

RED (Rainfall) File Format

The following records are used in the rainfall files: 20, 21, 22, 23 and 60-63. The record 60 has been added to specify the output interval and storm duration to be run in conjunction with this rainfall data. Records 61 and 62 have been added to allow parameters for the new runoff equation and record 63 for the new unit hydrograph method (ReFH).

Records 60-63 are optional but where used they must be put at the head of the file. The file then contains 1 record 20, 1 record 21 and then a record 22 for each profile. The file finishes with a series of record 23's specifying the rainfall.



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Description	Units	Column Numbers	Format
Record 20 Title			
Rainfall hyetograph flag. Must be 0	-	1	integer
Title	-	2-80	text
Record 21 Global Variables			
Event No.	-	1-5	integer
Start Date	-	7-14	dd/mm/yy or ddmmyyyy
Start Time	-	16-20	hh:mm (24 hour clock)
Rainfall time step	seconds	21-25	integer
Number of profiles	-	26-30	integer
Urban catchment wetness index (UCWI)	-	41-50	decimal (1 d.p.)
Record 22 Rainfall event data for each profile in record 23			
Local UCWI. If 0 then Record 21 value is used.	mm	1-10	decimal (1 d.p.)
Areal reduction factor	-	21-30	decimal (1 d.p.)
Profile title	-	41-80	text
Record 23 Rainfall Hyetographs			
Rainfall intensities for each time step. Record 23 is repeated for each time step. 10 columns of 8 characters for each profile.	(mm/hr)	1-80	decimal (2 d.p.)
Record 60 Analysis Information (for batch processing)			
Analysis Interval	mins	1-10	integer
Analysis Duration	mins	11-20	integer
ADWP	hours	21-30	decimal (3 d.p.)
Evaporation	mm/day	31-40	decimal (3 d.p.)
Record 61 Ground Conditions for new runoff equation (1 per profile)			
Profile Number	-	1	integer
API 30	mm	2-10	decimal (3 d.p.)
depPaved	mm	11-19	decimal (3 d.p.)
depPerv	mm	29-28	decimal (3 d.p.)
NAPI for Soil Type 1	mm	29-37	decimal (3 d.p.)
NAPI for Soil Type 2	mm	38-46	decimal (3 d.p.)
NAPI for Soil Type 3	mm	47-55	decimal (3 d.p.)
NAPI for Soil Type 4	mm	56-64	decimal (3 d.p.)
NAPI for Soil Type 5	mm	65-73	decimal (3 d.p.)
Record 62 NAPI Limiting Factors (1 per profile)			
Profile Number	-	1	integer

NAPI for Soil Type 1 (maximum cumulative value)	mm	29-37	decimal (3 d.p.)
NAPI for Soil Type 2 (maximum cumulative value)	mm	38-46	decimal (3 d.p.)
NAPI for Soil Type 3 (maximum cumulative value)	mm	47-55	decimal (3 d.p.)
NAPI for Soil Type 4 (maximum cumulative value)	mm	56-64	decimal (3 d.p.)
NAPI for Soil Type 5 (maximum cumulative value)	mm	65-73	decimal (3 d.p.)
Record 63 New Unit Hydrograph Parameters (1 per profile)			
Profile Number	-	1	integer
Initial Soil Moisture (Cini)	mm	2-10	decimal (3 d.p.)
Reserved	-	11-80	Reserved for future use

If records 60,61,62 and 63 are used they must be at the start of the RED file.