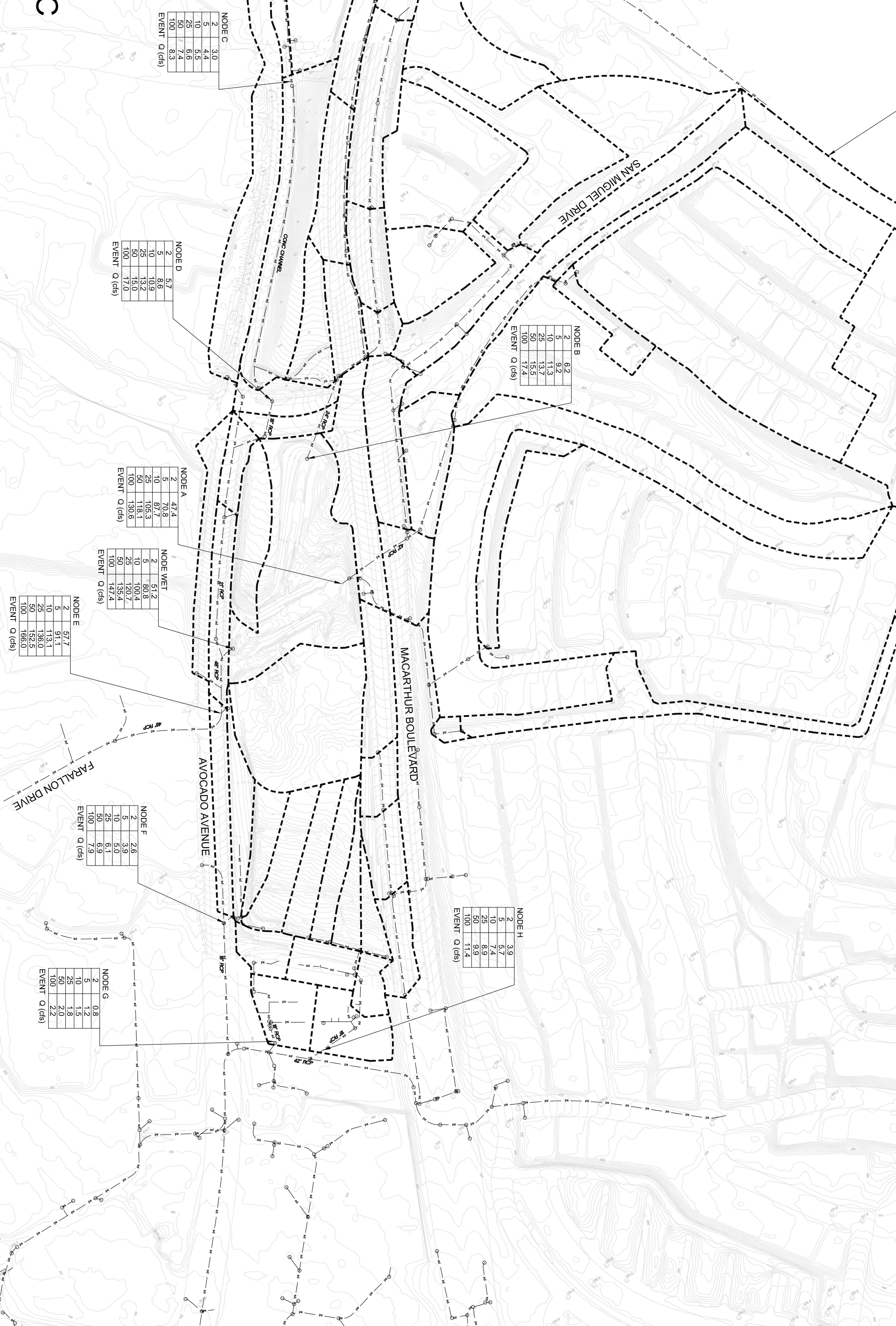


NEWPORT BEACH CIVIC CENTER AND PARK

WATERSHED BOUNDARY (TYP)



NODE C

2	3.0
5	4.4
10	5.5
25	6.6
50	7.4
100	8.3

EVENT Q (cfs)

NODE D

2	5.7
5	8.6
10	10.9
25	14.2
50	15.7
100	17.0

EVENT Q (cfs)

NODE B

2	6.2
5	9.2
10	11.3
25	13.5
50	15.5
100	17.4

EVENT Q (cfs)

NODE A

2	47.4
5	70.8
10	87.7
25	105.3
50	118.1
100	130.6

EVENT Q (cfs)

NODE WET

2	51.2
5	80.8
10	100.4
25	120.7
50	135.4
100	147.4

EVENT Q (cfs)

NODE E

2	57.7
5	97.1
10	113.1
25	136.0
50	152.5
100	165.0

EVENT Q (cfs)

NODE F

2	2.6
5	3.9
10	5.0
25	6.1
50	6.9
100	7.9

EVENT Q (cfs)

NODE H

2	3.9
5	5.7
10	6.9
25	8.9
50	9.9
100	11.4

EVENT Q (cfs)

NODE G

2	0.8
5	1.2
10	1.5
25	1.8
50	2.0
100	2.2

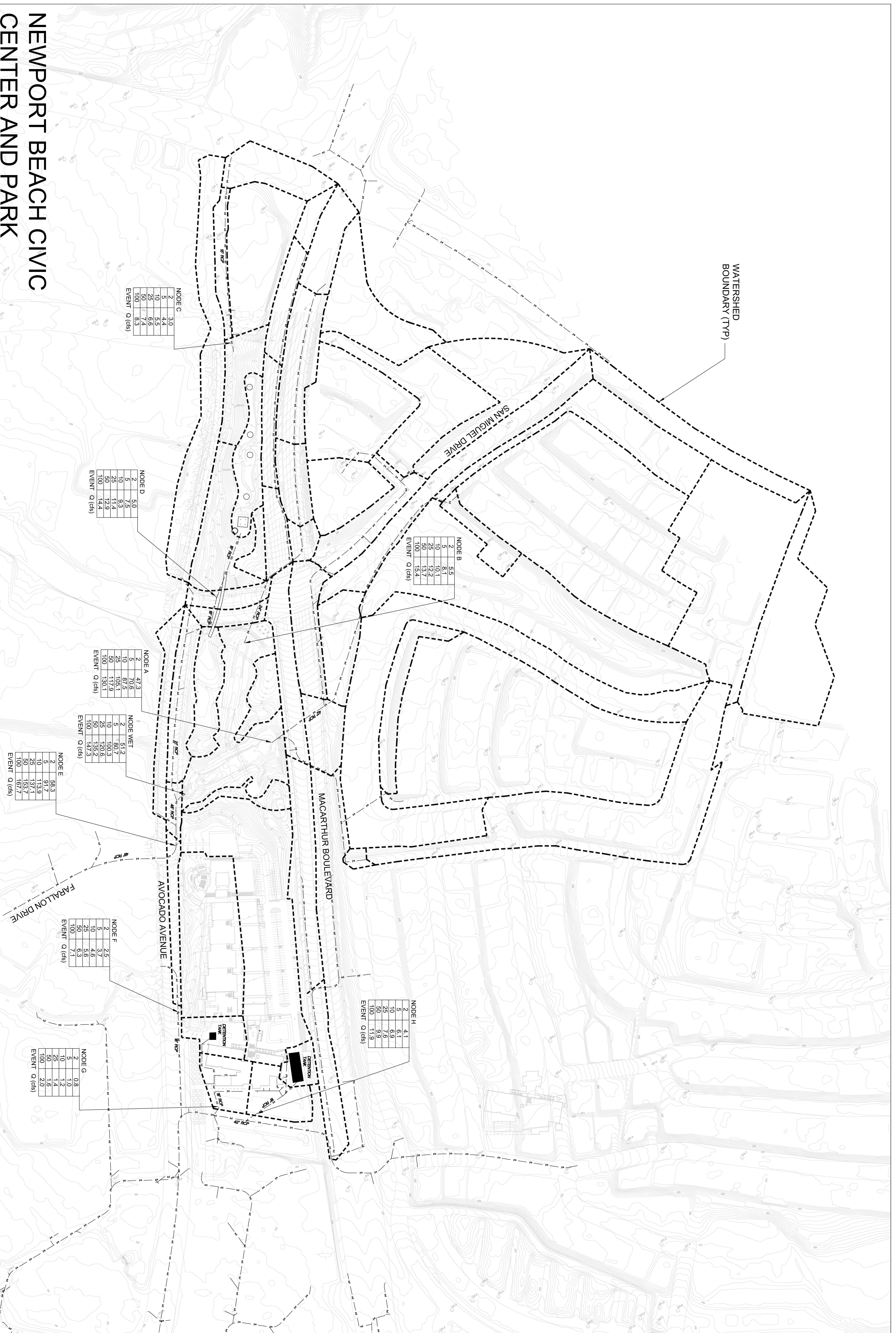
EVENT Q (cfs)

Scale	Scale	Landscaping Architect:	Site Consultant:	Construction Management:	Hydrology Consultant:	No.	Date	Description
		Charles M. Salter Associates 103 Shaw Street, Suite 200 San Francisco, CA 94114	The Fire Consultants 1278 Durant Court Walnut Creek, CA 94596	C.P. O'Halloran Associates, Inc. 2659 Tenthaven Road, Suite 213 Westlake Village, CA 91381	(California) (California) (California) (California) Suzanne Kelly (California) (California) 6000 Mission Street, 7th Floor San Francisco, CA 94115	Bolin Cwinski Jackson Architecture Planning Interior Design Wilkes-Barre Pittsburgh Philadelphia Seattle San Francisco		
		PPWP Landscape Architecture Berkeley, CA 94710	Trans Rest Systems Irvine, CA 92618	Alberia Black & Burs Palo Alto, CA 94303				
		Newport Beach Civic Center		BCJ PROJECT NUMBER		SHEET NUMBER		
		DATE: 06-12-2009		SCALE: 1"=10'		EXISTING DRAINAGE MAP		

NOT FOR CONSTRUCTION

NEWPORT BEACH CIVIC CENTER AND PARK

WATERSHED BOUNDARY (TYP)



NODE C

2	3.0
5	4.4
10	5.5
25	6.6
50	7.4
100	8.3

EVENT Q (cfs)

NODE D

2	5.0
5	7.5
10	9.3
25	11.4
50	12.4
100	14.4

EVENT Q (cfs)

NODE B

2	5.5
5	8.1
10	10.1
25	13.7
50	15.4
100	15.4

EVENT Q (cfs)

NODE A

2	47.3
5	70.6
10	87.5
25	105.1
50	117.9
100	130.1

EVENT Q (cfs)

NODE WET

2	51.2
5	80.7
10	100.3
25	120.6
50	135.2
100	147.3

EVENT Q (cfs)

NODE E

2	59.3
5	97.7
10	119.9
25	137.1
50	153.7
100	167.7

EVENT Q (cfs)

NODE F

2	2.9
5	4.3
10	4.6
25	5.6
50	6.3
100	7.1

EVENT Q (cfs)

NODE H

2	4.1
5	6.0
10	7.6
25	9.9
50	9.9
100	11.9

EVENT Q (cfs)

NODE G

2	0.8
5	1.0
10	1.2
25	1.4
50	1.6
100	2.0

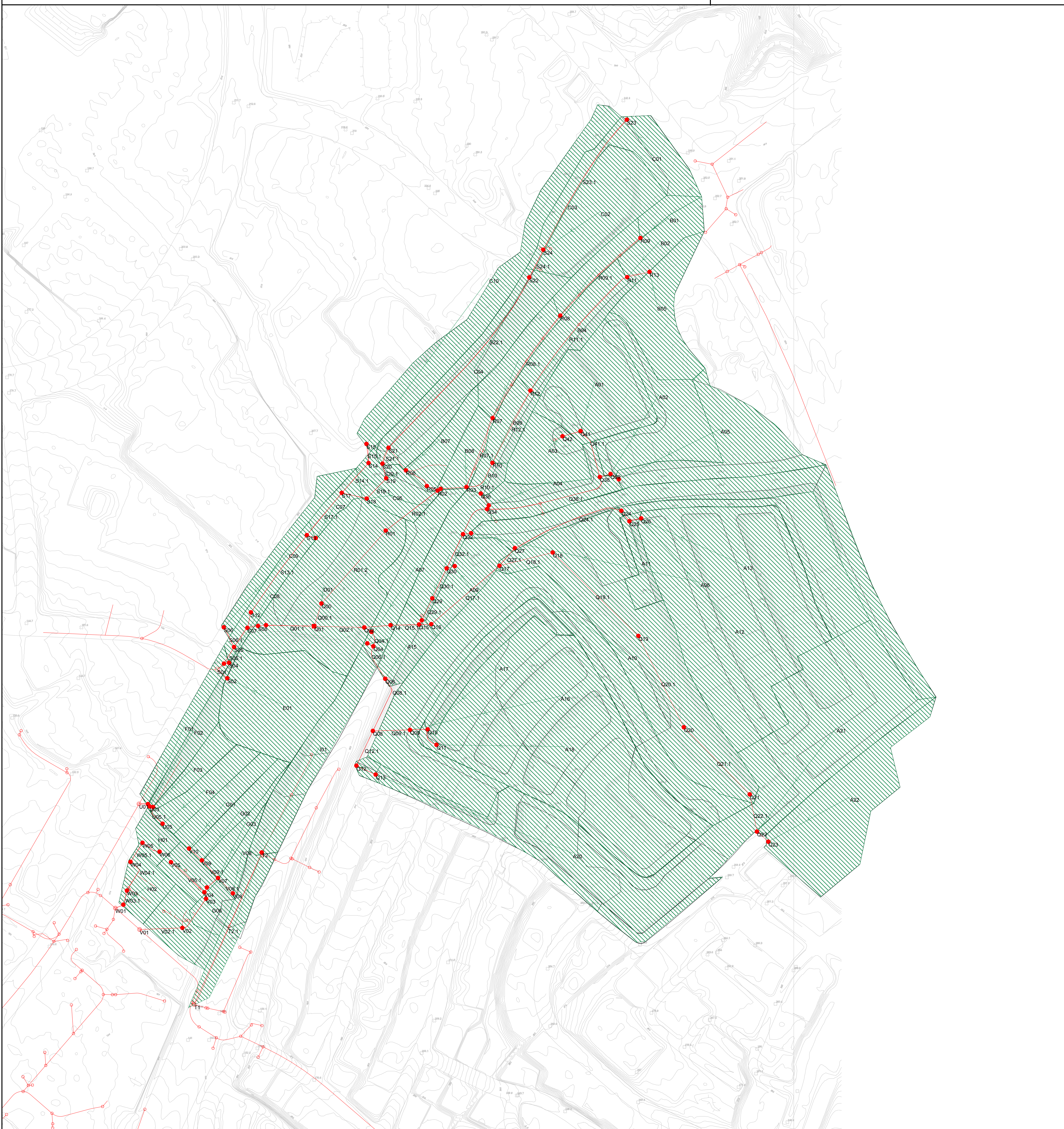
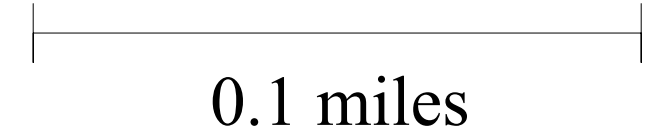
EVENT Q (cfs)

Scale	Scale	<p>Architect & Landscape Consultants: Charles H. Salter Associates 103 Shaw Street, Suite 200 San Francisco, CA 94114</p> <p>City Consultant: The Fire Consultants 1278 Durant Court Walnut Creek, CA 94596</p> <p>Security Consultant: Trans Risk Systems 14th, CA 94604</p> <p>Landscape Architect: PJPP Landscape Architecture Berkeley, CA 94710</p>
		<p>Construction Cost Management: C.P. O'Halloran Associates, Inc. 2659 Tennessee Road, Suite 213 Westside Village, CA 94131</p> <p>Waterproofing Consultant: Alberia Black & Sons Palo Alto, CA 94303</p>
No.	Date	<p>Interior Consulting Engineers, Team (Civil/Structural/Mechanical/Electrical/Plumbing/Sustainability/Design/Interior)</p> <p>Bolin Cwinski Jackson Architecture Planning Interior Design Wilkes-Barre Pittsburgh Philadelphia Seattle San Francisco 40 Casey Street San Francisco, CA 94108</p>
<p>PROPOSED DRAINAGE MAP SHEET TITLE</p>		<p>BCJ PROJECT NUMBER</p>
SCALE	DATE	SHEET NUMBER
1"=10'	06-12-2009	

NOT FOR CONSTRUCTION

Network - Existing_2009-06-12

Map Centre Coords
 x: 1849774, y: 661336
 Date Printed: 6/14/2009
 Scale 1:2000



Data Flags #A - Asset Data #D - System Default #C - Data from GeoPlan #I - Model Import #V - CSV Import		Orifice [all] Prune [all] Pump (all types) [all] River [all] Screen [all] Siphon [all] Sluice gate [all] User Control [all] Weir [all]		Flood Point Hyperlink Outflow Node Pond node Storage Node Var. crest level weir Var. sluice gate Var. width weir Vortex	
Existing_2009-06-12 Key Nodes [system types] [combined,other,overland,sanitary] [storm]		Subcatchments [system types] [combined,other,overland,sanitary] [storm]			
Links [system types] CC TV Conduit [combined,other,overland,sanitary] Conduit [storm]		2D Simulation Polygon Flood Compartment Mesh Polygon Polygon Zone Roughness Polygon			
Culvert Inlet [all] Culvert Outlet [all] Flap valve [all] Flume [all] General Line General Line		Symbols 2D Point Selection Point Break Node Compound Weir/Orifice			

Powered by

Start of run

configured for MS Windows

Produced on 12/06/2009 at 19:36

HydroWorks(tm) SIM

Summary results from Simulation

Version 9.0.1123 dated May 2008

Licence Number - WS00740269PM

Message 253: Run finished for event 1.

Summary results for event 1 - 2-year OC Event
Started at 00000000000000. Run for 2880.00 min. (Requested simulation time 2880.00 min)

Files used:

Network: ...\\NET12#8.spb Existing_2009-06-12 (Revision 8)
State:
Runoff: ...\\NET12#8.rpf Existing_2009-06-12 (Revision 8) (InfoWorks 9.0.2.16013)
Rainfall: ...\\SIM43event.red 1
DWF:
Inflows:
Levels:
RTC:
Results: ...\\SIM43.iwr

Total rainfall = 22625.7 m3
Total runoff = 19164.7 m3
Total inflow = 19164.7 m3
Total outflow = 19039.6 m3
Total lost = 0.0 m3

***** Node data *****

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
Q00	60.350	55.482	0.0	0.000	0.0	22.8	718.5	0.000	0.000
Q01	47.610	50.055	1211.6	2.445	953.1	1217.7	0.0	-1.576	0.011
Q02	51.206	50.312	0.0	0.000	0.0	1.8	0.0	0.000	0.000
Q03	58.156	53.138	0.0	0.000	0.0	0.3	0.0	0.000	0.000
Q04	58.217	53.804	0.0	0.000	0.0	0.6	0.0	0.000	0.000
Q05	57.455	55.993	0.0	0.000	0.0	0.1	255.3	0.000	0.000
Q06	56.662	54.655	0.0	0.000	0.0	0.6	139.9	0.000	0.000
Q08	56.998	55.772	0.0	0.000	0.0	0.5	0.0	0.000	0.000
Q09	61.204	60.163	0.0	0.000	0.0	0.3	1141.5	0.000	0.000
Q10	61.478	60.395	0.0	0.000	0.0	0.4	185.6	0.000	0.000
Q11	61.478	60.587	0.0	0.000	0.0	0.4	1817.5	0.000	0.000
Q12	58.003	56.259	0.0	0.000	0.0	0.2	24.7	0.000	0.000
Q13	58.003	56.795	0.0	0.000	0.0	0.2	966.7	0.000	0.000
Q14	58.674	50.359	0.0	0.000	0.0	1.8	0.0	0.000	0.000
Q15	59.284	52.555	0.0	0.000	0.0	0.7	0.0	0.000	0.000
Q16	55.931	54.543	0.0	0.000	0.0	0.3	0.0	0.000	0.000
Q17	71.018	63.589	0.0	0.000	0.0	44.4	983.5	0.000	0.000
Q18	71.933	65.964	0.0	0.000	0.0	25.6	0.0	0.000	0.000
Q19	78.029	72.120	0.0	0.000	0.0	24.7	0.0	0.000	0.000
Q20	82.906	77.117	0.0	0.000	0.0	40.4	0.0	0.000	0.000
Q21	84.734	78.947	0.0	0.000	0.0	40.6	0.0	0.000	0.000
Q22	81.199	80.226	0.0	0.000	0.0	0.2	1005.4	0.000	0.000
Q23	81.199	80.331	0.0	0.000	0.0	0.2	659.2	0.000	0.000
Q24	70.988	69.353	0.0	0.000	0.0	0.3	387.3	0.000	0.000
Q25	70.988	69.591	0.0	0.000	0.0	0.4	99.2	0.000	0.000
Q26	71.628	70.445	0.0	0.000	0.0	0.2	1616.5	0.000	0.000
Q27	67.056	64.096	0.0	0.000	0.0	0.3	0.0	0.000	0.000
Q28	59.284	53.333	0.0	0.000	0.0	0.3	226.3	0.000	0.000
Q29	60.046	57.286	0.0	0.000	0.0	0.2	0.0	0.000	0.000
Q30	62.179	59.514	0.0	0.000	0.0	0.3	0.0	0.000	0.000
Q31	63.703	60.177	0.0	0.000	0.0	0.1	183.1	0.000	0.000
Q32	64.313	61.618	0.0	0.000	0.0	0.3	0.0	0.000	0.000
Q33	64.892	63.154	0.0	0.000	0.0	0.1	716.2	0.000	0.000
Q34	65.532	62.950	0.0	0.000	0.0	0.3	0.0	0.000	0.000
Q35	65.593	63.122	0.0	0.000	0.0	0.1	219.6	0.000	0.000
Q36	67.056	65.585	0.0	0.000	0.0	0.1	54.4	0.000	0.000
Q38	71.537	69.038	0.0	0.000	0.0	0.2	0.0	0.000	0.000
Q39	71.598	69.776	0.0	0.000	0.0	0.2	425.6	0.000	0.000
Q40	72.024	70.623	0.0	0.000	0.0	0.1	443.6	0.000	0.000
Q41	72.512	70.106	0.0	0.000	0.0	0.2	488.7	0.000	0.000
Q42	72.360	70.356	0.0	0.000	0.0	0.1	232.1	0.000	0.000
R01	64.008	55.837	0.0	0.000	0.0	13.4	0.0	0.000	0.000
R02	67.056	62.923	0.0	0.000	0.0	0.2	0.0	0.000	0.000
R03	67.452	65.756	0.0	0.000	0.0	0.2	127.9	0.000	0.000
R04	66.812	63.056	0.0	0.000	0.0	0.3	0.0	0.000	0.000
R05	67.056	63.815	0.0	0.000	0.0	0.1	0.0	0.000	0.000

R06	65.684	64.693	0.0	0.000	0.0	0.1	116.6	0.000	0.000
R07	71.933	70.520	0.0	0.000	0.0	0.1	178.2	0.000	0.000
R08	76.200	74.773	0.0	0.000	0.0	0.1	129.4	0.000	0.000
R09	77.419	76.278	0.0	0.000	0.0	0.1	60.9	0.000	0.000
R10	68.824	67.074	0.0	0.000	0.0	0.2	132.0	0.000	0.000
R11	75.499	74.183	0.0	0.000	0.0	0.2	173.6	0.000	0.000
R12	72.146	69.839	0.0	0.000	0.0	0.2	278.4	0.000	0.000

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
R13	79.858	78.710	0.0	0.000	0.0	0.1	375.8	0.000	0.000
S02	52.456	52.223	0.0	0.000	0.0	0.1	467.8	0.000	0.000
S03	49.682	46.570	0.0	0.000	0.0	1.1	0.0	0.000	0.000
S04	49.500	48.188	0.0	0.000	0.0	0.1	143.5	0.000	0.000
S05	50.597	46.955	0.0	0.000	0.0	1.7	0.0	0.000	0.000
S06	50.719	48.590	0.0	0.000	0.0	0.1	150.9	0.000	0.000
S07	51.816	47.291	0.0	0.000	0.0	1.6	0.0	0.000	0.000
S08	51.816	47.462	0.0	0.000	0.0	1.4	0.0	0.000	0.000
S09	52.426	47.612	0.0	0.000	0.0	1.6	0.0	0.000	0.000
S12	53.005	50.970	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S13	60.320	57.841	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S14	63.764	60.734	0.0	0.000	0.0	0.1	0.0	0.000	0.000
S15	63.673	62.851	0.0	0.000	0.0	0.1	568.5	0.000	0.000
S16	60.289	59.431	0.0	0.000	0.0	0.1	76.6	0.000	0.000
S17	62.484	59.319	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S18	63.063	60.463	0.0	0.000	0.0	0.2	74.6	0.000	0.000
S19	63.216	61.478	0.0	0.000	0.0	0.2	114.5	0.000	0.000
S20	63.246	61.910	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S21	63.551	63.282	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S22	69.342	69.053	0.0	0.000	0.0	0.2	375.3	0.000	0.000
S23	75.987	72.450	0.0	0.000	0.0	0.1	197.5	0.000	0.000
S24	70.714	69.713	0.0	0.000	0.0	0.2	587.1	0.000	0.000
T2	48.219	46.723	0.0	0.000	0.0	0.2	530.6	0.000	0.000
U02	41.666	40.242	0.0	0.000	0.0	0.2	102.8	0.000	0.000
U03	41.758	40.646	0.0	0.000	0.0	0.1	97.9	0.000	0.000
U04	47.092	46.246	0.0	0.000	0.0	1.5	84.7	0.000	0.000
U05	46.330	46.249	0.0	0.000	0.0	1.2	131.3	0.000	0.000
V02	39.624	37.354	0.0	0.000	0.0	0.2	183.1	0.000	0.000
V03	39.380	37.737	0.0	0.000	0.0	0.2	75.1	0.000	0.000
V04	39.319	38.108	0.0	0.000	0.0	0.3	0.0	0.000	0.000
V05	39.441	38.539	0.0	0.000	0.0	0.1	98.1	0.000	0.000
V06	39.624	38.251	0.0	0.000	0.0	0.1	0.0	0.000	0.000
V07	47.244	45.485	0.0	0.000	0.0	0.1	70.3	0.000	0.000
V08	47.366	45.937	0.0	0.000	0.0	0.1	49.2	0.000	0.000
V09	47.092	46.047	0.0	0.000	0.0	0.1	95.5	0.000	0.000
V10	47.396	46.181	0.0	0.000	0.0	0.1	113.5	0.000	0.000
W02	38.862	36.154	0.0	0.000	0.0	0.1	139.1	0.000	0.000
W03	39.441	37.057	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W04	39.167	38.099	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W05	39.624	38.359	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W06	39.472	38.629	0.0	0.000	0.0	0.1	71.0	0.000	0.000

A %% indicates water lost from the system.

***** Link data *****

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Upstream >			< Downstream >			Total Flow (m3)			
						Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Invert Level (m AD)	Max Depth (m)		Max Flow (m3/s)	Max Vel (m/s)	
Q00.1	Q01	26	6096	0	801.882	54.864	0.618	0.274	0.066	2188.7	48.372	1.683	0.254	0.022	2188.7
Q01.1	S09	6	381	0	0.000	47.610	2.318	0.542	4.085	12722.7+	47.610	0.343	0.542	5.017	12722.7
Q01.2	S09	6	203	0	0.000	48.890	1.137	0.072	1.930	345.6+	48.890	0.183	0.072	2.345	345.6
Q01.3	S09	6	1219	0	0.000	49.500	0.555	0.836	1.615	1379.9	49.500	0.491	0.836	1.900	1379.9
Q01.4	S09	6	1219	0	0.000	50.719	0.061	0.000	0.000	0.0	50.719	0.061	0.000	0.000	0.0
Q02.1	Q01	6	1067	0	0.000	49.621	0.683	1.342	2.220	12257.9	49.621	0.655	1.342	2.331	12257.9
Q03.1	Q02	9	762	0	6.532	52.974	0.162	0.506	7.172	4531.2	49.987	0.325	0.506	6.399	4531.2
Q04.1	Q03	17	762	0	1.558	53.492	0.312	0.506	2.886	4531.2	53.188	0.312	0.506	2.886	4531.2
Q05.1	Q04	7	305	0	0.527	55.931	0.061	0.035	3.336	255.3	53.919	0.061	0.035	3.336	255.3
Q06.1	Q04	40	762	0	1.501	54.346	0.308	0.479	2.767	4275.9	53.675	0.308	0.479	2.767	4275.9
Q08.1	Q06	64	762	0	1.537	55.474	0.298	0.464	2.805	4135.9	54.346	0.309	0.463	2.674	4136.0
Q09.1	Q08	41	610	0	2.094	59.985	0.178	0.348	4.918	3144.5	55.626	0.178	0.348	4.918	3144.5
Q10.1	Q09	19	610	0	0.508	60.107	0.288	0.226	1.665	2003.1	59.985	0.288	0.226	1.664	2003.1
Q11.1	Q10	22	457	0	0.245	60.259	0.322	0.205	1.664	1817.5	60.107	0.318	0.205	1.678	1817.5
Q12.1	Q08	42	457	0	0.299	56.053	0.206	0.119	1.666	991.4	55.626	0.206	0.119	1.666	991.4
Q13.1	Q12	23	457	0	0.470	56.632	0.163	0.118	2.251	966.7	56.053	0.206	0.118	1.652	966.7
Q14.1	Q02	29	1067	0	1.304	49.682	0.674	0.836	1.406	7726.6	49.621	0.691	0.836	1.365	7726.7
Q15.1	Q14	31	1067	0	8.260	52.304	0.250	0.836	5.233	7726.6	49.682	0.677	0.836	1.398	7726.6
Q16.1	Q15	14	610	0	2.491	54.346	0.195	0.499	6.195	4737.0	52.304	0.252	0.499	4.494	4737.0
Q17.1	Q16	99	610	0	1.938	63.368	0.219	0.499	5.282	4737.0	54.346	0.219	0.499	5.282	4737.0
Q18.1	Q17	60	1219	0	127.605	65.837	0.127	0.165	0.081	1650.4	64.922	0.127	0.165	0.081	1650.4
Q19.1	Q18	131	1829	0	266.321	71.933	0.187	0.165	0.105	1650.4	65.837	0.187	0.165	0.105	1650.4
Q20.1	Q19	112	3048	0	981.333	76.810	0.307	0.165	0.040	1650.4	71.933	0.307	0.165	0.040	1650.4
Q21.1	Q20	103	3048	0	625.909	78.638	0.308	0.165	0.040	1650.4	76.810	0.307	0.165	0.040	1650.4
Q22.1	Q21	42	457	0	0.515	80.040	0.186	0.165	2.642	1664.6	78.791	0.185	0.165	2.642	1664.6
Q23.1	Q22	17	381	0	0.156	80.162	0.169	0.061	1.253	659.2	80.040	0.186	0.061	1.134	659.2
Q24.1	Q27	127	533	0	0.916	69.159	0.193	0.240	3.284	2103.1	63.856	0.240	0.240	2.450	2103.1
Q25.1	Q24	14	457	0	0.193	69.251	0.335	0.194	1.505	1715.7	69.190	0.309	0.194	1.639	1715.7
Q26.1	Q25	13	381	0	0.392	70.256	0.188	0.182	3.245	1616.5	69.647	0.188	0.182	3.245	1616.5
Q27.1	Q17	26	533	0	0.599	63.856	0.240	0.239	2.455	2103.1	63.398	0.240	0.239	2.454	2103.1
Q28.1	Q15	6	610	0	2.219	53.157	0.175	0.352	5.101	2989.8	52.487	0.175	0.352	5.101	2989.8
Q29.1	Q28	27	610	0	2.382	57.120	0.165	0.326	5.109	2763.4	53.431	0.165	0.326	5.109	2763.4
Q30.1	Q29	37	610	0	1.570	59.314	0.199	0.326	3.936	2763.4	57.120	0.199	0.326	3.936	2763.4
Q31.1	Q30	9	305	0	0.297	60.107	0.070	0.029	2.268	183.1	59.314	0.200	0.029	0.609	183.1
Q32.1	Q30	42	610	0	1.441	61.417	0.201	0.303	3.625	2580.3	59.314	0.200	0.303	3.648	2580.3
Q33.1	Q32	9	457	0	1.193	63.063	0.091	0.076	3.284	716.2	61.631	0.091	0.076	3.284	716.3
Q34.1	Q32	42	457	0	0.512	62.728	0.222	0.230	2.903	1864.1	61.478	0.222	0.230	2.903	1864.1
Q35.1	Q34	4	457	0	0.653	63.033	0.089	0.039	1.746	274.0	62.819	0.131	0.039	1.615	274.0
Q36.1	Q35	16	457	0	1.132	65.532	0.053	0.008	0.765	54.4	63.246	0.053	0.008	0.765	54.4
Q38.1	Q34	138	457	0	0.623	68.854	0.183	0.195	3.179	1590.1	62.789	0.183	0.195	3.179	1590.1
Q39.1	Q38	12	457	0	0.713	69.647	0.129	0.108	2.852	869.2	68.946	0.129	0.108	2.852	869.2
Q40.1	Q39	11	457	0	0.417	70.500	0.123	0.056	1.582	443.6	70.287	0.123	0.056	1.582	443.6
Q41.1	Q38	56	457	0	0.398	69.952	0.154	0.088	1.803	720.9	68.946	0.154	0.088	1.803	720.9
Q42.1	Q41	21	457	0	0.280	70.256	0.100	0.028	1.069	232.1	70.074	0.100	0.028	1.069	232.1

R01.2	Q00	107	6096	0	121.547	55.474	0.363	0.175	0.075	1566.1	54.864	0.618	0.175	0.042	1481.4
R02.1	R01	72	610	0	2.029	62.789	0.134	0.175	3.689	1572.7	55.565	0.272	0.175	1.396	1572.2
R03.1	R04	28	610	0	1.955	65.623	0.132	0.161	3.462	1456.2	62.972	0.132	0.161	3.462	1456.2
R04.1	R02	4	610	0	0.997	62.880	0.175	0.161	2.308	1456.2	62.789	0.175	0.161	2.309	1456.2
R05.1	R02	13	305	0	0.148	63.734	0.081	0.020	1.252	116.6	62.789	0.135	0.020	0.655	116.6
R06.1	R05	29	457	0	0.515	64.618	0.075	0.020	1.121	116.6	63.734	0.082	0.020	0.990	116.6
R07.1	R03	81	457	0	0.392	70.409	0.111	0.043	1.384	368.5	65.623	0.132	0.043	1.084	368.4
R08.1	R07	135	457	0	0.286	74.676	0.097	0.022	0.868	190.3	70.409	0.111	0.022	0.722	190.3
R09.1	R08	123	457	0	0.180	76.200	0.078	0.008	0.410	60.9	74.676	0.097	0.008	0.298	60.9

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	Invert Level (m AD)	Upstream			Total Flow (m3)	Downstream				
							Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)		Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)
R10.1	R03	43	610	0	1.105	66.934	0.139	0.105	2.097	959.8	65.654	0.139	0.105	2.096	959.8
R11.1	R12	165	610	0	1.038	74.066	0.117	0.060	1.535	549.4	69.738	0.101	0.060	1.896	549.5
R12.1	R10	90	610	0	1.115	69.708	0.131	0.090	1.959	827.9	66.995	0.131	0.090	1.958	827.8
R13.1	R11	25	457	0	1.235	78.638	0.072	0.041	2.510	375.8	74.280	0.072	0.041	2.510	375.8
S02.1	S01	15	457	0	1.862	52.151	0.071	0.061	3.732	467.8	46.269	0.071	0.061	3.732	467.8
S03.1	S01	10	1219	0	9.493	46.208	0.361	1.633	5.657	16736.0	45.690	0.361	1.633	5.657	16736.0
S04.1	S03	6	457	0	1.546	48.128	0.060	0.023	1.821	143.5	46.604	0.060	0.023	1.821	143.5
S05.1	S03	21	1219	0	3.766	46.391	0.564	1.628	3.081	16592.9	46.208	0.564	1.627	3.079	16592.7
S06.1	S05	24	381	0	0.540	48.524	0.066	0.024	1.817	150.9	46.391	0.565	0.024	0.205	150.9x
S07.1	S05	26	1219	0	5.051	46.787	0.504	1.621	3.563	16442.0	46.391	0.565	1.621	3.063	16442.1
S08.1	S07	12	1219	0	5.463	47.000	0.462	1.451	3.581	14448.1	46.787	0.504	1.451	3.188	14448.1
S09.1	S08	9	1219	0	4.068	47.092	0.520	1.451	3.055	14448.2	47.000	0.520	1.451	3.055	14448.1
S12.1	S07	17	533	0	2.164	50.841	0.128	0.228	5.557	1994.2	46.787	0.505	0.228	1.422	1994.1
S13.1	S12	105	533	0	1.128	57.668	0.172	0.228	3.671	1994.2	51.054	0.172	0.228	3.670	1994.2
S14.1	S17	44	533	0	0.834	60.625	0.109	0.059	1.774	568.5	59.101	0.218	0.059	0.805	568.5
S15.1	S14	21	381	0	0.540	62.758	0.092	0.059	2.744	568.5	60.930	0.092	0.059	2.744	568.5
S16.1	S13	10	457	0	1.120	59.375	0.056	0.012	0.999	76.6	57.912	0.056	0.012	0.999	76.6
S17.1	S13	60	533	0	0.669	59.101	0.218	0.217	2.529	1917.5	57.760	0.218	0.217	2.529	1917.6
S18.1	S17	28	457	0	0.603	60.289	0.173	0.173	3.031	1349.0	59.131	0.188	0.172	2.747	1349.0
S19.1	S18	31	457	0	0.520	61.295	0.182	0.161	2.648	1274.4	60.350	0.182	0.161	2.648	1274.4
S20.1	S19	17	457	0	0.442	61.722	0.187	0.144	2.279	1159.9	61.356	0.187	0.144	2.279	1159.9
S21.1	S20	19	457	0	0.774	63.094	0.188	0.145	1.922	1159.9	62.789	0.188	0.144	1.920	1159.9
S22.1	S21	244	457	0	0.935	68.885	0.168	0.145	2.221	1159.9	63.094	0.189	0.145	1.920	1159.9
S23.1	S24	170	381	0	0.235	72.360	0.090	0.024	1.172	197.5	69.555	0.157	0.024	0.542	197.5
S24.1	S22	34	381	0	0.256	69.555	0.157	0.085	1.909	784.6	68.885	0.169	0.085	1.983	784.6
T2.1	T1	183	610	0	1.076	46.604	0.119	0.065	1.626	530.6	41.453	0.119	0.065	1.625	530.6
U02.1	U01	10	457	0	0.470	40.112	0.130	0.073	1.900	410.3	39.868	0.130	0.073	1.900	410.3
U03.1	U02	3	457	0	0.290	40.569	0.078	0.017	0.917	97.9	40.538	0.078	0.017	0.917	97.9
U04.1	U02	6	457	0	1.419	46.177	0.069	0.041	2.655	209.5	41.148	0.069	0.041	2.654	209.5
U05.1	U04	23	457	0	0.339	45.263	0.986	0.024	0.139	130.2x	44.958	1.288	0.024	0.137	126.2x
V02.1	V01	47	457	0	0.283	37.155	0.199	0.110	1.614	684.8	36.728	0.198	0.110	1.612	684.8
V03.1	V02	42	457	0	0.288	37.551	0.186	0.097	1.550	501.6	37.155	0.199	0.097	1.415	501.7
V04.1	V03	7	305	0	0.065	37.856	0.247	0.081	1.274	426.6	37.826	0.221	0.081	1.420	426.6
V05.1	V04	49	305	0	0.109	38.435	0.104	0.025	1.127	98.1	37.856	0.252	0.024	0.398	98.1
V06.1	V04	6	305	0	0.218	38.130	0.120	0.062	2.328	328.5	37.856	0.252	0.062	1.000	328.5
V07.1	V06	16	305	0	0.680	45.415	0.068	0.062	5.062	328.5	38.130	0.120	0.062	2.318	328.5
V08.1	V07	23	305	0	0.136	45.872	0.065	0.011	0.936	49.2	45.446	0.065	0.011	0.936	49.2
V09.1	V07	26	305	0	0.137	45.933	0.114	0.038	1.546	209.0	45.446	0.114	0.038	1.546	209.0
V10.1	V09	19	305	0	0.057	46.055	0.126	0.021	0.724	113.5	45.994	0.110	0.021	0.871	113.5
W02.1	W01	9	457	0	0.239	36.058	0.097	0.022	0.877	210.1	35.997	0.097	0.022	0.877	210.1
W03.1	W02	16	305	0	0.224	37.003	0.054	0.011	1.214	71.0	36.210	0.054	0.011	1.214	71.0
W04.1	W03	40	152	0	0.037	38.039	0.060	0.011	1.605	71.0	37.003	0.060	0.011	1.608	71.0
W05.1	W04	25	152	0	0.023	38.283	0.076	0.011	1.165	71.0	38.039	0.076	0.011	1.164	71.0
W06.1	W05	22	152	0	0.026	38.557	0.072	0.011	1.261	71.0	38.283	0.077	0.011	1.164	71.0

+ after total flow indicates a conduit surcharged by flow and depth at that end.

x after total flow indicates a conduit surcharged by depth only at that end.

