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EXCERPT (FIRST 90 PAGES)

26
**SELECTED RUNOFF EVENTS
FOR
SMALL AGRICULTURAL WATERSHEDS
IN THE
UNITED STATES**

**UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service
Soil and Water Conservation Research Division
Washington 25, D.C.**

**In Cooperation with the
STATE AGRICULTURAL EXPERIMENT STATIONS**

January 1960

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FOREWORD

This document presents basic data relating to runoff from small agricultural watersheds in the United States. It is a continuation of the activity of processing and releasing hydrologic data gathered cooperatively with the State Agricultural Experiment Stations and other agencies. The material has been prepared by the Watershed Technology Research Branch of the Soil and Water Conservation Research Division as a means of furnishing basic information on selected storm runoff events, with associated data on rainfall, land use, and antecedent conditions, to the Soil Conservation Service, other governmental agencies and private engineers.

Descriptions of the watersheds for which data are given herein are presented in the prior document, "Monthly Precipitation and Runoff for Small Agricultural Watersheds in the United States". Other information on the same watersheds is given in "Annual Maximum Flows from Small Watersheds in the United States".

Cecil H. Wadleigh, Director
Soil and Water Conservation
Research Division

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WATERSHED DATA

The decimal system of paging is used to index the watershed data. Pages are numbered according to location and watershed number. For example, page 5.1 is location 5 (College Park, Maryland), Watershed 1 (W-1 at College Park). This is the same numbering and paging system used in the two prior documents. Only the location number is given in the following tabulation:

Location

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College Park, Maryland	5
Hagerstown, Maryland	6
Vero Beach, Florida	8
Americus, Georgia	9
High Point, North Carolina	11
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Chatham, Virginia	14
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Edwardsville, Illinois	17
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INTRODUCTION

This volume presents basic information relating to selected storm events for several of the experimental agricultural watersheds in the United States. Storm runoff data are given for 67 of the 366 watersheds for which other information has previously been distributed. Some of the 67 watersheds are those for which records have been discontinued. Others are from watersheds currently in operation. It is not contemplated that selected storm data for the remaining discontinued watersheds will be issued as was done for "Annual Precipitation and Runoff for Small Agricultural Watersheds in the United States", and "Annual Maximum Flows from Small Agricultural Watersheds in the United States". Consideration is being given, however, to annual distribution of information similar to that given herein and in the two other documents for all experimental watersheds currently under study by the Agricultural Research Service.

Cooperation and Acknowledgments

The establishment and operation of the experimental watershed projects for which information is presented have been the joint responsibility of various Federal, State, and local agencies. The Federal agencies include the Bureau of Agricultural Engineering, the Soil Conservation Service, the Bureau of Plant Industry, and the Agricultural Research Service of the Department of Agriculture and the U. S. Geological Survey of the Department of Interior. Throughout the life of the projects the State Agricultural Experiment Stations of the States within which the watersheds are located have cooperated in the planning and operation of the research projects. In several cases, local agencies such as drainage and conservancy districts have also cooperated in the work. At each project many individuals have contributed to the planning and establishment of the watersheds and the collection, compilation, and analysis of the data. A listing of many of those who made substantial contributions is given in the volume on "Monthly Precipitation and Runoff for Small Agricultural Watersheds".

Information from a new location has been included in this volume and the following should be added to the list of contributors mentioned above:

62. Oxford, Mississippi - Russell Woodburn,
B. R. Colby, John W. Curran, H. B. Osborn.

Explanation

Descriptions of the watersheds for which information is presented here are given in the volume on "Monthly Precipitation and Runoff for Small Agricultural Watersheds in the United States". The page numbering system of this volume is identical with that of the prior volume, that is, each watershed has the same basic page numbers.

The watersheds for which data are presented were selected to give reasonable representation to watershed size and geographic area. The map of "Problem Areas in Soil Conservation" compiled by the Soil Conservation Service was used also to guide the selection.

From the file of data, two to four storm runoff events for each watershed were selected for presentation. In general, the selected runoff events are those in which runoff was produced by a relatively uniform rainfall excess of short duration.

The information for each storm runoff event includes tabulations of:

1. Antecedent daily rainfall and runoff for 30 days before the event
2. Rainfall intensities and accumulated amounts for the event
3. Runoff rates and accumulated amounts for the event
4. Watershed conditions at the time of the event.

Simple graphs of rates of rainfall and runoff are presented for each event and a map of each watershed is included. For some storms an isohyetal map is also presented.

Though there are some minor variations in the manner of presentation, it is believed that symbols and conventions used in the presentation of data are familiar to all hydrologists.

Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
<u>Event of June 7, 1938</u>								
5-9-38	.34	0	6-7-38	Raingage	R-1	6-7-38		
5-10	.02	0	12:55p	0	0	1:00p	0	0
5-11	.14	0	:58	4.80	.24	:00½	.346	.0017
5-14	.31	0	:59	9.60	.40	:01	.158	.0038
5-15	.40	0	1:00	7.20	.52	:01½	.049	.0047
5-20	.35	0	:01	4.80	.60	:02	.031	.0050
5-23	.12	0	:05	2.55	.77	:04	.025	.0059
5-24	.53	0	:10	.36	.80	:06	.023	.0067
6-2	.52	0	ceased			:08	.013	.0073
6-7	.12½	0	:33	0	.80	:10	.005	.0076
<u>Watershed Conditions:</u> Hay 6 inches high sparse stand 80%; potatoes on contour 3 inches high with 5-inch ridges 11%; oats 8 inches high 3%; hay strip above and 900-foot diversion terrace channel plowed, ready for seeding to alfalfa 6%.			:40	.09	.81	:13	.004	.0078
			2:00	.06	.83	:16	.003	.0080
			:11	.05	.84	:19	.001	.0081
			ceased			:36e	0	.0082
			:50	0	.84			
			3:00e	.06	.85			
<u>Event of September 12-13, 1938</u>								
8-17-38	.15	0	9-12-38	Raingage	R-1	9-12-38		
8-21	.07	0	10:10p	0	0	10:37p	0	0
8-23	.32	0	:13	1.00	.05	:38	.046	.0007
9-3	.18	0	:18	.48	.09	:38½	.062	.0011
9-7	.82	0	:28	1.32	.31	:39	.031	.0015
<u>Watershed Conditions:</u> Hay mowed July and August, now 4 inches high, sparse to medium stand 80%; potatoes on contour 8 inches high on 4-inch ridges 11%; oats 24 inches high medium stand 3%; medium stand of alfalfa on diversion channel and filter strip above 6 inches high 6%.			:33	3.12	.57	:40	.040	.0021
			:38	3.48	.86	:41	.037	.0027
			:42	.75	.91	:42	.029	.0033
			:45	1.80	1.00	:43	.021	.0037
			:53	.98	1.13	:45	.021	.0044
			:57	1.35	1.22	:47	.015	.0050
			11:02	3.48	1.51	:49	.012	.0055
			:06	3.75	1.76	:51	.011	.0059
			:12	3.00	2.06	:53	.009	.0062
			:15	3.00	2.21	:55	.009	.0065
			:21	1.40	2.35	:57	.011	.0068
			:33	.55	2.46	11:00	.011	.0073
			:43	.18	2.49	:02	.018	.0078
			:55	.35	2.56	:04	.030	.0086
			12 Mt	1.08	2.65	:06	.044	.0098
			9-13-38			12:07a	.77	2.76
:10	2.40	2.88	:09	.051	.0124			
:22	.40	2.96	:10	.052	.0133			
:33	1.15	3.17	:13	.049	.0158			
:44	1.64	3.47	:15	.049	.0174			
:53	1.73	3.73	:17	.042	.0189			
1:03	.78	3.86	:23	.031	.0225			
:14	.33	3.92	:29	.025	.0253			
:23	.13	3.94	:35	.025	.0278			
ceased			:47	.021	.0324			

Notes: 1/ Prior to 8:30a.

To convert runoff in in/hr to cfs multiply by 13.91.

Cohocton, New York			Watershed W-II (2.2)			13.8 acres		
Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
<u>Event of September 12-13, 1938 Cont'd.</u>								
			1:47a	0	3.94	11:59p	.019	.0365
			2:23	.05	3.97	9-13-38		
			ceased			12:05a	.019	.0384
			:50	0	3.97	:11	.025	.0406
			3:15e	.07	4.00	:14	.025	.0418
						:20	.019	.0440
						:26	.018	.0459
						:38	.028	.0505
						:50	.042	.0575
						:53	.041	.0596
						:55	.041	.0610
						1:01	.034	.0648
						:07	.033	.0682
						:13	.030	.0713
						:33	.017	.0792
						:53	.010	.0837
						2:13	.006	.0863
						:33	.002	.0876
						3:00e	0.	.0880
<u>Event of July 17-18, 1942</u>								
6-19-42.	.02	0	7-17-42	Raingage	R-1	7-17-42		
6-21	.24	0	8:35p	0	0	10:29p	0	0
6-23	.04	0	:37	7.20	.24	:31	.001	.0001
6-24	.08	0	:38	6.60	.35	:33	.002	.0002
6-30	1.47	0	:40	1.50	.40	:34	.003	.0002
7-4	.05	0	:46	.50	.45	:35	.004	.0003
7-6	.25	0	:51	3.00	.70	:36	.005	.0003
7-8	.08	0	:54	7.00	1.05	:37	.004	.0004
7-10	1.52	0	9:00	.30	1.08	:38	.002	.0005
7-11	.09	0	:10	.18	1.11	:47e	0	.0006
7-17	.07 ^{1/2}	0	:20	.06	1.12	7-18-42		
			:30	.12	1.14	6:37a	0	0
			:40	.06	1.15	:38	.010	.0004
<u>Watershed Conditions:</u> Most of area was in sparse to medium stand of hay 18 to 24 inches high 94%; diversion channel and filter strip above in medium stand of alfalfa 24 inches high 6%.			ceased			:39	.017	.0006
			10:03	0	1.15	:40	.020	.0009
			:08	4.32	1.51	:41	.022	.0012
			:12	1.65	1.62	:42	.033	.0017
			:14	1.20	1.66	:43	.041	.0023
			:17	.60	1.69	:44	.032	.0029
			:20	1.20	1.75	:45	.029	.0034
			:23	.60	1.78	:47	.031	.0044
			:26	1.00	1.83	:49	.035	.0055
			:32	.40	1.87	:52	.032	.0072
			:40	.52	1.94	:55	.036	.0089
			11:00	.21	2.01	:58	.042	.0109
			:10	.18	2.04	7:00	.047	.0124
			:20	.24	2.08	:03	.050	.0148
			:40	.18	2.14	:08	.049	.0189
			:50	.12	2.16	:11	.049	.0214
			12 Mt	.06	2.17	:14	.042	.0237

Notes: 1/ Prior to 11:15a.
 To convert runoff in in/hr to cfs multiply by 13.91.

Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
<u>Event of July 17-18, 1942 Cont'd.</u>								
			7-18-42			7:17a	.036	.0257
			12:10a	.06	2.18	:20	.032	.0274
			ceased			:26	.026	.0303
			:24	0	2.18	:32	.020	.0326
			:27	.60	2.21	:38	.020	.0346
			:30	.20	2.22	:44	.018	.0365
			ceased			:50	.014	.0381
			1:30	0	2.22	:56	.010	.0393
			3:00	.02	2.25	8:02	.009	.0403
			:18	.03	2.26	:14	.005	.0417
			ceased					
			4:05	0	2.26	:20	.004	.0421
			:16	.22	2.30	:26	.002	.0424
			5:00	.04	2.33	:32	.002	.0426
			ceased			:41e	0	.0427
			:57	0	2.33			
			6:02	1.08	2.42			
			:03	3.00	2.47			
			:05	.60	2.49			
			:06	4.80	2.57			
			:08	.90	2.60			
			:14	.10	2.61			
			:17	.40	2.63			
			:18	3.00	2.68			
			:21	.20	2.69			
			:30	2.07	3.00			
			:32	3.90	3.13			
			:34	4.20	3.27			
			:35	.60	3.28			
			:37	5.10	3.45			
			:38	1.80	3.48			
			:45	2.83	3.81			
			:52	.34	3.85			
			:53	1.80	3.88			
			:54	.60	3.89			
			:56	3.30	4.00			
			:57	2.40	4.04			
			7:00	.60	4.07			
			:04	.45	4.10			
			:07	2.00	4.20			
			:11	.30	4.22			
			:16	.36	4.25			
			ceased					
			:25	0	4.25			
			:31	.20	4.27			
			:35	2.10	4.41			
			:38	.60	4.44			
			8:00e	.03	4.45			

Notes: To convert runoff in in/hr to cfs multiply by 13.91.

Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
<u>Event of May 25-27, 1943</u>								
4-25-43	.15	0	5-25-43	Raingage	R-1	5-26-43		
4-27	1.02	.0009	6:00p	0	.18 ^{2/}	12:33a	0	0
4-28	.02	0	:10	.12	.20	:39	.001	.0006
4-29	.02	0	:32	.08	.23	:43	.005	.0009
4-30	1.11 ^{1/}	.0535	:35	.40	.25	:54	.009	.0023
5-1	.08(snow)	.0476	7:00	.07	.28	1:00	.011	.0033
5-2	.03	.0038	:15	.08	.30	:04	.011	.0040
5-3	.07	.0101	:22	.17	.32	:10	.013	.0052
5-4	.08	.0011	8:00	.03	.34	:16	.015	.0066
5-6	.10	.0006	:40	.02	.35	:22	.018	.0083
5-7	.65	.0004	9:00	.03	.36	:28	.023	.0103
5-8	.43	.0098	:20	.03	.37	:34	.028	.0129
5-10	.15	.0007	:37	.04	.38	:40	.032	.0159
5-11	.46	.0072	:50	.09	.40	2:10	.032	.0319
5-12	.20	.0019	10:00	.06	.41	:20	.026	.0368
5-17	.23	0	:15	.04	.42	:30	.018	.0405
5-18	.04	0	:23	.08	.43	:40	.011	.0429
5-19	.49	0	ceased			:50	.007	.0443
5-20	.10	0	11:03	0	.43	3:02	.005	.0454
5-21	.70	.0007	:42	.06	.47	:14	.003	.0462
5-22	.05 ^{2/}	0	:50	.30	.51	:20	.003	.0465
5-25	.18 ^{2/}	0	12 Mt	.24	.55	4:35	.003	.0500
			5-26-43			:55	.002	.0508
			12:12a	.15	.58	5:20	.001	.0515
			:16	.90	.64	:45	.001	.0520
Watershed Conditions: Potatoes on			:17	3.60	.70	6:25	.002	.0530
contour strip 2 inches high on 4-			:20	.40	.72	:55	.003	.0542
inch ridges 5%; hay was uncut in			:24	.75	.77	7:50	.004	.0572
1942 and forms mulch on ground,			:27	1.60	.85	9:00	.005	.0621
while growth this year is about			:30	.60	.88	11:30	.005	.0743
5 inches high with sparse to			:35	.84	.95	12 N	.005	.0769
medium stand on the remaining			:44	.20	.98	:40	.007	.0809
95% of the area. Under saturated			:46	1.20	1.02	6:40	.008	.1235
condition of watershed, subsurface			:50	.30	1.04	8:00	.007	.1331
flow was delayed 12 to 16 hours			:54	.45	1.07	9:00	.007	.1398
after precipitation infiltrated								
under mulch.			:56	1.80	1.13	12 Mt	.006	.1587
			1:00	.30	1.15	5-27-43		
			:03	.60	1.18	2:00a	.005	.1699
			:04	5.40	1.27	5:00	.004	.1834
			:06	.90	1.30	8:00	.003	.1933
			:13	.60	1.37	11:00	.002	.2005
			:19	.70	1.44	12 N	.001	.2020
			:27	.45	1.50	2:00p	.001	.2038
			:30	.80	1.54	7:20e	0	.2047
			:35	.36	1.57			
			:37	1.50	1.62			
			:41	.45	1.65			
			:43	1.20	1.69			
			:47	.60	1.73			
			:54	.17	1.75			

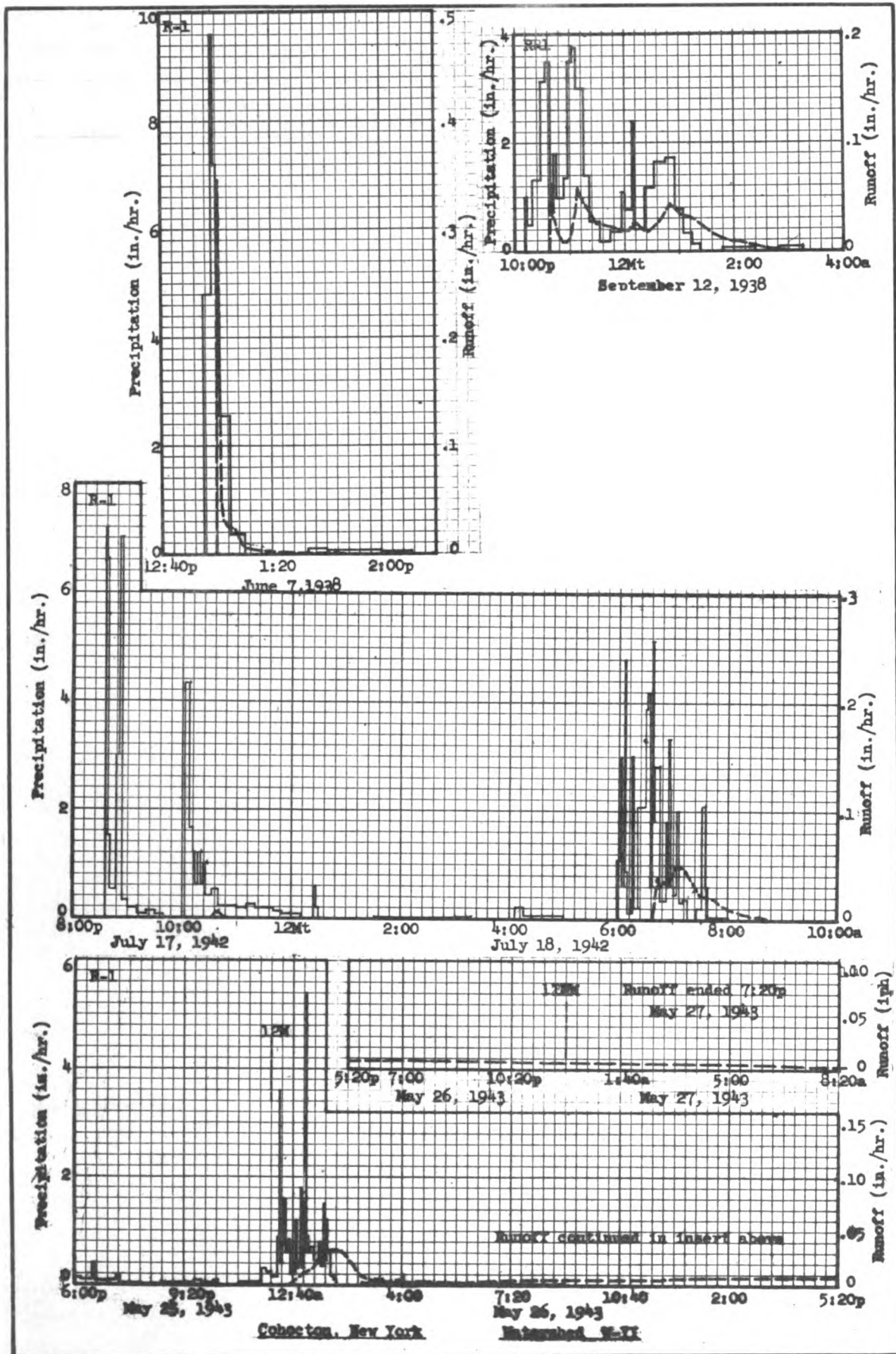
Notes: 1/ Included .16" snow beginning 8:10p.

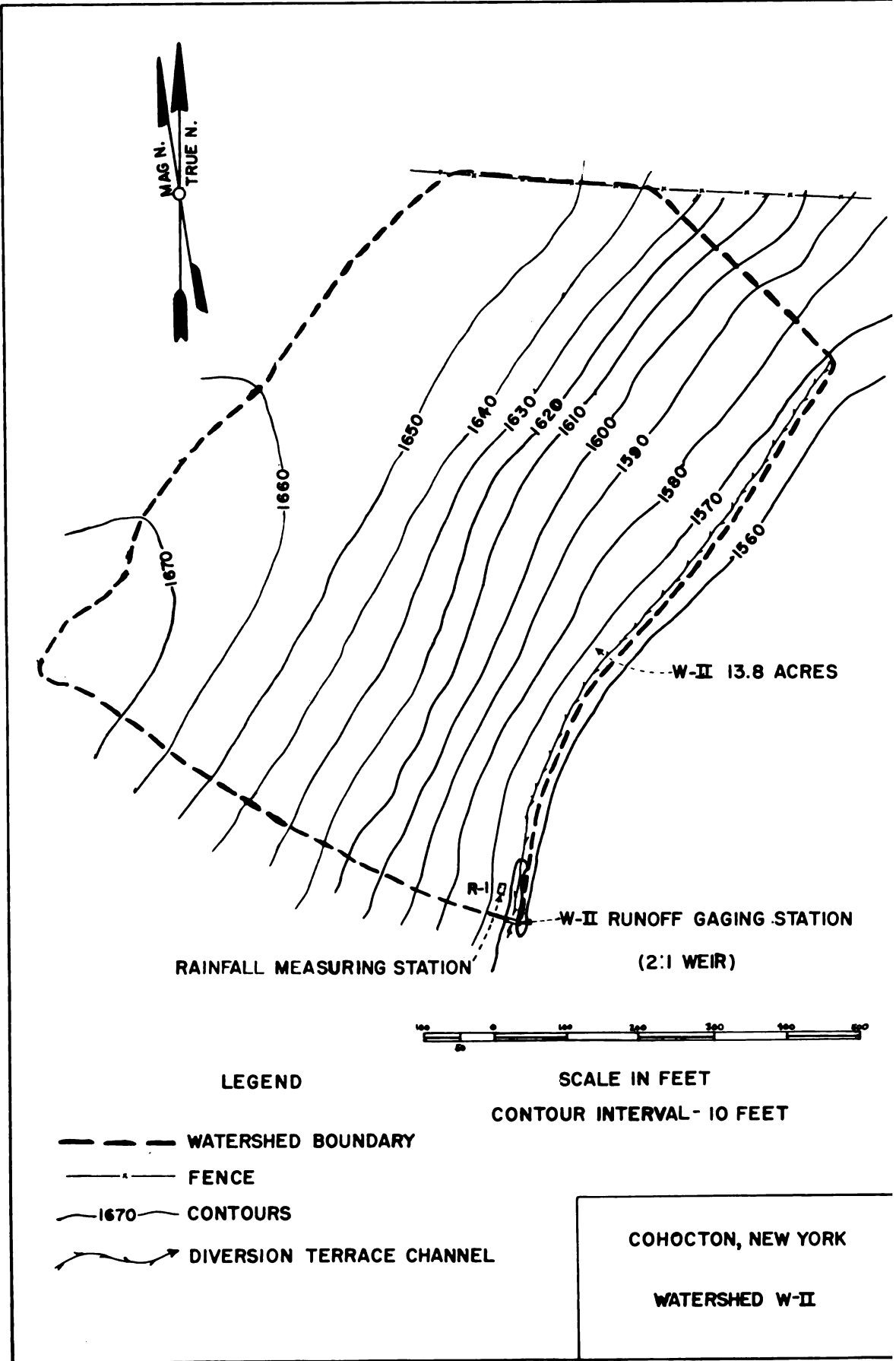
2/ 1:00p to 5:50p.

To convert runoff in in/hr to cfs multiply by 13.91.

Cohocton, New York			Watershed W-II (2.2)			13.8 acres		
Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
Event of May 25-27, 1943 Cont'd								
			2:00a ceased	.10	1.76			
			:46	0	1.76			
			3:00 ceased	.04	1.77			
			:10	0	1.77			
			:25	.12	1.80			
			:38 ceased	.09	1.82			
			:48	0	1.82			
			4:00	.10	1.84			
			:03	.20	1.85			
			5:00	.01	1.86			
			6:00	.01	1.87			
			7:00	.01	1.88			
			8:00	.01	1.89			
			9:00e	.01	1.90			

Notes: To convert runoff in in/hr to cfs multiply by 13.91.





Cohocton, New York			Watershed W-III (2.3)			24.2 acres		
Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
<u>Event of July 21, 1938</u>								
6-25-38	.25	0	7-21-38	Raingage	R-7	7-21-38		
6-26	.50	0	11:25a	0	0	11:40a	0	0
6-27	.15	0	:30	.60	.05	:42	.031	.0005
7-1	.28	0	:35	3.60	.35	:42½	.028	.0007
7-9	.27	0	:40	3.36	.63	:46	.021	.0021
7-11	.76	0	:45	3.48	.92	:48	.048	.0033
7-18	.19	0	:50	3.60	1.22	:49	.073	.0043
			:55	3.96	1.55	:50½	.100	.0065
			12 N	1.08	1.64	:51½	.171	.0088
			:02	.60	1.66	:52	.200	.0103
Watershed Conditions: Tillage on contour strips within 1% of contour: potatoes 15 inches high with 5-inch ridges 9%, with 2-inch ridges 14%; beans 2%; permanent meadow 12 inches high 5%; timothy hay stubble 4 inches high 29%; cover hay stubble 4 inches high 16%; barley 24 inches high 10%; oats 30 inches high 10%; buckwheat 10 inches high 5%.			:05	2.00	1.76	:54	.203	.0170
			:10	.84	1.83	:56	.257	.0247
			:15	.24	1.85	:57	.276	.0291
			:25	.12	1.87	:57½	.257	.0313
			:35e	.06	1.88	12 N	.257	.0420
			1:40p	0	1.88	:02	.245	.0504
			:45	.24	1.90	:03	.226	.0543
			:55e	.18	1.93	:04	.195	.0578
						:07	.151	.0665
						:11½	.109	.0762
						:15	.074	.0815
						:18½	.047	.0850
			:22½	.028	.0875			
			:27½	.015	.0893			
			:30	.012	.0898			
			:34½	.007	.0905			
			:46	.002	.0914			
			:54	.002	.0917			
			1:10	.001	.0920			
			2:38e	0	.0925			
<u>Event of July 17-18, 1942</u>								
6-17-42	.34	0	7-17-42	Raingage	R-7	7-17-42		
6-19	.20	0	8:37p	0	0	8:40p	0	0
6-21	.29	0	:38	6.00	.10	:47	.001	.0001
6-23	.16	0	:40	7.80	.36	:53	.010	.0004
6-30	1.53	.0003	:44	3.45	.59	:56	.027	.0014
7-4	.05	0	:46	.90	.62	:57	.025	.0018
7-6	.26	0	:50	2.55	.79	9:01	.009	.0030
7-8	.14	0	:53	2.60	.92	:05	0	.0032
7-10	1.66	.0009	:54	1.80	.95	ceased		
7-11	.11	0	:55	4.20	1.02	10:05	0	.0032
7-17	.10 ^{1/}	0	:57	1.20	1.06	:10	.009	.0034
			9:00	.20	1.07	:12	.026	.0039
			:14	.13	1.10	:14	.074	.0057
			:25	.05	1.11	:18	.057	.0100
			:31	.10	1.12	:28	.016	.0151
			10:00	.02	1.13	:43	.008	.0177
			ceased			:49	.010	.0186
			:05	0	1.13	11:13	.005	.0213
			:06	4.80	1.21	7-18-42		
			:07	3.60	1.27	1:54e	0	.0261

Notes: 1/ 9:41a to 11:12a.

To convert runoff in in/hr to cfs multiply by 24.40.

Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
Event of July 17-18, 1942 Cont'd								
			10:12p	2.52	1.48	5:02a	0	0
			:15	1.00	1.53	:15	.001	.0004
			:32	.42	1.65	:33	.002	.0009
			:36	.15	1.66	:41	.002	.0012
			:40	.45	1.69	:58	.001	.0017
			:50	.30	1.74	6:03	.006	.0020
			11:00	.12	1.76	:06	.023	.0026
			:16	.19	1.81	:09	.092	.0049
			:23	.34	1.85	:12	.147	.0113
			:40	.21	1.91	:14	.164	.0166
			:51	.16	1.94	:16	.156	.0219
			12 Mt	.07	1.95	:22	.111	.0349
			7-18-42	ceased		:24	.114	.0387
			12:27a	0	1.95	:27	.223	.0467
			:30	.60	1.98	:29	.319	.0559
			2:37	.01	2.01	:31	.309	.0664
			:40	.40	2.03	:36	.323	.0926
			3:00	.03	2.04	:40	.265	.1124
			:16	.08	2.06	:50	.165	.1458
			:22	.20	2.08	:54	.165	.1568
			4:00	.02	2.09	7:02	.120	.1760
			:14	.04	2.10	:08	.080	.1860
			:18	.15	2.11	:14	.056	.1928
			:53	.02	2.12	:20	.041	.1976
			:57	1.05	2.19	:26	.032	.2012
			5:00	1.80	2.28	:32	.025	.2040
			:03	.40	2.30	:39	.021	.2067
			ceased			:51	.013	.2101
			:16	0	2.30	8:03	.008	.2121
			:22	.10	2.31	:15	.006	.2134
			:24	1.20	2.35	:27	.004	.2144
			:30	.10	2.36	:39	.003	.2151
			ceased			:51	.002	.2157
			:57	0	2.36	9:03	.002	.2162
			:58	2.40	2.40	:23	.002	.2168
			6:00	.90	2.43	:43	.001	.2172
			:02	1.20	2.47	11:03e	0	.2178
			:07	2.76	2.70			
			:09	1.80	2.76			
			:14	1.08	2.85			
			:21	.51	2.91			
			:27	2.40	3.15			
			:31	.75	3.20			
			:36	1.80	3.35			
			:48	.05	3.36			
			:54	1.00	3.46			
			7:00	.40	3.50			
			:15	.08	3.52			
			:29	.04	3.53			
			:37	.38	3.58			
			:45e	.08	3.59			

Notes: To convert runoff in in/hr to cfs multiply by 24.40.

