33
RUNOFF VOLUME (mm)= 23.99 3.97 17.17
TOTAL RAINFALL (mm)= 24.99 24.99
RUNOFF COEFFICIENT = 0.96 0.16 0.69

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

TIME TO PEAK (hrs)= 1.33 1.92 1.33
RUNOFF VOLUME (mm)= 19.99 3.95 6.33
TOTAL RAINFALL (mm)= 24.99 24.99 24.99
RUNOFF COEFFICIENT = 0.80 0.16 0.25

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING: FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20% YOU SHOULD CONSIDER SPLITTING THE AREA.

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| Junction Command(0026) |

```

-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW: ID= 0( 0025) 0.00 0.00 0.00 0.00
OUTFLOW: ID= 2( 0026) 0.00 0.00 0.00 0.00
-----

```

```

ADD HYD ( 0361)
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
-----
*** W A R N I N G : HYDROGRAPH 0026 <ID= 2> IS DRY.
*** W A R N I N G : HYDROGRAPH 0003 = HYDROGRAPH 0001
ID1= 1 ( 0018): 0.78 0.023 1.33 6.33
+ ID2= 2 ( 0026): 0.00 0.000 0.00 0.00
-----
ID = 3 ( 0361): 0.78 0.023 1.33 6.33

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

ADD HYD ( 0361)
| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
-----
ID1= 0 ( 0361): 0.78 0.023 1.33 6.33
+ ID2= 2 ( 0360): 1.02 0.007 1.92 3.87
-----
ID = 1 ( 0361): 1.80 0.023 1.33 4.94

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

ADD HYD ( 0370)
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
-----
ID1= 1 ( 0358): 19.40 0.052 4.00 16.07
+ ID2= 2 ( 0359): 0.45 0.060 1.33 17.17
-----
ID = 3 ( 0370): 19.85 0.076 1.33 16.09

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

CALIB
NASHYD ( 0360) Area (ha)= 1.02 Curve Number (CN)= 74.5
ID= 1 DT= 5.0 min Ia (mm)= 4.61 # of Linear Res. (N)= 3.00
U.H. Tp(hrs)= 0.44
-----
Unit Hyd Qpeak (cms)= 0.089
-----
PEAK FLOW (cms)= 0.007 (i)
TIME TO PEAK (hrs)= 1.917
RUNOFF VOLUME (mm)= 3.869
TOTAL RAINFALL (mm)= 24.991
RUNOFF COEFFICIENT = 0.155

```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

CALIB
STANDHYD ( 0018) Area (ha)= 0.78
ID= 1 DT= 5.0 min Total Imp(X)= 20.00 Dir. Conn.(%)= 15.00

```

```

-----
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.16 0.62
Dep. Storage (mm)= 5.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 72.11 40.00
Mannings n = 0.013 0.250
-----
Max. Eff. Inten. (mm/hr)= 76.07 5.02
over (min) 5.00 30.00
Storage Coeff. (min)= 2.34 (ii) 25.69 (ii)
Unit Hyd. Tpeak (min)= 5.00 30.00
Unit Hyd. peak (cms)= 0.30 0.04
-----
*TOTALS*
PEAK FLOW (cms)= 0.02 0.00 0.023 (iii)

```

```

CALIB
STANDHYD ( 0015) Area (ha)= 0.45
ID= 1 DT= 5.0 min Total Imp(X)= 37.40 Dir. Conn.(%)= 37.40

```

```

-----
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.17 0.28
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 54.77 40.00
Mannings n = 0.013 0.250

```

```

Max. Eff. Inten. (mm/hr)= 76.07 3.45
over (min) 5.00 30.00
Storage Coeff. (min)= 1.99 (ii) 29.14 (ii)
Unit Hyd. Tpeak (min)= 5.00 30.00
Unit Hyd. peak (cms)= 0.31 0.04

```

```

*TOTALS*
PEAK FLOW (cms)= 0.03 0.00 0.034 (iii)
TIME TO PEAK (hrs)= 1.33 1.92 1.33
RUNOFF VOLUME (mm)= 23.99 3.23 10.96
TOTAL RAINFALL (mm)= 24.99 24.99
RUNOFF COEFFICIENT = 0.96 0.13 0.44

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| Junction Command(0029) |

```

-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW: ID= 2( 0015) 0.45 0.03 1.33 10.96
OUTFLOW: ID= 2( 0029) 0.45 0.03 1.33 10.96
-----

```

```

*****
V V I SSSSS U U A L (v 6.2.2008)
V V I SS U U A A A L
V V I SS U U A A A L
V V I SS U U A A L
V V I SSSSS UUUU A A LLLL
000 TTTT TTTT H H Y Y M M O O TM
O O T T H H Y Y M M O O
O O T T H H Y Y M M O O
000 T T H H Y Y M M O O
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```

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat
Output filename:
C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404d768702\68263
086-29a2-4176-9f49-f3f575d5ca79\scena
Summary filename:
C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404d768702\68263
086-29a2-4176-9f49-f3f575d5ca79\scena

```

DATE: 08-15-2023 TIME: 08:21:47

USER:

COMMENTS:

```

*****
** SIMULATION : A. 2yr 3hr 10min Chicago **
*****

```

```

CHICAGO STORM IDF curve parameters: A= 404.147
Ptotal= 32.13 mm B= 0.000
C= 0.699

```

used in: INTENSITY = A / (t + B)^C
Duration of storm = 3.00 hrs
Storm time step = 10.00 min
Time to peak ratio = 0.33

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	3.76	0.83	80.82	1.67	5.83	2.50	3.90
0.17	4.42	1.00	17.11	1.83	5.15	2.67	3.39
0.33	5.48	1.17	10.79	2.00	4.63	2.83	3.20
0.50	7.50	1.33	8.23	2.17	4.23		
0.67	13.95	1.50	6.78	2.33	3.90		

```

CALIB
STANDHYD ( 0001) Area (ha)= 0.58 Curve Number (CN)= 72.3
ID= 1 DT= 5.0 min Ia (mm)= 4.86 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.20

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

---- TRANSFORMED HYETOGRAPH ----
TIME RAIN TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr hrs mm/hr hrs mm/hr
0.083 3.76 0.833 13.95 1.583 6.78 2.33 4.23
0.167 3.76 0.917 80.82 1.667 6.78 2.42 3.90
0.250 4.42 1.000 80.82 1.750 5.83 2.50 3.90
0.333 4.42 1.083 17.11 1.833 5.83 2.58 3.63
0.417 5.48 1.167 17.11 1.917 5.15 2.67 3.63
0.500 5.48 1.250 10.79 2.000 5.15 2.75 3.39
0.583 7.50 1.333 10.79 2.083 4.63 2.83 3.39
0.667 7.50 1.417 8.23 2.167 4.63 2.92 3.20
0.750 13.95 1.500 8.23 2.250 4.23 3.00 3.20

```

Unit Hyd Qpeak (cms) = 0.111

PEAK FLOW (cms) = 0.010 (i)
TIME TO PEAK (hrs) = 1.167
RUNOFF VOLUME (mm) = 5.958
TOTAL RAINFALL (mm) = 32.132
RUNOFF COEFFICIENT = 0.185

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

CALIB
STANDHYD ( 0002) Area (ha)= 3.32
ID= 1 DT= 5.0 min Total Imp(%)= 55.00 Dir. Conn.(%)= 55.00

```

```

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.83 1.49
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 148.77 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

---- TRANSFORMED HYETOGRAPH ----
TIME RAIN TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr hrs mm/hr hrs mm/hr
0.083 3.76 0.833 13.95 1.583 6.78 2.33 4.23
0.167 3.76 0.917 80.82 1.667 6.78 2.42 3.90
0.250 4.42 1.000 80.82 1.750 5.83 2.50 3.90
0.333 4.42 1.083 17.11 1.833 5.83 2.58 3.63
0.417 5.48 1.167 17.11 1.917 5.15 2.67 3.63
0.500 5.48 1.250 10.79 2.000 5.15 2.75 3.39
0.583 7.50 1.333 10.79 2.083 4.63 2.83 3.39
0.667 7.50 1.417 8.23 2.167 4.63 2.92 3.20
0.750 13.95 1.500 8.23 2.250 4.23 3.00 3.20

```

Max. Eff. Inten. (mm/hr) = 80.82 6.42
over (min) = 5.00 25.00
Storage Coeff. (min) = 3.53 (ii) 24.70 (ii)
Unit Hyd. Tpeak (min) = 5.00 25.00
Unit Hyd. peak (cms) = 0.26 0.05

TOTALS

PEAK FLOW (cms) = 0.39 0.02 0.393 (iii)
TIME TO PEAK (hrs) = 1.00 1.33 1.60
RUNOFF VOLUME (mm) = 31.13 5.62 19.65
TOTAL RAINFALL (mm) = 32.13 32.13 32.13
RUNOFF COEFFICIENT = 0.97 0.18 0.61

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (0004) OVERFLOW IS OFF

```

IN= 2----> OUT= 1
DT= 5.0 min
OUTFLOW STORAGE OUTFLOW STORAGE
(cms) (ha.m.) (cms) (ha.m.)
0.0000 0.0000 0.1200 0.1370
0.0350 0.0750 0.1700 0.1500
0.1000 0.0950 0.2800 0.1600
0.1100 0.1120 0.0000 0.0000

```

```

AREA OPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW: ID= 2 ( 0002) 3.320 0.393 1.00 19.65
OUTFLOW: ID= 1 ( 0004) 3.320 0.023 3.00 19.49

```

PEAK FLOW REDUCTION [Qout/Qin](%) = 5.73
TIME SHIFT OF PEAK FLOW (min) = 120.00
MAXIMUM STORAGE USED (ha.m.) = 0.0482

```

ADD HYD ( 0003)
1 + 2 = 3
AREA OPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID= 1 ( 0001): 0.58 0.610 1.17 5.96
+ ID2= 2 ( 0004): 3.32 0.023 3.00 19.49
=====
ID = 3 ( 0003): 3.90 0.027 1.25 17.48

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

CALIB
STANDHYD ( 0355) Area (ha)= 1.56
ID= 1 DT= 5.0 min Total Imp(%)= 50.00 Dir. Conn.(%)= 50.00
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.78 0.78
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 101.98 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

---- TRANSFORMED HYETOGRAPH ----
TIME RAIN TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr hrs mm/hr hrs mm/hr
0.083 3.76 0.833 13.95 1.583 6.78 2.33 4.23
0.167 3.76 0.917 80.82 1.667 6.78 2.42 3.90
0.250 4.42 1.000 80.82 1.750 5.83 2.50 3.90
0.333 4.42 1.083 17.11 1.833 5.83 2.58 3.63
0.417 5.48 1.167 17.11 1.917 5.15 2.67 3.63
0.500 5.48 1.250 10.79 2.000 5.15 2.75 3.39
0.583 7.50 1.333 10.79 2.083 4.63 2.83 3.39
0.667 7.50 1.417 8.23 2.167 4.63 2.92 3.20
0.750 13.95 1.500 8.23 2.250 4.23 3.00 3.20

```

```

0.250 4.42 1.000 80.82 1.750 5.83 2.50 3.90
0.333 4.42 1.083 17.11 1.833 5.83 2.58 3.63
0.417 5.48 1.167 17.11 1.917 5.15 2.67 3.63
0.500 5.48 1.250 10.79 2.000 5.15 2.75 3.39
0.583 7.50 1.333 10.79 2.083 4.63 2.83 3.39
0.667 7.50 1.417 8.23 2.167 4.63 2.92 3.20
0.750 13.95 1.500 8.23 2.250 4.23 3.00 3.20

```

Max. Eff. Inten. (mm/hr) = 80.82 6.42
over (min) = 5.00 25.00
Storage Coeff. (min) = 2.81 (ii) 23.98 (ii)
Unit Hyd. Tpeak (min) = 5.00 25.00
Unit Hyd. peak (cms) = 0.28 0.05

TOTALS

PEAK FLOW (cms) = 0.17 0.01 0.173 (iii)
TIME TO PEAK (hrs) = 1.00 1.33 1.00
RUNOFF VOLUME (mm) = 31.13 5.62 18.37
TOTAL RAINFALL (mm) = 32.13 32.13 32.13
RUNOFF COEFFICIENT = 0.97 0.18 0.57

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

CALIB
STANDHYD ( 0356) Area (ha)= 17.13
ID= 1 DT= 5.0 min Total Imp(%)= 69.00 Dir. Conn.(%)= 61.00

```

```

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 11.82 5.31
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 337.93 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

---- TRANSFORMED HYETOGRAPH ----
TIME RAIN TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr hrs mm/hr hrs mm/hr
0.083 3.76 0.833 13.95 1.583 6.78 2.33 4.23
0.167 3.76 0.917 80.82 1.667 6.78 2.42 3.90
0.250 4.42 1.000 80.82 1.750 5.83 2.50 3.90

```

```

0.333 4.42 1.083 17.11 1.833 5.83 2.58 3.63
0.417 5.48 1.167 17.11 1.917 5.15 2.67 3.63
0.500 5.48 1.250 10.79 2.000 5.15 2.75 3.39
0.583 7.50 1.333 10.79 2.083 4.63 2.83 3.39
0.667 7.50 1.417 8.23 2.167 4.63 2.92 3.20
0.750 13.95 1.500 8.23 2.250 4.23 3.00 3.20

```

Max. Eff. Inten. (mm/hr) = 80.82 12.26
over (min) = 5.00 25.00
Storage Coeff. (min) = 5.78 (ii) 22.12 (ii)
Unit Hyd. Tpeak (min) = 5.00 25.00
Unit Hyd. peak (cms) = 0.20 0.05

TOTALS

PEAK FLOW (cms) = 2.00 0.10 2.017 (iii)
TIME TO PEAK (hrs) = 1.00 1.33 1.00
RUNOFF VOLUME (mm) = 31.13 7.17 21.78
TOTAL RAINFALL (mm) = 32.13 32.13 32.13
RUNOFF COEFFICIENT = 0.97 0.22 0.68

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

CALIB
STANDHYD ( 0027) Area (ha)= 0.71
ID= 1 DT= 5.0 min Total Imp(%)= 73.50 Dir. Conn.(%)= 67.00

```

```

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.52 0.19
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 68.80 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

---- TRANSFORMED HYETOGRAPH ----
TIME RAIN TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr hrs mm/hr hrs mm/hr
0.083 3.76 0.833 13.95 1.583 6.78 2.33 4.23
0.167 3.76 0.917 80.82 1.667 6.78 2.42 3.90
0.250 4.42 1.000 80.82 1.750 5.83 2.50 3.90
0.333 4.42 1.083 17.11 1.833 5.83 2.58 3.63
0.417 5.48 1.167 17.11 1.917 5.15 2.67 3.63
0.500 5.48 1.250 10.79 2.000 5.15 2.75 3.39
0.583 7.50 1.333 10.79 2.083 4.63 2.83 3.39
0.667 7.50 1.417 8.23 2.167 4.63 2.92 3.20
0.750 13.95 1.500 8.23 2.250 4.23 3.00 3.20

```

0.500	5.48	1.250	10.79	2.000	5.15	2.75	3.39
0.583	7.50	1.333	10.79	2.083	4.63	2.83	3.39
0.667	7.50	1.417	8.23	2.167	4.63	2.92	3.20
0.750	13.95	1.500	8.23	2.250	4.23	3.00	3.20

Max. Eff. Inten. (mm/hr)= 80.82 11.99
 over (min)= 5.00 20.00
 Storage Coeff. (min)= 2.22 (ii) 18.71 (ii)
 Unit Hyd. Tpeak (min)= 5.00 20.00
 Unit Hyd. peak (cms)= 0.30 0.06

TOTALS

PEAK FLOW (cms)= 0.11 0.00 0.107 (iii)
 TIME TO PEAK (hrs)= 1.00 1.25 1.00
 RUNOFF VOLUME (mm)= 31.13 7.09 23.18
 TOTAL RAINFALL (mm)= 32.13 32.13 32.13
 RUNOFF COEFFICIENT = 0.97 0.22 0.72

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0025)				
Inlet Cap.= 0.156				
# of Inlets= 1				
Total(cms)= 0.2				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
TOTAL HYD.(ID= 1):	0.71	0.11	1.00	23.18
=====				
MAJOR SYS.(ID= 2):	0.00	0.00	0.00	0.00
MINOR SYS.(ID= 3):	0.71	0.11	1.00	23.18

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0024)

AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 9(0025)	0.71	0.11	1.00	23.18
OUTFLOW: ID= 2(0024)	0.71	0.11	1.00	23.18

IMPERVIOUS		PERVIOUS (i)	
Surface Area (ha)=	0.32	0.13	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	54.77	40.00	
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME RAIN	TIME RAIN	TIME RAIN	TIME RAIN
hrs mm/hr	hrs mm/hr	hrs mm/hr	hrs mm/hr
0.083 3.76	0.833 13.95	1.583 6.78	2.33 4.23
0.167 3.76	0.917 80.82	1.667 6.78	2.42 3.90
0.250 4.42	1.000 80.82	1.750 5.83	2.50 3.90
0.333 4.42	1.083 17.11	1.833 5.83	2.58 3.63
0.417 5.48	1.167 17.11	1.917 5.15	2.67 3.63
0.500 5.48	1.250 10.79	2.000 5.15	2.75 3.39
0.583 7.50	1.333 10.79	2.083 4.63	2.83 3.39
0.667 7.50	1.417 8.23	2.167 4.63	2.92 3.20
0.750 13.95	1.500 8.23	2.250 4.23	3.00 3.20

Max. Eff. Inten. (mm/hr)= 80.82 10.68
 over (min)= 5.00 20.00
 Storage Coeff. (min)= 1.94 (ii) 19.21 (ii)
 Unit Hyd. Tpeak (min)= 5.00 20.00
 Unit Hyd. peak (cms)= 0.31 0.06

TOTALS

PEAK FLOW (cms)= 0.07 0.00 0.067 (iii)
 TIME TO PEAK (hrs)= 1.00 1.25 1.00
 RUNOFF VOLUME (mm)= 31.13 6.73 22.83
 TOTAL RAINFALL (mm)= 32.13 32.13 32.13
 RUNOFF COEFFICIENT = 0.97 0.21 0.71

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0370)

1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1 = 1 (0358):	19.40	0.072	3.08	21.50

+ ID2 = 2 (0359): 0.45 0.067 1.00 22.83

ID = 3 (0370): 19.85 0.098 1.00 21.53

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB

NASHYD (0360)	Area (ha)=	1.02	Curve Number (CN)=	74.5
ID= 1 DT= 5.0 min	Ia (mm)=	4.61	# of Linear Res.(N)=	3.00
	U.H. Tp(hrs)=	0.44		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME RAIN	TIME RAIN	TIME RAIN	TIME RAIN
hrs mm/hr	hrs mm/hr	hrs mm/hr	hrs mm/hr
0.083 3.76	0.833 13.95	1.583 6.78	2.33 4.23
0.167 3.76	0.917 80.82	1.667 6.78	2.42 3.90
0.250 4.42	1.000 80.82	1.750 5.83	2.50 3.90
0.333 4.42	1.083 17.11	1.833 5.83	2.58 3.63
0.417 5.48	1.167 17.11	1.917 5.15	2.67 3.63
0.500 5.48	1.250 10.79	2.000 5.15	2.75 3.39
0.583 7.50	1.333 10.79	2.083 4.63	2.83 3.39
0.667 7.50	1.417 8.23	2.167 4.63	2.92 3.20
0.750 13.95	1.500 8.23	2.250 4.23	3.00 3.20

Unit Hyd Tpeak (cms) = 0.089

PEAK FLOW (cms) = 0.012 (i)
 TIME TO PEAK (hrs) = 1.500
 RUNOFF VOLUME (mm) = 6.616
 TOTAL RAINFALL (mm) = 32.132
 RUNOFF COEFFICIENT = 0.206

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB

STANDHYD (0018)	Area (ha)=	0.78	Dir. Conn.(%) =	15.00
ID= 1 DT= 5.0 min	Total Imp(X)=	20.00		

IMPERVIOUS		PERVIOUS (i)	
Surface Area (ha)=	0.16	0.62	
Dep. Storage (mm)=	5.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	72.11	40.00	
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME RAIN	TIME RAIN	TIME RAIN	TIME RAIN
hrs mm/hr	hrs mm/hr	hrs mm/hr	hrs mm/hr
0.083 3.76	0.833 13.95	1.583 6.78	2.33 4.23
0.167 3.76	0.917 80.82	1.667 6.78	2.42 3.90
0.250 4.42	1.000 80.82	1.750 5.83	2.50 3.90
0.333 4.42	1.083 17.11	1.833 5.83	2.58 3.63
0.417 5.48	1.167 17.11	1.917 5.15	2.67 3.63
0.500 5.48	1.250 10.79	2.000 5.15	2.75 3.39
0.583 7.50	1.333 10.79	2.083 4.63	2.83 3.39
0.667 7.50	1.417 8.23	2.167 4.63	2.92 3.20
0.750 13.95	1.500 8.23	2.250 4.23	3.00 3.20

Max. Eff. Inten. (mm/hr)= 80.82 9.54
 over (min)= 5.00 25.00
 Storage Coeff. (min)= 2.29 (ii) 20.35 (ii)
 Unit Hyd. Tpeak (min)= 5.00 25.00
 Unit Hyd. peak (cms)= 0.30 0.05

TOTALS

PEAK FLOW (cms)= 0.03 0.01 0.028 (iii)
 TIME TO PEAK (hrs)= 1.00 1.33 1.00
 RUNOFF VOLUME (mm)= 27.13 6.75 9.79
 TOTAL RAINFALL (mm)= 32.13 32.13 32.13
 RUNOFF COEFFICIENT = 0.84 0.21 0.30

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
 ***** WARNING: FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20% YOU SHOULD CONSIDER SPLITTING THE AREA.

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0026)

AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 8(0025)	0.00	0.00	0.00	0.00
OUTFLOW: ID= 2(0026)	0.00	0.00	0.00	0.00

ADD HYD (0357)

1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1 = 1 (0024):	0.71	0.107	1.00	23.18
+ ID2 = 2 (0355):	1.56	0.173	1.00	18.37
ID = 3 (0357):	2.27	0.279	1.00	19.88

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0357)

3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1 = 3 (0357):	2.27	0.279	1.00	19.88
+ ID2 = 2 (0356):	17.13	2.017	1.00	21.78
ID = 1 (0357):	19.40	2.296	1.00	21.56

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (0358)

OVERFLOW IS OFF				
INFLOW : ID= 2 (0357)	OUTFLOW	STORAGE	OUTFLOW	STORAGE
DT= 5.0 min	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.7600	0.9520
	0.0420	0.1820	1.3660	1.2980
	0.0630	0.3560	1.8960	1.5720
	0.3940	0.7050	4.0080	1.9390
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 2 (0357)	19.400	2.296	1.00	21.56
OUTFLOW: ID= 1 (0358)	19.400	0.072	3.08	21.50

PEAK FLOW REDUCTION [Qout/Qin](%) = 3.14
 TIME SHIFT OF PEAK FLOW (min)=125.00
 MAXIMUM STORAGE USED (ha.m.) = 0.3657

CALIB

STANDHYD (0359)	Area (ha)=	0.45	Dir. Conn.(%) =	66.10
ID= 1 DT= 5.0 min	Total Imp(X)=	71.30		

ADD HYD (0361)

1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1 = 1 (0018):	0.78	0.028	1.00	9.79
+ ID2 = 2 (0360):	1.02	0.012	1.50	6.62
ID = 3 (0361):	1.80	0.030	1.00	7.99

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0361)

3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1 = 3 (0361):	0.78	0.028	1.00	9.79
+ ID2 = 2 (0360):	1.02	0.012	1.50	6.62
ID = 1 (0361):	1.80	0.030	1.00	7.99

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB

STANDHYD (0015)	Area (ha)=	0.45	Dir. Conn.(%) =	37.40
ID= 1 DT= 5.0 min	Total Imp(X)=	37.40		

IMPERVIOUS		PERVIOUS (i)	
Surface Area (ha)=	0.17	0.28	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	54.77	40.00	
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME RAIN	TIME RAIN	TIME RAIN	TIME RAIN
hrs mm/hr	hrs mm/hr	hrs mm/hr	hrs mm/hr
0.083 3.76	0.833 13.95	1.583 6.78	2.33 4.23
0.167 3.76	0.917 80.82	1.667 6.78	2.42 3.90
0.250 4.42	1.000 80.82	1.750 5.83	2.50 3.90
0.333 4.42	1.083 17.11	1.833 5.83	2.58 3.63
0.417 5.48	1.167 17.11	1.917 5.15	2.67 3.63

0.500	5.48	1.250	10.79	2.000	5.15	2.75	3.39
0.583	7.50	1.333	10.79	2.083	4.63	2.83	3.39
0.667	7.50	1.417	8.23	2.167	4.63	2.92	3.20
0.750	13.95	1.500	8.23	2.250	4.23	3.00	3.20

Max. Eff. Inten. (mm/hr)= 80.82 over (min)= 5.00
Storage Coeff. (min)= 1.94 (ii) 23.11 (iii)
Unit Hyd. Tpeak (min)= 5.00
Unit Hyd. peak (cms)= 0.31 0.05

PEAK FLOW (cms)= 0.04 0.00
TIME TO PEAK (hrs)= 1.00 1.33
RUNOFF VOLUME (mm)= 31.13 5.62
TOTAL RAINFALL (mm)= 32.13 32.13
RUNOFF COEFFICIENT = 0.97 0.18

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Area (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLW : ID= 2 (0015)	0.45	0.04	1.00 15.14
OUTFLOW: ID= 2 (0029)	0.45	0.04	1.00 15.14

used in: INTENSITY = A / (t + B)^C

Duration of storm = 3.00 hrs
Storm time step = 10.00 min
Time to peak ratio = 0.33

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	4.98	0.83	107.07	1.67	7.72	2.50	4.80
0.17	5.86	1.00	22.67	1.83	6.82	2.67	4.50
0.33	7.26	1.17	14.30	2.00	6.14	2.83	4.24
0.50	9.93	1.33	10.90	2.17	5.60		
0.67	18.47	1.50	8.90	2.33	5.16		

CALIB (0001) Area (ha)= 0.58 Curve Number (CN)= 72.3
NASHYD (0001) Ia (mm)= 4.86 # of Linear Res.(N)= 3.00
ID= 1 DT= 5.0 min U.H. Tp(hrs)= 0.20

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	4.98	0.833	18.47	1.583	8.98	2.33	5.60
0.167	4.98	0.917	107.07	1.667	8.98	2.42	5.16
0.250	5.86	1.000	107.07	1.750	7.72	2.50	5.16
0.333	5.86	1.083	22.67	1.833	7.72	2.58	4.80
0.417	7.26	1.167	22.67	1.917	6.82	2.67	4.80
0.500	7.26	1.250	14.30	2.000	6.82	2.75	4.50
0.583	9.93	1.333	14.30	2.083	6.14	2.83	4.50
0.667	9.93	1.417	10.90	2.167	6.14	2.92	4.24
0.750	18.47	1.500	10.90	2.250	5.60	3.00	4.24

Unit Hyd Qpeak (cms)= 0.111

PEAK FLOW (cms)= 0.018 (i)
TIME TO PEAK (hrs)= 1.167
RUNOFF VOLUME (mm)= 10.508
TOTAL RAINFALL (mm)= 42.565
RUNOFF COEFFICIENT = 0.247

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.1200	0.1370
0.0350	0.0750	0.1700	0.1500
0.1000	0.0950	0.2800	0.1600
0.1100	0.1120	0.0000	0.0000

INFLW : ID= 2 (0002) AREA (ha) QPEAK (cms) TPEAK (hrs) R.V. (mm)
OUTFLOW: ID= 1 (0004) 3.320 0.534 1.00 27.35
3.320 0.031 2.92 27.19

PEAK FLOW REDUCTION [Qout/ Qin](%)= 5.88
TIME SHIFT OF PEAK FLOW (min)=115.00
MAXIMUM STORAGE USED (ha.m.)= 0.0674

ADD HYD (0003) 1 + 2 = 3

ID	Area (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID= 1 (0001)	0.58	0.018	1.17	10.51
+ ID2= 2 (0004)	3.32	0.031	2.92	27.19
ID= 3 (0003)	3.90	0.041	1.25	24.71

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB (0355) Area (ha)= 1.56
STANDHYD (0355) Total Imp(%)= 50.00 Dir. Conn.(%)= 50.00
ID= 1 DT= 5.0 min

Surface Area (ha)	IMPERVIOUS (%)	PERVIOUS (i)
0.78	0.78	
1.00	5.00	
1.00	2.00	
181.98	40.00	
0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	4.98	0.833	18.47	1.583	8.98	2.33	5.60
0.167	4.98	0.917	107.07	1.667	8.98	2.42	5.16

V V I SSSSS U U A L (v 6.2.2008)
SS U U A A L
V V I SS U U A A A A L
V V I SSS U U A A L
VV I SSSSS UUUU A A LLLLL

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***** D E T A I L E D O U T P U T *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voind.dat

Output filename:
C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404d768702\656e9
b8f-ee70-4c95-833b-4fb17d62ccff\scena
Summary filename:
C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404d768702\656e9
b8f-ee70-4c95-833b-4fb17d62ccff\scena

DATE: 08-15-2023 TIME: 08:21:47

USER:

COMMENTS:

** SIMULATION : B. Syr 3hr 10min Chicago **

CHICAGO STORM ID# curve parameters: A= 535.364
B= 0.000
Ptotal= 42.56 mm C= 0.699

CALIB (0002) Area (ha)= 3.32
STANDHYD (0002) Total Imp(%)= 55.00 Dir. Conn.(%)= 55.00
ID= 1 DT= 5.0 min

Surface Area (ha)	IMPERVIOUS (%)	PERVIOUS (i)
1.83	1.49	
1.00	5.00	
1.00	2.00	
148.77	40.00	
0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	4.98	0.833	18.47	1.583	8.98	2.33	5.60
0.167	4.98	0.917	107.07	1.667	8.98	2.42	5.16
0.250	5.86	1.000	107.07	1.750	7.72	2.50	5.16
0.333	5.86	1.083	22.67	1.833	7.72	2.58	4.80
0.417	7.26	1.167	22.67	1.917	6.82	2.67	4.80
0.500	7.26	1.250	14.30	2.000	6.82	2.75	4.50
0.583	9.93	1.333	14.30	2.083	6.14	2.83	4.50
0.667	9.93	1.417	10.90	2.167	6.14	2.92	4.24
0.750	18.47	1.500	10.90	2.250	5.60	3.00	4.24

Max. Eff. Inten. (mm/hr)= 107.07 over (min)= 5.00
Storage Coeff. (min)= 3.15 (ii) 17.94 (iii)
Unit Hyd. Tpeak (min)= 5.00
Unit Hyd. peak (cms)= 0.27 0.06

PEAK FLOW (cms)= 0.52 0.04
TIME TO PEAK (hrs)= 1.00 1.25
RUNOFF VOLUME (mm)= 41.56 9.99
TOTAL RAINFALL (mm)= 42.56 42.56
RUNOFF COEFFICIENT = 0.98 0.23

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR(0004) OVERFLOW IS OFF

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.250	5.86	1.000	107.07	1.750	7.72	2.50	5.16
0.333	5.86	1.083	22.67	1.833	7.72	2.58	4.80
0.417	7.26	1.167	22.67	1.917	6.82	2.67	4.80
0.500	7.26	1.250	14.30	2.000	6.82	2.75	4.50
0.583	9.93	1.333	14.30	2.083	6.14	2.83	4.50
0.667	9.93	1.417	10.90	2.167	6.14	2.92	4.24
0.750	18.47	1.500	10.90	2.250	5.60	3.00	4.24

Max. Eff. Inten. (mm/hr)= 107.07 over (min)= 5.00
Storage Coeff. (min)= 2.52 (ii) 17.30 (iii)
Unit Hyd. Tpeak (min)= 5.00
Unit Hyd. peak (cms)= 0.29 0.06

PEAK FLOW (cms)= 0.23 0.02
TIME TO PEAK (hrs)= 1.00 1.25
RUNOFF VOLUME (mm)= 41.56 9.99
TOTAL RAINFALL (mm)= 42.56 42.56
RUNOFF COEFFICIENT = 0.98 0.23

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB (0356) Area (ha)= 17.13
STANDHYD (0356) Total Imp(%)= 69.00 Dir. Conn.(%)= 61.00
ID= 1 DT= 5.0 min

Surface Area (ha)	IMPERVIOUS (%)	PERVIOUS (i)
11.82	5.31	
1.00	5.00	
1.00	2.00	
337.93	40.00	
0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	4.98	0.833	18.47	1.583	8.98	2.33	5.60
0.167	4.98	0.917	107.07	1.667	8.98	2.42	5.16
0.250	5.86	1.000	107.07	1.750	7.72	2.50	5.16

0.333	5.86	1.083	22.67	1.833	7.72	2.58	4.80
0.417	7.26	1.167	22.67	1.917	6.82	2.67	4.80
0.500	7.26	1.250	14.30	2.000	6.82	2.75	4.50
0.583	9.93	1.333	14.30	2.083	6.14	2.83	4.50
0.667	9.93	1.417	10.90	2.167	6.14	2.92	4.24
0.750	18.47	1.500	10.90	2.250	5.60	3.00	4.24

Max. Eff. Inten. (mm/hr)= 107.07
 over (min) = 5.00
 Storage Coeff. (min)= 5.16 (ii)
 Unit Hyd. Tpeak (min)= 5.00
 Unit Hyd. peak (cms)= 0.21

PEAK FLOW (cms)= 2.73
 TIME TO PEAK (hrs)= 1.00
 RUNOFF VOLUME (mm)= 41.56
 TOTAL RAINFALL (mm)= 42.56
 RUNOFF COEFFICIENT = 0.98

TOTALS
 2.797 (iii)
 1.00
 30.15
 42.56
 0.71

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB (0027)		Area (ha)= 0.71
STANDHYD (0027)		Total Imp(%)= 73.50
ID= 1 DT= 5.0 min		Dir. Conn.(%)= 67.00

IMPERVIOUS		PERVIOUS (i)	
Surface Area (ha)=	0.52	0.19	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	68.80	40.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	4.98	0.833	18.47	1.583	8.98	2.33	5.60
0.167	4.98	0.917	107.07	1.667	8.98	2.42	5.16
0.250	5.86	1.000	107.07	1.750	7.72	2.50	5.16
0.333	5.86	1.083	22.67	1.833	7.72	2.58	4.80
0.417	7.26	1.167	22.67	1.917	6.82	2.67	4.80

0.500	7.26	1.250	14.30	2.000	6.82	2.75	4.50
0.583	9.93	1.333	14.30	2.083	6.14	2.83	4.50
0.667	9.93	1.417	10.90	2.167	6.14	2.92	4.24
0.750	18.47	1.500	10.90	2.250	5.60	3.00	4.24

Max. Eff. Inten. (mm/hr)= 107.07
 over (min) = 5.00
 Storage Coeff. (min)= 1.99 (ii)
 Unit Hyd. Tpeak (min)= 5.00
 Unit Hyd. peak (cms)= 0.31

PEAK FLOW (cms)= 0.14
 TIME TO PEAK (hrs)= 1.00
 RUNOFF VOLUME (mm)= 41.56
 TOTAL RAINFALL (mm)= 42.56
 RUNOFF COEFFICIENT = 0.98

TOTALS
 0.150 (iii)
 1.00
 31.87
 42.56
 0.75

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0025)		AREA	QPEAK	TPEAK	R.V.
Inlet Cap.= 0.156		(ha)	(cms)	(hrs)	(mm)
# of Inlets= 1					
Total(cms)= 0.2					
TOTAL HYD. (ID= 1):		0.71	0.15	1.00	31.87
MAJOR SYS. (ID= 2):		0.00	0.00	0.00	0.00
MINOR SYS. (ID= 3):		0.71	0.15	1.00	31.87

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0024)

AREA	QPEAK	TPEAK	R.V.
(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 9(0025)	0.71	0.15	1.00 31.87
OUTFLOW : ID= 2(0024)	0.71	0.15	1.00 31.87

ADD HYD (0357)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID= 1 (0024):		0.71	0.150	1.00	31.87
+ ID2= 2 (0355):		1.56	0.234	1.00	25.77
ID= 3 (0357):		2.27	0.384	1.00	27.68

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0357)		AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1		(ha)	(cms)	(hrs)	(mm)
ID= 3 (0357):		2.27	0.384	1.00	27.68
+ ID2= 2 (0356):		17.13	2.797	1.00	30.15
ID= 1 (0357):		19.40	3.181	1.00	29.86

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0358)		OVERFLOW IS OFF			
IN= 2--- OUT= 1		OUTFLOW	STORAGE	OUTFLOW	STORAGE
DT= 5.0 min		(cms)	(ha.m.)	(cms)	(ha.m.)
		0.0000	0.0000	0.7600	0.9520
		0.0420	0.1820	1.3660	1.2980
		0.0630	0.3560	1.8960	1.5720
		0.3940	0.7050	4.0080	1.9390
		AREA	QPEAK	TPEAK	R.V.
		(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (0357)		19.400	3.181	1.00	29.86
OUTFLOW : ID= 1 (0358)		19.400	0.173	3.00	29.81

PEAK FLOW REDUCTION [Qout/Qin](%)= 5.43
 TIME SHIFT OF PEAK FLOW (min)=120.00
 MAXIMUM STORAGE USED (ha.m.)= 0.4720

CALIB (0359)		Area (ha)= 0.45
STANDHYD (0359)		Total Imp(%)= 71.30
ID= 1 DT= 5.0 min		Dir. Conn.(%)= 66.10

IMPERVIOUS		PERVIOUS (i)	
Surface Area (ha)=	0.32	0.13	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	54.77	40.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	4.98	0.833	18.47	1.583	8.98	2.33	5.60
0.167	4.98	0.917	107.07	1.667	8.98	2.42	5.16
0.250	5.86	1.000	107.07	1.750	7.72	2.50	5.16
0.333	5.86	1.083	22.67	1.833	7.72	2.58	4.80
0.417	7.26	1.167	22.67	1.917	6.82	2.67	4.80
0.500	7.26	1.250	14.30	2.000	6.82	2.75	4.50
0.583	9.93	1.333	14.30	2.083	6.14	2.83	4.50
0.667	9.93	1.417	10.90	2.167	6.14	2.92	4.24
0.750	18.47	1.500	10.90	2.250	5.60	3.00	4.24

Max. Eff. Inten. (mm/hr)= 107.07
 over (min) = 5.00
 Storage Coeff. (min)= 1.73 (ii)
 Unit Hyd. Tpeak (min)= 5.00
 Unit Hyd. peak (cms)= 0.32

PEAK FLOW (cms)= 0.09
 TIME TO PEAK (hrs)= 1.00
 RUNOFF VOLUME (mm)= 41.56
 TOTAL RAINFALL (mm)= 42.56
 RUNOFF COEFFICIENT = 0.98

TOTALS
 0.094 (iii)
 1.00
 31.41
 42.56
 0.74

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0370)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID= 1 (0358):		19.40	0.173	3.00	29.81

+ ID2= 2 (0359):		0.45	0.094	1.00	31.41
ID= 3 (0370):		19.85	0.177	3.00	29.84

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB (0360)		Area (ha)= 1.02
NASHYD (0360)		Curve Number (CN)= 74.5
ID= 1 DT= 5.0 min		# of Linear Res.(N)= 3.00
		U.H. Tp(hrs)= 0.44

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	4.98	0.833	18.47	1.583	8.98	2.33	5.60
0.167	4.98	0.917	107.07	1.667	8.98	2.42	5.16
0.250	5.86	1.000	107.07	1.750	7.72	2.50	5.16
0.333	5.86	1.083	22.67	1.833	7.72	2.58	4.80
0.417	7.26	1.167	22.67	1.917	6.82	2.67	4.80
0.500	7.26	1.250	14.30	2.000	6.82	2.75	4.50
0.583	9.93	1.333	14.30	2.083	6.14	2.83	4.50
0.667	9.93	1.417	10.90	2.167	6.14	2.92	4.24
0.750	18.47	1.500	10.90	2.250	5.60	3.00	4.24

Unit Hyd Qpeak (cms)= 0.009

PEAK FLOW (cms)= 0.021 (i)
 TIME TO PEAK (hrs)= 1.500
 RUNOFF VOLUME (mm)= 11.532
 TOTAL RAINFALL (mm)= 42.565
 RUNOFF COEFFICIENT = 0.271

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB (0018)		Area (ha)= 0.78
STANDHYD (0018)		Total Imp(%)= 20.00
ID= 1 DT= 5.0 min		Dir. Conn.(%)= 15.00

IMPERVIOUS		PERVIOUS (i)	
Surface Area (ha)=	0.16	0.62	
Dep. Storage (mm)=	5.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	72.11	40.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	4.98	0.833	18.47	1.583	8.98	2.33	5.60
0.167	4.98	0.917	107.07	1.667	8.98	2.42	5.16
0.250	5.86	1.000	107.07	1.750	7.72	2.50	5.16
0.333	5.86	1.083	22.67	1.833	7.72	2.58	4.80
0.417	7.26	1.167	22.67	1.917	6.82	2.67	4.80
0.500	7.26	1.250	14.30	2.000	6.82	2.75	4.50
0.583	9.93	1.333	14.30	2.083	6.14	2.83	4.50
0.667	9.93	1.417	10.90	2.167	6.14	2.92	4.24
0.750	18.47	1.500	10.90	2.250	5.60	3.00	4.24

Max. Eff. Inten. (mm/hr)= 107.07
 over (min) = 5.00
 Storage Coeff. (min)= 2.04 (ii)
 Unit Hyd. Tpeak (min)= 5.00
 Unit Hyd. peak (cms)= 0.31

PEAK FLOW (cms)= 0.03
 TIME TO PEAK (hrs)= 1.00
 RUNOFF VOLUME (mm)= 37.56
 TOTAL RAINFALL (mm)= 42.56
 RUNOFF COEFFICIENT = 0.88

TOTALS
 0.04 (iii)
 1.00
 15.62
 42.56
 0.37

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
 **** WARNING: FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20% YOU SHOULD CONSIDER SPLITTING THE AREA.

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0026)

AREA	QPEAK	TPEAK	R.V.
(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 8(0025)	0.00	0.00	0.00 0.00
OUTFLOW : ID= 2(0026)	0.00	0.00	0.00 0.00

```

-----
ADD HYD ( 0361)
1 + 2 = 3
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
*** W A R N I N G : HYDROGRAPH 0026 CID= 23 IS DRY.
*** W A R N I N G : HYDROGRAPH 0003 = HYDROGRAPH 0001
ID1= 1 ( 0018): 0.78 0.041 1.00 15.62
+ ID2= 2 ( 0026): 0.00 0.000 0.00 0.00
-----
ID = 3 ( 0361): 0.78 0.041 1.00 15.62

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
ADD HYD ( 0361)
3 + 2 = 1
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 3 ( 0361): 0.78 0.041 1.00 15.62
+ ID2= 2 ( 0360): 1.02 0.021 1.50 11.53
-----
ID = 1 ( 0361): 1.80 0.045 1.00 13.30

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
CALIB
STANDHYD ( 0015) Area (ha)= 0.45
ID= 1 DT= 5.0 min Total Imp(%)= 37.40 Dir. Conn.(%)= 37.40
-----
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.17 0.28
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 54.77 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr ' hrs mm/hr hrs mm/hr
0.083 4.98 0.833 18.47 1.583 8.98 2.33 5.60
0.167 4.98 0.917 107.07 1.667 8.98 2.42 5.16
0.250 5.86 1.000 107.07 1.750 7.72 2.50 5.16
0.333 5.86 1.083 22.67 1.833 7.72 2.58 4.80
0.417 7.26 1.167 22.67 1.917 6.82 2.67 4.80

```

```

0.500 7.26 1.250 14.30 2.000 6.82 2.75 4.50
0.583 9.93 1.333 14.30 2.083 6.14 2.83 4.50
0.667 9.93 1.417 10.90 2.167 6.14 2.92 4.24
0.750 18.47 1.500 10.90 2.250 5.60 3.00 4.24

Max. Eff. Inten. (mm/hr)= 107.07 15.74
over (min) = 5.00 20.00
Storage Coeff. (min)= 1.73 (ii) 16.52 (ii)
Unit Hyd. Tpeak (min)= 5.00 20.00
Unit Hyd. peak (cms)= 0.32 0.06

PEAK FLOW (cms)= 0.05 0.01 *TOTALS*
TIME TO PEAK (hrs)= 1.00 1.25 0.052 (iii)
RUNOFF VOLUME (mm)= 41.56 9.99 21.78
TOTAL RAINFALL (mm)= 42.56 42.56
RUNOFF COEFFICIENT = 0.98 0.23 0.51

```

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)

(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.

(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
Junction Command(0029)
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW: ID= 2( 0015) 0.45 0.05 1.00 21.78
OUTFLOW: ID= 2( 0029) 0.45 0.05 1.00 21.78

```

```

-----
V V I SSSSS U U A L (v 6.2.2008)
V V I SS U U A A A L
V V I SS U U A A A A L
V V I SS U U A A L
V V I SSSSS UUUU A A LLLL
000 TTTT TTTT H H Y Y M M 000 TM
0 0 T T H H Y Y M M 0 0
0 0 T T H H Y Y M M 0 0
000 T T H H Y Y M M 000

```

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**** DETAILED OUTPUT ****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat

Output filename:
C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404d7f68702\da42647c-ee7b-44f9-8d31-4b240893a956\scena

Summary filename:
C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404d7f68702\da42647c-ee7b-44f9-8d31-4b240893a956\scena

DATE: 08-15-2023 TIME: 08:21:47

USER:

COMMENTS:

```

-----
CHICAGO STORM ID# curve parameters: A= 622.842
Ptotal= 49.52 mm B= 0.000
C= 0.699

```

used in: INTENSITY = A / (t + B)^C

Duration of storm = 3.00 hrs
Storm time step = 10.00 min
Time to peak ratio = 0.33

```

TIME RAIN TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr ' hrs mm/hr hrs mm/hr
0.00 5.79 0.83 124.56 1.67 8.98 2.50 5.59
0.17 6.82 1.00 26.38 1.83 7.93 2.67 5.23
0.33 8.45 1.17 16.63 2.00 7.14 2.83 4.93
0.50 11.56 1.33 12.68 2.17 6.51
0.67 21.49 1.50 10.45 2.33 6.01

```

```

-----
CALIB
NASHYD ( 0001) Area (ha)= 0.58 Curve Number (CN)= 72.3
ID= 1 DT= 5.0 min Ia (mm)= 4.86 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.20

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr ' hrs mm/hr hrs mm/hr
0.083 5.79 0.833 21.49 1.583 10.45 2.33 6.51
0.167 5.79 0.917 124.56 1.667 10.45 2.42 6.01
0.250 6.82 1.000 124.56 1.750 8.98 2.50 6.01
0.333 6.82 1.083 26.38 1.833 8.98 2.58 5.59
0.417 8.45 1.167 26.38 1.917 7.93 2.67 5.59
0.500 8.45 1.250 16.63 2.000 7.93 2.75 5.23
0.583 11.56 1.333 16.63 2.083 7.14 2.83 5.23
0.667 11.56 1.417 12.68 2.167 7.14 2.92 4.93
0.750 21.49 1.500 12.68 2.250 6.51 3.00 4.93

```

Unit Hyd Qpeak (cms) = 0.111

PEAK FLOW (cms)= 0.025 (i)
TIME TO PEAK (hrs)= 1.167
RUNOFF VOLUME (mm)= 14.021
TOTAL RAINFALL (mm)= 49.520
RUNOFF COEFFICIENT = 0.283

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
CALIB
STANDHYD ( 0002) Area (ha)= 3.32
ID= 1 DT= 5.0 min Total Imp(%)= 55.00 Dir. Conn.(%)= 55.00

```

```

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.83 1.49
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 148.77 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr ' hrs mm/hr hrs mm/hr
0.083 5.79 0.833 21.49 1.583 10.45 2.33 6.51
0.167 5.79 0.917 124.56 1.667 10.45 2.42 6.01
0.250 6.82 1.000 124.56 1.750 8.98 2.50 6.01
0.333 6.82 1.083 26.38 1.833 8.98 2.58 5.59
0.417 8.45 1.167 26.38 1.917 7.93 2.67 5.59
0.500 8.45 1.250 16.63 2.000 7.93 2.75 5.23
0.583 11.56 1.333 16.63 2.083 7.14 2.83 5.23
0.667 11.56 1.417 12.68 2.167 7.14 2.92 4.93
0.750 21.49 1.500 12.68 2.250 6.51 3.00 4.93

```

Max. Eff. Inten. (mm/hr)= 124.56 21.67
over (min)= 5.00 20.00
Storage Coeff. (min)= 2.97 (ii) 15.98 (ii)
Unit Hyd. Tpeak (min)= 5.00 20.00
Unit Hyd. peak (cms)= 0.28 0.07

PEAK FLOW (cms)= 0.61 0.05 *TOTALS*
TIME TO PEAK (hrs)= 1.00 1.25 0.630 (iii)
RUNOFF VOLUME (mm)= 48.52 13.37 32.70
TOTAL RAINFALL (mm)= 49.52 49.52 49.52
RUNOFF COEFFICIENT = 0.98 0.27 0.66

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)

(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.

(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR(0004) OVERFLOW IS OFF

```

-----
IN= 2----> OUT= 1
DT= 5.0 min
OUTFLOW STORAGE OUTFLOW STORAGE
(cms) (ha.m.) (cms) (ha.m.)
0.0000 0.0000 0.1200 0.1370
0.0350 0.0750 0.1700 0.1500
0.1000 0.0950 0.2800 0.1600
0.1100 0.1120 0.0000 0.0000

```

```

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW: ID= 2 ( 0002) 3.320 0.630 1.00 32.70
OUTFLOW: ID= 1 ( 0004) 3.320 0.046 2.42 32.54

```

PEAK FLOW REDUCTION [Qout/ Qin](%)= 7.32
TIME SHIFT OF PEAK FLOW (min)= 85.00
MAXIMUM STORAGE USED (ha.m.)= 0.0784

```

-----
ADD HYD ( 0003)
1 + 2 = 3
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 0001): 0.58 0.025 1.17 14.021
+ ID2= 2 ( 0004): 3.32 0.046 2.42 32.54
-----
ID = 3 ( 0003): 3.90 0.052 2.33 29.78