NOTE :

- (i) Maximum elevations, depths, volumes, velocities and discharges are selected from the values at each time increment and will be in general more extreme than the maximum values in the time varying results.
- (ii) Maximum elevations, velocities and discharges are not necessarily calculated at the same time.
- (iii) Maximum velocity is not calculated for a conduit unless the depth exceeds the base flow depth (by default, this is 5% of height for slopes ≤ 0.01 , 10% otherwise, subject to a minimum of 0.02 m).

End of run

0 mins (elapsed)

Produced on 12/06/2009 Last page

Start of run

configured for MS Windows

Produced on 12/06/2009 at 19:36

HydroWorks(tm) SIM

Summary results from Simulation

Version 9.0.1123 dated May 2008

Licence Number - WS00740269PM

Message 253: Run finished for event 1.

Summary results for event 1 - 5-year OC Event
Started at 00000000000000. Run for 2880.00 min. (Requested simulation time 2880.00 min)

Files used:

Network: ...\\NET12#8.spb Existing_2009-06-12 (Revision 8)
State:
Runoff: ...\\NET12#8.rpf Existing_2009-06-12 (Revision 8) (InfoWorks 9.0.2.16013)
Rainfall: ...\\SIM44event.red 1
DWF:
Inflows:
Levels:
RTC:
Results: ...\\SIM44.iwr

Total rainfall = 32879.3 m3
Total runoff = 29202.4 m3
Total inflow = 29202.4 m3
Total outflow = 29080.1 m3
Total lost = 0.0 m3

***** Node data *****

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
Q00	60.350	55.486	0.0	0.000	0.0	23.0	1140.5	0.000	0.000
Q01	47.610	50.283	1439.5	2.673	1046.1	1445.5	0.0	-2.361	0.011
Q02	51.206	50.484	0.0	0.000	0.0	2.3	0.0	0.000	0.000
Q03	58.156	53.168	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q04	58.217	53.876	0.0	0.000	0.0	0.7	0.0	0.000	0.000
Q05	57.455	56.002	0.0	0.000	0.0	0.1	379.3	0.000	0.000
Q06	56.662	54.726	0.0	0.000	0.0	0.7	212.9	0.000	0.000
Q08	56.998	55.844	0.0	0.000	0.0	0.7	0.0	0.000	0.000
Q09	61.204	60.202	0.0	0.000	0.0	0.3	1736.4	0.000	0.000
Q10	61.478	60.472	0.0	0.000	0.0	0.5	282.3	0.000	0.000
Q11	61.478	60.754	0.0	0.000	0.0	0.6	2764.8	0.000	0.000
Q12	58.003	56.315	0.0	0.000	0.0	0.3	36.7	0.000	0.000
Q13	58.003	56.831	0.0	0.000	0.0	0.2	1470.6	0.000	0.000
Q14	58.674	50.553	0.0	0.000	0.0	2.3	0.0	0.000	0.000
Q15	59.284	52.606	0.0	0.000	0.0	0.8	0.0	0.000	0.000
Q16	55.931	54.587	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q17	71.018	63.639	0.0	0.000	0.0	54.6	1561.1	0.000	0.000
Q18	71.933	65.966	0.0	0.000	0.0	26.1	0.0	0.000	0.000
Q19	78.029	72.122	0.0	0.000	0.0	25.0	0.0	0.000	0.000
Q20	82.906	77.118	0.0	0.000	0.0	40.6	0.0	0.000	0.000
Q21	84.734	78.948	0.0	0.000	0.0	40.8	0.0	0.000	0.000
Q22	81.199	80.269	0.0	0.000	0.0	0.3	1529.4	0.000	0.000
Q23	81.199	80.377	0.0	0.000	0.0	0.2	979.1	0.000	0.000
Q24	70.988	69.396	0.0	0.000	0.0	0.3	589.2	0.000	0.000
Q25	70.988	69.736	0.0	0.000	0.0	0.6	150.9	0.000	0.000
Q26	71.628	70.523	0.0	0.000	0.0	0.3	2459.0	0.000	0.000
Q27	67.056	64.165	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q28	59.284	53.371	0.0	0.000	0.0	0.3	336.2	0.000	0.000
Q29	60.046	57.318	0.0	0.000	0.0	0.3	0.0	0.000	0.000
Q30	62.179	59.557	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q31	63.703	60.191	0.0	0.000	0.0	0.1	284.5	0.000	0.000
Q32	64.313	61.661	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q33	64.892	63.167	0.0	0.000	0.0	0.1	1063.9	0.000	0.000
Q34	65.532	63.024	0.0	0.000	0.0	0.3	0.0	0.000	0.000
Q35	65.593	63.137	0.0	0.000	0.0	0.1	334.0	0.000	0.000
Q36	67.056	65.588	0.0	0.000	0.0	0.1	82.8	0.000	0.000
Q38	71.537	69.081	0.0	0.000	0.0	0.3	0.0	0.000	0.000
Q39	71.598	69.803	0.0	0.000	0.0	0.2	647.4	0.000	0.000
Q40	72.024	70.647	0.0	0.000	0.0	0.2	674.9	0.000	0.000
Q41	72.512	70.139	0.0	0.000	0.0	0.2	743.5	0.000	0.000
Q42	72.360	70.379	0.0	0.000	0.0	0.1	353.1	0.000	0.000
R01	64.008	55.857	0.0	0.000	0.0	14.2	0.0	0.000	0.000
R02	67.056	62.950	0.0	0.000	0.0	0.2	0.0	0.000	0.000
R03	67.452	65.780	0.0	0.000	0.0	0.2	190.0	0.000	0.000
R04	66.812	63.093	0.0	0.000	0.0	0.3	0.0	0.000	0.000
R05	67.056	63.832	0.0	0.000	0.0	0.1	0.0	0.000	0.000
R06	65.684	64.705	0.0	0.000	0.0	0.1	185.1	0.000	0.000

R07	71.933	70.540	0.0	0.000	0.0	0.2	264.6	0.000	0.000
R08	76.200	74.789	0.0	0.000	0.0	0.1	192.2	0.000	0.000
R09	77.419	76.290	0.0	0.000	0.0	0.1	90.4	0.000	0.000
R10	68.824	67.101	0.0	0.000	0.0	0.2	200.8	0.000	0.000
R11	75.499	74.200	0.0	0.000	0.0	0.2	257.8	0.000	0.000
R12	72.146	69.863	0.0	0.000	0.0	0.2	413.6	0.000	0.000

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
R13	79.858	78.721	0.0	0.000	0.0	0.1	558.2	0.000	0.000
S02	52.456	52.235	0.0	0.000	0.0	0.1	742.4	0.000	0.000
S03	49.682	46.659	0.0	0.000	0.0	1.4	0.0	0.000	0.000
S04	49.500	48.192	0.0	0.000	0.0	0.1	213.2	0.000	0.000
S05	50.597	47.151	0.0	0.000	0.0	2.3	0.0	0.000	0.000
S06	50.719	48.600	0.0	0.000	0.0	0.1	224.2	0.000	0.000
S07	51.816	47.458	0.0	0.000	0.0	2.1	0.0	0.000	0.000
S08	51.816	47.608	0.0	0.000	0.0	1.9	0.0	0.000	0.000
S09	52.426	47.774	0.0	0.000	0.0	2.1	0.0	0.000	0.000
S12	53.005	50.995	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S13	60.320	57.879	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S14	63.764	60.751	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S15	63.673	62.868	0.0	0.000	0.0	0.1	844.5	0.000	0.000
S16	60.289	59.435	0.0	0.000	0.0	0.1	113.8	0.000	0.000
S17	62.484	59.370	0.0	0.000	0.0	0.4	0.0	0.000	0.000
S18	63.063	60.507	0.0	0.000	0.0	0.3	110.8	0.000	0.000
S19	63.216	61.522	0.0	0.000	0.0	0.3	170.0	0.000	0.000
S20	63.246	61.955	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S21	63.551	63.327	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S22	69.342	69.098	0.0	0.000	0.0	0.2	607.2	0.000	0.000
S23	75.987	72.467	0.0	0.000	0.0	0.1	300.4	0.000	0.000
S24	70.714	69.747	0.0	0.000	0.0	0.2	872.0	0.000	0.000
T2	48.219	46.740	0.0	0.000	0.0	0.2	800.5	0.000	0.000
U02	41.666	40.271	0.0	0.000	0.0	0.2	163.2	0.000	0.000
U03	41.758	40.664	0.0	0.000	0.0	0.1	155.5	0.000	0.000
U04	47.092	46.256	0.0	0.000	0.0	1.5	134.5	0.000	0.000
U05	46.330	46.262	0.0	0.000	0.0	1.2	208.4	0.000	0.000
V02	39.624	37.409	0.0	0.000	0.0	0.3	272.0	0.000	0.000
V03	39.380	37.781	0.0	0.000	0.0	0.3	116.7	0.000	0.000
V04	39.319	38.226	0.0	0.000	0.0	0.4	0.0	0.000	0.000
V05	39.441	38.559	0.0	0.000	0.0	0.1	149.3	0.000	0.000
V06	39.624	38.310	0.0	0.000	0.0	0.2	0.0	0.000	0.000
V07	47.244	45.499	0.0	0.000	0.0	0.1	111.5	0.000	0.000
V08	47.366	45.949	0.0	0.000	0.0	0.1	78.2	0.000	0.000
V09	47.092	46.076	0.0	0.000	0.0	0.1	151.6	0.000	0.000
V10	47.396	46.211	0.0	0.000	0.0	0.2	180.1	0.000	0.000
W02	38.862	36.175	0.0	0.000	0.0	0.1	206.6	0.000	0.000
W03	39.441	37.066	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W04	39.167	38.113	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W05	39.624	38.383	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W06	39.472	38.649	0.0	0.000	0.0	0.1	110.3	0.000	0.000

A %% indicates water lost from the system.

***** Link data *****

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	Upstream				Downstream					
						Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)	Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)
Q00.1	Q01	26	6096	0	801.882	54.864	0.622	0.412	0.099	3390.6	48.372	1.911	0.399	0.027	3390.6
Q01.1	S09	6	381	0	0.000	47.610	2.536	0.570	4.239	17558.7+	47.610	0.343	0.570	5.271	17558.7
Q01.2	S09	6	203	0	0.000	48.890	1.360	0.080	2.087	702.5+	48.890	0.183	0.080	2.597	702.5
Q01.3	S09	6	1219	0	0.000	49.500	0.777	1.638	2.086	3789.1	49.500	0.698	1.638	2.370	3789.2
Q01.4	S09	6	1219	0	0.000	50.719	0.061	0.000	0.000	0.0	50.719	0.061	0.000	0.000	0.0
Q02.1	Q01	6	1067	0	0.000	49.621	0.840	2.004	2.654	18657.4	49.621	0.803	2.004	2.775	18657.4
Q03.1	Q02	9	762	0	6.532	52.974	0.191	0.753	8.448	6882.9	49.987	0.497	0.753	6.499	6882.9
Q04.1	Q03	17	762	0	1.558	53.492	0.382	0.753	3.291	6882.9	53.188	0.382	0.753	3.290	6882.9
Q05.1	Q04	7	305	0	0.527	55.931	0.070	0.051	4.015	379.3	53.919	0.070	0.051	4.015	379.3
Q06.1	Q04	40	762	0	1.501	54.346	0.380	0.713	3.140	6503.6	53.675	0.380	0.713	3.140	6503.6
Q08.1	Q06	64	762	0	1.537	55.474	0.370	0.690	3.138	6290.7	54.346	0.380	0.690	3.033	6290.7
Q09.1	Q08	41	610	0	2.094	59.985	0.216	0.518	5.592	4783.4	55.626	0.219	0.518	5.690	4783.4
Q10.1	Q09	19	610	0	0.508	60.107	0.362	0.336	1.864	3047.1	59.985	0.362	0.336	1.862	3047.1
Q11.1	Q10	22	457	0	0.245	60.259	0.473	0.305	1.820	2764.8+	60.107	0.384	0.305	2.070	2764.8
Q12.1	Q08	42	457	0	0.299	56.053	0.260	0.177	1.840	1507.3	55.626	0.260	0.177	1.840	1507.4
Q13.1	Q12	23	457	0	0.470	56.632	0.199	0.176	2.561	1470.6	56.053	0.263	0.176	1.801	1470.6
Q14.1	Q02	29	1067	0	1.304	49.682	0.862	1.251	1.616	11774.5	49.621	0.863	1.251	1.615	11774.5
Q15.1	Q14	31	1067	0	8.260	52.304	0.301	1.251	6.052	11774.5	49.682	0.872	1.251	1.600	11774.5
Q16.1	Q15	14	610	0	2.491	54.346	0.238	0.751	7.104	7254.5	52.304	0.303	0.751	5.283	7254.5
Q17.1	Q16	99	610	0	1.938	63.368	0.270	0.751	6.033	7254.5	54.346	0.269	0.751	6.033	7254.5
Q18.1	Q17	60	1219	0	127.605	65.837	0.130	0.245	0.118	2494.3	64.922	0.130	0.245	0.118	2494.3
Q19.1	Q18	131	1829	0	266.321	71.933	0.190	0.245	0.154	2494.3	65.837	0.190	0.245	0.154	2494.3
Q20.1	Q19	112	3048	0	981.333	76.810	0.308	0.245	0.059	2494.3	71.933	0.308	0.245	0.059	2494.3
Q21.1	Q20	103	3048	0	625.909	78.638	0.310	0.245	0.059	2494.3	76.810	0.308	0.245	0.059	2494.3
Q22.1	Q21	42	457	0	0.515	80.040	0.228	0.245	3.000	2508.5	78.791	0.228	0.245	3.000	2508.3
Q23.1	Q22	17	381	0	0.156	80.162	0.213	0.090	1.366	979.1	80.040	0.229	0.090	1.277	979.1
Q24.1	Q27	127	533	0	0.916	69.159	0.236	0.357	3.729	3199.2	63.856	0.310	0.356	2.643	3199.2
Q25.1	Q24	14	457	0	0.193	69.251	0.467	0.288	1.729	2609.9+	69.190	0.375	0.288	2.001	2610.0
Q26.1	Q25	13	381	0	0.392	70.256	0.240	0.271	3.585	2459.0	69.647	0.240	0.271	3.585	2459.0
Q27.1	Q17	26	533	0	0.599	63.856	0.303	0.356	2.716	3199.2	63.398	0.303	0.356	2.716	3199.2
Q28.1	Q15	6	610	0	2.219	53.157	0.212	0.523	5.797	4520.2	52.487	0.212	0.523	5.797	4520.2
Q29.1	Q28	27	610	0	2.382	57.120	0.197	0.484	5.941	4184.0	53.431	0.197	0.484	5.941	4184.0
Q30.1	Q29	37	610	0	1.570	59.314	0.242	0.484	4.493	4183.9	57.120	0.242	0.484	4.493	4184.0
Q31.1	Q30	9	305	0	0.297	60.107	0.084	0.043	2.606	284.5	59.314	0.243	0.043	0.729	284.4
Q32.1	Q30	42	610	0	1.441	61.417	0.243	0.449	4.133	3899.5	59.314	0.243	0.449	4.163	3899.5
Q33.1	Q32	9	457	0	1.193	63.063	0.103	0.111	3.991	1063.9	61.631	0.103	0.111	3.991	1063.9
Q34.1	Q32	42	457	0	0.512	62.728	0.280	0.342	3.255	2835.7	61.478	0.280	0.341	3.253	2835.7
Q35.1	Q34	4	457	0	0.653	63.033	0.104	0.058	2.071	416.8	62.819	0.205	0.058	1.595	416.8
Q36.1	Q35	16	457	0	1.132	65.532	0.056	0.012	1.035	82.8	63.246	0.056	0.012	1.035	82.8
Q38.1	Q34	138	457	0	0.623	68.854	0.226	0.290	3.586	2418.8	62.789	0.236	0.290	3.640	2418.8
Q39.1	Q38	12	457	0	0.713	69.647	0.156	0.161	3.256	1322.2	68.946	0.156	0.161	3.256	1322.2
Q40.1	Q39	11	457	0	0.417	70.500	0.146	0.083	1.844	674.9	70.287	0.146	0.083	1.844	674.9
Q41.1	Q38	56	457	0	0.398	69.952	0.187	0.130	2.053	1096.6	68.946	0.187	0.130	2.052	1096.6
Q42.1	Q41	21	457	0	0.280	70.256	0.123	0.042	1.187	353.1	70.074	0.123	0.042	1.187	353.1
R01.2	Q00	107	6096	0	121.547	55.474	0.383	0.259	0.104	2346.1	54.864	0.622	0.259	0.062	2261.4

R02.1	R01	72	610	0	2.029	62.789	0.160	0.259	4.239	2352.7	55.565	0.292	0.259	1.880	2352.2
R03.1	R04	28	610	0	1.955	65.623	0.156	0.236	4.007	2167.6	62.972	0.156	0.236	4.007	2167.6
R04.1	R02	4	610	0	0.997	62.880	0.212	0.236	2.610	2167.6	62.789	0.212	0.236	2.610	2167.6
R05.1	R02	13	305	0	0.148	63.734	0.098	0.030	1.472	185.1	62.789	0.161	0.030	0.797	185.1
R06.1	R05	29	457	0	0.515	64.618	0.088	0.030	1.357	185.1	63.734	0.098	0.030	1.154	185.1
R07.1	R03	81	457	0	0.392	70.409	0.131	0.062	1.604	547.3	65.623	0.157	0.062	1.254	547.3
R08.1	R07	135	457	0	0.286	74.676	0.113	0.032	1.020	282.6	70.409	0.131	0.032	0.830	282.6
R09.1	R08	123	457	0	0.180	76.200	0.090	0.011	0.487	90.4	74.676	0.113	0.011	0.351	90.4

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	Invert Level (m AD)	Upstream			Total Flow (m3)	Downstream				
							Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)		Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)
R10.1	R03	43	610	0	1.105	66.934	0.167	0.155	2.392	1430.3	65.654	0.167	0.155	2.392	1430.4
R11.1	R12	165	610	0	1.038	74.066	0.133	0.088	1.867	816.0	69.738	0.124	0.088	2.056	816.0
R12.1	R10	90	610	0	1.115	69.708	0.155	0.132	2.274	1229.6	66.995	0.155	0.132	2.273	1229.6
R13.1	R11	25	457	0	1.235	78.638	0.082	0.061	3.016	558.2	74.280	0.082	0.061	3.016	558.2
S02.1	S01	15	457	0	1.862	52.151	0.083	0.094	4.598	742.4	46.269	0.083	0.094	4.598	742.4
S03.1	S01	10	1219	0	9.493	46.208	0.449	2.579	6.613	25505.7	45.690	0.449	2.579	6.613	25505.7
S04.1	S03	6	457	0	1.546	48.128	0.064	0.033	2.356	213.2	46.604	0.064	0.033	2.356	213.2
S05.1	S03	21	1219	0	3.766	46.391	0.745	2.567	3.455	25292.9	46.208	0.745	2.567	3.452	25292.7
S06.1	S05	24	381	0	0.540	48.524	0.076	0.034	2.144	224.2	46.391	0.760	0.034	0.285	224.2x
S07.1	S05	26	1219	0	5.051	46.787	0.663	2.554	3.946	25068.7	46.391	0.762	2.554	3.357	25068.8
S08.1	S07	12	1219	0	5.463	47.000	0.608	2.287	3.945	22050.1	46.787	0.672	2.287	3.531	22050.2
S09.1	S08	9	1219	0	4.068	47.092	0.674	2.288	3.452	22050.4	47.000	0.674	2.287	3.452	22050.1
S12.1	S07	17	533	0	2.164	50.841	0.153	0.343	6.490	3018.7	46.787	0.673	0.343	1.488	3018.7x
S13.1	S12	105	533	0	1.128	57.668	0.210	0.343	4.207	3018.7	51.054	0.210	0.343	4.206	3018.7
S14.1	S17	44	533	0	0.834	60.625	0.126	0.086	2.127	844.5	59.101	0.269	0.086	0.911	844.5
S15.1	S14	21	381	0	0.540	62.758	0.109	0.086	3.184	844.5	60.930	0.109	0.086	3.184	844.5
S16.1	S13	10	457	0	1.120	59.375	0.060	0.017	1.315	113.8	57.912	0.060	0.017	1.314	113.8
S17.1	S13	60	533	0	0.669	59.101	0.269	0.327	2.898	2904.9	57.760	0.269	0.327	2.899	2905.0
S18.1	S17	28	457	0	0.603	60.289	0.217	0.260	3.386	2060.5	59.131	0.239	0.260	2.993	2060.5
S19.1	S18	31	457	0	0.520	61.295	0.227	0.244	3.001	1949.7	60.350	0.227	0.244	3.002	1949.7
S20.1	S19	17	457	0	0.442	61.722	0.232	0.219	2.623	1779.7	61.356	0.232	0.219	2.623	1779.7
S21.1	S20	19	457	0	0.774	63.094	0.233	0.219	2.233	1779.7	62.789	0.233	0.219	2.233	1779.7
S22.1	S21	244	457	0	0.935	68.885	0.213	0.221	2.524	1779.7	63.094	0.234	0.219	2.222	1779.7
S23.1	S24	170	381	0	0.235	72.360	0.108	0.036	1.353	300.4	69.555	0.192	0.036	0.622	300.4
S24.1	S22	34	381	0	0.256	69.555	0.192	0.125	2.171	1172.5	68.885	0.213	0.125	2.171	1172.5
T2.1	T1	183	610	0	1.076	46.604	0.136	0.096	1.985	800.5	41.453	0.135	0.096	1.983	800.6
U02.1	U01	10	457	0	0.470	40.112	0.159	0.111	2.181	655.1	39.868	0.159	0.111	2.181	655.1
U03.1	U02	3	457	0	0.290	40.569	0.095	0.026	1.043	155.5	40.538	0.095	0.026	1.043	155.5
U04.1	U02	6	457	0	1.419	46.177	0.079	0.062	3.286	336.4	41.148	0.079	0.062	3.286	336.4
U05.1	U04	23	457	0	0.339	45.263	0.998	0.037	0.209	207.3x	44.958	1.298	0.037	0.206	203.3x
V02.1	V01	47	457	0	0.283	37.155	0.252	0.163	1.766	1059.4	36.728	0.252	0.162	1.756	1059.4
V03.1	V02	42	457	0	0.288	37.551	0.229	0.143	1.738	787.4	37.155	0.254	0.143	1.544	787.4
V04.1	V03	7	305	0	0.065	37.856	0.346	0.119	1.576	670.7+	37.826	0.264	0.119	1.776	670.7
V05.1	V04	49	305	0	0.109	38.435	0.124	0.035	1.263	149.3	37.856	0.370	0.033	0.433	149.3x
V06.1	V04	6	305	0	0.218	38.130	0.176	0.093	2.439	521.4	37.856	0.371	0.093	1.229	521.4x
V07.1	V06	16	305	0	0.680	45.415	0.083	0.093	5.835	521.4	38.130	0.180	0.093	2.426	521.4
V08.1	V07	23	305	0	0.136	45.872	0.076	0.016	1.101	78.2	45.446	0.076	0.016	1.102	78.2
V09.1	V07	26	305	0	0.137	45.933	0.143	0.058	1.734	331.7	45.446	0.142	0.058	1.732	331.7
V10.1	V09	19	305	0	0.057	46.055	0.156	0.031	0.830	180.1	45.994	0.136	0.031	0.993	180.1
W02.1	W01	9	457	0	0.239	36.058	0.118	0.033	0.989	316.9	35.997	0.118	0.033	0.989	316.9
W03.1	W02	16	305	0	0.224	37.003	0.063	0.016	1.468	110.3	36.210	0.063	0.016	1.468	110.3
W04.1	W03	40	152	0	0.037	38.039	0.074	0.016	1.820	110.3	37.003	0.074	0.016	1.819	110.3
W05.1	W04	25	152	0	0.023	38.283	0.098	0.016	1.294	110.3	38.039	0.098	0.016	1.294	110.3
W06.1	W05	22	152	0	0.026	38.557	0.089	0.016	1.441	110.3	38.283	0.101	0.016	1.251	110.3

+ after total flow indicates a conduit surcharged by flow and depth at that end.

x after total flow indicates a conduit surcharged by depth only at that end.

NOTE :

- (i) Maximum elevations, depths, volumes, velocities and discharges are selected from the values at each time increment and will be in general more extreme than the maximum values in the time varying results.
- (ii) Maximum elevations, velocities and discharges are not necessarily calculated at the same time.
- (iii) Maximum velocity is not calculated for a conduit unless the depth exceeds the base flow depth (by default, this is 5% of height for slopes ≤ 0.01 , 10% otherwise, subject to a minimum of 0.02 m).

End of run

0 mins (elapsed)

Produced on 12/06/2009 Last page

Start of run

configured for MS Windows

Produced on 12/06/2009 at 19:36

HydroWorks(tm) SIM

Summary results from Simulation

Version 9.0.1123 dated May 2008

Licence Number - WS00740269PM

Message 253: Run finished for event 1.

Summary results for event 1 - 10-year OC Event
Started at 00000000000000. Run for 2880.00 min. (Requested simulation time 2880.00 min)

Files used:

Network: ...\\NET12#8.spb Existing_2009-06-12 (Revision 8)
State:
Runoff: ...\\NET12#8.rpf Existing_2009-06-12 (Revision 8) (InfoWorks 9.0.2.16013)
Rainfall: ...\\SIM45event.red 1
DWF:
Inflows:
Levels:
RTC:
Results: ...\\SIM45.iwr

Total rainfall = 38762.7 m3
Total runoff = 35006.7 m3
Total inflow = 35006.7 m3
Total outflow = 34887.7 m3
Total lost = 0.0 m3

***** Node data *****

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
Q00	60.350	55.489	0.0	0.000	0.0	23.1	1387.6	0.000	0.000
Q01	47.610	50.414	1580.3	2.804	1101.6	1586.3	0.0	-1.683	0.006
Q02	51.206	50.600	0.0	0.000	0.0	2.6	0.0	0.000	0.000
Q03	58.156	53.189	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q04	58.217	53.938	0.0	0.000	0.0	0.8	0.0	0.000	0.000
Q05	57.455	56.010	0.0	0.000	0.0	0.1	450.5	0.000	0.000
Q06	56.662	54.787	0.0	0.000	0.0	0.8	254.9	0.000	0.000
Q08	56.998	55.900	0.0	0.000	0.0	0.8	0.0	0.000	0.000
Q09	61.204	60.227	0.0	0.000	0.0	0.4	2079.8	0.000	0.000
Q10	61.478	60.540	0.0	0.000	0.0	0.6	338.2	0.000	0.000
Q11	61.478	60.969	0.0	0.000	0.0	0.8	3311.8	0.000	0.000
Q12	58.003	56.355	0.0	0.000	0.0	0.4	43.6	0.000	0.000
Q13	58.003	56.859	0.0	0.000	0.0	0.3	1761.7	0.000	0.000
Q14	58.674	50.710	0.0	0.000	0.0	2.7	0.0	0.000	0.000
Q15	59.284	52.636	0.0	0.000	0.0	0.9	0.0	0.000	0.000
Q16	55.931	54.613	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q17	71.018	63.679	0.0	0.000	0.0	62.5	1899.2	0.000	0.000
Q18	71.933	65.968	0.0	0.000	0.0	26.4	0.0	0.000	0.000
Q19	78.029	72.124	0.0	0.000	0.0	25.2	0.0	0.000	0.000
Q20	82.906	77.118	0.0	0.000	0.0	40.7	0.0	0.000	0.000
Q21	84.734	78.949	0.0	0.000	0.0	41.0	0.0	0.000	0.000
Q22	81.199	80.308	0.0	0.000	0.0	0.3	1831.9	0.000	0.000
Q23	81.199	80.412	0.0	0.000	0.0	0.3	1162.9	0.000	0.000
Q24	70.988	69.428	0.0	0.000	0.0	0.4	705.8	0.000	0.000
Q25	70.988	69.868	0.0	0.000	0.0	0.7	180.8	0.000	0.000
Q26	71.628	70.586	0.0	0.000	0.0	0.3	2945.5	0.000	0.000
Q27	67.056	64.217	0.0	0.000	0.0	0.5	0.0	0.000	0.000
Q28	59.284	53.393	0.0	0.000	0.0	0.3	399.3	0.000	0.000
Q29	60.046	57.339	0.0	0.000	0.0	0.3	0.0	0.000	0.000
Q30	62.179	59.583	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q31	63.703	60.200	0.0	0.000	0.0	0.1	343.3	0.000	0.000
Q32	64.313	61.688	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q33	64.892	63.178	0.0	0.000	0.0	0.1	1263.7	0.000	0.000
Q34	65.532	63.087	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q35	65.593	63.155	0.0	0.000	0.0	0.1	400.1	0.000	0.000
Q36	67.056	65.591	0.0	0.000	0.0	0.1	99.2	0.000	0.000
Q38	71.537	69.126	0.0	0.000	0.0	0.3	0.0	0.000	0.000
Q39	71.598	69.819	0.0	0.000	0.0	0.2	775.5	0.000	0.000
Q40	72.024	70.663	0.0	0.000	0.0	0.2	808.4	0.000	0.000
Q41	72.512	70.160	0.0	0.000	0.0	0.2	890.6	0.000	0.000
Q42	72.360	70.391	0.0	0.000	0.0	0.2	423.0	0.000	0.000
R01	64.008	55.871	0.0	0.000	0.0	14.7	0.0	0.000	0.000
R02	67.056	62.964	0.0	0.000	0.0	0.3	0.0	0.000	0.000
R03	67.452	65.795	0.0	0.000	0.0	0.3	225.7	0.000	0.000
R04	66.812	63.115	0.0	0.000	0.0	0.3	0.0	0.000	0.000
R05	67.056	63.844	0.0	0.000	0.0	0.1	0.0	0.000	0.000
R06	65.684	64.713	0.0	0.000	0.0	0.1	225.2	0.000	0.000

R07	71.933	70.555	0.0	0.000	0.0	0.2	314.4	0.000	0.000
R08	76.200	74.800	0.0	0.000	0.0	0.1	228.4	0.000	0.000
R09	77.419	76.297	0.0	0.000	0.0	0.1	107.4	0.000	0.000
R10	68.824	67.115	0.0	0.000	0.0	0.3	240.5	0.000	0.000
R11	75.499	74.212	0.0	0.000	0.0	0.2	306.3	0.000	0.000
R12	72.146	69.878	0.0	0.000	0.0	0.3	491.2	0.000	0.000

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
R13	79.858	78.728	0.0	0.000	0.0	0.1	663.0	0.000	0.000
S02	52.456	52.243	0.0	0.000	0.0	0.1	903.4	0.000	0.000
S03	49.682	46.718	0.0	0.000	0.0	1.6	0.0	0.000	0.000
S04	49.500	48.196	0.0	0.000	0.0	0.1	253.2	0.000	0.000
S05	50.597	47.289	0.0	0.000	0.0	2.8	0.0	0.000	0.000
S06	50.719	48.606	0.0	0.000	0.0	0.1	266.2	0.000	0.000
S07	51.816	47.591	0.0	0.000	0.0	2.5	0.0	0.000	0.000
S08	51.816	47.740	0.0	0.000	0.0	2.3	0.0	0.000	0.000
S09	52.426	47.884	0.0	0.000	0.0	2.4	0.0	0.000	0.000
S12	53.005	51.013	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S13	60.320	57.903	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S14	63.764	60.765	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S15	63.673	62.880	0.0	0.000	0.0	0.1	1003.1	0.000	0.000
S16	60.289	59.437	0.0	0.000	0.0	0.1	135.1	0.000	0.000
S17	62.484	59.416	0.0	0.000	0.0	0.4	0.0	0.000	0.000
S18	63.063	60.545	0.0	0.000	0.0	0.3	131.6	0.000	0.000
S19	63.216	61.564	0.0	0.000	0.0	0.3	201.9	0.000	0.000
S20	63.246	61.996	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S21	63.551	63.364	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S22	69.342	69.128	0.0	0.000	0.0	0.2	744.0	0.000	0.000
S23	75.987	72.478	0.0	0.000	0.0	0.1	359.9	0.000	0.000
S24	70.714	69.778	0.0	0.000	0.0	0.2	1035.9	0.000	0.000
T2	48.219	46.754	0.0	0.000	0.0	0.2	956.2	0.000	0.000
U02	41.666	40.291	0.0	0.000	0.0	0.2	198.5	0.000	0.000
U03	41.758	40.674	0.0	0.000	0.0	0.1	189.1	0.000	0.000
U04	47.092	46.264	0.0	0.000	0.0	1.5	163.6	0.000	0.000
U05	46.330	46.273	0.0	0.000	0.0	1.2	253.5	0.000	0.000
V02	39.624	37.454	0.0	0.000	0.0	0.3	323.0	0.000	0.000
V03	39.380	37.822	0.0	0.000	0.0	0.3	140.8	0.000	0.000
V04	39.319	38.328	0.0	0.000	0.0	0.5	0.0	0.000	0.000
V05	39.441	38.577	0.0	0.000	0.0	0.1	178.8	0.000	0.000
V06	39.624	38.430	0.0	0.000	0.0	0.3	0.0	0.000	0.000
V07	47.244	45.509	0.0	0.000	0.0	0.1	135.7	0.000	0.000
V08	47.366	45.958	0.0	0.000	0.0	0.1	95.1	0.000	0.000
V09	47.092	46.099	0.0	0.000	0.0	0.2	184.4	0.000	0.000
V10	47.396	46.235	0.0	0.000	0.0	0.2	219.1	0.000	0.000
W02	38.862	36.188	0.0	0.000	0.0	0.2	245.4	0.000	0.000
W03	39.441	37.071	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W04	39.167	38.126	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W05	39.624	38.404	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W06	39.472	38.668	0.0	0.000	0.0	0.1	133.1	0.000	0.000

A %% indicates water lost from the system.

