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**HYDROLOGIC DATA
FOR
EXPERIMENTAL AGRICULTURAL
WATERSHEDS
IN THE UNITED STATES
1966**

Miscellaneous Publication No. 1226

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U.S. DEPARTMENT OF AGRICULTURE

In Cooperation With
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**Hydrologic Data
for
Experimental Agricultural Watersheds
in the United States,
1966**

Compiled by
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Soil and Water Conservation Research Division

Miscellaneous Publication No. 1226

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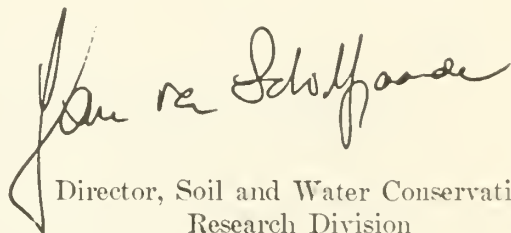
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FOREWORD

This publication presents annual basic data on monthly precipitation and runoff; long-term monthly precipitation means for the locality; annual maximum discharges and volumes of runoff, daily air temperature, precipitation, and discharge (for some areas); and selected runoff events, with associated data on rainfall, land use, and antecedent conditions for agricultural watersheds where research studies were in progress during the calendar year 1966. Its presentation is a continuation of the activity of processing and releasing hydrologic data of general interest gathered cooperatively with other agencies.

Throughout the life of the watershed research studies from which these data are derived, the State agricultural experiment stations have collaborated in the selection, planning, and operation of the research. In several cases, the U.S. Geological Survey and State and local agencies, such as State water boards and highway departments or local drainage and conservation districts, have assisted in the work. The classification and correlation of soils and evaluation of other watershed characteristics in the descriptions have been based mostly on field surveys of the Soil Conservation Service.

These data were collected originally for purposes of specific research objectives which are still in progress or have been attained. It is recognized, however, that they can serve many purposes in addition to those for which they were originally gathered. Thus, this release is intended to provide information to other governmental agencies, university staff members, graduate students, private engineers, and others who need detailed, factual information concerning the hydrologic performance of agricultural watersheds. High-quality hydrologic data such as these have historical value in addition to providing a basis for hydrologic research and design and evaluation of projects and programs for conservation and development of the Nation's water resources.



John R. Schaffner

Director, Soil and Water Conservation
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The decimal system of paging is used to index the watershed data. Pages are numbered at the bottom according to location and watershed number, and the data for each watershed are given on one or more pages. For example, page 8.2-2 is location 8 (Vero Beach, Fla.), Watershed 2 (W-2 at Vero Beach), and page 2 of the data for that watershed.

For convenience in finding items listed in tables 2 and 3 in the "Contents" above, pages are also numbered consecutively at the top.

Table 1, page 14, shows a list of continuing or new watersheds by State, locality, land resource area, assigned location numbers, watershed units, and number of selected runoff events that are reported for 1966 in this publication. In table 2, page 14, discontinued watersheds are normally listed by State, locality, land resource area, number of units, record period, and location number. During 1965, no previously reported studies were discontinued. Table 3, page 14, lists revisions or additions to watershed descriptions or data.

HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1966

This publication presents selected hydrologic data for the calendar year 1966. The data include monthly precipitation and runoff summaries for 198 watersheds, annual maximum discharges and annual maximum volumes of runoff for 185 of the watersheds for time intervals of 1, 2, 6, and 12 hours and for 1, 2, and 8 days; daily precipitation and discharge or daily air temperature, or both, for 64 watersheds; and detailed information for one or more selected typical storm events for 106 watersheds. The decimal page-numbering system used (see explanation on page iv) is consistent with that used at the bottom of pages in the nine previous publications (see next section), so that previously published records and general descriptions can be readily found and consulted.

Information on selected storm events includes (1) tabular data for the 30-day antecedent rainfall and runoff before the events, (2) data on rainfall intensities and runoff rates for the event and on accumulated depth of rainfall and runoff, (3) description of watershed conditions at the time of the selected events, (4) plottings of runoff hydrographs and rainfall histograms, (5) watershed maps, and (6) for some of the larger drainage areas, isohyetal maps of storm-rainfall distribution.

For newly established watersheds, descriptions of watershed physical characteristics, instrumentation, graphs, maps, land management, and recommended area of application of the results are also given. Original descriptions of characteristics have been revised or updated for several watersheds and are listed in table 3, with details given on the respective data sheets for each watershed.

PUBLICATIONS OF EARLIER DATA

Hydrologic data for past years on many of the currently operating experimental agricultural

watersheds have been previously summarized in three looseleaf publications (reprints in bound volumes) by the Agricultural Research Service of the U.S. Department of Agriculture, Beltsville, Md. 20705. These reports, listed as references 1, 2, and 3, are described in the following summary. Beginning with the hydrologic data for 1956 through 1965 calendar years, the types of data previously published separately in these three references were combined in U.S. Department of Agriculture Miscellaneous Publications Nos. 945, 994, 1070, 1164, 1194, and 1216. These are listed below as references 4, 5, 6, 7, 8, and 9. All nine publications have been assigned these reference numbers to simplify citations to them in this and future publications:

Reference 1.—MONTHLY PRECIPITATION AND RUNOFF FOR SMALL AGRICULTURAL WATERSHEDS IN THE UNITED STATES. Soil and Water Conservation Research Branch, 691 pp. 1957. (Includes physical descriptions and land use of 334 experimental agricultural watersheds at 60 locations in 27 States for the period 1923 through 1957. Many of these watersheds were discontinued before 1955.)

Reference 2.—ANNUAL MAXIMUM FLOWS FROM SMALL AGRICULTURAL WATERSHEDS IN THE UNITED STATES. Soil and Water Conservation Research Division, 330 pp. 1958. (Includes records from 322 watersheds at 59 locations in 27 States for the period 1923 through 1957. Many of these watersheds were discontinued before 1957.)

Reference 3.—SELECTED RUNOFF EVENTS FOR SMALL AGRICULTURAL WATERSHEDS IN THE UNITED STATES. Soil and Water Conservation Research Division, 374 pp. 1960. (Includes a sampling of one to six typical runoff events from 68 watersheds at 40 locations in 25 States for the period 1933 through 1959. The publication presents maps of each watershed, watershed conditions for each event—including the 30-day antecedent rain-

fall and runoff—and tabular as well as graphical data on each storm.)

Reference 4.—HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956–59. Harold W. Hobbs, Soil and Water Conservation Research Division, Agricultural Research Service, USDA Miscellaneous Publication No. 945, 672 pp. 1963. (Includes monthly precipitation and runoff from 157 watersheds, including 45 newly established watersheds for which data had not been previously published; annual maximum discharges and annual maximum volumes for 1 hour to 8 days for 142 watersheds; and one or more typical selected runoff events for 134 watersheds. The publication presents watershed maps, when new or revised, and graphs of each selected event, together with tabular data. Locations of experimental studies are shown on U.S. fold-in map of land-resource areas in 48 States.)

Reference 5.—HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960–61. Harold W. Hobbs and Florence B. Crammatte, Soil and Water Conservation Research Division, Agricultural Research Service, USDA Miscellaneous Publication No. 994, 496 pp. 1965. (Contains monthly precipitation and runoff from 160 watersheds, including 24 newly established watersheds for which data had not been previously published; annual maximum discharges and annual maximum volumes for 1 hour to 8 days for 145 watersheds; and one or more typical selected runoff events for 133 watersheds. The publication presents watershed maps, either new or revised, and graphs of each selected event, together with corresponding tabular data. Table 4 gives a listing of selected runoff events published through 1961 for each watershed.)

Reference 6.—HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962. Harold W. Hobbs, Soil and Water Conservation Research Division, Agricultural Research Service, USDA Miscellaneous Publication No. 1070, 447 pp. 1968. (Contains monthly precipitation and runoff from 164 watersheds, including 13 watersheds for which data had not been previously published; annual maximum discharges and annual maximum volumes for 1 hour to 8 days for 155 watersheds; and one or more typical selected runoff events, presented in both

tabular and graphical forms for 136 watersheds. Selected runoff events published through 1962 for each of the watersheds are listed in table 4. Several watershed maps, either new or revised, are presented.)

Reference 7.—HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1963. Harold W. Hobbs and J. B. Burford, Soil and Water Conservation Research Division, Agricultural Research Service, USDA Miscellaneous Publication No. 1164, 465 pp. 1970. (Contains monthly precipitation and runoff from 168 watersheds, including nine watersheds for which data had not been previously published; annual maximum discharges and annual maximum volumes for 1 hour to 8 days for 156 watersheds; and one or more typical selected runoff events presented in both tabular and graphical form for 142 watersheds. Selected runoff events published through 1963 for each of the watersheds are summarized in table 4. Several watershed maps, either new or revised, are presented.)

Reference 8.—HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1964. J. B. Burford, Soil and Water Conservation Research Division, Agricultural Research Service, USDA Miscellaneous Publication No. 1194, 460 pp. 1971. (Contains monthly precipitation and runoff from 163 watersheds, including 8 watersheds for which data had not been previously published; annual maximum discharges and annual maximum volumes for 1 hour to 8 days for 163 watersheds; and one or more typical selected runoff events presented in both tabular and graphical form for 143 watersheds. Several watershed maps, either new or revised, are presented.)

Reference 9.—HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1965. J. B. Burford, Soil and Water Conservation Research Division, Agricultural Research Service, USDA Miscellaneous Publication No. 1216, 1972. (Contains monthly precipitation and runoff from 189 watersheds, including 22 watersheds for which data had not been previously published; annual maximum discharges and annual maximum volumes for 1 hour to 8 days for 178 watersheds; and one or more typical selected runoff events presented in both tabular

and graphical form for 122 watersheds. Several watershed maps, either new or revised, are presented.)

Copies of the foregoing nine publications have been furnished to the Soil Conservation Service and to other governmental agencies—Federal, State, and local. They have also been distributed to State agricultural experiment stations, university libraries and engineering departments, and, when requested, to private engineers and individuals. Distribution has also been made to similar foreign institutions and individuals.

FORM OF DATA PRESENTATION

The data in this volume are presented for each watershed in the following order: (1) watershed description, if not previously published; (2) monthly precipitation and runoff; (3) average monthly precipitation and runoff for period of record; (4) local mean monthly precipitation (previously called "normal P" in publications through 1961 (Reference 5)); (5) annual maximum flows; (6) daily temperature extremes, daily precipitation, and discharge for some watersheds; (7) tabulations of data for selected runoff events; (8) graphs of selected runoff events; (9) watershed maps, if not previously published or if revised; and (10) isohyetal maps (in some cases) of storm rainfall distribution for selected runoff events.

Continuing Watersheds

For current watersheds, for which the descriptive information has been published in References 1, 4, 5, 6, 7, 8, or 9, the tabular data presentation begins at the top of the first page. Above the border at the center, the numerical page number is given, and the decimal page number is shown at the bottom.

In the space to the right of the first table title, MONTHLY PRECIPITATION AND RUNOFF (inches), the location *name*, watershed *number* (or designation), and watershed *size* are given. In the table, for the current *calendar year*, the *precipitation* (P) in inches is listed in the monthly columns, with the yearly total given in the last column, headed *annual*. In the line below, the corresponding *runoff* (Q) in inches is similarly listed for each month and the total for the year.

Underneath, in two lines, are given the (P) and (Q) station average amounts (STA AVG) by months, with average annual total for the period of record. On the bottom line of the table are given the long-term monthly and annual precipitation means (averages) for the nearest U.S. Weather Bureau Station.

In the second table, entitled ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS, data are also given for the calendar year listed in the first column. Under the *maximum discharge* heading, the date column shows the day and month that the instantaneous peak rate in inches per hour occurred. In computing the rate, corrections were made, where needed, for any significant pondage above the runoff-measuring device. Under the *maximum volume* heading, the date refers to the day and month on which the interval began; for example, if the interval began August 30 at 2359, the entry in the date column will be 8-30. The depths for 1 hour to 8 days are the annual maximum values recorded, without regard to whole clock hours or days; thus, if the 6-hour interval began at 1332, the interval would end exactly 6 hours later at 1932. The volume given is in inches of average depth over the watershed for each of the seven selected time intervals (1, 2, 6, and 12 hours, and 1, 2, and 8 days). In the last section of the table, the maximum discharges and depths for the various time periods are given under MAXIMUMS FOR PERIOD OF RECORD.

Notes and footnotes in explanation of the data, given below the first two tables, include (1) a general statement as to watershed conditions and other physical changes for the period covered; (2) corrections or revisions for previously reported data; (3) source of long-term precipitation means or averages and years covered; and (4) other pertinent material or explanations of the hydrologic data in the two tables.

Before the 1963 volume, statements of the estimated quality of P and Q records were given in these notes. Beginning with the 1963 volume, no quality statements are given *if* the records are considered to be *excellent* (accurate within 5 percent). However, if they are judged to be *less than excellent*, such as *good* (within 10 percent), *fair* (within 15 percent), or *poor* (more

than 15 percent in error), an accuracy statement is placed ahead of the general statement on watershed conditions. These accuracy statements are given as general footnotes to the daily tables, when presented. Reevaluations of previously published records are also given in these footnotes.

For some watersheds, tables of DAILY AIR TEMPERATURE (maximum and minimum in degrees Fahrenheit), DAILY PRECIPITATION (inches), and MEAN DAILY DISCHARGE (c.f.s.) are given next, with appropriate footnotes in explanation of the data at the end of each table. The multiplier to convert mean daily discharge in cubic feet per second to inches per day is given as the first note to the mean daily discharge table. The conversion factor for daily inches to acre-feet is sometimes given.

If no daily tables are given, the tabular data for SELECTED RUNOFF EVENTS begin in the remaining space on the first page and then are carried forward on continuation sheets (or pages) until completed. In general, the SELECTED RUNOFF EVENTS were those in which runoff was produced by a relatively uniform rainfall excess of short duration. The information for each event includes tabulation of (1) *antecedent* daily rainfall and runoff for 30 days before the event, or reference made to daily tables, if included; (2) rainfall *intensities* and *accumulated amounts* for the event; (3) runoff *rates* and *accumulated amounts* for the event; and (4) specific *watershed conditions* at the time of the event. Simple graphs of the rates of rainfall and runoff are shown for all events on pages following the tabular data.¹ Maps follow the graphs unless previously published in References 3, 4, 5, 6, 7, 8, or 9 or unless shown herein on the map of another watershed. Isohyetal maps, if any, generally follow the regular maps.

In the "Notes" space at the bottom of the first page for runoff events, the multiplier to convert runoff rates in inches per hour to cubic feet per second, or vice versa, is given, followed by references to maps, if required, and explanatory notes or footnotes relating to the tabular data. Below the bottom border and above the first index page

number, the cooperating agencies are listed. The notes on continuation pages contain the statement on the multiplier and similar explanations of the data on each page.

New Watersheds

For the 11 watersheds installed in recent years that have not been reported previously, the presentation begins with the watershed description in the upper part of the first page. The explanations and definitions upon which the description is based are given in the next section.

The first line, centered at the top of the sheet, gives the *project location*, which is the nearest city or town, and the number or name of the watershed used locally. The descriptive material is then given under the 12 major topics listed generally down the left side of the sheet: *Location, Area, Slopes, Soils, Erosion, Land Capability, Geology, Surface Drainage, Character of Flow, Instrumentation, Watershed Conditions, and Generally Represents.*

After this description, the tabular data are then summarized in the first two tables and notes as previously described for "Continuing Watersheds." The tabular data for daily air temperatures, precipitation, and discharge, if presented, precede the tabular data for SELECTED RUNOFF EVENTS. The rest of the material of the series for the particular watershed follows in the same order as previously indicated.

WATERSHED DESCRIPTIONS

The following definitions and explanations were used in describing watershed location, watershed characteristics, instrumentation, land management, and recommended area of application of the hydrologic data.

LOCATION gives county and State, distance and direction of the runoff gaging station from the nearest city or town, and the major river basin in which it lies. When two or more basins are involved, the tributary or subbasin is given first, followed by the major basin.

AREA of watershed is given in acres if less than 640 acres, and in both acres and square miles (in parentheses) if more than 1 square mile. If areas are revised, additional values are given with notes on date of change.

¹ In some cases, noncritical points were eliminated from original tabulations to reduce the number of lines required in the tables for time, rates, and accumulations.

SLOPES are given in terms of the ranges commonly used in survey work in the locality. The percentages of the watershed lying in each slope class are listed. As an example, "8% is in 0-2% class" means that 8 percent of the watershed area has slopes ranging from 0 to 2 percent.

SOILS are described briefly, according to definitions from the U.S. Department of Agriculture **SOIL SURVEY MANUAL**, Agriculture Handbook 18, published in 1951. Soil descriptions were added for one of the continuing watersheds, and descriptions were given for 10 new watersheds.

Soil texture refers to the relative proportions of the various size groups (or separates) of individual soil grains in a mass of soil. Specifically, it refers to the proportions of clay, silt, and sand less than 2 millimeters in diameter. The various classes of texture in order of increasing percentages of the smaller size groups are (1) sands, (2) loamy sands, (3) sandy loams, (4) loam, (5) silt loam, (6) silt, (7) sandy clay loam, (8) clay loam, (9) silty clay loam, (10) sandy clay, (11) silty clay, and (12) clay. In some of the descriptions, the broader classification of coarse, moderately coarse, medium, moderately fine, and fine has been used—the coarse soils are the sands and the fine soils the clays.

Soil structure refers to the aggregation of primary soil particles into compound particles, or clusters of primary particles, that are separated from adjoining aggregates by surfaces of weakness. Structure *grade*, or the durability of the aggregates when subjected to disturbance, is described as *structureless*, *weak*, *moderate*, or *strong*. In some cases, the structureless grade is described as *massive*, if coherent, or *single grain*, if noncoherent. The *size* of the aggregates is described as *very fine*, *fine*, *medium*, *coarse*, or *very coarse*. Structure *shape* is described as being *platy*, *prismatic*, *columnar*, *angular blocky*, *sub-angular blocky*, *granular*, or *crumb*.

Permeability is the quality of a soil that enables it to transmit water or air. This quality is described by the terms *very slow*, *slow*, *moderately slow*, *moderate*, *moderately rapid*, *rapid*, or *very rapid*.

Internal soil drainage is the quality of a soil that permits the downward flow of excess water through it. Internal drainage is reflected in the

frequency and duration of periods of saturation with water. It is determined by the texture, structure, and other characteristics of the soil profile and of underlying layers and by the height of the water table, either permanent or perched, in relation to the water added to the soil. *Internal drainage* is described as *none*, *very slow*, *slow*, *medium*, *rapid*, or *very rapid*.

Erosion conditions on the watershed are described in accordance with the following classification for water and wind erosion, also briefed from Agriculture Handbook 18. The percentage of the watershed in the following erosion classes is given.

Class 1.—The soil has a few rills or places with thin A horizons that give evidence of accelerated erosion, but not to an extent to alter greatly the thickness and character of the A horizon. Except for soils having very thin A horizons (less than 8 inches), the surface soil consists entirely of A horizon throughout nearly all of the delineated areas. Up to about 25 percent of the original A horizon, or original plowed layer in soils with thin A horizons, has been removed from most of the area. This class also includes the areas with no erosion.

Class 2.—The soil has been eroded to the extent that ordinary tillage implements reach through the remaining A horizon or well below the depth of the original plowed layer in soils with thin A horizons. Generally, the plow layer consists of a mixture of the original A horizon and the underlying horizons. Mapped areas of eroded soil usually have patches in which the plow layer consists wholly of the original A horizon, and others in which it consists wholly of underlying horizons. Shallow gullies may be present. Approximately 25 to 75 percent of the original A horizon or surface soil may have been lost from most of the area.

Class 3.—The soil has been eroded to the extent that all or practically all of the original surface soil, or A horizon, has been removed. The plow layer consists essentially of materials from the B or other underlying horizons. Patches in which the plow layer is a mixture of the original A horizon and the B horizon or other underlying horizons may be included within mapped areas. Shallow gullies, or a few deep ones, are common

in some soil types. More than about 75 percent of the original surface soil, or A horizon, and commonly part or all of the B horizon, or other underlying horizons, has been lost from most of the area.

Class 4.—The land has been eroded until it has an intricate pattern of moderately deep or deep gullies. Soil profiles have been destroyed except in small areas between the gullies. Such land is not useful for crops in its present condition. Reclamation for crop production or for improved pasture is difficult, but may be practicable if other characteristics of the soil are favorable and erosion can be controlled.

Class +.—Recent alluvial and colluvial deposition.

LAND CAPABILITY is given as classified by Klingebiel and Montgomery in U.S. Department of Agriculture LAND-CAPABILITY CLASSIFICATION, Agriculture Handbook 210, published in 1961. The classification expresses the suitability of land for use without deterioration. The eight land-capability classes are distinguished according to the risk of land damage or difficulty of land use. The following classes I through IV are suitable for cultivation and other uses, whereas classes V through VIII are not suitable for cultivation.

Class I.—Very good land for cultivation; nearly level and productive; not subject to erosion; needs only ordinary good farming methods.

Class II.—Good land for cultivation; mostly gently sloping; not more than moderately subject to erosion; some land may be rather wet; can be farmed safely with easily applied practices.

Class III.—Moderately good land for cultivation; mostly moderately sloping; some areas too wet or too dry; can be farmed safely with practical conservation measures, carefully applied; usually a combination of two or more measures is needed.

Class IV.—Fairly good land, suitable for occasional cultivation; generally strongly sloping; often shallow or very sandy; often found in dry climate.

Class V.—Land very well suited for grazing or forestry; requires good range or woodland management.

Class VI.—Land well suited for grazing or forestry; steeply sloping land, or stony or shallow soil, eroded land, droughty land, or wet land; requires careful management.

Class VII.—Land fairly well suited for grazing or forestry; severely limited in use by such factors as very steep slope, shallow or droughty soil, wetness, severe erosion, or excessive salinity; requires very careful management.

Class VIII.—Land not suitable for cultivation, grazing, or forestry; may be useful for wildlife, recreation, or protection of water supplies.

GEOLOGY of the 11 new watersheds is described herein. A brief description of the parts of the watershed occupied by various geological formations or series is given, together with strike and dip of the strata, thickness, and relative position, when known. Faults, perched water tables, outcrops, if present, and other details that relate to the movement of water within the drainage area or that affect the hydrology of the watershed are described.

SURFACE DRAINAGE refers to the ease with which excess water flows from the watershed area. The length of principal waterway is the distance from the gaging station to the most remote point on the watershed boundary, measured along the flood plain of the watercourse.

CHARACTER OF FLOW describes the flow of the principal watercourse with respect to permanence and space. The following definitions are from Meinzer's OUTLINE OF GROUND-WATER HYDROLOGY, U.S. Geological Survey Water-Supply Paper 494, published in 1923.

With respect to permanence, streams may be divided into perennial streams, intermittent streams, and ephemeral streams.

A *perennial stream*, or stretch of a stream, is one that flows continuously. Perennial streams are generally fed in part by springs, and their upper surfaces generally stand lower than the water table in the localities through which they flow.

Intermittent streams may be divided, with respect to the source of their water, into spring-fed intermittent streams and surface-fed intermittent

streams. They also flow in direct response to precipitation.

A *spring-fed intermittent stream*, or stretch of a stream, is one that flows only at certain times when it receives water from springs. The intermittent character of streams of this type is generally caused by fluctuations of the water table whereby the stream channels stand part of the time below and part of the time above the water table. This is the ordinary type of intermittent stream.

A *surface-fed intermittent stream*, or stretch of a stream, is one that flows during protracted periods when it receives water from some surface source, generally the gradual and long-continued melting of snow in a mountainous or other cold tributary area. The term may be arbitrarily restricted to streams or stretches of streams that flow continuously during periods of at least 1 month.

An *ephemeral stream*, or stretch of a stream, is one that flows only in direct response to precipitation. It receives no water from springs and no long-continued supply from melting snow or other surface source. Its stream channel is at all times above the water table. The term may be arbitrarily restricted to streams or stretches of streams that do not flow continuously during periods of as much as 1 month.

With respect to continuity in space, streams may be divided into continuous streams and interrupted streams. An *interrupted stream* is one that contains (1) perennial stretches with intervening intermittent or ephemeral stretches or (2) intermittent stretches with intervening ephemeral stretches. These two classes of interrupted streams are designated, respectively, *perennial interrupted streams* and *intermittent interrupted streams*. A *continuous stream* is one that does not have interruptions in space. It may be perennial, intermittent, or ephemeral, but it does not habitually have wet and dry stretches.

INSTRUMENTATION describes type of runoff control or measuring device, number and type of precipitation gages, type of charts used, and snow courses, if employed.

WATERSHED CONDITIONS describes the general use and farm, forest, or range practices before

the period of record and the conservation measures, crops, yields, and general cultural operations and practices during the period of record. Rotation crops are listed in the order that they were grown. Operations are described with commonly used agricultural terms, and only those that appear to have a significant relationship to the hydrology of the watershed are mentioned.

GENERALLY REPRESENTS gives the broad area of application for which the data of the specific watershed are recommended. The land resource areas named are those delineated on the map titled "Location of Experimental Agricultural Watersheds of the Agricultural Research Service," presented on pages 12 and 13. Solid circles show the approximate locations of the "continuing" or "new" watersheds; open circles show approximate locations of the studies that have been discontinued. In a few cases the circles show the locations of the project headquarters instead of the watershed locations. A larger index map, showing more detail, is included in Reference 4.

In some cases, there is an apparent contradiction between the watershed location on the maps and the descriptive information given under "Generally Represents." This is caused by the small scale of the maps; it is difficult to show many small local variations in boundaries of the land resource areas. The descriptive statements, instead of the map location, should be the guide to the application of the data.

STANDARD SYMBOLS FOR TABULAR DATA

The following capital letters have been used as standard symbols throughout this volume to designate specific items or meanings:

- A—precipitation of unknown time of occurrence, amount generally carried forward.
- E—means that a figure is estimated or partially estimated.
- H—designates precipitation in the form of hail.
- I—designates precipitation in the form of sleet or freezing rain.
- M—designates mixed precipitation in the form of rain, snow, and sleet.

- N—designates precipitation in the form of rain and snow.
- NR—When used in place of a figure, means “no record.”
- P—designates monthly or annual precipitation in inches.
- Q—designates monthly or annual runoff in inches.
- RG—designates rain gage, generally followed by gage number.
- R—followed by hyphen and a number, designates recording rain gage.
- S—followed by hyphen and a number, designates standard rain gage.
- S—designates precipitation in the form of snow.
- STA AV (or AVG)—designates station average for period of record.
- T—denotes a trace, generally less than 0.005 inch of precipitation and 0.01 inch of runoff (or 0.0001 inch of runoff, if four decimal places are used).

Time-of-day symbols or designations *a*, *p*, *m*, and *n* used in previous publications through 1961 have been dropped and military time (0001 to 2400) substituted for 1962 forward. Unless stated otherwise, time used in tables is Eastern, Central, Mountain, or Pacific Standard Time, whichever applies to the given location.

REVISIONS OF PREVIOUSLY PUBLISHED DATA

In some instances, it has been necessary to revise previously published data on specific watersheds. If the corrections involve changed values of monthly precipitation, or runoff, or annual maximum discharges, or maximum volumes for various durations, whole lines for the year are republished with the changed items *underlined*. These revisions are explained in footnotes following the tables in which they appear.

If additions or revisions are made to watershed descriptions, they are placed after the above-mentioned tables. In some cases, a statement on geology has been added to the original descriptions. The geology for the 11 new watersheds is also described. The foregoing changes are listed by States in table 3, page 15.

PERSONNEL RESPONSIBLE FOR COMPILATIONS

At each research location, many individuals have contributed to the planning and establishment of the watersheds and the collection, compilation, and analysis of the data. Some of those who made substantial contributions to the success of the research work behind this report are:

<i>Location</i>	<i>Name or Names</i>
8	William H. Speir, John C. Stephens
13, 66	James B. Burford, Jan C. Carr, Vernon O. Shanholtz
21, 25, 61, 71	Larry A. Kramer, Keith E. Saxton
26	Lloyd L. Harrold
29, 31, 32	Gordon Waddell
34, 37	Wendell R. Gwim, William O. Ree, Francis L. Wimberley
42	Walter G. Knisel, Clarence W. Rich
44	Frank J. Dragoun, Clayton Hanson, David A. Woolhiser
45, 47, 63, 64, 73	Donald L. Chery, Jr., Orfelio Garcia, Neil G. Sutter
62	William A. Champion, Farris E. Dendy, Mary A. Marshall, Robert B. Wilson
65	Clayton Hanson, Armine R. Kuhlman
68	John M. Clark, Clifton W. Johnson
69	Donn G. DeCoursey, Monroe A. Hartman, Arlin D. Nicks, Russel R. Schoff, Oscar D. Workman, Edd D. Rhoades
75	William C. Mills, John C. Stephens, Loris E. Asumssen

ADDITIONAL PUBLICATIONS BY LOCATION

In References 1, 4, 5, 6, 7, 8 and 9 (see pp. 1 and 2), citations to other publications that present watershed data and interpretations of results in various journals, bulletins, and periodicals are given at the end of the introductions for many of the locations. Following is a listing, by location number, of additional references to results that were reported through 1966. Several

items of general application to the overall program of hydrology that could not be tied to a specific location are included at the end of the listing under General References.

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1966. VARIATION OF RAINFALL OVER A LARGE GAGED AREA. Amer. Soc. Agr. Engin. Trans. 9 (3): 437-439.

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UNITED STATES INDEX MAP AND RELATED DATA

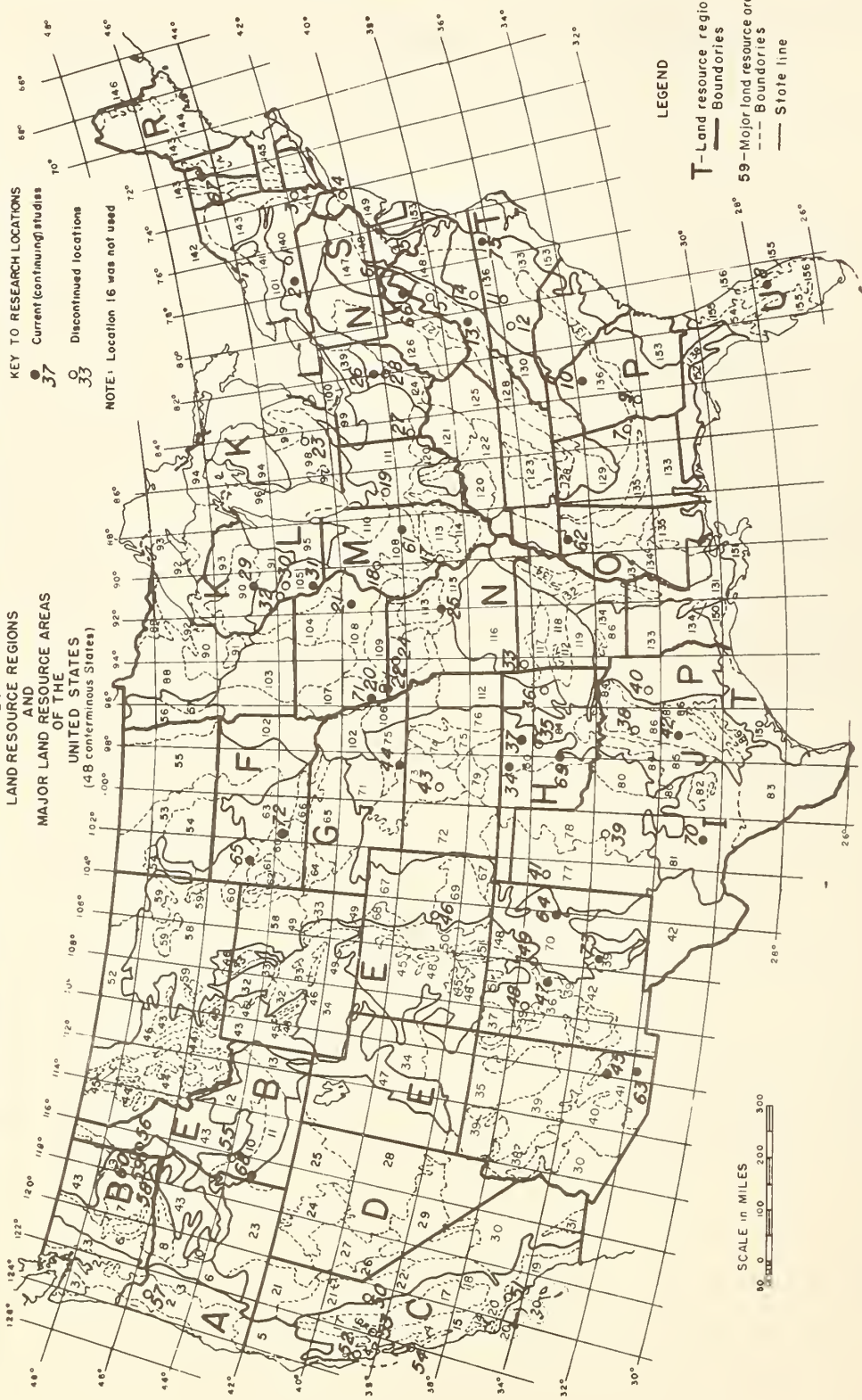
(Pages 12 through 15)

LOCATION OF EXPERIMENTAL AGRICULTURAL WATERSHEDS OF THE AGRICULTURAL RESEARCH SERVICE (1966)

LAND RESOURCE REGIONS
BY
AND
MAJOR LAND RESOURCE AREAS
OF THE
UNITED STATES
(48 contiguous States)

KEY TO RESEARCH LOCATIONS
● 37 Current (containing) studies
○ 30 Discontinued locations

NOTE: Location 16 was not used



LEGEND

- T—Land resource region
- Boundaries
- Major land resource area
- Boundaries
- State line



TABLE 1.—Experimental agricultural watersheds, listed by States and locations, which were under study during 1966 and are included in this publication

State	Locality	Major land resource area ^{1/}	Assigned location No.	Watershed units (number)	Events reported (number)	Pages (inclusive)
Arizona.....	Safford.....	D-41, D-42.....	45	4	3	173-179
	Tombstone.....	D-41.....	63	<u>2/</u> 11	16	232-271
Florida.....	Vero Beach	U-55.....	8	4	4	18-29
Georgia.....	Watkinsville ^{3/} ...	P-136.....	10	1	-	-
Idaho.....	Reynolds Creek...	D-23, D-25.....	68	<u>4/</u> 4	0	294-305
Illinois.....	Monticello ^{3/}	M-108.....	61	2	-	-
Iowa.....	Iowa City.....	M-108.....	21	1	1	72-73
	Treynor.....	M-107.....	71	5	5	371-382
Mississippi.....	Oxford.....	P-133, P-134.....	62	15	17	186-231
Missouri.....	McCredie.....	M-113.....	25	1	0	74
Nebraska.....	Hastings.....	H-71, H-73, H-74.....	44	15	13	144-172
New Mexico.....	Albuquerque.....	D-42.....	47	3	3	180-185
	Santa Rosa.....	G-70.....	64	1	1	272-275
	Fort Stanton.....	D-39.....	73	<u>5/</u> 1	0	387
New York.....	Cohocton ^{3/}	R-140.....	2	1	-	-
North Carolina...	Ahoskie.....	P-133.....	75	4	4	388-399
Ohio.....	Coshocton.....	N-124.....	26	<u>6/</u> 35	0	75-93
Oklahoma.....	Cherokee.....	H-80.....	34	6	0	99-101
	Chickasha.....	H-78, H-80, J-84.....	69	<u>7/</u> 33	11	306-370
	Stillwater.....	H-80.....	37	3	0	102-103
South Dakota.....	Newell.....	G-58, G-60.....	65	7	0	276-289
	Cottonwood.....	G-60.....	72	3	0	383-386
Texas.....	Riesel (Waco)...	J-86.....	42	20	20	104-143
Vermont.....	North Danville ^{3/} ...	R-144.....	67	4	-	-
Virginia.....	Blacksburg.....	N-128, S-147, N-130	13	14	14	30-71
		P-136, S-148.....				
West Virginia....	Moorefield.....	N-128, S-147.....	66	4	4	290-293
Wisconsin.....	Colby.....	K-90.....	29	1	0	94
	Fennimore.....	M-105.....	31	4	0	95-98

^{1/} See location map and legend, pages 12 and 13.
^{2/} Includes data on 3 new watersheds (63.7, 63.103, and 63.111).
^{3/} Report deferred on watersheds.
^{4/} Includes data on 2 new watersheds (W-3 and W-13).

^{5/} Includes data on 1 new watershed (73.002).
^{6/} Includes data on 1 new watershed (182).
^{7/} Includes data on 4 new watersheds (R-5, R-6, R-7, and R-8).

TABLE 2.—Watersheds, listed by States, where observations were discontinued during the 1965 calendar year (For studies discontinued before 1965, see tables in previous publications)

State	Locality	Major land resource area ^{1/}	Discontinued watershed units		
			Number	Record period	Assigned location and watershed No.
NOTE: No previously reported studies were discontinued during this reporting period					

^{1/} See location map and legend, pages 12 and 13.

TABLE 3.--List, by States, of additions or revisions made herein to data published before 1966

State	Locality	Location page No.	Nature of addition or revision ^{1/}
Arizona	Tombstone	63.1-3	Contour map (published in Ref.5, 1960-61) has been <u>updated</u> .
		63.7	Data <u>added</u> for new Watershed 63.007 beginning in 1966.
		63.103	Data <u>added</u> for new Watershed 63.103 beginning in 1965.
		63.111	Data <u>added</u> for new Watershed 63.111 beginning in 1962.
Idaho	Reynolds	68.3-1	Data <u>added</u> for new Watershed W-3 beginning in 1966.
		68.13-1	Data <u>added</u> for new Watershed W-13 beginning in 1966.
Iowa	Treynor	71.4,-5	Topographic maps (published in Ref.8, 1964) <u>revised</u> for Watersheds 4 and 5.
New Mexico	Fort Stanton	73.1	Data <u>added</u> for new Watershed 73.002 beginning in 1966.
Ohio	Coshocton	26.40-1	Data <u>added</u> for new Watershed 182 beginning in 1964.
Oklahoma	Chickasha	69.8	Data is not included for Watershed 611 pending reevaluation of station rating.
		69.38,-39,-40, -41	Data <u>added</u> for four new watersheds - R-5, R-6, R-7, and R-8 beginning in 1966.
		13.13	SLOPES, SOILS, EROSION, and LAND CAPABILITY <u>added</u> .

^{1/} References 1, 2, and 3 generally cover years 1924-55; Ref. 4, 1956-59; Ref. 5, 1960-61; Ref. 6, 1962; Ref. 7, 1963; Ref. 8, 1964; and Ref. 9, 1965.



**WATERSHED DATA BY LOCATION NUMBER
AND
DECIMAL PAGING
(8.1-1 TO 75.4-3, A TOTAL OF 382 DATA SHEETS)**

For location by States and Land Resources Areas
and Regions, see U.S. Index Map, page 12.

MONTHLY PRECIPITATION ^{1/} AND RUNOFF ^{2/} (inches)						VERO BEACH, FLORIDA (NORTH, MAIN & SOUTH CANALS) WATERSHED W-1 8.1 AREA - 49,915 ACRES (78.0 SQ. MILES)								
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P	4.68	6.11	2.05	2.87	5.77	12.69	6.66	4.07	8.08	10.76	1.83	1.14	66.71
	Q	2.36	3.91	1.86	1.54	2.16	6.10	4.22	3.51	4.96	8.14	1.45	1.22	41.43
STA AV ^{3/} (51-66)	P	2.23	3.10	3.63	3.45	3.52	6.10	5.72	5.90	8.21	6.54	2.27	1.50	52.17
	Q	1.49	1.53	1.83	1.46	1.30	2.39	2.06	2.23	4.11	4.21	1.74	1.30	25.65
MEAN P ^{4/} 66 YR		2.32	2.58	2.99	3.35	4.22	5.89	5.54	5.58	7.94	7.34	2.69	2.08	52.52

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	10-14	.081	10-14	.081	10-14	.162	10-14	.480	10-14	.936	10-14	1.80	10-13	3.30	10-13	5.89

MAXIMUMS FOR PERIOD OF RECORD																
19 51 TO 19 66	9-24 1963	.106	9-24 1963	.106	9-24 1963	.211	9-24 1963	.623	9-24 1963	1.23	9-23 1963	2.37	9-23 1960	4.51	9-22 1960	13.31

NOTES: Watershed conditions: citrus groves, 40%; improved pasture, 35%; unimproved range and forest, 10%; urban development, 15%. 1/ Precipitation Thiessen weighted using 5 gages. 2/ Runoff data furnished by U. S. Geological Survey. Artesian irrigation inflow included in runoff. 3/ Precipitation and runoff records began April 1951. 4/ Mean P based on 66-yr (1901-1966) U.S. Weather Bureau record period at Fort Pierce No. 1, Fla. Missing records for July 1933 and for Feb. 1950 estimated from nearby station.

1966 DAILY PRECIPITATION (inches)						VERO BEACH, FLORIDA WATERSHED W-1 8.1											
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC					
1	.00	.01	.00	.00	.00	.28	.01	.07	.00	.12	.00	.00					
2	.00	.00	.00	.00	.00	.00	.00	.41	.00	.16	.00	.00					
3	.40	.00	.00	.00	.00	.00	.00	.21	.00	.05	.00	.00					
4	.15	.00	.00	1.36	.00	.00	.00	.03	.00	.44	.00	.34					
5	.41	.00	.04	.06	.00	.83	.00	.33	.00	.00	.00	.00					
6	.00	.00	.00	.00	.01	.18	.00	.17	.00	.00	.00	.03					
7	.00	.00	.00	.00	.66	.20	.51	.23	.34	.65	.00	.00					
8	.00	.00	.00	.00	.02	2.12	.00	1.50	.04	.14	.01	.00					
9	.00	.00	.00	.30	.18	1.61	.00	.18	3.28	.04	.00	.22					
10	.00	.00	.00	.07	.00	.00	.00	.01	1.03	.00	.00	.00					
11	1.46	.00	.11	.00	.84	.00	.15	.00	.78	.00	.00	.00					
12	.18	.00	.01	.00	.00	.00	.00	.21	.72	.00	.00	.16					
13	.00	.05	.76	.00	.00	.00	.47	.10	.05	5.30	.00	.09					
14	.00	.00	.07	.00	.00	.15	1.11	.30	.19	2.65	.35	.00					
15	.00	.00	.00	.00	.00	.00	.04	.00	.02	.00	.61	.00					
16	.00	.00	.00	.00	.00	.01	.10	.00	.01	.00	.28	.04					
17	.00	.00	.69	.00	.00	.13	.00	.00	.14	.00	.00	.26					
18	.00	.04	.00	.00	.28	1.17	.00	.00	.00	.00	.00	.00					
19	.09	.70	.00	.00	.57	1.90	.00	.00	.39	.00	.00	.00					
20	.71	.00	.00	.13	.28	.10	.00	.00	.12	.00	.00	.00					
21	.00	.02	.00	.00	.13	.29	.27	.00	.07	.00	.00	.00					
22	.24	2.61	.00	.00	.24	.02	.00	.00	.00	.79	.34	.00					
23	.00	2.42	.00	.00	.00	.10	.16	.00	.00	.42	.24	.00					
24	.00	.07	.00	.00	.81	.00	.00	.15	.00	.00	.00	.00					
25	.00	.00	.00	.00	.01	.00	.97	.02	.00	.00	.00	.00					
26	.72	.00	.00	.00	.12	.00	.88	.05	.24	.00	.00	.00					
27	.00	.00	.00	.00	.20	.00	.28	.01	.24	.00	.00	.00					
28	.00	.19	.00	.14	.09	.07	.49	.00	.22	.00	.00	.00					
29	.32	.00	.37	.09	.63	.86	.13	.00	.20	.00	.00	.00					
30	.00	.00	.00	.72	.46	2.67	.62	.00	.00	.00	.00	.00					
31	.00	.00	.00	.00	.24	.00	.47	.09	.00	.00	.00	.00					
TOTAL	4.68	6.11	2.05	2.87	5.77	12.69	6.66	4.07	8.08	10.76	1.83	1.14					
STA AV	2.23	3.10	3.63	3.45	3.52	6.10	5.72	5.90	8.21	6.54	2.27	1.50					

NOTES: THIESSEN WEIGHTED RAINFALL USING 5 GAGES. STA AV COVERS PERIOD FROM JULY 1, 1951 THROUGH 1966.

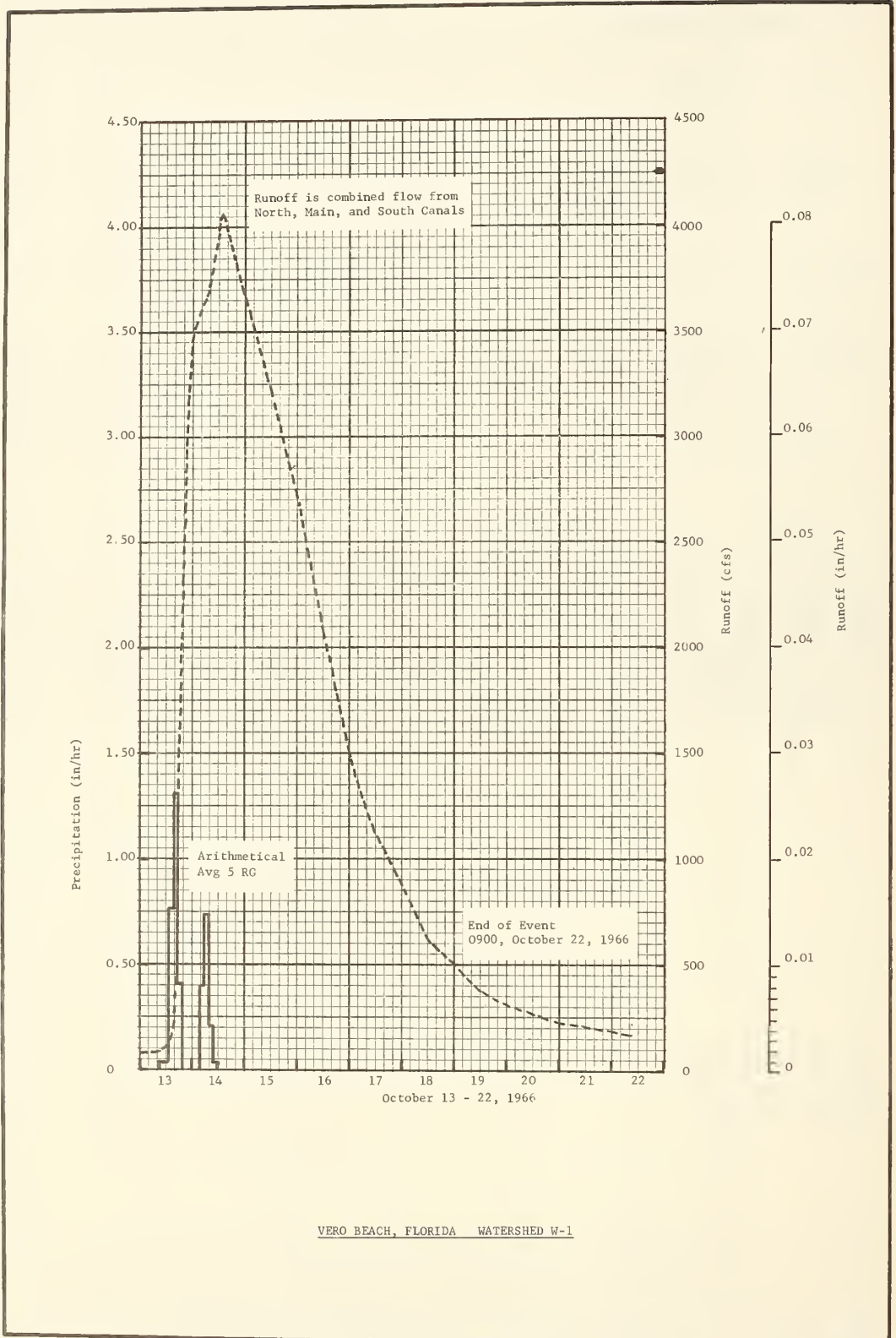
1966 MEAN DAILY DISCHARGE (cfs)						VERO BEACH, FLORIDA (MAIN, NORTH, SOUTH CANALS) WATERSHED W-1 8.1						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	64.6	305.0	241.0	125.0	213.0	260.0	1476.0	356.0	55.7	208.0	112.0	95.0
2	39.3	157.0	163.0	121.0	153.0	135.0	588.0	316.0	58.1	250.0	109.0	93.0
3	130.5	113.0	91.0	106.0	125.0	176.0	354.0	352.0	79.0	142.0	114.0	91.0
4	58.4	61.4	107.0	258.0	131.0	139.0	266.0	315.0	157.0	175.0	89.0	92.0
5	280.2	67.8	160.0	212.0	90.0	316.0	221.0	254.0	176.0	181.0	66.0	92.0
6	128.2	137.8	161.0	125.0	55.0	254.0	191.0	258.0	158.0	115.0	67.0	92.0
7	119.9	367.0	146.0	147.0	65.0	155.0	180.0	287.0	122.0	171.0	70.0	88.0
8	67.2	197.4	117.0	127.0	140.0	458.0	255.0	498.0	200.0	337.0	72.0	86.0
9	67.1	110.6	108.0	39.3	152.2	2208.0	155.0	1024.0	1202.0	261.0	82.0	88.0
10	167.3	98.6	95.	134.0	144.4	913.0	109.0	545.0	1354.0	124.0	94.0	88.0
11	313.8	67.6	62.0	156.0	135.0	412.0	124.0	311.0	1101.0	59.0	98.0	88.0
12	377.0	38.6	105.0	115.0	182.0	276.0	114.0	249.0	966.0	276.0	102.0	87.0
13	134.0	94.6	148.0	96.0	131.0	222.0	118.0	239.0	964.0	850.0	77.0	87.0
14	198.0	191.2	259.0	74.0	104.0	185.0	530.0	218.0	493.0	3740.0	70.0	70.0
15	119.3	107.2	210.0	138.0	79.0	165.0	499.0	258.0	412.0	3229.0	210.0	60.0
16	96.3	90.2	116.0	50.0	62.0	155.0	262.0	212.0	292.0	2097.0	133.0	90.0
17	140.0	89.8	124.0	71.0	77.0	148.0	182.0	179.0	233.0	1142.0	139.0	95.0
18	75.7	34.2	211.0	135.0	85.6	262.0	141.0	164.0	257.0	654.0	152.0	95.0
19	76.6	74.1	114.0	27.8	118.6	783.0	126.0	153.0	193.0	387.0	142.0	94.0
20	171.0	110.1	127.0	28.9	303.0	1231.0	107.0	135.0	333.0	261.0	110.0	69.9
21	202.0	184.0	123.0	29.1	256.2	514.0	88.0	107.0	222.0	201.0	92.0	60.6
22	145.0	648.0	113.0	38.0	137.2	511.0	126.0	61.7	159.0	303.0	93.0	94.6
23	152.0	1942.0	111.0	55.0	172.2	307.0	147.0	72.0	114.0	518.0	107.0	91.3
24	112.6	1512.0	98.0	39.0	203.0	268.0	105.0	50.2	123.0	440.0	110.0	89.6
25	134.0	568.0	88.0	77.0	230.0	214.0	176.0	54.0	99.0	256.0	105.0	85.6
26	294.0	345.0	67.0	88.0	183.0	183.0	439.0	65.0	137.0	188.0	90.0	78.3
27	183.0	258.0	97.0	91.0	158.0	160.0	392.0	175.0	194.0	167.0	80.0	47.3
28	170.0	237.0	103.0	169.0	126.0	134.0	366.0	167.0	177.0	150.0	81.0	28.5
29	240.0	-----	29.6	218.0	129.0	218.0	395.0	110.0	184.0	134.0	84.0	100.6
30	152.0	-----	102.0	146.0	140.0	1438.0	293.0	106.0	189.0	124.0	94.0	72.3
31	343.0	-----	110.0	-----	236.0	-----	330.0	73.0	-----	112.0	-----	74.3
MEAN	159.8	293.1	123.1	107.9	145.7	426.6	285.7	237.5	346.8	550.6	101.5	82.7
INCHES	2.36	3.91	1.86	1.54	2.16	6.10	4.22	3.51	4.96	8.14	1.45	1.22

NOTES: TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY .0004769. DAILY DISCHARGE IS COMBINED FLOWS OF NORTH, MAIN, AND SOUTH CANALS FROM RECORDS OF U.S. GEOLOGICAL SURVEY. RUNOFF SUBJECT TO CONTROL. RECORDS POOR TO GOOD.

1966 SELECTED RUNOFF EVENT VERO BEACH, FLORIDA (MAIN, NORTH, SOUTH CANALS) WATERSHED W-1 8.1

ANTECEDENT CONDITIONS			RAINFALL				RUNOFF											
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)								
Event of October 13 - 22, 1966																		
10-13	.00	.00	10-13	5 RG	AVG 1/		10-13	0000	92	.0000								
				1000	.00	.00												
				1400	.04	.16												
				1600	.77	1.70												
				1800	1.32	4.34												
				2000	.41	5.16												
				10-14							10-14	0400	.00	5.16	10-14	2200	3153	.2580
												0600	.40	5.96				
												0800	.74	7.44				
												1000	.21	7.86				
												1200	.04	7.94				
												10-15	1200	3229				
10-16			10-16	2400	2722	3.723												
				1200	2096	4.298												
10-17			10-17	2400	1508	4.727												
				1200	1125	5.041												
10-18			10-18	2400	896	5.282												
				1200	626	5.464												
10-19			10-19	2400	501	5.598												
				1200	379	5.703												
10-20			10-20	2400	307	5.785												
				0900	228	5.912												
										2/6.043								

NOTES: TO CONVERT CFS TO IN/HR MULTIPLY BY .00001987. FOR MAP OF WATERSHED SEE PAGE 8.1-7 IN SELECTED RUNOFF EVENTS FROM SMALL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, USDA, ARS, JAN. 1960. FOR 30-DAY ANTECEDENT P AND Q SEE TABLE ABOVE AND ON PREVIOUS PAGE. 1/ PRECIPITATION IS ARITHMETICAL AVERAGE OF 5 RG. 2/ END OF EVENT.



VERO BEACH, FLORIDA WATERSHED W-1

MONTHLY PRECIPITATION ^{1/} AND RUNOFF ^{2/} (inches)						VERO BEACH, FLORIDA (TAYLOR CREEK) WATERSHED W-2							8.2	
						AREA - 63,170 ACRES (98.7 SQ. MILES)								
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P	6.00	3.10	.83	2.09	3.57	12.74	8.21	9.28	3.55	5.20	.46	.43	55.46
	Q	.77	.81	.25	.15	.29	2.18	3.15	4.70	.75	1.83	.15	.14	15.17
	3/ STA AV P	2.05	2.54	3.25	2.49	4.25	7.64	6.12	6.46	6.69	3.91	1.18	1.59	48.17
	(55-66) Q	.45	.53	.92	.21	.35	1.65	1.65	2.01	3.05	2.05	2.55	0.15	15.57
	MEAN P 4/ 48 YR	1.64	1.91	2.70	3.28	3.82	7.18	6.03	6.08	7.08	4.82	1.65	1.48	47.67

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-24	.024	8-24	.024	8-24	.048	8-24	.142	8-24	.284	8-23	.550	8-23	1.01	8-23	2.06

MAXIMUMS FOR PERIOD OF RECORD																
1955 to	10-16	.11	10-16	.11	10-16	.21	10-16	.62	10-16	1.23	10-16	2.28	10-16	4.16	10-16	8.03
1966	1956		1956		1956		1956		1956		1956		1956		1956	

NOTES: Watershed conditions: range and forest, 55%; improved pasture, 34%; citrus, 1%; miscellaneous, 10%.
 1/ Precipitation Thiessen weighted using 7 gages. 2/ Runoff data furnished by U. S. Geological Survey. 3/ Precipitation and runoff records began July 1955. 4/ Mean P based on 48-yr (1919-1966) U.S. Weather Bureau record period at Okeechobee Hurricane Gate 6, Fla.

1966 DAILY AIR TEMPERATURE (degrees F)																VERO BEACH, FLORIDA (TAYLOR CREEK) WATERSHED W-2							8.2		
DAY	JAN		FEB		MAR		APR		MAY		JUNE		JULY		AUG		SEPT		OCT		NOV		DEC		
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
1	77	55	58	44	85	60	79	57	80	67	90	69	80	75	91	76	90	74	92	75	83	64	67	39	
2	79	54	70	61	76	51	80	60	85	64	87	70	88	77	85	74	93	76	92	70	82	66	73	43	
3	80	62	76	46	77	59	82	49	87	65	84	67	91	77	89	76	93	76	88	74	78	45	78	52	
4	72	66	54	36	80	66	84	71	89	66	84	67	92	75	94	78	91	74	88	78	60	40	77	53	
5	78	67	54	30	86	72	80	66	85	68	82	71	93	76	90	80	92	73	86	76	74	57	71	52	
6	79	67	56	36	73	48	71	52	85	68	85	71	94	76	92	77	93	74	89	74	79	59	74	50	
7	81	54	71	41	64	41	75	50	81	72	85	70	90	75	92	76	94	76	93	73	83	63	78	56	
8	65	50	72	47	63	40	77	50	82	73	85	71	92	73	93	75	91	74	89	74	82	64	80	60	
9	66	48	75	48	69	49	82	56	90	73	79	76	92	72	90	75	92	74	88	74	82	57	82	62	
10	70	60	75	54	70	51	80	60	86	68	88	76	91	75	89	72	88	74	86	75	83	58	83	59	
11	75	61	78	57	75	55	76	57	90	70	88	75	85	75	90	75	89	75	88	73	84	64	80	57	
12	65	57	79	61	77	51	81	60	76	67	92	75	86	76	90	76	84	73	88	68	84	60	80	59	
13	73	54	79	67	76	61	85	62	85	65	93	75	91	76	88	73	91	74	86	68	85	61	66	54	
14	76	50	71	59	73	64	87	65	88	69	91	74	90	75	88	76	91	74	84	69	85	62	67	41	
15	75	60	71	62	82	61	88	63	90	67	89	72	90	75	92	78	87	75	84	72	80	59	63	35	
16	73	53	83	64	77	53	85	63	91	69	89	77	91	77	90	74	85	74	87	68	77	63	69	49	
17	68	44	84	61	76	55	80	58	87	73	90	76	93	75	91	73	91	75	89	70	78	57	72	58	
18	65	44	82	62	75	55	78	59	90	69	89	77	93	78	91	79	92	74	88	67	81	60	74	63	
19	68	40	84	58	76	50	77	60	89	69	88	74	91	75	91	79	94	76	87	69	82	60	77	47	
20	64	49	73	50	80	53	80	63	90	73	89	73	91	78	91	77	92	75	88	55	82	58	70	45	
21	61	59	74	53	81	54	83	67	91	73	89	72	92	78	92	74	91	76	78	69	82	58	70	43	
22	76	66	75	60	82	55	82	61	91	72	92	71	90	76	94	75	91	75	77	72	74	57	72	44	
23	70	52	73	64	79	55	80	64	91	70	88	74	85	76	91	74	89	70	81	68	75	61	75	49	
24	58	40	70	64	81	56	79	65	90	68	87	70	88	77	93	73	85	70	85	71	78	58	79	64	
25	68	51	67	57	83	55	81	57	88	69	86	74	90	76	91	78	87	74	90	69	78	56	65	30	
26	73	61	67	47	75	56	83	63	88	71	85	74	90	76	92	78	80	73	88	69	77	44	65	39	
27	63	41	71	57	77	52	86	67	85	70	86	71	92	74	91	73	88	74	77	58	76	46	68	41	
28	53	35	80	70	76	55	87	68	88	69	85	74	90	78	92	75	92	74	80	55	78	60	75	49	
29	66	59	---	---	78	60	80	71	88	69	87	73	91	76	89	76	92	74	81	58	69	39	78	62	
30	65	37	---	---	64	62	85	66	89	71	76	73	91	79	91	75	85	74	82	57	65	38	80	45	
31	46	26	---	---	76	57	---	---	91	71	---	---	91	79	92	75	---	---	83	60	---	---	---	82	59
AV.	69	52	72	54	76	55	81	61	87	69	87	73	90	76	91	76	90	74	86	69	79	57	74	50	
MEAN	60.5	63.0	65.5	71.0	78.0	80.0	83.0	83.5	82.0	77.5	83.5	82.0	77.5	82.0	77.5	82.0	77.5	82.0	77.5	82.0	77.5	68.0	62.0	62.0	
STA AV	74	51	76	54	79	57	84	63	88	68	90	74	91	75	92	75	90	74	86	66	81	61	74	52	

NOTES: TEMPERATURE DATA FROM R-3, READINGS TAKEN DAILY. STA AV COVERS PERIOD FROM JULY 1, 1956 THROUGH 1966.

1966 DAILY PRECIPITATION (inches)						VERO BEACH, FLORIDA (TAYLOR CREEK)				WATERSHED W-2			8.2
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	.00	.01	.00	.00	.00	.21	.81	.47	.00	.04	.00	.00	
2	.00	.00	.00	.00	.00	.00	.00	.01	.00	.01	.04	.00	
3	.55	.00	.00	.00	.00	.00	.00	.31	.11	.08	.00	.00	
4	2.52	.00	.00	1.18	.00	.00	.00	.37	.02	.28	.00	.27	
5	.45	.00	.19	.09	.00	.32	.00	.22	.01	.00	.00	.00	
6	.06	.00	.00	.00	.08	1.74	.02	.26	.00	.00	.00	.00	
7	.00	.00	.00	.00	1.27	1.07	.13	.65	.31	1.99	.00	.00	
8	.00	.00	.00	.00	.00	2.15	.06	.92	.03	.20	.00	.00	
9	.00	.00	.00	.46	.02	.16	.51	.02	.00	.00	.00	.00	
10	.00	.00	.00	.25	.00	.00	.31	.30	1.08	.00	.00	.03	
11	.62	.00	.00	.00	1.07	.00	.83	.70	.34	.00	.00	.00	
12	.06	.00	.00	.00	.00	.00	.42	.80	.16	.03	.00	.02	
13	.00	.11	.04	.00	.00	.18	.79	.31	.01	.71	.04	.01	
14	.00	.00	.03	.00	.00	.70	.00	.00	.17	1.13	.00	.00	
15	.00	.04	.01	.00	.00	.42	.19	.46	.17	.00	.06	.00	
16	.00	.00	.00	.00	.00	1.27	.30	.22	.00	.00	.13	.00	
17	.00	.00	.04	.00	.00	.26	.00	.07	.07	.00	.00	.10	
18	.00	.25	.00	.00	.20	.19	.00	.38	.03	.00	.00	.00	
19	.04	.76	.00	.00	.00	.63	.00	.03	.12	.00	.00	.00	
20	.28	.00	.00	.00	.00	.70	.01	.00	.00	.00	.00	.00	
21	.00	.00	.00	.00	.14	.37	.32	.42	.11	.00	.00	.00	
22	.42	.32	.00	.00	.09	.03	.84	.03	.00	.72	.00	.00	
23	.01	1.55	.00	.00	.08	.00	.01	1.58	.00	.00	.19	.00	
24	.00	.00	.00	.00	.04	.00	.68	.00	.00	.01	.00	.00	
25	.00	.00	.00	.00	.02	.00	.10	.05	.00	.00	.00	.00	
26	.58	.00	.00	.00	.23	.00	.90	.52	.00	.00	.00	.00	
27	.00	.00	.00	.02	.18	.00	.06	.12	.17	.00	.00	.00	
28	.00	.06	.00	.01	.11	.07	.41	.00	.33	.00	.00	.00	
29	.41	.00	.52	.00	.00	1.20	.17	.00	.28	.00	.00	.00	
30	.00	-----	.00	.08	.00	1.07	.20	.00	.03	.00	.00	.00	
31	.00	-----	.00	-----	.04	-----	.14	.06	-----	.00	-----	.00	
TOTAL	6.00	3.10	.83	2.09	3.57	12.74	8.21	9.28	3.55	5.20	.46	.43	
STA AV	2.05	2.54	3.25	2.49	4.25	7.64	6.12	6.46	6.69	3.91	1.18	1.59	

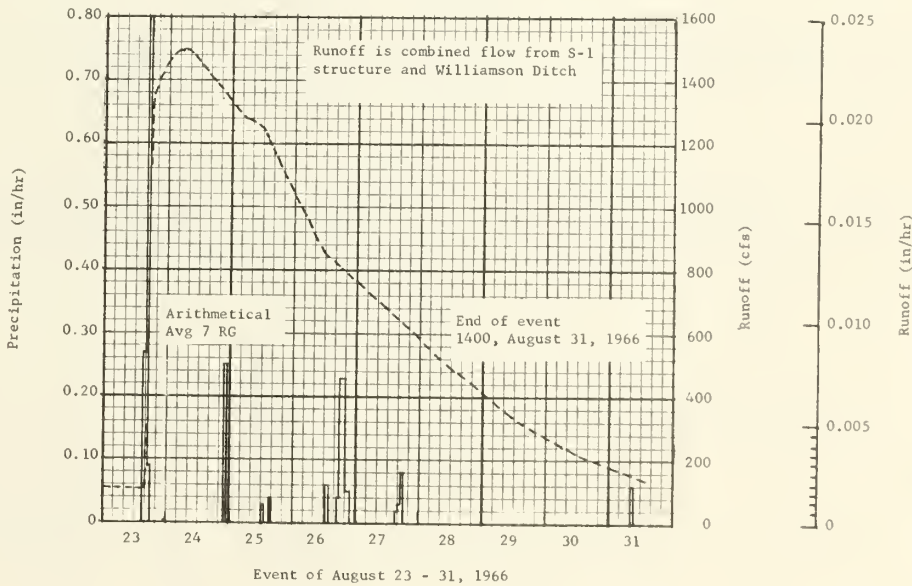
NOTES: THIESSEN WEIGHTED RAINFALL - USING 7 GAGES. STA AV BASED ON PERIOD JULY 1, 1955 THROUGH 1966.

1966 MEAN DAILY DISCHARGE (cfs)						VERO BEACH, FLORIDA (TAYLOR CREEK)				WATERSHED W-2			8.2
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	7.5	66.0	81.0	12.0	4.9	5.2	800.0	390.0	86.0	31.0	24.0	13.0	
2	7.5	59.0	46.0	10.0	4.9	6.1	650.0	350.0	63.0	29.0	22.0	13.0	
3	9.3	50.0	28.0	8.7	4.9	5.6	400.0	240.0	49.0	27.0	20.0	13.0	
4	15.0	49.0	40.0	14.0	4.6	5.2	220.0	300.0	36.0	30.0	18.0	14.0	
5	183.0	34.0	38.0	30.0	4.6	4.9	150.0	220.0	38.0	30.0	17.0	16.0	
6	215.0	30.0	35.0	25.0	4.6	7.8	90.0	180.0	35.0	27.0	16.0	15.0	
7	139.0	27.0	28.0	21.0	9.5	72.0	70.0	140.0	37.0	134.0	16.0	14.0	
8	100.0	24.0	21.0	18.0	58.0	137.0	60.0	260.0	42.0	1280.0	15.0	12.0	
9	74.0	24.0	21.0	17.0	140.0	345.0	50.0	430.0	31.0	786.0	15.0	11.0	
10	59.0	22.0	23.0	52.0	130.0	291.0	70.0	270.0	60.0	434.0	10.0	11.0	
11	61.0	19.0	19.0	30.0	106.0	238.0	90.0	380.0	185.0	260.0	7.0	11.0	
12	91.0	16.0	17.0	21.0	89.0	200.0	120.0	650.0	231.0	145.0	6.7	12.0	
13	86.0	18.0	16.0	17.0	50.0	160.0	240.0	700.0	146.0	137.0	6.7	11.0	
14	69.0	19.0	16.0	15.0	27.0	60.0	300.0	670.0	121.0	292.0	6.7	10.0	
15	57.0	19.0	20.0	12.0	17.0	30.0	250.0	480.0	145.0	444.0	6.3	11.0	
16	48.0	19.0	59.0	11.0	20.0	116.0	300.0	360.0	107.0	323.0	6.3	11.0	
17	40.0	19.0	12.0	8.6	12.0	320.0	300.0	230.0	79.0	234.0	6.3	10.0	
18	33.0	18.0	7.8	7.7	8.5	230.0	200.0	160.0	82.0	166.0	6.0	11.0	
19	29.0	48.0	7.3	6.7	6.1	190.0	110.0	140.0	69.0	126.0	6.0	11.0	
20	30.0	59.0	6.9	7.2	5.6	230.0	70.0	100.0	65.0	95.0	7.3	11.0	
21	37.0	48.0	6.1	6.7	5.2	310.0	70.0	80.0	51.0	83.0	14.0	11.0	
22	38.0	35.0	6.1	6.0	6.1	300.0	110.0	110.0	41.0	138.0	15.0	12.0	
23	57.0	208.0	10.0	5.3	7.8	410.0	280.0	460.0	36.0	355.0	15.0	12.0	
24	55.0	512.0	10.0	4.9	7.3	360.0	210.0	1450.0	31.0	247.0	17.0	12.0	
25	46.0	273.0	10.0	4.6	6.1	325.0	250.0	1250.0	30.0	166.0	16.0	11.0	
26	56.0	176.0	9.5	4.3	5.6	290.0	320.0	850.0	21.0	120.0	16.0	10.0	
27	94.0	144.0	10.0	4.0	5.6	265.0	520.0	420.0	24.0	82.0	15.0	10.0	
28	80.0	121.0	9.2	4.3	5.6	240.0	470.0	490.0	18.0	62.0	15.0	11.0	
29	66.0	-----	13.0	4.6	5.2	240.0	610.0	340.0	27.0	43.0	14.0	10.0	
30	91.0	-----	14.0	4.3	5.2	400.0	550.0	220.0	25.0	33.0	13.0	9.7	
31	76.0	-----	14.0	-----	5.2	-----	430.0	140.0	-----	28.0	-----	9.9	
MEAN	66.2	77.0	21.1	13.1	24.9	193.1	27.0	402.0	67.0	206.0	12.9	11.6	
INCHES	.77	.81	.25	.15	.29	2.18	3.15	4.70	.75	1.83	.15	.14	

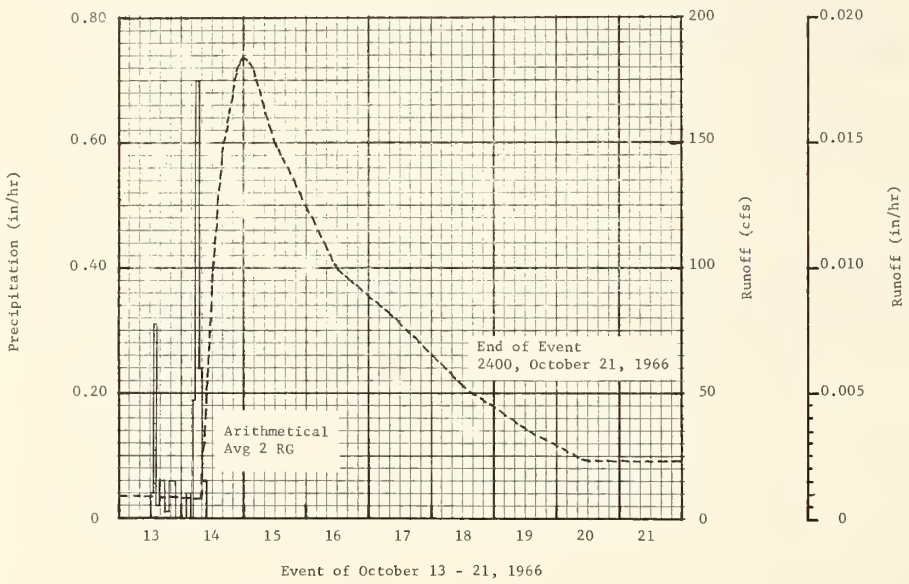
NOTES: TO CONVERT MEAN DAILY DISCHARGE IN GFS TO IN/DAY, MULTIPLY BY .0003768. RUNOFF DATA FURNISHED BY THE U.S. GEOLOGICAL SURVEY. DISCHARGE MEASUREMENTS GENERALLY MADE ONCE A WEEK.

1966 SELECTED RUNOFF EVENT			VERO BEACH, FLORIDA (TAYLOR CREEK) WATERSHED W-2				8.2				
ANTECEDENT CONDITIONS			RAINFALL				1/ RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)	
Event of August 23 - 31, 1966											
8-23	2/ .00	3/ .02		7 RG	AVG 4/						
			8-23	1500	.00	.00	8-23	1600	110	.0000	
				1600	.27	.27		1800	1320	.0225	
				1700	.80	1.07		2200	1420	.1085	
				1800	.09	1.16		2400	1460	.1537	
			8-24	2200	.00	1.16	8-24	0600	1500	.2931	
				2300	.25	1.41		1000	1480	.3867	
			8-25	1200	.00	1.41		1400	1440	.4784	
				1300	.03	1.44		1800	1400	.5676	
				1500	.00	1.44	8-25	0600	1280	.8201	
				1600	.04	1.48		1200	1250	.9393	
			8-26	1300	.00	1.48		1800	1150	1.052	
				1400	.06	1.54	8-26	1200	850	1.335	
				1700	.00	1.54	8-27	1200	680	1.623	
				1800	.04	1.58	8-28	1200	490	1.843	
				2000	.23	2.04	8-29	1200	340	2.000	
				2200	.05	2.14	8-30	1200	220	2.106	
			8-27	1500	.00	2.14	8-31	5/ 1400	140	2.179	
				1600	.02	2.16					
				1700	.03	2.19					
				1800	.08	2.27					
			8-31	0800	.00	2.27					
				0900	.06	2.33					

NOTES: TO CONVERT CFS TO IN/HR MULTIPLY BY .00001570. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 8.2-4. FOR ANTECEDENT P AND Q SEE TABLES ON PREVIOUS PAGES. 1/ RUNOFF IS COMBINED FLOW FROM S-1 STRUCTURE AND WILLIAMSON DITCH. 2/ PRECIPITATION PRIOR TO 1500. 3/ RUNOFF PRIOR TO 1600. 4/ ARITHMETICAL AVERAGE 7 RG. 5/ END OF EVENT.



VERO BEACH, FLORIDA WATERSHED W-2



VERO BEACH, FLORIDA WATERSHED W-3

MONTHLY PRECIPITATION ^{1/} AND RUNOFF ^{2/} (inches)						VERO BEACH, FLORIDA (MONREVE RANCH) WATERSHED W-4 AREA - 3,970 ACRES (6.2 SQ. MILES)							8.4
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	7.55	4.66	2.12	4.26	5.58	17.01	7.82	6.14	8.15	9.56	2.44	1.70	76.99
P ₃	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
I ₃	2.17	1.86	1.58	.92	1.16	5.13	5.45	2.99	3.08	5.75	.70	.43	31.22
Q													
STA AV ^{4/}	2.37	2.94	2.21	2.95	5.03	7.88	6.75	7.31	8.25	7.03	2.09	2.10	56.91
(61-66)I ₃	.53	.43	.88	1.00	.62	.33	.02	.03	.02	.02	.07	.22	4.17
(59-66)Q	.94	.71	.64	.75	.90	1.91	2.36	2.45	3.52	3.76	.97	.62	19.53
MEAN P ^{4/}	2.32	2.58	2.99	3.35	4.22	5.89	5.54	5.58	7.94	7.34	2.69	2.08	25.52
66 YR													

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	6-30	.057	6-30	.057	6-30	.114	6-30	.318	6-30	.576	6-30	1.01	6-30	1.63	6-29	3.01

MAXIMUMS FOR PERIOD OF RECORD

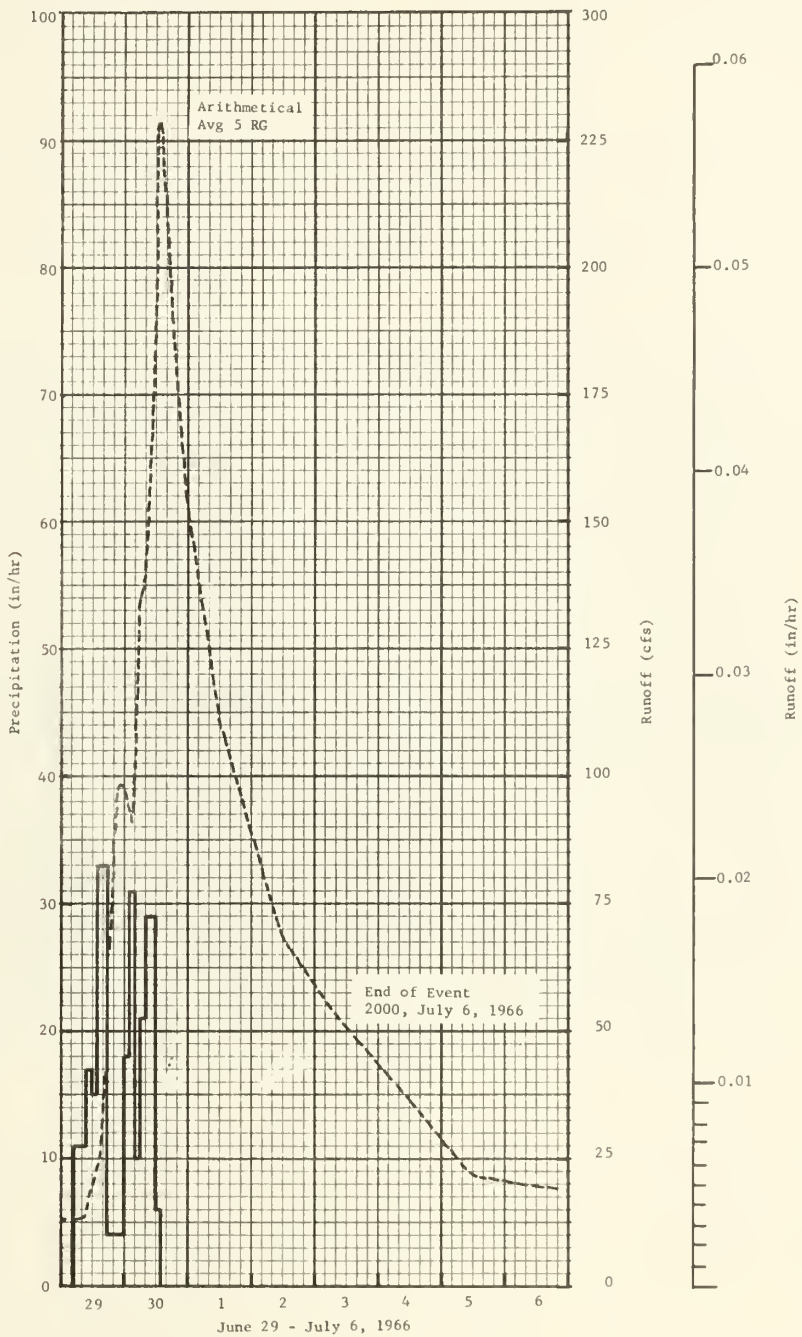
19 59 TO	9-23	.19	9-23	.19	9-23	.37	9-23	1.02	9-23	1.68	9-24	2.33	9-23	4.08	9-22	9.20
19 66	1960		1960		1960		1960		1960		1960		1960		1960	

NOTES: Watershed conditions: native range, 70%; improved pasture, 30%. 1/ Precipitation Thiessen weighted using 5 gages. 2/ Runoff data furnished by U.S. Geological Survey. 3/ (I) denotes pumped irrigation which augmented natural rainfall on area. 4/ Precipitation records began Jan. 1959, irrigation in Jan. 1960, and runoff records, July 1959. 5/ Mean P based on 66-yr (1901-1966) U.S. Weather Bureau record period at Fort Pierce No. 1, Fla.