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
CALIB
STANDHYD ( 0355) Area (ha)= 1.56
ID= 1 DT= 5.0 min Total Imp(%)= 50.00 Dir. Conn.(%)= 50.00
-----
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.78 0.78
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 101.98 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr ' hrs mm/hr hrs mm/hr
0.083 5.79 0.833 21.49 1.583 10.45 2.33 6.51
0.167 5.79 0.917 124.56 1.667 10.45 2.42 6.01

```

0.250	6.82	1.000	124.56	1.750	8.98	2.50	6.01
0.333	6.82	1.083	26.38	1.833	8.98	2.58	5.59
0.417	8.45	1.167	26.38	1.917	7.93	2.67	5.59
0.500	8.45	1.250	16.63	2.000	7.93	2.75	5.23
0.583	11.56	1.333	16.63	2.083	7.14	2.83	5.23
0.667	11.56	1.417	12.68	2.167	7.14	2.92	4.93
0.750	21.49	1.500	12.68	2.250	6.51	3.00	4.93

Max. Eff. Inten. (mm/hr) = 124.56
over (min) = 5.00
Storage Coeff. (min) = 2.37 (ii)
Unit Hyd. Tpeak (min) = 5.00
Unit Hyd. peak (cms) = 0.30

PEAK FLOW (cms) = 0.27
TIME TO PEAK (hrs) = 1.00
RUNOFF VOLUME (mm) = 48.52
TOTAL RAINFALL (mm) = 49.52
RUNOFF COEFFICIENT = 0.98

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		Area (ha) = 17.13	
STANDHYD (0356)		Total Imp(%) = 69.00 Dir. Conn.(%) = 61.00	
ID= 1 DT= 5.0 min			

IMPERVIOUS		PERVIOUS (i)	
Sur-face Area (ha)	11.82	5.31	
Dep. Storage (mm)	1.00	5.00	
Average Slope (%)	1.00	2.00	
Length (m)	337.93	40.00	
Mannings n	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---			
TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr
0.083	5.79	0.833	21.49
0.167	5.79	0.917	124.56
0.250	6.82	1.000	124.56

0.333	6.82	1.083	26.38	1.833	8.98	2.58	5.59
0.417	8.45	1.167	26.38	1.917	7.93	2.67	5.59
0.500	8.45	1.250	16.63	2.000	7.93	2.75	5.23
0.583	11.56	1.333	16.63	2.083	7.14	2.83	5.23
0.667	11.56	1.417	12.68	2.167	7.14	2.92	4.93
0.750	21.49	1.500	12.68	2.250	6.51	3.00	4.93

Max. Eff. Inten. (mm/hr) = 124.56
over (min) = 5.00
Storage Coeff. (min) = 4.86 (ii)
Unit Hyd. Tpeak (min) = 5.00
Unit Hyd. peak (cms) = 0.22

PEAK FLOW (cms) = 3.23
TIME TO PEAK (hrs) = 1.00
RUNOFF VOLUME (mm) = 48.52
TOTAL RAINFALL (mm) = 49.52
RUNOFF COEFFICIENT = 0.98

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		Area (ha) = 0.71	
STANDHYD (0027)		Total Imp(%) = 73.50 Dir. Conn.(%) = 67.00	
ID= 1 DT= 5.0 min			

IMPERVIOUS		PERVIOUS (i)	
Sur-face Area (ha)	0.52	0.19	
Dep. Storage (mm)	1.00	5.00	
Average Slope (%)	1.00	2.00	
Length (m)	68.80	40.00	
Mannings n	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---			
TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr
0.083	5.79	0.833	21.49
0.167	5.79	0.917	124.56
0.250	6.82	1.000	124.56
0.333	6.82	1.083	26.38

0.417	8.45	1.167	26.38	1.917	7.93	2.67	5.59
0.500	8.45	1.250	16.63	2.000	7.93	2.75	5.23
0.583	11.56	1.333	16.63	2.083	7.14	2.83	5.23
0.667	11.56	1.417	12.68	2.167	7.14	2.92	4.93
0.750	21.49	1.500	12.68	2.250	6.51	3.00	4.93

Max. Eff. Inten. (mm/hr) = 124.56
over (min) = 5.00
Storage Coeff. (min) = 1.87 (ii)
Unit Hyd. Tpeak (min) = 5.00
Unit Hyd. peak (cms) = 0.32

PEAK FLOW (cms) = 0.16
TIME TO PEAK (hrs) = 1.00
RUNOFF VOLUME (mm) = 48.52
TOTAL RAINFALL (mm) = 49.52
RUNOFF COEFFICIENT = 0.98

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0025)		AREA		QPEAK		TPEAK		R.V.	
Inlet Cap. = 0.156		(ha)		(cms)		(hrs)		(mm)	
# of Inlets = 1									
Total(cms) = 0.2									
TOTAL HYD. (ID= 1):		0.71		0.18		1.00		37.81	
MAJOR SYS. (ID= 2):		0.02		0.02		1.00		37.81	
MINOR SYS. (ID= 3):		0.69		0.16		0.92		37.81	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0024)		AREA		QPEAK		TPEAK		R.V.	
(ha)		(cms)		(hrs)		(mm)			
INFLOW: ID= 9(0025)		0.69		0.16		0.92		37.81	
OUTFLOW: ID= 2(0024)		0.69		0.16		0.92		37.81	

ADD HYD (0357)		AREA		QPEAK		TPEAK		R.V.	
1 + 2 = 3		(ha)		(cms)		(hrs)		(mm)	
ID1= 1 (0024):		0.69		0.156		0.92		37.81	
+ ID2= 2 (0355):		1.56		0.275		1.00		30.94	
ID = 3 (0357):		2.25		0.431		1.00		33.05	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0357)		AREA		QPEAK		TPEAK		R.V.	
3 + 2 = 1		(ha)		(cms)		(hrs)		(mm)	
ID1= 3 (0357):		2.25		0.431		1.00		33.05	
+ ID2= 2 (0356):		17.13		3.536		1.00		35.92	
ID = 1 (0357):		19.38		3.967		1.00		35.58	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (0358)		OVERFLOW IS OFF							
IN= 2--- OUT= 1									
DT= 5.0 min									
OUTFLOW STORAGE		OUTFLOW STORAGE							
(cms) (ha.m.)		(cms) (ha.m.)							
0.0000 0.0000		0.7600 0.9520							
0.0420 0.1820		1.3660 1.2980							
0.0630 0.3560		1.8960 1.5720							
0.3940 0.7050		4.0000 1.9390							
AREA		QPEAK		TPEAK		R.V.			
(ha)		(cms)		(hrs)		(mm)			
INFLOW: ID= 2 (0357)		19.380		3.967		1.00		35.58	
OUTFLOW: ID= 1 (0358)		19.380		0.235		2.83		35.53	

CALIB		Area (ha) = 0.45	
STANDHYD (0359)		Total Imp(%) = 71.30 Dir. Conn.(%) = 66.10	
ID= 1 DT= 5.0 min			

IMPERVIOUS		PERVIOUS (i)	
Sur-face Area (ha)	0.16	0.62	
Dep. Storage (mm)	5.00	5.00	
Average Slope (%)	1.00	2.00	
Length (m)	72.11	40.00	

IMPERVIOUS		PERVIOUS (i)	
Sur-face Area (ha)	0.32	0.13	
Dep. Storage (mm)	1.00	5.00	
Average Slope (%)	1.00	2.00	
Length (m)	54.77	40.00	
Mannings n	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---			
TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr
0.083	5.79	0.833	21.49
0.167	5.79	0.917	124.56
0.250	6.82	1.000	124.56
0.333	6.82	1.083	26.38
0.417	8.45	1.167	26.38
0.500	8.45	1.250	16.63
0.583	11.56	1.333	16.63
0.667	11.56	1.417	12.68
0.750	21.49	1.500	12.68

Max. Eff. Inten. (mm/hr) = 124.56		*****	
over (min) = 5.00		10.00	
Storage Coeff. (min) = 1.63 (ii)		6.26 (ii)	
Unit Hyd. Tpeak (min) = 5.00		10.00	
Unit Hyd. peak (cms) = 0.32		0.15	
PEAK FLOW (cms) = 0.10		0.01	
TIME TO PEAK (hrs) = 1.00		1.00	
RUNOFF VOLUME (mm) = 48.52		15.41	
TOTAL RAINFALL (mm) = 49.52		49.52	
RUNOFF COEFFICIENT = 0.98		0.31	

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0370)		AREA		QPEAK		TPEAK		R.V.	
1 + 2 = 3		(ha)		(cms)		(hrs)		(mm)	

ID1= 1 (0358):	19.38	0.235	2.83	35.53
+ ID2= 2 (0359):	0.45	0.111	1.00	37.28
ID = 3 (0370):	19.83	0.241	2.83	35.57

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB		Area (ha) = 1.02	
NASHYD (0360)		Curve Number (CN) = 74.5	
ID= 1 DT= 5.0 min		Ia (mm) = 4.61 # of Linear Res.(N) = 3.00	
		U.H. Tp(hrs) = 0.44	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---			
TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr
0.083	5.79	0.833	21.49
0.167	5.79	0.917	124.56
0.250	6.82	1.000	124.56
0.333	6.82	1.083	26.38
0.417	8.45	1.167	26.38
0.500	8.45	1.250	16.63
0.583	11.56	1.333	16.63
0.667	11.56	1.417	12.68
0.750	21.49	1.500	12.68

Unit Hyd Tpeak (cms) = 0.089	
PEAK FLOW (cms) = 0.929 (i)	
TIME TO PEAK (hrs) = 1.500	
RUNOFF VOLUME (mm) = 15.295	
TOTAL RAINFALL (mm) = 49.520	
RUNOFF COEFFICIENT = 0.309	

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		Area (ha) = 0.78	
STANDHYD (0018)		Total Imp(%) = 20.00 Dir. Conn.(%) = 15.00	
ID= 1 DT= 5.0 min			

IMPERVIOUS		PERVIOUS (i)	
Sur-face Area (ha)	0.16	0.62	
Dep. Storage (mm)	5.00	5.00	
Average Slope (%)	1.00	2.00	
Length (m)	72.11	40.00	

Mannings n = 0.013 0.250
 NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

0.583	11.56	1.333	16.63	2.083	7.14	2.83	5.23
0.667	11.56	1.417	12.68	2.167	7.14	2.92	4.93
0.750	21.49	1.500	12.68	2.250	6.51	3.00	4.93

used in: INTENSITY = A / (t + B)^C

Duration of storm = 3.00 hrs
 Storm time step = 10.00 min
 Time to peak ratio = 0.33

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	5.79	0.833	21.49	1.583	10.45	2.33	6.51
0.167	5.79	0.917	124.56	1.667	10.45	2.42	6.01
0.250	6.82	1.000	124.56	1.750	8.98	2.50	6.01
0.333	6.82	1.083	26.38	1.833	8.98	2.58	5.59
0.417	8.45	1.167	26.38	1.917	7.93	2.67	5.59
0.500	8.45	1.250	16.63	2.000	7.93	2.75	5.23
0.583	11.56	1.333	16.63	2.083	7.14	2.83	5.23
0.667	11.56	1.417	12.68	2.167	7.14	2.92	4.93
0.750	21.49	1.500	12.68	2.250	6.51	3.00	4.93

Max. Eff. Inten. (mm/hr) = 124.56 21.67
 over (min) = 5.00 15.00
 Storage Coeff. (min) = 1.63 (ii) 14.64 (ii)
 Unit Hyd. Tpeak (min) = 5.00 15.00
 Unit Hyd. peak (cms) = 0.32 0.08

PEAK FLOW (cms) = 0.06 0.01 0.063 (iii)
 TIME TO PEAK (hrs) = 1.00 1.17 1.00
 RUNOFF VOLUME (mm) = 48.52 13.37 26.50
 TOTAL RAINFALL (mm) = 49.52 49.52 49.52
 RUNOFF COEFFICIENT = 0.98 0.27 0.54

Max. Eff. Inten. (mm/hr) = 124.56 27.51
 over (min) = 5.00 15.00
 Storage Coeff. (min) = 1.92 (ii) 13.75 (ii)
 Unit Hyd. Tpeak (min) = 5.00 15.00
 Unit Hyd. peak (cms) = 0.31 0.08

TOTALS
 PEAK FLOW (cms) = 0.04 0.03 0.054 (iii)
 TIME TO PEAK (hrs) = 1.00 1.17 1.00
 RUNOFF VOLUME (mm) = 44.52 15.59 19.92
 TOTAL RAINFALL (mm) = 49.52 49.52 49.52
 RUNOFF COEFFICIENT = 0.90 0.31 0.40

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
 ***** WARNING: FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20% YOU SHOULD CONSIDER SPLITTING THE AREA.

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES: CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES: CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

[Junction Command(0029)]

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW: ID= 2(0015)	0.45	0.06	1.00	26.50
OUTFLOW: ID= 2(0029)	0.45	0.06	1.00	26.50

[CALIB]

[NASHYD (0001)] Area (ha) = 0.58 Curve Number (CN) = 72.3
 ID= 1 DT= 5.0 min Ia (mm) = 4.86 # of Linear Res. (N) = 3.00
 U.H. Tp(hrs) = 0.20

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	6.80	0.833	25.24	1.583	12.27	2.33	7.65
0.167	6.80	0.917	146.25	1.667	12.27	2.42	7.05
0.250	8.01	1.000	146.25	1.750	10.54	2.50	7.05
0.333	8.01	1.083	30.97	1.833	10.54	2.58	6.56
0.417	9.92	1.167	30.97	1.917	9.31	2.67	6.56
0.500	9.92	1.250	19.53	2.000	9.31	2.75	6.14
0.583	13.57	1.333	19.53	2.083	8.38	2.83	6.14
0.667	13.57	1.417	14.89	2.167	8.38	2.92	5.79
0.750	25.24	1.500	14.89	2.250	7.65	3.00	5.79

Unit Hyd Qpeak (cms) = 0.111

PEAK FLOW (cms) = 0.034 (i)
 TIME TO PEAK (hrs) = 1.167
 RUNOFF VOLUME (mm) = 18.816
 TOTAL RAINFALL (mm) = 58.144
 RUNOFF COEFFICIENT = 0.324

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

[Junction Command(0026)]

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW: ID= 0(0025)	0.02	0.02	1.00	37.81
OUTFLOW: ID= 2(0026)	0.02	0.02	1.00	37.81

[ADD HYD (0361)]

1 + 2 = 3
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (0018): 0.78 0.054 1.00 19.92
 + ID2= 2 (0026): 0.02 0.021 1.00 37.81
 ID = 3 (0361): 0.80 0.076 1.00 20.36

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

[ADD HYD (0361)]

3 + 2 = 1
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (0361): 0.80 0.076 1.00 20.36
 + ID2= 2 (0360): 1.02 0.029 1.50 15.29
 ID = 1 (0361): 1.82 0.082 1.00 17.52

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

[CALIB]

[STANDHYD (0015)] Area (ha) = 0.45
 ID= 1 DT= 5.0 min Total Imp(%) = 37.40 Dir. Conn.(%) = 37.40

IMPERVIOUS		PERVIOUS (i)	
Surface Area (ha)	0.17	0.28	
Dep. Storage (mm)	1.00	5.00	
Average Slope (%)	1.00	2.00	
Length (m)	54.77	40.00	
Mannings n	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	5.79	0.833	21.49	1.583	10.45	2.33	6.51
0.167	5.79	0.917	124.56	1.667	10.45	2.42	6.01
0.250	6.82	1.000	124.56	1.750	8.98	2.50	6.01
0.333	6.82	1.083	26.38	1.833	8.98	2.58	5.59
0.417	8.45	1.167	26.38	1.917	7.93	2.67	5.59
0.500	8.45	1.250	16.63	2.000	7.93	2.75	5.23

V V I SSSSS U U A L (v 6.2.2008)
 V V I SS U U A A L
 V V I SS U U A A A A L
 V V I SSSSS UUUU A A LLLLL

000 TTTTT TTTTT H H Y Y M M 000 TM
 0 0 T T H H Y Y M M 0 0
 0 0 T T H H Y Y M M 0 0
 000 T T H H Y Y M M 000

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***** D E T A I L E D O U T P U T *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voind.dat

Output filename:
 C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404d768782\e97cfdc5-4a6a-4575-a1e4-a4ae5d414320\scena
 Summary filename:
 C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404d768782\e97cfdc5-4a6a-4575-a1e4-a4ae5d414320\scena

DATE: 08-15-2023 TIME: 08:21:47

USER:

COMMENTS:

[CHICAGO STORM] IDF curve parameters: A = 731.314
 B = 0.000
 C = 0.699
 Ptotal = 58.14 mm

[CALIB]

[STANDHYD (0002)] Area (ha) = 3.32
 ID= 1 DT= 5.0 min Total Imp(%) = 55.00 Dir. Conn.(%) = 55.00

IMPERVIOUS		PERVIOUS (i)	
Surface Area (ha)	1.83	1.49	
Dep. Storage (mm)	1.00	5.00	
Average Slope (%)	1.00	2.00	
Length (m)	148.77	40.00	
Mannings n	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	6.80	0.833	25.24	1.583	12.27	2.33	7.65
0.167	6.80	0.917	146.25	1.667	12.27	2.42	7.05
0.250	8.01	1.000	146.25	1.750	10.54	2.50	7.05
0.333	8.01	1.083	30.97	1.833	10.54	2.58	6.56
0.417	9.92	1.167	30.97	1.917	9.31	2.67	6.56
0.500	9.92	1.250	19.53	2.000	9.31	2.75	6.14
0.583	13.57	1.333	19.53	2.083	8.38	2.83	6.14
0.667	13.57	1.417	14.89	2.167	8.38	2.92	5.79
0.750	25.24	1.500	14.89	2.250	7.65	3.00	5.79

Max. Eff. Inten. (mm/hr) = 146.25 29.94
 over (min) = 5.00 15.00
 Storage Coeff. (min) = 2.78 (ii) 14.22 (ii)
 Unit Hyd. Tpeak (min) = 5.00 15.00
 Unit Hyd. peak (cms) = 0.28 0.08

PEAK FLOW (cms) = 0.72 0.08 0.761 (iii)
 TIME TO PEAK (hrs) = 1.00 1.17 1.00
 RUNOFF VOLUME (mm) = 57.14 18.00 39.53
 TOTAL RAINFALL (mm) = 58.14 58.14 58.14
 RUNOFF COEFFICIENT = 0.98 0.31 0.68

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES: CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

[RESERVOIR(0004)] OVERFLOW IS OFF

IN= 2---> OUT= 1							
DT= 5.0 min							
	OUTFLOW	STORAGE	OUTFLOW	STORAGE			
	(cms)	(ha.m.)	(cms)	(ha.m.)			
	0.0000	0.0000	0.1200	0.1370			
	0.0350	0.0750	0.1700	0.1500			
	0.1000	0.0950	0.2800	0.1600			
	0.1100	0.1120	0.0000	0.0000			

	AREA	OPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (0002)	3.320	0.761	1.00	39.53
OUTFLOW : ID= 1 (0004)	3.320	0.075	1.92	39.36

PEAK FLOW REDUCTION [Qout/Qin](%) = 9.91
 TIME SHIFT OF PEAK FLOW (min) = 55.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0074

ADD HYD (0003)				
1 + 2 = 3				
	AREA	OPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0001)	0.58	0.034	1.17	10.82
+ ID2= 2 (0004)	3.32	0.075	1.92	39.36
ID= 3 (0003)	3.90	0.086	1.83	36.31

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB				
STANDHYD (0355)				
ID= 1 DT= 5.0 min				
	Area (ha)	= 1.56	Dir. Conn.(%)	= 50.00
	Total Imp(X%)	= 50.00		

Surface Area (ha) = 0.78 IMPERVIOUS 0.78 PERVIOUS (i)
 Dep. Storage (mm) = 1.00 5.00
 Average Slope (%) = 1.00 2.00
 Length (m) = 101.98 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	6.80	0.833	25.24	1.583	12.27	2.33	7.65
0.167	6.80	0.917	146.25	1.667	12.27	2.42	7.05

0.333	8.01	1.003	30.97	1.833	10.54	2.58	6.56
0.417	9.92	1.167	30.97	1.917	9.31	2.67	6.56
0.500	9.92	1.250	19.53	2.000	9.31	2.75	6.14
0.583	13.57	1.333	19.53	2.083	8.38	2.83	6.14
0.667	13.57	1.417	14.89	2.167	8.38	2.92	5.79
0.750	25.24	1.500	14.89	2.250	7.65	3.00	5.79

Max. Eff. Inten. (mm/hr) = 146.25 *****
 over (min) = 5.00 10.00
 Storage Coeff. (min) = 4.56 (ii) 9.18 (ii)
 Unit Hyd. Tpeak (min) = 5.00 10.00
 Unit Hyd. peak (cms) = 0.23 0.12

PEAK FLOW (cms) = 3.85 0.58 *TOTALS*
 TIME TO PEAK (hrs) = 1.00 1.00 1.00
 RUNOFF VOLUME (mm) = 57.14 21.48 43.23
 TOTAL RAINFALL (mm) = 58.14 58.14 58.14
 RUNOFF COEFFICIENT = 0.98 0.37 0.74

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB				
STANDHYD (0027)				
ID= 1 DT= 5.0 min				
	Area (ha)	= 0.71	Dir. Conn.(%)	= 67.00
	Total Imp(X%)	= 73.50		

Surface Area (ha) = 0.52 IMPERVIOUS 0.19 PERVIOUS (i)
 Dep. Storage (mm) = 1.00 5.00
 Average Slope (%) = 1.00 2.00
 Length (m) = 68.80 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	6.80	0.833	25.24	1.583	12.27	2.33	7.65
0.167	6.80	0.917	146.25	1.667	12.27	2.42	7.05
0.250	8.01	1.000	146.25	1.750	10.54	2.50	7.05
0.333	8.01	1.083	30.97	1.833	10.54	2.58	6.56

ADD HYD (0357)				
1 + 2 = 3				
	AREA	OPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0024)	0.65	0.156	0.92	45.32
+ ID2= 2 (0355)	1.56	0.333	1.00	37.57
ID= 3 (0357)	2.21	0.489	1.00	39.85

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0357)				
3 + 2 = 1				
	AREA	OPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (0357)	2.21	0.489	1.00	39.85
+ ID2= 2 (0356)	17.13	4.290	1.00	43.23
ID= 1 (0357)	19.34	4.780	1.00	42.85

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (0358)				
IN= 2---> OUT= 1				
DT= 5.0 min				
	OVERFLOW IS OFF			
	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.7600	0.9520
	0.0420	0.1820	1.3660	1.2980
	0.0630	0.3560	1.8960	1.5720
	0.3940	0.7050	4.0000	1.9390

	AREA	OPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (0357)	19.340	4.780	1.00	42.85
OUTFLOW : ID= 1 (0358)	19.340	0.314	2.58	42.79

PEAK FLOW REDUCTION [Qout/Qin](%) = 6.57
 TIME SHIFT OF PEAK FLOW (min) = 95.00
 MAXIMUM STORAGE USED (ha.m.) = 0.6209

CALIB				
STANDHYD (0359)				
ID= 1 DT= 5.0 min				
	Area (ha)	= 0.45	Dir. Conn.(%)	= 66.10
	Total Imp(X%)	= 71.30		

0.250	8.01	1.000	146.25	1.750	10.54	2.50	7.05
0.333	8.01	1.083	30.97	1.833	10.54	2.58	6.56
0.417	9.92	1.167	30.97	1.917	9.31	2.67	6.56
0.500	9.92	1.250	19.53	2.000	9.31	2.75	6.14
0.583	13.57	1.333	19.53	2.083	8.38	2.83	6.14
0.667	13.57	1.417	14.89	2.167	8.38	2.92	5.79
0.750	25.24	1.500	14.89	2.250	7.65	3.00	5.79

Max. Eff. Inten. (mm/hr) = 146.25 29.94 *****
 over (min) = 5.00 10.00
 Storage Coeff. (min) = 2.22 (ii) 13.65 (ii)
 Unit Hyd. Tpeak (min) = 5.00 15.00
 Unit Hyd. peak (cms) = 0.30 0.08

PEAK FLOW (cms) = 0.31 0.04 *TOTALS*
 TIME TO PEAK (hrs) = 1.00 1.17 0.333 (iii)
 RUNOFF VOLUME (mm) = 57.14 18.00 37.57
 TOTAL RAINFALL (mm) = 58.14 58.14 58.14
 RUNOFF COEFFICIENT = 0.98 0.31 0.65

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB				
STANDHYD (0356)				
ID= 1 DT= 5.0 min				
	Area (ha)	= 17.13	Dir. Conn.(%)	= 61.00
	Total Imp(X%)	= 69.00		

Surface Area (ha) = 11.82 IMPERVIOUS 5.31 PERVIOUS (i)
 Dep. Storage (mm) = 1.00 5.00
 Average Slope (%) = 1.00 2.00
 Length (m) = 337.93 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	6.80	0.833	25.24	1.583	12.27	2.33	7.65
0.167	6.80	0.917	146.25	1.667	12.27	2.42	7.05
0.250	8.01	1.000	146.25	1.750	10.54	2.50	7.05

0.417	9.92	1.167	30.97	1.917	9.31	2.67	6.56
0.500	9.92	1.250	19.53	2.000	9.31	2.75	6.14
0.583	13.57	1.333	19.53	2.083	8.38	2.83	6.14
0.667	13.57	1.417	14.89	2.167	8.38	2.92	5.79
0.750	25.24	1.500	14.89	2.250	7.65	3.00	5.79

Max. Eff. Inten. (mm/hr) = 146.25 *****
 over (min) = 5.00 10.00
 Storage Coeff. (min) = 1.75 (ii) 5.94 (ii)
 Unit Hyd. Tpeak (min) = 5.00 10.00
 Unit Hyd. peak (cms) = 0.32 0.15

PEAK FLOW (cms) = 0.19 0.02 *TOTALS*
 TIME TO PEAK (hrs) = 1.00 1.00 1.00
 RUNOFF VOLUME (mm) = 57.14 21.32 45.32
 TOTAL RAINFALL (mm) = 58.14 58.14 58.14
 RUNOFF COEFFICIENT = 0.98 0.37 0.78

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DHVD (0025)				
Inlet Cap. = 0.156				
# of Inlets = 1				
Total(cms) = 0.2				
	AREA	OPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
TOTAL HYD. (ID= 1):	0.71	0.21	1.00	45.32
MAJOR SYS. (ID= 2):	0.06	0.06	1.00	45.32
MINOR SYS. (ID= 3):	0.65	0.16	0.92	45.32

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

[Junction Command(0024)]

	AREA	OPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 9(0025)	0.65	0.16	0.92	45.32
OUTFLOW : ID= 2(0024)	0.65	0.16	0.92	45.32

Surface Area (ha) = 0.32 IMPERVIOUS 0.13 PERVIOUS (i)
 Dep. Storage (mm) = 1.00 5.00
 Average Slope (%) = 1.00 2.00
 Length (m) = 54.77 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	6.80	0.833	25.24	1.583	12.27	2.33	7.65
0.167	6.80	0.917	146.25	1.667	12.27	2.42	7.05
0.250	8.01	1.000	146.25	1.750	10.54	2.50	7.05
0.333	8.01	1.083	30.97	1.833	10.54	2.58	6.56
0.417	9.92	1.167	30.97	1.917	9.31	2.67	6.56
0.500	9.92	1.250	19.53	2.000	9.31	2.75	6.14
0.583	13.57	1.333	19.53	2.083	8.38	2.83	6.14
0.667	13.57	1.417	14.89	2.167	8.38	2.92	5.79
0.750	25.24	1.500	14.89	2.250	7.65	3.00	5.79

Max. Eff. Inten. (mm/hr) = 146.25 *****
 over (min) = 5.00 10.00
 Storage Coeff. (min) = 1.53 (ii) 5.87 (ii)
 Unit Hyd. Tpeak (min) = 5.00 10.00
 Unit Hyd. peak (cms) = 0.33 0.15

PEAK FLOW (cms) = 0.12 0.01 *TOTALS*
 TIME TO PEAK (hrs) = 1.00 1.00 1.00
 RUNOFF VOLUME (mm) = 57.14 20.50 44.71
 TOTAL RAINFALL (mm) = 58.14 58.14 58.14
 RUNOFF COEFFICIENT = 0.98 0.35 0.77

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0370)				
1 + 2 = 3				
	AREA	OPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)

ID1= 1 (0358): 19.34 0.314 2.58 42.79
 + ID2= 2 (0359): 0.45 0.133 1.00 44.71

 ID = 3 (0370): 19.79 0.322 2.50 42.83

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
 NASHYD (0360) Area (ha)= 1.02 Curve Number (CN)= 74.5
 ID= 1 DT= 5.0 min Ia (mm)= 4.61 # of Linear Res.(N)= 3.00
 U.H. Tp(hrs)= 0.44

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	6.80	0.833	25.24	1.583	12.27	2.33	7.65
0.167	6.80	0.917	146.25	1.667	12.27	2.42	7.05
0.250	8.01	1.000	146.25	1.750	10.54	2.50	7.05
0.333	8.01	1.083	30.97	1.833	10.54	2.58	6.56
0.417	9.92	1.167	30.97	1.917	9.31	2.67	6.56
0.500	9.92	1.250	19.53	2.000	9.31	2.75	6.14
0.583	13.57	1.333	19.53	2.083	8.38	2.83	6.14
0.667	13.57	1.417	14.89	2.167	8.38	2.92	5.79
0.750	25.24	1.500	14.89	2.250	7.65	3.00	5.79

Unit Hyd Qpeak (cms) = 0.089

PEAK FLOW (cms) = 0.039 (1)
 TIME TO PEAK (hrs) = 1.500
 RUNOFF VOLUME (mm) = 20.399
 TOTAL RAINFALL (mm) = 58.144
 RUNOFF COEFFICIENT = 0.351

(1) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 STANDHYD (0018) Area (ha)= 0.78 Dir. Conn.(%) = 15.00
 ID= 1 DT= 5.0 min Total Imp(%)= 20.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.16 5.00
 Dep. Storage (mm)= 5.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 72.11 40.00

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	6.80	0.833	25.24	1.583	12.27	2.33	7.65
0.167	6.80	0.917	146.25	1.667	12.27	2.42	7.05
0.250	8.01	1.000	146.25	1.750	10.54	2.50	7.05
0.333	8.01	1.083	30.97	1.833	10.54	2.58	6.56
0.417	9.92	1.167	30.97	1.917	9.31	2.67	6.56
0.500	9.92	1.250	19.53	2.000	9.31	2.75	6.14
0.583	13.57	1.333	19.53	2.083	8.38	2.83	6.14
0.667	13.57	1.417	14.89	2.167	8.38	2.92	5.79
0.750	25.24	1.500	14.89	2.250	7.65	3.00	5.79

Max. Eff. Inten. (mm/hr)= 146.25 48.63
 over (min) 5.00 15.00
 Storage Coeff. (min)= 1.80 (ii) 11.22 (ii)
 Unit Hyd. Tpeak (min)= 5.00 15.00
 Unit Hyd. peak (cms)= 0.32 0.09

PEAK FLOW (cms)= 0.05 0.05 *TOTALS*
 TIME TO PEAK (hrs)= 1.00 1.17 0.070 (iii)
 RUNOFF VOLUME (mm)= 53.14 20.78 25.62
 TOTAL RAINFALL (mm)= 58.14 58.14 58.14
 RUNOFF COEFFICIENT = 0.91 0.36 0.44

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
 **** WARNING: FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20% YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0026)
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW : ID= 8(0025) 0.06 0.06 1.00 45.32
 OUTFLOW: ID= 2(0026) 0.06 0.06 1.00 45.32

ADD HYD (0361)
 1 + 2 = 3
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (0018): 0.78 0.070 1.00 25.62
 + ID2= 2 (0026): 0.06 0.056 1.00 45.32

 ID = 3 (0361): 0.84 0.125 1.00 27.02

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0361)
 3 + 2 = 1
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (0361): 0.84 0.125 1.00 27.02
 + ID2= 2 (0360): 1.02 0.039 1.50 20.40

 ID = 1 (0361): 1.86 0.134 1.00 23.39

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
 STANDHYD (0015) Area (ha)= 0.45 Dir. Conn.(%) = 37.40
 ID= 1 DT= 5.0 min Total Imp(%)= 37.40
 IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.17 0.28
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 54.77 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	6.80	0.833	25.24	1.583	12.27	2.33	7.65
0.167	6.80	0.917	146.25	1.667	12.27	2.42	7.05
0.250	8.01	1.000	146.25	1.750	10.54	2.50	7.05
0.333	8.01	1.083	30.97	1.833	10.54	2.58	6.56
0.417	9.92	1.167	30.97	1.917	9.31	2.67	6.56
0.500	9.92	1.250	19.53	2.000	9.31	2.75	6.14

0.583 13.57 | 1.333 19.53 | 2.083 8.38 | 2.83 6.14
 0.667 13.57 | 1.417 14.89 | 2.167 8.38 | 2.92 5.79
 0.750 25.24 | 1.500 14.89 | 2.250 7.65 | 3.00 5.79

Max. Eff. Inten. (mm/hr)= 146.25 29.94
 over (min) 5.00 15.00
 Storage Coeff. (min)= 1.53 (ii) 15.00 (ii)
 Unit Hyd. Tpeak (min)= 5.00 15.00
 Unit Hyd. peak (cms)= 0.33 0.08
 PEAK FLOW (cms)= 0.07 0.02 *TOTALS*
 TIME TO PEAK (hrs)= 1.00 1.17 0.075 (iii)
 RUNOFF VOLUME (mm)= 57.14 18.00 32.62
 TOTAL RAINFALL (mm)= 58.14 58.14 58.14
 RUNOFF COEFFICIENT = 0.98 0.31 0.56

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 71.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0029)
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW : ID= 2(0015) 0.45 0.08 1.00 32.62
 OUTFLOW: ID= 2(0029) 0.45 0.08 1.00 32.62

V V I SSSSS U U A L (v 6.2.2008)
 V V I SS U U A A L
 V V I SS U U A A A A L
 V V I SS U U A A L
 V V I SSSSS UUUU A A LLLLL

000 TTTT TTTT H H Y Y M M 000 TM
 0 0 T T H H Y Y M M 0 0
 0 0 T T H H Y M M 0 0
 000 T T H H Y M M 000

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**** D E T A I L E D O U T P U T ****

Input filename: C:\Program Files (x86)\Visual OTTHYMD 6.2\VO2\voindat

Output filename:
 C:\Users\ksvain\AppData\Local\Civica\VH5\4c9a870-2b3a-4142-a551-3404df768702\ab6cc
 a6b-4b74-4532-99d9-080abf40004\scena
 Summary filename:
 C:\Users\ksvain\AppData\Local\Civica\VH5\4c9a870-2b3a-4142-a551-3404df768702\ab6cc
 a6b-4b74-4532-99d9-080abf40004\scena

DATE: 08-15-2023 TIME: 08:21:47

USER:

COMMENTS:

 ** SIMULATION : F. 50yr 3hr 10min Chicago **

CHICAGO STORM IDf curve parameters: A= 811.794
 Ptotal= 64.54 mm B= 0.000
 C= 0.699

used in: INTENSITY = A / (t + B)^C

Duration of storm = 3.00 hrs
 Storm time step = 10.00 min
 Time to peak ratio = 0.33

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	7.55	0.833	162.35	1.67	11.70	2.50	7.28
0.17	8.89	1.00	34.38	1.83	10.34	2.67	6.82
0.33	11.01	1.17	21.68	2.00	9.30	2.83	6.42
0.50	15.06	1.33	16.53	2.17	8.49		
0.67	20.01	1.50	13.62	2.33	7.83		

CALIB
 NASHYD (0001) Area (ha)= 0.58 Curve Number (CN)= 72.3
 ID= 1 DT= 5.0 min Ia (mm)= 4.86 # of Linear Res.(N)= 3.00
 U.H. Tp(hrs)= 0.20

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	7.55	0.833	28.01	1.583	13.62	2.33	8.49
0.167	7.55	0.917	162.35	1.667	13.62	2.42	7.83
0.250	8.89	1.000	162.35	1.750	11.70	2.50	7.83
0.333	8.89	1.083	34.38	1.833	11.70	2.58	7.28
0.417	11.01	1.167	34.38	1.917	10.34	2.67	7.28
0.500	11.01	1.250	21.68	2.000	10.34	2.75	6.82
0.583	15.06	1.333	21.68	2.083	9.30	2.83	6.82
0.667	15.06	1.417	16.53	2.167	9.30	2.92	6.42
0.750	28.01	1.500	16.53	2.250	8.49	3.00	6.42

Unit Hyd Qpeak (cms) = 0.111

PEAK FLOW (cms)= 0.041 (i)
 TIME TO PEAK (hrs)= 1.167
 RUNOFF VOLUME (mm)= 22.644
 TOTAL RAINFALL (mm)= 64.542
 RUNOFF COEFFICIENT = 0.351

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0002) | Area (ha)= 3.32
ID= 1 DT= 5.0 min | Total Imp(%)= 55.00 Dir. Conn.(%)= 55.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.83 1.49
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 148.77 40.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	7.55	0.833	28.01	1.583	13.62	2.33	8.49
0.167	7.55	0.917	162.35	1.667	13.62	2.42	7.83
0.250	8.89	1.000	162.35	1.750	11.70	2.50	7.83
0.333	8.89	1.083	34.38	1.833	11.70	2.58	7.28
0.417	11.01	1.167	34.38	1.917	10.34	2.67	7.28
0.500	11.01	1.250	21.68	2.000	10.34	2.75	6.82
0.583	15.06	1.333	21.68	2.083	9.30	2.83	6.82
0.667	15.06	1.417	16.53	2.167	9.30	2.92	6.42
0.750	28.01	1.500	16.53	2.250	8.49	3.00	6.42

Max. Eff. Inten. (mm/hr)= 162.35 47.39
over (min)= 5.00 15.00
Storage Coeff. (min)= 2.67 (ii) 12.19 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.29 0.09

TOTALS

PEAK FLOW (cms)= 0.81 0.10 0.857 (iii)
TIME TO PEAK (hrs)= 1.00 1.17 1.00
RUNOFF VOLUME (mm)= 63.54 21.71 44.72
TOTAL RAINFALL (mm)= 64.54 64.54 64.54
RUNOFF COEFFICIENT = 0.98 0.34 0.69

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (0004) | OVERFLOW IS OFF

IN= 2---> OUT= 1
DT= 5.0 min

OUTFLOW	STORAGE	OUTFLOW	STORAGE
(cms)	(ha.m.)	(cms)	(ha.m.)
0.0000	0.0000	0.1200	0.1370
0.0350	0.0750	0.1700	0.1500
0.1000	0.0950	0.2800	0.1600
0.1100	0.1120	0.0000	0.0000

AREA	OPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
INFLOW: ID= 2 (0002)	3.320	0.857	1.00	44.72
OUTFLOW: ID= 1 (0004)	3.320	0.098	1.75	44.55

PEAK FLOW REDUCTION [Qout/Qin](%)= 11.47
TIME SHIFT OF PEAK FLOW (min)= 45.00
MAXIMUM STORAGE USED (ha.m.)= 0.0945

ADD HYD (0003)
1 + 2 = 3

AREA	OPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (0001):	0.58	0.041	1.17	22.64
+ ID2= 2 (0004):	3.32	0.098	1.75	44.55
ID = 3 (0003):	3.90	0.114	1.58	41.30

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
STANDHYD (0355)
ID= 1 DT= 5.0 min

Area (ha)= 1.56
Total Imp(%)= 50.00 Dir. Conn.(%)= 50.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.78 0.78
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 101.98 40.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	7.55	0.833	28.01	1.583	13.62	2.33	8.49
0.167	7.55	0.917	162.35	1.667	13.62	2.42	7.83

0.250	8.89	1.000	162.35	1.750	11.70	2.50	7.83
0.333	8.89	1.083	34.38	1.833	11.70	2.58	7.28
0.417	11.01	1.167	34.38	1.917	10.34	2.67	7.28
0.500	11.01	1.250	21.68	2.000	10.34	2.75	6.82
0.583	15.06	1.333	21.68	2.083	9.30	2.83	6.82
0.667	15.06	1.417	16.53	2.167	9.30	2.92	6.42
0.750	28.01	1.500	16.53	2.250	8.49	3.00	6.42

Max. Eff. Inten. (mm/hr)= 162.35 47.39
over (min)= 5.00 15.00
Storage Coeff. (min)= 2.13 (ii) 11.64 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.31 0.09

PEAK FLOW (cms)= 0.35 0.06 0.376 (iii)
TIME TO PEAK (hrs)= 1.00 1.17 1.00
RUNOFF VOLUME (mm)= 63.54 21.71 42.62
TOTAL RAINFALL (mm)= 64.54 64.54 64.54
RUNOFF COEFFICIENT = 0.98 0.34 0.66

TOTALS

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0356)
ID= 1 DT= 5.0 min

Area (ha)= 17.13
Total Imp(%)= 69.00 Dir. Conn.(%)= 61.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 11.82 5.31
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 337.93 40.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	7.55	0.833	28.01	1.583	13.62	2.33	8.49
0.167	7.55	0.917	162.35	1.667	13.62	2.42	7.83
0.250	8.89	1.000	162.35	1.750	11.70	2.50	7.83

0.333	8.89	1.083	34.38	1.833	11.70	2.58	7.28
0.417	11.01	1.167	34.38	1.917	10.34	2.67	7.28
0.500	11.01	1.250	21.68	2.000	10.34	2.75	6.82
0.583	15.06	1.333	21.68	2.083	9.30	2.83	6.82
0.667	15.06	1.417	16.53	2.167	9.30	2.92	6.42
0.750	28.01	1.500	16.53	2.250	8.49	3.00	6.42

Max. Eff. Inten. (mm/hr)= 162.35 47.39
over (min)= 5.00 15.00
Storage Coeff. (min)= 4.37 (ii) 8.80 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.23 0.12

PEAK FLOW (cms)= 4.31 0.71 4.865 (iii)
TIME TO PEAK (hrs)= 1.00 1.08 1.00
RUNOFF VOLUME (mm)= 63.54 25.65 48.76
TOTAL RAINFALL (mm)= 64.54 64.54 64.54
RUNOFF COEFFICIENT = 0.98 0.40 0.76

TOTALS

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0027)
ID= 1 DT= 5.0 min

Area (ha)= 0.71
Total Imp(%)= 73.50 Dir. Conn.(%)= 67.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.52 0.19
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 68.80 40.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	7.55	0.833	28.01	1.583	13.62	2.33	8.49
0.167	7.55	0.917	162.35	1.667	13.62	2.42	7.83
0.250	8.89	1.000	162.35	1.750	11.70	2.50	7.83
0.333	8.89	1.083	34.38	1.833	11.70	2.58	7.28

0.417	11.01	1.167	34.38	1.917	10.34	2.67	7.28
0.500	11.01	1.250	21.68	2.000	10.34	2.75	6.82
0.583	15.06	1.333	21.68	2.083	9.30	2.83	6.82
0.667	15.06	1.417	16.53	2.167	9.30	2.92	6.42
0.750	28.01	1.500	16.53	2.250	8.49	3.00	6.42

Max. Eff. Inten. (mm/hr)= 162.35 47.39
over (min)= 5.00 15.00
Storage Coeff. (min)= 1.68 (ii) 5.69 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.32 0.15

PEAK FLOW (cms)= 0.21 0.03 0.238 (iii)
TIME TO PEAK (hrs)= 1.00 1.08 1.00
RUNOFF VOLUME (mm)= 63.54 25.47 50.97
TOTAL RAINFALL (mm)= 64.54 64.54 64.54
RUNOFF COEFFICIENT = 0.98 0.39 0.79

TOTALS

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHDY (0025)
Inlet Cap.= 0.156
of Inlets= 1
Total(cms)= 0.2

AREA	OPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
TOTAL HYD. (ID= 1):	0.71	0.24	1.00	50.97
MAJOR SYS. (ID= 2):	0.08	0.08	1.00	50.97
MINOR SYS. (ID= 3):	0.63	0.16	0.92	50.97

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0024)

AREA	OPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
INFLOW: ID= 9(0025)	0.63	0.16	0.92	50.97
OUTFLOW: ID= 2(0024)	0.63	0.16	0.92	50.97

ADD HYD (0357)
1 + 2 = 3

AREA	OPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (0024):	0.63	0.156	0.92	50.97
+ ID2= 2 (0355):	1.56	0.376	1.00	42.62
ID = 3 (0357):	2.19	0.532	1.00	45.02

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0357)
3 + 2 = 1

AREA	OPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (0357):	2.19	0.532	1.00	45.02
+ ID2= 2 (0356):	17.13	4.865	1.00	48.76
ID = 1 (0357):	19.32	5.397	1.00	48.34

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (0358)
IN= 2---> OUT= 1
DT= 5.0 min

OVERFLOW IS OFF

OUTFLOW	STORAGE	OUTFLOW	STORAGE
(cms)	(ha.m.)	(cms)	(ha.m.)
0.0000	0.0000	0.7600	0.9520
0.0420	0.1820	1.3600	1.2980
0.0630	0.3560	1.8900	1.5720
0.3940	0.7050	4.0000	1.9390

AREA	OPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
INFLOW: ID= 2 (0357)	19.318	5.397	1.00	48.34
OUTFLOW: ID= 1 (0358)	19.318	0.375	2.50	48.28

PEAK FLOW REDUCTION [Qout/Qin](%)= 6.95
TIME SHIFT OF PEAK FLOW (min)= 90.00
MAXIMUM STORAGE USED (ha.m.)= 0.6853

CALIB
STANDHYD (0359)
ID= 1 DT= 5.0 min

Area (ha)= 0.45
Total Imp(%)= 71.30 Dir. Conn.(%)= 66.10

 IMPERVIOUS PVIOUS (i)
 Surface Area (ha)= 0.32 0.13
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 54.77 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	7.55	0.833	28.01	1.583	13.62
0.167	7.55	0.917	162.35	1.667	13.62
0.250	8.89	1.000	162.35	1.750	11.70
0.333	8.89	1.083	34.38	1.833	11.70
0.417	11.01	1.167	34.38	1.917	10.34
0.500	11.01	1.250	21.68	2.000	10.34
0.583	15.06	1.333	21.68	2.083	9.30
0.667	15.06	1.417	16.53	2.167	9.30
0.750	28.01	1.500	16.53	2.250	8.49

Max. Eff. Inten. (mm/hr)= 162.35 *****
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 1.47 (ii) 5.63 (iii)
 Unit Hyd. Tpeak (min)= 5.00
 Unit Hyd. peak (cms)= 0.33 0.15

 PEAK FLOW (cms)= 0.13 0.02 0.149 (iii)
 TIME TO PEAK (hrs)= 1.00 1.00 1.00
 RUNOFF VOLUME (mm)= 63.54 24.55 50.31
 TOTAL RAINFALL (mm)= 64.54 64.54 64.54
 RUNOFF COEFFICIENT = 0.98 0.38 0.78

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
 (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 71.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 ADD HYD (0370)
 1 + 2 = 3

AREA	QPEAK	TPEAK	R.V.
(ha)	(cms)	(hrs)	(mm)
0.45	0.09	1.00	37.34
0.45	0.09	1.00	37.34

ID1 = 1 (0358): 19.32 0.375 2.50 48.28
 + ID2 = 2 (0359): 0.45 0.149 1.00 50.31

 ID = 3 (0370): 19.77 0.384 2.33 48.33

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
 STANDHYD (0360)
 ID= 1 DT= 5.0 min

Area	(ha)	Curve Number	(CN)= 74.5
Ia	(mm)	# of Linear Res.	(N)= 3.00
0.44			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	7.55	0.833	28.01	1.583	13.62
0.167	7.55	0.917	162.35	1.667	13.62
0.250	8.89	1.000	162.35	1.750	11.70
0.333	8.89	1.083	34.38	1.833	11.70
0.417	11.01	1.167	34.38	1.917	10.34
0.500	11.01	1.250	21.68	2.000	10.34
0.583	15.06	1.333	21.68	2.083	9.30
0.667	15.06	1.417	16.53	2.167	9.30
0.750	28.01	1.500	16.53	2.250	8.49

Unit Hyd Tpeak (cms) = 0.089
 PEAK FLOW (cms) = 0.047 (i)
 TIME TO PEAK (hrs) = 1.500
 RUNOFF VOLUME (mm) = 24.453
 TOTAL RAINFALL (mm) = 64.542
 RUNOFF COEFFICIENT = 0.379

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 STANDHYD (0018)
 ID= 1 DT= 5.0 min

Area	(ha)	Total Imp(%)	Dir. Conn.(%)
0.16		20.00	15.00

IMPERVIOUS PVIOUS (i)
 Surface Area (ha)= 0.16
 Dep. Storage (mm)= 5.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 72.11 40.00

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	7.55	0.833	28.01	1.583	13.62
0.167	7.55	0.917	162.35	1.667	13.62
0.250	8.89	1.000	162.35	1.750	11.70
0.333	8.89	1.083	34.38	1.833	11.70
0.417	11.01	1.167	34.38	1.917	10.34
0.500	11.01	1.250	21.68	2.000	10.34
0.583	15.06	1.333	21.68	2.083	9.30
0.667	15.06	1.417	16.53	2.167	9.30
0.750	28.01	1.500	16.53	2.250	8.49

Max. Eff. Inten. (mm/hr)= 162.35 59.31
 over (min) = 5.00 15.00
 Storage Coeff. (min)= 1.73 (ii) 10.43 (iii)
 Unit Hyd. Tpeak (min)= 5.00 15.00
 Unit Hyd. peak (cms)= 0.32 0.09

 PEAK FLOW (cms)= 0.05 0.06 0.081 (iii)
 TIME TO PEAK (hrs)= 1.00 1.17 1.00
 RUNOFF VOLUME (mm)= 59.54 24.89 30.08
 TOTAL RAINFALL (mm)= 64.54 64.54 64.54
 RUNOFF COEFFICIENT = 0.92 0.39 0.47

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
 ***** WARNING: FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
 YOU SHOULD CONSIDER SPLITTING THE AREA.
 (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 Junction Command(0026) |

AREA	QPEAK	TPEAK	R.V.
(ha)	(cms)	(hrs)	(mm)
0.08	0.08	1.00	50.97
0.08	0.08	1.00	50.97

 ADD HYD (0361)
 1 + 2 = 3

AREA	QPEAK	TPEAK	R.V.
(ha)	(cms)	(hrs)	(mm)
0.78	0.081	1.00	30.08
0.08	0.082	1.00	50.97

ID1 = 1 (0018): 0.78 0.081 1.00 30.08
 + ID2 = 2 (0026): 0.08 0.082 1.00 50.97

 ID = 3 (0361): 0.86 0.163 1.00 32.07

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 ADD HYD (0361)
 3 + 2 = 1

AREA	QPEAK	TPEAK	R.V.
(ha)	(cms)	(hrs)	(mm)
0.86	0.163	1.00	32.07
1.02	0.047	1.50	24.45

ID1 = 3 (0361): 0.86 0.163 1.00 32.07
 + ID2 = 2 (0360): 1.02 0.047 1.50 24.45

 ID = 1 (0361): 1.88 0.174 1.00 27.94

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
 STANDHYD (0015)
 ID= 1 DT= 5.0 min

Area	(ha)	Total Imp(%)	Dir. Conn.(%)
0.45		37.40	37.40

IMPERVIOUS PVIOUS (i)
 Surface Area (ha)= 0.17 0.28
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 54.77 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	7.55	0.833	28.01	1.583	13.62
0.167	7.55	0.917	162.35	1.667	13.62
0.250	8.89	1.000	162.35	1.750	11.70
0.333	8.89	1.083	34.38	1.833	11.70
0.417	11.01	1.167	34.38	1.917	10.34
0.500	11.01	1.250	21.68	2.000	10.34
0.583	15.06	1.333	21.68	2.083	9.30
0.667	15.06	1.417	16.53	2.167	9.30
0.750	28.01	1.500	16.53	2.250	8.49

0.583 15.06 | 1.333 21.68 | 2.083 9.30 | 2.83 6.82
 0.667 15.06 | 1.417 16.53 | 2.167 9.30 | 2.92 6.42
 0.750 28.01 | 1.500 16.53 | 2.250 8.49 | 3.00 6.42

Max. Eff. Inten. (mm/hr)= 162.35 47.39
 over (min) = 5.00 15.00
 Storage Coeff. (min)= 1.47 (ii) 10.98 (iii)
 Unit Hyd. Tpeak (min)= 5.00 15.00
 Unit Hyd. peak (cms)= 0.33 0.09

 PEAK FLOW (cms)= 0.08 0.02 0.086 (iii)
 TIME TO PEAK (hrs)= 1.00 1.17 1.00
 RUNOFF VOLUME (mm)= 63.54 21.71 37.34
 TOTAL RAINFALL (mm)= 64.54 64.54 64.54
 RUNOFF COEFFICIENT = 0.98 0.34 0.58

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
 (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 71.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 Junction Command(0029) |

AREA	QPEAK	TPEAK	R.V.
(ha)	(cms)	(hrs)	(mm)
0.45	0.09	1.00	37.34
0.45	0.09	1.00	37.34

 V V I SSSSS U U A L (v 6.2.2008)
 V V I SS U U A A L
 V V I SS U U A A A A L
 V V I SS U U A A L
 V V I SSS UUUU A A LLLLL

000 TTTTT TTTT H H Y Y M M 000 TM
 0 0 T T H H Y Y M M 0 0
 0 0 T T H H Y Y M M 0 0
 000 T T H H M M 000

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***** D E T A I L E D O U T P U T *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voind.dat

Output filename:
 C:\Users\ksvain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404df768702\b6dcf751-653d-47c5-98c5-64db875595db\scena
 Summary filename:
 C:\Users\ksvain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404df768702\b6dcf751-653d-47c5-98c5-64db875595db\scena

DATE: 08-15-2023 TIME: 08:21:47

USER:

COMMENTS:

 ** SIMULATION : F. 100yr 3hr 10min Chicago **

 CHICAGO STORM IDF curve parameters: A= 892.273
 Ptotal= 70.94 mm B= 0.000
 C= 0.699

used in: INTENSITY = A / (t + B)^C

Duration of storm = 3.00 hrs
Storm time step = 10.00 min
Time to peak ratio = 0.33

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. Rows show rainfall intensity (mm/hr) at various time intervals.

CALIB
STANDHYD (0001) Area (ha)= 0.58 Curve Number (CN)= 72.3
ID= 1 DT= 5.0 min Ia (mm)= 4.86 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.20

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. Rows show transformed hyetograph data.

Unit Hyd Qpeak (cms)= 0.111

PEAK FLOW (cms)= 0.049 (i)
TIME TO PEAK (hrs)= 1.167
RUNOFF VOLUME (mm)= 26.673
TOTAL RAINFALL (mm)= 70.941
RUNOFF COEFFICIENT = 0.376

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Table with 4 columns: INFL, OUTFL, STORAGE, STORAGE. Rows show flow and storage values for different IDs.

AREA OPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFL: ID= 2 (0002) 3.320 0.952 1.00 50.00
OUTFL: ID= 1 (0004) 3.320 0.105 1.83 49.83

PEAK FLOW REDUCTION [Qout/ Qin](%)= 11.06
TIME SHIFT OF PEAK FLOW (min)= 50.00
MAXIMUM STORAGE USED (ha.m.)= 0.1040

Table with 4 columns: ADD HYD, AREA, OPEAK, TPEAK, R.V. Rows show additional hyd data for IDs 1, 2, and 3.

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
STANDHYD (0355) Area (ha)= 1.56
ID= 1 DT= 5.0 min Total Imp(%)= 50.00 Dir. Conn.(%)= 50.00

Surface Area (ha)= 0.78 IMPERVIOUS 0.78 PERVIOUS (i)
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 101.98 40.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. Rows show transformed hyetograph data.

CALIB
STANDHYD (0002) Area (ha)= 3.32
ID= 1 DT= 5.0 min Total Imp(%)= 55.00 Dir. Conn.(%)= 55.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.83 1.49
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 148.77 40.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. Rows show transformed hyetograph data.

Max. Eff. Inten. (mm/hr)= 178.44 56.81
over (min)= 5.00 15.00
Storage Coeff. (min)= 2.57 (ii) 11.42 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.29 0.09

PEAK FLOW (cms)= 0.80 0.13 *TOTALS*
TIME TO PEAK (hrs)= 1.00 1.17 0.952 (iii)
RUNOFF VOLUME (mm)= 69.94 25.62 1.00
TOTAL RAINFALL (mm)= 70.94 70.94 50.00
RUNOFF COEFFICIENT = 0.99 0.36 0.70

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (0004) OVERFLOW IS OFF

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. Rows show transformed hyetograph data.

Max. Eff. Inten. (mm/hr)= 178.44 56.81
over (min)= 5.00 15.00
Storage Coeff. (min)= 2.05 (ii) 10.90 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.31 0.09

PEAK FLOW (cms)= 0.38 0.07 *TOTALS*
TIME TO PEAK (hrs)= 1.00 1.17 0.418 (iii)
RUNOFF VOLUME (mm)= 69.94 25.62 47.78
TOTAL RAINFALL (mm)= 70.94 70.94 70.94
RUNOFF COEFFICIENT = 0.99 0.36 0.67

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0356) Area (ha)= 17.13
ID= 1 DT= 5.0 min Total Imp(%)= 69.00 Dir. Conn.(%)= 61.00

Surface Area (ha)= 11.82 IMPERVIOUS 5.31 PERVIOUS (i)
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 337.93 40.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. Rows show transformed hyetograph data.

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. Rows show transformed hyetograph data.

Max. Eff. Inten. (mm/hr)= 178.44 56.81
over (min)= 5.00 10.00
Storage Coeff. (min)= 4.21 (ii) 8.48 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.24 0.12

PEAK FLOW (cms)= 4.78 0.86 *TOTALS*
TIME TO PEAK (hrs)= 1.00 1.00 0.265 (iii)
RUNOFF VOLUME (mm)= 69.94 30.01 54.37
TOTAL RAINFALL (mm)= 70.94 70.94 70.94
RUNOFF COEFFICIENT = 0.99 0.42 0.77

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0027) Area (ha)= 0.71
ID= 1 DT= 5.0 min Total Imp(%)= 73.50 Dir. Conn.(%)= 67.00

Surface Area (ha)= 0.52 IMPERVIOUS 0.52 PERVIOUS (i)
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 68.80 40.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. Rows show transformed hyetograph data.

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. Rows show transformed hyetograph data.

Max. Eff. Inten. (mm/hr)= 178.44 56.81
over (min)= 5.00 10.00
Storage Coeff. (min)= 1.62 (ii) 5.48 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.32 0.16

PEAK FLOW (cms)= 0.24 0.03 *TOTALS*
TIME TO PEAK (hrs)= 1.00 1.00 0.265 (iii)
RUNOFF VOLUME (mm)= 69.94 29.81 56.69
TOTAL RAINFALL (mm)= 70.94 70.94 70.94
RUNOFF COEFFICIENT = 0.99 0.42 0.80

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0025)
Inlet Cap.= 0.156
of Inlets= 1
Total(cms)= 0.2 AREA OPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
TOTAL HYD. (ID= 1): 0.71 0.26 1.00 56.69
MAJOR SYS. (ID= 2): 0.10 0.11 1.00 56.69
MINOR SYS. (ID= 3): 0.61 0.16 0.92 56.69

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0024)

INFL: ID= 9(0025) 0.61 0.16 0.92 56.69
OUTFL: ID= 2(0024) 0.61 0.16 0.92 56.69

ADD HYD (0357)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (0024):	0.61	0.156	0.92	56.69
+ ID2= 2 (0355):	1.56	0.418	1.00	47.78
ID = 3 (0357):	2.17	0.574	1.00	50.29

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0357)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (0357):	2.17	0.574	1.00	50.29
+ ID2= 2 (0356):	17.13	5.452	1.00	54.37
ID = 1 (0357):	19.30	6.026	1.00	53.91

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (0358)	OVERFLOW IS OFF
IN= 2--- OUT= 1	
DT= 5.0 min	
	OUTFLOW STORAGE
	(cms) (ha.m.) (cms) (ha.m.)
	0.0000 0.0000 0.7600 0.9520
	0.0420 0.1820 1.3660 1.2980
	0.0630 0.3560 1.8960 1.5720
	0.3940 0.7050 4.0000 1.9390
	AREA QPEAK TPEAK R.V.
	(ha) (cms) (hrs) (mm)
INFLOW : ID= 2 (0357)	19.300 6.026 1.00 53.91
OUTFLOW: ID= 1 (0358)	19.300 0.457 2.25 53.85

PEAK FLOW REDUCTION [Qout/Qin](%)= 7.58
 TIME SHIFT OF PEAK FLOW (min)= 75.00
 MAXIMUM STORAGE USED (ha.m.)= 0.7472

CALIB	Area (ha)	Total Imp(%)	Dir. Conn.(%)
STANDHYD (0359)	0.45	71.30	66.10
ID= 1 DT= 5.0 min			

ID1= 1 (0358):	19.30	0.457	2.25	53.85
+ ID2= 2 (0359):	0.45	0.166	1.00	55.98
ID = 3 (0370):	19.75	0.467	2.25	53.90

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	Curve Number (CN)
NASHYD (0360)	1.02	74.5
ID= 1 DT= 5.0 min	4.61	# of Linear Res.(N)= 3.00
	0.44	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME RAIN	TIME RAIN	TIME RAIN	TIME RAIN
hrs mm/hr	hrs mm/hr	hrs mm/hr	hrs mm/hr
0.083 8.30	0.833 30.79	1.583 14.97	2.33 9.33
0.167 8.30	0.917 178.44	1.667 14.97	2.42 8.61
0.250 9.77	1.000 178.44	1.750 12.86	2.50 8.61
0.333 9.77	1.083 37.79	1.833 12.86	2.58 8.00
0.417 12.10	1.167 37.79	1.917 11.36	2.67 8.00
0.500 12.10	1.250 23.83	2.000 11.36	2.75 7.50
0.583 16.55	1.333 23.83	2.083 10.23	2.83 7.50
0.667 16.55	1.417 18.17	2.167 10.23	2.92 7.06
0.750 30.79	1.500 18.17	2.250 9.33	3.00 7.06

Unit Hyd Qpeak (cms) = 0.089

PEAK FLOW (cms) = 0.055 (i)
 TIME TO PEAK (hrs) = 1.500
 RUNOFF VOLUME (mm) = 28.703
 TOTAL RAINFALL (mm) = 70.941
 RUNOFF COEFFICIENT = 0.405

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	Total Imp(%)	Dir. Conn.(%)
STANDHYD (0018)	0.78	20.00	15.00
ID= 1 DT= 5.0 min			

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha) = 0.16 5.00
 Dep. Storage (mm) = 5.00 2.00
 Average Slope (%) = 1.00 2.00
 Length (m) = 72.11 40.00

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME RAIN	TIME RAIN	TIME RAIN	TIME RAIN
hrs mm/hr	hrs mm/hr	hrs mm/hr	hrs mm/hr
0.083 8.30	0.833 30.79	1.583 14.97	2.33 9.33
0.167 8.30	0.917 178.44	1.667 14.97	2.42 8.61
0.250 9.77	1.000 178.44	1.750 12.86	2.50 8.61
0.333 9.77	1.083 37.79	1.833 12.86	2.58 8.00
0.417 12.10	1.167 37.79	1.917 11.36	2.67 8.00
0.500 12.10	1.250 23.83	2.000 11.36	2.75 7.50
0.583 16.55	1.333 23.83	2.083 10.23	2.83 7.50
0.667 16.55	1.417 18.17	2.167 10.23	2.92 7.06
0.750 30.79	1.500 18.17	2.250 9.33	3.00 7.06

Max. Eff. Inten. (mm/hr) = 178.44 70.64
 over (min) = 5.00 10.00
 Storage Coeff. (min) = 1.67 (ii) 9.78 (ii)
 Unit Hyd. Tpeak (min) = 5.00 10.00
 Unit Hyd. peak (cms) = 0.32 0.11

PEAK FLOW (cms) = 0.06 0.08
 TIME TO PEAK (hrs) = 1.00 1.00
 RUNOFF VOLUME (mm) = 65.94 29.20
 TOTAL RAINFALL (mm) = 70.94 70.94
 RUNOFF COEFFICIENT = 0.93 0.41

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
 **** WARNING: FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20% YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0025)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 8(0025)	0.10	0.11	1.00	56.69
OUTFLOW: ID= 2(0026)	0.10	0.11	1.00	56.69

ADD HYD (0361)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (0018):	0.78	0.117	1.00	34.71
+ ID2= 2 (0026):	0.10	0.108	1.00	56.69
ID = 3 (0361):	0.88	0.225	1.00	37.20

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0361)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (0361):	0.88	0.225	1.00	37.20
+ ID2= 2 (0360):	1.02	0.055	1.50	28.70
ID = 1 (0361):	1.90	0.239	1.00	32.64

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	Total Imp(%)	Dir. Conn.(%)
STANDHYD (0015)	0.45	37.40	37.40
ID= 1 DT= 5.0 min			

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha) = 0.17 0.28
 Dep. Storage (mm) = 1.00 5.00
 Average Slope (%) = 1.00 2.00
 Length (m) = 54.77 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME RAIN	TIME RAIN	TIME RAIN	TIME RAIN
hrs mm/hr	hrs mm/hr	hrs mm/hr	hrs mm/hr
0.083 8.30	0.833 30.79	1.583 14.97	2.33 9.33
0.167 8.30	0.917 178.44	1.667 14.97	2.42 8.61
0.250 9.77	1.000 178.44	1.750 12.86	2.50 8.61
0.333 9.77	1.083 37.79	1.833 12.86	2.58 8.00
0.417 12.10	1.167 37.79	1.917 11.36	2.67 8.00
0.500 12.10	1.250 23.83	2.000 11.36	2.75 7.50

0.583 16.55 | 1.333 23.83 | 2.083 10.23 | 2.83 7.50
 0.667 16.55 | 1.417 18.17 | 2.167 10.23 | 2.92 7.06
 0.750 30.79 | 1.500 18.17 | 2.250 9.33 | 3.00 7.06

Max. Eff. Inten. (mm/hr) = 178.44 56.81
 over (min) = 5.00 15.00
 Storage Coeff. (min) = 1.41 (ii) 10.26 (ii)
 Unit Hyd. Tpeak (min) = 5.00 15.00
 Unit Hyd. peak (cms) = 0.33 0.09

PEAK FLOW (cms) = 0.08 0.03 0.096 (iii)
 TIME TO PEAK (hrs) = 1.00 1.17 1.00
 RUNOFF VOLUME (mm) = 69.94 25.62 42.18
 TOTAL RAINFALL (mm) = 70.94 70.94 70.94
 RUNOFF COEFFICIENT = 0.99 0.36 0.59

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 71.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0029)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2(0015)	0.45	0.10	1.00	42.18
OUTFLOW: ID= 2(0029)	0.45	0.10	1.00	42.18

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha) = 0.32 0.13
 Dep. Storage (mm) = 1.00 5.00
 Average Slope (%) = 1.00 2.00
 Length (m) = 54.77 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME RAIN	TIME RAIN	TIME RAIN	TIME RAIN
hrs mm/hr	hrs mm/hr	hrs mm/hr	hrs mm/hr
0.083 8.30	0.833 30.79	1.583 14.97	2.33 9.33
0.167 8.30	0.917 178.44	1.667 14.97	2.42 8.61
0.250 9.77	1.000 178.44	1.750 12.86	2.50 8.61
0.333 9.77	1.083 37.79	1.833 12.86	2.58 8.00
0.417 12.10	1.167 37.79	1.917 11.36	2.67 8.00
0.500 12.10	1.250 23.83	2.000 11.36	2.75 7.50
0.583 16.55	1.333 23.83	2.083 10.23	2.83 7.50
0.667 16.55	1.417 18.17	2.167 10.23	2.92 7.06
0.750 30.79	1.500 18.17	2.250 9.33	3.00 7.06

Max. Eff. Inten. (mm/hr) = 178.44 *****
 over (min) = 5.00 10.00
 Storage Coeff. (min) = 1.41 (ii) 5.42 (ii)
 Unit Hyd. Tpeak (min) = 5.00 10.00
 Unit Hyd. peak (cms) = 0.33 0.16

PEAK FLOW (cms) = 0.15 0.02 0.166 (iii)
 TIME TO PEAK (hrs) = 1.00 1.00 1.00
 RUNOFF VOLUME (mm) = 69.94 28.79 55.98
 TOTAL RAINFALL (mm) = 70.94 70.94 70.94
 RUNOFF COEFFICIENT = 0.99 0.41 0.79

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 71.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0370)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				

Ptotal= 60.13 mm Comments: G. 2yr 24hr 15min SCS Type II

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. Shows rainfall intensity and cumulative totals over time.

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. Shows rainfall intensity and cumulative totals over time.

CALIB STANDHYD (0002) Area (ha)= 3.32 Total Imp(%)= 55.00 Dir. Conn.(%)= 55.00

IMPERVIOUS PERVIOUS (i) Surface Area (ha)= 1.83 1.49 Dep. Storage (mm)= 1.00 5.00 Average Slope (%)= 1.00 2.00 Length (m)= 148.77 40.00 Manning's n = 0.013 0.250

CALIB NASHYD (0001) Area (ha)= 0.58 Curve Number (CN)= 72.3 ID= 1 DT= 5.0 min Ia (mm)= 4.86 # of Linear Res.(N)= 3.00 U.H. Tp(hrs)= 0.20

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. Shows transformed hyetograph data.

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. Shows transformed hyetograph data.

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. Shows rainfall intensity and cumulative totals over time.

Max. Eff. Inten. (mm/hr)= 73.60 26.06 over (min)= 5.00 20.00 Storage Coeff. (min)= 3.67 (ii) 15.75 (ii) Unit Hyd. tpeak (min)= 5.00 20.00 Unit Hyd. peak (cms)= 0.25 0.07

PEAK FLOW (cms)= 0.37 0.06 TIME TO PEAK (hrs)= 12.25 12.42 RUNOFF VOLUME (mm)= 59.13 19.13 TOTAL RAINFALL (mm)= 60.13 60.13 RUNOFF COEFFICIENT = 0.98 0.32

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP! (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES: CN* = 71.0 Ia = Dep. Storage (Above) (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT. (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. Shows reservoir overflow data.

V V I SSSSS U U A L (v 6.2.2008) V V I SS U U A A L V V I SS U U AAAAA V V I SS U A A L V V I SSSSS UUUU A A LLLL

***** D E T A I L E D O U T P U T *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voind.dat Output filename: C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404d768702\4351e-763-9a87-4f08-a9fc-fb16da0fb4d4\scena

DATE: 08-15-2023 TIME: 08:21:46

COMMENTS: ***** SIMULATION : G. 2yr 24hr 15min SCS Type II *****

READ STORM Filename: C:\Users\kswain\AppData\Local\Temp\

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. Shows detailed rainfall intensity and cumulative totals over time.

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. Shows detailed rainfall intensity and cumulative totals over time.

0.667	0.66	6.750	1.08	12.833	4.45	19.92	1.08
0.750	0.66	6.833	1.08	12.917	4.45	19.90	1.08
0.833	0.66	6.917	1.08	13.000	4.45	19.88	1.08
0.917	0.66	7.000	1.08	13.083	4.45	19.17	1.08
1.000	0.66	7.083	1.08	13.167	4.45	19.25	1.08
1.083	0.66	7.167	1.08	13.250	4.45	19.33	1.08
1.167	0.66	7.250	1.08	13.333	3.25	19.42	1.08
1.250	0.66	7.333	1.32	13.417	3.25	19.50	1.08
1.333	0.66	7.417	1.32	13.500	3.25	19.58	1.08
1.417	0.66	7.500	1.32	13.583	3.25	19.67	1.08
1.500	0.66	7.583	1.32	13.667	3.25	19.75	1.08
1.583	0.66	7.667	1.32	13.750	3.25	19.83	1.08
1.667	0.66	7.750	1.32	13.833	2.53	19.92	1.08
1.750	0.66	7.833	1.32	13.917	2.53	20.00	1.08
1.833	0.66	7.917	1.32	14.000	2.53	20.08	1.08
1.917	0.66	8.000	1.32	14.083	2.53	20.17	1.08
2.000	0.66	8.083	1.32	14.167	2.53	20.25	1.08
2.083	0.66	8.167	1.32	14.250	2.53	20.33	1.08
2.167	0.66	8.250	1.32	14.333	1.80	20.42	0.72
2.250	0.66	8.333	1.56	14.417	1.80	20.50	0.72
2.333	0.78	8.417	1.56	14.500	1.80	20.58	0.72
2.417	0.78	8.500	1.56	14.583	1.80	20.67	0.72
2.500	0.78	8.583	1.56	14.667	1.80	20.75	0.72
2.583	0.78	8.667	1.56	14.750	1.80	20.83	0.72
2.667	0.78	8.750	1.56	14.833	1.80	20.92	0.72
2.750	0.78	8.833	1.68	14.917	1.80	21.00	0.72
2.833	0.78	8.917	1.68	15.000	1.80	21.08	0.72
2.917	0.78	9.000	1.68	15.083	1.80	21.17	0.72
3.000	0.78	9.083	1.68	15.167	1.80	21.25	0.72
3.083	0.78	9.167	1.68	15.250	1.80	21.33	0.72
3.167	0.78	9.250	1.68	15.333	1.80	21.42	0.72
3.250	0.78	9.333	1.92	15.417	1.80	21.50	0.72
3.333	0.78	9.417	1.92	15.500	1.80	21.58	0.72
3.417	0.78	9.500	1.92	15.583	1.80	21.67	0.72
3.500	0.78	9.583	1.92	15.667	1.80	21.75	0.72
3.583	0.78	9.667	1.92	15.750	1.80	21.83	0.72
3.667	0.78	9.750	1.92	15.833	1.80	21.92	0.72
3.750	0.78	9.833	2.16	15.917	1.80	22.00	0.72
3.833	0.78	9.917	2.16	16.000	1.80	22.08	0.72
3.917	0.78	10.000	2.16	16.083	1.80	22.17	0.72
4.000	0.78	10.083	2.16	16.167	1.80	22.25	0.72
4.083	0.78	10.167	2.16	16.250	1.80	22.33	0.72
4.167	0.78	10.250	2.16	16.333	1.80	22.42	0.72
4.250	0.78	10.333	2.77	16.417	1.80	22.50	0.72
4.333	0.96	10.417	2.77	16.500	1.80	22.58	0.72
4.417	0.96	10.500	2.77	16.583	1.80	22.67	0.72
4.500	0.96	10.583	2.77	16.667	1.80	22.75	0.72
4.583	0.96	10.667	2.77	16.750	1.80	22.83	0.72
4.667	0.96	10.750	2.77	16.833	1.80	22.92	0.72
4.750	0.96	10.833	3.73	16.917	1.80	23.00	0.72

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---											
TIME RAIN		TIME RAIN		TIME RAIN		TIME RAIN		TIME RAIN		TIME RAIN	
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	0.96	12.250	73.60	18.33	1.08	0.167	0.00	6.250	0.96
0.167	0.00	6.250	0.96	12.333	8.67	18.42	1.08	0.250	0.00	6.333	1.08
0.333	0.66	6.417	1.08	12.500	8.66	18.58	1.08	0.417	0.66	6.500	1.08
0.500	0.66	6.583	1.08	12.667	8.66	18.75	1.08	0.583	0.66	6.667	1.08
0.667	0.66	6.750	1.08	12.833	4.45	18.92	1.08	0.750	0.66	6.833	1.08
0.833	0.66	6.917	1.08	13.000	4.45	19.08	1.08	0.917	0.66	7.000	1.08
1.000	0.66	7.083	1.08	13.167	4.45	19.25	1.08	1.083	0.66	7.167	1.08
1.167	0.66	7.250	1.08	13.333	3.25	19.42	1.08	1.250	0.66	7.333	1.32
1.333	0.66	7.417	1.32	13.417	3.25	19.50	1.08	1.333	0.66	7.417	1.32
1.417	0.66	7.500	1.32	13.500	3.25	19.58	1.08	1.417	0.66	7.583	1.32
1.500	0.66	7.583	1.32	13.583	3.25	19.67	1.08	1.583	0.66	7.667	1.32
1.583	0.66	7.667	1.32	13.750	3.25	19.83	1.08	1.667	0.66	7.750	1.32
1.667	0.66	7.750	1.32	13.833	2.53	19.92	1.08	1.750	0.66	7.833	1.32
1.750	0.66	7.833	1.32	13.917	2.53	20.00	1.08	1.833	0.66	7.917	1.32
1.833	0.66	7.917	1.32	14.000	2.53	20.08	1.08	1.917	0.66	8.000	1.32
1.917	0.66	8.000	1.32	14.083	2.53	20.17	1.08	2.000	0.66	8.083	1.32
2.000	0.66	8.083	1.32	14.167	2.53	20.25	1.08	2.083	0.66	8.167	1.32
2.083	0.66	8.167	1.32	14.250	2.53	20.33	0.72	2.167	0.66	8.250	1.32
2.167	0.66	8.250	1.32	14.333	1.80	20.42	0.72	2.250	0.66	8.333	1.56
2.250	0.66	8.333	1.56	14.417	1.80	20.50	0.72	2.333	0.78	8.417	1.56
2.333	0.78	8.417	1.56	14.500	1.80	20.58	0.72	2.417	0.78	8.500	1.56
2.417	0.78	8.500	1.56	14.583	1.80	20.67	0.72	2.500	0.78	8.583	1.56
2.500	0.78	8.583	1.56	14.667	1.80	20.75	0.72	2.583	0.78	8.667	1.56
2.583	0.78	8.667	1.56	14.750	1.80	20.83	0.72	2.667	0.78	8.750	1.56
2.667	0.78	8.750	1.56	14.833	1.80	20.92	0.72	2.750	0.78	8.833	1.68
2.750	0.78	8.833	1.68	14.917	1.80	21.00	0.72	2.833	0.78	8.917	1.68
2.833	0.78	8.917	1.68	15.000	1.80	21.08	0.72	2.917	0.78	9.000	1.68
2.917	0.78	9.000	1.68	15.083	1.80	21.17	0.72	3.000	0.78	9.083	1.68
3.000	0.78	9.083	1.68	15.167	1.80	21.25	0.72	3.083	0.78	9.167	1.68
3.083	0.78	9.167	1.68	15.250	1.80	21.33	0.72	3.167	0.78	9.250	1.68
3.167	0.78	9.250	1.68	15.333	1.80	21.42	0.72	3.250	0.78	9.333	1.92
3.250	0.78	9.333	1.92	15.417	1.80	21.50	0.72	3.333	0.78	9.417	1.92
3.333	0.78	9.417	1.92	15.500	1.80	21.58	0.72	3.417	0.78	9.500	1.92
3.417	0.78	9.500	1.92	15.583	1.80	21.67	0.72	3.500	0.78	9.583	1.92
3.500	0.78	9.583	1.92	15.667	1.80	21.75	0.72	3.583	0.78	9.667	1.92
3.583	0.78	9.667	1.92	15.750	1.80	21.83	0.72	3.667	0.78	9.750	1.92
3.667	0.78	9.750	1.92	15.833	1.80	21.92	0.72				
3.750	0.78	9.833	2.16	15.917	1.80	22.00	0.72				
3.833	0.78	9.917	2.16	16.000	1.80	22.08	0.72				
3.917	0.78	10.000	2.16	16.083	1.80	22.17	0.72				
4.000	0.78	10.083	2.16	16.167	1.80	22.25	0.72				
4.083	0.78	10.167	2.16	16.250	1.80	22.33	0.72				
4.167	0.78	10.250	2.16	16.333	1.80	22.42	0.72				
4.250	0.78	10.333	2.77	16.417	1.80	22.50	0.72				
4.333	0.96	10.417	2.77	16.500	1.80	22.58	0.72				
4.417	0.96	10.500	2.77	16.583	1.80	22.67	0.72				
4.500	0.96	10.583	2.77	16.667	1.80	22.75	0.72				
4.583	0.96	10.667	2.77	16.750	1.80	22.83	0.72				
4.667	0.96	10.750	2.77	16.833	1.80	22.92	0.72				
4.750	0.96	10.833	3.73	16.917	1.80	23.00	0.72				

CALIB	Area (ha)=	0.71
STANDHYD (0027)	Total Imp(X)=	73.50
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	67.00
IMPERVIOUS PERVIOUS (I)		
Surface Area (ha)=	0.78	0.31
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	68.00	40.00
Mannings n	=	0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---											
TIME RAIN		TIME RAIN		TIME RAIN		TIME RAIN		TIME RAIN		TIME RAIN	
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	0.96	12.250	73.60	18.33	1.08	0.167	0.00	6.250	0.96
0.167	0.00	6.250	0.96	12.333	8.67	18.42	1.08	0.250	0.00	6.333	1.08
0.333	0.66	6.417	1.08	12.500	8.66	18.58	1.08	0.417	0.66	6.500	1.08
0.500	0.66	6.583	1.08	12.667	8.66	18.75	1.08	0.583	0.66	6.667	1.08
0.667	0.66	6.750	1.08	12.833	4.45	18.92	1.08	0.750	0.66	6.833	1.08
0.833	0.66	6.917	1.08	13.000	4.45	19.08	1.08	0.917	0.66	7.000	1.08
1.000	0.66	7.083	1.08	13.167	4.45	19.25	1.08	1.083	0.66	7.167	1.08
1.167	0.66	7.250	1.08	13.333	3.25	19.42	1.08	1.250	0.66	7.333	1.32
1.333	0.66	7.417	1.32	13.417	3.25	19.50	1.08	1.333	0.66	7.417	1.32
1.417	0.66	7.500	1.32	13.500	3.25	19.58	1.08	1.417	0.66	7.583	1.32
1.500	0.66	7.583	1.32	13.583	3.25	19.67	1.08	1.583	0.66	7.667	1.32
1.583	0.66	7.667	1.32	13.750	3.25	19.83	1.08	1.667	0.66	7.750	1.32
1.667	0.66	7.750	1.32	13.833	2.53	19.92	1.08	1.750	0.66	7.833	1.32
1.750	0.66	7.833	1.32	13.917	2.53	20.00	1.08	1.833	0.		

(1) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Table with 2 columns: Parameter and Value. Includes CALIB, STANDHYD, and ID=1 DT=5.0 min.

Table with 2 columns: Parameter and Value. Includes Surface Area, Dep. Storage, Average Slope, Length, and Mannings n.

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TRANSFORMED HYETOGRAPH table with columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN.

Summary table for Unit Hyd. peak, PEAK FLOW, TIME TO PEAK, RUNOFF VOLUME, TOTAL RAINFALL, and RUNOFF COEFFICIENT.

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
**** WARNING: FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20% YOU SHOULD CONSIDER SPLITTING THE AREA.

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0026)

Table with 4 columns: AREA, QPEAK, TPEAK, R.V. for INFLOW and OUTFLOW.

Table with 4 columns: AREA, QPEAK, TPEAK, R.V. for ADD HYD (0361) and W A R N I N G: HYDROGRAPH.

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Table with 4 columns: AREA, QPEAK, TPEAK, R.V. for ADD HYD (0361).

Large table with 4 columns: AREA, QPEAK, TPEAK, R.V. for various flow scenarios.

Table with 2 columns: Max. Eff. Inten. over (min) and values.

+ ID2= 2 (0360): 1.02 0.032 12.58 21.63
ID = 1 (0361): 1.80 0.070 12.25 23.96

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Table with 2 columns: Parameter and Value. Includes CALIB, STANDHYD, and ID=1 DT=5.0 min.

Table with 2 columns: Parameter and Value. Includes Surface Area, Dep. Storage, Average Slope, Length, and Mannings n.

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TRANSFORMED HYETOGRAPH table with columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN.

Large table with 4 columns: AREA, QPEAK, TPEAK, R.V. for various flow scenarios.

Table with 2 columns: Max. Eff. Inten. over (min) and values.

Large table with 4 columns: AREA, QPEAK, TPEAK, R.V. for various flow scenarios.

Unit Hyd Qpeak (cms) = 0.089

Table with 2 columns: Parameter and Value. Includes PEAK FLOW, TIME TO PEAK, RUNOFF VOLUME, TOTAL RAINFALL, and RUNOFF COEFFICIENT.

Table with 2 columns: Max. Eff. Inten. over (min) and Storage Coeff. (min).