***** Link data *****

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Upstream >					< Downstream >				
						Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)	Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)
Q00.1	Q01	26	6096	0	801.882	54.864	0.625	0.515	0.123	4087.1	48.372	2.042	0.499	0.032	4087.1
Q01.1	S09	6	381	0	0.000	47.610	2.662	0.585	4.321	19763.0+	47.610	0.343	0.585	5.412	19763.0
Q01.2	S09	6	203	0	0.000	48.890	1.488	0.084	2.165	913.5+	48.890	0.183	0.084	2.731	913.5
Q01.3	S09	6	1219	0	0.000	49.500	0.901	2.174	2.351	5767.6	49.500	0.809	2.174	2.645	5767.6
Q01.4	S09	6	1219	0	0.000	50.719	0.061	0.000	0.000	0.0	50.719	0.061	0.000	0.000	0.0
Q02.1	Q01	6	1067	0	0.000	49.621	0.940	2.483	2.977	22355.3	49.621	0.887	2.484	3.125	22355.3
Q03.1	Q02	9	762	0	6.532	52.974	0.210	0.934	9.136	8240.4	49.987	0.614	0.934	6.363	8240.4
Q04.1	Q03	17	762	0	1.558	53.492	0.435	0.934	3.475	8240.4	53.188	0.435	0.934	3.475	8240.4
Q05.1	Q04	7	305	0	0.527	55.931	0.078	0.063	4.314	450.5	53.919	0.078	0.063	4.314	450.5
Q06.1	Q04	40	762	0	1.501	54.346	0.432	0.885	3.318	7789.9	53.675	0.432	0.885	3.318	7789.9
Q08.1	Q06	64	762	0	1.537	55.474	0.419	0.856	3.329	7534.9	54.346	0.442	0.856	3.131	7534.9
Q09.1	Q08	41	610	0	2.094	59.985	0.241	0.642	5.988	5729.7	55.626	0.274	0.642	5.803	5729.7
Q10.1	Q09	19	610	0	0.508	60.107	0.425	0.418	1.935	3649.9	59.985	0.423	0.418	1.932	3649.9
Q11.1	Q10	22	457	0	0.245	60.259	0.647	0.378	2.204	3311.8+	60.107	0.436	0.378	2.345	3311.8
Q12.1	Q08	42	457	0	0.299	56.053	0.296	0.220	1.959	1805.3	55.626	0.296	0.220	1.959	1805.3
Q13.1	Q12	23	457	0	0.470	56.632	0.226	0.219	2.696	1761.7	56.053	0.303	0.219	1.893	1761.7
Q14.1	Q02	29	1067	0	1.304	49.682	1.013	1.549	1.766	14114.8	49.621	0.980	1.549	1.803	14114.9
Q15.1	Q14	31	1067	0	8.260	52.304	0.330	1.550	6.595	14114.8	49.682	1.029	1.549	1.751	14114.8
Q16.1	Q15	14	610	0	2.491	54.346	0.264	0.928	7.645	8712.0	52.304	0.333	0.928	5.890	8711.9
Q17.1	Q16	99	610	0	1.938	63.368	0.305	0.928	6.364	8712.0	54.346	0.305	0.928	6.364	8712.0
Q18.1	Q17	60	1219	0	127.605	65.837	0.131	0.302	0.143	2980.6	64.922	0.131	0.302	0.143	2980.6
Q19.1	Q18	131	1829	0	266.321	71.933	0.191	0.303	0.189	2980.6	65.837	0.191	0.302	0.189	2980.6
Q20.1	Q19	112	3048	0	981.333	76.810	0.309	0.303	0.073	2980.6	71.933	0.309	0.303	0.073	2980.6
Q21.1	Q20	103	3048	0	625.909	78.638	0.311	0.303	0.073	2980.6	76.810	0.309	0.303	0.073	2980.6
Q22.1	Q21	42	457	0	0.515	80.040	0.259	0.303	3.161	2994.8	78.791	0.259	0.303	3.160	2994.7
Q23.1	Q22	17	381	0	0.156	80.162	0.246	0.110	1.424	1162.9	80.040	0.268	0.110	1.359	1162.9
Q24.1	Q27	127	533	0	0.916	69.159	0.268	0.443	3.948	3832.1	63.856	0.362	0.443	2.740	3832.1
Q25.1	Q24	14	457	0	0.193	69.251	0.568	0.358	2.094	3126.3+	69.190	0.408	0.358	2.313	3126.3
Q26.1	Q25	13	381	0	0.392	70.256	0.275	0.337	3.818	2945.5	69.647	0.275	0.337	3.818	2945.5
Q27.1	Q17	26	533	0	0.599	63.856	0.346	0.443	2.889	3832.1	63.398	0.346	0.443	2.888	3832.1
Q28.1	Q15	6	610	0	2.219	53.157	0.234	0.650	6.303	5403.0	52.487	0.234	0.650	6.303	5403.0
Q29.1	Q28	27	610	0	2.382	57.120	0.218	0.601	6.427	5003.7	53.431	0.218	0.601	6.427	5003.7
Q30.1	Q29	37	610	0	1.570	59.314	0.268	0.601	4.869	5003.7	57.120	0.268	0.601	4.869	5003.7
Q31.1	Q30	9	305	0	0.297	60.107	0.093	0.054	2.886	343.3	59.314	0.269	0.054	0.821	343.3
Q32.1	Q30	42	610	0	1.441	61.417	0.269	0.558	4.485	4660.5	59.314	0.269	0.558	4.494	4660.5
Q33.1	Q32	9	457	0	1.193	63.063	0.114	0.137	4.285	1263.7	61.631	0.114	0.137	4.285	1263.7
Q34.1	Q32	42	457	0	0.512	62.728	0.326	0.425	3.403	3396.8	61.478	0.325	0.425	3.402	3396.8
Q35.1	Q34	4	457	0	0.653	63.033	0.122	0.073	2.133	499.3	62.819	0.268	0.073	1.580	499.3
Q36.1	Q35	16	457	0	1.132	65.532	0.059	0.015	1.232	99.2	63.246	0.059	0.015	1.232	99.2
Q38.1	Q34	138	457	0	0.623	68.854	0.257	0.361	3.796	2897.5	62.789	0.300	0.361	3.618	2897.5
Q39.1	Q38	12	457	0	0.713	69.647	0.171	0.200	3.568	1583.9	68.946	0.180	0.200	3.540	1583.9
Q40.1	Q39	11	457	0	0.417	70.500	0.163	0.104	1.989	808.4	70.287	0.162	0.104	1.989	808.4
Q41.1	Q38	56	457	0	0.398	69.952	0.208	0.162	2.225	1313.6	68.946	0.208	0.162	2.224	1313.6
Q42.1	Q41	21	457	0	0.280	70.256	0.135	0.052	1.296	423.0	70.074	0.135	0.052	1.296	423.0
R01.2	Q00	107	6096	0	121.547	55.474	0.398	0.321	0.124	2795.4	54.864	0.625	0.321	0.076	2710.8

R02.1	R01	72	610	0	2.029	62.789	0.174	0.321	4.659	2802.0	55.565	0.306	0.321	2.191	2801.5
R03.1	R04	28	610	0	1.955	65.623	0.171	0.292	4.360	2576.9	62.972	0.171	0.292	4.360	2576.9
R04.1	R02	4	610	0	0.997	62.880	0.234	0.292	2.832	2576.9	62.789	0.234	0.292	2.832	2576.9
R05.1	R02	13	305	0	0.148	63.734	0.110	0.038	1.612	225.2	62.789	0.176	0.038	0.906	225.2
R06.1	R05	29	457	0	0.515	64.618	0.096	0.038	1.534	225.2	63.734	0.110	0.038	1.256	225.2
R07.1	R03	81	457	0	0.392	70.409	0.146	0.078	1.728	650.1	65.623	0.172	0.078	1.375	650.1
R08.1	R07	135	457	0	0.286	74.676	0.124	0.040	1.097	335.7	70.409	0.146	0.040	0.901	335.7
R09.1	R08	123	457	0	0.180	76.200	0.097	0.014	0.544	107.4	74.676	0.124	0.014	0.380	107.4

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	Invert Level (m AD)	Upstream			Total Flow (m3)	Downstream				
							Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)		Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)
R10.1	R03	43	610	0	1.105	66.934	0.181	0.191	2.640	1701.1	65.654	0.181	0.191	2.640	1701.1
R11.1	R12	165	610	0	1.038	74.066	0.145	0.109	2.036	969.3	69.738	0.140	0.108	2.155	969.4
R12.1	R10	90	610	0	1.115	69.708	0.170	0.164	2.465	1460.7	66.995	0.170	0.163	2.464	1460.5
R13.1	R11	25	457	0	1.235	78.638	0.089	0.075	3.324	663.0	74.280	0.089	0.075	3.323	663.0
S02.1	S01	15	457	0	1.862	52.151	0.091	0.118	5.120	903.4	46.269	0.091	0.118	5.120	903.4
S03.1	S01	10	1219	0	9.493	46.208	0.508	3.202	6.956	30574.3	45.690	0.508	3.201	6.956	30574.3
S04.1	S03	6	457	0	1.546	48.128	0.067	0.042	2.760	253.2	46.604	0.114	0.042	3.902	253.2
S05.1	S03	21	1219	0	3.766	46.391	0.867	3.187	3.587	30321.4	46.208	0.867	3.187	3.587	30321.3
S06.1	S05	24	381	0	0.540	48.524	0.082	0.043	2.421	266.2	46.391	0.899	0.043	0.356	266.2x
S07.1	S05	26	1219	0	5.051	46.787	0.777	3.171	4.043	30055.2	46.391	0.901	3.171	3.437	30055.3
S08.1	S07	12	1219	0	5.463	47.000	0.722	2.842	3.996	26444.0	46.787	0.806	2.842	3.549	26444.0
S09.1	S08	9	1219	0	4.068	47.092	0.772	2.842	3.648	26444.1	47.000	0.772	2.842	3.648	26444.0
S12.1	S07	17	533	0	2.164	50.841	0.170	0.428	7.009	3611.5	46.787	0.807	0.428	1.841	3611.4x
S13.1	S12	105	533	0	1.128	57.668	0.234	0.429	4.556	3611.5	51.054	0.233	0.428	4.555	3611.5
S14.1	S17	44	533	0	0.834	60.625	0.140	0.106	2.272	1003.1	59.101	0.315	0.106	0.967	1003.1
S15.1	S14	21	381	0	0.540	62.758	0.121	0.106	3.425	1003.1	60.930	0.121	0.106	3.425	1003.1
S16.1	S13	10	457	0	1.120	59.375	0.062	0.021	1.551	135.1	57.912	0.062	0.021	1.551	135.1
S17.1	S13	60	533	0	0.669	59.101	0.306	0.408	3.072	3476.3	57.760	0.306	0.408	3.073	3476.3
S18.1	S17	28	457	0	0.603	60.289	0.247	0.328	3.631	2473.3	59.131	0.286	0.328	3.052	2473.3
S19.1	S18	31	457	0	0.520	61.295	0.259	0.307	3.197	2341.7	60.350	0.259	0.307	3.198	2341.7
S20.1	S19	17	457	0	0.442	61.722	0.266	0.277	2.802	2139.7	61.356	0.266	0.277	2.795	2139.7
S21.1	S20	19	457	0	0.774	63.094	0.265	0.277	2.395	2139.7	62.789	0.265	0.277	2.391	2139.7
S22.1	S21	244	457	0	0.935	68.885	0.240	0.279	2.732	2139.7	63.094	0.271	0.277	2.326	2139.7
S23.1	S24	170	381	0	0.235	72.360	0.118	0.045	1.476	359.9	69.555	0.222	0.044	0.643	359.9
S24.1	S22	34	381	0	0.256	69.555	0.218	0.154	2.291	1395.7	68.885	0.243	0.154	2.291	1395.7
T2.1	T1	183	610	0	1.076	46.604	0.150	0.119	2.149	956.2	41.453	0.149	0.119	2.148	956.2
U02.1	U01	10	457	0	0.470	40.112	0.179	0.142	2.382	798.3	39.868	0.179	0.142	2.381	798.3
U03.1	U02	3	457	0	0.290	40.569	0.105	0.033	1.151	189.1	40.538	0.105	0.033	1.151	189.1
U04.1	U02	6	457	0	1.419	46.177	0.087	0.080	3.683	410.7	41.148	0.087	0.080	3.682	410.7
U05.1	U04	23	457	0	0.339	45.263	1.009	0.047	0.268	252.4x	44.958	1.306	0.047	0.264	248.5x
V02.1	V01	47	457	0	0.283	37.155	0.293	0.209	1.875	1277.0	36.728	0.294	0.209	1.875	1277.0
V03.1	V02	42	457	0	0.288	37.551	0.267	0.184	1.854	953.9	37.155	0.299	0.184	1.616	953.9
V04.1	V03	7	305	0	0.065	37.856	0.419	0.153	2.010	813.1+	37.826	0.275	0.153	2.215	813.1
V05.1	V04	49	305	0	0.109	38.435	0.142	0.045	1.370	178.8	37.856	0.472	0.043	0.559	178.8x
V06.1	V04	6	305	0	0.218	38.130	0.286	0.120	2.449	634.3	37.856	0.475	0.120	1.567	634.3x
V07.1	V06	16	305	0	0.680	45.415	0.091	0.120	6.541	634.3	38.130	0.301	0.120	2.435	634.3
V08.1	V07	23	305	0	0.136	45.872	0.086	0.020	1.218	95.1	45.446	0.086	0.021	1.218	95.1
V09.1	V07	26	305	0	0.137	45.933	0.164	0.075	1.864	403.6	45.446	0.164	0.074	1.860	403.6
V10.1	V09	19	305	0	0.057	46.055	0.179	0.040	0.898	219.1	45.994	0.154	0.040	1.079	219.1
W02.1	W01	9	457	0	0.239	36.058	0.130	0.041	1.068	378.5	35.997	0.130	0.041	1.067	378.5
W03.1	W02	16	305	0	0.224	37.003	0.068	0.020	1.655	133.1	36.210	0.068	0.020	1.655	133.1
W04.1	W03	40	152	0	0.037	38.039	0.084	0.020	1.951	133.1	37.003	0.084	0.020	1.950	133.1
W05.1	W04	25	152	0	0.023	38.283	0.116	0.020	1.375	133.1	38.039	0.116	0.020	1.367	133.1
W06.1	W05	22	152	0	0.026	38.557	0.106	0.020	1.507	133.1	38.283	0.122	0.020	1.309	133.1

+ after total flow indicates a conduit surcharged by flow and depth at that end.

x after total flow indicates a conduit surcharged by depth only at that end.

NOTE :

- (i) Maximum elevations, depths, volumes, velocities and discharges are selected from the values at each time increment and will be in general more extreme than the maximum values in the time varying results.
- (ii) Maximum elevations, velocities and discharges are not necessarily calculated at the same time.
- (iii) Maximum velocity is not calculated for a conduit unless the depth exceeds the base flow depth (by default, this is 5% of height for slopes ≤ 0.01 , 10% otherwise, subject to a minimum of 0.02 m).

End of run

0 mins (elapsed)

Produced on 12/06/2009 Last page

Start of run

configured for MS Windows

Produced on 12/06/2009 at 19:36

HydroWorks(tm) SIM

Summary results from Simulation

Version 9.0.1123 dated May 2008

Licence Number - WS00740269PM

Message 253: Run finished for event 1.

Summary results for event 1 - 25-year OC Event
Started at 00000000000000. Run for 2880.00 min. (Requested simulation time 2880.00 min)

Files used:

Network: ...\\NET12#8.spb Existing_2009-06-12 (Revision 8)
State:
Runoff: ...\\NET12#8.rpf Existing_2009-06-12 (Revision 8) (InfoWorks 9.0.2.16013)
Rainfall: ...\\SIM31event.red 1
DWF:
Inflows:
Levels:
RTC:
Results: ...\\SIM31.iwr

Total rainfall = 48384.4 m3
Total runoff = 44535.5 m3
Total inflow = 44535.5 m3
Total outflow = 44417.5 m3
Total lost = 0.0 m3

***** Node data *****

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
Q00	60.350	55.492	0.0	0.000	0.0	23.2	1795.9	0.000	0.000
Q01	47.610	50.554	1738.9	2.945	1162.5	1745.0	0.0	-1.595	0.005
Q02	51.206	50.715	0.0	0.000	0.0	2.9	0.0	0.000	0.000
Q03	58.156	53.206	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q04	58.217	54.007	0.0	0.000	0.0	0.9	0.0	0.000	0.000
Q05	57.455	56.016	0.0	0.000	0.0	0.1	567.1	0.000	0.000
Q06	56.662	54.854	0.0	0.000	0.0	0.9	324.0	0.000	0.000
Q08	56.998	55.965	0.0	0.000	0.0	0.9	0.0	0.000	0.000
Q09	61.204	60.251	0.0	0.000	0.0	0.4	2642.5	0.000	0.000
Q10	61.478	60.600	0.0	0.000	0.0	0.7	429.8	0.000	0.000
Q11	61.478	61.206	0.0	0.000	0.0	1.1	4207.8	0.000	0.000
Q12	58.003	56.407	0.0	0.000	0.0	0.4	54.9	0.000	0.000
Q13	58.003	56.893	0.0	0.000	0.0	0.3	2238.3	0.000	0.000
Q14	58.674	50.877	0.0	0.000	0.0	3.1	0.0	0.000	0.000
Q15	59.284	52.669	0.0	0.000	0.0	1.0	0.0	0.000	0.000
Q16	55.931	54.645	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q17	71.018	63.814	0.0	0.000	0.0	89.7	2457.4	0.000	0.000
Q18	71.933	65.970	0.0	0.000	0.0	26.8	0.0	0.000	0.000
Q19	78.029	72.126	0.0	0.000	0.0	25.4	0.0	0.000	0.000
Q20	82.906	77.119	0.0	0.000	0.0	40.8	0.0	0.000	0.000
Q21	84.734	78.951	0.0	0.000	0.0	41.1	0.0	0.000	0.000
Q22	81.199	80.354	0.0	0.000	0.0	0.4	2327.6	0.000	0.000
Q23	81.199	80.459	0.0	0.000	0.0	0.3	1463.6	0.000	0.000
Q24	70.988	69.478	0.0	0.000	0.0	0.4	896.9	0.000	0.000
Q25	70.988	69.998	0.0	0.000	0.0	0.9	229.8	0.000	0.000
Q26	71.628	70.848	0.0	0.000	0.0	0.6	3742.4	0.000	0.000
Q27	67.056	64.288	0.0	0.000	0.0	0.6	0.0	0.000	0.000
Q28	59.284	53.418	0.0	0.000	0.0	0.4	502.8	0.000	0.000
Q29	60.046	57.362	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q30	62.179	59.616	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q31	63.703	60.210	0.0	0.000	0.0	0.1	440.1	0.000	0.000
Q32	64.313	61.720	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q33	64.892	63.189	0.0	0.000	0.0	0.1	1590.4	0.000	0.000
Q34	65.532	63.304	0.0	0.000	0.0	0.7	0.0	0.000	0.000
Q35	65.593	63.310	0.0	0.000	0.0	0.3	508.5	0.000	0.000
Q36	67.056	65.593	0.0	0.000	0.0	0.1	126.0	0.000	0.000
Q38	71.537	69.178	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q39	71.598	69.839	0.0	0.000	0.0	0.2	985.3	0.000	0.000
Q40	72.024	70.679	0.0	0.000	0.0	0.2	1027.2	0.000	0.000
Q41	72.512	70.183	0.0	0.000	0.0	0.3	1131.5	0.000	0.000
Q42	72.360	70.407	0.0	0.000	0.0	0.2	537.5	0.000	0.000
R01	64.008	55.886	0.0	0.000	0.0	15.2	0.0	0.000	0.000
R02	67.056	62.980	0.0	0.000	0.0	0.3	0.0	0.000	0.000
R03	67.452	65.809	0.0	0.000	0.0	0.3	284.2	0.000	0.000
R04	66.812	63.140	0.0	0.000	0.0	0.4	0.0	0.000	0.000
R05	67.056	63.856	0.0	0.000	0.0	0.1	0.0	0.000	0.000
R06	65.684	64.720	0.0	0.000	0.0	0.1	291.5	0.000	0.000

R07	71.933	70.569	0.0	0.000	0.0	0.2	395.7	0.000	0.000
R08	76.200	74.810	0.0	0.000	0.0	0.2	287.4	0.000	0.000
R09	77.419	76.303	0.0	0.000	0.0	0.1	135.1	0.000	0.000
R10	68.824	67.134	0.0	0.000	0.0	0.3	305.7	0.000	0.000
R11	75.499	74.226	0.0	0.000	0.0	0.2	385.5	0.000	0.000
R12	72.146	69.891	0.0	0.000	0.0	0.3	618.2	0.000	0.000

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
R13	79.858	78.734	0.0	0.000	0.0	0.1	834.4	0.000	0.000
S02	52.456	52.250	0.0	0.000	0.0	0.1	1168.8	0.000	0.000
S03	49.682	46.765	0.0	0.000	0.0	1.7	0.0	0.000	0.000
S04	49.500	48.199	0.0	0.000	0.0	0.1	318.8	0.000	0.000
S05	50.597	47.520	0.0	0.000	0.0	3.5	0.0	0.000	0.000
S06	50.719	48.612	0.0	0.000	0.0	0.1	335.2	0.000	0.000
S07	51.816	47.828	0.0	0.000	0.0	3.2	0.0	0.000	0.000
S08	51.816	47.968	0.0	0.000	0.0	3.0	0.0	0.000	0.000
S09	52.426	48.084	0.0	0.000	0.0	3.1	0.0	0.000	0.000
S12	53.005	51.030	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S13	60.320	57.932	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S14	63.764	60.776	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S15	63.673	62.892	0.0	0.000	0.0	0.1	1262.4	0.000	0.000
S16	60.289	59.440	0.0	0.000	0.0	0.1	170.2	0.000	0.000
S17	62.484	59.467	0.0	0.000	0.0	0.5	0.0	0.000	0.000
S18	63.063	60.592	0.0	0.000	0.0	0.4	165.7	0.000	0.000
S19	63.216	61.611	0.0	0.000	0.0	0.4	254.3	0.000	0.000
S20	63.246	62.044	0.0	0.000	0.0	0.4	0.0	0.000	0.000
S21	63.551	63.401	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S22	69.342	69.162	0.0	0.000	0.0	0.3	971.7	0.000	0.000
S23	75.987	72.491	0.0	0.000	0.0	0.1	457.2	0.000	0.000
S24	70.714	69.811	0.0	0.000	0.0	0.3	1303.7	0.000	0.000
T2	48.219	46.768	0.0	0.000	0.0	0.2	1211.0	0.000	0.000
U02	41.666	40.309	0.0	0.000	0.0	0.2	257.0	0.000	0.000
U03	41.758	40.686	0.0	0.000	0.0	0.1	244.8	0.000	0.000
U04	47.092	46.271	0.0	0.000	0.0	1.5	211.9	0.000	0.000
U05	46.330	46.283	0.0	0.000	0.0	1.2	328.1	0.000	0.000
V02	39.624	37.499	0.0	0.000	0.0	0.4	406.6	0.000	0.000
V03	39.380	37.864	0.0	0.000	0.0	0.4	180.5	0.000	0.000
V04	39.319	38.420	0.0	0.000	0.0	0.6	0.0	0.000	0.000
V05	39.441	38.602	0.0	0.000	0.0	0.2	227.3	0.000	0.000
V06	39.624	38.595	0.0	0.000	0.0	0.5	0.0	0.000	0.000
V07	47.244	45.519	0.0	0.000	0.0	0.1	175.7	0.000	0.000
V08	47.366	45.965	0.0	0.000	0.0	0.1	123.1	0.000	0.000
V09	47.092	46.123	0.0	0.000	0.0	0.2	238.8	0.000	0.000
V10	47.396	46.258	0.0	0.000	0.0	0.2	283.7	0.000	0.000
W02	38.862	36.201	0.0	0.000	0.0	0.2	308.9	0.000	0.000
W03	39.441	37.076	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W04	39.167	38.139	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W05	39.624	38.485	0.0	0.000	0.0	0.2	0.0	0.000	0.000
W06	39.472	38.761	0.0	0.000	0.0	0.2	170.6	0.000	0.000

A %% indicates water lost from the system.

***** Link data *****

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Upstream >					< Downstream >				
						Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)	Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)
Q00.1	Q01	26	6096	0	801.882	54.864	0.628	0.628	0.148	5230.7	48.372	2.183	0.609	0.036	5230.7
Q01.1	S09	6	381	0	0.000	47.610	2.808	0.593	4.366	23470.5+	47.610	0.498	0.593	5.488	23470.5+
Q01.2	S09	6	203	0	0.000	48.890	1.626	0.088	2.241	1247.5+	48.890	0.183	0.088	2.867	1247.5
Q01.3	S09	6	1219	0	0.000	49.500	1.029	2.754	2.619	8930.6	49.500	0.911	2.754	2.943	8930.6
Q01.4	S09	6	1219	0	0.000	50.719	0.061	0.000	0.000	0.0	50.719	0.061	0.000	0.000	0.0
Q02.1	Q01	6	1067	0	0.000	49.621	1.030	2.981	3.366	28416.4	49.621	0.953	2.981	3.538	28416.4
Q03.1	Q02	9	762	0	6.532	52.974	0.226	1.134	9.995	10464.3	49.987	0.731	1.133	6.534	10464.3
Q04.1	Q03	17	762	0	1.558	53.492	0.491	1.134	3.651	10464.3	53.188	0.491	1.134	3.650	10464.3
Q05.1	Q04	7	305	0	0.527	55.931	0.084	0.076	4.627	567.1	53.919	0.088	0.076	4.974	567.1
Q06.1	Q04	40	762	0	1.501	54.346	0.488	1.073	3.482	9897.2	53.675	0.488	1.073	3.482	9897.2
Q08.1	Q06	64	762	0	1.537	55.474	0.473	1.039	3.510	9573.1	54.346	0.510	1.038	3.227	9573.1
Q09.1	Q08	41	610	0	2.094	59.985	0.264	0.778	6.420	7280.0	55.626	0.340	0.779	5.778	7279.9
Q10.1	Q09	19	610	0	0.508	60.107	0.480	0.506	2.053	4637.5	59.985	0.465	0.506	2.118	4637.5
Q11.1	Q10	22	457	0	0.245	60.259	0.881	0.459	2.640	4207.8+	60.107	0.499	0.459	2.702	4207.8+
Q12.1	Q08	42	457	0	0.299	56.053	0.343	0.267	2.037	2293.1	55.626	0.340	0.268	2.078	2293.1
Q13.1	Q12	23	457	0	0.470	56.632	0.255	0.265	2.815	2238.3	56.053	0.355	0.265	1.950	2238.3
Q14.1	Q02	29	1067	0	1.304	49.682	1.164	1.848	2.000	17952.1+	49.621	1.096	1.848	2.031	17952.1+
Q15.1	Q14	31	1067	0	8.260	52.304	0.363	1.849	6.893	17952.1	49.682	1.197	1.848	1.993	17952.1x
Q16.1	Q15	14	610	0	2.491	54.346	0.296	1.117	7.945	11103.3	52.304	0.369	1.117	6.392	11103.3
Q17.1	Q16	99	610	0	1.938	63.368	0.342	1.118	6.630	11103.3	54.346	0.342	1.117	6.629	11103.3
Q18.1	Q17	60	1219	0	127.605	65.837	0.133	0.367	0.171	3776.9	64.922	0.133	0.366	0.171	3776.9
Q19.1	Q18	131	1829	0	266.321	71.933	0.193	0.367	0.227	3776.9	65.837	0.193	0.367	0.226	3776.9
Q20.1	Q19	112	3048	0	981.333	76.810	0.309	0.367	0.088	3776.9	71.933	0.309	0.367	0.088	3776.9
Q21.1	Q20	103	3048	0	625.909	78.638	0.312	0.367	0.088	3776.9	76.810	0.309	0.367	0.088	3776.9
Q22.1	Q21	42	457	0	0.515	80.040	0.292	0.367	3.317	3791.2	78.791	0.292	0.367	3.317	3791.0
Q23.1	Q22	17	381	0	0.156	80.162	0.291	0.133	1.463	1463.6	80.040	0.314	0.134	1.411	1463.6
Q24.1	Q27	127	533	0	0.916	69.159	0.301	0.536	4.119	4869.0	63.856	0.435	0.536	2.794	4869.0
Q25.1	Q24	14	457	0	0.193	69.251	0.669	0.434	2.525	3972.0+	69.190	0.411	0.434	2.787	3972.0
Q26.1	Q25	13	381	0	0.392	70.256	0.438	0.408	4.107	3742.4+	69.647	0.357	0.408	4.084	3742.3
Q27.1	Q17	26	533	0	0.599	63.856	0.405	0.536	2.996	4869.0	63.398	0.418	0.536	2.994	4869.0
Q28.1	Q15	6	610	0	2.219	53.157	0.259	0.784	6.636	6848.9	52.487	0.259	0.784	6.636	6848.9
Q29.1	Q28	27	610	0	2.382	57.120	0.240	0.727	6.806	6346.2	53.431	0.240	0.727	6.806	6346.2
Q30.1	Q29	37	610	0	1.570	59.314	0.301	0.727	5.071	6346.2	57.120	0.301	0.727	5.070	6346.2
Q31.1	Q30	9	305	0	0.297	60.107	0.103	0.066	3.028	440.1	59.314	0.302	0.066	0.925	440.1
Q32.1	Q30	42	610	0	1.441	61.417	0.302	0.675	4.678	5906.1	59.314	0.302	0.675	4.687	5906.1
Q33.1	Q32	9	457	0	1.193	63.063	0.125	0.166	4.579	1590.4	61.631	0.125	0.166	4.579	1590.4
Q34.1	Q32	42	457	0	0.512	62.728	0.480	0.513	3.468	4315.8+	61.478	0.415	0.513	3.489	4315.7
Q35.1	Q34	4	457	0	0.653	63.033	0.277	0.088	2.131	634.5	62.819	0.484	0.088	1.565	634.5x
Q36.1	Q35	16	457	0	1.132	65.532	0.061	0.018	1.413	126.0	63.246	0.064	0.018	1.413	126.0
Q38.1	Q34	138	457	0	0.623	68.854	0.290	0.437	3.979	3681.4	62.789	0.520	0.438	3.670	3681.3x
Q39.1	Q38	12	457	0	0.713	69.647	0.191	0.242	3.725	2012.4	68.946	0.233	0.242	3.477	2012.4
Q40.1	Q39	11	457	0	0.417	70.500	0.179	0.126	2.116	1027.2	70.287	0.179	0.126	2.116	1027.2
Q41.1	Q38	56	457	0	0.398	69.952	0.231	0.196	2.356	1669.0	68.946	0.233	0.196	2.364	1669.0
Q42.1	Q41	21	457	0	0.280	70.256	0.150	0.063	1.350	537.5	70.074	0.150	0.063	1.349	537.5
R01.2	Q00	107	6096	0	121.547	55.474	0.413	0.389	0.145	3530.9	54.864	0.628	0.389	0.092	3446.1

R02.1	R01	72	610	0	2.029	62.789	0.190	0.389	4.998	3537.5	55.565	0.322	0.389	2.494	3537.0
R03.1	R04	28	610	0	1.955	65.623	0.184	0.353	4.739	3246.1	62.972	0.184	0.353	4.739	3246.1
R04.1	R02	4	610	0	0.997	62.880	0.259	0.353	2.984	3246.1	62.789	0.259	0.353	2.984	3246.1
R05.1	R02	13	305	0	0.148	63.734	0.122	0.046	1.697	291.5	62.789	0.192	0.046	1.006	291.5
R06.1	R05	29	457	0	0.515	64.618	0.102	0.047	1.700	291.5	63.734	0.122	0.046	1.314	291.5
R07.1	R03	81	457	0	0.392	70.409	0.160	0.094	1.832	818.2	65.623	0.186	0.094	1.500	818.2
R08.1	R07	135	457	0	0.286	74.676	0.134	0.048	1.199	422.5	70.409	0.160	0.048	0.944	422.5
R09.1	R08	123	457	0	0.180	76.200	0.103	0.017	0.598	135.1	74.676	0.134	0.016	0.414	135.1

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	Invert Level (m AD)	Upstream			Total Flow (m3)	Downstream				
							Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)		Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)
R10.1	R03	43	610	0	1.105	66.934	0.200	0.231	2.774	2143.7	65.654	0.200	0.231	2.774	2143.7
R11.1	R12	165	610	0	1.038	74.066	0.159	0.131	2.159	1219.9	69.738	0.153	0.131	2.295	1220.0
R12.1	R10	90	610	0	1.115	69.708	0.183	0.197	2.686	1838.2	66.995	0.183	0.197	2.685	1838.1
R13.1	R11	25	457	0	1.235	78.638	0.095	0.090	3.654	834.4	74.280	0.095	0.090	3.653	834.4
S02.1	S01	15	457	0	1.862	52.151	0.097	0.145	5.692	1168.8	46.269	0.097	0.145	5.693	1168.8
S03.1	S01	10	1219	0	9.493	46.208	0.555	3.852	7.455	38887.2	45.690	0.555	3.852	7.455	38887.2
S04.1	S03	6	457	0	1.546	48.128	0.071	0.050	3.074	318.8	46.604	0.161	0.050	3.748	318.8
S05.1	S03	21	1219	0	3.766	46.391	1.076	3.835	3.675	38568.8	46.208	1.059	3.835	3.669	38568.7
S06.1	S05	24	381	0	0.540	48.524	0.087	0.052	2.633	335.2	46.391	1.130	0.051	0.417	335.2x
S07.1	S05	26	1219	0	5.051	46.787	0.990	3.816	4.076	38233.5	46.391	1.135	3.816	3.475	38233.6
S08.1	S07	12	1219	0	5.463	47.000	0.930	3.418	3.994	33648.6	46.787	1.045	3.419	3.551	33648.7
S09.1	S08	9	1219	0	4.068	47.092	0.954	3.418	3.783	33648.7	47.000	0.972	3.418	3.797	33648.6
S12.1	S07	17	533	0	2.164	50.841	0.187	0.520	7.450	4585.1	46.787	1.044	0.520	2.226	4585.1x
S13.1	S12	105	533	0	1.128	57.668	0.263	0.520	4.749	4585.2	51.054	0.263	0.520	4.750	4585.1
S14.1	S17	44	533	0	0.834	60.625	0.151	0.128	2.464	1262.4	59.101	0.366	0.128	1.021	1262.4
S15.1	S14	21	381	0	0.540	62.758	0.133	0.128	3.625	1262.4	60.930	0.133	0.128	3.625	1262.4
S16.1	S13	10	457	0	1.120	59.375	0.065	0.025	1.762	170.2	57.912	0.065	0.025	1.761	170.2
S17.1	S13	60	533	0	0.669	59.101	0.346	0.496	3.231	4415.1	57.760	0.346	0.495	3.229	4415.0
S18.1	S17	28	457	0	0.603	60.289	0.278	0.399	3.830	3152.7	59.131	0.338	0.399	3.080	3152.7
S19.1	S18	31	457	0	0.520	61.295	0.294	0.375	3.366	2987.1	60.350	0.293	0.375	3.366	2987.0
S20.1	S19	17	457	0	0.442	61.722	0.304	0.339	2.935	2732.8	61.356	0.304	0.339	2.928	2732.8
S21.1	S20	19	457	0	0.774	63.094	0.296	0.339	2.529	2732.8	62.789	0.296	0.339	2.528	2732.8
S22.1	S21	244	457	0	0.935	68.885	0.267	0.341	2.909	2732.6	63.094	0.309	0.339	2.395	2732.8
S23.1	S24	170	381	0	0.235	72.360	0.131	0.054	1.553	457.2	69.555	0.256	0.054	0.663	457.2
S24.1	S22	34	381	0	0.256	69.555	0.245	0.186	2.401	1760.9	68.885	0.277	0.186	2.401	1760.8
T2.1	T1	183	610	0	1.076	46.604	0.164	0.144	2.288	1211.0	41.453	0.163	0.144	2.286	1211.0
U02.1	U01	10	457	0	0.470	40.112	0.197	0.173	2.546	1035.4	39.868	0.197	0.173	2.546	1035.4
U03.1	U02	3	457	0	0.290	40.569	0.117	0.040	1.201	244.8	40.538	0.117	0.040	1.201	244.8
U04.1	U02	6	457	0	1.419	46.177	0.093	0.097	4.047	533.6	41.148	0.093	0.097	4.046	533.6
U05.1	U04	23	457	0	0.339	45.263	1.019	0.057	0.326	327.1x	44.958	1.313	0.057	0.321	323.1x
V02.1	V01	47	457	0	0.283	37.155	0.334	0.252	1.963	1635.6	36.728	0.333	0.251	1.960	1635.6
V03.1	V02	42	457	0	0.288	37.551	0.306	0.222	1.916	1229.0	37.155	0.345	0.222	1.682	1229.0
V04.1	V03	7	305	0	0.065	37.856	0.499	0.186	2.421	1048.5+	37.826	0.274	0.186	2.684	1048.5
V05.1	V04	49	305	0	0.109	38.435	0.166	0.054	1.414	227.3	37.856	0.564	0.051	0.664	227.3x
V06.1	V04	6	305	0	0.218	38.130	0.419	0.146	2.457	821.3x	37.856	0.568	0.146	1.891	821.3x
V07.1	V06	16	305	0	0.680	45.415	0.101	0.146	6.873	821.3	38.130	0.469	0.146	2.441	821.3x
V08.1	V07	23	305	0	0.136	45.872	0.093	0.025	1.322	123.1	45.446	0.093	0.025	1.323	123.1
V09.1	V07	26	305	0	0.137	45.933	0.185	0.091	1.969	522.5	45.446	0.184	0.091	1.966	522.5
V10.1	V09	19	305	0	0.057	46.055	0.201	0.049	0.954	283.7	45.994	0.171	0.049	1.157	283.7
W02.1	W01	9	457	0	0.239	36.058	0.143	0.050	1.136	479.5	35.997	0.143	0.050	1.136	479.5
W03.1	W02	16	305	0	0.224	37.003	0.073	0.024	1.771	170.6	36.210	0.073	0.024	1.771	170.6
W04.1	W03	40	152	0	0.037	38.039	0.093	0.024	2.069	170.6	37.003	0.093	0.024	2.067	170.6
W05.1	W04	25	152	0	0.023	38.283	0.184	0.024	1.370	170.6+	38.039	0.147	0.024	1.392	170.6
W06.1	W05	22	152	0	0.026	38.557	0.186	0.024	1.547	170.6x	38.283	0.204	0.024	1.308	170.6x

+ after total flow indicates a conduit surcharged by flow and depth at that end.

x after total flow indicates a conduit surcharged by depth only at that end.

NOTE :

- (i) Maximum elevations, depths, volumes, velocities and discharges are selected from the values at each time increment and will be in general more extreme than the maximum values in the time varying results.
- (ii) Maximum elevations, velocities and discharges are not necessarily calculated at the same time.
- (iii) Maximum velocity is not calculated for a conduit unless the depth exceeds the base flow depth (by default, this is 5% of height for slopes ≤ 0.01 , 10% otherwise, subject to a minimum of 0.02 m).

End of run

0 mins (elapsed)

Produced on 12/06/2009 Last page

Start of run

configured for MS Windows

Produced on 12/06/2009 at 19:36

HydroWorks(tm) SIM

Summary results from Simulation

Version 9.0.1123 dated May 2008

Licence Number - WS00740269PM

Message 253: Run finished for event 1.