1966 DAILY PRECIPITATION (inches)						VERO BEACH, FLORIDA (MONREVE RANCH) WATERSHED W-4							8.4
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	.00	.00	.00	.00	.00	.00	.00	.10	.00	1.02	.03	.00	
2	.00	.00	.00	.00	.00	.00	.00	.21	.00	.12	.10	.00	
3	.77	.00	.00	.00	.00	.00	.00	.02	.60	.46	.00	.00	
4	2.88	.00	.00	.76	.00	.73	.00	.18	.95	.02	.00	.73	
5	.00	.00	.17	.06	.01	.60	.00	.11	.00	.00	.00	.00	
6	.05	.00	.00	.00	.12	.08	.00	.02	.16	1.50	.00	.01	
7	.00	.00	.00	.00	2.94	.66	1.16	.47	.44	1.97	.00	.02	
8	.00	.00	.00	.00	.00	3.03	.18	.00	.48	.71	.00	.02	
9	.00	.00	.00	1.19	.00	2.18	.00	.01	.57	.16	.00	.00	
10	.02	.00	.00	.19	.00	.00	.00	.00	.37	.00	.00	.00	
11	1.03	.00	.00	.00	.00	.00	1.36	.09	.48	.00	.00	.09	
12	.49	.00	.00	.00	.00	.09	.00	.20	.98	.00	.00	.33	
13	.00	.01	.22	.00	.00	.00	.00	.29	.00	1.50	.00	.05	
14	.00	.00	.04	.00	.00	.00	1.06	2.08	.06	1.06	.00	.00	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.98	.00	
16	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.00	.10	
17	.00	.00	.77	.00	.00	.67	.00	.00	.72	.00	.00	.35	
18	.00	.00	.51	.00	.00	.00	.00	.00	.00	.00	.12	.00	
19	.00	.43	.00	.00	.12	.00	.00	.00	.00	.00	.00	.00	
20	.34	.00	.00	.00	.00	1.08	.00	.00	.39	.00	.49	.00	
21	.00	.39	.00	.08	.09	.00	.00	.07	.06	.36	.34	.00	
22	.33	1.23	.00	.00	.04	1.00	.03	.13	.00	.68	.07	.00	
23	.00	2.00	.00	.00	.01	.45	.08	.30	.00	.00	.31	.00	
24	.00	.00	.00	.00	1.76	.02	.07	1.59	.00	.00	.00	.00	
25	.00	.00	.00	.00	.00	.68	.00	.00	.00	.00	.00	.00	
26	.37	.00	.00	.00	.19	.08	1.99	.00	.00	.00	.00	.00	
27	.00	.00	.00	.00	.00	.00	.08	.00	1.46	.00	.00	.00	
28	.00	.60	.00	.24	.03	.08	.00	.00	.43	.00	.00	.00	
29	1.27	.00	.41	.21	.16	2.75	.04	.06	.00	.00	.00	.00	
30	.00		.00	1.53	.00	2.83	.09	.00	.00	.00	.00	.00	
31	.00		.00		.11		1.16	.17		.00		.00	
TOTAL	7.55	4.66	2.12	4.26	5.58	17.01	7.82	6.14	8.15	9.56	2.44	1.70	
STA AV	2.37	2.94	2.21	2.95	5.03	7.88	6.75	7.31	8.25	7.03	2.09	2.10	

NOTES: THIESSEN WEIGHTED RAINFALL 5 GAGES. STA AV BASED ON PERIOD FROM JANUARY 1959 THROUGH 1966.

1966 DAILY IRRIGATION (inches)						VERO BEACH, FLORIDA (MONREVE RANCH) WATERSHED W-4						8.4
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
	-	-	-	-	NO IRRIGATION IN 1966			-	-	-	-	-
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STA AV	0.53	0.43	0.88	1.00	0.62	0.33	0.02	0.03	0.02	0.02	0.07	0.22
NOTES: IRRIGATION COMPUTED FROM STAGE-LIFT CURVE AGAINST HOURS OF PUMP OPERATION. STA AV IS BASED ON PERIOD OF 1961 THROUGH 1966.												
1966 MEAN DAILY DISCHARGE (cfs)						VERO BEACH, FLORIDA (MONREVE RANCH) WATERSHED W-4						8.4
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.1	7.2	28.0	4.4	8.0	3.0	110.0	30.0	4.6	14.0	5.7	1.9
2	.8	5.7	22.0	4.4	6.9	3.3	69.0	29.0	4.2	22.0	6.8	1.8
3	.8	5.1	19.0	4.2	5.7	4.2	52.0	26.0	4.2	31.0	4.6	1.7
4	1.1	3.9	16.0	4.4	5.1	3.3	38.0	23.0	6.2	33.0	3.9	1.9
5	35.0	3.1	15.0	4.9	4.6	5.7	22.0	22.0	13.0	26.0	3.7	4.2
6	27.0	2.6	14.0	4.9	4.4	9.2	20.0	18.0	8.0	34.0	3.3	4.2
7	19.0	2.2	10.0	4.6	6.0	10.0	34.0	16.0	8.4	62.0	3.1	3.5
8	14.0	1.7	6.0	4.4	22.0	20.0	45.0	17.0	11.0	77.0	3.0	3.1
9	5.1	1.4	3.9	4.6	16.0	139.0	41.0	14.0	14.0	76.0	2.6	2.8
10	3.5	1.8	6.0	8.0	18.0	71.0	35.0	10.0	19.0	61.0	2.5	2.5
11	14.0	2.2	6.0	7.6	13.0	47.0	43.0	9.6	24.0	41.0	2.2	2.0
12	31.0	1.9	5.7	7.2	9.6	35.0	40.0	8.8	31.0	30.0	2.0	2.0
13	26.0	1.8	5.7	6.6	7.6	27.0	27.0	9.2	35.0	29.0	2.3	2.8
14	18.0	1.7	7.6	4.9	6.0	22.0	33.0	27.0	33.0	86.0	2.2	3.1
15	14.0	1.6	3.3	4.2	4.9	18.0	41.0	45.0	30.0	60.0	3.3	2.6
16	12.0	1.5	3.7	3.9	4.2	15.0	28.0	27.0	24.0	41.0	4.4	2.5
17	5.4	1.4	3.9	3.7	3.3	14.0	22.0	20.0	30.0	31.0	3.5	2.3
18	1.9	1.2	10.0	3.7	2.6	15.0	17.0	16.0	35.0	25.0	2.8	3.7
19	4.9	1.5	11.0	3.7	1.5	12.0	13.0	12.0	26.0	20.0	2.8	4.2
20	6.2	1.7	9.2	3.7	2.6	14.0	11.0	10.0	24.0	16.0	3.7	3.3
21	10.0	1.7	7.6	3.7	1.6	18.0	9.6	8.8	22.0	15.0	6.0	2.8
22	5.7	7.6	6.9	3.7	1.8	18.0	8.0	7.6	19.0	20.0	6.6	2.0
23	6.0	59.0	6.2	4.4	1.9	31.0	7.2	7.2	16.0	26.0	7.6	1.9
24	6.2	63.0	6.0	13.0	3.1	27.0	6.2	10.0	12.0	19.0	6.9	1.7
25	6.6	44.0	4.6	5.4	6.9	25.0	6.6	22.0	10.0	16.0	5.4	1.5
26	12.0	34.0	4.2	4.9	6.0	25.0	17.0	15.0	8.0	11.0	4.2	1.4
27	22.0	27.0	4.2	4.4	5.1	18.0	35.0	11.0	9.6	7.2	3.7	1.2
28	18.0	23.0	4.2	3.9	4.4	15.0	25.0	9.2	13.0	8.4	3.1	1.0
29	14.0	-----	4.4	4.6	3.7	32.0	17.0	7.2	11.0	7.6	2.8	1.0
30	12.0	-----	4.6	8.0	3.7	159.0	16.0	6.0	7.6	6.6	2.3	.9
31	9.2	-----	4.6	-----	3.3	-----	20.0	4.2	-----	6.0	-----	.8
MEAN	71.7	11.1	8.5	5.1	6.2	28.5	29.3	16.1	17.1	30.9	3.9	2.3
INCHES	2.17	1.86	1.58	.92	1.16	5.13	5.45	2.99	3.08	5.75	.70	.43
NOTES: TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/DAY MULTIPLY BY .005998. RUNOFF DATA FURNISHED BY U.S. GEOLOGICAL SURVEY. RECORDS ARE FAIR TO POOR. FLOW OCCASIONALLY REGULATED BY STOPLOG CONTROL 1,500 FT UPSTREAM.												
1966 SELECTED RUNOFF EVENT						VERO BEACH, FLORIDA (MONREVE RANCH) WATERSHED W-4						8.4
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF					
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)		
Event of June 29 - July 6, 1966												
5 RG AVC 1/												
6-29	.00	.00	6-29	0500	.00	.00	6-29	0000	13	.0000		
				1000	.11	.55		0900	13	.0292		
				1200	.17	.89		1200	19	.0412		
				1400	.15	1.19		1500	26	.0581		
				1800	.33	2.51		1800	54	.0881		
				2400	.04	2.75		2000	85	.1228		
				0200	.18	3.11		2200	98	.1685		
				0400	.31	3.73		2400	98	.2175		
				0600	.10	3.93		6-30	0300	91	.2883	
				0800	.21	4.35		0400	98	.3122		
Watershed Conditions:												
Approximate land use:												
(from SCS)												
70% in native range												
30% in improved pasture												
Good cover on entire area												
1800 190 .9278												
2400 151 1.183												
7-1 1200 111 1.576												
7-2 1200 68 2.113												
7-3 1200 51 2.470												
7-4 1200 37 2.734												
7-5 1200 22 2.911												
7-6 2000 19 3.013												
NOTES: TO CONVERT CFS TO IN/HR MULTIPLY BY .0002499. FOR MAP OF WATERSHED SEE PAGE 8.4-11 IN HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES 1962 USDA MISC. PUB. 1070. FOR 30-DAY ANTECEDENT P AND Q SEE TABLE ABOVE AND ON PREVIOUS PAGE. 1/ PRECIPITATION ARITHMETICAL AVERAGE, 5 GAGES. 2/ END OF EVENT.												



VERO BEACH, FLORIDA WATERSHED W-4

MONTHLY PRECIPITATION AND RUNOFF (inches)						BLACKSBURG, VIRGINIA WATERSHED W-III AREA—19.3 ACRES							
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ¹ / _o	3.23	4.09	.82	2.82	3.13	.43	5.59	6.00	5.26	4.00	2.12	3.70	41.19
	.00	.01	.00	T	T	.00	T	.01	T	T	T	T	.02
STA AVG ² / _p (40-66) _D	2.70	2.89	3.20	3.02	3.54	3.65	3.99	3.70	3.00	2.35	2.20	2.71	36.95
	.06	.01	T	.03	.05	.11	.06	.04	.01	T	T	.01	.38
MEAN P ³ / ₁ 76 YR	3.18	3.09	3.63	3.14	3.66	4.06	4.65	3.95	3.03	2.72	2.36	3.02	40.49

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-8	.02	8-8	T	8-8	T	8-8	T	8-8	T	8-8	T	8-8	T	8-8	.01

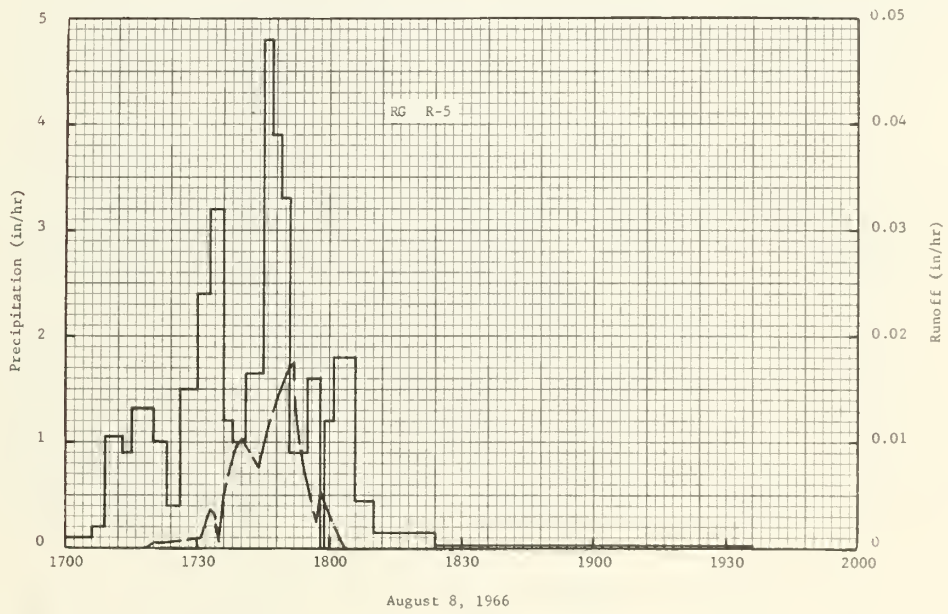
MAXIMUMS FOR PERIOD OF RECORD																
1939 to 1966	6-5 1942	1.90	6-16 1942	.49	6-16 1942	.50	1-21 1964	.80	1-21 1964	.92	1-21 1964	.92	1-20 1964	1.32	1-19 1964	1.52

NOTES: Watershed conditions: 89% cultivated; contour strips with a rotation of corn, small grain and clover. 9% pasture, usually good cover; 2% woodland. 1/ Precipitation obtained from rain gage R-5. 2/ Determined from continuous records, 1940-66; precipitation and runoff records began May 1939. 3/ Mean P based on 76-yr (1891-1966) U. S. Weather Bureau record period at Blacksburg, Virginia. Missing records for 11 months were estimated from nearby Weather Bureau records at Christiansburg, Va. and Va. Agr. Expt. Sta. at Blacksburg, Va.

1966 SELECTED RUNOFF EVENT			BLACKSBURG, VIRGINIA WATERSHED W-III								
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
	RG R-5				RG R-5						
7-11	.02	.0000	8-8	1700	.00	.00	8-8	1718	.0000	.0000	
7-13	.17	.0000		1706	.10	.01		1719	.0002	.0000	
7-15	.19	.0000		1709	.20	.02		1720	.0006	.0000	
7-19	.42	T		1713	1.05	.09		1722	.0004	.0000	
7-29	.76	.0000		1715	.90	.12		1731	.0010	.0001	
7-30	3.16	.0014		1720	1.32	.23		1732	.0028	.0001	
8-2	.01	.0000		1723	1.00	.28		1733	.0037	.0002	
8-3	.30	.0000		1726	.40	.30		1734	.0032	.0003	
8-4	.36	T		1730	1.50	.40		1735	.0007	.0003	
8-5	.06	.0000		1733	2.40	.52		1736	.0054	.0003	
				1736	3.20	.68		1737	.0067	.0004	
				1738	1.20	.72		1738	.0082	.0005	
				1741	1.00	.77		1739	.0098	.0007	
				1745	1.65	.88		1740	.0102	.0009	
				1747	4.80	1.04		1743	.0085	.0014	
				1749	3.90	1.17		1744	.0077	.0015	
				1751	3.30	1.28		1749	.0150	.0025	
				1755	.90	1.34		1751	.0171	.0030	
				1758	1.60	1.42		1752	.0175	.0033	
				1759	.00	1.42		1756	.0045	.0040	
				1801	1.20	1.46		1757	.0026	.0042	
				1806	1.80	1.61		1758	.0053	.0044	
				1810	.45	1.64		1802	.0012	.0048	
				1824	.15	1.70		1803	.0000	.0048	
				1936	.02	1.72					

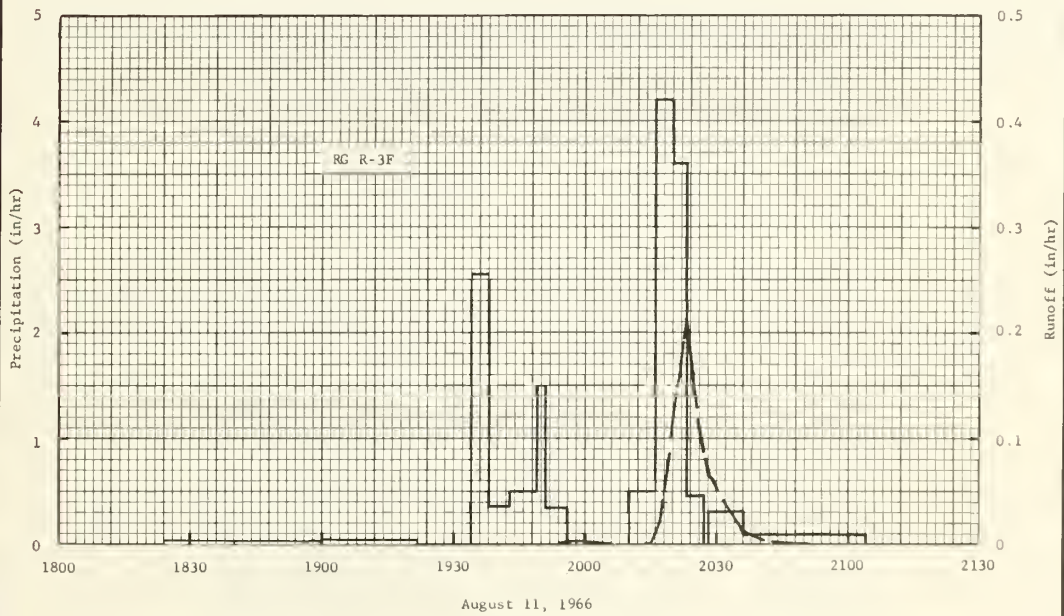
Watershed conditions
 Corn, 40" to 80" high, beginning to tassel, fair cover, 55%; clover, 12" to 18" high, good cover, 32%; pasture, good cover of native grasses, 10%; woods, fair cover, 3%.

NOTES: TO CONVERT LN/HR TO CFS, MULTIPLY BY 19.4544. FOR MAP OF WATERSHED, SEE SELECTED RUNOFF EVENTS FOR SMALL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, JAN. 1960, P. 13.2-4.



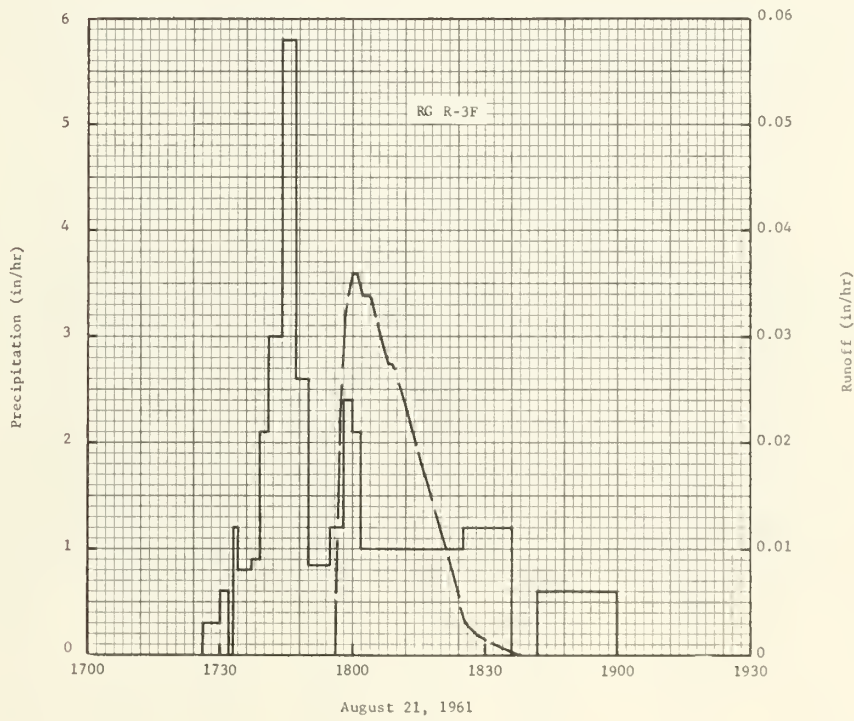
BLACKSBURG, VIRGINIA WATERSHED W-111

MONTHLY PRECIPITATION AND RUNOFF (inches)						BLACKSBURG, VIRGINIA WATERSHED W-IV AREA—3.49 ACRES										
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL		
1966	P 1 q	2.59 .00	3.57 .00	.96 .00	2.90 .00	3.16 .00	.37 .00	4.35 .02	4.01 .05	5.11 .00	3.57 T	2.23 .00	3.01 .00	35.83 .07		
	STA AVG 2/P (52-66) O	2.49 .03	3.15 .01	3.30 .01	2.97 .01	3.13 .02	3.03 .01	3.28 .01	3.34 .04	3.09 .02	2.35 T	2.24 T	2.63 T	35.00 .16		
	MEAN P 3/ 76 YR	3.18	3.09	3.63	3.14	3.66	4.06	4.65	3.95	3.03	2.72	2.36	3.02	40.49		
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-11	.21	8-11	.03	8-11	.03	8-11	.03	8-11	.03	8-11	.03	8-11	.03	8-11	.05
MAXIMUMS FOR PERIOD OF RECORD																
1951 TO 1966	5-5 1958	.75	5-5 1958	.21	5-5 1958	.21	5-5 1958	.23	5-5 1958	.24	5-5 1958	.24	5-5 1958	.24	5-5 1958	.24
NOTES: Watershed conditions: All cultivated; contour strips with rotation of corn, small grain and clover. A mulch tillage program is practiced. No crop residue is removed except one clover hay crop each year. 1/ Precipitation obtained from rain gage R-3F. 2/ Determined from continuous records, 1952-66; precipitation and runoff records began September 1951. 3/ Mean P based on 76-yr (1891-1966) U. S. Weather Bureau record period at Blacksburg, Virginia. Missing records for 11 months were estimated from nearby Weather Bureau records at Christiansburg, Va. and Va. Agr. Expt. Station at Blacksburg, Va.																
1966 SELECTED RUNOFF EVENT						BLACKSBURG, VIRGINIA WATERSHED W-IV										
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF									
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)						
Event of August 11, 1966																
	RG R-3F				RG R-3F											
7-11	.04	.0000	8-11	1824	.00	.00	8-11	1954	.0000	.0000						
7-12	.02	.0000		1900	.02	.01		1955	.0020	T						
7-13	.24	.0000		1922	.03	.02		1956	.0031	T						
7-15	.15	.0000		1934	.00	.02		1958	.0031	.0001						
7-19	.30	.0000		1938	2.55	.19		2000	.0020	.0002						
7-29	1.30	.0054		1943	.36	.22		2006	.0000	.0003						
7-30	2.03	.0118		1949	.50	.27		2009	.0000	.0003						
8-2	.01	.0000		1951	1.50	.32		2011	.0000	.0003						
8-3	.46	.0000		1958	.34	.36		2014	.0000	.0003						
8-4	.48	.0000		2010	.00	.36		2015	.0006	.0003						
8-9	.33	.0000		2016	.50	.41		2016	.0117	.0004						
8-10	.04	.0000		2020	4.20	.69		2017	.0219	.0007						
8-11	4/.51	.0000		2023	3.60	.87		2018	.0477	.0013						
				2027	.45	.90		2019	.0841	.0024						
				2028	.00	.90		2020	.1253	.0041						
				2036	.30	.94		2021	.1495	.0064						
				2104	.09	.98		2022	.1830	.0092						
								2023	.2126	.0125						
								2024	.1762	.0157						
								2025	.1432	.0184						
								2026	.1088	.0205						
								2027	.0887	.0221						
								2028	.0665	.0234						
								2029	.0625	.0245						
								2030	.0512	.0254						
								2036	.0134	.0286						
								2040	.0054	.0292						
								2045	.0014	.0295						
								2051	.0000	.0296						
Watershed conditions Oat stubble, combined with young clover 3 to 5" high, fair cover, 48%; clover stubble with new growth 10" high, good cover, 21%; corn, 76" high, fair cover, 31%.																
NOTES: TO CONVERT IN/HR TO CFS, MULTIPLY BY 3.519. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61, P. 13.3-5. 4/ .51 IN. BETWEEN 1156 AND 1532.																



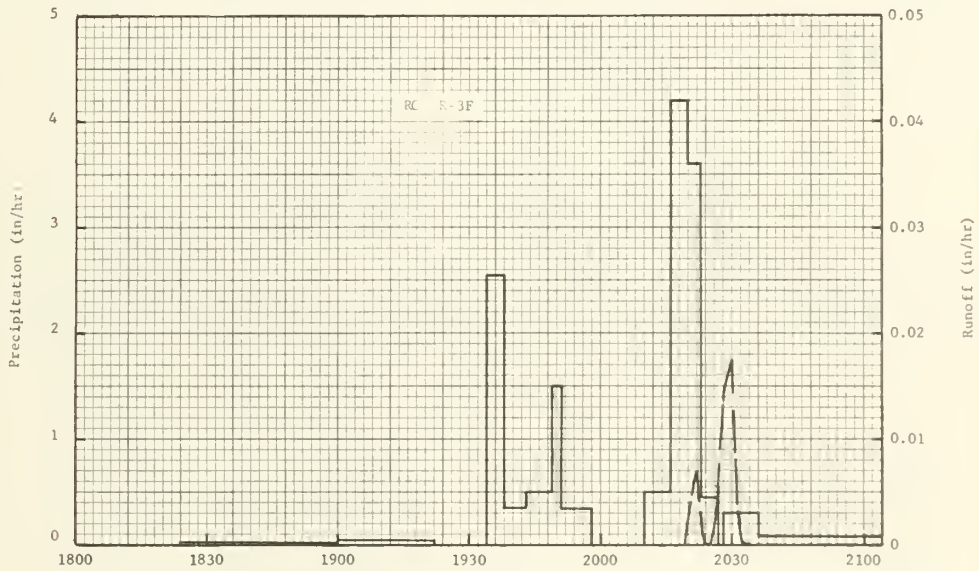
BLACKSBURG, VIRGINIA WATERSHED W-1V

MONTHLY PRECIPITATION AND RUNOFF (inches)						BLACKSBURG, VIRGINIA WATERSHED W-V AREA—6.08 ACRES										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 #1/ q	2.59 .00	3.57 .00	.96 .00	2.90 .00	3.16 .00	.37 .00	4.35 T	4.01 .00	5.11 T	3.57 .00	2.23 .00	3.01 .00	35.83 T			
STA AVG #2/p (52-66) o	2.49 .03	3.15 .02	3.30 .02	2.97 T	3.13 .01	3.03 T	3.28 T	3.34 .02	3.09 .01	2.35 T	2.24 T	2.63 .01	35.00 .12			
MEAN #3/ 76 YR	3.18	3.09	3.63	3.14	3.66	4.06	4.65	3.95	3.03	2.72	2.36	3.02	40.49			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	7-13	T	7-13	T	7-13	T	7-13	T	7-13	T	9-26	T	9-26	T	9-26	T
MAXIMUMS FOR PERIOD OF RECORD																
1951 TO 19 66	5-5 1958	.70	5-5 1958	.15	5-5 1958	.16	3-1 1963	.18	3-1 1963	.23	3-1 1963	.23	3-1 1963	.23	3-1 1963	.23
NOTES: Watershed conditions: All cultivated; contour strips with a rotation of corn, small grain and clover. A mulch tillage program is practiced. No crop residue is removed except one clover hay crop each year. 1/ Precipitation obtained from rain gage R-3F. 2/ Determined from continuous records, 1952-66; precipitation and runoff records began January 1952. 3/ Mean P based on 76-yr (1891-1966) U. S. Weather Bureau record period at Blacksburg, Virginia. Missing records for 11 months were estimated from nearby Weather Bureau records at Christiansburg, Va. and Va. Agri. Expt. Sta. at Blacksburg, Va.																
1961 SELECTED RUNOFF EVENT						BLACKSBURG, VIRGINIA WATERSHED W-V										
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF									
DATE MD-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MD-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MD-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)						
	RG R-3F				RG R-3F											
7-20	.05	.0000	8-21	1726	.00	.00	8-21	1756	.0000	.0000						
7-24	.15	.0000		1728	.30	.01		1757	.0219	.0002						
7-25	.64	T		1730	.30	.02		1758	.0315	.0006						
7-26	.02	.0000		1732	.60	.04		1759	.0338	.0011						
7-30	.02	.0000		1733	.00	.04		1800	.0359	.0017						
7-31	.02	.0000		1734	1.20	.06		1801	.0359	.0023						
8-2	.89	.0000		1737	.80	.10		1802	.0338	.0029						
8-4	.11	.0000		1739	.90	.13		1804	.0338	.0040						
8-7	.02	.0000		1741	2.10	.20		1808	.0274	.0060						
8-8	.02	.0000		1744	3.00	.35		1809	.0274	.0065						
8-9	.60	.0000		1747	5.80	.64		1812	.0236	.0078						
8-10	.01	.0000		1750	2.60	.77		1815	.0184	.0088						
8-12	.07	.0000		1755	.84	.84		1822	.0088	.0104						
8-20	.04	.0000		1758	1.20	.90		1824	.0057	.0106						
				1800	2.40	.98		1825	.0038	.0107						
				1802	2.10	1.05		1827	.0023	.0108						
				1825	1.00	1.10		1829	.0018	.0109						
				1836	1.20	1.12		1831	.0011	.0109						
				1842	.00	1.12		1834	.0008	.0109						
				1900	.60	1.14		1838	.0000	.0109						
Watershed conditions Clover, 18" high, good cover, 32%; wheat stubble and clover 8 to 9 in. high; good cover, 34%; corn, 7.5 to 8 ft. high, fair cover, 25%; grassed waterway, good cover, 9%.																
NOTES: TO CONVERT IN/HR TO CFS, MULTIPLY BY 6.131. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61, P. 13.3-5. 4/ NO SUITABLE EVENT OCCURRED IN 1966.																



BLACKSBURG, VIRGINIA WATERSHED W-V

MONTHLY PRECIPITATION AND RUNOFF (inches)						BLACKSBURG, VIRGINIA WATERSHED W-VI AREA—7.70 ACRES								
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P 1/	2.59	3.57	.96	2.90	3.16	.37	4.35	4.01	5.11	3.57	2.23	3.01	35.83
	Q	.00	.01	T	.00	T	.00	.00	T	.00	.03	.00	.00	.04
	STA AVG P (52-66)	2.49	3.15	3.30	2.97	3.13	3.03	3.28	3.34	3.09	2.35	2.24	2.63	35.00
	O	.06	.06	.06	.04	.04	.02	.02	.05	.04	.01	.01	.05	.46
	MEAN P 76 YR	3.18	3.09	3.63	3.14	3.66	4.06	4.65	3.95	3.03	2.72	2.36	3.02	40.49
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS														
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL											
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		8 DAYS	
1966	8-11	.02	2-11	.01	2-11	.01	2-11	.01	2-11	.01	2-11	.01	2-11	.01
MAXIMUMS FOR PERIOD OF RECORD														
1951 TO 1966	5-5 1958	.95	8-8 1958	.27	8-8 1958	.30	5-5 1958	.32	5-5 1958	.35	5-5 1958	.39	5-5 1958	.44
														.46
NOTES: Watershed conditions: All cultivated; contour strips with a rotation of corn, small grain and clover. A mulch tillage program is practiced. No crop residue is removed except one clover hay crop each year. 1/ Precipitation obtained from rain gage R-3F. 2/ Determined from continuous records, 1952-66; precipitation and runoff records began September 1951. 3/ Mean P based on 76-yr (1891-1966) U. S. Weather Bureau record period at Blacksburg, Virginia. Missing records for 11 months were estimated from nearby Weather Bureau records at Christiansburg, Va. and Va. Agr. Expt. Sta. at Blacksburg, Va.														
1966 SELECTED RUNOFF EVENT						BLACKSBURG, VIRGINIA WATERSHED W-VI								
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF							
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)				
	RG R-3F				RG R-3F									
7-11	.04	.0000	8-11	1824	.00	.00	8-11	2019	.0000	.0000				
7-12	.02	.0000		1900	.02	.01		2020	.0024	.0000 T				
7-13	.24	.0000		1922	.03	.02		2021	.0053	.0001				
7-15	.15	.0000		1934	.00	.02		2022	.0070	.0002				
7-19	.30	.0000		1938	2.55	.19		2023	.0018	.0003				
7-29	1.30	.0000		1943	.36	.22		2024	.0000	.0003				
7-30	2.03	.0000		1949	.50	.27		2025	.0000	.0003				
8-2	.01	.0000		1951	1.50	.32		2026	.0018	.0003				
8-3	.46	.0000		1958	.34	.36		2027	.0070	.0004				
8-4	.48	.0000		2010	.00	.36		2028	.0146	.0006				
8-9	.33	.0000		2016	.50	.41		2029	.0158	.0009				
8-10	.04	.0000		2020	4.20	.69		2030	.0173	.0012				
8-11	4/.51	.0000		2023	3.60	.87		2031	.0061	.0014				
				2027	.45	.90		2032	.0003	.0015				
				2028	.00	.90		2033	.0000	.0015				
				2036	.30	.94								
				2104	.09	.98								
Watershed conditions Oat stubble with young clover, 5 to 6" high, good cover, 29%. Clover stubble with new growth 6" high, good cover, 39%; grassed waterways, excellent cover of grass and clover, 20%; corn, 72" high, fair cover, 12%.														
NOTES: TO CONVERT IN/HR TO CFS, MULTIPLY BY 7.764. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61, P. 13.3-5. 4/ .51 IN. BETWEEN 11:56 AND 1532.														



August 11, 1966

BLACKSBURG, VIRGINIA WATERSHED W-VI

MONTHLY PRECIPITATION AND RUNOFF (inches)						BLACKSBURG, VIRGINIA THORNE CREEK W-I 13.06 AREA—3054 ACRES (4.77 SQ. MILES)								
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P ₁ /q	3.36	4.72	1.16	2.92	3.20	.88	3.16	4.38	6.74	3.44	2.49	3.60	40.05
	T		.22	.20	.09	.22	.07	.03	.12	.06	.17	.10	.16	1.44
	STA AVG ² /p	2.26	3.11	3.44	2.81	3.47	2.38	3.28	3.53	3.84	2.67	2.52	2.78	36.09
	(57-66)q	.37	.38	.66	.71	.55	.32	.20	.21	.13	.13	.13	.24	4.03
	MEAN P ₃ /													
	61 YR	2.94	2.72	3.25	2.77	3.23	3.35	4.29	3.28	2.77	2.74	2.19	2.80	36.33

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
			DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-11	.08	8-11	.04	8-11	.05	8-11	.07	8-11	.07	8-11	.08	2-13	.09	2-13	.18

MAXIMUMS FOR PERIOD OF RECORD																
1957 TO	5-17	.12	5-17	.10	5-17	.18	5-17	.30	5-17	.34	5-17	.38	5-17	.47	3-30	1.09
1966	1958		1958		1958		1958		1958		1958		1958		1960	

NOTES: Watershed conditions: Pasture, usually good cover of bluegrass and other native grasses and clovers, 61%; corn, 7%; small grain, 6%; alfalfa and other hay crops, 19%; total cultivated, 32%. Farm woods, 4%; idle land, 2%; roads, 1%. 1/ Precipitation Thiessen weighted from R-1, R-2 and R-3. 2/ Determined from continuous records from June, 1957 through 1966, precipitation Thiessen weighted. 3/ Mean P based on 61-year (1906-66) U. S. Weather Bureau record period at Radford 6 WSW, Virginia.

1966 DAILY PRECIPITATION (inches)						BLACKSBURG, VIRGINIA THORNE CREEK W-I 13.06							
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	.01	.23E	.03	.00	.36	.00	.00	.00	.00	.41	.00	.00	
2	.12	.00	.00	.00	1.39	.00	.00	.04	.00	.01	.43	.00	
3	T	.00	.31	.01	.00	.00	.00	.31	.00	.00	.00	.00	
4	.00	.00	.36	.00	.00	.00	.00	.19	.11	.00	.00	.00	
5	.77	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
6	.11	.00	.00	.00	.00	.07	.00	.00	.00	.00	.00	.00	
7	.00	.00	.00	.00	.00	.04	.00	.15	.00	.00	.00	.05	
8	.00	.00	.00	.09	.00	.05	.00	.01	.00	.00	.00	.00	
9	.00	.00	.00	.00	.00	.00	.00	.84	.00	.00	.00	.00	
10	.00	.34	.00	.00	T	.00	.00	.04	.00	.00	.58	1.02	
11	.00	.04	.00	.06	.00	.00	.00	1.65	.00	.00	.00	.00	
12	.00	.58	.00	.39	.07	.00	.09	.02	.03	.00	.46	.00	
13	.00	1.47	T	.36	.14	.00	.25	.20	1.62	.00	.00	.70S	
14	.00	.00	.13	.00	.15	.00	.00	.01	1.37	.00	.00	.00	
15	.41S	.37	.04	.22	.00	.00	.06	.10	.00	.04	.00	.00	
16	.02S	.44	.00	.11	.00	.02	.00	.22	.00	.21	.00	.00	
17	.00	.00	.00	.00	.00	.06	.00	.26	.00	.00	.00	.00	
18	.00	.00	.00	.00	.27	.19	.00	.00	.03	2.15	.01	.00	
19	.00	.00	.07	.00	.01	.07	.02	.22	1.91	.62	.03	.00	
20	.00	.00	.00	.00	.00	.00	.00	.01	.16	.00	.00	.02	
21	.00	.00	.00	.04	.00	.00	.00	.09	.10	.00	.00	.00	
22	1.01S	.00	.00	.06	.00	.00	.00	.02	T	.00	.00	.00	
23	.05S	.04S	.00	.00	.00	.00	.00	.00	.00	.00	.00	.64S	
24	.00	.67S	.12	.00	.23	.27	.00	.00	.00	.00	.00	.13S	
25	.00	.00	.00	.12	.02	.00	.00	.00	.00	.00	.00	.00	
26	.35S	.00	.00	.50	.01	.00	.00	.00	.60	.00	.00	.00	
27	.02	.08	.00	.14	.46	.00	.00	.00	.57	.00	.61	.00	
28	.00	.46	.00	.46	.09	.11	.00	.00	.11	.00	.37	.89M	
29	.45E	.00	.10	.00	.00	.00	.53	T	.13	.00	.00	.15M	
30	.03E	-----	.09	.26	.00	.00	2.21	.00	.00	.00	.00	.00	
31	.01E	-----	.01	-----	.00	-----	.00	.00	-----	.00	-----	.00	
TOTAL	3.36	4.72	1.16	2.92	3.20	.88	3.16	4.38	6.74	3.44	2.49	3.60	
STA AV	2.26	3.11	3.44	2.81	3.47	2.38	3.28	3.53	3.84	2.67	2.52	2.78	

NOTES: PRECIPITATION AMOUNTS ARE THIESSEN WEIGHTED VALUES FROM GAGES R-1, R-2 & R-3. STA AV IS FOR PERIOD JUNE, 1957 THROUGH 1966. FOR DRAINAGE PATTERN MAP OF WATERSHED SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, MISC. PUB. 945, P. 13.6-5.

1966 MEAN DAILY DISCHARGE (cfs)						BLACKSBURG, VIRGINIA THORNE CREEK W-I 13.06						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.01	T	1.04	.48	.47	.45	.20	.06	.10	.44	.52	.43
2	.01	T	.91	.47	3.90	.42	.19	.06	.10	.42	.55	.41
3	.02	T	.99	.43	2.05	.40	.17	.10	.10	.38	.54	.34
4	.02	T	1.58	.44	1.61	.40	.17	.09	.11	.36	.52	.37
5	.04	T	1.46	.44	1.37	.40	.17	.07	.08	.34	.52	.37
6	.11	T	1.41	.44	1.23	.40	.17	.06	.07	.32	.48	.36
7	.03	T	1.27	.44	1.10	.40	.17	.06	.07	.30	.43	.36
8	T	T	1.11	.46	1.06	.38	.16	.06	.07	.29	.44	.36
9	.00	.00	1.00	.39	1.05	.36	.15	.21	.07	.29	.44	.35
10	.00	.00	.91	.34	.97	.36	.15	.29	.07	.28	.52	.74
11	.00	.00	.85	.35	.89	.34	.14	8.16	.07	.25	.46	.81
12	.00	.01	.79	.39	.88	.34	.14	1.99	.07	.23	.55	.73
13	.00	8.97	.76	.51	.91	.33	.17	.35	.13	.23	.44	.70
14	.01	2.45	.83	.40	.91	.32	.14	.33	.91	.23	.42	.70
15	T	1.74	.76	.36	.76	.32	.12	.28	.22	.23	.40	.70
16	.00	3.04	.73	.43	.70	.32	.11	.26	.15	.31	.38	.70
17	.00	2.19	.70	.35	.67	.32	.11	.32	.13	.24	.36	.70
18	.00	1.77	.67	.30	.65	.30	.10	.23	.12	.69	.36	.75
19	.00	1.39	.67	.29	.69	.31	.05	.23	.56	5.68	.36	.76
20	.00	1.09	.63	.29	.61	.27	.03	.24	1.19	1.61	.32	.76
21	.00	.94	.58	.29	.58	.26	T	.20	.46	1.17	.32	.76
22	.00	.85	.58	.32	.58	.25	.00	.19	.39	1.01	.32	.76
23	.00	.76	.58	.29	.58	.24	.00	.18	.33	.90	.32	.84
24	.00	.70	.64	.27	.61	.28	.00	.15	.29	.82	.32	.76
25	.00	.70	.58	.28	.56	.25	.00	.14	.26	.71	.32	.82
26	.00	.67	.57	.50	.58	.24	.00	.14	.27	.67	.32	.94
27	.00	.59	.52	.40	.71	.23	.00	.13	.51	.62	.34	.94
28	.00	.85	.52	.36	.60	.23	.00	.09	.52	.58	.69	.94
29	T		.52	.37	.55	.22	.00	.10	.47	.56	.48	.92
30	T		.52	.42	.50	.20	.74	.10	.40	.51	.46	.88
31	T		.49		.46		.11	.10		.52		.88
MEAN	.01	1.02	.81	.38	.93	.32	.12	.48	.28	.68	.43	.67
INCHES	T	.22	.20	.09	.22	.07	.03	.12	.06	.17	.10	.16

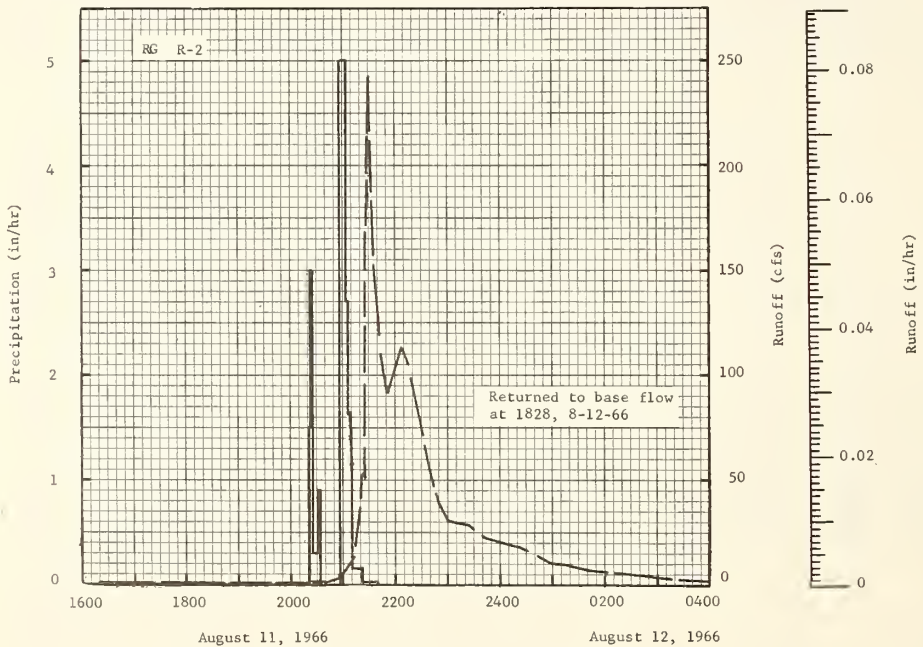
NOTES: TO CONVERT CFS TO IN/DAY, MULTIPLY BY 0.0077935.

1966 SELECTED RUNOFF EVENT			BLACKSBURG, VIRGINIA THORNE CREEK W-I 13.06								
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)	
Event of August 11 and 12, 1966											
8-11	RG R-1 1/.72	2/.0018	8-11	2021	RG R-2 .00	.00	8-11	1620	.4311	.0000	
				2023	1.50	.05		1732	.5235	.0002	
				2025	3.00	.15		1820	.6159	.0003	
8-11	RG R-2 3/.54			2031	.30	.18		1908	.6775	.0005	
				2033	.90	.21		1920	.7391	.0005	
				2058	.00	.21		2013	1.0162	.0008	
				2104	5.00	.71		2016	1.3858	.0008	
8-11	RG R-3 4/.66			2106	2.70	.80		2020	1.9401	.0009	
				2110	1.65	.91		2024	1.9093	.0009	
				2118	.15	.93		2040	1.2934	.0010	
<u>Watershed conditions</u>											
Pasture, mostly a mixture of native grasses, 2 to 6 in. high, good cover, 61%; hay, alfalfa & orchard grass, good cover, 19%; corn, 3 to 5 ft. high, fair cover, 7%; small grain stubble, fair cover, 6%; idle, good cover of weeds and grasses, 2%; woods, mostly hardwood, 4%; paved roads, 1%.											
				2122	.15	.94		2055	2.9871	.0012	
				2140	.03	.95		2057	4.9272	.0012	
								2102	6.7749	.0014	
			8-11	2010	RG R-3 .00	.00		2112	13.9193	.0020	
				2015	3.12	.26		2123	53.4906	.0038	
				2020	.24	.28		2125	50.7806	.0044	
				2046	.00	.28		2126	160.8105	.0049	
				2051	3.12	.54		2128	185.5080	.0068	
				2057	.50	.59		2130	243.0327	.0091	
				2059	6.60	.81		2132	192.7139	.0115	
				2100	1.20	.83		2136	152.7115	.0152	
				2105	.12	.84		2144	109.8143	.0209	
				2110	.00	.84		2152	91.4914	.0253	
				2120	.12	.86		2156	95.7411	.0273	
				2145	.02	.87		2158	99.4057	.0284	
					RG R-1	1.23		2202	105.0103	.0306	
					3 RG AVG	5/.99		2208	113.0170	.0341	
								2216	105.1951	.0388	
								2224	86.9646	.0430	

NOTES: TO CONVERT CFS TO IN/HR, MULTIPLY BY 0.0003247. FOR 30-DAY ANTECEDENT P & Q, SEE DAILY TABLES ON THIS AND PREVIOUS PAGE. 1/.72 IN. FROM 1220 TO 1400. 2/ CONTINUOUS FLOW PRIOR TO 1620. 3/.54 IN. FROM 1227 TO 1400. 4/.66 IN. FROM 1217 TO 1400. 5/ THIESSEN WEIGHTED FOR RG R-1, R-2 AND R-3.

1966 SELECTED RUNOFF EVENT			BLACKSBURG, VIRGINIA			THORNE CREEK W-I		13.06		
ANTECEDENT CONDITIONS			RAINFALL			RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
Event of August 11 and 12, 1966 - Continued										
							8-11	2242	49.9800	.0497
								2250	38.3703	.0516
								2300	30.3637	.0534
								2312	28.8547	.0554
								2324	27.0994	.0572
								2344	22.9729	.0599
							8-12	2400	20.2014	.0618
								0020	17.6146	.0638
								0100	10.4086	.0668
								0120	8.8073	.0679
								0140	7.2676	.0688
								0202	6.0050	.0695
								0252	4.1881	.0709
								0328	3.3566	.0717
								0408	2.5868	.0723
								0500	2.0940	.0730
								0548	1.6937	.0735
								0720	1.2318	.0742
								0840	.9546	.0747
								1040	.7391	.0752
								1240	.5851	.0756
								1500	.4927	.0761
								1640	.4311	.0763
								1720	.4003	.0764
								1828	<u>1/</u> .4311	.0765

NOTES: TO CONVERT CFS TO IN/HR, MULTIPLY BY 0.0003247. 1/ NORMAL BASE FLOW.



BLACKSBURG, VIRGINIA THORNE CREEK W-I

MONTHLY PRECIPITATION AND RUNOFF (inches)						BLACKSBURG, VIRGINIA CRAB CREEK W-I 13.07 AREA—786 ACRES (1.23 SQ. MILES)							
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ₁	3.00	3.82	.84	2.95	2.77	1.23	3.30	5.89	4.27	3.34	1.91	3.28	36.60
Q	.19	.85	.49	.21	.37	.15	.12	.39	.15	.29	.16	.30	3.67
STA AVG ₂ P	2.26	2.91	3.12	2.74	3.05	2.29	3.74	3.28	3.25	2.58	2.43	2.72	34.37
(57-66) O	.71	.78	1.16	.95	.63	.31	.28	.31	.24	.26	.26	.49	6.38
MEAN P ₃	3.18	3.09	3.63	3.14	3.66	4.06	4.65	3.95	3.03	2.72	2.36	3.02	40.49

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-21	.23	8-21	.14	8-21	.16	8-21	.19	8-21	.20	8-21	.21	2-13	.25	2-10	.53

MAXIMUMS FOR PERIOD OF RECORD																
19 57 TO	8-21	.23	8-21	.14	4-3	.22	4-3	.32	4-3	.42	4-3	.52	4-3	.73	3-27	1.76
19 66	1966		1966		1960		1960		1960		1960		1960		1960	

NOTES: Watershed conditions: Permanent pasture, usually good cover of native bluegrass combined with other grasses and clovers, 51%; alfalfa and other hay crops, 30%; corn, 4%; total cultivated 34%. Farm woods, hardwood predominantly, 13%; idle land, 1%; roads, 1%. 1/ Precipitation Thiessen weighted from R-1, R-2, R-3 and R-4. 2/ Determined from continuous records from August, 1957 through 1966, precipitation Thiessen weighted. 3/ Mean P based on 76-year (1891-1966) U. S. Weather Bureau record period at Blacksburg, Virginia. Missing records for 11 months were estimated from nearby Weather Bureau records at Christiansburg, Va. and Va. Agr. Expt. Sta. at Blacksburg, Va.

1966 DAILY AIR TEMPERATURE (degrees F)										BLACKSBURG, VIRGINIA CRAB CREEK W-I 13.07														
DAY	JAN		FEB		MAR		APR		MAY		JUNE		JULY		AUG		SEPT		OCT		NOV		DEC	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	60	46	33	14	52	36	61	34	67	56	61	38	84	66	84	53	80	60	64	37	64	45	46	22
2	60	50	36	19	60	37	45	32	56	38	70	38	86	66	81	58	80	58	59	35	64	29	38	21
3	52	27	28	18	56	44	64	30	65	32	80	45	94	65	71	60	84	60	60	38	34	21	25	13
4	45	23	22	14	66	49	53	33	59	38	84	53	92	66	62	59	78	61	72	45	43	20	28	9
5	42	30	23	12	54	25	44	31	72	36	82	59	78	66	83	58	76	57	62	41	50	26	32	16
6	56	37	41	12	28	20	46	30	78	54	82	57	86	62	80	60	70	52	54	38	54	34	55	32
7	52	34	44	26	28	18	55	30	74	48	81	59	87	62	78	60	70	47	66	28	58	37	55	44
8	39	13	37	34	38	17	45	32	82	54	85	56	82	64	80	62	68	41	72	37	60	42	63	50
9	45	11	45	34	50	20	44	31	76	30	84	62	86	54	81	62	74	43	61	50	64	48	62	56
10	44	26	55	39	58	24	46	30	54	24	84	58	87	61	82	61	76	46	71	46	62	56	62	42
11	36	20	55	45	66	36	56	27	60	34	74	48	91	64	77	63	75	47	64	42	67	48	43	26
12	34	14	46	37	70	36	44	37	62	49	81	47	84	64	75	60	68	59	67	46	58	38	40	24
13	37	21	58	40	66	46	41	34	73	53	88	52	85	64	64	58	58	56	70	40	48	30	29	24
14	40	26	56	35	62	44	43	32	62	52	75	62	96	66	84	60	66	56	67	49	56	20	33	22
15	30	24	45	37	48	41	50	36	75	50	80	56	81	62	80	66	71	51	66	57	58	32	42	18
16	30	13	50	36	50	34	50	35	74	50	85	57	78	59	81	64	64	43	65	42	60	34	43	21
17	26	12	38	24	60	30	62	35	79	54	78	58	80	61	80	64	66	38	52	35	63	33	47	26
18	26	12	41	25	69	39	72	44	71	59	64	56	90	56	84	60	60	47	42	37	66	43	48	37
19	24	12	50	27	59	42	64	52	77	60	76	51	86	64	83	65	56	53	53	39	50	27	47	35
20	32	12	30	18	59	40	69	50	79	54	82	52	80	62	78	64	61	54	50	38	44	24	43	27
21	37	15	32	11	64	32	67	56	80	54	84	64	82	57	86	63	66	54	57	28	37	26	47	28
22	30	23	40	16	79	50	67	56	82	55	86	57	84	57	86	65	64	53	67	36	46	21	46	30
23	30	18	36	19	74	53	76	54	74	56	89	57	82	57	72	59	68	48	68	40	57	24	34	22
24	26	14	31	25	58	29	78	54	61	50	90	62	84	58	72	52	64	46	62	46	61	31	22	15
25	25	18	40	29	44	24	68	54	74	57	89	61	88	59	68	53	70	30	58	44	63	42	27	14
26	22	16	36	22	52	28	56	46	75	59	90	64	91	58	64	53	55	48	59	44	60	47	31	18
27	30	13	34	21	43	25	54	42	73	60	91	65	92	62	76	52	63	48	60	32	65	44	38	16
28	25	12	36	29	38	20	62	42	79	58	92	65	93	65	80	53	70	56	66	33	44	24	30	23
29	14	5			52	20	62	45	76	55	91	63	77	66	78	55	68	56	66	39	29	22	35	18
30	4	1	---	---	55	32	62	46	68	47	88	64	66	56	78	55	74	53	56	32	30	24	30	17
31	22	1	---	---	43	30	---	---	62	45	---	---	80	52	80	56	---	---	62	35	---	---	38	22
AV.	34	19	39	25	54	32	56	39	70	49	82	56	84	61	77	59	68	50	61	39	53	33	40	25
MEAN	30.45		34.5		48.0		52.5		53.0		65.0		74.0		69.0		57.0		50.0		43.5		36.0	
STA AV	43	24	44	24	53	31	63	39	73	47	79	56	82	60	81	58	76	51	66	40	54	31	44	25

NOTES: TEMPERATURE DATA FROM CRAB CREEK W-I STATION LOCATED IN MONTGOMERY COUNTY, VIRGINIA, 2 MILES WEST OF CHRISTIANSBURG, VA., NEW RIVER. FOR TOPOGRAPHIC (REVISED DRAINAGE PATTERN) MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1964, MISC. PUB. 1194, P. 13.7-5.

1966 DAILY PRECIPITATION (inches)						BLACKSBURG, VIRGINIA CRAB CREEK W-I 13.07						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.00	.105	T	.00	.21	.00	.00	.00	.00	.29	.00	.00
2	.11	.00	.00	.04	1.25	.00	.00	.00	.00	.00	.51	.00
3	.04	.00	.13	.00	.01	.00	.00	.04	.00	.00	.00	.00
4	.00	.00	.41	.00	.00	.00	.03	.53	.13	.00	.00	.00
5	.59	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
6	.15	.00	.00	.00	.00	.00	.00	.15	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05
8	.00	.00	.00	.06	.04	.33	.00	.01	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.47	.00	.01	.00	.00
10	.00	.21	.00	.00	.00	.82	.00	.09	.00	.00	.13	.92
11	.00	.00	.00	.03	.00	.00	T	2.13	.00	.00	.00	.00
12	.00	.53	.00	.26	.03	.00	.00	.05	.00	.00	.26	.00
13	.00	.86	.04	.46	.20	.00	.28	.04	1.07	.00	.00	.775
14	.00	.00	.06	.00	.01	.02	.00	.00	.73	.00	.00	.00
15	.335	.35	.02	.06	.00	.00	.04	.00	.00	.01	.00	.00
16	.065	.38	.00	.20	.00	.00	.00	.02	.00	.13	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.12	.00	.00	.00	.00
18	.00	.00	.00	.00	.03	.05	.00	.00	.00	1.77	.00	.00
19	.00	.00	T	.00	.01	.00	.16	.00	1.01	1.12	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	T	.06	.00	.00	.02M
21	.00	.00	.00	.06	.00	.00	.00	1.87	.06	.00	.00	.00
22	.915	.00	.00	.06	.00	.00	.00	.36	T	.00	.00	.00
23	T	.035	.00	.25	.00	.00	.00	T	.03	.00	.00	.605
24	.00	.605	.11	.00	.25	.01	.00	.00	.00	.00	.00	.095
25	T	.00	.00	.14	.01	.00	.00	.00	T	.01	.01	.00
26	.455	.00	.00	.44	.04	.00	.00	.00	.33	.00	.00	.00
27	.00	T	.00	.15	.53	.00	.00	.00	.69	.00	.47	.00
28	.00	.76	.00	.58	.15	.00	.00	.00	.01	.00	.53	.83M
29	.345	-----	.00	.01	.00	.00	.34	.00	.15	.00	.00	.10M
30	.02	-----	.06	.15	.00	.00	2.43	.00	.00	.00	.00	.00
31	T	-----	.01	-----	.00	-----	.02	.00	-----	.00	-----	.00
TOTAL	3.00	3.82	.84	2.95	2.77	1.23	3.30	5.89	4.27	3.34	1.91	3.28
STA AV	2.26	2.91	3.12	2.74	3.05	2.29	3.74	3.28	3.25	2.58	2.43	2.72

NOTES: PRECIPITATION AMOUNTS ARE THLESSEN WEIGHTED VALUES FROM GAGES R-1, R-2, R-3 AND R-4. STA AV IS FOR PERIOD AUGUST, 1957 THROUGH 1966.

1966 MEAN DAILY DISCHARGE (cfs)						BLACKSBURG, VIRGINIA CRAB CREEK W-I 13.07						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.11	.50	1.61	.25	.26	.19	.13	.11	.13	.20	.19	.22
2	.11	.50	.97	.25	2.36	.19	.13	.11	.13	.17	.26	.21
3	.11	.50	.89	.25	1.05	.19	.13	.11	.13	.15	.23	.19
4	.11	.50	1.58	.25	.65	.19	.13	.16	.14	.15	.22	.18
5	.13	.50	.97	.20	.54	.19	.13	.13	.13	.15	.22	.16
6	.20	.42	.71	.19	.47	.19	.13	.12	.13	.14	.22	.16
7	.12	.41	.62	.19	.42	.19	.13	.11	.13	.13	.19	.16
8	.11	.50	.56	.19	.39	.21	.13	.11	.13	.13	.16	.16
9	.12	.50	.51	.19	.38	.19	.13	.13	.13	.13	.16	.16
10	.11	1.10	.50	.19	.34	.36	.13	.18	.13	.13	.17	.35
11	.11	2.32	.47	.19	.34	.19	.13	1.28	.13	.13	.16	.40
12	.11	1.56	.44	.19	.34	.16	.13	.46	.13	.12	.18	.31
13	.11	6.32	.44	.31	.36	.16	.15	.21	.19	.11	.16	.30
14	.11	1.58	.44	.24	.35	.16	.13	.18	.36	.11	.16	.30
15	.11	1.05	.42	.21	.34	.16	.13	.15	.15	.11	.14	.30
16	.16	2.29	.41	.24	.28	.16	.13	.13	.13	.12	.13	.30
17	.11	1.13	.35	.21	.25	.16	.13	.14	.13	.11	.13	.33
18	.13	.83	.34	.19	.25	.16	.11	.13	.13	.39	.13	.47
19	.14	.69	.34	.19	.24	.16	.12	.13	.28	2.82	.13	.58
20	.20	.56	.34	.19	.22	.16	.11	.13	.25	.72	.13	.53
21	.34	.46	.32	.19	.22	.14	.10	6.29	.18	.47	.13	.47
22	.34	.44	.30	.19	.22	.13	.10	.76	.16	.38	.13	.44
23	.27	.44	.30	.22	.19	.13	.10	.36	.16	.34	.13	.44
24	.25	.44	.31	.20	.23	.13	.10	.22	.16	.31	.13	.44
25	.48	.42	.30	.20	.23	.13	.10	.19	.16	.28	.13	.39
26	.26	.44	.30	.22	.22	.13	.09	.17	.16	.25	.13	.34
27	.22	.39	.28	.33	.25	.13	.09	.16	.31	.25	.16	.34
28	.30	1.16	.25	.41	.30	.13	.09	.15	.24	.25	.30	.34
29	.40	-----	.25	.35	.22	.13	.11	.13	.22	.24	.25	.34
30	.50	-----	.25	.25	.22	.13	.49	.13	.17	.22	.22	.34
31	.50	-----	.25	-----	.21	-----	.13	.13	-----	.21	-----	.34
MEAN	.21	1.00	.52	.23	.40	.17	.13	.41	.17	.30	.17	.32
INCHES	.19	.85	.49	.21	.37	.15	.12	.39	.15	.29	.16	.30

NOTES: TO CONVERT CFS TO IN/DAY, MULTIPLY BY 0.030282.

1966 SELECTED RUNOFF EVENT			BLACKSBURG, VIRGINIA CRAB CREEK W-I 13.07								
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)	
Event of August 21 and 22, 1966											
8-21	4 RG 1/ .00	2/ .0033	8-21		RG R-2		8-21				
				1850	.00	.00		1903	.2061	.0000	
				1853	1.40	.07		1908	.5548	T	
				1855	.90	.10		1912	1.5613	.0001	
				1858	1.00	.15		1917	4.0896	.0004	
				1905	3.43	.55		1919	7.4817	.0007	
				1909	2.40	.71		1921	15.1298	.0011	
				1912	.40	.73		1928	41.6089	.0053	
				1917	.00	.73		1930	70.8777	.0077	
				1923	5.00	1.23		1931	114.7058	.0096	
				1925	3.60	1.35		1932	132.4827	.0122	
				1928	2.00	1.45		1936	179.3382	.0254	
				1933	3.60	1.75		1938	168.8766	.0327	
				1943	1.68	2.03		1940	163.7884	.0397	
				1950	.60	2.10		1941	172.4668	.0432	
								1942	177.4599	.0469	
										.	
			8-21		RG R-3			1944	168.8766	.0541	
				1850	.00	.00		1948	152.3836	.0677	
				1855	1.08	.09		1953	132.2053	.0826	
				1859	3.60	.33		2000	113.2792	.1007	
				1905	.80	.41		2012	74.6503	.1244	
				1907	.00	.41		2020	42.8532	.1343	
				1911	2.10	.55		2028	32.3202	.1406	
				1913	4.20	.69		2032	26.8199	.1431	
				1923	3.60	1.29		2053	20.4716	.1535	
				1927	1.80	1.41		2108	15.7083	.1593	
				1930	2.40	1.53		2124	14.8445	.1644	
				1935	.24	1.55		2132	13.9330	.1668	
				1940	.72	1.61		2240	5.4527	.1807	
				1942	.30	1.62		2320	3.5665	.1845	
								2400	2.6550	.1871	
			8-21		RG R-4		8-22				
				1645	.00	.00		0032	2.1716	.1887	
				1705	.06	.02		0124	1.6485	.1908	
				1845	.00	.02		0200	1.4107	.1920	
				1852	.17	.04		0348	.9986	.1947	
								0540	.7608	.1968	
				1855	.80	.08		0920	.5548	.1998	
				1859	3.00	.28		1200	.4993	.2016	
				1903	.75	.33		1300	.4359	.2022	
				1908	.12	.34		1640	3/.3408	.2040	
				1912	2.10	.48					
				1915	5.19	.74					
				1923	3.68	1.23					
				1927	3.15	1.44					
				1932	.48	1.48					
				1937	.72	1.54					
				1945	.15	1.56					
					RG	R-1				1.41	
				4 RG	AVG 1/	1.87					

Watershed conditions
 Pasture, mostly a mixture of native grasses 3 to 8 in. high, good cover, 51%; hay, mostly alfalfa, clover and orchard grass, 6 to 10 in. high, 30%; woods, hardwood mixture, good cover, 13%; corn, 4 to 6 ft. high, fair cover, 4%; idle, good cover of weeds and grasses, 6 to 18 in. high, 1%; paved roads, 1%.

NOTES: TO CONVERT CFS TO IN/HR, MULTIPLY BY 0.0012618. FOR 30-DAY ANTECEDENT P AND Q, SEE DAILY TABLES ON PREVIOUS PAGE. 1/THIESSEN WEIGHTED FOR RG R-1, R-2, R-3 AND R-4. 2/CONTINUOUS FLOW PRIOR TO 1903. 3/ NORMAL BASE FLOW.



BLACKSBURG, VIRGINIA CRAB CREEK W-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						BLACKSBURG, VIRGINIA BRUSH CREEK W-I 13.08 AREA—893 ACRES (1.40 SQ. MILES)							
MONTH YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 R-1 O	3.01 .65	4.25 2.20	1.09 1.36	2.23 1.00	3.68 1.35	.49 .55	3.87 .44	2.72 .55	3.99 .56	3.83 .99	2.50 .96	3.26 1.02	34.92 11.63
STA AVG P (57-66) O	2.25 1.70	3.27 2.07	3.17 2.46	2.97 2.02	3.43 1.64	2.30 .99	3.85 .96	3.70 .93	4.04 1.24	2.76 1.26	2.66 1.29	2.87 1.64	37.27 18.20
MEAN P-3 76 YR	3.18	3.09	3.63	3.14	3.66	4.06	4.65	3.95	3.03	2.72	2.36	3.02	40.49

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-13	.08	2-13	.08	2-13	.14	2-13	.32	2-13	.45	2-12	.59	2-12	.74	2-9	1.47

MAXIMUMS FOR PERIOD OF RECORD																
1957 TO 1966	9-30 1959	1.16	9-30 1959	.62	9-30 1959	.91	9-30 1959	1.62	9-30 1959	2.17	9-29 1959	2.59	9-29 1959	2.81	9-29 1959	3.23

NOTES: Watershed conditions: Permanent pasture, usually a fair cover of native grasses, 28%; farm woods, a mixture of hardwoods and conifers, 33%; cultivated, corn, 4%; small grain, 2%; alfalfa and other hay crops, 22%; total cultivated, 28%; idle land, 9%; roads, 2%. 1/ Precipitation Thiessen weighted from R-1 and R-2. 2/ Determined from continuous records from August, 1957 through 1966, precipitation Thiessen weighted. 3/ Mean P based on 76-year (1891-1966) U. S. Weather Bureau record period at Blacksburg, Virginia. Missing records for 11 months were estimated from nearby Weather Bureau records at Christiansburg, Va. and Va. Agr. Expt. Sta. at Blacksburg, Va.

1966 DAILY PRECIPITATION (inches)						BLACKSBURG, VIRGINIA BRUSH CREEK W-I 13.08							
OAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	.00	.27S	.03	.00	.27E	.00	.00	.00	.00	.42	.00	.00	
2	.03	.06	.00	.00	1.22	.00	.00	.00	.00	.01	1.09	.00	
3	.01	.00	.12	.00	.02	.00	.00	.07	.00	.00	.00	.00	
4	.00	.00	.42	.00	.00	.00	.48	.21	.02	.00	.00	.00	
5	.45	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.01	
6	.10	.00	.00	.00	.00	.00	.00	.59	.00	.00	.00	.00	
7	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.06	
8	.00	.00	.00	.07	.00	.00	.00	.00	.00	.00	.00	.00	
9	.00	.00	.00	.00	.00	.01	.00	.16	.00	.00	.00	.00	
10	.00	.21	.00	.00	.00	.29	.00	.58	.00	.00	.12	.67	
11	.00	.00	.00	.05	.00	.00	.00	.36	.00	.00	.00	.00	
12	.00	.46	.00	.22	.02	.00	.00	.01	.00	.00	.24	.00	
13	.00	1.28	.27	.49	.08	.00	.18	.03	.68	.00	.00	.77S	
14	.00	.00	.00	.00	.02	.00	.01	.29	1.12	.00	.01	.00	
15	.44S	.34	.02	.03	.00	.00	.06	.01	.02E	.00	.00	.00	
16	.05S	.35	.00	.26	.00	.03	.00	.03	.00	.08E	.00	.00	
17	.00	.00	.00	.00	.00	.05	.00	.02	.04E	.00	.00	.00	
18	.00	.00	.00	.00	.12	.08	.00	.00	.00	1.42	.00	.00	
19	.00	.00	.00	.00	.03	.00	.10	.05	1.14E	1.84	.00	.00	
20	.00	.00	.00	.00	.06	.00	.00	.09	.21E	.00	.00	.03	
21	.00	.00	.00	.06	.00	.00	.00	.19	.04E	.00	.00	.00	
22	.97S	.00	.00	.08	.00	.00	.00	.02	.00	.00	.00	.00	
23	.01S	.05S	.00	.00	.00	.00	.00	.00	.00	.00	.00	.54S	
24	.00	.55S	.21	.00	.40	.00	.00	.00	.00	.03	.00	.13S	
25	.00	.00	.00	.14	.05	.00	.00	.00	.00	.02	.00	.00	
26	.43S	.00	.00	.41	.01	.00	.00	.00	.32E	.00	.00	.00	
27	.00	.00	.00	.08	1.27	.00	.00	.00	.31E	.01	.31	.00	
28	.00	.68	.00	.18	.11	.03	.00	.00	.00	.00	.73	.87M	
29	.22S	.00	.00	.00	T	.00	.38	.00	.09	.00	.00	.18M	
30	.22S	.00	.16	.00	.00	.00	2.61	.00	T	.00	.00	.00	
31	.08S	.02	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	
TOTAL	3.01	4.25	1.09	2.23	3.68	.49	3.87	2.72	3.99	3.83	2.50	3.25	
STA AV	2.25	3.27	3.17	2.97	3.43	2.30	3.85	3.70	4.04	2.76	2.66	2.87	

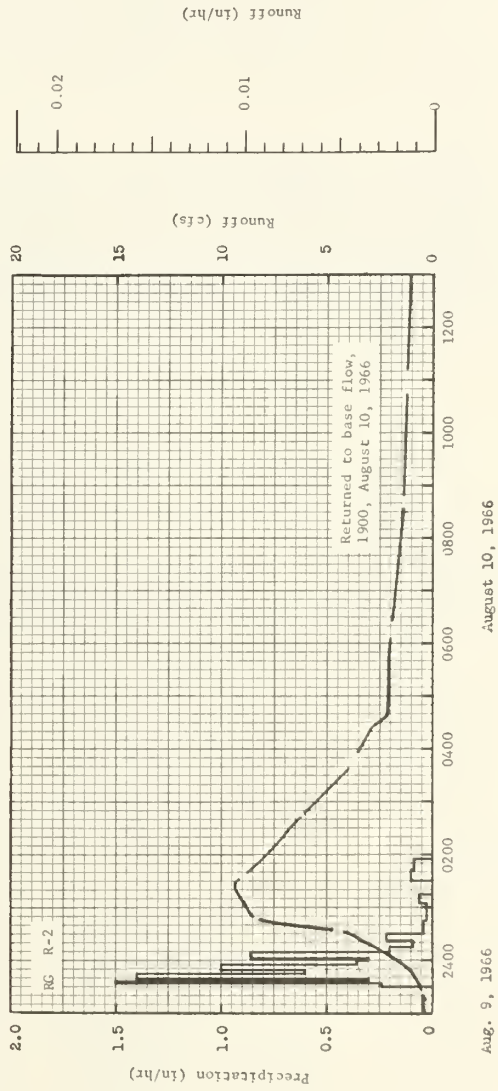
NOTES: PRECIPITATION AMOUNTS ARE THIESSEN WEIGHTED VALUES FROM GAGES R-1 AND R-2. STA AV IS FOR PERIOD AUGUST 1957 THROUGH 1966. FOR TOPOGRAPHIC (REVISED DRAINAGE PATTERN) MAP OF WATERSHED SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1964, MISC. PUB. 1194, P. 13.8-5.

1966 MEAN DAILY DISCHARGE (cfs)						BLACKSBURG, VIRGINIA			BRUSH CREEK W-I			13.08
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.80	.78	4.45	1.06	1.87	.94	.44	.54	.40	1.19	.85	1.18
2	.78	.78	2.62	1.06	8.60	.92	.43	.49	.38	.88	3.86	1.12
3	.75	.78	2.43	1.06	3.10	.86	.41	.51	.38	.69	1.72	.97
4	.70	.78	4.26	1.06	1.99	.82	.76	.64	.40	.64	1.23	.88
5	.92	.78	2.48	1.09	1.62	.82	.64	.58	.39	.62	1.12	.92
6	1.54	.78	1.95	1.09	1.45	.83	.56	1.09	.34	.59	1.01	.99
7	.91	.92	1.66	1.09	1.34	.82	.48	.86	.34	.59	.97	1.11
8	.79	1.34	1.44	1.15	1.31	.81	.40	.58	.33	.59	.92	1.07
9	.73	1.72	1.36	1.07	1.22	.75	.37	.55	.33	.60	.92	1.12
10	.78	4.98	1.45	1.02	1.18	.98	.38	2.02	.33	.61	1.07	2.26
11	.71	7.90	1.52	1.06	1.14	.79	.33	.79	.33	.60	1.01	1.81
12	.67	4.88	1.54	1.24	1.18	.71	.33	1.25	.33	.55	1.32	1.37
13	.72	21.89	1.47	2.33	1.27	.70	.45	.71	.47	.54	1.07	1.34
14	.80	4.26	1.70	1.36	1.25	.67	.38	1.09	2.79	.56	.95	1.34
15	.76	2.89	1.42	1.24	1.18	.66	.40	.78	.68	.59	.92	1.28
16	.72	5.76	1.33	1.88	1.09	.61	.36	.66	.53	.63	.92	1.22
17	.70	2.66	1.26	1.30	1.04	.72	.30	.58	.47	.61	.92	1.13
18	.70	2.01	1.29	1.16	1.11	.81	.29	.52	.48	2.16	.92	1.34
19	.68	1.76	1.25	1.14	1.16	.75	.33	.52	2.09	11.76	.88	1.31
20	.68	1.50	1.18	1.11	1.08	.64	.34	.59	1.41	1.81	.85	1.38
21	.69	1.38	1.17	1.12	.95	.59	.29	.58	1.11	1.27	.85	1.16
22	.77	1.35	1.17	1.24	.91	.55	.28	.61	.74	1.10	.85	1.08
23	.78	1.37	1.17	1.16	.86	.52	.26	.54	.64	1.00	.85	1.13
24	.83	1.40	1.45	1.07	1.28	.51	.25	.50	.55	.93	.85	1.21
25	.78	1.33	1.19	1.16	1.24	.49	.24	.49	.55	.97	.85	1.17
26	.78	1.30	1.14	1.20	1.08	.52	.24	.49	.86	.89	.85	1.14
27	.78	1.27	1.14	1.98	3.35	.52	.22	.47	1.02	.85	.97	1.14
28	.78	3.93	1.14	1.43	2.32	.53	.21	.45	.84	.85	3.82	1.22
29	.78	-----	1.14	1.37	1.25	.49	.34	.43	.71	.82	1.59	1.51
30	.78	-----	1.14	1.32	1.07	.45	4.87	.43	.63	.81	1.27	1.23
31	.78	-----	1.12	-----	1.00	-----	.78	.40	-----	.85	-----	1.20
MEAN	.78	2.94	1.65	1.25	1.63	.69	.53	.67	.70	1.20	1.21	1.24
INCHES	.65	2.20	1.36	1.00	1.35	.55	.44	.55	.56	.99	.96	1.02

NOTES: TO CONVERT CFS TO IN/DAY, MULTIPLY BY 0.026654.