```

*****
V V I SSSSS U U A L (v 6.2.2008)
V V I SS U U A A L
V V I SS U U A A L
V V I SS U U A A L
V V I SSSSS UUUU A A LLLL

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000 TTTT TTTT H H Y Y M M 000 TM
O O T T H H Y Y M M O O
O O T T H H Y Y M M O O

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***** D E T A I L E D O U T P U T *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat

Output filename:
 C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404d768702\F3f2f
 978-29d5-4d50-9842-4d06c121ecc\scena
 Summary filename:
 C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404d768702\F3f2f
 978-29d5-4d50-9842-4d06c121ecc\scena

DATE: 08-15-2023 TIME: 08:21:47

USER:

COMMENTS:

```

*****
** SIMULATION : H. Syr 24hr 15min SCS Type II **
*****

```

READ STORM | Filename: C:\Users\kswain\AppData\Local\Temp\

0.500	0.88	6.583	1.43	12.667	11.47	18.75	1.43
0.583	0.88	6.667	1.43	12.750	11.47	18.83	1.43
0.667	0.88	6.750	1.43	12.833	5.89	18.92	1.43
0.750	0.88	6.833	1.43	12.917	5.89	19.00	1.43
0.833	0.88	6.917	1.43	13.000	5.89	19.08	1.43
0.917	0.88	7.000	1.43	13.083	5.89	19.17	1.43
1.000	0.88	7.083	1.43	13.167	5.89	19.25	1.43
1.083	0.88	7.167	1.43	13.250	5.89	19.33	1.43
1.167	0.88	7.250	1.43	13.333	4.30	19.42	1.43
1.250	0.88	7.333	1.75	13.417	4.30	19.50	1.43
1.333	0.88	7.417	1.75	13.500	4.30	19.58	1.43
1.417	0.88	7.500	1.75	13.583	4.30	19.67	1.43
1.500	0.88	7.583	1.75	13.667	4.30	19.75	1.43
1.583	0.88	7.667	1.75	13.750	4.30	19.83	1.43
1.667	0.88	7.750	1.75	13.833	3.35	19.92	1.43
1.750	0.88	7.833	1.75	13.917	3.35	20.00	1.43
1.833	0.88	7.917	1.75	14.000	3.35	20.08	1.43
1.917	0.88	8.000	1.75	14.083	3.35	20.17	1.43
2.000	0.88	8.083	1.75	14.167	3.35	20.25	1.43
2.083	0.88	8.167	1.75	14.250	3.35	20.33	0.96
2.167	0.88	8.250	1.75	14.333	2.39	20.42	0.96
2.250	0.88	8.333	2.07	14.417	2.39	20.50	0.96
2.333	1.04	8.417	2.07	14.500	2.39	20.58	0.96
2.417	1.04	8.500	2.07	14.583	2.39	20.67	0.96
2.500	1.04	8.583	2.07	14.667	2.39	20.75	0.96
2.583	1.04	8.667	2.07	14.750	2.39	20.83	0.96
2.667	1.04	8.750	2.07	14.833	2.39	20.92	0.96
2.750	1.04	8.833	2.23	14.917	2.39	21.00	0.96
2.833	1.04	8.917	2.23	15.000	2.39	21.08	0.96
2.917	1.04	9.000	2.23	15.083	2.39	21.17	0.96
3.000	1.04	9.083	2.23	15.167	2.39	21.25	0.96
3.083	1.04	9.167	2.23	15.250	2.39	21.33	0.96
3.167	1.04	9.250	2.23	15.333	2.39	21.42	0.96
3.250	1.04	9.333	2.55	15.417	2.39	21.50	0.96
3.333	1.04	9.417	2.55	15.500	2.39	21.58	0.96
3.417	1.04	9.500	2.55	15.583	2.39	21.67	0.96
3.500	1.04	9.583	2.55	15.667	2.39	21.75	0.96
3.583	1.04	9.667	2.55	15.750	2.39	21.83	0.96
3.667	1.04	9.750	2.55	15.833	2.39	21.92	0.96
3.750	1.04	9.833	2.87	15.917	2.39	22.00	0.96
3.833	1.04	9.917	2.87	16.000	2.39	22.08	0.96
3.917	1.04	10.000	2.87	16.083	2.39	22.17	0.96
4.000	1.04	10.083	2.87	16.167	2.39	22.25	0.96
4.083	1.04	10.167	2.87	16.250	2.39	22.33	0.96
4.167	1.04	10.250	2.87	16.333	1.43	22.42	0.96
4.250	1.04	10.333	3.66	16.417	1.43	22.50	0.96
4.333	1.04	10.417	3.66	16.500	1.43	22.58	0.96
4.417	1.27	10.500	3.66	16.583	1.43	22.67	0.96
4.500	1.27	10.583	3.66	16.667	1.43	22.75	0.96
4.583	1.27	10.667	3.66	16.750	1.43	22.83	0.96

0.250	0.00	6.333	1.43	12.417	11.47	18.50	1.43
0.333	0.88	6.417	1.43	12.500	11.47	18.58	1.43
0.417	0.88	6.500	1.43	12.583	11.47	18.67	1.43
0.500	0.88	6.583	1.43	12.667	11.47	18.75	1.43
0.583	0.88	6.667	1.43	12.750	11.47	18.83	1.43
0.667	0.88	6.750	1.43	12.833	5.89	18.92	1.43
0.750	0.88	6.833	1.43	12.917	5.89	19.00	1.43
0.833	0.88	6.917	1.43	13.000	5.89	19.08	1.43
0.917	0.88	7.000	1.43	13.083	5.89	19.17	1.43
1.000	0.88	7.083	1.43	13.167	5.89	19.25	1.43
1.083	0.88	7.167	1.43	13.250	5.89	19.33	1.43
1.167	0.88	7.250	1.43	13.333	4.30	19.42	1.43
1.250	0.88	7.333	1.75	13.417	4.30	19.50	1.43
1.333	0.88	7.417	1.75	13.500	4.30	19.58	1.43
1.417	0.88	7.500	1.75	13.583	4.30	19.67	1.43
1.500	0.88	7.583	1.75	13.667	4.30	19.75	1.43
1.583	0.88	7.667	1.75	13.750	4.30	19.83	1.43
1.667	0.88	7.750	1.75	13.833	3.35	19.92	1.43
1.750	0.88	7.833	1.75	13.917	3.35	20.00	1.43
1.833	0.88	7.917	1.75	14.000	3.35	20.08	1.43
1.917	0.88	8.000	1.75	14.083	3.35	20.17	1.43
2.000	0.88	8.083	1.75	14.167	3.35	20.25	1.43
2.083	0.88	8.167	1.75	14.250	3.35	20.33	0.96
2.167	0.88	8.250	1.75	14.333	2.39	20.42	0.96
2.250	0.88	8.333	2.07	14.417	2.39	20.50	0.96
2.333	1.04	8.417	2.07	14.500	2.39	20.58	0.96
2.417	1.04	8.500	2.07	14.583	2.39	20.67	0.96
2.500	1.04	8.583	2.07	14.667	2.39	20.75	0.96
2.583	1.04	8.667	2.07	14.750	2.39	20.83	0.96
2.667	1.04	8.750	2.07	14.833	2.39	20.92	0.96
2.750	1.04	8.833	2.23	14.917	2.39	21.00	0.96
2.833	1.04	8.917	2.23	15.000	2.39	21.08	0.96
2.917	1.04	9.000	2.23	15.083	2.39	21.17	0.96
3.000	1.04	9.083	2.23	15.167	2.39	21.25	0.96
3.083	1.04	9.167	2.23	15.250	2.39	21.33	0.96
3.167	1.04	9.250	2.23	15.333	2.39	21.42	0.96
3.250	1.04	9.333	2.55	15.417	2.39	21.50	0.96
3.333	1.04	9.417	2.55	15.500	2.39	21.58	0.96
3.417	1.04	9.500	2.55	15.583	2.39	21.67	0.96
3.500	1.04	9.583	2.55	15.667	2.39	21.75	0.96
3.583	1.04	9.667	2.55	15.750	2.39	21.83	0.96
3.667	1.04	9.750	2.55	15.833	2.39	21.92	0.96
3.750	1.04	9.833	2.87	15.917	2.39	22.00	0.96
3.833	1.04	9.917	2.87	16.000	2.39	22.08	0.96
3.917	1.04	10.000	2.87	16.083	2.39	22.17	0.96
4.000	1.04	10.083	2.87	16.167	2.39	22.25	0.96
4.083	1.04	10.167	2.87	16.250	2.39	22.33	0.96
4.167	1.04	10.250	2.87	16.333	1.43	22.42	0.96
4.250	1.04	10.333	3.66	16.417	1.43	22.50	0.96
4.333	1.04	10.417	3.66	16.500	1.43	22.58	0.96

Storage Coeff. (min)= 2.01 (ii) 14.10 (ii)
 Unit Hyd. Tpeak (min)= 5.00 15.00
 Unit Hyd. peak (cms)= 0.31 0.88

PEAK FLOW (cms)= 0.03 0.01 *TOTALS* 0.045 (iii)
 TIME TO PEAK (hrs)= 12.25 12.33 12.25
 RUNOFF VOLUME (mm)= 59.13 19.13 34.07
 TOTAL RAINFALL (mm)= 60.13 60.13 60.13
 RUNOFF COEFFICIENT = 0.98 0.32 0.57

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PREVIOUS LOSSES:
 CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0029)

AREA	QPEAK	TPEAK	R.V.
(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2(0015)	0.45	0.04	12.25 34.07
OUTFLOW: ID= 2(0029)	0.45	0.04	12.25 34.07

Ptotal= 79.65 mm Comments: H. Syr 24hr 15min SCS Type II

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.25	1.43	12.50	11.47	18.75	1.43
0.25	0.88	6.25	1.43	12.50	11.47	18.75	1.43
0.50	0.88	6.75	1.43	13.00	5.89	19.25	1.43
0.75	0.88	7.00	1.43	13.25	4.30	19.50	1.43
1.00	0.88	7.25	1.75	13.50	4.30	19.75	1.43
1.25	0.88	7.50	1.75	13.75	3.35	20.00	1.43
1.50	0.88	7.75	1.75	14.00	3.35	20.25	1.43
1.75	0.88	8.00	1.75	14.25	2.39	20.50	0.96
2.00	0.88	8.25	2.07	14.50	2.39	20.75	0.96
2.25	1.04	8.50	2.07	14.75	2.39	21.00	0.96
2.50	1.04	8.75	2.23	15.00	2.39	21.25	0.96
2.75	1.04	9.00	2.23	15.25	2.39	21.50	0.96
3.00	1.04	9.25	2.55	15.50	2.39	21.75	0.96
3.25	1.04	9.50	2.55	15.75	2.39	22.00	0.96
3.50	1.04	9.75	2.87	16.00	2.39	22.25	0.96
3.75	1.04	10.00	2.87	16.25	1.43	22.50	0.96
4.00	1.04	10.25	3.66	16.50	1.43	22.75	0.96
4.25	1.27	10.50	3.66	16.75	1.43	23.00	0.96
4.50	1.27	10.75	4.94	17.00	1.43	23.25	0.96
4.75	1.27	11.00	4.94	17.25	1.43	23.50	0.96
5.00	1.27	11.25	7.65	17.50	1.43	23.75	0.96
5.25	1.27	11.50	7.65	17.75	1.43	24.00	0.96
5.50	1.27	11.75	23.58	18.00	1.43		
5.75	1.27	12.00	97.49	18.25	1.43		
6.00	1.27	12.25	11.47	18.50	1.43		

CALIB
 STANDHYD (0002) | Area (ha)= 3.32
 ID= 1 DT= 5.0 min | Total Imp(X)= 55.00 Dir. Conn.(%)= 55.00

NASHYD (0001) | Area (ha)= 0.58 Curve Number (CN)= 72.3
 ID= 1 DT= 5.0 min | Ia (mm)= 4.86 # of Linear Res.(N)= 3.00
 U.H. Tp(hrs)= 0.20

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs							

0.1000	0.0950	0.2000	0.1600
0.1100	0.1120	0.0800	0.0800
AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW: ID= 2 (0002)	3.320	0.585	12.25
OUTFLOW: ID= 1 (0004)	3.320	0.096	12.75
PEAK FLOW REDUCTION [Quot;Qin](%)= 16.39			
TIME SHIFT OF PEAK FLOW (min)= 30.00			
MAXIMUM STORAGE USED (ha.m.)= 0.0938			

ADD HYD (0003)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3	0.50	0.048	12.33	32.44
ID1= 1 (0001)	3.32	0.096	12.75	57.15
+ ID2= 2 (0004)				

ID = 3 (0003)	3.90	0.123	12.42	53.48

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	Dir. Conn.(%)
STANDHYD (0355)	1.56	50.00
ID= 1 DT= 5.0 min	Total Imp(X%)= 50.00	

IMPERVIOUS	PERVIOUS (I)
Surface Area (ha)= 0.78	0.78
Dep. Storage (mm)= 1.00	5.00
Average Slope (%)= 1.00	2.00
Length (m)= 101.90	40.00
Mannings n = 0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.27	12.250	97.49	18.33	1.43
0.167	0.00	6.250	1.27	12.333	11.48	18.42	1.43
0.250	0.00	6.333	1.43	12.417	11.47	18.50	1.43
0.333	0.88	6.417	1.43	12.500	11.47	18.58	1.43
0.417	0.88	6.500	1.43	12.583	11.47	18.67	1.43
0.500	0.88	6.583	1.43	12.667	11.47	18.75	1.43
0.583	0.88	6.667	1.43	12.750	11.47	18.83	1.43

4.833	1.27	10.917	4.94	17.000	1.43	23.08	0.96
4.917	1.27	11.000	4.94	17.083	1.43	23.17	0.96
5.000	1.27	11.083	4.94	17.167	1.43	23.25	0.96
5.083	1.27	11.167	4.94	17.250	1.43	23.33	0.96
5.167	1.27	11.250	4.94	17.333	1.43	23.42	0.96
5.250	1.27	11.333	7.65	17.417	1.43	23.50	0.96
5.333	1.27	11.417	7.65	17.500	1.43	23.58	0.96
5.417	1.27	11.500	7.65	17.583	1.43	23.67	0.96
5.500	1.27	11.583	7.65	17.667	1.43	23.75	0.96
5.583	1.27	11.667	7.65	17.750	1.43	23.83	0.96
5.667	1.27	11.750	7.65	17.833	1.43	23.92	0.96
5.750	1.27	11.833	23.57	17.917	1.43	24.00	0.96
5.833	1.27	11.917	23.58	18.000	1.43	24.08	0.96
5.917	1.27	12.000	23.58	18.083	1.43	24.17	0.96
6.000	1.27	12.083	97.48	18.167	1.43	24.25	0.96
6.083	1.27	12.167	97.49	18.250	1.43		

Max.Eff.Inten.(mm/hr)=	97.49	46.32
over (min)	5.00	15.00
Storage Coeff. (min)=	2.61 (ii)	12.21 (ii)
Unit Hyd. Tpeak (min)=	5.00	15.00
Unit Hyd. peak (cms)=	0.29	0.09

PEAK FLOW (cms)=	0.21	0.06	*TOTALS*
TIME TO PEAK (hrs)=	12.25	12.33	0.261 (iii)
RUNOFF VOLUME (mm)=	78.65	31.24	54.94
TOTAL RAINFALL (mm)=	79.65	79.65	79.65
RUNOFF COEFFICIENT =	0.99	0.39	0.69

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES: CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	Dir. Conn.(%)
STANDHYD (0356)	17.13	61.00
ID= 1 DT= 5.0 min	Total Imp(X%)= 69.00	

IMPERVIOUS	PERVIOUS (I)
Surface Area (ha)= 11.82	5.31
Dep. Storage (mm)= 1.00	5.00
Average Slope (%)= 1.00	2.00
Length (m)= 337.93	40.00
Mannings n = 0.013	0.250