Cohocton, New York			Watershed W-III (2.3)			24.2 acres		
Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
<u>Event of May 25-26, 1943</u>								
4-25-43	.18	0	5-25-43	Raingage	R-7	5-26-43		
4-27	1.12	.0041	7:00p	.10	.19 ^{2/}	12:49a	0	0
4-28	.05	0	:17	.11	.22	:52	.003	.0001
4-30	1.21 ^{1/}	.0210	ceased			:54	.009	.0003
5-1	.07snow	0	:20	0	.22	:56	.011	.0007
5-2	.21	0	:23	.60	.25	1:00	.015	.0016
5-3	.05	0	:27	.30	.27	:02	.018	.0021
5-4	.07	0	:30	.20	.28	:05	.020	.0027
5-6	.07	0	8:00	.02	.29	:10	.024	.0045
5-7	.15	0	:20	.03	.30	:15	.034	.0069
			ceased					
5-8	1.15	.0101	:47	0	.30	:20	.043	.0101
5-10	.27	0	9:00	.09	.32	:25	.049	.0139
5-11	.50	0	:10	.06	.33	:30	.059	.0184
5-12	.22	0	:40	.02	.35	:32	.060	.0204
5-17	.15	0	:56	.08	.37	:34	.060	.0224
5-18	.01	0	10:00	.30	.39	:37	.052	.0252
5-19	.57	0	ceased			:40	.046	.0276
5-20	.13	0	:25	0	.39	:43	.040	.0298
5-21	.96	.0055	:35	.06	.40	:48	.040	.0331
5-22	.03	0	ceased			:51	.050	.0354
5-25	.19 ^{2/}	0	11:14	0	.40	:54	.057	.0381
			:31	.07	.42	:58	.057	.0429
			:45	.13	.45	2:04	.044	.0471
			12 Mt	.07	.47	:09	.033	.0503
			5-26-43			:15	.023	.0531
			12:10a	.12	.49	:21	.017	.0551
			:16	.10	.50	:27	.013	.0566
			:24	.50	.55	:33	.010	.0578
			:25	4.80	.63	:39	.009	.0587
			:26	5.40	.72	:44	.008	.0594
			:28	.90	.75	:50	.009	.0603
			:30	2.10	.82	:56	.011	.0613
			:32	.30	.83	3:02	.012	.0625
			:34	3.00	.93	:06	.012	.0633
			:35	2.40	.97	:15	.010	.0650
			:40	.36	1.00	:19	.010	.0657
			:44	.45	1.03	:25	.012	.0668
			:46	1.50	1.08	:31	.013	.0680
			:50	.45	1.11	:41	.014	.0702
			:52	.90	1.14	:47	.014	.0716
			:53	1.20	1.16	:53	.011	.0729
			:54	1.80	1.19	:58	.011	.0739
			:58	.60	1.23	4:04	.014	.0752
			1:00	.30	1.24	:10	.016	.0767
			:04	1.20	1.32	:14	.016	.0778
			1:06	.30	1.33	:20	.013	.0793
			:08	.60	1.35	:26	.011	.0805
			:11	.40	1.37	:32	.010	.0815
			:12	1.80	1.40	:38	.008	.0824
			:13	3.00	1.45	:46	.007	.0834
<p><u>Watershed Conditions:</u> Tillage on contour strips within 1% of contour: potatoes just coming up with 3-inch ridges 10%; buckwheat drilled, not up yet 4%; oats 2 to 4 inches high 18%; clover 8 inches high 23%; timothy hay 6 inches high 45%.</p>								

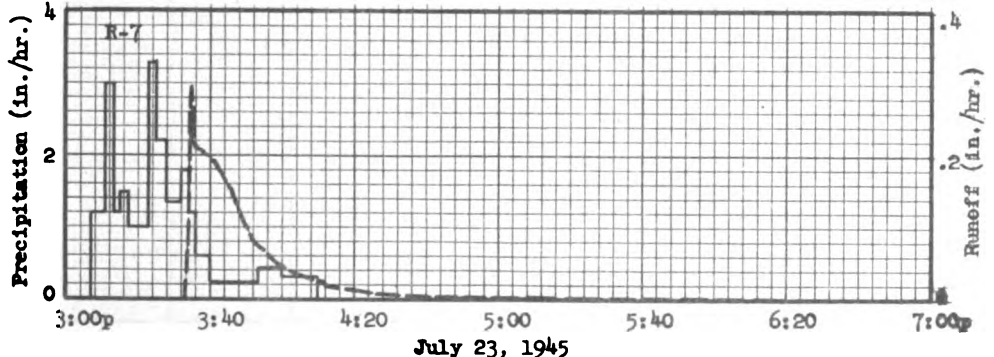
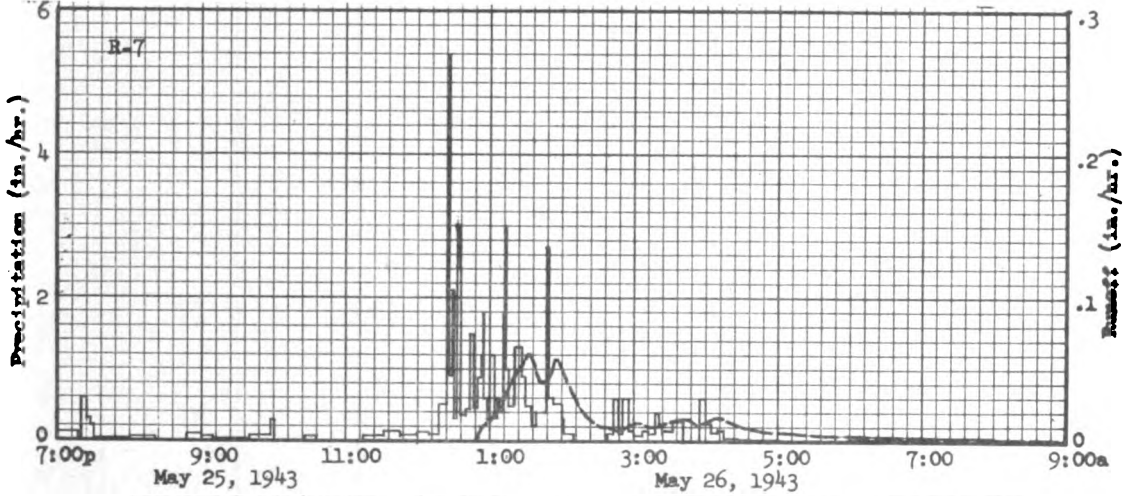
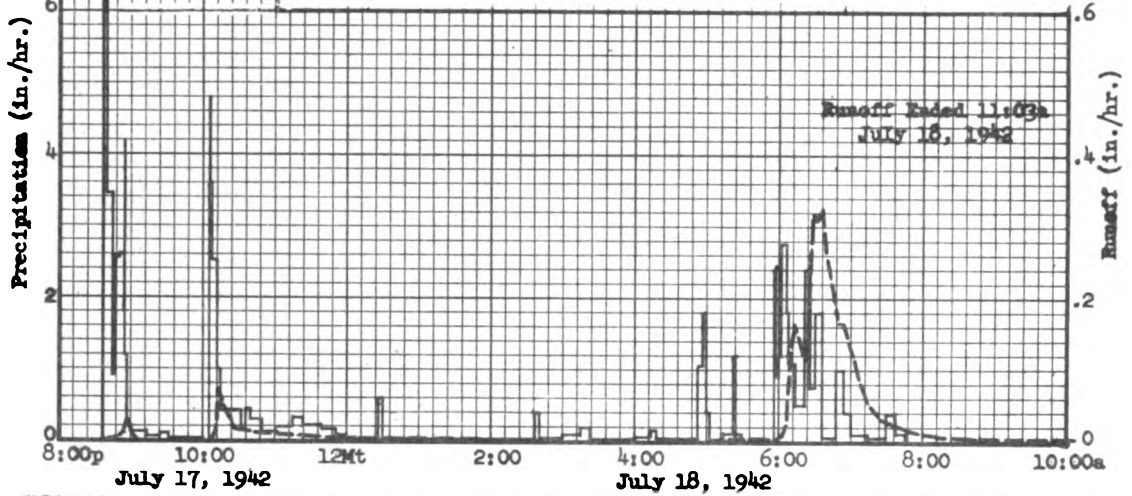
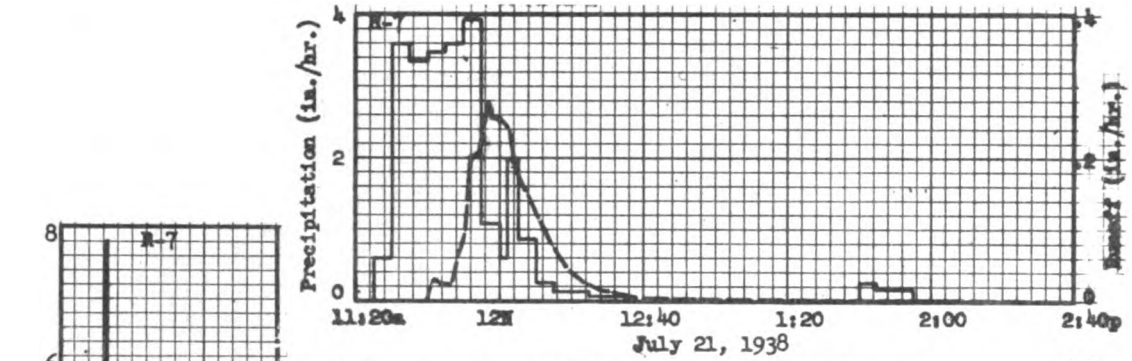
Notes: 1/ Included .10 inches snow 8:00p.
2/ 1:00p to 7:00p, rain continuing.
To convert runoff in in/hr to cfs multiply by 24.40.

Cohocton, New York			Watershed W-III (2.3)			24.2 acres		
Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
<u>Event of May 25-26, 1943 Cont'd.</u>								
			1:16a	1.00	1.50	4:55a	.006	.0843
			:21	.48	1.54	5:05	.005	.0851
			:26	1.32	1.65	:17	.004	.0859
			:30	.90	1.71	:29	.003	.0866
			:35	.48	1.75	6:09	.002	.0883
			:38	.20	1.76	:54	.001	.0893
			:47	.40	1.82	7:45	.001	.0898
			:49	2.70	1.91	8:57e	0	.0900
			:53	.60	1.95			
			2:00	.51	2.01			
			:02	.30	2.02			
			:10	.08	2.03			
			ceased					
			:38	0	2.03			
			:44	.10	2.04			
			:47	.60	2.07			
			:53	.10	2.08			
			:56	.60	2.11			
			3:00	.15	2.12			
			:08	.08	2.13			
			:12	.15	2.14			
			:17	.12	2.15			
			:20	.40	2.17			
			:25	.24	2.19			
			:33	.15	2.21			
			:42	.27	2.25			
			ceased					
			:55	0	2.25			
			4:00	.60	2.30			
			:05	.24	2.32			
			:10	.12	2.33			
			:14	.15	2.34			
			:25	.05	2.35			
			5:00	.02	2.36			
			6:00	.01	2.37			
			7:00	.02	2.39			
			8:00e	.04	2.43			
<u>Event of July 23, 1945</u>								
6-25-45	.35	0	7-23-45	Raingage	R-7	7-23-45		
6-30	.60	0	3:07p	0	0	3:33p	0	0
7-2	.09	0	:11	1.20	.08	:34	.113	.0004
7-8	.09	0	:13	3.00	.18	:34½	.296	.0043
7-9	.17	0	:15	1.20	.22	:35	.224	.0054
7-10	.25	0	:17	1.50	.27	:36	.214	.0090
7-14	.72	0	:23	1.00	.37	:37	.210	.0125
7-15	.43	0	:25	3.30	.48	:38	.208	.0160
7-16	.05	0	:28	2.20	.59	:39	.200	.0194
7-18	.89	.0036	:32	1.35	.68	:40	.200	.0227

Notes: To convert runoff in in/hr to cfs multiply by 24.40.

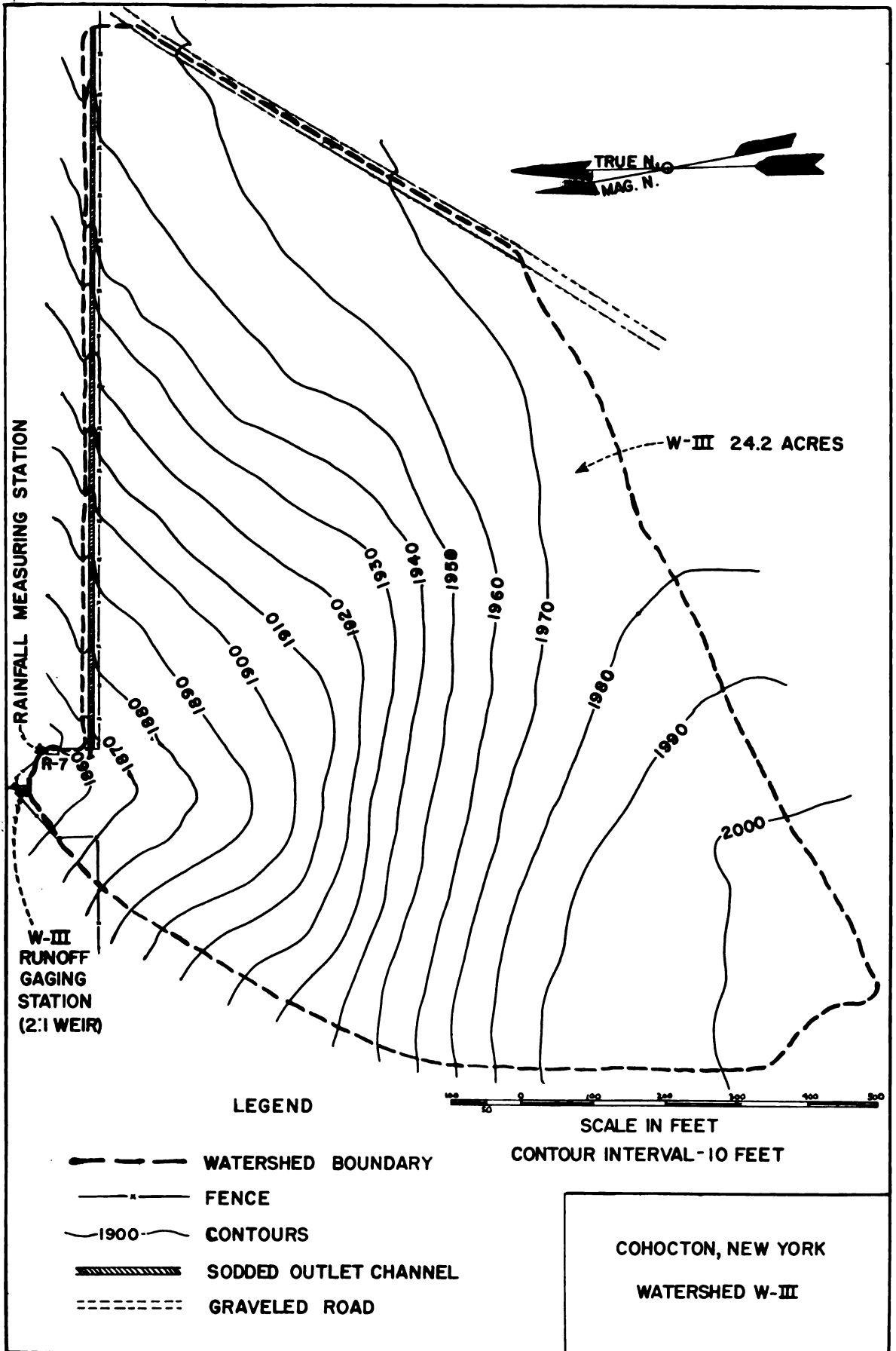
Cohocton, New York			Watershed W-III (2.3)			24.2 acres					
Antecedent conditions			Rainfall			Runoff					
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)			
Event of July 23, 1945 Cont'd.											
7-19-45	.47	0	3:34p	1.80	.74	3:45p	.158	.0376			
7-22	.40	0	:36	1.20	.78	:48	.122	.0446			
7-23	.15 ^{1/}	0	:40	.60	.81	:50	.102	.0483			
			:53	.23	.86	:53	.077	.0528			
			4:00	.43	.91	:55	.067	.0552			
Watershed Conditions: Tillage in large fields mostly off the contour: potatoes 15 inches high on 5-inch ridges in straight rows, up and down the slope 38%; potatoes in straight rows across the slope 23%; timothy hay uncut 20 to 30 inches high medium stand 39%.			:10e	.30	.95	:57	.057	.0572			
						4:00			.048	.0599	
						:04			:04	.036	.0627
						:06			:06	.033	.0638
						:09			:09	.028	.0654
									:11	.023	.0666
									:13	.019	.0669
									:15	.018	.0675
									:20	.012	.0688
									:25	.008	.0696
									:27	.007	.0699
									:30	.006	.0702
									:35	.005	.0706
						:40	.004	.0710			
						:48	.003	.0714			
						:55	.002	.0716			
						5:20	.001	.0722			
						6:32e	0	.0726			

Notes: 1/ 7:43a to 9:00a.
 To convert runoff in in/hr to cfs multiply by 24.40.



Cohocton, New York

Watershed W-III



Freehold, New Jersey			Watershed W-I			(4.1)		Area 15.7 acres ^{2/}			
Antecedent conditions			Rainfall			Runoff					
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)			
<u>Event of June 12, 1938 15.7 ac. ^{2/}</u>											
5-12-38	0.27	0	6-12-38	Raingage	R-1	6-12-38					
5-14	.63	T	6:03p	0	0	6:06p	0	0			
5-15	.55	.001	:05	.60	.02	:07	.018	0			
5-22	.29	0	:06	2.40	.06	:08	.018	.001			
5-24	.31	0	:07	3.60	.12	:09	.019	.001			
5-26	.62	0	:08	6.60	.23	:10	.021	.001			
5-27	.47	.001	:10	7.20	.47	:11	.049	.002			
6-3	.02	0	:11	6.60	.58	:12	.075	.003			
6-4	.12	0	:12	6.00	.68	:13	.107	.004			
6-8	.33	0	:14	4.20	.82	:14	.167	.007			
6-12	.33 ^{1/}	0	:16	4.50	.97	:15	.149	.009			
			:17	3.00	1.02	:16	.170	.012			
			:19	1.20	1.06	:17	.392	.017			
			:30	.22	1.10	:18	.818	.027			
			:50	.15	1.15	:19	.888	.041			
Watershed conditions: Contour tillage parallel with terrace ridges: carrots 10 inches high 13%; peas 8 inches high 14%; broccoli 6%; spinach 2 inches high 2%; fallow (bare ground) 42%; Sudan grass 4 inches high 13%. Grass in terrace outlet channel 8%; lanes, etc., 2%. (Percentages based on 15.7 acres)			7:00	.18	1.18	:20	.913	.056			
			(ceased)	0	0	:21	1.28	.074			
			:04	0	1.18	:22	.930	.093			
			:15	.22	1.22	:23	.791	.107			
			:30	.16	1.26	:26	.620	.142			
			:44	.09	1.28	:32	.308	.188			
			8:00e	.08	1.30	:35	.223	.202			
						:38	.163	.211			
						:44	.092	.224			
						:50	.053	.231			
						:56	.034	.236			
						7:02	.021	.238			
						:14	.007	.241			
						:36e	0	.242			
<u>Event of July 15, 1938 15.7 ac. ^{2/}</u>											
6-18-38	0.09	0	7-15-38	Raingage	R-1	7-15-38					
6-23	2.17	.687	6:03a	0	0	6:03a	0	0			
6-26	1.55	.582	:04	4.80	.08	:07	.017	.001			
6-27	4.02	1.705	:05	6.60	.19	:09	.037	.002			
6-28	.23	.001	:06	4.80	.27	:11	.042	.003			
7-1	.02	0	:08	3.30	.38	:13	.051	.005			
7-9	.24	T	:09	4.80	.46	:15	.048	.006			
7-11	.25	.001	:10	3.00	.51	:16	.204	.008			
7-12	.14	0	:11	6.00	.61	:17	1.68	.023			
7-14	.44	.001	:12	2.40	.65	:18	.79	.045			
Watershed conditions: Contour tillage parallel with terrace ridges: carrots 15 inches high 13%; cucumbers 3 ft. vines 6%; beans 10 inches high 8%; pea ground plowed 14%; Sudan grass cover crops 4 to 25 inches high 49%. Grass in terrace outlet channel 8%; lanes, etc., 2%. (Percentages of 15.7 acres)			:16	1.20	.73	:19 ^{1/2}	1.06	.067			
			:30	.09	.75	:21	.802	.090			
			:45e	.04	.76	:27	.482	.154			
						:33	.258	.190			
						:39	.161	.211			
									:51	.068	.233
									7:15	.008	.246
									:50e	0	.247

Notes: ^{1/} .30 inches of rain 12:10a to 2:08a and .03 inches between 4:00p and 5:30p.
^{2/} To convert runoff in in/hr to cfs multiply by 15.83. (To 8-17-38)

Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)

Event of July 11, 1942 17.5 ac. 2/

6-11-42	0.52	0	7-11-42	Raingage	R-1	7-11-42		
6-12	.23	0	3:25a	0	0	5:32a	0	0
6-13	.50	0	:37	.15	.03	:33	.451	.004
6-14	.34	0	:50	.28	.09	:34	.218	.010
6-17	.10	0	4:00	.18	.12	:35	.202	.013
6-22	.10	0	:12	.25	.17	:36	.203	.017
6-26	.05	0	:24	.10	.19	:37	.180	.020
6-27	.20	0	:35	.44	.27	:38	.143	.023
7-1	.06	0	:40	.60	.32	:40	.129	.027
7-2	2.42	.048	:50	1.02	.49	:45	.136	.038
7-3	.07	0	:52	1.50	.54	:48	.152	.045
7-6	.03	0	:58	1.40	.68	:51	.189	.054
			5:00	.60	.70	:54	.240	.065
			:04	1.05	.77	:57	.319	.078
			:08	1.20	.85	6:00	.439	.097
			:15	.69	.93	:03	.603	.123
			:25	.42	1.00	:05	.773	.146
			:27	1.20	1.04	:07	.854	.173
			:33	1.00	1.14	:09	.870	.202
			:39	.60	1.20	:11	.911	.232
			:42	1.60	1.28	:14	.918	.277
			:46	.90	1.34	:17	.830	.321
			:50	2.25	1.49	:20	.717	.360
			:53	2.20	1.60	:23	.632	.394
			:55	1.50	1.65	:27	.507	.432
			6:00	2.52	1.86	:35	.328	.487
			:06	1.70	2.03	:43	.168	.519
			:20	.56	2.16	:55	.073	.542
			:40e	.12	2.20	7:07	.030	.552
						:40e	0	.558

Watershed conditions: Contour tillage parallel with cropland terrace ridges: carrots 4 inches high 13%; spinach 4 inches high 8%; mustard and turnips, bare to 1 inch high 5%; beets 4 to 8 inches high 1%; Sudan grass 1 to 2 inches high 49%; mixed hay in terrace outlet channel and adjacent areas 15 inches high 8%; lanes and building 3%. (Percentages of 17.5 acres)

Event of June 17, 1943 17.5 ac. 2/

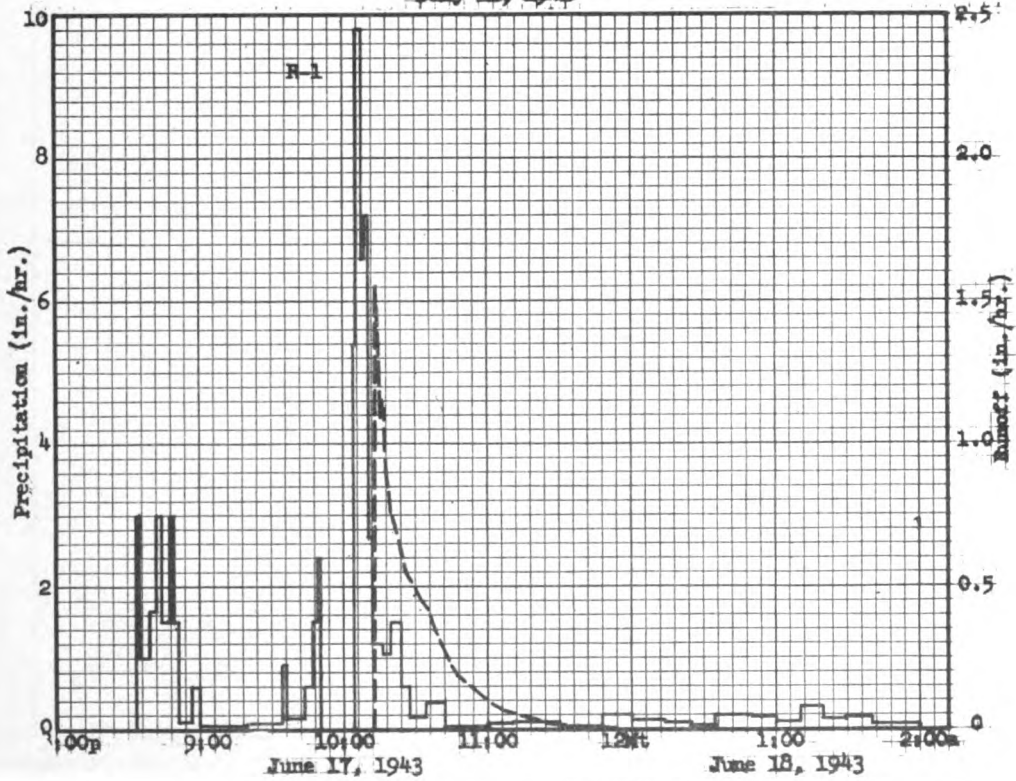
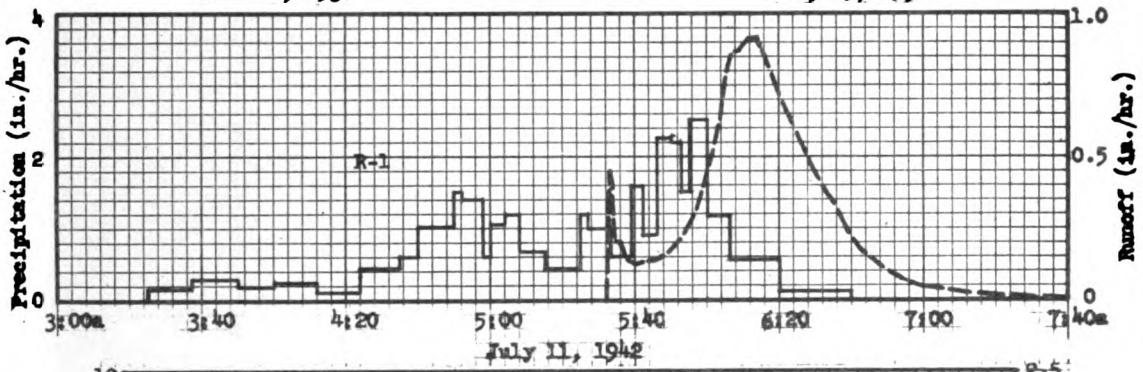
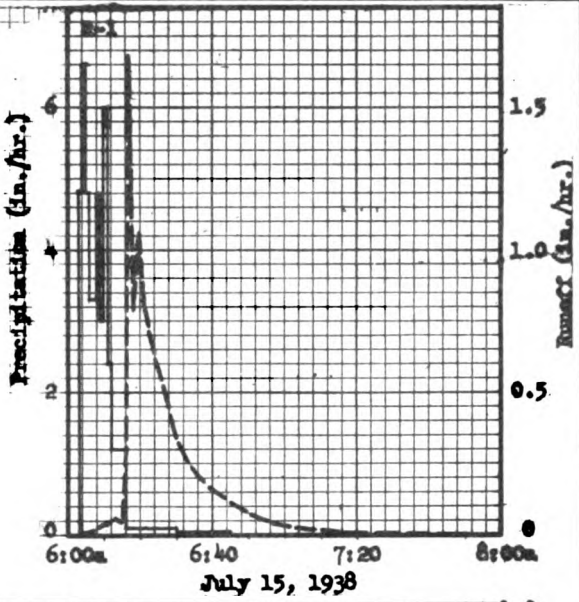
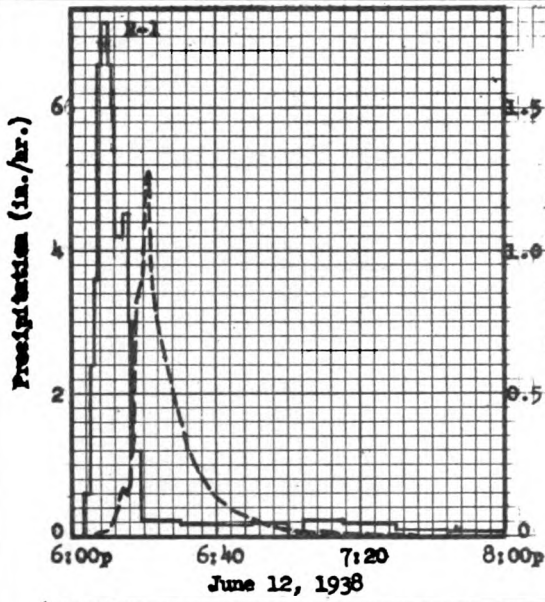
5-19-43	0.06	0	6-17-43	Raingage	R-1	6-17-43		
5-20	.91	0	8:34p	0	0	10:13p	0	0
5-21	.23	0	:35	3.00	.05	:14	.981	.006
5-26	.55	0	:38	1.00	.10	:14½	1.56	.016
5-28	.03	0	:42	1.65	.21	:15	1.09	.027
6-1	.24	0	:44	3.00	.31	:16	1.15	.046
6-2	.16	0	:48	1.50	.41	:17	.975	.064
6-7	.16	0	:49	3.00	.46	:18	.907	.079
6-9	.12	0	:51	1.50	.51	:19	.850	.094
			:57	.10	.52	:20	.760	.107
			9:00	.60	.55	:22	.680	.131
			:20	.06	.57	:24	.607	.153
			:34	.09	.59	:26	.550	.172
			:36	.90	.62	:29	.513	.199
			:44	.15	.64	:32	.467	.223
			:47	.60	.67	:35	.415	.245
			:49	1.50	.72	:38	.346	.264
			:51	2.40	.80	:41	.296	.280

Watershed conditions: Contour tillage parallel with cropland terrace ridges: lettuce 5 inches high 33%; spinach 4 inches high 18%; collards 8 to 15 inches high 19%; bare (fallow) 19%; hay and alfalfa 12 to 15 inches high 8%. Building and lanes 3%. (Percentages of 17.5 acres)

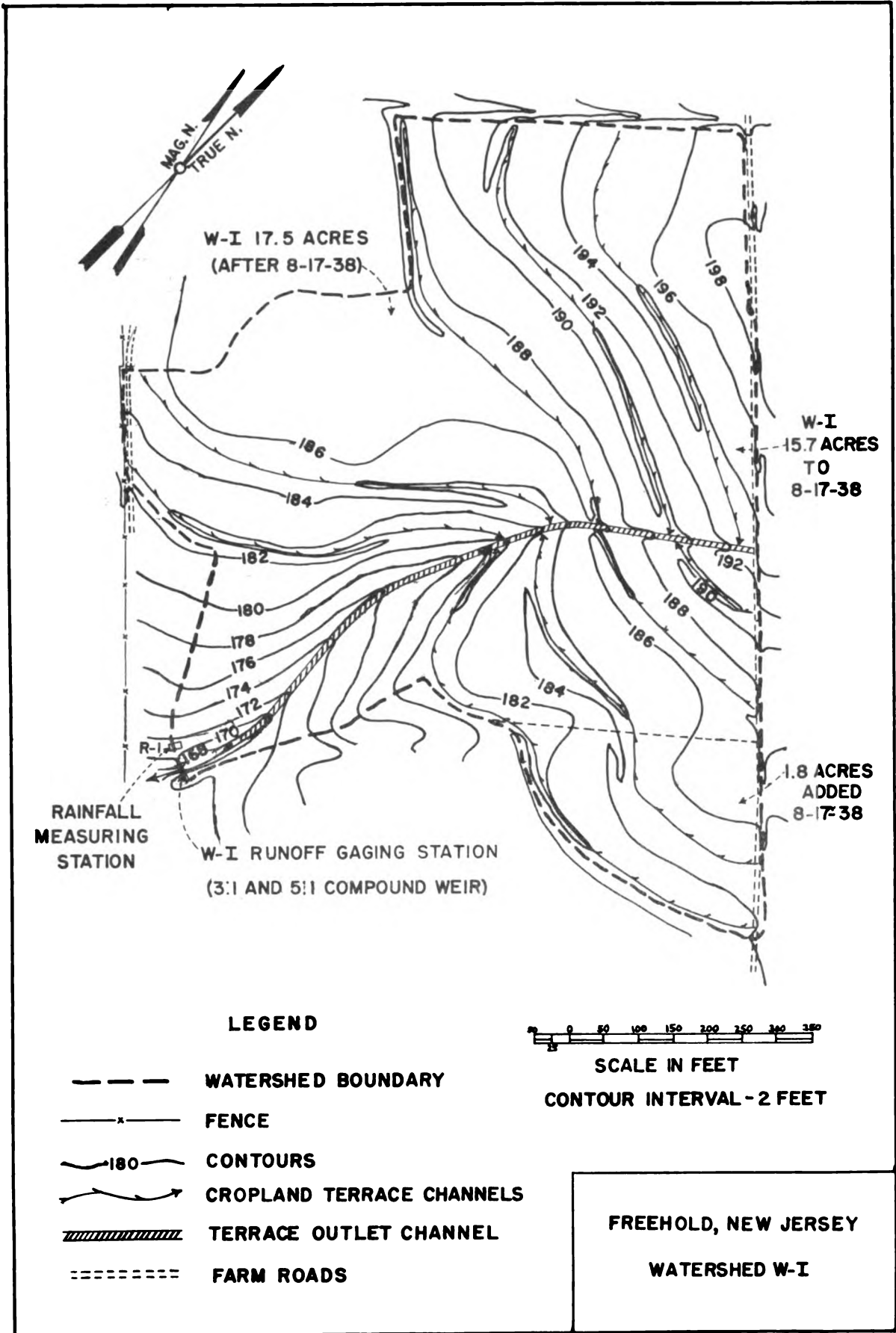
Notes: 1/ Area increased 8-17-38 from 15.7 to 17.5 acres by extending 2 lower terraces on east side of outlet channel.
2/ To convert runoff in in/hr to cfs multiply by 17.65.