Summary results for event 1 - 50-year OC Event
Started at 00000000000000. Run for 2880.00 min. (Requested simulation time 2880.00 min)

Files used:

Network: ...\\NET12#8.spb Existing_2009-06-12 (Revision 8)
State:
Runoff: ...\\NET12#8.rpf Existing_2009-06-12 (Revision 8) (InfoWorks 9.0.2.16013)
Rainfall: ...\\SIM46event.red 1
DWF:
Inflows:
Levels:
RTC:
Results: ...\\SIM46.iwr

Total rainfall = 53591.3 m3
Total runoff = 49704.8 m3
Total inflow = 49704.8 m3
Total outflow = 49618.3 m3
Total lost = 0.0 m3

***** Node data *****

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
Q00	60.350	55.495	0.0	0.000	0.0	23.3	2020.9	0.000	0.000
Q01	47.610	50.666	1871.0	3.056	1210.2	1877.1	0.0	-1.640	0.004
Q02	51.206	50.884	0.0	0.000	0.0	3.3	0.0	0.000	0.000
Q03	58.156	53.221	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q04	58.217	54.067	0.0	0.000	0.0	1.0	0.0	0.000	0.000
Q05	57.455	56.020	0.0	0.000	0.0	0.1	631.1	0.000	0.000
Q06	56.662	54.911	0.0	0.000	0.0	1.0	362.0	0.000	0.000
Q08	56.998	56.009	0.0	0.000	0.0	1.0	0.0	0.000	0.000
Q09	61.204	60.271	0.0	0.000	0.0	0.4	2948.6	0.000	0.000
Q10	61.478	60.660	0.0	0.000	0.0	0.8	480.0	0.000	0.000
Q11	61.478	61.415	0.0	0.000	0.0	1.3	4696.0	0.000	0.000
Q12	58.003	56.494	0.0	0.000	0.0	0.5	61.0	0.000	0.000
Q13	58.003	56.921	0.0	0.000	0.0	0.3	2499.0	0.000	0.000
Q14	58.674	51.095	0.0	0.000	0.0	3.7	0.0	0.000	0.000
Q15	59.284	52.688	0.0	0.000	0.0	1.0	0.0	0.000	0.000
Q16	55.931	55.109	0.0	0.000	0.0	1.1	0.0	0.000	0.000
Q17	71.018	63.962	0.0	0.000	0.0	119.6	2762.1	0.000	0.000
Q18	71.933	65.972	0.0	0.000	0.0	27.1	0.0	0.000	0.000
Q19	78.029	72.127	0.0	0.000	0.0	25.6	0.0	0.000	0.000
Q20	82.906	77.120	0.0	0.000	0.0	40.9	0.0	0.000	0.000
Q21	84.734	78.951	0.0	0.000	0.0	41.3	0.0	0.000	0.000
Q22	81.199	80.392	0.0	0.000	0.0	0.4	2596.9	0.000	0.000
Q23	81.199	80.517	0.0	0.000	0.0	0.4	1626.3	0.000	0.000
Q24	70.988	69.514	0.0	0.000	0.0	0.5	1001.7	0.000	0.000
Q25	70.988	70.092	0.0	0.000	0.0	1.0	256.6	0.000	0.000
Q26	71.628	71.096	0.0	0.000	0.0	0.9	4176.6	0.000	0.000
Q27	67.056	64.459	0.0	0.000	0.0	0.8	0.0	0.000	0.000
Q28	59.284	53.433	0.0	0.000	0.0	0.4	559.5	0.000	0.000
Q29	60.046	57.378	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q30	62.179	59.646	0.0	0.000	0.0	0.5	0.0	0.000	0.000
Q31	63.703	60.216	0.0	0.000	0.0	0.1	493.4	0.000	0.000
Q32	64.313	61.751	0.0	0.000	0.0	0.5	0.0	0.000	0.000
Q33	64.892	63.195	0.0	0.000	0.0	0.2	1768.0	0.000	0.000
Q34	65.532	63.653	0.0	0.000	0.0	1.1	0.0	0.000	0.000
Q35	65.593	63.661	0.0	0.000	0.0	0.7	568.0	0.000	0.000
Q36	67.056	65.594	0.0	0.000	0.0	0.1	140.8	0.000	0.000
Q38	71.537	69.222	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q39	71.598	69.849	0.0	0.000	0.0	0.2	1100.1	0.000	0.000
Q40	72.024	70.692	0.0	0.000	0.0	0.2	1146.9	0.000	0.000
Q41	72.512	70.206	0.0	0.000	0.0	0.3	1263.3	0.000	0.000
Q42	72.360	70.416	0.0	0.000	0.0	0.2	600.1	0.000	0.000
R01	64.008	55.897	0.0	0.000	0.0	15.6	0.0	0.000	0.000
R02	67.056	62.994	0.0	0.000	0.0	0.3	0.0	0.000	0.000
R03	67.452	65.821	0.0	0.000	0.0	0.3	316.2	0.000	0.000
R04	66.812	63.155	0.0	0.000	0.0	0.4	0.0	0.000	0.000
R05	67.056	63.864	0.0	0.000	0.0	0.2	0.0	0.000	0.000
R06	65.684	64.726	0.0	0.000	0.0	0.1	328.1	0.000	0.000

R07	71.933	70.576	0.0	0.000	0.0	0.2	440.1	0.000	0.000
R08	76.200	74.817	0.0	0.000	0.0	0.2	319.6	0.000	0.000
R09	77.419	76.309	0.0	0.000	0.0	0.1	150.3	0.000	0.000
R10	68.824	67.146	0.0	0.000	0.0	0.3	341.4	0.000	0.000
R11	75.499	74.234	0.0	0.000	0.0	0.2	428.5	0.000	0.000
R12	72.146	69.903	0.0	0.000	0.0	0.3	687.4	0.000	0.000

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
R13	79.858	78.738	0.0	0.000	0.0	0.1	927.8	0.000	0.000
S02	52.456	52.254	0.0	0.000	0.0	0.1	1314.7	0.000	0.000
S03	49.682	46.807	0.0	0.000	0.0	1.8	0.0	0.000	0.000
S04	49.500	48.202	0.0	0.000	0.0	0.1	354.7	0.000	0.000
S05	50.597	47.627	0.0	0.000	0.0	3.8	0.0	0.000	0.000
S06	50.719	48.617	0.0	0.000	0.0	0.1	373.0	0.000	0.000
S07	51.816	48.006	0.0	0.000	0.0	3.8	0.0	0.000	0.000
S08	51.816	48.180	0.0	0.000	0.0	3.6	0.0	0.000	0.000
S09	52.426	48.330	0.0	0.000	0.0	3.8	0.0	0.000	0.000
S12	53.005	51.040	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S13	60.320	57.960	0.0	0.000	0.0	0.4	0.0	0.000	0.000
S14	63.764	60.783	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S15	63.673	62.898	0.0	0.000	0.0	0.1	1403.2	0.000	0.000
S16	60.289	59.441	0.0	0.000	0.0	0.1	189.3	0.000	0.000
S17	62.484	59.512	0.0	0.000	0.0	0.5	0.0	0.000	0.000
S18	63.063	60.628	0.0	0.000	0.0	0.4	184.3	0.000	0.000
S19	63.216	61.652	0.0	0.000	0.0	0.4	282.9	0.000	0.000
S20	63.246	62.081	0.0	0.000	0.0	0.4	0.0	0.000	0.000
S21	63.551	63.430	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S22	69.342	69.189	0.0	0.000	0.0	0.3	1096.2	0.000	0.000
S23	75.987	72.497	0.0	0.000	0.0	0.1	510.5	0.000	0.000
S24	70.714	69.840	0.0	0.000	0.0	0.3	1449.3	0.000	0.000
T2	48.219	46.776	0.0	0.000	0.0	0.3	1350.4	0.000	0.000
U02	41.666	40.324	0.0	0.000	0.0	0.2	289.2	0.000	0.000
U03	41.758	40.694	0.0	0.000	0.0	0.1	275.6	0.000	0.000
U04	47.092	46.275	0.0	0.000	0.0	1.5	238.2	0.000	0.000
U05	46.330	46.290	0.0	0.000	0.0	1.2	369.2	0.000	0.000
V02	39.624	37.564	0.0	0.000	0.0	0.5	451.9	0.000	0.000
V03	39.380	37.909	0.0	0.000	0.0	0.4	202.1	0.000	0.000
V04	39.319	38.495	0.0	0.000	0.0	0.6	0.0	0.000	0.000
V05	39.441	38.655	0.0	0.000	0.0	0.2	253.7	0.000	0.000
V06	39.624	38.709	0.0	0.000	0.0	0.6	0.0	0.000	0.000
V07	47.244	45.525	0.0	0.000	0.0	0.1	197.6	0.000	0.000
V08	47.366	45.972	0.0	0.000	0.0	0.1	138.4	0.000	0.000
V09	47.092	46.140	0.0	0.000	0.0	0.2	268.6	0.000	0.000
V10	47.396	46.275	0.0	0.000	0.0	0.2	319.2	0.000	0.000
W02	38.862	36.211	0.0	0.000	0.0	0.2	343.3	0.000	0.000
W03	39.441	37.081	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W04	39.167	38.149	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W05	39.624	38.567	0.0	0.000	0.0	0.3	0.0	0.000	0.000
W06	39.472	38.909	0.0	0.000	0.0	0.4	191.3	0.000	0.000

A %% indicates water lost from the system.

***** Link data *****

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Upstream >					< Downstream >				
						Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)	Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)
Q00.1	Q01	26	6096	0	801.882	54.864	0.631	0.709	0.167	5857.0	48.372	2.294	0.686	0.038	5856.5
Q01.1	S09	6	381	0	0.000	47.610	2.928	0.593	4.359	25085.9+	47.610	0.744	0.593	5.465	25085.9+
Q01.2	S09	6	203	0	0.000	48.890	1.735	0.091	2.296	1342.1+	48.890	0.183	0.091	2.971	1342.1
Q01.3	S09	6	1219	0	0.000	49.500	1.129	3.179	2.817	11151.1	49.500	0.976	3.179	3.174	11151.0
Q01.4	S09	6	1219	0	0.000	50.719	0.061	0.000	0.000	0.0	50.719	0.061	0.000	0.000	0.0
Q02.1	Q01	6	1067	0	0.000	49.621	1.151	3.344	3.649	31721.0+	49.621	1.051	3.344	3.820	31721.0
Q03.1	Q02	9	762	0	6.532	52.974	0.241	1.279	10.338	11677.1	49.987	0.903	1.278	6.558	11677.0x
Q04.1	Q03	17	762	0	1.558	53.492	0.539	1.279	3.714	11677.1	53.188	0.539	1.279	3.716	11677.1
Q05.1	Q04	7	305	0	0.527	55.931	0.088	0.086	4.903	631.1	53.919	0.148	0.086	4.834	631.1
Q06.1	Q04	40	762	0	1.501	54.346	0.535	1.211	3.578	11046.1	53.675	0.535	1.211	3.578	11046.0
Q08.1	Q06	64	762	0	1.537	55.474	0.508	1.172	3.640	10684.3	54.346	0.568	1.172	3.276	10684.2
Q09.1	Q08	41	610	0	2.094	59.985	0.284	0.878	6.595	8124.4	55.626	0.386	0.878	5.851	8124.4
Q10.1	Q09	19	610	0	0.508	60.107	0.535	0.571	2.106	5176.0	59.985	0.492	0.571	2.262	5175.9
Q11.1	Q10	22	457	0	0.245	60.259	1.089	0.517	2.945	4696.0+	60.107	0.562	0.517	3.029	4696.0+
Q12.1	Q08	42	457	0	0.299	56.053	0.425	0.301	2.036	2560.0	55.626	0.384	0.300	2.038	2559.9
Q13.1	Q12	23	457	0	0.470	56.632	0.278	0.299	2.898	2499.0	56.053	0.443	0.298	1.928	2499.0
Q14.1	Q02	29	1067	0	1.304	49.682	1.359	2.069	2.222	20044.2+	49.621	1.267	2.069	2.227	20044.0+
Q15.1	Q14	31	1067	0	8.260	52.304	0.381	2.076	7.237	20044.6	49.682	1.418	2.070	2.220	20044.2x
Q16.1	Q15	14	610	0	2.491	54.346	0.312	1.259	8.377	12405.4	52.304	0.389	1.256	6.660	12405.3
Q17.1	Q16	99	610	0	1.938	63.368	0.362	1.251	6.931	12405.2	54.346	0.770	1.250	6.930	12405.4x
Q18.1	Q17	60	1219	0	127.605	65.837	0.135	0.414	0.191	4208.6	64.922	0.135	0.414	0.191	4208.4
Q19.1	Q18	131	1829	0	266.321	71.933	0.194	0.414	0.254	4208.7	65.837	0.194	0.414	0.254	4208.6
Q20.1	Q19	112	3048	0	981.333	76.810	0.310	0.414	0.099	4208.8	71.933	0.310	0.414	0.099	4208.7
Q21.1	Q20	103	3048	0	625.909	78.638	0.313	0.414	0.098	4208.8	76.810	0.310	0.414	0.099	4208.8
Q22.1	Q21	42	457	0	0.515	80.040	0.320	0.414	3.414	4223.2	78.791	0.320	0.414	3.413	4223.0
Q23.1	Q22	17	381	0	0.156	80.162	0.346	0.150	1.483	1626.3	80.040	0.352	0.151	1.440	1626.3
Q24.1	Q27	127	533	0	0.916	69.159	0.324	0.605	4.280	5434.9	63.856	0.608	0.605	2.797	5434.7x
Q25.1	Q24	14	457	0	0.193	69.251	0.752	0.489	2.836	4433.1+	69.190	0.411	0.489	3.145	4433.1
Q26.1	Q25	13	381	0	0.392	70.256	0.721	0.460	3.915	4176.6+	69.647	0.458	0.460	3.948	4176.6+
Q27.1	Q17	26	533	0	0.599	63.856	0.551	0.605	2.999	5434.7+	63.398	0.568	0.605	2.994	5434.6+
Q28.1	Q15	6	610	0	2.219	53.157	0.273	0.881	6.950	7639.4	52.487	0.273	0.881	6.950	7639.4
Q29.1	Q28	27	610	0	2.382	57.120	0.256	0.818	7.033	7080.0	53.431	0.256	0.818	7.033	7080.0
Q30.1	Q29	37	610	0	1.570	59.314	0.318	0.818	5.310	7080.0	57.120	0.318	0.818	5.309	7080.0
Q31.1	Q30	9	305	0	0.297	60.107	0.109	0.074	3.187	493.4	59.314	0.333	0.074	1.010	493.4x
Q32.1	Q30	42	610	0	1.441	61.417	0.321	0.760	4.878	6586.7	59.314	0.333	0.760	4.812	6586.6
Q33.1	Q32	9	457	0	1.193	63.063	0.130	0.187	4.842	1768.0	61.631	0.130	0.187	4.842	1768.0
Q34.1	Q32	42	457	0	0.512	62.728	0.815	0.578	3.491	4818.8+	61.478	0.411	0.578	3.713	4818.7
Q35.1	Q34	4	457	0	0.653	63.033	0.626	0.096	2.113	708.8x	62.819	0.834	0.095	1.596	708.7x
Q36.1	Q35	16	457	0	1.132	65.532	0.062	0.021	1.540	140.8	63.246	0.415	0.020	1.528	140.8
Q38.1	Q34	138	457	0	0.623	68.854	0.316	0.493	4.125	4110.3	62.789	0.873	0.493	3.631	4110.0x
Q39.1	Q38	12	457	0	0.713	69.647	0.201	0.273	3.924	2247.0	68.946	0.277	0.273	3.574	2247.0
Q40.1	Q39	11	457	0	0.417	70.500	0.191	0.142	2.181	1146.9	70.287	0.191	0.142	2.181	1146.9
Q41.1	Q38	56	457	0	0.398	69.952	0.251	0.221	2.399	1863.4	68.946	0.276	0.221	2.427	1863.3
Q42.1	Q41	21	457	0	0.280	70.256	0.160	0.071	1.398	600.1	70.074	0.160	0.071	1.398	600.1
R01.2	Q00	107	6096	0	121.547	55.474	0.424	0.438	0.159	3932.5	54.864	0.631	0.438	0.103	3847.4

R02.1	R01	72	610	0	2.029	62.789	0.203	0.438	5.139	3939.1	55.565	0.333	0.438	2.693	3938.6
R03.1	R04	28	610	0	1.955	65.623	0.197	0.397	4.877	3611.1	62.972	0.197	0.397	4.877	3611.1
R04.1	R02	4	610	0	0.997	62.880	0.274	0.397	3.125	3611.1	62.789	0.274	0.397	3.125	3611.1
R05.1	R02	13	305	0	0.148	63.734	0.130	0.053	1.774	328.1	62.789	0.205	0.053	1.059	328.1
R06.1	R05	29	457	0	0.515	64.618	0.108	0.053	1.783	328.1	63.734	0.130	0.053	1.368	328.1
R07.1	R03	81	457	0	0.392	70.409	0.167	0.105	1.933	910.0	65.623	0.198	0.105	1.544	909.9
R08.1	R07	135	457	0	0.286	74.676	0.141	0.054	1.249	469.9	70.409	0.168	0.054	1.001	469.9
R09.1	R08	123	457	0	0.180	76.200	0.108	0.019	0.625	150.3	74.676	0.141	0.018	0.431	150.3

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	Invert Level (m AD)	Upstream			Total Flow (m3)	Downstream				
							Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)		Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)
R10.1	R03	43	610	0	1.105	66.934	0.212	0.261	2.888	2385.0	65.654	0.212	0.261	2.888	2385.0
R11.1	R12	165	610	0	1.038	74.066	0.168	0.148	2.262	1356.4	69.738	0.165	0.148	2.327	1356.3
R12.1	R10	90	610	0	1.115	69.708	0.195	0.223	2.771	2043.7	66.995	0.195	0.222	2.770	2043.6
R13.1	R11	25	457	0	1.235	78.638	0.099	0.102	3.897	927.8	74.280	0.099	0.102	3.896	927.8
S02.1	S01	15	457	0	1.862	52.151	0.101	0.164	6.076	1314.7	46.269	0.101	0.164	6.075	1314.7
S03.1	S01	10	1219	0	9.493	46.208	0.596	4.318	7.608	43421.3	45.690	0.596	4.318	7.608	43421.2
S04.1	S03	6	457	0	1.546	48.128	0.074	0.056	3.275	354.7	46.604	0.203	0.056	3.305	354.7
S05.1	S03	21	1219	0	3.766	46.391	1.160	4.298	3.746	43066.9	46.208	1.098	4.299	3.884	43066.8
S06.1	S05	24	381	0	0.540	48.524	0.092	0.058	2.741	373.0	46.391	1.236	0.058	0.474	373.0x
S07.1	S05	26	1219	0	5.051	46.787	1.148	4.278	4.075	42694.1	46.391	1.243	4.278	3.607	42694.0x
S08.1	S07	12	1219	0	5.463	47.000	1.124	3.834	3.993	37578.8	46.787	1.225	3.834	3.553	37578.7x
S09.1	S08	9	1219	0	4.068	47.092	1.179	3.833	3.757	37579.0	47.000	1.185	3.834	3.759	37578.8
S12.1	S07	17	533	0	2.164	50.841	0.197	0.589	7.878	5115.7	46.787	1.222	0.589	2.503	5115.6x
S13.1	S12	105	533	0	1.128	57.668	0.279	0.589	4.983	5115.7	51.054	0.279	0.589	4.982	5115.7
S14.1	S17	44	533	0	0.834	60.625	0.158	0.144	2.603	1403.2	59.101	0.411	0.145	1.035	1403.2
S15.1	S14	21	381	0	0.540	62.758	0.139	0.144	3.831	1403.2	60.930	0.139	0.144	3.831	1403.2
S16.1	S13	10	457	0	1.120	59.375	0.066	0.028	1.910	189.3	57.912	0.066	0.028	1.910	189.3
S17.1	S13	60	533	0	0.669	59.101	0.381	0.562	3.289	4926.5	57.760	0.381	0.561	3.288	4926.4
S18.1	S17	28	457	0	0.603	60.289	0.300	0.453	3.971	3523.3	59.131	0.384	0.453	3.104	3523.3
S19.1	S18	31	457	0	0.520	61.295	0.323	0.426	3.437	3338.9	60.350	0.323	0.426	3.441	3338.9
S20.1	S19	17	457	0	0.442	61.722	0.333	0.385	3.008	3056.0	61.356	0.333	0.385	3.006	3056.0
S21.1	S20	19	457	0	0.774	63.094	0.320	0.385	2.586	3056.0	62.789	0.320	0.385	2.585	3056.0
S22.1	S21	244	457	0	0.935	68.885	0.290	0.386	2.967	3055.9	63.094	0.338	0.386	2.415	3056.0
S23.1	S24	170	381	0	0.235	72.360	0.137	0.061	1.642	510.5	69.555	0.285	0.061	0.667	510.4
S24.1	S22	34	381	0	0.256	69.555	0.270	0.210	2.439	1959.8	68.885	0.305	0.210	2.444	1959.7
T2.1	T1	183	610	0	1.076	46.604	0.172	0.163	2.413	1350.4	41.453	0.172	0.163	2.412	1350.4
U02.1	U01	10	457	0	0.470	40.112	0.212	0.195	2.628	1165.8	39.868	0.212	0.195	2.627	1165.8
U03.1	U02	3	457	0	0.290	40.569	0.125	0.045	1.246	275.6	40.538	0.125	0.045	1.246	275.6
U04.1	U02	6	457	0	1.419	46.177	0.097	0.110	4.321	601.0	41.148	0.097	0.110	4.320	601.0
U05.1	U04	23	457	0	0.339	45.263	1.026	0.065	0.369	368.1x	44.958	1.317	0.065	0.364	364.2x
V02.1	V01	47	457	0	0.283	37.155	0.395	0.282	1.971	1831.7	36.728	0.371	0.282	1.972	1831.7
V03.1	V02	42	457	0	0.288	37.551	0.347	0.251	1.944	1379.7	37.155	0.410	0.249	1.686	1379.7
V04.1	V03	7	305	0	0.065	37.856	0.570	0.210	2.718	1177.6+	37.826	0.274	0.210	3.031	1177.6
V05.1	V04	49	305	0	0.109	38.435	0.217	0.061	1.413	253.7	37.856	0.639	0.057	0.743	253.7x
V06.1	V04	6	305	0	0.218	38.130	0.528	0.166	2.438	923.9x	37.856	0.642	0.166	2.136	923.9x
V07.1	V06	16	305	0	0.680	45.415	0.107	0.166	7.212	923.9	38.130	0.583	0.166	2.421	923.9x
V08.1	V07	23	305	0	0.136	45.872	0.099	0.028	1.362	138.4	45.446	0.099	0.028	1.362	138.4
V09.1	V07	26	305	0	0.137	45.933	0.199	0.103	2.038	587.8	45.446	0.199	0.103	2.038	587.9
V10.1	V09	19	305	0	0.057	46.055	0.218	0.055	0.989	319.2	45.994	0.182	0.055	1.211	319.2
W02.1	W01	9	457	0	0.239	36.058	0.153	0.056	1.159	534.5	35.997	0.153	0.056	1.159	534.5
W03.1	W02	16	305	0	0.224	37.003	0.078	0.027	1.840	191.2	36.210	0.078	0.027	1.839	191.2
W04.1	W03	40	152	0	0.037	38.039	0.100	0.027	2.152	191.2	37.003	0.100	0.027	2.152	191.2
W05.1	W04	25	152	0	0.023	38.283	0.262	0.027	1.415	191.3+	38.039	0.137	0.027	1.572	191.2
W06.1	W05	22	152	0	0.026	38.557	0.337	0.027	1.546	191.3+	38.283	0.286	0.027	1.415	191.3+

+ after total flow indicates a conduit surcharged by flow and depth at that end.

x after total flow indicates a conduit surcharged by depth only at that end.

NOTE :

- (i) Maximum elevations, depths, volumes, velocities and discharges are selected from the values at each time increment and will be in general more extreme than the maximum values in the time varying results.
- (ii) Maximum elevations, velocities and discharges are not necessarily calculated at the same time.
- (iii) Maximum velocity is not calculated for a conduit unless the depth exceeds the base flow depth (by default, this is 5% of height for slopes ≤ 0.01 , 10% otherwise, subject to a minimum of 0.02 m).

End of run

0 mins (elapsed)

Produced on 12/06/2009 Last page

Start of run

configured for MS Windows

Produced on 12/06/2009 at 19:36

HydroWorks(tm) SIM

Summary results from Simulation

Version 9.0.1123 dated May 2008

Licence Number - WS00740269PM

Message 253: Run finished for event 1.

Summary results for event 1 - 100-year OC Event
Started at 00000000000000. Run for 2880.00 min. (Requested simulation time 2880.00 min)

Files used:

Network: ...\\NET12#8.spb Existing_2009-06-12 (Revision 8)
State:
Runoff: ...\\NET12#8.rpf Existing_2009-06-12 (Revision 8) (InfoWorks 9.0.2.16013)
Rainfall: ...\\SIM33event.red 1
DWF:
Inflows:
Levels:
RTC:
Results: ...\\SIM33.iwr

Total rainfall = 60889.9 m3
Total runoff = 56960.9 m3
Total inflow = 56960.9 m3
Total outflow = 56846.6 m3
Total lost = 0.0 m3

***** Node data *****

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
Q00	60.350	55.498	0.0	0.000	0.0	23.4	2332.2	0.000	0.000
Q01	47.610	50.765	1993.7	3.156	1252.6	1999.7	0.0	-1.790	0.004
Q02	51.206	51.058	0.0	0.000	0.0	3.8	0.0	0.000	0.000
Q03	58.156	53.235	0.0	0.000	0.0	0.5	0.0	0.000	0.000
Q04	58.217	54.130	0.0	0.000	0.0	1.2	0.0	0.000	0.000
Q05	57.455	56.025	0.0	0.000	0.0	0.1	719.1	0.000	0.000
Q06	56.662	54.966	0.0	0.000	0.0	1.1	414.2	0.000	0.000
Q08	56.998	56.059	0.0	0.000	0.0	1.1	0.0	0.000	0.000
Q09	61.204	60.288	0.0	0.000	0.0	0.4	3375.2	0.000	0.000
Q10	61.478	60.712	0.0	0.000	0.0	0.9	549.3	0.000	0.000
Q11	61.478	61.623	5.4	0.145	100.1	6.8	5374.8	-0.159	0.003
Q12	58.003	56.666	0.0	0.000	0.0	0.7	69.6	0.000	0.000
Q13	58.003	57.012	0.0	0.000	0.0	0.4	2859.5	0.000	0.000
Q14	58.674	51.345	0.0	0.000	0.0	4.4	0.0	0.000	0.000
Q15	59.284	52.719	0.0	0.000	0.0	1.1	0.0	-0.352	0.002
Q16	55.931	55.493	0.0	0.000	0.0	1.7	0.0	0.358	0.003
Q17	71.018	64.380	0.0	0.000	0.0	203.5	3188.6	0.000	0.000
Q18	71.933	65.973	0.0	0.000	0.0	27.4	0.0	0.000	0.000
Q19	78.029	72.128	0.0	0.000	0.0	25.8	0.0	0.000	0.000
Q20	82.906	77.120	0.0	0.000	0.0	41.0	0.0	0.000	0.000
Q21	84.734	78.952	0.0	0.000	0.0	41.4	0.0	0.000	0.000
Q22	81.199	80.436	0.0	0.000	0.0	0.5	2972.8	0.000	0.000
Q23	81.199	80.593	0.0	0.000	0.0	0.4	1854.2	0.000	0.000
Q24	70.988	69.554	0.0	0.000	0.0	0.5	1146.4	0.000	0.000
Q25	70.988	70.201	0.0	0.000	0.0	1.1	293.6	0.000	0.000
Q26	71.628	71.456	0.0	0.000	0.0	1.2	4780.4	0.000	0.000
Q27	67.056	65.006	0.0	0.000	0.0	1.5	0.0	0.000	0.000
Q28	59.284	53.454	0.0	0.000	0.0	0.4	637.6	0.000	0.000
Q29	60.046	57.391	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q30	62.179	59.696	0.0	0.000	0.0	0.6	0.0	0.000	0.000
Q31	63.703	60.222	0.0	0.000	0.0	0.1	567.0	0.000	0.000
Q32	64.313	61.793	0.0	0.000	0.0	0.6	0.0	0.000	0.000
Q33	64.892	63.201	0.0	0.000	0.0	0.2	2015.1	0.000	0.000
Q34	65.532	64.041	0.0	0.000	0.0	1.5	0.0	0.000	0.000
Q35	65.593	64.049	0.0	0.000	0.0	1.2	650.0	0.000	0.000
Q36	67.056	65.596	0.0	0.000	0.0	0.1	161.1	0.000	0.000
Q38	71.537	69.275	0.0	0.000	0.0	0.5	0.0	0.000	0.000
Q39	71.598	69.866	0.0	0.000	0.0	0.3	1258.7	0.000	0.000
Q40	72.024	70.701	0.0	0.000	0.0	0.2	1312.4	0.000	0.000
Q41	72.512	70.223	0.0	0.000	0.0	0.3	1445.6	0.000	0.000
Q42	72.360	70.424	0.0	0.000	0.0	0.2	686.6	0.000	0.000
R01	64.008	55.909	0.0	0.000	0.0	16.1	0.0	0.000	0.000
R02	67.056	63.005	0.0	0.000	0.0	0.3	0.0	0.000	0.000
R03	67.452	65.834	0.0	0.000	0.0	0.3	360.5	0.000	0.000
R04	66.812	63.177	0.0	0.000	0.0	0.4	0.0	0.000	0.000
R05	67.056	63.872	0.0	0.000	0.0	0.2	0.0	0.000	0.000
R06	65.684	64.733	0.0	0.000	0.0	0.1	378.7	0.000	0.000

R07	71.933	70.588	0.0	0.000	0.0	0.2	501.5	0.000	0.000
R08	76.200	74.827	0.0	0.000	0.0	0.2	364.2	0.000	0.000
R09	77.419	76.315	0.0	0.000	0.0	0.1	171.3	0.000	0.000
R10	68.824	67.156	0.0	0.000	0.0	0.3	390.7	0.000	0.000
R11	75.499	74.242	0.0	0.000	0.0	0.3	488.4	0.000	0.000
R12	72.146	69.915	0.0	0.000	0.0	0.3	783.4	0.000	0.000

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
R13	79.858	78.742	0.0	0.000	0.0	0.1	1057.3	0.000	0.000
S02	52.456	52.260	0.0	0.000	0.0	0.1	1517.0	0.000	0.000
S03	49.682	46.841	0.0	0.000	0.0	2.0	0.0	0.000	0.000
S04	49.500	48.205	0.0	0.000	0.0	0.1	404.4	0.000	0.000
S05	50.597	47.700	0.0	0.000	0.0	4.0	0.0	0.000	0.000
S06	50.719	48.623	0.0	0.000	0.0	0.1	425.3	0.000	0.000
S07	51.816	48.185	0.0	0.000	0.0	4.3	0.0	0.000	0.000
S08	51.816	48.427	0.0	0.000	0.0	4.4	0.0	0.000	0.000
S09	52.426	48.663	0.0	0.000	0.0	4.8	0.0	0.000	0.000
S12	53.005	51.055	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S13	60.320	58.007	0.0	0.000	0.0	0.4	0.0	0.000	0.000
S14	63.764	60.793	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S15	63.673	62.908	0.0	0.000	0.0	0.2	1599.4	0.000	0.000
S16	60.289	59.443	0.0	0.000	0.0	0.1	215.8	0.000	0.000
S17	62.484	59.569	0.0	0.000	0.0	0.6	0.0	0.000	0.000
S18	63.063	60.677	0.0	0.000	0.0	0.5	210.2	0.000	0.000
S19	63.216	61.700	0.0	0.000	0.0	0.5	322.5	0.000	0.000
S20	63.246	62.187	0.0	0.000	0.0	0.5	0.0	0.000	0.000
S21	63.551	63.454	0.0	0.000	0.0	0.4	0.0	0.000	0.000
S22	69.342	69.214	0.0	0.000	0.0	0.3	1272.6	0.000	0.000
S23	75.987	72.505	0.0	0.000	0.0	0.1	584.1	0.000	0.000
S24	70.714	69.873	0.0	0.000	0.0	0.3	1651.9	0.000	0.000
T2	48.219	46.784	0.0	0.000	0.0	0.3	1543.0	0.000	0.000
U02	41.666	40.340	0.0	0.000	0.0	0.3	333.8	0.000	0.000
U03	41.758	40.701	0.0	0.000	0.0	0.2	318.2	0.000	0.000
U04	47.092	46.280	0.0	0.000	0.0	1.5	275.3	0.000	0.000
U05	46.330	46.298	0.0	0.000	0.0	1.2	426.4	0.000	0.000
V02	39.624	37.712	0.0	0.000	0.0	0.7	515.1	0.000	0.000
V03	39.380	38.132	0.0	0.000	0.0	0.7	232.5	0.000	0.000
V04	39.319	38.626	0.0	0.000	0.0	0.8	0.0	0.000	0.000
V05	39.441	38.803	0.0	0.000	0.0	0.4	290.6	0.000	0.000
V06	39.624	38.883	0.0	0.000	0.0	0.8	0.0	0.000	0.000
V07	47.244	45.532	0.0	0.000	0.0	0.1	228.3	0.000	0.000
V08	47.366	45.979	0.0	0.000	0.0	0.1	160.0	0.000	0.000
V09	47.092	46.164	0.0	0.000	0.0	0.2	310.3	0.000	0.000
V10	47.396	46.296	0.0	0.000	0.0	0.2	368.7	0.000	0.000
W02	38.862	36.220	0.0	0.000	0.0	0.2	391.3	0.000	0.000
W03	39.441	37.086	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W04	39.167	38.164	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W05	39.624	38.664	0.0	0.000	0.0	0.4	0.0	0.000	0.000
W06	39.472	39.097	0.0	0.000	0.0	0.5	219.8	0.000	0.000

A %% indicates water lost from the system.

***** Link data *****

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Upstream >					< Downstream >				
						Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)	Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)
Q00.1	Q01	26	6096	0	801.882	54.864	0.634	0.800	0.188	6724.6	48.372	2.394	0.770	0.041	6724.2
Q01.1	S09	6	381	0	0.000	47.610	3.040	0.594	4.364	28067.9+	47.610	1.068	0.594	5.467	28067.9+
Q01.2	S09	6	203	0	0.000	48.890	1.833	0.094	2.341	1453.7+	48.890	0.183	0.094	3.060	1453.7
Q01.3	S09	6	1219	0	0.000	49.500	1.212	3.543	3.019	13516.4	49.500	1.024	3.543	3.386	13516.4
Q01.4	S09	6	1219	0	0.000	50.719	0.061	0.000	0.000	0.0	50.719	0.061	0.000	0.000	0.0
Q02.1	Q01	6	1067	0	0.000	49.621	1.263	3.698	3.980	36312.0+	49.621	1.154	3.698	4.018	36311.9+
Q03.1	Q02	9	762	0	6.532	52.974	0.255	1.416	10.593	13361.2	49.987	1.081	1.416	6.575	13361.2x
Q04.1	Q03	17	762	0	1.558	53.492	0.589	1.416	3.818	13361.2	53.188	0.589	1.416	3.815	13361.2
Q05.1	Q04	7	305	0	0.527	55.931	0.093	0.097	5.132	719.1	53.919	0.211	0.097	4.912	719.1
Q06.1	Q04	40	762	0	1.501	54.346	0.579	1.341	3.676	12642.2	53.675	0.578	1.340	3.673	12642.1
Q08.1	Q06	64	762	0	1.537	55.474	0.548	1.298	3.700	12228.2	54.346	0.624	1.297	3.316	12228.0
Q09.1	Q08	41	610	0	2.094	59.985	0.301	0.972	6.772	9299.3	55.626	0.437	0.972	5.876	9299.3
Q10.1	Q09	19	610	0	0.508	60.107	0.581	0.624	2.173	5924.2	59.985	0.512	0.624	2.386	5924.1
Q11.1	Q10	22	457	0	0.245	60.259	1.285	0.569	3.207	5375.0+	60.107	0.617	0.569	3.322	5375.0+
Q12.1	Q08	42	457	0	0.299	56.053	0.569	0.338	2.039	2929.0+	55.626	0.435	0.338	2.108	2928.9
Q13.1	Q12	23	457	0	0.470	56.632	0.360	0.336	2.893	2859.5	56.053	0.618	0.336	1.959	2859.4x
Q14.1	Q02	29	1067	0	1.304	49.682	1.585	2.306	2.463	22950.9+	49.621	1.444	2.305	2.471	22950.8+
Q15.1	Q14	31	1067	0	8.260	52.304	0.413	2.402	7.522	22952.8	49.682	1.671	2.308	2.461	22950.9x
Q16.1	Q15	14	610	0	2.491	54.346	0.358	1.524	16.178	14220.5	52.304	0.425	1.501	7.382	14219.6
Q17.1	Q16	99	610	0	1.938	63.368	0.400	1.412	7.100	14221.3	54.346	1.172	1.495	7.649	14220.8x
Q18.1	Q17	60	1219	0	127.605	65.837	0.136	0.464	0.212	4812.6	64.922	0.136	0.463	0.212	4812.5
Q19.1	Q18	131	1829	0	266.321	71.933	0.196	0.464	0.282	4812.7	65.837	0.196	0.464	0.282	4812.6
Q20.1	Q19	112	3048	0	981.333	76.810	0.311	0.464	0.111	4812.7	71.933	0.311	0.464	0.111	4812.7
Q21.1	Q20	103	3048	0	625.909	78.638	0.314	0.465	0.110	4812.8	76.810	0.311	0.464	0.111	4812.7
Q22.1	Q21	42	457	0	0.515	80.040	0.351	0.465	3.503	4827.0	78.791	0.351	0.465	3.503	4826.8
Q23.1	Q22	17	381	0	0.156	80.162	0.415	0.168	1.498	1854.2+	80.040	0.396	0.169	1.474	1854.2+
Q24.1	Q27	127	533	0	0.916	69.159	0.347	0.680	4.425	6220.4	63.856	1.157	0.673	2.866	6220.1x
Q25.1	Q24	14	457	0	0.193	69.251	0.857	0.550	3.169	5074.1+	69.190	0.411	0.550	3.533	5074.0
Q26.1	Q25	13	381	0	0.392	70.256	1.065	0.517	4.197	4780.4+	69.647	0.578	0.517	4.328	4780.4+
Q27.1	Q17	26	533	0	0.599	63.856	1.084	0.672	3.003	6220.1+	63.398	0.989	0.672	3.016	6220.1+
Q28.1	Q15	6	610	0	2.219	53.157	0.295	0.987	7.059	8733.0	52.487	0.295	0.987	7.059	8733.0
Q29.1	Q28	27	610	0	2.382	57.120	0.268	0.915	7.396	8095.4	53.431	0.268	0.915	7.396	8095.4
Q30.1	Q29	37	610	0	1.570	59.314	0.344	0.915	5.395	8095.5	57.120	0.344	0.915	5.395	8095.4
Q31.1	Q30	9	305	0	0.297	60.107	0.115	0.084	3.339	567.0	59.314	0.383	0.084	1.112	567.0x
Q32.1	Q30	42	610	0	1.441	61.417	0.346	0.851	4.983	7528.6	59.314	0.385	0.851	4.860	7528.5
Q33.1	Q32	9	457	0	1.193	63.063	0.136	0.210	5.096	2015.1	61.631	0.163	0.210	5.224	2015.1
Q34.1	Q32	42	457	0	0.512	62.728	1.211	0.645	3.647	5513.5+	61.478	0.411	0.645	4.143	5513.5
Q35.1	Q34	4	457	0	0.653	63.033	1.014	0.110	2.105	811.1x	62.819	1.222	0.110	1.580	811.1x
Q36.1	Q35	16	457	0	1.132	65.532	0.064	0.023	1.681	161.1	63.246	0.803	0.023	1.578	161.1x
Q38.1	Q34	138	457	0	0.623	68.854	0.347	0.555	4.237	4703.1	62.789	1.260	0.551	3.633	4702.4x
Q39.1	Q38	12	457	0	0.713	69.647	0.218	0.308	3.985	2571.1	68.946	0.330	0.307	3.606	2571.0
Q40.1	Q39	11	457	0	0.417	70.500	0.201	0.160	2.301	1312.4	70.287	0.201	0.160	2.301	1312.3
Q41.1	Q38	56	457	0	0.398	69.952	0.266	0.249	2.514	2132.2	68.946	0.330	0.249	2.391	2132.1
Q42.1	Q41	21	457	0	0.280	70.256	0.168	0.080	1.470	686.6	70.074	0.168	0.080	1.469	686.6
R01.2	Q00	107	6096	0	121.547	55.474	0.435	0.492	0.173	4489.0	54.864	0.634	0.493	0.116	4403.6