3.750	1.04	9.833	2.87	15.917	2.39	22.00	0.96
3.833	1.04	9.917	2.87	16.000	2.39	22.08	0.96
3.917	1.04	10.000	2.87	16.083	2.39	22.17	0.96
4.000	1.04	10.083	2.87	16.167	2.39	22.25	0.96
4.083	1.04	10.167	2.87	16.250	2.39	22.33	0.96
4.167	1.04	10.250	2.87	16.333	2.39	22.42	0.96
4.250	1.04	10.333	3.66	16.417	2.39	22.50	0.96
4.333	1.27	10.417	3.66	16.500	1.43	22.58	0.96
4.417	1.27	10.500	3.66	16.583	1.43	22.67	0.96
4.500	1.27	10.583	3.66	16.667	1.43	22.75	0.96
4.583	1.27	10.667	3.66	16.750	1.43	22.83	0.96
4.667	1.27	10.750	3.66	16.833	1.43	22.92	0.96
4.750	1.27	10.833	4.94	16.917	1.43	23.00	0.96
4.833	1.27	10.917	4.94	17.000	1.43	23.08	0.96
4.917	1.27	11.000	4.94	17.083	1.43	23.17	0.96
5.000	1.27	11.083	4.94	17.167	1.43	23.25	0.96
5.083	1.27	11.167	4.94	17.250	1.43	23.33	0.96
5.167	1.27	11.250	4.94	17.333	1.43	23.42	0.96
5.250	1.27	11.333	7.65	17.417	1.43	23.50	0.96
5.333	1.27	11.417	7.65	17.500	1.43	23.58	0.96
5.417	1.27	11.500	7.65	17.583	1.43	23.67	0.96
5.500	1.27	11.583	7.65	17.667	1.43	23.75	0.96
5.583	1.27	11.667	7.65	17.750	1.43	23.83	0.96
5.667	1.27	11.750	7.65	17.833	1.43	23.92	0.96
5.750	1.27	11.833	23.57	17.917	1.43	24.00	0.96
5.833	1.27	11.917	23.58	18.000	1.43	24.08	0.96
5.917	1.27	12.000	23.58	18.083	1.43	24.17	0.96
6.000	1.27	12.083	97.48	18.167	1.43	24.25	0.96
6.083	1.27	12.167	97.49	18.250	1.43		

Max.Eff.Inten.(mm/hr)=	97.49	67.43
over (min)	5.00	15.00
Storage Coeff. (min)=	5.36 (ii)	13.62 (ii)
Unit Hyd. Tpeak (min)=	5.00	15.00
Unit Hyd. peak (cms)=	0.21	0.08

PEAK FLOW (cms)=	2.70	0.57	*TOTALS*
TIME TO PEAK (hrs)=	12.25	12.33	3.183 (iii)
RUNOFF VOLUME (mm)=	78.65	36.21	62.10
TOTAL RAINFALL (mm)=	79.65	79.65	79.65
RUNOFF COEFFICIENT =	0.99	0.45	0.78

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES: CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	Dir. Conn.(%)
STANDHYD (0356)	17.13	61.00
ID= 1 DT= 5.0 min	Total Imp(X%)= 69.00	

IMPERVIOUS	PERVIOUS (I)
Surface Area (ha)= 11.82	5.31
Dep. Storage (mm)= 1.00	5.00
Average Slope (%)= 1.00	2.00
Length (m)= 337.93	40.00
Mannings n = 0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.27	12.250	97.49	18.33	1.43
0.167	0.00	6.250	1.27	12.333	11.48	18.42	1.43
0.250	0.00	6.333	1.43	12.417	11.47	18.50	1.43
0.333	0.88	6.417	1.43	12.500	11.47	18.58	1.43
0.417	0.88	6.500	1.43	12.583	11.47	18.67	1.43
0.500	0.88	6.583	1.43	12.667	11.47	18.75	1.43
0.583	0.88	6.667	1.43	12.750	11.47	18.83	1.43
0.667	0.88	6.750	1.43	12.833	11.47	18.92	1.43
0.750	0.88	6.833	1.43	12.917	11.47	19.00	1.43
0.833	0.88	6.917	1.43	13.000	11.47	19.08	1.43
0.917	0.88	7.000	1.43	13.083	11.47	19.17	1.43
1.000	0.88	7.083	1.43	13.167	11.47	19.25	1.43
1.083	0.88	7.167	1.43	13.250	11.47	19.33	1.43
1.167	0.88	7.250	1.43	13.333	11.48	19.42	1.43
1.250	0.88	7.333	1.43	13.417	11.47	19.50	1.43
1.333	0.88	7.417	1.43	13.500	11.47	19.58	1.43
1.417	0.88	7.500	1.43	13.583	11.47	19.67	1.43
1.500	0.88	7.583	1.43	13.667	11.47	19.75	1.43
1.583	0.88	7.667	1.43	13.750	11.47	19.83	1.43
1.667	0.88	7.750	1.43	13.833	11.47	19.92	1.43
1.750	0.88	7.833	1.43	13.917	11.47	20.00	1.43
1.833	0.88	7.917	1.43	14.000	11.47	20.08	1.43
1.917	0.88	8.000	1.43	14.083	11.47	20.17	1.43
2.000	0.88	8.083	1.43	14.167	11.47	20.25	1.43
2.083	0.88	8.167	1.43	14.250	11.47	20.33	1.43
2.167	0.88	8.250	1.43	14.333	11.47	20.42	1.43
2.250	0.88	8.333	1.43	14.417	11.47	20.50	1.43
2.333	1.04	8.417	2.07	14.500	2.39	20.58	0.96
2.417	1.04	8.500	2.07	14.583	2.39	20.67	0.96
2.500	1.04	8.583	2.07	14.667	2.39	20.75	0.96
2.583	1.04	8.667	2.07	14.750	2.39	20.83	0.96
2.667	1.04	8.750	2.07	14.833	2.39	20.92	0.96
2.750	1.04	8.833	2.23	14.917	2.39	21.00	0.96
2.833	1.04	8.917	2.23	15.000	2.39	21.08	0.96
2.917	1.04	9.000	2.23	15.083	2.39	21.17	0.96
3.000	1.04	9.083	2.23	15.167	2.39	21.25	0.96
3.083	1.04	9.167	2.23	15.250	2.39	21.33	0.96
3.167	1.04	9.250					

2.750	1.04	8.833	2.23	14.917	2.39	21.00	0.96
2.833	1.04	8.917	2.23	15.000	2.39	21.08	0.96
2.917	1.04	9.000	2.23	15.083	2.39	21.17	0.96
3.000	1.04	9.083	2.23	15.167	2.39	21.25	0.96
3.083	1.04	9.167	2.23	15.250	2.39	21.33	0.96
3.167	1.04	9.250	2.23	15.333	2.39	21.42	0.96
3.250	1.04	9.333	2.55	15.417	2.39	21.50	0.96
3.333	1.04	9.417	2.55	15.500	2.39	21.58	0.96
3.417	1.04	9.500	2.55	15.583	2.39	21.67	0.96
3.500	1.04	9.583	2.55	15.667	2.39	21.75	0.96
3.583	1.04	9.667	2.55	15.750	2.39	21.83	0.96
3.667	1.04	9.750	2.55	15.833	2.39	21.92	0.96
3.750	1.04	9.833	2.87	15.917	2.39	22.00	0.96
3.833	1.04	9.917	2.87	16.000	2.39	22.08	0.96
3.917	1.04	10.000	2.87	16.083	2.39	22.17	0.96
4.000	1.04	10.083	2.87	16.167	2.39	22.25	0.96
4.083	1.04	10.167	2.87	16.250	2.39	22.33	0.96
4.167	1.04	10.250	2.87	16.333	1.43	22.42	0.96
4.250	1.04	10.333	3.66	16.417	1.43	22.50	0.96
4.333	1.27	10.417	3.66	16.500	1.43	22.58	0.96
4.417	1.27	10.500	3.66	16.583	1.43	22.67	0.96
4.500	1.27	10.583	3.66	16.667	1.43	22.75	0.96
4.583	1.27	10.667	3.66	16.750	1.43	22.83	0.96
4.667	1.27	10.750	3.66	16.833	1.43	22.92	0.96
4.750	1.27	10.833	4.94	16.917	1.43	23.00	0.96
4.833	1.27	10.917	4.94	17.000	1.43	23.08	0.96
4.917	1.27	11.000	4.94	17.083	1.43	23.17	0.96
5.000	1.27	11.083	4.94	17.167	1.43	23.25	0.96
5.083	1.27	11.167	4.94	17.250	1.43	23.33	0.96
5.167	1.27	11.250	4.94	17.333	1.43	23.42	0.96
5.250	1.27	11.333	7.65	17.417	1.43	23.50	0.96
5.333	1.27	11.417	7.65	17.500	1.43	23.58	0.96
5.417	1.27	11.500	7.65	17.583	1.43	23.67	0.96
5.500	1.27	11.583	7.65	17.667	1.43	23.75	0.96
5.583	1.27	11.667	7.65	17.750	1.43	23.83	0.96
5.667	1.27	11.750	7.65	17.833	1.43	23.92	0.96
5.750	1.27	11.833	23.57	17.917	1.43	24.00	0.96
5.833	1.27	11.917	23.58	18.000	1.43	24.08	0.96
5.917	1.27	12.000	23.58	18.083	1.43	24.17	0.96
6.000	1.27	12.083	97.48	18.167	1.43	24.25	0.96
6.083	1.27	12.167	97.49	18.250	1.43		

Max. Eff. Inten. (mm/hr) = 97.49
 over (min) = 5.00
 Storage Coeff. (min) = 2.06 (ii)
 Unit Hyd. Tpeak (min) = 5.00
 Unit Hyd. peak (cms) = 0.31

TOTALS
 PEAK FLOW (cms) = 0.13
 TIME TO PEAK (hrs) = 12.25

Area (ha) = 0.71
 Total Imp(%) = 73.50 Dir. Conn.(%) = 67.00

IMPERVIOUS PERVIOUS (I)
 Surface Area (ha) = 0.32 0.13
 Dep. Storage (mm) = 1.00 5.00
 Average Slope (%) = 1.00 2.00
 Length (m) = 68.80 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.27	12.250	97.49	18.33	1.43
0.167	0.00	6.250	1.27	12.333	11.48	18.42	1.43
0.250	0.00	6.333	1.43	12.417	11.47	18.50	1.43
0.333	0.88	6.417	1.43	12.500	11.47	18.58	1.43
0.417	0.88	6.500	1.43	12.583	11.47	18.67	1.43
0.500	0.88	6.583	1.43	12.667	11.47	18.75	1.43
0.583	0.88	6.667	1.43	12.750	11.47	18.83	1.43
0.667	0.88	6.750	1.43	12.833	5.89	19.00	1.43
0.750	0.88	6.833	1.43	12.917	5.89	19.00	1.43
0.833	0.88	6.917	1.43	13.000	5.89	19.08	1.43
0.917	0.88	7.000	1.43	13.083	5.89	19.17	1.43
1.000	0.88	7.083	1.43	13.167	5.89	19.25	1.43
1.083	0.88	7.167	1.43	13.250	5.89	19.33	1.43
1.167	0.88	7.250	1.43	13.333	4.30	19.42	1.43
1.250	0.88	7.333	1.75	13.417	4.30	19.50	1.43
1.333	0.88	7.417	1.75	13.500	4.30	19.58	1.43
1.417	0.88	7.500	1.75	13.583	4.30	19.67	1.43
1.500	0.88	7.583	1.75	13.667	4.30	19.75	1.43
1.583	0.88	7.667	1.75	13.750	4.30	19.83	1.43
1.667	0.88	7.750	1.75	13.833	3.35	19.92	1.43
1.750	0.88	7.833	1.75	13.917	3.35	20.00	1.43
1.833	0.88	7.917	1.75	14.000	3.35	20.08	1.43
1.917	0.88	8.000	1.75	14.083	3.35	20.17	1.43
2.000	0.88	8.083	1.75	14.167	3.35	20.25	1.43
2.083	0.88	8.167	1.75	14.250	3.35	20.33	0.96
2.167	0.88	8.250	1.75	14.333	2.39	20.42	0.96
2.250	0.88	8.333	2.07	14.417	2.39	20.50	0.96
2.333	1.04	8.417	2.07	14.500	2.39	20.58	0.96
2.417	1.04	8.500	2.07	14.583	2.39	20.67	0.96
2.500	1.04	8.583	2.07	14.667	2.39	20.75	0.96
2.583	1.04	8.667	2.07	14.750	2.39	20.83	0.96
2.667	1.04	8.750	2.07	14.833	2.39	20.92	0.96

ADD HYD (0357)
 3 + 2 = 1
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (0357): 2.27 0.418 12.25 57.95
 + ID2= 2 (0356): 17.13 3.183 12.25 62.10
 ID = 1 (0357): 19.40 3.601 12.25 61.61

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0358) OVERFLOW IS OFF
 IN= 2--- OUT= 1
 DT= 5.0 min
 OUTFLOW STORAGE OUTFLOW STORAGE
 (cms) (ha.m.) (cms) (ha.m.)
 0.0000 0.0000 0.7000 0.9520
 0.0420 0.1820 1.3600 1.2980
 0.0630 0.3560 1.8960 1.5720
 0.3940 0.7050 4.0000 1.9390

AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW: ID= 2 (0357) 19.400 3.601 12.25 61.61
 OUTFLOW: ID= 1 (0358) 19.400 0.372 13.00 61.56

PEAK FLOW REDUCTION [Qout/Qin](%) = 10.33
 TIME SHIFT OF PEAK FLOW (min) = 45.00
 MAXIMUM STORAGE USED (ha.m.) = 0.6821

CALIB STANDHYD (0359)
 ID= 1 DT= 5.0 min
 Area (ha) = 0.45
 Total Imp(%) = 71.30 Dir. Conn.(%) = 66.10

IMPERVIOUS PERVIOUS (I)
 Surface Area (ha) = 0.32 0.13
 Dep. Storage (mm) = 1.00 5.00
 Average Slope (%) = 1.00 2.00
 Length (m) = 54.77 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
12.25	97.49	12.25	97.49	12.25	97.49	12.25	97.49

RUNOFF VOLUME (mm) = 78.65 35.99 64.57
 TOTAL RAINFALL (mm) = 79.65 79.65 79.65
 RUNOFF COEFFICIENT = 0.99 0.45 0.81

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 71.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0025)
 Inlet Cap. = 0.156
 # of Inlets = 1
 Total (cms) = 0.1
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 TOTAL HYD. (ID= 1): 0.71 0.16 12.25 64.57
 MAJOR SYS. (ID= 2): 0.00 0.00 0.00 0.00
 MINOR SYS. (ID= 3): 0.71 0.16 12.25 64.57

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0024)
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW: ID= 0 (0025) 0.71 0.16 12.25 64.57
 OUTFLOW: ID= 2 (0024) 0.71 0.16 12.25 64.57

ADD HYD (0357)
 1 + 2 = 3
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (0024): 0.71 0.156 12.25 64.57
 + ID2= 2 (0355): 1.56 0.261 12.25 54.94
 ID = 3 (0357): 2.27 0.418 12.25 57.95

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

4.250	1.04	10.333	3.66	16.417	1.43	22.50	0.96
4.333	1.27	10.417	3.66	16.500	1.43	22.58	0.96
4.417	1.27	10.500	3.66	16.583	1.43	22.67	0.96
4.500	1.27	10.583	3.66	16.667	1.43	22.75	0.96
4.583	1.27	10.667	3.66	16.750	1.43	22.83	0.96
4.667	1.27	10.750	3.66	16.833	1.43	22.92	0.96
4.750	1.27	10.833	4.94	16.917	1.43	23.00	0.96
4.833	1.27	10.917	4.94	17.000	1.43	23.08	0.96
4.917	1.27	11.000	4.94	17.083	1.43	23.17	0.96
5.000	1.27	11.083	4.94	17.167	1.43	23.25	0.96
5.083	1.27	11.167	4.94	17.250	1.43	23.33	0.96
5.167	1.27	11.250	4.94	17.333	1.43	23.42	0.96
5.250	1.27	11.333	7.65	17.417	1.43	23.50	0.96
5.333	1.27	11.417	7.65	17.500	1.43	23.58	0.96
5.417	1.27	11.500	7.65	17.583	1.43	23.67	0.96
5.500	1.27	11.583	7.65	17.667	1.43	23.75	0.96
5.583	1.27	11.667	7.65	17.750	1.43	23.83	0.96
5.667	1.27	11.750	7.65	17.833	1.43	23.92	0.96
5.750	1.27	11.833	23.57	17.917	1.43	24.00	0.96
5.833	1.27	11.917	23.58	18.000	1.43	24.08	0.96
5.917	1.27	12.000	23.58	18.083	1.43	24.17	0.96
6.000	1.27	12.083	97.48	18.167	1.43	24.25	0.96
6.083	1.27	12.167	97.49	18.250	1.43		

Max. Eff. Inten. (mm/hr) = 97.49
 over (min) = 5.00
 Storage Coeff. (min) = 1.80 (ii)
 Unit Hyd. Tpeak (min) = 5.00
 Unit Hyd. peak (cms) = 0.32

TOTALS
 PEAK FLOW (cms) = 0.08 0.01 0.093 (iii)
 TIME TO PEAK (hrs) = 12.25 12.33 12.25
 RUNOFF VOLUME (mm) = 78.65 34.84 63.78
 TOTAL RAINFALL (mm) = 79.65 79.65 79.65
 RUNOFF COEFFICIENT = 0.99 0.44 0.80

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 71.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0370)
 1 + 2 = 3
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)

0.083	0.00	6.167	1.27	12.250	97.49	18.33	1.43
0.167	0.00	6.250	1.27	12.333	11.48	18.42	1.43
0.250	0.00	6.333	1.43	12.417	11.47	18.50	1.43
0.333	0.88	6.417	1.43	12.500	11.47	18.58	1.43
0.417	0.88	6.500	1.43	12.583	11.47	18.67	1.43
0.500	0.88	6.583	1.43	12.667	11.47	18.75	1.43
0.583	0.88	6.667	1.43	12.750	11.47	18.83	1.43
0.667	0.88	6.750	1.43	12.833	5.89	19.02	1.43
0.750	0.88	6.833	1.43	12.917	5.89	19.00	1.43
0.833	0.88	6.917	1.43	13.000	5.89	19.08	1.43
0.917	0.88	7.000	1.43	13.083	5.89	19.17	

2.667	1.04	8.750	2.07	14.833	2.39	20.92	0.96
2.750	1.04	8.833	2.23	14.917	2.39	21.00	0.96
2.833	1.04	8.917	2.23	15.000	2.39	21.08	0.96
2.917	1.04	9.000	2.23	15.083	2.39	21.17	0.96
3.000	1.04	9.083	2.23	15.167	2.39	21.25	0.96
3.083	1.04	9.167	2.23	15.250	2.39	21.33	0.96
3.167	1.04	9.250	2.23	15.333	2.39	21.42	0.96
3.250	1.04	9.333	2.55	15.417	2.39	21.50	0.96
3.333	1.04	9.417	2.55	15.500	2.39	21.58	0.96
3.417	1.04	9.500	2.55	15.583	2.39	21.67	0.96
3.500	1.04	9.583	2.55	15.667	2.39	21.75	0.96
3.583	1.04	9.667	2.55	15.750	2.39	21.83	0.96
3.667	1.04	9.750	2.55	15.833	2.39	21.92	0.96
3.750	1.04	9.833	2.87	15.917	2.39	22.00	0.96
3.833	1.04	9.917	2.87	16.000	2.39	22.08	0.96
3.917	1.04	10.000	2.87	16.083	2.39	22.17	0.96
4.000	1.04	10.083	2.87	16.167	2.39	22.25	0.96
4.083	1.04	10.167	2.87	16.250	2.39	22.33	0.96
4.167	1.04	10.250	2.87	16.333	1.43	22.42	0.96
4.250	1.04	10.333	3.66	16.417	1.43	22.50	0.96
4.333	1.27	10.417	3.66	16.500	1.43	22.58	0.96
4.417	1.27	10.500	3.66	16.583	1.43	22.67	0.96
4.500	1.27	10.583	3.66	16.667	1.43	22.75	0.96
4.583	1.27	10.667	3.66	16.750	1.43	22.83	0.96
4.667	1.27	10.750	3.66	16.833	1.43	22.92	0.96
4.750	1.27	10.833	4.94	16.917	1.43	23.00	0.96
4.833	1.27	10.917	4.94	17.000	1.43	23.08	0.96
4.917	1.27	11.000	4.94	17.083	1.43	23.17	0.96
5.000	1.27	11.083	4.94	17.167	1.43	23.25	0.96
5.083	1.27	11.167	4.94	17.250	1.43	23.33	0.96
5.167	1.27	11.250	4.94	17.333	1.43	23.42	0.96
5.250	1.27	11.333	7.65	17.417	1.43	23.50	0.96
5.333	1.27	11.417	7.65	17.500	1.43	23.58	0.96
5.417	1.27	11.500	7.65	17.583	1.43	23.67	0.96
5.500	1.27	11.583	7.65	17.667	1.43	23.75	0.96
5.583	1.27	11.667	7.65	17.750	1.43	23.83	0.96
5.667	1.27	11.750	7.65	17.833	1.43	23.92	0.96
5.750	1.27	11.833	23.57	17.917	1.43	24.00	0.96
5.833	1.27	11.917	23.58	18.000	1.43	24.08	0.96
5.917	1.27	12.000	23.58	18.083	1.43	24.17	0.96
6.000	1.27	12.083	97.49	18.167	1.43	24.25	0.96
6.083	1.27	12.167	97.49	18.250	1.43		

Unit Hyd Qpeak (cms) = 0.089

PEAK FLOW (cms) = 0.052 (i)
 TIME TO PEAK (hrs) = 12.58
 RUNOFF VOLUME (mm) = 34.76
 TOTAL RAINFALL (mm) = 79.50
 RUNOFF COEFFICIENT = 0.436

ID1 = 1 (0358): 19.40 0.372 13.00 61.56
 + ID2 = 2 (0359): 0.45 0.093 12.25 63.78
 ID = 3 (0370): 19.85 0.380 12.92 61.61

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	STANDHYD (0360)	Area (ha) = 1.02	Curve Number (CN) = 74.5
NASHYD (0360)	Ia (mm) = 4.61	# of Linear Res. (N) = 3.00	
ID = 1 DT = 5.0 min	U.H. Tp(hrs) = 0.44		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.27	12.250	97.49	18.33	1.43
0.167	0.00	6.250	1.27	12.333	11.48	18.42	1.43
0.250	0.00	6.333	1.43	12.417	11.47	18.50	1.43
0.333	0.88	6.417	1.43	12.500	11.47	18.58	1.43
0.417	0.88	6.500	1.43	12.583	11.47	18.67	1.43
0.500	0.88	6.583	1.43	12.667	11.47	18.75	1.43
0.583	0.88	6.667	1.43	12.750	11.47	18.83	1.43
0.667	0.88	6.750	1.43	12.833	5.89	18.92	1.43
0.750	0.88	6.833	1.43	12.917	5.89	19.00	1.43
0.833	0.88	6.917	1.43	13.000	5.89	19.08	1.43
0.917	0.88	7.000	1.43	13.083	5.89	19.17	1.43
1.000	0.88	7.083	1.43	13.167	5.89	19.25	1.43
1.083	0.88	7.167	1.43	13.250	5.89	19.33	1.43
1.167	0.88	7.250	1.43	13.333	4.30	19.42	1.43
1.250	0.88	7.333	1.75	13.417	4.30	19.50	1.43
1.333	0.88	7.417	1.75	13.500	4.30	19.58	1.43
1.417	0.88	7.500	1.75	13.583	4.30	19.67	1.43
1.500	0.88	7.583	1.75	13.667	4.30	19.75	1.43
1.583	0.88	7.667	1.75	13.750	4.30	19.83	1.43
1.667	0.88	7.750	1.75	13.833	3.35	19.92	1.43
1.750	0.88	7.833	1.75	13.917	3.35	20.00	1.43
1.833	0.88	7.917	1.75	14.000	3.35	20.08	1.43
1.917	0.88	8.000	1.75	14.083	3.35	20.17	1.43
2.000	0.88	8.083	1.75	14.167	3.35	20.25	1.43
2.083	0.88	8.167	1.75	14.250	3.35	20.33	0.96
2.167	0.88	8.250	1.75	14.333	2.39	20.42	0.96
2.250	0.88	8.333	2.07	14.417	2.39	20.50	0.96
2.333	1.04	8.417	2.07	14.500	2.39	20.58	0.96
2.417	1.04	8.500	2.07	14.583	2.39	20.67	0.96
2.500	1.04	8.583	2.07	14.667	2.39	20.75	0.96
2.583	1.04	8.667	2.07	14.750	2.39	20.83	0.96

2.417	1.04	8.500	2.07	14.583	2.39	20.67	0.96
2.500	1.04	8.583	2.07	14.667	2.39	20.75	0.96
2.583	1.04	8.667	2.07	14.750	2.39	20.83	0.96
2.667	1.04	8.750	2.07	14.833	2.39	20.92	0.96
2.750	1.04	8.833	2.23	14.917	2.39	21.00	0.96
2.833	1.04	8.917	2.23	15.000	2.39	21.08	0.96
2.917	1.04	9.000	2.23	15.083	2.39	21.17	0.96
3.000	1.04	9.083	2.23	15.167	2.39	21.25	0.96
3.083	1.04	9.167	2.23	15.250	2.39	21.33	0.96
3.167	1.04	9.250	2.23	15.333	2.39	21.42	0.96
3.250	1.04	9.333	2.55	15.417	2.39	21.50	0.96
3.333	1.04	9.417	2.55	15.500	2.39	21.58	0.96
3.417	1.04	9.500	2.55	15.583	2.39	21.67	0.96
3.500	1.04	9.583	2.55	15.667	2.39	21.75	0.96
3.583	1.04	9.667	2.55	15.750	2.39	21.83	0.96
3.667	1.04	9.750	2.55	15.833	2.39	21.92	0.96
3.750	1.04	9.833	2.87	15.917	2.39	22.00	0.96
3.833	1.04	9.917	2.87	16.000	2.39	22.08	0.96
3.917	1.04	10.000	2.87	16.083	2.39	22.17	0.96
4.000	1.04	10.083	2.87	16.167	2.39	22.25	0.96
4.083	1.04	10.167	2.87	16.250	2.39	22.33	0.96
4.167	1.04	10.250	2.87	16.333	1.43	22.42	0.96
4.250	1.04	10.333	3.66	16.417	1.43	22.50	0.96
4.333	1.27	10.417	3.66	16.500	1.43	22.58	0.96
4.417	1.27	10.500	3.66	16.583	1.43	22.67	0.96
4.500	1.27	10.583	3.66	16.667	1.43	22.75	0.96
4.583	1.27	10.667	3.66	16.750	1.43	22.83	0.96
4.667	1.27	10.750	3.66	16.833	1.43	22.92	0.96
4.750	1.27	10.833	4.94	16.917	1.43	23.00	0.96
4.833	1.27	10.917	4.94	17.000	1.43	23.08	0.96
4.917	1.27	11.000	4.94	17.083	1.43	23.17	0.96
5.000	1.27	11.083	4.94	17.167	1.43	23.25	0.96
5.083	1.27	11.167	4.94	17.250	1.43	23.33	0.96
5.167	1.27	11.250	4.94	17.333	1.43	23.42	0.96
5.250	1.27	11.333	7.65	17.417	1.43	23.50	0.96
5.333	1.27	11.417	7.65	17.500	1.43	23.58	0.96
5.417	1.27	11.500	7.65	17.583	1.43	23.67	0.96
5.500	1.27	11.583	7.65	17.667	1.43	23.75	0.96
5.583	1.27	11.667	7.65	17.750	1.43	23.83	0.96
5.667	1.27	11.750	7.65	17.833	1.43	23.92	0.96
5.750	1.27	11.833	23.57	17.917	1.43	24.00	0.96
5.833	1.27	11.917	23.58	18.000	1.43	24.08	0.96
5.917	1.27	12.000	23.58	18.083	1.43	24.17	0.96
6.000	1.27	12.083	97.48	18.167	1.43	24.25	0.96
6.083	1.27	12.167	97.49	18.250	1.43		

Max. Eff. Inten. (mm/hr) = 97.49 55.83
 over (min) = 5.00 15.00
 Storage Coeff. (min) = 2.12 (ii) 11.03 (ii)
 Unit Hyd. Tpeak (min) = 5.00 15.00

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	STANDHYD (0018)	Area (ha) = 0.78	
NASHYD (0018)	Ia (mm) = 2.00	Dir. Conn. (%) = 15.00	
ID = 1 DT = 5.0 min			

Surface Area (ha) = 0.16 0.62
 Dep. Storage (mm) = 5.00 5.00
 Average Slope (%) = 1.00 2.00
 Length (m) = 72.11 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.27	12.250	97.49	18.33	1.43
0.167	0.00	6.250	1.27	12.333	11.48	18.42	1.43
0.250	0.00	6.333	1.43	12.417	11.47	18.50	1.43
0.333	0.88	6.417	1.43	12.500	11.47	18.58	1.43
0.417	0.88	6.500	1.43	12.583	11.47	18.67	1.43
0.500	0.88	6.583	1.43	12.667	11.47	18.75	1.43
0.583	0.88	6.667	1.43	12.750	11.47	18.83	1.43
0.667	0.88	6.750	1.43	12.833	5.89	18.92	1.43
0.750	0.88	6.833	1.43	12.917	5.89	19.00	1.43
0.833	0.88	6.917	1.43	13.000	5.89	19.08	1.43
0.917	0.88	7.000	1.43	13.083	5.89	19.17	1.43
1.000	0.88	7.083	1.43	13.167	5.89	19.25	1.43
1.083	0.88	7.167	1.43	13.250	5.89	19.33	

Storage Coeff. (min)= 1.00 (ii) 11.40 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.32 0.09

TOTALS
PEAK FLOW (cms)= 0.05 0.02 0.065 (iii)
TIME TO PEAK (hrs)= 12.25 12.33 12.25
RUNOFF VOLUME (mm)= 78.55 31.24 48.95
TOTAL RAINFALL (mm)= 79.65 79.65 79.65
RUNOFF COEFFICIENT = 0.99 0.39 0.61

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR Pervious Losses:
CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0029)

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW: ID= 2(0015)	0.45	0.06	12.25	48.95
OUTFLOW: ID= 2(0029)	0.45	0.06	12.25	48.95

FINISH

Ptotal= 92.66 mm | Comments: I. 10yr 24hr 15min SCS Type II | df97a02a-41c9-4972-9382-cd361986595f\944daaa

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.25	1.67	12.50	13.34	18.75	1.67
0.25	1.02	6.50	1.67	12.75	6.86	19.00	1.67
0.50	1.02	6.75	1.67	13.00	6.86	19.25	1.67
0.75	1.02	7.00	1.67	13.25	5.00	19.50	1.67
1.00	1.02	7.25	2.04	13.50	5.00	19.75	1.67
1.25	1.02	7.50	2.04	13.75	3.89	20.00	1.67
1.50	1.02	7.75	2.04	14.00	3.89	20.25	1.11
1.75	1.02	8.00	2.04	14.25	2.78	20.50	1.11
2.00	1.02	8.25	2.41	14.50	2.78	20.75	1.11
2.25	1.20	8.50	2.41	14.75	2.78	21.00	1.11
2.50	1.20	8.75	2.59	15.00	2.78	21.25	1.11
2.75	1.20	9.00	2.59	15.25	2.78	21.50	1.11
3.00	1.20	9.25	2.97	15.50	2.78	21.75	1.11
3.25	1.20	9.50	2.97	15.75	2.78	22.00	1.11
3.50	1.20	9.75	3.34	16.00	2.78	22.25	1.11
3.75	1.20	10.00	3.34	16.25	1.67	22.50	1.11
4.00	1.20	10.25	4.26	16.50	1.67	22.75	1.11
4.25	1.48	10.50	4.26	16.75	1.67	23.00	1.11
4.50	1.48	10.75	5.74	17.00	1.67	23.25	1.11
4.75	1.48	11.00	5.74	17.25	1.67	23.50	1.11
5.00	1.48	11.25	8.90	17.50	1.67	23.75	1.11
5.25	1.48	11.50	8.90	17.75	1.67	24.00	1.11
5.50	1.48	11.75	27.43	18.00	1.67		
5.75	1.48	12.00	113.42	18.25	1.67		
6.00	1.48	12.25	13.34	18.50	1.67		

CALIB | STANDHYD (0002) | Area (ha)= 0.58 | Curve Number (CN)= 72.3 | ID= 1 DT= 5.0 min | Ia (mm)= 4.86 | # of Linear Res.(N)= 3.00 | U.H. Tp(hrs)= 0.20

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.48	12.250	113.42	18.33	1.67
0.167	0.00	6.250	1.48	12.333	13.36	18.42	1.67
0.250	0.00	6.333	1.67	12.417	13.34	18.50	1.67
0.333	1.02	6.417	1.67	12.500	13.34	18.58	1.67
0.417	1.02	6.500	1.67	12.583	13.34	18.67	1.67

4.667	1.48	10.750	4.26	16.833	1.67	22.92	1.11
4.750	1.48	10.833	5.74	16.917	1.67	23.00	1.11
4.833	1.48	10.917	5.74	17.000	1.67	23.08	1.11
4.917	1.48	11.000	5.74	17.083	1.67	23.17	1.11
5.000	1.48	11.083	5.74	17.167	1.67	23.25	1.11
5.083	1.48	11.167	5.74	17.250	1.67	23.33	1.11
5.167	1.48	11.250	5.74	17.333	1.67	23.42	1.11
5.250	1.48	11.333	8.90	17.417	1.67	23.50	1.11
5.333	1.48	11.417	8.90	17.500	1.67	23.58	1.11
5.417	1.48	11.500	8.90	17.583	1.67	23.67	1.11
5.500	1.48	11.583	8.90	17.667	1.67	23.75	1.11
5.583	1.48	11.667	8.90	17.750	1.67	23.83	1.11
5.667	1.48	11.750	8.90	17.833	1.67	23.92	1.11
5.750	1.48	11.833	27.43	17.917	1.67	24.00	1.11
5.833	1.48	11.917	27.43	18.000	1.67	24.08	1.11
5.917	1.48	12.000	27.43	18.083	1.67	24.17	1.11
6.000	1.48	12.083	113.41	18.167	1.67	24.25	1.11
6.083	1.48	12.167	113.42	18.250	1.67		

Unit Hyd Qpeak (cms)= 0.111

PEAK FLOW (cms)= 0.062 (i)
TIME TO PEAK (hrs)= 12.333
RUNOFF VOLUME (mm)= 41.564
TOTAL RAINFALL (mm)= 92.660
RUNOFF COEFFICIENT = 0.449

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB | STANDHYD (0002) | Area (ha)= 3.32 | Total Imp(%)= 55.00 | Dir. Conn.(%)= 55.00 | ID= 1 DT= 5.0 min

IMPERVIOUS | Pervious (i)
Surface Area (ha)= 1.83 | 1.49
Dep. Storage (mm)= 1.00 | 5.00
Average Slope (%)= 1.00 | 2.00
Length (m)= 148.77 | 40.00
Manning's n = 0.013 | 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.48	12.250	113.42	18.33	1.67
0.167	0.00	6.250	1.48	12.333	13.36	18.42	1.67
0.250	0.00	6.333	1.67	12.417	13.34	18.50	1.67
0.333	1.02	6.417	1.67	12.500	13.34	18.58	1.67
0.417	1.02	6.500	1.67	12.583	13.34	18.67	1.67

2.250	0.88	8.333	2.07	14.417	2.39	20.50	0.96
2.333	1.04	8.417	2.07	14.500	2.39	20.58	0.96
2.417	1.04	8.500	2.07	14.583	2.39	20.67	0.96
2.500	1.04	8.583	2.07	14.667	2.39	20.75	0.96
2.583	1.04	8.667	2.07	14.750	2.39	20.83	0.96
2.667	1.04	8.750	2.07	14.833	2.39	20.92	0.96
2.750	1.04	8.833	2.23	14.917	2.39	21.00	0.96
2.833	1.04	8.917	2.23	15.000	2.39	21.08	0.96
2.917	1.04	9.000	2.23	15.083	2.39	21.17	0.96
3.000	1.04	9.083	2.23	15.167	2.39	21.25	0.96
3.083	1.04	9.167	2.23	15.250	2.39	21.33	0.96
3.167	1.04	9.250	2.23	15.333	2.39	21.42	0.96
3.250	1.04	9.333	2.55	15.417	2.39	21.50	0.96
3.333	1.04	9.417	2.55	15.500	2.39	21.58	0.96
3.417	1.04	9.500	2.55	15.583	2.39	21.67	0.96
3.500	1.04	9.583	2.55	15.667	2.39	21.75	0.96
3.583	1.04	9.667	2.55	15.750	2.39	21.83	0.96
3.667	1.04	9.750	2.55	15.833	2.39	21.92	0.96
3.750	1.04	9.833	2.87	15.917	2.39	22.00	0.96
3.833	1.04	9.917	2.87	16.000	2.39	22.08	0.96
3.917	1.04	10.000	2.87	16.083	2.39	22.17	0.96
4.000	1.04	10.083	2.87	16.167	2.39	22.25	0.96
4.083	1.04	10.167	2.87	16.250	2.39	22.33	0.96
4.167	1.04	10.250	2.87	16.333	2.43	22.42	0.96
4.250	1.04	10.333	3.66	16.417	1.43	22.50	0.96
4.333	1.27	10.417	3.66	16.500	1.43	22.58	0.96
4.417	1.27	10.500	3.66	16.583	1.43	22.67	0.96
4.500	1.27	10.583	3.66	16.667	1.43	22.75	0.96
4.583	1.27	10.667	3.66	16.750	1.43	22.83	0.96
4.667	1.27	10.750	3.66	16.833	1.43	22.92	0.96
4.750	1.27	10.833	4.94	16.917	1.43	23.00	0.96
4.833	1.27	10.917	4.94	17.000	1.43	23.08	0.96
4.917	1.27	11.000	4.94	17.083	1.43	23.17	0.96
5.000	1.27	11.083	4.94	17.167	1.43	23.25	0.96
5.083	1.27	11.167	4.94	17.250	1.43	23.33	0.96
5.167	1.27	11.250	4.94	17.333	1.43	23.42	0.96
5.250	1.27	11.333	7.65	17.417	1.43	23.50	0.96
5.333	1.27	11.417	7.65	17.500	1.43	23.58	0.96
5.417	1.27	11.500	7.65	17.583	1.43	23.67	0.96
5.500	1.27	11.583	7.65	17.667	1.43	23.75	0.96
5.583	1.27	11.667	7.65	17.750	1.43	23.83	0.96
5.667	1.27	11.750	7.65	17.833	1.43	23.92	0.96
5.750	1.27	11.833	23.57	17.917	1.43	24.00	0.96
5.833	1.27	11.917	23.58	18.000	1.43	24.08	0.96
5.917	1.27	12.000	23.58	18.083	1.43	24.17	0.96
6.000	1.27	12.083	97.48	18.167	1.43	24.25	0.96
6.083	1.27	12.167	97.49	18.250	1.43		

Max. Eff. Inten. (mm/hr)= 97.49 | 46.32
over (min) = 5.00 | 15.00

***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voind.dat

Output filename:
C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404df768702\480cc
9a4-b738-410c-9f52-3840442fecd\scena

Summary filename:
C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404df768702\480cc
9a4-b738-410c-9f52-3840442fecd\scena

DATE: 08-15-2023 | TIME: 08:21:47

USER:

***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voind.dat

Output filename:
C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404df768702\480cc
9a4-b738-410c-9f52-3840442fecd\scena

Summary filename:
C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404df768702\480cc
9a4-b738-410c-9f52-3840442fecd\scena

DATE: 08-15-2023 | TIME: 08:21:47

USER:

COMMENTS:

***** SIMULATION : I. 10yr 24hr 15min SCS Type II *****

READ STORM | Filename: C:\Users\kswain\AppData\Local\Temp\

5.000	1.02	6.583	1.67	12.667	13.34	18.75	1.67
0.583	1.02	6.667	1.67	12.750	13.34	18.83	1.67
0.667	1.02	6.750	1.67	12.833	6.86	18.92	1.67
0.750	1.02	6.833	1.67	12.917	6.86	19.00	1.67
0.833	1.02	6.917	1.67	13.000	6.86	19.08	1.67
0.917	1.02	7.000	1.67	13.083	6.86	19.17	1.67
1.000	1.02	7.083	1.67	13.167	6.86	19.25	1.67
1.083	1.02	7.167	1.67	13.250	6.86	19.33	1.67
1.167	1.02	7.250	1.67	13.333	5.00	19.42	1.67
1.250	1.02	7.333	2.04	13.417	5.00	19.50	1.67
1.333	1.02	7.417	2.04	13.500	5.00	19.58	1.67
1.417	1.02	7.500	2.04	13.583	5.00	19.67	1.67
1.500	1.02	7.583	2.04	13.667	5.00	19.75	1.67
1.583	1.02	7.667	2.04	13.750	5.00	19.83	1.67
1.667	1.02	7.750	2.04	13.833	3.89	19.92	1.67
1.750	1.02	7.833	2.04	13.917	3.89	20.00	1.67
1.833	1.02	7.917	2.04	14.000			

4.417	1.48	10.500	4.26	16.583	1.67	22.67	1.11
4.500	1.48	10.583	4.26	16.667	1.67	22.75	1.11
4.583	1.48	10.667	4.26	16.750	1.67	22.83	1.11
4.667	1.48	10.750	4.26	16.833	1.67	22.92	1.11
4.750	1.48	10.833	5.74	16.917	1.67	23.00	1.11
4.833	1.48	10.917	5.74	17.000	1.67	23.08	1.11
4.917	1.48	11.000	5.74	17.083	1.67	23.17	1.11
5.000	1.48	11.083	5.74	17.167	1.67	23.25	1.11
5.083	1.48	11.167	5.74	17.250	1.67	23.33	1.11
5.167	1.48	11.250	5.74	17.333	1.67	23.42	1.11
5.250	1.48	11.333	8.90	17.417	1.67	23.50	1.11
5.333	1.48	11.417	8.90	17.500	1.67	23.58	1.11
5.417	1.48	11.500	8.90	17.583	1.67	23.67	1.11
5.500	1.48	11.583	8.90	17.667	1.67	23.75	1.11
5.583	1.48	11.667	8.90	17.750	1.67	23.83	1.11
5.667	1.48	11.750	8.90	17.833	1.67	23.92	1.11
5.750	1.48	11.833	27.43	17.917	1.67	24.00	1.11
5.833	1.48	11.917	27.43	18.000	1.67	24.08	1.11
5.917	1.48	12.000	27.43	18.083	1.67	24.17	1.11
6.000	1.48	12.083	113.41	18.167	1.67	24.25	1.11
6.083	1.48	12.167	113.42	18.250	1.67		

Max. Eff. Inten. (mm/hr)=	113.42	59.47
over (min)	5.00	15.00
Storage Coeff. (min)	3.08 (ii)	11.77 (ii)
Unit Hyd. Tpeak (min)	5.00	15.00
Unit Hyd. peak (cms)	0.27	0.09
PEAK FLOW (cms)	0.57	0.15
TIME TO PEAK (min)	12.25	12.33
RUNOFF VOLUME (mm)	91.66	40.15
TOTAL RAINFALL (mm)	92.66	92.66
RUNOFF COEFFICIENT	0.99	0.43

TOTALS
 0.701 (iii)

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (@004)	OVERFLOW IS OFF
DT= 5.0 min	
OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000
0.0350	0.0750
OUTFLOW (cms)	STORAGE (ha.m.)
0.1200	0.1370
0.1700	0.1500

0.250	0.00	6.333	1.67	12.417	13.34	18.50	1.67
0.333	1.02	6.417	1.67	12.500	13.34	18.58	1.67
0.417	1.02	6.500	1.67	12.583	13.34	18.67	1.67
0.500	1.02	6.583	1.67	12.667	13.34	18.75	1.67
0.583	1.02	6.667	1.67	12.750	13.34	18.83	1.67
0.667	1.02	6.750	1.67	12.833	6.86	18.92	1.67
0.750	1.02	6.833	1.67	12.917	6.86	19.00	1.67
0.833	1.02	6.917	1.67	13.000	6.86	19.08	1.67
0.917	1.02	7.000	1.67	13.083	6.86	19.17	1.67
1.000	1.02	7.083	1.67	13.167	6.86	19.25	1.67
1.083	1.02	7.167	1.67	13.250	6.86	19.33	1.67
1.167	1.02	7.250	1.67	13.333	5.00	19.42	1.67
1.250	1.02	7.333	2.04	13.417	5.00	19.50	1.67
1.333	1.02	7.417	2.04	13.500	5.00	19.58	1.67
1.417	1.02	7.500	2.04	13.583	5.00	19.67	1.67
1.500	1.02	7.583	2.04	13.667	5.00	19.75	1.67
1.583	1.02	7.667	2.04	13.750	5.00	19.83	1.67
1.667	1.02	7.750	2.04	13.833	3.89	19.92	1.67
1.750	1.02	7.833	2.04	13.917	3.89	20.00	1.67
1.833	1.02	7.917	2.04	14.000	3.89	20.08	1.67
1.917	1.02	8.000	2.04	14.083	3.89	20.17	1.67
2.000	1.02	8.083	2.04	14.167	3.89	20.25	1.67
2.083	1.02	8.167	2.04	14.250	3.89	20.33	1.11
2.167	1.02	8.250	2.04	14.333	2.78	20.42	1.11
2.250	1.02	8.333	2.04	14.417	2.78	20.50	1.11
2.333	1.02	8.417	2.04	14.500	2.78	20.58	1.11
2.417	1.02	8.500	2.04	14.583	2.78	20.67	1.11
2.500	1.02	8.583	2.04	14.667	2.78	20.75	1.11
2.583	1.02	8.667	2.04	14.750	2.78	20.83	1.11
2.667	1.02	8.750	2.04	14.833	2.78	20.92	1.11
2.750	1.02	8.833	2.59	14.917	2.78	21.00	1.11
2.833	1.02	8.917	2.59	15.000	2.78	21.08	1.11
2.917	1.02	9.000	2.59	15.083	2.78	21.17	1.11
3.000	1.02	9.083	2.59	15.167	2.78	21.25	1.11
3.083	1.02	9.167	2.59	15.250	2.78	21.33	1.11
3.167	1.02	9.250	2.59	15.333	2.78	21.42	1.11
3.250	1.02	9.333	2.97	15.417	2.78	21.50	1.11
3.333	1.02	9.417	2.97	15.500	2.78	21.58	1.11
3.417	1.02	9.500	2.97	15.583	2.78	21.67	1.11
3.500	1.02	9.583	2.97	15.667	2.78	21.75	1.11
3.583	1.02	9.667	2.97	15.750	2.78	21.83	1.11
3.667	1.02	9.750	2.97	15.833	2.78	21.92	1.11
3.750	1.02	9.833	3.34	15.917	2.78	22.00	1.11
3.833	1.02	9.917	3.34	16.000	2.78	22.08	1.11
3.917	1.02	10.000	3.34	16.083	2.78	22.17	1.11
4.000	1.02	10.083	3.34	16.167	2.78	22.25	1.11
4.083	1.02	10.167	3.34	16.250	2.78	22.33	1.11
4.167	1.02	10.250	3.34	16.333	1.67	22.42	1.11
4.250	1.02	10.333	4.26	16.417	1.67	22.50	1.11
4.333	1.02	10.417	4.26	16.500	1.67	22.58	1.11
4.417	1.02	10.500	4.26	16.583	1.67	22.67	1.11
4.500	1.02	10.583	4.26	16.667	1.67	22.75	1.11
4.583	1.02	10.667	4.26	16.750	1.67	22.83	1.11
4.667	1.02	10.750	4.26	16.833	1.67	22.92	1.11
4.750	1.02	10.833	5.74	16.917	1.67	23.00	1.11

AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3.320	0.701	12.25	68.48
3.320	0.109	12.75	68.31
PEAK FLOW REDUCTION [Qout/Qin](%) = 15.59			
TIME SHIFT OF PEAK FLOW (min) = 30.00			
MAXIMUM STORAGE USED (ha.m.) = 0.1108			

ADD HYD (@003)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3	7.500	0.862	12.33	41.56
ID1= 1 (@001)	3.32	0.109	12.75	68.31
+ ID2= 2 (@004)	3.32	0.109	12.75	68.31
ID = 3 (@003)	3.90	0.165	12.33	64.34

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB STANDBYD (@355)	Area (ha) = 1.56	Total Imp(%) = 50.00	Dir. Conn.(%) = 50.00
ID= 1 DT= 5.0 min			
Surface Area (ha)	0.78		
Dep. Storage (mm)	1.00	5.00	
Average Slope (%)	1.00	2.00	
Length (m)	10.88	40.00	
Mannings n	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.48	12.250	113.42	18.33	1.67
0.167	0.00	6.250	1.48	12.333	13.36	18.42	1.67
0.250	0.00	6.333	1.67	12.417	13.34	18.50	1.67
0.333	1.02	6.417	1.67	12.500	13.34	18.58	1.67
0.417	1.02	6.500	1.67	12.583	13.34	18.67	1.67
0.500	1.02	6.583	1.67	12.667	13.34	18.75	1.67
0.583	1.02	6.667	1.67	12.750	13.34	18.83	1.67

