

SESSION 5 (i)

WAPUG SPRING MEETING LONDON

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SESSION 5(i) USE OF THE MOSS PACKAGE FOR NETWORK PLOTS

K.F.GARDNER, E.Eng, MICE
SEVERN TRENT WATER AUTHORITY
AVON DIVISION

INTRODUCTORY NOTE

From this WASSP SIM RES Numerical Summary

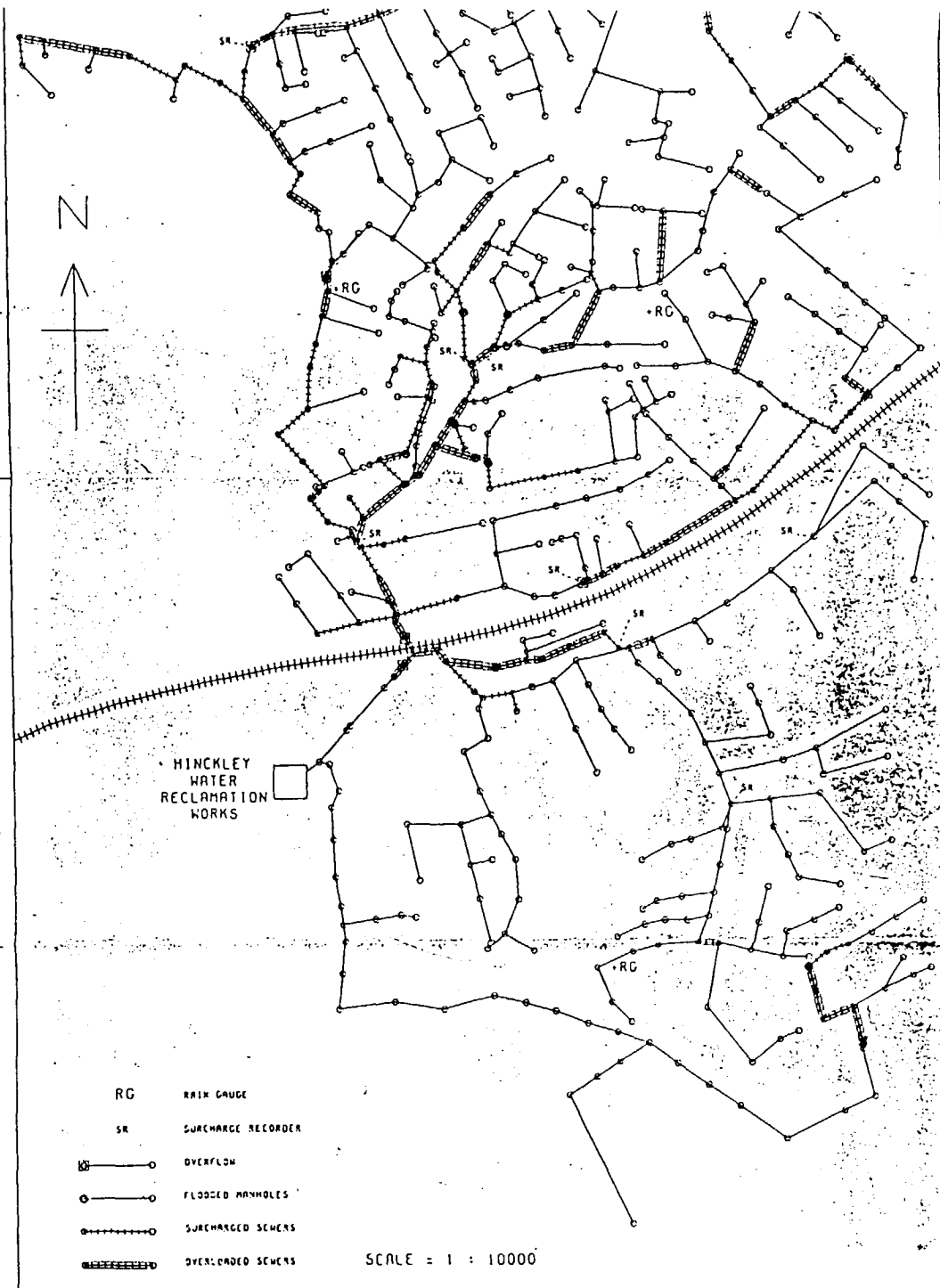
NODE	PIPE	GROUP	MINIMUM ELEVATION	MAXIMUM ELEVATION	MINIMUM DEPTH	MAXIMUM DEPTH	MINIMUM FLOW	MAXIMUM FLOW	TOTAL FLOW	MINIMUM DISTANCE	MAXIMUM DISTANCE
(NO.1)	(NO.2)	(NO.3)	(M)	(M)	(M)	(M)	(M ³ /S)	(M ³ /S)	(M ³ /S)	(M)	(M)
14	14.205	122.50	118.248	-1.155	111.448	114.304	0.0	0.0120	3.240	0.358	0.358
22	14.123	121.55	118.248	-1.159	114.408	114.304	0.0	0.0120	3.240	0.358	0.358
24	2.127	120.75	118.162	-1.914	114.246	113.375	0.0	0.0120	3.063	0.248	0.248
27	18.542	118.53	117.344	0.074	117.292	117.247	0.0	0.0000	3.231	0.817	0.817
34	14.205	122.50	118.248	-1.155	111.448	114.304	0.0	0.0120	3.240	0.358	0.358
50	18.511	117.57	117.343	0.944	114.122	113.209	3.8	0.0448	60.0	0.013	0.266
60	18.523	118.15	117.347	-1.774	113.400	113.299	0.0	0.0100	3.211	0.313	0.313
67	18.523	117.57	117.346	0.000	117.034	121.324	0.0	0.0000	3.241	0.265	0.265
69	18.513	117.57	117.375	-0.000	117.134	121.374	0.0	0.0100	3.263	0.265	0.265
70	18.527	122.70	117.379	0.000	120.570	119.915	0.0	0.0100	3.078	0.266	0.266
71	18.517	122.70	119.935	-0.600	114.935	119.245	0.0	0.0100	3.278	0.215	0.215
72	18.523	122.70	119.935	-0.600	114.935	119.245	0.0	0.0100	3.278	0.215	0.215
74	18.513	122.32	117.451	-2.306	113.375	113.115	0.0	0.0100	3.204	0.848	0.848
77	18.527	118.44	116.975	1.789	113.115	114.825	0.0	0.0000	6.031	0.849	0.849
78	18.523	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521
79	18.513	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521
80	18.523	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521
81	18.523	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521
82	18.523	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521
83	18.523	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521
84	18.523	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521
85	18.523	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521
86	18.523	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521
87	18.523	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521
88	18.523	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521
89	18.523	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521
90	18.523	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521
91	18.523	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521
92	18.523	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521
93	18.523	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521
94	18.523	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521
95	18.523	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521
96	18.523	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521
97	18.523	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521
98	18.523	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521
99	18.523	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521
100	18.523	118.24	117.279	-0.998	117.279	117.269	0.0	0.0170	3.224	0.521	0.521