1966 SELECTED RUNOFF EVENT				BLACKSBURG, VIRGINIA			BRUSH CREEK W-I			13.08
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MD-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MD-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
Watershed conditions Pasture, good cover of native grass mixture 3 to 5 in. high, 28%; woods, mixture of hardwood and conifers, good cover, 33%; hay, mostly alfalfa 3 to 5 in. high, good cover, 22%; idle, good cover of weeds and grasses 6 to 18 in. high, 9%; corn, 3 to 5 ft. high, fair cover, 4%; small grain stubble, fair cover, 2%; paved roads, 2%.			Event of August 9-10, 1966							
							RG R-2			
8 -9	2 RG 1/ .00	2/.0140	8 -9	2330	.00	.00	8 -9	2328	.5493	.0000
				2335	.24	.02		2336	.6573	.0001
				2337	1.50	.07		2344	.9275	.0002
				2339	.30	.08		2348	1.0805	.0003
				2345	1.40	.22		2400	1.6208	.0006
				2349	.60	.26	8-10	0008	2.1971	.0009
				2355	1.00	.36		0016	2.9804	.0012
				2400	.36	.39		0024	3.4577	.0017
			8-10	0002	.30	.40		0032	4.0160	.0023
				0009	.86	.50		0036	5.2496	.0026
				0015	.20	.52		0040	7.0054	.0031
				0022	.09	.53		0046	8.1490	.0039
				0030	.22	.56		0054	8.6982	.0051
				0045	.04	.57		0104	8.9053	.0068
				0105	.03	.58		0120	9.4006	.0095
				0115	.06	.59		0128	9.3375	.0109
				0130	.00	.59		0140	8.7703	.0129
				0142	.10	.61		0202	7.7348	.0162
				0155	.09	.63		0228	6.8613	.0198
								0304	5.3576	.0238
				RG	R-1	.79		0340	3.7818	.0269
				2 RG	AVG 1/	.73		0424	2.9174	.0296
								0440	2.0800	.0303
								0536	2.1430	.0325
								0640	1.8279	.0349
								0832	1.4137	.0382
								1300	1.1346	.0446
								1600	.8464	.0478
								1900	3/.7023	.07504

NOTES: TO CONVERT CFS TO IN/HR, MULTIPLY BY 0.0011106. FOR 30-DAY ANTECEDENT P AND Q, SEE DAILY TABLES ON THIS AND PREVIOUS PAGE. 1/ THIESSEN WEIGHTED FOR RG R-1 AND R-2. 2/ CONTINUOUS FLOW PRIOR TO 2328. 3/ NORMAL BASE FLOW.



BLACKSBURG, VIRGINIA BRUSH CREEK W-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						BLACKSBURG, VIRGINIA POWELLS CREEK W-I 13.09 AREA—182 ACRES							
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	4.51	4.37	1.22	1.40	5.94	1.45	4.36	3.20	4.05	3.59	1.65	2.68	38.42
1965	.45	2.74	.83	.26	.91	.18	.27	.35	.31	.39	.39	.67	7.75
STA AVG (58-66)	3.16	3.43	3.59	3.09	3.75	2.57	4.58	4.31	2.66	3.24	2.60	2.89	39.87
MEAN 76 YR	1.76	2.09	2.22	1.40	.92	.34	.58	.58	.30	.74	.71	1.20	12.84
	3.51	3.38	3.77	3.39	3.84	3.74	4.52	4.40	3.48	2.79	2.63	3.23	42.68

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	5-27	.21	2-28	.16	2-28	.30	2-28	.62	2-28	.70	2-28	.77	2-28	.81	2-9	1.53

MAXIMUMS FOR PERIOD OF RECORD																
19 58 To 19 66	7-11 1965	2.20	7-11 1965	1.61	7-11 1965	1.92	7-11 1965	2.07	7-11 1965	2.10	7-11 1965	2.17	12-28 1958	2.25	3-5 1963	3.41

NOTES: Watershed conditions: Farm woods, predominantly hardwood, 16%; pasture, native grass mixture, usually good to excellent cover, 53%; row crops, corn, 8%; tobacco, 2%; alfalfa and other hay crops, 10%; other cultivated areas, 5%; total cultivated, 25%; idle land, 4%; roads, 2%. 1/ Precipitation Thiessen weighted from R-1 and R-2. 2/ Determined from continuous records from January, 1958 through 1966, precipitation Thiessen weighted. 3/ Mean P based on 76-year (1891-1966) U. S. Weather Bureau record period at Danville Bridge St., Virginia. Missing monthly totals for July and August, 1946 were estimated from nearby Weather Bureau records at Danville, Va., (Airport).

1966 DAILY PRECIPITATION (inches)						BLACKSBURG, VIRGINIA POWELLS CREEK W-I 13.09						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.00	.09S	.00	.00	.48	.01	.00	.00	.00	1.10	.00	.00
2	.03	.01	.00	.00	.92	.00	.00	.00	.00	.00	.90	.00
3	.02	.00	.01	.00	.00	.00	.00	.02	.00	.00	.00	.00
4	.00	.00	.92	.00	.00	.00	.19	1.38	.00	.00	.00	.00
5	.71	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
6	.15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.06	.00	.00	.00	.00	.00
8	.00	.00	.00	.09	.00	.19	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.32	.03	.00	.17	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.56	.00	.51	.00	.00	.01	.29
11	.00	.00	.00	.00	.00	.00	.00	.11	.00	.00	.00	.00
12	.00	.58	.00	.08	.00	.00	.00	.52	.00	.00	.09	.00
13	.02	.55	.00	.44	.00	.00	.00	.14	.20E	.00	.00	.55S
14	.00	.00	.00	.00	.02	.00	.00	.05	.52E	.00	.00	.00
15	.61S	.45	.00	.00	.00	.00	.13	.02	.00	.00	.00	.00
16	.14S	.36	.00	.15	.00	.02	.12	.04	.01	.00	.00	.00
17	.00	.00	.00	.00	.00	.44	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.06	.20	T	.19	.00	1.10E	.00	.00
19	.00	.00	.03	.00	.03	T	.00	.04	1.86	.83E	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	1.28	.00	.00	.01S
21	.00	.00	.00	.00	.00	.00	.00	.00	.07	.00	.00	.00
22	1.52	.00	.00	.07	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.04M	.00	.00	.00	.00	.00	.00	.00	.00	.00	.46S
24	.00	.61M	.26	.00	.40	.00	.00	.00	.00	.00	.00	.51S
25	.01S	.00	.00	.11	.69	.00	.00	.00	.00	.56E	.00	.02S
26	.71S	.00	.00	.00	1.10	.00	.00	.00	.01	.00	.00	.00
27	.00	.00	.00	.14	1.58	.00	.00	.00	.04	.00	.00	.00
28	.00	1.68	.00	.32	.32	.00	.00	.00	.01	.00	.65	.67M
29	.54S	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.17M
30	.05S	.00	.00	.00	.00	.00	3.86	.00	.00	.00	.00	.00
31	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	4.51	4.37	1.22	1.40	5.94	1.45	4.36	3.20	4.05	3.59	1.65	2.68
STA AV	3.16	3.43	3.59	3.09	3.75	2.57	4.58	4.31	2.66	3.24	2.60	2.89

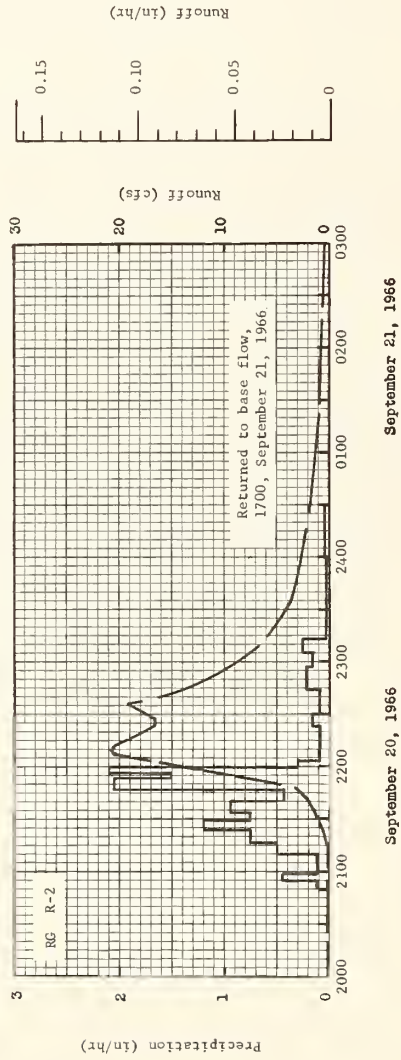
NOTES: PRECIPITATION AMOUNTS ARE THIESSEN WEIGHTED VALUES FROM GAGES R-1 AND R-2. STA AV IS FOR PERIOD OF JANUARY, 1958 THROUGH 1966. FOR TOPOGRAPHIC (REVISED DRAINAGE PATTERN) MAP OF WATERSHED SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1964, MISC. PUB. 1194, P, 13.9-5.

1966 MEAN DAILY DISCHARGE (cfs)						BLACKSBURG, VIRGINIA			POWELLS CREEK W-I			13.09
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	OEC
1	.05	.10	.49	.06	.09	.08	.03	.04	.02	.34	.05	.06
2	.05	.11	.20	.06	.50	.07	.03	.04	.03	.09	.60	.06
3	.05	.13	.17	.06	.13	.06	.03	.04	.02	.06	.17	.06
4	.05	.12	2.79	.06	.08	.06	.03	.75	.02	.05	.11	.06
5	.15	.11	.37	.06	.06	.06	.03	.09	.02	.05	.10	.06
6	.19	.10	.17	.06	.06	.05	.03	.05	.02	.04	.10	.06
7	.07	.14	.15	.07	.06	.05	.03	.04	.02	.04	.10	.06
8	.05	.38	.13	.08	.06	.05	.03	.04	.02	.04	.09	.06
9	.05	.85	.13	.07	.07	.05	.03	.05	.02	.04	.08	.06
10	.05	2.26	.12	.06	.06	.06	.03	.10	.02	.04	.08	.08
11	.05	1.36	.10	.06	.05	.07	.03	.08	.02	.04	.08	.09
12	.05	1.52	.10	.06	.05	.04	.03	.44	.02	.04	.09	.06
13	.05	3.01	.10	.11	.04	.04	.03	.15	.03	.04	.08	.23
14	.05	.31	.10	.08	.04	.04	.03	.09	.04	.04	.08	.11
15	.05	.54	.10	.06	.04	.04	.03	.07	.03	.04	.08	.08
16	.05	1.83	.09	.07	.04	.04	.03	.06	.03	.04	.08	.06
17	.05	.35	.08	.06	.04	.05	.02	.05	.03	.04	.07	.06
18	.05	.20	.07	.05	.04	.05	.02	.04	.03	.07	.06	.06
19	.05	.17	.07	.05	.04	.04	.02	.05	.20	.76	.06	.06
20	.05	.14	.06	.05	.04	.04	.02	.04	1.08	.12	.06	.06
21	.06	.12	.06	.05	.04	.04	.02	.04	.28	.09	.06	.06
22	.70	.12	.06	.05	.04	.04	.02	.04	.06	.08	.06	.06
23	.51	.12	.06	.05	.04	.04	.02	.04	.04	.07	.06	.09
24	.14	.55	.09	.05	.05	.03	.02	.04	.04	.06	.06	.11
25	.11	.33	.06	.05	.12	.03	.02	.04	.04	.27	.06	.10
26	.11	.17	.06	.05	.84	.03	.02	.03	.04	.12	.06	.10
27	.09	.13	.06	.06	1.77	.03	.02	.03	.04	.08	.06	.10
28	.08	5.69	.06	.11	2.03	.03	.02	.02	.04	.08	.19	.21
29	.09		.06	.06	.18	.03	.02	.02	.04	.07	.09	1.53
30	.09		.06	.06	.11	.03	1.21	.02	.04	.06	.07	.77
31	.13		.06		.10		.06	.02		.06		.47
MEAN	.11	.75	.20	.07	.22	.05	.07	.09	.08	.10	.10	.17
INCHES	.45	2.74	.83	.26	.91	.18	.27	.35	.31	.39	.39	.67

NOTES: TO CONVERT CFS TO IN/DAY, MULTIPLY BY 0.130779.

1966 SELECTED RUNOFF EVENT						BLACKSBURG, VIRGINIA			POWELLS CREEK W-I			13.09
ANTECEDENT CONDITIONS			RAINFALL			RUNOFF						
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)		
Event of September 20-21, 1966												
9-20	RG R-1 1/.06	2/.0148	9-20	2050	RG R-2 .00	.00	9-20	2108	.0606	.0000		
	RG R-2 2/.09			2055	.12	.01		2112	.0771	T		
				2059	.45	.04		2116	.1542	.0001		
				2110	.11	.06		2120	.3927	.0002		
				2116	.50	.11		2124	.4092	.0003		
				2124	.75	.21		2131	1.2112	.0008		
				2129	1.20	.31		2136	1.6883	.0015		
				2133	.75	.36		2144	2.5509	.0030		
				2140	.94	.47		2148	3.2794	.0041		
				2147	.43	.52		2153	7.1057	.0065		
				2154	2.06	.76		2159	12.3708	.0118		
				2156	1.50	.81		2208	20.7850	.0253		
				2200	2.10	.95		2212	20.6657	.0328		
				2204	.30	.97		2224	16.5605	.0531		
				2223	.09	1.00		2228	16.6137	.0591		
				2230	.17	1.02		2236	19.1058	.0721		
				2244	.09	1.04		2248	12.1286	.0891		
				2258	.21	1.09		2308	6.8543	.1064		
				2305	.17	1.11		2336	3.4629	.1195		
				2314	.27	1.15		2400	2.5619	.1261		
				2400	.03	1.17		9-21	0012	2.2132	.1287	
				9-21	0030	.04	1.19		0040	1.7819	.1338	
									0104	1.2406	.1370	
									0128	.9506	.1394	
									0204	.7029	.1421	
									0300	.4992	.1452	
									0420	.3395	.1482	
									0620	.2165	.1513	
									0840	.1707	.1537	
									1300	.1266	.1572	
									1700	5/.0954	.1596	

NOTES: TO CONVERT CFS TO IN/HR, MULTIPLY BY 0.0054491. FOR 30-DAY ANTECEDENT P & Q, SEE DAILY TABLES ON THIS AND PREVIOUS PAGE. 1/ .04 IN. FROM MDT. 9-19-66 TO 0130, 9-20-66; .01 IN. FROM 0345 TO 0415; .01 IN. FROM 1125 TO NOON 2/ CONTINUOUS FLOW PRIOR TO 2108. 3/ .04 IN. FROM MDT. 9-19-66 TO 0030, 9-20-66. .02 IN. FROM 0200 TO 0310; .03 IN. FROM 0427 TO 0630. 4/ THIESSEN WEIGHTED FOR RG R-1 AND R-2. 5/ NORMAL BASE FLOW



BLACKSBURG, VIRGINIA POWELLS CREEK W-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						BLACKSBURG, VIRGINIA LITTLE WINNS CREEK W-I AREA—1471 ACRES (2.30 SQ. MILES)							13.10
MONTH YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ₁ D	5.00 .40	4.48 1.84	1.44 .97	1.18 .41	4.45 .57	1.69 .27	4.38 .31	2.17 .23	4.81 .42	3.64 .34	1.42 .32	2.88 .36	37.54 6.44
STA AVG _{2/P} (58-66) D	3.36 1.04	3.59 1.37	3.56 1.46	3.14 1.11	3.52 .94	3.06 .62	3.85 .50	4.57 .62	2.97 .42	3.28 .73	2.54 .57	2.85 .83	40.29 10.21
MEAN 36 YR P ₂ D	3.39	3.25	3.90	3.56	3.69	4.07	4.59	4.17	3.73	2.80	3.05	3.14	43.34

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-28	.11	2-28	.10	2-28	.18	2-28	.36	2-28	.44	2-28	.50	2-28	.56	2-28	1.00

MAXIMUMS FOR PERIOD OF RECORD																
1958 TO 1966	10-10 1959	1.12	10-10 1959	.71	10-10 1959	1.03	10-10 1959	1.41	10-10 1959	1.51	10-10 1959	1.58	10-10 1959	1.62	10-10 1959	1.91

NOTES: Watershed conditions: Farm woods, mixture of hardwoods and conifers, with pine predominating, 58%; row crops, corn, 8%; tobacco, 4%; alfalfa and other hay crops, 4%; other cultivated areas, 1%; total cultivated, 17%; pasture, native grass mixture, usually fair cover, 8%; idle land, 17%; conditions are consistent from year to year. 1/ Precipitation Thiessen weighted R-1, R-2 and R-3. 2/ Determined from continuous records from January, 1958 through 1966, precipitation Thiessen weighted. 3/ Mean P based on 36-year (1931-1966) U. S. Weather Bureau record period at Halifax (1 mile N), Virginia. Missing monthly totals for August thru December, 1966 were estimated from nearby Weather Bureau records at Halifax (2SSE).

1966 DAILY PRECIPITATION (inches)						BLACKSBURG, VIRGINIA LITTLE WINNS CREEK W-I							13.10
OAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	.00	.06	T	.00	.47	.04	.00	.00	.00	1.24	.00	.00	
2	.00	.00	.00	.00	1.17	.00	.00	.00	.00	.00	.81	.00	
3	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.00	.00	
4	.00	.00	.93	.00	.00	.00	.00	.83	.00	.00	.00	.00	
5	.68	.00	T	.00	.00	.00	.00	.08	.00	.00	.01	.00	
6	.18	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00	
7	.00	.00	.00	.00	.00	.00	.39	.00	.00	.00	.00	.00	
8	.00	.00	.00	.06	.00	.02	.00	.00	.00	.00	.00	.00	
9	.00	.00	.00	.00	.78	.01	.00	.38	.00	.00	.00	.00	
10	.00	.00	.00	.00	.00	.87	.00	.03	.00	.00	.00	.17	
11	.00	.00	.00	.00	.00	.00	.00	.17	.00	.00	.00	.09	
12	.00	.63	.00	.02	.00	.00	.00	.41	.00	.00	.13	.00	
13	.00	.70	.00	.38	.00	.00	.00	.14	.20	.00	.00	.59S	
14	.00	.00	.00	.00	.01	.00	.00	T	.52E	.00	.00	.00	
15	.74S	.38	.00	.00	.00	.00	.19	.02	.00	.00	.00	.00	
16	.21S	.40	.00	.14	.00	.01	.06	.00	.00	.00	.00	.00	
17	.00	.00	.00	.00	.00	.50	.00	.00	.00	.00	.00	.00	
18	.00	.00	.00	.00	.09	.24	.00	.05	.00	.80	.00	.00	
19	.00	.00	.00	.00	.13	.00	.00	.02	2.11	.95	.00	.00	
20	.00	.00	.00	.00	.00	.00	.00	.00	1.54E	.00	.00	.00	
21	.00	.00	.00	.05	.00	.00	.00	.00	.32E	.00	.00	.00	
22	1.52S	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	
23	.01S	T	.00	.00	.00	.00	.00	.00	.00	.00	.00	.49S	
24	.00	.69	.51E	.00	.35	.00	.00	.00	.00	.00	.00	.56S	
25	.01S	.00	.00	.09	.63	.00	.00	.00	.00	.65	.00	.10S	
26	.94S	.00	.00	T	.02	.00	.00	.00	.00	.00	.00	.00	
27	.00	.00	.00	.08	.51	.00	.00	.00	.02	.00	.00	.00	
28	.00	1.62	.00	.35	.22	.00	.00	.00	.01	.00	.47	.60M	
29	.62S	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.28E	
30	.09S	.00	.00	.00	.00	.00	3.70	.00	.00	.00	.00	.00	
31	.00	.00	.00	.07	.07	.01	.00	.00	.00	.00	.00	.00	
TOTAL	5.00	4.48	1.44	1.18	4.45	1.69	4.38	2.17	4.81	3.64	1.42	2.88	
STA AV	3.36	3.59	3.56	3.14	3.52	3.06	3.85	4.57	2.97	3.28	2.54	2.85	

NOTES: PRECIPITATION AMOUNTS ARE THIESSEN WEIGHTED VALUES FROM GAGES R-1, R-2 AND R-3. STA AV IS FOR PERIOD JANUARY 1958 THROUGH 1966. FOR DRAINAGE PATTERN MAP OF WATERSHED SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61, MISC. PUB. 994, P. 13.10-8.

1966 MEAN DAILY DISCHARGE (cfs)						BLACKSBURG, VIRGINIA		LITTLE WINNS CREEK W-I		13.10		
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.60	.80	5.83	.86	1.18	.74	.38	.43	.27	2.34	.60	.50
2	.60	.82	2.65	.82	4.59	.67	.38	.39	.27	.89	2.26	.50
3	.60	.82	2.00	.82	2.40	.66	.36	.39	.26	.59	1.54	.50
4	.60	.82	15.35	.82	1.47	.63	.35	1.05	.27	.52	.88	.49
5	.91	.82	3.79	.82	1.20	.60	.35	.52	.27	.48	.67	.48
6	.99	.82	2.23	.82	1.07	.59	.35	.42	.24	.45	.65	.50
7	.60	.92	1.81	.82	.97	.57	.50	.40	.23	.44	.63	.50
8	.60	1.31	1.53	.86	.93	.57	.41	.39	.23	.44	.60	.50
9	.60	1.96	1.42	.87	2.13	.57	.36	.63	.23	.44	.60	.50
10	.60	4.41	1.33	.82	1.12	.76	.35	.48	.23	.43	.60	.53
11	.60	9.01	1.27	.82	.95	.86	.31	.50	.22	.40	.60	.57
12	.60	18.25	1.25	.83	.95	.57	.30	1.31	.22	.40	.65	.55
13	.60	11.43	1.17	.99	.93	.55	.30	.65	.26	.40	.55	.75
14	.60	3.85	1.11	.95	.89	.51	.29	.51	.59	.40	.55	.71
15	.65	2.56	1.09	.86	.83	.50	.33	.48	.31	.40	.55	.59
16	.79	7.95	1.05	.93	.78	.50	.36	.43	.29	.40	.55	.55
17	.60	3.12	1.02	.82	.75	.80	.30	.39	.28	.41	.55	.55
18	.55	2.06	1.02	.82	.76	.67	.30	.39	.27	.58	.55	.55
19	.58	1.64	1.02	.82	.80	.58	.28	.39	2.25	2.45	.52	.55
20	.63	1.41	.97	.82	.70	.55	.28	.37	4.83	.80	.50	.55
21	.68	1.27	.95	.83	.66	.50	.26	.38	9.71	.58	.50	.55
22	2.21	1.18	.95	.85	.66	.48	.26	.38	.74	.55	.50	.55
23	1.88	1.10	.95	.82	.62	.48	.26	.35	.51	.54	.50	.63
24	.99	2.24	1.30	.82	.72	.48	.25	.35	.43	.50	.50	.69
25	.64	2.03	1.02	.86	1.33	.45	.23	.32	.41	1.17	.50	.55
26	1.07	1.65	.95	.82	.82	.44	.22	.32	.43	.83	.50	.55
27	.84	1.37	.95	.84	.79	.43	.21	.32	.46	.65	.50	.55
28	.83	28.19	.95	1.06	1.69	.40	.21	.32	.46	.60	.70	.64
29	.78		.92	.84	.85	.39	.22	.30	.46	.60	.55	3.98
30	1.23		.89	.80	.78	.38	9.53	.30	.40	.60	.55	1.74
31	.87		.89		.76		.73	.30		.60		1.12
MEAN	.80	4.07	1.92	.85	1.13	.56	.62	.46	.87	.67	.66	.72
INCHES	.40	1.84	.97	.41	.57	.27	.31	.23	.42	.34	.32	.36

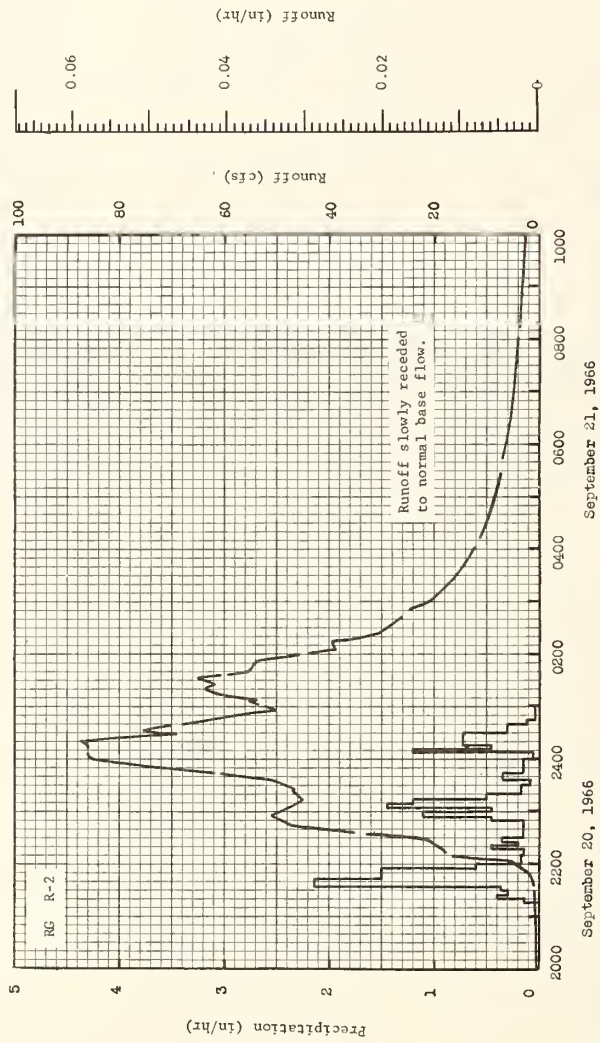
NOTES: TO CONVERT CFS TO IN/DAY, MULTIPLY BY 0.016181.

1966 SELECTED RUNOFF EVENT			BLACKSBURG, VIRGINIA		LITTLE WINNS CREEK W-I		13.10			
ANTECEDENT CONDITIONS			RAINFALL			RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MD-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME DF DAY	RATE (cfs)	ACC. (inches)
Event of September 20-21, 1966										
9-20	RG R-1 1/.08	2/.0195	9-20	2117	RG R-2 .00	.00	9-20	2000	.4598	.0000
				2121	.15	.01		2126	.5785	.0005
				2124	.40	.03		2131	.9344	.0005
9-20	RG R-2 3/.12			2130	.30	.06		2136	1.1124	.0006
				2135	.36	.09		2144	1.1421	.0007
9-20	RG R-3 4/.06			2144	2.13	.41		2148	1.8244	.0008
				2150	1.50	.56		2154	3.4115	.0009
				2156	1.50	.71		2156	3.5301	.0010
				2200	.60	.75		2203	5.4139	.0014
				2210	.18	.78		2206	11.5397	.0017
				2218	.15	.80		2208	16.1675	.0020
				2222	.45	.83		2212	17.4282	.0027
				2225	.20	.84		2220	19.1191	.0044
				2230	.36	.87		2228	21.2402	.0062
				2250	.15	.92		2236	32.9875	.0086
				2254	.45	.95		2240	41.9019	.0103
				2300	1.60	1.11		2244	46.9153	.0123
				2304	.45	1.14		2256	50.7272	.0189
				2309	1.44	1.26		2312	45.0612	.0275
				2314	1.20	1.36		2320	46.0995	.0316
				2320	.50	1.41		2322	46.8263	.0326
				2330	.18	1.44		2324	44.9574	.0337
				2337	.09	1.45		2336	50.4899	.0401
				2344	.34	1.49		2345	63.0679	.0458
				2400	.15	1.53		2352	76.0909	.0513
			9-21	0009	.07	1.54		2400	85.4947	.0586
				0011	1.20	1.58		0004	86.0435	.0624
				0015	.45	1.61		0016	86.0435	.0740

NOTES: TO CONVERT CFS TO IN/HR, MULTIPLY BY 0.0006742. FOR 30-DAY ANTECEDENT P AND Q, SEE DAILY TABLES ON THIS AND PREVIOUS PAGE. 1/ .08 IN. FROM 0100 TO 0700. 2/ CONTINUOUS FLOW PRIOR TO 2000. 3/ .01 IN. FROM MDT., 9-19-66 TO 0010, 9-20-66; .11 IN. FROM 0240 TO 0730. 4/ .06 IN. FROM 0240 TO 0700.

1966 SELECTED RUNOFF EVENT			BLACKSBURG, VIRGINIA			LITTLE WINNS CREEK W-I 13.10				
ANTECEDENT CONDITIONS			RAINFALL			RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
Event of September 20-21, 1966 - Continued										
					RG R-2					
			9-21	0030	.72	1.79	9-21	0020	87.5267	.0779
				0040	.30	1.84		0024	80.6296	.0817
				0045	.12	1.85		0029	69.1492	.0859
				0100	.04	1.86		0032	75.8535	.0884
								0050	58.1138	.1019
								0056	50.3861	.1056
			9-20	2122	RG R-3	.00	.00	0106	55.3105	.1115
				2135	.42	.09		0108	53.5158	.1127
				2150	2.00	.59		0114	61.8516	.1166
				2155	1.20	.69		0120	63.9282	.1209
				2157	1.50	.74		0124	61.9258	.1237
				2204	.43	.79		0132	64.4028	.1294
				2210	.20	.81		0139	57.3277	.1342
				2213	.80	.85		0140	55.1770	.1348
				2223	.30	.90		0152	53.9607	.1421
				2230	.09	.91		0202	41.5014	.1475
				2244	.30	.98		0204	38.4459	.1484
				2246	.90	1.01		0214	39.3655	.1528
				2250	.00	1.01		0220	32.2756	.1552
				2254	1.95	1.14		0224	30.6440	.1566
				2309	1.00	1.39		0240	26.6244	.1618
				2330	.26	1.48		0252	24.3253	.1652
				2334	.15	1.49		0259	21.3143	.1670
				2345	.00	1.49		0320	17.4875	.1716
				2349	.60	1.53		0332	15.5148	.1738
				2400	.11	1.55		0400	12.5780	.1782
			9-21	0010	.24	1.59		0412	11.3469	.1798
				0030	.48	1.75		0500	8.3804	.1851
				0050	.12	1.79		0512	7.6388	.1862
								0532	6.9861	.1879
								0544	6.9861	.1888
								0608	6.0220	.1906
					RG R-1	1.62		0640	5.2359	.1926
					3 RG AVG 1/	1.73		0740	4.1383	.1957
								0844	3.3522	.1984
								1000	2.8033	.2011
								1120	2.2990	.2033
								1320	1.8689	.2062
								1620	1.4833	.2095
								1840	1.2311	.2117
								2120	1.0828	.2137
								2400	2/ 1.0234	.2156

NOTES: TO CONVERT CFS TO IN/HR, MULTIPLY BY 0.0006742. 1/ THIESSEN WEIGHTED FOR R-1, R-2 AND R-3. 2/ RUNOFF SLOWLY RECEDING TO NORMAL BASE FLOW.



BLACKSBURG, VIRGINIA LITTLE WINNS CREEK W-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						BLACKSBURG, VIRGINIA ROCKY RUN BRANCH W-I 13.11							
						AREA—555 ACRES							
MONTH YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 R ^{1/}	4.31	4.32	1.55	.79	3.26	3.61	4.04	3.85	3.95	2.91	1.45	3.37	37.41
Q	.18	1.11	1.00	.48	.48	.31	.17	.44	.17	.29	.24	.53	5.40
STA AVG ^{2/}	3.15	3.51	3.23	2.44	3.36	4.28	4.39	3.72	3.20	2.86	2.51	2.85	39.50
(58-66) P	.95	1.35	1.47	1.01	.98	.73	.51	.39	.33	.42	.55	.78	9.47
MEAN P ^{3/}													
36 YR	3.20	3.31	3.42	3.26	3.87	4.19	5.78	5.07	3.89	2.41	2.77	3.08	44.25

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-4	.05	8-4	.04	8-4	.07	8-4	.14	2-28	.18	2-28	.23	2-12	.29	2-26	.71

MAXIMUMS FOR PERIOD OF RECORD																
19 58 TO 19 66	6-7 1961	.22	6-7 1961	.19	5-8 1958	.34	5-6 1958	.71	5-6 1958	.98	5-6 1958	1.45	5-5 1958	2.09	4-30 1958	2.86

NOTES: Watershed conditions: Mixed cover; farm woods, mixture of hardwoods and conifers, 57%; permanent pasture, usually a good cover of native grass and clover mixture, 12%; alfalfa and other hay crops, 4%; corn, 3%; tobacco, 1%; other cultivated areas, 5%; total cultivated, 13%. Idle land, usually a good cover of tall weeds, vines and short growing plants, 16%; roads, 2%. 1/ Precipitation Thiessen weighted from R-1 and R-2. 2/ Determined from continuous records from April, 1958 through 1966, precipitation Thiessen weighted. 3/ Mean P based on 36-year (1931-66) U. S. Weather Bureau record period at Emporia (1 mile WNW), Virginia. Missing monthly totals for Jan. thru May, 1966, were estimated from nearby Weather Bureau records at Lawrenceville, (5W).

1966 DAILY PRECIPITATION (inches) BLACKSBURG, VIRGINIA ROCKY RUN BRANCH W-I 13.11

OAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.00	.03	.00	.04	.85	.00	.00	.00	.00	.88	.00	.00
2	.00	.00	.00	.00	1.02	.00	.00	.00	.00	.00	.34	.00
3	.00	.00	.00	.00	.00	.00	.00	.58	.00	.00	.00	.00
4	.00	.00	1.04	.06	.00	.00	.00	1.64	.00	.00	.00	.00
5	.59	.00	.00	.03	.00	.00	.00	.11	.00	.00	.00	.00
6	.11	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.01	.00	.03	.00	.08	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.22	T	.00	.12	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.08	.00	.13	.00	.00	.00	.23
11	.00	.01	.00	.00	.00	.00	.00	.04	.00	.00	.00	.01
12	.00	.65	.00	.07	.00	.00	.00	.08	.00	.00	.57	T
13	.01	.73	.00	.17	.57	.00	.00	.08	.04	.00	.00	.75S
14	.00	.00	.00	.00	.04	.03	.00	.08	.35	.00	.00	.00
15	.51S	.22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.20S	.56	.00	.00	.00	1.71	.00	.03	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	1.15	.00	.00	.05	.00	.00	.00
18	.00	.00	.00	.00	.00	.19	.00	.00	.00	.38	.00	.00
19	.00	.00	.12	.00	.00	.37	.00	.00	.81	1.44	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.96	.57	.00	.00	.07
21	.00	.00	.00	.00	.18	.00	.00	.00	.56	.00	.00	.00
22	.91M	.00	.00	.00	.01	.00	.00	.00	.51	.00	.00	.00
23	.03M	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.39S
24	.00	.84S	.39	.03	.05	.00	.00	.00	.00	.00	.00	.49S
25	.02S	.00	.00	.04	.03	.00	.00	.00	.00	.21	.05	.14S
26	1.07S	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.33S	.00	.00	.18	.09	.00	.00	.00	.03	.00	.00	.00
28	.00	1.27	.00	.12	.12	.00	.00	.00	.02	.00	.49	.87M
29	.53S	.00	.00	.00	.06	.00	.21	.00	1.01	.00	.00	.40M
30	.00	.00	.00	.00	.00	.00	3.83	.00	.00	.00	.00	.00
31	.00	.00	.00	.02	.02	.00	.00	.00	.00	.00	.00	.02
TOTAL	4.31	4.32	1.55	.79	3.26	3.61	4.04	3.85	3.95	2.91	1.45	3.37
STA AV	3.15	3.51	3.23	2.44	3.36	4.28	4.39	3.72	3.20	2.86	2.51	2.85

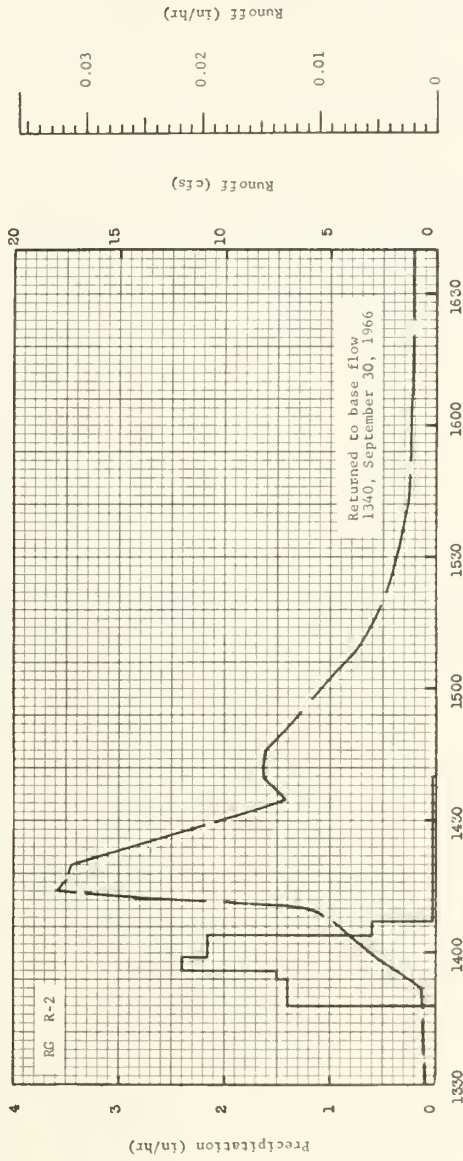
NOTES: PRECIPITATION AMOUNTS ARE THIESSEN WEIGHTED VALUES FROM GAGES R-1 AND R-2. STA AV IS FOR PERIOD APRIL 1958 THROUGH 1966. FOR TOPOGRAPHIC (REVISED DRAINAGE PATTERN) MAP OF WATERSHED SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1964, MISC. PUB. 1194, P. 13.11-6.

1966 MEAN DAILY DISCHARGE (cfs)						BLACKSBURG, VIRGINIA		ROCKY RUN BRANCH W-I		13.11		
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.09	.11	2.14	.42	.57	.17	.09	.11	.09	.62	.19	.17
2	.10	.16	.82	.42	1.72	.17	.09	.10	.08	.36	.22	.17
3	.11	.14	.70	.42	1.28	.16	.09	.16	.08	.20	.21	.17
4	.10	.14	4.96	.42	.92	.15	.08	3.95	.08	.17	.17	.17
5	.13	.14	1.72	.42	.60	.15	.08	1.56	.08	.16	.17	.17
6	.19	.13	1.01	.42	.37	.13	.08	.43	.06	.14	.17	.17
7	.12	.16	.66	.42	.26	.13	.08	.27	.05	.13	.17	.17
8	.10	.29	.65	.38	.25	.13	.07	.20	.05	.13	.17	.17
9	.09	.35	.61	.38	.26	.13	.03	.20	.05	.13	.17	.17
10	.09	.87	.56	.38	.25	.13	.03	.21	.05	.12	.17	.19
11	.09	1.11	.55	.38	.25	.12	.03	.17	.05	.11	.17	.18
12	.09	1.18	.52	.38	.25	.11	.03	.16	.05	.11	.28	.17
13	.09	4.98	.50	.40	.36	.11	.03	.17	.05	.11	.21	.46
14	.09	1.38	.50	.40	.26	.11	.07	.17	.10	.11	.18	.35
15	.11	.72	.50	.38	.26	.10	.04	.16	.08	.12	.17	.25
16	.12	1.63	.48	.38	.28	.25	.02	.15	.05	.12	.17	.22
17	.10	1.34	.46	.38	.25	2.64	.02	.14	.05	.11	.17	.21
18	.10	.71	.46	.38	.22	.27	.02	.13	.06	.13	.17	.19
19	.10	.57	.46	.38	.22	.47	.03	.13	.12	1.01	.17	.19
20	.10	.50	.43	.38	.20	.26	.02	.37	.17	.46	.17	.19
21	.10	.50	.43	.36	.20	.18	.02	.24	.39	.25	.17	.19
22	.35	.46	.43	.34	.21	.15	.02	.14	.34	.20	.17	.20
23	.38	.46	.43	.34	.19	.14	.01	.11	.11	.19	.17	.22
24	.19	1.02	.49	.34	.20	.14	.01	.10	.10	.18	.17	.32
25	.15	.80	.43	.34	.20	.12	.01	.10	.11	.21	.17	.22
26	.21	.71	.42	.34	.18	.11	.01	.10	.10	.20	.17	.22
27	.18	.70	.42	.34	.20	.11	.01	.10	.12	.18	.17	.22
28	.16	4.53	.42	.34	.22	.10	.01	.10	.13	.17	.21	.40
29	.14		.42	.34	.17	.10	.01	.09	.81	.17	.23	4.21
30	.14		.42	.34	.17	.10	2.57	.09	.19	.17	.19	1.34
31	.13		.42		.17		.29	.09		.19		.76
MEAN	.14	.92	.75	.38	.36	.24	.13	.33	.13	.21	.18	.40
INCHES	.18	1.11	1.00	.48	.48	.31	.17	.44	.17	.29	.24	.53

NOTES: TO CONVERT CFS TO IN/DAY, MULTIPLY BY 0.042886.

1966 SELECTED RUNOFF EVENT			BLACKSBURG, VIRGINIA		ROCKY RUN BRANCH W-I		13.11			
ANTECEDENT CONDITIONS			RAINFALL			RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
Event of September 29-30, 1966										
9-29	RG R-1 1/.39	2.0063	9-29	1348	.00	.00	9-29	1352	.5934	.0000
				1354	1.40	.14		1356	1.8978	.0001
	RG R-2			1356	1.50	.19		1358	2.6871	.0003
9-29	3/.35			1359	2.40	.31		1404	4.0419	.0009
				1404	2.16	.49		1410	5.8557	.0018
				1407	.60	.52		1414	17.9197	.0032
				1440	.02	.53		1416	17.4999	.0042
								1420	17.2311	.0063
								1435	7.1377	.0118
								1440	8.2125	.0129
								1446	8.0782	.0144
								1508	3.8571	.0183
								1524	2.1889	.0197
								1540	1.4051	.0206
								1552	1.2036	.0210
								1608	1.0692	.0216
								1640	1.0692	.0226
								1708	.8005	.0234
								1920	.4479	.0258
								2020	.3695	.0266
								2140	.3023	.0274
								2400	.2743	.0286
								0040	.2743	.0289
								0140	.2463	.0294
								1020	.1903	.0327
								1340	5.1679	.0338

NOTES: TO CONVERT CFS TO IN/HR, MULTIPLY BY 0.0017869. FOR 30-DAY ANTECEDENT P AND Q, SEE DAILY TABLES ON THIS AND PREVIOUS PAGE. 1/ .35 IN. FROM 0300 TO 0550; .04 IN. FROM 0650 TO 0900. 2/ CONTINUOUS FLOW PRIOR TO 1352. 3/ .29 IN. FROM 0240 TO 0410; .05 IN. FROM 0530 TO 0930; .01 IN. FROM 1030 TO 1120. 4/ THIESSEN WEIGHTED FOR RG R-1 AND R-2. 5/ NORMAL BASE FLOW.



September 29, 1966

BLACKSBURG, VIRGINIA ROCKY RUN BRANCH W-I

MONTHLY PRECIPITATION AND RUNOFF (inches)						BLACKSBURG, VIRGINIA PONY MOUNTAIN BRANCH W-I 13.12							
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ₁ / ₀	3.64	4.68	.95	4.52	5.24	1.98	1.70	.82	10.03	4.17	1.88	2.58	42.19
	.01	1.62	.44	.95	1.51	.01	.01	.00	2.20	1.61	.16	.42	8.94
STA AVG ₂ ^b (58-66) ₀	2.86	3.54	3.29	3.15	2.97	3.14	3.03	3.06	4.04	2.39	2.55	2.17	36.19
	1.12	1.78	1.69	1.03	.38	.35	.09	.11	.39	.24	.15	.29	7.62
MEAN 60 YR P ₃ / ₀	3.06	2.61	3.14	3.50	3.84	4.00	4.13	4.29	3.59	2.86	2.77	2.82	40.61

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	5-19	.39	5-19	.29	5-19	.44	5-19	.66	10-19	.84	10-18	1.05	10-18	1.16	10-18	1.24

MAXIMUMS FOR PERIOD OF RECORD																
19 58 TO 19 66	6-24 1958	.48	5-19 1966	.29	2-7 1965	.44	2-7 1965	.89	2-7 1965	1.23	2-7 1965	1.45	2-7 1965	1.61	2-18 1961	2.76

NOTES: Watershed conditions: Mixed cover, farm woods, predominantly hardwood, 53%; permanent pasture with a fair cover of native grass mixture, 45%; paved roads, 2%. 1/ Precipitation Thiessen weighted from R-1 and R-2. 2/ Determined from continuous records from May, 1958 through 1966, precipitation Thiessen weighted. 3/ Mean P based on 60-year (1907-66) U. S. Weather Bureau record period at Culpeper, Virginia. Monthly records missing for Jan. through July 1907, Nov. 1949, Dec. 1950, and for Jan. through Apr. and July 1951.

1966 DAILY PRECIPITATION (inches)						BLACKSBURG, VIRGINIA PONY MOUNTAIN BRANCH W-I 13.12							
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	.38	.23E	.00	.00	.43	.02	.00	.00	.00	.81	.02	.00	
2	.12	.00	.00	.00	.25	.00	.00	.00	.00	.00	.35	.00	
3	.00	.00	.00	.09	.00	.00	.00	.00	.00	.00	.00	.00	
4	.00	.00	.13	.00	.00	.00	.00	.06	.00	.00	.00	.00	
5	.44	.00	.05	.00	.00	.00	.00	.01	.00	.05	.00	.00	
6	.46	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
7	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
10	.00	.05	.00	.00	.00	.70	.00	.00	.00	.00	.28	.25	
11	.00	.02	.00	.00	.00	.00	.00	.38	.00	.00	.01	.00	
12	.00	.35	.00	.74	.01	.00	.00	.00	.00	.00	.08	.00	
13	.00	1.41	.02	.45	.09	.00	.00	.00	.46	.00	.00	.69S	
14	.00	.00	.11	.01	.25	.00	1.16	.00	4.36	.00	.00	.02S	
15	.00	.00	.00	.00	.00	.00	.05	.09	.01	.00	.00	.00	
16	.00	.40	.00	.00	.00	.55	.00	.19	.00	.00	.00	.00	
17	.00	.00	.00	.00	.00	.07	.00	.09	.00	.00	.00	.00	
18	.00	.00	.00	.00	.27	.00	.00	.00	.00	1.24E	.00	.00	
19	.00	.00	.06	.00	2.52	.00	.00	.00	.86	2.06	.00	.00	
20	.00	.00	.00	.00	.00	.00	.00	.00	1.97	.00	.00	.28	
21	.00	.00	.00	.02	.00	.00	.00	.00	.91	.00	.00	.00	
22	.84S	.00	.00	1.51	.00	.00	.00	.00	.01	.00	.00	.00	
23	.36S	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.13S	
24	.01S	.89S	.41	.00	.15	.00	.00	.00	.00	.00	.00	.52S	
25	.00	.07	.00	.78	.20	.00	.00	.00	.03	.01	.00	.01S	
26	.50S	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	
27	.01S	.00	.00	.55	.85	.00	.00	.00	.25	.00	.00	.00	
28	.02E	1.25E	.00	.00	.22	.64	.09	.00	.46	.00	1.11	.41M	
29	.50E	-----	.00	.04	T	.00	.11	.00	.66	.00	.00	.27M	
30	.00	-----	.09	.31	.00	.00	.29	.00	.00	.00	.03	.00	
31	.00	-----	.08	-----	.00	-----	.00	.00	-----	.00	-----	.00	
TOTAL	3.64	4.68	.95	4.52	5.24	1.98	1.70	.82	10.03	4.17	1.88	2.58	
STA AV	2.86	3.54	3.29	3.15	2.97	3.14	3.03	3.06	4.04	2.39	2.55	2.17	

NOTES: PRECIPITATION AMOUNTS ARE THIESSEN WEIGHTED VALUES FROM GAGES R-1 AND R-2. STA AV IS FOR PERIOD MAY, 1958 THROUGH 1966. FOR DRAINAGE PATTERN MAP OF WATERSHED SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61. MISC. PUB. 994. P. 13.12-7.

1966 MEAN DAILY DISCHARGE (cfs)						BLACKSBURG, VIRGINIA PONY MOUNTAIN BRANCH W-I 13.12						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.00	.00	1.78	.00	.95	.02	.00	.00	.00	1.75	T	.06
2	.00	.00	.66	.00	1.43	.02	.00	.00	.00	.59	.02	.04
3	.00	.00	.33	.00	.60	.01	.00	.00	.00	.23	T	.01
4	.00	.00	.24	.00	.28	T	.00	.00	.00	.13	T	.01
5	.00	.00	.17	.00	.17	T	.00	.00	.00	.08	T	.01
6	.08	.00	.10	.00	.10	T	.00	.00	.00	.04	T	.02
7	.00	.00	.05	.00	.05	T	.00	.00	.00	.03	T	.03
8	.00	.00	.03	.00	.03	T	.00	.00	.00	.02	T	.02
9	.00	.09	.02	.00	.03	T	.00	.00	.00	.01	T	.01
10	.00	.01	.02	.00	.02	.04	.00	.00	.00	.01	.01	.03
11	.00	.66	.01	.00	.01	T	.00	.00	.00	T	T	.05
12	.00	.47	.01	.31	.01	T	.00	.00	.00	T	T	.02
13	.00	5.24	.01	.20	T	.00	.00	.00	.00	T	T	.02
14	.00	1.08	.01	.18	.02	.00	.05	.00	7.87	.00	T	.10
15	.00	.42	.01	.07	.01	.00	T	.00	T	.00	T	.08
16	.00	.60	.01	.03	.01	T	.00	.00	.00	.00	T	.07
17	.00	.33	.01	.02	T	T	.00	.00	.00	.00	.00	.15
18	.00	.16	.01	.01	T	.00	.00	.00	.00	.13	.00	.18
19	.00	.11	T	.01	6.29	.00	.00	.00	.09	8.45	.00	.20
20	.00	.04	T	T	.50	.00	.00	.00	2.65	.81	.00	.24
21	.00	.03	.00	T	.17	.00	.00	.00	3.94	.29	.00	.42
22	.00	.02	.00	1.43	.08	.00	.00	.00	.40	.16	.00	.25
23	.00	.02	.00	.53	.05	.00	.00	.00	.16	.10	.00	.13
24	.00	.02	.02	.23	.03	.00	.00	.00	.09	.06	.00	.12
25	.00	.05	T	1.44	.06	.00	.00	.00	.05	.04	.00	.11
26	.00	.14	T	.46	.03	.00	.00	.00	.04	.03	.00	.10
27	.00	.20	.00	.77	.23	.00	.00	.00	.07	.02	.00	.09
28	.00	3.39	.00	.77	.72	.00	.00	.00	.22	.02	1.02	.08
29	.00		.00	.43	.19	.00	.00	.00	1.72	.01	.15	.31
30	.00		.00	.73	.06	.00	.00	.00	.48	.01	.09	.27
31	.00		.01		.04		.00			T		.17
MEAN	T	.47	.11	.25	.39	T	T	.00	.59	.42	.04	.11
INCNES	.01	1.62	.44	.95	1.51	.01	.01	.00	2.20	1.61	.16	.42

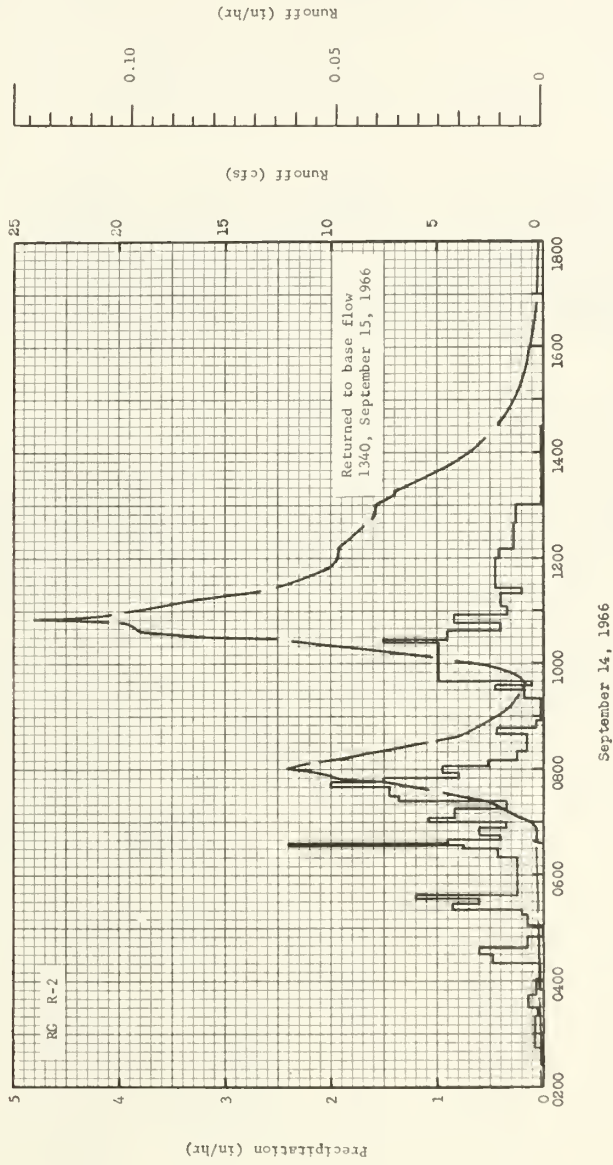
NOTES: TO CONVERT CFS TO IN/DAY, MULTIPLY BY 0.123967.

1966 SELECTED RUNOFF EVENT			BLACKSBURG, VIRGINIA PONY MOUNTAIN BRANCH W-I 13.12									
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF					
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)		
Event of September 14-15, 1966												
9-14	RG R-1 1/ .01	2/.6727	9-14	0244	RG R-2 .00	.00	9-14	0636	.1798	.0000		
				0320	.08	.05		0638	.3674	.0001		
				0330	.06	.06		0640	.3384	.0001		
9-14	RG R-2 3/ .01			0344	.13	.09		0644	.3094	.0002		
				0402	.07	.11		0652	.2997	.0004		
				0420	.03	.12		0700	.6034	.0007		
				0430	.48	.20		0704	1.0752	.0010		
				0437	.60	.27		0712	1.7579	.0020		
				0450	.14	.30		0720	2.2993	.0034		
				0502	.00	.30		0726	3.3649	.0049		
<u>Watershed conditions</u>												
Woods, mostly hardwood, good cover, 53%; pasture, native grasses, fairly short, fair cover, 36%, and fescue 10 to 15 in. high, good cover, 9%, total pasture, 45%; field road, gravel surface, 2%.												
				0514	.15	.33		0736	5.0454	.0085		
				0520	.20	.35		0744	7.2461	.0127		
				0527	.86	.45		0748	9.2824	.0156		
				0532	.60	.50		0753	10.0966	.0197		
				0536	1.20	.58		0800	12.0362	.0264		
				0620	.23	.75		0808	11.1196	.0344		
				0630	.42	.82		0824	6.9328	.0469		
				0634	.75	.87		0836	4.1036	.0526		
				0636	2.40	.95		0852	2.6358	.0572		
				0640	.90	1.01		0904	1.8313	.0595		
				0646	.40	1.05		0924	1.0559	.0620		
				0653	.60	1.12		0936	.8702	.0630		
				0700	.34	1.16		0940	.9050	.0633		
				0705	1.08	1.25		0948	1.3305	.0641		
				0716	.82	1.40		1000	3.3978	.0665		
				0723	.43	1.45		1008	5.4844	.0696		
				0730	1.37	1.61		1013	7.2384	.0723		
				0740	1.44	1.85		1024	11.7945	.0814		

NOTES: TO CONVERT CFS TO IN/HR, MULTIPLY BY 0.0051653. FOR 30-DAY ANTECEDENT P & Q, SEE DAILY TABLES ON THIS AND PREVIOUS PAGE. 1/ .01 IN. FROM MDT., 9-13-66 TO 0045, 9-14-66. 2/ CONTINUOUS FLOW PRIOR TO 0636. 3/ .01 IN. FROM MDT., 9-13-66 TO 0110, 9-14-66.

1966 SELECTED RUNOFF EVENT			BLACKSBURG, VIRGINIA				PONY MOUNTAIN BRANCH W-I			13.12
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
Event of September 14-15, 1966 - Continued										
					RG R-2					
			9-14	0746	2.00	2.05	9-14	1032	16.5962	.0912
				0750	1.50	2.15		1036	18.8995	.0973
				0756	.80	2.23		1048	19.5937	.1172
				0803	.94	2.34		1051	24.0183	.1228
				0810	.51	2.40		1056	20.6631	.1324
				0820	.24	2.44		1112	16.3178	.1579
				0840	.15	2.49		1124	13.1289	.1732
				0847	.43	2.54		1140	10.7599	.1896
				0856	.07	2.55		1152	9.9786	.2004
				0920	.02	2.56		1200	9.6963	.2071
				0930	.18	2.59		1212	9.6944	.2172
				0934	.45	2.62		1236	8.5070	.2360
				0940	.10	2.63		1248	7.9288	.2445
				1023	.99	3.34		1300	7.9249	.2527
				1027	1.50	3.44		1312	7.0431	.2604
				1037	.90	3.59		1316	7.0295	.2629
				1046	.40	3.65		1344	4.3279	.2766
				1056	.84	3.79		1400	3.3572	.2819
				1105	.33	3.84		1432	1.9570	.2892
				1120	.40	3.94		1516	.9959	.2948
				1126	.20	3.96		1556	.5821	.2975
				1200	.46	4.22		1644	.3326	.2994
				1210	.42	4.29		1752	.1624	.3008
				1240	.28	4.43		1848	.1044	.3015
				1300	.27	4.52		1940	.0754	.3019
				1430	.01	4.54		2132	.0406	.3024
								2300	.0329	.3027
					RG R-1	4.27		2400	.0251	.3029
					2 RG AVG 1/	4.35		0240	.0135	.3031
							9-15	0900	.0039	.3034
								1100	.0019	.3034
								1200	.0000	.3034
								1244	.0019	.3034
								1340	2/ .0019	.3034

NOTES: TO CONVERT CFS TO IN/HR, MULTIPLY BY 0.0051653. 1/ THIESSEN WEIGHTED FOR RG R-1 AND R-2. 2/ BASE FLOW.



BLACKSBURG, VIRGINIA PONY MOUNTAIN BRANCH W-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						BLACKSBURG, VIRGINIA CHUB RUN W-I 13.13 AREA—2023 ACRES (3.16 SQ. MILES)																							
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL																
1966 P ^{1/}	3.80	3.51	.88	4.11	2.58	2.22	5.48	.93	6.53	2.73	4.41	2.80	39.98																
Q	.14	.59	.50	.48	.66	.15	.17	.04	.19	.40	.76	.90	4.98																
STA AVG ^{2/} (59-66)	2.63	3.74	3.33	3.06	3.01	3.33	2.71	2.37	3.38	2.20	3.09	2.17	35.02																
MEAN P ^{3/} 26 YR	.94	1.15	1.77	1.25	.78	.53	.20	.09	.10	.26	.45	.50	8.02																
	2.61	2.35	3.21	2.92	3.59	3.41	3.86	4.33	3.49	3.32	2.84	2.56	38.49																
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																													
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL																										
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS														
1966	7-5	.02	11-28	.02	11-28	.04	11-28	.10	11-28	.15	11-28	.21	11-28	.29	11-28	.52													
MAXIMUMS FOR PERIOD OF RECORD																													
19 59 TO 19 66	9-30 1959	.24	9-30 1959	.17	9-30 1959	.24	9-30 1959	.34	9-30 1959	.40	6-20 1962	.52	6-19 1962	.90	3-29 1960	1.58													
NOTES: Watershed conditions: Mixed cover; farm woods, predominantly hardwoods mixed with conifers, 57%; permanent pasture, a fair cover of native grasses, 30%; corn, 1%; alfalfa and other hay crops, 5%; other cultivated areas, 1%; total cultivated, 7%; idle, 5%; roads, 1%. 1/ Precipitation Thiessen weighted from R-1, R-2 and R-3. 2/ Determined from continuous records from September, 1959 through 1966, precipitation Thiessen weighted. 3/ Mean P based on 26-year (1941-66) U. S. Weather Bureau record period at Luray (5 miles E), Virginia. Missing monthly totals for Jan. and Feb., 1941 were estimated from nearby Weather Bureau records at Riverton, Va.																													
WATERSHED DESCRIPTION																													
SLOPES: <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <th>Slope-Percent</th> <th>0-2</th> <th>2-7</th> <th>7-15</th> <th>15-25</th> <th>25-45</th> </tr> <tr> <td>Percent of Area</td> <td>1</td> <td>28</td> <td>22</td> <td>5</td> <td>44</td> </tr> </table>														Slope-Percent	0-2	2-7	7-15	15-25	25-45	Percent of Area	1	28	22	5	44				
Slope-Percent	0-2	2-7	7-15	15-25	25-45																								
Percent of Area	1	28	22	5	44																								
SOILS: <table border="1" style="display: inline-table; vertical-align: middle;"> <thead> <tr> <th>Type</th> <th>Parent Material</th> </tr> </thead> <tbody> <tr> <td>Clifton, Fauquier and Myersville</td> <td>Formed from materials such as Catoclin greenstone schist, chloritic greenstones and agglomerate greenstone, weathered in place.</td> </tr> <tr> <td>Rohrersville, Dyke & Unison</td> <td>Old colluvial beds: chiefly from greenstone or other basic rocks.</td> </tr> <tr> <td>Jefferson</td> <td>Old colluvial deposits of sandstones and shales.</td> </tr> <tr> <td>Wickham</td> <td>Terrace formation, moderately old alluvium washed from Piedmont uplands.</td> </tr> </tbody> </table> 4/														Type	Parent Material	Clifton, Fauquier and Myersville	Formed from materials such as Catoclin greenstone schist, chloritic greenstones and agglomerate greenstone, weathered in place.	Rohrersville, Dyke & Unison	Old colluvial beds: chiefly from greenstone or other basic rocks.	Jefferson	Old colluvial deposits of sandstones and shales.	Wickham	Terrace formation, moderately old alluvium washed from Piedmont uplands.						
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Type	Percent of area	Avg. depth (in.)	Topsoil		Subsoil		Substratum		Internal drainage																				
			Structure	Permeability	Structure	Permeability	Avg. depth to (in.)	Permeability																					
Clifton stony & very stony loam	22	3	very friable	moderate	friable	moderate	30	moderate	medium																				
Dyke loam, cobbly and stony loam	34	8	weak fine granular	moderately rapid	weak medium subangular blocky	moderately rapid	52	moderate	medium																				
Fauquier silt loam & stony silt loam	7	6	weak fine granular	moderate	moderate medium angular, blocky	moderate	50	moderate	medium																				
Jefferson cobbly & very stony fine sandy loam	9	9	weak fine granular	moderately rapid	weak to moderate fine to medium subangular blocky to granular	moderately rapid	27	moderately rapid	medium																				
Myersville very stony silt loam	5	7	weak to moderate fine to medium granular	moderate	moderate medium subangular blocky	moderate	20	moderate	medium																				
Rohrersville silt loam	4	9	weak medium granular	moderately slow	moderate medium angular, blocky	slow	22	slow	slow																				
Unison loam, cobbly & very cobbly loam	5	7	weak fine granular	moderate	weak fine angular, blocky	moderate	29	moderate	medium																				
Wickham loam & cobbly loam	6	9	weak fine granular	moderately rapid	weak to moderate fine to medium subangular blocky	moderate	33	moderate	medium																				
Colluvium very stony	3	-	-----	moderate	-----	moderate	--	moderate	medium																				
Colluvium very stony	4	-	-----	slow	-----	slow	--	slow	slow																				
Gullied land	1	-	-----	---	-----	---	--	---	---																				
EROSION: <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <th>Erosion class</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>+</th> </tr> <tr> <td>Percent of area</td> <td>77</td> <td>3</td> <td>-</td> <td>1</td> <td>19</td> </tr> </table>														Erosion class	1	2	3	4	+	Percent of area	77	3	-	1	19				
Erosion class	1	2	3	4	+																								
Percent of area	77	3	-	1	19																								
LAND CAPABILITY: <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <th>Class</th> <th>I</th> <th>II</th> <th>III</th> <th>IV</th> <th>V</th> <th>VI</th> <th>VII</th> </tr> <tr> <td>Percent of area</td> <td>-</td> <td>9</td> <td>8</td> <td>20</td> <td>-</td> <td>13</td> <td>50</td> </tr> </table>														Class	I	II	III	IV	V	VI	VII	Percent of area	-	9	8	20	-	13	50
Class	I	II	III	IV	V	VI	VII																						
Percent of area	-	9	8	20	-	13	50																						
NOTES: 4/ From "A Key to Soils of Virginia" Agronomy Circular No. 2 and No. 5, Agricultural Extension Service, Virginia Polytechnic Institute, Blacksburg, Va.																													

1966 DAILY PRECIPITATION (inches)						BLACKSBURG, VIRGINIA CHUB RUN W-I 13.13						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.47	.165	.00	.00	.33	.00	.00	.00	.00	.83		.00
2	.10	.00	.00	.00	.33	.00	.00	.03	.00	.00	1.48	.00
3	.00	.00	.00	.11	.00	.00	.00	.00	.11	.00	.00	.00
4	.00	.00			.00	.00	.00	.00	.00	.00	.00	.00
5	.26	.00	.06	.00	.00	.00	2.64	.00	.00	.00	.00	.00
6	.38	.00	.00	.00	.00	.00	.24	.00	.00	.00	.00	.05
7	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02E	.00	.00
9	.00	.00	.00	.00	.09	.00	.00	.21	.00	.00	.00	.00
10	.00	.04	.00	.00	.00	.43	.00	.03	.00	.00	.30	.39
11	.00	.00	.00	.02	.00	.00	.00	.48	.00	.00	.00	.00
12	.00	.26	.00	.59	.01	.00	.00	.00	.07	.00	.02	.00
13	.00	.90		.23	.05	.00	.00	.00	.88	.00	.00	.905
14	.00	.00	.12	.07	.17	.01	1.12	.05	2.42	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.10	.13	.00	.00	.00	.00
16	.00	.12	.00	.00	.00	.33	.00	.00	.00	.02	.00	.00
17	.00	.00	.00	.00	.37	.06	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.87	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.40	.94	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	1.00	.00	.00	.10
21	.00	.00	.00	.14	.00	.00	.00	.00	.42	.00	.00	.00
22	.785	.00	.00	.97	.00	.00	.00	.00	.02	.00	.00	.00
23	.395	.00	.00	.10	.00	.00	.00	.00	.00	.00	.00	.125
24	.00	.725	.61	.03	.02	.00	.00	.00	.00	.05	.00	.475
25	.00	.01	.00	.62	.12	.00	.00	.00	.05	.00	.00	.00
26	.575	.00	.00	.00	.00	.56	.00	.00	.16	.00	.00	.00
27	.025	.00	.00	.57	.32	.44	.00	.00	.18	.00	.02	.00
28	.00	1.30	.00		.74	.37	.19	.00	.36	.00	2.59	.52E
29	.525		.00	.27	.03	.00	.98	.00	.46	.00	.00	.25E
30	.315		.09	.39	.00	.00	.21	.00	.00	.00	.00	.00
31	.00		.00		.00		.00	.00		.00		.00
TOTAL	3.80	3.51	.88	4.11	2.58	2.22	5.48	.93	6.53	2.73	4.41	2.80
STA AV	2.63	3.74	3.33	3.06	3.01	3.33	2.71	2.37	3.38	2.20	3.09	2.17

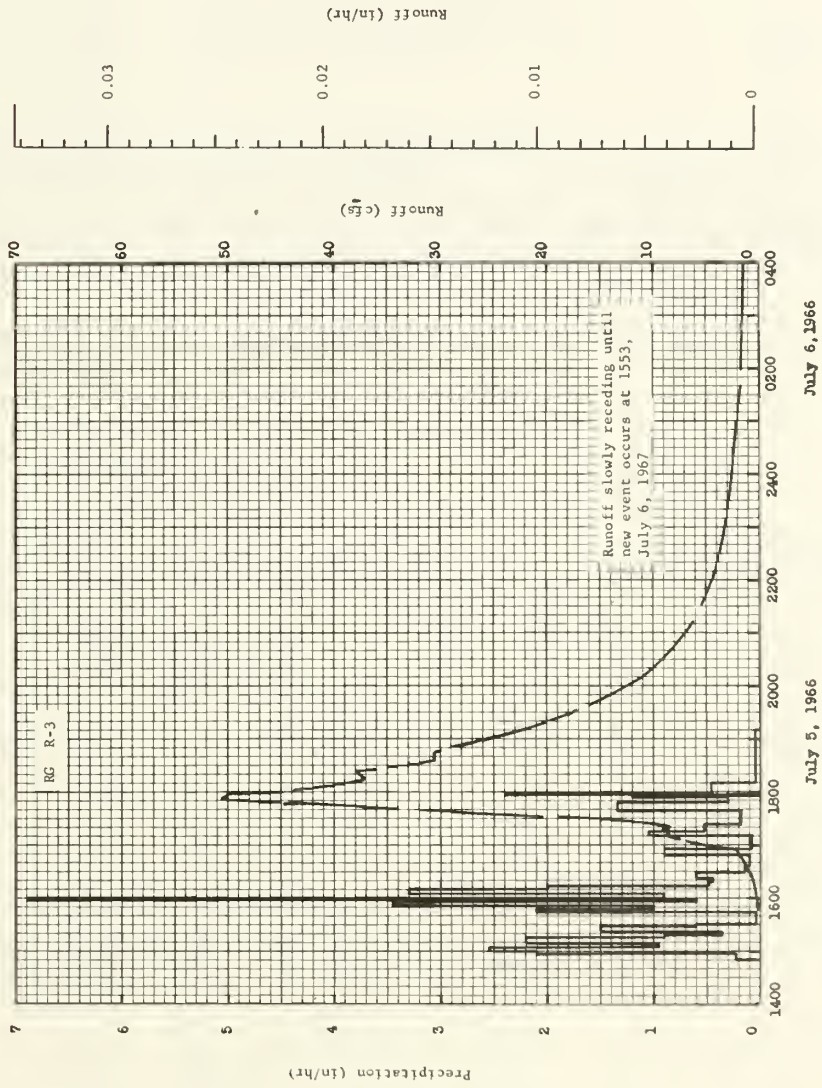
NOTES: PRECIPITATION AMOUNTS ARE THIESSEN WEIGHTED VALUES FROM GAGES R-1, R-2 & R-3. STA AV IS FOR PERIOD SEPTEMBER 1959 THROUGH 1966. FOR DRAINAGE PATTERN MAP OF WATERSHED SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61, MISC. PUB. 994, P. 13.13-5.

1966 MEAN DAILY DISCHARGE (cfs)						BLACKSBURG, VIRGINIA CHUB RUN W-I 13.13						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.18	.84	5.46	.69	4.56	.71	.21	.17	.04	2.94	.69	4.34
2	.39	.84	3.69	.69	5.77	.65	.18	.14	.03	2.57	2.68	3.52
3	.22	.84	3.02	.67	4.59	.60	.15	.14	.03	1.75	3.38	2.86
4	.19	.84	2.52	.73	3.74	.55	.13	.14	.04	1.40	2.31	2.39
5	.19	.84	2.31	.69	3.23	.52	4.24	.13	.03	1.18	1.99	2.18
6	.66	.84	1.79	.69	2.75	.55	1.34	.12	.02	1.02	1.79	2.29
7	.27	.81	1.50	.69	2.42	.52	.69	.11	.02	.89	1.67	2.11
8	.19	.67	1.35	.69	2.19	.50	.41	.10	.02	.81	1.52	2.02
9	.22	.59	1.22	.69	2.08	.44	.30	.11	.01	.73	1.46	1.85
10	.18	3.82	1.13	.62	1.86	.75	.27	.12	.02	.63	1.49	1.98
11	.15	6.67	1.04	.55	1.66	.53	.25	.18	.02	.54	1.55	2.32
12	.17	2.56	.94	.91	1.57	.41	.24	.14	.02	.49	1.34	2.04
13	.16	6.59	.91	1.12	1.47	.40	.21	.12	.11	.47	1.18	1.96
14	.18	3.83	.99	.99	1.57	.35	.81	.12	1.79	.44	1.09	1.89
15	.19	2.41	.91	.84	1.36	.32	1.18	.16	.53	.44	1.02	1.83
16	.15	2.01	.91	.78	1.22	.36	.49	.11	.24	.42	.99	1.76
17	.19	1.49	.88	.74	1.19	.44	.34	.08	.17	.39	.99	2.27
18	.14	1.24	.84	.69	1.33	.35	.29	.08	.15	.62	.96	3.45
19	.15	1.08	.84	.69	1.03	.33	.26	.08	.17	3.55	.91	3.24
20	.14	.88	.80	.69	.98	.28	.23	.08	1.29	1.78	.91	3.14
21	.21	.83	.76	.72	.89	.26	.18	.09	2.41	1.40	.91	2.71
22	.22	.78	.73	2.13	.83	.22	.16	.08	1.16	1.25	.86	2.42
23	.31	.68	.69	1.72	.80	.21	.12	.07	.76	1.12	.84	2.31
24	.82	.74	1.27	1.64	.75	.20	.12	.06	.56	1.06	.84	2.31
25	.91	.70	.91	2.82	.79	.17	.11	.06	.55	1.04	.84	2.39
26	.91	.68	.84	2.45	.72	.29	.10	.06	.65	.95	.84	2.47
27	.91	.76	.78	3.02	.84	.32	.10	.05	.72	.88	.81	2.07
28	.91	5.19	.74	3.26	1.12	.69	.12	.05	.98	.84	14.72	1.96
29	.91		.76	3.36	1.38	.41	.59	.07	1.90	.80	8.60	3.21
30	.91		.78	4.71	.79	.25	.35	.05	1.34	.70	5.48	2.70
31	.88		.76		.73		.23	.04		.69		2.47
MEAN	.39	1.79	1.36	1.35	1.81	.42	.46	.10	.53	1.09	2.15	2.47
INCHES	.14	.59	.50	.48	.66	.15	.17	.04	.19	.40	.76	.90

NOTES: TO CONVERT CFS TO IN/DAY, MULTIPLY BY 0.011766.