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.48	12.250	113.42	18.33	1.67
0.167	0.00	6.250	1.48	12.333	13.36	18.42	1.67
0.250	0.00	6.333	1.67	12.417	13.34	18.50	1.67
0.333	1.02	6.417	1.67	12.500	13.34	18.58	1.67
0.417	1.02	6.500	1.67	12.583	13.34	18.67	1.67
0.500	1.02	6.583	1.67	12.667	13.34	18.75	1.67
0.583	1.02	6.667	1.67	12.750	13.34	18.83	1.67
0.667	1.02	6.750	1.67	12.833	6.86	18.92	1.67
0.750	1.02	6.833	1.67	12.917	6.86	19.00	1.67
0.833	1.02	6.917	1.67	13.000	6.86	19.08	1.67
0.917	1.02	7.000	1.67	13.083	6.86	19.17	1.67
1.000	1.02	7.083	1.67	13.167	6.86	19.25	1.67
1.083	1.02	7.167	1.67	13.250	6.86	19.33	1.67
1.167	1.02	7.250	1.67	13.333	5.00	19.42	1.67
1.250	1.02	7.333	2.04	13.417	5.00	19.50	1.67
1.333	1.02	7.417	2.04	13.500	5.00	19.58	1.67
1.417	1.02	7.500	2.04	13.583	5.00	19.67	1.67
1.500	1.02	7.583	2.04	13.667	5.00	19.75	1.67
1.583	1.02	7.667	2.04	13.750	5.00	19.83	1.67
1.667	1.02	7.750	2.04	13.833	3.89	19.92	1.67
1.750	1.02	7.833	2.04	13.917	3.89	20.00	1.67
1.833	1.02	7.917	2.04	14.000	3.89	20.08	1.67
1.917	1.02	8.000	2.04	14.083	3.89	20.17	1.67
2.000	1.02	8.083	2.04	14.167	3.89	20.25	1.11
2.083	1.02	8.167	2.04	14.250	3.89	20.33	1.11
2.167	1.02	8.250	2.04	14.333	2.78	20.42	1.11
2.250	1.02	8.333	2.04	14.417	2.78	20.50	1.11
2.333	1.02	8.417	2.04	14.500	2.78	20.58	1.11
2.417	1.02	8.500	2.04	14.583	2.78	20.67	1.11
2.500	1.02	8.583	2.04	14.667	2.78	20.75	1.11
2.583	1.02	8.667	2.04	14.750	2.78	20.83	1.11
2.667	1.02	8.750	2.04	14.833	2.78	20.92	1.11
2.750	1.02	8.833	2.59	14.917	2.78	21.00	1.11
2.833	1.02	8.917	2.59	15.000	2.78	21.08	1.11
2.917	1.02	9.000	2.59	15.083	2.78	21.17	1.11
3.000	1.02	9.083	2.59	15.167	2.78	21.25	1.11
3.083	1.02	9.167	2.59	15.250	2.78	21.33	1.11
3.167	1.02	9.250	2.59	15.333	2.78	21.42	1.11
3.250	1.02	9.333	2.97	15.417	2		

CALIB
STANDHYD (@027)
ID= 1 DT= 5.0 min

Area (ha)= 0.71
Total Imp(X)= 73.50 Dir. Conn.(%)= 67.00

IMPERVIOUS PERVIOUS (I)
(ha)= 0.52 0.19
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 68.80 40.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.48	12.250	113.42
0.167	0.00	6.250	1.48	12.333	13.36
0.250	0.00	6.333	1.67	12.417	13.34
0.333	1.02	6.417	1.67	12.500	13.34
0.417	1.02	6.500	1.67	12.583	13.34
0.500	1.02	6.583	1.67	12.667	13.34
0.583	1.02	6.667	1.67	12.750	13.34
0.667	1.02	6.750	1.67	12.833	6.86
0.750	1.02	6.833	1.67	12.917	6.86
0.833	1.02	6.917	1.67	13.000	6.86
0.917	1.02	7.000	1.67	13.083	6.86
1.000	1.02	7.083	1.67	13.167	6.86
1.083	1.02	7.167	1.67	13.250	6.86
1.167	1.02	7.250	1.67	13.333	5.00
1.250	1.02	7.333	2.04	13.417	5.00
1.333	1.02	7.417	2.04	13.500	5.00
1.417	1.02	7.500	2.04	13.583	5.00
1.500	1.02	7.583	2.04	13.667	5.00
1.583	1.02	7.667	2.04	13.750	5.00
1.667	1.02	7.750	2.04	13.833	3.89
1.750	1.02	7.833	2.04	13.917	3.89
1.833	1.02	7.917	2.04	14.000	3.89
1.917	1.02	8.000	2.04	14.083	3.89
2.000	1.02	8.083	2.04	14.167	3.89
2.083	1.02	8.167	2.04	14.250	3.89
2.167	1.02	8.250	2.04	14.333	2.78
2.250	1.02	8.333	2.41	14.417	2.78
2.333	1.20	8.417	2.41	14.500	2.78
2.417	1.20	8.500	2.41	14.583	2.78
2.500	1.20	8.583	2.41	14.667	2.78
2.583	1.20	8.667	2.41	14.750	2.78
2.667	1.20	8.750	2.41	14.833	2.78

3.750	1.20	9.833	3.34	15.917	2.78
3.833	1.20	9.917	3.34	16.000	2.78
3.917	1.20	10.000	3.34	16.083	2.78
4.000	1.20	10.083	3.34	16.167	2.78
4.083	1.20	10.167	3.34	16.250	2.78
4.167	1.20	10.250	3.34	16.333	1.67
4.250	1.20	10.333	4.26	16.417	1.67
4.333	1.48	10.417	4.26	16.500	1.67
4.417	1.48	10.500	4.26	16.583	1.67
4.500	1.48	10.583	4.26	16.667	1.67
4.583	1.48	10.667	4.26	16.750	1.67
4.667	1.48	10.750	4.26	16.833	1.67
4.750	1.48	10.833	5.74	16.917	1.67
4.833	1.48	10.917	5.74	17.000	1.67
4.917	1.48	11.000	5.74	17.083	1.67
5.000	1.48	11.083	5.74	17.167	1.67
5.083	1.48	11.167	5.74	17.250	1.67
5.167	1.48	11.250	5.74	17.333	1.67
5.250	1.48	11.333	8.90	17.417	1.67
5.333	1.48	11.417	8.90	17.500	1.67
5.417	1.48	11.500	8.90	17.583	1.67
5.500	1.48	11.583	8.90	17.667	1.67
5.583	1.48	11.667	8.90	17.750	1.67
5.667	1.48	11.750	8.90	17.833	1.67
5.750	1.48	11.833	27.43	17.917	1.67
5.833	1.48	11.917	27.43	18.000	1.67
5.917	1.48	12.000	27.43	18.083	1.67
6.000	1.48	12.083	113.41	18.167	1.67
6.083	1.48	12.167	113.42	18.250	1.67

Max. Eff. Inten. (mm/hr)= 113.42
over (min)= 5.00
Storage Coeff. (min)= 5.04 (ii)
Unit Hyd. Tpeak (min)= 5.00
Unit Hyd. peak (cms)= 0.21

PEAK FLOW (cms)= 3.16
TIME TO PEAK (hrs)= 12.25
RUNOFF VOLUME (mm)= 91.66
TOTAL RAINFALL (mm)= 92.66
RUNOFF COEFFICIENT = 0.99

TOTALS
3.812 (iii)
12.25
73.83
92.66
0.80

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES: CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RUNOFF VOLUME (mm)= 91.66
TOTAL RAINFALL (mm)= 92.66
RUNOFF COEFFICIENT = 0.99

- ***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES: CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (@025)
Inlet Cap.= 0.156
#of Inlets= 0.1
Total(cms)= 0.1

TOTAL HYD. (ID= 1): 0.71 0.19 12.25 76.48

MAJOR SYS. (ID= 2): 0.02 0.03 12.25 76.48
MINOR SYS. (ID= 3): 0.69 0.16 12.17 76.48

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0024)

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)

INFLOW : ID= 9 (@025) 0.69 0.16 12.17 76.48
OUTFLOW: ID= 2 (@024) 0.69 0.16 12.17 76.48

ADD HYD (@0357)
1 + 2 = 3

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)

ID1 = 1 (@024): 0.69 0.156 12.17 76.48
+ ID2 = 2 (@035): 1.56 0.314 12.25 65.90
ID = 3 (@357): 2.25 0.471 12.25 69.15

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

2.750	1.20	9.833	2.59	14.917	2.78
2.833	1.20	9.917	2.59	15.000	2.78
2.917	1.20	10.000	2.59	15.083	2.78
3.000	1.20	10.083	2.59	15.167	2.78
3.083	1.20	10.167	2.59	15.250	2.78
3.167	1.20	10.250	2.59	15.333	2.78
3.250	1.20	10.333	2.97	15.417	2.78
3.333	1.20	10.417	2.97	15.500	2.78
3.417	1.20	10.500	2.97	15.583	2.78
3.500	1.20	10.583	2.97	15.667	2.78
3.583	1.20	10.667	2.97	15.750	2.78
3.667	1.20	10.750	2.97	15.833	2.78
3.750	1.20	10.833	3.34	15.917	2.78
3.833	1.20	10.917	3.34	16.000	2.78
3.917	1.20	11.000	3.34	16.083	2.78
4.000	1.20	11.083	3.34	16.167	2.78
4.083	1.20	11.167	3.34	16.250	2.78
4.167	1.20	11.250	3.34	16.333	1.67
4.250	1.20	11.333	4.26	16.417	1.67
4.333	1.48	11.417	4.26	16.500	1.67
4.417	1.48	11.500	4.26	16.583	1.67
4.500	1.48	11.583	4.26	16.667	1.67
4.583	1.48	11.667	4.26	16.750	1.67
4.667	1.48	11.750	4.26	16.833	1.67
4.750	1.48	11.833	5.74	16.917	1.67
4.833	1.48	11.917	5.74	17.000	1.67
4.917	1.48	12.000	5.74	17.083	1.67
5.000	1.48	12.083	5.74	17.167	1.67
5.083	1.48	12.167	5.74	17.250	1.67
5.167	1.48	12.250	8.90	17.333	1.67
5.250	1.48	12.333	8.90	17.417	1.67
5.333	1.48	12.417	8.90	17.500	1.67
5.417	1.48	12.500	8.90	17.583	1.67
5.500	1.48	12.583	8.90	17.667	1.67
5.583	1.48	12.667	8.90	17.750	1.67
5.667	1.48	12.750	8.90	17.833	1.67
5.750	1.48	12.833	27.43	17.917	1.67
5.833	1.48	12.917	27.43	18.000	1.67
5.917	1.48	13.000	27.43	18.083	1.67
6.000	1.48	13.083	113.41	18.167	1.67
6.083	1.48	13.167	113.42	18.250	1.67

Max. Eff. Inten. (mm/hr)= 113.42
over (min)= 5.00
Storage Coeff. (min)= 1.94 (ii)
Unit Hyd. Tpeak (min)= 5.00
Unit Hyd. peak (cms)= 0.31

PEAK FLOW (cms)= 0.15
TIME TO PEAK (hrs)= 12.25

TOTALS
0.185 (iii)
12.25

0.083	0.00	6.167	1.48	12.250	113.42
0.167	0.00	6.250	1.48	12.333	13.36
0.250	0.00	6.333	1.67	12.417	13.34
0.333	1.02	6.417	1.67	12.500	13.34
0.417	1.02	6.500	1.67	12.583	13.34
0.500	1.02	6.583	1.67	12.667	13.34
0.583	1.02	6.667	1.67	12.750	13.34
0.667	1.02	6.750	1.67	12.833	6.86
0.750	1.02	6.833	1.67	12.917	6.86
0.833	1.02	6.917	1.67	13.000	6.86
0.917	1.02	7.000	1.67	13.083	6.86
1.000	1.02	7.083	1.67	13.167	6.86
1.083	1.02	7.167	1.67	13.250	6.86
1.167	1.02	7.250	1.67	13.333	5.00
1.250	1.02	7.333	2.04	13.417	5.00
1.333	1.02	7.417	2.04	13.500	5.00
1.417	1.02	7.500	2.04	13.583	5.00
1.500	1.02	7.583	2.04	13.667	5.00
1.583	1.02	7.667	2.04	13.750	5.00
1.667	1.02	7.750	2.04	13.833	3.89
1.750	1.02	7.833	2.04	13.917	3.89
1.833	1.02	7.917	2.04	14.000	3.89
1.917	1.02	8.000	2.04	14.083	3.89
2.000	1.02	8.083	2.04	14.167	3.89
2.083	1.02	8.167	2.04	14.250	3.89
2.167	1.02	8.250	2.04	14.333	2.78
2.250	1.02	8.333	2.41	14.417	2.78
2.333	1.20	8.417	2.41	14.500	2.78
2.417	1.20	8.500	2.41	14.583	2.78
2.500	1.20	8.583	2.41	14.667	2.78
2.583	1.20	8.667	2.41	14.750	2.78
2.667	1.20	8.750	2.41	14.833	2.78
2.750	1.20	8.833	2.59	14.917	2.78
2.833	1.20	8.917	2.59	15.000	2.78
2.917	1.20	9.000	2.59	15.083	2.78
3.000	1.20	9.083	2.59	15.167	2.78
3.083	1.20	9.167	2.59	15.250	2.78
3.167	1.20	9.250	2.59	15.333	2.78
3.250	1.20	9.333	2.97	15.417	2.78
3.333	1.20	9.417	2.97	15.500	2.78
3.417	1.20	9.500	2.97	15.583	2.78
3.500	1.20	9.583	2.97	15.667	2.78
3.583	1.20	9.667	2.97	15.750	2.78
3.667	1.20	9.750	2.97	15.833	2.78
3.750	1.20	9.833	3.34	15.917	2.78
3.833	1.20	9.917	3.34	16.000	2.78
3.917	1.20	10.000	3.34	16.083	2.78
4.000	1.20	10.083	3.34	16.167	2.78
4.083	1.20	10.167	3.34	16.250	2.78
4.167	1.20	10.250	3.34	16.333	1.67

ADD HYD (@0357)
3 + 2 = 1

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)

ID1 = 3 (@357): 2.25 0.471 12.25 69.15
+ ID2 = 2 (@356): 17.13 3.812 12.25 33.83
ID = 1 (@357): 19.38 4.283 12.25 73.29

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (@358)
IN= 2---> OUT= 1
DT= 5.0 min

OVERFLOW IS OFF

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.7000	0.9520
0.0420	0.1820	1.3600	1.2980
0.0630	0.3560	1.8960	1.5720

ID1 = 1 (0358): 19.38 0.524 12.83 73.23
 + ID2 = 2 (0359): 0.45 0.116 12.25 75.62

 ID = 3 (0370): 19.83 0.534 12.83 73.29

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	(0360)	Area	(ha)=	1.02	Curve Number	(CN)=	74.5
NASHYD	(0360)	Ia	(mm)=	4.61	# of Linear Res.(N)=	3.00	
ID= 1 DT=	5.0 min	U.H. Tp(hrs)=	0.44				

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.48	12.250	113.42
0.167	0.00	6.250	1.48	12.333	13.36
0.250	0.00	6.333	1.67	12.417	13.34
0.333	1.02	6.417	1.67	12.500	13.34
0.417	1.02	6.500	1.67	12.583	13.34
0.500	1.02	6.583	1.67	12.667	13.34
0.583	1.02	6.667	1.67	12.750	13.34
0.667	1.02	6.750	1.67	12.833	6.86
0.750	1.02	6.833	1.67	12.917	6.86
0.833	1.02	6.917	1.67	13.000	6.86
0.917	1.02	7.000	1.67	13.083	6.86
1.000	1.02	7.083	1.67	13.167	6.86
1.083	1.02	7.167	1.67	13.250	6.86
1.167	1.02	7.250	1.67	13.333	5.00
1.250	1.02	7.333	2.04	13.417	5.00
1.333	1.02	7.417	2.04	13.500	5.00
1.417	1.02	7.500	2.04	13.583	5.00
1.500	1.02	7.583	2.04	13.667	5.00
1.583	1.02	7.667	2.04	13.750	5.00
1.667	1.02	7.750	2.04	13.833	3.89
1.750	1.02	7.833	2.04	13.917	3.89
1.833	1.02	7.917	2.04	14.000	3.89
1.917	1.02	8.000	2.04	14.083	3.89
2.000	1.02	8.083	2.04	14.167	3.89
2.083	1.02	8.167	2.04	14.250	3.89
2.167	1.02	8.250	2.04	14.333	2.78
2.250	1.02	8.333	2.41	14.417	2.78
2.333	1.20	8.417	2.41	14.500	2.78
2.417	1.20	8.500	2.41	14.583	2.78
2.500	1.20	8.583	2.41	14.667	2.78
2.583	1.20	8.667	2.41	14.750	2.78

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	(0018)	Area	(ha)=	0.78	
STANDHYD	(0018)	Total Imp(%)=	20.00	Dir. Conn.(%)=	15.00
ID= 1 DT=	5.0 min				

Surface Area	(ha)=	0.16	0.62
Dep. Storage	(mm)=	5.00	5.00
Average Slope	(%)=	1.00	2.00
Length	(m)=	72.11	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.48	12.250	113.42
0.167	0.00	6.250	1.48	12.333	13.36
0.250	0.00	6.333	1.67	12.417	13.34
0.333	1.02	6.417	1.67	12.500	13.34
0.417	1.02	6.500	1.67	12.583	13.34
0.500	1.02	6.583	1.67	12.667	13.34
0.583	1.02	6.667	1.67	12.750	13.34
0.667	1.02	6.750	1.67	12.833	6.86
0.750	1.02	6.833	1.67	12.917	6.86
0.833	1.02	6.917	1.67	13.000	6.86
0.917	1.02	7.000	1.67	13.083	6.86
1.000	1.02	7.083	1.67	13.167	6.86
1.083	1.02	7.167	1.67	13.250	6.86
1.167	1.02	7.250	1.67	13.333	5.00
1.250	1.02	7.333	2.04	13.417	5.00
1.333	1.02	7.417	2.04	13.500	5.00
1.417	1.02	7.500	2.04	13.583	5.00
1.500	1.02	7.583	2.04	13.667	5.00
1.583	1.02	7.667	2.04	13.750	5.00
1.667	1.02	7.750	2.04	13.833	3.89
1.750	1.02	7.833	2.04	13.917	3.89
1.833	1.02	7.917	2.04	14.000	3.89
1.917	1.02	8.000	2.04	14.083	3.89
2.000	1.02	8.083	2.04	14.167	3.89
2.083	1.02	8.167	2.04	14.250	3.89
2.167	1.02	8.250	2.04	14.333	2.78
2.250	1.02	8.333	2.41	14.417	2.78
2.333	1.20	8.417	2.41	14.500	2.78

Unit Hyd. peak (cms)=	0.31	0.10	
PEAK FLOW (cms)=	0.04	0.08	0.107 (iii)
TIME TO PEAK (hrs)=	12.25	12.33	12.25
RUNOFF VOLUME (mm)=	87.66	44.99	51.38
TOTAL RAINFALL (mm)=	92.66	92.66	92.66
RUNOFF COEFFICIENT =	0.95	0.49	0.55

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
 ***** WARNING: FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
 YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

[Junction Command(0026)]

INFLOW: ID= 8 (0025)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
OUTFLOW: ID= 2 (0026)	0.02	0.03	12.25	76.48
	0.02	0.03	12.25	76.48

[ADD HYD (0361)]

1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1 = 1 (0018)	0.78	0.107	12.25	51.38
+ ID2 = 2 (0026)	0.02	0.029	12.25	76.48
ID = 3 (0361)	0.80	0.136	12.25	51.98

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

[ADD HYD (0361)]

3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1 = 3 (0361)	0.80	0.136	12.25	51.98
+ ID2 = 2 (0360)	1.02	0.067	12.58	44.30

4.250	1.20	10.333	4.26	16.417	1.67	22.50	1.11
4.333	1.48	10.417	4.26	16.500	1.67	22.58	1.11
4.417	1.48	10.500	4.26	16.583	1.67	22.67	1.11
4.500	1.48	10.583	4.26	16.667	1.67	22.75	1.11
4.583	1.48	10.667	4.26	16.750	1.67	22.83	1.11
4.667	1.48	10.750	4.26	16.833	1.67	22.92	1.11
4.750	1.48	10.833	5.74	16.917	1.67	23.00	1.11
4.833	1.48	10.917	5.74	17.000	1.67	23.08	1.11
4.917	1.48	11.000	5.74	17.083	1.67	23.17	1.11
5.000	1.48	11.083	5.74	17.167	1.67	23.25	1.11
5.083	1.48	11.167	5.74	17.250	1.67	23.33	1.11
5.167	1.48	11.250	5.74	17.333	1.67	23.42	1.11
5.250	1.48	11.333	8.90	17.417	1.67	23.50	1.11
5.333	1.48	11.417	8.90	17.500	1.67	23.58	1.11
5.417	1.48	11.500	8.90	17.583	1.67	23.67	1.11
5.500	1.48	11.583	8.90	17.667	1.67	23.75	1.11
5.583	1.48	11.667	8.90	17.750	1.67	23.83	1.11
5.667	1.48	11.750	8.90	17.833	1.67	23.92	1.11
5.750	1.48	11.833	27.43	17.917	1.67	24.00	1.11
5.833	1.48	11.917	27.43	18.000	1.67	24.08	1.11
5.917	1.48	12.000	27.43	18.083	1.67	24.17	1.11
6.000	1.48	12.083	113.41	18.167	1.67	24.25	1.11
6.083	1.48	12.167	113.42	18.250	1.67		

Max. Eff. Inten. (mm/hr)= 113.42 *****
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 1.69 (ii) 6.50 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.32 0.14

PEAK FLOW (cms)=	0.09	0.02	0.116 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	
RUNOFF VOLUME (mm)=	91.66	44.36	75.62
TOTAL RAINFALL (mm)=	92.66	92.66	92.66
RUNOFF COEFFICIENT =	0.99	0.48	0.82

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 71.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

[ADD HYD (0370)]

1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)

Unit Hyd Qpeak (cms)= 0.089

PEAK FLOW (cms)=	0.067 (i)
TIME TO PEAK (hrs)=	12.583
RUNOFF VOLUME (mm)=	44.300
TOTAL RAINFALL (mm)=	92.660
RUNOFF COEFFICIENT =	0.478

2.417	1.20	8.500	2.41	14.583	2.78	20.67	1.11
2.500	1.20	8.583	2.41	14.667	2.78	20.75	1.11
2.583	1.20	8.667	2.41	14.750	2.78	20.83	1.11
2.667	1.20	8.750	2.41	14.833	2.78	20.92	1.11
2.750	1.20	8.833	2.59	14.917	2.78	21.00	1.11
2.833	1.20	8.917	2.59	15.000	2.78	21.08	1.11
2.917	1.20	9.000	2.59	15.083	2.78	21.17	1.11
3.000	1.20	9.083	2.59	15.167	2.78	21.25	1.11
3.083	1.20	9.167	2.59	15.250	2.78	21.33	1.11
3.167	1.20	9.250	2.59	15.333	2.78	21.42	1.11
3.250	1.20	9.333	2.97	15.417	2.78	21.50	1.11
3.333	1.20	9.417	2.97	15.500	2.78	21.58	1.11
3.417	1.20	9.500	2.97	15.583	2.78	21.67	1.11
3.500	1.20	9.583	2.97	15.667	2.78	21.75	1.11
3.583	1.20	9.667	2.97	15.750	2.78	21.83	1.11
3.667	1.20	9.750	2.97	15.833	2.78	21.92	1.11
3.750	1.20	9.833	3.34	15.917	2.78	22.00	1.11
3.833	1.20	9.917	3.34	16.000	2.78	22.08	1.11
3.917	1.20	10.000	3.34	16.083	2.78	22.17	1.11
4.000	1.20	10.083	3.34	16.167	2.78	22.25	1.11
4.083	1.20	10.167	3.34	16.250	2.78	22.33	1.11
4.167	1.20	10.250	3.34	16.333	1.67	22.42	1.11
4.250	1.20	10.333	4.26	16.417	1.67	22.50	1.11
4.333	1.20	10.417	4.26	16.500	1.67	22.58	1.11
4.417	1.20	10.500	4.26	16.583	1.67	22.67	1.11
4.500	1.20	10.583	4.26	16.667	1.67	22.75	1.11
4.583	1.20	10.667	4.26	16.750			

2.417	1.20	8.500	2.41	14.583	2.78	20.67	1.11
2.500	1.20	8.583	2.41	14.667	2.78	20.75	1.11
2.583	1.20	8.667	2.41	14.750	2.78	20.83	1.11
2.667	1.20	8.750	2.41	14.833	2.78	20.92	1.11
2.750	1.20	8.833	2.59	14.917	2.78	21.00	1.11
2.833	1.20	8.917	2.59	15.000	2.78	21.08	1.11
2.917	1.20	9.000	2.59	15.083	2.78	21.17	1.11
3.000	1.20	9.083	2.59	15.167	2.78	21.25	1.11
3.083	1.20	9.167	2.59	15.250	2.78	21.33	1.11
3.167	1.20	9.250	2.59	15.333	2.78	21.42	1.11
3.250	1.20	9.333	2.97	15.417	2.78	21.50	1.11
3.333	1.20	9.417	2.97	15.500	2.78	21.58	1.11
3.417	1.20	9.500	2.97	15.583	2.78	21.67	1.11
3.500	1.20	9.583	2.97	15.667	2.78	21.75	1.11
3.583	1.20	9.667	2.97	15.750	2.78	21.83	1.11
3.667	1.20	9.750	2.97	15.833	2.78	21.92	1.11
3.750	1.20	9.833	3.34	15.917	2.78	22.00	1.11
3.833	1.20	9.917	3.34	16.000	2.78	22.08	1.11
3.917	1.20	10.000	3.34	16.083	2.78	22.17	1.11
4.000	1.20	10.083	3.34	16.167	2.78	22.25	1.11
4.083	1.20	10.167	3.34	16.250	2.78	22.33	1.11
4.167	1.20	10.250	3.34	16.333	1.67	22.42	1.11
4.250	1.20	10.333	4.26	16.417	1.67	22.50	1.11
4.333	1.48	10.417	4.26	16.500	1.67	22.58	1.11
4.417	1.48	10.500	4.26	16.583	1.67	22.67	1.11
4.500	1.48	10.583	4.26	16.667	1.67	22.75	1.11
4.583	1.48	10.667	4.26	16.750	1.67	22.83	1.11
4.667	1.48	10.750	4.26	16.833	1.67	22.92	1.11
4.750	1.48	10.833	5.74	16.917	1.67	23.00	1.11
4.833	1.48	10.917	5.74	17.000	1.67	23.08	1.11
4.917	1.48	11.000	5.74	17.083	1.67	23.17	1.11
5.000	1.48	11.083	5.74	17.167	1.67	23.25	1.11
5.083	1.48	11.167	5.74	17.250	1.67	23.33	1.11
5.167	1.48	11.250	5.74	17.333	1.67	23.42	1.11
5.250	1.48	11.333	8.90	17.417	1.67	23.50	1.11
5.333	1.48	11.417	8.90	17.500	1.67	23.58	1.11
5.417	1.48	11.500	8.90	17.583	1.67	23.67	1.11
5.500	1.48	11.583	8.90	17.667	1.67	23.75	1.11
5.583	1.48	11.667	8.90	17.750	1.67	23.83	1.11
5.667	1.48	11.750	8.90	17.833	1.67	23.92	1.11
5.750	1.48	11.833	27.43	17.917	1.67	24.00	1.11
5.833	1.48	11.917	27.43	18.000	1.67	24.08	1.11
5.917	1.48	12.000	27.43	18.083	1.67	24.17	1.11
6.000	1.48	12.083	113.41	18.167	1.67	24.25	1.11
6.083	1.48	12.167	113.42	18.250	1.67	24.33	1.11

Max. Eff. Inten. (mm/hr) = 113.42 59.47
 over (min) = 5.00 15.00
 Storage Coeff. (min) = 1.69 (ii) 10.38 (ii)
 Unit Hyd. Tpeak (min) = 5.00 15.00

ID = 1 (0361): 1.82 0.174 12.25 47.68

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

[CALIB]			
STANDHYD (0015)	Area (ha)=	0.45	
ID= 1 DT= 5.0 min	Total Imp(%)=	37.40	Dir. Conn.(%) = 37.40

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	0.17	0.28	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)	1.00	2.00	
Length (m)=	54.77	40.00	
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.48	12.250	113.42	18.33	1.67		
0.167	0.00	6.250	1.48	12.333	13.34	18.50	1.67		
0.250	0.00	6.333	1.67	12.417	13.34	18.50	1.67		
0.333	1.02	6.417	1.67	12.500	13.34	18.58	1.67		
0.417	1.02	6.500	1.67	12.583	13.34	18.67	1.67		
0.500	1.02	6.583	1.67	12.667	13.34	18.75	1.67		
0.583	1.02	6.667	1.67	12.750	13.34	18.83	1.67		
0.667	1.02	6.750	1.67	12.833	6.86	19.00	1.67		
0.750	1.02	6.833	1.67	12.917	6.86	19.00	1.67		
0.833	1.02	6.917	1.67	13.000	6.86	19.08	1.67		
0.917	1.02	7.000	1.67	13.083	6.86	19.17	1.67		
1.000	1.02	7.083	1.67	13.167	6.86	19.25	1.67		
1.083	1.02	7.167	1.67	13.250	6.86	19.33	1.67		
1.167	1.02	7.250	1.67	13.333	5.00	19.42	1.67		
1.250	1.02	7.333	2.04	13.417	5.00	19.50	1.67		
1.333	1.02	7.417	2.04	13.500	5.00	19.58	1.67		
1.417	1.02	7.500	2.04	13.583	5.00	19.67	1.67		
1.500	1.02	7.583	2.04	13.667	5.00	19.75	1.67		
1.583	1.02	7.667	2.04	13.750	5.00	19.83	1.67		
1.667	1.02	7.750	2.04	13.833	3.89	19.92	1.67		
1.750	1.02	7.833	2.04	13.917	3.89	20.00	1.67		
1.833	1.02	7.917	2.04	14.000	3.89	20.08	1.67		
1.917	1.02	8.000	2.04	14.083	3.89	20.17	1.67		
2.000	1.02	8.083	2.04	14.167	3.89	20.25	1.67		
2.083	1.02	8.167	2.04	14.250	3.89	20.33	1.11		
2.167	1.02	8.250	2.04	14.333	2.78	20.42	1.11		
2.250	1.02	8.333	2.41	14.417	2.78	20.50	1.11		
2.333	1.20	8.417	2.41	14.500	2.78	20.58	1.11		

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*****
V V I SSSSS U U A L (v 6.2.2008)
V V I SS U U A A A L
V V I SS U U A A L
V V I SS U U A A L
V V I SSSSS UUUU A A LLLL
000 TTTT TTTT H H Y Y M M O O O T M
O O T T H H Y Y M M O O O
O O T T H H Y Y M M O O O
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**** D E T A I L E D O U T P U T ****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voind.dat
Output filename:
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DATE: 08-15-2023 TIME: 08:21:47

USER:

COMMENTS:

*****
** SIMULATION : J. 25yr 24hr 15min SCS Type I **
*****

[ READ STORM ] Filename: C:\Users\kswain\AppData\Local\Temp\

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Unit Hyd. peak (cms)=	0.32	0.09	*TOTALS*
PEAK FLOW (cms)=	0.05	0.03	0.079 (iii)
TIME TO PEAK (hrs)=	12.25	12.33	12.25
RUNOFF VOLUME (mm)=	91.66	40.15	59.40
TOTAL RAINFALL (mm)=	92.66	92.66	92.66
RUNOFF COEFFICIENT =	0.99	0.43	0.64