R02.1	R01	72	610	0	2.029	62.789	0.215	0.493	5.372	4495.6	55.565	0.345	0.493	2.897	4495.1
R03.1	R04	28	610	0	1.955	65.623	0.209	0.447	5.047	4116.9	62.972	0.205	0.447	5.308	4116.9
R04.1	R02	4	610	0	0.997	62.880	0.296	0.447	3.180	4116.9	62.789	0.296	0.447	3.180	4116.9
R05.1	R02	13	305	0	0.148	63.734	0.139	0.060	1.856	378.7	62.789	0.216	0.060	1.122	378.7
R06.1	R05	29	457	0	0.515	64.618	0.115	0.060	1.857	378.7	63.734	0.139	0.060	1.424	378.7
R07.1	R03	81	457	0	0.392	70.409	0.179	0.118	1.987	1036.9	65.623	0.210	0.118	1.602	1036.8
R08.1	R07	135	457	0	0.286	74.676	0.151	0.061	1.282	535.4	70.409	0.179	0.061	1.044	535.4
R09.1	R08	123	457	0	0.180	76.200	0.115	0.021	0.648	171.3	74.676	0.151	0.021	0.444	171.3

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	Invert Level (m AD)	Upstream			Total Flow (m3)	Invert Level (m AD)	Downstream			Total Flow (m3)
							Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)			Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	
R10.1	R03	43	610	0	1.105	66.934	0.222	0.293	3.049	2719.7	65.654	0.222	0.293	3.049	2719.7
R11.1	R12	165	610	0	1.038	74.066	0.175	0.166	2.393	1545.7	69.738	0.177	0.165	2.354	1545.8
R12.1	R10	90	610	0	1.115	69.708	0.207	0.250	2.857	2329.2	66.995	0.207	0.249	2.856	2329.0
R13.1	R11	25	457	0	1.235	78.638	0.103	0.114	4.117	1057.3	74.280	0.103	0.114	4.116	1057.3
S02.1	S01	15	457	0	1.862	52.151	0.107	0.186	6.392	1517.0	46.269	0.107	0.186	6.391	1517.0
S03.1	S01	10	1219	0	9.493	46.208	0.618	4.700	7.917	49722.6	45.690	0.618	4.700	7.917	49722.6
S04.1	S03	6	457	0	1.546	48.128	0.077	0.063	3.482	404.4	46.604	0.237	0.063	3.608	404.4
S05.1	S03	21	1219	0	3.766	46.391	1.203	4.681	4.003	49318.8	46.208	1.097	4.681	4.230	49318.3
S06.1	S05	24	381	0	0.540	48.524	0.098	0.066	2.845	425.3	46.391	1.309	0.065	0.529	425.3x
S07.1	S05	26	1219	0	5.051	46.787	1.275	4.661	4.062	48893.8x	46.391	1.319	4.660	3.865	48893.6x
S08.1	S07	12	1219	0	5.463	47.000	1.325	4.175	4.008	43037.9x	46.787	1.408	4.175	3.568	43037.7x
S09.1	S08	9	1219	0	4.068	47.092	1.446	4.175	3.789	43037.9+	47.000	1.437	4.175	3.813	43037.9+
S12.1	S07	17	533	0	2.164	50.841	0.211	0.664	8.080	5856.4	46.787	1.401	0.663	2.796	5856.3x
S13.1	S12	105	533	0	1.128	57.668	0.302	0.666	5.093	5856.4	51.054	0.302	0.664	5.084	5856.4
S14.1	S17	44	533	0	0.834	60.625	0.168	0.162	2.690	1599.4	59.101	0.469	0.162	1.058	1599.4
S15.1	S14	21	381	0	0.540	62.758	0.148	0.162	3.942	1599.4	60.930	0.148	0.162	3.941	1599.4
S16.1	S13	10	457	0	1.120	59.375	0.068	0.032	2.069	215.8	57.912	0.095	0.032	2.817	215.8
S17.1	S13	60	533	0	0.669	59.101	0.426	0.633	3.342	5640.6	57.760	0.431	0.634	3.359	5640.5
S18.1	S17	28	457	0	0.603	60.289	0.330	0.512	4.042	4041.2	59.131	0.443	0.511	3.159	4041.2
S19.1	S18	31	457	0	0.520	61.295	0.357	0.481	3.538	3831.0	60.350	0.357	0.481	3.530	3831.0
S20.1	S19	17	457	0	0.442	61.722	0.424	0.434	3.014	3508.6	61.356	0.411	0.434	3.007	3508.5
S21.1	S20	19	457	0	0.774	63.094	0.339	0.435	2.703	3508.5	62.789	0.339	0.434	2.702	3508.6
S22.1	S21	244	457	0	0.935	68.885	0.308	0.438	3.102	3508.5	63.094	0.363	0.435	2.473	3508.5
S23.1	S24	170	381	0	0.235	72.360	0.146	0.068	1.705	584.1	69.555	0.318	0.068	0.679	584.1
S24.1	S22	34	381	0	0.256	69.555	0.297	0.236	2.513	2235.9	68.885	0.331	0.236	2.545	2235.9
T2.1	T1	183	610	0	1.076	46.604	0.179	0.183	2.553	1543.0	41.453	0.179	0.183	2.551	1542.9
U02.1	U01	10	457	0	0.470	40.112	0.228	0.223	2.729	1347.3	39.868	0.228	0.223	2.729	1347.3
U03.1	U02	3	457	0	0.290	40.569	0.132	0.052	1.317	318.2	40.538	0.132	0.052	1.317	318.1
U04.1	U02	6	457	0	1.419	46.177	0.101	0.125	4.634	695.4	41.148	0.101	0.125	4.634	695.4
U05.1	U04	23	457	0	0.339	45.263	1.034	0.074	0.422	425.4x	44.958	1.322	0.074	0.415	421.4x
V02.1	V01	47	457	0	0.283	37.155	0.523	0.321	1.988	2105.7+	36.728	0.393	0.321	2.142	2105.7
V03.1	V02	42	457	0	0.288	37.551	0.552	0.286	1.939	1590.4x	37.155	0.560	0.284	1.692	1590.6x
V04.1	V03	7	305	0	0.065	37.856	0.699	0.237	3.048	1357.9+	37.826	0.311	0.238	3.419	1357.9+
V05.1	V04	49	305	0	0.109	38.435	0.360	0.069	1.440	290.6x	37.856	0.770	0.068	0.875	290.6x
V06.1	V04	6	305	0	0.218	38.130	0.708	0.190	2.436	1067.3x	37.856	0.774	0.190	2.425	1067.3x
V07.1	V06	16	305	0	0.680	45.415	0.114	0.189	7.635	1067.3	38.130	0.757	0.189	2.420	1067.3x
V08.1	V07	23	305	0	0.136	45.872	0.106	0.032	1.425	160.0	45.446	0.106	0.032	1.426	160.0
V09.1	V07	26	305	0	0.137	45.933	0.219	0.117	2.087	679.0	45.446	0.219	0.117	2.088	679.0
V10.1	V09	19	305	0	0.057	46.055	0.238	0.063	1.032	368.7	45.994	0.195	0.063	1.276	368.7
W02.1	W01	9	457	0	0.239	36.058	0.162	0.063	1.211	611.0	35.997	0.162	0.063	1.211	611.0
W03.1	W02	16	305	0	0.224	37.003	0.083	0.031	1.925	219.7	36.210	0.083	0.031	1.925	219.7
W04.1	W03	40	152	0	0.037	38.039	0.109	0.031	2.197	219.7	37.003	0.109	0.031	2.198	219.7
W05.1	W04	25	152	0	0.023	38.283	0.362	0.031	1.576	219.8+	38.039	0.148	0.031	1.779	219.7
W06.1	W05	22	152	0	0.026	38.557	0.522	0.031	1.545	219.8+	38.283	0.383	0.031	1.577	219.8+

+ after total flow indicates a conduit surcharged by flow and depth at that end.

x after total flow indicates a conduit surcharged by depth only at that end.

NOTE :

- (i) Maximum elevations, depths, volumes, velocities and discharges are selected from the values at each time increment and will be in general more extreme than the maximum values in the time varying results.
- (ii) Maximum elevations, velocities and discharges are not necessarily calculated at the same time.
- (iii) Maximum velocity is not calculated for a conduit unless the depth exceeds the base flow depth (by default, this is 5% of height for slopes ≤ 0.01 , 10% otherwise, subject to a minimum of 0.02 m).

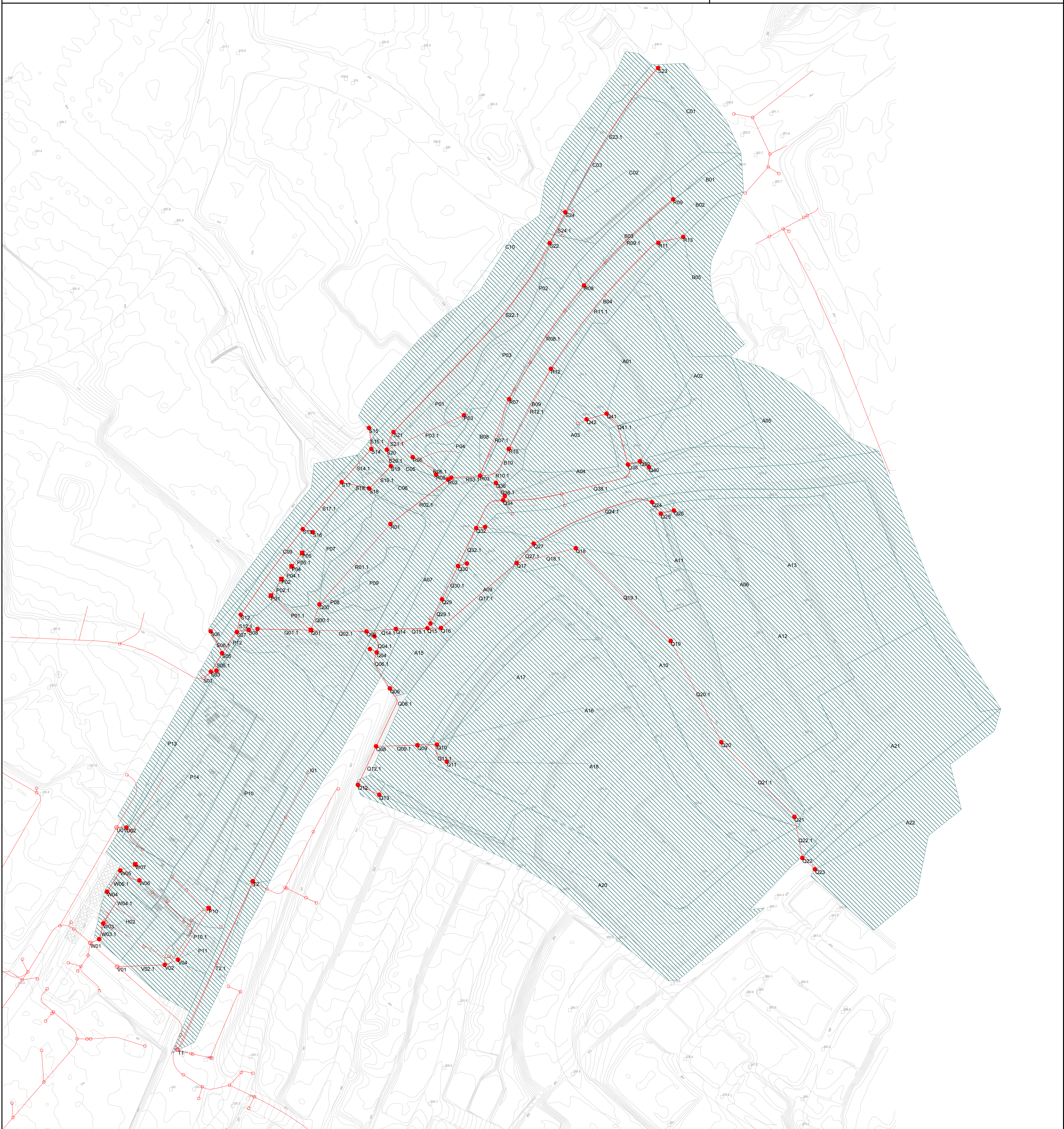
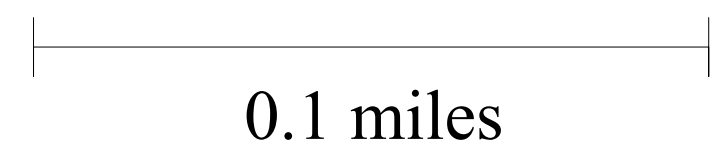
End of run

0 mins (elapsed)

Produced on 12/06/2009 Last page

Network - Existing_2009-06-12

Map Centre Coords
 x: 1849753, y: 661336
 Date Printed: 6/14/2009
 Scale 1:1800



Data Flags #A - Asset Data #D - System Default #G - Data from GeoPlan #I - Model Import #V - CSV Import Proposed_2009-06-12 Key Nodes [system types] ● [combined,other,overland,sanitary] ● [storm] Links [system types] — CC TV — Conduit [combined,other,overland,sanitary] — Conduit [storm] → Culvert Inlet [all] ← Culvert Outlet [all] ⊕ Flap valve [all] ≡ Flume [all] — General Line — General Line		□ Orifice [all] — Prune [all] ▲ Pump (all types) [all] ~ River [all] ▩ Screen [all] ∩ Siphon [all] ▭ Sluice gate [all] — User Control [all] ■ Weir [all] Subcatchments [system types] ▨ [combined,other,overland,sanitary] ▧ [storm] □ 2D Simulation Polygon ▨ Flood Compartment □ Mesh Polygon □ Polygon Zone □ Roughness Polygon Symbols * 2D Point Selection Point * Break Node ⊠ Compound Weir/Orifice		● Flood Point □ Hyperlink ○ Outflow Node ▭ Pond node ■ Storage Node ▭ Var. crest level weir ▭ Var. sluice gate ▭ Var. width weir * Vortex	
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Powered by

Start of run

configured for MS Windows

Produced on 12/06/2009 at 21:43

HydroWorks(tm) SIM

Summary results from Simulation

Version 9.0.1123 dated May 2008

Licence Number - WS00740269PM

Message 253: Run finished for event 1.

Summary results for event 1 - 2-year OC Event
Started at 00000000000000. Run for 2880.00 min. (Requested simulation time 2880.00 min)

Files used:

Network: ... \NET11#38.spb Proposed_2009-06-12 (Revision 38)
State:
Runoff: ... \NET11#38.rpf Proposed_2009-06-12 (Revision 38) (InfoWorks 9.0.2.16013)
Rainfall: ... \SIM47event.red 1
DWF:
Inflows:
Levels:
RTC:
Results: ... \SIM47.iwr

Total rainfall = 22651.9 m3
Total runoff = 19431.7 m3
Total inflow = 19431.7 m3
Total outflow = 19305.0 m3
Total lost = 0.0 m3

***** Node data *****

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
P01	62.179	59.835	0.0	0.000	0.0	8.8	0.0	0.000	0.000
P02	62.179	59.936	0.0	0.000	0.0	18.1	0.0	0.000	0.000
P03	72.238	70.167	0.0	0.000	0.0	0.1	166.2	0.000	0.000
P04	62.179	59.975	0.0	0.000	0.0	21.8	0.0	0.000	0.000
P05	62.179	60.036	0.0	0.000	0.0	27.4	273.3	0.000	0.000
P10	41.148	38.887	0.0	0.000	0.0	32.9	901.2	0.000	0.000
Q00	60.350	55.481	0.0	0.000	0.0	22.8	735.1	0.000	0.000
Q01	47.610	50.055	1211.8	2.445	953.1	1217.8	0.0	-1.482	0.010
Q02	51.206	50.311	0.0	0.000	0.0	1.8	0.0	0.000	0.000
Q03	58.156	53.138	0.0	0.000	0.0	0.3	0.0	0.000	0.000
Q04	58.217	53.804	0.0	0.000	0.0	0.6	0.0	0.000	0.000
Q05	57.455	55.991	0.0	0.000	0.0	0.1	233.7	0.000	0.000
Q06	56.662	54.655	0.0	0.000	0.0	0.6	139.9	0.000	0.000
Q08	56.998	55.772	0.0	0.000	0.0	0.5	0.0	0.000	0.000
Q09	61.204	60.164	0.0	0.000	0.0	0.3	1145.3	0.000	0.000
Q10	61.478	60.395	0.0	0.000	0.0	0.4	185.6	0.000	0.000
Q11	61.478	60.587	0.0	0.000	0.0	0.4	1817.6	0.000	0.000
Q12	58.003	56.259	0.0	0.000	0.0	0.2	24.7	0.000	0.000
Q13	58.003	56.795	0.0	0.000	0.0	0.2	966.8	0.000	0.000
Q14	58.674	50.358	0.0	0.000	0.0	1.8	0.0	0.000	0.000
Q15	59.284	52.555	0.0	0.000	0.0	0.7	0.0	0.000	0.000
Q16	55.931	54.543	0.0	0.000	0.0	0.3	0.0	0.000	0.000
Q17	71.018	63.589	0.0	0.000	0.0	44.4	983.0	0.000	0.000
Q18	71.933	65.964	0.0	0.000	0.0	25.6	0.0	0.000	0.000
Q19	78.029	72.120	0.0	0.000	0.0	24.7	0.0	0.000	0.000
Q20	82.906	77.117	0.0	0.000	0.0	40.4	0.0	0.000	0.000
Q21	84.734	78.947	0.0	0.000	0.0	40.6	0.0	0.000	0.000
Q22	81.199	80.226	0.0	0.000	0.0	0.2	1005.5	0.000	0.000
Q23	81.199	80.331	0.0	0.000	0.0	0.2	660.0	0.000	0.000
Q24	70.988	69.353	0.0	0.000	0.0	0.3	387.4	0.000	0.000
Q25	70.988	69.591	0.0	0.000	0.0	0.4	99.2	0.000	0.000
Q26	71.628	70.445	0.0	0.000	0.0	0.2	1616.6	0.000	0.000
Q27	67.056	64.096	0.0	0.000	0.0	0.3	0.0	0.000	0.000
Q28	59.284	53.333	0.0	0.000	0.0	0.3	226.4	0.000	0.000
Q29	60.046	57.286	0.0	0.000	0.0	0.2	0.0	0.000	0.000
Q30	62.179	59.514	0.0	0.000	0.0	0.3	0.0	0.000	0.000
Q31	63.703	60.177	0.0	0.000	0.0	0.1	183.2	0.000	0.000
Q32	64.313	61.618	0.0	0.000	0.0	0.3	0.0	0.000	0.000
Q33	64.892	63.154	0.0	0.000	0.0	0.1	716.3	0.000	0.000
Q34	65.532	62.950	0.0	0.000	0.0	0.3	0.0	0.000	0.000
Q35	65.593	63.122	0.0	0.000	0.0	0.1	219.6	0.000	0.000
Q36	67.056	65.585	0.0	0.000	0.0	0.1	54.4	0.000	0.000
Q38	71.537	69.038	0.0	0.000	0.0	0.2	0.0	0.000	0.000
Q39	71.598	69.776	0.0	0.000	0.0	0.2	426.1	0.000	0.000
Q40	72.024	70.623	0.0	0.000	0.0	0.1	437.7	0.000	0.000
Q41	72.512	70.106	0.0	0.000	0.0	0.2	488.8	0.000	0.000
Q42	72.360	70.356	0.0	0.000	0.0	0.1	232.2	0.000	0.000

R01	64.008	55.832	0.0	0.000	0.0	13.2	0.0	0.000	0.000
R02	67.056	62.918	0.0	0.000	0.0	0.2	0.0	0.000	0.000
R03	67.452	65.753	0.0	0.000	0.0	0.2	112.5	0.000	0.000
R04	66.812	63.052	0.0	0.000	0.0	0.3	0.0	0.000	0.000
R05	67.056	63.793	0.0	0.000	0.0	0.1	47.0	0.000	0.000
R06	65.684	64.663	0.0	0.000	0.0	0.1	0.0	0.000	0.000

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
R07	71.933	70.511	0.0	0.000	0.0	0.1	116.2	0.000	0.000
R08	76.200	74.773	0.0	0.000	0.0	0.1	129.4	0.000	0.000
R09	77.419	76.278	0.0	0.000	0.0	0.1	60.9	0.000	0.000
R10	68.824	67.074	0.0	0.000	0.0	0.2	132.0	0.000	0.000
R11	75.499	74.183	0.0	0.000	0.0	0.2	173.6	0.000	0.000
R12	72.146	69.839	0.0	0.000	0.0	0.2	278.4	0.000	0.000
R13	79.858	78.710	0.0	0.000	0.0	0.1	376.5	0.000	0.000
S03	49.682	46.572	0.0	0.000	0.0	1.1	0.0	0.000	0.000
S04	49.500	48.180	0.0	0.000	0.0	0.1	49.3	0.000	0.000
S05	50.597	46.961	0.0	0.000	0.0	1.8	0.0	0.000	0.000
S06	50.719	48.590	0.0	0.000	0.0	0.1	150.9	0.000	0.000
S07	51.816	47.295	0.0	0.000	0.0	1.6	0.0	0.000	0.000
S08	51.816	47.464	0.0	0.000	0.0	1.4	0.0	0.000	0.000
S09	52.426	47.612	0.0	0.000	0.0	1.6	0.0	0.000	0.000
S12	53.005	50.962	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S13	60.320	57.828	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S14	63.764	60.734	0.0	0.000	0.0	0.1	0.0	0.000	0.000
S15	63.673	62.851	0.0	0.000	0.0	0.1	568.6	0.000	0.000
S16	60.289	59.421	0.0	0.000	0.0	0.1	0.0	0.000	0.000
S17	62.484	59.308	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S18	63.063	60.448	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S19	63.216	61.464	0.0	0.000	0.0	0.2	93.4	0.000	0.000
S20	63.551	61.901	0.0	0.000	0.0	0.2	236.3	0.000	0.000
S21	63.551	63.255	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S22	69.342	69.032	0.0	0.000	0.0	0.2	138.3	0.000	0.000
S23	75.987	72.450	0.0	0.000	0.0	0.1	197.5	0.000	0.000
S24	70.714	69.713	0.0	0.000	0.0	0.2	587.1	0.000	0.000
T2	48.219	46.720	0.0	0.000	0.0	0.2	513.9	0.000	0.000
U02	41.666	40.095	0.0	0.000	0.0	0.2	620.3	0.000	0.000
V02	39.624	37.359	0.0	0.000	0.0	0.2	183.1	0.000	0.000
V04	39.624	37.494	0.0	0.000	0.0	0.2	70.0	0.000	0.000
W02	38.862	36.154	0.0	0.000	0.0	0.1	139.1	0.000	0.000
W03	39.441	37.053	0.0	0.000	0.0	0.0	0.0	0.000	0.000
W04	39.167	38.093	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W05	39.624	38.351	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W06	39.472	38.577	0.0	0.000	0.0	0.0	0.0	0.000	0.000
W07	40.234	38.859	0.0	0.000	0.0	11.1	130.4	0.000	0.000

A %% indicates water lost from the system.

***** Link data *****

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Upstream >					> Downstream >				
						Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)	Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)
P01.1	Q01	52	457	0	0.627	59.741	0.094	0.024	0.470	263.5	51.816	0.082	0.024	0.556	263.5
P02.1	P01	19	406	0	0.000	59.741	0.195	0.025	0.406	266.0	59.741	0.110	0.025	0.878	265.9
P03.1	S20	84	457	0	0.880	70.104	0.063	0.017	1.241	166.2	62.789	0.063	0.017	1.240	166.2
P04.1	P02	16	356	0	0.000	59.741	0.234	0.027	0.397	268.5	59.741	0.195	0.027	0.524	268.4
P05.1	P04	17	305	0	0.000	59.741	0.294	0.032	0.443	270.9	59.741	0.235	0.032	0.572	270.9
P10.1	V04	59	305	0	0.154	38.710	0.173	0.091	2.131	901.2	37.338	0.173	0.091	2.131	901.2
Q00.1	Q01	27	6096	0	791.873	54.864	0.617	0.253	0.061	2059.5	48.372	1.683	0.234	0.020	2059.6
Q01.1	S09	6	381	0	0.000	47.610	2.318	0.542	4.085	12807.4+	47.610	0.344	0.542	5.017	12807.4
Q01.2	S09	6	203	0	0.000	48.890	1.137	0.072	1.930	350.9+	48.890	0.183	0.072	2.345	350.9
Q01.3	S09	6	1219	0	0.000	49.500	0.556	0.837	1.616	1401.8	49.500	0.491	0.837	1.900	1401.8
Q01.4	S09	6	1219	0	0.000	50.719	0.061	0.000	0.000	0.0	50.719	0.061	0.000	0.000	0.0
Q02.1	Q01	6	1067	0	0.000	49.621	0.682	1.339	2.218	12235.6	49.621	0.654	1.339	2.329	12235.6
Q03.1	Q02	9	762	0	6.532	52.974	0.161	0.504	7.155	4513.7	49.987	0.324	0.504	6.414	4513.7
Q04.1	Q03	17	762	0	1.558	53.492	0.311	0.504	2.883	4513.7	53.188	0.311	0.504	2.883	4513.7
Q05.1	Q04	7	305	0	0.527	55.931	0.060	0.032	3.204	233.7	53.919	0.060	0.032	3.204	233.7
Q06.1	Q04	40	762	0	1.501	54.346	0.309	0.479	2.768	4279.9	53.675	0.308	0.479	2.767	4279.9
Q08.1	Q06	64	762	0	1.537	55.474	0.298	0.464	2.805	4140.0	54.346	0.309	0.464	2.675	4140.0
Q09.1	Q08	41	610	0	2.094	59.985	0.178	0.348	4.920	3148.5	55.626	0.178	0.348	4.920	3148.5
Q10.1	Q09	19	610	0	0.508	60.107	0.288	0.226	1.665	2003.2	59.985	0.288	0.226	1.664	2003.2
Q11.1	Q10	22	457	0	0.245	60.259	0.322	0.205	1.664	1817.6	60.107	0.318	0.205	1.678	1817.6
Q12.1	Q08	42	457	0	0.299	56.053	0.206	0.119	1.666	991.5	55.626	0.206	0.119	1.666	991.5
Q13.1	Q12	23	457	0	0.470	56.632	0.163	0.118	2.251	966.8	56.053	0.206	0.118	1.652	966.8
Q14.1	Q02	29	1067	0	1.304	49.682	0.673	0.836	1.406	7721.9	49.621	0.690	0.835	1.366	7721.9
Q15.1	Q14	31	1067	0	8.260	52.304	0.250	0.836	5.232	7721.9	49.682	0.676	0.836	1.399	7721.9
Q16.1	Q15	14	610	0	2.491	54.346	0.195	0.499	6.195	4737.5	52.304	0.252	0.499	4.497	4737.4
Q17.1	Q16	99	610	0	1.938	63.368	0.219	0.499	5.282	4737.5	54.346	0.219	0.499	5.282	4737.5
Q18.1	Q17	60	1219	0	127.605	65.837	0.127	0.165	0.081	1651.3	64.922	0.127	0.165	0.081	1651.3
Q19.1	Q18	131	1829	0	266.321	71.933	0.187	0.165	0.105	1651.3	65.837	0.187	0.165	0.105	1651.3
Q20.1	Q19	112	3048	0	981.333	76.810	0.307	0.165	0.040	1651.2	71.933	0.307	0.165	0.040	1651.3
Q21.1	Q20	103	3048	0	625.909	78.638	0.308	0.165	0.040	1651.2	76.810	0.307	0.165	0.040	1651.2
Q22.1	Q21	42	457	0	0.515	80.040	0.186	0.165	2.643	1665.5	78.791	0.185	0.165	2.642	1665.3
Q23.1	Q22	17	381	0	0.156	80.162	0.169	0.061	1.254	660.0	80.040	0.186	0.061	1.135	660.0
Q24.1	Q27	127	533	0	0.916	69.159	0.193	0.240	3.284	2103.2	63.856	0.240	0.240	2.450	2103.2
Q25.1	Q24	14	457	0	0.193	69.251	0.335	0.194	1.505	1715.8	69.190	0.309	0.194	1.639	1715.8
Q26.1	Q25	13	381	0	0.392	70.256	0.188	0.182	3.245	1616.6	69.647	0.188	0.182	3.245	1616.6
Q27.1	Q17	26	533	0	0.599	63.856	0.240	0.239	2.455	2103.2	63.398	0.240	0.239	2.454	2103.2
Q28.1	Q15	6	610	0	2.219	53.157	0.174	0.352	5.097	2984.5	52.487	0.174	0.352	5.097	2984.5
Q29.1	Q28	27	610	0	2.382	57.120	0.165	0.326	5.105	2758.2	53.431	0.165	0.325	5.105	2758.2
Q30.1	Q29	37	610	0	1.570	59.314	0.199	0.326	3.934	2758.2	57.120	0.199	0.326	3.934	2758.2
Q31.1	Q30	9	305	0	0.297	60.107	0.070	0.029	2.268	183.2	59.314	0.200	0.029	0.610	183.2
Q32.1	Q30	42	610	0	1.441	61.417	0.200	0.303	3.623	2575.1	59.314	0.200	0.302	3.646	2575.1
Q33.1	Q32	9	457	0	1.193	63.063	0.091	0.076	3.284	716.3	61.631	0.091	0.076	3.284	716.3
Q34.1	Q32	42	457	0	0.512	62.728	0.222	0.229	2.900	1858.8	61.478	0.222	0.229	2.900	1858.8
Q35.1	Q34	4	457	0	0.653	63.033	0.089	0.039	1.746	274.0	62.819	0.131	0.039	1.624	274.0
Q36.1	Q35	16	457	0	1.132	65.532	0.053	0.008	0.765	54.4	63.246	0.053	0.008	0.765	54.4

Q38.1	Q34	138	457	0	0.623	68.854	0.183	0.195	3.177	1584.7	62.789	0.183	0.195	3.177	1584.7
Q39.1	Q38	12	457	0	0.713	69.647	0.129	0.108	2.844	863.8	68.946	0.129	0.108	2.844	863.8
Q40.1	Q39	11	457	0	0.417	70.500	0.122	0.056	1.575	437.7	70.287	0.122	0.056	1.574	437.7
Q41.1	Q38	56	457	0	0.398	69.952	0.154	0.088	1.803	720.9	68.946	0.154	0.088	1.803	720.9
Q42.1	Q41	21	457	0	0.280	70.256	0.100	0.028	1.069	232.2	70.074	0.100	0.028	1.069	232.2
R01.1	Q00	106	6096	0	121.912	55.474	0.358	0.156	0.068	1419.9	54.864	0.617	0.156	0.038	1335.7
R02.1	R01	72	610	0	2.029	62.789	0.129	0.156	3.469	1426.5	55.565	0.267	0.156	1.272	1426.0
R03.1	R04	28	610	0	1.955	65.623	0.129	0.152	3.356	1379.6	62.972	0.129	0.152	3.357	1379.6

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	Invert Level (m AD)	Upstream			Total Flow (m3)	Downstream				
							Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)		Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)
R04.1	R02	4	610	0	0.997	62.880	0.172	0.152	2.243	1379.6	62.789	0.172	0.152	2.243	1379.6
R05.1	R02	13	305	0	0.148	63.734	0.060	0.009	0.901	47.0	62.789	0.130	0.009	0.331	47.0
R06.1	R05	29	457	0	0.515	64.618	0.046	0.000	0.000	0.0	63.734	0.060	0.000	-0.005	0.0
R07.1	R03	81	457	0	0.392	70.409	0.102	0.035	1.293	306.5	65.623	0.130	0.035	0.923	306.5
R08.1	R07	135	457	0	0.286	74.676	0.097	0.022	0.868	190.3	70.409	0.102	0.022	0.812	190.3
R09.1	R08	123	457	0	0.180	76.200	0.078	0.008	0.410	60.9	74.676	0.097	0.008	0.298	60.9
R10.1	R03	43	610	0	1.105	66.934	0.139	0.105	2.097	960.6	65.654	0.139	0.105	2.097	960.6
R11.1	R12	165	610	0	1.038	74.066	0.117	0.060	1.536	550.1	69.738	0.101	0.060	1.897	550.2
R12.1	R10	90	610	0	1.115	69.708	0.131	0.090	1.960	828.6	66.995	0.131	0.090	1.959	828.6
R13.1	R11	25	457	0	1.235	78.638	0.072	0.041	2.513	376.5	74.280	0.072	0.041	2.512	376.5
S03.1	S01	10	1219	0	9.493	46.208	0.362	1.651	5.680	16746.9	45.690	0.362	1.651	5.680	16747.0
S04.1	S03	6	457	0	1.546	48.128	0.052	0.009	0.838	49.3	46.604	0.052	0.009	0.838	49.3
S05.1	S03	21	1219	0	3.766	46.391	0.570	1.650	3.082	16698.0	46.208	0.570	1.650	3.080	16697.9
S06.1	S05	24	381	0	0.540	48.524	0.066	0.024	1.817	150.9	46.391	0.571	0.024	0.207	150.9x
S07.1	S05	26	1219	0	5.051	46.787	0.507	1.644	3.578	16547.1	46.391	0.571	1.643	3.065	16547.2
S08.1	S07	12	1219	0	5.463	47.000	0.463	1.451	3.565	14559.9	46.787	0.508	1.451	3.154	14560.0
S09.1	S08	9	1219	0	4.068	47.092	0.520	1.451	3.055	14560.1	47.000	0.520	1.451	3.055	14559.9
S12.1	S07	17	533	0	2.164	50.841	0.120	0.199	5.288	1987.4	46.787	0.508	0.199	1.175	1987.3
S13.1	S12	105	533	0	1.128	57.668	0.160	0.199	3.545	1987.4	51.054	0.160	0.199	3.544	1987.4
S14.1	S17	44	533	0	0.834	60.625	0.109	0.059	1.774	568.6	59.101	0.207	0.059	0.731	568.6
S15.1	S14	21	381	0	0.540	62.758	0.092	0.059	2.744	568.6	60.930	0.092	0.059	2.744	568.6
S16.1	S13	10	457	0	1.120	59.375	0.046	0.000	0.000	0.0	57.912	0.046	0.000	0.000	0.0
S17.1	S13	60	533	0	0.669	59.101	0.207	0.199	2.490	1987.4	57.760	0.207	0.199	2.489	1987.4
S18.1	S17	28	457	0	0.603	60.289	0.158	0.141	2.791	1418.8	59.131	0.177	0.141	2.569	1418.8
S19.1	S18	31	457	0	0.520	61.295	0.168	0.141	2.573	1418.8	60.350	0.168	0.141	2.573	1418.8
S20.1	S19	17	457	0	0.442	61.722	0.179	0.134	2.245	1325.4	61.356	0.179	0.134	2.244	1325.4
S21.1	S20	19	457	0	0.380	63.094	0.161	0.092	1.789	922.9	62.789	0.161	0.092	1.789	922.9
S22.1	S21	244	457	0	0.459	68.885	0.147	0.093	2.032	922.9	63.094	0.161	0.092	1.786	922.9
S23.1	S24	170	381	0	0.235	72.360	0.090	0.024	1.172	197.5	69.555	0.157	0.024	0.542	197.5
S24.1	S22	34	381	0	0.256	69.555	0.157	0.085	1.909	784.6	68.885	0.157	0.085	1.942	784.6
T2.1	T1	183	610	0	1.076	46.604	0.116	0.061	1.577	513.9	41.453	0.116	0.061	1.575	513.9
U02.1	U01	10	457	0	0.166	39.898	0.197	0.071	1.052	620.3	39.868	0.184	0.071	1.150	620.3
V02.1	V01	47	457	0	0.283	37.155	0.204	0.116	1.638	1154.3	36.728	0.204	0.116	1.637	1154.3
V04.1	V02	14	457	0	0.309	37.308	0.186	0.098	1.551	971.2	37.155	0.204	0.098	1.383	971.2
W02.1	W01	9	457	0	0.239	36.058	0.096	0.022	0.870	269.5	35.997	0.096	0.022	0.870	269.5
W03.1	W02	16	305	0	0.224	37.003	0.050	0.009	1.097	130.4	36.210	0.050	0.009	1.097	130.4
W04.1	W03	40	152	0	0.037	38.039	0.054	0.009	1.480	130.4	37.003	0.055	0.009	1.628	130.4
W05.1	W04	25	152	0	0.023	38.283	0.068	0.009	1.093	130.4	38.039	0.068	0.009	1.093	130.4
W06.1	W05	22	152	0	0.026	38.557	0.020	0.000	0.000	0.0	38.283	0.068	0.000	0.003	0.0
W07.1	W05	16	102	0	0.009	38.710	0.137	0.009	1.131	130.4x	38.283	0.091	0.009	1.133	130.4

+ after total flow indicates a conduit surcharged by flow and depth at that end.

x after total flow indicates a conduit surcharged by depth only at that end.

NOTE :

- (i) Maximum elevations, depths, volumes, velocities and discharges are selected from the values at each time increment and will be in general more extreme than the maximum values in the time varying results.

- (ii) Maximum elevations, velocities and discharges are not necessarily calculated at the same time.
- (iii) Maximum velocity is not calculated for a conduit unless the depth exceeds the base flow depth
(by default, this is 5% of height for slopes ≤ 0.01 , 10% otherwise, subject to a minimum of 0.02 m).

End of run

0 mins (elapsed)

Produced on 12/06/2009 Last page

Start of run

configured for MS Windows

Produced on 12/06/2009 at 21:43

HydroWorks(tm) SIM

Summary results from Simulation

Version 9.0.1123 dated May 2008

Licence Number - WS00740269PM

Message 253: Run finished for event 1.