1966 SELECTED RUNOFF EVENTS			BLACKSBURG, VIRGINIA			CHUB RUN W-I			13.13	
ANTECEDENT CONDITIONS			RAINFALL			RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
			Event of July 5-6, 1966							
			RG R-2							
7 -5	3 RG 1/ .00	2/.0012	7 -5	1511	.00	.00	7 -5	1548	.1632	.0000
				1523	.25	.05		1552	.2040	T
				1536	.14	.08		1600	.2856	T
				1544	1.05	.22		1604	.4896	T
				1547	.40	.24		1608	.4080	T
<u>Watershed conditions</u>				1548	3.60	.30		1612	.5100	.0001
Woods, mixture of hardwood and conifers, good cover, 57%; pasture, short, fair cover, 30%; hay, mostly alfalfa and orchard-grass mixture, good cover, 5%; idle, good cover of native grass and weeds 6 to 36 in. high, 5%; corn, late, 3 to 4 ft. high, poor cover, 1%; paved road, 1%; fallowed land, 1%.				1552	.45	.33		1616	.5916	.0001
				1555	1.40	.40		1620	.5916	.0001
				1559	.60	.44		1628	.9587	.0001
				1602	2.20	.55		1630	1.1015	.0002
				1607	.48	.59		1640	1.4687	.0003
				1614	2.23	.85		1656	2.5498	.0005
				1619	3.12	1.11		1700	5.8952	.0007
				1624	1.44	1.23		1704	6.9967	.0009
				1637	.18	1.27		1708	8.5062	.0011
				1646	.53	1.35		1710	8.6898	.0013
				1657	.55	1.45		1716	8.7510	.0017
				1701	.75	1.50		1717	9.0773	.0018
				1714	.23	1.55		1720	8.6898	.0020
				1719	.60	1.60		1724	10.1585	.0023
				1727	.75	1.70		1730	15.6049	.0029
				1734	1.46	1.87		1736	27.7624	.0040
				1744	1.68	2.15		1744	37.2273	.0061
				1745	4.19	2.22		1746	43.8568	.0068
				1753	.30	2.26		1748	46.2434	.0075
				1756	.80	2.30		1752	50.3435	.0091
	1810	.17	2.34		1758	49.9763	.0115			
	1840	.02	2.35		1808	39.7159	.0152			
					1814	37.1457	.0171			
					1822	38.0432	.0195			
			RG R-3							
			7 -5	1450	.00	.00		1836	30.6386	.0235
				1458	.23	.03		1844	30.6794	.0255
				1500	2.10	.10		1900	25.9877	.0292
				1504	2.55	.27		1912	21.3776	.0315
				1509	.96	.35		1946	14.9113	.0365
				1515	2.20	.57		2004	11.8311	.0385
				1517	.90	.60		2040	8.2410	.0415
				1522	.36	.63		2108	6.3439	.0431
				1528	1.50	.78		2132	5.2832	.0443
				1530	.60	.80		2200	4.3449	.0454
				1544	.04	.81		2240	3.5085	.0467
				1548	2.10	.95		2400	2.6110	.0487
				1551	1.00	1.00	7 -6	0040	2.3050	.0495
				1555	3.45	1.23		0140	1.8767	.0505
				1558	.60	1.26		0300	1.6319	.0516
				1600	6.89	1.49		0440	1.3871	.0529
				1604	.90	1.55		0700	1.1831	.0543
				1610	3.30	1.88		1200	.9179	.0569
				1613	2.00	1.98		1440	.7547	.0580
				1618	.48	2.02		1553	3/.7547	.0585
				1622	.45	2.05				
				1629	.60	2.12				
				1637	.15	2.14				
				1649	.10	2.16				
				1655	.90	2.25				
				1710	.08	2.27				
				1714	1.05	2.34				
				1722	.52	2.41				
				1739	.18	2.46				
				1748	1.33	2.66				
				1754	.30	2.69				
				1755	1.20	2.71				
				1756	.00	2.71				
				1757	2.40	2.75				
				1810	.46	2.85				
				1910	.03	2.88				
				RG	R-1	2.49				
				3 RG	AVG 1/	2.64				

NOTES: TO CONVERT CFS TO IN/HR, MULTIPLY BY 0.0004902. FOR 30-DAY ANTECEDENT P & Q, SEE DAILY TABLES ON PREVIOUS PAGE. 1/ THIESSEN WEIGHTED FOR RG R-1, R-2 AND R-3. 2/ CONTINUOUS FLOW PRIOR TO 1548. 3/ BEGINNING OF NEW RUNOFF EVENT.



BLACKSBURG, VIRGINIA CHUB RUN W-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						BLACKSBURG, VIRGINIA FOSTERS CREEK W-I 13.14 AREA—389 ACRES								
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P ₁ / Q	3.28 .18	4.49 1.56	.80 .42	2.53 .41	3.51 .54	1.61 .11	1.76 .02	2.72 .05	7.73 .79	3.50 .63	1.55 .24	3.08 .41	36.56 5.36
STA AVG ² / _P (60-66) _O		2.82 1.12	3.94 2.06	3.60 2.05	2.60 1.00	2.72 .67	2.89 .33	2.60 .20	2.67 .12	3.62 .22	3.21 1.19	2.63 .36	2.72 .62	36.02 9.94
MEAN ³ / _{P3} 51 YR		3.35	2.91	3.58	3.41	3.38	3.51	4.53	4.21	3.28	2.84	2.70	2.96	40.66

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-28	.12	2-28	.11	2-28	.21	2-28	.47	2-28	.61	2-28	.70	2-28	.75	2-25	.87

MAXIMUMS FOR PERIOD OF RECORD																
19 60 to 19 66	10-20 1961	1.71	10-20 1961	.76	10-20 1961	1.02	10-20 1961	2.06	10-20 1961	3.02	10-20 1961	4.96	10-20 1961	5.89	10-20 1961	5.96

NOTES: Watershed conditions: Mixed cover; farm woods, predominantly hardwoods, 45%; permanent pasture, usually a good cover of native grass and clover mixture, 27%; corn, 1%; hay mixtures such as alfalfa, orchardgrass, lespedeza and other clovers, 16%; total cultivated, 17%; idle land, usually a good cover of tall weeds, brush and native grass, 9%; paved roads, 2%. 1/ Precipitation Thiessen weighted from R-1 and R-2. 2/ Determined from continuous records from September, 1960 through 1966, precipitation Thiessen weighted. 3/ Mean P based on 51-year (1916-66) U. S. Weather Bureau record period at Louisa, Virginia. Records at Mineral, Va. utilized to 1940. During change over, months of Jan. and Feb. 1941 and Mar., Oct., Nov., and Dec. 1940, had missing records.

1966 DAILY PRECIPITATION (inches)						BLACKSBURG, VIRGINIA FOSTERS CREEK W-I 13.14							
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	.10	.14S	.00	.00	.53	.00	.00	.00	.00	1.20	.26	.00	.00
2	.01	.00	.00	.00	.45	.00	.00	.00	.00	.00	.24	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.06	.00	.00	.00	.00	.55	.00	.00	.00	.00	.00
5	.48	.00	.06	.00	.00	.00	.04	.12	.00	.02	.00	.00	.00
6	.23	.00	.00	.00	.00	.00	.37	.00	.00	.00	.00	.00	.09
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	1.09	.00	.02	.00	.00	.00
10	.00	.08	.00	.00	.00	.33	.00	.00	.00	.00	.18	.26	.00
11	.00	.03	.00	.04	.00	.00	.00	.06	.00	.00	.00	.00	.00
12	.00	.69	.00	.34	.00	.00	.00	.04	.00	.00	.09	.00	.00
13	.00	.84	.01	.34	.11	.00	.00	.00	.07	.00	.00	.57E	.00
14	.00	.00	.19	.00	.33	.00	.70	.66	2.38	.00	.00	.00	.00
15	.08S	.02	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00
16	.00	.33	.00	.00	.00	.53	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.43	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.01	.00	.00	.00	.81	.00	.00	.00
19	.00	.00	.00	.00	.90	.02	.00	.00	1.25	1.45	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.20	1.93	.00	.00	.22M	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.95	.00	.00	.00	.00
22	1.09S	.00	.00	.35	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.17S	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.27S	.00
24	.00	.72M	.44	.00	.21	.00	.00	.00	.00	.00	.00	.53S	.00
25	.00	.03M	.00	.30	.15	.00	.00	.00	.00	.00	.10	.00	.00
26	.52S	.00	.00	.00	.08	.00	.00	.00	.13	.00	.00	.00	.00
27	.02S	.00	.00	.86	.10	.00	.00	.00	.33	.00	.02	.00	.00
28	.00	1.61	.00	.08	.33	.29	.12	.00	.44	.00	.65	.62M	.00
29	.51S	.00	.00	.00	.00	.00	.00	.00	.25	.00	.00	.52M	.00
30	.07S	-----	.03	.21	.03	.00	.48	.00	.00	.00	.01	.00	.00
31	.00	-----	.01	-----	.29	-----	.00	.00	-----	.00	.00	.00	.00
TOTAL	3.28	4.49	.80	2.53	3.51	1.61	1.76	2.72	7.73	3.50	1.55	3.08	
STA AV	2.82	3.94	3.60	2.60	2.72	2.89	2.60	2.67	3.62	3.21	2.63	2.72	

NOTES: PRECIPITATION AMOUNTS ARE THIESSEN WEIGHTED VALUES FROM GAGES R-1 & R-2. STA AV IS FOR PERIOD SEPTEMBER 1960 THROUGH 1966. FOR DRAINAGE PATTERN MAP OF WATERSHED SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61, MISC. PUB. 994, P. 13.14-4.

1966 MEAN DAILY DISCHARGE (cfs)						BLACKSBURG, VIRGINIA FOSTERS CREEK W-I 13.14							
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	.09	.08	1.94	.15	.56	.12	.02	.01	T	2.97	.10	.13	
2	.09	.08	.42	.15	2.21	.10	.01	.01	T	.59	.18	.13	
3	.09	.08	.27	.15	.66	.10	.01	.01	T	.16	.15	.13	
4	.09	.08	.24	.15	.33	.08	.01	.02	T	.07	.11	.13	
5	.11	.09	.21	.15	.28	.08	.02	.02	.00	.04	.11	.13	
6	.23	.09	.18	.15	.24	.08	.02	.01	.00	.03	.11	.13	
7	.11	.09	.15	.15	.20	.07	.02	.01	.00	.03	.11	.13	
8	.11	.14	.14	.15	.18	.07	.01	.01	.00	.03	.11	.13	
9	.11	.19	.14	.15	.17	.06	T	.31	.00	.03	.11	.13	
10	.10	.42	.14	.15	.17	.09	.01	.02	.00	.04	.16	.24	
11	.09	1.85	.13	.15	.17	.07	.01	.01	.00	.04	.13	.12	
12	.09	1.24	.13	.19	.17	.05	.01	.01	.00	.03	.13	.15	
13	.08	6.80	.13	.28	.16	.05	T	.01	.00	.05	.12	.37	
14	.07	.77	.16	.31	.27	.05	.01	.09	1.89	.05	.11	.26	
15	.06	.27	.14	.18	.17	.04	.07	.04	.01	.05	.11	.19	
16	.06	.60	.13	.15	.14	.10	.01	.01	.01	.05	.11	.22	
17	.06	.29	.13	.14	.13	.16	.01	.01	.01	.05	.11	.22	
18	.06	.18	.13	.13	.13	.08	.01	.01	.01	.11	.12	.22	
19	.06	.16	.13	.13	.75	.07	.01	.01	.06	4.22	.13	.22	
20	.06	.13	.13	.13	.16	.05	.01	.02	3.43	.43	.12	.24	
21	.06	.12	.13	.13	.12	.04	T	.02	6.19	.17	.11	.46	
22	.07	.12	.13	.19	.10	.03	.01	.02	.19	.14	.11	.20	
23	.32	.12	.13	.17	.10	.03	T	.01	.07	.12	.11	.17	
24	.11	.16	.28	.16	.11	.03	T	.01	.04	.11	.12	.17	
25	.08	.46	.19	.25	.16	.02	T	.01	.04	.11	.13	.17	
26	.08	.40	.17	.17	.13	.02	T	.01	.05	.09	.11	.17	
27	.09	.28	.17	.87	.13	.02	T	.01	.09	.09	.11	.17	
28	.07	10.24	.16	.81	.24	.03	T	T	.20	.09	.32	.26	
29	.08	-----	.15	.31	.13	.03	.01	T	.43	.09	.24	.68	
30	.08	-----	.15	.36	.10	.02	.01	T	.15	.09	.15	.37	
31	.08	-----	.15	-----	.17	-----	.01	T	-----	.09	-----	.29	
MEAN	.10	.91	.22	.22	.28	.06	.01	.02	.43	.33	.13	.22	
INCHES	.18	1.56	.42	.41	.54	.11	.02	.05	.79	.63	.24	.41	

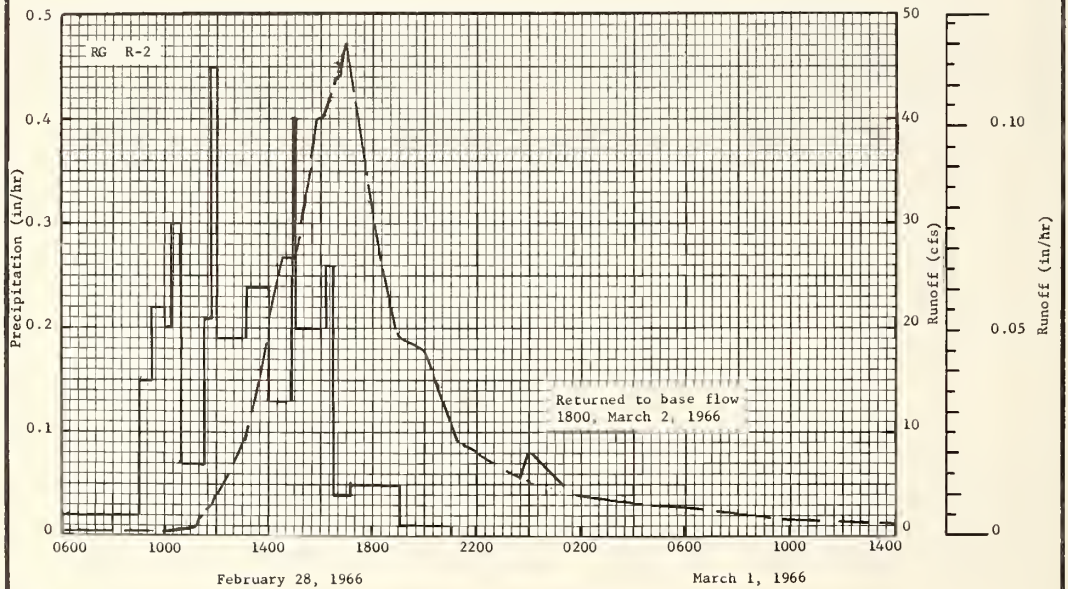
NOTES: TO CONVERT CFS TO IN/DAY, MULTIPLY BY 0.061187.

1966 SELECTED RUNOFF EVENT				BLACKSBURG, VIRGINIA FOSTERS CREEK W-I 13.14							
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME DF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME DF DAY	RATE (cfs)	ACC. (inches)	
Event of February 28 - March 2, 1966											
2-28	RG R-1 1/ .02	2/ .0060	2-28	0600	RG R-2 .00	.00	2-28	0920	.2472	.0000	
2-28	RG R-2 .00			0900	.02	.06		1000	.2904	.0005	
				0935	.15	.15		1032	.4120	.0009	
				1000	.22	.24		1048	.5651	.0013	
				1015	.20	.29		1100	.8359	.0016	
				1035	.30	.39		1120	1.8758	.0028	
				1130	.07	.45		1132	2.5822	.0039	
				1144	.21	.50		1140	2.7745	.0048	
				1200	.45	.62		1152	3.1159	.0063	
				1310	.19	.84		1156	3.4102	.0069	
				1400	.24	1.04		1208	3.7751	.0087	
				1454	.13	1.16		1232	6.6752	.0140	
				1500	.40	1.20		1244	7.8054	.0177	
				1614	.20	1.45		1300	9.0965	.0235	
				1630	.26	1.52		1308	9.1357	.0266	
				1710	.04	1.55		1340	14.5041	.0426	
				1900	.05	1.64		1412	23.4004	.0684	
				2300	.01	1.68		1432	26.8420	.0897	
								1500	26.8184	.1216	
					RG R-1	1.54		1520	30.2129	.1459	
					2 RG AVG 3/	1.60					
								1532	34.7926	.1624	
								1552	39.8745	.1941	
								1604	40.2041	.2145	
								1632	43.2925	.2642	
								1644	44.2775	.2865	
								1700	47.1305	.3176	
								1748	33.8115	.4001	
								1820	25.6647	.4405	
								1900	19.0366	.4785	
								2000	17.8986	.5255	

NOTES: TO CONVERT CFS TO IN/HR, MULTIPLY BY 0.0025495. FOR 30-DAY ANTECEDENT P & Q, SEE DAILY TABLES ON THIS AND PREVIOUS PAGE. 1/ .02 IN. FROM 0350 TO 0500. 2/ CONTINUOUS FLOW PRIOR TO 0920. 3/ THLESSEN WEIGHTED FOR RG R-1 & R-2.

1966 SELECTED RUNOFF EVENT			BLACKSBURG, VIRGINIA				FOSTERS CREEK W-I		13.14		
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)	
Event of February 28 - March 2, 1966 - Continued											
							2-28	2116	8.9944	.5689	
								2136	9.0337	.5766	
								2340	5.3959	.6146	
								2400	8.2174	.6203	
							3 -1	0140	3.9792	.6462	
								0300	3.4573	.6589	
								0620	2.4291	.6839	
								0920	1.7698	.6999	
								1400	1.1577	.7173	
								1800	.8830	.7277	
								2200	.6985	.7358	
								2400	.6475	.7392	
							3 -2	0900	.4160	.7515	
								1800	$\frac{1}{.3375}$.7601	

NOTES: TO CONVERT CFS TO IN/HR, MULTIPLY BY 0.0025495. $\frac{1}{.}$ NORMAL BASE FLOW.



BLACKSBURG, VIRGINIA FOSTERS CREEK W-I

MONTHLY PRECIPITATION AND RUNOFF (inches)						BLACKSBURG, VIRGINIA CHESTNUT BRANCH W-I 13.15 AREA—1058 ACRES (1.65 SQ. MILES)							
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	2.97	4.69	.78	1.39	5.14	1.70	2.99	3.95	7.87	4.46	2.34	3.02	41.30
1966	.23	1.33	.65	.35	.54	.19	.07	.16	.61	1.14	.51	.48	6.26
STA AV (60-66)	2.76	4.16	3.48	2.11	3.17	3.12	3.24	2.43	3.97	2.87	3.33	2.70	37.34
MEAN	.93	1.44	1.45	.81	.51	.48	.28	.21	.29	.48	.60	.69	8.17
36 YR	3.38	3.16	4.01	3.31	3.88	4.30	4.41	4.84	3.44	3.03	3.02	3.29	44.07

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	9-14	.08	2-28	.07	2-28	.13	2-28	.24	2-28	.31	2-28	.37	10-18	.44	2-10	.71

MAXIMUMS FOR PERIOD OF RECORD

19 60 TO 19 66	11-6 1961	.26	11-6 1961	.19	11-6 1961	.27	2-7 1965	.43	2-7 1965	.63	2-7 1965	.80	2-7 1965	.89	2-18 1961	1.42
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NOTES: Watershed conditions: Mixed cover; corn, 6%; tobacco, 1%; hay mixture such as alfalfa, red clover, lespedeza and native grass, 19%; total cultivated, 26%; permanent pasture, usually a good cover of native grass mixture, 30%; farm woods, a mixture of hardwoods and pine, 37%; idle land with good cover of weeds and annual grasses, 6%; roads, 1%.
 1/ Precipitation Thiessen weighted from R-1, R-2 and R-3. 2/ Determined from continuous records from September, 1960 through 1966, precipitation Thiessen weighted. 3/ Mean P based on 36-year (1931-66) U. S. Weather Bureau record period at Bedford, Virginia. Missing totals for 16 months were estimated from nearby Weather Bureau records at Lynchburg, Virginia (Airport).

1966 DAILY PRECIPITATION (inches)						BLACKSBURG, VIRGINIA CHESTNUT BRANCH W-I 13.15							
OAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	.00	.175	.00	.00	.28	.00	.00	.00	.01	1.38	.00	.00	
2	.00	.00	.00	.00	.87	.00	.00	.01	.00	.00	1.26	.00	
3	.03E	.00	.01	.04	.00	.00	.00	.13	.00	.00	.00	.00	
4	.00	.00	.48	.00	.00	.00	.00	.39	.00	.00	.00	.00	
5	.50	.20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
6	.18	.00	.00	.00	.00	.14	.68	.00	.00	.00	.00	.00	
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
8	.00	.00	.00	.00	.00	.04	.00	.00	.00	.00	.00	.00	
9	.00	.00	.00	.00	.00	.00	.00	.66	.00	.00	.00	.00	
10	.00	.31	.00	.00	.00	.81	.00	.21	.00	.00	.20	.44	
11	.00	.05	.00	T	.00	.01	.00	1.69	.00	.00	.00	.00	
12	.00	.55	.00	.06	.00	.00	.00	.01	.00	.00	.16	.00	
13	.04L	.76	.07	.19	.04	.00	.00	.12	.37	.00	.00	.78S	
14	T	.00	.00	.00	.05	.00	.44	.72	3.69	.00	.00	.00	
15	.24S	.31	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	
16	.00	.31	.00	.06	.00	.39	.00	.00	.01	.05	.00	.00	
17	.00	.00	.00	.00	.00	.11	.00	.00	.00	.00	.00	.00	
18	.00	.00	.00	.00	.30	.11	.00	.00	.00	1.28	.00	.00	
19	.00	.00	.00	.00	.84	.00	.00	.00	1.54	1.75	.00	.00	
20	.00	.00	.00	.00	.00	.00	.00	.00	.42	.00	.00	.08S	
21	.00	.00	.00	.05	.00	.00	.00	.00	.28	.00	.00	.00	
22	1.01S	.00	.00	.20	.00	.00	.00	.00	.00	.00	.00	.00	
23	.03S	.03S	.00	.00	.00	.00	.00	.00	.00	.00	.00	.39S	
24	.00	.71S	.22	.00	.29	.09	.00	.00	.00	.00	.00	.21S	
25	.00	T	.00	.08	.28	.00	.00	.00	.00	.00	.02	.00	
26	.49S	.00	.00	T	.00	.00	.00	.00	.56	.00	.00	.00	
27	.00	.01	.00	.47	2.14	.00	.00	.00	.51	.00	.13	.00	
28	.00	1.48	.00	.07	.05	.00	.00	.00	.25	.00	.57	.95M	
29	.41S	.00	.06	.00	.00	.00	.18	.00	.23	.00	.00	.14M	
30	.04S	.00	.11	.00	.00	.00	1.69	.00	.00	.00	.00	.00	
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
TOTAL	2.97	4.69	.78	1.39	5.14	1.70	2.99	3.95	7.87	4.46	2.34	3.02	
STA AV	2.76	4.16	3.48	2.11	3.17	3.12	3.24	2.43	3.97	2.87	3.33	2.70	

NOTES: PRECIPITATION VALUES ARE THIESSEN WEIGHTED AMOUNTS FROM R-1, R-2 AND R-3. STA AV IS FOR PERIOD SEPTEMBER 1960 THROUGH 1966. FOR DRAINAGE PATTERN MAP OF WATERSHED SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61, MISC. PUB. 994, P. 13.15-5.

1966 MEAN DAILY DISCHARGE (cfs)						BLACKSBURG, VIRGINIA		CHESTNUT BRANCH W-I		13.15		
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.25	.57	4.11	.61	.44	.50	.12	.09	.08	9.10	.61	.51
2	.25	.40	1.83	.61	1.47	.44	.11	.07	.07	2.76	3.28	.49
3	.25	.38	1.37	.61	.79	.41	.11	.11	.06	1.44	1.60	.46
4	.25	.35	1.70	.61	.55	.38	.09	.16	.06	1.01	1.04	.47
5	.30	.32	1.56	.61	.48	.34	.09	.18	.05	.82	.90	.49
6	.58	.32	1.12	.61	.44	.32	.24	.12	.05	.70	.79	.49
7	.32	.38	.99	.61	.42	.33	.16	.09	.04	.63	.75	.47
8	.30	.51	.90	.61	.40	.33	.09	.09	.04	.54	.69	.45
9	.30	.88	.86	.58	.38	.30	.09	.10	.04	.50	.67	.45
10	.30	1.70	.81	.52	.38	.74	.08	.35	.05	.46	.75	.60
11	.30	4.84	.76	.49	.38	.44	.08	1.26	.04	.42	.72	.69
12	.30	3.46	.72	.49	.36	.28	.07	1.34	.05	.42	.73	.52
13	.30	12.11	.72	.49	.36	.26	.06	.24	.06	.42	.64	.65
14	.30	2.70	.72	.49	.38	.25	.06	.66	7.63	.42	.58	.75
15	.31	1.63	.72	.49	.35	.24	.18	.48	.50	.40	.55	.90
16	.33	3.44	.69	.49	.34	.25	.08	.25	.30	.39	.55	.84
17	.30	1.76	.64	.49	.31	.33	.06	.19	.24	.38	.55	.92
18	.29	1.21	.61	.49	.32	.32	.06	.15	.22	.98	.55	.90
19	.28	1.00	.61	.49	2.23	.27	.06	.14	1.58	16.61	.53	.87
20	.28	.85	.61	.49	.78	.23	.05	.14	5.27	2.63	.49	.84
21	.28	.75	.61	.49	.36	.21	.04	.14	1.66	1.52	.49	.81
22	.35	.76	.61	.49	.34	.19	.04	.13	1.01	1.19	.49	.78
23	.62	.68	.61	.49	.31	.18	.03	.11	.67	.99	.49	.75
24	.38	.67	.61	.49	.42	.18	.03	.09	.49	.90	.49	.72
25	.34	1.09	.61	.49	.42	.17	.03	.09	.43	.84	.49	.68
26	.32	.95	.61	.49	.36	.15	.03	.10	.49	.74	.49	.67
27	.32	.96	.61	.49	4.48	.15	.02	.10	1.88	.72	.51	.67
28	.30	14.64	.61	.49	3.38	.14	.02	.08	1.41	.68	.97	.74
29	.28		.61	.43	1.08	.13	.02	.08	1.63	.65	.64	.90
30	.31		.61	.44	.73	.11	.51	.08	1.02	.61	.56	.90
31	.65		.61		.59		.17	.08		.61		.91
MEAN	.33	2.12	.93	.52	.78	.29	.09	.24	.90	1.63	.75	.69
INCHES	.23	1.33	.65	.35	.54	.19	.07	.16	.61	1.14	.51	.48

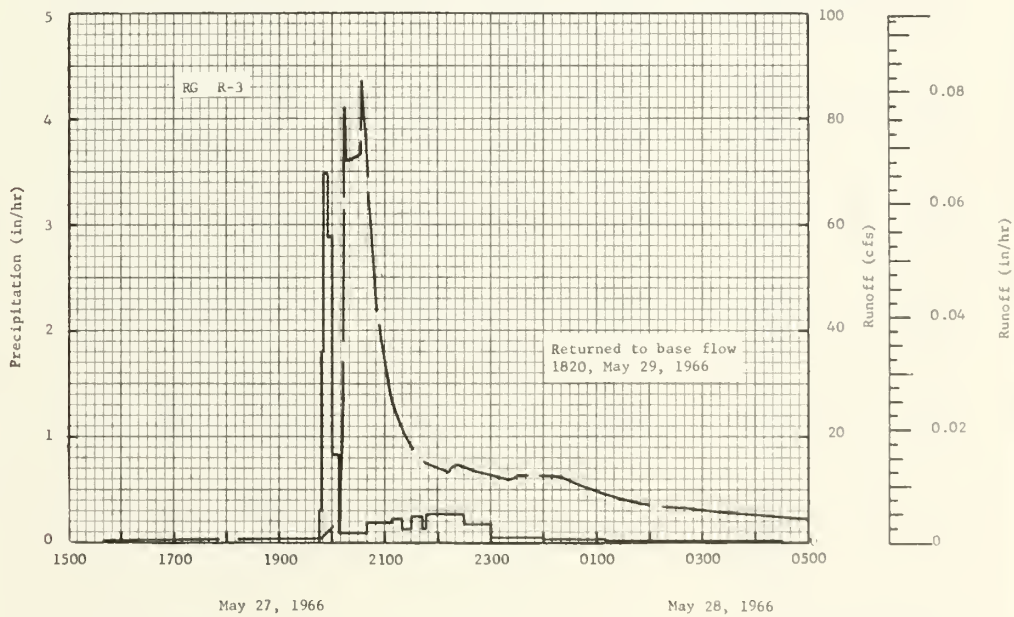
NOTES: TO CONVERT CFS TO LN/DAY, MULTIPLY BY 0.022497.

1966 SELECTED RUNOFF EVENT				BLACKSBURG, VIRGINIA		CHESTNUT BRANCH W-I		13.15			
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MD-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MD-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MD-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)	
Event of May 27-29, 1966											
5-27	RG R-1 1/.33	2/.0074	5-27	1828	RG R-2 .00	.00	5-27	1540	.3732	.0000	
				1840	.05	.01		1948	.5332	.0018	
				1853	2.86	.63		2010	4.7242	.0027	
5-27	RG R-2 3/.43			1855	.30	.64		2012	16.5721	.0030	
				1858	3.00	.79		2014	82.2529	.0045	
5-27	RG R-3 4/.34			1900	.30	.80		2016	72.1965	.0069	
				1920	2.16	1.52		2032	73.3909	.0291	
				1930	1.26	1.73		2034	87.6490	.0277	
				1940	1.20	1.93		2040	70.5756	.0351	
				1950	.42	2.00		2044	59.4102	.0391	
<u>Watershed conditions</u>				1958	.22	2.03		2050	45.0882	.0440	
Woods, mixture of hardwood, fully leaved, and conifers, good cover, 37%; pasture, native grass mixture, good cover, 30%; hay, mostly alfalfa and orchardgrass mixture, 8 to 12 in. high, excellent cover, 19%; corn, small mostly fallow ground, poor cover, 6%; idle, good cover of grass and weeds, 6%; fallowed tobacco land, poor cover, 1%; roads, 1%.				2020	.05	2.05		2100	34.5200	.0503	
				2130	.13	2.20		2104	29.2839	.0523	
				2200	.08	2.24		2120	21.7763	.0586	
				2215	.24	2.30		2132	17.8518	.0624	
				2234	.19	2.36		2148	14.7806	.0664	
				2250	.19	2.41		2156	14.0874	.0682	
				2300	.24	2.45		2212	13.4262	.0717	
				2400	.05	2.50		2218	14.2367	.0730	
			5-28	0045	.03	2.52		2228	14.1300	.0752	
				0230	.02	2.55		2240	13.3302	.0778	
								2300	12.5517	.0818	
								2308	12.2532	.0834	
			5-27	1946	.00	.00		2320	11.9759	.0856	
				1948	.30	.01		2332	12.3171	.0879	
				1950	1.80	.07		2400	12.6051	.0934	
				1955	3.48	.36		0020	12.5517	.0973	
				2000	2.88	.60	5-28	0100	9.4271	1.042	
				2008	.83	.71		0140	7.8915	1.096	
				2040	.09	.76		0200	7.1237	1.119	

NOTES: TO CONVERT CFS TO LN/HR, MULTIPLY BY 0.0009374. FOR 30-DAY ANTECEDENT P AND Q, SEE DAILY TABLES ON THIS AND PREVIOUS PAGE. 1/.29 IN. FROM 0100 TO 0400; .04 IN. FROM 0830 TO 0840. 2/ CONTINUOUS FLOW PRIOR TO 1540. 3/.27 IN. FROM 0118 TO 0400; .16 IN. FROM 1447 TO 1530. 4/.32 IN. FROM 0110 TO 0410; .02 IN. FROM 0530 TO 0630.

1966 SELECTED RUNOFF EVENT			BLACKSBURG, VIRGINIA				CHESTNUT BRANCH W-I		13.15	
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
Event of May 27-29, 1966 - Continued										
			5-27	2109	RG R-3 .19	.85	5-28	0212	6.8784	.1132
				2120	.22	.89		0240	6.4625	.1161
				2130	.12	.91		0348	5.2148	.1223
				2142	.25	.96		0420	4.7989	.1248
				2147	.12	.97		0620	3.8178	.1329
				2230	.27	1.16		0800	3.1673	.1384
				2300	.18	1.25		1000	2.7940	.1440
				2400	.04	1.29		1300	2.3035	.1512
			5-28	0110	.03	1.33		1740	1.7596	.1601
				0250	.01	1.34		2000	1.5890	.1637
				0430	.01	1.35		2128	1.5143	.1659
				RG	R-1	1.28		2148	1.5996	.1663
				3 RG	AVG 1/	1.82		2208	1.5890	.1668
								2400	1.4183	.1695
							5-29	1040	1.1517	.1823
								1200	1.0664	.1837
								1600	.8958	.1874
								1820	2/ .8425	.1893

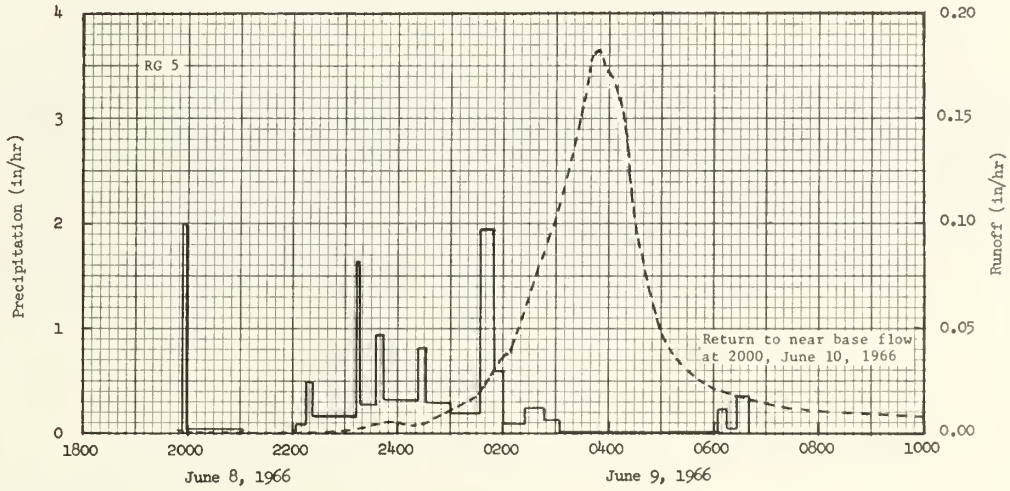
NOTES: TO CONVERT CFS TO IN/HR, MULTIPLY BY 0.0009374. 1/ THIESSEN WEIGHTED FOR RG R-1, R-2 & R-3. 2/ NORMAL BASE FLOW.



BLACKSBURG, VIRGINIA CHESTNUT BRANCH W-I

MONTHLY PRECIPITATION AND RUNOFF (inches)						IOWA CITY, IOWA RALSTON CREEK AREA—1930 ACRES (3.01 SQ. MILES)										
MONTH YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P 1/ Q 2/	1.19 .52	.91 1.10	1.99 .80	3.41 .87	5.32 1.86	7.57 2.02	3.59 .63	.21 .06	1.06 .00	2.43 .05	1.51 .09	.84 .03	30.03 8.03			
STA AV 3/P (25-66) Q	1.12 .43	1.05 .92	1.99 1.25	2.96 .73	3.64 .70	4.56 .78	3.92 .51	3.33 .29	3.50 .34	2.48 .28	2.08 .37	1.23 .26	31.86 6.86			
MEAN P 4/ 116 YR	1.50	1.40	2.32	2.90	4.02	4.52	3.89	3.57	3.90	2.53	2.05	1.55	34.15			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
1966	5-23	.21	5-23	.19	5-23	.30	2-8	.45	2-8	.62	2-8	.76	2-8	.91	2-8	1.12
MAXIMUMS FOR PERIOD OF RECORD																
1925 to 1966	7-18 1956	.86	7-18 1956	.65	7-14 1962	.93	7-14 1962	2.23	7-14 1962	2.52	7-13 1962	2.62	7-13 1962	2.72	3-18 1962	4.15
NOTES: Watershed conditions: Approximately 20% timber; 13% row crops; 6% small grain; 12% hay; 45% pasture; and 4% roads and farmsteads. 1/ Precipitation, Thiessen average of five recording rain gages. 2/ Runoff records furnished by U. S. Geological Survey. 3/ Precipitation and runoff records began Sept. 1, 1924. Sept. 1-Dec. 31, 1924 amounts not included in average. 4/ Mean P based on 116-yr (1851-1966) U. S. Weather Bureau record period at Dubuque, Ia.																
1966 SELECTED RUNOFF EVENT				IOWA CITY, IOWA				RALSTON CREEK								
ANTECEDENT CONDITIONS			RAINFALL			RUNOFF										
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)						
Event of June 8-10, 1966																
5-9	5 RG 5/ .00	.0124	6-8	RG 1957	5 .00	.00	6-8	2000	.0006	.0000						
5-10	.14	.0185		2000	2.00	.10		2030	.0012	.0004						
5-11	1.99	.0865		2105	.06	.17		2115	.0009	.0012						
5-12	.04	.0741		2205	.00	.17		2210	.0009	.0020						
								2300	.0013	.0030						
5-13	.00	.0618		2217	.10	.19		2345	.0051	.0054						
5-14	.00	.0247		2223	.50	.24		2400	.0051	.0066						
5-15	.74	.0494		2312	.18	.39	6-9	0010	.0049	.0074						
5-16	.00	.0309		2316	1.65	.50		0110	.0136	.0167						
5-17	.37	.0618		2335	.28	.59		0130	.0176	.0218						
5-18	.09	.0371		2345	.96	.75		0200	.0365	.0354						
5-19	.00	.0433	6-9	0021	.33	.95		0210	.0382	.0416						
5-20	.22	.0494		0032	.82	1.10		0310	.116	.1053						
5-21	.00	.0433		0100	.30	1.24		0340	.176	.1914						
5-22	.00	.0346		0135	.20	1.36		0350	.183	.2213						
5-23	1.73	.6303		0150	1.96	1.85		0405	.166	.2649						
5-24	.00	.1223		0200	.60	1.95		0430	.0977	.3197						
5-25	.00	.0741		0225	.10	1.99		0500	.0493	.3565						
5-26	.00	.0630		0248	.26	2.09		0600	.0210	.3916						
5-27	.00	.0470		0305	.14	2.13		0700	.0146	.4091						
5-28	.00	.0346		0605	.01	2.17		0730	.0116	.4155						
5-29	.00	.0272		0615	.24	2.21		0920	.0096	.4349						
5-30	.00	.0222		0627	.05	2.22		1100	.0069	.4487						
5-31	.00	.0185		0640	.37	2.30		1300	.0053	.4608						
6-1	.00	.0148						1500	.0045	.4706						
6-2	.00	.0124		RG	1	2.37		1700	.0040	.4790						
6-3	.10	.0198		RG	2	2.40		2100	.0034	.4937						
6-4	.00	.0222		RG	3	2.37		2400	.0031	.5034						
6-5	.47	.0247		RG	4	2.40	6-10	0800	.0026	.5264						
6-6	.05	.0222						0945	.0026	.5310						
6-7	.00	.0136		5 RG	AVG 5/	2.37		1700	.0021	.5482						
6-8	.00	.0124						2000	7/.0020	.5544						
Watershed conditions: Crop heights: Corn 2-12 in. Soybeans 0-6 in. Small grain 28 in. Hay 8-14 in. Pasture 3-12 in.																
NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 1946.08. FOR TOPOGRAPHIC MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1963, USDA MISC. PUB. 1164, P. 21.1-4. 5/ THIESSEN AVERAGE OF FIVE RECORDING RAIN GAGES. 6/ RUNOFF PRIOR TO 2000. 7/ RETURN TO NEAR BASE FLOW.																

Cooperative Research Project of USDA, U. S. Geological Survey, and University of Iowa



IOWA CITY, IOWA RALSTON CREEK

MONTHLY PRECIPITATION AND RUNOFF (inches)						McCREIDIE, MISSOURI STATION RESERVOIR WATERSHED W-1 AREA—15 ¹ / ₄ ACRES										
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL		
1966	P ¹ / _Q	.34 .01	2.46 .57	.87 .08	5.18 1.06	2.98 .12	2.70 .06	3.23 .00	1.04 .00	1.67 .00	.86 .00	1.06 .00	2.38 .06	24.77 1.96		
STA AV ² / ₍₄₁₋₆₆₎	P Q	1.39 .46	1.67 .69	2.75 1.22	3.65 1.13	3.99 .78	4.32 .75	3.51 .43	2.92 .07	3.57 .42	3.27 .81	1.91 .37	1.60 .32	34.55 7.45		
MEAN P ³ / _{77 YR}		1.81	1.80	2.90	3.72	4.65	4.62	3.52	3.68	4.33	2.84	2.15	1.81	37.83		
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	4-20	.13	4-20	.12	4-20	.20	4-20	.39	4-20	.56	4-20	.65	4-19	.68	4-19	.99
MAXIMUMS FOR PERIOD OF RECORD																
¹⁹ 41 TO ¹⁹ 66	10-4 1941	2.02	10-4 1941	1.20	10-4 1941	1.96	10-4 1941	3.94	10-4 1941	6.97	10-4 1941	7.74	10-3 1941	8.06	10-2 1941	8.80
NOTES: Watershed conditions: 41% pasture and meadow; 24% alfalfa; 29% row crops of corn and soybeans; 6% roads and farmstead. ¹ / Precipitation, Thiessen average of 4 recording gages and 1 non-recording gage.																
² / Precipitation and runoff records began Jan. 1, 1941. ³ / Mean P based on 77-yr (1890-1966) U. S. Weather Bureau record period at Columbia, Mo.																
NOTES: NO SIGNIFICANT RUNOFF EVENT FOR PRESENTATION OCCURRED IN 1966. FOR REVISED TOPOGRAPHIC MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1963, USDA MISC. PUB. 1164, P. 25.1-8.																

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCTON, OHIO WATERSHED 102 AREA — 1.26 ACRES							26.01			
MONTH YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P/ O	3.40 .08	2.52 .39	1.50 .00	4.36 .18	2.56 .00	1.62 .00	3.69 .00	3.08 .60	2.25 .00	.68 .00	4.32 .00	2.45 .00	32.43 .65			
STA AV ² / _P (37-66) Q	1.77 .03	2.46 .06	4.13 .15	3.43 .07	3.85 .01	4.92 .19	3.81 .03	3.39 .04	2.30 .02	2.37 .01	2.33 T	2.17 .00	36.93 .61			
MEAN P ³ / 57 YR	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
1966	2-13	.06	2-13	.05	2-13	.09	2-13	.20	2-13	.22	2-13	.22	2-13	.22	2-9	.39
MAXIMUMS FOR PERIOD OF RECORD																
1937 TO 1966 4	6-12 1957	3.64	6-12 1957	1.31	6-12 1957	1.32	6-12 1957	1.32	6-12 1957	1.32	6-12 1957	1.33	3-4 1960	1.50	3-1 1963	1.69
NOTES: Watershed conditions: Improved permanent pasture. 1/ Rain gage Y101. 2/ Precipitation and runoff records began Apr. 1937. Watershed discontinued Jan. 1, 1947, to Apr. 30, 1957, and Sept. 1, 1957, to Mar. 29, 1960. 3/ Mean P based on 57-yr. (1909-65) U. S. Weather Bureau record period at Coshocton, Ohio. 4/ Maximums taken for 1947 through 1956 or 1958 and 1959.																
NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.1-4. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.1-1 AND 26.30-3.																
Cooperative Research Project of USOA and Ohio Agricultural Research and Development Center																
26.1-1																
MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCTON, OHIO WATERSHED 129 AREA — 2.71 ACRES							26.03			
MONTH YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P/ O	3.62 .08	2.53 .25	1.18 .00	4.35 .06	2.60 .00	1.45 .00	3.46 .00	2.90 .00	2.41 .00	.60 .00	4.17 .00	2.23 .00	31.50 .39			
STA AV ² / _P (38-66) Q	2.77 .05	2.52 .12	3.45 .18	3.46 .05	3.73 .05	4.18 .15	4.06 .06	3.06 .04	2.54 .05	2.10 .01	2.41 T	2.15 .01	36.43 .77			
MEAN P ³ / 57 YR	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
1966	2-10	.06	2-10	.06	2-10	.12	2-10	.24	2-10	.25	2-10	.25	2-10	.25	2-10	.25
MAXIMUMS FOR PERIOD OF RECORD																
1938 TO 1966	6-12 1957	2.36E	6-12 1957	.98E	9-1 1950	1.01	3-4 1963	1.53	3-4 1963	2.42	3-4 1963	2.90	3-3 1963	3.51	3-3 1963	4.00
NOTES: Watershed conditions: Improved permanent pasture. 1/ Rain gage 100. 2/ Precipitation and runoff records began Apr. 1938. 3/ Mean P based on 57-yr. (1909-65) U. S. Weather Bureau record period at Coshocton, Ohio.																
NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USOA MISC. PUB. 945, P. 26.3-5. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.3-1 AND 26.30-3.																
Cooperative Research Project of USOA and Ohio Agricultural Research and Development Center																
(See 26.1-1 above)																
26.3-1																

MONTHLY PRECIPITATION AND RUNOFF (inches)							COSHOGTON, OHIO WATERSHED 135 AREA — 2.69 AGRES							26.04		
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ₁ / Q	3.62 T	2.53 .21	1.18 .00	4.35 .00	2.60 .00	1.45 .00	3.46 .00	2.90 .00	2.41 .00	.60 .00	4.17 .00	2.23 .00	31.50 .21			
STA AV ² / _Q P (38-66) Q	2.77 .04	2.52 .13	3.45 .12	3.46 .03	3.73 .02	4.18 .11	4.06 .05	3.06 .04	2.54 .04	2.10 T	2.41 .01	2.15 .01	36.43 .60			
MEAN 57 YR P ₃ / Q	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-10	.07	2-10	.06	2-10	.12	2-10	.21	2-10	.21	2-10	.21	2-10	.21	2-10	.21
MAXIMUMS FOR PERIOD OF RECORD																
1938 TO 1966	6-12 1957	2.38	6-12 1957	.92	9-1 1950	.94	3-4 1963	1.55	3-4 1963	2.19	3-4 1963	2.51	3-3 1963	3.06E	3-3 1963	3.07E
NOTES: Watershed conditions: Prevailing practice permanent pasture. 1/ Rain gage 100. 2/ Precipitation and runoff records began Apr. 1938. 3/ Mean P based on 57-yr. (1909-65) U. S. Weather Bureau record period at Coshocton, Ohio.																
NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.4-5. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.4-1 AND 26.30-3.																
Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center																
26.4-1																

MONTHLY PRECIPITATION AND RUNOFF (inches)							COSHOGTON, OHIO WATERSHED 130 AREA — 1.63 AGRES							26.05		
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ₁ / Q	3.35 .11	2.16 .10	1.04 .00	4.01 .10	2.49 .00	1.48 .00	3.10 .00	2.83 .00	2.24 .00	.62 .00	3.93 .00	2.21 .00	29.46 .31			
STA AV ² / _Q P (38-66) Q	2.72 .10	2.41 .15	3.31 .20	3.35 .09	3.68 .03	4.11 .18	4.13 .06	2.94 .02	2.56 .05	2.10 T	2.39 T	2.11 .01	35.81 .89			
MEAN 57 YR P ₃ / Q	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	4-27	.06	4-27	.05	4-27	.08	4-27	.10	4-27	.10	4-27	.10	4-27	.10	1-2	.11
MAXIMUMS FOR PERIOD OF RECORD																
1938 TO 1966	6-12 1957	4.06	6-12 1957	1.42	6-12 1957	1.44	3-4 1963	1.55	3-4 1963	2.16	3-4 1963	2.54	3-3 1963	3.14E	3-3 1963	3.13E
NOTES: Watershed conditions: Improved practice meadow. 1/ Rain gage 103. 2/ Precipitation and runoff records began May 1938. 3/ Mean P based on 57-yr. (1909-65) U. S. Weather Bureau record period at Coshocton, Ohio																
NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.5-5. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.5-1 AND 26.30-3.																
Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center																
(See 26.4-1 above)																
26.5-1																

MONTHLY PRECIPITATION AND RUNOFF (inches)							COSHOCKTON, OHIO WATERSHED 131 AREA - 2.21 ACRES							26.07
MONTH YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966 P ^{1/} O	3.35 .00	2.16 .03	1.04 .00	4.01 .02	2.49 .00	1.48 .00	3.10 .00	2.83 .00	2.24 .00	.62 .00	3.93 .00	2.21 .00	29.46 .05	
STA AV ^{2/} (48-66) P Q	2.72 .03	2.41 .02	3.31 .04	3.35 .02	3.68 .01	4.11 .04	4.13 T	2.94 T	2.56 .01	2.10 T	2.39 T	2.11 T	35.81 .17	
MEAN 57 YR P ^{3/}	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53	

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	4-27	.01	2-10	.01	2-10	.02	2-10	.03	2-10	.03	2-10	.03	2-10	.03	2-10	.03

MAXIMUMS FOR PERIOD OF RECORD

1938 TO 1966	6-12 1957	1.18	6-12 1957	.41	6-12 1957	.45	6-12 1957	.45	6-12 1957	.45	6-12 1957	.45	6-12 1957	.45	6-12 1957	.45
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NOTES: Watershed conditions: Uneven age stand of mixed hardwoods in good woodland management. ^{1/} Rain gage 103.
^{2/} Precipitation and runoff records began May 1938. ^{3/} Mean P based on 57-yr (1909-65) U. S. Weather Bureau record period at Coshocton, Ohio.

NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.7-5. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.7-1 AND 26.30-3.

Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center

26.7-1

MONTHLY PRECIPITATION AND RUNOFF (inches)							COSHOCKTON, OHIO WATERSHED 132 AREA - 0.590 ACRE							26.08
MONTH YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966 P ^{1/} O	3.35 .58	2.16 .51	1.04 .01	4.01 .99	2.49 .25	1.48 .00	3.10 .00	2.83 .00	2.24 .00	.62 .00	3.93 .00	2.21 .00	29.46 2.34	
STA AV ^{2/} (48-66) P Q	3.28 .24	2.60 .24	3.19 .46	3.50 .38	3.11 .09	3.58 .14	4.29 .01	2.62 T	2.59 .01	1.87 T	2.50 .00	2.23 .01	35.36 1.58	
MEAN 57 YR P ^{3/}	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53	

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	4-27	.10	4-27	.10	4-27	.19	4-27	.50	4-27	.68	4-27	.70	4-27	.70	4-24	.99

MAXIMUMS FOR PERIOD OF RECORD

1948 TO 1966	6-12 1957	2.00E	4-25 1961	.73	4-25 1961	.99	4-25 1961	1.37	3-9 1964	1.67	3-9 1964	2.37	3-9 1964	2.78	3-4 1964	3.52
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NOTES: Watershed conditions: Uneven age stand of mixed hardwoods in good woodland management. ^{1/} Rain gage 103.
^{2/} Precipitation and runoff records began May 1948. ^{3/} Mean P based on 57-yr (1909-65) U. S. Weather Bureau record period at Coshocton, Ohio.

NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR REVISED MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070 P. 26.8-2. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.8-1 AND 26.30-3.

Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center

(See 26.7-1 above)
26.8-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCKTON, OHIO WATERSHED 123 AREA — 1.37 ACRES								26.10		
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ₁ / _Q	3.38 .58	2.66 .54	1.40 .00	4.50 .46	2.60 .00	1.67 .00	3.68 .00	2.92 .00	2.36 .00	.73 .00	4.49 .00	2.51 .00	32.90 1.58			
STA AV ² / _Q (39-66)	2.81 .38	2.55 .36	3.41 .45	3.58 .27	3.74 .13	4.38 .31	4.17 .13	3.05 .08	2.59 .05	2.23 .02	2.51 .01	2.28 .12	37.30 2.31			
MEAN P ₃ / _Q 57 YR	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	4-27	.19	4-27	.14	4-27	.25	4-27	.40	2-13	.41	2-13	.42	2-13	.42	1-2	.58
MAXIMUMS FOR PERIOD OF RECORD																
1939 TO 1966	6-12 1957	5.97	6-12 1957	1.37	6-12 1957	1.48	6-28 1957	1.51	1-21 1959	1.84	1-21 1959	2.33	1-21 1959	2.33	3-4 1964	2.66
NOTES: Watershed conditions: Wheat, of a wheat, meadow, meadow, corn rotation; improved practice. 1/ Rain gage Y103. 2/ Precipitation and runoff records began Jan. 1939. 3/ Mean P based on 57-yr (1909-65) U. S. Weather Bureau record period at Coshocton, Ohio																
NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISG. PUB. 945, P. 26.10-6. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISG. PUB. 1070, PP. 26.10-1 AND 26.30-3.																
Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center																
26.10-1																
MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCKTON, OHIO WATERSHED 115 AREA — 1.61 ACRES								26.11		
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ₁ / _Q	3.38 .52	2.66 .92	1.40 .00	4.50 .42	2.60 .04	1.67 .00	3.68 .00	2.92 .00	2.36 .00	.73 .00	4.49 .00	2.51 .00	32.90 1.90			
STA AV ² / _Q (39-66)	2.85 .22	2.49 .26	3.41 .22	3.58 .14	3.74 .15	4.38 .40	4.17 .30	3.05 .16	2.59 .13	2.23 .03	2.51 .02	2.28 .05	37.28 2.08			
MEAN P ₃ / _Q 57 YR	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	4-27	.13	4-27	.10	4-27	.18	4-27	.31	2-10	.36	2-10	.40	2-10	.42	2-10	.78
MAXIMUMS FOR PERIOD OF RECORD																
1939 TO 1966	6-12 1957	4.12	9-1 1950	1.33	9-1 1950	1.56	9-1 1950	1.58	9-1 1950	1.59	9-1 1950	1.59	3-3 1963	1.66	6-29 1941	2.85
NOTES: Watershed conditions: Wheat, of a wheat, meadow, meadow, corn rotation; prevailing practice. 1/ Rain gage Y103. 2/ Precipitation and runoff records began Apr. 1939. 3/ Mean P based on 57-yr (1909-65) U. S. Weather Bureau record period at Coshocton, Ohio.																
NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISG. PUB. 945, P. 26.11-6. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISG. PUB. 1070, PP. 26.11-1 AND 26.30-3.																
Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center																

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCTON, OHIO WATERSHED 127 AREA — 1.65 ACRES							26.12
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ₁	3.38	2.66	1.40	4.50	2.60	1.67	3.68	2.92	2.36	.73	4.49	2.51	32.90
Q	.41	1.92	.04	.20	.00	.00	.00	.00	.00	.00	.00	.06	2.63
STA AV ₂ /P	3.30	2.76	3.31	3.82	3.21	3.75	4.31	2.94	2.61	1.93	2.62	2.38	36.94
(49-66) Q	.81	.79	.62	.38	.07	.28	.11	.07	.08	.02	.04	.28	3.55
MEAN P ₃	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53
57 YR													

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-13	.12	2-13	.10	2-13	.16	2-13	.40	2-13	.60	2-12	.64	2-11	.71	2-10	1.44

MAXIMUMS FOR PERIOD OF RECORD																
1949 TO	6-12	3.12	9-1	1.33	9-1	1.48	6-12	1.49	1-26	1.97	1-26	2.65	1-25	2.82	1-25	2.85
1966	1957		1950		1950		1957		1952		1952		1952		1952	

NOTES: Watershed conditions: Wheat, of a wheat, meadow, meadow, corn rotation; improved practice. 1/ Rain gage Y103. 2/ Precipitation and runoff records began May 1949. 3/ Mean P based on 57 yr. (1909-65) U. S. Weather Bureau record period at Coshocton, Ohio.

NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.12-5. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.12-1 AND 26.30-3.

Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center
26.12-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCTON, OHIO WATERSHED 109 AREA — 1.69 ACRES							26.13
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ₁	3.50	2.63	1.44	4.25	2.55	1.62	3.58	2.85	2.26	.62	4.27	2.41	31.98
Q	.01	.15	.00	T	T	.00	.00	.00	.00	.00	.00	.00	.16
STA AV ₂ /P	2.69	2.44	3.37	3.54	3.76	4.36	4.26	3.00	2.62	2.18	2.42	2.16	36.80
(38-66) Q	.07	.17	.15	.05	.11	.29	.23	.17	.05	.01	T	.02	1.32
MEAN P ₃	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53
57 YR													

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-13	.03	2-13	.02	2-13	.04	2-13	.08	2-13	.08	2-13	.08	2-13	.08	2-9	.15

MAXIMUMS FOR PERIOD OF RECORD																
1939 TO	5-17	4.34E	6-29	.82E	6-28	1.09	3-4	1.35	3-4	1.92	3-4	2.17	3-3	2.55	3-1	2.66
1966	1941		1941		1940		1963		1963		1963		1963		1963	

NOTES: Watershed conditions: Wheat, of a wheat, meadow, meadow, corn rotation; improved practice. 1/ Rain gage Y102. 2/ Precipitation and runoff records began Nov. 1938. 3/ Mean P based on 57-yr. (1909-65) U.S. Weather Bureau record period at Coshocton, Ohio.

NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.13-4. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.13-1 AND 26.30-3.

Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center
(See 26.12-1 above)
26.13-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCKTON, OHIO WATERSHED 103						26.14				
						AREA — 0.650 ACRE										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ₁ / ₀	3.39 .11	2.32 .39	1.00 T	4.00 .54	2.52 .01	1.47 .00	3.33 .00	2.66 .00	2.43 .00	.63 .00	4.00 .00	2.09 .00	29.84 1.05			
STA AV ² / _P (39-66) Q	2.68 .33	2.31 .38	3.25 .62	3.38 .30	3.53 .14	4.14 .40	4.06 .27	2.91 .13	2.59 .14	2.09 .03	2.35 .03	2.12 .10	35.41 2.87			
MEAN P ₃ / ₅₇ YR	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-13	.07	2-13	.06	4-27	.10	4-27	.25	4-27	.38	4-27	.44	4-27	.46	4-27	.54
MAXIMUMS FOR PERIOD OF RECORD																
1939 to 1966	7-23 1940	4.72	9-1 1950	1.95	9-1 1950	2.60	9-1 1950	2.62	3-4 1963	2.82	3-4 1963	3.07	3-3 1963	3.50	3-1 1963	4.15
NOTES: Watershed conditions: Corn, of a corn, wheat, meadow, meadow rotation; improved practice. <u>1</u> / Rain gage 107. <u>2</u> / Precipitation and runoff records began Apr. 1939. <u>3</u> / Mean P based on 57-yr. (1909-65) U.S. Weather Bureau record period at Coshocton, Ohio.																
NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.14-5. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.14-1 AND 26.30-3.																
Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center																
26.14-1																
MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCKTON, OHIO WATERSHED 110						26.15				
						AREA — 1.27 ACRES										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ₁ / ₀	3.39 .10	2.32 .16	1.00 .00	4.00 .03	2.52 .00	1.47 .00	3.33 .00	2.66 .00	2.43 .00	.63 .00	4.00 .00	2.09 .00	29.84 .29			
STA AV ² / _P (39-66) Q	2.68 .23	2.31 .25	3.25 .40	3.38 .16	3.53 .13	4.14 .36	4.06 .27	2.91 .11	2.59 .15	2.09 .04	2.35 .02	2.12 .10	35.41 2.22			
MEAN P ₃ / ₅₇ YR	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	1-2	.02	1-2	.02	2-13	.04	2-13	.09	2-13	.10	2-13	.10	2-13	.10	2-10	.16
MAXIMUMS FOR PERIOD OF RECORD																
1939 to 1966	7-28 1950	4.44	9-1 1950	2.24	9-1 1950	3.16	9-1 1950	3.19	9-1 1950	3.19	9-1 1950	3.20	3-3 1963	4.12	3-1 1963	5.05
NOTES: Watershed conditions: Corn, of a corn, wheat, meadow, meadow rotation; prevailing practice. <u>1</u> / Rain gage 107. <u>2</u> / Precipitation and runoff records began Apr. 1939. <u>3</u> / Mean P based on 57-yr. (1909-65) U.S. Weather Bureau record period at Coshocton, Ohio.																
NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.14-5. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.15-1 AND 26.30-3.																
Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center																
(See 26.14-1 above)																
26.15-1																

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCKTON, OHIO WATERSHED 113							26.16			
						AREA — 1.45 ACRES										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ₁	3.34	2.26	1.13	3.88	2.79	1.50	3.76	2.68	2.53	.68	4.14	2.14	30.83			
Q	.14	.39	.00	.14	.04	.00	.00	.00	.00	.00	.00	.01	.72			
STA AV ₂ /P	2.74	2.39	3.30	3.39	3.75	4.25	3.96	3.00	2.66	2.16	2.42	2.21	36.23			
(39-66) Q	.23	.40	.30	.16	.12	.36	.14	.18	.08	.04	.02	.06	2.09			
MEAN P ₃																
57 YR	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
1966	2-13	.08	2-13	.07	2-13	.12	2-13	.24	2-13	.25	2-13	.26	2-13	.26	2-9	.36
MAXIMUMS FOR PERIOD OF RECORD																
19 39 TO 1966	6-12 1957	3.77	9-1 1950	1.03	4-25 1961	1.20	6-28 1957	1.35	3-4 1963	1.50	3-4 1963	1.70	3-3 1963	2.00	3-1 1963	2.69
NOTES: Watershed conditions: Second year meadow, of a meadow, corn, wheat, meadow rotation; improved practice. 1/ Rain gage 109. 2/ Precipitation and runoff records began Sept. 1939. 3/ Mean P based on 57-yr. (1909-65) U.S. Weather Bureau record period at Coshocton, Ohio.																
NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.16-5. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.16-1 AND 26.30-3.																
Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center																
26.16-1																
MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCKTON, OHIO WATERSHED 118							26.17			
						AREA — 1.96 ACRES										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ₁	3.39	2.47	1.09	4.11	2.70	1.52	3.38	2.56	2.47	.66	4.15	2.30	30.80			
Q	.22	.99	.00	.30	.08	.00	.00	.00	.00	.00	.00	.06	1.65			
STA AV ₂ /P	2.84	2.47	3.43	3.47	3.71	4.21	4.02	3.01	2.78	2.10	2.54	2.26	36.84			
(40-66) Q	.28	.36	.50	.23	.11	.40	.14	.24	.14	.01	.04	.08	2.53			
MEAN P ₃																
57 YR	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
1966	4-30	.05	2-13	.04	2-13	.07	2-13	.19	2-13	.25	2-13	.42	2-13	.56	2-10	.97
MAXIMUMS FOR PERIOD OF RECORD																
19 40 TO 1966	6-12 1957	3.11	9-1 1950	1.30	9-1 1950	1.59	9-1 1950	1.60	9-1 1950	1.60	3-9 1964	1.90	3-9 1964	2.41	3-4 1964	3.43
NOTES: Watershed conditions: Second year meadow, of a meadow, corn, wheat, meadow rotation; prevailing practice. 1/ Rain gage 108. 2/ Precipitation and runoff records began Jan. 1940. 3/ Mean P based on 57-yr. (1909-65) U.S. Weather Bureau record period at Coshocton, Ohio.																
NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.17-5. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.17-1 AND 26.30-3.																
Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center																
(See 26.16-1 above)																
26.17-1																

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCTON, OHIO WATERSHED 111 AREA - 1.18 ACRES								26.18		
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ₁	3.34	2.26	1.13	3.88	2.79	1.50	3.76	2.68	2.53	.68	4.14	2.14	30.83			
Q	.63	.36	.00	.38	.21	.00	.00	.00	.00	.00	.00	.00	1.58			
STA AV ² / _P	2.74	2.39	3.30	3.39	3.75	4.25	3.96	3.00	2.66	2.16	2.42	2.21	36.23			
(39-66) Q	.51	.58	.60	.31	.15	.34	.09	.05	.09	.02	.02	.19	2.95			
MEAN P ₃	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53			
57 YR																
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	5-12	.42	5-12	.19	5-12	.21	4-27	.30	1-6	.34	1-6	.34	1-6	.34	1-2	.62
MAXIMUMS FOR PERIOD OF RECORD																
1939 TO	6-12	3.83	6-12	1.33	6-12	1.42	6-28	1.71	1-21	2.03	1-26	2.60	1-25	2.61	1-19	3.08
1966	1957		1957		1957		1957		1959		1952		1952		1952	
NOTES: Watershed conditions: Second year meadow, of a meadow, corn, wheat, meadow rotation; improved practice. <u>1/</u> Rain gage 109. <u>2/</u> Precipitation and runoff records began Sept. 1939. <u>3/</u> Mean P based on 57-yr. (1909-65) U.S. Weather Bureau record period at Coshocton, Ohio.																
NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.18-5. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.18-1 AND 26.30-3.																
Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center																
26.18-1																
MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCTON, OHIO WATERSHED 121 AREA - 1.42 ACRES								26.19		
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ₁	3.23	1.98	1.02	3.44	2.50	1.36	3.48	2.45	2.39	.60	3.65	1.79	27.89			
Q	.04	.20	.00	.17	.12	.00	.00	.00	.00	.00	.00	.00	.53			
STA AV ² / _P	2.70	2.27	3.17	3.28	3.59	4.21	4.23	2.93	2.64	2.08	2.31	2.09	35.50			
(39-66) Q	.19	.21	.31	.18	.06	.24	.19	.13	.08	.02	.01	.03	1.65			
MEAN P ₃	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53			
57 YR																
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	4-30	.11	4-30	.05	4-30	.07	4-30	.08	4-30	.09	4-30	.10	4-30	.11	4-27	.19
MAXIMUMS FOR PERIOD OF RECORD																
1939 TO	8-23	7.82	9-1	1.32	9-1	1.39	9-1	1.39	9-1	1.39	9-1	1.39	3-3	1.66	3-1	1.87
1966	1944		1950		1950		1950		1950		1950		1963		1963	
NOTES: Watershed conditions: First year meadow, of a meadow, meadow, corn, wheat rotation; improved practice. <u>1/</u> Rain gage 113. <u>2/</u> Precipitation and runoff records began Apr. 1939. <u>3/</u> Mean P based on 57-yr. (1909-65) U.S. Weather Bureau record period at Coshocton, Ohio.																
NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.20-5. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.19-1 AND 26.30-3.																
Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center																
(See 26.18-1 above)																
26.19-1																

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCTON, OHIO WATERSHED 106 AREA — 1.56 ACRES							26.20	
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P ₁ / O	3.23 .18	1.98 T	1.02 .00	3.44 .03	2.50 .02	1.36 .00	3.48 .00	2.45 .00	2.39 .00	.60 .00	3.65 .00	1.79 .02	27.89 .25
	STA AV ₂ / (39-66) P Q	2.70 .24	2.27 .25	3.17 .27	3.28 .13	3.59 .11	4.21 .32	4.23 .30	2.93 .23	2.64 .17	2.08 .02	2.31 .03	2.09 .08	35.50 2.15
	MEAN P ₃ / 57 YR	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	4-30	.05	1-2	.03	1-2	.05	1-6	.08	1-5	.09	1-5	.10	1-5	.10	1-2	.18

MAXIMUMS FOR PERIOD OF RECORD

1939 TO 1966	8-23 1944	7.63	9-1 1950	1.26	9-1 1950	1.38	9-1 1950	1.39	2-23 1960	1.41	2-23 1962	1.41	2-23 1962	2.00	2-19 1962	2.44
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NOTES:

Watershed conditions: First year meadow, of a meadow, meadow, corn, wheat rotation; prevailing practice. 1/ Rain gage 113. 2/ Precipitation and runoff records began Apr. 1939. 3/ Mean P based on 57-yr. (1909-65) U.S. Weather Bureau record period at Coshocton, Ohio.

NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.20-5. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.20-1 AND 26.30-3.

Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center

26.20-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCTON, OHIO WATERSHED 188 AREA — 2.05 ACRES							26.21	
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P ₁ / O	3.20 .00	2.25 .00	1.14 .00	3.77 .00	2.51 .00	1.73 .00	4.00 .00	2.78 .00	2.49 .00	.70 .00	3.93 .00	1.89 .00	30.39 .00
	STA AV ₂ / (39-66) P Q	2.61 .18	2.29 .17	3.15 .26	3.27 .11	3.74 .10	4.12 .29	4.04 .10	3.02 .18	2.64 .14	2.09 .06	2.33 .02	2.09 .03	35.39 1.64
	MEAN P ₃ / 57 YR	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966		.00		.00		.00		.00		.00		.00		.00		.00

MAXIMUMS FOR PERIOD OF RECORD

1939 TO 1966	8-23 1944	3.06	9-1 1950	1.84	9-1 1950	2.07	9-1 1950	2.08	9-1 1950	2.08	9-1 1950	2.08	3-3 1963	2.34	3-1 1963	2.43
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NOTES:

Watershed conditions: First year meadow, of a meadow, meadow, corn, wheat, rotation; improved practice. Plow 16 in. deep, minimum tillage in 1964. 1/ Rain gage 115. 2/ Precipitation and runoff records began Sept. 1939. 3/ Mean P based on 57-yr. (1909-65) U. S. Weather Bureau record period at Coshocton, Ohio.

NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.21-4. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.21-1 AND 26.30-3.

Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center

(See 26.20-1 above)

26.21-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCTON, OHIO WATERSHED 185 AREA — 7.40 ACRES							26.23			
MONTH YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ₁ / _o	3.36 .07	2.24 .24	1.00 T	3.93 .07	2.50 .03	1.42 .00	3.74 .02	2.65 .01	2.41 .01	.58 .00	3.79 .00	1.94 .02	29.56 .47			
STA AV ₂ / _P	2.74	2.29	3.22	3.31	3.65	3.99	3.97	2.98	2.62	2.05	2.33	2.12	35.27			
(39-66) Q	.13	.24	.35	.15	.12	.30	.18	.13	.15	.05	.02	.05	1.87			
MEAN P ₃ / ₇	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53			
57 YR																
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	7-14	.07	5-12	.02	2-13	.03	2-13	.08	2-13	.11	2-13	.12	2-13	.13	2-9	.23
MAXIMUMS FOR PERIOD OF RECORD																
1939 TO 1966	6-16 1946	3.35	9-1 1950	1.91	9-1 1950	2.31	9-1 1950	2.32	3-4 1963	2.42	3-4 1963	2.88	3-3 1963	3.55	3-1 1963	4.11
NOTES: Watershed conditions: First year meadow and corn strips, of a corn, wheat, meadow, meadow rotation; improved practice with contour strips. <u>1/</u> Rain gage 128. <u>2/</u> Precipitation and runoff records began Sept. 1939. <u>3/</u> Mean P based on 57-yr. (1909-65) U.S. Weather Bureau record period at Coshocton, Ohio.																
NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.23-5. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.23-1 AND 26.30-3.																
Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center																
26.23-1																
MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCTON, OHIO WATERSHED 187 AREA — 7.20 ACRES							26.24			
MONTH YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ₁ / _o	3.42 .28	2.45 .70	1.16 .00	4.02 .27	2.76 .07	1.85 .00	4.28 .00	2.69 .00	2.57 .00	.64 .00	4.20 .00	2.17 .00	32.21 1.32			
STA AV ₂ / _P	2.76	2.35	3.28	3.34	3.74	4.17	4.17	2.95	2.82	2.13	2.40	2.15	36.26			
(41-66) Q	.88	.71	1.11	.58	.22	.35	.13	.06	.12	.02	.02	.27	4.47			
MEAN P ₃ / ₇	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53			
57 YR																
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-13	.04	2-13	.03	2-13	.06	2-13	.15	2-13	.22	2-13	.28	2-13	.34	2-9	.69
MAXIMUMS FOR PERIOD OF RECORD																
1941 TO 1966	6-12 1957	2.75	9-1 1950	1.37	9-1 1950	1.54	9-1 1950	1.57	3-4 1963	2.01	3-4 1963	2.35	3-4 1963	2.95	1-20 1959	3.36
NOTES: Watershed conditions: Second year meadow and wheat strips, of a corn, wheat, meadow, meadow rotation; improved practice with contour strips. <u>1/</u> Rain gage 116. <u>2/</u> Precipitation and runoff records began Jan. 1941. <u>3/</u> Mean P based on 57-yr. (1909-65) U.S. Weather Bureau record period at Coshocton, Ohio.																
NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.24-5. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.24-1 AND 26.30-3.																
Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center																
(See 26.23-1 above)																
26.24-1																

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCTON, OHIO WATERSHED 192 AREA — 7.59 ACRES								26.25
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P 1/	3.36	2.24	1.00	3.93	2.50	1.42	3.74	2.65	2.41	.58	3.79	1.94	29.56
	O	.34	.70	.01	.32	.10	.00	.07	.08	.03	.00	.00	.19	1.84
STA AV2/ (39-66)	P	2.74	2.29	3.22	3.31	3.65	3.99	3.97	2.98	2.62	2.05	2.33	2.12	35.27
	Q	.46	.56	.62	.25	.15	.32	.17	.08	.12	.02	.04	.17	2.96
MEAN 57 YR	P 3/	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	7-14	.52	7-14	.07	5-12	.07	2-13	.15	2-13	.24	2-12	.30	2-12	.34	2-9	.65

MAXIMUMS FOR PERIOD OF RECORD

19 ⁴⁰ 1966	TO 1966	6-16 1946	4.60	6-16 1946	1.85	9-1 1950	2.02	9-1 1950	2.04	3-4 1963	2.11	3-4 1963	2.53	3-4 1963	3.85	3-3 1963	4.72
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NOTES:

Watershed conditions: Corn, of a corn, wheat, meadow, meadow rotation; prevailing practice. 1/ Rain gage 128.
2/ Precipitation and runoff records began Sept. 1939. 3/ Mean P based on 57-yr. (1909-65) U. S. Weather Bureau record period at Coshocton, Ohio.

NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.23-5. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.25-1 AND 26.30-3.

Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center

26.25-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCTON, OHIO WATERSHED 172 AREA — 43.6 ACRES								26.26
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P 1/	3.35	2.16	1.04	4.01	2.49	1.48	3.10	2.83	2.24	.62	3.93	2.21	29.46
	O	1.16	2.02	1.05	2.46	2.31	.05	.02	T	T	T	.04	.13	9.24
STA AV2/ (39-66)	P	2.76	2.41	3.31	3.35	3.63	4.11	4.15	2.92	2.55	2.15	2.37	2.15	35.86
	Q	1.23	1.53	2.51	2.31	1.41	.79	.28	.10	.12	.11	.23	.54	11.16
MEAN 57 YR	P 3/	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	4-27	.09	4-27	.09	4-27	.16	4-27	.39	4-27	.60	4-27	.82	4-27	1.06	4-24	2.22

MAXIMUMS FOR PERIOD OF RECORD

19 ³⁹ 1966	TO 1957	6-12 1957	2.64E	6-12 1957	1.07E	6-12 1957	1.23E	6-12 1957	1.38E	1-26 1952	1.48	1-26 1952	1.95	1-26 1952	2.34	4-3 1957	3.22
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NOTES:

Watershed conditions: Cover of 33% uneven age hardwoods, 67% pines planted in 1939. 1/ Rain gage 103.
2/ Precipitation and runoff records began Feb. 1939. 3/ Mean P based on 57-yr. (1909-65) U.S. Weather Bureau record period at Coshocton, Ohio.

NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.26-5. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.26-1 AND 26.30-3.

Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center

(See 26.25-1 above)

26.26-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCTON, OHIO WATERSHED 169						26.27				
						AREA — 29.0 ACRES										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ₁ / ₀	3.23 .66	1.98 1.53	1.02 .29	3.44 .80	2.50 .77	1.36 .02	3.48 .11	2.45 .06	2.39 .02	.60 T	3.65 .09	1.79 .24	27.89 4.59			
STA AV ₂ / _P (40-66) Q	2.70 .88	2.27 .99	3.17 1.40	3.27 .97	3.67 .49	4.11 .50	4.13 .25	2.99 .16	2.70 .17	2.00 .04	2.38 .10	2.11 .35	35.50 6.30			
MEAN P ₃ / _{57 YR}	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	5-12	.17	5-12	.10	4-27	.14	4-27	.27	2-13	.41	2-13	.49	2-12	.54	2-8	1.26
MAXIMUMS FOR PERIOD OF RECORD																
1940 TO 1966	6-12 1957	2.59	9-1 1950	1.70	9-1 1950	2.00	9-1 1950	2.03	9-1 1950	2.04	1-21 1959	2.12E	1-21 1959	2.37E	1-20 1959	2.68E
NOTES: Watershed conditions: Cover of 6% hardwoods, 6% reforested, 48% grassland, 34% cultivated, 6% miscellaneous; contour strip cropped. 1/ Rain gage 113. 2/ Precipitation and runoff records began Jan. 1940. 3/ Mean P based on 57-yr. (1909-65) U.S. Weather Bureau record period at Coshocton, Ohio.																
NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.27-6. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.27-1 AND 26.30-3.																
Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center																
26.27-1																
MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCTON, OHIO WATERSHED 177						26.28				
						AREA — 75.6 ACRES										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ₁ / ₀	3.35 1.23	2.16 1.84	1.04 .55	4.01 1.16	2.49 .93	1.48 .01	3.10 .02	2.83 T	2.24 .00	.62 .00	3.93 .06	2.21 .47	29.46 6.27			
STA AV ₂ / _P (40-66) Q	2.76 1.13	2.35 1.18	3.30 1.75	3.33 1.21	3.73 .59	4.04 .57	4.07 .26	2.98 .12	2.61 .13	2.04 .06	2.44 .16	2.17 .52	35.82 7.68			
MEAN P ₃ / _{57 YR}	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	4-30	.11	4-27	.09	4-27	.15	4-27	.31	4-27	.38	4-27	.47	4-27	.61	2-9	1.39
MAXIMUMS FOR PERIOD OF RECORD																
1940 TO 1966	6-12 1957	3.14	6-12 1957	1.33	9-1 1950	1.55	9-1 1950	1.63	3-4 1963	1.77	3-4 1963	2.06	3-4 1963	2.48	3-4 1964	3.22
NOTES: Watershed conditions: Cover of 4% hardwoods, 6% reforested, 67% grassland, 17% cultivated, 6% miscellaneous; contour strip cropped. 1/ Rain gage 103. 2/ Precipitation and runoff records began Jan. 1940. 3/ Mean P based on 57-yr. (1909-65) U.S. Weather Bureau record period at Coshocton, Ohio.																
NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.28-7. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.28-1 AND 26.30-3.																
Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center																
(See 26.27-1 above)																
26.28-1																

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCOTON, OHIO WATERSHED 196 AREA -- 303 ACRES						26.30	
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ₁	3.40	2.46	1.12	4.06	2.73	1.68	3.83	2.62	2.52	.65	4.18	2.24	31.49
Q	1.66	2.41	.93	1.95	1.93	.16	.10	.06	.05	.05	.20	.79	10.29
STA AV ² / _P	2.77	2.52	3.52	3.48	3.70	4.43	4.18	2.94	2.66	2.19	2.45	2.23	37.07
(37-66) Q	1.80	1.98	2.87	2.40	1.43	1.12	.58	.29	.25	.21	.39	.94	14.26
MEAN P ₃													
57 YR	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	5-12	.12	4-27	.11	4-27	.19	4-27	.42	4-27	.58	4-27	.73	4-27	.89	2-9	1.88

MAXIMUMS FOR PERIOD OF RECORD																
19 37 TO	6-12	3.72	6-12	1.31E	6-12	1.44E	6-16	1.63	1-21	2.06	1-21	2.92	1-20	3.21	3-4	4.63
1966	1957		1957		1957	1946	1946	1959	1959	1959	1959	1959	1959	1964		

NOTES:
 Watershed conditions: Cover of 27% woodland, 50% grassland, 19% cultivated, 4% miscellaneous; prevailing practice. 1/ Arithmetic average rain gages 108 and 116. 2/ Precipitation and runoff records began May 1937. 3/ Mean P based on 57-yr. (1909-65) U.S. Weather Bureau record period at Coshocton, Ohio.

NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.30-5. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USOA MISC. PUB. 1070, PP. 26.30-1 AND 26.30-3.

Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center
 26.30-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCOTON, OHIO WATERSHED 10 AREA -- 122 ACRES						26.31	
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ₁	3.50	2.44	1.40	4.48	2.37	1.87	3.39	2.59	2.39	.58	4.11	2.27	31.39
Q	1.00	1.84	.71	1.78	1.32	.12	.07	.04	.01	.02	.10	.23	7.24
STA AV ² / _P	2.86	2.58	3.44	3.52	3.57	4.18	4.13	2.94	2.53	2.22	2.50	2.32	36.79
(39-66) Q	1.19	1.40	1.87	1.58	.86	.70	.36	.16	.12	.15	.24	.60	9.23
MEAN P ₃													
57 YR	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	4-27	.07	4-27	.09	4-27	.14	4-27	.28	4-27	.40	4-27	.55	4-27	.73	4-24	1.74

MAXIMUMS FOR PERIOD OF RECORD																
19 39 TO	6-28	1.76E	6-28	.98E	6-28	1.39E	6-28	1.80E	6-28	1.99E	6-28	2.14E	6-28	2.25E	3-1	2.94E
19 66	1957		1957		1957	1957	1957	1957	1957	1957	1957	1957	1957	1963		

NOTES:
 Watershed conditions: Cover of 21% cropland, 48% grassland, 25% woodland, 6% miscellaneous; conservation practice. 1/ Rain gage 27. 2/ Precipitation and runoff records began Jan. 1939. 3/ Mean P based on 57-yr. (1909-65) U. S. Weather Bureau record period at Coshocton, Ohio.

NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.31-4. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USOA MISC. PUB. 1070, PP. 26.31-1 AND 26.31-2.

Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center
 (See 26.30-1 above)
 26.31-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCTON, OHIO WATERSHED 5 AREA — 349 ACRES								26.32
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966 P ₁ /	3.47	2.48	1.32	4.23	2.39	2.00	3.37	2.23	2.12	.66	4.30	2.27	30.84	
Q	1.11	1.58	.92	1.45	1.46	.14	.06	.03	.01	.01	.17	.52	7.46	
STA AV ₂ / P	2.86	2.51	3.42	3.49	3.64	4.07	4.13	2.97	2.60	2.17	2.57	2.34	36.77	
(40-66) Q	1.44	1.52	2.23	1.82	1.09	.79	.43	.20	.12	.18	.31	.71	10.84	
MEAN P ₃ /														
57 YR	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53	

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	4-27	.07	4-27	.07	4-27	.12	4-27	.22	4-27	.30	4-27	.40	4-27	.52	4-24	1.21

MAXIMUMS FOR PERIOD OF RECORD

1940 TO 1966	6-28 1957	1.09	6-28 1957	.77	6-28 1957	1.04	6-28 1957	1.38	4/	1.58	1-21 1959	2.31	1-20 1959	2.64	1-20 1959	3.04
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NOTES:

Watershed conditions: Cover of 20% cropland, 54% grassland, 23% woodland, 3% miscellaneous; improved practice. 1/ Rain gage 91. 2/ Precipitation and runoff records began Jan. 1940. 3/ Mean P based on 57-yr. (1909-65) U. S. Weather Bureau record period at Coshocton, Ohio 4/ June 28, 1957, and Mar. 4, 1963.

NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, P. 26.32-5 (REVISED). FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.32-1 AND 26.37-2.

Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center

26.32-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCTON, OHIO WATERSHED 92 AREA — 920 ACRES (1.44 SQ. MILES)								26.33
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966 P ₁ /	3.47	2.48	1.32	4.23	2.39	2.00	3.37	2.23	2.12	.66	4.30	2.27	30.84	
Q	1.32	1.80	.96	1.63	1.50	.13	.04	.02	T	.01	.15	.53	8.09	
STA AV ₂ / P	2.84	2.58	3.43	3.50	3.56	4.14	4.17	2.94	2.54	2.25	2.50	2.31	36.76	
(40-66) Q	1.55	1.74	2.43	1.99	1.12	.85	.43	.19	.12	.20	.36	.81	11.79	
MEAN P ₃ /														
57 YR	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53	

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	4-27	.10	4-27	.09	4-27	.15	4-27	.28	4-27	.39	4-27	.51	4-27	.65	4-24	1.47

MAXIMUMS FOR PERIOD OF RECORD

1939 TO 1966	6-28 1957	.62	6-28 1957	.52	6-28 1957	.82	6-28 1957	1.24	4/	1.60	1-21 1959	2.41	4/	2.71	3-4 1964	3.96
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NOTES:

Watershed conditions: Cover of 16% cropland, 59% grassland, 21% woodland, 4% miscellaneous; improved practice. 1/ Rain gage 91. 2/ Precipitation and runoff records began Jan. 1939. 3/ Mean P based on 57-yr. (1909-65) U. S. Weather Bureau record period at Coshocton, Ohio. 4/ Jan. 21, 1959, and Mar. 4, 1963.

NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, P. 26.32-5 (REVISED). FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.33-1 AND 26.37-2.

Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center

(See 26.32-1 above)

26.33-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCOTON, OHIO WATERSHED 94 AREA — 1,520 ACRES (2.37 SQ. MILES) 26.34							
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ₁	3.48	2.46	1.36	4.36	2.38	1.94	3.38	2.41	2.26	.62	4.20	2.27	31.12
Q	1.36	1.90	1.05	1.81	1.59	.19	.08	.04	.02	.02	.17	.60	8.83
STA AV ₂ /P	2.84	2.58	3.43	3.50	3.56	4.14	4.17	2.95	2.55	2.24	2.50	2.31	36.77
(39-66) Q	1.56	1.72	2.45	1.98	1.14	.91	.46	.22	.14	.20	.35	.78	11.91
MEAN P ₃	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53
57 YR													

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	4-27	.11	4-27	.10	4-27	.17	4-27	.32	4-27	.43	4-27	.55	4-27	.70	4-24	1.64

MAXIMUMS FOR PERIOD OF RECORD

1939 TO 1966	6-28 1957	.92	6-28 1957	.77	6-28 1957	1.22	6-28 1957	1.79	3-4 1963	2.14	1-21 1959	2.95	1-20 1959	3.27	3-4 1963	3.95
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NOTES:

Watershed conditions: Cover of 15% cropland, 57% grassland, 24% woodland, 4% miscellaneous; improved practice. 1/ Arithmetic average rain gages 27 and 91. 2/ Precipitation and runoff records began Jan. 1939. 3/ Mean P based on 57-yr. (1909-65) U. S. Weather Bureau record period at Coshocoton, Ohio.

NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.34-5. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.34-1 AND 26.37-2.

Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center

26.34-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCOTON, OHIO WATERSHED 95 AREA — 2,570 ACRES (4.02 SQ. MILES) 26.35							
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ₁	3.48	2.46	1.36	4.36	2.38	1.94	3.38	2.41	2.26	.62	4.20	2.27	31.12
Q	1.35	1.93	.98	1.72	1.52	.16	.06	.03	.01	.01	.17	.64	8.58
STA AV ₂ /P	2.86	2.58	3.44	3.52	3.57	4.18	4.13	2.93	2.53	2.23	2.50	2.31	36.78
(39-66) Q	1.52	1.70	2.45	2.00	1.13	.86	.43	.20	.13	.19	.35	.78	11.74
MEAN P ₃	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53
57 YR													

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	4-27	.08	4-27	.08	4-27	.14	4-27	.27	4-27	.38	4-27	.51	4-27	.66	4-24	1.56

MAXIMUMS FOR PERIOD OF RECORD

1939 TO 1966	6-28 1957	.61	6-28 1957	.56	6-28 1957	.95	3-4 1963	1.58	3-4 1963	2.32	3-4 1963	2.78	3-4 1963	3.49	3-2 1963	4.24
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NOTES:

Watershed conditions: Cover of 15% cropland, 55% grassland, 26% woodland, 4% miscellaneous; improved practice. 1/ Arithmetic average rain gages 27 and 91. 2/ Precipitation and runoff records began Jan. 1939. 3/ Mean P based on 57-yr. (1909-65) U.S. Weather Bureau record period at Coshocoton, Ohio.

NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.34-5. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.35-1 AND 26.37-2.

Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center

(See 26.34-1 above)
26.35-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCTON, OHIO WATERSHED 97 AREA — 4,580 ACRES (7.16 SQ. MILES) 26.36										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ^{1/}	3.52	2.41	1.37	4.28	2.37	1.77	3.58	2.54	2.22	.57	4.11	2.26	31.00			
O	1.34	1.78	.85	1.73	1.33	.14	.06	.03	.01	.01	.15	.60	8.03			
STA AV ^{2/}	3.04	2.52	3.45	3.53	3.63	4.29	4.15	2.89	2.49	2.21	2.45	2.31	36.96			
(37-66) Q	1.79	1.68	2.44	2.06	1.16	.94	.48	.22	.13	.17	.34	.81	12.22			
MEAN P ^{3/}	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53			
57 YR																
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
1966	4-27	.09	4-27	.08	4-27	.16	4-27	.36	4-27	.48	4-27	.61	4-27	.76	4-24	1.62
MAXIMUMS FOR PERIOD OF RECORD																
1937 TO 1966	6-28 1957	.72	6-28 1957	.66	6-28 1957	1.15	1-24 1937	1.89	1-21 1959	2.32	1-21 1959	3.24	1-20 1959	3.54	1-18 1937	6.77
NOTES: Watershed conditions: Cover of 18% cropland, 50% grassland, 28% woodland, 4% miscellaneous; improved practice. 1/ Arithmetic average rain gages 27, 54, 56, and 91. 2/ Precipitation and runoff records began Jan. 1937. 3/ Mean P based on 57-yr. (1909-65) U.S. Weather Bureau record period at Coshocton, Ohio.																
NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.34-5. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.36-1 AND 26.37-2.																
Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center																
26.36-1																
MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCTON, OHIO WATERSHED 99A AREA — 17,400 ACRES (27.2 SQ. MILES) 26.37										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ^{1/}	3.49	2.44	1.30	4.10	2.41	1.93	3.46	2.31	2.10	.62	4.08	2.26	30.50			
O	1.63	2.43	1.13	1.89	1.67	.19	.08	.02	.01	.02	.15	.75	9.97			
STA AV ^{2/}	3.04	2.52	3.45	3.53	3.62	4.29	4.17	2.88	2.48	2.26	2.46	2.33	37.03			
(36-66) Q	1.95	1.91	2.57	2.16	1.27	1.00	.56	.25	.16	.23	.41	.87	13.34			
MEAN P ^{3/}	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53			
57 YR																
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
1966	4-28	.06	4-28	.06	4-28	.11	4-28	.30	4-27	.45	4-27	.64	4-27	.75	2-10	1.90
MAXIMUMS FOR PERIOD OF RECORD																
1936 TO 1966	6-28 1957	.44	6-28 1957	.43	6-28 1957	.81	6-28 1957	1.71	6-28 1957	2.16	1-21 1959	3.06	1-21 1959	3.45	3-4 1964	4.79
NOTES: Watershed conditions: Cover of 15% cropland, 55% grassland, 26% woodland, 4% miscellaneous; generally under improved practice. 1/ Arithmetic average rain gages 27, 54, 56, 91, MC4, and MC6. 2/ Runoff data furnished by U.S. Geologic Survey, New Philadelphia, Ohio. 3/ Precipitation and runoff records began Oct. 1936. 4/ Mean P based on 57-yr. (1909-65) U.S. Weather Bureau record period at Coshocton, Ohio																
NO SUITABLE SELECTED EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 26.37-5. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.37-1 AND 26.37-2.																
Cooperative Research Project of USDA, U.S. Geological Survey, and Ohio Agricultural Research and Development Center (See 26.36-1 above) 26.37-1																

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCOTON, OHIO		WATERSHED 174		26.38				
						AREA — 52.8 ACRES								
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P ₁	3.39	2.32	1.00	4.00	2.52	1.47	3.33	2.66	2.43	.63	4.00	2.09	29.84
	Q	1.21	1.71	.39	1.37	.90	.03	.05	.03	T	.00	.16	.61	6.46
STA AV ₂ (60-66)	P	2.37	2.71	3.84	3.81	2.44	2.99	3.00	3.15	2.34	1.61	2.44	2.08	32.78
	Q	.68	1.30	2.52	1.75	.34	.35	.07	.09	.05	.08	.14	.24	7.61
MEAN 57 YR	P ₃	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	4-27	.12	4-27	.11	4-27	.20	4-27	.42	4-27	.55	4-27	.65	4-27	.75	2-9	1.48

MAXIMUMS FOR PERIOD OF RECORD

19 61 TO 1966	4-25 1961	1.03	4-25 1961	.82	4-25 1961	1.11	4-25 1961	1.33	3-4 1963	1.61	3-9 1964	1.99	3-9 1964	2.54	3-4 1964	3.71
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NOTES: Watershed conditions: Cover of 15% hardwoods, 2% reforested, 67% grassland, 16% miscellaneous; prevailing practice on 86% of area. 1/ Rain gage 107. 2/ Precipitation and runoff records began June 1960. 3/ Mean P based on 57-yr. (1909-65) U.S. Weather Bureau record period at Coshocton, Ohio.

NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61, USDA MISC. PUB. 994, P. 26.30-4. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.38-1 AND 26.30-3.

Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center

26.38-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCOTON, OHIO		WATERSHED 194		26.39				
						AREA — 187 ACRES								
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P ₁	3.39	2.32	1.00	4.00	2.52	1.47	3.33	2.66	2.43	.63	4.00	2.09	29.84
	Q	1.82	2.58	1.51	2.26	2.22	.30	.12	.09	.07	.06	.25	.96	12.24
STA AV ₂ (60-66)	P	2.44	2.77	3.43	3.48	2.52	2.99	3.00	3.15	2.34	1.61	2.44	2.08	32.25
	Q	1.25	1.79	3.46	2.44	1.02	.62	.17	.14	.11	.16	.26	.44	11.86
MEAN 57 YR	P ₃	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	4-27	.12	4-27	.11	4-27	.19	4-27	.43	4-27	.59	4-27	.75	4-27	.93	4-24	2.01

MAXIMUMS FOR PERIOD OF RECORD

19 60 TO 1966	4-25 1961	.87	4-25 1961	.68	4-25 1961	.93	4-25 1961	1.12	3-9 1964	1.32	3-9 1964	1.91	3-9 1964	2.60	3-4 1964	3.89
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NOTES: Watershed conditions: Cover of 21% hardwoods, 2% reforested, 58% grassland, 11% cultivated, 8% miscellaneous; prevailing practice. 1/ Rain gage 107. 2/ Precipitation and runoff records began Jan. 1960. 3/ Mean P based on 57-yr. (1909-65) U. S. Weather Bureau record period at Coshocton, Ohio.

NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61, USDA MISC. PUB. 994, P. 26.30-4. FOR GEOLOGY DESCRIPTION AND MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, PP. 26.39-1 AND 26.30-3.

Cooperative Research Project of USDA and Ohio Agricultural Research and Development Center

(See 26.38-1 above)

26.39-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						COSHOCOTON, OHIO WATERSHED 182 AREA — 69.6 ACRES							26.40	
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1964	P $\frac{1}{10}$	2.69	1.99	7.87	6.09	2.95	3.30	1.77	3.81	.58	.86	2.00	4.49	38.40
	O	.14	.04	5.37	3.49	.60	.12	.02	.07	.00	.00	.01	.48	10.34
1965	P $\frac{1}{10}$	2.62	3.84	2.33	2.69	1.43	1.30	2.68	3.63	5.78	3.44	1.68	.70	32.12
	Q	1.40	2.41	2.00	1.33	.20	.03	.01	T	.07	.26	.16	.10	7.97
1966	P $\frac{1}{10}$	3.49	2.40	1.08	3.87	2.66	1.83	3.89	2.66	2.43	.58	4.06	2.18	31.13
	Q	1.22	2.23	.81	1.47	1.70	.09	.03	.01	T	.00	.07	.63	8.26
STA AV $\frac{2}{10}$ (64-66) Q	P	2.93	2.74	3.76	4.22	2.35	2.14	2.78	3.37	2.93	1.63	2.58	2.46	33.89
	Q	.92	1.56	2.73	2.10	.83	.08	.02	.03	.02	.09	.08	.40	8.86
MEAN 57 YR	P $\frac{3}{10}$	3.25	2.60	3.60	3.74	3.75	4.33	4.16	3.77	3.13	2.56	2.82	2.82	40.53

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1964	3-10	.20	3-10	.17	3-10	.32	3-9	.85	3-9	1.35	3-9	1.98	3-9	2.64	3-4	3.96
1965	2-24	.07	2-24	.06	2-24	.11	2-24	.29	2-24	.45	2-24	.59	2-24	.70	2-7	1.20
1966	5-12	.11	4-27	.08	2-13	.13	2-13	.33	2-13	.48	2-13	.62	2-13	.77	2-9	1.70
MAXIMUMS FOR PERIOD OF RECORD																
19 64 to 19 66	3-10 1964	.20	3-10 1964	.17	3-10 1964	.32	3-9 1964	.85	3-9 1964	1.35	3-9 1964	1.98	3-9 1964	2.64	3-4 1964	3.96

NOTES:

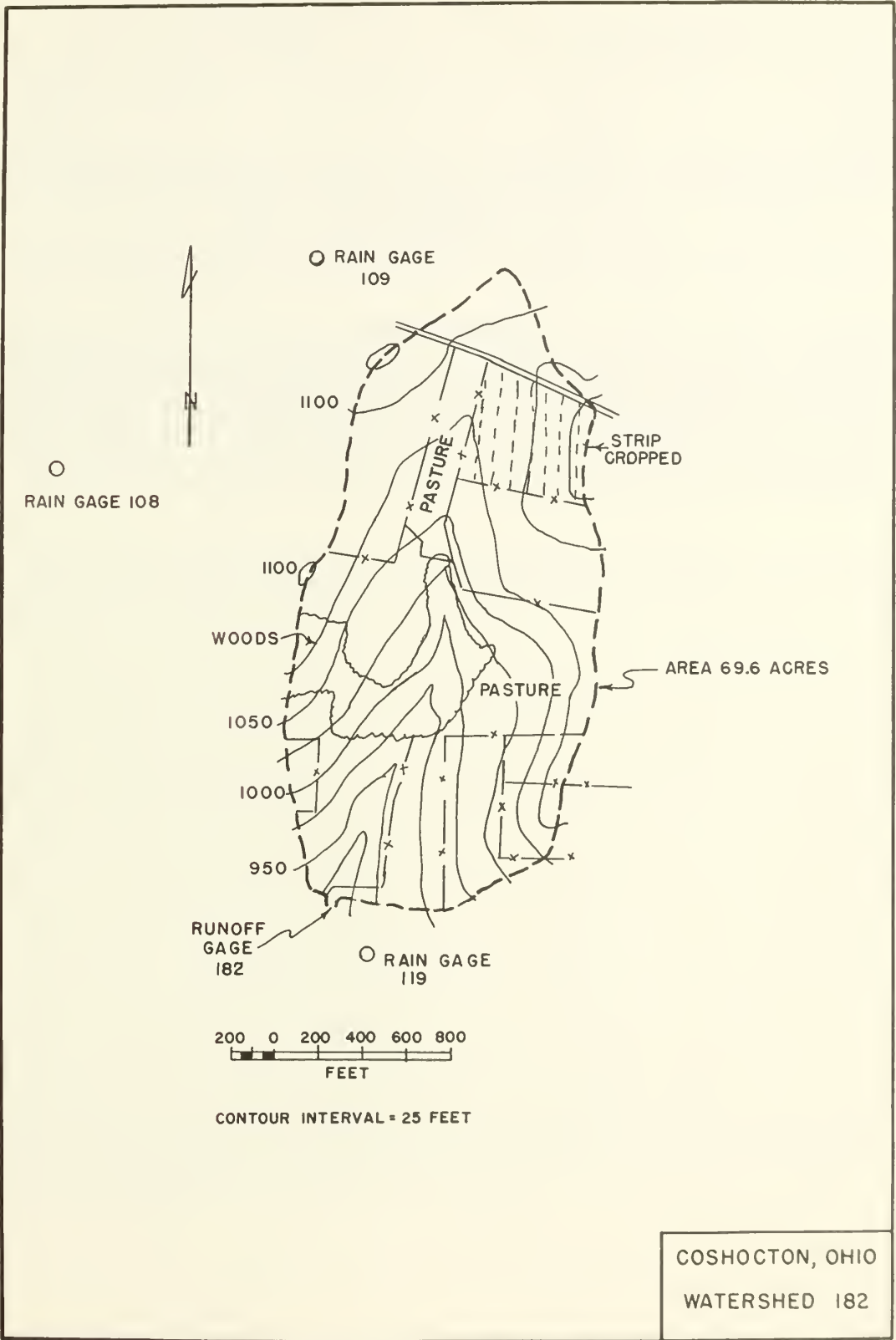
Watershed conditions: Mixed cover 1964, 1965, and 1966: 3% woods, 9% pastured woodland, 5% reforested, 49% grassland, 34% cultivated. Prevailing practice except for 10% of area which was strip cropped. $\frac{1}{10}$ Rain gage 119. $\frac{2}{10}$ Precipitation and runoff records began Jan. 1964. $\frac{3}{10}$ Mean P based on 57-yr. (1909-65) U.S. Weather Bureau record period at Coshocton, Ohio

LOCATION: Tuscarawas River, Muskingum River Basin.

GENERALLY REPRESENTS: Western Allegheny Plateau land resource area (N-124).

GEOLOGY: Sedimentary rocks of the Pennsylvania system, Allegheny series and Pottsville series, occur beneath 24 in. to 72 in. of soil. The Allegheny series of rock strata underlie the upper 60% of the watershed. This consists primarily of units of sandstone interbedded with shale. The lower 40% of the watershed is underlain by clayey shale, coal, thin limestones, and massive sandstone. Nine water-bearing aquifers outcrop along the stream channel in the watershed area. Weir is bottomed in a silty shale immediately overlying the Massillon sandstone. Rock strata are irregularly inclined in a general west-northwest pattern with an average dip of approximately 1°. Source of data: James B. Urban, Geologist, ARS. See topographic map on p. 26.40-2 and geologic map USDA Misc. Pub. 1070, p. 26.30-3.

NO SUITABLE SELECTED RUNOFF EVENT TO REPORT.



COSHOCTON, OHIO
WATERSHED 182

MONTHLY PRECIPITATION AND RUNOFF (inches)						COLBY, WISCONSIN WATERSHED W-1 29.01 AREA — 345 ACRES										
YEAR \ MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ^{1/} Q ^{2/}	.18 NR	.77 NR	3.84 NR	1.08 NR	1.11 .03	3.66 .81	4.67 .18	3.88 .04	2.21 .03	2.89 NR	.89 NR	1.73 NR	4/ 26.91 1.09			
STA ^{2/} AV P (49-66) Q	.79 NR	.79 NR	1.64 NR	2.27 .24	3.19 .63	3.93 .31	4.05 .21	3.75 .12	3.12 .29	1.76 .13	1.44 .00	1.52 .01	4/ 28.25 1.94			
MEAN P ^{3/} 77 YR	1.03	1.10	1.77	2.59	3.94	4.82	3.47	3.70	3.88	2.49	1.71	1.22	31.72			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	6-6	.23	6-6	.23	6-6	.39	6-6	.68	6-6	.76	6-6	.79	6-5	.80	6-5	.81
MAXIMUMS FOR PERIOD OF RECORD																
19 49 TO 1966	6-4 1958	.57	6-4 1958	.45	6-4 1958	.59	6-4 1958	1.10	6-4 1958	1.21	6-4 1958	1.25	5-9 1960	1.51	5-4 1960	3.63
Notes: Watershed conditions: 13% permanent pasture, 11% ungrazed woods, 3% roads and building sites, 73% 3-yr rotation of corn, small grain, hay. 1/ Precipitation Apr. 20 through Oct. is arithmetic average of 3 recording rain gages. Rest of year, only 1 standard rain gage. 2/ Precipitation and runoff records began May 1949. Runoff station not in operation during months showing NR. 3/ Mean P based on 77-yr (1890-1966) U.S. Weather Bureau record period at Neillsville, Wis. 4/ Totals for period of Apr. 20 through Oct. only.																
NO SELECTED RUNOFF EVENT REPORTED. FOR MAP OF WATERSHED, SEE SELECTED RUNOFF EVENTS FOR SMALL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, USDA, ARS, JAN. 1960, P. 29.1-5.																

MONTHLY PRECIPITATION AND RUNOFF (inches)						FENNIMORE, WISCONSIN WATERSHED W-1								31.01
						AREA — 330 ACRES								
MONTH YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966 P ¹ / _Q	1.39	1.34	2/2.33	1.52	1.95	4.36	6.53	1.64	.74	.69	.64	1.70	24.83	
	.03	1.66	.17	.08	.08	.08	.16	.08	.06	.07	.07	.10	2.64	
STA AV ³ / _P (38-66)	.89	.92	1.89	3.05	3.68	4.69	4.19	3.95	3.58	2.18	2.01	1.11	32.14	
	.32	.51	.95	.29	.28	.43	.40	.34	.26	.22	.21	.20	4.41	
MEAN P ⁴ / ₇₆ YR	1.12	1.12	2.03	2.99	3.97	4.39	3.81	3.51	3.82	2.32	1.98	1.30	32.36	

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-9	.10	2-9	.10	2-9	.18	2-8	.45	2-8	.76	2-8	1.43	2-8	1.58	2-7	1.63

MAXIMUMS FOR PERIOD OF RECORD																
1938 TO 1966	8-6 1951	1.69	8-6 1951	1.13	8-6 1951	1.53	7-15 1950	2.61	7-15 1950	2.69	7-15 1950	2.69	7-15 1950	2.69	7-15 1950	2.86

NOTES: Watershed conditions: 16.7% corn, 18.5% grain, 19.1% hay, 28.1% pasture, 11.3% idle, 6.3% roads and buildings. 1/ Precipitation is arithmetic average of 9 recording rain gages from Mar. 14 to Nov. 11; average of R-1, R-6 and R-8 rest of year. 2/ No snow on ground Mar. 1-22; rainfalls during this period caused no runoff. Snow storm on Mar. 23; moisture equivalent .4 in. 3/- Average includes part-year amounts of 1938 for July-Dec. 4/ Mean P based on 76-yr (1891-1966) U. S. Weather Bureau record period at Lancaster, Wis.

NO SELECTED RUNOFF EVENT REPORTED. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 31.1-5.

1966 DAILY AIR TEMPERATURE (degrees F)											FENNIMORE, WISCONSIN WATERSHED W-1										31.01				
DAY	JAN		FEB		MAR		APR		MAY		JUNE		JULY		AUG		SEPT		OCT		NOV		DEC		
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	39	20	22	-2	46	29	49	36	50	28	77	43	92	60	84	63	84	62	54	32	29	16	10	2	
2	33	8	24	8	53	32	50	27	60	30	71	48	91	67	74	55	82	68	68	36	31	13	12	-1	
3	32	6	24	10	52	39	43	27	52	30	79	61	91	68	80	50	76	64	60	45	28	13	19	-1	
4	39	27	11	-4	41	18	42	23	62	30	80	63	86	67	81	54	70	53	56	40	38	20	26	11	
5	42	22	20	-1	27	13	36	30	80	55	80	62	80	67	82	59	69	51	56	35	39	21	31	26	
6	23	12	32	9	22	12	36	30	66	41	73	53	79	61	85	59	71	52	66	32	46	27	49	24	
7	12	-10	41	19	36	12	42	29	73	37	66	53	79	58	82	62	75	46	77	44	64	42	35	24	
8	15	-14	46	34	37	23	43	30	49	32	69	56	80	61	64	53	78	47	78	56	45	34	38	32	
9	38	15	48	44	49	29	46	28	44	27	61	45	80	68	75	50	77	48	69	42	38	34	32	24	
10	24	0	44	28	49	38	48	27	50	25	69	43	94	67	74	53	80	48	61	37	34	25	24	18	
11	16	-1	34	25	51	43	49	33	41	31	72	47	90	66	71	49	82	50	63	36	41	24	25	6	
12	23	15	43	25	50	29	51	30	44	35	75	60	88	73	79	49	82	52	52	38	34	16	26	14	
13	26	13	33	12	52	23	56	28	43	35	77	58	79	67	76	51	80	55	64	51	46	26	26	16	
14	25	8	25	7	54	28	59	29	60	32	66	51	68	62	81	59	61	42	67	56	42	23	39	18	
15	13	5	35	14	54	30	59	37	55	46	77	49	76	58	85	59	66	34	66	38	45	27	38	21	
16	13	-5	27	-1	61	33	60	34	70	44	72	48	78	53	80	60	69	41	45	30	60	41	40	27	
17	5	-10	16	-5	71	45	52	37	76	53	77	50	81	57	89	63	72	47	57	28	59	32	46	32	
18	14	0	13	-6	51	33	55	46	67	47	80	50	87	68	79	54	72	44	46	40	31	13	35	25	
19	22	-3	6	-11	34	25	64	41	66	46	79	55	79	58	76	54	70	48	52	34	34	10	34	24	
20	22	-2	10	-14	49	22	41	33	65	43	84	62	73	49	75	53	70	50	62	29	42	26	33	29	
21	25	7	18	-9	55	38	50	28	77	48	86	65	77	48	74	58	71	41	61	42	46	25	29	22	
22	17	-6	26	0	39	34	60	31	76	47	84	58	78	53	64	52	69	48	54	34	55	46	22	5	
23	2	-13	26	13	38	14	53	43	66	51	84	58	81	61	67	48	65	41	51	28	58	51	18	1	
24	4	-10	36	12	18	8	68	42	69	45	86	63	84	61	72	50	57	43	47	30	54	41	20	0	
25	14	-7	34	16	30	8	69	44	74	50	87	66	88	65	78	51	59	38	56	25	41	32	18	2	
26	17	-1	38	13	30	13	52	34	82	54	78	60	87	70	82	56	58	34	66	36	42	32	16	-1	
27	6	-16	41	23	36	16	42	34	76	50	83	57	86	68	84	59	61	46	74	41	41	25	21	3	
28	-10	-22	40	32	42	17	50	32	65	45	82	62	82	59	83	59	68	48	68	40	32	20	24	17	
29	-12	-24	--	--	52	33	55	30	61	34	89	68	77	58	86	61	56	38	44	26	40	18	19	3	
30	3	-20	---	---	49	28	48	31	68	41	92	69	82	57	85	67	52	34	49	25	30	8	19	8	
31	16	-4	---	---	62	27	---	---	68	35	---	---	---	82	57	87	65	---	---	49	29	---	---	28	13
AV.	18	0	29	10	45	26	51	32	63	40	78	56	82	62	79	56	70	47	59	37	42	27	27	14	
MEAN	8.8		19.7		35.2		41.9		51.6		67.0		72.0		67.2		58.6		48.0		34.1		20.9		
STA AV	23	8	28	12	37	21	55	34	67	46	76	56	81	59	79	58	70	49	61	40	42	26	28	14	

NOTES: TEMPERATURE DATA TAKEN FROM HYGROTHERMOGRAPH CHARTS CHECKED WEEKLY WITH MAXIMUM AND MINIMUM THERMOMETERS. STA AV IS A 27-YR AVERAGE (1940-66).

1966 DAILY PRECIPITATION (inches)						FENNIMORE, WISCONSIN WATERSHED W-1 31.01						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.00	.00	.00	.00	.00	.00	.00	.12	.00	.00	.00	.00
2	.72	.00	.00	.00	.00	.58	.00	.00	.29	.00	.00	.00
3	.00	.00	.30	.00	.00	.00	.04	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	1.11	.00	.00	.00	.00	.10
5	.00	.00	.00	.02	.00	.41	.76	.00	.00	.00	.00	.00
6	.04	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.19
7	.00	.00	.00	.00	.00	.00	.00	.08	.00	.00	.00	.55
8	.00	.77	.00	.00	.11	.02	.00	.00	.00	.00	.04	.10
9	.00	.43	.00	.04	.00	.79	.08	.00	.00	.00	.33	.00
10	.00	.04	.00	.00	.00	.00	.93	.00	.00	.00	.00	.00
11	.01	.00	.09	.00	1.01	1.19	.01	.00	.00	.00	.06	.00
12	.58	.00	.00	.00	.11	.42	.15	.00	.00	.37	.00	.00
13	.00	.00	.00	.00	.23	.00	2.72	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.71	.00	.04	.17	.00	.00
15	.00	.00	.00	.00	.11	.29	.00	.00	.00	.05	.00	.00
16	T	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	T	.00	.63	.05	.02	.00	.00	.00	.00	.00	.00	.00
18	T	.07	.14	.11	.02	.00	.00	.00	.00	.10	.00	.00
19	.00	.00	.00	.23	.00	.00	.00	.00	.00	.00	.00	.05
20	T	.00	.00	.14	.00	.00	.00	.49	.00	.00	.00	.02
21	T	.00	.17	.00	.00	.00	.00	.90	.00	.00	.00	.08
22	.00	.00	.93	.00	.00	.00	.02	.00	.00	.00	.00	.00
23	.00	.00	.07	.00	.34	.00	.00	.00	.00	.00	.10	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.25	.00	.11	.00
25	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.02	.00	.00	.33	.00	.31	.00	.00	.09	.00	.00	.00
27	.00	.00	.00	.01	.00	.30	.00	.00	.00	.00	.00	.08
28	.00	.03	.00	.02	.00	.00	.00	.00	.06	.00	.00	.53
29	.00	---	.00	.57	.00	.00	.00	.00	.01	.00	.00	.00
30	.00	---	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00
31	.00	---	.00	---	.00	---	.00	---	.00	.00	.00	.00
TOTAL	1.39	1.34	2.33	1.52	1.95	4.36	6.53	1.64	.74	.69	.64	1.70
STA AAV	.89	.92	1.89	3.05	3.68	4.69	4.19	3.95	3.58	2.18	2.01	1.11

NOTES: PRECIPITATION VALUES ARE THE ARITHMETIC AVERAGE OF 9 RECORDING GAGES FROM MAR. 14 TO NOV. 11. REST OF YEAR FROM GAGES R-1, R-6, AND R-8.

1966 MEAN DAILY DISCHARGE (cfs)						FENNIMORE, WISCONSIN WATERSHED W-1 31.01						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.010	.000	.049	.043	.025	.022	.015	.037	.029	.032	.029	.037
2	.398	.000	.042	.037	.025	.022	.015	.037	.030	.035	.030	.043
3	.055	.000	.078	.037	.025	.022	.015	.030	.033	.037	.030	.049
4	.001	.000	.065	.037	.026	.022	.103	.032	.030	.037	.032	.054
5	.000	.000	.024	.037	.026	.022	.150	.033	.029	.036	.032	.060
6	.000	.000	.015	.037	.026	.037	.015	.035	.029	.036	.033	.067
7	.000	.019	.058	.037	.028	.033	.015	.036	.029	.035	.033	.109
8	.000	14.381	.073	.037	.028	.029	.015	.037	.029	.035	.029	.280
9	.000	7.339	.096	.037	.029	.100	.015	.036	.029	.033	.046	.037
10	.000	.514	.096	.037	.029	.029	.015	.035	.029	.033	.029	.037
11	.000	.114	.096	.037	.101	.030	.126	.033	.029	.032	.029	.037
12	.000	.087	.087	.037	.073	.230	.050	.033	.029	.030	.029	.037
13	.000	.049	.072	.037	.078	.049	.589	.032	.029	.029	.029	.037
14	.000	.049	.058	.037	.067	.037	.359	.030	.029	.028	.029	.039
15	.000	.049	.050	.037	.043	.033	.073	.029	.029	.028	.030	.040
16	.000	.049	.049	.037	.029	.029	.067	.029	.029	.026	.032	.042
17	.000	.033	.098	.037	.029	.029	.054	.029	.029	.026	.033	.043
18	.000	.025	.060	.037	.029	.025	.043	.028	.029	.025	.035	.036
19	.000	.018	.049	.040	.029	.018	.037	.028	.029	.028	.036	.029
20	.000	.012	.049	.037	.029	.015	.037	.028	.029	.029	.037	.025
21	.000	.007	.049	.037	.029	.018	.037	.121	.028	.028	.037	.022
22	.000	.006	.340	.037	.029	.019	.037	.037	.028	.026	.037	.022
23	.000	.024	.182	.037	.050	.022	.037	.036	.028	.025	.037	.021
24	.000	.073	.067	.037	.055	.024	.037	.035	.026	.025	.037	.021
25	.000	.037	.073	.037	.025	.026	.037	.033	.026	.025	.037	.019
26	.000	.037	.073	.037	.025	.028	.037	.033	.025	.026	.037	.018
27	.000	.037	.080	.037	.025	.029	.037	.032	.025	.026	.037	.018
28	.000	.037	.087	.037	.025	.028	.037	.030	.026	.028	.037	.017
29	.000	---	.080	.053	.022	.025	.037	.029	.028	.028	.037	.017
30	.000	---	.067	.062	.022	.018	.037	.029	.029	.029	.037	.015
31	.000	---	.054	---	.022	---	.037	.029	---	.029	---	.015
MEAN	.015	.643	.078	.039	.036	.036	.071	.035	.029	.030	.034	.043
INCHES	.034	1.659	.174	.085	.080	.077	.160	.079	.062	.067	.074	.097

NOTES: TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY .07213. RECORDS ARE EXCELLENT. SOME PERIODS IN WINTER PARTIALLY ESTIMATED BECAUSE OF ICE BETWEEN STILLING WELL AND WEIR.

MONTHLY PRECIPITATION AND RUNOFF (inches)						FENNIMORE, WISCONSIN WATERSHED W-2							31.02	
						AREA—22.8 ACRES								
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966	P ₁ / ₀	1.31 .01	1.27 1.64	2/2.36 .02	1.61 .00	2.12 .00	4.39 .00	6.54 T	1.62 .00	.72 .00	.71 .00	.72 .00	1.57 .05	24.94 1.72
STA AV ³ / ₍₃₈₋₆₆₎	P	.88 .16	.91 .37	1.85 .72	3.07 .05	3.74 .01	4.77 .12	4.27 .13	3.93 .08	3.57 .00	2.18 .00	2.02 .00	1.08 .01	32.27 1.68
MEAN 77 YR	P ₄ / ₀	1.12	1.12	2.03	2.99	3.97	4.39	3.81	3.51	3.82	2.32	1.98	1.30	32.36

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-8	.10	2-8	.10	2-8	.19	2-8	.49	2-8	.89	2-8	1.50	2-8	1.64	2-8	1.64

MAXIMUMS FOR PERIOD OF RECORD																
1938 to 1966	6-28 1945	2.68	8-6 1951	1.39	8-6 1951	1.72	7-15 1950	2.25	7-15 1950	2.26	7-15 1950	2.26	7-15 1950	2.26	3-24 1959	3.77

NOTES: Watershed conditions: 77.2% pasture, 22.8% idle. 1/ Precipitation, R-6. 2/ No snow on ground Mar. 1-22; rainfalls during this period caused no runoff. Snow storm Mar. 23; moisture equivalent was .4 in. 3/ Average includes part-year amounts of 1938 for July-Dec. 4/ Mean P based on 76-yr (1891-1966) U.S. Weather Bureau record period at Lancaster, Wis.

NO SELECTED RUNOFF EVENT REPORTED. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 31.1-5.

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31.2-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						FENNIMORE, WISCONSIN WATERSHED W-3							31.03	
						AREA — 52.5 ACRES								
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966	P ₁ / ₀	1.55 .03	1.39 1.51	2/2.46 .02	1.54 .00	2.08 .00	4.34 .00	6.40 .01	1.61 .00	.74 .00	.70 .00	.71 .00	2.00 .01	25.52 1.58
STA AV ³ / ₍₃₈₋₆₆₎	P	.92 .14	.94 .32	1.97 .59	3.07 .03	3.70 .01	4.72 .12	4.21 .12	3.94 .08	3.63 .02	2.20 .01	2.02 .00	1.13 T	32.45 1.44
MEAN 76 YR	P ₄ / ₀	1.12	1.12	2.03	2.99	3.97	4.39	3.81	3.51	3.82	2.32	1.98	1.30	32.36

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-9	.10	2-9	.10	2-8	.18	2-8	.45	2-8	.80	2-8	1.45	2-8	1.51	2-8	1.51

MAXIMUMS FOR PERIOD OF RECORD																
1938 to 1966	6-28 1945	1.63	8-6 1951	1.01	8-6 1951	1.32	7-15 1950	2.38	7-15 1950	2.38	7-15 1950	2.38	7-15 1950	2.38	7-15 1950	2.54

NOTES: Watershed conditions: 9.9% corn, 2.8% grain, 29.0% hay, 42.3% pasture, 5.7% idle, 10.3% roads and buildings. 1/ Precipitation is arithmetic average of 2 recording rain gages from Mar. 14. to Nov. 11 and R-8 rest of year. 2/ No snow on ground Mar. 1-22; rainfalls during this period caused no runoff. Snow storm Mar. 23; moisture equivalent .4 in. 3/ Average includes part-year amounts of 1938 for July-Dec. 4/ Mean P based on 76-yr (1891-1966) U.S. Weather Bureau record period at Lancaster, Wis.

NO SELECTED RUNOFF EVENT REPORTED. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 31.1-5.

Cooperative Research Project of USDA and Wisconsin Agricultural Experiment Station

(See 31.2-1 above)

31.3-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						FENNIMORE, WISCONSIN WATERSHED W-4 AREA — 171 ACRES								31.04		
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ₁ /Q	1.30	1.36	2/2.30	1.55	1.97	4.73	6.72	1.68	.77	.69	.65	1.50	25.22			
	.01	1.29	.02	.00	.00	.00	.00	.00	.00	.00	.00	.01	1.33			
STA AV ₃ /P	.89	.92	1.86	3.01	3.65	4.74	4.21	3.97	3.57	2.18	2.01	1.10	32.11			
(38-66) Q	.17	.38	.78	.07	.03	.18	.16	.10	.03	.01	.00	.01	1.92			
MEAN P ₄ /76 YR	1.12	1.12	2.03	2.99	3.97	4.39	3.81	3.51	3.82	2.32	1.98	1.30	32.36			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-9	.10	2-9	.10	2-9	.18	2-8	.42	2-8	.73	2-8	1.20	2-8	1.29	2-8	1.29
MAXIMUMS FOR PERIOD OF RECORD																
1938 TO 1966	8-6 1951	1.76	8-6 1951	1.11	8-6 1951	1.48	7-15 1950	2.82	7-15 1950	2.86	7-15 1950	2.86	7-15 1950	2.86	7-15 1950	2.99
Notes: Watershed conditions: 18.9% corn, 24.3% grain, 18.8% hay, 18.4% pasture, 13.9% idle, 5.7% roads and buildings. 1/ Precipitation is arithmetic average of 4 recording rain gages from Mar. 14 through Nov. 11 and R-1 rest of year. 2/ No snow on ground Mar. 1-22; rainfalls during this period caused no runoff. Snow storm Mar. 23; moisture equivalent .4 in. 3/ Average includes part-year amounts of 1938 for June-Dec. 4/ Mean P based on 76-yr (1891-1966) U.S. Weather Bureau record period at Lancaster, Wis.																
NO SELECTED RUNOFF EVENT REPORTED. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 31.1-5.																

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHEROKEE, OKLAHOMA WATERSHED W-10 AREA - 1.68 ACRES								34.10
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966	P ₁ / o	.10 .00	1.45 .15	.05 .00	2.48 .00	.89 .00	1.04 .00	2.24 .00	5.66 .11	.66 .00	.40 .00	.00 .00	.41 .00	15.38 .26
STA AV ² / _P (60-66) Q		.26 .00	.58 .02	1.20 .08	2.06 .05	2.36 .36	4.27 .73	2.59 .23	3.01 .05	2.73 .40	1.39 .07	1.51 .22	.96 .01	22.92 2.22
MEAN P ₃ / 49 YR		.80	.89	1.65	2.83	3.85	3.92	2.31	2.89	2.74	2.24	1.36	.96	26.44

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-8	.60	2-8	.15	2-8	.15	2-8	.15	2-8	.15	2-8	.15	2-8	.15	2-8	.15

MAXIMUMS FOR PERIOD OF RECORD																
19 60 TO 1966	9-14 1962	3.77	6-22 1963	1.16	6-22 1963	1.32	6-22 1963	1.37	6-22 1963	1.37	6-22 1963	2.42	6-22 1963	2.42	6-22 1963	2.42

NOTES: Watershed conditions: Continuous wheat annually, tillage during fallow period with chisel type field cultivator (Hoeme) to 6-inch depth with cross chiseling, if necessary, to obtain good tillage, final tillage before seeding wheat with a rod weeder. 1/ Precipitation data obtained from a standard gage at Rain Gage 5 location. 2/ Precipitation and runoff records began August 1960. 3/ Mean P based on 49-year (1915-63) U. S. Weather Bureau record period at Cherokee, Oklahoma, with 20 missing months between 1943-59 estimated. The Weather Bureau records began June 1915.

NO SIGNIFICANT SELECTED EVENT OCCURRED. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61, USDA MISC. PUB. 994, P. 34.10-4.

Cooperative Research Project of USDA and Oklahoma Agricultural Experiment Station

34.10-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHEROKEE, OKLAHOMA WATERSHED W-11 AREA - 2.12 ACRES								34.11
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966	P ₁ / o	.09 .00	1.44 .07	.05 .00	2.45 .00	.85 .00	1.00 .00	2.22 .00	5.67 .09	.66 .00	.41 .00	.00 .00	.41 .00	15.25 .16
STA AV ² / _P (60-66) Q		.26 .00	.60 .01	1.21 .08	2.07 .03	2.33 .21	4.20 .41	2.56 .11	3.00 .03	2.69 .23	1.35 .02	1.49 .14	.97 T	22.73 1.27
MEAN P ₃ / 49 YR		.80	.89	1.65	2.83	3.85	3.92	2.31	2.89	2.74	2.24	1.36	.96	26.44

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-8	.10	2-8	.06	2-8	.07	2-8	.07	2-8	.07	2-8	.07	2-8	.07	2-8	.07

MAXIMUMS FOR PERIOD OF RECORD																
19 60 TO 1966	6-2 1961	2.03	6-2 1961	.92	6-2 1961	.94	6-2 1961	.95	6-2 1961	.95	6-2 1961	.95	6-2 1961	.95	9-4 1963	1.13

NOTES: Watershed conditions: Continuous wheat annually, tillage during fallow period with large sweeps (8 ft.), final tillage before seeding wheat with a rod weeder. 1/ Precipitation data obtained from a standard gage at Rain Gage 6 location. 2/ Precipitation and runoff records began August 1960. 3/ Mean P based on 49-year (1915-63) U. S. Weather Bureau record period at Cherokee, Oklahoma, with 20 missing months between 1943-59 estimated. The Weather Bureau records began June 1915.

NO SIGNIFICANT SELECTED EVENT OCCURRED. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61, USDA MISC. PUB. 994, P. 34.11-4.

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHEROKEE, OKLAHOMA WATERSHED W-12							34.12			
						AREA - 1.68 ACRES										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ₁ / Q	.08 .00	1.53 .09	.15 .00	2.34 .00	.82 .00	.96 .00	2.08 .00	5.53 .10	.62 .00	.42 .00	.00 .00	.41 .00	14.94 .19			
STA AV ² / _P (60-66) Q	.28 .00	.61 .02	1.20 .06	1.99 .02	2.28 .30	4.21 .75	2.93 .33	3.04 .05	2.66 .24	1.40 .04	1.52 .18	.94 T	23.06 1.99			
MEAN P ₃ / 49 YR	.80	.89	1.65	2.83	3.85	3.92	2.31	2.89	2.74	2.24	1.36	.96	26.44			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
1966	8-18	.38	2-8	.09	2-8	.09	2-8	.09	2-8	.09	2-8	.09	2-8	.09	2-8	.09
MAXIMUMS FOR PERIOD OF RECORD																
1960 TO 1966	6-2 1961	2.96	6-2 1961	1.28	6-2 1961	1.29	6-22 1963	1.32	6-22 1963	1.32	6-22 1963	2.40	6-22 1963	2.40	6-22 1963	2.40
NOTES: Watershed conditions: Continuous wheat annually, first tillage during fallow period with one-way disc harrow shallow (2 in. to 2-1/2 in.), succeeding tillages with chisel type field cultivator (Hoeme) to maximum depth of 6 inches and final tillage before seeding wheat with same tool with sweeps on shanks. 1/ Precipitation data obtained from a standard gage at Rain Gage 10 location. 2/ Precipitation and runoff records began July 1960. 3/ Mean P based on 49-year (1915-63) U. S. Weather Bureau record period at Cherokee, Oklahoma, with 20 missing months between 1943-59 estimated. The Weather Bureau records began June 1915.																
NO SIGNIFICANT SELECTED EVENT OCCURRED. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61, USDA MISC. PUB. 994, P. 34.12-5.																
Cooperative Research Project of USDA and Oklahoma Agricultural Experiment Station																
34.12-1																
MONTHLY PRECIPITATION AND RUNOFF (inches)						CHEROKEE, OKLAHOMA WATERSHED W-13							34.13			
						AREA - 1.99 ACRES										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ₁ / Q	.09 .00	1.59 .11	.15 .00	2.47 .00	.83 .00	.91 .00	2.13 .00	5.20 .01	.68 .00	.39 .00	.00 .00	.41 .00	14.85 .12			
STA AV ² / _P (60-66) Q	.26 .00	.61 .02	1.21 .07	2.11 .02	2.34 .28	4.18 .54	2.99 .22	3.00 .01	2.74 .23	1.42 .03	1.53 .20	.95 T	23.34 1.62			
MEAN P ₃ / 49 YR	.80	.89	1.65	2.83	3.85	3.92	2.31	2.89	2.74	2.24	1.36	.96	26.44			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
1966	2-8	.18	2-8	.10	2-8	.11	2-8	.11	2-8	.11	2-8	.11	2-8	.11	2-8	.11
MAXIMUMS FOR PERIOD OF RECORD																
1960 TO 1966	6-2 1961	2.83	6-2 1961	1.16	6-2 1961	1.20	6-2 1961	1.20	6-2 1961	1.20	6-22 1963	1.56	6-22 1963	1.56	6-22 1963	1.56
NOTES: Watershed conditions: Continuous wheat annually, tillage during fallow period with chisel type field cultivator (Hoeme) to 6-inch depth with cross chiseling, if necessary, to obtain good tillage, final tillage before seeding wheat with a rod weeder. 1/ Precipitation data obtained from a standard gage at Rain Gage 9 location. 2/ Precipitation and runoff records began July 1960. 3/ Mean P based on 49-year (1915-63) U. S. Weather Bureau record period at Cherokee, Oklahoma, with 20 missing months between 1943-59 estimated. The Weather Bureau records began June 1915.																
NO SIGNIFICANT SELECTED EVENT OCCURRED. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61, USDA MISC. PUB. 994, P. 34.13-5.																
Cooperative Research Project of USDA and Oklahoma Agricultural Experiment Station																
(See 34.12-1 above)																
34.13-1																

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHEROKEE, OKLAHOMA WATERSHED W-14 AREA - 2.16 ACRES						34.14	
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ₁ / ₀	.09 .00	1.59 .08	.15 .00	2.47 .00	.83 .00	.91 .00	2.13 .00	5.20 .13	.68 .00	.39 .00	.00 .00	.41 .00	14.85 .21
STA AV ₂ / _P (60-66) Q	.26 .00	.61 .02	1.21 .04	2.11 .03	2.34 .30	4.18 .74	2.56 .29	3.05 .03	2.74 .23	1.42 .01	1.53 .00	.95 T	22.96 1.69
MEAN P ₃ / ₄₉ YR	.80	.89	1.65	2.83	3.85	3.92	2.31	2.89	2.74	2.24	1.36	.96	26.44

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-18	.66	8-18	.13	8-18	.13	8-18	.13	8-18	.13	8-18	.13	8-18	.13	8-18	.13

MAXIMUMS FOR PERIOD OF RECORD																
1960 TO 1966	7-28 1963	3.15	7-28 1963	1.20	7-28 1963	1.36	7-28 1963	1.37	7-28 1963	1.37	6-22 1963	2.18	6-22 1963	2.18	6-22 1963	2.18

NOTES: Watershed conditions: Continuous wheat annually, first tillage during fallow period with one-way disc harrow shallow (2 in. to 2-1/2 in.), succeeding tillages with chisel type field cultivator (Hoeme) to maximum depth of 6 inches and final tillage before seeding wheat with same tool with sweeps on shanks. 1/ Precipitation data obtained from a standard gage at Rain Gage 9 location. 2/ No runoff record in 1964 due to hole in gage well. Precipitation and runoff records began September 1960. 3/ Mean P based on 49-year (1915-63) U. S. Weather Bureau record period at Cherokee, Oklahoma, with 20 missing months between 1943-59 estimated. The Weather Bureau records began June 1915.

NO SIGNIFICANT SELECTED EVENT OCCURRED. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61, USDA MISC. PUB. 994, P. 34.14-4.
Cooperative Research Project of USDA and Oklahoma Agricultural Experiment Station

34.14-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHEROKEE, OKLAHOMA WATERSHED W-15 AREA - 2.15 ACRES						34.15	
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ₁ / ₀	.09 .00	1.59 .05	.15 .00	2.42 .00	.77 .00	.90 .00	2.13 .00	5.07 .04	.63 .00	.39 .00	.00 .00	.42 .00	14.56 .09
STA AV ₂ / _P (60-66) Q	.27 .00	.61 .01	1.21 .09	2.04 .03	2.30 .43	4.10 .74	2.52 .13	2.94 .02	2.64 .18	1.39 .02	1.52 .18	.96 T	22.50 1.83
MEAN P ₃ / ₄₉ YR	.80	.89	1.65	2.83	3.85	3.92	2.31	2.89	2.74	2.24	1.36	.96	26.44

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-8	.08	2-8	.05	2-8	.05	2-8	.05	2-8	.05	2-8	.05	2-8	.05	2-8	.05

MAXIMUMS FOR PERIOD OF RECORD																
1960 TO 1966	6-2 1961	2.64	6-23 1963	1.30	6-23 1963	1.53	6-23 1963	1.58	6-22 1963	1.67	6-22 1963	2.90	6-22 1963	2.90	6-22 1963	2.90

NOTES: Watershed conditions: Continuous wheat annually, tillage during fallow period with large sweeps (8 ft.), final tillage before seeding wheat with a rod weeder. 1/ Precipitation data obtained from a standard gage at Rain Gage 8 location. 2/ Precipitation and runoff records began September 1960. 3/ Mean P based on 49-year (1915-63) U. S. Weather Bureau record period at Cherokee, Oklahoma, with 20 missing months between 1943-59 estimated. The Weather Bureau records began June 1915.

NO SIGNIFICANT SELECTED EVENT OCCURRED. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61, USDA MISC. PUB. 994, P. 34.15-4.

MONTHLY PRECIPITATION AND RUNOFF (inches)						STILLWATER, OKLAHOMA WATERSHED W-1 AREA - 16.7 ACRES							37.1
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ₁ / O	.20 .00	1.62 .14	.19 T	2.19 .07	1.60 .02	1.77 .00	6.00 .43	4.37 .06	1.89 T	.55 .00	.04 .00	1.05 .00	21.47 .72
STA AV ² / _P (51-66) Q	.53 .10	1.10 .23	1.91 .69	2.14 .60	5.08 1.71	3.67 .90	4.46 .72	2.96 .08	3.34 .36	2.42 .65	1.47 .39	1.12 .20	30.20 6.63
MEAN P ₃ / 71 YR	1.10	1.26	2.13	3.43	4.78	4.14	3.12	3.03	3.71	2.89	2.05	1.34	32.98

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	7-23	.34	7-23	.23	7-23	.35	7-23	.42	7-23	.42	7-23	.43	7-23	.43	7-23	.43

MAXIMUMS FOR PERIOD OF RECORD																
1951 to 1966	4-18 1957	6.99	7-15 1951	3.31	7-15 1951	3.74	7-15 1951	3.96	10-2 1959	4.52	7-14 1951	5.18	10-1 1959	5.68	9-29 1959	7.62

NOTES: Watershed conditions: All native grass pasture. The pasture was moderately grazed from the middle of April until the end of the year, excepting the period of June 21 to about August 1, while the stock water pond was dry. The vegetative cover was poor at the beginning of the year, but during the growing season (April through September) an increase of 1.27 tons/acre was measured. This growth was due to above normal rainfall the latter part of July and during August. The rainfall for the year was 8.73 inches below station average. ¹/ Precipitation data obtained from R-1 recording rain gage. ²/ Precipitation and runoff records began July 1951. Station average precipitation data from R-3 recording rain gage record. ³/ Mean P based on 71-year (1893-1963) U. S. Weather Bureau record period at Stillwater, Oklahoma.

NO SIGNIFICANT SELECTED EVENT OCCURRED. FOR REVISED MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1964, USDA MISC. PUB. 1194, P. 37.1-7.

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37.1-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						STILLWATER, OKLAHOMA WATERSHED W-3 AREA - 92.0 ACRES							37.2
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ₁ / O	.22 .00	1.59 T	.19 .00	2.05 .01	1.65 T	1.64 .00	5.71 .19	4.21 .02	1.61 .00	.52 .00	.04 .00	1.04 .00	20.47 .22
STA AV ² / _P (51-66) Q	.53 .05	1.10 .12	1.91 .53	2.14 .49	5.08 1.54	3.67 .79	4.46 .70	2.96 .07	3.34 .32	2.42 .61	1.47 .21	1.12 .10	30.20 5.53
MEAN P ₃ / 71 YR	1.10	1.26	2.13	3.43	4.78	4.14	3.12	3.03	3.71	2.89	2.05	1.34	32.98

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	7-23	.15	7-23	.10	7-23	.14	7-23	.18	7-23	.19	7-23	.19	7-23	.19	7-23	.19

MAXIMUMS FOR PERIOD OF RECORD																
1951 to 1966	7-15 1951	4.74	7-15 1951	2.87	7-15 1951	3.49	7-15 1951	3.80	10-2 1959	4.96	10-1 1959	5.18	10-1 1959	6.08	9-30 1959	8.08

NOTES: Watershed conditions: All native grass cover, 32% of watershed in hay meadow and 68% in pasture. The meadow was cut for hay the first part of July and the yield was only 0.48 tons/acre, which is about one-fourth normal yield. Above normal rainfall the last part of July and through August caused a good regrowth of the grass. The pasture portion was generally in poor condition due to heavy grazing and below normal rainfall the first six months and last four months of the year. The rainfall for the year was 9.73 inches below station average. ¹/ Precipitation data obtained from R-3 recording rain gage. ²/ Precipitation and runoff records began July 1951. ³/ Mean P based on 71-year (1893-1963) U. S. Weather Bureau record period at Stillwater, Oklahoma.

NO SIGNIFICANT SELECTED EVENT OCCURRED. FOR MAP OF WATERSHED, SEE SELECTED RUNOFF EVENTS FOR SMALL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, USDA, ARS, JAN. 1960, P. 37.2-6.

MONTHLY PRECIPITATION AND RUNOFF (inches)						STILLWATER, OKLAHOMA WATERSHED W-4 AREA - 206 ACRES							37.3			
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966	P1/ O	.15 .00	1.48 .02	.18 .00	1.82 T	1.17 .00	1.88 .00	5.73 .63	3.68 .15	1.60 T	.52 .00	.04 .00	1.01 .00	19.26 .80		
STA AV (51-66)	2/ P Q	.47 .08	1.04 .09	1.88 .36	2.06 .33	4.89 1.25	3.48 .75	4.25 .59	2.92 .09	3.31 .35	2.44 .55	1.38 .14	1.05 .08	29.17 4.66		
MEAN 71 YR	P3/	1.10	1.26	2.13	3.43	4.78	4.14	3.12	3.03	3.71	2.89	2.05	1.34	32.98		
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	7-23	.70	7-23	.40	7-23	.50	7-23	.55	7-23	.55	7-23	.56	7-23	.56	7-23	.56
MAXIMUMS FOR PERIOD OF RECORD																
1951 TO 1966	4-18 1957	2.39	4-18 1957	1.48	4-18 1957	1.75	10-2 1959	2.63	10-2 1959	4.49	10-2 1959	4.71	10-1 1959	5.23	9-30 1959	6.77
<p>NOTES: Watershed conditions: All native grass cover, 17.3% of watershed area in hay meadow and 82.7% in pasture. The meadow was cut for hay the latter part of September with a near normal crop yield due to above average rainfall the latter part of July and in August. The precipitation for the year was 9.91 inches below station average. The pasture portion was generally in poor condition due to overpopulating with cattle on a year around grazing practice. The precipitation deficit accumulated during the first six months and the last four months of the year. 1/ Precipitation data from R-2 recording rain gage. 2/ Precipitation and runoff records began July 1951. Station average precipitation data from R-4 recording rain gage record. 3/ Mean P based on 71-year (1893-1963) U. S. Weather Bureau record period at Stillwater, Oklahoma.</p>																
<p>NO SIGNIFICANT SELECTED EVENT OCCURRED. FOR REVISED MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1964, USDA MISC. PUB. 1194, P. 37.3-6.</p>																

MONTHLY PRECIPITATION AND RUNOFF (inches)						RIESEL (WACO), TEXAS		WATERSHED C		42.02				
						AREA — 579 ACRES								
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P ²	1.92	4.09	2.06	9.19	3.06	1.60	.62	10.12	4.24	.20	.14	2.55	39.79
	O	.11	2.28	.29	5.11	.61	.00	.00	3.43	.11	T	.00	.00	11.94
	STA AVG P (39-66) ²	1.94	2.85	2.06	3.82	4.04	3.69	1.33	2.50	2.98	2.63	3.00	2.27	33.11
	MEAN P ³	.38	.58	.46	1.02	.95	.59	.15	.19	.38	.28	.40	.47	5.85
	78 YR	2.15	2.39	2.75	4.17	4.61	3.27	1.89	1.95	2.87	2.57	2.48	2.56	33.66

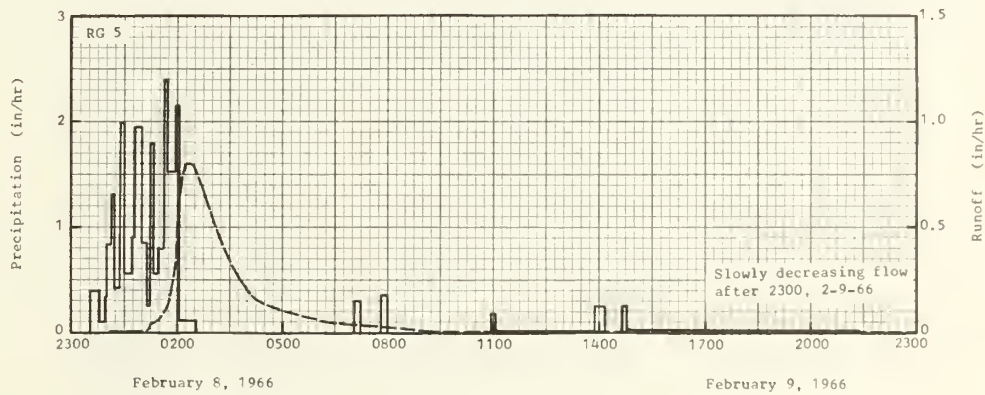
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE	MAXIMUM VOLUME FOR SELECTED TIME INTERVAL														
		1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS		
		DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	
1966	8-12	1.51	8-12	1.35	8-12	2.20	8-12	3.04	8-12	3.16	8-12	3.18	4-24	3.79	4-22	4.93

MAXIMUMS FOR PERIOD OF RECORD																
1938 TO 1966 ⁴	3-29 1965	E/1.58	3-29 1965	E/1.50	3-29 1965	B/2.52	3-29 1965	E/3.55	3-29 1965	E/3.80	3-29 1965	E/4.48	9-7 1942	4.78	4-19 1957	8.76E

NOTES: Watershed land use: 70% pasture; 4% fall planted small grain, largely oats; 10% row grain crop, largely grain sorghum; 2% gravel and paved roads; 2% cotton; 12% other. Approx. 90% of "other" is Johnsongrass and weeds in conservation reserve, but neither tilled nor grazed. ¹/ Precipitation data from Thiessen method using rain gages 5, 14, and 20. ²/ Precipitation and runoff records began Feb. 1938; station not in operation July 1943 to Mar. 1, 1949; part-year amounts not included in averages. ³/ Mean P based on 78-yr (1889-1966) U. S. Weather Bureau record period at Waco, Texas. ⁴/ No maximums 1938, 1944-1948; maximums for 1943 occurred before July, and for 1949 after Mar. 1. ⁵/ During storm of Mar. 29, 1965, some water normally draining through station crossed county road and was not measured.

1966 SELECTED RUNOFF EVENT			RIESEL (WACO), TEXAS		WATERSHED C		42.02			
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
3 RG ⁶ /			Event of February 8-12, 1966							
1-18	.11	.0000		RG	5		2-09	0008	.0000	.0000
1-19	.44	.0000	2-08	2333	.00	.00		0052	.0052	.0002
1-20	.00	.0002		2348	.40	.10		0110	.0062	.0010
1-21	.12	.0005		2353	.12	.11		0118	.0490	.0046
1-22	.00	.0009		2400	.34	.15		0126	.0672	.0126
1-23	.00	.0005	2-09	0008	.83	.26		0134	.0751	.0219
1-24	.32	.0032		0013	1.32	.37		0142	.1334	.0354
1-25	.00	.0073		0023	.42	.44		0148	.2139	.0521
1-26	.00	.0035		0029	2.00	.64		0154	.3176	.0785
1-27	.00	.0021		0042	.55	.76		0200	.5007	.1187
1-28	.46	.0021		0048	.90	.85		0206	.6671	.1780
1-29	.00	.0362		0056	1.95	1.11		0212	.7389	.2491
1-30	.00	.0021		0108	.84	1.25		0216	.7802	.2997
1-31	.00	.0075		0113	.24	1.27		0220	.7977	.3523
2-01	.00	.0010		0118	1.80	1.42		0224	.7910	.4055
2-02	.00	.0004		0128	.54	-1.51		0235	.7567	.5487
2-03	.00	.0002		0138	.78	1.64		0250	.6324	.7231
2-04	.00	.0002		0143	2.40	1.84		0310	.4679	.9056
2-05	.00	.0001		0158	1.52	2.22		0335	.3107	1.0671
2-06	.00	.0001		0203	2.16	2.40		0405	.1844	1.1921
2-07	.00	.0001		0233	.12	2.46		0440	.1237	1.2806
2-08	Z/.00	B/.0001		0703	.00	2.46		0520	.0846	1.3489
				0713	.30	2.51		0600	.0564	1.3950
				0748	.00	2.51		0700	.0341	1.4384
				0758	.36	2.57		0830	.0225	1.4791
				1053	.00	2.57		1438	.0128	1.5799
				1103	.18	2.60		1522	.0144	1.5900
				1353	.01	2.62		1702	.0182	1.6174
				1408	.24	2.68		1732	.0185	1.6265
				1438	.00	2.68		1802	.0184	1.6358
				1445	.26	2.71		2002	.0139	1.6687
				2121	.02	2.81		2400	.0083	1.7107
				RG	14	2.81	2-10	1202	.0022	1.7666
				RG	20	2.77		2400	.0007	1.7817
				3 RG	AVG ⁶ /	2.81	2-11	2400	.0004	1.7914
							2-12	1000	B/.0004	1.7951

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 583.82. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 42, 4-6. ⁶/ THIESSEN WEIGHTED RAINFALL USING RAIN GAGES 5, 14, AND 20. ^Z/ RAINFALL PRIOR TO EVENT BEGINNING AT 2333. ^B/ RUNOFF PRIOR TO RAINFALL EVENT BEGINNING AT 2333. ⁶/ BEGINNING OF NEXT EVENT.



RIESEL (WACO), TEXAS WATERSHED C

MONTHLY PRECIPITATION AND RUNOFF (inches)						RIESEL (WACO), TEXAS						WATERSHED D		42.03
						AREA — 1,110 ACRES (1.73 SQ. MILES)								
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966	P ² 1.93 q .09	4.06 2.57	2.10 .31	8.98 5.26	3.13 .54	1.67 T	.47 .00	9.91 3.75	4.42 .32	.22 .00	.12 .00	2.51 T	39.52 12.84	
STA AVG P (35-66)	P ² 2.02 o .42	2.84 .59	2.16 .52	3.80 1.08	3.95 1.06	3.76 .60	1.39 .17	2.39 .22	2.89 .36	2.49 .27	2.92 .37	2.28 .45	32.89 6.11	
MEAN 78 YR	P ² 2.15	2.39	2.75	4.17	4.61	3.27	1.89	1.95	2.87	2.57	2.48	2.56	33.66	

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-12	1.36	8-12	1.28	8-12	2.22	8-12	3.22	8-12	3.36	8-12	3.39	4-24	3.86	4-22	5.10

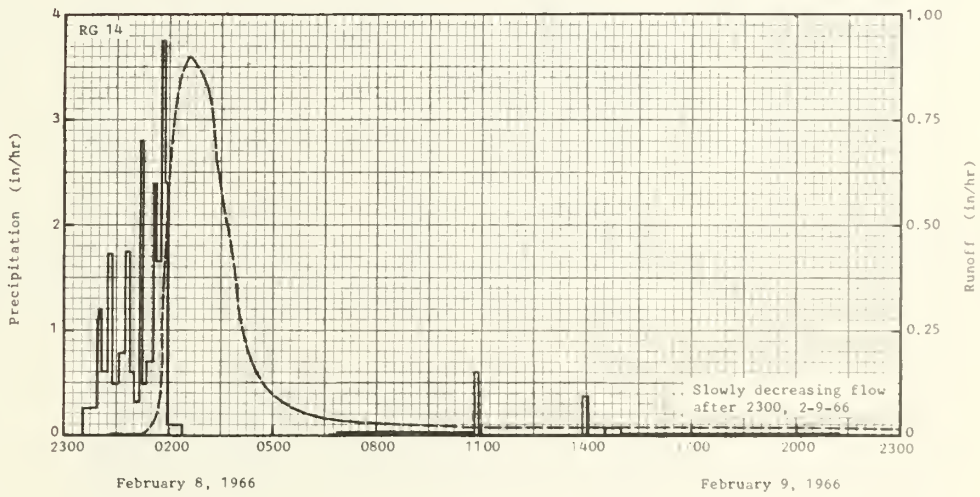
MAXIMUMS FOR PERIOD OF RECORD																
1938 TO	3-29	2.11	3-29	1.93	3-29	3.15	3-29	4.59	3-29	4.88	3-29	5.63	3-29	5.69	4-19	9.66E
1966	1965		1965		1965		1965		1965		1965		1965		1957	

NOTES: Watershed land use: 69% pasture; 7% cotton; 6% fall planted small grain, largely oats; 6% row grain crops, largely grain sorghum; 2% corn; 2% gravel and paved roads; 8% other. Approx. 90% of "other" is Johnsongrass and weeds in conservation reserve, but neither tilled nor grazed. ¹/ Precipitation data from Thiessen method using rain gages 5, 14, 20, and 26A. ²/ Precipitation and runoff records began Dec. 1937; station not in operation July 1943 to Mar. 1, 1949; part-year amounts not included in averages. ³/ Mean P based on 78-yr (1889-1966) U. S. Weather Bureau record period at Waco, Texas. ⁴/ No maximums 1938, 1944-1948; maximums for 1943 occurred before July, and for 1949 after Mar. 1.

1966 SELECTED RUNOFF EVENT				RIESEL (WACO), TEXAS				WATERSHED D				42.03
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF					
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)		
4 RG 5/			Event of February 8-15, 1966									
1-18	.10	.0000		RG	14		2-09	0022	.0000	.0000		
1-19	.45	.0002	2-08	2332	.00	.00		0110	.0054	.0007		
1-20	.00	.0002		2354	.27	.10		0126	.0138	.0031		
1-21	.12	.0004		2400	1.10	.21		0140	.0601	.0102		
1-22	.00	.0006	2-09	0004	1.20	.29		0150	.2045	.0304		
1-23	.00	.0004		0014	.60	.35		0200	.6280	.1031		
1-24	.35	.0030		0022	1.73	.58		0210	.7921	.2247		
1-25	.00	.0037		0032	.48	.66		0218	.8406	.3337		
1-26	.00	.0011		0042	.78	.79		0227	.8765	.4630		
1-27	.00	.0004		0052	1.74	1.08		0232	.8944	.5368		
1-28	.46	.0389		0100	.60	1.16		0237	.8899	.6111		
1-29	.00	.0323		0109	.33	1.21		0247	.8630	.7576		
1-30	.00	.0016		0112	2.80	1.35		0302	.7886	.9643		
1-31	.00	.0013		0122	.48	1.42		0322	.6522	1.2047		
2-01	.00	.0010		0133	.71	1.55		0352	.4064	1.4714		
2-02	.00	.0003		0137	2.40	1.71		0437	.1328	1.6495		
2-03	.00	.0002		0148	1.64	2.01		0532	.0700	1.7368		
2-04	.00	.0001		0152	3.75	2.26		0712	.0323	1.8157		
2-05	.00	.0001		0156	2.40	2.42		1002	.0184	1.8802		
2-06	.00	.0001		0222	.09	2.46		1402	.0120	1.9378		
2-07	.00	.0001		0652	.00	2.47		1502	.0136	1.9501		
2-08	² / .00	² / .0001		1048	.03	2.58		1632	.0182	1.9746		
				1052	.60	2.62		1802	.0171	2.0013		
				1352	.00	2.62		2002	.0126	2.0312		
				1402	.36	2.68		2400	.0078	2.0696		
				1436	.00	2.68	2-10	1203	.0019	2.1183		
				1502	.07	2.71		2400	.0006	2.1309		
				1514	.00	2.71	2-11	2400	.0001	2.1379		
				2112	.02	2.81	2-12	2400	.0001	2.1415		
				RG	5	2.81	2-13	2400	.0001	2.1438		
				RG	20	2.77	2-14	2400	T	2.1448		
				RG	26A	3.12	2-15	0538	² / T	2.1450		
				4 RG	AVG 5/	2.80						

Watershed conditions: 69% pasture, all classes, dormant; 15% tilled, bare; 6% fall planted small grain, largely oats, 2 to 4 inches high; 2% gravel and paved roads; 8% other. Approx. 90% of "other" is Johnsongrass and weeds in conservation reserve, but neither tilled nor grazed.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 1119.25. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 42.4-6. ⁵/ THIESSEN WEIGHTED RAINFALL USING RAIN GAGES 5, 14, 20, AND 26A. ⁶/ RAINFALL PRIOR TO EVENT BEGINNING 2332. ⁷/ RUNOFF PRIOR TO RAINFALL EVENT BEGINNING AT 2332. ⁸/ BEGINNING OF NEXT EVENT.