Freehold, New Jersey			Watershed W-I (4.1)			Area 17.5 acres ^{1/}		
Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
<u>Event of June 17, 1943, Cont'd. ^{2/}</u>								
			(ceased)	0	0	10:44p	.239	.294
			10:04p	0	.80	:47	.197	.305
			:05	5.40	.89	:50	.175	.314
			:08	9.80	1.38	:54	.142	.324
			:09	6.60	1.49	:58	.113	.333
			:10	7.20	1.61	11:02	.088	.340
			:12	2.70	1.70	:06	.068	.345
			:16	1.20	1.78	:10	.056	.349
			:20	1.05	1.85	:15	.043	.353
			:24	1.50	1.95	:20	.029	.356
			:27	.60	1.98	:26	.021	.358
			:34	.17	2.00	:32	.011	.360
			:42	.38	2.05	:38	.007	.361
			11:00	.03	2.06	:44	.004	.362
			:10	.06	2.07	:54e	0	.362
			:30	.09	2.10			
			:48	.03	2.11			
			12 Mt. 6-18-43	.20	2.15			
			12:14a	.13	2.18			
			:25	.11	2.20			
			:35	.06	2.21			
			:50	.20	2.26			
			1:00	.18	2.29			
			:10	.12	2.31			
			:20	.30	2.36			
			:29	.13	2.38			
			:40	.16	2.41			
			2:00e	.06	2.43			

Notes: ^{1/} Area increased 8-17-38 from 15.7 to 17.5 acres by extending 2 lower terraces on east side of terrace outlet channel.
^{2/} To convert runoff in in/hr to cfs multiply by 17.65.



Freehold, New Jersey Watershed W-I



W-I 17.5 ACRES
(AFTER 8-17-38)

W-I
15.7 ACRES
TO
8-17-38

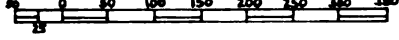
.8 ACRES
ADDED
8-17-38

RAINFALL
MEASURING
STATION

W-I RUNOFF GAGING STATION
(3:1 AND 5:1 COMPOUND WEIR)

LEGEND

- WATERSHED BOUNDARY
- x- FENCE
- ~180~ CONTOURS
- ~>~ CROPLAND TERRACE CHANNELS
- ////// TERRACE OUTLET CHANNEL
- FARM ROADS



SCALE IN FEET

CONTOUR INTERVAL - 2 FEET

FREEHOLD, NEW JERSEY
WATERSHED W-I

Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
Event of August 6, 1938 (34.2 ac.)^{1/}								
7-9-38	0.17	0	8-6-38	Raingage	R-3	8-6-38		
7-11	.16	0	4:30p	0	0	4:48p	0	0
7-12	.12	0	:34	.45	.03	:51	.097	.002
7-14	.42	0	:39	2.40	.23	:52	.123	.004
7-15	.76	.104	:41	1.80	.29	:53	.271	.007
7-17	.04	0	:43	.60	.31	:54	.328	.012
7-18	.16	0	:49	3.30	.64	:55	.423	.018
7-19	.17	0	:50	6.60	.75	:56	.513	.026
7-20	2.61	.353	:52	3.30	.86	:57	.589	.035
7-21	.63	.005	:58	3.10	1.17	:59	.697	.057
7-22	.28	T	:59	1.80	1.20	5:00	.722	.068
7-23	.67	.005	5:00	4.80	1.28	:02	.748	.093
7-24	1.28	.156	:02	1.20	1.32	:03	.702	.105
7-29	.07	0	:03	4.20	1.39	:04	.737	.117
8-1	.08	0	:08	2.16	1.57	:05	.713	.129
8-4	.24	0	:12	2.25	1.72	:08	.713	.165
8-5	.03	0	:15	1.40	1.79	:11	.702	.200
			:25	.12	1.81	:17	.713	.271
			:28	.20	1.82	:20	.592	.304
			:35	.09	1.83	:22	.536	.322
Watershed Conditions: Straight row cultivation with 4-inch ridges in rows; corn 6 ft. high 45%, corn 30 inches high 8% (both off contour); potatoes 18 inches high, somewhat off contour, 20%. Soybeans 20 inches high 2%, soybeans 2 inches high drilled up and down slope 15%. Grass and brush 40 inches to 8 ft. high 4%. Lanes, roads and barn, 6%.			:42	.34	1.87	:24	.438	.339
			6:00	.07	1.89	:26	.391	.352
			:08	.15	1.91	:28	.326	.364
			:18e	.06	1.92	:30	.286	.375
			Raingage R-2	1.89	:33	.232	.388	
					:36	.190	.398	
					:39	.151	.407	
		:44	.089	.417				
		:50	.059	.424				
		:59	.028	.431				
					6:11	.010	.434	
					:29	.001	.436	
					:42e	0	.436	
Event of May 21, 1940 (32.9 ac.)^{2/}								
4-18-40	0.09	0	5-21-40	Raingage	R-3	5-21-40		
4-19	.21	0	1:43p	0	0	2:09p	0	0
4-20	1.30	.012	:49	.10	.01	:11	.125	.002
4-21	.84	.035	:57	.15	.03	:12	.371	.006
4-22	.11	0	2:00	.20	.04	:13	.362	.012
5-1	.06	0	:02	.60	.06	:14	.675	.021
5-2	.10	0	:03	1.80	.09	:15	1.08	.036
5-4	.13	0	:04	9.60	.25	:16	1.41	.056
5-9	.15	0	:05	2.40	.29	:17	1.51	.081
5-11	.09	0	:07	4.50	.44	:18	1.47	.105
5-16	1.82	.040	:09	2.70	.53	:19	1.56	.131
5-17	.19	0	:10	4.80	.61	:20	1.64	.157
			:12	4.20	.75	:21	1.65	.185
			:15	.80	.79	:23	1.48	.237
			:17	3.00	.89	:25	1.22	.282

Notes: 1/ To convert runoff in in/hr to cfs multiply by 34.48.
 2/ To convert runoff in in/hr to cfs multiply by 33.17.

Freehold, New Jersey			Watershed W-II (4.2)			Area 32.9 acres		
Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
Event of May 21, 1940, Cont'd.^{1/}								
Watershed Conditions: Straight row cultivation off-contour; corn just planted with grass waterways 30%; potatoes 3 inches high 21%; oats 18 inches high 11%. Contour strips: corn 3 inches high 6%; soybeans 2 inches high 2%; winter wheat 15 inches high 12%. Grass 10 inches high with brush 4%; lanes, roads and barn 6%. 17 tons soil deposited above 3 x 6 ft. drop inlet culvert near R-2 raingage.			2:19p	.60	.91	2:27p	.964	.318
			:21	1.20	.95	:29	.784	.347
			:33	.10	.97	:35	.398	.404
			:38	.12	.98	:39	.240	.425
			:46	.15	1.00	:43	.155	.438
			3:00	.09	1.02	:50	.077	.451
			:10e	.06	1.03	3:00	.031	.460
			Raingage	R-2	1.39	:10	.011	.463
			Weighted average ^{2/}		1.15	:30	.002	.465
						:46e	0	.465
Event of July 11, 1942^{1/}								
6-11-42	0.16	0	7-11-42	Raingage	R-3	7-11-42		
6-12	.18	0	3:18a	0	0	4:56a	0	0
6-13	.37	0	:38	.18	.06	5:04	.010	.001
6-14	.25	0	:41	.20	.07	:06	.012	.001
6-17	.10	0	4:00	.22	.14	:08	.013	.001
6-22	.06	0	:13	.18	.18	:12	.015	.002
6-23	.03	0	:26	.09	.20	:20	.017	.005
6-26	.04	0	:32	.40	.24	:26	.027	.007
6-27	.22	0	:37	.72	.30	:32	.035	.010
7-1	.12	0	:41	.75	.35	:39	.042	.014
7-2	2.60	.017	:44	1.40	.42	:42	.053	.017
7-4	.10	0	:46	.90	.45	:45	.063	.020
7-6	.08	0	:55	1.53	.68	:48	.077	.023
			:57	2.70	.77	:51	.088	.027
			5:00	.80	.81	:54	.107	.032
Watershed Conditions: Straight row cultivation and planting: corn 6 ft. high 33%, potatoes 18 inches high 21% (both with 4-inch ridges); soybeans 10 inches high 16%. Contour strips or tillage: corn 6 ft. high 2%; soybeans 10 inches high 10%; hay 20 inches high 7%. Grass and brush 6%; lanes, roads and barn 6%. Diversion terrace 600 ft. long built on southerly slope between contour strips 8-14-40.			:04	.75	.86	:57	.131	.038
			:06	1.50	.91	6:00	.159	.045
			:07	2.40	.95	:02	.178	.051
			:14	.77	1.04	:06	.191	.063
			:17	1.60	1.12	:09	.210	.073
			:23	.80	1.20	:10	.226	.077
			:25	1.50	1.25	:12	.225	.084
			:27	.90	1.28	:15	.192	.095
			:30	1.80	1.37	:18	.153	.103
			:33	1.00	1.42	:21	.123	.110
			:35	1.80	1.48	:24	.095	.116
			:40	1.68	1.62	:27	.074	.120
			:46	2.20	1.84	:30	.059	.123
			:50	3.00	2.04	:33	.040	.126
			:58	1.88	2.29	:36	.028	.127
			6:00	.90	2.32	:39	.017	.128
			:04	.75	2.37	:42	.012	.129
			:07	1.00	2.42	:45	.008	.130
:15	.45	2.48	:51	.004	.130			
:22	.34	2.52	7:00	.001	.131			
:40e	.07	2.54	:11e	0	.131			
7-11-42	R-2	2.52						

Notes: ^{1/} To convert runoff in in/hr to cfs multiply by 33.17.
^{2/} Thiessen method.

Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity ^{1/} (in/hr)	Acc. (inches)	Date and time	Rate ^{2/} (in/hr)	Acc. (inches)
<u>Event of August 3, 1950</u>								
7-3-50	.22	0	8-3-50	Raingage	R-2	8-3-50		
7-4	.09	0	5:10a	0	0	8:39a	0	0
7-5	.38	0	:25	.08	.02	:44	.009	.001
7-6	.04	0	6:00	.02	.03	:47	.028	.002
7-9	.02	0	:30e	.04	.05	:49	.130	.004
7-10	1.89	.017	7:50a	0	.05	:51	.186	.010
7-11	.02	0	8:00	.06	.06	:53	.186	.016
7-13	.12	0	:15	.20	.11	:57	.156	.027
7-16	1.90	.157	:25	1.92	.43	9:03	.137	.041
7-17	.29	.009	:35	1.08	.61	:06	.144	.048
7-19	.02	0	:55	.57	.80	:09	.152	.056
7-20	.07	0	9:00	1.44	.92	:11	.152	.061
7-21	.10	0	:15	.36	1.01	:16	.137	.073
7-24	.07	0	:25	.84	1.15	:21	.126	.084
7-30	.74	.030	:30	1.56	1.28	:26	.116	.094
8-1	.02	0	:50	.24	1.36	:31	.148	.105
			10:00	.72	1.48	:34	.182	.113
			:30	.26	1.61	:38	.201	.126
			:50	.45	1.76	:42	.206	.140
			11:00	1.26	1.97	:44	.230	.147
Watershed Conditions: Corn planted in straight rows off contour, 6 ft. high 69%; hay and alfalfa 10 inches high 19%; grass and brush 4%; roads, lanes, buildings and yard 8%.			:20	.60	2.17	:48	.230	.162
			:40	.24	2.25	:54	.191	.183
			:50	.36	2.31	10:00	.141	.200
			12 N	.66	2.42	:06	.116	.213
			:20	.45	2.57	:12	.090	.223
			1:00p	.08	2.62	:18	.066	.231
			:40	.02	2.63	:40	.030	.247
			2:00e	.09	2.66	:54	.116	.257
						11:00	.201	.275
						:02	.220	.282
			:05	.283	.294			
			:07	.283	.304			
			:13	.220	.329			
			:19	.160	.348			
			:25	.122	.362			
			:31	.099	.373			
			:37	.079	.382			
			:42	.073	.388			
			:48	.076	.396			
			:59	.059	.408			
			12:06p	.071	.416			
			:26	.043	.434			
			:46	.015	.444			
			1:06	.004	.446			
			:26	.001	.447			
			2:40e	0	.447			

Notes: 1/ Intensities approximate, estimated from weekly raingage chart.
2/ To convert runoff in in/hr to cfs multiply by 33.17.

Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate ^{2/} (in/hr)	Acc. (inches)
Event of August 6, 1952								
7-8-52	.74	.0023	8-6-52	Raingage	R-2 ^{1/}	8-6-52		
7-9	1.18	.0143	6:40p	0	0	7:56p	0	0
7-10	.28	.0032	7:00	.06	.02	8:00	.0032	.0005
7-11	0	.0001	:10	.42	.09	:01	.0176	.0007
7-16	.25	.0003	:20	1.38	.32	:02	.0485	.0013
7-17	.03	0	:30	3.12	.84	:08	.0684	.0023
7-18	.02	0	:40	1.56	1.10	:13	.0871	.0101
7-20	.30	0	:50	2.10	1.45	:18	.0708	.0167
7-21	.75	.0039	8:00	.12	1.47	:23	.0527	.0218
7-22	0	T	:20	.09	1.50	:28	.0341	.0254
7-27	.39	.0005	:25	.60	1.55	:33	.0210	.0277
7-31	.20	0	:45	.06	1.57	:38	.0121	.0291
8-2	.63	.0019	9:00	.12	1.60	:53	.0083	.0300
8-3	.02	0	:30	.18	1.69	8-7-52	.0036	.0315
8-5	.03	0	10:00	.26	1.82	9:05	.0029	.0322
			:30	.14	1.89	:25	.0014	.0329
			:40	.36	1.95	:35	.0014	.0331
			11:00	.03	1.96	10:15	.0040	.0349
			12 Mt	.03	1.99	:25	.0055	.0357
			8-7-52			:32	.0083	.0365
			1:00a	.02	2.01	:36	.0083	.0371
			2:00e	.01	2.02	11:00	.0036	.0394
						:40	.0010	.0408
			3:30a	0	2.02	12 Mt	.0004	.0410
			4:00	.02	2.03	8-7-52		
			5:00	.01	2.04	12:30a	.0002	.0411
			:30	.02	2.05	1:00	.0001	.0412
			:40	.12	2.07	7:30e	0	.0413
			6:00	.03	2.08			
			7:00e	.01	2.09			
Event of September 10-11, 1954^{4/}								
8-11-54	.04	0	9-10-54	Raingage	R-2 ^{5/}	9-11-54		
8-15	.04	0	7:20p	0	0	12:01a	0	0
8-20	.07	0	8:00	.03	.02	:19	.0032	.0007
8-21	.85	.0020	:20	.06	.04	:23	.0060	.0010
8-26	.04	0	:28	.15	.06	:29	.0060	.0016
8-30 ^{3/}	.40	0	:43	.08	.08	:35	.0049	.0021
8-31 ^{3/}	1.97	.0273	:52	.20	.11	:45	.0036	.0028
9-7	.42	.0005	9:00	.08	.12	:55	.0049	.0035
			:14	.13	.15	1:12	.0055	.0050
			:23	.07	.16	:18	.0071	.0056
			:33	.18	.19	:24	.0083	.0064
			:53	.12	.21	:34	.0071	.0077
			10:00	.17	.23	:40	.0055	.0083
			:15	.16	.27	:46	.0045	.0088
			:28	.05	.28	:54	.0045	.0094
			:37	.13	.30	:58	.0049	.0097
			:41	.30	.32	2:12	.0049	.0108
			:50	.13	.34	:18	.0083	.0115
			11:00	.06	.35	:24	.0121	.0125

Notes: 1/ Intensities approximate, estimated from weekly raingage chart.
 2/ To convert runoff in in/hr multiply by 33.17.
 3/ Carol Hurricane. 4/ Edna Hurricane. 5/ Intensities from 24 hr. chart.

Freehold, New Jersey			Watershed W-II (4.2)			32.9 acres		
Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity ^{1/} (in/hr)	Acc. (inches)	Date and time	Rate ^{2/} (in/hr)	Acc. (inches)
<u>Event of September 10-11, 1954 Cont'd.</u> ^{3/}								
			11:15p	.08	.37	2:28a	.0222	.0136
			:30	.12	.40	:33	.0326	.0159
			:40	.18	.43	:38	.0280	.0184
			:50	.06	.44	:44	.0198	.0208
			:55	.60	.49	:48	.0146	.0219
			12 Mt	.96	.57	:52	.0176	.0230
			9-11-54			:56	.0138	.0240
			12:20a	.27	.66	3:00	.0138	.0249
			:30	.12	.68	:10	.0105	.0269
			:40	.30	.73	:22	.0105	.0290
			:55	.28	.80	:28	.0090	.0300
			1:00	.24	.82	:35	.0071	.0309
			:10	.42	.89	:40	.0113	.0317
			:15	.36	.92	:45	.0222	.0331
			:30	.20	.97	:50	.0250	.0351
			:45	.32	1.05	:55	.0165	.0368
			2:00	.24	1.11	4:00	.0121	.0380
			:10	.42	1.18	:05	.0129	.0390
			:15	.72	1.24	:10	.0210	.0404
			:25	1.62	1.51	:15	.0155	.0419
			:30	.36	1.54	:19	.0165	.0430
			:35	.48	1.58	:22	.0155	.0438
			:39	.45	1.61	:26	.0176	.0449
			:43	1.20	1.69	:30	.0155	.0460
			:47	.30	1.71	:35	.0138	.0472
			:52	.48	1.75	:40	.0105	.0482
			3:00	.45	1.81	:45	.0077	.0490
			:15	.48	1.93	:50	.0060	.0496
			:27	.20	1.97	:55	.0049	.0501
			:31	.75	2.02	5:00	.0113	.0508
			:43	1.10	2.24	:04	.0113	.0516
			:53	.30	2.29	:08	.0129	.0524
			:56	.60	2.32	:18	.0083	.0542
			4:00	.30	2.34	:21	.0113	.0547
			:03	1.80	2.43	:24	.0176	.0554
			:15	.45	2.52	:27	.0407	.0569
			:17	1.80	2.58	:29	.0615	.0586
			:25	.60	2.66	:35	.0466	.0640
			:32	.17	2.68	:40	.0295	.0672
			:44	.10	2.70	:45	.0155	.0691
			:48	.15	2.71	:50	.0105	.0702
			:52	1.05	2.78	:55	.0071	.0709
			:56	.45	2.81	6:00	.0045	.0714
			5:00	.90	2.87	:05	.0040	.0718
			:12	.15	2.90	:08	.0097	.0721
			:18	.80	2.98	:12	.0155	.0729
			:23	4.32	3.34	:18	.0235	.0749
			:25	2.10	3.41	:24	.0155	.0769
			:33	.68	3.50	:30	.0090	.0781
			:50	.07	3.52	:36	.0055	.0788

Notes: 1/ Intensities from 24 hour raingage chart.
2/ To convert runoff in in/hr to cfs multiply by 33.17.
3/ Edna Hurricane

Freehold, New Jersey			Watershed W-II (4.2)			32.9 acres		
Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate ^{2/} (in/hr)	Acc. (inches)
Event of August 6, 1952								
7-8-52	.74	.0023	8-6-52	Raingage	R-2 ^{1/}	8-6-52		
7-9	1.18	.0143	6:40p	0	0	7:56p	0	0
7-10	.28	.0032	7:00	.06	.02	:59	.0032	.0005
7-11	0	.0001	:10	.42	.09	8:00	.0176	.0007
7-16	.25	.0003	:20	1.38	.32	:01	.0485	.0013
7-17	.03	0	:30	3.12	.84	:02	.0684	.0023
7-18	.02	0	:40	1.56	1.10	:08	.0871	.0101
7-20	.30	0	:50	2.10	1.45	:13	.0708	.0167
7-21	.75	.0039	8:00	.12	1.47	:18	.0527	.0218
7-22	0	T	:20	.09	1.50	:23	.0341	.0254
7-27	.39	.0005	:25	.60	1.55	:28	.0210	.0277
7-31	.20	0	:45	.06	1.57	:33	.0121	.0291
8-2	.63	.0019	9:00	.12	1.60	:38	.0083	.0300
8-3	.02	0	:30	.18	1.69	:53	.0036	.0315
8-5	.03	0	10:00	.26	1.82	9:05	.0029	.0322
Watershed Conditions: An apple and peach orchard was planted in the fall of 1950 on the area with tree rows on a rectangular layout, parallel with the two roads, and considerably off the contour. Sod buffer strips 4 ft. wide had been left in the rows running north and south, with the recently harrowed strips between containing some residues from weeds cut down by the harrow.			:30	.14	1.89	:25	.0014	.0329
			:40	.36	1.95	:35	.0014	.0331
			11:00	.03	1.96	10:15	.0040	.0349
			12 Mt	.03	1.99	:25	.0055	.0357
			8-7-52			:32	.0083	.0365
			1:00a	.02	2.01	:36	.0083	.0371
			2:00e	.01	2.02	11:00	.0036	.0394
						:40	.0010	.0408
			3:30a	0	2.02	12 Mt	.0004	.0410
			4:00	.02	2.03	8-7-52		
						12:30a	.0002	.0411
			5:00	.01	2.04	:30	.0001	.0412
			:30	.02	2.05	1:00		
			:40	.12	2.07	7:30e	0	.0413
6:00	.03	2.08						
7:00e	.01	2.09						
Event of September 10-11, 1954^{4/}								
8-11-54	.04	0	9-10-54	Raingage	R-2 ^{5/}	9-11-54		
8-15	.04	0	7:20p	0	0	12:01a	0	0
8-20	.07	0	8:00	.03	.02	:19	.0032	.0007
8-21	.85	.0020	:20	.06	.04	:23	.0060	.0010
8-26	.04	0	:28	.15	.06	:29	.0060	.0016
8-30 ^{3/}	.40	0	:43	.08	.08	:35	.0049	.0021
8-31 ^{3/}	1.97	.0273	:52	.20	.11	:45	.0036	.0028
9-7	.42	.0005	9:00	.08	.12	:55	.0049	.0035
Watershed Conditions: Buffer strips in orchard tree rows 3 ft. wide running north and south. Volunteer grass and weeds 10 to 15 inches tall had grown in intervening strips since harrowing and perforating implement operated over them the last of June, leaving small depressions in ground 18 inches apart on a staggered pattern.			:14	.13	.15	1:12	.0055	.0050
			:23	.07	.16	:18	.0071	.0056
			:33	.18	.19	:24	.0083	.0064
			:53	.12	.21	:34	.0071	.0077
			10:00	.17	.23	:40	.0055	.0083
			:15	.16	.27	:46	.0045	.0088
			:28	.05	.28	:54	.0045	.0094
			:37	.13	.30	:58	.0049	.0097
			:41	.30	.32	2:12	.0049	.0108
			:50	.13	.34	:18	.0083	.0115
11:00	.06	.35	:24	.0121	.0125			

Notes: 1/ Intensities approximate, estimated from weekly raingage chart.
2/ To convert runoff in in/hr multiply by 33.17.
3/ Carol Hurricane. 4/ Edna Hurricane. 5/ Intensities from 24 hr. chart.

Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity ^{1/} (in/hr)	Acc. (inches)	Date and time	Rate ^{2/} (in/hr)	Acc. (inches)
<u>Event of September 10-11, 1954 Cont'd.</u> ^{3/}								
			11:15p	.08	.37	2:28a	.0222	.0136
			:30	.12	.40	:33	.0326	.0159
			:40	.18	.43	:38	.0280	.0184
			:50	.06	.44	:44	.0198	.0208
			:55	.60	.49	:48	.0146	.0219
			12 Mt	.96	.57	:52	.0176	.0230
			9-11-54			:56	.0138	.0240
			12:20a	.27	.66	3:00	.0138	.0249
			:30	.12	.68	:10	.0105	.0269
			:40	.30	.73	:22	.0105	.0290
			:55	.28	.80	:28	.0090	.0300
			1:00	.24	.82	:35	.0071	.0309
			:10	.42	.89	:40	.0113	.0317
			:15	.36	.92	:45	.0222	.0331
			:30	.20	.97	:50	.0250	.0351
			:45	.32	1.05	:55	.0165	.0368
			2:00	.24	1.11	4:00	.0121	.0380
			:10	.42	1.18	:05	.0129	.0390
			:15	.72	1.24	:10	.0210	.0404
			:25	1.62	1.51	:15	.0155	.0419
			:30	.36	1.54	:19	.0165	.0430
			:35	.48	1.58	:22	.0155	.0438
			:39	.45	1.61	:26	.0176	.0449
			:43	1.20	1.69	:30	.0155	.0460
			:47	.30	1.71	:35	.0138	.0472
			:52	.48	1.75	:40	.0105	.0482
			3:00	.45	1.81	:45	.0077	.0490
			:15	.48	1.93	:50	.0060	.0496
			:27	.20	1.97	:55	.0049	.0501
			:31	.75	2.02	5:00	.0113	.0508
			:43	1.10	2.24	:04	.0113	.0516
			:53	.30	2.29	:08	.0129	.0524
			:56	.60	2.32	:18	.0083	.0542
			4:00	.30	2.34	:21	.0113	.0547
			:03	1.80	2.43	:24	.0176	.0554
			:15	.45	2.52	:27	.0407	.0569
			:17	1.80	2.58	:29	.0615	.0586
			:25	.60	2.66	:35	.0466	.0640
			:32	.17	2.68	:40	.0295	.0672
			:44	.10	2.70	:45	.0155	.0691
			:48	.15	2.71	:50	.0105	.0702
			:52	1.05	2.78	:55	.0071	.0709
			:56	.45	2.81	6:00	.0045	.0714
			5:00	.90	2.87	:05	.0040	.0718
			:12	.15	2.90	:08	.0097	.0721
			:18	.80	2.98	:12	.0155	.0729
			:23	4.32	3.34	:18	.0235	.0749
			:25	2.10	3.41	:24	.0155	.0769
			:33	.68	3.50	:30	.0090	.0781
			:50	.07	3.52	:36	.0055	.0788

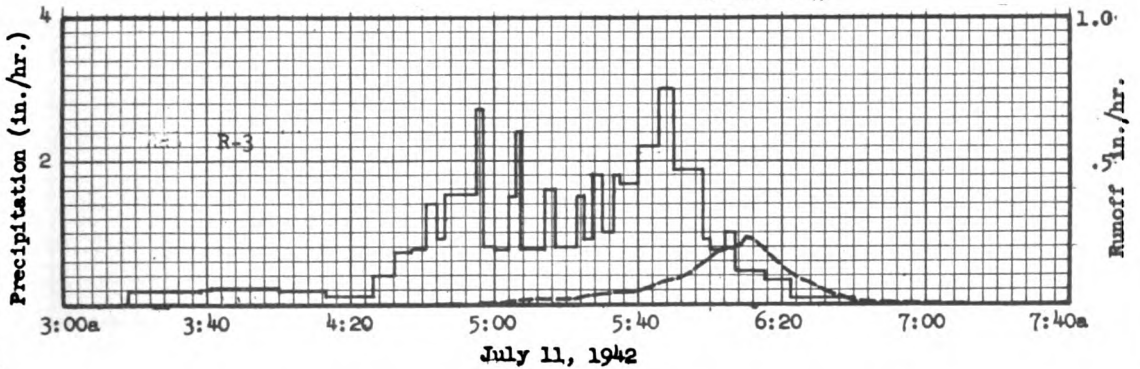
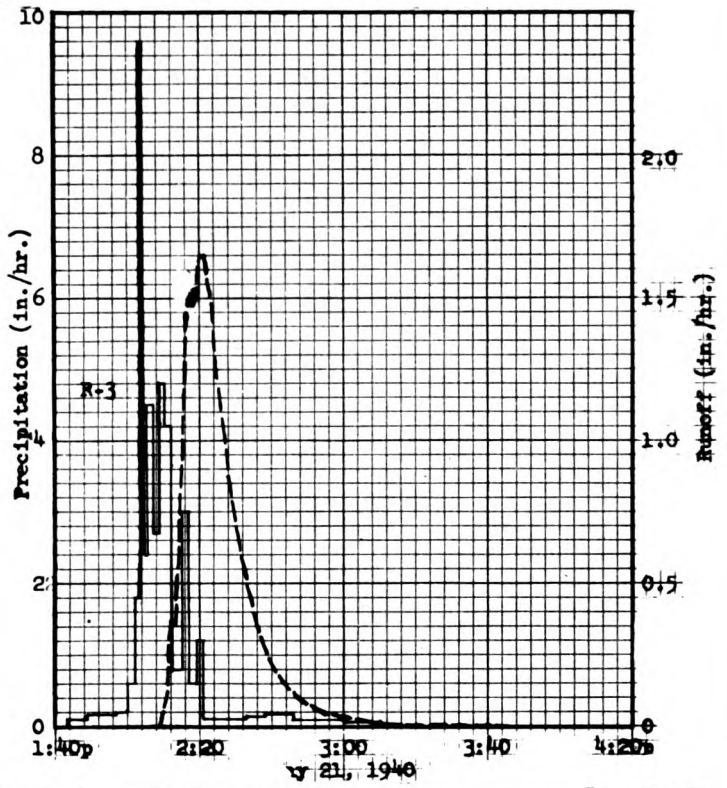
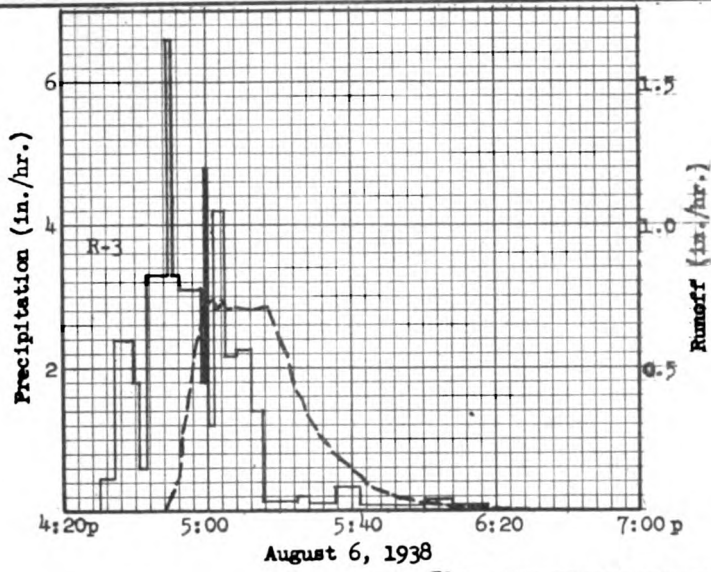
Notes: 1/ Intensities from 24 hour raingage chart.