Summary results for event 1 - 5-year OC Event
Started at 00000000000000. Run for 2880.00 min. (Requested simulation time 2880.00 min)

Files used:

Network: ... \NET11#38.spb Proposed_2009-06-12 (Revision 38)
State:
Runoff: ... \NET11#38.rpf Proposed_2009-06-12 (Revision 38) (InfoWorks 9.0.2.16013)
Rainfall: ... \SIM48event.red 1
DWF:
Inflows:
Levels:
RTC:
Results: ... \SIM48.iwr

Total rainfall = 32917.4 m3
Total runoff = 29514.4 m3
Total inflow = 29514.4 m3
Total outflow = 29389.5 m3
Total lost = 0.0 m3

***** Node data *****

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
P01	62.179	59.854	0.0	0.000	0.0	10.5	0.0	0.000	0.000
P02	62.179	59.977	0.0	0.000	0.0	21.9	0.0	0.000	0.000
P03	72.238	70.173	0.0	0.000	0.0	0.1	258.1	0.000	0.000
P04	62.179	60.030	0.0	0.000	0.0	26.9	0.0	0.000	0.000
P05	62.179	60.149	0.0	0.000	0.0	37.9	413.1	0.000	0.000
P10	41.148	38.951	0.0	0.000	0.0	44.9	1370.8	0.000	0.000
Q00	60.350	55.485	0.0	0.000	0.0	22.9	1166.6	0.000	0.000
Q01	47.610	50.283	1439.1	2.673	1046.0	1445.2	0.0	-2.339	0.011
Q02	51.206	50.483	0.0	0.000	0.0	2.3	0.0	0.000	0.000
Q03	58.156	53.168	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q04	58.217	53.875	0.0	0.000	0.0	0.7	0.0	0.000	0.000
Q05	57.455	55.999	0.0	0.000	0.0	0.1	347.1	0.000	0.000
Q06	56.662	54.726	0.0	0.000	0.0	0.7	212.9	0.000	0.000
Q08	56.998	55.845	0.0	0.000	0.0	0.7	0.0	0.000	0.000
Q09	61.204	60.202	0.0	0.000	0.0	0.3	1742.2	0.000	0.000
Q10	61.478	60.472	0.0	0.000	0.0	0.5	282.3	0.000	0.000
Q11	61.478	60.754	0.0	0.000	0.0	0.6	2764.8	0.000	0.000
Q12	58.003	56.315	0.0	0.000	0.0	0.3	36.7	0.000	0.000
Q13	58.003	56.831	0.0	0.000	0.0	0.2	1470.7	0.000	0.000
Q14	58.674	50.552	0.0	0.000	0.0	2.3	0.0	0.000	0.000
Q15	59.284	52.606	0.0	0.000	0.0	0.8	0.0	0.000	0.000
Q16	55.931	54.587	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q17	71.018	63.639	0.0	0.000	0.0	54.6	1560.2	0.000	0.000
Q18	71.933	65.966	0.0	0.000	0.0	26.1	0.0	0.000	0.000
Q19	78.029	72.122	0.0	0.000	0.0	25.0	0.0	0.000	0.000
Q20	82.906	77.118	0.0	0.000	0.0	40.6	0.0	0.000	0.000
Q21	84.734	78.948	0.0	0.000	0.0	40.8	0.0	0.000	0.000
Q22	81.199	80.269	0.0	0.000	0.0	0.3	1529.4	0.000	0.000
Q23	81.199	80.377	0.0	0.000	0.0	0.2	980.3	0.000	0.000
Q24	70.988	69.396	0.0	0.000	0.0	0.3	589.2	0.000	0.000
Q25	70.988	69.736	0.0	0.000	0.0	0.6	150.9	0.000	0.000
Q26	71.628	70.523	0.0	0.000	0.0	0.3	2459.0	0.000	0.000
Q27	67.056	64.165	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q28	59.284	53.371	0.0	0.000	0.0	0.3	336.2	0.000	0.000
Q29	60.046	57.318	0.0	0.000	0.0	0.3	0.0	0.000	0.000
Q30	62.179	59.556	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q31	63.703	60.191	0.0	0.000	0.0	0.1	284.5	0.000	0.000
Q32	64.313	61.661	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q33	64.892	63.167	0.0	0.000	0.0	0.1	1063.9	0.000	0.000
Q34	65.532	63.023	0.0	0.000	0.0	0.3	0.0	0.000	0.000
Q35	65.593	63.137	0.0	0.000	0.0	0.1	334.0	0.000	0.000
Q36	67.056	65.588	0.0	0.000	0.0	0.1	82.8	0.000	0.000
Q38	71.537	69.081	0.0	0.000	0.0	0.3	0.0	0.000	0.000
Q39	71.598	69.803	0.0	0.000	0.0	0.2	648.2	0.000	0.000
Q40	72.024	70.646	0.0	0.000	0.0	0.2	665.8	0.000	0.000
Q41	72.512	70.139	0.0	0.000	0.0	0.2	743.5	0.000	0.000
Q42	72.360	70.379	0.0	0.000	0.0	0.1	353.1	0.000	0.000

R01	64.008	55.850	0.0	0.000	0.0	13.9	0.0	0.000	0.000
R02	67.056	62.941	0.0	0.000	0.0	0.2	0.0	0.000	0.000
R03	67.452	65.776	0.0	0.000	0.0	0.2	167.1	0.000	0.000
R04	66.812	63.087	0.0	0.000	0.0	0.3	0.0	0.000	0.000
R05	67.056	63.802	0.0	0.000	0.0	0.1	74.6	0.000	0.000
R06	65.684	64.663	0.0	0.000	0.0	0.1	0.0	0.000	0.000

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
R07	71.933	70.531	0.0	0.000	0.0	0.1	172.6	0.000	0.000
R08	76.200	74.789	0.0	0.000	0.0	0.1	192.2	0.000	0.000
R09	77.419	76.290	0.0	0.000	0.0	0.1	90.4	0.000	0.000
R10	68.824	67.101	0.0	0.000	0.0	0.2	200.8	0.000	0.000
R11	75.499	74.200	0.0	0.000	0.0	0.2	257.8	0.000	0.000
R12	72.146	69.863	0.0	0.000	0.0	0.2	413.6	0.000	0.000
R13	79.858	78.721	0.0	0.000	0.0	0.1	559.2	0.000	0.000
S03	49.682	46.660	0.0	0.000	0.0	1.4	0.0	0.000	0.000
S04	49.500	48.182	0.0	0.000	0.0	0.1	73.2	0.000	0.000
S05	50.597	47.159	0.0	0.000	0.0	2.4	0.0	0.000	0.000
S06	50.719	48.600	0.0	0.000	0.0	0.1	224.2	0.000	0.000
S07	51.816	47.465	0.0	0.000	0.0	2.1	0.0	0.000	0.000
S08	51.816	47.612	0.0	0.000	0.0	1.9	0.0	0.000	0.000
S09	52.426	47.774	0.0	0.000	0.0	2.1	0.0	0.000	0.000
S12	53.005	50.987	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S13	60.320	57.863	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S14	63.764	60.751	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S15	63.673	62.868	0.0	0.000	0.0	0.1	844.5	0.000	0.000
S16	60.289	59.421	0.0	0.000	0.0	0.1	0.0	0.000	0.000
S17	62.484	59.359	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S18	63.063	60.484	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S19	63.216	61.505	0.0	0.000	0.0	0.2	138.8	0.000	0.000
S20	63.551	61.946	0.0	0.000	0.0	0.3	382.2	0.000	0.000
S21	63.551	63.291	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S22	69.342	69.066	0.0	0.000	0.0	0.2	223.6	0.000	0.000
S23	75.987	72.467	0.0	0.000	0.0	0.1	300.4	0.000	0.000
S24	70.714	69.747	0.0	0.000	0.0	0.2	872.1	0.000	0.000
T2	48.219	46.736	0.0	0.000	0.0	0.2	763.3	0.000	0.000
U02	41.666	40.139	0.0	0.000	0.0	0.3	938.6	0.000	0.000
V02	39.624	37.417	0.0	0.000	0.0	0.3	272.0	0.000	0.000
V04	39.624	37.540	0.0	0.000	0.0	0.3	106.5	0.000	0.000
W02	38.862	36.167	0.0	0.000	0.0	0.1	206.6	0.000	0.000
W03	39.441	37.056	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W04	39.167	38.097	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W05	39.624	38.357	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W06	39.472	38.577	0.0	0.000	0.0	0.0	0.0	0.000	0.000
W07	40.234	39.010	0.0	0.000	0.0	22.3	193.7	0.000	0.000

A %% indicates water lost from the system.

***** Link data *****

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	< Upstream >					< Downstream >				
						Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)	Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)
P01.1	Q01	52	457	0	0.627	59.741	0.113	0.037	0.579	403.3	51.816	0.096	0.037	0.702	403.3
P02.1	P01	19	406	0	0.000	59.741	0.236	0.038	0.485	405.8	59.741	0.137	0.038	0.989	405.7
P03.1	S20	84	457	0	0.880	70.104	0.069	0.026	1.648	258.1	62.789	0.069	0.026	1.647	258.1
P04.1	P02	16	356	0	0.000	59.741	0.288	0.040	0.468	408.2	59.741	0.236	0.040	0.596	408.2
P05.1	P04	17	305	0	0.000	59.741	0.404	0.045	0.587	410.7+	59.741	0.289	0.045	0.652	410.6
P10.1	V04	59	305	0	0.154	38.710	0.225	0.135	2.349	1370.8	37.338	0.225	0.135	2.349	1370.8
Q00.1	Q01	27	6096	0	791.873	54.864	0.621	0.381	0.091	3192.9	48.372	1.911	0.368	0.025	3193.0
Q01.1	S09	6	381	0	0.000	47.610	2.536	0.570	4.239	17665.2+	47.610	0.343	0.570	5.271	17665.2
Q01.2	S09	6	203	0	0.000	48.890	1.359	0.080	2.087	712.0+	48.890	0.183	0.080	2.597	712.0
Q01.3	S09	6	1219	0	0.000	49.500	0.777	1.637	2.086	3844.6	49.500	0.698	1.637	2.370	3844.7
Q01.4	S09	6	1219	0	0.000	50.719	0.061	0.000	0.000	0.0	50.719	0.061	0.000	0.000	0.0
Q02.1	Q01	6	1067	0	0.000	49.621	0.839	2.000	2.651	18623.2	49.621	0.803	2.000	2.772	18623.2
Q03.1	Q02	9	762	0	6.532	52.974	0.190	0.750	8.437	6856.6	49.987	0.496	0.750	6.514	6856.6
Q04.1	Q03	17	762	0	1.558	53.492	0.382	0.750	3.283	6856.6	53.188	0.382	0.750	3.283	6856.6
Q05.1	Q04	7	305	0	0.527	55.931	0.068	0.047	3.876	347.1	53.919	0.068	0.047	3.876	347.1
Q06.1	Q04	40	762	0	1.501	54.346	0.380	0.714	3.141	6509.4	53.675	0.380	0.714	3.142	6509.4
Q08.1	Q06	64	762	0	1.537	55.474	0.371	0.691	3.139	6296.5	54.346	0.380	0.691	3.035	6296.6
Q09.1	Q08	41	610	0	2.094	59.985	0.216	0.518	5.595	4789.2	55.626	0.219	0.518	5.689	4789.2
Q10.1	Q09	19	610	0	0.508	60.107	0.362	0.336	1.864	3047.1	59.985	0.362	0.336	1.862	3047.1
Q11.1	Q10	22	457	0	0.245	60.259	0.473	0.305	1.820	2764.8+	60.107	0.384	0.305	2.070	2764.8
Q12.1	Q08	42	457	0	0.299	56.053	0.260	0.177	1.840	1507.4	55.626	0.260	0.177	1.840	1507.4
Q13.1	Q12	23	457	0	0.470	56.632	0.199	0.176	2.561	1470.7	56.053	0.263	0.176	1.801	1470.7
Q14.1	Q02	29	1067	0	1.304	49.682	0.861	1.250	1.616	11766.6	49.621	0.862	1.250	1.615	11766.7
Q15.1	Q14	31	1067	0	8.260	52.304	0.300	1.250	6.050	11766.6	49.682	0.871	1.250	1.601	11766.6
Q16.1	Q15	14	610	0	2.491	54.346	0.238	0.751	7.104	7254.8	52.304	0.302	0.751	5.285	7254.8
Q17.1	Q16	99	610	0	1.938	63.368	0.270	0.751	6.033	7254.8	54.346	0.269	0.751	6.033	7254.8
Q18.1	Q17	60	1219	0	127.605	65.837	0.130	0.245	0.118	2495.5	64.922	0.130	0.245	0.118	2495.5
Q19.1	Q18	131	1829	0	266.321	71.933	0.190	0.245	0.154	2495.5	65.837	0.190	0.245	0.154	2495.5
Q20.1	Q19	112	3048	0	981.333	76.810	0.308	0.245	0.059	2495.5	71.933	0.308	0.245	0.059	2495.5
Q21.1	Q20	103	3048	0	625.909	78.638	0.310	0.246	0.059	2495.5	76.810	0.308	0.245	0.059	2495.5
Q22.1	Q21	42	457	0	0.515	80.040	0.228	0.246	3.000	2509.7	78.791	0.228	0.246	3.000	2509.5
Q23.1	Q22	17	381	0	0.156	80.162	0.213	0.090	1.367	980.3	80.040	0.229	0.090	1.278	980.3
Q24.1	Q27	127	533	0	0.916	69.159	0.236	0.357	3.729	3199.2	63.856	0.310	0.356	2.643	3199.2
Q25.1	Q24	14	457	0	0.193	69.251	0.467	0.288	1.729	2610.0+	69.190	0.375	0.288	2.001	2610.0
Q26.1	Q25	13	381	0	0.392	70.256	0.240	0.271	3.585	2459.0	69.647	0.240	0.271	3.585	2459.0
Q27.1	Q17	26	533	0	0.599	63.856	0.303	0.356	2.716	3199.2	63.398	0.303	0.356	2.716	3199.2
Q28.1	Q15	6	610	0	2.219	53.157	0.212	0.522	5.793	4511.9	52.487	0.212	0.522	5.793	4511.9
Q29.1	Q28	27	610	0	2.382	57.120	0.196	0.483	5.938	4175.7	53.431	0.196	0.483	5.939	4175.7
Q30.1	Q29	37	610	0	1.570	59.314	0.241	0.483	4.491	4175.7	57.120	0.241	0.483	4.491	4175.7
Q31.1	Q30	9	305	0	0.297	60.107	0.084	0.043	2.606	284.5	59.314	0.242	0.043	0.730	284.5
Q32.1	Q30	42	610	0	1.441	61.417	0.243	0.448	4.131	3891.3	59.314	0.242	0.448	4.161	3891.3
Q33.1	Q32	9	457	0	1.193	63.063	0.103	0.111	3.991	1063.9	61.631	0.103	0.111	3.991	1063.9
Q34.1	Q32	42	457	0	0.512	62.728	0.280	0.341	3.254	2827.4	61.478	0.279	0.340	3.253	2827.4
Q35.1	Q34	4	457	0	0.653	63.033	0.104	0.058	2.072	416.8	62.819	0.204	0.058	1.605	416.8
Q36.1	Q35	16	457	0	1.132	65.532	0.056	0.012	1.035	82.8	63.246	0.056	0.012	1.035	82.8

Q38.1	Q34	138	457	0	0.623	68.854	0.226	0.289	3.581	2410.6	62.789	0.235	0.289	3.638	2410.6
Q39.1	Q38	12	457	0	0.713	69.647	0.155	0.160	3.249	1314.0	68.946	0.155	0.160	3.249	1314.0
Q40.1	Q39	11	457	0	0.417	70.500	0.145	0.082	1.839	665.8	70.287	0.145	0.082	1.839	665.8
Q41.1	Q38	56	457	0	0.398	69.952	0.187	0.130	2.053	1096.6	68.946	0.187	0.130	2.052	1096.6
Q42.1	Q41	21	457	0	0.280	70.256	0.123	0.042	1.187	353.1	70.074	0.123	0.042	1.187	353.1
R01.1	Q00	106	6096	0	121.912	55.474	0.376	0.230	0.095	2121.7	54.864	0.621	0.230	0.055	2037.5
R02.1	R01	72	610	0	2.029	62.789	0.151	0.230	4.081	2128.3	55.565	0.285	0.230	1.723	2127.8
R03.1	R04	28	610	0	1.955	65.623	0.152	0.223	3.938	2053.8	62.972	0.152	0.223	3.938	2053.8

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	Invert Level (m AD)	Upstream			Total Flow (m3)	Downstream				
							Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)		Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)
R04.1	R02	4	610	0	0.997	62.880	0.207	0.223	2.553	2053.8	62.789	0.207	0.223	2.553	2053.8
R05.1	R02	13	305	0	0.148	63.734	0.069	0.014	1.108	74.6	62.789	0.152	0.014	0.411	74.6
R06.1	R05	29	457	0	0.515	64.618	0.046	0.000	0.000	0.0	63.734	0.069	0.000	0.006	0.0
R07.1	R03	81	457	0	0.392	70.409	0.122	0.052	1.472	455.3	65.623	0.152	0.052	1.082	455.3
R08.1	R07	135	457	0	0.286	74.676	0.113	0.032	1.020	282.6	70.409	0.122	0.032	0.939	282.6
R09.1	R08	123	457	0	0.180	76.200	0.090	0.011	0.487	90.4	74.676	0.113	0.011	0.351	90.4
R10.1	R03	43	610	0	1.105	66.934	0.167	0.155	2.392	1431.4	65.654	0.167	0.155	2.392	1431.4
R11.1	R12	165	610	0	1.038	74.066	0.133	0.088	1.868	817.1	69.738	0.124	0.088	2.057	817.1
R12.1	R10	90	610	0	1.115	69.708	0.155	0.133	2.274	1230.7	66.995	0.155	0.132	2.273	1230.6
R13.1	R11	25	457	0	1.235	78.638	0.082	0.061	3.019	559.2	74.280	0.082	0.061	3.018	559.2
S03.1	S01	10	1219	0	9.493	46.208	0.450	2.597	6.628	25538.0	45.690	0.450	2.597	6.628	25538.0
S04.1	S03	6	457	0	1.546	48.128	0.054	0.012	1.121	73.2	46.604	0.056	0.012	1.121	73.2
S05.1	S03	21	1219	0	3.766	46.391	0.752	2.595	3.457	25465.1	46.208	0.752	2.594	3.452	25465.0
S06.1	S05	24	381	0	0.540	48.524	0.076	0.034	2.144	224.2	46.391	0.768	0.034	0.286	224.2x
S07.1	S05	26	1219	0	5.051	46.787	0.668	2.583	3.948	25240.9	46.391	0.770	2.582	3.356	25241.0
S08.1	S07	12	1219	0	5.463	47.000	0.611	2.286	3.910	22221.5	46.787	0.679	2.286	3.474	22221.6
S09.1	S08	9	1219	0	4.068	47.092	0.674	2.286	3.452	22221.8	47.000	0.674	2.286	3.451	22221.5
S12.1	S07	17	533	0	2.164	50.841	0.145	0.298	6.077	3019.6	46.787	0.680	0.298	1.281	3019.5x
S13.1	S12	105	533	0	1.128	57.668	0.194	0.298	4.061	3019.6	51.054	0.194	0.298	4.061	3019.6
S14.1	S17	44	533	0	0.834	60.625	0.126	0.086	2.127	844.5	59.101	0.259	0.086	0.803	844.5
S15.1	S14	21	381	0	0.540	62.758	0.109	0.086	3.184	844.5	60.930	0.109	0.086	3.184	844.5
S16.1	S13	10	457	0	1.120	59.375	0.046	0.000	0.000	0.0	57.912	0.046	0.000	0.000	0.0
S17.1	S13	60	533	0	0.669	59.101	0.258	0.298	2.783	3019.6	57.760	0.258	0.298	2.783	3019.6
S18.1	S17	28	457	0	0.603	60.289	0.194	0.213	3.202	2175.1	59.131	0.228	0.213	2.801	2175.1
S19.1	S18	31	457	0	0.520	61.295	0.209	0.213	2.906	2175.1	60.350	0.209	0.213	2.905	2175.1
S20.1	S19	17	457	0	0.442	61.722	0.224	0.202	2.523	2036.4	61.356	0.224	0.202	2.523	2036.4
S21.1	S20	19	457	0	0.380	63.094	0.197	0.140	2.063	1396.1	62.789	0.197	0.140	2.063	1396.1
S22.1	S21	244	457	0	0.459	68.885	0.181	0.141	2.332	1396.1	63.094	0.198	0.140	2.060	1396.1
S23.1	S24	170	381	0	0.235	72.360	0.108	0.036	1.353	300.4	69.555	0.192	0.036	0.622	300.4
S24.1	S22	34	381	0	0.256	69.555	0.192	0.125	2.171	1172.5	68.885	0.192	0.125	2.171	1172.5
T2.1	T1	183	610	0	1.076	46.604	0.132	0.089	1.913	763.3	41.453	0.132	0.089	1.911	763.3
U02.1	U01	10	457	0	0.166	39.898	0.240	0.105	1.203	938.6	39.868	0.225	0.105	1.306	938.6
V02.1	V01	47	457	0	0.283	37.155	0.259	0.172	1.789	1749.3	36.728	0.259	0.172	1.788	1749.3
V04.1	V02	14	457	0	0.309	37.308	0.232	0.145	1.728	1477.3	37.155	0.262	0.145	1.500	1477.3
W02.1	W01	9	457	0	0.239	36.058	0.109	0.029	0.963	400.3	35.997	0.109	0.029	0.963	400.3
W03.1	W02	16	305	0	0.224	37.003	0.053	0.010	1.179	193.7	36.210	0.053	0.010	1.179	193.7
W04.1	W03	40	152	0	0.037	38.039	0.058	0.010	1.582	193.7	37.003	0.058	0.010	1.626	193.7
W05.1	W04	25	152	0	0.023	38.283	0.074	0.010	1.127	193.7	38.039	0.074	0.010	1.127	193.7
W06.1	W05	22	152	0	0.026	38.557	0.020	0.000	0.000	0.0	38.283	0.074	0.000	0.004	0.0
W07.1	W05	16	102	0	0.009	38.710	0.291	0.010	1.160	193.7+	38.283	0.091	0.010	1.297	193.7

+ after total flow indicates a conduit surcharged by flow and depth at that end.

x after total flow indicates a conduit surcharged by depth only at that end.

NOTE :

- (i) Maximum elevations, depths, volumes, velocities and discharges are selected from the values at each time increment and will be in general more extreme than the maximum values in the time varying results.

- (ii) Maximum elevations, velocities and discharges are not necessarily calculated at the same time.
- (iii) Maximum velocity is not calculated for a conduit unless the depth exceeds the base flow depth
(by default, this is 5% of height for slopes ≤ 0.01 , 10% otherwise, subject to a minimum of 0.02 m).

End of run

0 mins (elapsed)

Produced on 12/06/2009 Last page

Start of run

configured for MS Windows

Produced on 12/06/2009 at 21:43

HydroWorks(tm) SIM

Summary results from Simulation

Version 9.0.1123 dated May 2008

Licence Number - WS00740269PM

Message 253: Run finished for event 1.

Summary results for event 1 - 10-year OC Event
Started at 00000000000000. Run for 2880.00 min. (Requested simulation time 2880.00 min)

Files used:

Network: ... \NET11#38.spb Proposed_2009-06-12 (Revision 38)
State:
Runoff: ... \NET11#38.rpf Proposed_2009-06-12 (Revision 38) (InfoWorks 9.0.2.16013)
Rainfall: ... \SIM49event.red 1
DWF:
Inflows:
Levels:
RTC:
Results: ... \SIM49.iwr

Total rainfall = 38807.6 m3
Total runoff = 35338.2 m3
Total inflow = 35338.2 m3
Total outflow = 35215.2 m3
Total lost = 0.0 m3

***** Node data *****

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
P01	62.179	59.865	0.0	0.000	0.0	11.5	0.0	0.000	0.000
P02	62.179	60.000	0.0	0.000	0.0	24.1	0.0	0.000	0.000
P03	72.238	70.178	0.0	0.000	0.0	0.1	311.5	0.000	0.000
P04	62.179	60.068	0.0	0.000	0.0	30.4	0.0	0.000	0.000
P05	62.179	60.240	0.0	0.000	0.0	46.4	493.7	0.000	0.000
P10	41.148	39.047	0.0	0.000	0.0	62.6	1641.9	0.000	0.000
Q00	60.350	55.488	0.0	0.000	0.0	23.1	1419.4	0.000	0.000
Q01	47.610	50.413	1579.5	2.804	1101.3	1585.5	0.0	-1.703	0.006
Q02	51.206	50.598	0.0	0.000	0.0	2.6	0.0	0.000	0.000
Q03	58.156	53.188	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q04	58.217	53.937	0.0	0.000	0.0	0.8	0.0	0.000	0.000
Q05	57.455	56.006	0.0	0.000	0.0	0.1	412.3	0.000	0.000
Q06	56.662	54.787	0.0	0.000	0.0	0.8	254.9	0.000	0.000
Q08	56.998	55.900	0.0	0.000	0.0	0.8	0.0	0.000	0.000
Q09	61.204	60.227	0.0	0.000	0.0	0.4	2086.7	0.000	0.000
Q10	61.478	60.540	0.0	0.000	0.0	0.6	338.2	0.000	0.000
Q11	61.478	60.969	0.0	0.000	0.0	0.8	3311.6	0.000	0.000
Q12	58.003	56.355	0.0	0.000	0.0	0.4	43.6	0.000	0.000
Q13	58.003	56.859	0.0	0.000	0.0	0.3	1761.6	0.000	0.000
Q14	58.674	50.708	0.0	0.000	0.0	2.7	0.0	0.000	0.000
Q15	59.284	52.635	0.0	0.000	0.0	0.9	0.0	0.000	0.000
Q16	55.931	54.613	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q17	71.018	63.679	0.0	0.000	0.0	62.5	1898.1	0.000	0.000
Q18	71.933	65.968	0.0	0.000	0.0	26.4	0.0	0.000	0.000
Q19	78.029	72.124	0.0	0.000	0.0	25.2	0.0	0.000	0.000
Q20	82.906	77.118	0.0	0.000	0.0	40.7	0.0	0.000	0.000
Q21	84.734	78.949	0.0	0.000	0.0	41.0	0.0	0.000	0.000
Q22	81.199	80.308	0.0	0.000	0.0	0.3	1831.9	0.000	0.000
Q23	81.199	80.412	0.0	0.000	0.0	0.3	1164.4	0.000	0.000
Q24	70.988	69.428	0.0	0.000	0.0	0.4	705.8	0.000	0.000
Q25	70.988	69.868	0.0	0.000	0.0	0.7	180.8	0.000	0.000
Q26	71.628	70.586	0.0	0.000	0.0	0.3	2945.4	0.000	0.000
Q27	67.056	64.217	0.0	0.000	0.0	0.5	0.0	0.000	0.000
Q28	59.284	53.393	0.0	0.000	0.0	0.3	399.3	0.000	0.000
Q29	60.046	57.339	0.0	0.000	0.0	0.3	0.0	0.000	0.000
Q30	62.179	59.583	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q31	63.703	60.200	0.0	0.000	0.0	0.1	343.3	0.000	0.000
Q32	64.313	61.687	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q33	64.892	63.178	0.0	0.000	0.0	0.1	1263.6	0.000	0.000
Q34	65.532	63.087	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q35	65.593	63.155	0.0	0.000	0.0	0.1	400.1	0.000	0.000
Q36	67.056	65.591	0.0	0.000	0.0	0.1	99.2	0.000	0.000
Q38	71.537	69.125	0.0	0.000	0.0	0.3	0.0	0.000	0.000
Q39	71.598	69.818	0.0	0.000	0.0	0.2	776.4	0.000	0.000
Q40	72.024	70.662	0.0	0.000	0.0	0.2	797.5	0.000	0.000
Q41	72.512	70.160	0.0	0.000	0.0	0.2	890.6	0.000	0.000
Q42	72.360	70.391	0.0	0.000	0.0	0.2	423.0	0.000	0.000

R01	64.008	55.863	0.0	0.000	0.0	14.4	0.0	0.000	0.000
R02	67.056	62.957	0.0	0.000	0.0	0.2	0.0	0.000	0.000
R03	67.452	65.792	0.0	0.000	0.0	0.2	198.5	0.000	0.000
R04	66.812	63.107	0.0	0.000	0.0	0.3	0.0	0.000	0.000
R05	67.056	63.811	0.0	0.000	0.0	0.1	90.8	0.000	0.000
R06	65.684	64.663	0.0	0.000	0.0	0.1	0.0	0.000	0.000

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
R07	71.933	70.542	0.0	0.000	0.0	0.2	205.1	0.000	0.000
R08	76.200	74.800	0.0	0.000	0.0	0.1	228.3	0.000	0.000
R09	77.419	76.297	0.0	0.000	0.0	0.1	107.4	0.000	0.000
R10	68.824	67.115	0.0	0.000	0.0	0.3	240.5	0.000	0.000
R11	75.499	74.212	0.0	0.000	0.0	0.2	306.3	0.000	0.000
R12	72.146	69.878	0.0	0.000	0.0	0.3	491.2	0.000	0.000
R13	79.858	78.728	0.0	0.000	0.0	0.1	664.2	0.000	0.000
S03	49.682	46.720	0.0	0.000	0.0	1.6	0.0	0.000	0.000
S04	49.500	48.184	0.0	0.000	0.0	0.1	86.9	0.000	0.000
S05	50.597	47.294	0.0	0.000	0.0	2.8	0.0	0.000	0.000
S06	50.719	48.606	0.0	0.000	0.0	0.1	266.2	0.000	0.000
S07	51.816	47.597	0.0	0.000	0.0	2.5	0.0	0.000	0.000
S08	51.816	47.743	0.0	0.000	0.0	2.3	0.0	0.000	0.000
S09	52.426	47.884	0.0	0.000	0.0	2.4	0.0	0.000	0.000
S12	53.005	51.000	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S13	60.320	57.888	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S14	63.764	60.765	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S15	63.673	62.880	0.0	0.000	0.0	0.1	1003.0	0.000	0.000
S16	60.289	59.421	0.0	0.000	0.0	0.1	0.0	0.000	0.000
S17	62.484	59.397	0.0	0.000	0.0	0.4	0.0	0.000	0.000
S18	63.063	60.509	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S19	63.216	61.532	0.0	0.000	0.0	0.3	164.8	0.000	0.000
S20	63.551	61.981	0.0	0.000	0.0	0.3	468.3	0.000	0.000
S21	63.551	63.318	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S22	69.342	69.086	0.0	0.000	0.0	0.2	274.0	0.000	0.000
S23	75.987	72.478	0.0	0.000	0.0	0.1	359.8	0.000	0.000
S24	70.714	69.778	0.0	0.000	0.0	0.2	1035.8	0.000	0.000
T2	48.219	46.748	0.0	0.000	0.0	0.2	906.7	0.000	0.000
U02	41.666	40.170	0.0	0.000	0.0	0.3	1122.2	0.000	0.000
V02	39.624	37.442	0.0	0.000	0.0	0.3	323.0	0.000	0.000
V04	39.624	37.561	0.0	0.000	0.0	0.3	127.5	0.000	0.000
W02	38.862	36.178	0.0	0.000	0.0	0.1	245.4	0.000	0.000
W03	39.441	37.057	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W04	39.167	38.100	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W05	39.624	38.360	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W06	39.472	38.577	0.0	0.000	0.0	0.0	0.0	0.000	0.000
W07	40.234	39.128	0.0	0.000	0.0	31.1	230.0	0.000	0.000

A %% indicates water lost from the system.

***** Link data *****

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	Upstream					Downstream				
						< Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)	< Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)
P01.1	Q01	52	457	0	0.627	59.741	0.124	0.045	0.628	483.9	51.816	0.106	0.045	0.762	483.9
P02.1	P01	19	406	0	0.000	59.741	0.259	0.046	0.526	486.3	59.741	0.151	0.046	1.046	486.2
P03.1	S20	84	457	0	0.880	70.104	0.073	0.032	1.861	311.5	62.789	0.073	0.032	1.860	311.5
P04.1	P02	16	356	0	0.000	59.741	0.326	0.048	0.506	488.8	59.741	0.259	0.048	0.641	488.7
P05.1	P04	17	305	0	0.000	59.741	0.493	0.054	0.704	491.3+	59.741	0.327	0.054	0.733	491.2+
P10.1	V04	59	305	0	0.154	38.710	0.306	0.151	2.351	1641.9x	37.338	0.274	0.151	2.363	1641.9
Q00.1	Q01	27	6096	0	791.873	54.864	0.624	0.475	0.113	3849.6	48.372	2.042	0.460	0.029	3849.6
Q01.1	S09	6	381	0	0.000	47.610	2.661	0.585	4.321	19873.9+	47.610	0.343	0.585	5.411	19873.9
Q01.2	S09	6	203	0	0.000	48.890	1.488	0.084	2.165	924.4+	48.890	0.183	0.084	2.731	924.4
Q01.3	S09	6	1219	0	0.000	49.500	0.900	2.171	2.350	5850.5	49.500	0.808	2.171	2.643	5850.6
Q01.4	S09	6	1219	0	0.000	50.719	0.061	0.000	0.000	0.0	50.719	0.061	0.000	0.000	0.0
Q02.1	Q01	6	1067	0	0.000	49.621	0.940	2.478	2.973	22313.6	49.621	0.887	2.478	3.121	22313.6
Q03.1	Q02	9	762	0	6.532	52.974	0.210	0.930	9.119	8208.8	49.987	0.613	0.930	6.373	8208.8
Q04.1	Q03	17	762	0	1.558	53.492	0.434	0.930	3.467	8208.8	53.188	0.434	0.930	3.467	8208.8
Q05.1	Q04	7	305	0	0.527	55.931	0.075	0.058	4.207	412.3	53.919	0.075	0.058	4.207	412.3
Q06.1	Q04	40	762	0	1.501	54.346	0.432	0.885	3.319	7796.5	53.675	0.432	0.885	3.319	7796.5
Q08.1	Q06	64	762	0	1.537	55.474	0.419	0.857	3.329	7541.5	54.346	0.442	0.856	3.131	7541.5
Q09.1	Q08	41	610	0	2.094	59.985	0.241	0.643	5.989	5736.4	55.626	0.274	0.643	5.802	5736.4
Q10.1	Q09	19	610	0	0.508	60.107	0.425	0.418	1.935	3649.8	59.985	0.423	0.418	1.932	3649.7
Q11.1	Q10	22	457	0	0.245	60.259	0.647	0.378	2.204	3311.6+	60.107	0.436	0.378	2.345	3311.6
Q12.1	Q08	42	457	0	0.299	56.053	0.296	0.220	1.959	1805.2	55.626	0.296	0.220	1.959	1805.2
Q13.1	Q12	23	457	0	0.470	56.632	0.226	0.219	2.696	1761.6	56.053	0.303	0.219	1.893	1761.6
Q14.1	Q02	29	1067	0	1.304	49.682	1.011	1.548	1.766	14104.7	49.621	0.978	1.548	1.803	14104.8
Q15.1	Q14	31	1067	0	8.260	52.304	0.330	1.548	6.594	14104.7	49.682	1.027	1.548	1.751	14104.7
Q16.1	Q15	14	610	0	2.491	54.346	0.264	0.928	7.645	8712.0	52.304	0.333	0.928	5.893	8711.9
Q17.1	Q16	99	610	0	1.938	63.368	0.305	0.928	6.364	8712.0	54.346	0.305	0.928	6.364	8712.0
Q18.1	Q17	60	1219	0	127.605	65.837	0.131	0.302	0.143	2982.0	64.922	0.131	0.302	0.143	2982.0
Q19.1	Q18	131	1829	0	266.321	71.933	0.191	0.303	0.189	2982.0	65.837	0.191	0.302	0.189	2982.0
Q20.1	Q19	112	3048	0	981.333	76.810	0.309	0.303	0.073	2982.0	71.933	0.309	0.303	0.073	2982.0
Q21.1	Q20	103	3048	0	625.909	78.638	0.311	0.303	0.073	2982.0	76.810	0.309	0.303	0.073	2982.0
Q22.1	Q21	42	457	0	0.515	80.040	0.259	0.303	3.161	2996.2	78.791	0.259	0.303	3.161	2996.0
Q23.1	Q22	17	381	0	0.156	80.162	0.246	0.110	1.424	1164.4	80.040	0.268	0.110	1.360	1164.4
Q24.1	Q27	127	533	0	0.916	69.159	0.268	0.443	3.948	3831.9	63.856	0.362	0.443	2.740	3832.0
Q25.1	Q24	14	457	0	0.193	69.251	0.568	0.358	2.094	3126.2+	69.190	0.408	0.358	2.313	3126.2
Q26.1	Q25	13	381	0	0.392	70.256	0.275	0.337	3.818	2945.4	69.647	0.275	0.337	3.818	2945.4
Q27.1	Q17	26	533	0	0.599	63.856	0.346	0.443	2.889	3832.0	63.398	0.346	0.443	2.888	3832.0
Q28.1	Q15	6	610	0	2.219	53.157	0.234	0.649	6.302	5392.9	52.487	0.234	0.649	6.301	5392.9
Q29.1	Q28	27	610	0	2.382	57.120	0.218	0.600	6.421	4993.6	53.431	0.218	0.600	6.421	4993.6
Q30.1	Q29	37	610	0	1.570	59.314	0.268	0.600	4.866	4993.6	57.120	0.268	0.600	4.866	4993.6
Q31.1	Q30	9	305	0	0.297	60.107	0.093	0.054	2.886	343.3	59.314	0.269	0.054	0.822	343.3
Q32.1	Q30	42	610	0	1.441	61.417	0.269	0.557	4.483	4650.4	59.314	0.269	0.556	4.490	4650.4
Q33.1	Q32	9	457	0	1.193	63.063	0.114	0.137	4.285	1263.6	61.631	0.114	0.137	4.285	1263.6
Q34.1	Q32	42	457	0	0.512	62.728	0.325	0.424	3.398	3386.7	61.478	0.325	0.424	3.397	3386.7
Q35.1	Q34	4	457	0	0.653	63.033	0.122	0.073	2.135	499.3	62.819	0.267	0.073	1.579	499.3
Q36.1	Q35	16	457	0	1.132	65.532	0.059	0.015	1.232	99.2	63.246	0.059	0.015	1.232	99.2

Q38.1	Q34	138	457	0	0.623	68.854	0.257	0.360	3.791	2887.5	62.789	0.299	0.360	3.626	2887.5
Q39.1	Q38	12	457	0	0.713	69.647	0.171	0.199	3.563	1573.9	68.946	0.179	0.199	3.548	1573.9
Q40.1	Q39	11	457	0	0.417	70.500	0.162	0.103	1.978	797.5	70.287	0.162	0.103	1.977	797.5
Q41.1	Q38	56	457	0	0.398	69.952	0.208	0.162	2.225	1313.6	68.946	0.208	0.162	2.224	1313.5
Q42.1	Q41	21	457	0	0.280	70.256	0.135	0.052	1.296	423.0	70.074	0.135	0.052	1.296	423.0
R01.1	Q00	106	6096	0	121.912	55.474	0.389	0.285	0.113	2525.6	54.864	0.624	0.285	0.068	2441.5
R02.1	R01	72	610	0	2.029	62.789	0.167	0.285	4.400	2532.2	55.565	0.298	0.285	2.015	2531.7
R03.1	R04	28	610	0	1.955	65.623	0.167	0.276	4.249	2441.5	62.972	0.167	0.276	4.248	2441.5

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	Invert Level (m AD)	Upstream			Total Flow (m3)	Downstream				
							Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)		Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)
R04.1	R02	4	610	0	0.997	62.880	0.227	0.276	2.796	2441.5	62.789	0.227	0.276	2.796	2441.5
R05.1	R02	13	305	0	0.148	63.734	0.077	0.018	1.206	90.8	62.789	0.168	0.018	0.470	90.7
R06.1	R05	29	457	0	0.515	64.618	0.046	0.000	0.000	0.0	63.734	0.077	0.000	0.006	0.0
R07.1	R03	81	457	0	0.392	70.409	0.133	0.064	1.629	540.8	65.623	0.168	0.064	1.179	540.8
R08.1	R07	135	457	0	0.286	74.676	0.124	0.040	1.097	335.7	70.409	0.133	0.040	1.017	335.7
R09.1	R08	123	457	0	0.180	76.200	0.097	0.014	0.544	107.4	74.676	0.124	0.014	0.380	107.4
R10.1	R03	43	610	0	1.105	66.934	0.181	0.191	2.641	1702.3	65.654	0.181	0.191	2.641	1702.3
R11.1	R12	165	610	0	1.038	74.066	0.145	0.109	2.037	970.5	69.738	0.140	0.109	2.157	970.6
R12.1	R10	90	610	0	1.115	69.708	0.170	0.164	2.466	1461.8	66.995	0.170	0.164	2.465	1461.7
R13.1	R11	25	457	0	1.235	78.638	0.089	0.075	3.326	664.2	74.280	0.089	0.075	3.326	664.2
S03.1	S01	10	1219	0	9.493	46.208	0.510	3.226	6.976	30618.3	45.690	0.510	3.226	6.976	30618.3
S04.1	S03	6	457	0	1.546	48.128	0.056	0.016	1.354	86.9	46.604	0.116	0.016	1.354	86.9
S05.1	S03	21	1219	0	3.766	46.391	0.871	3.222	3.610	30531.8	46.208	0.871	3.222	3.610	30531.6
S06.1	S05	24	381	0	0.540	48.524	0.082	0.043	2.421	266.2	46.391	0.903	0.043	0.357	266.2x
S07.1	S05	26	1219	0	5.051	46.787	0.782	3.207	4.052	30265.6	46.391	0.906	3.207	3.447	30265.7
S08.1	S07	12	1219	0	5.463	47.000	0.726	2.839	3.953	26648.6	46.787	0.812	2.839	3.490	26648.7
S09.1	S08	9	1219	0	4.068	47.092	0.771	2.839	3.646	26648.8	47.000	0.771	2.839	3.646	26648.6
S12.1	S07	17	533	0	2.164	50.841	0.157	0.369	6.716	3617.2	46.787	0.813	0.369	1.577	3617.2x
S13.1	S12	105	533	0	1.128	57.668	0.219	0.369	4.274	3617.2	51.054	0.219	0.369	4.274	3617.2
S14.1	S17	44	533	0	0.834	60.625	0.140	0.106	2.272	1003.0	59.101	0.297	0.106	0.848	1003.0
S15.1	S14	21	381	0	0.540	62.758	0.121	0.106	3.425	1003.0	60.930	0.121	0.106	3.425	1003.0
S16.1	S13	10	457	0	1.120	59.375	0.046	0.000	0.000	0.0	57.912	0.046	0.000	0.000	0.0
S17.1	S13	60	533	0	0.669	59.101	0.291	0.370	2.961	3617.2	57.760	0.291	0.369	2.959	3617.2
S18.1	S17	28	457	0	0.603	60.289	0.219	0.264	3.395	2614.2	59.131	0.267	0.264	2.927	2614.2
S19.1	S18	31	457	0	0.520	61.295	0.235	0.264	3.111	2614.2	60.350	0.235	0.264	3.111	2614.2
S20.1	S19	17	457	0	0.442	61.722	0.254	0.250	2.674	2449.4	61.356	0.254	0.250	2.674	2449.4
S21.1	S20	19	457	0	0.380	63.094	0.224	0.174	2.172	1669.6	62.789	0.224	0.174	2.170	1669.6
S22.1	S21	244	457	0	0.459	68.885	0.200	0.175	2.525	1669.6	63.094	0.225	0.174	2.168	1669.6
S23.1	S24	170	381	0	0.235	72.360	0.118	0.045	1.476	359.8	69.555	0.222	0.044	0.643	359.8
S24.1	S22	34	381	0	0.256	69.555	0.218	0.154	2.291	1395.7	68.885	0.218	0.154	2.291	1395.7
T2.1	T1	183	610	0	1.076	46.604	0.144	0.110	2.097	906.7	41.453	0.144	0.110	2.096	906.7
U02.1	U01	10	457	0	0.166	39.898	0.270	0.131	1.292	1122.2	39.868	0.252	0.131	1.407	1122.2
V02.1	V01	47	457	0	0.283	37.155	0.283	0.195	1.851	2092.5	36.728	0.283	0.195	1.845	2092.5
V04.1	V02	14	457	0	0.309	37.308	0.252	0.162	1.760	1769.5	37.155	0.287	0.162	1.563	1769.5
W02.1	W01	9	457	0	0.239	36.058	0.120	0.034	0.998	475.4	35.997	0.120	0.034	0.998	475.4
W03.1	W02	16	305	0	0.224	37.003	0.055	0.011	1.228	230.0	36.210	0.055	0.011	1.228	230.0
W04.1	W03	40	152	0	0.037	38.039	0.061	0.011	1.612	230.0	37.003	0.061	0.011	1.627	230.0
W05.1	W04	25	152	0	0.023	38.283	0.077	0.011	1.178	230.0	38.039	0.077	0.011	1.178	230.0
W06.1	W05	22	152	0	0.026	38.557	0.020	0.000	0.000	0.0	38.283	0.077	0.000	0.004	0.0
W07.1	W05	16	102	0	0.009	38.710	0.407	0.011	1.212	230.0+	38.283	0.091	0.011	1.421	230.0

+ after total flow indicates a conduit surcharged by flow and depth at that end.

x after total flow indicates a conduit surcharged by depth only at that end.