RIESEL (WACO), TEXAS WATERSHED D

MONTHLY PRECIPITATION AND RUNOFF (inches)						RIESEL (WACO), TEXAS						WATERSHED G		42.04
						AREA — 4,380 ACRES (6.84 SQ. MILES)								
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966	2.14	4.25	1.90	8.74	3.32	2.60	.34	9.30	5.04	.18	.11	2.53	40.45	
	.16	2.36	.21	4.72	.69	.09	.00	2.56	.83	T	.00	.00	11.62	
STA AVG P (38-66)	2.32	3.04	2.07	3.50	3.45	4.86	1.50	3.01	3.12	2.56	2.98	2.62	35.03	
MEAN P 78 YR	.66	.79	.52	.68	.74	.97	.14	.24	.41	.16	.50	.51	6.32	
	2.15	2.39	2.75	4.17	4.61	3.27	1.89	1.95	2.87	2.57	2.48	2.56	33.66	

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-12	.50	8-12	.48	8-12	.91	8-12	1.73	8-12	2.02	4-24	2.24	4-24	3.51	4-22	4.65

MAXIMUMS FOR PERIOD OF RECORD																
1938 TO 1966	3-29 1965	.95	3-29 1965	.91	3-29 1965	1.72	3-29 1965	3.39	3-29 1965	3.94	3-29 1965	4.63	3-29 1965	4.74	11-22 1940	4.82

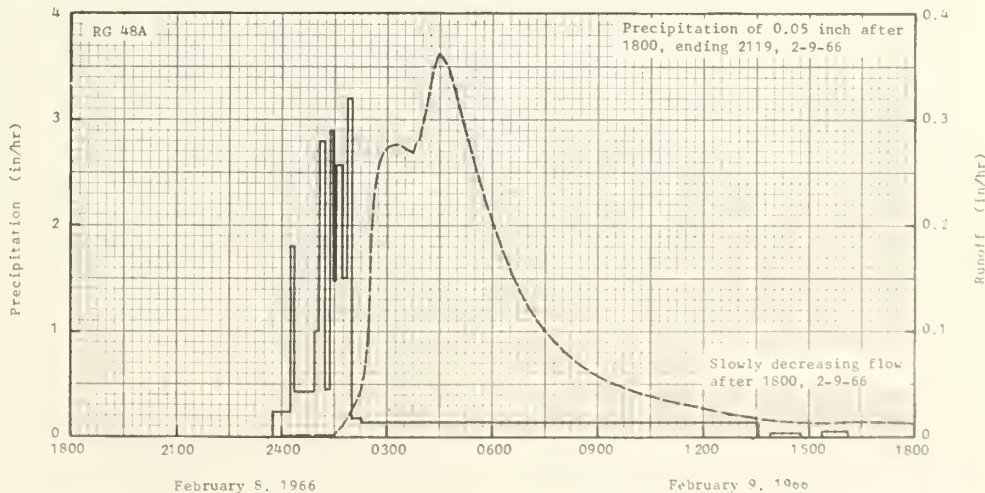
NOTES: Watershed land use: 38% pasture; 8% fall planted small grain, largely oats; 7% cotton; 6% corn; 5% row grain crops, largely grain sorghum; 2% gravel and paved roads; 34% other. Approx. 90% of "other" is Johnsongrass and weeds in conservation reserve, neither tilled nor grazed. 1/ Precipitation data from Thiessen method using rain gages 5, 14, 20, 26A, 30A, 43A, 48A, 56A, 65A, 70, 74A, 84A, and 89. 2/ Precipitation and runoff records began Jan. 1938; station not in operation July 1943 to July 1, 1957; part-year amounts not included in averages. 3/ Mean P based on 78-yr (1889-1966) U. S. Weather Bureau record period at Waco, Texas. 4/ No maximums 1944 through 1957; maximums for 1943 occurred before July 1.

1966 SELECTED RUNOFF EVENT						RIESEL (WACO), TEXAS						WATERSHED G		42.04
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF							
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME DF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME DF DAY	RATE (in/hr)	ACC. (inches)				
13 RG 5/			Event of February 8-15, 1966											
1-09	.00	.0003		RG	.20		2-09	0000	.0000	.0000				
1-10	.00	.0002	2-08	2335	.00	.00		0100	.0001	.0001				
1-11	.00	.0002		2345	.24	.04		0130	.0015	.0002				
1-12	.00	.0002		2400	.36	.13		0200	.0254	.0059				
1-13	.00	.0001	2-09	0019	.38	.25		0230	.1642	.0517				
1-14	.00	.0001		0025	1.20	.37		0250	.2689	.1222				
1-15	.00	.0001		0043	.43	.50		0300	.2759	.1678				
1-16	.00	T		0049	1.40	.64		0310	.2763	.2138				
1-17	.00	T		0053	1.20	.72		0320	.2763	.2599				
1-18	.10	T		0101	.68	.81		0330	.2759	.3059				
1-19	.49	.0038		0106	.72	.87		0345	.2702	.3745				
1-20	.00	.0043		0115	1.33	1.07		0400	.2978	.4442				
1-21	.14	.0028		0119	.45	1.10		0415	.3352	.5234				
1-22	.00	.0058		0125	2.70	1.37		0430	.3613	.6104				
1-23	.00	.0021		0133	2.55	1.71		0445	.3511	.6998				
1-24	.38	.0132		0150	1.45	2.12		0515	.2831	.8569				
1-25	.00	.0175		0155	3.24	2.39		0600	.2036	1.0394				
1-26	.00	.0054		0159	.60	2.43		0700	.1205	1.1931				
1-27	.00	.0021		0215	.08	2.45		0800	.0800	1.2897				
1-28	.48	.0458		0655	.00	2.47		1000	.0437	1.4082				
1-29	.00	.0223		0755	.07	2.54		1200	.0260	1.4753				
1-30	.00	.0035		1025	.00	2.54		1500	.0159	1.5337				
1-31	.00	.0029		1348	.03	2.59		2100	.0131	1.6210				
2-01	.00	.0035		1433	.13	2.69		2400	.0100	1.6553				
2-0	.00	.0015		1509	.00	2.69	2-10	1000	.0036	1.7150				
2-03	.00	.0008		1555	.07	2.74		2400	.0009	1.7416				
2-04	.00	.0005		2045	.00	2.74	2-11	2400	.0003	1.7550				
2-05	.00	.0005		2065	.09	2.77	2-12	2400	.0005	1.7656				
2-06	.00	.0004		RG	48A		2-13	2400	.0002	1.7735				
2-07	.00	.0006	2-08	1815	.00	.00	2-14	2400	.0001	1.7770				

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 4416.48. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 42.4-6. 5/ THIESSEN METHOD USING RAIN GAGES 5, 14, 20, 26A, 30A, 43A, 48A, 56A, 65A, 70, 74A, 84A, AND 89.

1966 SELECTED RUNOFF EVENT			RIESEL (WACO), TEXAS				WATERSHED G 42.04				
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
2-08	13 RG 1/ 2/.00	2/.0007	Event of February 8-15, 1966 - Continued								
			2-08	2345	.01	.06	2-15	0702	1/.0001	1.7777	
				2400	.24	.12					
			2-09	0015	.24	.18					
				0017	1.80	.24					
				0055	.44	.52					
Watershed conditions: 38% pasture, all classes, dormant; 8% fall planted small grain, largely oats, 2 to 4 inches high; 18% tilled, bare; 2% gravel and paved roads; 34% other. Approx. 90% of "other" is Johnsongrass and weeds in conservation reserve, neither tilled nor grazed.				0105	1.02	.69					
				0113	2.78	1.06					
				0124	.44	1.14					
				0129	2.88	1.38					
				0133	1.48	1.75					
				0141	2.55	2.09					
				0151	1.50	2.34					
				0157	3.20	2.66					
				0215	.17	2.71					
				1335	.14	2.89					
				1351	.00	2.89					
				1445	.04	2.93					
				1519	.00	2.93					
				1603	.05	2.97					
				2103	.00	2.97					
				2119	.19	3.02					
				RG	5	2.81					
				RG	14	2.81					
				RG	26A	3.12					
				RG	30A	2.64					
	RG	43A	2.99								
	RG	56A	2.95								
	RG	65A	3.00								
	RG	70	2.88								
	RG	74A	2.63								
	RG	84A	2.68								
	RG	89	2.49								
	13 RG	AVG 1/	2.88								

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 4416.48. 1/ THIESSEN METHOD USING RAIN GAGES 5, 14, 20, 26A, 30A, 43A, 48A, 56A, 65A, 70, 74A, 84A, AND 89. 2/ RAINFALL PRIOR TO EVENT BEGINNING AT 2335. 3/ RUNOFF PRIOR TO RAINFALL EVENT BEGINNING AT 2335. 4/ BEGINNING OF NEXT EVENT.



RIESEL (WACO), TEXAS WATERSHED G

MONTHLY PRECIPITATION AND RUNOFF (inches)						RIESEL (WAGO), TEXAS						WATERSHED W-1 42.06		
						AREA — 176 AGRES								
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P ¹ / _Q	2.07	3.76	1.82	9.03	3.39	2.26	.26	8.91	4.41	.15	.09	1.94	38.09
	Q	.12	1.55	.15	4.85	1.23	.04	T	2.36	.59	.01	.01	.02	10.93
STA AVG (38-66)	P	2.31	2.79	2.52	4.02	4.38	3.44	1.46	2.12	2.46	2.47	2.93	2.57	33.47
	Q	.47	.62	.63	1.08	1.29	.57	.09	.10	.16	.19	.40	.46	6.06
MEAN 78 YR	P ² / _Q	2.15	2.39	2.75	4.17	4.61	3.27	1.89	1.95	2.87	2.57	2.48	2.56	33.66

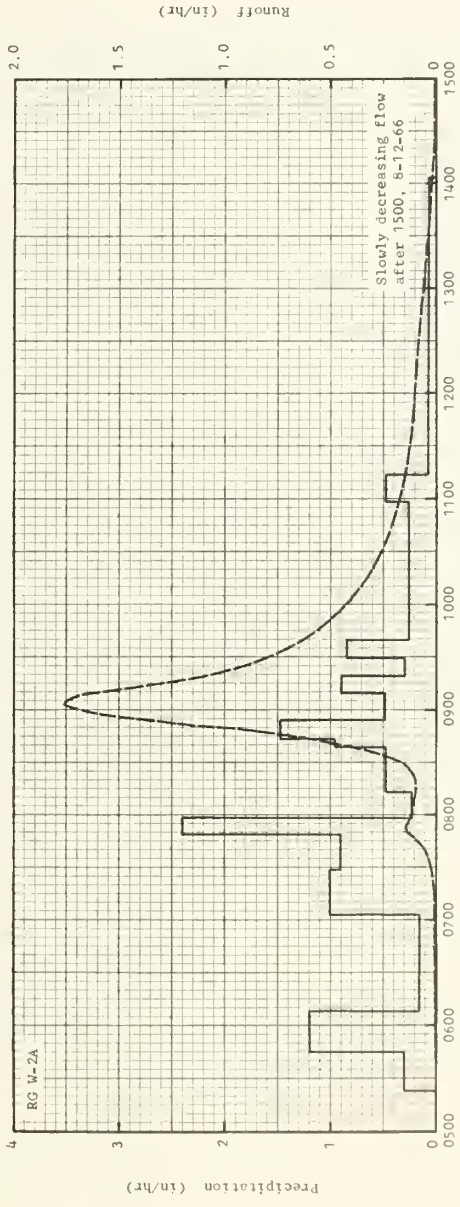
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE	MAXIMUM VOLUME FOR SELECTED TIME INTERVAL														
		1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS		
		DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	
1966	8-12	1.76	8-12	1.11	8-12	1.53	8-12	1.95	8-12	2.05	4-24	2.41	4-24	4.19	4-23	5.05

MAXIMUMS FOR PERIOD OF RECORD																
1937 TO 1966	5-1 1944	4.51	5-1 1944	2.99	5-1 1944	5.57	5-1 1944	6.91	5-1 1944	6.92	5-1 1944	7.05	4-30 1944	9.20	4-29 1944	11.06

NOTES: Watershed land use: 31% cotton; 18% oats; 10% corn; 9% row grain sorghum; 22% pasture; 6% fallow clean tilled; 3% gravel roads; 1% farmstead and waterways. Straight row cultivation; without terraces. ¹/ Precipitation data from Thiessen method using rain gages 75A, 89, W-2, W-2A, and W-5A. ²/ Precipitation and runoff records began July 1937; part-year amounts not included in averages. ³/ Mean P based on 78-yr (1889-1966) U. S. Weather Bureau record period at Waco, Texas. ⁴/ No maximums for 1937.

1966 SELECTED RUNOFF EVENT				RIESEL (WAGO), TEXAS				WATERSHED W-1 42.06			
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
5 RG ⁵ / _{1.79}			Event of August 12-13, 1966								
			Watershed conditions: 31% cotton, mature; 18% bare, oat stubble turned under; 10% corn, mature, ready for harvest; 9% grain sorghum harvested, 22% bermudagrass pasture, 2 to 4 inches high, 6% fallow clean tilled, 4% gravel roads, farmsteads, and waterways. Straight row cultivation, not terraced.								
8-02	.03	.0000	8-12	RC	W-2A		8-12	0542	.0002	.0000	
8-11	1.95	.0000		0523	.00	.00		0647	.0005	.0006	
8-12	⁵ / _{1.79}	² / _{.0009}		0545	.30	.11		0659	.0192	.0027	
				0608	1.20	.57		0712	.0221	.0074	
				0703	.16	.72		0734	.0249	.0158	
				0728	1.01	1.14		0740	.0460	.0192	
				0748	.90	1.44		0750	.1273	.0341	
				0758	2.40	1.84		0754	.1307	.0427	
				0813	.24	1.90		0800	.1201	.0553	
				0838	.48	2.10		0808	.1067	.0704	
				0843	.96	2.18		0819	.0934	.0838	
				0854	1.47	2.45		0830	.1541	.1095	
				0909	.48	2.57		0840	.4838	.1620	
				0919	.90	2.72		0850	.9803	.2757	
			0929	.30	2.77	0855	1.4292	.3746			
			0939	.84	2.91	0900	1.7252	.5074			
			1058	.26	3.25	0903	1.7624	.5946			
			1113	.48	3.37	0907	1.6933	.7104			
			1403	.08	3.44	0913	1.3865	.8647			
			RG	75-A	3.97	0923	.9561	1.0573			
			RG	89	4.00	0935	.6813	1.2174			
			RG	W-2	3.93	0953	.4888	1.3890			
			RG	W-5A	4.10	1013	.3483	1.5291			
			5 RG	AVG ⁵ / _{1.79}	3.79	1043	.2133	1.6659			
						1118	.1480	1.7669			
						1158	.1092	1.8584			
						1258	.0619	1.9418			
						1426	.0234	2.0007			
						1630	.0099	2.0323			
						1930	.0041	2.0513			
						2400	.0015	2.0628			
						8-13	0530	⁵ / _{.0006}	2.0681		

NOTES: TO CONVERT RUNOFF IN IN/HR TO GFS, MULTIPLY BY 177.47. FOR MAP OF THE WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1963, USDA MISC. PUB. 1164 P. 42.6-6 (REVISED). ⁵/ THIESSEN WEIGHTED RAINFALL USING RAIN GAGES 75A, 89, W-2, W-2A, AND W-5A. ⁶/ RAINFALL PRIOR TO EVENT BEGINNING AT 0523. RAINFALL ENDED 0458. ⁷/ RUNOFF PRIOR TO EVENT BEGINNING AT 0542. ⁸/ BEGINNING OF NEXT EVENT.



RIESEL (WACO), TEXAS WATERSHED W-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						RIESEL (WACO), TEXAS							WATERSHED W-2		42.07
						AREA — 130 ACRES									
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL		
1966 P ^{1/}	1.99	3.50	1.85	9.49	3.58	2.34	.27	9.31	4.29	.17	.09	1.90	38.78		
Q	.35	1.84	.62	5.44	2.00	.19	.03	1.42	.49	.11	.04	.05	12.58		
STA AVG P ^{2/}	2.26	2.77	2.46	4.02	4.33	3.40	1.46	2.18	2.48	2.45	2.88	2.54	33.23		
(38-66) O	.55	.73	.71	1.09	1.30	.54	.10	.06	.12	.18	.40	.55	6.33		
MEAN P ^{3/}															
78 YR	2.15	2.39	2.75	4.17	4.61	3.27	1.89	1.95	2.87	2.57	2.48	2.56	33.66		

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS															
YEAR	MAXIMUM DISCHARGE	MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
		1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
		DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	4-25 1.19	4-25 1.01	4-25 1.37	4-25 1.56	4-24 1.90	4-24 2.41	4-24 4.54	4-24 5.51							

MAXIMUMS FOR PERIOD OF RECORD																
1937 TO	5-1	4.83	5-1	2.86	5-1	5.40	5-1	6.91	5-1	6.97	5-1	7.12	4-30	9.26	4-29	10.96
1966	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944

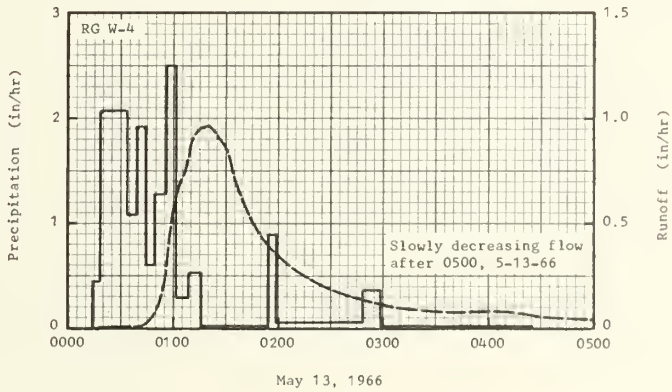
NOTES: Watershed land use: 15% oats-clover; 20% row grain sorghum; 56% pasture; 5% gravel roads; 4% Johnsongrass, not tilled or grazed. Cropland farmed on contour, not terraced. Modified conservation applied 1956. ^{1/} Precipitation data from Thiessen method using rain gages W-2, W-4, W-5A, and W-6. ^{2/} Precipitation and runoff records began July 1937; part-year amounts not included in averages. ^{3/} Mean P based on 78-yr (1889-1966) U. S. Weather Bureau record period at Waco, Texas. ^{4/} No maximums for 1937.

1966 **SELECTED RUNOFF EVENT** RIESEL (WACO), TEXAS WATERSHED W-2 42.07

ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
4 RG <u>5/</u>			Event of May 13, 1966							
4-13	.00	.0084		RG	W-4		5-13	0020	.0041	.0000
4-14	.00	.0085	5-13	0014	.00	.00		0036	.0082	.0014
4-15	.00	.0070		0018	.45	.03		0045	.0228	.0033
4-16	.00	.0066		0034	2.06	.58		0050	.0762	.0070
4-17	1.07	.0188		0039	1.08	.67		0055	.2163	.0193
4-18	.06	.0210		0044	1.92	.83		0100	.5620	.0490
4-19	.00	.0081		0048	.60	.87		0104	.6877	.0909
4-20	.03	.0080		0056	1.28	1.04		0108	.8171	.1410
4-21	.00	.0062		0102	2.50	1.29		0112	.9066	.1985
4-22	.93	.0273		0108	.30	1.32		0116	.9440	.2604
4-23	.24	.0426		0116	.53	1.39		0120	.9585	.3238
4-24	3.45	2.1384		0154	.02	1.40		0124	.9295	.3869
4-25	2.38	2.3721		0158	.90	1.46		0128	.8745	.4478
4-26	.00	.1179		0248	.06	1.51		0134	.7381	.5279
4-27	.00	.0167		0258	.36	1.57		0140	.6196	.5956
4-28	.89	.2587		0426	.01	1.58		0150	.4460	.6846
4-29	.00	.1436		RG	W-2	1.15		0200	.3402	.7487
4-30	.37	.1231		RG	W-5A	1.62		0216	.2391	.8242
5-01	.55	.3317		RG	W-6	1.63		0231	.1838	.8767
5-02	.00	.0832		4 RG	AVG <u>5/</u>	1.59		0301	.1225	.9489
5-03	.00	.0209						0401	.0771	1.0493
5-04	.10	.0191						0501	.0420	1.1077
5-05	.00	.0176						0601	.0233	1.1394
5-06	.00	.0161						0701	.0135	1.1574
5-07	.00	.0143						0841	.0058	1.1724
5-08	.00	.0138						1031	.0033	1.1805
5-09	.00	.0120						1301	.0015	1.1869
5-10	.00	.0117						1601	.0008	1.1892
5-11	.00	.0108						2400	<u>5/</u> .0007	1.1944
5-12	.65	.0215								
5-13	.00	<u>5/</u> .0013								

Watershed conditions: 15% oats-clover, headed in dough stage; 20% row grain sorghum, 4 inches high; 56% bermudagrass pasture, 2 to 4 inches high; 4% Johnsongrass, 6 to 12 inches high, neither tilled nor grazed; 5% gravel roads. Cropland farmed on contour, not terraced.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 1.3108. FOR MAP OF THE WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1963, USDA MISC. PUB. 1164 P. 42.7-5 (REVISED)
^{5/} THIESSEN WEIGHTED RAINFALL USING RAIN GAGES W-2, W-4, W-5A, AND W-6. ^{6/} RUNOFF PRIOR TO EVENT BEGINNING AT 0020 MAY 13, 1966. ^{7/} NEXT EVENT BEGAN AT 1125 MAY 20, 1966.



RIESEL (WACO), TEXAS WATERSHED W-2

MONTHLY PRECIPITATION AND RUNOFF (inches)							RIESEL (WACO), TEXAS							WATERSHED W-6		42.08
							AREA — 42.3 ACRES									
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL		
1966	P ¹ / _Q	1.95	3.67	1.78	9.26	3.62	2.23	.28	9.26	4.19	.15	.10	1.94	38.43		
		.07	1.00	.12	4.67	1.26	.01	.00	.78	.07	.00	.00	.00	7.98		
	STA AVG ² / _P (40-66)	2.09	2.71	2.31	4.08	4.04	3.59	1.35	2.28	2.63	2.61	2.91	2.37	32.97		
		.30	.39	.43	.80	.88	.46	.06	.03	.11	.12	.32	.35	4.25		
	WEAN ³ / _P 78 YR	2.15	2.39	2.75	4.17	4.61	3.27	1.89	1.95	2.87	2.57	2.48	2.56	33.66		

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	4-25	1.10	4-25	.90	4-25	1.17	4-25	1.35	4-25	1.38	4-24	2.22	4-24	4.07	4-24	4.93

MAXIMUMS FOR PERIOD OF RECORD

1939 TO	6-10	3.99	4-19	2.33	4-19	2.78	5-11	3.13	5-11	3.21	3-29	4.06	11-22	5.09	4-19	9.06
1966	1941		1957		1957		1957		1957		1965		1940		1957	

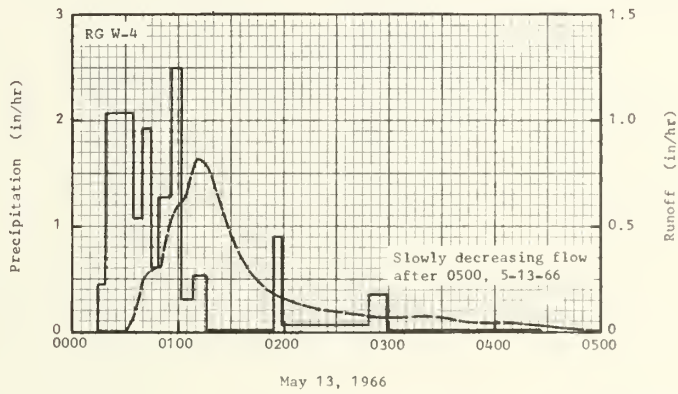
NOTES: Watershed land use: 41% row grain sorghum; 25% oats-clover; 15% pasture; 10% Johnsongrass, not tilled or grazed; 2% native grass waterways; 7% gravel roads. Modified conservation program since 1956. Cropland farmed on contour, no terraces. ¹/ Precipitation data obtained from rain gages W-2, W-4, and W-5A. ²/ Precipitation and runoff records began May 1939; station not in operation July 1943 to Jan. 1, 1946; part-year amounts not included in averages. ³/ Mean P based on 78-yr (1889-1966) U. S. Weather Bureau record period at Waco, Texas. ⁴/ Maximums for 1939 occurred after May 1, and for 1943 before July; no maximums for 1944 and 1945.

1966 SELECTED RUNOFF EVENT RIESEL (WACO), TEXAS WATERSHED W-6 42.08

ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
	3 RG ⁵ /		Event of May 13, 1966							
4-13	.00	.0004		RG	W-4		5-13	0016	.0012	.0000
4-14	.00	.0003	5-13	0014	.00	.00		0031	.0051	.0004
4-15	.00	.0005		0018	.45	.03		0036	.1013	.0046
4-16	.00	.0009		0034	2.06	.58		0041	.2652	.0198
4-17	.00	.0035		0039	1.08	.67		0046	.2895	.0439
4-18	1.04	.0025		0044	1.92	.83		0050	.3074	.0635
4-19	.05	.0005		0048	.60	.87		0055	.4842	.0958
4-20	.00	.0002		0056	1.28	1.04		0100	.5831	.1397
4-21	.03	.0001		0102	2.50	1.29		0104	.6512	.1810
4-22	.00	.0032		0108	.30	1.32		0108	.7578	.2280
4-23	.97	.0079		0116	.53	1.39		0111	.8210	.2677
4-24	.23	1.9980		0154	.02	1.40		0116	.7963	.3353
4-25	3.41	2.0596		0158	.90	1.46		0120	.7190	.3862
4-26	2.18	.0517		0248	.06	1.51		0126	.5659	.4510
4-27	.00	.0044		0258	.36	1.57		0136	.3549	.5257
4-28	.00	.3548		0426	.01	1.58		0146	.2266	.5741
4-29	.94	.0574		RG	W-2	1.15		0159	.1558	.6133
4-30	.00	.1079		RG	W-5A	1.62		0220	.1116	.6611
5-01	.35	.2903		3 RG	AVG ⁵ /	1.52		0251	.0749	.7092
5-02	.00	.0329						0321	.0736	.7487
5-03	.00	.0079						0401	.0417	.7901
5-04	.09	.0055						0501	.0148	.8147
5-05	.00	.0041						0631	.0040	.8269
5-06	.00	.0033						0901	.0014	.8331
5-07	.00	.0030						1400	.0002	.8360
5-08	.00	.0026						2400	² / 0001	.8370
5-09	.00	.0019								
5-10	.00	.0021								
5-11	.00	.0015								
5-12	.65	.0071								
5-13	.00	² / 0004								

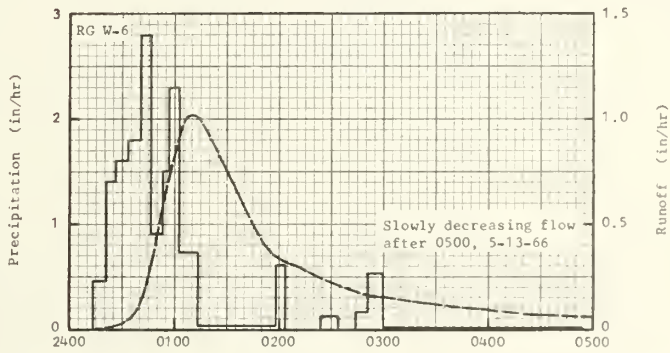
Watershed conditions: 41% row grain sorghum, 4 inches high; 25% oats-clover, headed in dough stage; 15% bermudagrass pasture, 2 to 4 inches high; 10% Johnsongrass, 6 to 12 inches high, neither tilled nor grazed; 2% native grass waterways, dense cover, 4 to 6 inches high; 7% gravel roads. Cropland farmed on contour, not terraced.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 42.652. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1963, USDA MISC. PUB. 1164, P. 42.7-5 (REVISED). ⁵/ THIESSEN WEIGHTED RAINFALL USING RAIN GAGES W-2, W-4, AND W-5A. ⁶/ NEXT EVENT BEGAN AT 1200 MAY 20, 1966. ⁷/ RUNOFF PRIOR TO EVENT BEGINNING AT 0016.



RIESEL (WACO), TEXAS WATERSHED W-6

MONTHLY PRECIPITATION AND RUNOFF (inches)						RIESEL (WACO), TEXAS		WATERSHED W-10		42.10						
						AREA — 19.7 ACRES										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ^{1/}	2.03	3.31	1.89	9.84	3.55	2.50	.27	9.53	4.38	.19	.09	1.84	39.42			
Q	.06	1.44	.46	5.80	1.78	T	.00	2.08	.85	.00	.00	.00	12.47			
STA AVG P	2.11	2.75	2.20	4.02	3.92	3.53	1.33	2.35	2.54	2.64	2.86	2.35	32.60			
(39-66) Q	.44	.48	.43	.95	.93	.54	.07	.10	.22	.25	.42	.40	5.23			
MEAN P ^{2/}	2.15	2.39	2.75	4.17	4.61	3.27	1.89	1.95	2.87	2.57	2.48	2.56	33.66			
78 YR																
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE	MAXIMUM VOLUME FOR SELECTED TIME INTERVAL														
		1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS		
		DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	
1966	8-12	1.54	8-12	1.09	8-12	1.53	8-12	1.95	4-24	2.13	4-24	2.75	4-24	5.16	4-24	6.01
MAXIMUMS FOR PERIOD OF RECORD																
1938 TD	6-10	5.01	4-19	2.31	4-19	2.55	5-11	3.00	11-22	3.33E	11-22	3.53E	4-24	5.16	5-19	8.29
1966 ^{3/}	1941		1957		1957		1957		1940		1940		1966		1957	
NOTES: Watershed land use: 100% Coastal Bermudagrass for pasture. Grass sprigged in 1963 with poor coverage until late spring of 1964. Good cover after June 1964; moderately grazed. Watershed terraced. ^{1/} Precipitation data obtained from rain gage W-6. ^{2/} Precipitation and runoff records began Aug. 1938; station not in operation July 1943 to May 3, 1946; part-year amounts not included in averages. ^{3/} Mean P based on 78-yr (1889-1966) U. S. Weather Bureau record period at Waco, Texas. ^{4/} Maximums for 1943 occurred before July, and for 1946 after May 3; no maximums for 1938, 1944, and 1945.																
1966 SELECTED RUNOFF EVENT						RIESEL (WACO), TEXAS		WATERSHED W-10		42.10						
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF									
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)						
Event of May 13, 1966																
	RG W-6			RG	W-6		5-13	0016	.0090	.0000						
4-17	1.11	.0012	5-13	0013	.00	.00		0028	.0239	.0028						
4-18	.06	.0006		0021	.45	.06		0040	.0874	.0132						
4-20	.04	.0000		0027	1.40	.20		0045	.2382	.0254						
4-22	.90	.0524		0033	1.60	.36		0050	.4271	.0534						
4-23	.23	.0536		0041	1.80	.60		0055	.6625	.0990						
4-24	3.54	2.5822		0047	2.80	.88		0100	.8277	.1616						
4-25	2.66	2.5435		0053	.90	.97		0104	.9493	.2211						
4-26	.00	.1156		0057	1.50	1.07		0106	.9847	.2533						
4-27	.00	.0003		0103	2.30	1.30		0111	1.0205	.3293						
4-28	.85	.2122		0113	.72	1.42		0115	1.0025	.4055						
4-29	.00	.1355		0157	.03	1.44		0121	.9127	.5015						
4-30	.37	.1013		0203	.60	1.50		0130	.7555	.6272						
5-01	.55	.3050		0223	.00	1.50		0142	.5494	.7564						
5-02	.00	.0778		0233	.12	1.52		0157	.3597	.8665						
5-03	.00	.0020		0243	.00	1.52		0214	.2776	.9588						
5-04	.10	.0004		0251	.15	1.54		0231	.2178	1.0285						
5-05	.00	.0002		0259	.53	1.61		0251	.1599	1.0904						
5-06	.00	.0001		0453	.01	1.63		0331	.1234	1.1860						
5-07	.00	T						0411	.0736	1.2492						
5-12	.65	.0038						0511	.0393	1.3026						
5-13	.00	^{3/} .0021						0621	.0217	1.3394						
								0821	.0075	1.3666						
								0951	.0037	1.3748						
								1300	.0009	1.3816						
								1600	.0002	1.3831						
								2400	.0000	1.3838						
Watershed conditions: 100% pasture, Coastal Bermudagrass, 2 to 4 inches high, good cover, watershed terraced.																
NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 19.864. FOR MAP OF THE WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1963, USDA MISC. PUB. 1164 P. 42.7-5 (REVISED)																
^{1/} RUNOFF PRIOR TO EVENT BEGINNING AT 0016.																



May 13, 1966

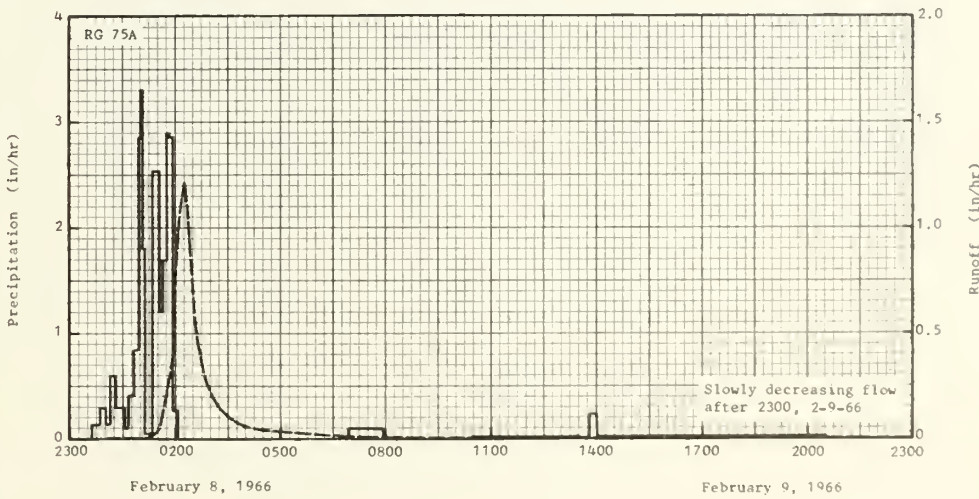
RIESEL (WACO), TEXAS WATERSHED W-10

MONTHLY PRECIPITATION AND RUNOFF (inches)						RIESEL (WACO), TEXAS						WATERSHED Y		42.11		
						AREA — 309 ACRES										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966	2.06	4.02	1.73	8.67	3.43	2.75	.30	9.03	4.45	.14	.09	2.17	38.84			
1966	.10	2.16	.18	3.53	.98	.02	.00	1.32	.33	T	T	.01	8.63			
STA AVG P	2.22	2.69	2.23	3.93	3.92	3.63	1.35	2.11	2.42	2.47	2.73	2.34	32.04			
(38-66)P	.46	.52	.43	.79	.75	.48	.07	.05	.12	.10	.33	.32	4.42			
MEAN P	2.15	2.39	2.75	4.17	4.61	3.27	1.89	1.95	2.87	2.57	2.48	2.56	33.66			
78 YR																
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
1966	2-9	1.21	2-9	.72	2-9	.90	4-24	1.15	4-24	1.37	4-24	1.77	4-24	2.93	4-24	3.74
MAXIMUMS FOR PERIOD OF RECORD																
1937 TO	4-19	2.54E	4-19	2.15E	4-19	2.74E	4-19	3.48E	4-19	3.66E	3-29	3.98	11-22	4.77	4-19	9.36E
1966	1957		1957		1957		1957		1957		1965		1940		1957	
NOTES: Watershed land use: 37% pasture; 28% oats-clover; 13% cotton; 12% row grain sorghum; 5% corn; 4% tilled, no crop; 1% gravel roads. Cropland terraced, contour cultivation. No change in conservation practices. 1/ Precipitation data from Thiessen method using rain gages 69, 69B, 70, 75A, 84A, 89, and W-2A. 2/ Precipitation and runoff records began May 1937; station not in operation July 1943 to May 1, 1946; part-year amounts not included in averages. 3/ Mean P based on 78-yr (1889-1966) U. S. Weather Bureau record period at Waco, Texas. 4/ Maximums for 1943 occurred before July, and for 1946 after May 1; no maximums for 1937, 1944a, and 1945.																
1966 SELECTED RUNOFF EVENT						RIESEL (WACO), TEXAS						WATERSHED Y		42.11		
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF									
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)						
	7 RG 5/		Event of February 8-12, 1966													
1-09	.00	.0007		RG	75A		2-09	0000	.0001	.0000						
1-10	.00	.0007	2-08	2336	.00	.00	0100	.0006	.0003							
1-11	.00	.0007		2550	.13	.03	0110	.0035	.0005							
1-12	.00	.0008		2400	.30	.08	0115	.0086	.0010							
1-13	.00	.0006	2-09	0008	.15	.10	0120	.0162	.0020							
1-14	.00	.0005		0016	.60	.18	0125	.0315	.0040							
1-15	.00	.0005		0032	.30	.26	0130	.0493	.0073							
1-16	.00	.0005		0038	.10	.27	0135	.1220	.0139							
1-17	.00	.0003		0048	.42	.34	0141	.2084	.0306							
1-18	.11	.0008		0056	.83	.45	0146	.2840	.0506							
1-19	.49	.0089		0100	2.85	.64	0150	.3364	.0708							
1-20	.00	.0020		0104	3.30	.86	0154	.4113	.0981							
1-21	.16	.0025		0106	1.80	.92	0158	.6003	.1315							
1-22	.00	.0022		0118	.05	.93	0203	.9335	.1945							
1-23	.00	.0011		0132	2.53	1.52	0207	1.0770	.2620							
1-24	.35	.0153		0138	1.20	1.64	0210	1.1639	.3185							
1-25	.00	.0051		0143	1.68	1.78	0214	1.2107	.3980							
1-26	.00	.0017		0148	2.88	2.02	0218	1.1081	.4759							
1-27	.00	.0012		0152	2.85	2.21	0222	.9317	.5445							
1-28	.46	.0353		0206	.26	2.27	0228	.7081	.6259							
1-29	.00	.0029		0656	.00	2.27	0234	.5006	.6867							
1-30	.00	.0012		0756	.10	2.37	0242	.3912	.7463							
1-31	.00	.0025		1026	.00	2.37	0252	.2653	.7992							
2-01	.00	.0019		1326	.01	2.41	0304	.2009	.8451							
2-02	.00	.0011		1350	.00	2.41	0319	.1406	.8874							
2-03	.00	.0010		1400	.24	2.45	0339	.0943	.9262							
2-04	.00	.0011		2113	.02	2.59	0359	.0686	.9522							
2-05	.00	.0012		RG	69	2.77	0429	.0485	.9801							
2-06	.00	.0012		RG	69B	2.71	0459	.0344	1.0004							
2-07	.00	.0014		RG	70	2.88	0549	.0241	1.0238							
2-08	.00	5/0016		RG	84A	2.68	0644	.0174	1.0423							
				RG	89	2.49	0744	.0130	1.0567							
				RG	W-2A	2.28	0824	.0147	1.0658							
				7 RG	AVG 5/	2.66	0844	.0164	1.0709							
							0934	.0161	1.0845							

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 311.57. FOR MAP OF THE WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1964, USDA MISC. PUB. 1194 P. 42.11-5. 5/ THIESSEN WEIGHTED RAINFALL USING RAIN GAGES 69, 69B, 70, 75A, 84A, 89, AND W-2A. 6/ RUNOFF PRIOR TO EVENT BEGINNING AT 2336 FEB. 8, 1966.

1966 SELECTED RUNOFF EVENT			RIESEL (WACO), TEXAS				WATERSHED Y 42.11				
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
Event of February 8-12, 1966 - Continued											
Watershed conditions: 37% pasture, bermudagrass and native grass, dormant, good cover, moderately grazed; 28% oats-clover, 4 inches high; 13% disced, bare; 21% listed, bare; 1% gravel roads. Cropland terraced, cultivated on contour.							2-09	1000	.0139	1.0909	
									1015	.0139	1.0944
									1030	.0134	1.0978
									1130	.0109	1.1099
									1230	.0094	1.1200
									1330	.0085	1.1290
									1530	.0098	1.1463
									1600	.0102	1.1513
									1630	.0115	1.1567
									1700	.0120	1.1626
									1730	.0113	1.1684
									1830	.0097	1.1788
									1930	.0083	1.1877
									2100	.0074	1.1995
									2400	.0071	1.2212
						2-10	1200	.0036	1.2875		
							2400	.0014	1.3148		
						2-11	2400	.0010	1.3427		
						2-12	0612	$\frac{1}{2}$.0010	1.3487		

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 311.575. $\frac{1}{2}$ / BEGINNING OF NEXT EVENT.



RIESEL (WACO), TEXAS WATERSHED Y

MONTHLY PRECIPITATION AND RUNOFF (inches)						RIESEL (WACO), TEXAS		AREA — 132 ACRES		WATERSHED Y-2		42.12	
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ¹ / _Q	2.08	4.04	1.80	8.56	3.42	2.82	.29	9.05	4.45	.14	.10	2.26	39.01
	.08	1.98	.17	3.92	1.01	.02	.00	1.56	.38	.00	.00	.00	9.12
STA AVG P (39-66) ² / _Q	2.22	2.73	2.52	3.99	4.48	3.52	1.43	2.13	2.55	2.47	2.92	2.51	33.47
MEAN P ³ / _Q	.41	.59	.63	.95	1.17	.49	.07	.06	.11	.13	.35	.45	5.41
78 YR	2.15	2.39	2.75	4.17	4.61	3.27	1.89	1.95	2.87	2.57	2.48	2.56	33.66

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-9	1.35	2-9	.83	2-9	1.02	4-24	1.10	4-24	1.53	4-24	2.02	4-24	3.24	4-24	4.15

MAXIMUMS FOR PERIOD OF RECORD

1939 TO 1966	5-1 1944	4.07	5-1 1944	3.11	5-1 1944	5.47	5-1 1944	7.08	5-1 1944	7.28	5-1 1944	7.46	4-30 1944	9.64	4-29 1944	10.60
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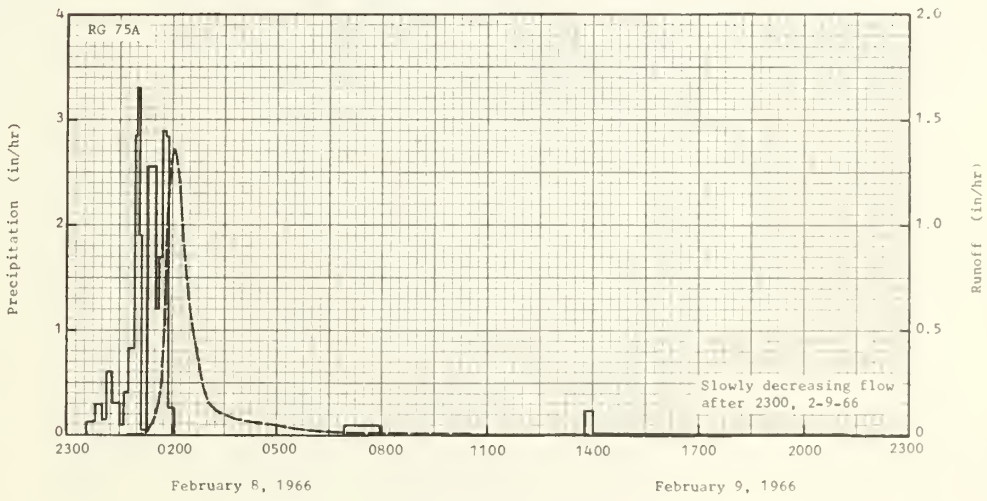
NOTES:

Watershed land use: 33% pasture; 26% oats-clover; 19% cotton; 21% row grain sorghum; 1% gravel roads. Cropland terraced; contour cultivation; conservation treatment since 1942. ¹/ Precipitation data from Thiessen method using rain gages 69, 69B, 70, 75A, and 84A. ²/ Precipitation and runoff records began Jan. 1, 1939. ³/ Mean P based on 78-yr (1889-1966) U. S. Weather Bureau record period at Waco, Texas.

1966	SELECTED RUNOFF EVENT				RIESEL (WACO), TEXAS		WATERSHED Y-2		42.12	
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ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
	5 RG ⁴ / _Q		Event of February 8-12, 1966							
1-18	.11	.0000		RG	75A		2-09	0044	.0000	.0000
1-19	.48	.0055	2-08	2336	.00	.00		0120	.0034	.0004
1-20	.00	.0014		2350	.13	.03		0130	.0751	.0056
1-21	.15	.0010		2400	.30	.08		0140	.2479	.0271
1-22	.00	.0014	2-09	0008	.15	.10		0150	.5400	.0922
1-23	.00	.0003		0016	.60	.18		0156	.9814	.1643
1-24	.35	.0176		0032	.30	.26		0200	1.3123	.2428
1-25	.00	.0053		0038	.10	.27		0203	1.3525	.3096
1-26	.00	.0006		0048	.42	.34		0208	1.3112	.4213
1-28	.47	.0382		0056	.83	.45		0216	1.0543	.5822
1-29	.00	.0030		0100	2.85	.64		0228	.6589	.7525
1-30	.00	.0004		0104	3.30	.86		0240	.4195	.8564
1-31	.00	.0005		0106	1.80	.92		0305	.1438	.9688
2-01	.00	.0004		0118	.05	.93		0340	.1028	1.0391
				0132	2.53	1.52		0440	.0529	1.1154
				0138	1.20	1.64		0620	.0217	1.1710
				0143	1.68	1.78		0750	.0154	1.1951
				0148	2.88	2.02		0820	.0184	1.2061
				0152	2.85	2.21		0925	.0196	1.2270
				0206	.26	2.27		1020	.0146	1.2429
				0656	.00	2.27		1130	.0107	1.2576
				0756	.10	2.37		1349	.0086	1.2801
				1026	.00	2.37		1459	.0103	1.2911
				1326	.01	2.41		1629	.0137	1.3085
				1350	.00	2.41		1759	.0113	1.3275
				1400	.24	2.45		1929	.0075	1.3411
				2113	.02	2.59		2400	.0062	1.3692
				RG	69	2.77	2-10	1200	.0016	1.4103
				RG	69B	2.71		2400	.0005	1.4195
				RG	70	2.88	2-11	2400	.0003	1.4290
				RG	84A	2.68	2-12	0120	⁵ / _Q .0003	1.4294
				5 RG	AVG ⁴ / _Q	2.72				

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 133.10. FOR REVISED MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1964, USDA MISC. PUB. 1194, P. 42.11-5. ⁴/ THIESSEN WEIGHTED RAINFALL USING RAIN GAGES 69, 69B, 70, 75A, AND 84A. ⁵/ BEGINNING OF NEXT EVENT.



RIESEL (WACO), TEXAS WATERSHED Y-2

MONTHLY PRECIPITATION AND RUNOFF (inches)						RIESEL (WACO), TEXAS							WATERSHED Y-4		42.13	
													AREA — 79.9 ACRES			
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966	2.08	4.04	1.85	8.50	3.40	2.82	.29	8.97	4.46	.14	.10	2.30	38.95			
	.07	2.05	.24	3.86	1.08	.02	.00	1.70	.37	.00	.00	.00	9.39			
STA AVG P (39-66)	2.17	2.69	2.28	3.91	4.18	3.63	1.32	2.14	2.60	2.52	2.89	2.32	32.65			
MEAN P (39-66)	.35	.47	.43	.78	.94	.52	.08	.07	.12	.13	.35	.30	4.54			
78 YR	2.15	2.39	2.75	4.17	4.61	3.27	1.89	1.95	2.87	2.57	2.48	2.56	33.66			

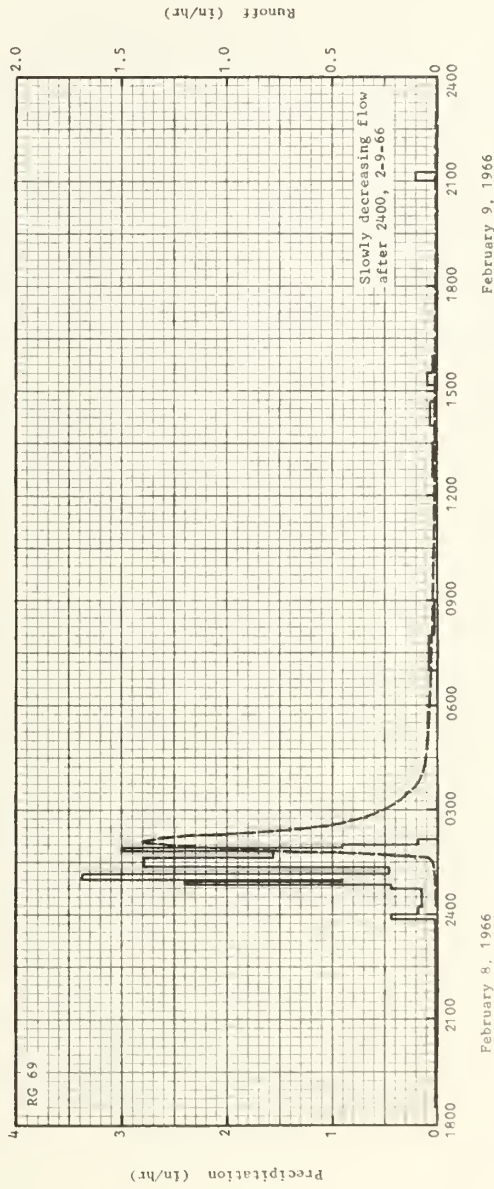
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-9	1.40	2-9	.84	2-9	1.05	2-9	1.21	4-24	1.46	4-24	1.98	4-24	3.15	4-24	4.13

MAXIMUMS FOR PERIOD OF RECORD																
1939 TO	6-10	3.12	4-19	2.16	4-19	2.85	3-29	3.34	3-29	3.53	3-29	3.96	4-23	5.12	4-19	9.46
1966	1941	1957	1957	1965	1965	1965	1965	1965	1965	1965	1965	1965	1957	1957	1957	1957

NOTES: Watershed land use: 31% pasture; 8% row grain sorghum; 31% cotton; 29% oats-clover; 1% gravel roads. Cropland terraced and contour tilled; no change in conservation practices. 2/ Precipitation data from Thiessen method using rain gages 69, 69B, 75A, and 84A. 3/ Precipitation and runoff records began Jan. 1, 1939; station not in operation July 1943 to Jan. 1, 1946; part-year amounts not included in averages. 4/ Mean P based on 78-yr (1889-1966) U. S. Weather Bureau record period at Waco, Texas. 5/ Maximums for 1943 occurred before July; no maximums for 1944 and 1945.

1966			SELECTED RUNOFF EVENT				RIESEL (WACO), TEXAS				WATERSHED Y-4		42.13
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF						
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)			
			Event of February 8-12, 1966										
4 RG 5/													
1-18	.12	.0000		RG	.69		2-09	0012	.0000	.0000			
1-19	.48	.0027	2-08	1828	.00	.00	0110	.0012	.0002				
1-20	.00	.0010		2353	.01	.05	0125	.0103	.0013				
1-21	.15	.0008		2400	.43	.10	0135	.1122	.0089				
1-22	.00	.0004	2-09	0010	.18	.13	0140	.2013	.0221				
1-23	.00	.0002		0040	.14	.20	0145	.2925	.0423				
1-24	.35	.0115		0052	.45	.29	0150	.4908	.0749				
1-25	.00	.0035		0056	2.40	.45	0155	1.1277	.1362				
1-26	.00	.0003		0100	.90	.51	0159	1.3097	.2196				
1-27	.00	.0001		0108	3.38	.96	0203	1.3629	.3086				
1-28	.46	.0331		0120	.45	1.05	0205	1.3992	.3546				
1-29	.00	.0172		0136	2.78	1.79	0209	1.3478	.4463				
1-30	.00	.0006		0148	1.55	2.10	0214	1.1539	.5512				
1-31	.00	.0007		0154	3.00	2.40	0220	.9025	.6539				
2-01	.00	.0002		0158	.90	2.46	0229	.6087	.7651				
Watershed conditions: 31% pasture, bermudagrass and native grass, good cover, dormant, moderately grazed; 8% listed, bare; 31% disced, bare; 29% oats-clover, 4 inches high; 1% gravel roads.				0208	.18	2.49	0241	.3884	.8627				
				0658	.00	2.49	0300	.2460	.9606				
				0758	.08	2.57	0330	.1244	1.0475				
				0858	.02	2.59	0420	.0571	1.1149				
				1228	.00	2.59	0540	.0314	1.1713				
				1330	.04	2.63	0730	.0194	1.2157				
				1358	.00	2.63	0830	.0218	1.2359				
				1440	.06	2.67	0920	.0237	1.2558				
				1510	.00	2.67	1001	.0194	1.2702				
				1530	.09	2.70	1131	.0147	1.2949				
				1600	.04	2.72	1401	.0113	1.3271				
				2100	.00	2.72	1531	.0127	1.3454				
				2114	.21	2.77	1631	.0157	1.3601				
				RG	69B	2.71	1901	.0101	1.3951				
				RG	75A	2.63	2400	.0082	1.4337				
	RG	.84A	2.68	2-10	1200	.0014	1.4786						
	4 RG	AVG 5/	2.72	2400	.0015	1.4875							
				2-11	2400	.0004	1.4977						
				2-12	0050	.0004	1.4980						

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 80.565. FOR REVISED MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1964, USDA MISC. PUB. 1194 P. 42.11-5. 5/ THIESSEN WEIGHTED RAINFALL USING RAIN GAGES 69, 69B, 75A, AND 84A. 6/ BEGINNING OF NEXT EVENT.



RIESEL (WACO), TEXAS WATERSHED Y-4

MONTHLY PRECIPITATION AND RUNOFF (inches)						RIESEL (WACO), TEXAS						WATERSHED Y-6		42.14
						AREA — 16.3 ACRES								
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966 P ¹ / _Q	2.09	4.00	1.82	8.64	3.41	2.84	.27	8.99	4.40	.14	.10	2.28	38.98	
Q	T	1.26	.01	2.01	.50	.00	.00	1.13	.15	.00	.00	.00	5.06	
STA AVG P (39-66) ² / _O	2.08	2.78	2.12	3.98	3.95	3.82	1.37	2.18	2.55	2.66	2.86	2.28	32.63	
MEAN P ³ / _{78 YR}	.26	.37	.30	.70	.81	.53	.09	.05	.11	.24	.37	.30	4.13	
	2.15	2.39	2.75	4.17	4.61	3.27	1.89	1.95	2.87	2.57	2.48	2.56	33.66	

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-9	1.19	2-9	.80	2-9	.91	2-9	1.04	2-9	1.07	2-9	1.09	4-24	1.73	4-24	2.14

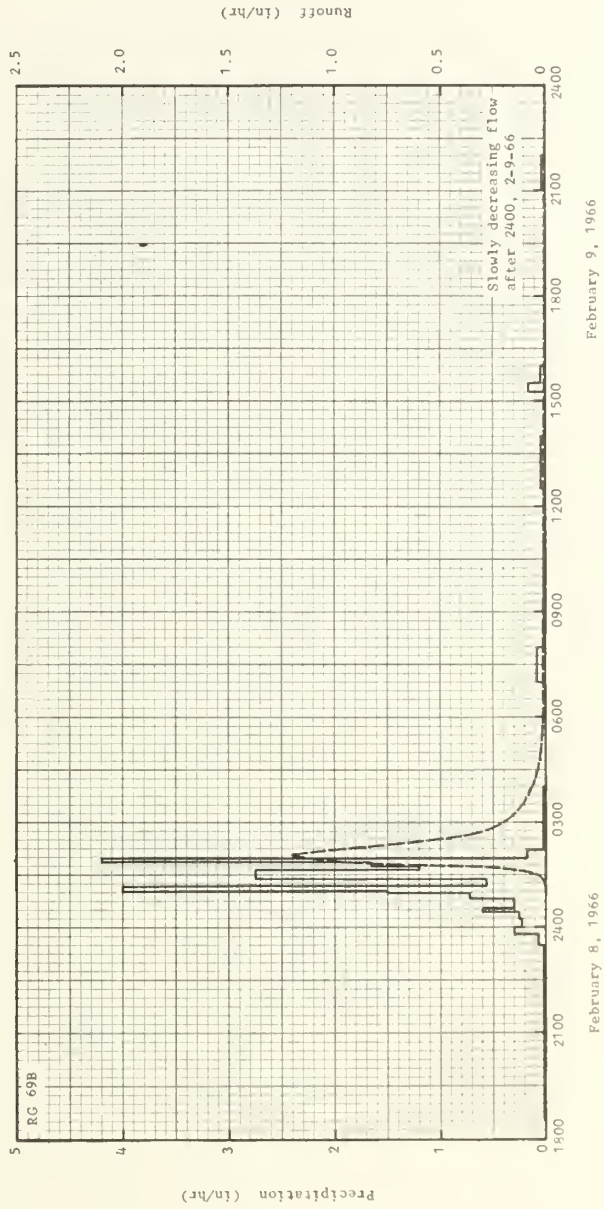
MAXIMUMS FOR PERIOD OF RECORD																
1939 TO	6-10	3.79	3-29	1.90	3-29	2.34	3-29	2.95	3-29	3.13	3-29	3.67	11-22	4.87	4-19	8.49
1966	1941		1965		1965		1965		1965		1965		1940		1957	

NOTES:
 Watershed land use: 5% pasture; 93% oats-clover; 2% gravel roads. Cropland terraced and contour tilled; no change in conservation practices. ¹/ Precipitation data from Thiessen method using rain gages 69B and 75A. ²/ Precipitation and runoff records began Jan. 1939; station not in operation July 1943 to May 1, 1947; part-year amounts not included in averages. ³/ Mean P based on 78-yr (1889-1966) U. S. Weather Bureau record period at Waco, Texas. ⁴/ Maximums for 1943 occurred before July; no maximums 1944 through 1947.

1966 SELECTED RUNOFF EVENT				RIESEL (WACO), TEXAS				WATERSHED Y-6		42.14
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
	2 RG ⁵ /		Event of February 8-10, 1966							
1-18	.13	.0000		RG	69B		2-09	0102	.0000	.0000
1-19	.48	.0000	2-08	1832	.00	.00	0127	.0090	.0015	
1-21	.16	.0000		2330	.01	.03	0133	.0650	.0052	
1-24	.37	.0000		2350	.06	.05	0138	.1636	.0134	
1-28	.46	.0005		2400	.30	.10	0143	.3811	.0356	
			2-09	0013	.23	.15	0148	.5830	.0760	
				0028	.24	.21	0153	.8721	.1359	
				0032	.60	.25	0158	1.1284	.2200	
				0050	.30	.34	0201	1.1907	.2780	
				0100	.72	.46	0204	1.1734	.3370	
				0104	1.50	.56	0208	1.0861	.4127	
				0110	4.00	.96	0213	.9469	.4973	
				0122	.55	1.07	0221	.7423	.6097	
				0138	2.74	1.80	0231	.5064	.7126	
				0144	1.20	1.92	0245	.2836	.7993	
				0152	1.65	2.14	0310	.1545	.8873	
				0156	4.20	2.42	0350	.0707	.9622	
				0210	.17	2.46	0450	.0301	1.0107	
				0400	.01	2.48	0600	.0128	1.0334	
				0700	.00	2.48	0730	.0063	1.0467	
				0800	.07	2.55	1030	.0036	1.0622	
				1100	.01	2.58	1350	.0019	1.0707	
				1230	.00	2.58	1357	.0025	1.0710	
				1356	.03	2.62	1432	.0022	1.0723	
				1516	.00	2.62	1502	.0025	1.0735	
				1530	.17	2.66	1512	.0025	1.0739	
				1600	.04	2.68	1622	.0035	1.0775	
				2100	.00	2.68	1802	.0026	1.0826	
				2200	.03	2.71	2400	.0015	1.0936	
				RG	75A	2.63	2230	.0000	1.1004	
				2 RG	AVG ⁵ /	2.70				

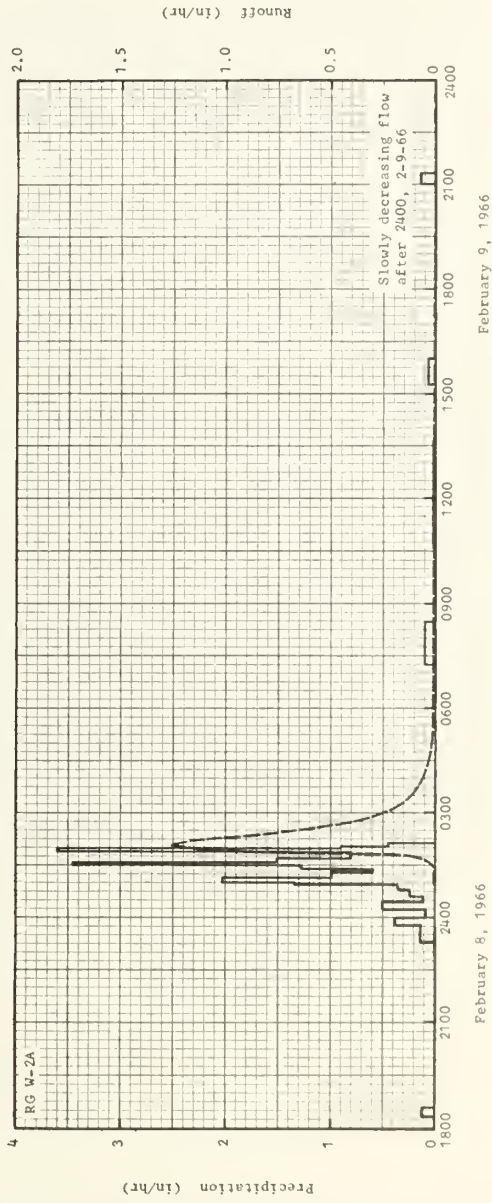
Watershed conditions: 93% oats-clover, 4 inches high; 5% pasture, bermudagrass, good cover, lightly grazed, dormant; 2% gravel roads. Cropland terraced, contour cultivation.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 16.436. FOR REVISED MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1964, USDA MISC. PUB. 1194 P. 42.11-5. ⁵/ THIESSEN WEIGHTED RAINFALL USING RAIN GAGES 69B AND 75A.



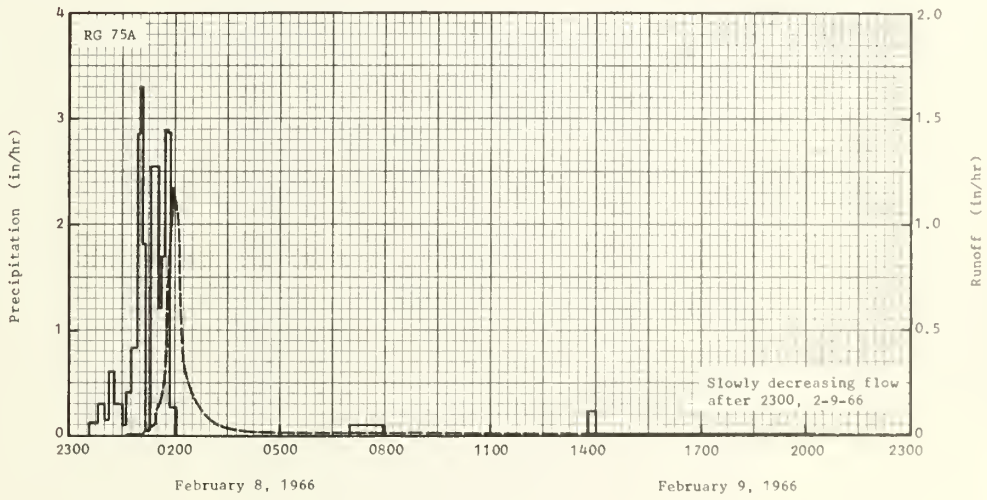
RIESEL (WACO), TEXAS WATERSHED Y-6

MONTHLY PRECIPITATION AND RUNOFF (inches)						RIESEL (WACO), TEXAS		WATERSHED Y-7						42.15		
AREA — 40.0 ACRES																
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL		
1966	P ₁	1.97	3.84	1.68	8.80	3.40	2.45	.27	8.89	4.37	.14	.10	1.96	37.87		
	Q	.02	1.63	.01	4.32	.91	.00	.00	2.18	.55	.00	.00	.00	9.62		
	P ₂	2.09	2.82	2.16	4.05	3.98	3.76	1.36	2.21	2.51	2.70	2.93	2.30	32.87		
	(39-66)Q	.29	.47	.42	.89	.97	.60	.07	.12	.18	.22	.46	.37	5.06		
	MEAN P ₃	2.15	2.39	2.75	4.17	4.61	3.27	1.89	1.95	2.87	2.57	2.48	2.56	33.66		
	78 YR															
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-12	1.34	8-12	.99	8-12	1.39	8-12	1.92	8-12	1.95	4-24	2.25	4-24	2.87	4-24	4.57
MAXIMUMS FOR PERIOD OF RECORD																
1939 to 1966 ⁴	6-10 1941	3.59	4-19 1957	2.34	3-29 1965	2.96	3-29 1965	3.58	3-29 1965	3.84	3-29 1965	4.66	11-22 1940	5.37	4-19 1957	8.89
NOTES: Watershed land use: 14% pasture; 35% oats; 23% corn; 28% tilled, no crop. Cropland terraced, contour tilled. ¹ / Precipitation data from Thiessen method using rain gages 89 and W-2A. ² / Precipitation and runoff records began Jan. 1939; station not in operation from July 1943 to May 1, 1947; part-year amounts not included in averages. ³ / Mean P based on 78-yr (1889-1966) U. S. Weather Bureau record period at Waco, Texas. ⁴ / Maximums for 1943 occurred before July; no maximums for 1944 through 1947.																
1966 SELECTED RUNOFF EVENT						RIESEL (WACO), TEXAS		WATERSHED Y-7						42.15		
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF									
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)						
	2 RG <u>5</u> /		Event of February 8-10, 1966													
1-18	.11	.0000		RG	W-2A		2-09	0059	.0000	.0000						
1-19	.51	.0000	2-08	1816	.00	.00	0130	.0144	.0034							
1-21	.14	.0000		1836	.12	.04	0140	.0552	.0086							
1-24	.33	.0016		2316	.00	.04	0150	.4633	.0414							
1-25	.00	.0008		2346	.14	.07	0155	.9348	.1046							
1-28	.41	.0109		2400	.39	.16	0200	1.1006	.1891							
1-29	.00	.0062	2-09	0014	.09	.18	0203	1.2186	.2474							
1-30	.00	.0005		0026	.50	.28	0206	1.2635	.3096							
1-31	.00	.0001		0036	.12	.30	0209	1.2273	.3723							
2-01	.00	.0001		0046	.24	.34	0215	1.0521	.4872							
				0056	.36	.40	0225	.7160	.6338							
				0100	1.35	.49	0241	.3998	.7774							
				0108	2.03	.76	0301	.2090	.8735							
				0116	.98	.89	0330	.1087	.9467							
				0123	.60	.96	0409	.0527	.9967							
				0130	1.29	1.11	0529	.0189	1.0393							
				0134	3.45	1.34	0729	.0074	1.0623							
				0140	1.50	1.49	0829	.0150	1.0710							
				0152	.80	1.65	0849	.0247	1.0777							
				0156	3.60	1.89	0914	.0217	1.0875							
				0202	.90	1.98	1200	.0055	1.1183							
				0206	.45	2.01	1500	.0083	1.1371							
				0716	.00	2.01	1600	.0111	1.1485							
				0826	.10	2.13	1650	.0174	1.1610							
				1036	.00	2.13	1800	.0097	1.1763							
				1338	.01	2.18	2400	.0049	1.2069							
				1515	.00	2.18	0600	.0016	1.2225							
				1600	.07	2.23	1600	.0002	1.2307							
				2100	.00	2.23	2400	.0000	1.2314							
				2120	.15	2.28										
				RG	.89	2.49										
				2 RG	AVG <u>5</u> /	2.48										
Watershed conditions: 14% pasture, bermudagrass, dormant good cover, lightly grazed; 35% oats, 4 inches high; 51% no crop, bedded. Cropland terraced, contour cultivation.																
NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 40,333. FOR REVISED MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1964, USDA MISC. PUB. 1194, P. 42.11-5. ⁵ / THIESSEN WEIGHTED RAINFALL USING RAIN GAGES 89 AND W-2A.																



RIESEL (WACO), TEXAS WATERSHED Y-7

MONTHLY PRECIPITATION AND RUNOFF (inches)						RIESEL (WACO), TEXAS		WATERSHED Y-8		42.16						
						AREA — 20.8 ACRES										
MDNTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ¹ / _Q	2.05	3.95	1.75	8.67	3.45	2.80	.27	9.23	4.38	.15	.09	2.14	38.93			
	.01	1.09	.01	4.07	.85	.03	.00	1.56	.66	.00	.00	.00	8.28			
STA AVG P (40-66) D	1.98	2.80	2.22	4.06	3.85	3.96	1.41	2.23	2.67	2.78	2.95	2.34	33.25			
MEAN P ² / _{78 YR}	.28	.40	.35	.85	.86	.53	.07	.08	.16	.14	.43	.34	4.49			
	2.15	2.39	2.75	4.17	4.61	3.27	1.89	1.95	2.87	2.57	2.48	2.56	33.66			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-9	1.18	4-24	.84	8-12	1.13	4-24	1.46	4-24	1.71	4-24	2.31	4-24	3.49	4-23	4.27
MAXIMUMS FOR PERIOD OF RECORD																
1939 TO 1966 ³ / ₁₉₄₁	6-10	3.29	4-19	2.41	4-19	2.80	4-23	3.32	4-23	3.37	3-29	3.59	11-22	5.64	4-19	9.10
	1941	1957	1957	1957	1957	1957	1957	1957	1957	1965	1965	1940	1940	1957	1957	1957
NOTES: Watershed land use: 95% row grain sorghum; 3% pasture; 2% gravel roads. Cropland terraced and contour tilled; no change in conservation practices. ¹ / Precipitation data obtained from rain gage 75A. ² / Precipitation and runoff records began Mar. 1, 1939; station not in operation July 1943 to Jan. 1, 1949; part-year amounts not included in averages. ³ / Mean P based on 78-yr (1889-1966) U. S. Weather Bureau record period at Waco, Texas. ⁴ / Maximums for 1939 occurred after Mar. 1; maximums for 1943 occurred before July; no maximums 1944 through 1948.																
1966 SELECTED RUNOFF EVENT						RIESEL (WACO), TEXAS		WATERSHED Y-8		42.16						
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF									
DATE MD-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MD-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MD-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)						
Event of February 8-10, 1966																
	RG 75A			RG	75A		2-09	0038	.0000	.0000						
1-18	.11	.0000	2-08	2336	.00	.00	0105	.0042	.0003							
1-19	.49	.0000		2350	.13	.03	0110	.0295	.0012							
1-21	.15	.0000		2400	.30	.08	0115	.0563	.0054							
1-24	.34	.0008	2-09	0008	.15	.10	0120	.0443	.0096							
1-28	.47	.0090		0016	.60	.18	0129	.1269	.0208							
Watershed conditions: 95% listed, bare; 3% pasture, bermudagrass, dormant, good cover, moderately grazed; 2% gravel roads. Cropland terraced, contour cultivation.																
				0032	.30	.26	0140	.2864	.0610							
				0038	.10	.27	0145	.4081	.0897							
				0048	.42	.34	0150	.6474	.1325							
				0056	.83	.45	0154	1.1125	.1912							
				0100	2.85	.64	0157	1.1785	.2486							
				0104	3.30	.86	0201	1.0890	.3248							
				0106	1.80	.93	0206	.7467	.4014							
				0118	.05	.93	0216	.3237	.4855							
				0132	2.53	1.52	0230	.1764	.5397							
				0138	1.20	1.64	0255	.0794	.5901							
				0143	1.68	1.78	0400	.0267	.6398							
				0148	2.88	2.02	0700	.0079	.6809							
				0152	2.85	2.21	0730	.0150	.6861							
				0206	.26	2.27	0800	.0248	.6958							
				0656	.00	2.27	0920	.0097	.7226							
				0756	.10	2.37	1223	.0082	.7416							
				1026	.00	2.37	1353	.0059	.7545							
				1326	.01	2.41	1400	.0077	.7553							
				1350	.00	2.41	1428	.0115	.7601							
				1400	.24	2.45	1523	.0083	.7694							
				2113	.02	2.59	1548	.0135	.7740							
							2003	.0039	.8039							
							2400	.0035	.8223							
							2-10 1003	.0008	.8231							
							1700	.0000	.8441							
NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 20.973. FOR REVISED MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1964, USDA MISC. PUB.1194P. 42.11-5.																



RIESEL (WACO), TEXAS WATERSHED Y-8

MONTHLY PRECIPITATION AND RUNOFF (inches)						RIESEL (WACO), TEXAS							WATERSHED Y-10 42.17	
AREA — 18.6 ACRES														
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966 P ₁ / _Q	2.09 .02	4.04 1.72	1.75 .01	8.49 4.79	3.39 .67	2.83 .04	.29 .00	9.22 1.99	4.46 .72	.14 .00	.10 .00	2.34 .00	39.14 9.96	
STA AVG P (39-66)	2.15 .36	2.68 .41	2.17 .41	3.96 .93	3.98 .79	3.69 .56	1.32 .08	2.17 .09	2.54 .21	2.56 .19	2.81 .39	2.32 .32	32.35 4.74	
MEAN P ₂ / _Q 78 YR	2.15	2.39	2.75	4.17	4.61	3.27	1.89	1.95	2.87	2.57	2.48	2.56	33.66	

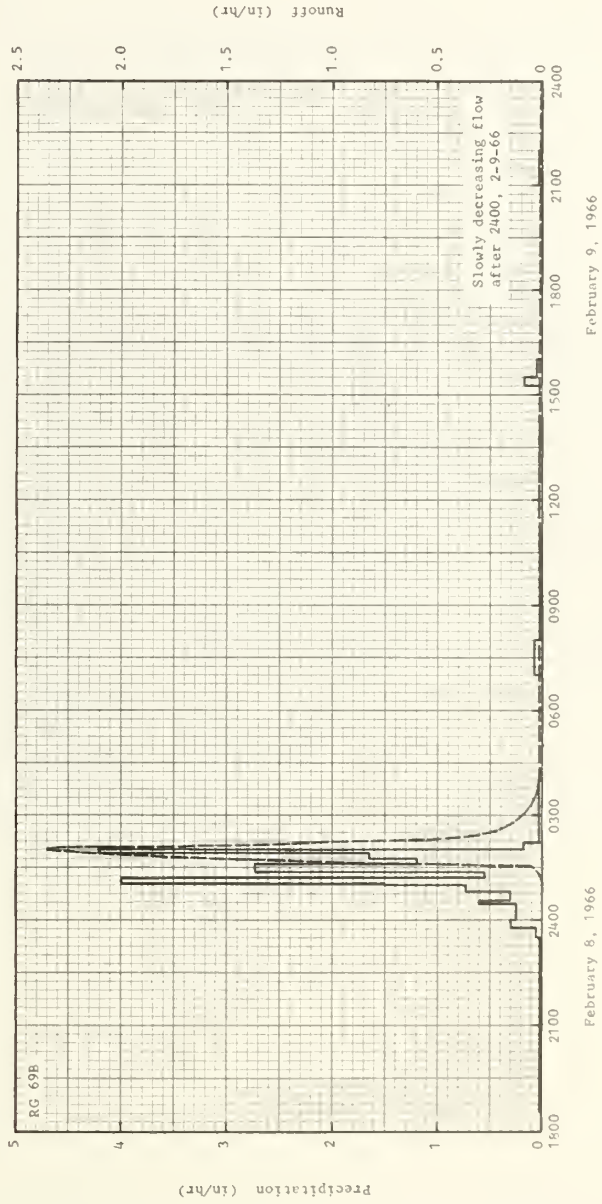
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-9	2.37	2-9	1.15	4-24	1.47	4-24	2.02	4-24	2.32	4-24	2.87	4-24	4.19	4-24	4.99

MAXIMUMS FOR PERIOD OF RECORD																
1938 TO 1966	4-19 1957	3.73	4-19 1957	2.90	4-19 1957	3.48	3-29 1965	4.13	3-29 1965	4.27	3-29 1965	4.62	4-23 1957	5.34	4-19 1957	10.57

NOTES:
Watershed land use: 93% cotton; 4% pasture; 3% gravel roads. Cropland terraced and contour tilled; no change in conservation practices. 1/ Precipitation data from Thiessen method using rain gages 69 and 69B. 2/ Precipitation and runoff records began July 1, 1938; station not in operation July 1943 to May 1, 1946; part-year amounts not included in averages. 3/ Mean P based on 78-yr (1889-1966) U. S. Weather Bureau record period at Waco, Texas. 4/ Maximums for 1943 occurred before July; maximums for 1946 occurred after May 1; no maximums 1938, 1944, and 1945.