2/ To convert runoff in in/hr to cfs multiply by 33.17.

3/ Edna Hurricane

Freehold, New Jersey			Watershed W-II (4.2)			32.9 acres		
Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity ^{1/} (in/hr)	Acc. (inches)	Date and time	Rate ^{2/} (in/hr)	Acc. (inches)
<u>Event of September 10-11, 1954 Cont'd.</u> ^{3/}								
			5:58a	.08	3.53	6:44a	.0029	.0794
			6:00	2.70	3.62	:52	.0019	.0797
			:08	.60	3.70	:56	.0065	.0800
			:14	1.10	3.81	:59	.0105	.0804
			:40	.18	3.89	7:05	.0113	.0815
			:50	.30	3.94	:20	.0083	.0839
			7:00	.36	4.00	:35	.0045	.0855
			:20	.30	4.10	:45	.0032	.0861
			:40	.18	4.16	:55	.0029	.0866
			:43	.60	4.19	8:10	.0022	.0872
			8:00	.11	4.22	:30	.0012	.0878
			:06	.30	4.25	:40	.0014	.0880
			:30	.13	4.30	:55	.0008	.0883
			:42	.15	4.33	9:10	.0002	.0884
			9:00	.03	4.34	:45	0	.0884
			Ceased			Ceased		
			:30	0	4.34	10:13a	0	.0884
			:45	.12	4.37	:22	.0012	.0885
			:55	.06	4.38	:28	.0017	.0886
			10:00	.24	4.40	:40	.0014	.0889
			:15	.20	4.45	:52	.0006	.0891
			:25	.06	4.46	11:04	.0002	.0892
			:32	.17	4.48	:36e	0	.0892
			11:00	.02	4.49			
			:50	.01	4.50			
			12 N	.06	4.51			
			1:00p	.01	4.52			
			2:00e	.01	4.53			

Notes: 1/ Intensities from 24 hour raingage chart.
2/ To convert in in/hr to cfs multiply by 33.17.
3/ Edna Hurricane.



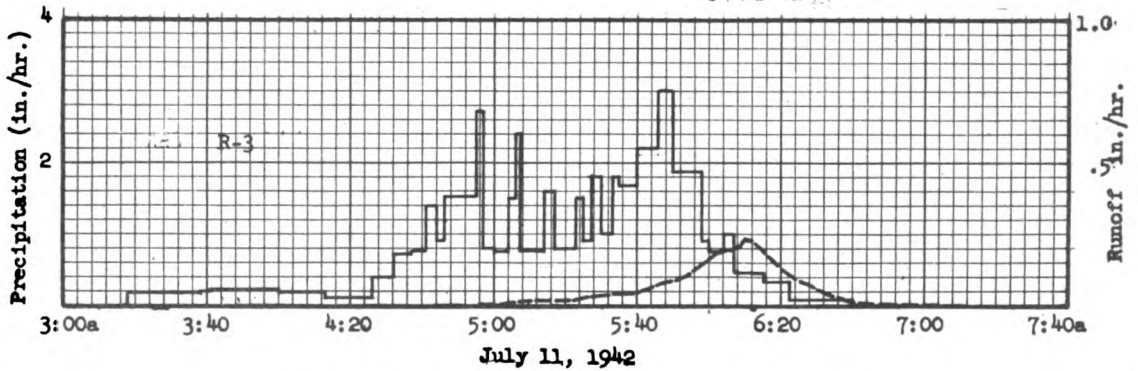
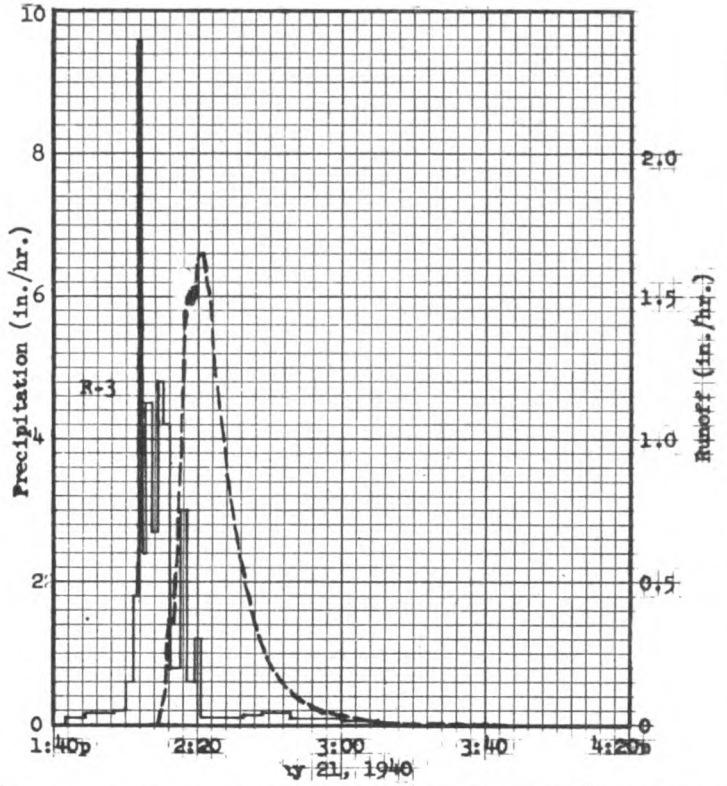
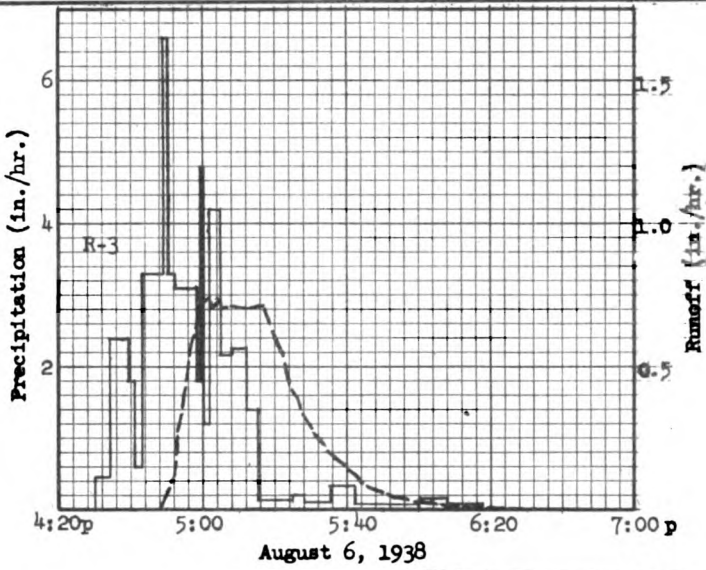
Freehold, New Jersey

Watershed W-II

1938-43

Freehold, New Jersey			Watershed W-II (4.2)			32.9 acres		
Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity ^{1/} (in/hr)	Acc. (inches)	Date and time	Rate ^{2/} (in/hr)	Acc. (inches)
<u>Event of September 10-11, 1954 Cont'd.</u> ^{3/}								
			5:58a	.08	3.53	6:44a	.0029	.0794
			6:00	2.70	3.62	:52	.0019	.0797
			:08	.60	3.70	:56	.0065	.0800
			:14	1.10	3.81	:59	.0105	.0804
			:40	.18	3.89	7:05	.0113	.0815
			:50	.30	3.94	:20	.0083	.0839
			7:00	.36	4.00	:35	.0045	.0855
			:20	.30	4.10	:45	.0032	.0861
			:40	.18	4.16	:55	.0029	.0866
			:43	.60	4.19	8:10	.0022	.0872
			8:00	.11	4.22	:30	.0012	.0878
			:06	.30	4.25	:40	.0014	.0880
			:30	.13	4.30	:55	.0008	.0883
			:42	.15	4.33	9:10	.0002	.0884
			9:00	.03	4.34	:45	0	.0884
			Ceased			Ceased		
			:30	0	4.34	10:13a	0	.0884
			:45	.12	4.37	:22	.0012	.0885
			:55	.06	4.38	:28	.0017	.0886
			10:00	.24	4.40	:40	.0014	.0889
			:15	.20	4.45	:52	.0006	.0891
			:25	.06	4.46	11:04	.0002	.0892
			:32	.17	4.48	:36e	0	.0892
			11:00	.02	4.49			
			:50	.01	4.50			
			12 N	.06	4.51			
			1:00p	.01	4.52			
			2:00e	.01	4.53			

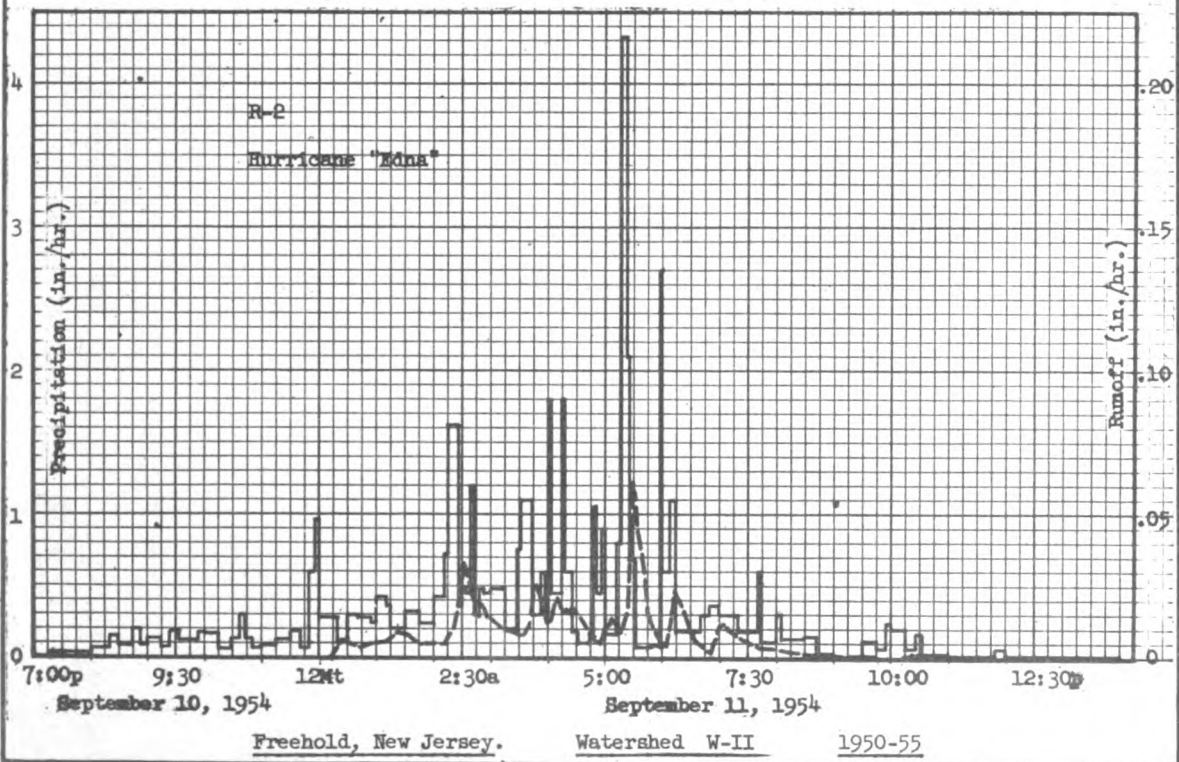
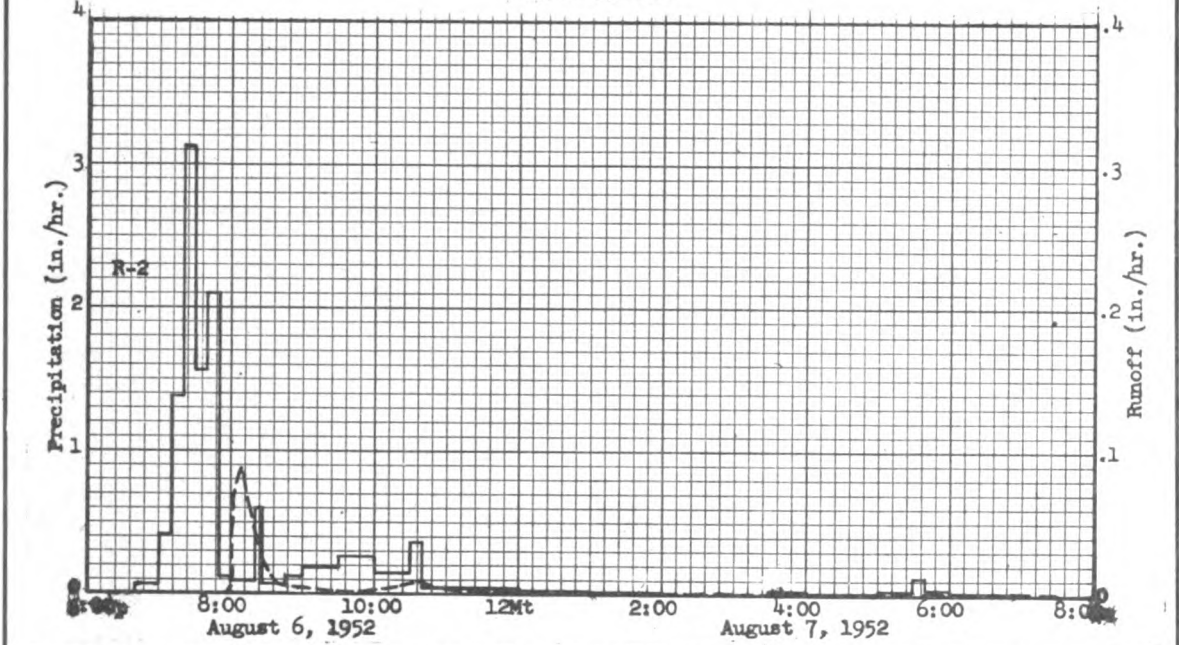
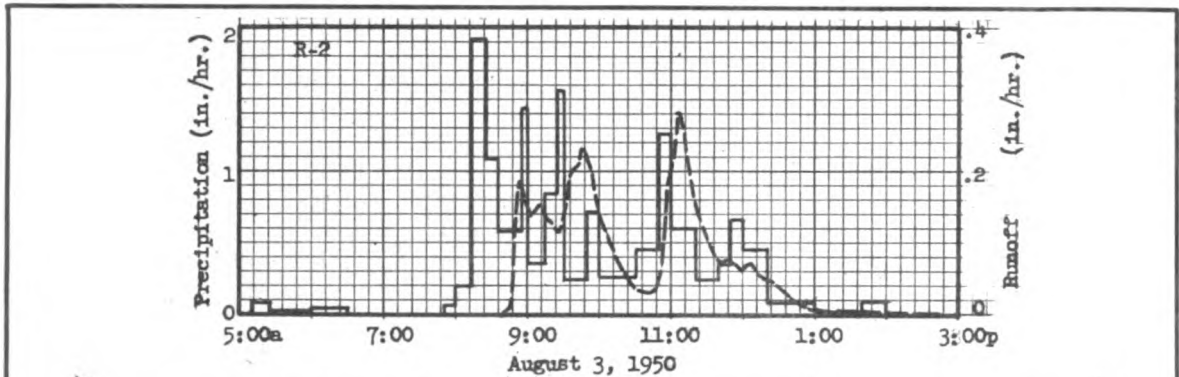
Notes: ^{1/} Intensities from 24 hour raingage chart.
^{2/} To convert in in/hr to cfs multiply by 33.17.
^{3/} Edna Hurricane.



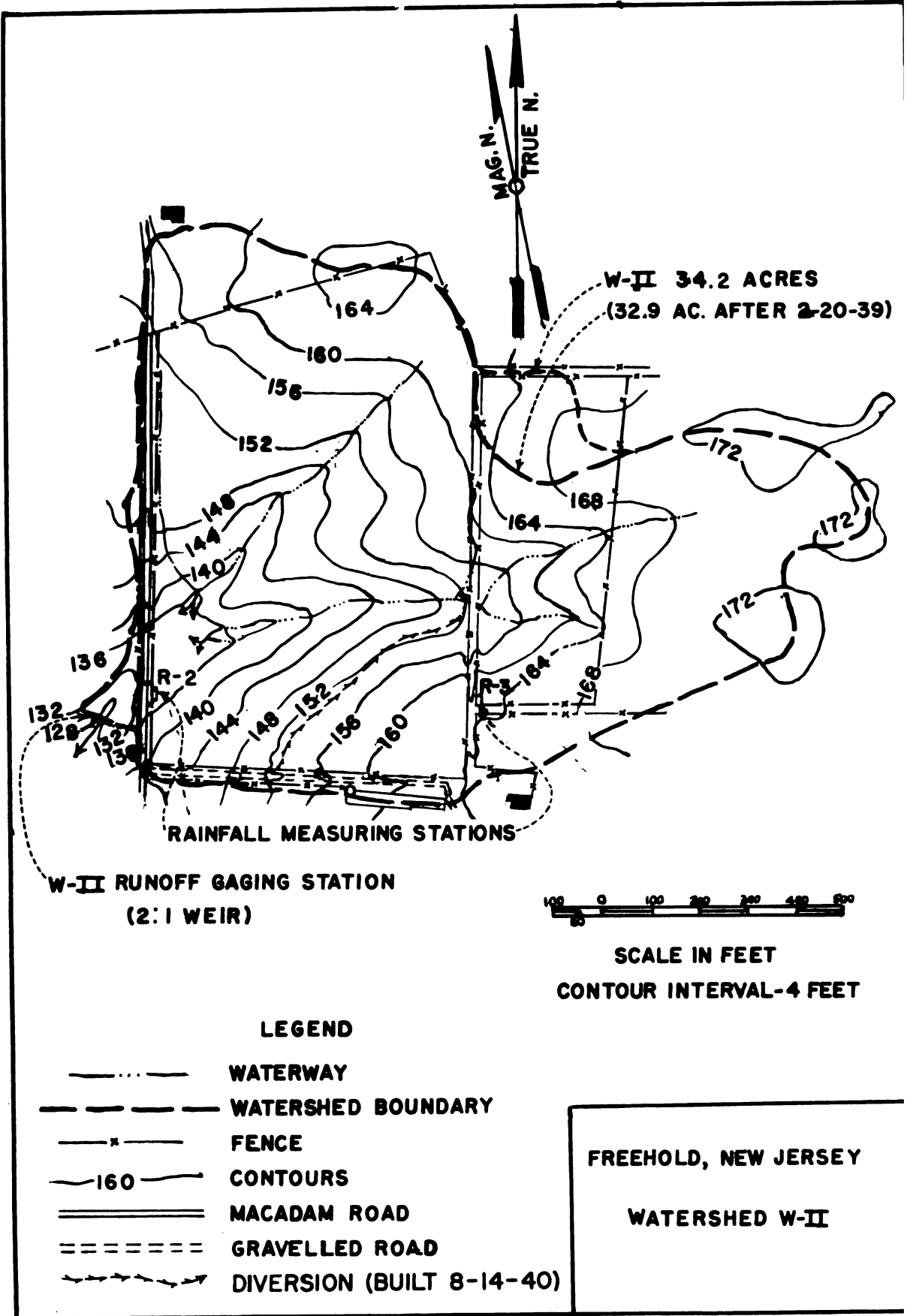
Freehold, New Jersey

Watershed W-II

1938-43



Freehold, New Jersey. Watershed W-II 1950-55



W-II 34.2 ACRES
(32.9 AC. AFTER 2-20-39)

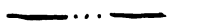






RAINFALL MEASURING STATIONS

W-II RUNOFF GAGING STATION
(2:1 WEIR)



SCALE IN FEET
CONTOUR INTERVAL-4 FEET

LEGEND

-  WATERWAY
-  WATERSHED BOUNDARY
-  FENCE
-  CONTOURS
-  MACADAM ROAD
-  GRAVELLED ROAD
-  DIVERSION (BUILT 8-14-40)

FREEHOLD, NEW JERSEY
WATERSHED W-II

College Park, Maryland			Watershed W-1 (5.1)			8.22 acres		
Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
<u>Event of August 10, 1942</u>								
7-11-42	.23	0	8-10-42	Raingage	R-1	8-10-42		
7-19	.52	0	8:20p	0	0	8:30p	0	0
7-20	.26	0	:21	.60	.01	:35	.015	.0003
7-24	.04	0	:25	.30	.03	:36	.039	.0008
7-25	.58	0	:27	2.40	.11	:37	.084	.0018
7-26	.55	0	:28	4.80	.19	:38	.234	.0044
7-27	.15	0	:29	7.80	.32	:39	.321	.0090
7-29	.02	0	:30	4.80	.40	:40	.371	.0148
7-31	.14	0	:31	6.00	.50	:41	.465	.0218
8-3	.04	0	:33	6.30	.71	:42	.597	.0306
8-5	.13	0	:35	4.50	.86	:43	.677	.0412
8-7	.02	0	:36	6.00	.96	:44	.654	.0523
8-8	2.59	.0391	:38	4.80	1.12	:45	.733	.0639
8-9	1.43	.4641	:39	3.00	1.17	:46	.802	.0767
			:41	1.20	1.21	:47	.905	.0909
			:43	.60	1.23	:48	1.20	.1084
			:45	2.40	1.31	:49	1.62	.1319
			:47	.90	1.34	:50	1.67	.1594
			:56	.07	1.35	:51	1.59	.1866
			9:00e	.30	1.37	:52	1.50	.2123
						:53	1.32	.2358
						:54	1.32	.2578
						:56	1.12	.2985
						:59	.946	.3502
						9:02	.776	.3933
						:05	.653	.4291
						:08	.537	.4589
						:11	.449	.4835
						:14	.384	.5043
						:17	.325	.5220
						:20	.292	.5374
						:26	.232	.5636
						:32	.176	.5840
						:38	.139	.5998
						:44	.112	.6124
						:56	.072	.6309
						10:08	.050	.6432
						:20	.032	.6514
						:32	.023	.6569
						:44	.020	.6612
						:56	.016	.6648
						11:08	.012	.6675
						:38	.006	.6719
						12 Mt	.003	.6735
						8-11-42		
						1:00a	.001	.6756
						4:00e	0	.6764

Notes: To convert runoff in in/hr to cfs multiply by 8.29.

College Park, Maryland			Watershed W-1 (5.1)			8.22 acres			
Antecedent conditions			Rainfall			Runoff			
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)	
<u>Event of July 22 1945</u>									
6-22-45	.01 ^{1/}	.0015 ^{1/}	7-22-45	Raingage	R-1	7-22-45			
7-1	.01	0	1:23p	0	0	1:24p	0	0	
7-2	1.11	.0048	:27	.15	.01	:28	.003	.0001	
7-5	.78	.0049	:29	3.00	.11	:30	.007	.0003	
7-9	.11	0	:31	7.50	.36	:31	.016	.0005	
7-10	.82	.0742	:32	9.00	.51	:32	.043	.0010	
7-14	1.12	.2242	:35	7.00	.85	:33	.097	.0022	
7-15	.58	.0389	:39	4.20	1.13	:34	.255	.0051	
7-17	2.55	1.2913	:41	3.00	1.23	:35	.421	.0107	
7-18	.79	.5796	:43	8.40	1.51	:36	.490	.0183	
7-19	.72	.4361	:44	5.40	1.60	:37	.574	.0272	
7-20	.02	.0013	:46	2.70	1.69	:38	.703	.0378	
			:51	1.08	1.78	:39	.902	.0512	
			2:00	.07	1.79	:40	1.310	.0696	
			:07e	.17	1.81	:41	1.700	.0946	
<u>Watershed Conditions:</u> Contour strip cropping on 7 strips within 2% of contour: corn 7 to 9 ft. high 29%; clover and lespedeza 6 to 12 inches high, medium to dense stand in wheat stubble 32%; hay mowed July 11 & 12 and not removed because of wet and mouldy condition 39%. Local washing and silting along corn rows and at low places, the 3-inch ridges in corn rows were completely washed out. Soil loss over weir was 1.18 tons or .156 tons per acre. ^{2/}							:42	1.910	.1248
							:43	2.170	.1588
							:44	2.920	.2011
							:45	3.550	.2551
							:46	3.610	.3148
							:47	3.410	.3733
							:48	2.870	.4256
							:49	2.870	.4734
							:51	2.460	.5621
							:53	2.200	.6398
							:56	1.730	.7383
							:59	1.320	.8143
							2:02	1.060	.8738
							:05	.859	.9218
							:08	.693	.9606
:11	.601	.9930							
:15	.452	1.0281							
:19	.364	1.0553							
:23	.285	1.0770							
:27	.243	1.0946							
:31	.193	1.1091							
:35	.168	1.1211							
:41	.127	1.1358							
:47	.094	1.1468							
:53	.072	1.1551							
:59	.054	1.1614							
3:05	.040	1.1661							
:11	.027	1.1695							
:21	.020	1.1734							
:31	.015	1.1764							
:53	.007	1.1806							
4:13	.004	1.1825							
:33	.002	1.1835							
:53	.001	1.1840							
5:33	.001	1.1847							
7-23-45			11:00a(e)			0		1.1866	

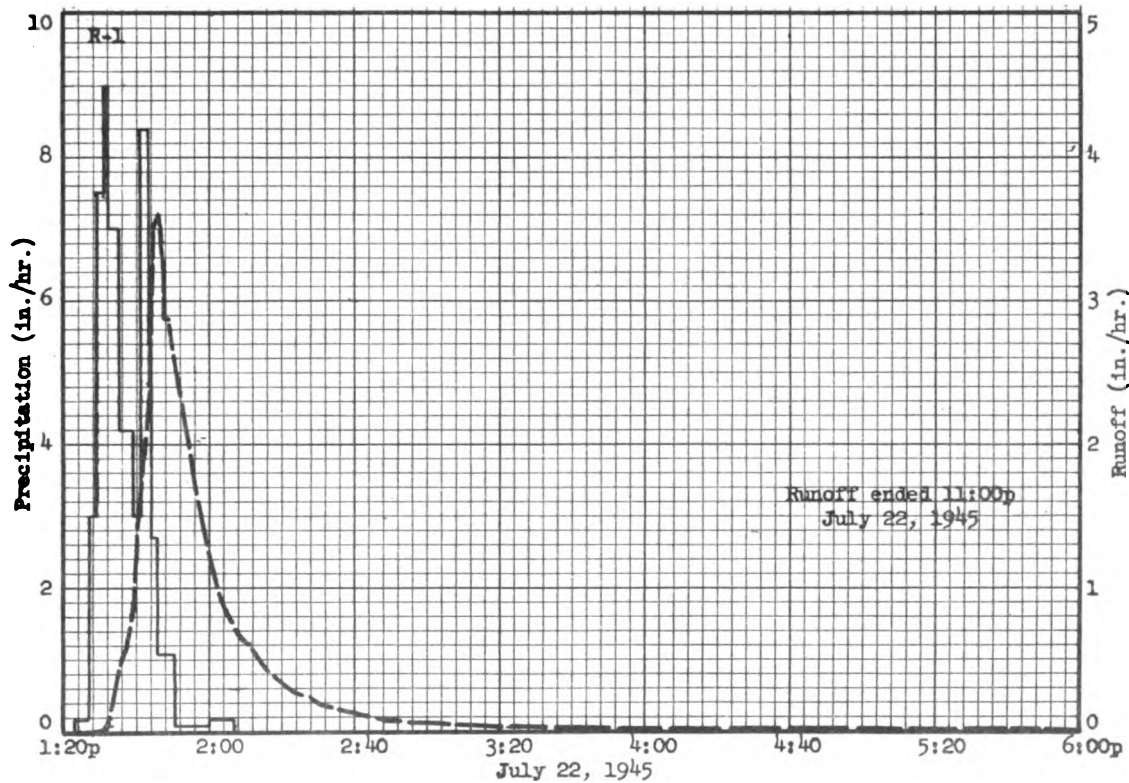
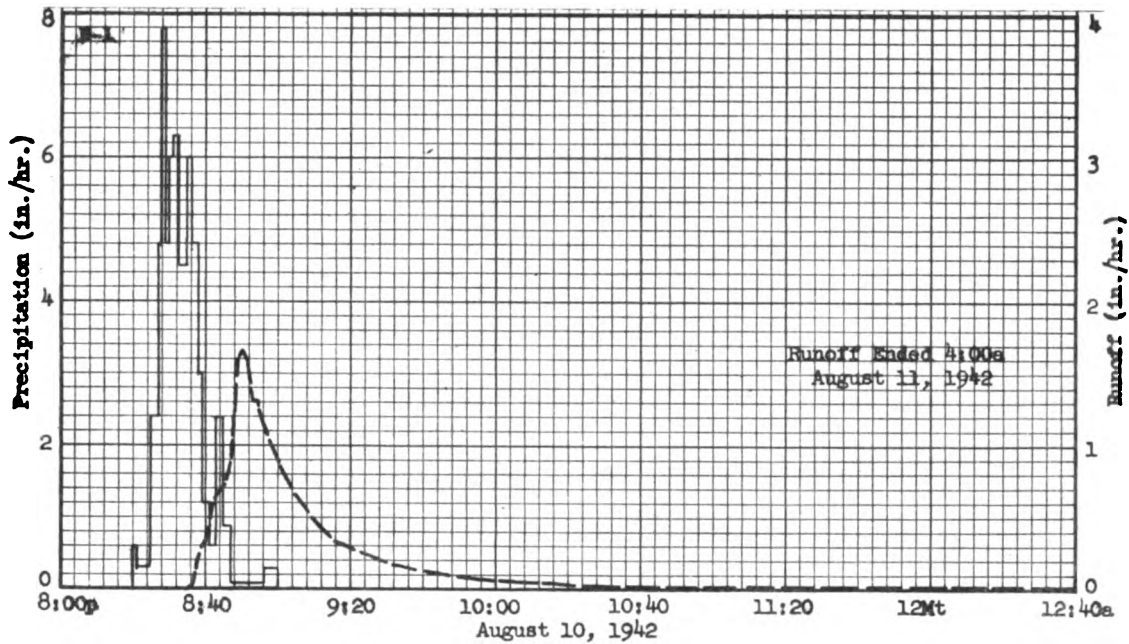
Notes: 1/ Continuance of June 21-22, 1945 event (Precipitation = 1.92"; runoff = .9164").
2/ Based on 7 quart samples integrated through flow at notch.
To convert runoff in in/hr to cfs multiply by 8.29.