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 71.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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[ Junction Command(0029) ]
AREA OPEAK TPEAK R.V.
(ha) (cms) (hrs)
INFLOW : ID= 2( 0015) 0.45 0.08 12.25 59.40
OUTFLOW: ID= 2( 0029) 0.45 0.08 12.25 59.40

```

0.500	1.20	6.583	1.96	12.667	15.67	18.75	1.96
0.583	1.20	6.667	1.96	12.750	15.67	18.83	1.96
0.667	1.20	6.750	1.96	12.833	8.05	18.92	1.96
0.750	1.20	6.833	1.96	12.917	8.05	19.00	1.96
0.833	1.20	6.917	1.96	13.000	8.05	19.08	1.96
0.917	1.20	7.000	1.96	13.083	8.05	19.17	1.96
1.000	1.20	7.083	1.96	13.167	8.05	19.25	1.96
1.083	1.20	7.167	1.96	13.250	8.05	19.33	1.96
1.167	1.20	7.250	1.96	13.333	5.88	19.42	1.96
1.250	1.20	7.333	2.39	13.417	5.88	19.50	1.96
1.333	1.20	7.417	2.39	13.500	5.88	19.58	1.96
1.417	1.20	7.500	2.39	13.583	5.88	19.67	1.96
1.500	1.20	7.583	2.39	13.667	5.88	19.75	1.96
1.583	1.20	7.667	2.39	13.750	5.88	19.83	1.96
1.667	1.20	7.750	2.39	13.833	4.57	19.92	1.96
1.750	1.20	7.833	2.39	13.917	4.57	20.00	1.96
1.833	1.20	7.917	2.39	14.000	4.57	20.08	1.96
1.917	1.20	8.000	2.39	14.083	4.57	20.17	1.96
2.000	1.20	8.083	2.39	14.167	4.57	20.25	1.96
2.083	1.20	8.167	2.39	14.250	4.57	20.33	1.31
2.167	1.20	8.250	2.39	14.333	3.26	20.42	1.31
2.250	1.20	8.333	2.83	14.417	3.26	20.50	1.31
2.333	1.41	8.417	2.83	14.500	3.26	20.58	1.31
2.417	1.41	8.500	2.83	14.583	3.26	20.67	1.31
2.500	1.41	8.583	2.83	14.667	3.26	20.75	1.31
2.583	1.41	8.667	2.83	14.750	3.26	20.83	1.31
2.667	1.41	8.750	2.83	14.833	3.26	20.92	1.31
2.750	1.41	8.833	3.05	14.917	3.26	21.00	1.31
2.833	1.41	8.917	3.05	15.000	3.26	21.08	1.31
2.917	1.41	9.000	3.05	15.083	3.26	21.17	1.31
3.000	1.41	9.083	3.05	15.167	3.26	21.25	1.31
3.083	1.41	9.167	3.05	15.250	3.26	21.33	1.31
3.167	1.41	9.250	3.05	15.333	3.26	21.42	1.31
3.250	1.41	9.333	3.48	15.417	3.26	21.50	1.31
3.333	1.41	9.417	3.48	15.500	3.26	21.58	1.31
3.417	1.41	9.500	3.48	15.583	3.26	21.67	1.31
3.500	1.41	9.583	3.48	15.667	3.26	21.75	1.31
3.583	1.41	9.667	3.48	15.750	3.26	21.83	1.31
3.667	1.41	9.750	3.48	15.833	3.26	21.92	1.31
3.750	1.41	9.833	3.92	15.917	3.26	22.00	1.31
3.833	1.41	9.917	3.92	16.000	3.26	22.08	1.31
3.917	1.41	10.000	3.92	16.083	3.26	22.17	1.31
4.000	1.41	10.083	3.92	16.167	3.26	22.25	1.31
4.083	1.41	10.167	3.92	16.250	3.26	22.33	1.31
4.167	1.41	10.250	3.92	16.333	3.26	22.42	1.31
4.250	1.41	10.333	5.00	16.417	1.96	22.50	1.31
4.333	1.41	10.417	5.00	16.500	1.96	22.58	1.31
4.417	1.74	10.500	5.00	16.583	1.96	22.67	1.31
4.500	1.74	10.583	5.00	16.667	1.96	22.75	1.31
4.583	1.74	10.667	5.00	16.750	1.96	22.83	1.31

0.250	0.00	6.333	1.96	12.417	15.67	18.50	1.96
0.333	1.20	6.417	1.96	12.500	15.67	18.58	1.96
0.417	1.20	6.500	1.96	12.583	15.67	18.67	1.96
0.500	1.20	6.583	1.96	12.667	15.67	18.75	1.96
0.583	1.20	6.667	1.96	12.750	15.67	18.83	1.96
0.667	1.20	6.750	1.96	12.833	8.85	18.92	1.96
0.750	1.20	6.833	1.96	12.917	8.85	19.00	1.96
0.833	1.20	6.917	1.96	13.000	8.85	19.08	1.96
0.917	1.20	7.000	1.96	13.083	8.85	19.17	1.96
1.000	1.20	7.083	1.96	13.167	8.85	19.25	1.96
1.083	1.20	7.167	1.96	13.250	8.85	19.33	1.96
1.167	1.20	7.250	1.96	13.333	5.88	19.42	1.96
1.250	1.20	7.333	1.96	13.417	5.88	19.50	1.96
1.333	1.20	7.417	2.39	13.500	5.88	19.58	1.96
1.417	1.20	7.500	2.39	13.583	5.88	19.67	1.96
1.500	1.20	7.583	2.39	13.667	5.88	19.75	1.96
1.583	1.20	7.667	2.39	13.750	5.88	19.83	1.96
1.667	1.20	7.750	2.39	13.833	4.57	19.92	1.96
1.750	1.20	7.833	2.39	13.917	4.57	20.00	1.96
1.833	1.20	7.917	2.39	14.000	4.57	20.08	1.96
1.917	1.20	8.000	2.39	14.083	4.57	20.17	1.96
2.000	1.20	8.083	2.39	14.167	4.57	20.25	1.96
2.083	1.20	8.167	2.39	14.250	4.57	20.33	1.31
2.167	1.20	8.250	2.39	14.333	3.26	20.42	1.31
2.250	1.20	8.333	2.83	14.417	3.26	20.50	1.31
2.333	1.41	8.417	2.83	14.500	3.26	20.58	1.31
2.417	1.41	8.500	2.83	14.583	3.26	20.67	1.31
2.500	1.41	8.583	2.83	14.667	3.26	20.75	1.31
2.583	1.41	8.667	2.83	14.750	3.26	20.83	1.31
2.667	1.41	8.750	2.83	14.833	3.26	20.92	1.31
2.750	1.41	8.833	3.05	14.917	3.26	21.00	1.31
2.833	1.41	8.917	3.05	15.000	3.26	21.08	1.31
2.917	1.41	9.000	3.05	15.083	3.26	21.17	1.31
3.000	1.41	9.083	3.05	15.167	3.26	21.25	1.31
3.083	1.41	9.167	3.05	15.250	3.26	21.33	1.31
3.167	1.41	9.250	3.05	15.333	3.26	21.42	1.31
3.250	1.41	9.333	3.48	15.417	3.26	21.50	1.31
3.333	1.41	9.417	3.48	15.500	3.26	21.58	1.31
3.417	1.41	9.500	3.48	15.583	3.26	21.67	1.31
3.500	1.41	9.583	3.48	15.667	3.26	21.75	1.31
3.583	1.41	9.667	3.48	15.750	3.26	21.83	1.31
3.667	1.41	9.750	3.48	15.833	3.26	21.92	1.31
3.750	1.41	9.833	3.92	15.917	3.26	22.00	1.31
3.833	1.41	9.917	3.92	16.000	3.26	22.08	1.31
3.917	1.41	10.000	3.92	16.083	3.26	22.17	1.31
4.000	1.41	10.083	3.92	16.167	3.26	22.25	1.31
4.083	1.41	10.167	3.92	16.250	3.26	22.33	1.31
4.167	1.41	10.250	3.92	16.333	1.96	22.42	1.31
4.250	1.41	10.333	5.00	16.417	1.96	22.50	1.31
4.333	1.74	10.417	5.00	16.500	1.96	22.58	1.31

Unit Hyd Qpeak (cms) = 0.111

PEAK FLOW (cms) = 0.000 (i)

TIME TO PEAK (hrs) = 12.333

RUNOFF VOLUME (mm) = 51.91

TOTAL RAINFALL (mm) = 108.800

RUNOFF COEFFICIENT = 0.492

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--- CALIB ---
 STANDHYD (0002) | Area (ha) = 3.32
 | ID= 1 DT= 5.0 min | Total Imp(%) = 55.00 Dir. Conn.(%) = 55.00

IMPERVIOUS PERVIOUS (i)

Surface Area (ha) = 1.83 1.49

Dep. Storage (mm) = 1.00 5.00

Average Slope (%) = 1.00 2.00

Length (m) = 148.77 40.00

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.74	12.250	133.17
0.167	0.00	6.250	1.74	12.333	15.67
				18.42	1.96

0.1000	0.0950	0.2000	0.1600
0.1100	0.1120	0.0000	0.0000

AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)

INFLOW: ID= 2 (0002) 3.320 0.849 12.25 82.65

OUTFLOW: ID= 1 (0004) 3.320 0.119 12.83 82.49

PEAK FLOW REDUCTION [Quot;Qin](%) = 14.05

TIME SHIFT OF PEAK FLOW (min) = 35.00

MAXIMUM STORAGE USED (ha.m.) = 0.1355

--- ADD HYD (0003) ---

1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1 = 1 (0001):	0.50	0.000	12.33	53.58
+ ID2 = 2 (0004):	3.32	0.119	12.83	82.49
-----	-----	-----	-----	-----
ID = 3 (0003):	3.90	0.193	12.33	78.19

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

--- CALIB ---
 STANDHYD (0355) | Area (ha) = 1.56
 | ID= 1 DT= 5.0 min | Total Imp(%) = 50.00 Dir. Conn.(%) = 50.00

IMPERVIOUS PERVIOUS (i)

Surface Area (ha) = 0.78 0.78

Dep. Storage (mm) = 1.00 5.00

Average Slope (%) = 1.00 2.00

Length (m) = 101.98 40.00

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.74	12.250	133.17
0.167	0.00	6.250	1.74	12.333	15.68
0.250	0.00	6.333	1.96	12.417	15.67
0.333	1.20	6.417	1.96	12.500	15.67
0.417	1.20	6.500	1.96	12.583	15.67
0.500	1.20	6.583	1.96	12.667	15.67
0.583	1.20	6.667	1.96	12.750	15.67

Max.Eff.Inten.(mm/hr)= 133.17 76.76

over (min) = 5.00 15.00

Storage Coeff. (min) = 2.89 (ii) 10.74 (ii)

Unit Hyd. tpeak (min) = 5.00 15.00

Unit Hyd. peak (cms) = 0.28 0.09

PEAK FLOW (cms) = 0.67 0.30

TIME TO PEAK (hrs) = 12.25 12.33

RUNOFF VOLUME (mm) = 107.80 51.91

TOTAL RAINFALL (mm) = 108.80 108.80

RUNOFF COEFFICIENT = 0.99 0.48

0.76

TOTALS

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 71.0 Ia = Dep. Storage (Above)

(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT

(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--- RESERVOIR (0004) ---

OVERFLOW IS OFF

IN= 2 --- OUT= 1	OUTFLOW STORAGE (cms)	OUTFLOW STORAGE (ha.m.)
DT= 5.0 min	0.0000 0.0000	0.1200 0.1370
	0.0350 0.0750	0.1700 0.1500

4.833	1.74	10.917	6.75	17.000	1.96	23.08	1.31
4.917	1.74	11.000	6.75	17.083	1.96	23.17	1.31
5.000	1.74	11.083	6.75	17.167	1.96	23.25	1.31
5.083	1.74	11.167	6.75	17.250	1.96	23.33	1.31
5.167	1.74	11.250	6.75	17.333	1.96	23.42	1.31
5.250	1.74	11.333	10.44	17.417	1.96	23.50	1.31
5.333	1.74	11.417	10.44	17.500	1.96	23.58	1.31
5.417	1.74	11.500	10.44	17.583	1.96	23.67	1.31
5.500	1.74	11.583	10.44	17.667	1.96	23.75	1.31
5.583	1.74	11.667	10.44	17.750	1.96	23.83	1.31
5.667	1.74	11.750	10.44	17.833	1.96	23.92	1.31
5.750	1.74	11.833	32.20	17.917	1.96	24.00	1.31
5.833	1.74	11.917	32.20	18.000	1.96	24.08	1.31
5.917	1.74	12.000	32.20	18.083	1.96	24.17	1.31
6.000	1.74	12.083	133.16	18.167	1.96	24.25	1.31
6.083	1.74	12.167	133.17	18.250	1.96		

Max.Eff.Inten.(mm/hr)= 133.17 76.76

over (min) = 5.00 15.00

Storage Coeff. (min) = 2.31 (ii) 10.15 (ii)

Unit Hyd. tpeak (min) = 5.00 15.00

Unit Hyd. peak (cms) = 0.30 0.10

TOTALS

PEAK FLOW (cms) = 0.29 0.11

TIME TO PEAK (hrs) = 12.25 12.33

RUNOFF VOLUME (mm) = 107.80 51.91

TOTAL RAINFALL (mm) = 108.80 108.80

RUNOFF COEFFICIENT = 0.99 0.48

0.73

(iii) 0.383

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 71.0 Ia = Dep. Storage (Above)

(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT

(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--- CALIB ---
 STANDHYD (0356) | Area (ha) = 17.13
 | ID= 1 DT= 5.0 min | Total Imp(%) = 69.00 Dir. Conn.(%) = 61.00

IMPERVIOUS PERVIOUS (i)

Surface Area (ha) = 11.82 5.31

Dep. Storage (mm) = 1.00 5.00

Average Slope (%) = 1.00 2.00

Length (m) = 337.93 40.00

Mannings n = 0.013 0.250

4.667	1.74	10.750	5.00	16.833	1.96	22.92	1.31
4.750	1.74	10.833	6.75	16.917	1.96	23.00	1.31
4.833	1.74	10.917	6.75	17.000	1.96	23.08	1.31
4.917	1.74	11.000	6.75	17.083	1.96	23.17	1.31
5.000	1.74	11.083	6.75	17.167	1.96	23.25	1.31
5.083	1.74	11.167	6.75	17.250	1.96	23.33	1.31
5.167	1.74	11.250	6.75	17.333	1.96	23.42	1.31
5.250	1.74	11.333	10.44	17.417	1.96	23.50	1.31
5.333	1.74	11.417	10.44	17.500	1.96	23.58	1.31
5.417	1.74	11.500	10.44	17.583	1.96	23.67	1.31
5.500	1.74	11.583	10.44	17.667	1.96	23.75	1.31
5.583	1.74	11.667	10.44	17.750	1.96	23.83	1.31
5.667	1.74	11.750	10.44	17.833	1.96	23.92	1.31
5.750	1.74	11.833	32.20	17.917	1.96	24.00	1.31
5.833	1.74	11.917	32.20	18.000	1.96	24.08	1.31
5.917	1.74	12.000	32.20	18.083	1.96	24.17	1.31
6.000	1.74	12.083	133.16	18.167	1.96	24.25	1.31
6.083	1.74	12.167	133.17	18.250	1.96		

Unit Hyd Qpeak (cms) = 0.111

PEAK FLOW (cms) = 0.000 (i)

TIME TO PEAK (hrs) = 12.333

RUNOFF VOLUME (mm) = 51.91

TOTAL RAINFALL (mm) = 108.800

RUNOFF COEFFICIENT = 0.492

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

--- CALIB ---
 STANDHYD (0002) | Area (ha) = 3.32
 | ID= 1 DT= 5.0 min | Total Imp(%) = 55.00 Dir. Conn.(%) = 55.00

IMPERVIOUS PERVIOUS (i)

Surface Area (ha) = 1.83 1.49

Dep. Storage (mm) = 1.00 5.00

Average Slope (%) = 1.00 2.00

Length (m) = 148.77 40.00

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.74	12.250	133.17
0.167	0.00	6.250	1.74	12.333	15.67
				18.42	1.96

0.667	1.20	6.750	1.96	12.833	8.85	18.92	1.96
0.750	1.20	6.833	1.96	12.917	8.85	19.00	1.96
0.833	1.20	6.917	1.96	13.000	8.85	19.08	1.96
0.917	1.20	7.000	1.96	13.083	8.85	19.17	1.96
1.000	1.20	7.083	1.96	13.167	8.85	19.25	1.96
1.083	1.20	7.167	1.96	13.250	8.85	19.33	1.96
1.167	1.20	7.250	1.96	13.333	8.85	19.42	1.96
1.250	1.20	7.333	2.39	13.417	5.88	19.50	1.96
1.333	1.20	7.417	2.39	13.500	5.88	19.58	1.96
1.417	1.20	7.5					

3.750	1.41	9.833	3.92	15.917	3.26	22.00	1.31
3.833	1.41	9.917	3.92	16.000	3.26	22.08	1.31
3.917	1.41	10.000	3.92	16.083	3.26	22.17	1.31
4.000	1.41	10.083	3.92	16.167	3.26	22.25	1.31
4.083	1.41	10.167	3.92	16.250	3.26	22.33	1.31
4.167	1.41	10.250	3.92	16.333	3.26	22.42	1.31
4.250	1.41	10.333	3.92	16.417	3.26	22.50	1.31
4.333	1.74	10.417	5.00	16.500	1.96	22.58	1.31
4.417	1.74	10.500	5.00	16.583	1.96	22.67	1.31
4.500	1.74	10.583	5.00	16.667	1.96	22.75	1.31
4.583	1.74	10.667	5.00	16.750	1.96	22.83	1.31
4.667	1.74	10.750	5.00	16.833	1.96	22.92	1.31
4.750	1.74	10.833	5.00	16.917	1.96	23.00	1.31
4.833	1.74	10.917	6.75	17.000	1.96	23.08	1.31
4.917	1.74	11.000	6.75	17.083	1.96	23.17	1.31
5.000	1.74	11.083	6.75	17.167	1.96	23.25	1.31
5.083	1.74	11.167	6.75	17.250	1.96	23.33	1.31
5.167	1.74	11.250	6.75	17.333	1.96	23.42	1.31
5.250	1.74	11.333	10.44	17.417	1.96	23.50	1.31
5.333	1.74	11.417	10.44	17.500	1.96	23.58	1.31
5.417	1.74	11.500	10.44	17.583	1.96	23.67	1.31
5.500	1.74	11.583	10.44	17.667	1.96	23.75	1.31
5.583	1.74	11.667	10.44	17.750	1.96	23.83	1.31
5.667	1.74	11.750	10.44	17.833	1.96	23.92	1.31
5.750	1.74	11.833	12.20	17.917	1.96	24.00	1.31
5.833	1.74	11.917	12.20	18.000	1.96	24.08	1.31
5.917	1.74	12.000	12.20	18.083	1.96	24.17	1.31
6.000	1.74	12.083	13.16	18.167	1.96	24.25	1.31
6.083	1.74	12.167	13.17	18.250	1.96		

Max. Eff. Inten. (mm/hr) = 133.17 *****
 over (min) = 5.00 10.00
 Storage Coeff. (min) = 4.73 (ii) 9.53 (iii)
 Unit Hyd. Tpeak (min) = 5.00 10.00
 Unit Hyd. peak (cms) = 0.22 0.12

PEAK FLOW (cms) = 3.74 1.15 4.887 (iii)
 TIME TO PEAK (hrs) = 12.25 12.25
 RUNOFF VOLUME (mm) = 107.80 58.67 88.64
 TOTAL RAINFALL (mm) = 108.80 108.80 108.80
 RUNOFF COEFFICIENT = 0.99 0.54 0.81

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR Pervious Losses:
- CN* = 71.0 I_a = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

2.667	1.41	8.750	2.83	14.833	3.26	20.92	1.31
2.750	1.41	8.833	3.05	14.917	3.26	21.00	1.31
2.833	1.41	8.917	3.05	15.000	3.26	21.08	1.31
2.917	1.41	9.000	3.05	15.083	3.26	21.17	1.31
3.000	1.41	9.083	3.05	15.167	3.26	21.25	1.31
3.083	1.41	9.167	3.05	15.250	3.26	21.33	1.31
3.167	1.41	9.250	3.05	15.333	3.26	21.42	1.31
3.250	1.41	9.333	3.48	15.417	3.26	21.50	1.31
3.333	1.41	9.417	3.48	15.500	3.26	21.58	1.31
3.417	1.41	9.500	3.48	15.583	3.26	21.67	1.31
3.500	1.41	9.583	3.48	15.667	3.26	21.75	1.31
3.583	1.41	9.667	3.48	15.750	3.26	21.83	1.31
3.667	1.41	9.750	3.48	15.833	3.26	21.92	1.31
3.750	1.41	9.833	3.92	15.917	3.26	22.00	1.31
3.833	1.41	9.917	3.92	16.000	3.26	22.08	1.31
3.917	1.41	10.000	3.92	16.083	3.26	22.17	1.31
4.000	1.41	10.083	3.92	16.167	3.26	22.25	1.31
4.083	1.41	10.167	3.92	16.250	3.26	22.33	1.31
4.167	1.41	10.250	3.92	16.333	1.96	22.42	1.31
4.250	1.41	10.333	5.00	16.417	1.96	22.50	1.31
4.333	1.74	10.417	5.00	16.500	1.96	22.58	1.31
4.417	1.74	10.500	5.00	16.583	1.96	22.67	1.31
4.500	1.74	10.583	5.00	16.667	1.96	22.75	1.31
4.583	1.74	10.667	5.00	16.750	1.96	22.83	1.31
4.667	1.74	10.750	5.00	16.833	1.96	22.92	1.31
4.750	1.74	10.833	6.75	16.917	1.96	23.00	1.31
4.833	1.74	10.917	6.75	17.000	1.96	23.08	1.31
4.917	1.74	11.000	6.75	17.083	1.96	23.17	1.31
5.000	1.74	11.083	6.75	17.167	1.96	23.25	1.31
5.083	1.74	11.167	6.75	17.250	1.96	23.33	1.31
5.167	1.74	11.250	6.75	17.333	1.96	23.42	1.31
5.250	1.74	11.333	10.44	17.417	1.96	23.50	1.31
5.333	1.74	11.417	10.44	17.500	1.96	23.58	1.31
5.417	1.74	11.500	10.44	17.583	1.96	23.67	1.31
5.500	1.74	11.583	10.44	17.667	1.96	23.75	1.31
5.583	1.74	11.667	10.44	17.750	1.96	23.83	1.31
5.667	1.74	11.750	10.44	17.833	1.96	23.92	1.31
5.750	1.74	11.833	12.20	17.917	1.96	24.00	1.31
5.833	1.74	11.917	12.20	18.000	1.96	24.08	1.31
5.917	1.74	12.000	12.20	18.083	1.96	24.17	1.31
6.000	1.74	12.083	13.16	18.167	1.96	24.25	1.31
6.083	1.74	12.167	13.17	18.250	1.96		

Max. Eff. Inten. (mm/hr) = 133.17 *****
 over (min) = 5.00 10.00
 Storage Coeff. (min) = 1.82 (ii) 6.16 (iii)
 Unit Hyd. Tpeak (min) = 5.00 10.00
 Unit Hyd. peak (cms) = 0.32 0.15

PEAK FLOW (cms) = 0.18 0.05 0.222 (iii)

***** TOTALS*
 0.222 (iii)

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	0.167	1.74	12.250	133.17	18.33	1.96
0.167	0.00	0.250	1.74	12.333	15.68	18.42	1.96
0.250	0.00	0.333	1.96	12.417	15.67	18.50	1.96
0.333	1.20	0.417	1.96	12.500	15.67	18.58	1.96
0.417	1.20	0.500	1.96	12.583	15.67	18.67	1.96
0.500	1.20	0.583	1.96	12.667	15.67	18.75	1.96
0.583	1.20	0.667	1.96	12.750	15.67	18.83	1.96
0.667	1.20	0.750	1.96	12.833	8.05	18.92	1.96
0.750	1.20	0.833	1.96	12.917	8.05	19.00	1.96
0.833	1.20	0.917	1.96	13.000	8.05	19.08	1.96
0.917	1.20	1.000	1.96	13.083	8.05	19.17	1.96
1.000	1.20	1.083	1.96	13.167	8.05	19.25	1.96
1.083	1.20	1.167	1.96	13.250	8.05	19.33	1.96
1.167	1.20	1.250	1.96	13.333	5.88	19.42	1.96
1.250	1.20	1.333	2.39	13.417	5.88	19.50	1.96
1.333	1.20	1.417	2.39	13.500	5.88	19.58	1.96
1.417	1.20	1.500	2.39	13.583	5.88	19.67	1.96
1.500	1.20	1.583	2.39	13.667	5.88	19.75	1.96
1.583	1.20	1.667	2.39	13.750	5.88	19.83	1.96
1.667	1.20	1.750	2.39	13.833	4.57	19.92	1.96
1.750	1.20	1.833	2.39	13.917	4.57	20.00	1.96
1.833	1.20	1.917	2.39	14.000	4.57	20.08	1.96
1.917	1.20	2.000	2.39	14.083	4.57	20.17	1.96
2.000	1.20	2.083	2.39	14.167	4.57	20.25	1.96
2.083	1.20	2.167	2.39	14.250	4.57	20.33	1.31
2.167	1.20	2.250	2.39	14.333	3.26	20.42	1.31
2.250	1.20	2.333	2.83	14.417	3.26	20.50	1.31
2.333	1.41	2.417	2.83	14.500	3.26	20.58	1.31
2.417	1.41	2.500	2.83	14.583	3.26	20.67	1.31
2.500	1.41	2.583	2.83	14.667	3.26	20.75	1.31
2.583	1.41	2.667	2.83	14.750	3.26	20.83	1.31
2.667	1.41	2.750	2.83	14.833	3.26	20.92	1.31
2.750	1.41	2.833	3.05	14.917	3.26	21.00	1.31
2.833	1.41	2.917	3.05	15.000	3.26	21.08	1.31
2.917	1.41	3.000	3.05	15.083	3.26	21.17	1.31
3.000	1.41	3.083	3.05	15.167	3.26	21.25	1.31
3.083	1.41	3.167	3.05	15.250	3.26	21.33	1.31
3.167	1.41	3.250	3.05	15.333	3.26	21.42	1.31
3.250	1.41	3.333	3.48	15.417	3.26	21.50	1.31
3.333	1.41	3.417	3.48	15.500	3.26	21.58	1.31
3.417	1.41	3.500	3.48	15.583	3.26	21.67	1.31
3.500	1.41	3.583	3.48	15.667	3.26	21.75	1.31
3.583	1.41	3.667	3.48	15.750	3.26	21.83	1.31
3.667	1.41	3.750	3.48	15.833	3.26	21.92	1.31

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---
 CALIB | STANHYD (0027) | Area (ha) = 0.71
 ID= 1 DT= 5.0 min | Total Imp(%) = 73.50 Dir. Conn.(%) = 67.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha) = 0.52 0.19
 Dep. Storage (mm) = 1.00 5.00
 Average Slope (%) = 1.00 2.00
 Length (m) = 68.80 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	0.167	1.74	12.250	133.17	18.33	1.96
0.167	0.00	0.250	1.74	12.333	15.68	18.42	1.96
0.250	0.00	0.333	1.96	12.417	15.67	18.50	1.96
0.333	1.20	0.417	1.96	12.500	15.67	18.58	1.96
0.417	1.20	0.500	1.96	12.583	15.67	18.67	1.96
0.500	1.20	0.583	1.96	12.667	15.67	18.75	1.96
0.583	1.20	0.667	1.96	12.750	15.67	18.83	1.96
0.667	1.20	0.750	1.96	12.833	8.05	18.92	1.96
0.750	1.20	0.833	1.96	12.917	8.05	19.00	1.96
0.833	1.20	0.917	1.96	13.000	8.05	19.08	1.96
0.917	1.20	1.000	1.96	13.083	8.05	19.17	1.96
1.000	1.20	1.083	1.96	13.167	8.05	19.25	1.96
1.083	1.20	1.167	1.96	13.250	8.05	19.33	1.96
1.167	1.20	1.250	1.96	13.333	5.88	19.42	1.96
1.250	1.20	1.333	2.39	13.417	5.88	19.50	1.96
1.333	1.20	1.417	2.39	13.500	5.88	19.58	1.96
1.417	1.2						

4.167	1.41	10.250	3.92	16.333	1.96	22.42	1.31
4.250	1.41	10.333	5.00	16.417	1.96	22.50	1.31
4.333	1.74	10.417	5.00	16.500	1.96	22.58	1.31
4.417	1.74	10.500	5.00	16.583	1.96	22.67	1.31
4.500	1.74	10.583	5.00	16.667	1.96	22.75	1.31
4.583	1.74	10.667	5.00	16.750	1.96	22.83	1.31
4.667	1.74	10.750	5.00	16.833	1.96	22.92	1.31
4.750	1.74	10.833	6.75	16.917	1.96	23.00	1.31
4.833	1.74	10.917	6.75	17.000	1.96	23.08	1.31
4.917	1.74	11.000	6.75	17.083	1.96	23.17	1.31
5.000	1.74	11.083	6.75	17.167	1.96	23.25	1.31
5.083	1.74	11.167	6.75	17.250	1.96	23.33	1.31
5.167	1.74	11.250	6.75	17.333	1.96	23.42	1.31
5.250	1.74	11.333	10.44	17.417	1.96	23.50	1.31
5.333	1.74	11.417	10.44	17.500	1.96	23.58	1.31
5.417	1.74	11.500	10.44	17.583	1.96	23.67	1.31
5.500	1.74	11.583	10.44	17.667	1.96	23.75	1.31
5.583	1.74	11.667	10.44	17.750	1.96	23.83	1.31
5.667	1.74	11.750	10.44	17.833	1.96	23.92	1.31
5.750	1.74	11.833	32.20	17.917	1.96	24.00	1.31
5.833	1.74	11.917	32.20	18.000	1.96	24.08	1.31
5.917	1.74	12.000	32.20	18.083	1.96	24.17	1.31
6.000	1.74	12.083	133.16	18.167	1.96	24.25	1.31
6.083	1.74	12.167	133.17	18.250	1.96		

Max. Eff. Inten. (mm/hr) = 133.17
 over (min) = 5.00
 Storage Coeff. (min) = 1.59 (ii)
 Unit Hyd. Tpeak (min) = 5.00
 Unit Hyd. peak (cms) = 0.33

PEAK FLOW (cms) = 0.11
 TIME TO PEAK (hrs) = 12.25
 RUNOFF VOLUME (mm) = 107.80
 TOTAL RAINFALL (mm) = 188.80
 RUNOFF COEFFICIENT = 0.99

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR Pervious Losses:
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0370)
 1 + 2 = 3

AREA QPEAK TPEAK R.V.

hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.883	0.00	6.167	1.74	12.250	133.17	18.33	1.96
0.167	0.00	6.250	1.74	12.333	15.68	18.42	1.96
0.250	0.00	6.333	1.96	12.417	15.67	18.50	1.96
0.333	1.20	6.417	1.96	12.500	15.67	18.58	1.96
0.417	1.20	6.500	1.96	12.583	15.67	18.67	1.96
0.500	1.20	6.583	1.96	12.667	15.67	18.75	1.96
0.583	1.20	6.667	1.96	12.750	15.67	18.83	1.96
0.667	1.20	6.750	1.96	12.833	8.05	18.92	1.96
0.750	1.20	6.833	1.96	12.917	8.05	19.00	1.96
0.833	1.20	6.917	1.96	13.000	8.05	19.08	1.96
0.917	1.20	7.000	1.96	13.083	8.05	19.17	1.96
1.000	1.20	7.083	1.96	13.167	8.05	19.25	1.96
1.083	1.20	7.167	1.96	13.250	8.05	19.33	1.96
1.167	1.20	7.250	1.96	13.333	5.88	19.42	1.96
1.250	1.20	7.333	2.39	13.417	5.88	19.50	1.96
1.333	1.20	7.417	2.39	13.500	5.88	19.58	1.96
1.417	1.20	7.500	2.39	13.583	5.88	19.67	1.96
1.500	1.20	7.583	2.39	13.667	5.88	19.75	1.96
1.583	1.20	7.667	2.39	13.750	5.88	19.83	1.96
1.667	1.20	7.750	2.39	13.833	4.57	19.92	1.96
1.750	1.20	7.833	2.39	13.917	4.57	20.00	1.96
1.833	1.20	7.917	2.39	14.000	4.57	20.08	1.96
1.917	1.20	8.000	2.39	14.083	4.57	20.17	1.96
2.000	1.20	8.083	2.39	14.167	4.57	20.25	1.96
2.083	1.20	8.167	2.39	14.250	4.57	20.33	1.31
2.167	1.20	8.250	2.39	14.333	3.26	20.42	1.31
2.250	1.20	8.333	2.83	14.417	3.26	20.50	1.31
2.333	1.41	8.417	2.83	14.500	3.26	20.58	1.31
2.417	1.41	8.500	2.83	14.583	3.26	20.67	1.31
2.500	1.41	8.583	2.83	14.667	3.26	20.75	1.31
2.583	1.41	8.667	2.83	14.750	3.26	20.83	1.31
2.667	1.41	8.750	2.83	14.833	3.26	20.92	1.31
2.750	1.41	8.833	3.05	14.917	3.26	21.00	1.31
2.833	1.41	8.917	3.05	15.000	3.26	21.08	1.31
2.917	1.41	9.000	3.05	15.083	3.26	21.17	1.31
3.000	1.41	9.083	3.05	15.167	3.26	21.25	1.31
3.083	1.41	9.167	3.05	15.250	3.26	21.33	1.31
3.167	1.41	9.250	3.05	15.333	3.26	21.42	1.31
3.250	1.41	9.333	3.48	15.417	3.26	21.50	1.31
3.333	1.41	9.417	3.48	15.500	3.26	21.58	1.31
3.417	1.41	9.500	3.48	15.583	3.26	21.67	1.31
3.500	1.41	9.583	3.48	15.667	3.26	21.75	1.31
3.583	1.41	9.667	3.48	15.750	3.26	21.83	1.31
3.667	1.41	9.750	3.48	15.833	3.26	21.92	1.31
3.750	1.41	9.833	3.92	15.917	3.26	22.00	1.31
3.833	1.41	9.917	3.92	16.000	3.26	22.08	1.31
3.917	1.41	10.000	3.92	16.083	3.26	22.17	1.31
4.000	1.41	10.083	3.92	16.167	3.26	22.25	1.31
4.083	1.41	10.167	3.92	16.250	3.26	22.33	1.31

2.583	1.41	8.667	2.83	14.750	3.26	20.83	1.31
2.667	1.41	8.750	2.83	14.833	3.26	20.92	1.31
2.750	1.41	8.833	3.05	14.917	3.26	21.00	1.31
2.833	1.41	8.917	3.05	15.000	3.26	21.08	1.31
2.917	1.41	9.000	3.05	15.083	3.26	21.17	1.31
3.000	1.41	9.083	3.05	15.167	3.26	21.25	1.31
3.083	1.41	9.167	3.05	15.250	3.26	21.33	1.31
3.167	1.41	9.250	3.05	15.333	3.26	21.42	1.31
3.250	1.41	9.333	3.48	15.417	3.26	21.50	1.31
3.333	1.41	9.417	3.48	15.500	3.26	21.58	1.31
3.417	1.41	9.500	3.48	15.583	3.26	21.67	1.31
3.500	1.41	9.583	3.48	15.667	3.26	21.75	1.31
3.583	1.41	9.667	3.48	15.750	3.26	21.83	1.31
3.667	1.41	9.750	3.48	15.833	3.26	21.92	1.31
3.750	1.41	9.833	3.92	15.917	3.26	22.00	1.31
3.833	1.41	9.917	3.92	16.000	3.26	22.08	1.31
3.917	1.41	10.000	3.92	16.083	3.26	22.17	1.31
4.000	1.41	10.083	3.92	16.167	3.26	22.25	1.31
4.083	1.41	10.167	3.92	16.250	3.26	22.33	1.31
4.167	1.41	10.250	3.92	16.333	1.96	22.42	1.31
4.250	1.41	10.333	5.00	16.417	1.96	22.50	1.31
4.333	1.74	10.417	5.00	16.500	1.96	22.58	1.31
4.417	1.74	10.500	5.00	16.583	1.96	22.67	1.31
4.500	1.74	10.583	5.00	16.667	1.96	22.75	1.31
4.583	1.74	10.667	5.00	16.750	1.96	22.83	1.31
4.667	1.74	10.750	5.00	16.833	1.96	22.92	1.31
4.750	1.74	10.833	6.75	16.917	1.96	23.00	1.31
4.833	1.74	10.917	6.75	17.000	1.96	23.08	1.31
4.917	1.74	11.000	6.75	17.083	1.96	23.17	1.31
5.000	1.74	11.083	6.75	17.167	1.96	23.25	1.31
5.083	1.74	11.167	6.75	17.250	1.96	23.33	1.31
5.167	1.74	11.250	6.75	17.333	1.96	23.42	1.31
5.250	1.74	11.333	10.44	17.417	1.96	23.50	1.31
5.333	1.74	11.417	10.44	17.500	1.96	23.58	1.31
5.417	1.74	11.500	10.44	17.583	1.96	23.67	1.31
5.500	1.74	11.583	10.44	17.667	1.96	23.75	1.31
5.583	1.74	11.667	10.44	17.750	1.96	23.83	1.31
5.667	1.74	11.750	10.44	17.833	1.96	23.92	1.31
5.750	1.74	11.833	32.20	17.917	1.96	24.00	1.31
5.833	1.74	11.917	32.20	18.000	1.96	24.08	1.31
5.917	1.74	12.000	32.20	18.083	1.96	24.17	1.31
6.000	1.74	12.083	133.16	18.167	1.96	24.25	1.31
6.083	1.74	12.167	133.17	18.250	1.96		

Unit Hyd Qpeak (cms) = 0.089

PEAK FLOW (cms) = 0.086 (i)
 TIME TO PEAK (hrs) = 12.883
 RUNOFF VOLUME (mm) = 56.791
 TOTAL RAINFALL (mm) = 188.800

----- (ha) (cms) (hrs) (mm)
 ID1 = 1 (0358): 19.35 0.732 12.75 87.97
 + ID2 = 2 (0359): 0.45 0.140 12.25 90.51

 ID = 3 (0370): 19.80 0.750 12.75 88.03

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
 NASHYD (0360) Area (ha) = 1.02 Curve Number (CN) = 74.5
 ID= 1 DT= 5.0 min Ia (mm) = 4.61 # of Linear Res. (N) = 3.00
 U.W. Tp(hrs) = 0.44

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.883	0.00	6.167	1.74	12.250	133.17	18.33	1.96
0.167	0.00	6.250	1.74	12.333	15.68	18.42	1.96
0.250	0.00	6.333	1.96	12.417	15.67	18.50	1.96
0.333	1.20	6.417	1.96	12.500	15.67	18.58	1.96
0.417	1.20	6.500	1.96	12.583	15.67	18.67	1.96
0.500	1.20	6.583	1.96	12.667	15.67	18.75	1.96
0.583	1.20	6.667	1.96	12.750	15.67	18.83	1.96
0.667	1.20	6.750	1.96	12.833	8.05	18.92	1.96
0.750	1.20	6.833	1.96	12.917	8.05	19.00	1.96
0.833	1.20	6.917	1.96	13.000	8.05	19.08	1.96
0.917	1.20	7.000	1.96	13.083	8.05	19.17	1.96
1.000	1.20	7.083	1.96	13.167	8.05	19.25	1.96
1.083	1.20	7.167	1.96	13.250	8.05	19.33	1.96
1.167	1.20	7.250	1.96	13.333	5.88	19.42	1.96
1.250	1.20	7.333	2.39	13.417	5.88	19.50	1.96
1.333	1.20	7.417	2.39	13.500	5.88	19.58	1.96
1.417							

ID = 1 (0361): 1.85 0.272 12.25 60.98

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Area (ha)= 0.45
Total Imp(S)= 37.40 Dir. Conn.(%)= 37.40

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.17 0.28
Dep. Storage (mm)= 1.00 5.00

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. Rows show rainfall intensity (mm/hr) and time (hrs) for various durations.

Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.33 0.12

PEAK FLOW (cms)= 0.06 0.04 0.157 (iii)
TIME TO PEAK (hrs)= 12.25 12.25 12.25
RUNOFF VOLUME (mm)= 187.80 51.91 72.80

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0029)

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 2(0015) 0.45 0.10 12.25 72.80
OUTFLOW : ID= 2(0029) 0.45 0.10 12.25 72.80

Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.32 0.12
PEAK FLOW (cms)= 0.04 0.11 0.157 (iii)

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
**** WARNING: FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20% YOU SHOULD CONSIDER SPLITTING THE AREA

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0026)

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 8(0025) 0.05 0.07 12.25 91.49
OUTFLOW : ID= 2(0026) 0.05 0.07 12.25 91.49

ADD HYD (0361)
1 + 2 = 3
ID1= 1 (0018): 0.78 0.157 12.25 64.53
+ ID2= 2 (0026): 0.05 0.066 12.25 91.49

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0361)
3 + 2 = 1
ID1= 3 (0361): 0.83 0.223 12.25 66.13
+ ID2= 2 (0360): 1.02 0.086 12.58 56.79

Large table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. Rows show detailed rainfall intensity and time data for various durations.

Max. Eff. Inten. (mm/hr)= 133.17 76.76
over (min) 5.00 10.00
Storage Coeff. (min)= 1.59 (ii) 9.43 (ii)

Ptotal=120.77 mm Comments: K. 50yr 24hr 15min SCS Type II

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. Rows show rainfall intensity and time data for various durations.

Area (ha)= 0.58 Curve Number (CN)= 72.3
Ia (mm)= 4.86 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.20

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

Table with 8 columns: TIME, RAIN, TIME, RAIN, TIME, RAIN, TIME, RAIN. Rows show rainfall intensity and time data for various durations.

V V I SSSSS U U A A L L (v 6.2.2008)
V V I SS U U A A L L
V V I SS U U A A A A L L
V V I SS U U A A L L

000 TTTT TTTT H H Y Y M M 000 TM
O O T T H H Y Y M M O O O
O O T T H H Y Y M M O O O
000 H H V M 000

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**** D E T A I L E D O U T P U T ****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voind.at

Output filename:
C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404d7f68702\dd7eb001-20d4-49c2-ad4c-aac67ec9131a\scena
Summary filename:
C:\Users\kswain\AppData\Local\Civica\VH5\4c9aa870-2b3a-4142-a551-3404d7f68702\dd7eb001-20d4-49c2-ad4c-aac67ec9131a\scena

DATE: 08-15-2023 TIME: 08:21:47

USER:

COMMENTS:

** SIMULATION : K. 50yr 24hr 15min SCS Type I **

READ STORM Filename: C:\Users\kswain\AppData\Local\Temp\

4.667	1.93	10.750	5.56	16.833	2.17	22.92	1.45
4.750	1.93	10.833	7.49	16.917	2.17	23.00	1.45
4.833	1.93	10.917	7.49	17.000	2.17	23.08	1.45
4.917	1.93	11.000	7.49	17.083	2.17	23.17	1.45
5.000	1.93	11.083	7.49	17.167	2.17	23.25	1.45
5.083	1.93	11.167	7.49	17.250	2.17	23.33	1.45
5.167	1.93	11.250	7.49	17.333	2.17	23.42	1.45
5.250	1.93	11.333	11.59	17.417	2.17	23.50	1.45
5.333	1.93	11.417	11.59	17.500	2.17	23.58	1.45
5.417	1.93	11.500	11.59	17.583	2.17	23.67	1.45
5.500	1.93	11.583	11.59	17.667	2.17	23.75	1.45
5.583	1.93	11.667	11.59	17.750	2.17	23.83	1.45
5.667	1.93	11.750	11.59	17.833	2.17	23.92	1.45
5.750	1.93	11.833	35.75	17.917	2.17	24.00	1.45
5.833	1.93	11.917	35.75	18.000	2.17	24.08	1.45
5.917	1.93	12.000	35.75	18.083	2.17	24.17	1.45
6.000	1.93	12.083	147.81	18.167	2.17	24.25	1.45
6.083	1.93	12.167	147.82	18.250	2.17		

Unit Hyd Qpeak (cms) = 0.111
 PEAK FLOW (cms) = 0.094 (i)
 TIME TO PEAK (hrs) = 12.333
 RUNOFF VOLUME (mm) = 62.889
 TOTAL RAINFALL (mm) = 120.770
 RUNOFF COEFFICIENT = 0.521

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	STANDHYD (0002)	Area (ha)= 3.32
ID= 1 DT= 5.0 min	Total Imp(X%)= 55.00	Dir. Conn.(%)= 55.00

Surface Area (ha)=	1.83	1.49
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	148.77	40.00
Mannings n	= 0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME RAIN	TIME RAIN	TIME RAIN	TIME RAIN	TIME RAIN	TIME RAIN	TIME RAIN	TIME RAIN
hrs mm/hr	hrs mm/hr	hrs mm/hr	hrs mm/hr	hrs mm/hr	hrs mm/hr	hrs mm/hr	hrs mm/hr
0.083 0.00	6.167 1.93	12.250 147.82	18.33 2.17				
0.167 0.00	6.250 1.93	12.333 17.41	18.42 2.17				

4.417	1.93	10.500	5.56	16.583	2.17	22.67	1.45
4.500	1.93	10.583	5.56	16.667	2.17	22.75	1.45
4.583	1.93	10.667	5.56	16.750	2.17	22.83	1.45
4.667	1.93	10.750	5.56	16.833	2.17	22.92	1.45
4.750	1.93	10.833	7.49	16.917	2.17	23.00	1.45
4.833	1.93	10.917	7.49	17.000	2.17	23.08	1.45
4.917	1.93	11.000	7.49	17.083	2.17	23.17	1.45
5.000	1.93	11.083	7.49	17.167	2.17	23.25	1.45
5.083	1.93	11.167	7.49	17.250	2.17	23.33	1.45
5.167	1.93	11.250	7.49	17.333	2.17	23.42	1.45
5.250	1.93	11.333	11.59	17.417	2.17	23.50	1.45
5.333	1.93	11.417	11.59	17.500	2.17	23.58	1.45
5.417	1.93	11.500	11.59	17.583	2.17	23.67	1.45
5.500	1.93	11.583	11.59	17.667	2.17	23.75	1.45
5.583	1.93	11.667	11.59	17.750	2.17	23.83	1.45
5.667	1.93	11.750	11.59	17.833	2.17	23.92	1.45
5.750	1.93	11.833	35.75	17.917	2.17	24.00	1.45
5.833	1.93	11.917	35.75	18.000	2.17	24.08	1.45
5.917	1.93	12.000	35.75	18.083	2.17	24.17	1.45
6.000	1.93	12.083	147.81	18.167	2.17	24.25	1.45
6.083	1.93	12.167	147.82	18.250	2.17		

Max. Eff. Inten. (mm/hr)= 147.82 90.11
 over (min) = 5.00
 Storage Coeff. (min)= 2.77 (ii) 10.13 (ii)
 Unit Hyd. Tpeak (min)= 5.00 15.00
 Unit Hyd. peak (cms)= 0.28 0.10

PEAK FLOW (cms)= 0.75 0.25 *TOTALS*
 TIME TO PEAK (hrs)= 12.25 12.33 0.962 (iii)
 RUNOFF VOLUME (mm)= 119.77 61.85 93.35
 TOTAL RAINFALL (mm)= 120.77 120.77 120.77
 RUNOFF COEFFICIENT = 0.99 0.51 0.77

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
 (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 71.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (0004)	OVERFLOW IS OFF		
ID= 2--- OUT= 1			
DT= 5.0 min			
OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000 0.0000	0.1200 0.1370		
0.0350 0.0750	0.1700 0.1500		

0.500	1.33	6.583	2.17	12.667	17.39	18.75	2.17
0.583	1.33	6.667	2.17	12.750	17.39	18.83	2.17
0.667	1.33	6.750	2.17	12.833	8.94	18.92	2.17
0.750	1.33	6.833	2.17	12.917	8.94	19.00	2.17
0.833	1.33	6.917	2.17	13.000	8.94	19.08	2.17
0.917	1.33	7.000	2.17	13.083	8.94	19.17	2.17
1.000	1.33	7.083	2.17	13.167	8.94	19.25	2.17
1.083	1.33	7.167	2.17	13.250	8.94	19.33	2.17
1.167	1.33	7.250	2.17	13.333	6.52	19.42	2.17
1.250	1.33	7.333	2.66	13.417	6.52	19.50	2.17
1.333	1.33	7.417	2.66	13.500	6.52	19.58	2.17
1.417	1.33	7.500	2.66	13.583	6.52	19.67	2.17
1.500	1.33	7.583	2.66	13.667	6.52	19.75	2.17
1.583	1.33	7.667	2.66	13.750	6.52	19.83	2.17
1.667	1.33	7.750	2.66	13.833	6.52	19.92	2.17
1.750	1.33	7.833	2.66	13.917	5.07	20.00	2.17
1.833	1.33	7.917	2.66	14.000	5.07	20.08	2.17
1.917	1.33	8.000	2.66	14.083	5.07	20.17	2.17
2.000	1.33	8.083	2.66	14.167	5.07	20.25	2.17
2.083	1.33	8.167	2.66	14.250	5.07	20.33	1.45
2.167	1.33	8.250	2.66	14.333	3.62	20.42	1.45
2.250	1.33	8.333	3.14	14.417	3.62	20.50	1.45
2.333	1.57	8.417	3.14	14.500	3.62	20.58	1.45
2.417	1.57	8.500	3.14	14.583	3.62	20.67	1.45
2.500	1.57	8.583	3.14	14.667	3.62	20.75	1.45
2.583	1.57	8.667	3.14	14.750	3.62	20.83	1.45
2.667	1.57	8.750	3.14	14.833	3.62	20.92	1.45
2.750	1.57	8.833	3.38	14.917	3.62	21.00	1.45
2.833	1.57	8.917	3.38	15.000	3.62	21.08	1.45
2.917	1.57	9.000	3.38	15.083	3.62	21.17	1.45
3.000	1.57	9.083	3.38	15.167	3.62	21.25	1.45
3.083	1.57	9.167	3.38	15.250	3.62	21.33	1.45
3.167	1.57	9.250	3.38	15.333	3.62	21.42	1.45
3.250	1.57	9.333	3.86	15.417	3.62	21.50	1.45
3.333	1.57	9.417	3.86	15.500	3.62	21.58	1.45
3.417	1.57	9.500	3.86	15.583	3.62	21.67	1.45
3.500	1.57	9.583	3.86	15.667	3.62	21.75	1.45
3.583	1.57	9.667	3.86	15.750	3.62	21.83	1.45
3.667	1.57	9.750	3.86	15.833	3.62	21.92	1.45
3.750	1.57	9.833	4.35	15.917	3.62	22.00	1.45
3.833	1.57	9.917	4.35	16.000	3.62	22.08	1.45
3.917	1.57	10.000	4.35	16.083	3.62	22.17	1.45
4.000	1.57	10.083	4.35	16.167	3.62	22.25	1.45
4.083	1.57	10.167	4.35	16.250	3.62	22.33	1.45
4.167	1.57	10.250	4.35	16.333	2.17	22.42	1.45
4.250	1.57	10.333	5.56	16.417	2.17	22.50	1.45
4.333	1.57	10.417	5.56	16.500	2.17	22.58	1.45
4.417	1.93	10.500	5.56	16.583	2.17	22.67	1.45
4.500	1.93	10.583	5.56	16.667	2.17	22.75	1.45
4.583	1.93	10.667	5.56	16.750	2.17	22.83	1.45

0.250	0.00	6.333	2.17	12.417	17.39	18.50	2.17
0.333	1.33	6.417	2.17	12.500	17.39	18.58	2.17
0.417	1.33	6.500	2.17	12.583	17.39	18.67	2.17
0.500	1.33	6.583	2.17	12.667	17.39	18.75	2.17
0.583	1.33	6.667	2.17	12.750	17.39	18.83	2.17
0.667	1.33	6.750	2.17	12.833	8.94	18.92	2.17
0.750	1.33	6.833	2.17	12.917	8.94	19.00	2.17
0.833	1.33	6.917	2.17	13.000	8.94	19.08	2.17
0.917	1.33	7.000	2.17	13.083	8.94	19.17	2.17
1.000	1.33	7.083	2.17	13.167	8.94	19.25	2.17
1.083	1.33	7.167	2.17	13.250	8.94	19.33	2.17
1.167	1.33	7.250	2.17	13.333	6.52	19.42	2.17
1.250	1.33	7.333	2.66	13.417	6.52	19.50	2.17
1.333	1.33	7.417	2.66	13.500	6.52	19.58	2.17
1.417	1.33	7.500	2.66	13.583	6.52	19.67	2.17
1.500	1.33	7.583	2.66	13.667	6.52	19.75	2.17
1.583	1.33	7.667	2.66	13.750	6.52	19.83	2.17
1.667	1.33	7.750	2.66	13.833	6.52	19.92	2.17
1.750	1.33	7.833	2.66	13.917	5.07	20.00	2.17
1.833	1.33	7.917	2.66	14.000	5.07	20.08	2.17
1.917	1.33	8.000	2.66	14.083	5.07	20.17	2.17
2.000	1.33	8.083	2.66	14.167	5.07	20.25	2.17
2.083	1.33	8.167	2.66	14.250	5.07	20.33	1.45
2.167	1.33	8.250	2.66	14.333	3.62	20.42	1.45
2.250	1.33	8.333	3.14	14.417	3.62	20.50	1.45
2.333	1.57	8.417	3.14	14.500	3.62	20.58	1.45
2.417	1.57	8.500	3.14	14.583	3.62	20.67	1.45
2.500	1.57	8.583	3.14	14.667	3.62	20.75	1.45
2.583	1.57	8.667	3.14	14.750	3.62	20.83	1.45
2.667	1.57	8.750	3.14	14.833	3.62	20.92	1.45
2.750	1.57	8.833	3.38	14.917	3.62	21.00	1.45
2.833	1.57	8.917	3.38	15.000	3.62	21.08	1.45
2.917	1.57	9.000	3.38	15.083	3.62	21.17	1.45
3.000	1.57	9.083	3.38	15.167	3.62	21.25	1.45
3.083	1.57	9.167	3.38	15.250	3.62	21.33	1.45
3.167	1.57	9.250	3.38	15.333	3.62	21.42	1.45
3.250	1.57	9.333	3.86	15.417	3.62	21.50	1.45
3.333	1.57	9.417	3.86	15.500	3.62	21.58	1.45
3.417	1.57	9.500	3.86	15.583	3.62	21.67	1.45

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.93	12.250	147.82	18.33	2.17		
0.167	0.00	6.250	1.93	12.333	17.41	18.42	2.17		
0.250	0.00	6.333	2.17	12.417	17.39	18.50	2.17		
0.333	1.33	6.417	2.17	12.500	17.39	18.58	2.17		
0.417	1.33	6.500	2.17	12.583	17.39	18.67	2.17		
0.500	1.33	6.583	2.17	12.667	17.39	18.75	2.17		
0.583	1.33	6.667	2.17	12.750	17.39	18.83	2.17		
0.667	1.33	6.750	2.17	12.833	8.94	18.92	2.17		
0.750	1.33	6.833	2.17	12.917	8.94	19.00	2.17		
0.833	1.33	6.917	2.17	13.000	8.94	19.08	2.17		
0.917	1.33	7.000	2.17	13.083	8.94	19.17	2.17		
1.000	1.33	7.083	2.17	13.167	8.94	19.25	2.17		
1.083	1.33	7.167	2.17	13.250	8.94	19.33	2.17		
1.167	1.33	7.250	2.17	13.333	6.52	19.42	2.17		
1.250	1.33	7.333	2.66	13.417	6.52	19.50	2.17		
1.333	1.33	7.417	2.66	13.500	6.52	19.58	2.17		
1.417	1.33	7.500	2.66	13.583	6.52	19.67	2.17		
1.500	1.33	7.583	2.66	13.667	6.52	19.75	2.17		
1.583	1.33	7.667	2.66	13.750	6.52	19.83	2.17		
1.667	1.33	7.750	2.66	13.833	5.07	19.92	2.17		
1.750	1.33	7.833	2.66	13.917	5.07	20.00	2.17		
1.833	1.33	7.917	2.66	14.000	5.07	20.08	2.17		
1.917	1.33	8.000	2.66	14.083	5.07	20.17	2.17		
2.000	1.57	8.083	3.14	14.167	5.07	20.25	2.17		
2.083	1.33	8.167	2.66	14.250	5.07	20.33	1.45		
2.167	1.33	8.250	2.66	14.333	3.62	20.42	1.45		
2.250	1.33	8.333	3.14	14.417	3.62	20.50	1.45		
2.333	1.57	8.417	3.14	14.500	3.62	20.58	1.45		
2.417	1.57	8.500	3.14	14.583	3.62	20.67	1.45		
2.500	1.57	8.583	3.14	14.667	3.62	20.75	1.45		
2.583	1.57	8.667	3.14	14.750	3.62	20.83	1.45		
2.667	1.57	8.750	3.14	14.833	3.62	20.92	1.45		
2.750	1.57	8.833	3.38	14.917	3.62	21.00	1.45		
2.833	1.57	8.917	3.38	15.000	3.62	21.08	1.45		
2.917	1.57	9.000	3.38	15.083	3.62	21.17	1.45		
3.000	1.57	9.083	3.38	15.167	3.62	21.25	1.45		
3.083	1.57	9.167	3.38	15.250	3.62	21.33	1.45		
3.167	1.57	9.250	3.38	15.333	3.62	21.42	1.45		
3.250	1.57	9.333	3.86	15.417	3.62	21.50	1.45		
3.333	1.57	9.417	3.86	15.500	3.62	21.58	1.45		
3.417	1.57	9.500	3.86	15.583	3.62	21.67	1.45		
3.500	1.57	9.583	3.86	15.667	3.62	21.75	1.45		
3.583	1.57	9.667	3.86	15.750	3.62	21.83	1.45		
3.667	1.57	9.750	3.86	15.833	3.62	21.92	1.45		

CALIB		STANDHYD (0027)		Area (ha)= 0.71		Total Imp(%)= 73.50		Dir. Conn.(%)= 67.00	
ID= 1 DT= 5.0 min				IMPERVIOUS (ha)= 0.52		PERVIOUS (i)= 0.19		Dep. Storage (mm)= 1.00	
				Average Slope (%)= 1.00		Length (m)= 68.80		Mannings n = 0.013	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.93	12.250	147.82	18.33	2.17		
0.167	0.00	6.250	1.93	12.333	17.41	18.42	2.17		
0.250	0.00	6.333	2.17	12.417	17.39	18.50	2.17		
0.333	1.33	6.417	2.17	12.500	17.39	18.58	2.17		
0.417	1.33	6.500	2.17	12.583	17.39	18.67	2.17		
0.500	1.33	6.583	2.17	12.667	17.39	18.75	2.17		
0.583	1.33	6.667	2.17	12.750	17.39	18.83	2.17		
0.667	1.33	6.750	2.17	12.833	8.94	18.92	2.17		
0.750	1.33	6.833	2.17	12.917	8.94	19.00	2.17		
0.833	1.33	6.917	2.17	13.000	8.94	19.08	2.17		
0.917	1.33	7.000	2.17	13.083	8.94	19.17	2.17		
1.000	1.33	7.083	2.17	13.167	8.94	19.25	2.17		
1.083	1.33	7.167	2.17	13.250	8.94	19.33	2.17		
1.167	1.33	7.250	2.17	13.333	6.52	19.42	2.17		
1.250	1.33	7.333	2.66	13.417	6.52	19.50	2.17		
1.333	1.33	7.417	2.66	13.500	6.52	19.58	2.17		
1.417	1.33	7.500	2.66	13.583	6.52	19.67	2.17		
1.500	1.33	7.583	2.66	13.667	6.52	19.75	2.17		
1.583	1.33	7.667	2.66	13.750	6.52	19.83	2.17		
1.667	1.33	7.750	2.66	13.833	5.07	19.92	2.17		
1.750	1.33	7.833	2.66	13.917	5.07	20.00	2.17		
1.833	1.33	7.917	2.66	14.000	5.07	20.08	2.17		
1.917	1.33	8.000	2.66	14.083	5.07	20.17	2.17		
2.000	1.57	8.083	3.14	14.167	5.07	20.25	2.17		
2.083	1.33	8.167	2.66	14.250	5.07	20.33	1.45		
2.167	1.33	8.250	2.66	14.333	3.62	20.42	1.45		
2.250	1.33	8.333	3.14	14.417	3.62	20.50	1.45		
2.333	1.57	8.417	3.14	14.500	3.62	20.58	1.45		
2.417	1.57	8.500	3.14	14.583	3.62	20.67	1.45		
2.500	1.57	8.583	3.14	14.667	3.62	20.75	1.45		
2.583	1.57	8.667	3.14	14.750	3.62	20.83	1.45		
2.667	1.57	8.750	3.14	14.833	3.62	20.92	1.45		
2.750	1.57	8.833	3.38	14.917	3.62	21.00	1.45		
2.833	1.57	8.917	3.38	15.000	3.62	21.08	1.45		
2.917	1.57	9.000	3.38	15.083	3.62	21.17	1.45		
3.000	1.57	9.083	3.38	15.167	3.62	21.25	1.45		
3.083	1.57	9.167	3.38	15.250	3.62	21.33	1.45		
3.167	1.57	9.250	3.38	15.333	3.62	21.42	1.45		
3.250	1.57	9.333	3.86	15.417	3.62	21.50	1.45		
3.333	1.57	9.417	3.86	15.500	3.62	21.58	1.45		
3.417	1.57	9.500	3.86	15.583	3.62	21.67	1.45		
3.500	1.57	9.583	3.86	15.667	3.62	21.75	1.45		
3.583	1.57	9.667	3.86	15.750	3.62	21.83	1.45		
3.667	1.57	9.750	3.86	15.833	3.62	21.92	1.45		

TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	119.77	68.14	102.73
TOTAL RAINFALL (mm)=	120.77	120.77	120.77
RUNOFF COEFFICIENT =	0.99	0.56	0.85

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES: CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHYD (0025)									
Inlet Cap.= 0.156	no of Inlets= 1	Total (cms)= 0.1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)			
TOTAL HYD. (ID= 1): 0.71 0.25 12.25 102.73									
MAJOR SYS. (ID= 2): 0.07 0.09 12.25 102.73									
MINOR SYS. (ID= 3): 0.64 0.16 12.08 102.73									

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0024)									
INFLOW: ID= 9(0025)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)					
0.64	0.64	0.16	12.08	102.73					
OUTFLOW: ID= 2(0024)	0.64	0.16	12.08	102.73					

ADD HYD (0057)									
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)					
ID1= 1 (0024):	0.64	0.156	12.08	102.73					
+ ID2= 2 (0055):	1.56	0.459	12.25	90.41					
ID 3 (0057):	2.20	0.615	12.25	94.01					

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

4.833	1.93	10.917	7.49	17.000	2.17	23.08	1.45
4.917	1.93	11.000	7.49	17.083	2.17	23.17	1.45
5.000	1.93	11.083	7.49	17.167	2.17	23.25	1.45
5.083	1.93	11.167	7.49	17.250	2.17	23.33	1.45
5.167	1.93	11.250	7.49	17.333	2.17	23.42	1.45
5.250	1.93	11.333	11.59	17.417	2.17	23.50	1.45
5.333	1.93	11.59	17.500	2.17	23.58	1.45	
5.417	1.93	11.590	11.59	17.583	2.17	23.67	1.45
5.500	1.93	11.583	11.59	17.667	2.17	23.75	1.45
5.583	1.93	11.667	11.59	17.750	2.17	23.83	1.45
5.667	1.93	11.750	11.59	17.833	2.17	23.92	1.45
5.750	1.93	11.833	35.75	17.917	2.17	24.00	1.45
5.833	1.93	11.917	35.75	18.000	2.17	24.08	1.45
5.917	1.93	12.000	35.75	18.083	2.17	24.17	1.45
6.000	1.93	12.083	147.81	18.167	2.17	24.25	1.45
6.083	1.93	12.167	147.82	18.250	2.17		

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES: CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		STANDHYD (0056)		Area (ha)= 17.13		Total Imp(%)= 69.00		Dir. Conn.(%)= 61.00	
ID= 1 DT= 5.0 min				IMPERVIOUS (ha)= 11.82		PERVIOUS (i)= 5.31		Dep. Storage (mm)= 1.00	
				Average Slope (%)= 1.00		Length (m)= 337.93		Mannings n = 0.013	

Surface Area (ha)=	11.82	5.31
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	337.93	40.00
Mannings n =	0.013	0.250

hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.93	12.250	147.82	18.33	2.17
0.167	0.00	6.250	1.93	12.333	17.41	18.42	2.17
0.250	0.00	6.333	2.17	12.417	17.39	18.50	2.17
0.333	1.33	6.417	2.17	12.500	17.39	18.58	2.17
0.417	1.33	6.500	2.17	12.583	17.39	18.67	2.17
0.500	1.33	6.583	2.17	12.667	17.39	18.75	2.17
0.583	1.33	6.667	2.17	12.750	17.39	18.83	2.17
0.667	1.33	6.750	2.17	12.833	8.94	18.92	2.17
0.750	1.33	6.833	2.17	12.917	8.94	19.00	2.17
0.833	1.33	6.917	2.17	13.000	8.94	19.08	2.17
0.917	1.33	7.000	2.17	13.083	8.94	19.17	2.17
1.000	1.33	7.083	2.17	13.167	8.94	19.25	2.17
1.083	1.33	7.167	2.17	13.250	8.94	19.33	2.17
1.167	1.33	7.250	2.17	13.333	6.52	19.42	2.17
1.250	1.33	7.333	2.66	13.417	6.52	19.50	2.17
1.333	1.33	7.417	2.66	13.500	6.52	19.58	2.17
1.417	1.33	7.500	2.66	13.583	6.52	19.67	2.17
1.500	1.33	7.583	2.66	13.667	6.52	19.75	2.17
1.583	1.33	7.667	2.66	13.750	6.52	19.83	2.17
1.667	1.33	7.750	2.66	13.833	5.07	19.92	2.17
1.750	1.33	7.833	2.66	13.917	5.07	20.00	2.17
1.833	1.33	7.917	2.66	14.000	5.07	20.08	2.17
1.917	1.33	8.000	2.66	14.083	5.07	20.17	2.17
2.000	1.33	8.083	2.66	14.167	5.07	20.25	2.17
2.083	1.33	8.167	2.66	14.250	5.07	20.33	1.45
2.167	1.33	8.250	2.66	14.333	3.62	20.42	1.45
2.250	1.33	8.333	3.14	14.417	3.62	20.50	1.45
2.333	1.57	8.417	3.14	14.500	3.62	20.58	1.45
2.417	1.57	8.500	3.14	14.583	3.62	20.67	1.45
2.500	1.57	8.583	3.14	14.667	3.62	20.75	1.45