NOTE :

- (i) Maximum elevations, depths, volumes, velocities and discharges are selected from the values at each time increment and will be in general more extreme than the maximum values in the time varying results.

- (ii) Maximum elevations, velocities and discharges are not necessarily calculated at the same time.
- (iii) Maximum velocity is not calculated for a conduit unless the depth exceeds the base flow depth
(by default, this is 5% of height for slopes ≤ 0.01 , 10% otherwise, subject to a minimum of 0.02 m).

End of run

0 mins (elapsed)

Produced on 12/06/2009 Last page

Start of run

configured for MS Windows

Produced on 12/06/2009 at 21:43

HydroWorks(tm) SIM

Summary results from Simulation

Version 9.0.1123 dated May 2008

Licence Number - WS00740269PM

Message 253: Run finished for event 1.

Summary results for event 1 - 25-year OC Event
Started at 000000000000000. Run for 2880.00 min. (Requested simulation time 2880.00 min)

Files used:

Network: ... \NET11#38.spb Proposed_2009-06-12 (Revision 38)
State:
Runoff: ... \NET11#38.rpf Proposed_2009-06-12 (Revision 38) (InfoWorks 9.0.2.16013)
Rainfall: ... \SIM50event.red 1
DWF:
Inflows:
Levels:
RTC:
Results: ... \SIM50.iwr

Total rainfall = 48440.4 m3
Total runoff = 44893.4 m3
Total inflow = 44893.4 m3
Total outflow = 44773.3 m3
Total lost = 0.0 m3

***** Node data *****

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
P01	62.179	59.875	0.0	0.000	0.0	12.4	0.0	0.000	0.000
P02	62.179	60.023	0.0	0.000	0.0	26.2	0.0	0.000	0.000
P03	72.238	70.183	0.0	0.000	0.0	0.1	399.3	0.000	0.000
P04	62.179	60.113	0.0	0.000	0.0	34.5	0.0	0.000	0.000
P05	62.179	60.349	0.0	0.000	0.0	56.5	625.9	0.000	0.000
P10	41.148	39.258	0.0	0.000	0.0	102.0	2086.4	0.000	0.000
Q00	60.350	55.491	0.0	0.000	0.0	23.2	1837.0	0.000	0.000
Q01	47.610	50.554	1738.6	2.944	1162.4	1744.6	0.0	-1.563	0.005
Q02	51.206	50.714	0.0	0.000	0.0	2.9	0.0	0.000	0.000
Q03	58.156	53.205	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q04	58.217	54.006	0.0	0.000	0.0	0.9	0.0	0.000	0.000
Q05	57.455	56.013	0.0	0.000	0.0	0.1	519.1	0.000	0.000
Q06	56.662	54.855	0.0	0.000	0.0	0.9	324.0	0.000	0.000
Q08	56.998	55.965	0.0	0.000	0.0	0.9	0.0	0.000	0.000
Q09	61.204	60.251	0.0	0.000	0.0	0.4	2651.5	0.000	0.000
Q10	61.478	60.600	0.0	0.000	0.0	0.7	429.7	0.000	0.000
Q11	61.478	61.206	0.0	0.000	0.0	1.1	4208.1	0.000	0.000
Q12	58.003	56.409	0.0	0.000	0.0	0.4	54.9	0.000	0.000
Q13	58.003	56.893	0.0	0.000	0.0	0.3	2238.5	0.000	0.000
Q14	58.674	50.875	0.0	0.000	0.0	3.1	0.0	0.000	0.000
Q15	59.284	52.669	0.0	0.000	0.0	1.0	0.0	0.000	0.000
Q16	55.931	54.645	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q17	71.018	63.814	0.0	0.000	0.0	89.8	2456.1	0.000	0.000
Q18	71.933	65.970	0.0	0.000	0.0	26.8	0.0	0.000	0.000
Q19	78.029	72.126	0.0	0.000	0.0	25.4	0.0	0.000	0.000
Q20	82.906	77.119	0.0	0.000	0.0	40.8	0.0	0.000	0.000
Q21	84.734	78.951	0.0	0.000	0.0	41.1	0.0	0.000	0.000
Q22	81.199	80.354	0.0	0.000	0.0	0.4	2327.7	0.000	0.000
Q23	81.199	80.459	0.0	0.000	0.0	0.3	1465.5	0.000	0.000
Q24	70.988	69.478	0.0	0.000	0.0	0.4	896.9	0.000	0.000
Q25	70.988	69.997	0.0	0.000	0.0	0.9	229.8	0.000	0.000
Q26	71.628	70.845	0.0	0.000	0.0	0.6	3742.7	0.000	0.000
Q27	67.056	64.288	0.0	0.000	0.0	0.6	0.0	0.000	0.000
Q28	59.284	53.418	0.0	0.000	0.0	0.4	502.7	0.000	0.000
Q29	60.046	57.362	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q30	62.179	59.616	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q31	63.703	60.210	0.0	0.000	0.0	0.1	440.1	0.000	0.000
Q32	64.313	61.720	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q33	64.892	63.189	0.0	0.000	0.0	0.1	1590.5	0.000	0.000
Q34	65.532	63.294	0.0	0.000	0.0	0.7	0.0	0.000	0.000
Q35	65.593	63.300	0.0	0.000	0.0	0.3	508.5	0.000	0.000
Q36	67.056	65.593	0.0	0.000	0.0	0.1	126.0	0.000	0.000
Q38	71.537	69.177	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q39	71.598	69.838	0.0	0.000	0.0	0.2	986.6	0.000	0.000
Q40	72.024	70.678	0.0	0.000	0.0	0.2	1013.4	0.000	0.000
Q41	72.512	70.183	0.0	0.000	0.0	0.3	1131.6	0.000	0.000
Q42	72.360	70.407	0.0	0.000	0.0	0.2	537.5	0.000	0.000

R01	64.008	55.876	0.0	0.000	0.0	14.9	0.0	0.000	0.000
R02	67.056	62.969	0.0	0.000	0.0	0.3	0.0	0.000	0.000
R03	67.452	65.804	0.0	0.000	0.0	0.3	249.9	0.000	0.000
R04	66.812	63.134	0.0	0.000	0.0	0.4	0.0	0.000	0.000
R05	67.056	63.818	0.0	0.000	0.0	0.1	117.5	0.000	0.000
R06	65.684	64.663	0.0	0.000	0.0	0.1	0.0	0.000	0.000

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
R07	71.933	70.555	0.0	0.000	0.0	0.2	258.1	0.000	0.000
R08	76.200	74.810	0.0	0.000	0.0	0.2	287.4	0.000	0.000
R09	77.419	76.303	0.0	0.000	0.0	0.1	135.2	0.000	0.000
R10	68.824	67.134	0.0	0.000	0.0	0.3	305.6	0.000	0.000
R11	75.499	74.226	0.0	0.000	0.0	0.2	385.5	0.000	0.000
R12	72.146	69.891	0.0	0.000	0.0	0.3	618.3	0.000	0.000
R13	79.858	78.734	0.0	0.000	0.0	0.1	836.1	0.000	0.000
S03	49.682	46.768	0.0	0.000	0.0	1.7	0.0	0.000	0.000
S04	49.500	48.185	0.0	0.000	0.0	0.1	109.4	0.000	0.000
S05	50.597	47.531	0.0	0.000	0.0	3.5	0.0	0.000	0.000
S06	50.719	48.612	0.0	0.000	0.0	0.1	335.2	0.000	0.000
S07	51.816	47.845	0.0	0.000	0.0	3.3	0.0	0.000	0.000
S08	51.816	47.984	0.0	0.000	0.0	3.0	0.0	0.000	0.000
S09	52.426	48.100	0.0	0.000	0.0	3.1	0.0	0.000	0.000
S12	53.005	51.017	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S13	60.320	57.909	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S14	63.764	60.776	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S15	63.673	62.892	0.0	0.000	0.0	0.1	1262.5	0.000	0.000
S16	60.289	59.421	0.0	0.000	0.0	0.1	0.0	0.000	0.000
S17	62.484	59.444	0.0	0.000	0.0	0.5	0.0	0.000	0.000
S18	63.063	60.540	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S19	63.216	61.571	0.0	0.000	0.0	0.3	207.5	0.000	0.000
S20	63.551	62.022	0.0	0.000	0.0	0.4	611.2	0.000	0.000
S21	63.551	63.351	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S22	69.342	69.112	0.0	0.000	0.0	0.3	357.7	0.000	0.000
S23	75.987	72.491	0.0	0.000	0.0	0.1	457.3	0.000	0.000
S24	70.714	69.811	0.0	0.000	0.0	0.3	1303.7	0.000	0.000
T2	48.219	46.762	0.0	0.000	0.0	0.2	1141.3	0.000	0.000
U02	41.666	40.202	0.0	0.000	0.0	0.4	1423.2	0.000	0.000
V02	39.624	37.458	0.0	0.000	0.0	0.4	406.6	0.000	0.000
V04	39.624	37.573	0.0	0.000	0.0	0.3	162.1	0.000	0.000
W02	38.862	36.187	0.0	0.000	0.0	0.2	308.9	0.000	0.000
W03	39.441	37.060	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W04	39.167	38.103	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W05	39.624	38.366	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W06	39.472	38.577	0.0	0.000	0.0	0.0	0.0	0.000	0.000
W07	40.234	39.282	0.0	0.000	0.0	42.6	289.5	0.000	0.000

A %% indicates water lost from the system.

***** Link data *****

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	Upstream					Downstream				
						< Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)	< Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)
P01.1	Q01	52	457	0	0.627	59.741	0.134	0.054	0.685	616.1	51.816	0.116	0.054	0.817	616.1
P02.1	P01	19	406	0	0.000	59.741	0.282	0.055	0.569	618.6	59.741	0.165	0.055	1.102	618.5
P03.1	S20	84	457	0	0.880	70.104	0.079	0.039	2.049	399.3	62.789	0.079	0.039	2.048	399.3
P04.1	P02	16	356	0	0.000	59.741	0.370	0.056	0.554	621.0+	59.741	0.282	0.056	0.681	621.0
P05.1	P04	17	305	0	0.000	59.741	0.602	0.063	0.820	623.5+	59.741	0.372	0.063	0.836	623.4+
P10.1	V04	59	305	0	0.154	38.710	0.498	0.162	2.343	2086.4+	37.338	0.275	0.162	2.348	2086.4
Q00.1	Q01	27	6096	0	791.873	54.864	0.627	0.579	0.137	4928.4	48.372	2.182	0.561	0.033	4928.3
Q01.1	S09	6	381	0	0.000	47.610	2.809	0.592	4.359	23592.3+	47.610	0.515	0.592	5.475	23592.3+
Q01.2	S09	6	203	0	0.000	48.890	1.626	0.088	2.241	1255.8+	48.890	0.183	0.088	2.867	1255.8
Q01.3	S09	6	1219	0	0.000	49.500	1.029	2.753	2.619	9064.6	49.500	0.911	2.753	2.942	9064.6
Q01.4	S09	6	1219	0	0.000	50.719	0.061	0.000	0.000	0.0	50.719	0.061	0.000	0.000	0.0
Q02.1	Q01	6	1067	0	0.000	49.621	1.029	2.975	3.362	28366.8	49.621	0.952	2.975	3.533	28366.8
Q03.1	Q02	9	762	0	6.532	52.974	0.226	1.129	9.980	10425.8	49.987	0.729	1.129	6.548	10425.8
Q04.1	Q03	17	762	0	1.558	53.492	0.490	1.129	3.643	10425.8	53.188	0.490	1.129	3.642	10425.8
Q05.1	Q04	7	305	0	0.527	55.931	0.082	0.070	4.468	519.1	53.919	0.087	0.070	4.694	519.1
Q06.1	Q04	40	762	0	1.501	54.346	0.488	1.074	3.484	9906.7	53.675	0.488	1.074	3.485	9906.7
Q08.1	Q06	64	762	0	1.537	55.474	0.473	1.039	3.510	9582.6	54.346	0.511	1.039	3.227	9582.6
Q09.1	Q08	41	610	0	2.094	59.985	0.264	0.779	6.422	7289.3	55.626	0.341	0.779	5.899	7289.3
Q10.1	Q09	19	610	0	0.508	60.107	0.480	0.506	2.053	4637.9	59.985	0.465	0.506	2.118	4637.8
Q11.1	Q10	22	457	0	0.245	60.259	0.881	0.459	2.640	4208.1+	60.107	0.499	0.459	2.702	4208.1+
Q12.1	Q08	42	457	0	0.299	56.053	0.344	0.267	2.037	2293.3	55.626	0.342	0.267	2.033	2293.3
Q13.1	Q12	23	457	0	0.470	56.632	0.255	0.265	2.815	2238.5	56.053	0.357	0.265	1.949	2238.5
Q14.1	Q02	29	1067	0	1.304	49.682	1.163	1.847	1.999	17941.0+	49.621	1.095	1.847	2.031	17941.0+
Q15.1	Q14	31	1067	0	8.260	52.304	0.363	1.847	6.891	17941.1	49.682	1.196	1.847	1.992	17941.0x
Q16.1	Q15	14	610	0	2.491	54.346	0.296	1.118	7.947	11104.3	52.304	0.369	1.118	6.396	11104.3
Q17.1	Q16	99	610	0	1.938	63.368	0.342	1.118	6.631	11104.3	54.346	0.342	1.118	6.631	11104.3
Q18.1	Q17	60	1219	0	127.605	65.837	0.133	0.367	0.171	3778.9	64.922	0.133	0.367	0.171	3778.8
Q19.1	Q18	131	1829	0	266.321	71.933	0.193	0.367	0.227	3778.9	65.837	0.193	0.367	0.226	3778.9
Q20.1	Q19	112	3048	0	981.333	76.810	0.309	0.367	0.088	3778.9	71.933	0.309	0.367	0.088	3778.9
Q21.1	Q20	103	3048	0	625.909	78.638	0.312	0.367	0.088	3778.9	76.810	0.309	0.367	0.088	3778.9
Q22.1	Q21	42	457	0	0.515	80.040	0.292	0.368	3.318	3793.1	78.791	0.292	0.368	3.317	3793.0
Q23.1	Q22	17	381	0	0.156	80.162	0.291	0.134	1.464	1465.5	80.040	0.314	0.134	1.412	1465.5
Q24.1	Q27	127	533	0	0.916	69.159	0.301	0.537	4.121	4869.4	63.856	0.435	0.536	2.794	4869.4
Q25.1	Q24	14	457	0	0.193	69.251	0.667	0.434	2.524	3972.5+	69.190	0.411	0.434	2.786	3972.5
Q26.1	Q25	13	381	0	0.392	70.256	0.435	0.408	4.107	3742.7+	69.647	0.356	0.408	4.084	3742.7
Q27.1	Q17	26	533	0	0.599	63.856	0.405	0.536	2.994	4869.4	63.398	0.418	0.536	2.994	4869.3
Q28.1	Q15	6	610	0	2.219	53.157	0.259	0.783	6.631	6836.9	52.487	0.259	0.783	6.631	6836.9
Q29.1	Q28	27	610	0	2.382	57.120	0.240	0.725	6.804	6334.2	53.431	0.240	0.725	6.804	6334.2
Q30.1	Q29	37	610	0	1.570	59.314	0.300	0.725	5.066	6334.2	57.120	0.300	0.725	5.066	6334.2
Q31.1	Q30	9	305	0	0.297	60.107	0.103	0.066	3.028	440.1	59.314	0.302	0.066	0.926	440.1
Q32.1	Q30	42	610	0	1.441	61.417	0.302	0.673	4.673	5894.3	59.314	0.302	0.673	4.682	5894.2
Q33.1	Q32	9	457	0	1.193	63.063	0.125	0.166	4.579	1590.5	61.631	0.125	0.166	4.579	1590.5
Q34.1	Q32	42	457	0	0.512	62.728	0.473	0.512	3.607	4303.7+	61.478	0.412	0.512	3.568	4303.8
Q35.1	Q34	4	457	0	0.653	63.033	0.267	0.088	2.134	634.5	62.819	0.475	0.088	1.574	634.6x
Q36.1	Q35	16	457	0	1.132	65.532	0.061	0.018	1.413	126.0	63.246	0.061	0.018	1.694	126.0

Q38.1	Q34	138	457	0	0.623	68.854	0.290	0.436	3.974	3669.2	62.789	0.510	0.436	3.679	3669.1x
Q39.1	Q38	12	457	0	0.713	69.647	0.191	0.241	3.717	2000.0	68.946	0.232	0.241	3.471	2000.0
Q40.1	Q39	11	457	0	0.417	70.500	0.177	0.124	2.113	1013.4	70.287	0.177	0.124	2.112	1013.4
Q41.1	Q38	56	457	0	0.398	69.952	0.231	0.196	2.356	1669.1	68.946	0.232	0.196	2.377	1669.2
Q42.1	Q41	21	457	0	0.280	70.256	0.150	0.063	1.349	537.5	70.074	0.150	0.063	1.349	537.5
R01.1	Q00	106	6096	0	121.912	55.474	0.403	0.345	0.132	3186.9	54.864	0.627	0.345	0.082	3102.6
R02.1	R01	72	610	0	2.029	62.789	0.179	0.345	4.814	3193.5	55.565	0.311	0.345	2.302	3193.0
R03.1	R04	28	610	0	1.955	65.623	0.180	0.334	4.645	3076.1	62.972	0.180	0.334	4.645	3076.1

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	Invert Level (m AD)	Upstream			Total Flow (m3)	Downstream				
							Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)		Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)
R04.1	R02	4	610	0	0.997	62.880	0.253	0.334	2.914	3076.1	62.789	0.253	0.334	2.914	3076.1
R05.1	R02	13	305	0	0.148	63.734	0.084	0.021	1.298	117.5	62.789	0.181	0.021	0.509	117.5
R06.1	R05	29	457	0	0.515	64.618	0.046	0.000	0.000	0.0	63.734	0.084	0.000	0.006	0.0
R07.1	R03	81	457	0	0.392	70.409	0.146	0.078	1.730	680.7	65.623	0.181	0.078	1.296	680.7
R08.1	R07	135	457	0	0.286	74.676	0.134	0.048	1.199	422.6	70.409	0.146	0.048	1.097	422.6
R09.1	R08	123	457	0	0.180	76.200	0.103	0.017	0.598	135.2	74.676	0.134	0.016	0.414	135.2
R10.1	R03	43	610	0	1.105	66.934	0.200	0.231	2.775	2145.5	65.654	0.200	0.231	2.775	2145.5
R11.1	R12	165	610	0	1.038	74.066	0.159	0.131	2.160	1221.5	69.738	0.153	0.131	2.296	1221.6
R12.1	R10	90	610	0	1.115	69.708	0.183	0.198	2.687	1839.9	66.995	0.183	0.197	2.686	1839.8
R13.1	R11	25	457	0	1.235	78.638	0.095	0.091	3.657	836.1	74.280	0.095	0.091	3.656	836.1
S03.1	S01	10	1219	0	9.493	46.208	0.558	3.882	7.460	38955.5	45.690	0.558	3.882	7.460	38955.5
S04.1	S03	6	457	0	1.546	48.128	0.057	0.019	1.550	109.4	46.604	0.164	0.018	1.850	109.4
S05.1	S03	21	1219	0	3.766	46.391	1.085	3.878	3.676	38846.6	46.208	1.063	3.878	3.669	38846.3
S06.1	S05	24	381	0	0.540	48.524	0.087	0.052	2.633	335.2	46.391	1.140	0.051	0.422	335.2x
S07.1	S05	26	1219	0	5.051	46.787	1.005	3.861	4.076	38511.5	46.391	1.145	3.861	3.478	38511.4
S08.1	S07	12	1219	0	5.463	47.000	0.945	3.416	3.952	33912.7	46.787	1.062	3.416	3.493	33912.7
S09.1	S08	9	1219	0	4.068	47.092	0.969	3.416	3.743	33912.7	47.000	0.988	3.416	3.750	33912.7
S12.1	S07	17	533	0	2.164	50.841	0.174	0.449	7.083	4599.1	46.787	1.062	0.449	1.896	4599.0x
S13.1	S12	105	533	0	1.128	57.668	0.240	0.449	4.615	4599.1	51.054	0.240	0.449	4.615	4599.1
S14.1	S17	44	533	0	0.834	60.625	0.151	0.128	2.463	1262.5	59.101	0.343	0.128	0.861	1262.5
S15.1	S14	21	381	0	0.540	62.758	0.133	0.128	3.625	1262.5	60.930	0.133	0.128	3.625	1262.5
S16.1	S13	10	457	0	1.120	59.375	0.046	0.000	0.000	0.0	57.912	0.046	0.000	0.000	0.0
S17.1	S13	60	533	0	0.669	59.101	0.329	0.449	3.129	4599.1	57.760	0.328	0.449	3.127	4599.1
S18.1	S17	28	457	0	0.603	60.289	0.243	0.322	3.627	3336.6	59.131	0.314	0.322	2.934	3336.6
S19.1	S18	31	457	0	0.520	61.295	0.264	0.322	3.272	3336.6	60.350	0.264	0.322	3.272	3336.6
S20.1	S19	17	457	0	0.442	61.722	0.288	0.306	2.814	3129.2	61.356	0.288	0.306	2.814	3129.2
S21.1	S20	19	457	0	0.380	63.094	0.253	0.214	2.294	2118.7	62.789	0.253	0.214	2.294	2118.7
S22.1	S21	244	457	0	0.459	68.885	0.226	0.215	2.646	2118.6	63.094	0.257	0.214	2.272	2118.7
S23.1	S24	170	381	0	0.235	72.360	0.131	0.054	1.553	457.3	69.555	0.256	0.054	0.663	457.2
S24.1	S22	34	381	0	0.256	69.555	0.245	0.186	2.401	1761.0	68.885	0.245	0.186	2.401	1761.0
T2.1	T1	183	610	0	1.076	46.604	0.158	0.133	2.222	1141.3	41.453	0.158	0.133	2.221	1141.3
U02.1	U01	10	457	0	0.166	39.898	0.301	0.158	1.380	1423.2	39.868	0.278	0.158	1.510	1423.2
V02.1	V01	47	457	0	0.283	37.155	0.296	0.214	1.898	2655.0	36.728	0.296	0.214	1.898	2655.0
V04.1	V02	14	457	0	0.309	37.308	0.263	0.173	1.782	2248.4	37.155	0.303	0.173	1.619	2248.4
W02.1	W01	9	457	0	0.239	36.058	0.129	0.040	1.056	598.4	35.997	0.129	0.040	1.056	598.4
W03.1	W02	16	305	0	0.224	37.003	0.057	0.012	1.284	289.5	36.210	0.057	0.012	1.284	289.5
W04.1	W03	40	152	0	0.037	38.039	0.064	0.012	1.665	289.5	37.003	0.064	0.012	1.665	289.5
W05.1	W04	25	152	0	0.023	38.283	0.082	0.012	1.198	289.5	38.039	0.082	0.012	1.198	289.5
W06.1	W05	22	152	0	0.026	38.557	0.020	0.000	0.000	0.0	38.283	0.083	0.000	0.004	0.0
W07.1	W05	16	102	0	0.009	38.710	0.560	0.012	1.294	289.5+	38.283	0.091	0.012	1.570	289.5

+ after total flow indicates a conduit surcharged by flow and depth at that end.

x after total flow indicates a conduit surcharged by depth only at that end.

NOTE :

- (i) Maximum elevations, depths, volumes, velocities and discharges are selected from the values at each time increment and will be in general more extreme than the maximum values in the time varying results.

- (ii) Maximum elevations, velocities and discharges are not necessarily calculated at the same time.
- (iii) Maximum velocity is not calculated for a conduit unless the depth exceeds the base flow depth
(by default, this is 5% of height for slopes ≤ 0.01 , 10% otherwise, subject to a minimum of 0.02 m).

End of run

0 mins (elapsed)

Produced on 12/06/2009 Last page

Start of run

configured for MS Windows

Produced on 12/06/2009 at 21:43

HydroWorks(tm) SIM

Summary results from Simulation

Version 9.0.1123 dated May 2008

Licence Number - WS00740269PM

Message 253: Run finished for event 1.

Summary results for event 1 - 50-year OC Event
Started at 00000000000000. Run for 2880.00 min. (Requested simulation time 2880.00 min)

Files used:

Network: ... \NET11#38.spb Proposed_2009-06-12 (Revision 38)
State:
Runoff: ... \NET11#38.rpf Proposed_2009-06-12 (Revision 38) (InfoWorks 9.0.2.16013)
Rainfall: ... \SIM51event.red 1
DWF:
Inflows:
Levels:
RTC:
Results: ... \SIM51.iwr

Total rainfall = 53653.4 m3
Total runoff = 50075.1 m3
Total inflow = 50075.1 m3
Total outflow = 49979.1 m3
Total lost = 0.0 m3

***** Node data *****

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
P01	62.179	59.882	0.0	0.000	0.0	13.1	0.0	0.000	0.000
P02	62.179	60.040	0.0	0.000	0.0	27.8	0.0	0.000	0.000
P03	72.238	70.187	0.0	0.000	0.0	0.1	446.9	0.000	0.000
P04	62.179	60.148	0.0	0.000	0.0	37.8	0.0	0.000	0.000
P05	62.179	60.435	0.0	0.000	0.0	64.4	698.5	0.000	0.000
P10	41.148	40.751	0.0	0.000	0.0	114.7	2327.6	0.056	0.002
Q00	60.350	55.494	0.0	0.000	0.0	23.3	2066.8	0.000	0.000
Q01	47.610	50.665	1870.1	3.055	1209.9	1876.2	0.0	-1.628	0.004
Q02	51.206	50.881	0.0	0.000	0.0	3.3	0.0	0.000	0.000
Q03	58.156	53.220	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q04	58.217	54.066	0.0	0.000	0.0	1.0	0.0	0.000	0.000
Q05	57.455	56.017	0.0	0.000	0.0	0.1	577.6	0.000	0.000
Q06	56.662	54.912	0.0	0.000	0.0	1.0	362.0	0.000	0.000
Q08	56.998	56.009	0.0	0.000	0.0	1.0	0.0	0.000	0.000
Q09	61.204	60.271	0.0	0.000	0.0	0.4	2958.3	0.000	0.000
Q10	61.478	60.660	0.0	0.000	0.0	0.8	480.0	0.000	0.000
Q11	61.478	61.415	0.0	0.000	0.0	1.3	4695.8	0.000	0.000
Q12	58.003	56.494	0.0	0.000	0.0	0.5	61.0	0.000	0.000
Q13	58.003	56.921	0.0	0.000	0.0	0.3	2498.9	0.000	0.000
Q14	58.674	51.090	0.0	0.000	0.0	3.7	0.0	0.000	0.000
Q15	59.284	52.688	0.0	0.000	0.0	1.0	0.0	0.000	0.000
Q16	55.931	54.659	0.0	0.000	0.0	0.5	0.0	0.000	0.000
Q17	71.018	63.962	0.0	0.000	0.0	119.6	2760.5	0.000	0.000
Q18	71.933	65.972	0.0	0.000	0.0	27.1	0.0	0.000	0.000
Q19	78.029	72.127	0.0	0.000	0.0	25.6	0.0	0.000	0.000
Q20	82.906	77.120	0.0	0.000	0.0	40.9	0.0	0.000	0.000
Q21	84.734	78.951	0.0	0.000	0.0	41.3	0.0	0.000	0.000
Q22	81.199	80.392	0.0	0.000	0.0	0.4	2596.9	0.000	0.000
Q23	81.199	80.517	0.0	0.000	0.0	0.4	1628.4	0.000	0.000
Q24	70.988	69.514	0.0	0.000	0.0	0.5	1001.7	0.000	0.000
Q25	70.988	70.092	0.0	0.000	0.0	1.0	256.6	0.000	0.000
Q26	71.628	71.096	0.0	0.000	0.0	0.9	4176.5	0.000	0.000
Q27	67.056	64.459	0.0	0.000	0.0	0.8	0.0	0.000	0.000
Q28	59.284	53.433	0.0	0.000	0.0	0.4	559.5	0.000	0.000
Q29	60.046	57.378	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q30	62.179	59.645	0.0	0.000	0.0	0.5	0.0	0.000	0.000
Q31	63.703	60.216	0.0	0.000	0.0	0.1	493.4	0.000	0.000
Q32	64.313	61.750	0.0	0.000	0.0	0.5	0.0	0.000	0.000
Q33	64.892	63.195	0.0	0.000	0.0	0.2	1768.0	0.000	0.000
Q34	65.532	63.643	0.0	0.000	0.0	1.1	0.0	0.000	0.000
Q35	65.593	63.651	0.0	0.000	0.0	0.7	568.0	0.000	0.000
Q36	67.056	65.594	0.0	0.000	0.0	0.1	140.8	0.000	0.000
Q38	71.537	69.220	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q39	71.598	69.848	0.0	0.000	0.0	0.2	1101.4	0.000	0.000
Q40	72.024	70.691	0.0	0.000	0.0	0.2	1131.5	0.000	0.000
Q41	72.512	70.206	0.0	0.000	0.0	0.3	1263.3	0.000	0.000
Q42	72.360	70.416	0.0	0.000	0.0	0.2	600.0	0.000	0.000

R01	64.008	55.886	0.0	0.000	0.0	15.2	0.0	0.000	0.000
R02	67.056	62.980	0.0	0.000	0.0	0.3	0.0	0.000	0.000
R03	67.452	65.815	0.0	0.000	0.0	0.3	278.1	0.000	0.000
R04	66.812	63.146	0.0	0.000	0.0	0.4	0.0	0.000	0.000
R05	67.056	63.822	0.0	0.000	0.0	0.1	132.2	0.000	0.000
R06	65.684	64.663	0.0	0.000	0.0	0.1	0.0	0.000	0.000

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
R07	71.933	70.564	0.0	0.000	0.0	0.2	287.2	0.000	0.000
R08	76.200	74.817	0.0	0.000	0.0	0.2	319.6	0.000	0.000
R09	77.419	76.309	0.0	0.000	0.0	0.1	150.3	0.000	0.000
R10	68.824	67.147	0.0	0.000	0.0	0.3	341.4	0.000	0.000
R11	75.499	74.234	0.0	0.000	0.0	0.2	428.5	0.000	0.000
R12	72.146	69.903	0.0	0.000	0.0	0.3	687.4	0.000	0.000
R13	79.858	78.738	0.0	0.000	0.0	0.1	929.5	0.000	0.000
S03	49.682	46.809	0.0	0.000	0.0	1.9	0.0	0.000	0.000
S04	49.500	48.187	0.0	0.000	0.0	0.1	121.7	0.000	0.000
S05	50.597	47.635	0.0	0.000	0.0	3.8	0.0	0.000	0.000
S06	50.719	48.617	0.0	0.000	0.0	0.1	373.0	0.000	0.000
S07	51.816	48.026	0.0	0.000	0.0	3.8	0.0	0.000	0.000
S08	51.816	48.200	0.0	0.000	0.0	3.7	0.0	0.000	0.000
S09	52.426	48.352	0.0	0.000	0.0	3.9	0.0	0.000	0.000
S12	53.005	51.028	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S13	60.320	57.929	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S14	63.764	60.783	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S15	63.673	62.898	0.0	0.000	0.0	0.1	1403.2	0.000	0.000
S16	60.289	59.421	0.0	0.000	0.0	0.1	0.0	0.000	0.000
S17	62.484	59.473	0.0	0.000	0.0	0.5	0.0	0.000	0.000
S18	63.063	60.567	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S19	63.216	61.605	0.0	0.000	0.0	0.4	230.9	0.000	0.000
S20	63.551	62.052	0.0	0.000	0.0	0.4	689.5	0.000	0.000
S21	63.551	63.367	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S22	69.342	69.129	0.0	0.000	0.0	0.3	403.7	0.000	0.000
S23	75.987	72.497	0.0	0.000	0.0	0.1	510.4	0.000	0.000
S24	70.714	69.840	0.0	0.000	0.0	0.3	1449.3	0.000	0.000
T2	48.219	46.770	0.0	0.000	0.0	0.2	1269.3	0.000	0.000
U02	41.666	40.225	0.0	0.000	0.0	0.4	1587.3	0.000	0.000
V02	39.624	37.556	0.0	0.000	0.0	0.5	451.9	0.000	0.000
V04	39.624	37.670	0.0	0.000	0.0	0.4	181.0	0.000	0.000
W02	38.862	36.192	0.0	0.000	0.0	0.2	343.3	0.000	0.000
W03	39.441	37.071	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W04	39.167	38.126	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W05	39.624	38.405	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W06	39.472	38.577	0.0	0.000	0.0	0.0	0.0	0.000	0.000
W07	40.234	40.826	0.0	0.000	0.0	46.8	321.8	0.000	0.000

A %% indicates water lost from the system.