College Park, Maryland			Watershed W-1 (5.1)			8.22 acres		
Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
Event of August 3, 1948								
7-6-48	.04	0	8-3-48	Raingage	R-1	8-3-48		
7-13	.33	0	3:42p	0	0	3:47p	0	0
7-14	.43	0	:44	5.70	.19	:49	.008	.0099
7-17	.13	0	:46	7.80	.45	:50	.037	.0016
7-19	.04	0	:48	9.00	.75	:50½	.047	.0020
7-21	.77	.0573	:50	4.50	.90	:51	.068	.0025
7-23	.61	.3023	:52	5.40	1.08	:51½	.090	.0031
7-27	.32	0	:55	4.20	1.29	:52	.179	.0042
7-30	.17	0	:57	2.70	1.38	:52½	.451	.0068
7-31	.50	0	:59	2.10	1.45	:53	.683	.0115
8-1	2.76	1.2309	4:00	1.20	1.47	:53½	.802	.0177
			:04	.30	1.49	:54	.734	.0241
			:30e	.02	1.50	:54½	.674	.0300
						:55	1.008	.0370
						:56	2.47	.0670
Watershed Conditions: Tillage up and down the slope in 3 fields: corn 7 to 9 ft. high with 3-inch ridges in middle field 31%; clover and lespedeza 6 to 12 inches high (wheat combined July 9) 30%; hay harvested July 15-20, stubble 5 to 6 inches high medium stand 39%.			6:30	0	1.50	:56½	2.41	.0873
			7:30	.02	1.52	:57	2.58	.1080
			8:00	.04	1.54	:57½	2.68	.1299
			:30e	.02	1.55	:58	2.36	.1509
						:59	2.30	.1897
						4:00	2.26	.2277
						:02	1.97	.2981
						:04	2.04	.3651
						:05	1.97	.3984
						:06	1.79	.4297
						:07	1.70	.4589
						:10	1.42	.5369
						:13	1.15	.6009
						:16	.947	.6533
						:19	.865	.6986
			:22	.726	.7384			
			:25	.634	.7724			
			:31	.464	.8273			
			:37	.347	.8678			
			:43	.274	.8989			
			:49	.209	.9230			
			:55	.164	.9417			
			5:01	.133	.9565			
			:07	.103	.9683			
			:13	.077	.9773			
			:19	.063	.9843			
			:29	.048	.9935			
			:39	.032	1.0002			
			:54	.020	1.0067			
			6:09	.011	1.0106			
			:24	.007	1.0127			
			:44	.004	1.0145			
			7:14p	.002	1.0162			
			:44	.001	1.0169			
			9:27e	0	1.0172			

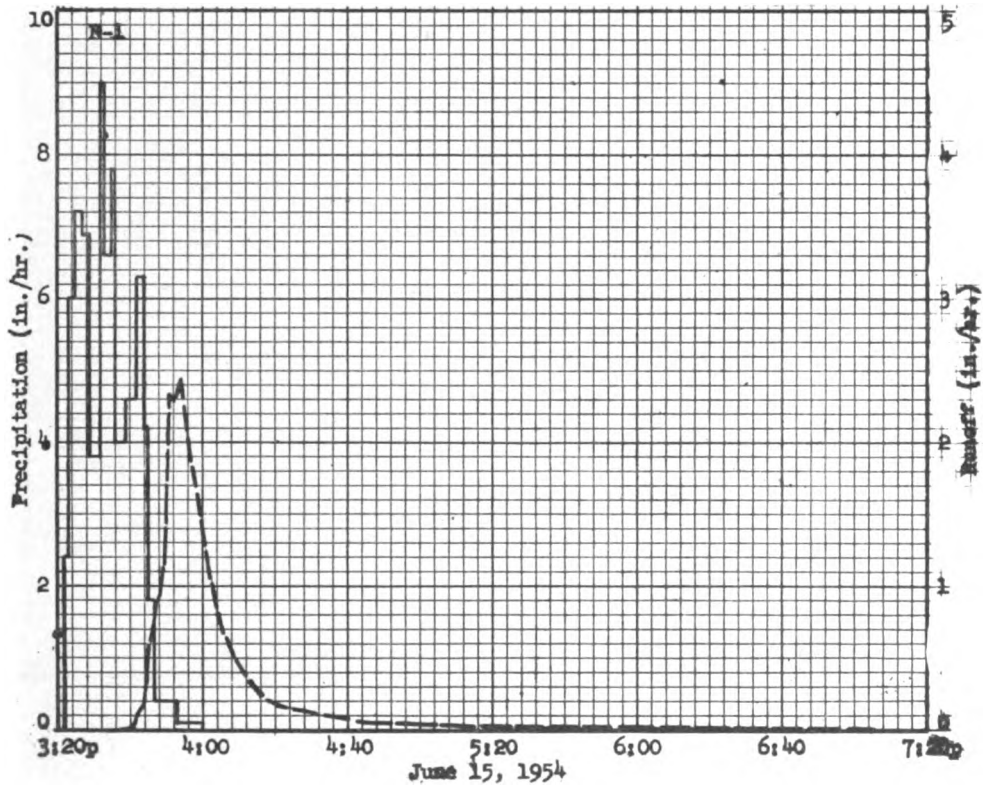
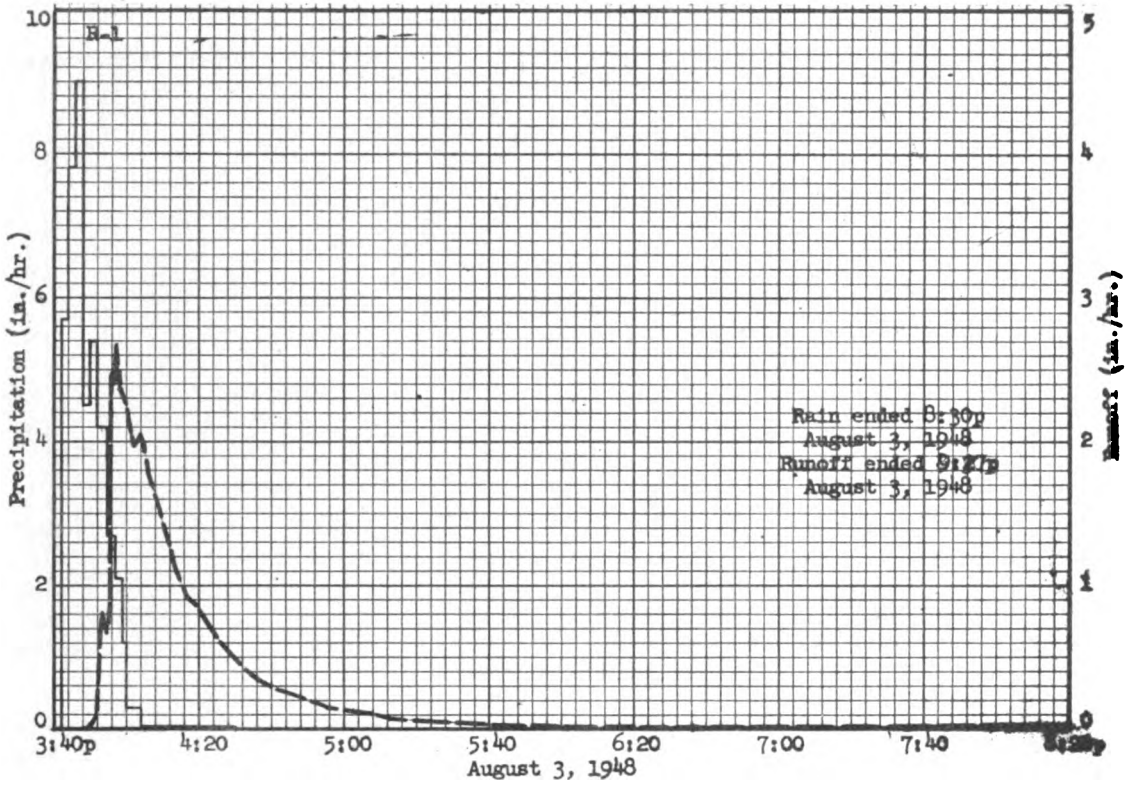
Notes: To convert runoff in in/hr to cfs multiply by 8.29.

Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
<u>Event of June 15, 1954</u>								
5-18-54	.03	0	6-15-54	Raingage	R-1	6-15-54		
5-19	.12	0	3:22p	0	0	3:37p	0	0
5-20	.47	0	:23	2.40	.04	:38	.004	.0001
5-25	.01	0	:25	6.00	.24	:39	.008	.0002
5-29	.24	0	:27	7.20	.48	:40	.014	.0004
6-4	.04	0	:29	6.90	.71	:41	.015	.0006
6-10	.35	0	:32	3.80	.90	:42	.113	.0017
6-11	.02	0	:33	9.00	1.05	:43	.163	.0040
6-13	.03	0	:35	6.60	1.27	:44	.215	.0072
			:36	7.80	1.40	:45	.591	.0139
			:39	4.00	1.60	:46	.630	.0241
			:42	4.60	1.83	:47	.869	.0366
			:44	6.30	2.04	:48	.935	.0516
			:45	4.20	2.11	:49	1.150	.0690
			:47	1.80	2.17	:50	1.624	.0921
			:53	.40	2.21	:51	2.335	.1251
			4:00e	.09	2.22	:52	2.300	.1637
						:53	2.388	.2028
						:54	2.450	.2431
						:56	2.050	.3181
						4:00	1.378	.4324
						:04	.805	.5052
						:08	.545	.5502
						:12	.339	.5797
						:16	.238	.5989
						:20	.194	.6133
						:24	.151	.6248
						:28	.133	.6342
						:34	.100	.6458
						:40	.073	.6545
						:46	.055	.6609
						:52	.041	.6657
						:58	.033	.6694
						5:04	.027	.6724
						:10	.020	.6748
						:20	.015	.6777
						:30	.009	.6797
						:40	.006	.6810
						:55	.004	.6822
						6:10	.002	.6829
						:30	.001	.6833
						7:05e	0	.6836

Notes: To convert runoff in in/hr to cfs multiply by 8.29.



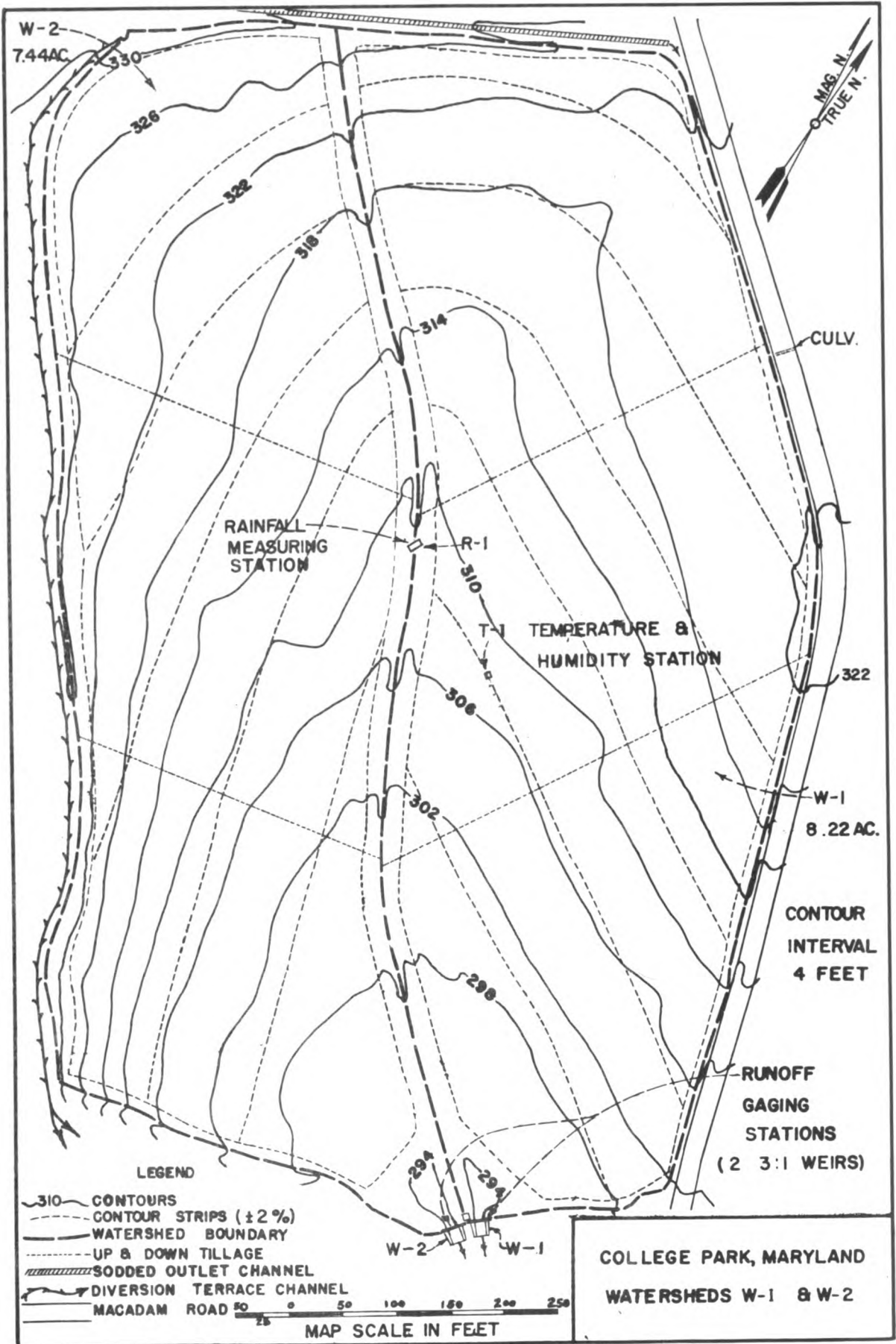
College Park, Maryland Watershed W-1 1942-45



College Park, Maryland

Watershed W-1

1948-54



Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
<u>Event of August 10, 1942</u>								
7-11-42	.23	0	8-10-42	Raingage	R-1	8-10-42		
7-19	.52	0	8:20p	0	0	8:33p	0	0
7-20	.26	0	:21	.60	.01	:37½	.072	.0004
7-24	.04	0	:25	.30	.03	:38	.141	.0013
7-25	.58	0	:27	2.40	.11	:38½	.189	.0027
7-26	.55	0	:28	4.80	.19	:39	.160	.0042
7-27	.15	0	:29	7.80	.32	:40	.136	.0067
7-29	.02	0	:30	4.80	.40	:41	.083	.0085
7+31	.14	0	:31	6.00	.50	:42	.079	.0099
8-3	.04	0	:33	6.30	.71	:43	.101	.0114
8-5	.13	0	:35	4.50	.86	:44	.132	.0133
8-7	.02	0	:36	6.00	.96	:45	.183	.0159
8-8	2.59	.0036	:38	4.80	1.12	:46	.238	.0194
8-9	1.43	.0537	:39	3.00	1.17	:47	.252	.0235
			:41	1.20	1.21	:48	.315	.0282
Watershed Conditions: Contour strip cropping on 6 strips 90 to 100 ft. wide within 2% of contour; corn 9 to 11 ft. high with 3-inch ridges in rows 30%; clover and lespedeza 10 to 18 inches high (following combining of wheat July 6) medium to thick stand 26%; hay (cut and removed July 9 to 16) 8 inches high, medium stand 44%.			:43	.60	1.23	:49	.419	.0343
			:45	2.40	1.31	:50	.478	.0418
			:47	.90	1.34	:51	.486	.0498
			:56	.07	1.35	:52	.495	.0580
			9:00e	.30	1.37	:53	.473	.0661
			:54			:54	.472	.0740
			:56			:56	.368	.0880
			:58			:58	.368	.1003
			9:02			9:02	.325	.1233
			:06			:06	.325	.1449
			:10			:10	.288	.1653
			:12			:12	.250	.1743
			:14			:14	.219	.1821
			:18			:18	.190	.1958
			:22			:22	.156	.2073
:26			:26	.143	.2172			
:30			:30	.112	.2257			
:36			:36	.077	.2352			
:42			:42	.057	.2419			
:48			:48	.042	.2469			
:54			:54	.032	.2506			
10:00			10:00	.021	.2533			
:06			:06	.018	.2553			
:18			:18	.014	.2586			
:30			:30	.007	.2608			
:42			:42	.005	.2620			
:54			:54	.005	.2630			
11:06			11:06	.004	.2639			
:30			:30	.001	.2649			
12 Mt			12 Mt	.001	.2652			
			8-11-42			12:30a(e)	0	.2653

Notes: To convert runoff in in/hr to cfs multiply by 7.50.
 For map of area, see Sheet 7 of 7 for W-1, (5.1) College Park, Maryland.

Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
Event of July 22, 1945								
6-22-45	.01 ^{1/}	.0003 ^{1/}	7-22-45	Raingage	R-1	7-22-45		
7-1	.01	0	1:23p	0	0	1:23p	0	0
7-2	1.11	.0194	:27	.15	.01	:26	.011	.0003
7-5	.78	.0283	:29	3.00	.11	:29	.031	.0014
7-9	.11	0	:31	7.50	.36	:31	.077	.0032
7-10	.82	.1533	:32	9.00	.51	:32	.157	.0051
7-14	1.12	.2831	:35	7.00	.85	:33	.235	.0084
7-15	.58	.0260	:39	4.20	1.13	:34	.228	.0123
7-17	2.55	.9813	:41	3.00	1.23	:35	.224	.0161
7-18	.79	.2587	:43	8.40	1.51	:36	.286	.0204
7-19	.72	.1854	:44	5.40	1.60	:37	.875	.0301
7-20	.02	.0003	:46	2.70	1.69	:37 ^{1/2}	1.91	.0417
			:51	1.08	1.78	:38	2.21	.0589
			2:00	.07	1.79	:38 ^{1/2}	2.20	.0772
			:07e	.17	1.81	:39	2.11	.0951
Watershed Conditions: Tillage up and down the slope in 3 fields: corn 7 to 9 ft. high with 3-inch ridges in middle field (about 5% of corn plants washed out June 7) 30%; clover and lespedeza 6 to 12 inches high, medium to thick stand 28%; hay (mowed July 16 not removed because of wet and mouldy condition 42%). There was severe washing in every row in corn field with heavy deposition of silt and sand in channel along dividing dike and moderate silting in grass channel below wheat stubble. In addition, 4.2 tons ^{2/} of silt was lost in flow over the weir, or .726 tons per acre.						:40	2.21	.1311
						:41	2.40	.1696
						:42	2.31	.2079
						:43	2.36	.2469
						:44	2.39	.2864
						:46	2.47	.3674
						:48	2.36	.4481
						:50	2.07	.5218
						:52	1.73	.5851
						:54	1.48	.6388
						:56	1.24	.6841
						:58	1.05	.7221
						2:01	.863	.7700
						:04	.685	.8087
						:08	.545	.8497
						:12	.453	.8830
						:16	.341	.9095
:20	.272	.9300						
:26	.191	.9531						
:32	.141	.9697						
:38	.098	.9817						
:44	.070	.9901						
:50	.049	.9961						
:56	.026	.9998						
3:02	.018	1.0020						
:12	.010	1.0043						
:22	.004	1.0054						
:32	.004	1.0060						
:42	.003	1.0065						
:52	.001	1.0068						
4:00e	0	1.0068						

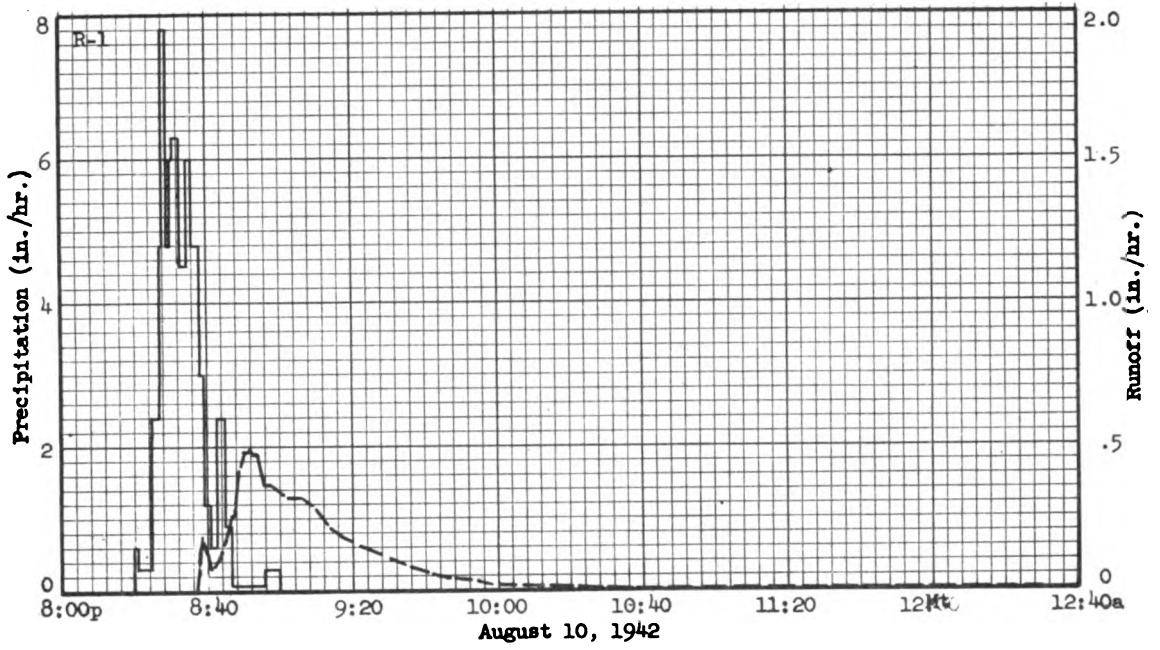
Notes: ^{1/} Continuance of June 21-22, 1945 event (Precipitation = 1.92"; runoff = .7709").
^{2/} Based on 7 quart samples integrated through depth at notch.
 To convert runoff in in/hr to cfs multiply by 7.50.

College Park, Maryland			Watershed W-2			(5.2)		7.44 acres	
Antecedent conditions			Rainfall			Runoff			
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)	
<u>Event of August 3, 1948</u>									
7-6-48	.04	0	8-3-48	Raingage	R-1	8-3-48			
7-13	.33	0	3:42p	0	0	3:49p	0	.0001	
7-14	.43	0	:44	5.70	.19	:50	.005	.0001	
7-17	.13	0	:46	7.80	.45	:50½	.013	.0002	
7-19	.04	0	:48	9.00	.75	:51	.029	.0004	
7-21	.77	0	:50	4.50	.90	:51½	.053	.0007	
7-23	.61	0	:52	5.40	1.08	:52	.067	.0012	
7-27	.32	0	:55	4.20	1.29	:52½	.099	.0019	
7-30	.17	0	:57	2.70	1.38	:53	.147	.0029	
7-31	.50	0	:59	2.10	1.45	:53½	.222	.0044	
8-1	2.76	.3979	4:00	1.20	1.47	:54	.334	.0067	
			:04	.30	1.49	:54½	.390	.0097	
			:30e	.02	1.50	:55	.303	.0126	
			6:30	0	1.50	:56	.271	.0174	
			7:30	.02	1.52	:57	.470	.0236	
			8:00	.04	1.54	:57½	.850	.0291	
			:30e	.02	1.55	:58	1.140	.0374	
						:58½	1.040	.0465	
						:59	.890	.0545	
						:59½	1.000	.0622	
						4:00	.960	.0704	
						:01	1.060	.0872	
						:02	1.240	.1064	
						:03	1.160	.1264	
						:04	1.120	.1454	
						:06	1.060	.1818	
						:08	1.000	.2161	
						:09	1.000	.2328	
						:12	.860	.2793	
						:15	.770	.3198	
						:18	.770	.3582	
						:22	.730	.4082	
						:26	.630	.4535	
						:30	.550	.4928	
						:34	.421	.5252	
						:38	.356	.5510	
						:44	.268	.5822	
						:50	.201	.6057	
						:56	.139	.6225	
						5:02	.112	.6349	
						:08	.075	.6443	
						:14	.047	.6504	
						:20	.028	.6541	
						:30	.019	.6581	
						:45	.003	.6608	
						6:00	.005	.6618	
						:15	.002	.6626	
						:30	.002	.6630	
						:56e	0	.6634	

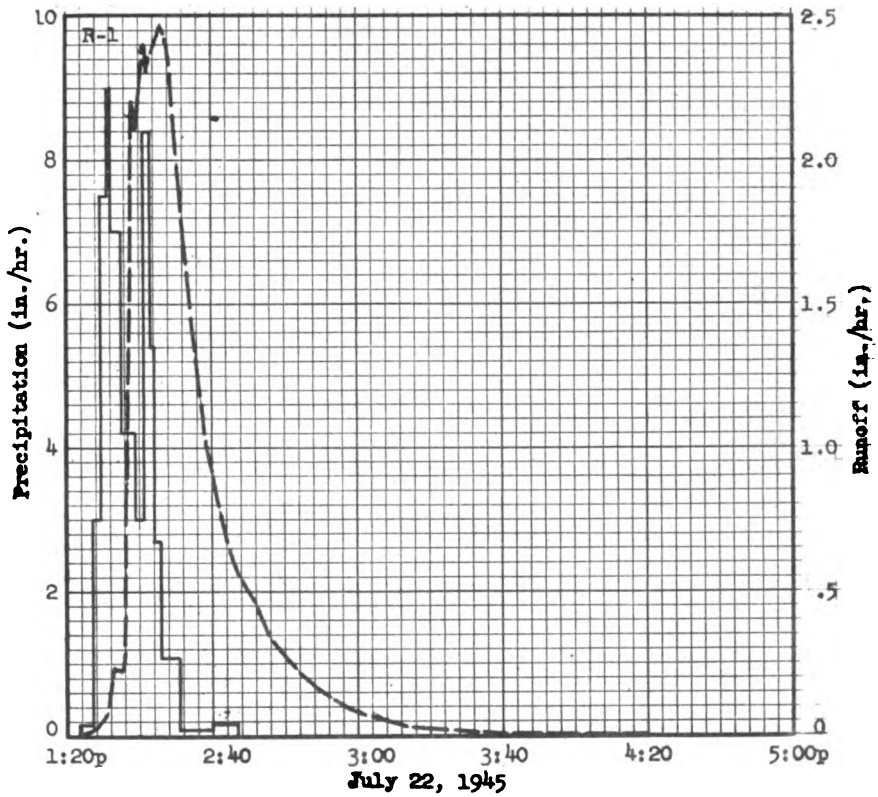
Notes: To convert runoff in in/hr to cfs multiply by 7.50.
 For map of area, see Sheet 7 of 7 for W-1, (5.1) College Park, Maryland.

College Park, Maryland			Watershed W-2			(5.2)			7.44 acres		
Antecedent conditions			Rainfall			Runoff					
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)			
<u>Event of June 15, 1954</u>											
5-18-54	.03	0	6-15-54	Raingage	R-1	6-15-54					
5-19	.12	0	3:22p	0	0	3:37p	0	0			
5-20	.47	0	:23	2.40	.04	:39	.057	.0007			
5-25	.01	0	:25	6.00	.24	:40	.040	.0015			
5-29	.24	0	:27	7.20	.48	:41	.059	.0023			
6-4	.04	0	:29	6.90	.71	:42	.136	.0039			
6-10	.35	0	:32	3.80	.90	:43	.182	.0066			
6-11	.02	0	:33	9.00	1.05	:44	.231	.0100			
6-13	.03	0	:35	6.60	1.27	:45	.568	.0167			
			:36	7.80	1.40	:46	.968	.0295			
Watershed Conditions: Contour strip cropping on 6 strips 90 to 100 ft. wide within 2% of the contour; corn 2 to 4 inches high 30%; 85% of the wheat which had stood 36 inches high was laid flat by storm 26%; clover and hay harvested June 7 leaving 4-inch stubble 44%. Considerable rilling and sheet erosion occurred on corn strips.			:39	4.00	1.60	:47	.747	.0438			
			:42	4.60	1.83	:48	.783	.0565			
			:44	6.30	2.04	:49	.761	.0694			
			:45	4.20	2.11	:50	.898	.0832			
			:47	1.80	2.17	:51	1.240	.1010			
			:53	.40	2.21	:52	1.298	.1222			
			4:00e	.09	2.22	:53	1.218	.1432			
						:54	1.137	.1628			
						:55	1.002	.1806			
						:56	1.002	.1973			
						:59	.669	.2391			
						4:02	.447	.2670			
						:05	.325	.2863			
						:08	.231	.3002			
						:11	.181	.3105			
			:14	.131	.3183						
			:17	.123	.3246						
			:20	.124	.3308						
			:25	.083	.3394						
			:30	.065	.3456						
			:40	.037	.3541						
			:50	.026	.3594						
			5:00	.020	.3633						
			:15	.010	.3670						
			:30	.007	.3691						
			:45	.003	.3703						
			6:00	.001	.3708						
			:20	.001	.3711						
			:29e	0	.3712						

Notes: To convert runoff in in/hr to cfs multiply by 7.50.
 For map of area, see Sheet 7 of 7 for W-1, (5.1) College Park, Maryland.