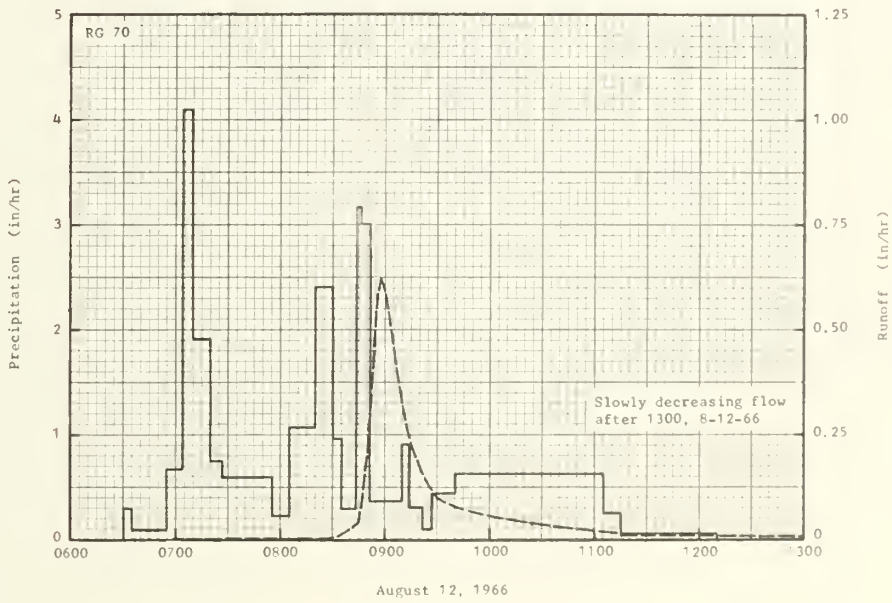
1966 SELECTED RUNOFF EVENT				RIESEL (WACO), TEXAS				WATERSHED Y-10 42.17			
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
2 RG <u>5</u> /		Event of February 8-10, 1966									
1-18	.12	.0000		RG	69B		2-09	0100	.0000	.0000	
1-19	.48	.0000	2-08	1832	.00	.00		0114	.0153	.0009	
1-21	.15	.0000		2330	.01	.03		0130	.0809	.0098	
1-24	.36	.0008		2350	.06	.05		0135	.3734	.0243	
1-28	.46	.0033		2400	.30	.10		0140	1.1850	.0899	
1-29	.00	.0085	2-09	0028	.24	.21		0145	1.5212	.2041	
1-30	.00	.0084		0032	.60	.25		0150	1.7131	.3380	
1-31	.00	.0018		0050	.30	.34		0155	2.1659	.4966	
				0100	.72	.46		0158	2.3654	.6115	
				0104	1.50	.56		0202	2.1659	.7646	
Watershed conditions: 93% disced, bare; 4% pasture, bermudagrass, good cover, dormant, lightly grazed; 3% gravel roads. Cropland terraced, contour cultivation.											
				0110	4.00	.96		0208	1.3881	.9430	
				0122	.55	1.07		0218	.5077	1.0856	
				0138	2.74	1.80		0230	.2515	1.1583	
				0144	1.20	1.92		0245	.1408	1.2041	
				0152	1.65	2.14		0320	.0508	1.2515	
				0156	4.20	2.42		0600	.0124	1.3122	
				0210	.17	2.46		0700	.0090	1.3226	
				0400	.01	2.48		0730	.0170	1.3287	
				0700	.00	2.48		0800	.0336	1.3404	
				0800	.07	2.55		1100	.0094	1.3920	
				1100	.01	2.58		1350	.0064	1.4153	
				1230	.00	2.58		1403	.0133	1.4172	
				1356	.03	2.62		1430	.0167	1.4232	
				1516	.00	2.62		1520	.0124	1.4347	
				1530	.17	2.66		1600	.0201	1.4457	
				1600	.04	2.68		1730	.0071	1.4642	
				2100	.00	2.68		2030	.0028	1.4775	
				2200	.03	2.71		2120	.0075	1.4807	
				RG	.69	2.77		2150	.0104	1.4851	
				2 RG	AVG <u>5</u> /	2.73		2400	.0037	1.4980	
							2-10	0600	.0016	1.5111	
								1800	.0000	1.5182	

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 18.755. FOR REVISED MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1964, USDA MISC. PUB.1194, P. 42.11-5. 5/ THIESSEN WEIGHTED RAINFALL USING RAIN GAGES 69 AND 69B.



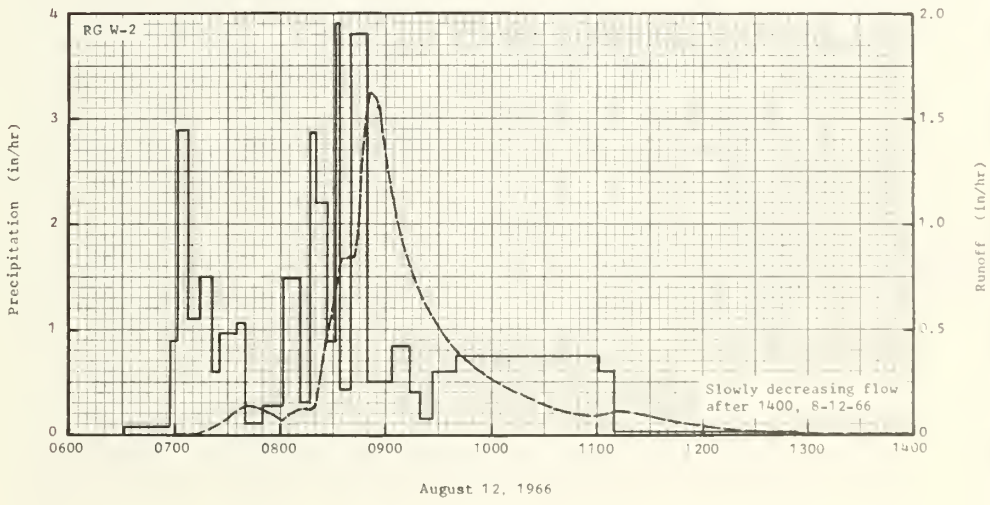
RIESEL (WACO), TEXAS WATERSHED Y-10

MONTHLY PRECIPITATION AND RUNOFF (inches)						RIESEL (WACO), TEXAS		WATERSHED SW-12		42.24						
						AREA — 2.97 ACRES										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ¹	2.20	4.28	1.83	8.43	3.43	2.99	.32	9.11	4.69	.14	.09	2.44	39.95			
o	.04	2.72	.12	4.20	.62	.00	.00	.48	.03	.00	.00	.00	8.21			
STA AVG P (38-66) o	2.15	2.75	2.14	3.97	3.93	3.79	1.36	2.13	2.53	2.55	2.79	2.27	32.36			
MEAN P ²	.35	.54	.36	.62	.57	.27	T	.02	.04	.01	.17	.27	3.22			
78 YR	2.15	2.39	2.75	4.17	4.61	3.27	1.89	1.95	2.87	2.57	2.48	2.56	33.66			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-9	2.51	2-9	1.62	2-9	1.83	2-9	1.88	4-24	2.06	4-24	2.66	4-24	3.75	4-24	4.47
MAXIMUMS FOR PERIOD OF RECORD																
1938 TO 1966	3-29 1965	4.00	3-29 1965	3.07	3-29 1965	3.83	3-29 1965	4.62	3-29 1965	4.80	3-29 1965	5.34	3-29 1965	5.39	4-19 1957	8.53E
NOTES: Watershed land use: 100% native grass meadow mowed annually for hay. ¹ / Precipitation data obtained from rain gage 70. ² / Precipitation and runoff records began Jan. 1, 1938; station not in operation July 1943 to June 1, 1947; part-year amounts not included in averages. ³ / Mean P based on 78-yr (1889-1966) U. S. Weather Bureau record period at Waco, Texas. ⁴ / Maximums for 1943 occurred before July; no maximums for 1944 through 1947.																
1966 SELECTED RUNOFF EVENT						RIESEL (WACO), TEXAS		WATERSHED SW-12		42.24						
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF									
DATE MO-OAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-OAY	TIME OF OAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-OAY	TIME OF OAY	RATE (in/hr)	ACC. (inches)						
Event of August 12, 1966																
8-02	RG 70 .05	.0000	8-12	RG	70	.00	8-12	0700	.0000	.0000						
8-05	T	.0000		0631	.00	.00		0720	.0068	.0013						
8-07	T	.0000		0635	.30	.02		0738	.0028	.0024						
8-11	1.70	.0000		0655	.09	.05		0742	.0035	.0026						
8-12	E/2.28	.0000		0703	.68	.14		0805	.0007	.0034						
				0709	4.10	.55		0830	.0125	.0050						
				0719	1.92	.87		0838	.0217	.0070						
				0727	.75	.97		0844	.0359	.0097						
				0755	.58	1.24		0848	.1408	.0146						
				0805	.24	1.28		0852	.3778	.0315						
			0820	1.08	1.55	0855	.5643	.0557								
			0830	2.40	1.95	0858	.6265	.0855								
0835	.96	2.03	0902	.5500	.1251											
0843	.30	2.07	0910	.3037	.1805											
0847	3.15	2.28	0920	.1774	.2215											
0851	3.00	2.48	0930	.0991	.2438											
0909	.37	2.59	0950	.0561	.2703											
0913	.90	2.65	1035	.0233	.2988											
0921	.30	2.69	1135	.0105	.3156											
0927	.10	2.70	1600	.0002	.3249											
0939	.45	2.79	2000	.0000	.3253											
1105	.62	3.06														
1115	.24	3.10														
1205	.04	3.13														
Watershed conditions: 100% native grass meadow, dense cover, 4 to 6 inches high, not grazed.																
NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 2.9947. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, MISC. PUB. 945, P. 42.24-4. ⁵ / RAINFALL ENDED AT 0615.																



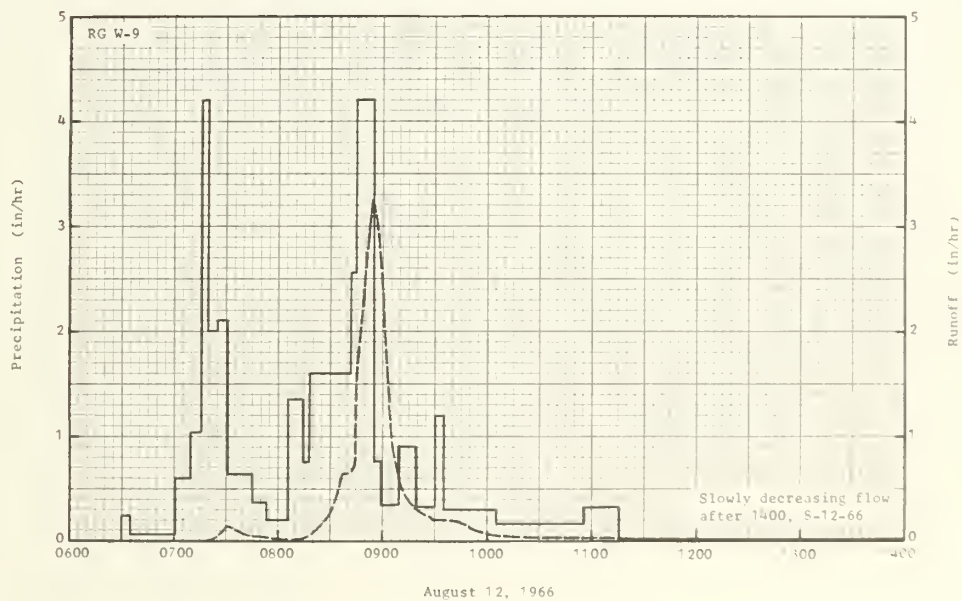
RIESEL (WACO), TEXAS WATERSHED SW-12

MONTHLY PRECIPITATION AND RUNOFF (inches)						RIESEL (WACO), TEXAS WATERSHED SW-17 42.28										
						AREA — 2.99 ACRES										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ₁	2.06	3.88	1.81	8.99	3.40	2.14	.26	9.07	4.33	.15	.09	1.96	38.14			
o	.01	2.00	.25	3.66	1.39	.07	.00	1.70	.13	.00	.00	.00	9.21			
STA AVG P (40-66)	2.02	2.83	2.17	4.16	3.88	3.74	1.43	2.26	2.69	2.82	2.95	2.35	33.30			
o	.34	.59	.49	.97	.83	.71	.11	.08	.21	.19	.50	.48	5.50			
MEAN P	2.15	2.39	2.75	4.17	4.61	3.27	1.89	1.95	2.87	2.57	2.48	2.56	33.66			
78 YR																
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-12	1.61	8-12	1.01	8-12	1.26	8-12	1.64	8-12	1.65	4-24	1.81	4-24	3.06	4-24	3.94
MAXIMUMS FOR PERIOD OF RECORD																
1939 TO 1966	10-31	7.06	4-19	2.54	4-19	2.96	4-23	3.31	3-29	3.52	3-29	4.25	11-22	5.37	4-19	9.42
1940			1957		1957		1957		1965		1965		1940		1957	
NOTES: Watershed land use: 100% bermudagrass pasture. 1/ Precipitation data obtained from rain gage W-2. 2/ Precipitation and runoff records began Feb. 1, 1939; station not in operation July 1943 to Jan. 1, 1948; part-year amounts not included in averages. 3/ Mean P based on 78-yr (1889-1966) U. S. Weather Bureau record period at Waco, Texas. 4/ Maximums for 1939 occurred after Feb.; maximums for 1943 occurred before July; no maximums 1944 through 1947.																
1966 SELECTED RUNOFF EVENT						RIESEL (WACO), TEXAS WATERSHED SW-17 42.28										
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF									
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)						
Event of August 12, 1966																
	RG W-2			RG	W-2		8-12	0658	.0000	.0000						
8-02	.03	.0000	8-12	0631	.00	.00		0714	.0163	.0028						
8-05	T	.0000		0657	.09	.04		0727	.0663	.0118						
8-07	T	.0000		0701	.90	.10		0740	.1478	.0328						
8-11	1.91	.0000		0707	2.90	.39		0752	.1207	.0588						
8-12	5/ 2.11	.0000		0713	1.10	.50		0802	.0753	.0753						
				0721	1.50	.70		0807	.1024	.0829						
				0725	.60	.74		0812	1.385	.0928						
				0735	.96	.90		0817	.1176	.1036						
				0739	1.05	.97		0827	.4357	.1467						
				0749	.12	.99		0835	.8365	.2329						
				0802	.28	1.05		0842	.8492	.3300						
				0811	1.47	1.27		0847	1.2985	.4188						
				0817	.30	1.30		0851	1.6142	.5190						
				0821	2.85	1.49		0856	1.5838	.6530						
				0827	2.20	1.71		0907	1.0208	.8946						
				0831	.90	1.77		0924	.6014	1.1252						
				0833	3.90	1.90		0946	.3467	1.2978						
				0840	.43	1.95		1011	.2156	1.4136						
				0849	3.80	2.52		1101	.0946	1.5306						
				0903	.51	2.64		1111	.1128	1.5472						
				0913	.84	2.78		1131	.0881	1.5814						
				0919	.40	2.82		1201	.0428	1.6131						
				0927	.15	2.84		1311	.0089	1.6385						
				0939	.60	2.96		1600	.0003	1.6461						
				1101	.74	3.23		2100	.0000	1.6470						
				1109	.60	3.31										
				1253	.03	3.36										
Watershed conditions: 100% bermudagrass pasture, 2 to 4 inches high, good cover, not grazed.																
NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 3.0149. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1963, USDA MISC. PUB. 1164, P. 42.6-6 (REVISED). 5/ RAINFALL ENDED AT 0615.																



RIESEL (WACO), TEXAS WATERSHED SW-17

MONTHLY PRECIPITATION AND RUNOFF (inches)						RIESEL (WACO), TEXAS							WATERSHED P-1		42.31		
						AREA — 0.243 ACRE											
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966	P ₁ Q	2.20 .00	3.53 .93	1.82 .06	10.20 6.23	3.87 1.52	2.81 .01	.28 .00	9.46 1.30	4.83 .11	.21 .00	.10 .00	1.95 .00	41.26 10.16			
	STA AVG P (38-66) P ₂	2.55 .41	3.05 .53	2.24 .50	3.73 .70	3.50 .64	4.57 .75	1.17 .03	2.54 .11	2.83 .12	2.50 .01	3.38 .38	2.75 .31	34.81 4.49			
	MEAN 78 YR	2.15	2.39	2.75	4.17	4.61	3.27	1.89	1.95	2.87	2.57	2.48	2.56	33.66			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																	
YEAR	MAXIMUM DISCHARGE	MAXIMUM VOLUME FOR SELECTED TIME INTERVAL															
		1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS			
		DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME		
1966		8-12	3.26	4-25	1.58	4-25	1.83	4-25	1.98	4-25	1.98	4-24	2.89	4-24	5.62	4-24	7.36
MAXIMUMS FOR PERIOD OF RECORD																	
1938 TO 1966	6-10 1941	7.18	3-29 1965	2.16	3-29 1965	2.93	3-29 1965	3.42	3-29 1965	3.64	3-29 1965	4.63	4-24 1966	5.62	4-24 1966	7.36	
NOTES: Watershed land use: 100% bermudagrass and buffalograss pasture, heavily grazed. <u>1</u> / Precipitation data obtained from rain gage W-9. <u>2</u> / Precipitation and runoff records began Jan. 1, 1938; station not in operation July 1943 to Jan. 1, 1960; part-year amounts not included in averages. <u>3</u> / Mean P based on 78-yr (1889-1966) U. S. Weather Bureau record period at Waco, Texas. <u>4</u> / Maximums for 1943 occurred before July; no maximums 1944 through 1959.																	
1966 SELECTED RUNOFF EVENT						RIESEL (WACO), TEXAS							WATERSHED P-1		42.31		
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF										
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)							
Event of August 12, 1966																	
	RG W-9			RG	W-9		8-12	0719	.0000	.0000							
8-02	.02	.0000	8-12	0630	.00	.00		0724	.0289	.0011							
8-05	T	.0000		0635	.24	.02		0730	.1358	.0092							
8-07	T	.0000		0701	.07	.05		0749	.0438	.0422							
8-11	1.77	.0000		0709	.60	.13		0807	.0030	.0477							
8-12	<u>1</u> /1.96	.0000		0716	1.03	.25		0817	.0194	.0499							
				0719	4.20	.46		0827	.1834	.0643							
				0725	2.00	.66		0837	.6354	1.328							
				0731	2.10	.87		0840	.6354	1.646							
				0745	.64	1.02		0845	1.5736	2.609							
				0753	.38	1.07		0851	2.7726	4.789							
				0805	.20	1.11		0854	3.2585	6.337							
				0813	1.35	1.29		0857	2.6237	7.864							
				0817	.75	1.34		0903	1.3355	9.802							
				0841	1.60	1.98		0911	.5342	1.0915							
				0845	2.55	2.15		0923	.2287	1.1645							
				0855	4.20	2.85		0934	.2009	1.1983							
				0859	.75	2.90		0936	.2009	1.2050							
				0909	.36	2.96		0954	.0921	1.2462							
				0919	.90	3.11		1039	.0133	1.2772							
				0930	.33	3.17		1225	.0000	1.2848							
				0935	1.20	3.27											
				1005	.30	3.42											
				1055	.17	3.56											
				1115	.33	3.67											
				1359	.02	3.73											
Watershed conditions: 100% bermudagrass and buffalograss pasture, 2 to 4 inches high, dense cover, grazed.																	
NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 0.245. FOR MAP OF THE WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61, USDA MISC. PUB. 994, P. 42.31-4. <u>1</u> / RAINFALL ENDED AT 0610.																	



RIESEL (WACO), TEXAS WATERSHED P-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						RIESEL (WACO), TEXAS						WATERSHED P-2		42.32
						AREA — 0.243 ACRE								
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P ¹	2.20	3.53	1.82	10.20	3.87	2.81	.28	9.46	4.83	.21	.10	1.95	41.26
	Q	.00	1.25	.12	5.91	1.85	T	.00	1.88	.17	.00	.00	.00	11.18
	R ²	2.42	3.06	2.33	3.94	3.38	4.78	1.24	2.53	3.05	2.53	3.46	2.89	35.61
	S ³ (38-66)	.49	.69	.74	.78	.70	1.03	.08	.17	.22	.04	.62	.51	6.07
	MEAN P ⁴	2.15	2.39	2.75	4.17	4.61	3.27	1.89	1.95	2.87	2.57	2.48	2.56	33.66

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-12	3.92	4-25	1.65	4-25	1.88	4-25	2.02	4-25	2.02	4-24	2.81	4-24	5.37	4-24	6.04

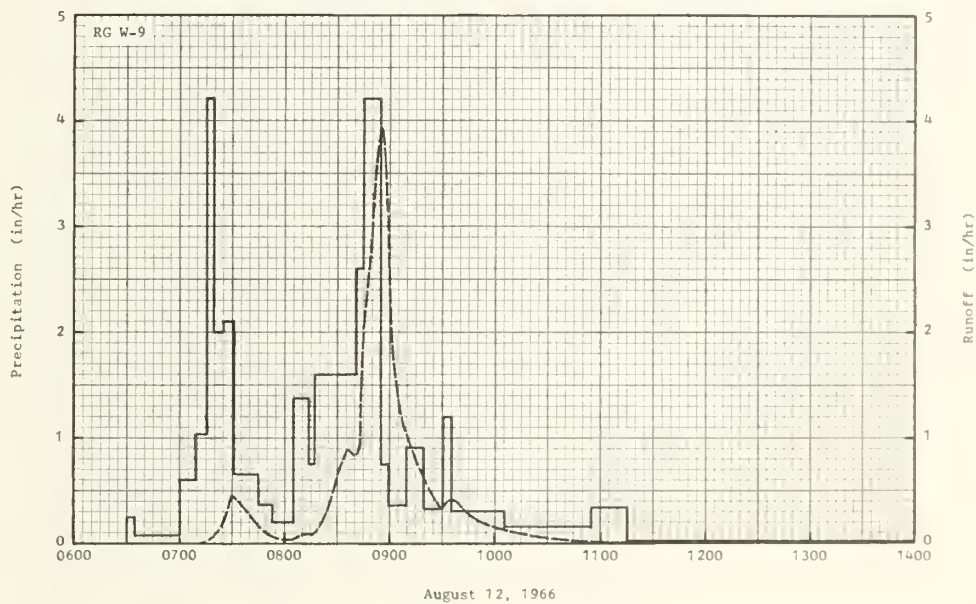
MAXIMUMS FOR PERIOD OF RECORD																
1938 TO 1966	6-10 1941	6.65	3-29 1965	2.24	3-29 1965	3.11	3-29 1965	3.94	3-29 1965	4.50	3-29 1965	6.22	3-29 1965	6.22	3-29 1965	6.24

NOTES: Watershed land use: 100% bermudagrass and buffalograss pasture, heavily grazed. ¹/ Precipitation data obtained from rain gage W-9. ²/ Precipitation and runoff records began Jan. 1, 1938; runoff record lost May 16-20, 1939, which was only runoff that year; station not in operation July 1943 to Jan. 1, 1960; part-year amounts not included in averages. ³/ Mean P based on 78-yr (1889-1966) U. S. Weather Bureau record period at Waco, Texas. ⁴/ Maximums for 1943 occurred before July; no maximums for 1939 and 1944 through 1959.

1966 SELECTED RUNOFF EVENT				RIESEL (WACO), TEXAS				WATERSHED P-2				42.32
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ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
Event of August 12, 1966											
8-02	RG W-9 .02	.0000	8-12	RG 0630	W-9 .00	.00	8-12	0715	.0000	.0000	
8-05	T	.0000		0635	.24	.02		0725	.1547	.0054	
8-07	T	.0000		0701	.07	.05		0731	.4454	.0355	
8-11	1.77	.0000		0709	.60	.13		0748	.1321	.1284	
8-12	E/1.96	.0000		0716	1.03	.25		0803	.0194	.1459	
				0719	4.20	.46		0814	.0908	.1549	
				0725	2.00	.66		0816	.0817	.1578	
				0731	2.10	.87		0826	.3835	.1932	
				0745	.64	1.02		0836	.8894	.3034	
								0839	.8464	.3475	
				0753	.38	1.07		0845	2.0996	.4879	
				0805	.20	1.11		0850	3.0738	.7013	
				0813	1.35	1.29		0854	3.9224	.9414	
				0817	.75	1.34		0858	2.7626	1.1686	
				0841	1.60	1.98		0908	1.0363	1.4681	
				0845	2.55	2.15		0920	.5606	1.6205	
				0855	4.20	2.85		0928	.3468	1.6776	
				0859	.75	2.90		0933	.4155	1.7093	
				0909	.36	2.96		1003	.1161	1.8275	
				0919	.90	3.11		1103	.0053	1.8658	
				0930	.33	3.17		1113	.0096	1.8668	
				0935	1.20	3.27		1158	.0011	1.8702	
				1005	.30	3.42		1350	.0000	1.8712	
				1055	.17	3.56					
				1115	.33	3.67					
				1359	.02	3.73					

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 0.245. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61, USDA MISC. PUB. 994, P. 42.31-4. ^E/ RAINFALL ENDED AT 0610.



RIESEL (WACO), TEXAS WATERSHED P-2

MONTHLY PRECIPITATION AND RUNOFF (inches)						RIESEL (WACO), TEXAS							WATERSHED P-3		42.33
						AREA — 0.243 ACRE									
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966	P ¹	2.20	3.53	1.82	10.20	3.87	2.81	.28	9.46	4.83	.21	.10	1.95	41.26	
	Q	.00	1.97	.32	6.80	1.98	.01	.00	1.50	.82	.00	.00	.00	13.40	
STA AVG	P	2.55	3.05	2.24	3.73	3.50	4.58	1.17	2.54	2.83	2.49	3.38	2.75	34.81	
	Q	.49	.73	.54	.81	.92	.96	.06	.13	.24	.09	.53	.42	5.92	
78 YR	MEAN P ²	2.15	2.39	2.75	4.17	4.61	3.27	1.89	1.95	2.87	2.57	2.48	2.56	33.66	

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-12	3.30	4-25	1.58	4-25	1.81	4-24	2.40	4-24	2.72	4-24	3.33	4-24	5.86	4-23	6.96

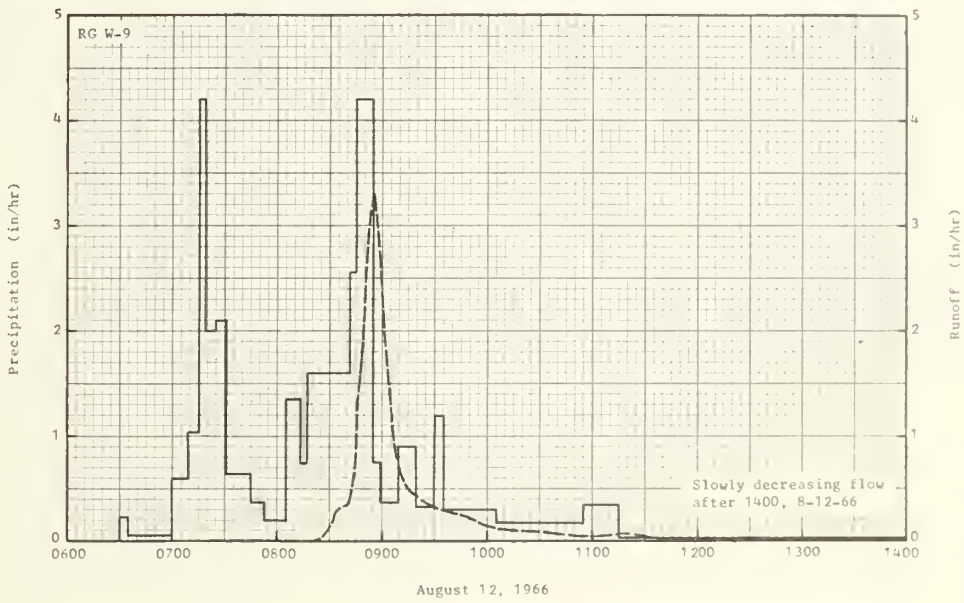
MAXIMUMS FOR PERIOD OF RECORD																
1938 TO	6-10	7.63	6-10	2.13	3-29	2.69	3-29	3.20	3-29	3.43	3-29	4.27	4-24	5.86	4-23	6.96
1966/1941	1941		1941		1965		1965		1965		1965		1966		1966	

NOTES: Watershed land use: 100% bermudagrass and buffalograss pasture, lightly grazed. ¹/ Precipitation data obtained from rain gage W-9. ²/ Precipitation and runoff records began Jan. 1, 1938; station not in operation July 1943 to Jan. 1, 1960; part-year amounts not included in averages. ³/ Mean P based on 78-yr (1889-1966) U. S. Weather Bureau record period at Waco, Texas. ⁴/ Maximums for 1943 occurred before July; no maximums 1944 through 1959.

1966 SELECTED RUNOFF EVENT				RIESEL (WACO), TEXAS							WATERSHED P-3		42.33
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ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
Event of August 12, 1966											
8-02	RG W-9 .02	.0000	8-12	RG	W-9	.00	8-12	0707	.0000	.0000	
8-05	T	.0000		0630	.24	.02		0715	.0017	.0001	
8-07	T	.0000		0635	.07	.05		0720	.0073	.0005	
8-11	1.77	.0000		0701	.60	.13		0800	.0027	.0046	
8-12	E/1.96	.0000		0709	1.03	.25		0825	.0096	.0072	
				0716	4.20	.46		0831	.1586	.0145	
				0719	2.00	.66		0838	.3235	.0422	
				0725	2.10	.87		0840	.3235	.0530	
				0731	.64	1.02		0846	1.3827	1.397	
				0745	.38	1.07		0852	2.9470	.3521	
			0753	.20	1.11	0855	3.3028	.5088			
			0805	1.35	1.29	0901	2.0568	.7777			
			0813	.75	1.34	0907	.9138	.9158			
			0817	1.60	1.98	0920	.4025	1.0443			
			0841	2.55	2.15	0940	.2819	1.1420			
			0845	4.20	2.85	1010	.1176	1.2342			
			0855	.75	2.90	1055	.0419	1.2864			
			0859	.36	2.96	1105	.0467	1.2936			
			0909	.90	3.11	1115	.0706	1.3035			
			0919	.33	3.17	1130	.0517	1.3186			
			0930	1.20	3.27	1230	.0069	1.3386			
			0935	.30	3.42	1400	.0022	1.3454			
			1005	.17	3.56	2400	.0000	1.3564			
			1055	.33	3.67						
			1115	.02	3.73						

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 0.245. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61, USDA MISC. PUB. 994, P. 42.31-4. ⁵/ RAINFALL ENDED AT 0610.



RIESE, (WAC), TEXAS WATERSHED P-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						RIESEL (WACO), TEXAS						WATERSHED P-4		42.34
						AREA — 0.243 ACRE								
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966	2.20	3.53	1.82	10.20	3.87	2.81	.28	9.46	4.83	.21	.10	1.95	41.26	
	.00	1.45	.34	7.01	1.95	.01	.00	1.19	.45	.00	.00	.00	12.40	
STA AVG	2.55	3.05	2.24	3.73	3.50	4.57	1.17	2.54	2.83	2.50	3.38	2.75	34.81	
(38-66)	.56	.71	.49	.78	.68	.94	.07	.10	.19	.04	.62	.61	5.79	
MEAN	2.15	2.39	2.75	4.17	4.61	3.27	1.89	1.95	2.87	2.57	2.48	2.56	33.66	
78 YR														

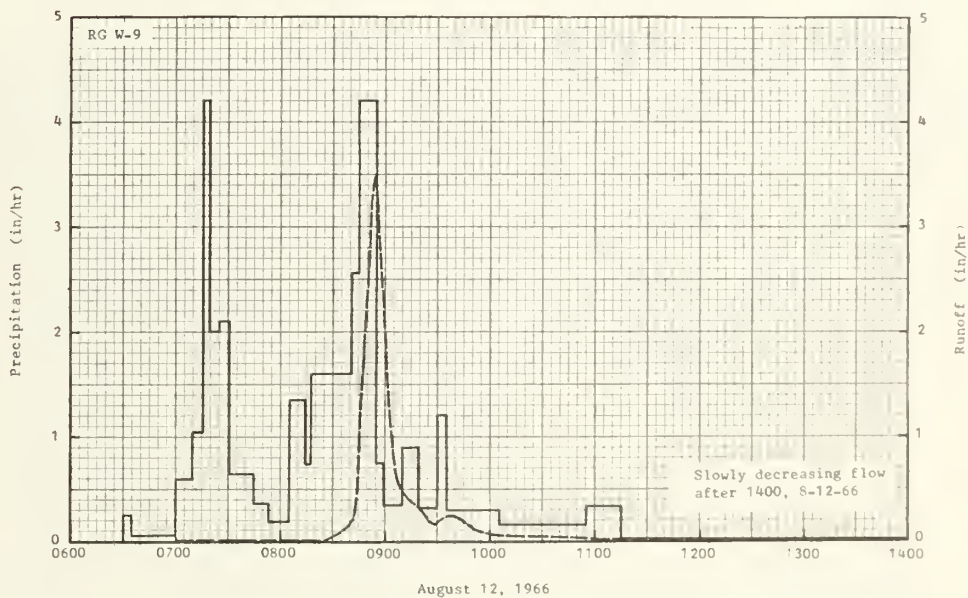
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-12	3.48	4-25	1.66	4-25	1.87	4-24	2.30	4-24	2.58	4-24	3.21	4-24	6.28	4-23	6.96

MAXIMUMS FOR PERIOD OF RECORD																
1938 TO	6-10	7.79	11-22	2.15	3-29	2.43	3-29	2.86	3-29	3.01	3-29	3.70	4-24	6.28	4-23	6.96
1966	1941		1940		1965		1965		1965		1965		1966		1966	

NOTES: Watershed land use: 100% bermudagrass and buffalograss pasture, lightly grazed. 1/ Precipitation data obtained from rain gage W-9. 2/ Precipitation and runoff records began Jan. 1, 1938; station not in operation July 1943 to Jan. 1, 1960; part-year amounts not included in averages. 3/ Mean P based on 78-yr (1889-1966) U. S. Weather Bureau record period at Waco, Texas. 4/ Maximums for 1943 occurred before July; no maximums 1944 through 1959.

1966			SELECTED RUNOFF EVENT			RIESEL (WACO), TEXAS			WATERSHED P-4			42.34
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF					
DATE	RAINFALL	RUNOFF	DATE	TIME	INTENSITY	ACC.	DATE	TIME	RATE	ACC.		
MO-DAY	(inches)	(inches)	MO-OAY	OF DAY	(in/hr)	(inches)	MO-DAY	OF OAY	(in/hr)	(inches)		
Event of August 12, 1966												
8-02	RG W-9	.0000	8-12	RG	W-9	.00	8-12	0700	.0000	.0000		
8-05	T	.0000		0630	.24	.02		0824	.0082	.0077		
8-07	T	.0000		0635	.07	.05		0836	.1031	.0171		
8-11	1.77	.0000		0701	.60	.13		0841	.1586	.0271		
				0709				0845	.9962	.0636		
8-12	E/1.96	.0000		0716	1.03	.25		0848	1.8259	.1330		
				0719	4.20	.46		0851	2.7827	.2464		
				0725	2.00	.66		0854	3.4835	.4070		
				0731	2.10	.87		0858	2.3489	.6063		
				0745	.64	1.02		0904	.9089	.7580		
			0753	.38	1.07	0910	.4870	.8226				
			0805	.20	1.11	0918	.3350	.8729				
			0813	1.35	1.29	0927	.1920	.9118				
			0817	.75	1.34	0937	.2635	.9490				
			0841	1.60	1.98	0949	.1489	.9901				
			0845	2.55	2.15	1019	.0517	1.0391				
			0855	4.20	2.85	1059	.0181	1.0610				
			0859	.75	2.90	1114	.0330	1.0670				
			0909	.36	2.96	1129	.0228	1.0744				
			0919	.90	3.11	1259	.0050	1.0879				
			0930	.33	3.17							
			0935	1.20	3.27	2400	.0000	1.1069				
			1005	.30	3.42							
			1055	.17	3.56							
			1115	.33	3.67							
			1359	.02	3.73							
Watershed conditions: 100% bermudagrass and buffalograss pasture, 6 to 18 inches high, dense cover, not grazed.												

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 0.245. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61, USDA MISC. PUB. 994, P. 42.31-4. E/ RAINFALL ENDED AT 0610.



RIESEL (WACO), TEXAS WATERSHED P-4

MONTHLY PRECIPITATION AND RUNOFF (inches)						HASTINGS, NEBRASKA							WATERSHED W-3												
MONTH YEAR	JAN		FEB		MAR		APR		MAY		JUNE		JULY		AUG		SEPT		OCT		NOV		DEC		ANNUAL
	1966 P 1/ Q	2/.05 .00	2/1.17 .13	2/.43 .00	.69 .00	.69 .00	3.08 .06	3.93 .60	1.76 .02	1.17 .00	.72 .00	2/.00 .00	2/.22 .00	2/.00 .00	2/.22 .00	2/.00 .00	2/.00 .00	2/.00 .00	2/.00 .00	2/.00 .00	2/.00 .00	2/.00 .00	2/.00 .00	2/.00 .00	2/.00 .00
STA AVG P (39-66) Q	.31 .01	.54 .06	1.12 .18	1.94 .09	3.56 .67	4.88 1.15	2.90 .49	2.68 .23	2.60 .38	1.09 .10	.59 .03	.37 T	22.58 3.39												
MEAN P 3/ 72 YR	.47	.78	1.19	2.27	3.32	4.28	3.18	2.71	2.67	1.39	.87	.62	23.75												

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL																							
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS											
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME										
1966	7-26	.40	7-26	.28	7-26	.37	7-26	.39	7-26	.39	7-26	.39	7-26	.39	7-26	.39	7-26	.39	7-26	.39	7-26	.39	7-26	.39	7-26	.60

MAXIMUMS FOR PERIOD OF RECORD

1940 TO 1966	7-3 1959	2.00	7-3 1959	1.32	5-21 1965	1.74	5-21 1965	2.49	5-21 1965	4.43	5-21 1965	4.82	5-21 1965	4.82	5-21 1965	5.55
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NOTES: Watershed conditions: Crops including wheat, corn, sorghum, alfalfa and meadow were in good condition. Fallow fields had no cover. Pastures fair to good. 1/ Arithmetic average of rain gages A-12-R, B-10-R, B-31-R and B-36-R. 2/ Based on meteorological station records. 3/ Mean P based on 72-yr. (1893-1964) U. S. Weather Bureau record period at Red Cloud, Nebr.

1966 DAILY AIR TEMPERATURE (degrees F)												HASTINGS, NEBRASKA												WATERSHED W-3		44.1	
DAY	JAN		FEB		MAR		APR		MAY		JUNE		JULY		AUG		SEPT		OCT		NOV		DEC				
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN			
1	52	22	18	5	54	25	81	39	62	26	77	56	94	65	91	72	84	67	59	34	51	29	26	12			
2	36	22	17	-5	62	35	60	33	58	29	82	61	94	69	85	61	85	61	72	50	34	11	19	12			
3	39	14	26	1	64	24	69	31	76	40	85	60	97	71	82	58	83	65	75	48	35	20	25	15			
4	46	17	30	4	33	13	48	25	82	46	94	61	98	70	83	61	84	58	65	38	51	34	28	20			
5	46	17	39	6	22	15	47	21	86	52	90	59	98	71	86	66	78	55	65	36	43	24	34	12			
6	52	7	46	19	28	8	48	22	89	47	71	44	103	65	83	63	86	47	68	43	56	31	46	22			
7	41	8	35	22	35	9	58	27	90	50	81	52	93	63	93	61	75	52	81	49	65	32	48	25			
8	17	6	47	31	46	25	64	30	93	49	74	58	93	64	86	61	78	57	86	50	65	23	36	22			
9	42	10	54	29	58	33	51	25	65	29	68	36	98	68	75	56	84	56	87	51	36	16	44	22			
10	49	13	43	23	58	35	52	31	57	34	67	48	101	72	65	56	85	54	69	35	30	11	27	-1			
11	38	15	42	21	63	33	70	36	55	42	75	55	100	75	75	57	84	52	75	42	53	30	26	0			
12	39	26	41	20	61	28	48	35	56	34	87	63	102	78	77	59	86	55	85	56	37	14	38	6			
13	47	16	50	14	60	27	40	35	49	28	82	60	103	72	81	60	81	58	85	49	43	17	52	17			
14	50	17	22	10	65	27	48	37	66	47	77	52	97	74	79	58	77	52	86	47	62	27	55	24			
15	53	25	37	18	71	37	61	32	81	60	80	60	92	68	85	59	66	40	55	30	60	35	63	28			
16	31	10	36	3	71	35	65	38	75	43	74	57	78	67	80	59	69	48	47	29	66	36	49	17			
17	16	-8	32	8	76	49	71	43	86	54	75	56	86	67	88	68	61	47	57	33	71	39	54	19			
18	17	-5	50	13	64	30	57	32	75	44	74	55	98	73	95	64	64	47	57	37	57	33	60	29			
19	32	2	22	2	55	25	36	30	70	47	80	60	104	68	80	58	65	45	44	29	43	19	60	30			
20	32	11	21	3	64	26	35	20	74	50	88	66	85	66	82	68	72	47	57	33	53	20	61	30			
21	18	-10	16	9	66	34	39	20	75	44	93	67	83	63	88	60	77	46	68	45	60	29	57	30			
22	6	-14	24	6	65	41	58	37	86	60	91	68	72	63	75	50	85	46	74	35	55	35	41	19			
23	15	-11	29	11	43	16	56	38	96	55	89	69	82	66	70	47	81	48	59	34	62	36	20	2			
24	15	-2	35	12	30	8	65	39	70	39	83	62	83	64	74	49	80	56	63	37	49	33	20	1			
25	12	3	52	14	38	17	78	49	81	44	89	72	90	65	77	50	93	50	69	43	46	25	21	12			
26	13	-8	35	18	54	28	80	40	87	51	87	62	90	72	85	53	62	48	77	41	57	28	21	6			
27	26	-7	55	27	47	23	76	48	87	48	87	63	96	66	87	59	61	51	77	37	59	26	20	12			
28	5	-8	38	25	52	23	54	25	93	52	88	65	85	66	87	60	68	44	81	45	47	18	17	10			
29	2	-17	---	---	66	38	60	41	82	48	94	65	89	62	87	62	80	48	67	30	48	18	15	4			
30	-1	-16	---	---	61	37	62	27	85	52	96	64	89	63	89	63	79	45	47	28	45	16	23	2			
31	15	-5	---	---	77	46	---	---	72	52	---	---	83	64	87	64	---	---	72	36	---	---	19	-2			
AV.	29	5	36	13	55	27	58	33	76	45	82	59	92	68	82	59	77	52	68	40	51	26	36	15			
MEAN	17.0		24.7		41.3		45.4		60.6		70.9		79.9		71.0		64.3		54.2		38.4		25.5				
STA AV																											

NOTES: TEMPERATURE DATA FROM METEOROLOGICAL STATION FOR 24 HOURS ENDING 0800.

1966 DAILY PRECIPITATION (inches)						HASTINGS, NEBRASKA						WATERSHED W-3		44.1
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC		
1	.00	.00	.00	.00	.00	.00	.00	.00	.28	.00	.00	.00		
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
3	.00	.00	.00	.00	.00	.00	.00	.00	.17	.00	.00	.00		
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
5	.00	.00	T	.00	.00	.00	.27	T	.00	.00	.00	.00		
6	.00	.00	.00	.00	.00	.00	.15	.00	.00	.00	.00	.00		
7	.00	.00	.00	.30	.00	.26	.00	.07	.00	.00	.00	.00		
8	.00	.98	.00	.00	.00	1.40	.00	.20	.00	.00	.00	T		
9	.00	.00	.00	.00	.00	.00	.00	1.08	.00	.00	.00	.00		
10	.00	.00	.00	.00	.00	.04	.00	.00	.00	.00	.00	.00		
11	.00	.00	.00	.00	.04	.00	.00	.00	.00	.00	.00	.00		
12	.00	.00	.00	.17	.00	.28	.21	.41	.00	.00	.00	.00		
13	.00	T	.00	.00	.00	.00	.06	.03	.36	T	.00	.00		
14	.00	.00	.00	.00	.00	.04	.25	.00	.00	.73	.00	.00		
15	.05	.00	.00	.00	.00	.00	.00	.07	.00	.00	.00	.00		
16	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.00		
17	.00	.00	.00	.00	.00	.04	.00	.00	.40	.00	.00	.00		
18	.00	.00	.00	T	.00	.00	.24	.00	T	.19	.00	.00		
19	.00	.00	.00	.18	.00	.00	.24	.00	.00	.00	.00	.00		
20	T	.00	.00	T	.06	.00	.00	.00	.00	.00	.00	.00		
21	T	.00	.00	.00	.00	.00	.12	.00	.00	.00	.00	.00		
22	T	.00	.43	.06	.00	.00	.00	.00	.00	.00	.00	.00		
23	.00	.00	.00	T	.00	.77	.00	.00	.00	.00	.00	.00		
24	T	.00	.00	.00	.00	.46	.00	T	.00	.00	.00	.00		
25	T	.00	.00	.00	.00	.00	.11	.00	.00	.00	.00	.00		
26	T	.10	.00	.00	.00	.04	2.10	.00	.00	.00	.00	.00		
27	.00	.09	.00	.07	.00	.02	.00	.00	.00	.00	.00	.12		
28	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	.10		
29	.00	.00	.00	.00	.00	.00	.98	.00	.00	.00	.00	.00		
30	.00	.00	.00	.11	.76	.00	.00	.00	.00	.00	.00	.00		
31	T	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
TOTAL	.05	1.17	.43	.89	.86	3.37	4.73	1.86	1.25	.92	.00	.22		
ST. AVE.	.36	.60	1.24	1.89	3.92	5.00	3.36	2.85	2.67	1.13	.59	.37		

NOTES: STATION AVERAGE IS BASED ON METEOROLOGICAL STATION RECORDS FROM 1943 TO 1966.

1965 SELECTED RUNOFF EVENT			HASTINGS, NEBRASKA				WATERSHED W-3				44.7
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
Event of June 12, 13, 1965											
5-14	RG B-36-R	.0155	6-12	RG	B-36-R	.00	6-12	2120	.0000	.0000	
5-15	.00	.0071		2116	.00	.60		2130	.0009	.0009	T
5-17	.20	.0000		2129	2.77	.64		2135	.0032	.0002	
5-21	3.36	1.6299		2139	.24	.78		2145	.0012	.0006	
5-22	4.08	3.1914		2149	.84	.80		2200	.0003	.0008	
5-24	1.14	.5992		2159	.12	.80					
5-25	.15	.0000	2334	.00	.80	2215	.0003	.0009			
5-26	.00	.0362	2347	1.54	.98	2230	.0011	.0010			
5-31	.07	.0000	2357	4.20	1.68	2245	.0069	.0020			
6- 1	1.02	.1414	6-13	0004	1.54	1.86	2300	.0206	.0055		
6- 2	.10	.3175		0147	.10	1.93	2320	.0509	.0174		
6- 5	.32	.0028	6-12	RG	B-10-R	.00	2340	.0928	.0414		
6- 6	.12	.0019		2111	.00	.00	2350	.1090	.0582		
6- 9	.78	.1036		2131	2.49	.83	2400	.3960	.0909		
6-10	.41	.1616		2151	.36	.95	6-13	0010	.6890	.1813	
6-11	.09	.0081		2221	.04	.97		0020	.7960	.3050	
				2339	.00	.97		0030	.6800	.4279	
			2400	.91	1.29	0050		.4120	.6100		
			6-13	0015	1.20	1.59	0110	.2190	.7152		
				0145	.03	1.63	0130	.1350	.7742		
				0255	.03	1.67	0200	.0695	.8253		
			6-12 & 13	RG	A-12-R	2.21	0230	.0419	.8531		
				RG	B-31-R	1.81	0300	.0187	.8683		
							0400	.0066	.8809		
							0500	.0028	.8856		
							0700	.0008	.8892		
							1000	.0002	.8907		
						1800	.0000	.8915			

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 485. FOR MAP OF W-3 SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61, USDA MISC. PUB. 994, P. 44-1-4.

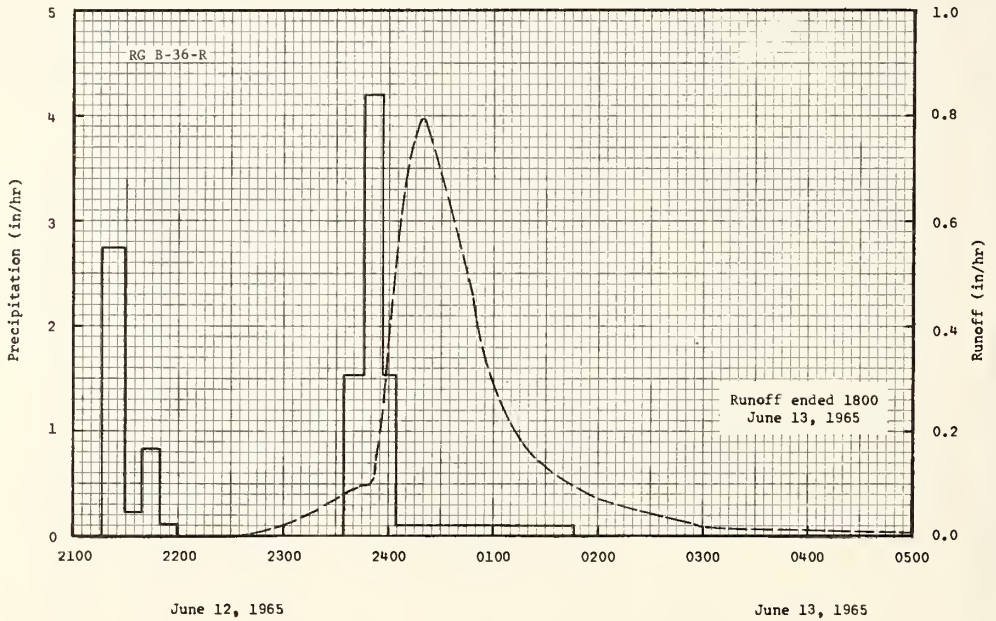
Event of June 12,13, 1965 - Continued

Watershed conditions:

Watershed precominately in straight row farming.
 Corn: Just planted.
 Sorghum: 50% planted.
 Wheat: 20" to 32" high, headed, in good condition.
 Ground cover 85%.

The land use in percentage of the watershed area was as follows:

	Percent
Corn	4
Sorghum	18
Wheat	19
Fallow	28
Sweetclover	2
Pasture	18
Meadow	2
Sudan	6
Farm Yard	1
Roads	2
Total	100



HASTINGS, NEBRASKA WATERSHED W-3

MONTHLY PRECIPITATION AND RUNOFF (inches)						HASTINGS, NEBRASKA WATERSHED W-8 AREA-2,086 ACRES (3.26 SQ. MI.)											
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL				
1966 P 1/ Q	2/.08 .00	2/ 1.16 .08	2/ .32 .00	.78 .00	.63 .00	2.94 .03	3.82 .30	1.82 .01	1.43 T	.82 .00	2/ .00	2/.28 .00	14.08 .42				
STA AVG P (39-66) Q	.32 .02	.54 .04	1.18 .13	1.92 .08	3.49 .51	4.93 1.07	2.92 .39	2.72 .23	2.60 .27	1.10 .07	.61 .01	.38 .00	22.71 2.82				
MEAN P 3/ 72 YR	.47	.78	1.19	2.27	3.32	4.28	3.18	2.71	2.67	1.39	.87	.62	23.75				

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	7-29	.05	7-29	.04	7-29	.07	7-29	.13	7-29	.15	7-29	.15	7-29	.15	7-26	.30

MAXIMUMS FOR PERIOD OF RECORD																
1939 TO 1966	5-22 1965	.52	5-22 1965	.43	5-22 1965	.78	6-15 1957	1.67	6-15 1957	2.58	6-15 1957	3.43	6-15 1957	4.86	6-13 1957	4.99

NOTES: Watershed conditions: Crops including wheat, corn, sorghum, alfalfa and meadow were in good condition. Fallow fields had no cover. Pastures fair to good. 1/ Arithmetic average of rain gages A-12-R, B-31-R, C-31-R and D-31-R. 2/ Arithmetic average of rain gage D-31-R and meteorological station. 3/ Mean P based on 72-yr (1893-1964) U. S. Weather Bureau records at Red Cloud, Nebr.

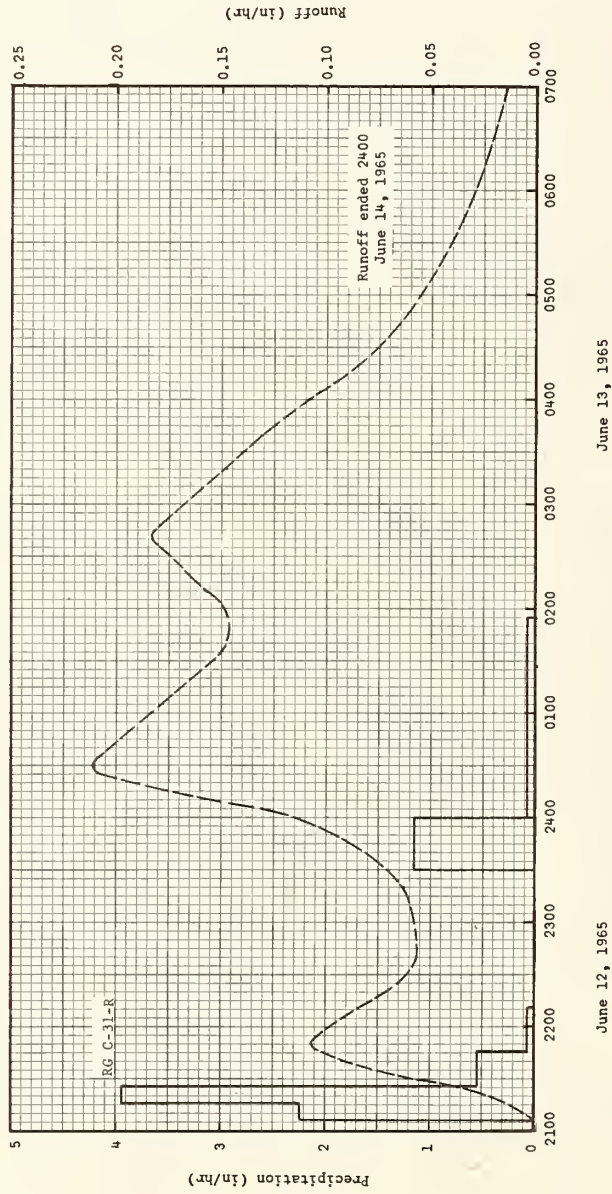
1965 HASTINGS, NEBRASKA WATERSHED W-8 44.3

ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
<u>Event of June 12, 13, 1965</u>											
5-13	4 RG 4/ .17	.0000			RG	C-31-R	6-12	2100	.0000	.0000	
5-14	.51	.0003	6-12	2108	.00	.00	2130	.0571	.0052		
5-15	.00	.0050		2116	2.25	.30	2150	.1060	.0347		
5-16	.00	.0006		2126	3.96	.96	2220	.0717	.0807		
5-17	.14	.0000		2146	.54	1.14	2240	.0571	.1022		
				2211	.07	1.17					
5-21	2.97	.2342					2320	.0627	.1414		
5-22	3.52	2.7170		2330	.00	1.17	2400	.1410	.2114		
5-23	.00	.0038		2400	1.16	1.75					
5-24	1.06	.5583					6-13	0030	.2110	.3025	
5-25	.15	.0057	6-13	0155	.08	1.90	0100	.1840	.4025		
							0130	.1540	.4870		
5-26	.00	.0262			RG	A-12-R	0150	.1470	.5372		
5-30	.02	.0000	6-12	2116	.00	.00	0210	.1570	.5878		
6-1	1.25	.1105		2126	3.42	.57					
6-2	.07	.5270		2136	1.86	.88	0240	.1830	.6742		
6-3	.00	.0012		2146	.18	.91	0320	.1480	.7846		
				2156	.66	1.02	0400	.1080	.8699		
6-5	.36	.0216					0500	.0554	.9516		
6-6	.10	.0012		2256	.02	1.04	0700	.0147	1.0217		
6-7	.01	.0000		2342	.00	1.04					
6-9	.92	.0738		2352	.72	1.16	0900	.0035	1.0399		
6-10	.39	.1957		2357	.96	1.24	1100	.0015	1.0449		
				2400	4.60	1.47	1400	.0007	1.0482		
6-11	.09	.0109					2400	.0001	1.0522		
6-12	.00	5/.0028	6-13	0006	3.90	1.86					
				0016	1.50	2.11	6-14	2400	.0000	1.0534	
				0026	.36	2.17					
				0201	.07	2.21					
			6-12	RG	D-31-R	.00	.00				
				2131	3.08	.77					
				2141	.42	.84					
				2211	.24	.96					
				2336	.00	.96					
				2400	1.05	1.38					
			6-13	0200	.11	1.60					
			6-12 & 13	RG	B-31-R	1.81					

Watershed conditions:
 Corn: Just planted.
 Sorghum: 50% planted.
 Wheat: 20" to 32" high, headed, in good condition. Ground cover 85%.
 Alfalfa: 24" to 36" high, in good condition. Ground cover 90%.
 Pasture: 3" to 6" high, in good condition.
 Meadow: 8" to 20" high, in good condition. Ground cover 85%.

Watershed conditions: (continued)
 The land use in percentage of the watershed area was as follows:
 Percent
 Corn 1
 Sorghum 21
 Wheat 17
 Fallow 23
 Alfalfa 8
 Sweetclover 1
 Pasture 21
 Meadow 2
 Sudan 3
 Farm Yard 1
 Roads 2
 Total 100

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 2103. FOR MAP OF W-8, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61, USDA MISC. PUB. 994, P. 44.1-4. 3/ ARITHMETIC AVERAGE OF RAIN GAGES C-31-R, A-12-R, D-31-R, AND B-31-R. 5/ RUNOFF PRIOR TO 2100.



HASTINGS, NEBRASKA WATERSHED W-8

MONTHLY PRECIPITATION AND RUNOFF (inches)						HASTINGS, NEBRASKA					WATERSHED W-11 AREA-3490 ACRES (5.45 SQ. MILES)				
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966	P <u>1/</u>	2/ .07	2/ 1.14	2/ .28	.77	.52	2.83	3.86	1.73	1.43	.78	2/ .00	2/ .31	13.72	
	Q	.00	.07	.00	.00	.00	.02	.24	T	.00	.00	.00	.00	.33	
	STA AVG P (39-66) Q	.33	.57	1.21	1.92	3.46	4.93	2.92	2.73	2.61	1.10	.63	.40	22.81	
	MEAN P <u>3/</u> 72 YR	.47	.78	1.19	2.27	3.32	4.28	3.18	2.71	2.67	1.39	.87	.62	23.75	

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	7-27	.01	7-27	.01	7-27	.03	7-27	.07	7-26	.11	7-26	.13	7-26	.13	7-26	.24

MAXIMUMS FOR PERIOD OF RECORD																
1939 TO	5-22	.42	6-15	.40	6-15	.78	6-15	1.83	6-15	2.72	6-15	3.27	6-15	4.87	6-13	4.93
1966	1965		1957		1957		1957		1957		1957		1957		1957	

NOTES: Watershed conditions: Crops including wheat, corn, sorghum, alfalfa and meadow were in good condition. Fallow fields had no cover. Pastures fair to good. 1/ Arithmetic average of rain gages A-12-R, B-31-R, C-31-R, D-31-R, E-30-R and G-42-R. Months of Jan., Feb., Mar. and Dec. may include snow and snow melt. 2/ Arithmetic average of rain gages D-31-R C-42-R and meteorological station records. 3/ Mean P based on 72-yr (1893-1964) U. S. Weather Bureau record period at Red Cloud, Nebr.

1965 SELECTED RUNOFF EVENT HASTINGS, NEBRASKA WATERSHED W-11 44.4

ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
Event of June 12, 13, 1965										
6 RG <u>4/</u>					RG C-31-R					
5-13	.16	.0000	6-12	2108	.00	.00	6-12	2110	.0000	.0000
5-14	.51	.0000		2116	2.25	.30		2130	.0026	.0003
5-17	.27	.0004		2126	3.96	.96		2150	.0186	.0028
5-18	.00	.0016		2146	.54	1.14		2220	.0172	.0118
5-21	2.68	.0606		2211	.07	1.17		2240	.0143	.0171
5-22	3.23	2.7231		2330	.00	1.17		2300	.0162	.0221
5-23	.00	.0128		2400	1.16	1.75		2330	.0211	.0316
5-24	1.13	.4815	6-13	0155	.08	1.90		2350	.0426	.0421
5-25	.14	.0215					6-13	0010	.0482	.0654
5-26	.00	.0194						0040	.0421	.0943
5-27	.00	.0015	6-12	2116	.00	.00				
5-31	.04	.0000		2131	3.08	.77		0130	.0440	.1312
6-1	1.40	.0388		2141	.42	.84		0210	.0693	.1777
6-2	.06	.5912		2211	.24	.96		0230	.0921	.1952
6-3	.00	.0027		2336	.00	.96		0300	.1240	.2765
								0320	.1200	.3328
6-4	.00	.0009	6-13	0200	.11	1.60		0410	.0983	.3993
6-5	.32	.0256						0500	.0977	.4959
6-6	.07	.0014						0600	.0861	.5807
6-7	.04	.0000	6-12	2104	.00	.00		0730	.0600	.7038
6-9	.93	.0349		2240	.55	.88		0830	.0525	.7517
				2326	.00	.88				
6-10	.41	.2272		2400	.62	1.23		0930	.0433	.7720
6-11	.08	.0170	6-13	0200	.11	1.45		1030	.0284	.7886
								1110	.0154	.8046
								1230	.0061	.8175
			6-12	2106	.00	.00		1500	.0023	.8275
				2206	.61	.61				
				2324	.00	.61		1700	.0015	.8313
			6-13	2400	.70	1.03		2000	.0008	.8348
				0200	.12	1.28		2400	.0004	.8372
							6-14	0800	.0002	.8414
			6-12 & 13	RG	A-12-R	2.21		2000	.0001	.8420
			6-12 & 13	RG	B-31-R	1.81	6-15	1200	.0000	.8422

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 3519. FOR MAP OF W-11, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1960-61, USDA MISC. PUB. 994, P. 44.1-4. 4/ ARITHMETIC AVERAGE OF 6 RAIN GAGES A-12-R, B-31-R, C-31-R, D-31-R, E-30-R AND G-42-R.

Event of June 12, 13, 1965—Continued

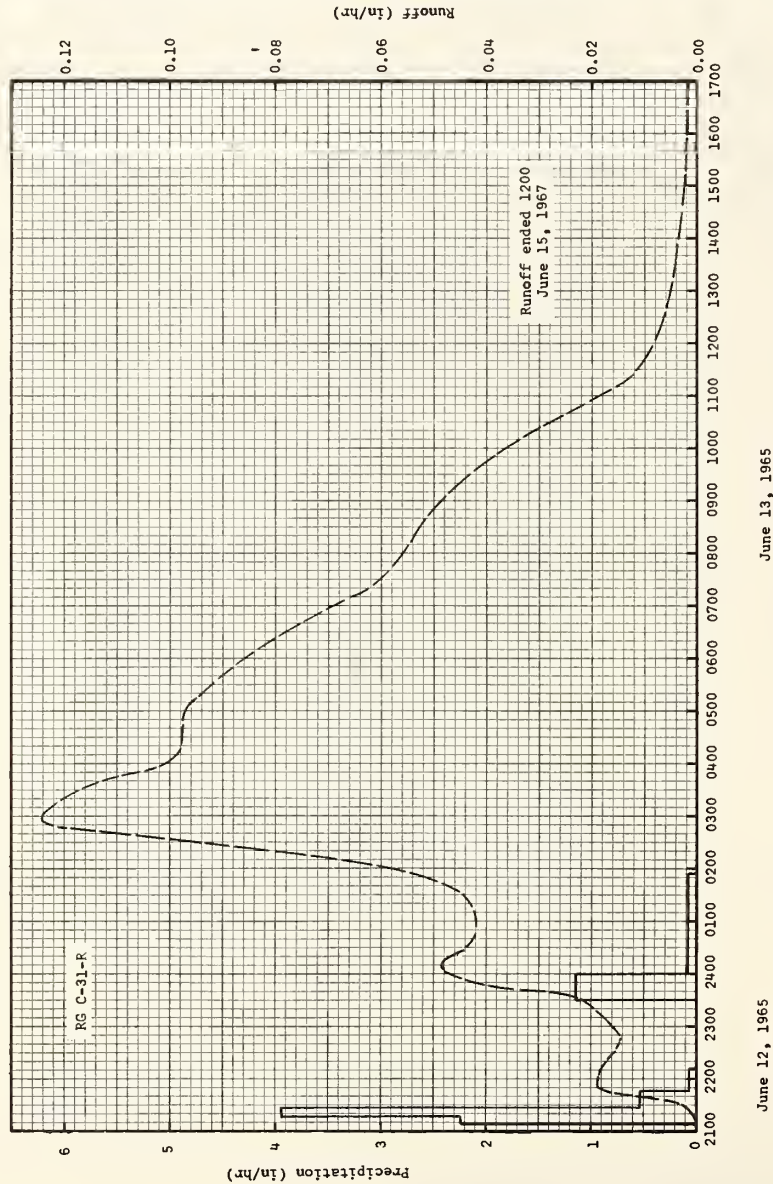
Watershed conditions:

Corn: Just planted.
 Sorghum: 50% planted.
 Wheat: 20" to 32" high,
 headed, in good condition.
 Ground cover 85%.
 Alfalfa: 24" to 36" high,
 in good condition. Ground
 cover 90%.
 Pasture: 3" to 6" high,
 in good condition.
 Meadow: 8" to 20" high,
 in good condition. Ground
 cover 85%.

Watershed conditions: (continued)

The land use in percentage of
 the watershed area was as follows:

	Percent
Corn	1
Sorghum	23
Wheat	13
Fallow	24
Alfalfa	8
Sweetclover	1
Pasture	23
Meadow	2
Sudan	2
Farm Yard	1
Roads	2
Total	100



June 13, 1965

June 12, 1965

HASTINGS, NEBRASKA WATERSHED W-11

MONTHLY PRECIPITATION AND RUNOFF (inches)						HASTINGS, NEBRASKA							WATERSHED 1-H		
						AREA-3.62 ACRES									
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966	P 1/	2/.05	2/1.17	2/.43	.59	.66	3.03	3.97	1.67	1.13	.78	2/	T 2/	.22	13.70
	Q	.00	T	.00	.00	.00	.00	.27	.00	.00	.00	.00	.00	.27	
	STA AV 3/P	.31	.54	1.13	1.87	3.60	4.93	2.96	2.75	2.62	1.13	.60	.37	22.81	
	(40-66) Q	.01	.01	.04	.00	.18	.12	.08	.05	.01	.01	.00	.00	.51	
	MEAN P 4/														
	72 YR	.47	.78	1.19	2.27	3.32	4.28	3.18	2.71	2.67	1.39	.87	.62	23.75	

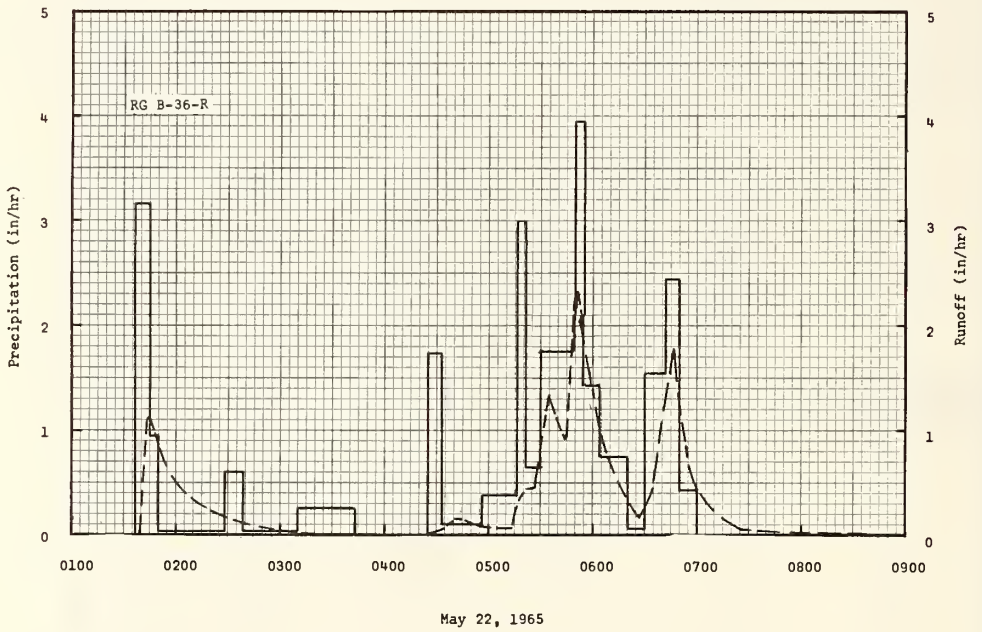
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	7-29	.78E	7-29	.17E	7-29	.18E	7-29	.18E	7-29	.18E	7-29	.18E	7-29	.18E	7-26	.27E

MAXIMUMS FOR PERIOD OF RECORD																
1939 TO	6-12	2.35	5-21	1.35	5-21	1.78	5-21	2.00	5-21	3.69	5-21	3.69	5-21	3.69	5-21	4.27
1966	1965		1965		1965		1965		1965		1965		1965		1965	

NOTES: Watershed conditions: Cultivated, fallow, planted to wheat in Sept. 1/ Precipitation from rain gage B-36-R. 2/ Based on meteorological station records. 3/ Station records began 1939, part year records for 1939 not included in station averages. 4/ Mean P based on 72-yr (1893-1964) U. S. Weather Bureau record period at Red Cloud, Nebr.

1965			HASTINGS, NEBRASKA				WATERSHED 1-H				44.5
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE	RAINFALL	RUNOFF	DATE	TIME	INTENSITY	ACC.	DATE	TIME	RATE	ACC.	
MO-DAY	(inches)	(inches)	MO-DAY	OF DAY	(in/hr)	(inches)	MO-DAY	OF DAY	(in/hr)	(inches)	
Event of May 22, 1965											
	RG B-36-R			RG	B-36-R						
4-24	.71	.00	5-22	0137	.00	.00	5-22	0139	.00	.00	
5- 4	.57	.00		0145	3.15	.42		0144	1.13	.03	
5- 7	.77	.01		0150	.96	.50		0151	.80	.11	
5- 8	.02	.00		0228	.03	.52		0205	.40	.17	
5-14	.71	T		0238	.60	.62		0220	.22	.19	
5-17	.20	.00		0310	.04	.64		0320	.00	.21	
5-21	3.36	1.79		0343	.27	.79		0425	.00	.21	
				0425	.00	.79		0435	.06	.22	
				0433	1.73	1.02		0441	.14	.23	
				0457	.10	1.06		0445	.14	.24	
				0517	.39	1.19		0455	.09	.25	
				0521	3.00	1.39		0505	.08	.27	
				0531	.66	1.50		0513	.08	.07	
				0550	1.77	2.06		0522	.44	.32	
				0555	3.96	2.39		0527	.46	.36	
				0603	1.43	2.58		0535	1.33	.47	
				0620	.74	2.79		0540	1.07	.57	
				0630	.06	2.80		0545	.92	.66	
				0642	1.55	3.11		0551	2.32	.82	
				0650	2.45	3.44		0558	1.44	1.04	
				0700	.42	3.51		0608	.74	1.23	
								0627	.18	1.35	
								0635	.44	1.38	
								0638	1.03	1.42	
								0646	1.79	1.59	
								0653	.90	1.74	
								0658	.44	1.79	
								0725	.06	1.88	
								0755	.01	1.90	
								0855	.00	1.91	

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 3.650. FOR MAP OF AREA, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA, MISC. PUB. 945, P. 44.5-4.



HASTINGS, NEBRASKA WATERSHED 1-H

MONTHLY PRECIPITATION AND RUNOFF (inches)						HASTINGS, NEBRASKA							WATERSHED 2-R	
						AREA-3,40 ACRES								
MONTH YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966 P 1/	2/ .05	2/ 1.17	2/ .43	.68	.65	3.11	4.02	1.70	1.12	.78	2/ .00	2/ .22	13.93	
Q	.00	.10	.00	.00	.00	.02E	.03	.00	.00	.00	.00	.00	.15	
STA AV 2/P	.32	.58	1.17	1.88	3.63	4.79	3.21	2.80	2.67	1.18	.67	.41	23.31	
(40-66) Q	.03	.03	.23	.20	.95	1.43	.74	.39	.47	.22	.04	.00	4.73	
MEAN P 4/														
72 YR	.47	.78	1.19	2.27	3.32	4.28	3.18	2.71	2.67	1.39	.87	.62	23.75	

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		4 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-8	.15	2-8	.05	2-8	.06	2-8	.08	2-8	.10	2-8	.10	2-8	.10	2-8	.10

MAXIMUMS FOR PERIOD OF RECORD																
1939 TO	6-12	3.47	5-21	2.38	5-21	2.40	5-21	2.58	5-21	5.21	5-21	5.30	5-21	5.30	5-21	5.49
1966	1965		1965		1965		1965		1965		1965		1965		1965	

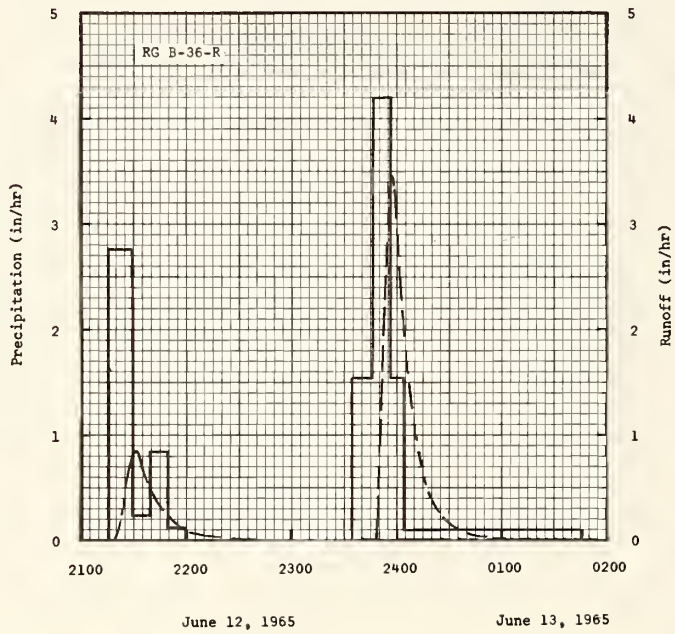
NOTES: Watershed conditions: Native grass pasture, good stand moderately grazed (one-half of top growth consumed).
 1/ Arithmetic average precipitation from rain gages B-34-R and B-36-R. 2/ Based on meteorological station records.
 3/ Station records began April 1, 1939; part year records for 1939 and period of no records, 1955 through 1957,
 not included in station averages. 4/ Mean P based on 72-yr (1893-1964) U. S. Weather Bureau record period at Red
 Cloud, Nebraska.

1965	SELECTED RUNOFF EVENT				HASTINGS, NEBRASKA				WATERSHED 2-R				44.6
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF						
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)			

Event of June 12, 13, 1965											
RG B-36-R			RG B-36-R								
5-14	.71	.00	6-12	2116	.00	.00	6-12	2119	.00	.00	
5-17	.20	.00		2129	2.77	.60		2125	.47	.02	
5-21	3.36	2.38		2139	.24	.64		2132	.85	.10	
5-22	4.08	2.92		2149	.84	.78		2140	.44	.19	
5-24	1.14	.19		2159	.12	.80		2200	.09	.27	
5-25	.15	.00		2334	.00	.80		2240	.00	.30	
5-31	.07	.00		2347	1.54	.98		2348	.00	.30	
6- 1	1.02	.15		2357	4.20	1.68		2357	3.47	.55	
6- 2	.10	.00	6-13	0004	1.54	1.86	6-13	0005	1.81	.92	
6- 5	.32	.00		0147	.10	1.93		0015	.60	1.12	
6- 6	.12	.00						0025	.21	1.19	
6- 9	.78	.00		RG	B-34-R	1.86		0055	.02	1.24	
6-10	.41	.00						0140	.00	1.25	
6-11	.09	.00									

Watershed conditions:
 100% native grass pasture.
 Grass 3" to 6" high with
 moderate grazing (sheep).
 Grass in fair to good condition.
 Ground cover 75%.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 3.428. FOR MAP OF AREA, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 44.6-3.



HASTINGS, NEBRASKA WATERSHED 2-H

MONTHLY PRECIPITATION AND RUNOFF (inches)						HASTINGS, NEBRASKA WATERSHED 3-R AREA-3.77 ACRES										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P 1/ Q	2/ .05 .00	2/ 1.17 .15	2/ .43 T	.77 T	.64 .00	3.19 .11	4.07 .75	1.74 .00	1.11 .00	.78 .00	2/ T .00	2/ .22 .00	14.17 1.01			
STA AV 3/P (40-66) Q	.32 .03	.58 .05	1.17 .26	1.89 .20	3.63 .97	4.80 1.44	3.22 .78	2.80 .39	2.67 .47	1.18 .22	.67 .04	.41 .00	23.34 4.85			
MEAN P 4/ 72 YR	.47	.78	1.19	2.27	3.32	4.28	3.18	2.71	2.67	1.39	.87	.62	23.75			

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FDR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	7-29	2.82	7-29	.44	7-29	.45	7-29	.45	7-29	.45	7-29	.45	7-29	.45	7-26	.75

MAXIMUMS FOR PERIOD OF RECORD																
1939 TO 1966	7-3 1959	6.45	7-3 1959	2.34	7-3 1959	2.35	6-1 1951	3.36	5-21 1965	4.48	5-21 1965	4.80	5-21 1965	4.80	5-21 1965	5.38

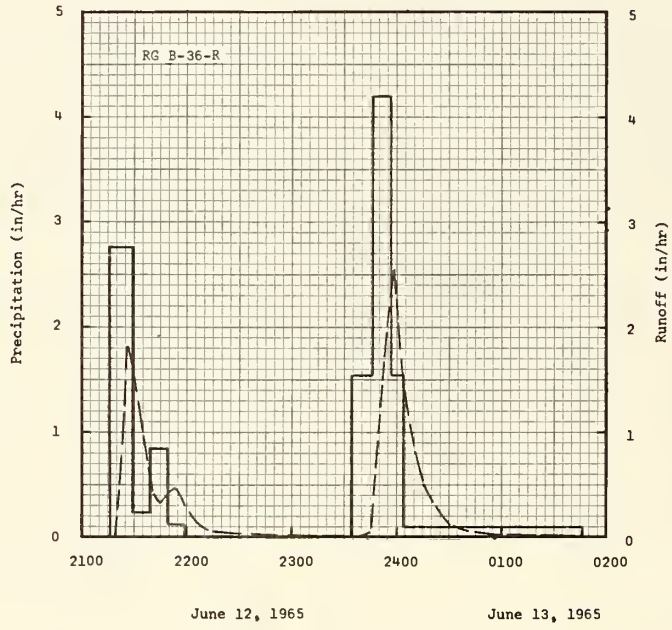
NOTES: Watershed conditions: Cultivated, fallow, planted to wheat in Sept. General crop rotation of wheat-sorghum-fallow, using minimum tillage practices. 1/ Precipitation from rain gage B-34-R. 2/ Based on meteorological station records. 3/ Station records began Mar. 27, 1939; part year records for 1939 and period of no records, 1955 through 1957, not included in station averages. 4/ Mean P based on 72-yr (1893-1964) U. S. Weather Bureau record period at Red Cloud, Nebr.