NOTE: THE MAXIMUM FLOW VALUES, DEPTH VALUES AND DISTANCES ARE SELECTED FROM THE VALUES AT EACH MAXIMUM FLOW POINT AND WILL IN GENERAL BE SOME EXTREME THAN THE MAXIMUM VALUES IN THE HYDROGRAPHS BELOW.

To the attached fully labelled drawing using the MOSS modelling package

The talk will provide a brief guide to using the MOSS package in conjunction with WASSP SIM to produce network drawings.

The use of the drawings will be discussed.



MOSS PLOT FOR 1 YEAR DESIGN STORM (90 MINUTE DURATION - 13.7 MM RAIN).

Session 5: Graphical Enhancement for WASSP

- (i) Use of the MOSS Package for Network Plots.
Mr. K. F. Gardner, Severn Trent Water Authority, Avon Division.

The 2 main problems to consider are:-

- a) How to translate information from WASSP-SIMRES summary?
- b) What to report and how?

SIMRES provides a summary of the hydraulic weaknesses of a network. MOSS can be used to provide a visual picture of the network. SIMRES and MOSS can be combined to produce a clear picture of a network's behaviour which is particularly useful to the non-specialist.

The procedure which has been developed at STWA is:-

- a) Copy SIMRES into MOSS user and read summary.
- b) Run SIMBAS (Basic program) which picks out surcharged, overloaded and flooded pipes.
- c) Append data to MOSSPLOT command file. (See example in attached notes.).

Advantages of the system are:-

- a clear picture of hydraulic response is obtained.
- easily understood giving extra credibility to reports.
- a number of iterations can be undertaken, for example during verification or when assessing alternative designs.

Disadvantages:-

- input of manhole grid references is time consuming (but a CAD digitiser will improve this).
- SIMRES lists the worst conditions occurring during a storm - they do not necessarily occur concurrently.

- (ii) Use and Interpretation of Hydrograph Plots.
Mr. G. A. Burrow, Southern Water Authority.

See meeting notes.

- (iii) WASSP and Digital Mapping - Future Possibilities.
Mr. N. Cullen, WRC Engineering.

See meeting notes.

For further information on any of these presentations, contact the authors.

There was a short discussion on the application of computer techniques to data capture. It was generally agreed that a balance must be sought since on many occasions it is easier to manually extract information. WAPUG can be used to publicise current work in hand in order to avoid duplication of effort.

S. D. Roberts

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