2.583	1.57	8.667	3.14	14.750	3.62	20.83	1.45
2.667	1.57	8.750	3.14	14.833	3.62	20.92	1.45
2.750	1.57	8.833	3.38	14.917	3.62	21.00	1.45
2.833	1.57	8.917	3.38	15.000	3.62	21.08	1.45
2.917	1.57	9.000	3.38	15.083	3.62	21.17	1.45
3.000	1.57	9.083	3.38	15.167	3.62	21.25	1.45
3.083	1.57	9.167	3.38	15.250	3.62	21.33	1.45
3.167	1.57	9.250	3.38	15.333	3.62	21.42	1.45
3.250	1.57	9.333	3.86	15.417	3.62	21.50	1.45
3.333	1.57	9.417	3.86	15.500	3.62	21.58	1.45
3.417	1.57	9.500	3.86	15.583	3.62	21.67	1.45
3.500	1.57	9.583	3.86	15.667	3.62	21.75	1.45
3.583	1.57	9.667	3.86	15.750	3.62	21.83	1.45
3.667	1.57	9.750	3.86	15.833	3.62	21.92	1.45
3.750	1.57	9.833	4.35	15.917	3.62	22.00	1.45
3.833	1.57	9.917	4.35	16.000	3.62	22.08	1.45
3.917	1.57	10.000	4.35	16.083	3.62	22.17	1.45
4.000	1.57	10.083	4.35	16.167	3.62	22.25	1.45
4.083	1.57	10.167	4.35	16.250	3.62	22.33	1.45

----- (ha) (cms) (hrs) (mm) -----
 ID1= 1 (0358): 19.33 0.902 12.75 99.05
 + ID2= 2 (0359): 0.45 0.157 12.25 101.69

 ID = 3 (0370): 19.78 0.922 12.75 99.11

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area	(ha)	Curve Number	(CN)= 74.5
NASHYD (0360)	1a	(mm)= 4.61	# of Linear Res. (N)= 3.00	
ID= 1 DT= 5.0 min	U.W. Tp(hrs)=	0.44		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.93	12.250	147.82	18.33	2.17
0.167	0.00	6.250	1.93	12.333	17.41	18.42	2.17
0.250	0.00	6.333	2.17	12.417	17.39	18.50	2.17
0.333	1.33	6.417	2.17	12.500	17.39	18.58	2.17
0.417	1.33	6.500	2.17	12.583	17.39	18.67	2.17
0.500	1.33	6.583	2.17	12.667	17.39	18.75	2.17
0.583	1.33	6.667	2.17	12.750	17.39	18.83	2.17
0.667	1.33	6.750	2.17	12.833	8.94	18.92	2.17
0.750	1.33	6.833	2.17	12.917	8.94	19.00	2.17
0.833	1.33	6.917	2.17	13.000	8.94	19.08	2.17
0.917	1.33	7.000	2.17	13.083	8.94	19.17	2.17
1.000	1.33	7.083	2.17	13.167	8.94	19.25	2.17
1.083	1.33	7.167	2.17	13.250	8.94	19.33	2.17
1.167	1.33	7.250	2.17	13.333	6.52	19.42	2.17
1.250	1.33	7.333	2.66	13.417	6.52	19.50	2.17
1.333	1.33	7.417	2.66	13.500	6.52	19.58	2.17
1.417	1.33	7.500	2.66	13.583	6.52	19.67	2.17
1.500	1.33	7.583	2.66	13.667	6.52	19.75	2.17
1.583	1.33	7.667	2.66	13.750	6.52	19.83	2.17
1.667	1.33	7.750	2.66	13.833	5.07	19.92	2.17
1.750	1.33	7.833	2.66	13.917	5.07	20.00	2.17
1.833	1.33	7.917	2.66	14.000	5.07	20.08	2.17
1.917	1.33	8.000	2.66	14.083	5.07	20.17	2.17
2.000	1.33	8.083	2.66	14.167	5.07	20.25	2.17
2.083	1.33	8.167	2.66	14.250	5.07	20.33	1.45
2.167	1.33	8.250	2.66	14.333	3.62	20.42	1.45
2.250	1.33	8.333	3.14	14.417	3.62	20.50	1.45
2.333	1.57	8.417	3.14	14.500	3.62	20.58	1.45
2.417	1.57	8.500	3.14	14.583	3.62	20.67	1.45
2.500	1.57	8.583	3.14	14.667	3.62	20.75	1.45

RUNOFF COEFFICIENT = 0.550
 (i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area	(ha)= 0.78	Total Imp(S)= 20.00	Dir. Conn.(%)= 15.00
STANDHYD (0018)	IMPERVIOUS	(ha)= 0.16	PERVIOUS (i)	
ID= 1 DT= 5.0 min	Dep. Storage	(mm)= 5.00		
	Average Slope	(%)= 1.00		
	Length	(m)= 72.11		
	Mannings n	= 0.013		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.93	12.250	147.82	18.33	2.17
0.167	0.00	6.250	1.93	12.333	17.41	18.42	2.17
0.250	0.00	6.333	2.17	12.417	17.39	18.50	2.17
0.333	1.33	6.417	2.17	12.500	17.39	18.58	2.17
0.417	1.33	6.500	2.17	12.583	17.39	18.67	2.17
0.500	1.33	6.583	2.17	12.667	17.39	18.75	2.17
0.583	1.33	6.667	2.17	12.750	17.39	18.83	2.17
0.667	1.33	6.750	2.17	12.833	8.94	18.92	2.17
0.750	1.33	6.833	2.17	12.917	8.94	19.00	2.17
0.833	1.33	6.917	2.17	13.000	8.94	19.08	2.17
0.917	1.33	7.000	2.17	13.083	8.94	19.17	2.17
1.000	1.33	7.083	2.17	13.167	8.94	19.25	2.17
1.083	1.33	7.167	2.17	13.250	8.94	19.33	2.17
1.167	1.33	7.250	2.17	13.333	6.52	19.42	2.17
1.250	1.33	7.333	2.66	13.417	6.52	19.50	2.17
1.333	1.33	7.417	2.66	13.500	6.52	19.58	2.17
1.417	1.33	7.500	2.66	13.583	6.52	19.67	2.17
1.500	1.33	7.583	2.66	13.667	6.52	19.75	2.17
1.583	1.33	7.667	2.66	13.750	6.52	19.83	2.17
1.667	1.33	7.750	2.66	13.833	5.07	19.92	2.17
1.750	1.33	7.833	2.66	13.917	5.07	20.00	2.17
1.833	1.33	7.917	2.66	14.000	5.07	20.08	2.17
1.917	1.33	8.000	2.66	14.083	5.07	20.17	2.17
2.000	1.33	8.083	2.66	14.167	5.07	20.25	2.17
2.083	1.33	8.167	2.66	14.250	5.07	20.33	1.45
2.167	1.33	8.250	2.66	14.333	3.62	20.42	1.45
2.250	1.33	8.333	3.14	14.417	3.62	20.50	1.45

ADD HYD (0357) |
3 + 2 = 1
 ID1= 1 (0357): 19.33 0.615 12.25 94.02
 + ID2= 2 (0356): 17.13 5.534 12.25 99.76

 ID = 1 (0357): 19.33 6.148 12.25 99.10

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(0358)	OVERFLOW IS OFF
ID= 2 ---> OUT= 1	
DT= 5.0 min	
OUTFLOW (cms)	STORAGE (ha, m.)
0.0000	0.7600
0.0420	1.2980
0.0630	0.3560
0.3940	0.7050

AREA	QPEAK	TPEAK	R.V.
(ha)	(cms)	(hrs)	(mm)
19.334	6.148	12.25	99.10
19.334	0.902	12.75	99.05

PEAK FLOW REDUCTION [Qout/Qin](%)= 14.67
 TIME SHIFT OF PEAK FLOW = 30.00
 MAXIMUM STORAGE USED (ha, m.)= 1.0333

CALIB	Area	(ha)= 0.45	Total Imp(S)= 66.10
STANDHYD (0359)	ID= 1 DT= 5.0 min		

IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)= 0.32	0.13
Dep. Storage (mm)= 1.00	5.00
Average Slope (%)= 1.00	2.00
Length (m)= 54.77	40.00
Mannings n = 0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.93	12.250	147.82	18.33	2.17
0.167	0.00	6.250	1.93	12.333	17.41	18.42	2.17
0.250	0.00	6.333	2.17	12.417	17.39	18.50	2.17
0.333	1.33	6.417	2.17	12.500	17.39	18.58	2.17
0.417	1.33	6.500	2.17	12.583	17.39	18.67	2.17
0.500	1.33	6.583	2.17	12.667	17.39	18.75	2.17
0.583	1.33	6.667	2.17	12.750	17.39	18.83	2.17
0.667	1.33	6.750	2.17	12.833	8.94	18.92	2.17
0.750	1.33	6.833	2.17	12.917	8.94	19.00	2.17
0.833	1.33	6.917</					

Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.32 0.12

PEAK FLOW (cms)= 0.05 0.14
 TIME TO PEAK (hrs)= 12.25 12.25
 RUNOFF VOLUME (mm)= 115.77 67.33
 TOTAL RAINFALL (mm)= 120.77 120.77
 RUNOFF COEFFICIENT = 0.96 0.56

TOTALS
 0.184 (iii)
 12.25
 74.60
 120.77
 0.62

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
 ***** WARNING:FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
 YOU SHOULD CONSIDER SPLITTING THE AREA.

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Junction Command(0026)

	AREA (ha)	OPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW: ID= 0(0025)	0.07	0.09	12.25	102.73
OUTFLOW: ID= 2(0026)	0.07	0.09	12.25	102.73

ADD HYD (0361)

	AREA (ha)	OPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (0018):	0.78	0.184	12.25	74.60
+ ID2= 2 (0026):	0.07	0.094	12.25	102.73
ID = 3 (0361):	0.85	0.278	12.25	76.80

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0361)

	AREA (ha)	OPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (0361):	0.85	0.278	12.25	76.80
+ ID2= 2 (0360):	1.02	0.101	12.58	66.43

2.333	1.57	8.417	3.14	14.500	3.62	20.58	1.45
2.417	1.57	8.500	3.14	14.583	3.62	20.67	1.45
2.500	1.57	8.583	3.14	14.667	3.62	20.75	1.45
2.583	1.57	8.667	3.14	14.750	3.62	20.83	1.45
2.667	1.57	8.750	3.14	14.833	3.62	20.92	1.45
2.750	1.57	8.833	3.38	14.917	3.62	21.00	1.45
2.833	1.57	8.917	3.38	15.000	3.62	21.08	1.45
2.917	1.57	9.000	3.38	15.083	3.62	21.17	1.45
3.000	1.57	9.083	3.38	15.167	3.62	21.25	1.45
3.083	1.57	9.167	3.38	15.250	3.62	21.33	1.45
3.167	1.57	9.250	3.38	15.333	3.62	21.42	1.45
3.250	1.57	9.333	3.86	15.417	3.62	21.50	1.45
3.333	1.57	9.417	3.86	15.500	3.62	21.58	1.45
3.417	1.57	9.500	3.86	15.583	3.62	21.67	1.45
3.500	1.57	9.583	3.86	15.667	3.62	21.75	1.45
3.583	1.57	9.667	3.86	15.750	3.62	21.83	1.45
3.667	1.57	9.750	3.86	15.833	3.62	21.92	1.45
3.750	1.57	9.833	4.35	15.917	3.62	22.00	1.45
3.833	1.57	9.917	4.35	16.000	3.62	22.08	1.45
3.917	1.57	10.000	4.35	16.083	3.62	22.17	1.45
4.000	1.57	10.083	4.35	16.167	3.62	22.25	1.45
4.083	1.57	10.167	4.35	16.250	3.62	22.33	1.45
4.167	1.57	10.250	4.35	16.333	2.17	22.42	1.45
4.250	1.57	10.333	5.56	16.417	2.17	22.50	1.45
4.333	1.93	10.417	5.56	16.500	2.17	22.58	1.45
4.417	1.93	10.500	5.56	16.583	2.17	22.67	1.45
4.500	1.93	10.583	5.56	16.667	2.17	22.75	1.45
4.583	1.93	10.667	5.56	16.750	2.17	22.83	1.45
4.667	1.93	10.750	5.56	16.833	2.17	22.92	1.45
4.750	1.93	10.833	7.49	16.917	2.17	23.00	1.45
4.833	1.93	10.917	7.49	17.000	2.17	23.08	1.45
4.917	1.93	11.000	7.49	17.083	2.17	23.17	1.45
5.000	1.93	11.083	7.49	17.167	2.17	23.25	1.45
5.083	1.93	11.167	7.49	17.250	2.17	23.33	1.45
5.167	1.93	11.250	7.49	17.333	2.17	23.42	1.45
5.250	1.93	11.333	11.59	17.417	2.17	23.50	1.45
5.333	1.93	11.417	11.59	17.500	2.17	23.58	1.45
5.417	1.93	11.500	11.59	17.583	2.17	23.67	1.45
5.500	1.93	11.583	11.59	17.667	2.17	23.75	1.45
5.583	1.93	11.667	11.59	17.750	2.17	23.83	1.45
5.667	1.93	11.750	11.59	17.833	2.17	23.92	1.45
5.750	1.93	11.833	35.75	17.917	2.17	24.00	1.45
5.833	1.93	11.917	35.75	18.000	2.17	24.08	1.45
5.917	1.93	12.000	35.75	18.083	2.17	24.17	1.45
6.000	1.93	12.083	147.81	18.167	2.17	24.25	1.45
6.083	1.93	12.167	147.82	18.250	2.17		

Max. Eff. Inten. (mm/hr)= 147.82 90.11
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 1.52 (ii) 8.88 (ii)

ID = 1 (0361): 1.87 0.337 12.25 71.13

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALLIB
 STANDHYD (0015) Area (ha)= 0.45
 ID= 1 DT= 5.0 min Total Imp(%)= 37.40 Dir. Conn.(%)= 37.40

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.17	0.28
Dep. Storage (mm)	1.00	5.00
Average Slope (%)	1.00	2.00
Length (m)	54.77	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.250	0.00	6.167	1.93	12.250	47.82
0.333	1.33	6.250	1.93	12.333	17.41
0.417	1.33	6.333	2.17	12.417	17.39
0.500	1.33	6.417	2.17	12.500	17.39
0.583	1.33	6.500	2.17	12.583	17.39
0.667	1.33	6.583	2.17	12.667	17.39
0.750	1.33	6.667	2.17	12.750	17.39
0.833	1.33	6.750	2.17	12.833	8.94
0.917	1.33	6.833	2.17	12.917	8.94
1.000	1.33	6.917	2.17	13.000	8.94
1.083	1.33	7.000	2.17	13.083	8.94
1.167	1.33	7.083	2.17	13.167	8.94
1.250	1.33	7.167	2.17	13.250	8.94
1.333	1.33	7.250	2.17	13.333	6.52
1.417	1.33	7.333	2.66	13.417	6.52
1.500	1.33	7.417	2.66	13.500	6.52
1.583	1.33	7.500	2.66	13.583	6.52
1.667	1.33	7.583	2.66	13.667	6.52
1.750	1.33	7.667	2.66	13.750	6.52
1.833	1.33	7.750	2.66	13.833	5.07
1.917	1.33	7.833	2.66	13.917	5.07
2.000	1.33	7.917	2.66	14.000	5.07
2.083	1.33	8.000	2.66	14.083	5.07
2.167	1.33	8.083	2.66	14.167	5.07
2.250	1.33	8.167	2.66	14.250	5.07
2.333	1.33	8.250	2.66	14.333	3.62
2.417	1.33	8.333	3.14	14.417	3.62

2.333	1.57	8.417	3.14	14.500	3.62	20.58	1.45
2.417	1.57	8.500	3.14	14.583	3.62	20.67	1.45
2.500	1.57	8.583	3.14	14.667	3.62	20.75	1.45
2.583	1.57	8.667	3.14	14.750	3.62	20.83	1.45
2.667	1.57	8.750	3.14	14.833	3.62	20.92	1.45
2.750	1.57	8.833	3.38	14.917	3.62	21.00	1.45
2.833	1.57	8.917	3.38	15.000	3.62	21.08	1.45
2.917	1.57	9.000	3.38	15.083	3.62	21.17	1.45
3.000	1.57	9.083	3.38	15.167	3.62	21.25	1.45
3.083	1.57	9.167	3.38	15.250	3.62	21.33	1.45
3.167	1.57	9.250	3.38	15.333	3.62	21.42	1.45
3.250	1.57	9.333	3.86	15.417	3.62	21.50	1.45
3.333	1.57	9.417	3.86	15.500	3.62	21.58	1.45
3.417	1.57	9.500	3.86	15.583	3.62	21.67	1.45
3.500	1.57	9.583	3.86	15.667	3.62	21.75	1.45
3.583	1.57	9.667	3.86	15.750	3.62	21.83	1.45
3.667	1.57	9.750	3.86	15.833	3.62	21.92	1.45
3.750	1.57	9.833	4.35	15.917	3.62	22.00	1.45
3.833	1.57	9.917	4.35	16.000	3.62	22.08	1.45
3.917	1.57	10.000	4.35	16.083	3.62	22.17	1.45
4.000	1.57	10.083	4.35	16.167	3.62	22.25	1.45
4.083	1.57	10.167	4.35	16.250	3.62	22.33	1.45
4.167	1.57	10.250	4.35	16.333	2.17	22.42	1.45
4.250	1.57	10.333	5.56	16.417	2.17	22.50	1.45
4.333	1.93	10.417	5.56	16.500	2.17	22.58	1.45
4.417	1.93	10.500	5.56	16.583	2.17	22.67	1.45
4.500	1.93	10.583	5.56	16.667	2.17	22.75	1.45
4.583	1.93	10.667	5.56	16.750	2.17	22.83	1.45
4.667	1.93	10.750	5.56	16.833	2.17	22.92	1.45
4.750	1.93	10.833	7.49	16.917	2.17	23.00	1.45
4.833	1.93	10.917	7.49	17.000	2.17	23.08	1.45
4.917	1.93	11.000	7.49	17.083	2.17	23.17	1.45
5.000	1.93	11.083	7.49	17.167	2.17	23.25	1.45
5.083	1.93	11.167	7.49	17.250	2.17	23.33	1.45
5.167	1.93	11.250	7.49	17.333	2.17	23.42	1.45
5.250	1.93	11.333	11.59	17.417	2.17	23.50	1.45
5.333	1.93	11.417	11.59	17.500	2.17	23.58	1.45
5.417	1.93	11.500	11.59	17.583	2.17	23.67	1.45
5.500	1.93	11.583	11.59	17.667	2.17	23.75	1.45
5.583	1.93	11.667	11.59	17.750	2.17	23.83	1.45
5.667	1.93	11.750	11.59	17.833	2.17	23.92	1.45
5.750	1.93	11.833	35.75	17.917	2.17	24.00	1.45
5.833	1.93	11.917	35.75	18.000	2.17	24.08	1.45
5.917	1.93	12.000	35.75	18.083	2.17	24.17	1.45
6.000	1.93	12.083	147.81	18.167	2.17	24.25	1.45
6.083	1.93	12.167	147.82	18.250	2.17		

Max. Eff. Inten. (mm/hr)= 147.82 105.45
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 1.80 (ii) 8.71 (ii)

 V V I SSSSS U U A L (v 6.2.2008)
 V V I SS U U A A L
 V V I SS U U A A L
 V V I SSSSS UUUU A A LLLL

000 TTTT TTTT H H Y Y M M O O TM
 O O T T H H Y Y M M O O O
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***** D E T A I L E D O U T P U T *****

Input filename: C:\Program Files (x86)\Visual OTTHYMD 6.2\VO2\voin.dat

Output filename:
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 08f-39f0-4934-aa45-62521558c237\scena
 Summary filename:
 C:\Users\kswain\AppData\Local\Civica\VH

0.500	1.46	6.583	2.39	12.667	19.11	18.75	2.39
0.583	1.46	6.667	2.39	12.750	19.11	18.83	2.39
0.667	1.46	6.750	2.39	12.833	9.82	18.92	2.39
0.750	1.46	6.833	2.39	12.917	9.82	19.00	2.39
0.833	1.46	6.917	2.39	13.000	9.82	19.08	2.39
0.917	1.46	7.000	2.39	13.083	9.82	19.17	2.39
1.000	1.46	7.083	2.39	13.167	9.82	19.25	2.39
1.083	1.46	7.167	2.39	13.250	9.82	19.33	2.39
1.167	1.46	7.250	2.39	13.333	7.17	19.42	2.39
1.250	1.46	7.333	2.92	13.417	7.17	19.50	2.39
1.333	1.46	7.417	2.92	13.500	7.17	19.58	2.39
1.417	1.46	7.500	2.92	13.583	7.17	19.67	2.39
1.500	1.46	7.583	2.92	13.667	7.17	19.75	2.39
1.583	1.46	7.667	2.92	13.750	7.17	19.83	2.39
1.667	1.46	7.750	2.92	13.833	5.58	19.92	2.39
1.750	1.46	7.833	2.92	13.917	5.58	20.00	2.39
1.833	1.46	7.917	2.92	14.000	5.58	20.08	2.39
1.917	1.46	8.000	2.92	14.083	5.58	20.17	2.39
2.000	1.46	8.083	2.92	14.167	5.58	20.25	2.39
2.083	1.46	8.167	2.92	14.250	5.58	20.33	1.59
2.167	1.46	8.250	2.92	14.333	3.98	20.42	1.59
2.250	1.46	8.333	3.45	14.417	3.98	20.50	1.59
2.333	1.73	8.417	3.45	14.500	3.98	20.58	1.59
2.417	1.73	8.500	3.45	14.583	3.98	20.67	1.59
2.500	1.73	8.583	3.45	14.667	3.98	20.75	1.59
2.583	1.73	8.667	3.45	14.750	3.98	20.83	1.59
2.667	1.73	8.750	3.45	14.833	3.98	20.92	1.59
2.750	1.73	8.833	3.72	14.917	3.98	21.00	1.59
2.833	1.73	8.917	3.72	15.000	3.98	21.08	1.59
2.917	1.73	9.000	3.72	15.083	3.98	21.17	1.59
3.000	1.73	9.083	3.72	15.167	3.98	21.25	1.59
3.083	1.73	9.167	3.72	15.250	3.98	21.33	1.59
3.167	1.73	9.250	3.72	15.333	3.98	21.42	1.59
3.250	1.73	9.333	4.25	15.417	3.98	21.50	1.59
3.333	1.73	9.417	4.25	15.500	3.98	21.58	1.59
3.417	1.73	9.500	4.25	15.583	3.98	21.67	1.59
3.500	1.73	9.583	4.25	15.667	3.98	21.75	1.59
3.583	1.73	9.667	4.25	15.750	3.98	21.83	1.59
3.667	1.73	9.750	4.25	15.833	3.98	21.92	1.59
3.750	1.73	9.833	4.78	15.917	3.98	22.00	1.59
3.833	1.73	9.917	4.78	16.000	3.98	22.08	1.59
3.917	1.73	10.000	4.78	16.083	3.98	22.17	1.59
4.000	1.73	10.083	4.78	16.167	3.98	22.25	1.59
4.083	1.73	10.167	4.78	16.250	3.98	22.33	1.59
4.167	1.73	10.250	4.78	16.333	2.39	22.42	1.59
4.250	1.73	10.333	6.11	16.417	2.39	22.50	1.59
4.333	1.73	10.417	6.11	16.500	2.39	22.58	1.59
4.417	1.73	10.483	6.11	16.583	2.39	22.67	1.59
4.500	1.73	10.567	6.11	16.667	2.39	22.75	1.59
4.583	1.73	10.650	6.11	16.750	2.39	22.83	1.59

0.250	0.00	6.333	2.39	12.417	19.11	18.50	2.39
0.333	1.46	6.417	2.39	12.500	19.11	18.58	2.39
0.417	1.46	6.500	2.39	12.583	19.11	18.67	2.39
0.500	1.46	6.583	2.39	12.667	19.11	18.75	2.39
0.583	1.46	6.667	2.39	12.750	19.11	18.83	2.39
0.667	1.46	6.750	2.39	12.833	9.82	18.92	2.39
0.750	1.46	6.833	2.39	12.917	9.82	19.00	2.39
0.833	1.46	6.917	2.39	13.000	9.82	19.08	2.39
0.917	1.46	7.000	2.39	13.083	9.82	19.17	2.39
1.000	1.46	7.083	2.39	13.167	9.82	19.25	2.39
1.083	1.46	7.167	2.39	13.250	9.82	19.33	2.39
1.167	1.46	7.250	2.39	13.333	7.17	19.42	2.39
1.250	1.46	7.333	2.92	13.417	7.17	19.50	2.39
1.333	1.46	7.417	2.92	13.500	7.17	19.58	2.39
1.417	1.46	7.500	2.92	13.583	7.17	19.67	2.39
1.500	1.46	7.583	2.92	13.667	7.17	19.75	2.39
1.583	1.46	7.667	2.92	13.750	7.17	19.83	2.39
1.667	1.46	7.750	2.92	13.833	5.58	19.92	2.39
1.750	1.46	7.833	2.92	13.917	5.58	20.00	2.39
1.833	1.46	7.917	2.92	14.000	5.58	20.08	2.39
1.917	1.46	8.000	2.92	14.083	5.58	20.17	2.39
2.000	1.46	8.083	2.92	14.167	5.58	20.25	2.39
2.083	1.46	8.167	2.92	14.250	5.58	20.33	1.59
2.167	1.46	8.250	2.92	14.333	3.98	20.42	1.59
2.250	1.46	8.333	3.45	14.417	3.98	20.50	1.59
2.333	1.73	8.417	3.45	14.500	3.98	20.58	1.59
2.417	1.73	8.500	3.45	14.583	3.98	20.67	1.59
2.500	1.73	8.583	3.45	14.667	3.98	20.75	1.59
2.583	1.73	8.667	3.45	14.750	3.98	20.83	1.59
2.667	1.73	8.750	3.45	14.833	3.98	20.92	1.59
2.750	1.73	8.833	3.72	14.917	3.98	21.00	1.59
2.833	1.73	8.917	3.72	15.000	3.98	21.08	1.59
2.917	1.73	9.000	3.72	15.083	3.98	21.17	1.59
3.000	1.73	9.083	3.72	15.167	3.98	21.25	1.59
3.083	1.73	9.167	3.72	15.250	3.98	21.33	1.59
3.167	1.73	9.250	3.72	15.333	3.98	21.42	1.59
3.250	1.73	9.333	4.25	15.417	3.98	21.50	1.59
3.333	1.73	9.417	4.25	15.500	3.98	21.58	1.59
3.417	1.73	9.500	4.25	15.583	3.98	21.67	1.59
3.500	1.73	9.583	4.25	15.667	3.98	21.75	1.59
3.583	1.73	9.667	4.25	15.750	3.98	21.83	1.59
3.667	1.73	9.750	4.25	15.833	3.98	21.92	1.59
3.750	1.73	9.833	4.78	15.917	3.98	22.00	1.59
3.833	1.73	9.917	4.78	16.000	3.98	22.08	1.59
3.917	1.73	10.000	4.78	16.083	3.98	22.17	1.59
4.000	1.73	10.083	4.78	16.167	3.98	22.25	1.59
4.083	1.73	10.167	4.78	16.250	3.98	22.33	1.59
4.167	1.73	10.250	4.78	16.333	2.39	22.42	1.59
4.250	1.73	10.333	6.11	16.417	2.39	22.50	1.59
4.333	1.73	10.417	6.11	16.500	2.39	22.58	1.59

0.1000	0.0950	0.2000	0.1600
0.1100	0.1120	0.0000	0.0000
AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW: ID= 2 (0002)	3.320	1.128	12.25
OUTFLOW: ID= 1 (0004)	3.320	0.274	12.50
104.018			104.01

PEAK FLOW REDUCTION (Qout/Qin)(%)= 24.28
TIME SHIFT OF PEAK FLOW (min)= 15.00
MAXIMUM STORAGE USED (ha.m.)= 0.1599

ADD HYD (0003)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3	0.158	0.109	12.33	72.48
ID= 1 (0001)	0.158	0.109	12.33	72.48
+ ID2= 2 (0004)	3.32	0.274	12.50	104.01
ID = 3 (0003)	3.90	0.367	12.42	99.32

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.
--- TRANSFORMED HYETOGRAPH ---
TIME RAIN TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr hrs mm/hr hrs mm/hr
0.083 0.00 6.167 2.12 12.250 162.47 18.33 2.39
0.167 0.00 6.250 2.12 12.333 19.13 18.42 2.39
0.250 0.00 6.333 2.39 12.417 19.11 18.50 2.39
0.333 1.46 6.417 2.39 12.500 19.13 18.58 2.39
0.417 1.46 6.500 2.39 12.583 19.11 18.67 2.39
0.500 1.46 6.583 2.39 12.667 19.11 18.75 2.39
0.583 1.46 6.667 2.39 12.750 19.11 18.83 2.39

Ptotal=132.74 mm Comments: L: 100yr 24hr 15min SCS Type II

TIME RAIN TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr hrs mm/hr hrs mm/hr
0.00 0.00 6.25 2.39 12.50 19.11 18.75 2.39
0.25 1.46 6.333 2.39 12.667 19.11 18.83 2.39
0.50 1.46 6.417 2.39 12.750 19.11 18.92 2.39
0.75 1.46 6.500 2.39 12.833 19.11 19.00 2.39
1.00 1.46 6.583 2.39 12.917 19.11 19.08 2.39
1.25 1.46 6.667 2.39 13.000 19.11 19.17 2.39
1.50 1.46 6.750 2.39 13.083 19.11 19.25 2.39
1.75 1.46 6.833 2.39 13.167 19.11 19.33 2.39
2.00 1.46 6.917 2.39 13.250 19.11 19.42 2.39
2.25 1.73 7.000 2.39 13.333 7.17 19.50 2.39
2.50 1.73 7.083 2.39 13.417 7.17 19.58 2.39
2.75 1.73 7.167 2.39 13.500 7.17 19.67 2.39
3.00 1.73 7.250 2.39 13.583 7.17 19.75 2.39
3.25 1.73 7.333 2.92 13.667 7.17 19.83 2.39
3.50 1.73 7.417 2.92 13.750 7.17 19.92 2.39
3.75 1.73 7.500 2.92 13.833 5.58 19.92 2.39
4.00 1.73 7.583 2.92 13.917 5.58 20.00 2.39
4.25 1.73 7.667 2.92 14.000 5.58 20.08 2.39
4.50 1.73 7.750 2.92 14.083 5.58 20.17 2.39
4.75 1.73 7.833 2.92 14.167 5.58 20.25 2.39
5.00 1.73 7.917 2.92 14.250 5.58 20.33 1.59
5.25 2.12 8.000 2.92 14.333 3.98 20.42 1.59
5.50 2.12 8.083 2.92 14.417 3.98 20.50 1.59
5.75 2.12 8.167 2.92 14.500 3.98 20.58 1.59
6.00 2.12 8.250 2.92 14.583 3.98 20.67 1.59

CALIB STANDHYD (0002)	Area (ha)= 0.58	Curve Number (CN)= 72.3
ID= 1 DT= 5.0 min	Ia (mm)= 4.86	# of Linear Res.(N)= 3.00
	U.H. Tp(hrs)= 0.20	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---
TIME RAIN TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr hrs mm/hr hrs mm/hr
0.083 0.00 6.167 2.12 12.250 162.47 18.33 2.39
0.167 0.00 6.250 2.12 12.333 19.13 18.42 2.39
0.250 0.00 6.333 2.39 12.417 19.11 18.50 2.39
0.333 1.46 6.417 2.39 12.500 19.11 18.58 2.39
0.417 1.46 6.500 2.39 12.583 19.11 18.67 2.39

4.667 2.12 10.750 6.11 16.833 2.39 22.92 1.59
4.750 2.12 10.833 6.11 16.917 2.39 23.00 1.59
4.833 2.12 10.917 6.11 17.000 2.39 23.08 1.59
4.917 2.12 11.000 6.11 17.083 2.39 23.17 1.59
5.000 2.12 11.083 6.11 17.167 2.39 23.25 1.59
5.083 2.12 11.167 6.11 17.250 2.39 23.33 1.59
5.167 2.12 11.250 6.11 17.333 2.39 23.42 1.59
5.250 2.12 11.333 6.11 17.417 2.39 23.50 1.59
5.333 2.12 11.417 6.11 17.500 2.39 23.58 1.59
5.417 2.12

4.833	2.12	10.917	8.23	17.000	2.39	23.08	1.59
4.917	2.12	11.000	8.23	17.083	2.39	23.17	1.59
5.000	2.12	11.083	8.23	17.167	2.39	23.25	1.59
5.083	2.12	11.167	8.23	17.250	2.39	23.33	1.59
5.167	2.12	11.250	8.23	17.333	2.39	23.42	1.59
5.250	2.12	11.333	12.74	17.417	2.39	23.50	1.59
5.333	2.12	11.417	12.74	17.500	2.39	23.58	1.59
5.417	2.12	11.500	12.74	17.583	2.39	23.67	1.59
5.500	2.12	11.583	12.74	17.667	2.39	23.75	1.59
5.583	2.12	11.667	12.74	17.750	2.39	23.83	1.59
5.667	2.12	11.750	12.74	17.833	2.39	23.92	1.59
5.750	2.12	11.833	39.29	17.917	2.39	24.00	1.59
5.833	2.12	11.917	39.29	18.000	2.39	24.08	1.59
5.917	2.12	12.000	39.29	18.083	2.39	24.17	1.59
6.000	2.12	12.083	162.46	18.167	2.39	24.25	1.59
6.083	2.12	12.167	162.47	18.250	2.39		

Max.Eff.Inten.(mm/hr)= 162.47 103.83
over (min) 5.00 10.00
Storage Coeff. (min)= 2.13 (ii) 9.08 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.31 0.12

TOTALS
0.516 (iii)
12.25
101.11
132.74
0.76

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALLIB | STANHYD (0356) | Area (ha)= 17.13
ID= 1 DT= 5.0 min | Total Imp(%)= 69.00 Dir. Conn.(%)= 61.00

Surface Area (ha)	=	11.82	5.31
Dep. Storage (mm)	=	1.00	5.00
Average Slope (%)	=	1.00	2.00
Length (m)	=	337.93	40.00
Mannings n	=	0.013	0.250

3.750	1.73	9.833	4.78	15.917	3.98	22.00	1.59
3.833	1.73	9.917	4.78	16.000	3.98	22.08	1.59
3.917	1.73	10.000	4.78	16.083	3.98	22.17	1.59
4.000	1.73	10.083	4.78	16.167	3.98	22.25	1.59
4.083	1.73	10.167	4.78	16.250	3.98	22.33	1.59
4.167	1.73	10.250	4.78	16.333	3.98	22.42	1.59
4.250	1.73	10.333	4.78	16.417	3.98	22.50	1.59
4.333	2.12	10.417	6.11	16.500	2.39	22.58	1.59
4.417	2.12	10.500	6.11	16.583	2.39	22.67	1.59
4.500	2.12	10.583	6.11	16.667	2.39	22.75	1.59
4.583	2.12	10.667	6.11	16.750	2.39	22.83	1.59
4.667	2.12	10.750	6.11	16.833	2.39	22.92	1.59
4.750	2.12	10.833	8.23	16.917	2.39	23.00	1.59
4.833	2.12	10.917	8.23	17.000	2.39	23.08	1.59
4.917	2.12	11.000	8.23	17.083	2.39	23.17	1.59
5.000	2.12	11.083	8.23	17.167	2.39	23.25	1.59
5.083	2.12	11.167	8.23	17.250	2.39	23.33	1.59
5.167	2.12	11.250	8.23	17.333	2.39	23.42	1.59
5.250	2.12	11.333	12.74	17.417	2.39	23.50	1.59
5.333	2.12	11.417	12.74	17.500	2.39	23.58	1.59
5.417	2.12	11.500	12.74	17.583	2.39	23.67	1.59
5.500	2.12	11.583	12.74	17.667	2.39	23.75	1.59
5.583	2.12	11.667	12.74	17.750	2.39	23.83	1.59
5.667	2.12	11.750	12.74	17.833	2.39	23.92	1.59
5.750	2.12	11.833	39.29	17.917	2.39	24.00	1.59
5.833	2.12	11.917	39.29	18.000	2.39	24.08	1.59
5.917	2.12	12.000	39.29	18.083	2.39	24.17	1.59
6.000	2.12	12.083	162.46	18.167	2.39	24.25	1.59
6.083	2.12	12.167	162.47	18.250	2.39		

Max.Eff.Inten.(mm/hr)= 162.47 *****
over (min) 5.00 10.00
Storage Coeff. (min)= 4.37 (ii) 8.80 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.23 0.12

TOTALS
6.188 (iii)
12.25
110.97
132.74
0.84

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

2.667	1.73	8.750	3.45	14.833	3.98	20.92	1.59
2.750	1.73	8.833	3.72	14.917	3.98	21.00	1.59
2.833	1.73	8.917	3.72	15.000	3.98	21.08	1.59
2.917	1.73	9.000	3.72	15.083	3.98	21.17	1.59
3.000	1.73	9.083	3.72	15.167	3.98	21.25	1.59
3.083	1.73	9.167	3.72	15.250	3.98	21.33	1.59
3.167	1.73	9.250	3.72	15.333	3.98	21.42	1.59
3.250	1.73	9.333	4.25	15.417	3.98	21.50	1.59
3.333	1.73	9.417	4.25	15.500	3.98	21.58	1.59
3.417	1.73	9.500	4.25	15.583	3.98	21.67	1.59
3.500	1.73	9.583	4.25	15.667	3.98	21.75	1.59
3.583	1.73	9.667	4.25	15.750	3.98	21.83	1.59
3.667	1.73	9.750	4.25	15.833	3.98	21.92	1.59
3.750	1.73	9.833	4.78	15.917	3.98	22.00	1.59
3.833	1.73	9.917	4.78	16.000	3.98	22.08	1.59
3.917	1.73	10.000	4.78	16.083	3.98	22.17	1.59
4.000	1.73	10.083	4.78	16.167	3.98	22.25	1.59
4.083	1.73	10.167	4.78	16.250	3.98	22.33	1.59
4.167	1.73	10.250	4.78	16.333	3.98	22.42	1.59
4.250	1.73	10.333	6.11	16.417	2.39	22.50	1.59
4.333	2.12	10.417	6.11	16.500	2.39	22.58	1.59
4.417	2.12	10.500	6.11	16.583	2.39	22.67	1.59
4.500	2.12	10.583	6.11	16.667	2.39	22.75	1.59
4.583	2.12	10.667	6.11	16.750	2.39	22.83	1.59
4.667	2.12	10.750	6.11	16.833	2.39	22.92	1.59
4.750	2.12	10.833	8.23	16.917	2.39	23.00	1.59
4.833	2.12	10.917	8.23	17.000	2.39	23.08	1.59
4.917	2.12	11.000	8.23	17.083	2.39	23.17	1.59
5.000	2.12	11.083	8.23	17.167	2.39	23.25	1.59
5.083	2.12	11.167	8.23	17.250	2.39	23.33	1.59
5.167	2.12	11.250	8.23	17.333	2.39	23.42	1.59
5.250	2.12	11.333	12.74	17.417	2.39	23.50	1.59
5.333	2.12	11.417	12.74	17.500	2.39	23.58	1.59
5.417	2.12	11.500	12.74	17.583	2.39	23.67	1.59
5.500	2.12	11.583	12.74	17.667	2.39	23.75	1.59
5.583	2.12	11.667	12.74	17.750	2.39	23.83	1.59
5.667	2.12	11.750	12.74	17.833	2.39	23.92	1.59
5.750	2.12	11.833	39.29	17.917	2.39	24.00	1.59
5.833	2.12	11.917	39.29	18.000	2.39	24.08	1.59
5.917	2.12	12.000	39.29	18.083	2.39	24.17	1.59
6.000	2.12	12.083	162.46	18.167	2.39	24.25	1.59
6.083	2.12	12.167	162.47	18.250	2.39		

Max.Eff.Inten.(mm/hr)= 162.47 *****
over (min) 5.00 10.00
Storage Coeff. (min)= 1.68 (ii) 5.69 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.32 0.12

TOTALS
0.278 (iii)

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.250	0.00	0.250	0.00	0.250	0.00	0.250	0.00	0.250	0.00	0.250	0.00
0.500	0.00	0.500	0.00	0.500	0.00	0.500	0.00	0.500	0.00	0.500	0.00
0.750	0.00	0.750	0.00	0.750	0.00	0.750	0.00	0.750	0.00	0.750	0.00
1.000	0.00	1.000	0.00	1.000	0.00	1.000	0.00	1.000	0.00	1.000	0.00
1.250	0.00	1.250	0.00	1.250	0.00	1.250	0.00	1.250	0.00	1.250	0.00
1.500	0.00	1.500	0.00	1.500	0.00	1.500	0.00	1.500	0.00	1.500	0.00
1.750	0.00	1.750	0.00	1.750	0.00	1.750	0.00	1.750	0.00	1.750	0.00
2.000	0.00	2.000	0.00	2.000	0.00	2.000	0.00	2.000	0.00	2.000	0.00
2.250	0.00	2.250	0.00	2.250	0.00	2.250	0.00	2.250	0.00	2.250	0.00
2.500	0.00	2.500	0.00	2.500	0.00	2.500	0.00	2.500	0.00	2.500	0.00
2.750	0.00	2.750	0.00	2.750	0.00	2.750	0.00	2.750	0.00	2.750	0.00
3.000	0.00	3.000	0.00	3.000	0.00	3.000	0.00	3.000	0.00	3.000	0.00
3.250	0.00	3.250	0.00	3.250	0.00	3.250	0.00	3.250	0.00	3.250	0.00
3.500	0.00	3.500	0.00	3.500	0.00	3.500	0.00	3.500	0.00	3.500	0.00
3.750	0.00	3.750	0.00	3.750	0.00	3.750	0.00	3.750	0.00	3.750	0.00
4.000	0.00	4.000	0.00	4.000	0.00	4.000	0.00	4.000	0.00	4.000	0.00
4.250	0.00	4.250	0.00	4.250	0.00	4.250	0.00	4.250	0.00	4.250	0.00
4.500	0.00	4.500	0.00	4.500	0.00	4.500	0.00	4.500	0.00	4.500	0.00
4.750	0.00	4.750	0.00	4.750	0.00	4.750	0.00	4.750	0.00	4.750	0.00
5.000	0.00	5.000	0.00	5.000	0.00	5.000	0.00	5.000	0.00	5.000	0.00
5.250	0.00	5.250	0.00	5.250	0.00	5.250	0.00	5.250	0.00	5.250	0.00
5.500	0.00	5.500	0.00	5.500	0.00	5.500	0.00	5.500	0.00	5.500	0.00
5.750	0.00	5.750	0.00	5.750	0.00	5.750	0.00	5.750	0.00	5.750	0.00
6.000	0.00	6.000	0.00	6.000	0.00	6.000	0.00	6.000	0.00	6.000	0.00
6.250	0.00	6.250	0.00	6.250	0.00	6.250	0.00	6.250	0.00	6.250	0.00
6.500	0.00	6.500	0.00	6.500	0.00	6.500	0.00	6.500	0.00	6.500	0.00
6.750	0.00	6.750	0.00	6.750	0.00	6.750	0.00	6.750	0.00	6.750	0.00
7.000	0.00	7.000	0.00	7.000	0.00	7.000	0.00	7.000	0.00	7.000	0.00
7.250	0.00	7.250	0.00	7.250	0.00	7.250	0.00	7.250	0.00	7.250	0.00

ADD HYD (0357)	AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (0357):	2.19	0.672	12.25	104.83
+ ID2= 2 (0356):	17.13	6.188	12.25	110.97

ID = 1 (0357):	19.32	6.860	12.25	110.28

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (0358)	OVERFLOW IS OFF
IN= 2--- OUT= 1	
DT= 5.0 min	
	OUTFLOW STORAGE
	(cms) (ha.m.)
	(cms) (ha.m.)
	0.0000 0.0000 0.7600 0.9520
	0.0420 0.1820 1.3660 1.2980
	0.0630 0.3560 1.8960 1.5720
	0.3940 0.7050 4.0080 1.9390

INFLOW : ID= 2 (0357)	19.320	6.860	12.25	110.28
OUTFLOW: ID= 1 (0358)	19.320	1.074	12.67	110.22

PEAK FLOW REDUCTION [Qout/Qin](%)= 15.66
 TIME SHIFT OF PEAK FLOW (min)= 25.00
 MAXIMUM STORAGE USED (ha.m.)= 1.1317

CALIB (0359)	Area (ha)= 0.45
ID= 1 DT= 5.0 min	Total Imp(%)= 71.30 Dir. Conn.(%)= 66.10

IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)= 0.32	0.13
Dep. Storage (mm)= 1.00	5.00
Average Slope (%)= 1.00	2.00
Length (m)= 54.77	40.00
Mannings n = 0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME RAIN	TIME RAIN	' TIME RAIN	TIME RAIN
-----------	-----------	-------------	-----------

TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	131.74	78.15	114.05
TOTAL RAINFALL (mm)=	132.74	132.74	132.74
RUNOFF COEFFICIENT =	0.99	0.59	0.86

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHVD (0025)	AREA	QPEAK	TPEAK	R.V.
Inlet Cap.= 0.156	(ha)	(cms)	(hrs)	(mm)
nof Inlets= 1				
Total(cms)= 0.2				

TOTAL HYD.(ID= 1):	0.71	0.28	12.25	114.05

MAJOR SYS.(ID= 2):	0.08	0.12	12.25	114.05
MINOR SYS.(ID= 3):	0.63	0.16	12.08	114.05

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0024)	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 9(0025)	0.63	0.16	12.08	114.05
OUTFLOW: ID= 2(0024)	0.63	0.16	12.08	114.05

ADD HYD (0357)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (0024):	0.63	0.156	12.08	114.05
+ ID2= 2 (0355):	1.56	0.516	12.25	101.11

ID = 3 (0357):	2.19	0.672	12.25	104.83

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

4.167	1.73	10.250	4.78	16.333	2.39	22.42	1.59
4.250	1.73	10.333	6.11	16.417	2.39	22.50	1.59
4.333	1.12	10.417	6.11	16.500	2.39	22.58	1.59
4.417	1.12	10.500	6.11	16.583	2.39	22.67	1.59
4.500	1.12	10.583	6.11	16.667	2.39	22.75	1.59
4.583	1.12	10.667	6.11	16.750	2.39	22.83	1.59
4.667	1.12	10.750	6.11	16.833	2.39	22.92	1.59
4.750	1.12	10.833	8.23	16.917	2.39	23.00	1.59
4.833	1.12	10.917	8.23	17.000	2.39	23.08	1.59
4.917	1.12	11.000	8.23	17.083	2.39	23.17	1.59
5.000	1.12	11.083	8.23	17.167	2.39	23.25	1.59
5.083	1.12	11.167	8.23	17.250	2.39	23.33	1.59
5.167	1.12	11.250	8.23	17.333	2.39	23.42	1.59
5.250	1.12	11.333	12.74	17.417	2.39	23.50	1.59
5.333	1.12	11.417	12.74	17.500	2.39	23.58	1.59
5.417	1.12	11.500	12.74	17.583	2.39	23.67	1.59
5.500	1.12	11.583	12.74	17.667	2.39	23.75	1.59
5.583	1.12	11.667	12.74	17.750	2.39	23.83	1.59
5.667	1.12	11.750	12.74	17.833	2.39	23.92	1.59
5.750	1.12	11.833	39.29	17.917	2.39	24.00	1.59
5.833	1.12	11.917	39.29	18.000	2.39	24.08	1.59
5.917	1.12	12.000	39.29	18.083	2.39	24.17	1.59
6.000	1.12	12.083	162.46	18.167	2.39	24.25	1.59
6.083	1.12	12.167	162.47	18.250	2.39		

Max. Eff. Inten. (mm/hr)=	162.47	*****
over (min)	5.00	10.00
Storage Coeff. (min)=	1.47 (ii)	5.63 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.33	0.15

PEAK FLOW (cms)=	0.13	0.04	0.175 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	
RUNOFF VOLUME (mm)=	131.74	76.33	112.95
TOTAL RAINFALL (mm)=	132.74	132.74	
RUNOFF COEFFICIENT =	0.99	0.58	0.85

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (0370)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3				

hrs mm/hr	hrs mm/hr	' hrs mm/hr	hrs mm/hr				
0.083	0.00	6.167	2.12	12.250	162.47	18.33	2.39
0.167	0.00	6.250	2.12	12.333	19.13	18.42	2.39
0.250	0.00	6.333	2.39	12.417	19.11	18.50	2.39
0.333	1.46	6.417	2.39	12.500	19.11	18.58	2.39
0.417	1.46	6.500	2.39	12.583	19.11	18.67	2.39
0.500	1.46	6.583	2.39	12.667	19.11	18.75	2.39
0.583	1.46	6.667	2.39	12.750	19.11	18.83	2.39
0.667	1.46	6.750	2.39	12.833	9.82	18.92	2.39
0.750	1.46	6.833	2.39	12.917	9.82	19.00	2.39
0.833	1.46	6.917	2.39	13.000	9.82	19.08	2.39
0.917	1.46	7.000	2.39	13.083	9.82	19.17	2.39
1.000	1.46	7.083	2.39	13.167	9.82	19.25	2.39
1.083	1.46	7.167	2.39	13.250	9.82	19.33	2.39
1.167	1.46	7.250	2.39	13.333	7.17	19.42	2.39
1.250	1.46	7.333	2.92	13.417	7.17	19.50	2.39
1.333	1.46	7.417	2.92	13.500	7.17	19.58	2.39
1.417	1.46	7.500	2.92	13.583	7.17	19.67	2.39
1.500	1.46	7.583	2.92	13.667	7.17	19.75	2.39
1.583	1.46	7.667	2.92	13.750	7.17	19.83	2.39
1.667	1.46	7.750	2.92	13.833	5.58	19.92	2.39
1.750	1.46	7.833	2.92	13.917	5.58	20.00	2.39
1.833	1.46	7.917	2.92	14.000	5.58	20.08	2.39
1.917	1.46	8.000	2.92	14.083	5.58	20.17	2.39
2.000	1.46	8.083	2.92	14.167	5.58	20.25	2.39
2.083	1.46	8.167	2.92	14.250	5.58	20.33	1.59
2.167	1.46	8.250	2.92	14.333	3.98	20.42	1.59
2.250	1.46	8.333	3.45	14.417	3.98	20.50	1.59
2.333	1.73	8.417	3.45	14.500	3.98	20.58	1.59
2.417	1.73	8.500	3.45	14.583	3.98	20.67	1.59
2.500	1.73	8.583	3.45	14.667	3.98	20.75	1.59
2.583	1.73	8.667	3.45	14.750	3.98	20.83	1.59
2.667	1.73	8.750	3.45	14.833	3.98	20.92	1.59
2.750	1.73	8.833	3.72	14.917	3.98	21.00	1.59
2.833	1.73	8.917	3.72	15.000	3.98	21.08	1.59
2.917	1.73	9.000	3.72	15.083	3.98	21.17	1.59
3.000	1.73	9.083	3.72	15.167	3.98	21.25	1.59
3.083	1.73	9.167	3.72	15.250	3.98	21.33	1.59
3.167	1.73	9.250	3.72	15.333	3.98	21.42	1.59
3.250	1.73	9.333	4.25	15.417	3.98	21.50	1.59
3.333	1.73	9.417	4.25	15.500	3.98	21.58	1.59
3.417	1.73	9.500	4.25	15.583	3.98	21.67	1.59
3.500	1.73	9.583	4.25	15.667	3.98	21.75	1.59
3.583	1.73	9.667	4.25	15.750	3.98	21.83	1.59
3.667	1.73	9.750	4.25	15.833	3.98	21.92	1.59
3.750	1.73	9.833	4.78	15.917	3.98	22.00	1.59
3.833	1.73	9.917	4.78	16.000	3.98	22.08	1.59
3.917	1.73	10.000	4.78	16.083	3.98	22.17	1.59
4.000	1.73	10.083	4.78	16.167	3.98	22.25	1.59
4.083	1.73	10.167	4.78	16.250	3.98	22.33	1.59

2.583	1.73	8.667	3.45	14.750	3.98	20.83	1.59
2.667	1.73	8.750	3.45	14.833	3.98	20.92	1.59
2.750	1.73	8.833	3.72	14.917	3.98	21.00	1.59
2.833	1.73	8.917	3.72	15.000	3.98	21.08	1.59
2.917	1.73	9.000	3.72	15.083	3.98	21.17	1.59
3.000	1.73	9.083	3.72	15.167	3.98	21.25	1.59
3.083	1.73	9.167	3.72	15.250	3.98	21.33	1.59
3.167	1.73	9.250	4.25	15.333	3.98	21.42	1.59
3.250	1.73	9.333	4.25	15.417	3.98	21.50	1.59
3.333	1.73	9.417	4.25	15.500	3.98	21.58	1.59
3.417	1.73	9.500	4.25	15.583	3.98	21.67	1.59
3.500	1.73	9.583	4.25	15.667	3.98	21.75	1.59
3.583	1.73	9.667	4.25	15.750	3.98	21.83	1.59
3.667	1.73	9.750	4.25	15.833	3.98	21.92	1.59
3.750	1.73	9.833	4.78	15.917	3.98	22.00	1.59
3.833	1.73	9.917	4.78	16.000	3.98	22.08	1.59
3.917	1.73	10.000	4.78	16.083	3.98	22.17	1.59
4.000	1.73	10.083	4.78	16.167	3.98	22.25	1.59
4.083	1.73	10.167	4.78	16.250	3.98	22.33	1.59
4.167	1.73	10.250	4.78	16.333	2.39	22.42	1.59
4.250	1.73	10.333	6.11	16.417	2.39	22.50	1.59
4.333	1.12	10.417	6.11	16.500	2.39	22.58	1.59
4.417	1.12	10.500	6.11	16.583	2.39	22.67	1.59
4.500	1.12	10.583	6.11	16.667	2.39	22.75	1.59
4.583	1.12	10.667	6.11	16.750</			

2.333	1.73	8.417	3.45	14.500	3.98	20.58	1.59
2.417	1.73	8.500	3.45	14.583	3.98	20.67	1.59
2.500	1.73	8.583	3.45	14.667	3.98	20.75	1.59
2.583	1.73	8.667	3.45	14.750	3.98	20.83	1.59
2.667	1.73	8.750	3.45	14.833	3.98	20.92	1.59
2.750	1.73	8.833	3.72	14.917	3.98	21.00	1.59
2.833	1.73	8.917	3.72	15.000	3.98	21.08	1.59
2.917	1.73	9.000	3.72	15.083	3.98	21.17	1.59
3.000	1.73	9.083	3.72	15.167	3.98	21.25	1.59
3.083	1.73	9.167	3.72	15.250	3.98	21.33	1.59
3.167	1.73	9.250	3.72	15.333	3.98	21.42	1.59
3.250	1.73	9.333	4.25	15.417	3.98	21.50	1.59
3.333	1.73	9.417	4.25	15.500	3.98	21.58	1.59
3.417	1.73	9.500	4.25	15.583	3.98	21.67	1.59
3.500	1.73	9.583	4.25	15.667	3.98	21.75	1.59
3.583	1.73	9.667	4.25	15.750	3.98	21.83	1.59
3.667	1.73	9.750	4.25	15.833	3.98	21.92	1.59
3.750	1.73	9.833	4.78	15.917	3.98	22.00	1.59
3.833	1.73	9.917	4.78	16.000	3.98	22.08	1.59
3.917	1.73	10.000	4.78	16.083	3.98	22.17	1.59
4.000	1.73	10.083	4.78	16.167	3.98	22.25	1.59
4.083	1.73	10.167	4.78	16.250	3.98	22.33	1.59
4.167	1.73	10.250	4.78	16.333	3.98	22.42	1.59
4.250	1.73	10.333	6.11	16.417	2.39	22.50	1.59
4.333	1.73	10.417	6.11	16.500	2.39	22.58	1.59
4.417	1.73	10.500	6.11	16.583	2.39	22.67	1.59
4.500	1.73	10.583	6.11	16.667	2.39	22.75	1.59
4.583	1.73	10.667	6.11	16.750	2.39	22.83	1.59
4.667	1.73	10.750	6.11	16.833	2.39	22.92	1.59
4.750	1.73	10.833	8.23	16.917	2.39	23.00	1.59
4.833	1.73	10.917	8.23	17.000	2.39	23.08	1.59
4.917	1.73	11.000	8.23	17.083	2.39	23.17	1.59
5.000	1.73	11.083	8.23	17.167	2.39	23.25	1.59
5.083	1.73	11.167	8.23	17.250	2.39	23.33	1.59
5.167	1.73	11.250	8.23	17.333	2.39	23.42	1.59
5.250	1.73	11.333	12.74	17.417	2.39	23.50	1.59
5.333	1.73	11.417	12.74	17.500	2.39	23.58	1.59
5.417	1.73	11.500	12.74	17.583	2.39	23.67	1.59
5.500	1.73	11.583	12.74	17.667	2.39	23.75	1.59
5.583	1.73	11.667	12.74	17.750	2.39	23.83	1.59
5.667	1.73	11.750	12.74	17.833	2.39	23.92	1.59
5.750	1.73	11.833	39.29	17.917	2.39	24.00	1.59
5.833	1.73	11.917	39.29	18.000	2.39	24.08	1.59
5.917	1.73	12.000	39.29	18.083	2.39	24.17	1.59
6.000	1.73	12.083	162.46	18.167	2.39	24.25	1.59
6.083	1.73	12.167	162.47	18.250	2.39		

Max. Eff. Inten. (mm/hr)= 162.47 120.71
over (min) 5.00 10.00
Storage Coeff. (min)= 1.73 (ii) 8.28 (ii)

ID = 1 (0361): 1.88 0.402 12.25 81.48

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

[CALIB]
[STANDHYD (0015)] Area (ha)= 0.45
[ID= 1 DT= 5.0 min] Total Imp(%)= 37.40

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.17 0.28
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 54.77 40.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---
TIME RAIN TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr hrs mm/hr hrs mm/hr
0.983 0.00 6.167 2.12 12.250 162.47 18.33 2.39
0.167 0.00 6.250 2.12 12.333 19.13 18.42 2.39
0.250 0.00 6.333 2.39 12.417 19.11 18.50 2.39
0.333 1.46 6.417 2.39 12.500 19.11 18.58 2.39
0.417 1.46 6.500 2.39 12.583 19.11 18.67 2.39
0.500 1.46 6.583 2.39 12.667 19.11 18.75 2.39
0.583 1.46 6.667 2.39 12.750 19.11 18.83 2.39
0.667 1.46 6.750 2.39 12.833 9.82 18.92 2.39
0.750 1.46 6.833 2.39 12.917 9.82 19.00 2.39
0.833 1.46 6.917 2.39 13.000 9.82 19.08 2.39
0.917 1.46 7.000 2.39 13.083 9.82 19.17 2.39
1.000 1.46 7.083 2.39 13.167 9.82 19.25 2.39
1.083 1.46 7.167 2.39 13.250 9.82 19.33 2.39
1.167 1.46 7.250 2.39 13.333 7.17 19.42 2.39
1.250 1.46 7.333 2.92 13.417 7.17 19.50 2.39
1.333 1.46 7.417 2.92 13.500 7.17 19.58 2.39
1.417 1.46 7.500 2.92 13.583 7.17 19.67 2.39
1.500 1.46 7.583 2.92 13.667 7.17 19.75 2.39
1.583 1.46 7.667 2.92 13.750 7.17 19.83 2.39
1.667 1.46 7.750 2.92 13.833 5.58 19.92 2.39
1.750 1.46 7.833 2.92 13.917 5.58 20.00 2.39
1.833 1.46 7.917 2.92 14.000 5.58 20.08 2.39
1.917 1.46 8.000 2.92 14.083 5.58 20.17 2.39
2.000 1.46 8.083 2.92 14.167 5.58 20.25 2.39
2.083 1.46 8.167 2.92 14.250 5.58 20.33 1.59
2.167 1.46 8.250 2.92 14.333 3.98 20.42 1.59
2.250 1.46 8.333 3.45 14.417 3.98 20.50 1.59

Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.33 0.12

TOTALS
PEAK FLOW (cms)= 0.08 0.06 0.137 (iii)
TIME TO PEAK (hrs)= 12.25 12.25 12.25
RUNOFF VOLUME (mm)= 131.74 70.49 93.39
TOTAL RAINFALL (mm)= 132.74 132.74 132.74
RUNOFF COEFFICIENT = 0.99 0.53 0.70

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 71.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

[Junction Command(0029)]

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 2(0015) 0.45 0.14 12.25 93.39
OUTFLOW: ID= 2(0029) 0.45 0.14 12.25 93.39

RUNOFF COEFFICIENT = 0.575
(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

[CALIB]
[STANDHYD (0018)] Area (ha)= 0.78
[ID= 1 DT= 5.0 min] Total Imp(%)= 20.00 Dir. Conn.(%)= 15.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.16 0.62
Dep. Storage (mm)= 5.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 72.11 40.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---
TIME RAIN TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr hrs mm/hr hrs mm/hr
0.983 0.00 6.167 2.12 12.250 162.47 18.33 2.39
0.167 0.00 6.250 2.12 12.333 19.13 18.42 2.39
0.250 0.00 6.333 2.39 12.417 19.11 18.50 2.39
0.333 1.46 6.417 2.39 12.500 19.11 18.58 2.39
0.417 1.46 6.500 2.39 12.583 19.11 18.67 2.39
0.500 1.46 6.583 2.39 12.667 19.11 18.75 2.39
0.583 1.46 6.667 2.39 12.750 19.11 18.83 2.39
0.667 1.46 6.750 2.39 12.833 9.82 18.92 2.39
0.750 1.46 6.833 2.39 12.917 9.82 19.00 2.39
0.833 1.46 6.917 2.39 13.000 9.82 19.08 2.39
0.917 1.46 7.000 2.39 13.083 9.82 19.17 2.39
1.000 1.46 7.083 2.39 13.167 9.82 19.25 2.39
1.083 1.46 7.167 2.39 13.250 9.82 19.33 2.39
1.167 1.46 7.250 2.39 13.333 7.17 19.42 2.39
1.250 1.46 7.333 2.92 13.417 7.17 19.50 2.39
1.333 1.46 7.417 2.92 13.500 7.17 19.58 2.39
1.417 1.46 7.500 2.92 13.583 7.17 19.67 2.39
1.500 1.46 7.583 2.92 13.667 7.17 19.75 2.39
1.583 1.46 7.667 2.92 13.750 7.17 19.83 2.39
1.667 1.46 7.750 2.92 13.833 5.58 19.92 2.39
1.750 1.46 7.833 2.92 13.917 5.58 20.00 2.39
1.833 1.46 7.917 2.92 14.000 5.58 20.08 2.39
1.917 1.46 8.000 2.92 14.083 5.58 20.17 2.39
2.000 1.46 8.083 2.92 14.167 5.58 20.25 2.39
2.083 1.46 8.167 2.92 14.250 5.58 20.33 1.59
2.167 1.46 8.250 2.92 14.333 3.98 20.42 1.59
2.250 1.46 8.333 3.45 14.417 3.98 20.50 1.59

Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.32 0.13

TOTALS
PEAK FLOW (cms)= 0.05 0.16 0.212 (iii)
TIME TO PEAK (hrs)= 12.25 12.25 12.25
RUNOFF VOLUME (mm)= 127.74 77.31 84.87
TOTAL RAINFALL (mm)= 132.74 132.74 132.74
RUNOFF COEFFICIENT = 0.96 0.58 0.64

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
***** WARNING: FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

[Junction Command(0026)]

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 8(0025) 0.08 0.12 12.25 114.05
OUTFLOW: ID= 2(0026) 0.08 0.12 12.25 114.05

[ADD HYD (0361)]
[1 + 2 = 3]
ID1 = 1 (0018): 0.78 0.212 12.25 84.87
+ ID2 = 2 (0026): 0.08 0.122 12.25 114.05

ID = 3 (0361): 0.86 0.334 12.25 87.59

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

[ADD HYD (0361)]
[3 + 2 = 1]
ID1 = 3 (0361): 0.86 0.334 12.25 87.59
+ ID2 = 2 (0360): 1.02 0.116 12.58 76.33

2.333 1.73 8.417 3.45 14.500 3.98 20.58 1.59
2.417 1.73 8.500 3.45 14.583 3.98 20.67 1.59
2.500 1.73 8.583 3.45 14.667 3.98 20.75 1.59
2.583 1.73 8.667 3.45 14.750 3.98 20.83 1.59
2.667 1.73 8.750 3.45 14.833 3.98 20.92 1.59
2.750 1.73 8.833 3.72 14.917 3.98 21.00 1.59
2.833 1.73 8.917 3.72 15.000 3.98 21.08 1.59
2.917 1.73 9.000 3.72 15.083 3.98 21.17 1.59
3.000 1.73 9.083 3.72 15.167 3.98 21.25 1.59
3.083 1.73 9.167 3.72 15.250 3.98 21.33 1.59
3.167 1.73 9.250 3.72 15.333 3.98 21.42 1.59
3.250 1.73 9.333 4.25 15.417 3.98 21.50 1.59
3.333 1.73 9.417 4.25 15.500 3.98 21.58 1.59
3.417 1.73 9.500 4.25 15.583 3.98 21.67 1.59
3.500 1.73 9.583 4.25 15.667 3.98 21.75 1.59
3.583 1.73 9.667 4.25 15.750 3.98 21.83 1.59
3.667 1.73 9.750 4.25 15.833 3.98 21.92 1.59
3.750 1.73 9.833 4.78 15.917 3.98 22.00 1.59
3.833 1.73 9.917 4.78 16.000 3.98 22.08 1.59
3.917 1.73 10.000 4.78 16.083 3.98 22.17 1.59
4.000 1.73 10.083 4.78 16.167 3.98 22.25 1.59
4.083 1.73 10.167 4.78 16.250 3.98 22.33 1.59
4.167 1.73 10.250 4.78 16.333 2.39 22.42 1.59
4.250 1.73 10.333 6.11 16.417 2.39 22.50 1.59
4.333 1.73 10.417 6.11 16.500 2.39 22.58 1.59
4.417 1.73 10.500 6.11 16.583 2.39 22.67 1.59
4.500 1.73 10.583 6.11 16.667 2.39 22.75 1.59
4.583 1.73 10.667 6.11 16.750 2.39 22.83 1.59
4.667 1.73 10.750 6.11 16.833 2.39 22.92 1.59
4.750 1.73 10.833 8.23 16.917 2.39 23.00 1.59
4.833 1.73 10.917 8.23 17.000 2.39 23.08 1.59
4.917 1.73 11.000 8.23 17.083 2.39 23.17 1.59
5.000 1.73 11.083 8.23 17.167 2.39 23.25 1.59
5.083 1.73 11.167 8.23 17.250 2.39 23.33 1.59
5.167 1.73 11.250 8.23 17.333 2.39 23.42 1.59
5.250 1.73 11.333 12.74 17.417 2.39 23.50 1.59
5.333 1.73 11.417 12.74 17.500 2.39 23.58 1.59
5.417 1.73 11.500 12.74 17.583 2.39 23.67 1.59
5.500 1.73 11.583 12.74 17.667 2.39 23.75 1.59
5.583 1.73 11.667 12.74 17.750 2.39 23.83 1.59
5.667 1.73 11.750 12.74 17.833 2.39 23.92 1.59
5.750 1.73 11.833 39.29 17.917 2.39 24.00 1.59
5.833 1.73 11.917 39.29 18.000 2.39 24.08 1.59
5.917 1.73 12.000 39.29 18.083 2.39 24.17 1.59
6.000 1.73 12.083 162.46 18.167 2.39 24.25 1.59
6.083 1.73 12.167 162.47 18.250 2.39

Max. Eff. Inten. (mm/hr)= 162.47 103.83
over (min) 5.00 10.00
Storage Coeff. (min)= 1.47 (ii) 8.42 (ii)