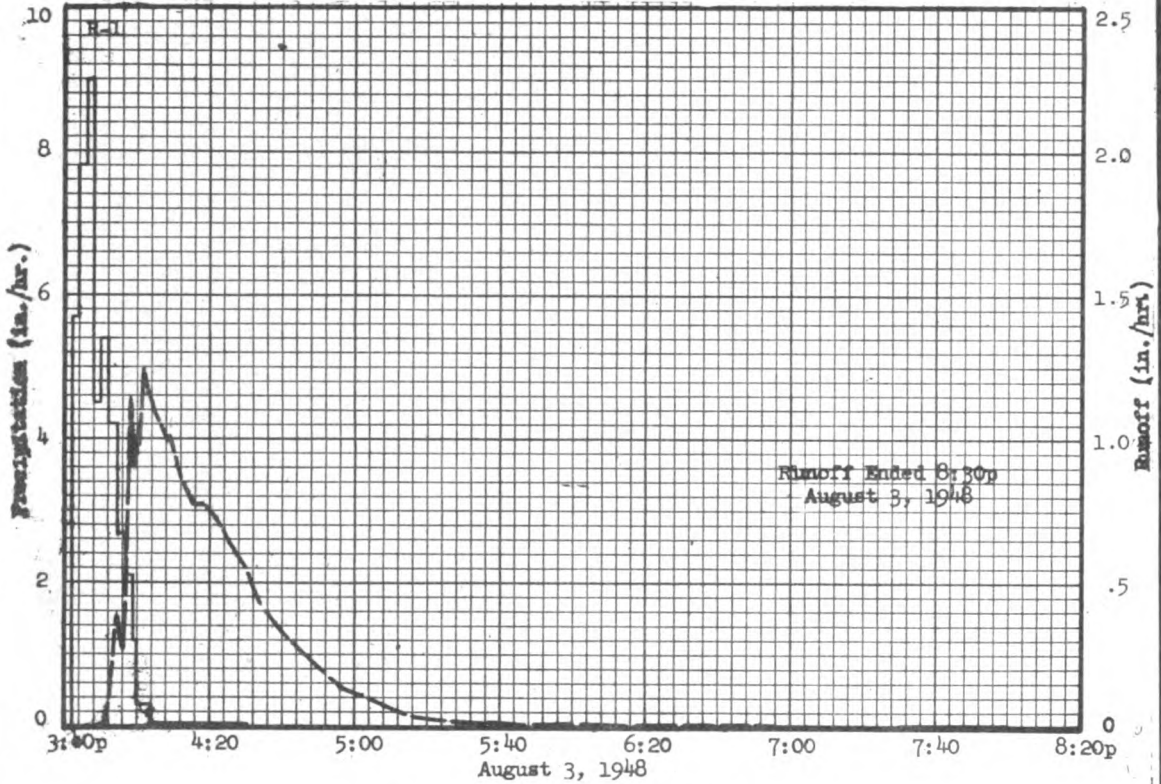
For map of area see Sheet 7 of 7 for (5.1) Watershed W-1 at College Park, Maryland.



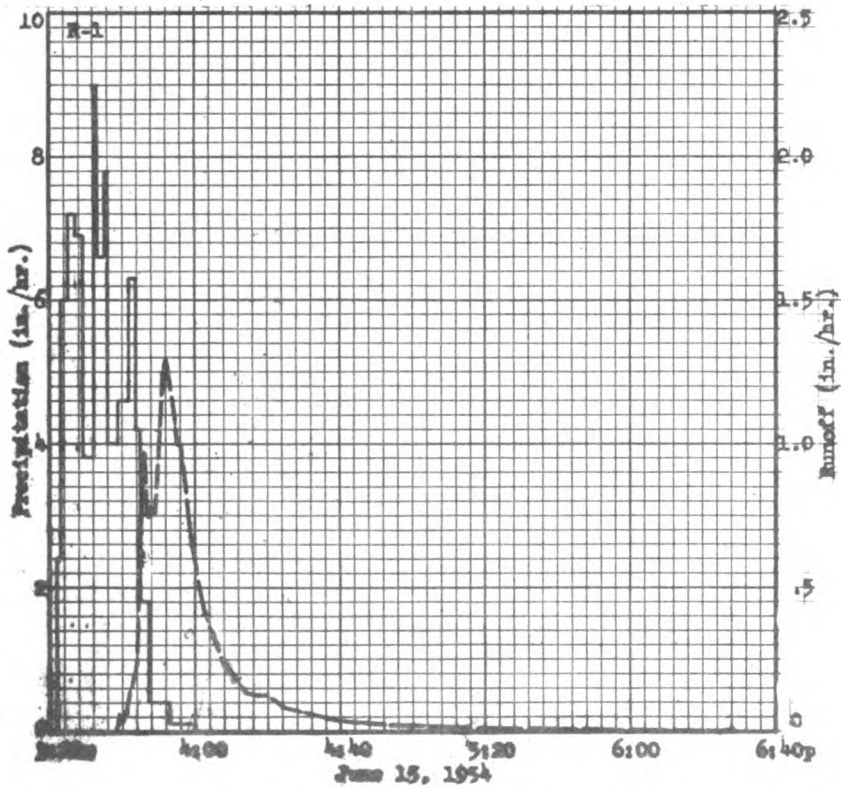
College Park, Maryland

Watershed W-2

1942-45



For map of area see Sheet 7
of 7 for (5.1) Watershed W-1
at College Park, Maryland.



College Park, Maryland

Watershed W-2

1948-54

College Park, Maryland			Watershed W-6 (5.6)			3.53 acres		
Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
<u>Event of August 19, 1941</u>								
7-29-41	.40	.0005	8-19-41	Raingage	R-4	8-19-41		
7-30	.83	.0114	1:50p	0	0	1:54p	0	0
8-5	.21	0	:53	1.80	.09	:56	.003	.0001
8-9	.27	0	:54	3.00	.14	:57	.007	.0002
8-12	.37	0	:57	5.20	.40	:58	.015	.0004
8-15	1.44	.0158	:58	6.00	.50	:59	.024	.0007
8-19	.13 ^{1/}	0	2:00	3.00	.60	2:01	.038	.0017
Watershed Conditions: Bluegrass and white clover pasture with heavy continuous grazing, common fertilization and occasional mowing for weed and excess grass growth control.			:01	6.00	.70	:02	.066	.0026
			:03	9.30	1.01	:03	.130	.0042
			:06	4.00	1.21	:04	.203	.0070
			:08	1.20	1.25	:05	.259	.0109
			:12e	4.35	1.54	:06	.286	.0154
						:07	.334	.0206
						:08	.385	.0266
						:09	.385	.0330
						:11	.354	.0453
						:12	.334	.0510
						:13	.303	.0563
						:14	.277	.0611
						:15	.315	.0660
						:16	.323	.0713
						:17	.430	.0776
			:18	.452	.0850			
			:19	.419	.0923			
			:21	.343	.1056			
			:23	.295	.1156			
			:25	.251	.1247			
			:27	.204	.1323			
			:29	.161	.1384			
			:31	.130	.1432			
			:33	.103	.1471			
			:36	.083	.1517			
			:39	.058	.1552			
			:42	.044	.1578			
			:45	.032	.1596			
			:48	.022	.1609			
			:51	.015	.1618			
			:54	.010	.1624			
			:57	.005	.1628			
			3:00	.003	.1630			
			:03	.002	.1631			
			:06	.001	.1632			
			:18e	0	.1633			

Notes: ^{1/} 12:30a to 7:00a.

To convert runoff in in/hr to cfs multiply by 3.56.

Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
<u>Event of August 10, 1942</u>								
7-11-42	.25	.0123	8-10-42	Raingage	R-4	8-10-42		
7-19	.28	0	8:27p	0	0	8:30p	0	0
7-20	.31	0	:30	1.20	.06	:31	.002	0
7-24	.06	0	:31	2.40	.10	:32	.005	.0001
7-25	.58	0	:32	1.80	.13	:33	.011	.0002
7-26	.55	.0019	:33	3.00	.18	:34	.032	.0006
7-27	.08	0	:34	1.20	.20	:35	.062	.0014
7-29	.02	0	:35	3.60	.26	:36	.148	.0031
8-3	.05	0	:36	6.00	.36	:37	.234	.0063
8-5	.13	0	:37	2.40	.40	:38	.441	.0119
8-7	.01	0	:38	6.60	.51	:39	.663	.0211
8-8	2.57	.2412	:39	5.40	.60	:40	.871	.0339
8-9	1.50	.1519	:40	4.80	.68	:41	.978	.0493
			:41	6.00	.78	:42	1.014	.0659
			:44	2.80	.92	:43	1.26	.0849
<p><u>Watershed Conditions:</u> Bluegrass and white clover pasture with heavy continuous grazing, common fertilization and occasional mowing for weed and grass growth control. Herbage yield determined at 5 4ft. x 4ft. pasture cages 18 inches high for 92 days ending Sept. 2 was .71 tons per acre, hay equivalent at 10% moisture.</p>			:45	3.00	.97	:44	1.48	.1077
			:47	4.20	1.11	:45	1.65	.1339
			:48	1.80	1.14	:46	1.65	.1614
			:52	.15	1.15	:47	1.55	.1881
			:55	.40	1.17	:48	1.43	.2129
			9:00	.12	1.18	:49	1.32	.2357
			:05e	.24	1.20	:50	1.15	.2564
						:51	1.014	.2744
						:52	.904	.2904
						:53	.820	.3048
						:55	.621	.3288
						:57	.463	.3469
			:59	.374	.3609			
			9:00	.315	.3666			
			:01	.287	.3716			
			:03	.218	.3800			
			:06	.154	.3893			
			:10	.103	.3978			
			:16	.062	.4060			
			:22	.038	.4110			
			:28	.024	.4141			
			:40	.011	.4176			
			:52	.004	.4191			
			10:04	.001	.4196			
			:16	.001	.4198			
			:41e	0	.4199			

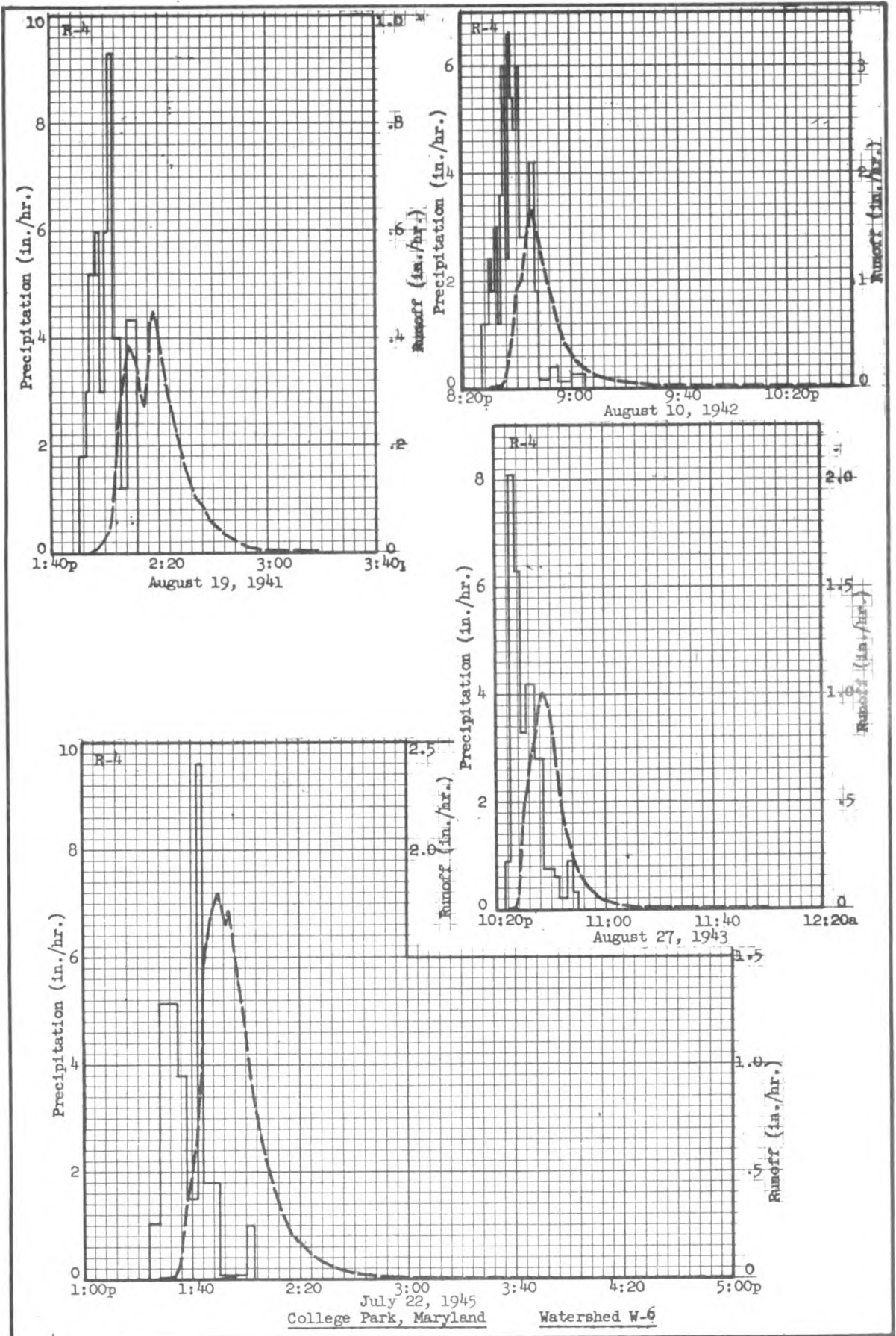
Notes: To convert runoff in in/hr to cfs multiply by 3.56.

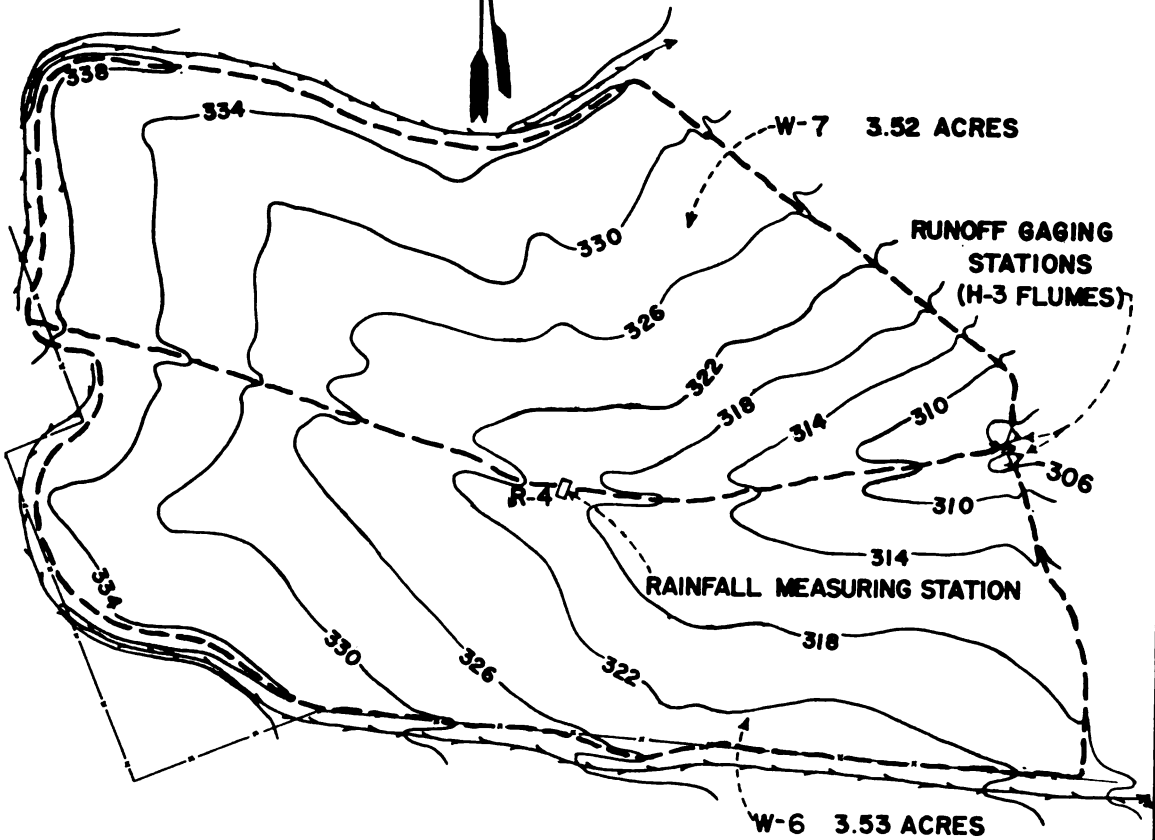
College Park, Maryland			Watershed W-6 (5.6)			3.53 acres		
Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
<u>Event of August 27, 1943</u>								
8-10-43	.05	0	8-27-43	Raingage	R-4	8-27-43		
8-13	.01	0	10:23p	0	0	10:24p	0	0
8-16	.39	0	:25	.90	.03	:27	.004	.0001
8-26	.11	0	:27	8.10	.30	:27½	.044	.0003
			:29	6.30	.51	:28	.098	.0009
<u>Watershed Conditions:</u> Bluegrass and white clover pasture with heavy continuous grazing, common fertilization and occasional mowing for weed and excess grass growth control. (No pasture yields taken.)			:31	3.30	.62	:28½	.210	.0022
			:34	4.20	.83	:29	.276	.0042
			:37	2.80	.97	:29½	.396	.0070
			:41	.75	1.02	:30	.489	.0107
			:43	.60	1.04	:31	.551	.0194
			:46	.20	1.05	:32	.678	.0296
			:48	.90	1.08	:34	.771	.0538
			:50e	.30	1.09	:35	.906	.0678
						:36	.979	.0835
						:37	1.01	.1001
						:39	.942	.1327
						:40	.872	.1478
						:41	.787	.1616
						:42	.663	.1737
			:43	.551	.1838			
			:44	.452	.1922			
			:45	.396	.1993			
			:46	.343	.2055			
			:47	.295	.2108			
			:48	.242	.2153			
			:49	.203	.2190			
			:51	.155	.2250			
			:53	.108	.2294			
			:55	.079	.2325			
			:57	.055	.2347			
						11:00	.038	.2370
						:03	.024	.2385
						:06	.015	.2395
						:09	.010	.2401
						:12	.007	.2405
						:15	.004	.2408
						:21	.002	.2411
						:27	.001	.2412
						12 Mte	0	.2414
<u>Event of July 22, 1945</u>								
6-22-45	.03	.0002	7-22-45	Raingage	R-4	7-22-45		
7-1	.01	0	1:24p	0	0	1:28p	0	0
7-2	1.10	.0487	:28	1.05	.07	:31	.001	0
7-5	.84	.0118	:35	5.14	.67	:32	.005	.0001
7-9	.10	0	:38	3.80	.86	:33	.026	.0004
7-10	.82	.0839	:42	1.50	.96	:34	.055	.0011
7-14	1.11	.1296	:44	9.60	1.28	:36	.098	.0036
7-15	.59	.0027	:50	1.80	1.46	:37	.226	.0063
7-17	2.45	1.0166	2:00	.06	1.47	:38	.343	.0111
7-18	.79	.0544	:03e	1.00	1.52	:39	.419	.0175

Notes: To convert runoff in in/hr to cfs multiply by 3.56.

College Park, Maryland			Watershed W-6 (5.6)			3.53 acres		
Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
<u>Event of July 22, 1945 Cont'd.</u>								
7-19-45	.68	.0391				1:40p	.475	.0250
7-20	.02	0				:41	.565	.0337
						:42	.649	.0448
						:43	.820	.0570
						:43½	.958	.0644
						:44	1.170	.0733
						:45	1.430	.0940
						:46	1.580	.1192
						:48	1.720	.1742
						:50	1.800	.2329
						:52	1.700	.2912
						:53	1.650	.3190
						:54	1.720	.3472
						:56	1.580	.4022
						:58	1.340	.4509
						2:00	1.130	.4919
						:02	.941	.5264
						:04	.787	.5552
						:06	.649	.5791
						:08	.525	.5987
						:11	.396	.6217
						:14	.287	.6388
						:17	.210	.6512
						:20	.167	.6607
						:24	.113	.6700
						:28	.079	.6764
						:32	.058	.6810
						:36	.044	.6844
						:40	.032	.6869
						:44	.024	.6888
						:48	.017	.6902
						:54	.011	.6916
						3:00	.005	.6924
						:10	.002	.6930
						:20	.001	.6932
						5:00e	0	.6936

Notes: To convert runoff in in/hr to cfs multiply by 3.56.


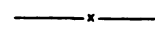
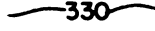





SCALE IN FEET

CONTOUR INTERVAL - 4 FEET

LEGEND

-  WATERSHED BOUNDARY
-  FENCE
-  330 CONTOURS
-  DIVERSION TERRACE CHANNELS

COLLEGE PARK, MARYLAND
WATERSHEDS W-6 & W-7

Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
Event of August 19, 1941								
7-29-41	.40	.0002	8-19-41	Raingage	R-4	8-19-41		
7-30	.83	.0173	1:50p	0	0	1:53p	0	0
8-5	.21	0	:53	1.80	.09	:58	.005	0
8-9	.27	0	:54	3.00	.14	:59	.030	.0003
8-12	.37	0	:57	5.20	.40	2:00	.053	.0010
8-15	1.44	.0187	:58	6.00	.50	:01	.064	.0020
8-19	.13 ^{2/}	0	2:00	3.00	.60	:02	.097	.0033
Watershed Conditions: Bluegrass and white clover pasture with heavy continuous grazing, common fertilization and occasional mowing for weed and excess grass growth control.			:01	6.00	.70	:03	.201	.0058
			:03	9.30	1.01	:04	.321	.0101
			:06	4.00	1.21	:05	.420	.0163
			:08	1.20	1.25	:06	.498	.0240
			:12e	4.35	1.54	:07	.498	.0323
						:09	.408	.0474
						:10	.389	.0540
						:11	.398	.0605
						:12	.408	.0672
						:13	.452	.0744
						:14	.486	.0822
						:15	.452	.0900
						:16	.795	.1004
						:17	.795	.1136
						:18	.750	.1261
						:20	.582	.1475
			:22	.473	.1651			
			:24	.389	.1795			
			:26	.321	.1913			
			:28	.261	.2010			
			:30	.216	.2089			
			:32	.175	.2154			
			:34	.144	.2207			
			:36	.112	.2250			
			:38	.093	.2284			
			:41	.064	.2323			
			:44	.047	.2350			
			:47	.032	.2370			
			:50	.021	.2383			
			:53	.013	.2391			
			:56	.008	.2396			
			:59	.005	.2399			
			3:02	.002	.2401			
			:05	.001	.2402			
			:14e	0	.2402			

Notes: 1/ Area reduced to 3.52 acres 8-29-41.
 2/ 12:30a to 7:00a.
 To convert runoff in in/hr to cfs multiply by 4.144.

Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
Event of August 10, 1942								
7-11-42	.42	.0142	8-10-42	Raingage	R-4	8-10-42		
7-19	.28	.0003	8:27p	0	0	8:28p	0	0
7-20	.31	0	:30	1.20	.06	:34	.010	.0001
7-24	.06	0	:31	2.40	.10	:35	.041	.0005
7-25	.58	0	:32	1.80	.13	:36	.093	.0016
7-26	.55	.0043	:33	3.00	.18	:37	.161	.0037
7-27	.08	0	:34	1.20	.20	:38	.296	.0075
7-29	.02	0	:35	3.60	.26	:39	.696	.0158
8-3	.05	0	:36	6.00	.36	:40	.856	.0288
8-5	.13	0	:37	2.40	.40	:41	1.17	.0457
8-7	.01	0	:38	6.60	.51	:42	1.32	.0664
8-8	2.57	.2701	:39	5.40	.60	:43	1.39	.0891
8-9	1.50	.2962	:40	4.80	.68	:44	1.76	.1153
			:41	6.00	.78	:45	2.26	.1488
			:44	2.80	.92	:46	2.42	.1878
Watershed Conditions: Bluegrass and white clover pasture with heavy continuous grazing, common fertilization and occasional mowing for weed and excess grass growth control. Herbage yield determined at 5 4ft. x 4ft. cages 18 inches high for 92 days ending Sept. 2 was .69 tons per acre, hay equivalent at 10% moisture.			:45	3.00	.97	:47	2.32	.2273
			:47	4.20	1.11	:48	2.12	.2343
			:48	1.80	1.14	:49	1.89	.2978
			:52	.15	1.15	:50	1.65	.3273
			:55	.40	1.17	:51	1.46	.3531
			9:00	.12	1.18	:52	1.30	.3761
			:05e	.24	1.20	:53	1.17	.3968
						:54	1.08	.4755
						:55	.961	.4325
						:56	.856	.4477
						:57	.758	.4612
						:58	.637	.4728
						:59	.566	.4828
			9:00	.501	.4917			
			:02	.408	.5069			
			:04	.324	.5191			
			:06	.260	.5288			
			:08	.211	.5366			
			:10	.175	.5430			
			:15	.114	.5551			
			:18	.088	.5602			
			:21	.066	.5641			
			:27	.044	.5696			
			:33	.027	.5731			
			:39	.015	.5752			
			:45	.008	.5764			
			:51	.004	.5770			
			:57	.001	.5773			
			10:03	.001	.5774			
			:25e	0	.5774			

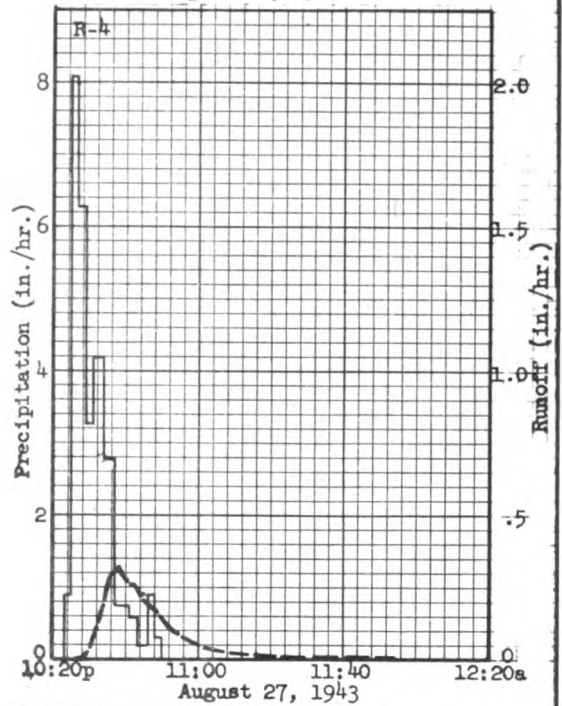
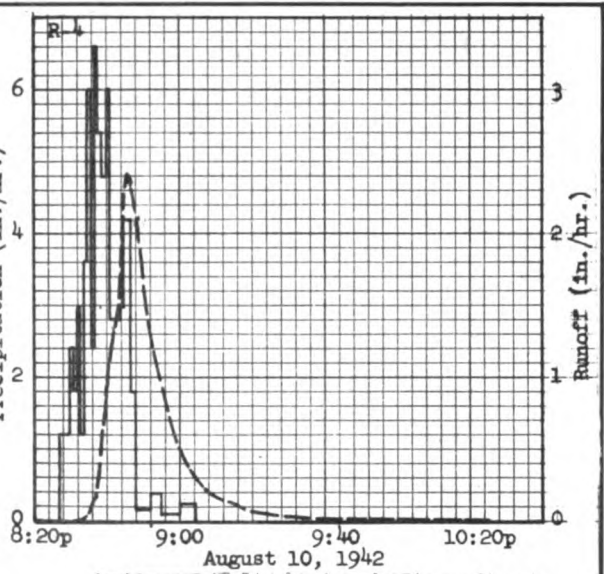
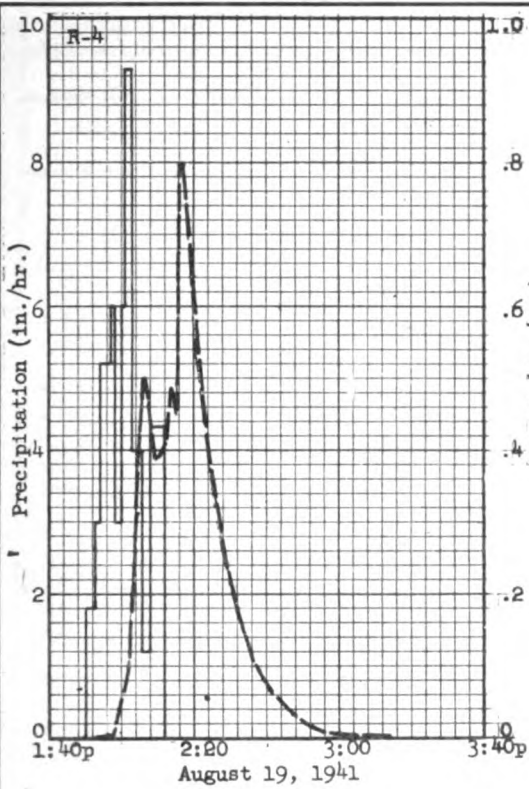
Notes: To convert runoff in in/hr to cfs multiply by 3.549.
For map of area, see Sheet 6 of 6 for W-6, (5.6) College Park, Maryland.

College Park, Maryland			Watershed W-7 (5.7)			3.52 acres		
Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
Event of August 27, 1943								
8-10-43	.05	0	8-27-43	Raingage	R-4	8-27-43		
8-13	.01	0	10:23p	0	0	10:25p	0	0
8-16	.39	0	:25	.90	.03	:28	.002	.0001
8-26	.11	0	:27	8.30	.30	:29	.015	.0002
			:29	6.30	.51	:30	.044	.0007
Watershed Conditions: Bluegrass and white clover pasture with 15 contour pasture furrows spaced 20 ft. apart on steepest slope with occasional cross dams where furrows were slightly off contour. Total length of furrows 5405 ft. and hold about .25 inch of runoff. Furrows constructed May 2, 1943 and fertilized and seeded to bluegrass and white clover. Pasture between furrows heavily grazed with common fertilization and occasional mowing for weed and excess grass growth control. (No pasture yields taken.)			:31	3.30	.62	:31	.079	.0017
			:34	4.20	.83	:32	.114	.0033
			:37	2.80	.97	:33	.161	.0056
			:41	.75	1.02	:34	.196	.0086
			:43	.60	1.04	:35	.260	.0124
			:46	.20	1.05	:36	.296	.0170
			:48	.90	1.08	:37	.304	.0220
			:50e	.30	1.09	:38	.324	.0272
						:39	.296	.0324
						:41	.260	.0417
						:42	.260	.0460
						:44	.235	.0543
						:46	.189	.0614
						:48	.168	.0674
						:50	.136	.0725
			:52	.108	.0766			
			:54	.088	.0799			
			:57	.066	.0838			
			11:00	.051	.0867			
			:03	.041	.0890			
			:06	.029	.0908			
			:09	.024	.0921			
			:12	.017	.0931			
			:15	.013	.0939			
			:18	.010	.0945			
			:21	.007	.0949			
			:24	.005	.0952			
			:27	.003	.0954			
			:33	.001	.0956			
			:54e	0	.0957			
Event of July 22, 1945								
6-22-45	.03	.0001	7-22-45	Raingage	R-4	7-22-45		
7-1	.01	0	1:24p	0	0	1:29p	0	0
7-2	1.10	.0083	:28	1.05	.07	:33	.001	0
7-5	.84	.0010	:35	5.14	.67	:34	.010	.0001
7-9	.10	0	:38	3.80	.86	:35	.027	.0004
7-10	.82	.0133	:42	1.50	.96	:37	.044	.0016
7-14	1.11	.0223	:44	9.60	1.28	:39	.079	.0036
7-15	.59	.0005	:50	1.80	1.46	:41	.119	.0069
7-17	2.45	.7272	2:00	.06	1.47	:43	.142	.0113
7-18	.79	.1285	:03e	1.00	1.52	:45	.211	.0172

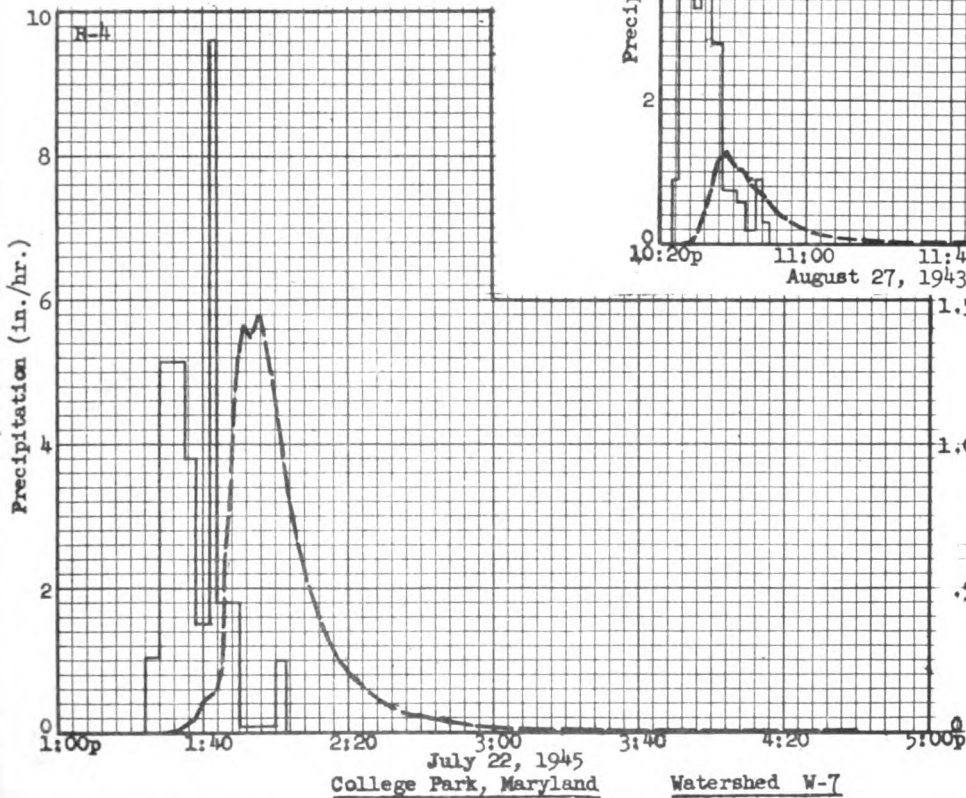
Notes: To convert runoff in in/hr to cfs multiply by 3.549.
 For map of area, see Sheet 6 of 6 for W-6, (5.6) College Park, Maryland.

Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
<u>Event of July 22, 1945 Cont'd.</u>								
7-19-45	.68	.360				1:45 ¹ / ₂ P	.344	.0195
7-20	.02	0				:46	.552	.0232
						:47	.823	.0347
						:48	.997	.0499
						:49	1.190	.0681
<p><u>Watershed Conditions:</u> Bluegrass and white clover pasture with 15 contour pasture furrows (total length 5405 ft.) spaced 20 ft. apart on steepest slope with occasional cross dams. Pasture heavily grazed with common fertilization and occasional mowing for weed and grass growth control. Herbage yield under 5 pairs of 4 ft. x 4 ft. cages 18 inches high for period ending July 31, 1945 was 1.76 tons per acre, hay equivalent at 10% moisture.</p>						:50	1.320	.0889
						:51	1.410	.1117
						:53	1.370	.1580
						:55	1.440	.2047
						:56	1.440	.2287
						:59	1.240	.2957
						2:02	.961	.3508
						:05	.741	.3934
						:08	.566	.4261
						:11	.431	.4511
						:14	.335	.4703
						:18	.243	.4896
						:22	.182	.5037
						:26	.136	.5143
						:30	.103	.5223
			:36	.070	.5310			
			:42	.051	.5371			
			:48	.035	.5414			
			:54	.024	.5443			
			3:00	.015	.5463			
			:10	.007	.5481			
			:20	.002	.5488			
			:30	.001	.5490			
			4:40e	0	.5492			

Notes: To convert runoff in in/hr to cfs multiply by 3.549.
 For map of area, see Sheet 6 of 6 for W-6, (5.6) College Park, Maryland.



For map of area see Sheet 6 of 6 for (5.6) Watershed W-6 at College Park, Maryland.



College Park, Maryland

Watershed W-7

College Park, Maryland			Watershed W-8			(5.8)		2.43 acres	
Antecedent conditions			Rainfall			Runoff			
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)	
Event of May 11-14, 1943									
4-12-43	.10	0	5-11-43	Raingage	R-1	5-11-43			
4-13	.34	0	8:29p	0	0	8:34p	0	0	
4-14	0	.0038	:31	1.50	.05	10:28	.001	.0003	
4-17	.29	.0039	:33	.50	.07	:48	.002	.0007	
4-18	0	.0022	ceased			11:18	.003	.0018	
4-19	1.35	.4576	:38	0	.07	12 Mt	.004	.0039	
4-20	.80	.1583	:39	2.40	.11	5-12-43			
4-21	.08	.4513	:40	3.60	.17	4:00a	.005	.0209	
4-22	0	.0352	:42	3.30	.28	5:00	.008	.0274	
4-23	0	.0089	:44	.60	.30	:05	.010	.0282	
4-24	0	.0018	9:00	.08	.32	:10	.014	.0292	
4-30	.01	0	:14	.21	.37	:20	.022	.0322	
5-2	.12	0	:30	.08	.39	:30	.030	.0365	
5-6	.02	0	10:00	.04	.41	:35	.044	.0396	
5-7	.15	0	:25	.02	.42	:40	.056	.0438	
5-8	.15	0	11:00	.03	.44	:46	.065	.0499	
5-9	.19	0	:50e	.01	.45	:52	.080	.0572	
5-10	.23 ^{1/2}	.0037				6:12	.085	.0847	
5-11	.02 ^{1/2}	0	5-12-43			:32	.080	.1123	
			1:10a	0	.45	7:32	.065	.1849	
Watershed Conditions: Second growth pine and hardwoods; fair to excellent litter on woodland floor 75%; scattered areas of laurel and blueberries with occasional spots bare of litter but moss-covered 25%. Leaves on trees fully developed.			:28	.03	.46	8:10	.052	.2222	
			:30	.30	.47	:15	.061	.2269	
			:52	.03	.48	:25	.070	.2378	
			:57	.12	.49	:35	.080	.2503	
			2:00	.20	.50	:50	.091	.2717	
			:02	.30	.51	9:20	.091	.3170	
			:08	.10	.52	:40	.102	.3491	
			:14	.30	.55	10:04	.108	.3911	
			:28	.21	.60	:14	.108	.4092	
			:40	.05	.61	:34	.102	.4442	
			ceased						
			3:02	0	.61	:54	.091	.4763	
			:04	1.20	.65	11:24	.075	.5177	
			:06	.30	.66	:54	.065	.5528	
			ceased			12:24p	.056	.5832	
			:13	0	.66	:44	.052	.6013	
			:14	2.40	.70	1:44	.040	.6476	
			:15	1.20	.72	2:44	.030	.6829	
			:20e	.12	.73	3:16	.024	.6974	
			5:05a	0	.73	:32	.027	.7043	
:07	.60	.75	4:02	.024	.7172				
:10	.20	.76	6:02	.017	.7582				
:11	4.80	.84	8:02	.012	.7870				
:15	1.05	.91	12 Mt	.008	.8275				
:17	.60	.93	5-13-43						
			4:00a	.005	.8535				
:23	.70	1.00	8:00a	.004	.8707				
:32	.07	1.01	12 N	.003	.8827				
:36	1.20	1.09	4:00p	.002	.8931				
:38	2.10	1.16	12 Mt	.001	.9027				
:42e	.30	1.18	5-14-43						

(Cont'd next page)

Notes: To convert runoff in in/hr to cfs multiply by 2.45.
 1/ 7:00a to 9:00a.

College Park, Maryland			Watershed W-8			(5.8)			2.43 acres		
Antecedent conditions			Rainfall			Runoff					
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)			
Event of May 11-14, 1943 Cont'd											
			7:00a	0	1.18	12 Mt(e)	0	.9075			
			:33	.04	1.20						
			ceased								
			8:04	0	1.20						
			:08	.15	1.21						
			:16	.98	1.34						
			:24	.60	1.42						
			:27	.20	1.43						
			:32	.84	1.50						
			9:00	.15	1.57						
			:18	.07	1.59						
			:23	.72	1.65						
			:34	.11	1.67						
			:40	.40	1.71						
			:48	.08	1.72						
			10:00e	.30	1.78						
			3:15p	0	1.78						
			:30e	.36	1.87						
			6:00p	0	1.87						
			:04	.75	1.92						
			:51e	.03	1.94						
			1/17	1/17	1/17						
			St'd raingage S-6		2.06						
Event of November 8-9, 1943											
10-14-43	.02	0	11-8-43	Raingage	R-1	11-8-43					
10-15	.12	0	4:37p	0	0	7:33p	0	0			
10-16	.28	0	:40	.20	.01	:38	.004	0			
10-18	.01	0	:56	.08	.03	:39	.006	.0001			
10-25	.60	0	ceased			:40	.010	.0002			
10-26	3.00	.0006	5:50	0	.03	:41	.017	.0004			
10-28	.32	0	6:00	.06	.04	:44	.010	.0011			
11-2	.53	0	:20	.03	.05	:46	.008	.0014			
11-3	.35	0	:24	.15	.06	:48	.008	.0017			
11-5	.02	0	:35	.05	.07	:54	.006	.0024			
11-8	.25 ^{2/}	0	:52	.14	.11	:55	.014	.0026			
			7:00	.23	.14	:56	.024	.0029			
			:08	.08	.15	:57	.048	.0035			
			:11	.20	.16	:58	.061	.0044			
			:17	.10	.17	8:00	.075	.0067			
			:26	.60	.26	:02	.085	.0094			
			:27	3.00	.31	:04	.096	.0124			
			:32	.84	.38	:06	.102	.0157			
			:35	3.80	.57	:12	.114	.0265			
			:37	5.70	.76	:24	.114	.0494			
			:38	3.60	.82	:36	.102	.0710			
			:41	5.80	1.11	:41	.102	.0795			
			:43	1.80	1.17	:43	.108	.0830			
			:45	.90	1.20	:46	.114	.0886			
			:47	3.90	1.33	:50	.134	.0969			
<p>Watershed Conditions: Second growth pine and hardwoods with 60% of leaves from hardwoods fallen: fair to excellent litter on woodland floor 75%; scattered areas of laurel and blueberries, with occasional spots bare of litter but moss-covered 25%. Lower 230 feet of natural waterway swept clean of leaves and debris. White oak 10 inches DBH uprooted.</p>											

Notes: To convert runoff in in/hr to cfs multiply by 2.45.
 1/ :03" rain occurred 9:30p to 11:30p, 5-14-43.
 2/ 12:30 a to 1:45p.

College Park, Maryland			Watershed W-8			(5.8)		2.43 acres	
Antecedent conditions			Rainfall			Runoff			
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)	
<u>Event of November 8-9, 1943 Cont'd</u>									
			7:54p	.51	1.39	8:52p	.148	.1016	
			:57	2.60	1.52	:54	.163	.1068	
			8:00	.80	1.56	:55	.163	.1095	
			:07	.77	1.65	:57	.196	.1155	
			:10	.40	1.67	:59	.222	.1225	
			:20	.24	1.71	9:02	.240	.1340	
			:21	1.20	1.73	:04	.290	.1428	
			:30	.07	1.74	:05	.290	.1476	
			:37	.17	1.76	:06	.312	.1526	
			:41	1.05	1.83	:09	.335	.1688	
			:43	.30	1.84	:12	.346	.1858	
			:46	1.80	1.93	:15	.335	.2028	
			:47	6.00	2.03	:16	.346	.2085	
			:49	1.50	2.08	:22	.323	.2420	
			:52	2.00	2.18	:26	.323	.2635	
			:53	3.00	2.23	:32	.280	.2937	
			:54	6.00	2.33	:34	.280	.3030	
			:59	.84	2.40	:36	.302	.3127	
			9:00	6.00	2.50	:38	.346	.3235	
			:03	2.60	2.63	:39	.395	.3297	
			:05	.90	2.66	:40	.395	.3363	
			:10	.24	2.68	:41	.461	.3434	
			:30	.03	2.69	:43	.461	.3588	
			:33	3.00	2.84	:44	.474	.3666	
			:34	5.40	2.93	:45	.503	.3747	
			:37	2.20	3.04	:46	.461	.3827	
			:40	.60	3.07	:49	.461	.4058	
			:53	.14	3.10	:55	.421	.4499	
			10:00	.09	3.11	10:01	.383	.4901	
			ceased			:07	.346	.5265	
			:04	0	3.11	:13	.312	.5594	
			:08	.45	3.14	:19	.290	.5895	
			:25	.04	3.15	:25	.270	.6175	
			11:00	.02	3.16	:31	.250	.6435	
			:43	.01	3.17	:37	.232	.6676	
			:48	.24	3.19	:43	.222	.6903	
			12 Mt	.05	3.20	:55	.196	.7321	
			11-9-43			11:05	.196	.7648	
			12:12a	.05	3.21	:15	.148	.7935	
			:20	.08	3.22	:25	.134	.8170	
			:33	.14	3.25	:35	.121	.8382	
			:34	1.80	3.28	:45	.108	.8573	
			:37	.20	3.29	:50	.108	.8663	
			:40	.60	3.32	12 Mt	.102	.8838	
			:48	.38	3.37	11-9-43			
			1:00	.15	3.40	12:12a	.091	.9031	
			:25	.14	3.46	:24	.085	.9207	
			:45	.09	3.49	:36	.080	.9372	
			2:00	.08	3.51	:42	.085	.9455	
			:10	.06	3.52	:48	.091	.9543	

Notes: To convert runoff in in/hr to cfs multiply by 2.45.

Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
<u>Event of November 8-9, 1943 Cont'd</u>								
			2:40a (e)	.02	3.53	12:51a	.096	.9590
						1:03	.096	.9783
						:33	.091	1.0250
			St'd raingage 8-6		3.77	2:03	.080	1.0678
						:33	.070	1.1054
						3:03	.061	1.1381
						:33	.052	1.1663
						4:03	.044	1.1904
						:33	.037	1.2107
						5:03	.030	1.2275
						:33	.027	1.2419
						6:03	.022	1.2542
						:33	.019	1.2643
						7:00	.017	1.2723
						8:00	.012	1.2867
						9:00	.008	1.2969
						11:00	.005	1.3099
						1:00p	.004	1.3185
						3:00	.003	1.3245
						5:00	.002	1.3285
						7:00	.001	1.3307
						12 Mt(e)	0	1.3320
<u>Event of July 26-28, 1945</u>								
7-1-45	.01	0	7-26-45	Raingage	R-1	7-26-45		
7-2	1.11	0	10:22p	0	0	10:28p	0	0
7-5	.78	0	:25	1.40	.07	:53	.001	0
7-9	.11	0	:37	.25	.12	:54	.003	0
7-10	.82	0	:42	.60	.17	11:00	.004	.0003
7-14	1.12	.0001	:43	3.60	.23	:10	.005	.0010
7-15	.58	.0059	:45	4.20	.37	:14	.006	.0014
7-17	2.55	.4312	:51	4.30	.80	:15	.012	.0016
7-18	.79	1.1734	:53	1.80	.86	:17	.027	.0023
7-19	.72	.3373	:58	.72	.92	:19	.040	.0034
7-20	.02	.0342	11:00	1.20	.96	:22	.056	.0058
7-22	1.81	.6324	:03	2.00	1.06	:25	.080	.0092
7-23	0	.0703	:11	.68	1.15	:30	.102	.0168
7-24	.02	.0004	:13	1.80	1.21	:35	.121	.0261
			:17	.75	1.26	:37	.127	.0302
			:19	.60	1.28	:40	.141	.0369
			:23	1.20	1.36	:45	.171	.0499
			:30	.51	1.42	:48	.187	.0589
			:37	.86	1.52	:54	.204	.0785
			:39	1.80	1.58	12 Mt	.213	.0994
			:46	.77	1.67	7-27-45		
			:52	.20	1.69	12:06a	.222	.1212
			12 Mt	.08	1.70	:11	.222	.1397
			7-27-45			:21	.204	.1752
			12:38a	0	1.70	:36	.187	.2241
<p><u>Watershed Conditions:</u> Second growth pine and hardwoods; fair to excellent litter on woodland floor 80%; scattered areas of laurel and some blueberries with occasional spots bare of litter but moss-covered 20%. Lower 100 feet of natural channel washed clean of leaves and debris.</p>								

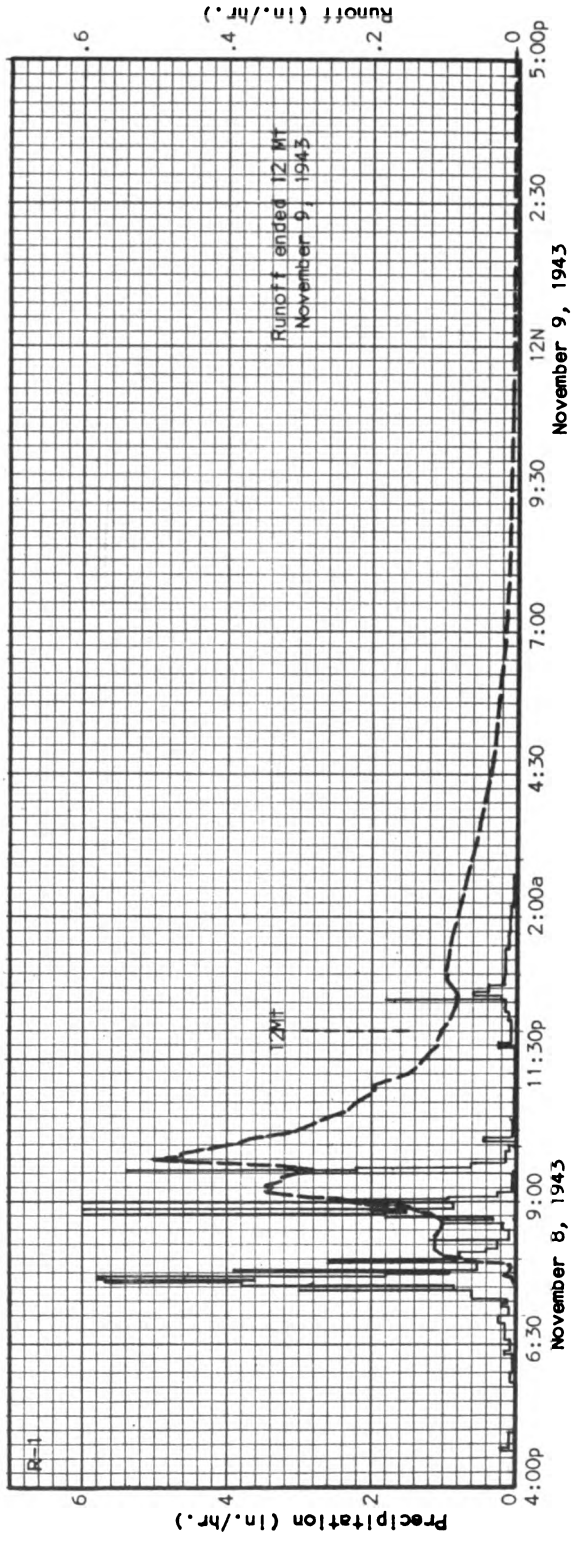
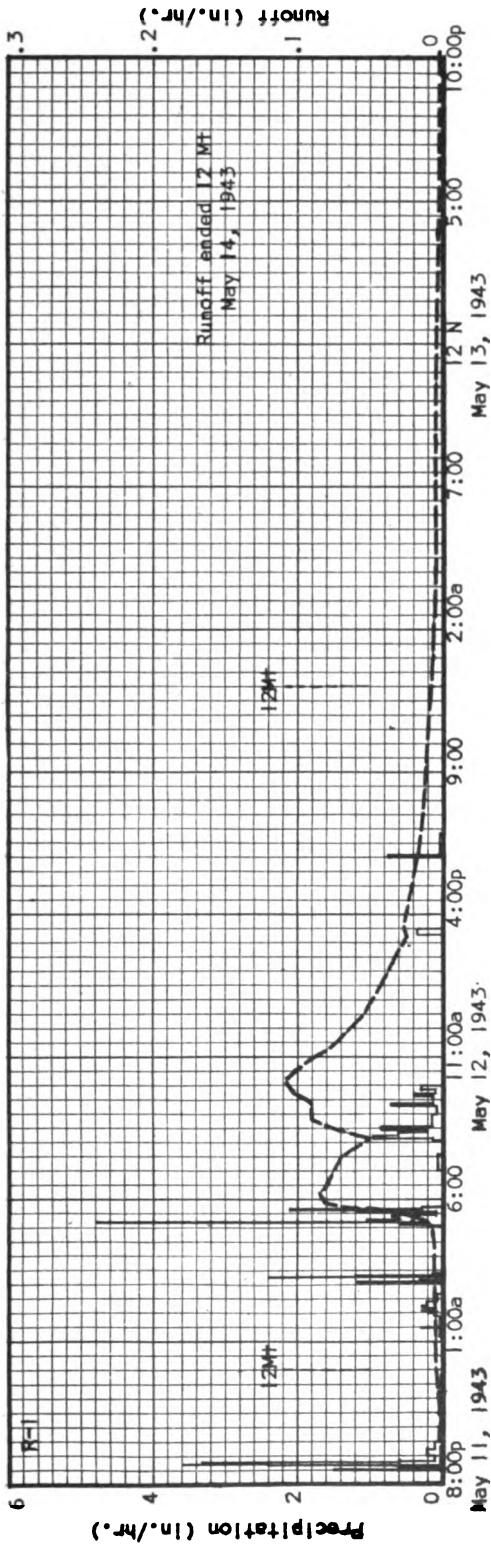
Notes: To convert runoff in in/hr to cfs multiply by 2.45.

College Park, Maryland			Watershed W-8			(5.8)		2.43 acres	
Antecedent conditions			Rainfall			Runoff			
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)	
Event of July 26-28, 1945 Cont'd									
			12:40a	.60	1.72	12:51a	.163	.2679	
			:55	.04	1.73	1:06	.148	.3068	
			1:15e	.12	1.77	:21	.134	.3421	
						2:21	.091	.4579	
			St'd raingage S-6		1.97	3:21	.061	.5336	
			7-28-45			4:21	.048	.5880	
			7:00a	0	0	5:21	.034	.6287	
			8:00	.01	.01	6:21	.027	.6591	
			9:00	.01	.02	7:21	.022	.6835	
			10:00e	.01	.03	8:21	.017	.7026	
			St'd raingage S-6		.03	9:51	.012	.7242	
						11:51	.008	.7446	
						2:51p	.005	.7629	
						5:51	.003	.7740	
						7:51	.002	.7780	
						12 Mt	.001	.7830	
						7-28-45			
						3:00p(e)	0	.7886	
Event of November 24-27, 1950									
10-28-50	.14	0	11-24-50	Raingage	R-1	11-25-50			
11-4	1.12	.0569	9:00p	0	0	4:54a	0	0	
11-5	0	0.0232	11:00	.01	.02	:56	.003	0	
11-11	.02 ^{1/}		:45	.01	.03	5:00	.004	.0002	
11-20	.55	0	:50	.12	.04	:10	.004	.0008	
Watershed Conditions: Second growth pine and hardwoods with 95% of deciduous leaves fallen: fair to excellent litter on woodland floor 85%; scattered areas of laurel and other bushes with a few spots bare of litter but moss-covered 15%. Lower 100 feet of natural channel had leaves and debris washed out in places.			12 Mt	.06	.05	:15	.005	.0012	
			11-25-50				:20	.017	.0021
			12:45a	.03	.07	:30	.024	.0055	
			:55	.12	.09	:40	.034	.0103	
			1:00	.24	.11	:50	.044	.0168	
			:07	.17	.13	6:00	.056	.0252	
			:45	.03	.15	:10	.065	.0353	
			:55	.12	.17	:25	.075	.0528	
			2:00	.24	.19	:35	.102	.0676	
			:15	.12	.22	:45	.148	.0884	
			:21	.40	.26	:55	.195	.1170	
			:35	.30	.33	7:00	.231	.1347	
			:55	.21	.40	:02	.358	.1445	
			3:00	.24	.42	:05	.358	.1624	
			:15	.20	.47	:08	.323	.1794	
			:20	.36	.50	:10	.335	.1904	
:30	.18	.53	:20	.301	.2434				
:45	.24	.59	:30	.270	.2910				
4:00	.12	.62	:40	.250	.3343				
:15	.12	.65	:50	.231	.3744				
:25	.30	.70	8:00	.213	.4114				
:37	.35	.77	:20	.179	.4767				
:53	.45	.89	:40	.148	.5312				
5:00	.26	.92	9:00	.127	.5770				
:28	.28	1.05	:30	.108	.6358				

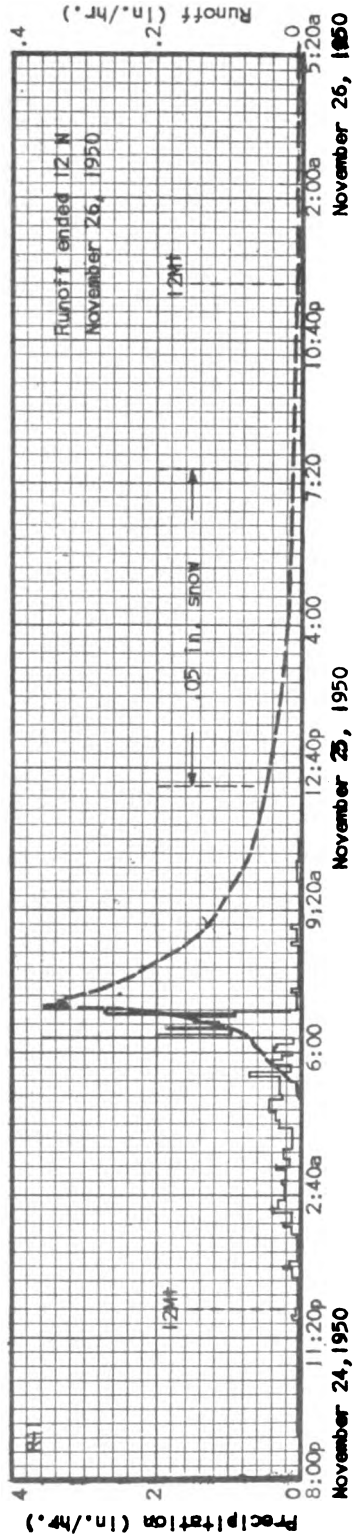
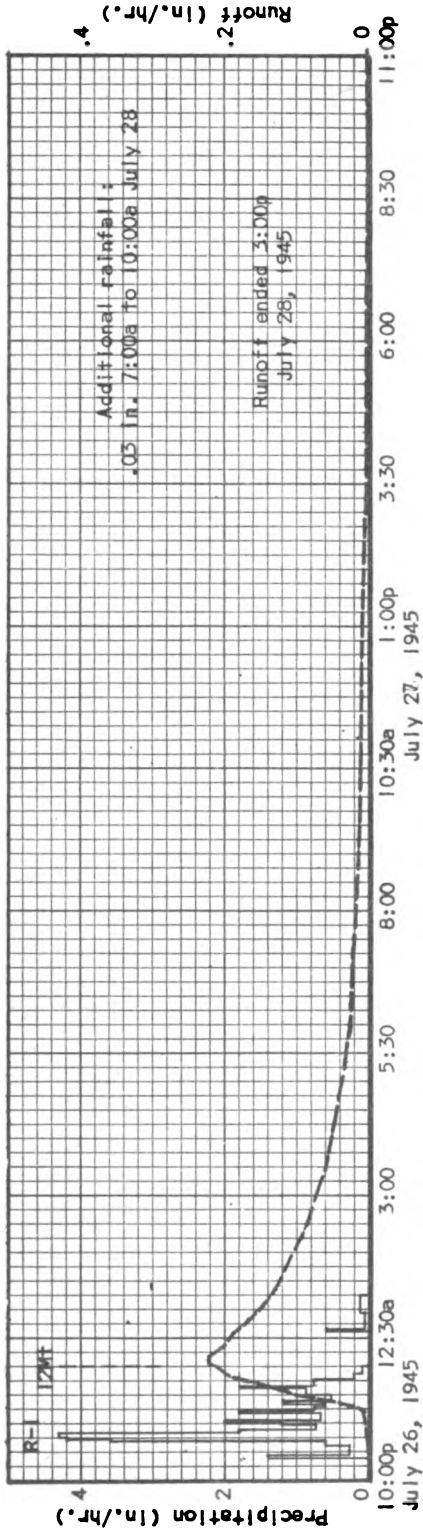
Notes: To convert runoff in in/hr to cfs multiply by 2.45.
 1/ Included .01" snow.

Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
<u>Event of November 24-27, 1950 Cont'd</u>								
			5:33a	.72	1.11	10:00a	.091	.6855
			:42	.13	1.13	:30	.075	.7269
			:48	.40	1.17	11:00	.065	.7620
			:55	.26	1.20	12 N	.052	.8207
			6:00	.12	1.21	1:00p	.040	.8670
			:08	.38	1.26	2:00	.030	.9023
			:13	.36	1.29	4:00	.019	.9517
			:20	.09	1.30	6:00	.014	.9849
			:21	3.60	1.36	8:00	.010	1.0093
			:24	2.00	1.46	10:00	.008	1.0277
			:32	.98	1.59	12 Mt	.005	1.0407
			:34	1.80	1.65	11-26-50		
			:42	1.13	1.80	4:00a	.004	1.0579
			:50	1.50	2.00	7:00	.003	1.0669
			:54	2.70	2.12	2:00p	.001	1.0778
			:56	.90	2.15	12 Mt	.001	1.0851
			7:00	.15	2.16	11-27-50		
			:25	.05	2.18	12 N(e)	0	1.0902
			:30	.12	2.19			
			8:00a	.02	2.20			
			:30	.02	2.21			
			:35	.12	2.22			
			:55	.03	2.23			
			9:00	.12	2.24			
			10:00	.01	2.25			
			:30	.04	2.27			
			11:00e	.02	2.28			
			12:15p	Snow	2.28			
			1:00e	"	2.31			
			4:00p	"	2.31			
			5:00e	"	2.32			
			7:00p	"	2.32			
			:40e	"	2.33			
			St'd raingage 8-6		2.07			

Notes: To convert runoff in in/hr to cfs multiply by 2.45.