***** Link data *****

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	Upstream				Downstream					
						< Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)	< Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)
P01.1	Q01	52	457	0	0.627	59.741	0.141	0.060	0.715	688.7	51.816	0.122	0.060	0.851	688.7
P02.1	P01	19	406	0	0.000	59.741	0.298	0.061	0.595	691.2	59.741	0.175	0.061	1.139	691.0
P03.1	S20	84	457	0	0.880	70.104	0.083	0.044	2.165	446.9	62.789	0.083	0.044	2.164	446.9
P04.1	P02	16	356	0	0.000	59.741	0.404	0.062	0.605	693.6+	59.741	0.299	0.062	0.713	693.6
P05.1	P04	17	305	0	0.000	59.741	0.688	0.070	0.898	696.1+	59.741	0.408	0.070	0.920	696.0+
P10.1	V04	59	305	0	0.154	38.710	1.989	0.225	2.624	2327.6+	37.338	0.338	0.225	2.982	2327.6+
Q00.1	Q01	27	6096	0	791.873	54.864	0.630	0.654	0.154	5518.2	48.372	2.293	0.631	0.035	5517.6
Q01.1	S09	6	381	0	0.000	47.610	2.928	0.590	4.350	25214.4+	47.610	0.765	0.591	5.462	25214.4+
Q01.2	S09	6	203	0	0.000	48.890	1.735	0.091	2.295	1349.8+	48.890	0.183	0.091	2.970	1349.8
Q01.3	S09	6	1219	0	0.000	49.500	1.129	3.177	2.816	11306.9	49.500	0.975	3.177	3.173	11306.8
Q01.4	S09	6	1219	0	0.000	50.719	0.061	0.000	0.000	0.0	50.719	0.061	0.000	0.000	0.0
Q02.1	Q01	6	1067	0	0.000	49.621	1.149	3.338	3.647	31663.2+	49.621	1.050	3.337	3.828	31663.2
Q03.1	Q02	9	762	0	6.532	52.974	0.240	1.273	10.329	11633.0	49.987	0.900	1.273	6.573	11633.0x
Q04.1	Q03	17	762	0	1.558	53.492	0.538	1.273	3.716	11633.0	53.188	0.538	1.273	3.717	11633.0
Q05.1	Q04	7	305	0	0.527	55.931	0.086	0.079	4.705	577.6	53.919	0.147	0.079	4.645	577.6
Q06.1	Q04	40	762	0	1.501	54.346	0.535	1.212	3.579	11055.5	53.675	0.535	1.212	3.578	11055.4
Q08.1	Q06	64	762	0	1.537	55.474	0.508	1.173	3.641	10693.7	54.346	0.568	1.173	3.276	10693.6
Q09.1	Q08	41	610	0	2.094	59.985	0.284	0.879	6.595	8133.9	55.626	0.386	0.879	5.850	8133.9
Q10.1	Q09	19	610	0	0.508	60.107	0.535	0.571	2.106	5175.8	59.985	0.492	0.571	2.262	5175.7
Q11.1	Q10	22	457	0	0.245	60.259	1.089	0.517	2.945	4695.8+	60.107	0.562	0.517	3.029	4695.8+
Q12.1	Q08	42	457	0	0.299	56.053	0.425	0.301	2.036	2559.9	55.626	0.385	0.300	2.038	2559.8
Q13.1	Q12	23	457	0	0.470	56.632	0.278	0.299	2.898	2498.9	56.053	0.443	0.298	1.928	2498.9
Q14.1	Q02	29	1067	0	1.304	49.682	1.354	2.067	2.221	20030.3+	49.621	1.264	2.067	2.225	20030.2+
Q15.1	Q14	31	1067	0	8.260	52.304	0.381	2.074	7.235	20030.4	49.682	1.413	2.068	2.219	20030.3x
Q16.1	Q15	14	610	0	2.491	54.346	0.312	1.259	8.377	12405.4	52.304	0.389	1.256	6.666	12405.4
Q17.1	Q16	99	610	0	1.938	63.368	0.362	1.251	6.931	12405.4	54.346	0.362	1.250	6.930	12405.4
Q18.1	Q17	60	1219	0	127.605	65.837	0.135	0.414	0.191	4210.6	64.922	0.135	0.414	0.191	4210.5
Q19.1	Q18	131	1829	0	266.321	71.933	0.194	0.414	0.254	4210.7	65.837	0.194	0.414	0.254	4210.6
Q20.1	Q19	112	3048	0	981.333	76.810	0.310	0.414	0.099	4210.8	71.933	0.310	0.414	0.099	4210.7
Q21.1	Q20	103	3048	0	625.909	78.638	0.313	0.414	0.098	4210.9	76.810	0.310	0.414	0.099	4210.8
Q22.1	Q21	42	457	0	0.515	80.040	0.320	0.415	3.414	4225.2	78.791	0.320	0.415	3.413	4225.0
Q23.1	Q22	17	381	0	0.156	80.162	0.346	0.151	1.483	1628.4	80.040	0.352	0.151	1.442	1628.3
Q24.1	Q27	127	533	0	0.916	69.159	0.324	0.605	4.280	5434.7	63.856	0.608	0.605	2.797	5434.6x
Q25.1	Q24	14	457	0	0.193	69.251	0.752	0.489	2.836	4433.0+	69.190	0.411	0.489	3.145	4433.0
Q26.1	Q25	13	381	0	0.392	70.256	0.721	0.460	3.915	4176.5+	69.647	0.458	0.460	3.948	4176.4+
Q27.1	Q17	26	533	0	0.599	63.856	0.551	0.605	2.999	5434.6+	63.398	0.568	0.605	2.998	5434.5+
Q28.1	Q15	6	610	0	2.219	53.157	0.273	0.880	6.948	7625.1	52.487	0.273	0.880	6.948	7625.1
Q29.1	Q28	27	610	0	2.382	57.120	0.256	0.816	7.026	7065.7	53.431	0.256	0.816	7.026	7065.7
Q30.1	Q29	37	610	0	1.570	59.314	0.318	0.816	5.308	7065.7	57.120	0.318	0.816	5.308	7065.7
Q31.1	Q30	9	305	0	0.297	60.107	0.109	0.074	3.187	493.4	59.314	0.332	0.074	1.010	493.4x
Q32.1	Q30	42	610	0	1.441	61.417	0.321	0.758	4.878	6572.4	59.314	0.332	0.759	4.811	6572.3
Q33.1	Q32	9	457	0	1.193	63.063	0.130	0.187	4.842	1768.0	61.631	0.130	0.187	4.842	1768.0
Q34.1	Q32	42	457	0	0.512	62.728	0.803	0.576	3.488	4804.6+	61.478	0.411	0.576	3.700	4804.4
Q35.1	Q34	4	457	0	0.653	63.033	0.616	0.096	2.116	708.8x	62.819	0.824	0.095	1.561	708.7x
Q36.1	Q35	16	457	0	1.132	65.532	0.062	0.021	1.540	140.8	63.246	0.405	0.020	1.528	140.8

Q38.1	Q34	138	457	0	0.623	68.854	0.315	0.492	4.126	4096.1	62.789	0.863	0.491	3.643	4095.8x
Q39.1	Q38	12	457	0	0.713	69.647	0.201	0.272	3.917	2232.9	68.946	0.275	0.272	3.580	2232.9
Q40.1	Q39	11	457	0	0.417	70.500	0.190	0.140	2.171	1131.5	70.287	0.190	0.140	2.171	1131.5
Q41.1	Q38	56	457	0	0.398	69.952	0.251	0.221	2.399	1863.3	68.946	0.275	0.221	2.426	1863.3
Q42.1	Q41	21	457	0	0.280	70.256	0.160	0.071	1.398	600.0	70.074	0.160	0.071	1.398	600.0
R01.1	Q00	106	6096	0	121.912	55.474	0.413	0.388	0.145	3547.2	54.864	0.630	0.389	0.092	3462.7
R02.1	R01	72	610	0	2.029	62.789	0.190	0.388	4.995	3553.9	55.565	0.321	0.388	2.492	3553.3
R03.1	R04	28	610	0	1.955	65.623	0.191	0.376	4.817	3421.7	62.972	0.191	0.376	4.817	3421.7

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	Invert Level (m AD)	Upstream			Total Flow (m3)	Downstream				
							Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)		Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	Total Flow (m3)
R04.1	R02	4	610	0	0.997	62.880	0.266	0.376	3.074	3421.7	62.789	0.266	0.376	3.074	3421.7
R05.1	R02	13	305	0	0.148	63.734	0.088	0.024	1.380	132.2	62.789	0.191	0.024	0.545	132.2
R06.1	R05	29	457	0	0.515	64.618	0.046	0.000	0.000	0.0	63.734	0.088	0.000	-0.006	0.0
R07.1	R03	81	457	0	0.392	70.409	0.155	0.087	1.782	757.1	65.623	0.192	0.087	1.344	757.0
R08.1	R07	135	457	0	0.286	74.676	0.141	0.054	1.249	469.9	70.409	0.155	0.054	1.138	469.9
R09.1	R08	123	457	0	0.180	76.200	0.108	0.019	0.625	150.3	74.676	0.141	0.018	0.431	150.3
R10.1	R03	43	610	0	1.105	66.934	0.212	0.261	2.888	2386.7	65.654	0.212	0.261	2.888	2386.6
R11.1	R12	165	610	0	1.038	74.066	0.168	0.148	2.263	1358.0	69.738	0.165	0.148	2.328	1358.1
R12.1	R10	90	610	0	1.115	69.708	0.195	0.223	2.771	2045.5	66.995	0.195	0.223	2.771	2045.3
R13.1	R11	25	457	0	1.235	78.638	0.099	0.102	3.900	929.5	74.280	0.099	0.102	3.900	929.5
S03.1	S01	10	1219	0	9.493	46.208	0.598	4.351	7.631	43497.4	45.690	0.598	4.351	7.631	43497.3
S04.1	S03	6	457	0	1.546	48.128	0.059	0.021	1.694	121.7	46.604	0.205	0.021	1.563	121.7
S05.1	S03	21	1219	0	3.766	46.391	1.166	4.346	3.778	43376.4	46.208	1.098	4.346	3.927	43375.9
S06.1	S05	24	381	0	0.540	48.524	0.092	0.058	2.741	373.0	46.391	1.245	0.058	0.476	373.0x
S07.1	S05	26	1219	0	5.051	46.787	1.162	4.327	4.060	43003.9	46.391	1.252	4.327	3.640	43003.5x
S08.1	S07	12	1219	0	5.463	47.000	1.144	3.828	3.952	37871.1	46.787	1.245	3.828	3.494	37870.9x
S09.1	S08	9	1219	0	4.068	47.092	1.198	3.828	3.719	37871.0	47.000	1.205	3.828	3.730	37871.1
S12.1	S07	17	533	0	2.164	50.841	0.185	0.508	7.369	5133.4	46.787	1.243	0.507	2.126	5133.3x
S13.1	S12	105	533	0	1.128	57.668	0.260	0.508	4.704	5133.5	51.054	0.260	0.508	4.704	5133.4
S14.1	S17	44	533	0	0.834	60.625	0.158	0.144	2.602	1403.2	59.101	0.373	0.144	0.872	1403.2
S15.1	S14	21	381	0	0.540	62.758	0.139	0.144	3.831	1403.2	60.930	0.139	0.144	3.831	1403.2
S16.1	S13	10	457	0	1.120	59.375	0.046	0.000	0.000	0.0	57.912	0.046	0.000	0.000	0.0
S17.1	S13	60	533	0	0.669	59.101	0.351	0.508	3.254	5133.5	57.760	0.351	0.508	3.254	5133.5
S18.1	S17	28	457	0	0.603	60.289	0.262	0.364	3.748	3730.4	59.131	0.344	0.364	2.971	3730.4
S19.1	S18	31	457	0	0.520	61.295	0.290	0.364	3.318	3730.4	60.350	0.290	0.364	3.318	3730.4
S20.1	S19	17	457	0	0.442	61.722	0.311	0.345	2.930	3499.5	61.356	0.311	0.345	2.929	3499.5
S21.1	S20	19	457	0	0.380	63.094	0.268	0.241	2.412	2363.2	62.789	0.268	0.241	2.410	2363.1
S22.1	S21	244	457	0	0.459	68.885	0.241	0.243	2.765	2363.3	63.094	0.274	0.241	2.343	2363.2
S23.1	S24	170	381	0	0.235	72.360	0.137	0.061	1.642	510.4	69.555	0.285	0.061	0.667	510.4
S24.1	S22	34	381	0	0.256	69.555	0.270	0.210	2.442	1959.7	68.885	0.269	0.210	2.444	1959.6
T2.1	T1	183	610	0	1.076	46.604	0.166	0.150	2.324	1269.3	41.453	0.166	0.150	2.323	1269.3
U02.1	U01	10	457	0	0.166	39.898	0.322	0.178	1.440	1587.3	39.868	0.296	0.178	1.583	1587.3
V02.1	V01	47	457	0	0.283	37.155	0.387	0.281	2.004	2960.4	36.728	0.373	0.280	1.990	2960.2
V04.1	V02	14	457	0	0.309	37.308	0.353	0.239	1.870	2508.6	37.155	0.401	0.239	1.636	2508.5
W02.1	W01	9	457	0	0.239	36.058	0.135	0.045	1.104	665.0	35.997	0.135	0.045	1.104	665.0
W03.1	W02	16	305	0	0.224	37.003	0.068	0.020	1.659	321.8	36.210	0.068	0.020	1.659	321.8
W04.1	W03	40	152	0	0.037	38.039	0.084	0.020	1.952	321.8	37.003	0.084	0.020	1.951	321.8
W05.1	W04	25	152	0	0.023	38.283	0.117	0.020	1.375	321.8	38.039	0.117	0.020	1.369	321.8
W06.1	W05	22	152	0	0.026	38.557	0.020	0.000	0.000	0.0	38.283	0.122	0.000	-0.015	0.0
W07.1	W05	16	102	0	0.009	38.710	2.096	0.020	1.624	321.8+	38.283	0.128	0.020	2.393	321.8+

+ after total flow indicates a conduit surcharged by flow and depth at that end.

x after total flow indicates a conduit surcharged by depth only at that end.

NOTE :

- (i) Maximum elevations, depths, volumes, velocities and discharges are selected from the values at each time increment and will be in general more extreme than the maximum values in the time varying results.

- (ii) Maximum elevations, velocities and discharges are not necessarily calculated at the same time.
- (iii) Maximum velocity is not calculated for a conduit unless the depth exceeds the base flow depth
(by default, this is 5% of height for slopes ≤ 0.01 , 10% otherwise, subject to a minimum of 0.02 m).

End of run

0 mins (elapsed)

Produced on 12/06/2009 Last page

Start of run

configured for MS Windows

Produced on 12/06/2009 at 21:43

HydroWorks(tm) SIM

Summary results from Simulation

Version 9.0.1123 dated May 2008

Licence Number - WS00740269PM

Message 253: Run finished for event 1.

Summary results for event 1 - 100-year OC Event
Started at 00000000000000. Run for 2880.00 min. (Requested simulation time 2880.00 min)

Files used:

Network: ... \NET11#38.spb Proposed_2009-06-12 (Revision 38)
State:
Runoff: ... \NET11#38.rpf Proposed_2009-06-12 (Revision 38) (InfoWorks 9.0.2.16013)
Rainfall: ... \SIM52event.red 1
DWF:
Inflows:
Levels:
RTC:
Results: ... \SIM52.iwr

Total rainfall = 60960.4 m3
Total runoff = 57347.1 m3
Total inflow = 57347.1 m3
Total outflow = 57227.6 m3
Total lost = 0.0 m3

***** Node data *****

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
P01	62.179	59.889	0.0	0.000	0.0	13.8	0.0	0.000	0.000
P02	62.179	60.055	0.0	0.000	0.0	29.2	0.0	0.000	0.000
P03	72.238	70.191	0.0	0.000	0.0	0.1	513.8	0.000	0.000
P04	62.179	60.184	0.0	0.000	0.0	41.2	0.0	0.000	0.000
P05	62.179	60.533	0.0	0.000	0.0	73.6	798.7	0.000	0.000
P10	41.148	42.280	0.0	0.000	0.0	116.2	2664.7	0.000	0.000
Q00	60.350	55.496	0.0	0.000	0.0	23.3	2385.5	0.000	0.000
Q01	47.610	50.766	1994.3	3.156	1252.8	2000.3	0.0	-1.779	0.004
Q02	51.206	51.059	0.0	0.000	0.0	3.8	0.0	0.000	0.000
Q03	58.156	53.234	0.0	0.000	0.0	0.5	0.0	0.000	0.000
Q04	58.217	54.127	0.0	0.000	0.0	1.2	0.0	0.000	0.000
Q05	57.455	56.022	0.0	0.000	0.0	0.1	658.3	0.000	0.000
Q06	56.662	54.967	0.0	0.000	0.0	1.1	414.3	0.000	0.000
Q08	56.998	56.059	0.0	0.000	0.0	1.1	0.0	0.000	0.000
Q09	61.204	60.288	0.0	0.000	0.0	0.4	3386.6	0.000	0.000
Q10	61.478	60.712	0.0	0.000	0.0	0.9	549.3	0.000	0.000
Q11	61.478	61.623	5.4	0.145	100.1	6.8	5375.1	-0.160	0.003
Q12	58.003	56.667	0.0	0.000	0.0	0.7	69.6	0.000	0.000
Q13	58.003	57.012	0.0	0.000	0.0	0.4	2859.7	0.000	0.000
Q14	58.674	51.343	0.0	0.000	0.0	4.4	0.0	0.000	0.000
Q15	59.284	52.714	0.0	0.000	0.0	1.1	0.0	-1.986	0.009
Q16	55.931	55.481	0.0	0.000	0.0	1.7	0.0	1.917	0.013
Q17	71.018	64.380	0.0	0.000	0.0	203.5	3187.0	0.000	0.000
Q18	71.933	65.973	0.0	0.000	0.0	27.4	0.0	0.000	0.000
Q19	78.029	72.128	0.0	0.000	0.0	25.8	0.0	0.000	0.000
Q20	82.906	77.120	0.0	0.000	0.0	41.0	0.0	0.000	0.000
Q21	84.734	78.952	0.0	0.000	0.0	41.4	0.0	0.000	0.000
Q22	81.199	80.436	0.0	0.000	0.0	0.5	2973.0	0.000	0.000
Q23	81.199	80.593	0.0	0.000	0.0	0.4	1856.6	0.000	0.000
Q24	70.988	69.554	0.0	0.000	0.0	0.5	1146.5	0.000	0.000
Q25	70.988	70.201	0.0	0.000	0.0	1.1	293.7	0.000	0.000
Q26	71.628	71.456	0.0	0.000	0.0	1.2	4780.6	0.000	0.000
Q27	67.056	65.006	0.0	0.000	0.0	1.5	0.0	0.000	0.000
Q28	59.284	53.454	0.0	0.000	0.0	0.4	637.7	0.000	0.000
Q29	60.046	57.390	0.0	0.000	0.0	0.4	0.0	0.000	0.000
Q30	62.179	59.696	0.0	0.000	0.0	0.6	0.0	0.000	0.000
Q31	63.703	60.222	0.0	0.000	0.0	0.1	567.1	0.000	0.000
Q32	64.313	61.793	0.0	0.000	0.0	0.6	0.0	0.000	0.000
Q33	64.892	63.201	0.0	0.000	0.0	0.2	2015.2	0.000	0.000
Q34	65.532	64.032	0.0	0.000	0.0	1.5	0.0	0.000	0.000
Q35	65.593	64.040	0.0	0.000	0.0	1.2	650.0	0.000	0.000
Q36	67.056	65.596	0.0	0.000	0.0	0.1	161.2	0.000	0.000
Q38	71.537	69.272	0.0	0.000	0.0	0.5	0.0	0.000	0.000
Q39	71.598	69.865	0.0	0.000	0.0	0.3	1260.4	0.000	0.000
Q40	72.024	70.700	0.0	0.000	0.0	0.2	1294.8	0.000	0.000
Q41	72.512	70.223	0.0	0.000	0.0	0.3	1445.6	0.000	0.000
Q42	72.360	70.424	0.0	0.000	0.0	0.2	686.7	0.000	0.000

R01	64.008	55.897	0.0	0.000	0.0	15.6	0.0	0.000	0.000
R02	67.056	62.993	0.0	0.000	0.0	0.3	0.0	0.000	0.000
R03	67.452	65.828	0.0	0.000	0.0	0.3	317.0	0.000	0.000
R04	66.812	63.167	0.0	0.000	0.0	0.4	0.0	0.000	0.000
R05	67.056	63.828	0.0	0.000	0.0	0.1	152.7	0.000	0.000
R06	65.684	64.663	0.0	0.000	0.0	0.1	0.0	0.000	0.000

Node Reference	Ground Level (m AD)	Max Level (m AD)	Flood Volume (m3)	Flood Depth (m)	Flood Area (m2)	Max Stored (m3)	Inflow (m3)	Vol Balance (m3)	Vol Balance (%)
R07	71.933	70.572	0.0	0.000	0.0	0.2	327.3	0.000	0.000
R08	76.200	74.827	0.0	0.000	0.0	0.2	364.2	0.000	0.000
R09	77.419	76.315	0.0	0.000	0.0	0.1	171.3	0.000	0.000
R10	68.824	67.156	0.0	0.000	0.0	0.3	390.7	0.000	0.000
R11	75.499	74.242	0.0	0.000	0.0	0.3	488.4	0.000	0.000
R12	72.146	69.915	0.0	0.000	0.0	0.3	783.4	0.000	0.000
R13	79.858	78.742	0.0	0.000	0.0	0.1	1059.4	0.000	0.000
S03	49.682	46.847	0.0	0.000	0.0	2.0	0.0	0.000	0.000
S04	49.500	48.188	0.0	0.000	0.0	0.1	138.8	0.000	0.000
S05	50.597	47.713	0.0	0.000	0.0	4.1	0.0	0.000	0.000
S06	50.719	48.623	0.0	0.000	0.0	0.1	425.4	0.000	0.000
S07	51.816	48.219	0.0	0.000	0.0	4.4	0.0	0.000	0.000
S08	51.816	48.471	0.0	0.000	0.0	4.5	0.0	0.000	0.000
S09	52.426	48.713	0.0	0.000	0.0	5.0	0.0	0.000	0.000
S12	53.005	51.037	0.0	0.000	0.0	0.3	0.0	0.000	0.000
S13	60.320	57.949	0.0	0.000	0.0	0.4	0.0	0.000	0.000
S14	63.764	60.793	0.0	0.000	0.0	0.2	0.0	0.000	0.000
S15	63.673	62.908	0.0	0.000	0.0	0.2	1599.5	0.000	0.000
S16	60.289	59.421	0.0	0.000	0.0	0.1	0.0	0.000	0.000
S17	62.484	59.515	0.0	0.000	0.0	0.5	0.0	0.000	0.000
S18	63.063	60.601	0.0	0.000	0.0	0.4	0.0	0.000	0.000
S19	63.216	61.639	0.0	0.000	0.0	0.4	263.3	0.000	0.000
S20	63.551	62.086	0.0	0.000	0.0	0.4	799.3	0.000	0.000
S21	63.551	63.396	0.0	0.000	0.0	0.4	0.0	0.000	0.000
S22	69.342	69.152	0.0	0.000	0.0	0.3	468.1	0.000	0.000
S23	75.987	72.505	0.0	0.000	0.0	0.1	584.1	0.000	0.000
S24	70.714	69.873	0.0	0.000	0.0	0.3	1652.0	0.000	0.000
T2	48.219	46.778	0.0	0.000	0.0	0.3	1446.4	0.000	0.000
U02	41.666	40.249	0.0	0.000	0.0	0.4	1815.2	0.000	0.000
V02	39.624	37.785	0.0	0.000	0.0	0.7	515.1	0.000	0.000
V04	39.624	37.959	0.0	0.000	0.0	0.8	207.1	0.000	0.000
W02	38.862	36.211	0.0	0.000	0.0	0.2	391.3	0.000	0.000
W03	39.441	37.080	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W04	39.167	38.147	0.0	0.000	0.0	0.1	0.0	0.000	0.000
W05	39.624	38.548	0.0	0.000	0.0	0.3	0.0	0.000	0.000
W06	39.472	38.579	0.0	0.000	0.0	0.0	0.0	0.000	0.000
W07	40.234	42.658	0.0	0.000	0.0	48.6	366.8	0.000	0.000

A %% indicates water lost from the system.

***** Link data *****

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	Upstream				Total Flow (m3)	Downstream				
						< Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)		< Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)	> Total Flow (m3)
P01.1	Q01	52	457	0	0.627	59.741	0.148	0.066	0.735	788.9	51.816	0.128	0.066	0.880	788.9
P02.1	P01	19	406	0	0.000	59.741	0.313	0.067	0.621	791.4	59.741	0.183	0.067	1.173	791.3
P03.1	S20	84	457	0	0.880	70.104	0.087	0.049	2.283	513.8	62.789	0.087	0.049	2.282	513.7
P04.1	P02	16	356	0	0.000	59.741	0.439	0.068	0.661	793.9+	59.741	0.315	0.068	0.747	793.8
P05.1	P04	17	305	0	0.000	59.741	0.785	0.077	0.983	796.4+	59.741	0.444	0.077	1.012	796.3+
P10.1	V04	59	305	0	0.154	38.710	3.510	0.267	2.812	2664.7+	37.338	0.633	0.267	3.446	2664.7+
Q00.1	Q01	27	6096	0	791.873	54.864	0.632	0.737	0.173	6337.1	48.372	2.394	0.708	0.037	6336.7
Q01.1	S09	6	381	0	0.000	47.610	3.043	0.593	4.359	28210.9+	47.610	1.117	0.593	5.457	28210.9+
Q01.2	S09	6	203	0	0.000	48.890	1.834	0.094	2.341	1461.9+	48.890	0.183	0.094	3.061	1461.9
Q01.3	S09	6	1219	0	0.000	49.500	1.213	3.545	3.020	13705.6	49.500	1.024	3.545	3.387	13705.6
Q01.4	S09	6	1219	0	0.000	50.719	0.061	0.000	0.000	0.0	50.719	0.061	0.000	0.000	0.0
Q02.1	Q01	6	1067	0	0.000	49.621	1.259	3.683	3.964	36251.0+	49.621	1.154	3.683	4.018	36251.0+
Q03.1	Q02	9	762	0	6.532	52.974	0.254	1.410	10.580	13312.3	49.987	1.082	1.410	6.590	13312.3x
Q04.1	Q03	17	762	0	1.558	53.492	0.587	1.410	3.818	13312.4	53.188	0.587	1.410	3.818	13312.3
Q05.1	Q04	7	305	0	0.527	55.931	0.090	0.089	4.987	658.3	53.919	0.208	0.089	4.652	658.3
Q06.1	Q04	40	762	0	1.501	54.346	0.579	1.342	3.677	12654.2	53.675	0.579	1.341	3.674	12654.1
Q08.1	Q06	64	762	0	1.537	55.474	0.548	1.299	3.701	12240.1	54.346	0.625	1.298	3.317	12239.9
Q09.1	Q08	41	610	0	2.094	59.985	0.301	0.973	6.775	9311.1	55.626	0.437	0.973	5.877	9311.0
Q10.1	Q09	19	610	0	0.508	60.107	0.581	0.624	2.173	5924.6	59.985	0.512	0.624	2.386	5924.5
Q11.1	Q10	22	457	0	0.245	60.259	1.285	0.569	3.207	5375.3+	60.107	0.617	0.569	3.322	5375.3+
Q12.1	Q08	42	457	0	0.299	56.053	0.570	0.338	2.039	2929.1+	55.626	0.435	0.338	2.107	2929.1
Q13.1	Q12	23	457	0	0.470	56.632	0.360	0.336	2.893	2859.7	56.053	0.618	0.336	1.959	2859.6x
Q14.1	Q02	29	1067	0	1.304	49.682	1.583	2.303	2.461	22938.8+	49.621	1.444	2.304	2.469	22938.7+
Q15.1	Q14	31	1067	0	8.260	52.304	0.407	2.354	7.502	22938.5	49.682	1.669	2.306	2.459	22938.8x
Q16.1	Q15	14	610	0	2.491	54.346	0.344	1.431	9.387	14218.9	52.304	0.417	1.431	7.385	14218.9
Q17.1	Q16	99	610	0	1.938	63.368	0.393	1.412	7.102	14222.5	54.346	1.158	1.435	7.444	14220.8x
Q18.1	Q17	60	1219	0	127.605	65.837	0.136	0.464	0.212	4815.1	64.922	0.136	0.463	0.212	4815.1
Q19.1	Q18	131	1829	0	266.321	71.933	0.196	0.464	0.283	4815.2	65.837	0.196	0.464	0.282	4815.1
Q20.1	Q19	112	3048	0	981.333	76.810	0.311	0.465	0.111	4815.2	71.933	0.311	0.464	0.111	4815.2
Q21.1	Q20	103	3048	0	625.909	78.638	0.314	0.465	0.110	4815.3	76.810	0.311	0.465	0.111	4815.2
Q22.1	Q21	42	457	0	0.515	80.040	0.351	0.465	3.502	4829.5	78.791	0.351	0.465	3.503	4829.3
Q23.1	Q22	17	381	0	0.156	80.162	0.415	0.169	1.499	1856.6+	80.040	0.396	0.169	1.475	1856.6+
Q24.1	Q27	127	533	0	0.916	69.159	0.347	0.680	4.425	6220.8	63.856	1.157	0.674	2.866	6220.5x
Q25.1	Q24	14	457	0	0.193	69.251	0.857	0.550	3.169	5074.3+	69.190	0.411	0.550	3.533	5074.3
Q26.1	Q25	13	381	0	0.392	70.256	1.065	0.517	4.197	4780.6+	69.647	0.578	0.517	4.328	4780.6+
Q27.1	Q17	26	533	0	0.599	63.856	1.085	0.672	3.002	6220.5+	63.398	0.989	0.672	3.015	6220.5+
Q28.1	Q15	6	610	0	2.219	53.157	0.294	0.985	7.057	8717.7	52.487	0.294	0.985	7.057	8717.7
Q29.1	Q28	27	610	0	2.382	57.120	0.268	0.914	7.393	8080.1	53.431	0.268	0.914	7.393	8080.1
Q30.1	Q29	37	610	0	1.570	59.314	0.344	0.914	5.392	8080.1	57.120	0.344	0.914	5.392	8080.1
Q31.1	Q30	9	305	0	0.297	60.107	0.115	0.084	3.339	567.1	59.314	0.382	0.084	1.112	567.0x
Q32.1	Q30	42	610	0	1.441	61.417	0.345	0.850	4.979	7513.2	59.314	0.384	0.849	4.859	7513.1
Q33.1	Q32	9	457	0	1.193	63.063	0.136	0.210	5.096	2015.2	61.631	0.162	0.210	5.425	2015.2
Q34.1	Q32	42	457	0	0.512	62.728	1.203	0.643	3.641	5498.1+	61.478	0.411	0.643	4.134	5498.0
Q35.1	Q34	4	457	0	0.653	63.033	1.005	0.110	2.104	811.2x	62.819	1.213	0.110	1.590	811.2x
Q36.1	Q35	16	457	0	1.132	65.532	0.064	0.023	1.681	161.2	63.246	0.794	0.023	1.578	161.1x

Q38.1	Q34	138	457	0	0.623	68.854	0.344	0.553	4.237	4687.4	62.789	1.250	0.549	3.642	4686.9x
Q39.1	Q38	12	457	0	0.713	69.647	0.217	0.306	3.980	2555.2	68.946	0.327	0.306	3.612	2555.2
Q40.1	Q39	11	457	0	0.417	70.500	0.200	0.158	2.291	1294.8	70.287	0.200	0.158	2.291	1294.8
Q41.1	Q38	56	457	0	0.398	69.952	0.266	0.249	2.514	2132.3	68.946	0.327	0.249	2.402	2132.2
Q42.1	Q41	21	457	0	0.280	70.256	0.168	0.080	1.470	686.7	70.074	0.168	0.080	1.469	686.7
R01.1	Q00	106	6096	0	121.912	55.474	0.423	0.436	0.158	4047.6	54.864	0.632	0.437	0.103	3962.9
R02.1	R01	72	610	0	2.029	62.789	0.203	0.436	5.133	4054.2	55.565	0.332	0.436	2.687	4053.7
R03.1	R04	28	610	0	1.955	65.623	0.203	0.422	4.953	3901.6	62.972	0.200	0.422	5.307	3901.6

Link Reference	D/S Node	Pipe Len (m)	Pipe Hgt (mm)	Sed Dpth (mm)	P.Full Flow (m3/s)	Invert Level (m AD)	Upstream			Total Flow (m3)	Downstream			Total Flow (m3)	
							Max Depth (m)	Max Flow (m3/s)	Max Vel (m/s)		Invert Level (m AD)	Max Depth (m)	Max Flow (m3/s)		Max Vel (m/s)
R04.1	R02	4	610	0	0.997	62.880	0.286	0.422	3.143	3901.6	62.789	0.286	0.422	3.143	3901.6
R05.1	R02	13	305	0	0.148	63.734	0.094	0.028	1.448	152.7	62.789	0.204	0.028	0.591	152.7
R06.1	R05	29	457	0	0.515	64.618	0.046	0.000	0.000	0.0	63.734	0.094	0.000	-0.006	0.0
R07.1	R03	81	457	0	0.392	70.409	0.163	0.098	1.871	862.8	65.623	0.205	0.098	1.381	862.7
R08.1	R07	135	457	0	0.286	74.676	0.151	0.061	1.282	535.5	70.409	0.163	0.060	1.176	535.4
R09.1	R08	123	457	0	0.180	76.200	0.115	0.021	0.648	171.3	74.676	0.151	0.021	0.444	171.3
R10.1	R03	43	610	0	1.105	66.934	0.222	0.293	3.050	2721.8	65.654	0.222	0.293	3.050	2721.8
R11.1	R12	165	610	0	1.038	74.066	0.175	0.166	2.394	1547.8	69.738	0.177	0.166	2.355	1547.9
R12.1	R10	90	610	0	1.115	69.708	0.207	0.250	2.858	2331.3	66.995	0.207	0.250	2.857	2331.1
R13.1	R11	25	457	0	1.235	78.638	0.103	0.114	4.120	1059.4	74.280	0.103	0.114	4.119	1059.4
S03.1	S01	10	1219	0	9.493	46.208	0.621	4.749	7.949	49821.4	45.690	0.621	4.749	7.949	49821.4
S04.1	S03	6	457	0	1.546	48.128	0.060	0.024	1.862	138.8	46.604	0.243	0.024	1.363	138.8
S05.1	S03	21	1219	0	3.766	46.391	1.211	4.744	4.045	49683.0	46.208	1.098	4.744	4.287	49682.8
S06.1	S05	24	381	0	0.540	48.524	0.098	0.066	2.846	425.4	46.391	1.322	0.066	0.537	425.4x
S07.1	S05	26	1219	0	5.051	46.787	1.299	4.725	4.066	49257.9x	46.391	1.333	4.725	3.912	49257.8x
S08.1	S07	12	1219	0	5.463	47.000	1.360	4.172	3.969	43378.4x	46.787	1.443	4.172	3.515	43378.3x
S09.1	S08	9	1219	0	4.068	47.092	1.490	4.172	3.753	43378.4+	47.000	1.481	4.172	3.769	43378.4+
S12.1	S07	17	533	0	2.164	50.841	0.194	0.570	7.781	5879.9	46.787	1.437	0.570	2.370	5879.8x
S13.1	S12	105	533	0	1.128	57.668	0.273	0.570	4.952	5879.9	51.054	0.273	0.570	4.951	5879.9
S14.1	S17	44	533	0	0.834	60.625	0.168	0.162	2.689	1599.5	59.101	0.415	0.162	0.882	1599.5
S15.1	S14	21	381	0	0.540	62.758	0.148	0.162	3.942	1599.5	60.930	0.148	0.162	3.941	1599.5
S16.1	S13	10	457	0	1.120	59.375	0.046	0.000	0.000	0.0	57.912	0.046	0.000	0.000	0.0
S17.1	S13	60	533	0	0.669	59.101	0.384	0.570	3.317	5879.9	57.760	0.384	0.570	3.317	5879.9
S18.1	S17	28	457	0	0.603	60.289	0.285	0.409	3.831	4280.4	59.131	0.387	0.409	2.993	4280.4
S19.1	S18	31	457	0	0.520	61.295	0.314	0.409	3.442	4280.4	60.350	0.314	0.409	3.442	4280.4
S20.1	S19	17	457	0	0.442	61.722	0.337	0.389	3.007	4017.2	61.356	0.337	0.389	3.007	4017.2
S21.1	S20	19	457	0	0.380	63.094	0.293	0.272	2.449	2704.1	62.789	0.293	0.272	2.451	2704.1
S22.1	S21	244	457	0	0.459	68.885	0.260	0.272	2.828	2704.1	63.094	0.304	0.272	2.348	2704.1
S23.1	S24	170	381	0	0.235	72.360	0.146	0.068	1.705	584.1	69.555	0.318	0.068	0.679	584.1
S24.1	S22	34	381	0	0.256	69.555	0.297	0.236	2.512	2236.1	68.885	0.297	0.236	2.509	2236.0
T2.1	T1	183	610	0	1.076	46.604	0.174	0.168	2.455	1446.4	41.453	0.174	0.168	2.454	1446.3
U02.1	U01	10	457	0	0.166	39.898	0.344	0.200	1.510	1815.2	39.868	0.314	0.200	1.664	1815.2
V02.1	V01	47	457	0	0.283	37.155	0.584	0.337	2.017	3386.8+	36.728	0.400	0.337	2.213	3386.7
V04.1	V02	14	457	0	0.309	37.308	0.617	0.286	1.864	2871.8x	37.155	0.633	0.286	1.669	2871.7x
W02.1	W01	9	457	0	0.239	36.058	0.153	0.056	1.159	758.1	35.997	0.153	0.056	1.159	758.1
W03.1	W02	16	305	0	0.224	37.003	0.077	0.026	1.825	366.8	36.210	0.077	0.026	1.825	366.8
W04.1	W03	40	152	0	0.037	38.039	0.098	0.026	2.126	366.8	37.003	0.098	0.026	2.126	366.8
W05.1	W04	25	152	0	0.023	38.283	0.243	0.026	1.382	366.8+	38.039	0.146	0.026	1.530	366.8
W06.1	W05	22	152	0	0.026	38.557	0.022	0.000	-0.008	0.0	38.283	0.265	-0.001	-0.040	0.0x
W07.1	W05	16	102	0	0.009	38.710	3.928	0.027	1.664	366.8+	38.283	0.272	0.027	3.046	366.8+

+ after total flow indicates a conduit surcharged by flow and depth at that end.

x after total flow indicates a conduit surcharged by depth only at that end.

NOTE :

- (i) Maximum elevations, depths, volumes, velocities and discharges are selected from the values at each time increment and will be in general more extreme than the maximum values in the time varying results.

- (ii) Maximum elevations, velocities and discharges are not necessarily calculated at the same time.
- (iii) Maximum velocity is not calculated for a conduit unless the depth exceeds the base flow depth
(by default, this is 5% of height for slopes ≤ 0.01 , 10% otherwise, subject to a minimum of 0.02 m).

End of run

0 mins (elapsed)

Produced on 12/06/2009 Last page