```

*****
V V I SSSSS U U A L (v 6.2.2008)
V V I SS U U A A L
V V I SS U U A A A A L
V V I SS U U A A L
V V I SSSSS UUUU A A LLLLL
000 TTTT TTTT H H Y Y M M 000 TM
O O T T H H Y Y M M O O
O O T T H H Y Y M M O O
000 T T H H Y Y M M 000
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**** D E T A I L E D O U T P U T ****

Input filename: C:\Program Files (x86)\Visual OTTHYMD 6.2\VO2\voin.dat
Output filename:
C:\Users\kswain\AppData\Local\Civica\VHS\4c9aa870-2b3a-4142-a551-3404d768702\033ef
90b-b337-4b55-99d3-85b36b46d2e2\scena
Summary filename:
C:\Users\kswain\AppData\Local\Civica\VHS\4c9aa870-2b3a-4142-a551-3404d768702\033ef
90b-b337-4b55-99d3-85b36b46d2e2\scena

DATE: 08-15-2023 TIME: 08:21:20

USER:

COMMENTS: _____

** SIMULATION : Hazel **

READ STORM | Filename: C:\Users\kswain\AppData\Local\Temp\

707e76ba-7094-48e4-9a18-b7ea01360470\867cfaf0
Ptotal=212.00 mm | Comments: Hazel

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	6.00	3.00	13.00	6.00	23.00	9.00	53.00
1.00	4.00	4.00	13.00	7.00	13.00	10.00	38.00
2.00	6.00	5.00	13.00	8.00	13.00	11.00	13.00

CALIB |
NASHYD (0001) | Area (ha)= 0.58 Curve Number (CN)= 85.0
ID= 1 DT= 5.0 min | Ia (mm)= 4.86 # of Linear Res.(N)= 3.00
U.H. Tp(hrs)= 0.20

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	6.00	3.083	13.00	6.083	23.00	9.08	53.00
0.167	6.00	3.167	13.00	6.167	23.00	9.17	53.00
0.250	6.00	3.250	13.00	6.250	23.00	9.25	53.00
0.333	6.00	3.333	13.00	6.333	23.00	9.33	53.00
0.417	6.00	3.417	13.00	6.417	23.00	9.42	53.00
0.500	6.00	3.500	13.00	6.500	23.00	9.50	53.00
0.583	6.00	3.583	13.00	6.583	23.00	9.58	53.00
0.667	6.00	3.667	13.00	6.667	23.00	9.67	53.00
0.750	6.00	3.750	13.00	6.750	23.00	9.75	53.00
0.833	6.00	3.833	13.00	6.833	23.00	9.83	53.00
0.917	6.00	3.917	13.00	6.917	23.00	9.92	53.00
1.000	6.00	4.000	13.00	7.000	23.00	10.00	53.00
1.083	4.00	4.083	17.00	7.083	13.00	10.08	38.00
1.167	4.00	4.167	17.00	7.167	13.00	10.17	38.00
1.250	4.00	4.250	17.00	7.250	13.00	10.25	38.00
1.333	4.00	4.333	17.00	7.333	13.00	10.33	38.00
1.417	4.00	4.417	17.00	7.417	13.00	10.42	38.00
1.500	4.00	4.500	17.00	7.500	13.00	10.50	38.00
1.583	4.00	4.583	17.00	7.583	13.00	10.58	38.00
1.667	4.00	4.667	17.00	7.667	13.00	10.67	38.00
1.750	4.00	4.750	17.00	7.750	13.00	10.75	38.00
1.833	4.00	4.833	17.00	7.833	13.00	10.83	38.00
1.917	4.00	4.917	17.00	7.917	13.00	10.92	38.00
2.000	4.00	5.000	17.00	8.000	13.00	11.00	38.00
2.083	6.00	5.083	13.00	8.083	13.00	11.08	13.00
2.167	6.00	5.167	13.00	8.167	13.00	11.17	13.00
2.250	6.00	5.250	13.00	8.250	13.00	11.25	13.00

2.333	6.00	5.333	13.00	8.333	13.00	11.33	13.00
2.417	6.00	5.417	13.00	8.417	13.00	11.42	13.00
2.500	6.00	5.500	13.00	8.500	13.00	11.50	13.00
2.583	6.00	5.583	13.00	8.583	13.00	11.58	13.00
2.667	6.00	5.667	13.00	8.667	13.00	11.67	13.00
2.750	6.00	5.750	13.00	8.750	13.00	11.75	13.00
2.833	6.00	5.833	13.00	8.833	13.00	11.83	13.00
2.917	6.00	5.917	13.00	8.917	13.00	11.92	13.00
3.000	6.00	6.000	13.00	9.000	13.00	12.00	13.00

Unit Hyd Qpeak (cms) = 0.111

PEAK FLOW (cms) = 0.081 (i)
TIME TO PEAK (hrs) = 10.000
RUNOFF VOLUME (mm) = 172.342
TOTAL RAINFALL (mm) = 212.000
RUNOFF COEFFICIENT = 0.813

(I) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB |
STANDHYD (0002) | Area (ha)= 3.32
ID= 1 DT= 5.0 min | Total Imp(%)= 55.00 Dir. Conn.(%)= 55.00

IMPERVIOUS PERVIOUS (I)
Sur-face Area (ha)= 1.83 1.49
Dep. Storage (mm)= 1.00 5.00
Average Slope (%) = 1.00
Length (m) = 148.77 40.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	6.00	3.083	13.00	6.083	23.00	9.08	53.00
0.167	6.00	3.167	13.00	6.167	23.00	9.17	53.00
0.250	6.00	3.250	13.00	6.250	23.00	9.25	53.00
0.333	6.00	3.333	13.00	6.333	23.00	9.33	53.00
0.417	6.00	3.417	13.00	6.417	23.00	9.42	53.00
0.500	6.00	3.500	13.00	6.500	23.00	9.50	53.00
0.583	6.00	3.583	13.00	6.583	23.00	9.58	53.00
0.667	6.00	3.667	13.00	6.667	23.00	9.67	53.00
0.750	6.00	3.750	13.00	6.750	23.00	9.75	53.00
0.833	6.00	3.833	13.00	6.833	23.00	9.83	53.00
0.917	6.00	3.917	13.00	6.917	23.00	9.92	53.00

1.000	6.00	4.000	13.00	7.000	23.00	10.00	53.00
1.083	4.00	4.083	17.00	7.083	13.00	10.08	38.00
1.167	4.00	4.167	17.00	7.167	13.00	10.17	38.00
1.250	4.00	4.250	17.00	7.250	13.00	10.25	38.00
1.333	4.00	4.333	17.00	7.333	13.00	10.33	38.00
1.417	4.00	4.417	17.00	7.417	13.00	10.42	38.00
1.500	4.00	4.500	17.00	7.500	13.00	10.50	38.00
1.583	4.00	4.583	17.00	7.583	13.00	10.58	38.00
1.667	4.00	4.667	17.00	7.667	13.00	10.67	38.00
1.750	4.00	4.750	17.00	7.750	13.00	10.75	38.00
1.833	4.00	4.833	17.00	7.833	13.00	10.83	38.00
1.917	4.00	4.917	17.00	7.917	13.00	10.92	38.00
2.000	4.00	5.000	17.00	8.000	13.00	11.00	38.00
2.083	6.00	5.083	13.00	8.083	13.00	11.08	13.00
2.167	6.00	5.167	13.00	8.167	13.00	11.17	13.00
2.250	6.00	5.250	13.00	8.250	13.00	11.25	13.00
2.333	6.00	5.333	13.00	8.333	13.00	11.33	13.00
2.417	6.00	5.417	13.00	8.417	13.00	11.42	13.00
2.500	6.00	5.500	13.00	8.500	13.00	11.50	13.00
2.583	6.00	5.583	13.00	8.583	13.00	11.58	13.00
2.667	6.00	5.667	13.00	8.667	13.00	11.67	13.00
2.750	6.00	5.750	13.00	8.750	13.00	11.75	13.00
2.833	6.00	5.833	13.00	8.833	13.00	11.83	13.00
2.917	6.00	5.917	13.00	8.917	13.00	11.92	13.00
3.000	6.00	6.000	13.00	9.000	13.00	12.00	13.00

Max.Eff.Inten.(mm/hr)= 53.00 50.24
over (min) 5.00 15.00
Storage Coeff. (min)= 4.18 (ii) 13.47 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.24 0.08

TOTALS
PEAK FLOW (cms)= 0.27 0.20 0.473 (iii)
TIME TO PEAK (hrs)= 10.00 10.00 10.00
RUNOFF VOLUME (mm)= 211.00 170.16 192.62
TOTAL RAINFALL (mm)= 212.00 212.00 212.00
RUNOFF COEFFICIENT = 1.00 0.80 0.91

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR(0004) | OVERFLOW IS OFF
IN= 2----> OUT= 1 |

DT= 5.0 min	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.1200	0.1370
	0.0350	0.0750	0.1700	0.1500
	0.1000	0.0950	0.2800	0.1600
	0.1100	0.1120	0.0800	0.0800

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW: ID= 2 (0002)	3.320	0.473	10.00	192.62
OUTFLOW: ID= 1 (0004)	3.320	0.442	10.08	192.45

PEAK FLOW REDUCTION [Qout/Qin](%)= 93.47
TIME SHIF OF PEAK FLOW (min)= 5.00
MAXIMUM STORAGE USED (ha.m.)= 0.1751

ADD HYD (0003) |
1 + 2 = 3 | AREA (ha) QPEAK (cms) TPEAK (hrs) R.V. (mm)
ID= 1 (0001): 0.58 0.081 10.00 172.34
+ ID= 2 (0004): 3.32 0.442 10.08 192.45
ID = 3 (0003): 3.90 0.522 10.00 189.46

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB |
STANDHYD (0355) | Area (ha)= 1.56
ID= 1 DT= 5.0 min | Total Imp(%)= 50.00 Dir. Conn.(%)= 50.00

IMPERVIOUS PERVIOUS (I)
Sur-face Area (ha)= 0.78 0.78
Dep. Storage (mm)= 1.00 5.00
Average Slope (%) = 1.00 2.00
Length (m) = 101.98 40.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	6.00	3.083	13.00	6.083	23.00	9.08	53.00
0.167	6.00	3.167	13.00	6.167	23.00	9.17	53.00
0.250	6.00	3.250	13.00	6.250	23.00	9.25	53.00

0.333	6.00	3.333	13.00	6.333	23.00	9.33	53.00
0.417	6.00	3.417	13.00	6.417	23.00	9.42	53.00
0.500	6.00	3.500	13.00	6.500	23.00	9.50	53.00
0.583	6.00	3.583	13.00	6.583	23.00	9.58	53.00
0.667	6.00	3.667	13.00	6.667	23.00	9.67	53.00
0.750	6.00	3.750	13.00	6.750	23.00	9.75	53.00
0.833	6.00	3.833	13.00	6.833	23.00	9.83	53.00
0.917	6.00	3.917	13.00	6.917	23.00	9.92	53.00
1.000	6.00	4.000	13.00	7.000	23.00	10.00	53.00
1.083	4.00	4.083	17.00	7.083	13.00	10.08	38.00
1.167	4.00	4.167	17.00	7.167	13.00	10.17	38.00
1.250	4.00	4.250	17.00	7.250	13.00	10.25	38.00
1.333	4.00	4.333	17.00	7.333	13.00	10.33	38.00
1.417	4.00	4.417	17.00	7.417	13.00	10.42	38.00
1.500	4.00	4.500	17.00	7.500	13.00	10.50	38.00
1.583	4.00	4.583	17.00	7.583	13.00	10.58	38.00
1.667	4.00	4.667	17.00	7.667	13.00	10.67	38.00
1.750	4.00	4.750	17.00	7.750	13.00	10.75	38.00
1.833	4.00	4.833	17.00	7.833	13.00	10.83	38.00
1.917	4.00	4.917	17.00	7.917	13.00	10.92	38

- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0356) Area (ha)= 17.13
ID= 1 DT= 5.0 min Total Imp(%)= 69.00 Dir. Conn.(%)= 61.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 11.82 5.31
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 337.93 40.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	6.00	3.083	13.00	6.083	23.00	9.083	53.00
0.167	6.00	3.167	13.00	6.167	23.00	9.17	53.00
0.250	6.00	3.250	13.00	6.250	23.00	9.25	53.00
0.333	6.00	3.333	13.00	6.333	23.00	9.33	53.00
0.417	6.00	3.417	13.00	6.417	23.00	9.42	53.00
0.500	6.00	3.500	13.00	6.500	23.00	9.50	53.00
0.583	6.00	3.583	13.00	6.583	23.00	9.58	53.00
0.667	6.00	3.667	13.00	6.667	23.00	9.67	53.00
0.750	6.00	3.750	13.00	6.750	23.00	9.75	53.00
0.833	6.00	3.833	13.00	6.833	23.00	9.83	53.00
0.917	6.00	3.917	13.00	6.917	23.00	9.92	53.00
1.000	6.00	4.000	13.00	7.000	23.00	10.00	53.00
1.083	4.00	4.083	17.00	7.083	13.00	10.08	38.00
1.167	4.00	4.167	17.00	7.167	13.00	10.17	38.00
1.250	4.00	4.250	17.00	7.250	13.00	10.25	38.00
1.333	4.00	4.333	17.00	7.333	13.00	10.33	38.00
1.417	4.00	4.417	17.00	7.417	13.00	10.42	38.00
1.500	4.00	4.500	17.00	7.500	13.00	10.50	38.00
1.583	4.00	4.583	17.00	7.583	13.00	10.58	38.00
1.667	4.00	4.667	17.00	7.667	13.00	10.67	38.00
1.750	4.00	4.750	17.00	7.750	13.00	10.75	38.00
1.833	4.00	4.833	17.00	7.833	13.00	10.83	38.00
1.917	4.00	4.917	17.00	7.917	13.00	10.92	38.00
2.000	4.00	5.000	17.00	8.000	13.00	11.00	38.00
2.083	6.00	5.083	13.00	8.083	13.00	11.08	13.00
2.167	6.00	5.167	13.00	8.167	13.00	11.17	13.00
2.250	6.00	5.250	13.00	8.250	13.00	11.25	13.00
2.333	6.00	5.333	13.00	8.333	13.00	11.33	13.00
2.417	6.00	5.417	13.00	8.417	13.00	11.42	13.00
2.500	6.00	5.500	13.00	8.500	13.00	11.50	13.00
2.583	6.00	5.583	13.00	8.583	13.00	11.58	13.00
2.667	6.00	5.667	13.00	8.667	13.00	11.67	13.00
2.750	6.00	5.750	13.00	8.750	13.00	11.75	13.00
2.833	6.00	5.833	13.00	8.833	13.00	11.83	13.00
2.917	6.00	5.917	13.00	8.917	13.00	11.92	13.00
3.000	6.00	6.000	13.00	9.000	13.00	12.00	13.00

0.250	6.00	3.250	13.00	6.250	23.00	9.25	53.00
0.333	6.00	3.333	13.00	6.333	23.00	9.33	53.00
0.417	6.00	3.417	13.00	6.417	23.00	9.42	53.00
0.500	6.00	3.500	13.00	6.500	23.00	9.50	53.00
0.583	6.00	3.583	13.00	6.583	23.00	9.58	53.00
0.667	6.00	3.667	13.00	6.667	23.00	9.67	53.00
0.750	6.00	3.750	13.00	6.750	23.00	9.75	53.00
0.833	6.00	3.833	13.00	6.833	23.00	9.83	53.00
0.917	6.00	3.917	13.00	6.917	23.00	9.92	53.00
1.000	6.00	4.000	13.00	7.000	23.00	10.00	53.00
1.083	4.00	4.083	17.00	7.083	13.00	10.08	38.00
1.167	4.00	4.167	17.00	7.167	13.00	10.17	38.00
1.250	4.00	4.250	17.00	7.250	13.00	10.25	38.00
1.333	4.00	4.333	17.00	7.333	13.00	10.33	38.00
1.417	4.00	4.417	17.00	7.417	13.00	10.42	38.00
1.500	4.00	4.500	17.00	7.500	13.00	10.50	38.00
1.583	4.00	4.583	17.00	7.583	13.00	10.58	38.00
1.667	4.00	4.667	17.00	7.667	13.00	10.67	38.00
1.750	4.00	4.750	17.00	7.750	13.00	10.75	38.00
1.833	4.00	4.833	17.00	7.833	13.00	10.83	38.00
1.917	4.00	4.917	17.00	7.917	13.00	10.92	38.00
2.000	4.00	5.000	17.00	8.000	13.00	11.00	38.00
2.083	6.00	5.083	13.00	8.083	13.00	11.08	13.00
2.167	6.00	5.167	13.00	8.167	13.00	11.17	13.00
2.250	6.00	5.250	13.00	8.250	13.00	11.25	13.00
2.333	6.00	5.333	13.00	8.333	13.00	11.33	13.00
2.417	6.00	5.417	13.00	8.417	13.00	11.42	13.00
2.500	6.00	5.500	13.00	8.500	13.00	11.50	13.00
2.583	6.00	5.583	13.00	8.583	13.00	11.58	13.00
2.667	6.00	5.667	13.00	8.667	13.00	11.67	13.00
2.750	6.00	5.750	13.00	8.750	13.00	11.75	13.00
2.833	6.00	5.833	13.00	8.833	13.00	11.83	13.00
2.917	6.00	5.917	13.00	8.917	13.00	11.92	13.00
3.000	6.00	6.000	13.00	9.000	13.00	12.00	13.00

Max. Eff. Inten. (mm/hr)= 53.00 63.59
over (min)= 5.00 15.00
Storage Coeff. (min)= 2.63 (ii) 11.09 (iii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.29 0.09

PEAK FLOW (cms)= 0.07 0.03 0.103 (iii)
TIME TO PEAK (hrs)= 9.67 10.00
RUNOFF VOLUME (mm)= 211.00 177.30
TOTAL RAINFALL (mm)= 212.00 212.00
RUNOFF COEFFICIENT = 1.00 0.84 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

2.333	6.00	5.333	13.00	8.333	13.00	11.33	13.00
2.417	6.00	5.417	13.00	8.417	13.00	11.42	13.00
2.500	6.00	5.500	13.00	8.500	13.00	11.50	13.00
2.583	6.00	5.583	13.00	8.583	13.00	11.58	13.00
2.667	6.00	5.667	13.00	8.667	13.00	11.67	13.00
2.750	6.00	5.750	13.00	8.750	13.00	11.75	13.00
2.833	6.00	5.833	13.00	8.833	13.00	11.83	13.00
2.917	6.00	5.917	13.00	8.917	13.00	11.92	13.00
3.000	6.00	6.000	13.00	9.000	13.00	12.00	13.00

Max. Eff. Inten. (mm/hr)= 53.00 64.29
over (min)= 5.00 20.00
Storage Coeff. (min)= 6.04 (ii) 15.26 (iii)
Unit Hyd. Tpeak (min)= 5.00 20.00
Unit Hyd. peak (cms)= 0.18 0.07

PEAK FLOW (cms)= 1.54 0.91 2.453 (iii)
TIME TO PEAK (hrs)= 10.00 10.00
RUNOFF VOLUME (mm)= 211.00 177.61
TOTAL RAINFALL (mm)= 212.00 212.00
RUNOFF COEFFICIENT = 1.00 0.84 0.93

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (0027) Area (ha)= 0.71
ID= 1 DT= 5.0 min Total Imp(%)= 73.50 Dir. Conn.(%)= 67.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.52 0.19
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 68.00 40.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	6.00	3.083	13.00	6.083	23.00	9.083	53.00
0.167	6.00	3.167	13.00	6.167	23.00	9.17	53.00

- CN* = 85.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

DUHVD (0025) Inlet Cap.= 0.156
#of Inlets= 1
Total(cms)= 0.2
AREA (ha) QPEAK (cms) TPEAK (hrs) R.V. (mm)
TOTAL HYD. (ID= 1): 0.71 0.10 10.00 199.87
MAJOR SYS. (ID= 2): 0.00 0.00 0.00 0.00
MINOR SYS. (ID= 3): 0.71 0.10 10.00 199.87

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

Junction Command(0024)

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 9(0025) 0.71 0.10 10.00 199.87
OUTFLOW : ID= 2(0024) 0.71 0.10 10.00 199.87

ADD HYD (0357) 1 + 2 = 3
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1 = 1 (0024): 0.71 0.103 10.00 199.87
+ ID2 = 2 (0355): 1.56 0.222 10.00 190.57
ID = 3 (0357): 2.27 0.325 10.00 193.48

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (0357) 3 + 2 = 1
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1 = 3 (0357): 2.27 0.325 10.00 193.48
+ ID2 = 2 (0356): 17.13 2.453 10.00 197.98

ID = 1 (0357): 19.40 2.778 10.00 197.45

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

OVERFLOW IS OFF
RESERVOIR (0358) IN= 2---> OUT= 1
DT= 5.0 min

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.7600	0.9520
0.0420	0.1820	1.3600	1.2980
0.0630	0.3560	1.8900	1.5720
0.3940	0.7050	4.0000	1.9390

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 2 (0357) 19.400 2.778 10.00 197.45
OUTFLOW : ID= 1 (0358) 19.400 1.830 11.00 197.99

PEAK FLOW REDUCTION [Qout/Qin](%)= 65.89
TIME SHIFT OF PEAK FLOW (min)= 60.00
MAXIMUM STORAGE USED (ha.m.)= 1.5416

CALIB
STANDHYD (0359) Area (ha)= 0.45
ID= 1 DT= 5.0 min Total Imp(%)= 71.30 Dir. Conn.(%)= 66.10

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.32 0.13
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 54.77 40.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	6.00	3.083	13.00	6.083	23.00	9.083	53.00
0.167	6.00	3.167	13.00	6.167	23.00	9.17	53.00
0.250	6.00	3.250	13.00	6.250	23.00	9.25	53.00
0.333	6.00	3.333	13.00	6.333	23.00	9.33	53.00
0.417	6.00	3.417	13.00	6.417	23.00	9.42	53.00
0.500	6.00	3.500	13.00	6.500	23.00	9.50	53.00
0.583	6.00	3.583	13.00	6.583	23.00	9.58	53.00

0.667	6.00	3.667	13.00	6.667	23.00	9.67	53.00
0.750	6.00	3.750	13.00	6.750	23.00	9.75	53.00
0.833	6.00	3.833	13.00	6.833	23.00	9.83	53.00
0.917	6.00	3.917	13.00	6.917	23.00	9.92	53.00
1.000	6.00	4.000	13.00	7.000	23.00	10.00	53.00
1.083	4.00	4.083	17.00	7.083	13.00	10.08	38.00
1.167	4.00	4.167	17.00	7.167	13.00	10.17	38.00
1.250	4.00	4.250	17.00	7.250	13.00	10.25	38.00
1.333	4.00	4.333	17.00	7.333	13.00	10.33	38.00
1.417	4.00	4.417	17.00	7.417	13.00	10.42	38.00
1.500	4.00						

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ADD HYD ( 0370)
1 + 2 = 3
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 0358): 19.40 1.630 11.00 197.30
+ ID2= 2 ( 0359): 0.45 0.065 10.00 199.01
=====
ID = 3 ( 0370): 19.85 1.877 11.00 197.43

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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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CALIB
NASHYD ( 0360) Area (ha)= 1.02 Curve Number (CN)= 87.0
ID= 1 DT= 5.0 min Ta (mm)= 4.61 # of Linear Res. (N)= 3.00
U.H. Tp(hrs)= 0.44

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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----- TRANSFORMED HYETOGRAPH -----
TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr hrs mm/hr hrs mm/hr
0.083 6.00 3.083 13.00 6.083 23.00 9.08 53.00
0.167 6.00 3.167 13.00 6.167 23.00 9.17 53.00
0.250 6.00 3.250 13.00 6.250 23.00 9.25 53.00
0.333 6.00 3.333 13.00 6.333 23.00 9.33 53.00
0.417 6.00 3.417 13.00 6.417 23.00 9.42 53.00
0.500 6.00 3.500 13.00 6.500 23.00 9.50 53.00
0.583 6.00 3.583 13.00 6.583 23.00 9.58 53.00
0.667 6.00 3.667 13.00 6.667 23.00 9.67 53.00
0.750 6.00 3.750 13.00 6.750 23.00 9.75 53.00
0.833 6.00 3.833 13.00 6.833 23.00 9.83 53.00
0.917 6.00 3.917 13.00 6.917 23.00 9.92 53.00
1.000 6.00 4.000 13.00 7.000 23.00 10.00 53.00
1.083 4.00 4.083 17.00 7.083 13.00 10.08 38.00
1.167 4.00 4.167 17.00 7.167 13.00 10.17 38.00
1.250 4.00 4.250 17.00 7.250 13.00 10.25 38.00
1.333 4.00 4.333 17.00 7.333 13.00 10.33 38.00
1.417 4.00 4.417 17.00 7.417 13.00 10.42 38.00
1.500 4.00 4.500 17.00 7.500 13.00 10.50 38.00
1.583 4.00 4.583 17.00 7.583 13.00 10.58 38.00
1.667 4.00 4.667 17.00 7.667 13.00 10.67 38.00
1.750 4.00 4.750 17.00 7.750 13.00 10.75 38.00
1.833 4.00 4.833 17.00 7.833 13.00 10.83 38.00
1.917 4.00 4.917 17.00 7.917 13.00 10.92 38.00
2.000 4.00 5.000 17.00 8.000 13.00 11.00 38.00
2.083 6.00 5.083 13.00 8.083 13.00 11.08 13.00

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0.833 6.00 3.833 13.00 6.833 23.00 9.83 53.00
0.917 6.00 3.917 13.00 6.917 23.00 9.92 53.00
1.000 6.00 4.000 13.00 7.000 23.00 10.00 53.00
1.083 4.00 4.083 17.00 7.083 13.00 10.08 38.00
1.167 4.00 4.167 17.00 7.167 13.00 10.17 38.00
1.250 4.00 4.250 17.00 7.250 13.00 10.25 38.00
1.333 4.00 4.333 17.00 7.333 13.00 10.33 38.00
1.417 4.00 4.417 17.00 7.417 13.00 10.42 38.00
1.500 4.00 4.500 17.00 7.500 13.00 10.50 38.00
1.583 4.00 4.583 17.00 7.583 13.00 10.58 38.00
1.667 4.00 4.667 17.00 7.667 13.00 10.67 38.00
1.750 4.00 4.750 17.00 7.750 13.00 10.75 38.00
1.833 4.00 4.833 17.00 7.833 13.00 10.83 38.00
1.917 4.00 4.917 17.00 7.917 13.00 10.92 38.00
2.000 4.00 5.000 17.00 8.000 13.00 11.00 38.00
2.083 6.00 5.083 13.00 8.083 13.00 11.08 13.00
2.167 6.00 5.167 13.00 8.167 13.00 11.17 13.00
2.250 6.00 5.250 13.00 8.250 13.00 11.25 13.00
2.333 6.00 5.333 13.00 8.333 13.00 11.33 13.00
2.417 6.00 5.417 13.00 8.417 13.00 11.42 13.00
2.500 6.00 5.500 13.00 8.500 13.00 11.50 13.00
2.583 6.00 5.583 13.00 8.583 13.00 11.58 13.00
2.667 6.00 5.667 13.00 8.667 13.00 11.67 13.00
2.750 6.00 5.750 13.00 8.750 13.00 11.75 13.00
2.833 6.00 5.833 13.00 8.833 13.00 11.83 13.00
2.917 6.00 5.917 13.00 8.917 13.00 11.92 13.00
3.000 6.00 6.000 13.00 9.000 13.00 12.00 13.00

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Max.Eff.Inten.(mm/hr)= 53.00 54.27
over (min) = 5.00 15.00
Storage Coeff. (min)= 2.71 (ii) 11.72 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.29 0.09
PEAK FLOW (cms)= 0.02 0.09 *TOTALS*
TIME TO PEAK (hrs)= 9.67 10.00 0.110 (iii)
RUNOFF VOLUME (mm)= 207.00 176.82 181.34
TOTAL RAINFALL (mm)= 212.00 212.00
RUNOFF COEFFICIENT = 0.98 0.83 0.86

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**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
**** WARNING: FOR AREAS WITH IMPERVIOUS RATIOS BELOW 20%
YOU SHOULD CONSIDER SPLITTING THE AREA.

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 87.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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----- TRANSFORMED HYETOGRAPH -----
TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr hrs mm/hr hrs mm/hr
0.083 6.00 3.083 13.00 6.083 23.00 9.08 53.00
0.167 6.00 3.167 13.00 6.167 23.00 9.17 53.00
0.250 6.00 3.250 13.00 6.250 23.00 9.25 53.00
0.333 6.00 3.333 13.00 6.333 23.00 9.33 53.00
0.417 6.00 3.417 13.00 6.417 23.00 9.42 53.00
0.500 6.00 3.500 13.00 6.500 23.00 9.50 53.00
0.583 6.00 3.583 13.00 6.583 23.00 9.58 53.00
0.667 6.00 3.667 13.00 6.667 23.00 9.67 53.00
0.750 6.00 3.750 13.00 6.750 23.00 9.75 53.00
0.833 6.00 3.833 13.00 6.833 23.00 9.83 53.00
0.917 6.00 3.917 13.00 6.917 23.00 9.92 53.00
1.000 6.00 4.000 13.00 7.000 23.00 10.00 53.00
1.083 4.00 4.083 17.00 7.083 13.00 10.08 38.00
1.167 4.00 4.167 17.00 7.167 13.00 10.17 38.00
1.250 4.00 4.250 17.00 7.250 13.00 10.25 38.00
1.333 4.00 4.333 17.00 7.333 13.00 10.33 38.00
1.417 4.00 4.417 17.00 7.417 13.00 10.42 38.00
1.500 4.00 4.500 17.00 7.500 13.00 10.50 38.00
1.583 4.00 4.583 17.00 7.583 13.00 10.58 38.00
1.667 4.00 4.667 17.00 7.667 13.00 10.67 38.00
1.750 4.00 4.750 17.00 7.750 13.00 10.75 38.00
1.833 4.00 4.833 17.00 7.833 13.00 10.83 38.00
1.917 4.00 4.917 17.00 7.917 13.00 10.92 38.00
2.000 6.00 5.000 13.00 8.000 13.00 11.00 13.00
2.083 6.00 5.083 13.00 8.083 13.00 11.08 13.00
2.167 6.00 5.167 13.00 8.167 13.00 11.17 13.00
2.250 6.00 5.250 13.00 8.250 13.00 11.25 13.00
2.333 6.00 5.333 13.00 8.333 13.00 11.33 13.00
2.417 6.00 5.417 13.00 8.417 13.00 11.42 13.00
2.500 6.00 5.500 13.00 8.500 13.00 11.50 13.00
2.583 6.00 5.583 13.00 8.583 13.00 11.58 13.00
2.667 6.00 5.667 13.00 8.667 13.00 11.67 13.00
2.750 6.00 5.750 13.00 8.750 13.00 11.75 13.00
2.833 6.00 5.833 13.00 8.833 13.00 11.83 13.00
2.917 6.00 5.917 13.00 8.917 13.00 11.92 13.00
3.000 6.00 6.000 13.00 9.000 13.00 12.00 13.00

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Max.Eff.Inten.(mm/hr)= 53.00 50.24
over (min) = 5.00 15.00
Storage Coeff. (min)= 2.29 (ii) 11.59 (ii)
Unit Hyd. Tpeak (min)= 5.00 15.00
Unit Hyd. peak (cms)= 0.30 0.09
PEAK FLOW (cms)= 0.02 0.04 *TOTALS*
0.064 (iii)

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2.167 6.00 5.167 13.00 8.167 13.00 11.17 13.00
2.250 6.00 5.250 13.00 8.250 13.00 11.25 13.00
2.333 6.00 5.333 13.00 8.333 13.00 11.33 13.00
2.417 6.00 5.417 13.00 8.417 13.00 11.42 13.00
2.500 6.00 5.500 13.00 8.500 13.00 11.50 13.00
2.583 6.00 5.583 13.00 8.583 13.00 11.58 13.00
2.667 6.00 5.667 13.00 8.667 13.00 11.67 13.00
2.750 6.00 5.750 13.00 8.750 13.00 11.75 13.00
2.833 6.00 5.833 13.00 8.833 13.00 11.83 13.00
2.917 6.00 5.917 13.00 8.917 13.00 11.92 13.00
3.000 6.00 6.000 13.00 9.000 13.00 12.00 13.00

```

Unit Hyd Qpeak (cms)= 0.009

```

PEAK FLOW (cms)= 0.130 (i)
TIME TO PEAK (hrs)= 10.167
RUNOFF VOLUME (mm)= 175.292
TOTAL RAINFALL (mm)= 212.000
RUNOFF COEFFICIENT = 0.827

```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

CALIB
STANDHYD ( 0018) Area (ha)= 0.78
ID= 1 DT= 5.0 min Total Imp(%)= 20.00 Dir. Conn.(%)= 15.00

```

```

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.16
Dep. Storage (mm)= 5.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 72.11 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN TIME RAIN TIME RAIN
hrs mm/hr hrs mm/hr hrs mm/hr hrs mm/hr
0.083 6.00 3.083 13.00 6.083 23.00 9.08 53.00
0.167 6.00 3.167 13.00 6.167 23.00 9.17 53.00
0.250 6.00 3.250 13.00 6.250 23.00 9.25 53.00
0.333 6.00 3.333 13.00 6.333 23.00 9.33 53.00
0.417 6.00 3.417 13.00 6.417 23.00 9.42 53.00
0.500 6.00 3.500 13.00 6.500 23.00 9.50 53.00
0.583 6.00 3.583 13.00 6.583 23.00 9.58 53.00
0.667 6.00 3.667 13.00 6.667 23.00 9.67 53.00
0.750 6.00 3.750 13.00 6.750 23.00 9.75 53.00

```

[Junction Command(0026)]

```

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 8( 0025) 0.00 0.00 0.00 0.00
OUTFLOW : ID= 2( 0026) 0.00 0.00 0.00 0.00

```

```

ADD HYD ( 0361)
1 + 2 = 3
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
*** W A R N I N G : HYDROGRAPH 0026 CID= 2 IS DRY.
*** W A R N I N G : HYDROGRAPH 0003 = HYDROGRAPH 0001
ID1= 1 ( 0018): 0.78 0.110 10.00 181.34
+ ID2= 2 ( 0026): 0.00 0.000 0.00 0.00
=====
ID = 3 ( 0361): 0.78 0.110 10.00 181.34

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

ADD HYD ( 0361)
3 + 2 = 1
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 3 ( 0361): 0.78 0.110 10.00 181.34
+ ID2= 2 ( 0360): 1.02 0.130 10.17 175.29
=====
ID = 1 ( 0361): 1.80 0.236 10.00 177.91

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

CALIB
STANDHYD ( 0015) Area (ha)= 0.45
ID= 1 DT= 5.0 min Total Imp(%)= 37.40 Dir. Conn.(%)= 37.40

```

```

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.17 0.28
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 54.77 40.00
Mannings n = 0.013 0.250

```

```

TIME TO PEAK (hrs)= 9.58 10.00 10.00
RUNOFF VOLUME (mm)= 211.00 170.15 185.41
TOTAL RAINFALL (mm)= 212.00 212.00
RUNOFF COEFFICIENT = 1.00 0.80 0.87

```

**** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 85.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

[Junction Command(0029)]

```

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 2( 0015) 0.45 0.06 10.00 185.41
OUTFLOW : ID= 2( 0029) 0.45 0.06 10.00 185.41

```

FINISH