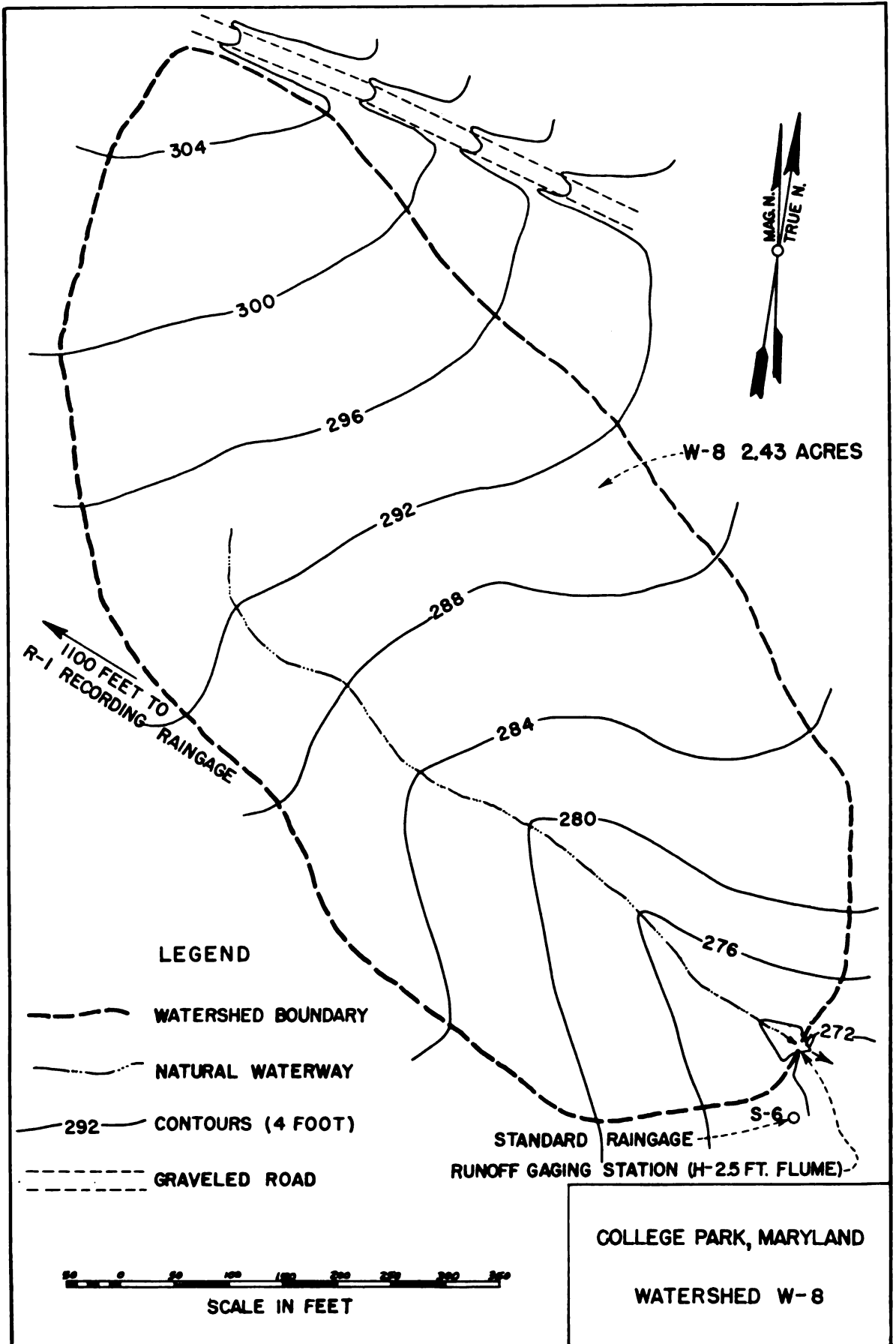
College Park, Maryland Watershed W-8 1943







College Park, Maryland

Watershed W-8

1945-50



LEGEND

-  **WATERSHED BOUNDARY**
-  **NATURAL WATERWAY**
-  **CONTOURS (4 FOOT)**
-  **GRAVELED ROAD**



COLLEGE PARK, MARYLAND
WATERSHED W-8

College Park, Maryland			Watershed W-9			(5.9)		12.05 acres	
Antecedent conditions			Rainfall			Runoff			
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)	
<u>Event of May 12-15, 1943</u>									
4-12-43	.11	0	5-12-43	Raingage	R-5	5-12-43			
4-13	.33	.0001	1:05a	0	0	5:00a	0	0	
4-14	0	.0003	:56	.07	.06	8:45	.001	.0011	
4-17	.28	0	2:00	.15	.07	9:00	.001	.0013	
4-19	1.36	.0283	:09	.20	.10	:03	.002	.0014	
4-20	.78	.0357	:30	.23	.18	:16	.002	.0027	
4-21	.06	.0886	ceased			:22	.003	.0030	
4-22	0	.0111	3:00	0	.18	:42	.004	.0041	
4-23	0	.0024	:04	.75	.23	:57	.004	.0051	
4-24	0	.0007	:11	.09	.24	10:47	.005	.0090	
4-30	.01	0	:13	1.20	.28	11:20	.006	.0119	
5-2	.12	0	:20e	.09	.29	:26	.006	.0125	
5-6	.02	0				:32	.008	.0132	
5-7	.21	0	5:03a	0	.29	:38	.009	.0141	
5-8	.12	0	:06	.60	.32	:44	.010	.0151	
5-9	.15	0	:09	2.40	.44	:50	.011	.0162	
5-10	.20	0	:20	.71	.57	12:05p	.012	.0191	
5-11	.42 ^{1/2}	0	:29	.13	.59	:09	.012	.0199	
			:34	.96	.67	:29	.011	.0237	
			:35	7.20	.79	:49	.010	.0272	
			:40e	.12	.80	1:19	.009	.0321	
						:59	.008	.0377	
			8:04a	0	.80	2:59	.006	.0447	
			:14	.78	.93	3:59	.006	.0507	
			:23	.53	1.01	4:59	.005	.0560	
			:25	.30	1.02	6:59	.004	.0654	
			:29	.90	1.08	8:59	.004	.0736	
			:40	.22	1.40	12 Mt	.003	.0839	
			9:00	.12	1.44	5-13-43			
			:14	.09	1.46	5:00a	.002	.0959	
			:25	.49	1.55	10:00	.001	.1034	
			:31	.10	1.56	3:00p	.001	.1079	
			:36	.36	1.59	5-15-43			
			:45	.07	1.60	10:00a	0	.1167	
			10:00e	.24	1.66	(e)			
			3:16p	0	1.66				
			:30	.47	1.77				
			4:00e	.02	1.78				
			5:57p	0	1.78				
			6:00	.40	1.80				
			:05	.96	1.88				
			ceased						
			:42	0	1.88				
			:50e	.45	1.94				
			5-14-43						
			9:30a	0	0				
			11:30a(e)	.01	.03				
			5-15-43						
			7:00a	0	0				
			9:00a(e)	.01	.02				

Notes: To convert runoff in in/hr to cfs multiply by 12.15.
^{1/} .40 inch rain 8:26p to 10:30p.

Antecedent conditions			Rainfall			Runoff		
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)
Event of November 8-10, 1943								
10-14-43	.03	0	11-8-43	Raingage	R-5	11-8-43		
10-15	.12	0	4:45p	0	0	7:22p	0	0
10-16	.37	0	5:00	.04	.01	8:24	.001	.0001
10-25	.50	0	6:00	.02	.03	:45	.001	.0003
10-26	2.88	T	:20	.03	.04	:52	.002	.0004
10-28	.32	0	7:00	.14	.13	:56	.002	.0006
11-2	.55	T	:17	.11	.16	:57	.004	.0007
11-3	.35	0	:26	.87	.29	9:03	.004	.0011
11-5	.02	0	:32	.60	.35	:07	.007	.0015
11-8	.21	0	:35	3.20	.51	:11	.008	.0020
<p>Watershed Conditions: Mature stand of mixed hardwoods with some scrub pine, with 75% of deciduous leaves off trees, practically no undergrowth and excellent litter on the forest floor. Leaves and litter moved downstream in natural waterway for short distances in lower 850 feet of channel.</p>			:41	5.10	1.02	:23	.008	.0037
			:44	2.20	1.13	:35	.007	.0052
			:47	3.20	1.29	:38	.010	.0056
			:55	.45	1.35	:40	.012	.0060
			:57	5.40	1.53	:42	.014	.0064
			8:00	.80	1.57	:48	.015	.0078
			:03	.20	1.58	:59	.013	.0103
			:07	1.05	1.65	10:00	.027	.0106
			:14	.34	1.69	:01	.051	.0113
			:22	.30	1.73	:02	.078	.0124
			:24	.60	1.75	:08	.071	.0199
			:38	.04	1.76	:15	.078	.0286
			:44	1.10	1.87	:20	.071	.0348
			:47	2.20	1.97	:26	.066	.0417
			:49	2.70	2.06	:32	.062	.0481
			:52	.80	2.10	:38	.057	.0541
			:56	5.40	2.46	:44	.051	.0595
			9:00	.45	2.49	:56	.043	.0689
			:02	.30	2.50	11:08	.036	.0769
			:06	3.90	2.76	:20	.030	.0835
:10	.60	2.80	:32	.026	.0891			
:26	.04	2.81	:44	.022	.0939			
:34	.15	2.83	:52	.021	.0967			
:41	3.17	3.20	12 Mt	.018	.0993			
10:00	.16	3.25	11-9-43					
:07	.17	3.27	12:10a	.017	.1022			
:13	.40	3.31	:20	.015	.1049			
11:00	.01	3.32	:32	.014	.1078			
:47	.01	3.33	:42	.013	.1100			
:52	.60	3.38	:47	.015	.1112			
ceased								
11-9-43			:58	.016	.1140			
12:10a	0	3.38	1:10	.015	.1171			
:36	.09	3.42	:40	.014	.1243			
:54	.50	3.57	2:20	.013	.1332			
1:00	.10	3.58	:50	.012	.1394			
:31	.17	3.67	3:20	.010	.1449			
2:00	.06	3.70	:40	.008	.1480			
:36e	.07	3.74	4:00	.008	.1507			
			:30	.006	.1542			
			5:00	.005	.1570			

Notes: To convert runoff in in/hr to cfs multiply by 12.15.
 1/ 9:32a to 1:00p.

College Park, Maryland			Watershed W-9			(5.9)		12.05 acres	
Antecedent conditions			Rainfall			Runoff			
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)	
Event of November 8-10, 1943 Cont'd									
						5:30a	.004	.1594	
						6:00	.004	.1615	
						:30	.003	.1633	
						7:00	.003	.1649	
						:40	.002	.1666	
						11:00	.002	.1729	
						1:00p	.001	.1755	
						5:00	.001	.1791	
						11-10-43			
						7:00a	0	.1826	
						(e)			
Event of July 26-31, 1945									
7-1-45	.01	0	7-26-45	Raingage	R-5	7-26-45			
7-2	1.22	.0003	10:15p	0	0	10:40p	0	0	
7-3	0	.0003	:20	.36	.03	:48	.001	0	
7-5	.90	.0003	:31	.60	.14	:52	.002	.0001	
7-6	0	.0004	:37	.30	.17	11:00	.001	.0003	
7-9	.11	0	:52	3.52	1.05	:04	.002	.0004	
7-10	.67	0	11:00	.90	1.17	:08	.003	.0005	
7-14	1.13	.0005	:06	1.20	1.29	:12	.004	.0007	
7-15	.63	.0011	:12	1.30	1.42	:14	.005	.0009	
7-16	0	.0001	:23	.55	1.52	:20	.006	.0015	
7-17	2.33	.0193	:29	.80	1.60	:32	.009	.0031	
7-18	.81	.2744	:33	.90	1.66	:36	.011	.0038	
7-19	.57	.0572	:43	1.50	1.91	:41	.015	.0049	
7-20	.05	.0182	:53	.18	1.94	:46	.017	.0062	
7-21	0	.0012	12 Mt	.09	1.95	:52	.026	.0083	
7-22	1.52	.1001	7-27-45			:56	.029	.0101	
7-23	0	.0370	12:36a	.02	1.96	12 Mt	.030	.0121	
7-24	.02	.0045	:56	.06	1.98	7-27-45			
7-25	0	.0002	1:00	.15	1.99	12:10a	.029	.0168	
			:10	.18	2.02	:11	.030	.0173	
			:20e	.06	2.03	:12	.035	.0178	
						:13	.051	.0185	
			7-28-45			:14	.066	.0195	
			8:17p	0	0	:16	.071	.0218	
			:23	2.80	.28	:21	.073	.0278	
			9:00	.05	.31	:41	.060	.0499	
			:30	.04	.33	:56	.051	.0637	
			10:00	.12	.39	1:16	.043	.0795	
			:09	.13	.41	:36	.038	.0931	
			:35	.14	.47	:56	.033	.1051	
			10:50e	.07	.50	2:56	.023	.1331	
						3:56	.016	.1526	
			7-29-45			4:56	.013	.1670	
			8:12a	0	0	5:56	.010	.1784	
			9:00	.03	.02	6:56	.008	.1873	
<p>Watershed Conditions: Mature stand of mixed hardwoods with some scrub pine, a full canopy overhead and excellent litter on forest floor. Leaves and litter in natural waterway piled up at places by channel flow.</p>									

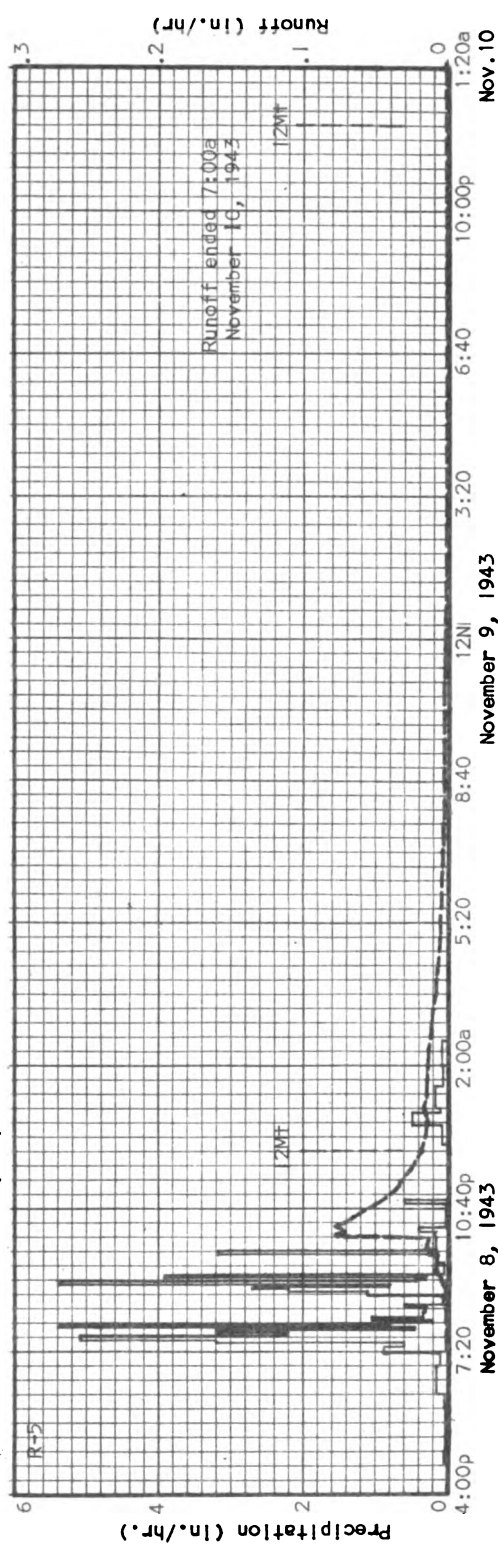
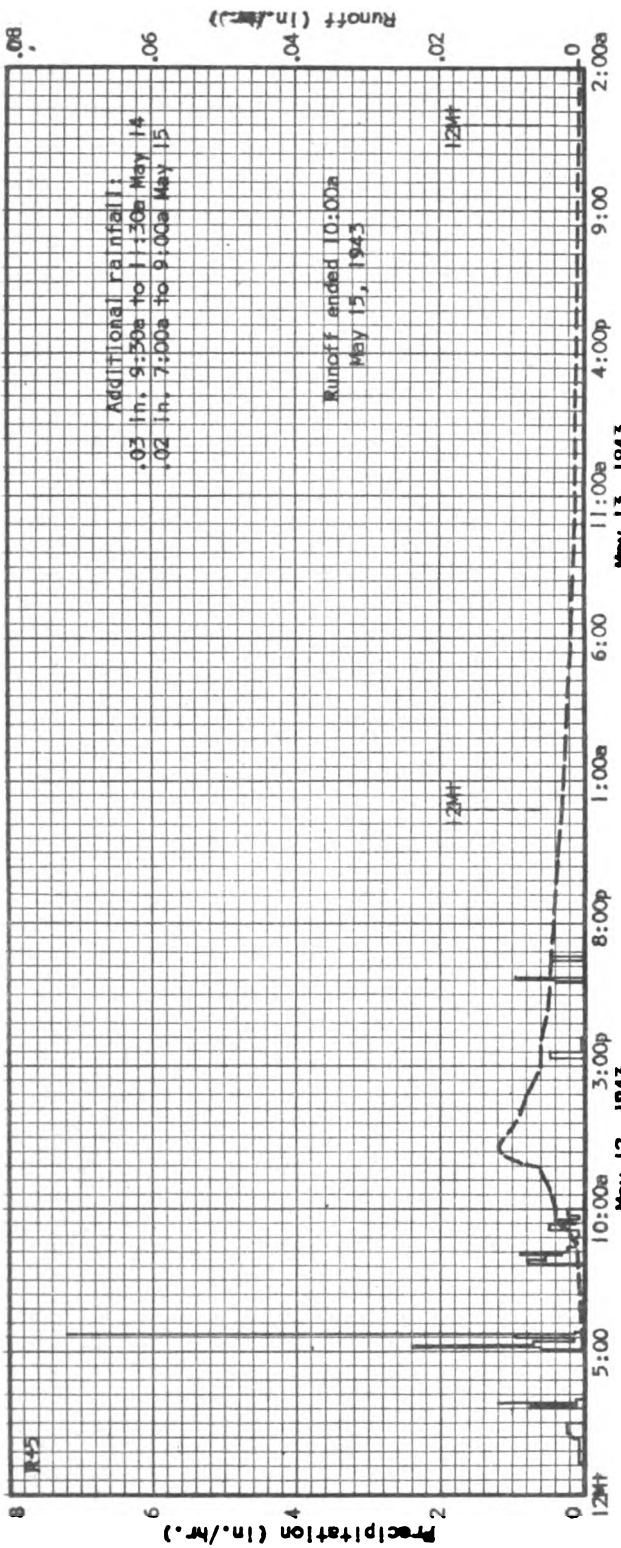
Notes: To convert runoff in in/hr to cfs multiply by 12.15.

College Park, Maryland			Watershed W-9			(5.9)		12.05 acres	
Antecedent conditions			Rainfall			Runoff			
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)	
Event of July 26-31, 1945 Cont'd									
			10:00a	.02	.04	8:56a	.007	.2015	
			11:00	.01	.05	10:56	.004	.2125	
			:20e	.03	.06	12:56p	.003	.2201	
			2:50p	0	0	2:56	.003	.2263	
						5:56	.002	.2335	
			3:00	.06	.01	12 Mt	.001	.2426	
			:20	.09	.04	7-28-45			
			ceased			11:00a	.0006	.2519	
			:45	0	.04	8:19p	.0004	.2565	
			4:00	.08	.06	:21	.0009	.2565	
			:10e	.06	.07	:34	.0006	.2567	
						11:00	.0012	.2586	
						12 Mt	.0012	.2598	
						7-29-45			
						12 Mt	.0006	.2794	
						7-31-45			
						8:00p(e)	0	.2896	
Event of November 25-26, 1950									
10-28-50	.10	0	11-25-50	Raingage	R-5	11-25-50			
11-4	1.10	.0003	1:50a	0	.09 ^{1/2}	3:10a	0	0	
11-5	0	.0003	2:00	.18	.12	6:25	.001	.0002	
11-11	.03 ^{2/3}	0	:15	.08	.14	:30	.001	.0003	
11-20	.50	.0002	:26	.44	.22	:35	.003	.0005	
11-21	0	.0001	:35	.13	.24	:40	.009	.0010	
11-24	.05 ^{1/2}	0	:51	.38	.34	:45	.013	.0019	
11-25	.04 ^{1/2}	0	3:00	.20	.37	:50	.018	.0032	
			:43	.07	.42	:55	.027	.0051	
			4:00	.53	.57	7:00	.038	.0078	
			:13	.09	.59	:04	.040	.0104	
			:33	.27	.68	:06	.042	.0118	
			:52	.47	.83	:08	.042	.0132	
			5:00	.45	.89	:12	.040	.0159	
			:56	.33	1.20	:20	.038	.0211	
			6:00	.30	1.22	:21	.081	.0221	
			:16	.45	1.34	:23	.084	.0249	
			:24	.23	1.37	:25	.098	.0279	
			:28	3.15	1.58	:26	.123	.0297	
			:35	1.11	1.71	:28	.116	.0337	
			:40	2.04	1.88	:30	.113	.0375	
			:58	1.40	2.30	:35	.113	.0469	
			7:00	.30	2.31	:45	.100	.0647	
			ceased			:55	.084	.0801	
			8:00	0	2.31	8:05	.071	.0930	
			:30	.02	2.32	:20	.060	.1093	
			:43e	.05	2.33	:40	.047	.1271	
						9:00	.038	.1413	
			11:33a	Snow	2.33	:20	.033	.1532	
			12 N	"	2.34	:40	.029	.1635	
<p>Watershed Conditions: Heavily logged areas (1948-49) had much reduced canopy and second story of brush, laurel and young trees produced thickets on 90% of area, with litter disturbed somewhat, but generally good to excellent, with many logs still lying on area together with debris from topping operations; scattered areas where original stand was thinner were changed very little except where additional light from adjacent openings promoted second story growths 10%. In lower 300 feet of natural waterway debris and leaves were washed out of channel in numerous places.</p>									

Notes: To convert runoff in in/hr to cfs multiply by 12.15.
 1/ 9:30p, 11-24-50 to 1:10a, 11-25-50, rain continuing.
 2/ Included .02" snow.

College Park, Maryland			Watershed W-9			(5.9)		12.05 acres	
Antecedent conditions			Rainfall			Runoff			
Date	Rainfall (inches)	Runoff (inches)	Date and time	Intensity (in/hr)	Acc. (inches)	Date and time	Rate (in/hr)	Acc. (inches)	
<u>Event of November 25-26, 1950 Cont'd</u>									
			12:50p (e)	Snow	2.36	10:20a	.023	.1807	
			4:00p	"	2.36	11:00	.018	.1944	
			5:00e	"	2.37	12 N	.014	.2103	
						1:00p	.011	.2227	
						2:00	.009	.2325	
			7:00p	"	2.37	3:00	.007	.2402	
			8:00e	"	2.38	4:00	.006	.2465	
						5:00	.005	.2518	
						7:00	.004	.2608	
						9:00	.003	.2680	
						12 Mt	.002	.2764	
						11-26-50			
						3:00a	.002	.2824	
						8:00	.001	.2884	
						1:00p	.001	.2919	
						12 Mt(e)	0	.2978	

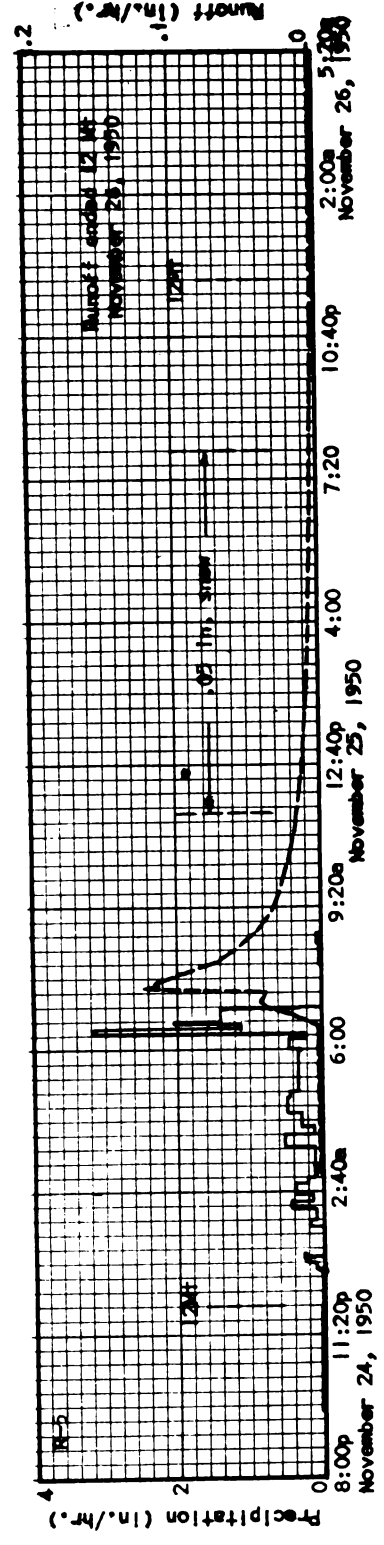
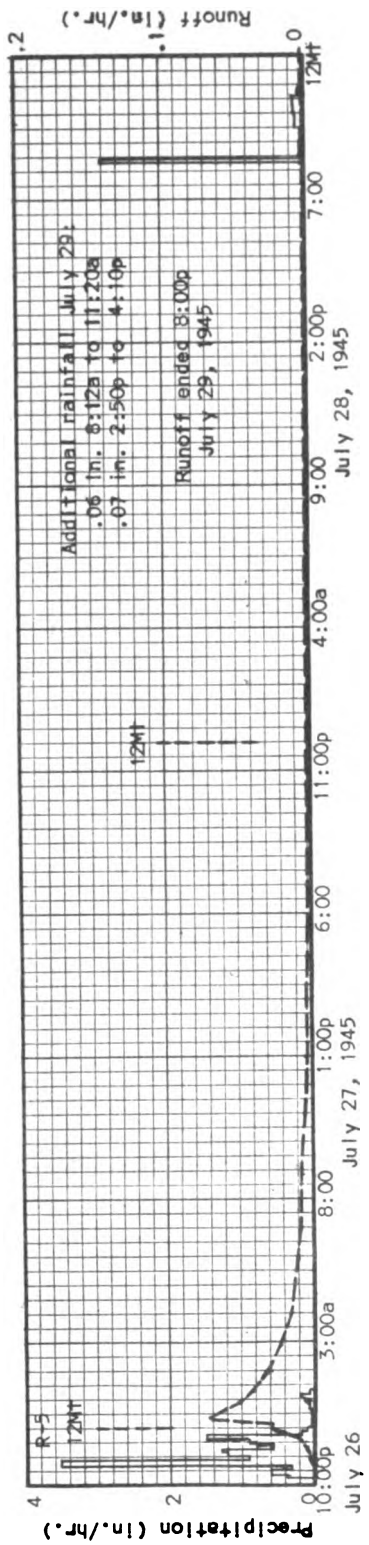
Notes: To convert runoff in in/hr to cfs multiply by 12.15.



College Park, Maryland

Watershed W-9

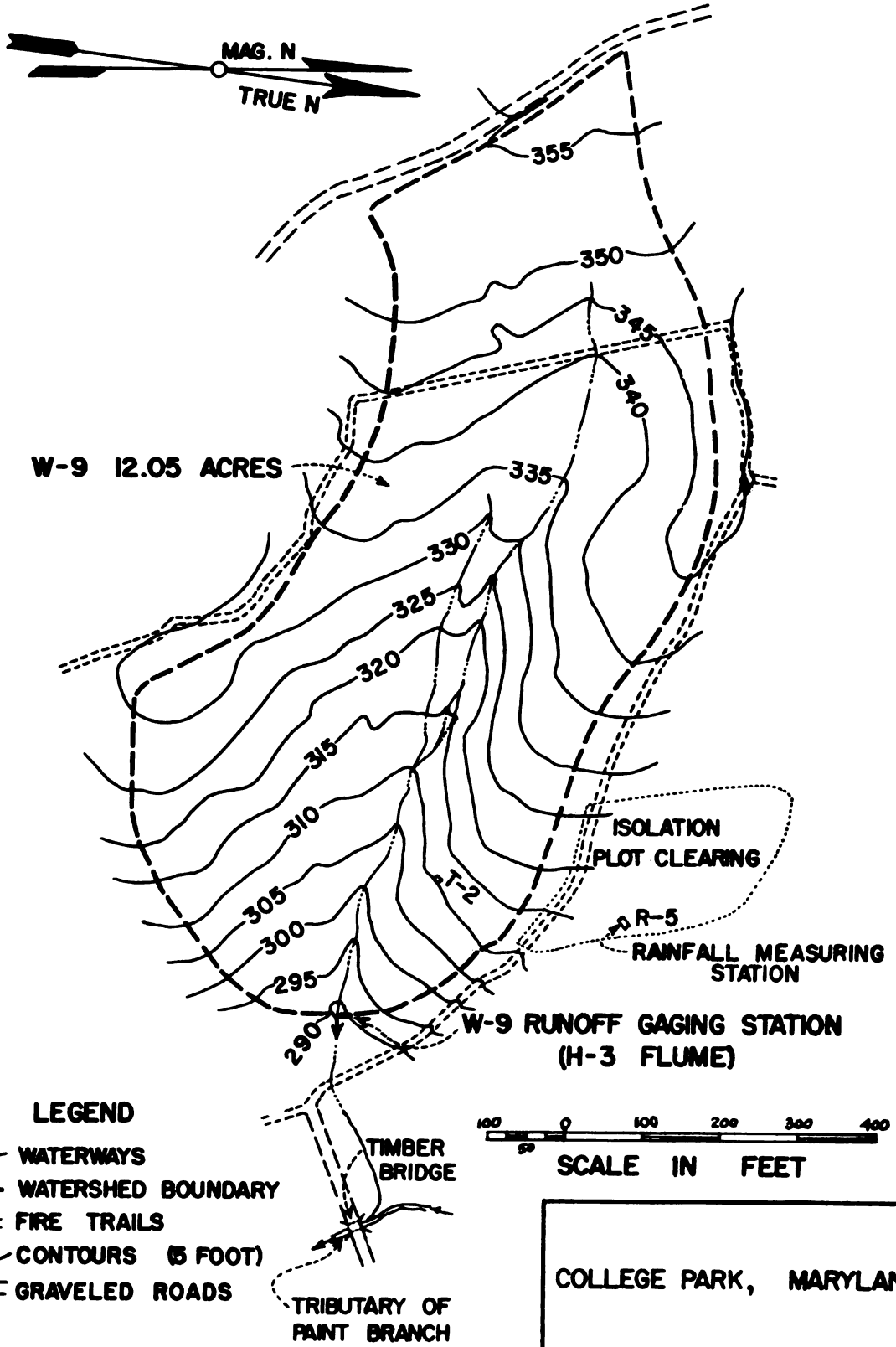
1943



College Park, Maryland

Watershed W-9

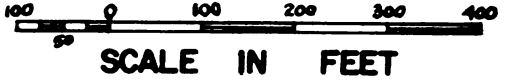
1945-50



W-9 12.05 ACRES

LEGEND

- WATERWAYS
- - - WATERSHED BOUNDARY
- · - · FIRE TRAILS
- 310 - CONTOURS (5 FOOT)
- == GRAVELED ROADS
- TIMBER BRIDGE
- TRIBUTARY OF PAINT BRANCH



COLLEGE PARK, MARYLAND
WATERSHED W-9