1965 SELECTED RUNOFF EVENT			HASTINGS, NEBRASKA					WATERSHED 3-R				44.7
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ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
Event of June 12, 13, 1965										
5-14	.71	.02	6-12	RG	B-36-R	.00	6-12	2119	.00	.00
5-17	.20	.00		2116	.00	.60		2127	1.81	.12
5-21	3.36	2.28		2129	2.77	.64		2130	1.49	.21
5-22	4.08	3.05		2139	.24	.78		2140	.42	.37
5-24	1.14	.58		2149	.12	.80		2145	.32	.40
5-25	.15	T		2334	.00	.80		2153	.48	.44
5-31	.07	.00		2347	1.54	.98		2200	.27	.49
6- 1	1.02	.25		2357	4.20	1.68		2215	.05	.53
6- 2	.10	.06	6-13	0004	1.54	1.86		2245	.01	.54
6- 5	.32	.00		0147	.10	1.93		2330	.00	.54
6- 6	.12	.00						2335	.00	.54
6- 9	.78	.07						2345	.04	.54
6-10	.41	.10		RG	B-34-R	1.86		2358	2.55	.85
6-11	.09	.00					6-13	0015	.52	1.26
								0030	.09	1.34
								0100	.01	1.36
								0145	.00	1.36

Watershed conditions: No tillage during spring. Cover is weeds and wheat stubble.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 3.802. FOR MAP OF AREA, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 44.7-4.



HASTINGS, NEBRASKA WATERSHED 3-H

MONTHLY PRECIPITATION AND RUNOFF (inches)						HASTINGS, NEBRASKA						WATERSHED 4-H	
						AREA-3.64 ACRES							
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P 1/ Q	.05 .00	2/.17 .02	2/.43 .00	.68 .00	.65 .00	3.11 .02	4.02 .31	1.70 .00	1.12 .00	.78 .00	2/.00 .00	T 2/.22 .00	13.93 .35
STA AV 2/ (40-66)	.32 .02	.59 .03	1.17 .23	1.92 .19	3.62 1.06	4.76 1.32	3.20 .70	2.78 .37	2.70 .44	1.17 .18	.66 .02	.40 .00	23.29 4.56
MFAN P 4/ 72 YR	.47	.78	1.19	2.27	3.32	4.28	3.18	2.71	2.67	1.39	.87	.62	23.75

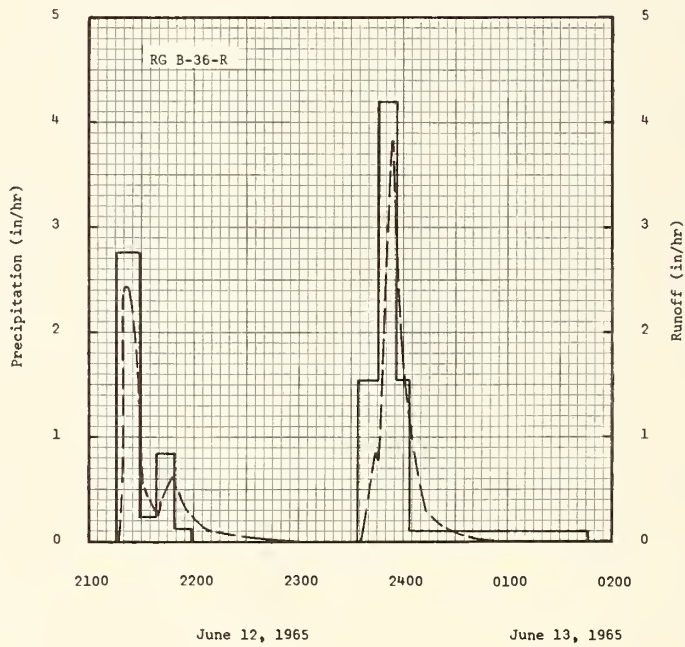
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	7-29	1.08	7-29	.21	7-29	.21	7-29	.21	7-29	.21	7-29	.21	7-29	.21	7-26	.32

MAXIMUMS FOR PERIOD OF RECORD																
1940 TO	6-26	7.67	7-3	2.13E	5-21	2.57	6-1	3.19	5-21	5.94	5-21	6.37	5-21	6.37	5-21	7.21
1966	1952	1959	1965	1965	1965	1951	1965	1965	1965	1965	1965	1965	1965	1965	1965	1965

NOTES: Watershed conditions: Cultivated, planted to wheat in Sept. 1965. Yield: 21 bu. per acre. General crop rotation of sorghum-fallow-wheat, using minimum tillage practices. 1/ Arithmetic average precipitation from rain gages B-34-R and B-36-R. 2/ Based on meteorological station records. 3/ Station records began Apr. 1, 1939; part year records for 1939 and period of no records, 1955 through 1957, not included in station averages. 4/ Mean P based on 72-yr (1893-1964) U. S. Weather Bureau record period at Red Cloud, Nebr.

1965			SELECTED RUNOFF EVENT				HASTINGS, NEBRASKA				WATERSHED 4-H				44.8	
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF									
DATE	RAINFALL	RUNOFF	DATE	TIME	INTENSITY	ACC.	DATE	TIME	RATE	ACC.						
MO-DAY	(inches)	(inches)	MO-DAY	OF DAY	(in/hr)	(inches)	MO-DAY	OF DAY	(in/hr)	(inches)						
RG B-36-R			Event of June 12, 13, 1965													
5-14	.71	.00	6-12	RG	B-36-R	.00	6-12	2115	.00	.00						
5-17	.20	.00		2116	.00	.00		2118	.44	.01						
5-21	3.36	.00		2129	2.77	.60		2122	2.42	.12						
5-22	4.08	.00		2139	.24	.64		2128	1.34	.31						
5-24	1.14	.00		2149	.84	.78		2134	.44	.38						
5-25	.15	.00		2159	.12	.80										
				2334	.00	.80		2140	.25	.42						
				2347	1.54	.98		2148	.59	.47						
				2357	4.20	1.68		2151	.44	.50						
								2208	.10	.56						
			6-13	0004	1.54	1.86		2300	.00	.60						
				0147	.10	1.93										
				RG	B-34-R	1.86		2335	.00	.60						
								2342	.44	.62						
								2344	.86	.64						
								2346	.79	.67						
								2350	2.54	.78						
								2354	3.82	1.00						
								2400	1.64	1.26						
							6-13	0011	.44	1.42						
								0100	.00	1.54						

NOTE: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 3.670. FOR MAP OF AREA, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 44.8-3.



HASTINGS, NEBRASKA WATERSHED 4-H

MONTHLY PRECIPITATION AND RUNOFF (inches)							HASTINGS, NEBRASKA							WATERSHED 5-H	
MONTH YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL		
	1966 P 1/ Q	2/.05 .00	2/1.17 .27	2/.43 .00	.68 .00	.65 .00	3.11 .01	4.02 .23	1.70 T	1.12 .00	.78 .00	2/ .00	T .00	2/.22 .00	13.93 .51
STA AV 2/P (40-66) Q	.31 .03	.56 .03	1.11 .15	1.84 .09	3.48 .75	4.70 1.04	3.08 .49	2.65 .29	2.72 .24	1.12 .10	.61 .02	.37 .00	22.55 3.23		
MEAN P 4/ 72 YR	.47	.78	1.19	2.27	3.32	4.28	3.18	2.71	2.67	1.39	.87	.62	23.75		

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	7-29	.64	7-29	.16	7-29	.16	2-8	.26	2-8	.27	2-8	.27	2-8	.27	2-8	.27

MAXIMUMS FOR PERIOD OF RECORD																
1939 TO 1966	6-14 1960	4.24	7-3 1959	1.75	5-21 1965	2.26	5-21 1965	2.78	5-21 1965	5.41	5-21 1965	5.77	5-21 1965	5.77	5-21 1965	6.37

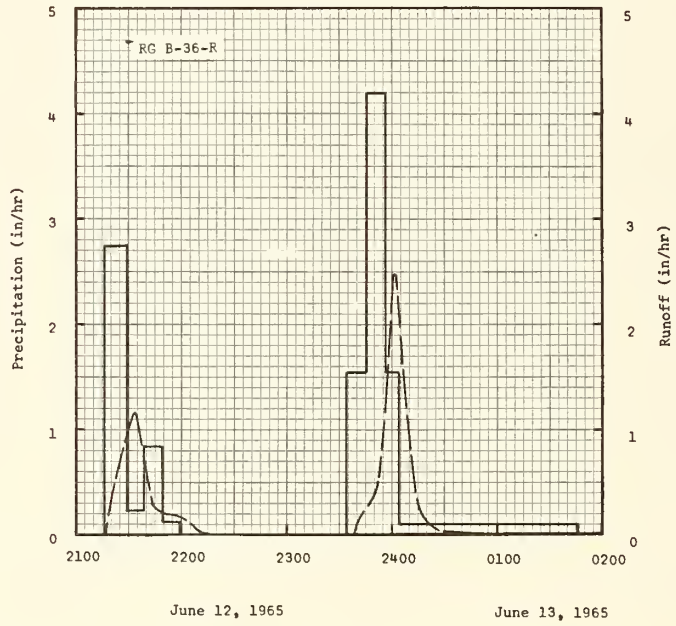
NOTES: Watershed conditions: Cultivated, planted to sorghum. Yield: 49.4 bu. per acre. General crop rotation of fallow-wheat-sorghum, using tillage practices. 1/ Precipitation from rain gage B-36-R. 2/ Based on meteorological station records. 3/ Station records began Apr. 1, 1939; part year records for 1939 and period of no record, 1957, not included in station averages. 4/ Mean P based on 72-yr (1893-1964) U. S. Weather Bureau record period at Red Cloud, Nebr.

1965			SELECTED RUNOFF EVENT				HASTINGS, NEBRASKA				WATERSHED 5-H				44.9	
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ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME DF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME DF DAY	RATE (in/hr)	ACC. (inches)
Event of June 12, 13, 1965										
	RG B-36-R			RG	B-36-R					
5-14	.71	.03	6-12	2116	.00	.00	6-12	2116	.00	.00
5-17	.20	.00		2129	2.77	.60		2121	.40	.01
5-21	3.36	2.28		2139	.24	.64		2128	.84	.08
5-22	4.08	3.48		2149	.84	.78		2133	1.17	.17
5-24	1.14	.60		2159	.12	.80		2138	.78	.25
5-25	.15	T		2334	.00	.80		2144	.28	.30
5-31	.07	.00		2347	1.54	.98		2151	.20	.33
6- 1	1.02	.25		2357	4.20	1.68		2200	.18	.36
6- 2	.10	.03						2210	.03	.38
6- 5	.32	.00	6-13	0004	1.54	1.86		2220	.00	.38
				0147	.10	1.93				
6- 6	.12	.00						2338	.00	.38
6- 9	.78	.05		RG	B-36-R	1.86		2346	.27	.39
6-10	.41	.07						2350	.40	.41
6-11	.09	.00						2357	1.17	.50
							6-13	0002	2.48	.64
								0007	1.11	.78
								0013	.40	.86
								0027	.03	.90
								0052	.00	.90

Watershed conditions: In wheat. 18" to 30" high, in good condition with ground cover 85%.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 4.054. FOR MAP OF AREA, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 44.9-4.



June 12, 1965

June 13, 1965

HASTINGS, NEBRASKA WATERSHED 5-H

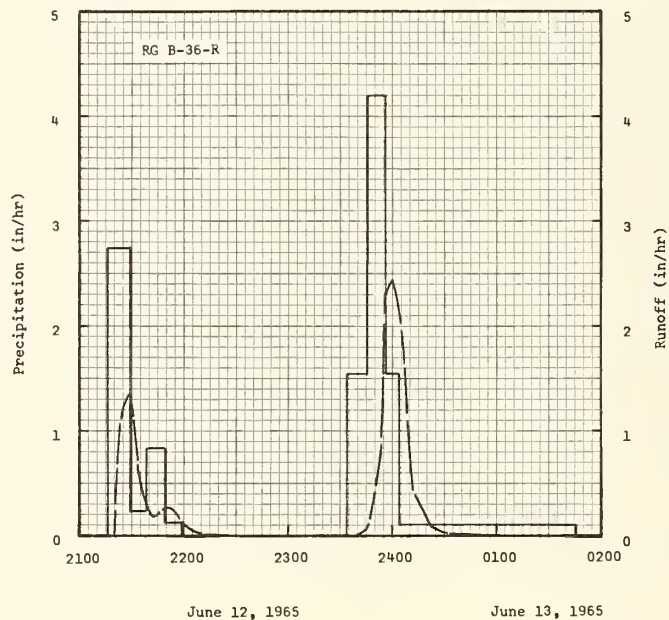
MONTHLY PRECIPITATION AND RUNOFF (inches)						HASTINGS, NEBRASKA							WATERSHED 6-H	
						AREA-4.01 ACRES								
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P 1/ Q	2/.05 .00	2/ 1.17 .23	2/ .43 T	.59 .00	.66 .00	3.03 .03	3.97 .19	1.67 T	1.13 .00	.78 .00	2/ .00	T 2/ .22 .00	13.70 .45
	STA AV 3/P (40-66) Q	.31 .02	.56 .03	1.11 .15	1.84 .09	3.48 .80	4.70 1.12	3.08 .55	2.65 .27	2.72 .38	1.12 .08	.61 .03	.37 .00	22.55 3.52
	MEAN P 4/ 72 YR	.47	.78	1.19	2.27	3.32	4.28	3.18	2.71	2.67	1.39	.87	.62	23.75

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	7-29	.72	7-29	.12	2-8	.14	2-8	.23	2-8	.23	2-8	.23	2-8	.23	2-8	.23
MAXIMUMS FOR PERIOD OF RECORD																
1939 TO 1966	5-22 1954	5.70	7-10 1951	1.66	5-21 1965	2.26E	5-21 1965	2.78E	5-21 1965	5.41E	5-21 1965	5.77E	5-21 1965	5.77E	5-21 1965	6.37E

NOTES: Watershed conditions: Cultivated, planted to sorghum. Yield: 46.8 bu. per acre. General crop rotation of fallow-wheat-sorghum, using minimum tillage practices. 1/ Precipitation from rain gage B-36-R. 2/ Based on meteorological station records. 3/ Station records began Apr. 1, 1939; part year records for 1939 and period of no record 1957, not included in station average. 4/ Mean P based on 72-yr (1893-1964) U. S. Weather Bureau record period at Red Cloud, Nebr.

1965 SELECTED RUNOFF EVENT			HASTINGS, NEBRASKA			WATERSHED 6-H			44.10		
ANTECEDENT CONDITIONS			RAINFALL			RUNOFF					
DATE MO-OAY	RAINFALL (inches)	RUNOFF (inches)	DATE MD-OAY	TIME DF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
Event of June 12, 13, 1965											
	RC B-36-R			RG	B-36-R						
5-14	.71	T	6-12	2116	.00	.00	6-12	2120	.00	.00	
5-17	.20	.00		2129	2.77	.60		2123	1.08	.03	
5-21	3.36	2.44E		2139	.24	.64		2128	1.36	.13	
5-22	4.08	3.44E		2149	.84	.78		2133	.69	.22	
5-24	1.14	.48		2159	.12	.80		2136	.40	.25	
5-25	.15	T		2334	.00	.80		2142	.19	.27	
5-31	.07	.00		2347	1.54	.98		2150	.27	.30	
6- 1	1.02	.28		2357	4.20	1.68		2200	.09	.33	
6- 2	.10	.02						2210	.01	.34	
6- 5	.32	T	6-13	0004	1.54	1.86		2230	.00	.35	
				0147	.10	1.93					
6- 6	.12	T						2339	.00	.35	
6- 9	.78	.07						2343	.06	.35	
6-10	.41	.03						2349	.40	.37	
6-11	.09	.00						2354	.84	.43	
								2400	2.43	.62	
								6-13	0008	1.19	.88
									0012	.40	.93
									0017	.22	.95
									0022	.09	.97
									0032	.02	.97
									0100	.00	.98

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 4.044. FOR MAP OF AREA, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 44.10-1.



HASTINGS, NEBRASKA WATERSHED 6-H

MONTHLY PRECIPITATION AND RUNOFF (inches)						HASTINGS, NEBRASKA						WATERSHED 7-R		
						AREA-4.26 ACRES								
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P 1/2	.05	1.17	.43	.59	.66	3.03	3.97	1.67	1.13	.78	T	.22	13.70
	Q	.00	.01	.00	.00	.00	.03	T	.00	.00	.00	.00	.00	.04
	STA AV 3/P (40-66)	.31	.56	1.11	1.84	3.48	4.70	3.08	2.65	2.72	1.12	.61	.37	22.55
	Q	.02	.03	.15	.09	.73	.89	.44	.19	.36	.08	.03	.00	3.01
	MEAN P 4/72 YR	.47	.78	1.19	2.27	3.32	4.28	3.18	2.71	2.67	1.39	.87	.62	23.75

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	6-8	.19	6-8	.03	6-8	.03	6-8	.03	6-8	.03	6-8	.03	6-8	.03	6-8	.03

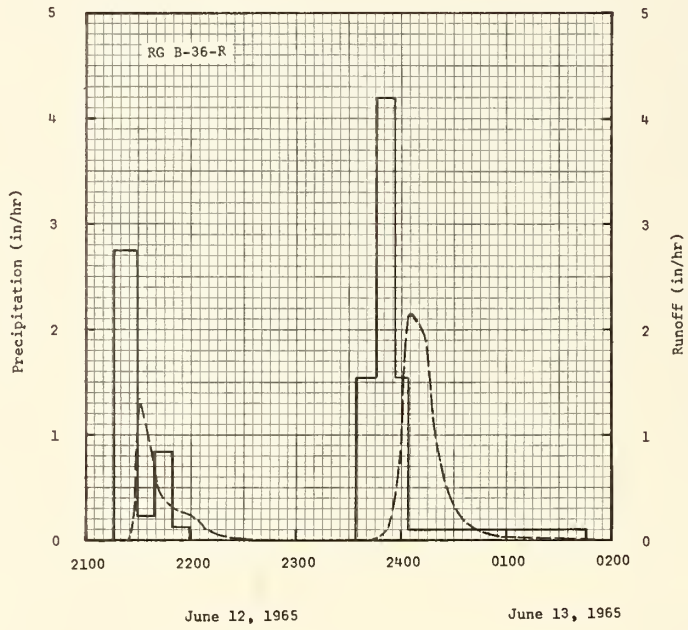
MAXIMUMS FOR PERIOD OF RECORD																
1939 TO 1966	5-22 1954	4.76	7-3 1959	2.04	7-3 1959	2.06	5-22 1965	3.13	5-21 1965	4.76	5-21 1965	5.06	5-21 1965	5.06	5-21 1965	5.35

NOTES: Watershed conditions: Cultivated, planted to wheat in Sept. 1965. Yield: 19 bu. per acre. General crop rotation of sorghum-fallow-wheat, using minimum tillage practices. 1/ Precipitation from rain gage B-36-R. 2/ Based on meteorological station records. 3/ Station records began Apr. 1, 1939; part year records for 1939 and period of no record for 1957 not included in station averages. 4/ Mean P based on 72-yr (1893-1964) U. S. Weather Bureau record period at Red Cloud, Nebr.

1965 SELECTED RUNOFF EVENT HASTINGS, NEBRASKA WATERSHED 7-R 44.11

ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME DF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME DF DAY	RATE (in/hr)	ACC. (inches)
Event of June 12, 13, 1965										
	RG B-36-R			RG	B-36-R					
5-14	.71	.01	6-12	2116	.00	.00	6-12	2125	.00	.00
5-17	.20	.00		2129	2.77	.60		2128	.37	.01
5-21	3.36	1.57		2139	.24	.64		2131	1.30	.05
5-22	4.08	3.49		2149	.84	.78		2138	.71	.17
5-24	1.14	.28		2159	.12	.80		2142	.51	.21
5-25	.15	.01		2334	.00	.80		2147	.37	.25
5-31	.07	.00		2347	1.54	.98		2202	.21	.32
6- 1	1.02	.26		2357	4.20	1.68		2210	.09	.34
6- 2	.10	.02						2220	.03	.35
6- 5	.32	T	6-13	0004	1.54	1.86		2235	.00	.35
				0147	.10	1.93				
6- 6	.12	.00						2343	.00	.35
6- 9	.78	.10						2356	.37	.38
6-10	.41	.08						2400	.98	.42
6-11	.09	.01								
							6-13	0004	2.14	.53
								0013	1.91	.83
								0017	1.24	.93
								0022	.73	1.01
								0029	.37	1.08
								0040	.10	1.12
								0055	.03	1.14
								0115	.01	1.14
								0150	.00	1.14

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 4.296. FOR MAP OF AREA, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 44.11-4.



HASTINGS, NEBRASKA WATERSHED 7-H

MONTHLY PRECIPITATION AND RUNOFF (inches)						HASTINGS, NEBRASKA								WATERSHED 8-H	
						AREA-3,97 ACRES									
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL		
1966 P 1/ Q	2/.05	2/.17	2/.43	.59	.66	3.03	3.97	1.67	1.13	.78	2/.00	T 2/.22	13.70		
STA AV 2/P (40-66) Q	.32	.59	1.17	1.91	3.62	4.75	3.19	2.78	2.70	1.17	.66	.40	23.26		
MEAN P 4/ 72 YR	.47	.78	1.19	2.27	3.32	4.28	3.18	2.71	2.67	1.39	.87	.62	23.75		

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	7-29	.60	7-29	.16	7-29	.16	7-29	.16	7-29	.16	7-29	.16	7-29	.16	7-26	.24

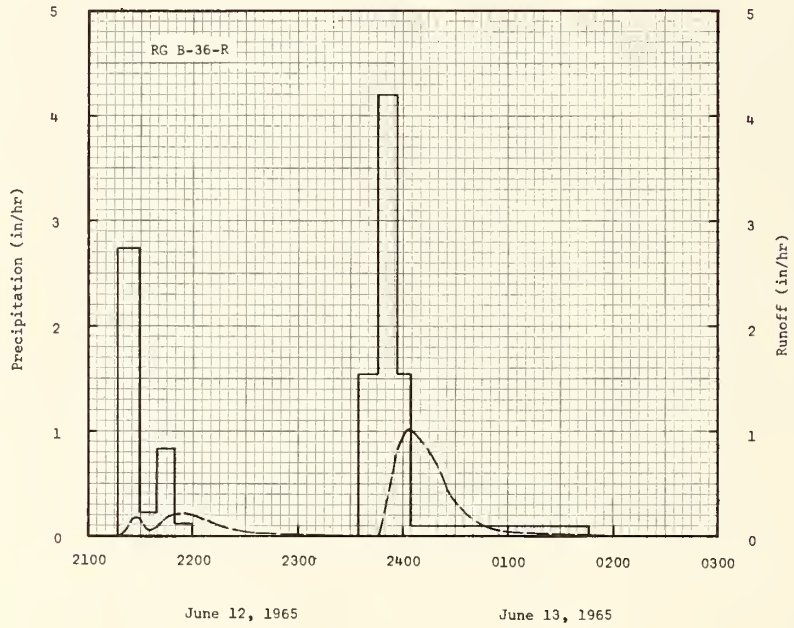
MAXIMUMS FOR PERIOD OF RECORD																
1939 TO 1966	6-10 1943	3.66	7-3 1959	1.67	5-22 1965	1.85	6-1 1951	2.35	5-21 1965	4.19	5-21 1965	4.35	5-21 1965	4.35	5-21 1965	4.68

NOTES: Watershed conditions: cultivated, fallow. General crop rotation of wheat-sorghum-fallow, using minimum tillage practices. 1/ Precipitation from rain gage B-36-R. 2/ Based on meteorological station records. 3/ Station records began Mar. 27, 1939; part year records for 1939 and period of no records, 1955 through 1957, not included in station averages. 4/ Mean P based on 72-YR (1893-1964) U. S. Weather Bureau record period at Red Cloud, Nebr.

1965 SELECTED RUNOFF EVENT			HASTINGS, NEBRASKA				WATERSHED 8-H				44.12		
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF						
DATE MD-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MD-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MD-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)			
Event of June 12, 13, 1965													
	RG B-36-R			RG	B-36-R								
5-14	.71	T	6-12	2116	.00	.00	6-12	2116	.00	.00			
5-17	.20	.00		2129	2.77	.60		2121	.01	.01	T		
5-21	3.36	1.88		2139	.24	.64		2125	.17	.01			
5-22	4.08	2.47		2149	.84	.78		2137	.07	.04			
5-24	1.14	.33		2159	.12	.80		2147	.19	.06			
5-25	.15	.00		2334	.00	.80		2152	.22	.07			
5-31	.07	.00		2347	1.54	.98		2206	.13	.12			
6- 1	1.02	.04		2357	4.20	1.68		2236	.03	.16			
6- 2	.10	.06						2331	.00	.17			
6- 5	.32	.00	6-13	0004	1.54	1.86		2346	.03	.17			
6- 6	.12	.00		0147	.10	1.93				.24			
6- 9	.78	.02						2356	.79	.24			
6-10	.41	.03					6-13	0003	1.02	.35			
6-11	.09	.00						0006	.98	.40			
								0026	.45	.64			
								0056	.06	.76			
								0221	.00	.81			

Watershed conditions: No spring tillage. Cover is weeds and wheat stubble.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 4,003. FOR MAP OF AREA, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 44-12,4.



HASTINGS, NEBRASKA WATERSHED 8-H

MONTHLY PRECIPITATION AND RUNOFF (inches)						HASTINGS, NEBRASKA							WATERSHED 18-H	
						AREA-3.74 ACRES								
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P 1/ Q	2/.05 .00	2/1.17 .03	2/.43 .00	.72 .00	.94 T	2.87 .07	4.53 .33	1.71 .00	1.19 T	.81 .00	2/.00 .00	T 2/.22 .00	14.64 .43
	STA AV ² /P (40-66) Q	.30	.57	1.20	2.02	3.90	5.09	3.16	3.00	2.73	1.19	.67	.41	24.24
	MEAN P 4/ 72 YR	.02	.05	.04	.05	.58	.89	.35	.16	.14	.06	.02	.00	2.36
		.47	.78	1.19	2.27	3.32	4.28	3.18	2.71	2.67	1.39	.87	.62	23.75

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL															
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		6 DAYS			
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME		
1966	7-26	.85	7-26	.26	7-26	.28	7-26	.28	7-26	.28	7-26	.28	7-26	.28	7-26	.28	7-26	.33

MAXIMUMS FOR PERIOD OF RECORD

1939 TO 1966	5-21 1965	2.89	7-3 1959	2.01E	5-21 1965	2.32	5-21 1965	2.86	5-21 1965	5.30	5-21 1965	5.58	5-21 1965	5.58	5-21 1965	6.02
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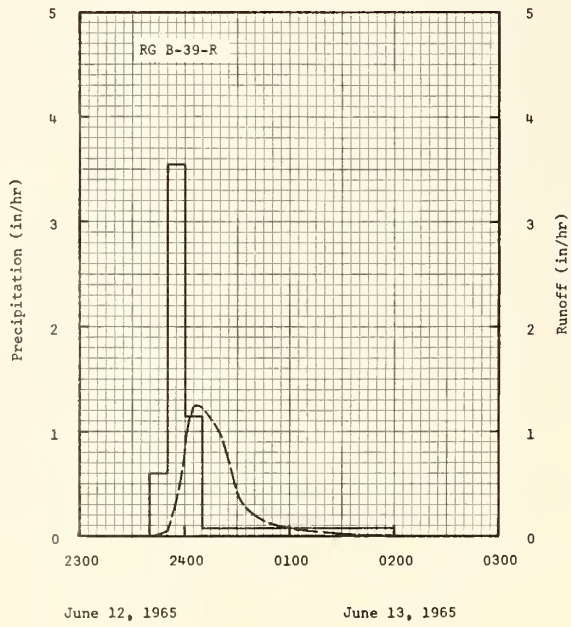
NOTES: Watershed conditions: Native grass pasture, heavily grazed, fair cover condition. 1/ Precipitation from rain gage B-39-R. 2/ Based on meteorological station records. 3/ Station records began August 1, 1939; part year records for 1939 and period of no record for 1956 not included in station averages. 4/ Mean P based on 72-yr (1893-1964) U. S. Weather Bureau record period at Red Cloud, Nebr.

1965 SELECTED RUNOFF EVENT HASTINGS, NEBRASKA WATERSHED 18-H 44.22

ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
Event of June 12, 13, 1965										
	RG B-39-R			RG	B-39-R					
5-14	.73	.00	6-12	2340	.00	.00	6-12	2340	.00	.00
5-17	.09	.00		2350	.60	.10		2350	.01	T
5-21	3.28	.00		2400	3.54	.69		2400	.87	.07
5-22	4.19	.00								
5-24	1.09	.00	6-13	0010	1.14	.88	6-13	0006	1.23	.18
				0200	.08	1.02		0010	1.12	.26
5-25	.16	.00						0030	.37	.51
5-31	.08	.00						0100	.07	.62
6- 1	.98	.22						0140	.01	.64
6- 2	.11	.12								
6- 5	.36	.01						0240	.00	.65
6- 7	.13	.00								
6- 9	.64	.03								
6-10	.42	.02								
6-11	.08	.00								
6-12	5/.51	6/.29								

Watershed conditions: In permanent pasture. Heavy grazing began in April. Grass 3" to 6" high. Ground cover 75%.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 3.771. FOR MAP OF AREA, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 44.22-4. 5/ RAINFALL FROM 2118 TO 2228. 6/ RUNOFF FROM 2121 TO 2340.



HASTINGS, NEBRASKA WATERSHED 18-H

MONTHLY PRECIPITATION AND RUNOFF (inches)						HASTINGS, NEBRASKA								WATERSHED 22-H		
						AREA-3.83 ACRES										
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL		
1966	P <u>1/</u>	2/ .05	2/ 1.17	2/ .43	.68	.76	3.11	4.20	1.76	1.49	.96	2/ T	2/ .22	14.83		
	Q	.00	.21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21		
	STA AV <u>3/</u> P	.28	.60	.98	.98	2.89	5.21	4.14	3.40	3.84	1.00	.24	.27	23.83		
	(62-66) Q	.00	.04	.00	.00	.50	.07	.08	.23	.05	.02	.00	.00	.99		
	MEAN P <u>4/</u>															
72	YR	.47	.78	1.19	2.27	3.32	4.28	3.18	2.71	2.67	1.39	.87	.62	23.75		
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE	MAXIMUM VOLUME FOR SELECTED TIME INTERVAL														
		1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS		
		DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	
1966	2-8	.14E	2-8	.11E	2-8	.11E	2-8	.29E	2-8	.31E	2-8	.31E	2-8	.31E	2-8	.31E
MAXIMUMS FOR PERIOD OF RECORD																
19 62 TO	8-23	3.18	5-22	1.17	5-22	1.68	5-22	1.72	5-21	2.60	5-21	2.62	5-21	2.62	5-21	2.70
19 66	1962		1965		1965		1965		1965		1965		1965		1965	
NOTES: Watershed conditions: Reseeded to native grasses in 1962. Excellent cover condition. Yield: 1,740 lbs. per acre. <u>1/</u> Precipitation from rain gage C-40-R. <u>2/</u> Based on meteorological station records. <u>3/</u> Precipitation and runoff records under grass cover began June 1, 1962; for comparative data under cultivation (1941-1954) see p. 44-26-1 of 1962 volume. <u>4/</u> Mean P based on 72-YR (1893-1964) U. S. Weather Bureau record period at Red Cloud, Nebr.																
NO SELECTED RUNOFF EVENT REPORTED FOR 1966. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES 1962, USDA MISC. PUB. 1070, P. 44.26-3.																

MONTHLY PRECIPITATION AND RUNOFF (inches)						HASTINGS, NEBRASKA							WATERSHED 23-H			
						AREA-4.20 ACRES										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ^{1/}	2/ .05	2/ 1.17	2/ .43	.68	.76	3.11	4.20	1.76	1.49	.96	2/ T	2/ .22	14.83			
Q	.00	.21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21			
STA AV ^{3/}	.28	.60	.98	.98	2.89	5.21	4.14	3.40	3.84	1.00	.24	.27	23.83			
(62-66) Q	.00	.04	.00	.00	.50	.09	.13	.25	.05	.01	.00	.00	1.07			
MEAN P ^{4/}																
72 YR	.47	.78	1.19	2.27	3.32	4.28	3.18	2.71	2.67	1.39	.87	.62	23.75			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-8	.10E	2-8	.07E	2-8	.08E	2-8	.20E	2-8	.21E	2-8	.21E	2-8	.21E	2-8	.21E
MAXIMUMS FOR PERIOD OF RECORD																
1962 TO	8-23	3.24	5-22	1.17E	5-22	1.68E	5-22	1.72E	5-22	2.60E	5-21	2.62E	5-21	2.62E	5-21	2.70E
19 66	1962		1965		1965		1965		1965		1965		1965		1965	
NOTES: Watershed conditions: Reseeded to native grasses in 1962. Excellent cover conditions. Yield: 1,900 lbs. per acre. ^{1/} Precipitation from rain gage C-40-R. ^{2/} Based on meteorological station records. ^{3/} Precipitation and runoff records under grass cover began June 1, 1962; for comparative data under cultivation (1941-1954) see p. 44.27-1 of 1962 volume. ^{4/} Mean P based on 72-YR (1893-1964) U. S. Weather Bureau record period at Red Cloud, Nebr.																
NO SELECTED RUNOFF EVENT REPORTED FOR 1966. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES 1962, USDA MISC. PUB. 1070, P. 44.27-3.																

MONTHLY PRECIPITATION AND RUNOFF (inches)						HASTINGS, NEBRASKA						WATERSHED 25-H	
						AREA—2.24 ACRES							
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P <u>1/</u>	<u>2/</u> .05	<u>2/</u> 1.17	<u>2/</u> .43	.59	.66	3.03	3.97	1.67	1.13	.78	<u>2/</u>	<u>T</u> <u>2/</u> .22	13.70
Q	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.01
STA AV <u>3/</u> P	.27	.76	.85	.95	3.31	5.21	3.75	2.85	3.76	.70	.24	.23	22.88
(63-66) Q	.00	.00	.01	.00	.66	.14	.01	.00	.00	.00	.00	.00	.82
MEAN P <u>4/</u>													
72 YR	.47	.78	1.19	2.27	3.32	4.28	3.18	2.71	2.67	1.39	.87	.62	23.75

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	6-8	.04	6-8	.01	6-8	.01	6-8	.01	6-8	.01	6-8	.01	6-8	.01	6-8	.01

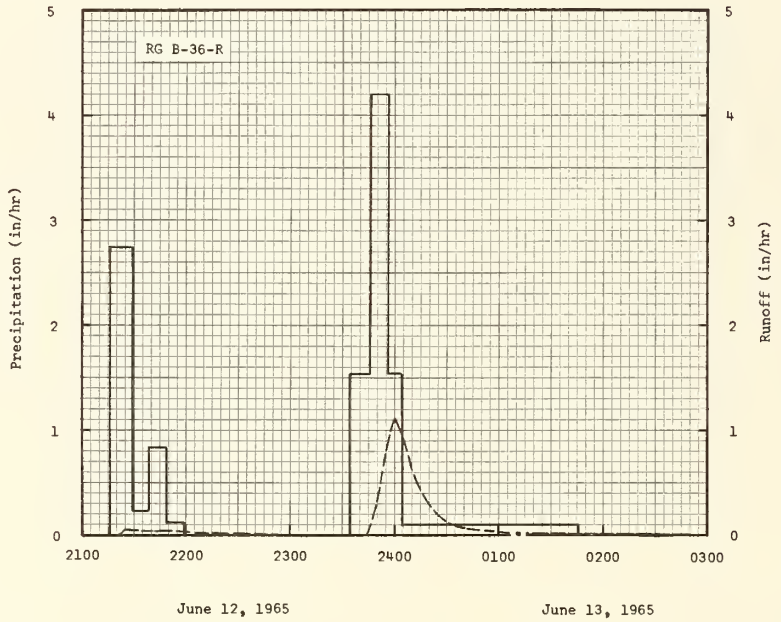
MAXIMUMS FOR PERIOD OF RECORD																
1963 TO	5-21	1.75	5-21	.90	5-21	1.53	5-21	2.64	5-21	2.64	5-21	2.64	5-21	2.64	5-21	2.81
19 66	1965		1965		1965		1965		1965		1965		1965		1965	

NOTES: Watershed conditions: native grass meadow, good cover condition. Yield: 420 lbs. per acre. 1/ Precipitation data obtained from rain gage B-36-R. 2/ Based on meteorological station records. 3/ Station records began April 26, 1963. 4/ Mean P based on 72-yr (1893-1964) U. S. Weather Bureau record period at Red Cloud, Nebr.

1965			HASTINGS, NEBRASKA				WATERSHED 25-H			
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MD-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MD-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MD-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
Event of June 12, 13, 1965										
	RG B-36-R			RG	B-36-R					
5-14	.71	.00	6-12	2116	.00	.00	6-12	2120	.00	.00
5-17	.20	.00		2129	2.77	.60		2125	.06	.00
5-21	3.36	.84		2139	.24	.64		2140	.03	.01
5-22	4.08	1.63		2149	.84	.78		2148	.04	.02
5-24	1.14	.17		2159	.12	.80		2215	.01	.03
5-25	.15	.00		2334	.00	.80		2315	.00	.04
5-31	.07	.00		2347	1.54	.98		2343	.00	.04
6- 1	1.02	.01		2357	4.20	1.68		2353	.61	.09
6- 2	.10	.00						2400	1.12	.19
6- 5	.32	.00	6-13	0004	1.54	1.86				
				0147	.10	1.93	6-13	0010	.61	.33
6- 6	.12	.00						0030	.14	.46
6- 9	.78	.00						0100	.03	.50
6-10	.41	.00						0155	.01	.51
6-11	.09	.00						0300	.00	.51

Watershed conditions: Grass meadow. Grass 8" to 20" high in good condition; ground cover estimated at 85%.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 2.259. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES 1963, USDA MISC. PUB. 1164, P. 44.29-2.



HASTINGS, NEBRASKA WATERSHED 25-H

MONTHLY PRECIPITATION AND RUNOFF (inches) 1/						SAFFORD, ARIZONA WATERSHED 45.001 AREA—519.3 ACRES							45.01
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
YEAR													
P													
O													
STA AVG P													
D													
MEAN P 2/													
68 YR	.65	.67	.62	.29	.14	.27	1.82	1.70	1.04	.63	.58	.74	9.15

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	9-15	.3540	9-15	.2795	9-15	.3355	9-15	.4054E	9-15	.4061E	9-15	.4061E	9-15	.4061E	9-15	.4061E

MAXIMUMS FOR PERIOD OF RECORD 1/															
19	TO														
19															

NOTES: 1/ Not calculated. Data are being re-evaluated. As soon as re-tabulation is completed, revised data will be reported for these two sections. 2/ Mean P based on 68-yr (1899-1966) U.S. Weather Bureau record period at Safford, Ariz.

1966 SELECTED RUNOFF EVENT			SAFFORD, ARIZONA WATERSHED 45.001									
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ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-OAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-OAY	TIME OF OAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-OAY	TIME OF OAY	RATE (in/hr)	ACC. (inches)
<u>Event of September 15, 1966</u>										
	RG R-2		9-15	RG	R-2		9-15			
8-18	.05	.00		0200	0.00	0.00		0252E	.000E	.0000
8-20	.33	.00		0205	0.24	0.02		0253	.011	.0001
8-22	.04	.00		0216	0.60	0.13		0254	.043	.0005
8-23	.06	.00		0222	0.20	0.15		0255	.047	.0013
9-11	.07	.00		0226	1.05	0.22		0300	.049	.0053
9-12	.25	.00		0229	2.40	0.34		0305	.053	.0096
9-13	.61	.00		0231	1.80	0.40		0307	.056	.0114
9-14	.10	.00		0242	0.27	0.45		0310	.053	.0142
								0314	.048	.0176
				0600	0.00	0.00		0317	.049	.0200
				0604	1.65	0.11		0320	.045	.0224
				0606	3.00	0.21		0325	.036	.0258
				0611	3.48	0.50		0331	.028	.0290
				0618	3.17	0.87		0335	.032	.0310
				0626	0.90	0.99		0340	.030	.0336
				0721	0.15	1.13		0342	.033	.0346
								0343	.038	.0352
								0345	.047	.0366
								0350	.054	.0409
								0353	.055	.0436
								0355	.054	.0454
								0400	.047	.0497
								0405	.037E	.0532E
								0410	.029E	.0559E
								0415	.023E	.0581E
								0420	.017E	.0598E
								0425	.012E	.0610E
								0430	.009E	.0619E
								0435	.006E	.0625E
								0440	.005E	.0630E
								0450	.003E	.0636E
								0500	.002E	.0639E
								0510	.001E	.0641E
								0525	.000E	.0643E

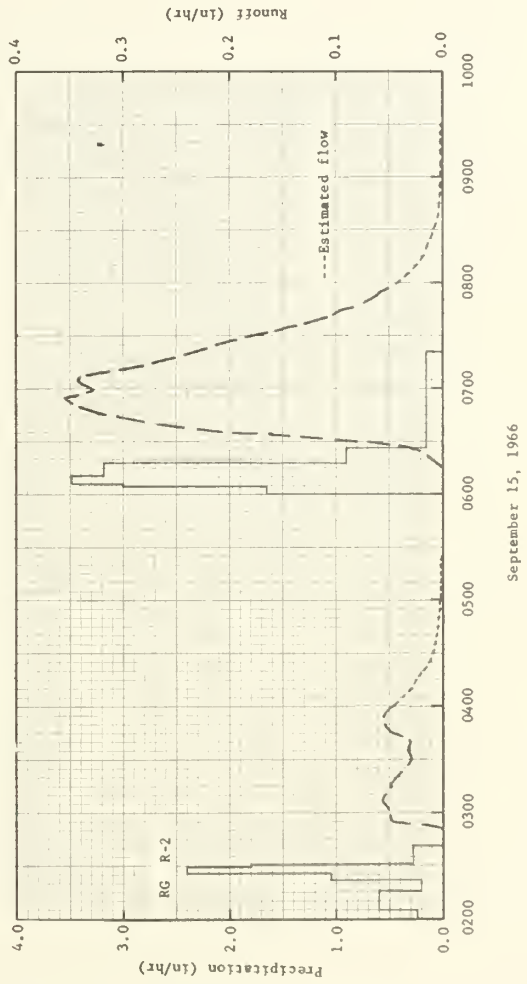
Watershed conditions: Area is 85 percent bare. Sparse vegetation is predominantly shrubs (creosote bush, snakeweed, and catclaw), with some short grasses (tobosa, three-awn, and curly mesquite).

Continued on next page

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 523.63. FOR TOPOGRAPHIC MAP OF WATERSHED SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, FOR 1960-61, USDA MISC. PUB. 994, P. 45.1-4 (REPRINTED). SELECTED EVENT IS FROM RE-EVALUATED DATA.

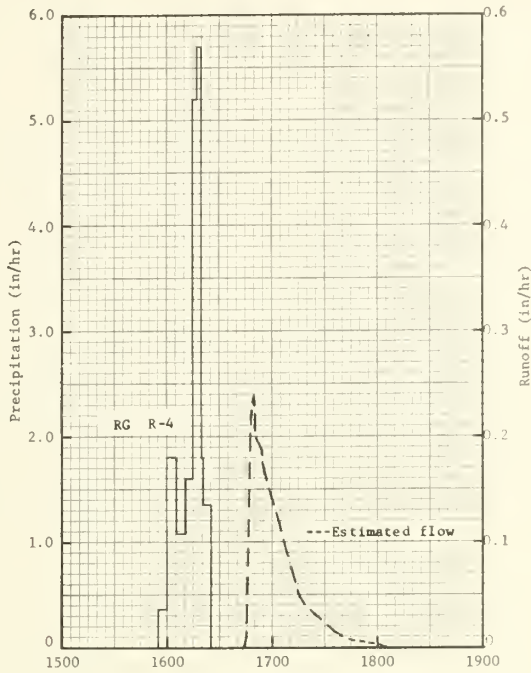
1966			SELECTED RUNOFF EVENT				SAFFORD, ARIZONA			WATERSHED 45.001		
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF					
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)		
<u>Event of September 15, 1966-continued</u>												
								0540	.000E	.0643E		
								0555	.000E	.0644E		
								0615	.000E	.0644E		
								0616	.001E	.0644E		
								0617	.004E	.0644E		
								0618	.008E	.0645E		
								0620	.010	.0648		
								0623	.015	.0654		
								0624	.017	.0657		
								0625	.022	.0660		
								0626	.028	.0664		
								0627	.036	.0670		
								0628	.045	.0676		
								0629	.055	.0685		
								0630	.069	.0695		
								0631	.097	.0709		
								0632	.133	.0728		
								0633	.160	.0753		
								0634	.179	.0781		
								0635	.199	.0812		
								0636	.218	.0847		
								0638	.237	.0923		
								0640	.266	.1007		
								0642	.289	.1099		
								0645	.311	.1249		
								0650	.342	.1521		
								0654	.354	.1753		
								0656	.342	.1869		
								0659	.327	.2036		
								0705	.342	.2371		
								0707	.340	.2484		
								0710	.313	.2648		
								0713	.289	.2798		
								0715	.268	.2891		
								0720	.237	.3101		
								0724	.212	.3251		
								0728	.193	.3386		
								0730	.177	.3448		
								0732	.158	.3504		
								0735	.144	.3579		
								0738	.125	.3646		
								0741	.108	.3705		
								0745	.094	.3772		
								0748	.077	.3815		
								0752	.065	.3862		
								0755	.058	.3893		
								0757	.051	.3911		
								0800	.043E	.3935E		
								0805	.033E	.3966E		
								0810	.024E	.3990E		
								0815	.018E	.4008E		
								0820	.014E	.4022E		
								0825	.011E	.4032E		
								0830	.008E	.4040E		
								0835	.005E	.4045E		
								0845	.003E	.4052E		
								0855	.002E	.4056E		
								0905	.001E	.4058E		
								0915	.001E	.4060E		
								0930	TE	.4061E		
								1000	.000E	.4061E		

NOTE: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 523.63.



SAFFORD, ARIZONA WATERSHED 45,001

MONTHLY PRECIPITATION AND RUNOFF (inches) ^{1/}							SAFFORD, ARIZONA WATERSHED 45.002 AREA—682.4 ACRES (1.07 SQ. MILES)							45.02		
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
YEAR																
P																
Q																
STA AVG P																
Q																
MEAN P ^{2/}	.65	.67	.62	.29	.14	.27	1.82	1.70	1.04	.63	.58	.74	9.15			
68 YR																
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	7-27	.2380	7-27	.0776E	7-27	.0795E	7-27	.0795E	7-27	.0795E	7-27	.0795E	7-27	.0795E	7-27	.1280E
MAXIMUMS FOR PERIOD OF RECORD ^{1/}																
19	TO															
19																
NOTES: ^{1/} Not calculated. Data are being re-evaluated. As soon as re-tabulation is completed, revised data will be reported for these two sections. ^{2/} Mean P based on 68-yr (1899-1966) U.S. Weather Bureau record period at Safford, Ariz.																
1966 SELECTED RUNOFF EVENT							SAFFORD, ARIZONA WATERSHED 45.002									
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF									
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)						
	RG R-4		7-27	RG	R-4		7-27									
6-29	.06	.00		1555	0.00	0.00		1643	.000	.0000						
7-18	.31	.00		1600	0.36	0.03		1644	.000	.0000						
7-19	.05	.00		1606	1.80	0.21		1645	.008	.0001						
7-26	.31	.00		1611	1.08	0.30		1646	.021	.0003						
				1614	1.60	0.38		1647	.109	.0014						
				1617	5.20	0.64		1648	.217	.0041						
				1619	5.70	0.83		1649	.234	.0079						
				1621	1.80	0.89		1650	.238	.0118						
				1625	1.35	0.98		1651	.205	.0155						
								1652	.196	.0188						
								1653	.192	.0221						
								1655	.176	.0282						
								1700	.141	.0414						
								1705	.112	.0519						
								1710	.081	.0600						
								1715	.051	.0655						
								1725	.031	.0723						
								1735	.015	.0761						
								1745	.007E	.0780E						
								1755	.004E	.0789E						
								1805	.001E	.0793E						
								1815	.000E	.0794E						
								1825	.000E	.0795E						
								1835	.000E	.0795E						
<p>Watershed conditions: Sparsely vegetated rangeland. About 75% of area is bare. Vegetative cover is about equally divided between short grasses (black, hairy and side-oats grama) and shrubs (creosotebush, beargrass and mesquite).</p>																
<p>NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 688.08. FOR TOPOGRAPHIC MAP OF WATERSHED SEE SELECTED RUNOFF EVENTS FOR SMALL AGRICULTURAL WATERSHED IN THE UNITED STATES. USDA. ARS. JAN. 1960, P. 45.2-5. SELECTED EVENT OBTAINED FROM RE-EVALUATED DATA.</p>																



July 27, 1966

SAFFORD, ARIZONA WATERSHED 45.002

45.2-2

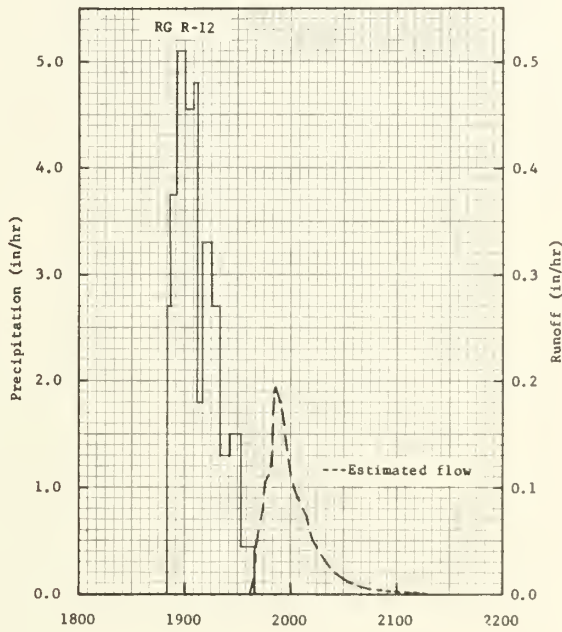
MONTHLY PRECIPITATION AND RUNOFF (inches) ^{1/}						SAFFORD, ARIZONA WATERSHED 45.004 AREA—764 ACRES (1.19 SQ. MILES)							45.03
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
MEAN P ^{2/}	.65	.67	.62	.29	.14	.27	1.82	1.70	1.04	.63	.58	.74	9.15
68 YR													
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS ^{1/}													
MAXIMUMS FOR PERIOD OF RECORD ^{1/}													
Notes: ^{1/} Data are being re-evaluated. As soon as re-tabulation is completed, revised data will be reported for these sections. ^{2/} Mean P based on 68-yr. (1899-1966) U.S. Weather Bureau record period at Safford, Ariz													
NO SUITABLE SELECTED RUNOFF EVENT TO REPORT. FOR MAP OF WATERSHED (REPRINTED), SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHED IN THE UNITED STATES, 1960-61, USDA, MISC. PUB. 994, P. 45.3-4.													

Cooperative Research Project of USDA and Arizona Agricultural Experiment Station

(See 45.2-2 above)

45.3-1

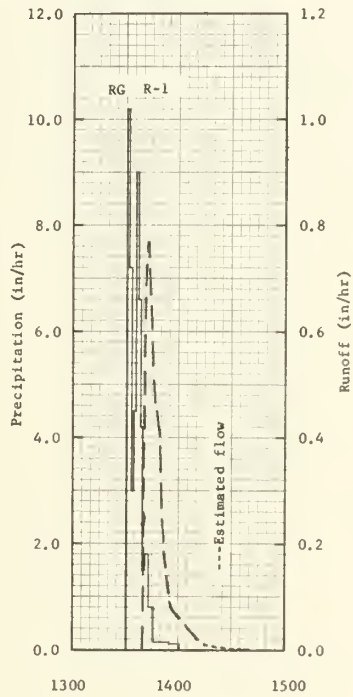
MONTHLY PRECIPITATION AND RUNOFF (inches) ^{1/}							SAFFORD, ARIZONA WATERSHED 45.005 AREA—723 ACRES (1.13 SQ. MILES)							45.04		
MONTH YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
P																
O																
STA AVG P																
MEAN ^{2/}																
68 YR	.65	.67	.62	.29	.14	.27	1.82	1.70	1.04	.63	.58	.74	9.15			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-14	.1960	8-14	.0700	8-14	.0718E	8-14	.0718E	8-14	.0718E	8-14	.0718E	8-14	.0718E	8-14	.0718E
MAXIMUMS FOR PERIOD OF RECORD ^{1/}																
19	TO															
19																
NOTES: ^{1/} Not calculated. Data are being re-evaluated. As soon as re-tabulation is completed, revised data will be reported for these two sections. ^{2/} Mean P based on 68-yr (1899-1966) U.S. Weather Bureau record period at Safford, Ariz.																
1966 SELECTED RUNOFF EVENT							SAFFORD, ARIZONA WATERSHED 45.005									
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF									
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)						
<u>Event of August 14, 1966</u>																
	RG R-12		8-14	RG	R-12		8-14									
7-19	.21	.00		1850	0.00	0.00		1937	.000	.0000						
7-27	.23	.00		1852	2.70	0.09		1938	.000	.0000						
7-28	.33	.00		1856	3.75	0.34		1939	.015	.0001						
8-3	.26	.00		1900	5.10	0.68		1940	.028	.0005						
8-4	.44	.00		1905	4.56	1.06		1941	.043	.0011						
8-5	.12	.00		1907	4.80	1.22		1942	.053	.0019						
8-8	.04	.00		1910	1.80	1.31		1943	.066	.0029						
				1916	3.30	1.64		1944	.082	.0041						
				1920	2.70	1.82		1945	.093	.0056						
				1926	1.30	1.95		1946	.103	.0072						
				1932	1.50	2.10		1948	.113	.0108						
				1939	0.43	2.15		1950	.150	.0152						
								1952	.196	.0209						
								1954	.180	.0272						
								2000	.119	.0421						
								2002	.103	.0458						
								2005	.087	.0506						
								2010	.067	.0570						
								2015	.044	.0616						
								2020	.031	.0647						
								2025	.020	.0669						
								2030	.015	.0683						
								2035	.010	.0694						
								2040	.007	.0701						
								2046	.005E	.0707E						
								2052	.003E	.0711E						
								2100	.002E	.0714E						
								2108	.001E	.0716E						
								2118	.000TE	.0717E						
								2125	TE	.0717E						
								2150	TE	.0718E						
								2257	.000E	.0718E						
Watershed conditions: About 80% of area is bare. Vegetation consists mostly of short grasses (black grama, sideoats grama, and tobosa), with some shrubs and forbs.																
NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 729.02. FOR TOPOGRAPHIC MAP OF WATERSHED SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA, MISC. PUB. 945, P. 45.4-4. SELECTED EVENT IS FROM RE-EVALUATED DATA.																



August 14, 1966

SAFFORD, ARIZONA WATERSHED 45.005

MONTHLY PRECIPITATION AND RUNOFF (inches) ^{1/}						ALBUQUERQUE, NEW MEXICO WATERSHED 47.001 AREA—246 ACRES							47.01			
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
MEAN 75 YR ^{2/}	.36	.34	.40	.56	.64	.58	1.42	1.26	.89	.79	.42	.46	8.12			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	
1966	6-10	.770	6-10	.1236E	6-10	.1237E	6-10	.1237E	6-10	.1237E	6-10	.1237E	6-10	.1237E	6-10	.1237E
MAXIMUMS FOR PERIOD OF RECORD ^{1/}																
19	TD															
NOTES: ^{1/} Not calculated. Data are being re-evaluated. As soon as re-tabulation is completed, revised data will be reported for these two sections. ^{2/} Mean P based on 75-yr (1892-1966) U. S. Weather Bureau record period at Albuquerque, New Mex.																
1966 SELECTED RUNOFF EVENT				ALBUQUERQUE, NEW MEXICO WATERSHED 47.001												
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF									
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)						
Event of June 10, 1966 ^{3/}																
	RG R-1		6-10	RG	R-1		6-10									
5-12	.02	.00		1331	0.00	0.00		1339	.000	.0000						
6-1	.09	.00		1332	10.20	0.17		1340	.189	.0016						
				1333	7.20	0.29		1341	.390	.0064						
				1334	3.00	0.34		1342	.665	.0152						
				1336	4.50	0.49		1343	.770	.0272						
				1337	9.00	0.64		1344	.665	.0391						
				1338	6.60	0.75		1345	.625	.0499						
				1339	4.20	0.82		1346	.556	.0597						
				1341	1.50	0.87		1348	.472	.0768						
				1343	1.80	0.93		1349	.415	.0842						
				1346	0.80	0.97		1350	.337	.0905						
				1355	0.13	0.99		1351	.283	.0957						
				1401	0.10	1.00		1352	.223	.0999						
								1353	.159	.1031						
								1354	.138	.1056						
								1355	.108	.1076						
								1356	.080	.1092						
								1358	.072	.1117						
								1359	.065	.1129						
								1401	.060	.1149						
								1403	.050	.1168E						
								1406	.038E	.1190E						
								1409	.025E	.1205E						
								1412	.018E	.1216E						
								1415	.011E	.1223E						
								1420	.006E	.1230E						
								1425	.003E	.1234E						
								1430	.001E	.1236E						
								1435	.001E	.1236E						
								1441	TE	.1237E						
								1523	.000E	.1237E						
Watershed conditions: Sparse vegetation consists of short grasses (blue and black grama), shrubs, and a few small juniper and pinon trees.																
NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 248.05. FOR TOPOGRAPHIC MAP OF WATERSHED SEE SELECTED RUNOFF EVENTS FOR SMALL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, USDA, ARS, JAN. 1960, P. 47.1-4. REVISED TOPOGRAPHIC MAP NOT AVAILABLE. ^{3/} SELECTED EVENTS OBTAINED FROM RE-EVALUATED DATA.																



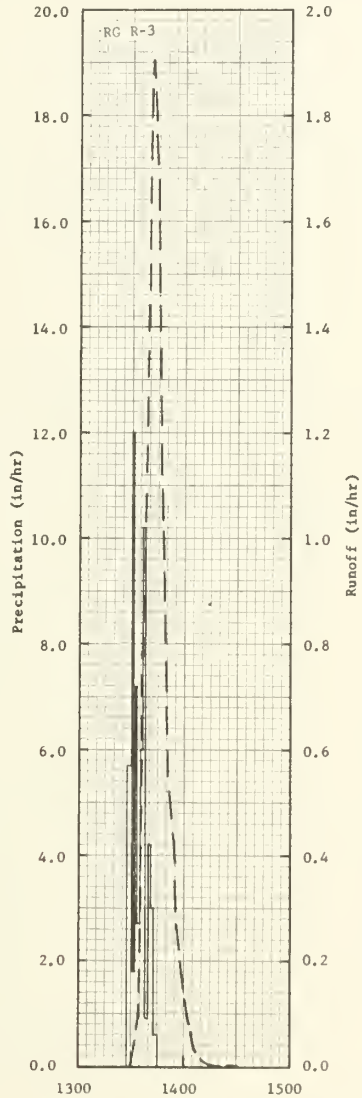
June 10, 1966

ALBUQUERQUE, NEW MEXICO WATERSHED 47.001

MONTHLY PRECIPITATION AND RUNOFF (inches) ^{1/}						ALBUQUERQUE, NEW MEXICO WATERSHED 47.002 AREA—40.1 ACRES								47.02		
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
YEAR																
P																
Q																
STA AVG P																
Q																
MEAN P ^{2/}																
75 YR	.36	.34	.40	.56	.64	.58	1.42	1.26	.89	.79	.42	.46	8.12			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	6-10	1.907	6-10	.3882E	6-10	.3882E	6-10	.3882E	6-10	.3882E	6-10	.3882E	6-10	.3882E	6-10	.3882E
MAXIMUMS FOR PERIOD OF RECORD ^{1/}																
19	TO															
NOTES: ^{1/} Not calculated. Data are being re-evaluated. As soon as re-tabulation is completed, revised data will be reported for these two sections. ^{2/} Mean P based on 75-yr (1892-1966) U. S. Weather Bureau record period at Albuquerque, New Mex.																
1966 SELECTED RUNOFF EVENT				ALBUQUERQUE, NEW MEXICO WATERSHED 47.002												
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF									
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)						
Event of June 10, 1966 ^{3/}																
	RG R-3		6-10	RG	R-3		6-10									
6-1	.15	.00		1328	0.00	0.00		1330	.000	.0000						
6-2	.10	.00		1330	5.70	0.19		1331	.009	.0001						
				1331	12.00	0.39		1332	.023	.0003						
				1332	1.80	0.42		1333	.050	.0009						
				1333	7.20	0.54		1334	.099	.0022						
				1335	2.70	0.63		1335	.317	.0057						
				1336	6.00	0.73		1336	.559	.0130						
				1337	10.20	0.90		1337	.856	.0247						
				1339	0.90	0.93		1338	1.083	.0409						
				1340	4.20	1.00		1339	1.407	.0617						
				1341	4.20	1.07		1340	1.746	.0879						
				1342	3.00	1.12		1341	1.825	.1177						
				1345	0.60	1.15		1342	1.907	.1488						
								1343	1.788	.1796						
				RG	R-5			1344	1.689	.2086						
				1320	0.00	0.00		1345	1.491	.2351						
				1323	7.60	0.38		1346	1.358	.2588						
				1325	1.50	0.43		1347	1.083	.2791						
				1327	5.70	0.62		1348	.920	.2958						
				1329	0.30	0.63		1349	.747	.3097						
				1333	6.75	1.08		1350	.579	.3208						
				1336	1.60	1.16		1351	.532	.3300						
				1345	0.27	1.20		1352	.487	.3385						
								1353	.445	.3463						
								1354	.388	.3532						
								1355	.324	.3592						
								1356	.270	.3641						
								1357	.231	.3683						
								1358	.194	.3718						
								1359	.166	.3748						
								1400	.144	.3774						
								1401	.124	.3796						
								1402	.099	.3815						
								1403	.080	.3830						
								1404	.061	.3842						
								1405	.047	.3851						
								1407	.026	.3863						
								1409	.016	.3870						
								1411	.009	.3874						
Continued on next page																
NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 40.43. FOR WATERSHED MAP SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES 1956-59, MISC. PUBLICATION NO. 945, PAGE 47.2-4. ^{3/} SELECTED EVENT IS FROM RE-EVALUATED DATA.																

1966 SELECTED RUNOFF EVENT			ALBUQUERQUE, NEW MEXICO				WATERSHED 47.002			
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
			<u>Event of June 10, 1966-Continued</u>							
							6-10	1413	.006	.3877
								1416	.003	.3879
								1423	.001E	.3881E
								1431	.000E	.3882E
								1440	.000E	.3882E

NOTE: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 40.43.



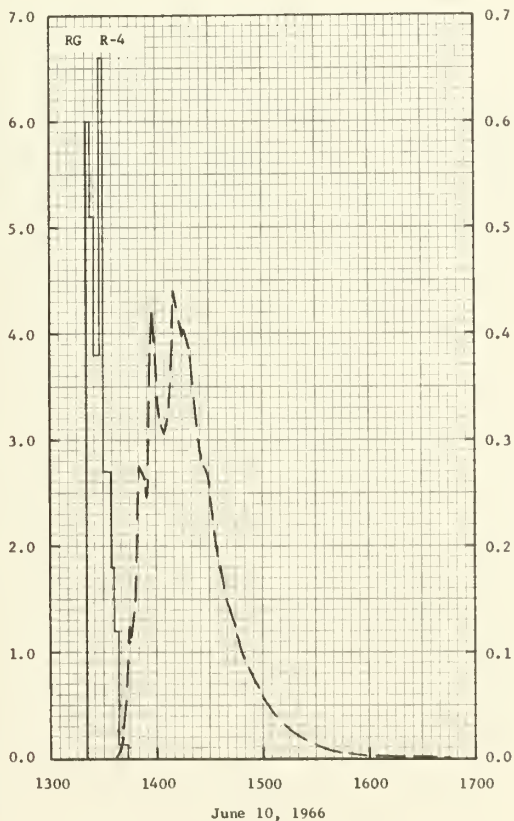
June 10, 1966

ALBUQUERQUE, NEW MEXICO WATERSHED 47.002

MONTHLY PRECIPITATION AND RUNOFF (inches) ^{1/}						ALBUQUERQUE, NEW MEXICO WATERSHED 47.003 AREA—176 ACRES								47.03		
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
YEAR																
P																
Q																
STA AVG P																
Q																
MEAN P																
75 YR ^{2/}	.36	.34	.40	.56	.64	.58	1.42	1.26	.89	.79	.42	.46	8.12			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	6-10	.4390	6-10	.2863	6-10	.3262	6-10	.3306E	6-10	.3306E	6-10	.3306E	6-10	.3306E	6-10	.3306E
MAXIMUMS FOR PERIOD OF RECORD ^{1/}																
19	TO															
19																
NOTES: ^{1/} Not calculated. Data are being re-evaluated. As soon as re-tabulation is completed, revised data will be reported for these two sections. ^{2/} Mean P based on 75-yr (1892-1966) U. S. Weather Bureau record period at Albuquerque, New Mex.																
1966 SELECTED RUNOFF EVENT						ALBUQUERQUE, NEW MEXICO WATERSHED 47.003										
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF									
DATE MO-OAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-OAY	TIME DF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME DF DAY	RATE (in/hr)	ACC. (inches)						
<u>Event of June 10, 1966 ^{3/}</u>																
6-1	RG R-4		6-10	RG	R-4		6-10									
	.14	.00		1321	0.00	0.00		1336	.000	.0000						
6-2	.07	.00		1323	6.00	0.20		1337	.000	.0000						
				1325	5.10	0.37		1338	.001	.0000						
				1328	3.80	0.56		1339	.002	.0000						
				1330	6.60	0.78		1340	.010	.0001						
				1332	2.70	0.87		1341	.020	.0004						
				1334	2.70	0.96		1342	.032	.0008						
				1336	1.80	1.02		1343	.054	.0015						
				1338	1.20	1.06		1344	.111	.0029						
				1343	0.12	1.07		1345	.124	.0049						
								1346	.113	.0068						
								1347	.128	.0088						
								1348	.152	.0112						
								1349	.215	.0142						
								1350	.250	.0181						
								1351	.276	.0225						
								1354	.263	.0359						
								1355	.246	.0402						
								1356	.299	.0447						
								1357	.385	.0504						
								1358	.420	.0571						
								1400	.372	.0703						
								1402	.330	.0820						
								1405	.305	.0979						
								1406	.305	.1030						
								1407	.313	.1082						
								1408	.339	.1136						
								1409	.394	.1197						
								1410	.439	.1267						
								1411	.434	.1339						
								1412	.425	.1411						
								1414	.403	.1549						
								1415	.398	.1616						
								1416	.403	.1682						
<p>Watershed conditions: Sparsely vegetated rangeland; about 75% of area is bare. Vegetation consists of short grasses (blue and black grama and galleta) and shrubs (sagebrush, saltbush, and snakeweed). Vegetation is comparatively heavy in a narrow strip along the principal waterway.</p>																
<u>Continued on next page</u>																
NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 177.47. FOR TOPOGRAPHIC MAP OF WATERSHED SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59. USDA MISC. PUB. 945, P. 47.3-4. ^{3/} SELECTED EVENTS OBTAINED FROM RE-EVALUATED DATA.																

1966			ALBUQUERQUE, NEW MEXICO				WATERSHED 47.003			
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
			<u>Event of June 10, 1966-Continued</u>							
							6-10	1418	.394	.1815
								1420	.368	.1942
								1423	.326	.2116
								1426	.284	.2268
								1429	.266	.2406
								1432	.224	.2528
								1435	.195	.2633
								1438	.170	.2724
								1441	.144	.2803
								1445	.124	.2892
								1448	.107	.2950
								1451	.094	.3000
								1454	.080	.3044
								1457	.069	.3081
								1500	.059	.3113
								1503	.051	.3141
								1506	.044	.3165
								1512	.034	.3204
								1518	.025	.3233
								1524	.018	.3254
								1530	.013	.3269
								1536	.009	.3280
								1544	.006	.3290
								1552	.004	.3296
								1604	.002	.3302
								1620	.001E	.3305E
								1645	.000E	.3306E
								1715	.000E	.3306E

NOTE: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 177.47.



ALBUQUERQUE, NEW MEXICO WATERSHED 47.003

MONTHLY PRECIPITATION AND RUNOFF (inches)						OXFORD, MISSISSIPPI				WATERSHED W-4A ^{1/}				62.01
						AREA—1,580 ACRES (2.47 SQ. MILES) ^{2/}								
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966	2.67	7.75	1.65	4.08	5.20	.46	.76	3.14	5.69	2.08	1.33	6.04	40.85	
^{3/}	.00	1.36	.22	.09	.45	.00	.00	.07	.35	.02	.01	.29	2.86	
STA AVG (57-66)	3.72	5.20	4.87	4.55	3.52	3.03	4.03	3.21	4.99	2.11	4.26	4.76	48.25	
^{4/}	.62	1.06	.91	.60	.22	.11	.16	.13	.35	.06	.41	.62	5.25	
MEAN 47 YR	5.75	5.31	5.95	5.06	4.58	3.79	4.26	3.21	3.49	2.89	4.56	5.07	53.92	

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	9-28	.30	9-28	.23	2-10	.30	2-10	.77	2-9	.97	2-9	1.02	2-9	1.02	2-9	1.36

MAXIMUMS FOR PERIOD OF RECORD																
19 57 TO	2-23	.84	2-23	.72	2-23	1.13	3-4	1.56	3-4	1.62	1-31	2.38	1-30	3.34	1-27	3.90
19 66	1962		1962		1962		1964		1964		1957		1957		1957	

NOTES: Watershed conditions: About 16% in cultivation (cotton and corn), fair cover November to March, poor cover April and May improving to good by mid-July; 35% in pasture and idle land, good cover April to October with fair cover remainder of year; 47% in woods, good cover; 2% bare gullies. Percentages of total area in various land use categories are based on the latest survey completed in 1965. ^{1/} Reported as Watershed W-4 prior to 1965. About 33% of drainage area above small desilting and retention dams. ^{2/} Gaging station relocated upstream Jan. 1, 1965. Drainage area reduced from 2000 to 1580 acres. ^{3/} Monthly precipitation Thiessen weighted from rain gages 7, 8, and 18. ^{4/} Precipitation and runoff records began Jan. 1957. ^{5/} Mean P based on 47-yr (1920-66) U. S. Weather Bureau record period at Holly Springs 2N, Miss.

196c DAILY AIR TEMPERATURE (degrees F)											OXFORD, MISSISSIPPI				WATERSHED W-4A				62.01						
DAY	JAN		FEB		MAR		APR		MAY		JUNE		JULY		AUG		SEPT		OCT		NOV		DEC		
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
1	67	61	42	14	54	34	80	42	80	64	73	43	89	66	92	63	86	63	77	47	75	41	59	27	
2	69	58	54	24	64	34	70	35	70	48	75	47	90	68	93	68	90	63	65	36	46	32	60	28	
3	60	37	30	24	65	41	69	35	67	41	80	54	82	66	85	69	92	68	70	41	37	19	31	26	
4	45	27	38	23	66	47	69	39	76	47	84	62	88	66	84	61	91	71	77	50	45	19	43	27	
5	55	30	37	16	54	32	57	32	79	46	83	64	91	70	85	60	90	69	77	56	62	26	49	41	
6	50	45	51	14	40	26	58	27	81	52	85	71	94	72	85	55	85	55	71	37	54	47	55	43	
7	53	26	58	31	39	18	64	35	80	53	85	64	94	72	88	53	87	57	70	35	73	49	65	55	
8	55	21	67	48	44	18	73	43	85	56	86	68	96	71	89	61	85	55	75	37	73	56	75	63	
9	35	20	67	51	53	25	66	31	85	58	89	67	95	71	93	64	85	55	82	48	73	62	75	57	
10	55	26	68	52	63	29	58	31	61	37	91	60	95	71	92	68	87	57	82	60	78	59	59	36	
11	56	30	57	41	66	35	65	39	65	41	63	54	95	70	92	69	80	65	73	38	60	35	37	32	
12	56	31	64	43	72	43	74	53	75	55	83	56	95	70	83	70	75	65	80	40	61	37	35	32	
13	54	39	54	42	75	54	76	53	79	60	88	64	98	73	85	69	79	62	81	47	64	37	37	31	
14	45	28	58	39	70	52	60	46	70	53	88	67	98	73	89	72	82	57	64	57	60	37	33	20	
15	37	28	60	38	66	52	60	34	68	48	85	55	99	70	86	70	84	58	80	53	65	30	47	20	
16	50	31	46	37	68	44	68	38	80	57	87	64	100	75	92	73	67	52	65	37	69	30	55	24	
17	43	20	45	23	73	45	73	44	83	62	90	58	91	70	94	72	75	47	62	36	70	35	60	28	
18	37	20	48	24	70	55	83	56	80	64	81	61	94	73	90	72	81	52	57	36	74	50	61	46	
19	32	16	53	23	66	39	71	59	77	61	82	51	91	75	91	69	78	65	54	45	69	49	62	31	
20	34	19	57	24	75	38	76	62	77	50	85	55	96	71	91	70	77	58	53	32	59	41	65	32	
21	37	27	47	28	80	46	82	46	82	59	87	56	92	66	89	70	70	58	65	32	60	43	62	34	
22	44	29	47	26	82	60	52	46	83	63	88	63	89	58	90	71	64	53	68	39	63	50	69	39	
23	31	23	46	26	78	53	81	51	88	66	89	61	91	67	85	60	80	53	74	51	60	48	58	35	
24	36	9	42	32	56	29	78	62	86	62	90	61	93	69	78	54	83	48	74	52	65	44	35	14	
25	32	15	40	28	45	19	75	61	75	61	90	59	87	61	78	55	84	51	68	35	72	45	32	14	
26	31	24	58	29	59	20	75	61	78	57	92	58	93	66	80	51	86	61	68	30	72	57	44	25	
27	31	9	58	29	64	29	78	57	80	56	95	66	95	71	84	54	88	60	65	29	71	56	48	29	
28	41	10	47	44	53	32	82	62	32	54	96	68	96	72	85	60	83	60	70	29	57	37	55	38	
29	41	10	---	---	55	28	85	62	87	58	97	69	98	76	82	63	68	45	74	32	50	32	48	22	
30	10	-4	---	---	64	29	72	63	85	54	89	64	95	73	85	60	80	47	76	41	53	32	38	20	
31	19	-5	---	---	67	39	---	---	76	45	---	---	90	60	85	63	---	---	70	38	---	---	---	40	24
AV.	43	25	51	31	63	37	71	47	78	54	86	60	93	69	87	64	81	58	71	41	63	41	51	32	
MEAN	33.4	9	41.3	49.9	58.9	66.3	73.1	81.3	81.3	75.7	69.5	55.9	52.1	41.7											
STA AV	48	28	53	32	59	37	72	50	81	58	86	64	90	68	90	67	84	62	74	48	63	39	51	30	

NOTES: TEMPERATURE DATA FROM U. S. WEATHER BUREAU STATION AT HOLLY SPRINGS 2N, MISS. STATION AVERAGE IS FOR 10-YR (1957-66) RECORD PERIOD.

1966 DAILY PRECIPITATION (inches)						OXFORD, MISSISSIPPI							WATERSHED W-4A		62.01
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC			
1	.00	.42	.00	.00	.66	.00	.00	.00	.01	.00	.25	.00			
2	1.01	.00	.00	.00	.13	.00	.20	.21	.07	.00	.00	.00			
3	.00	.00	1.46	.00	.00	.00	.00	.00	.00	.00	.00	.00			
4	.21	.00	.00	.00	.00	.00	.00	.00	.26	.00	.00	.00			
5	.36	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
6	.01	.13	.00	.00	.00	.41	.00	.00	.00	.00	.00	.06			
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.41			
9	.01	1.47	.00	.00	.00	.00	.05	.11	.00	.07	.00	.94			
10	.00	3.12	.00	.00	.00	.00	.00	.39	.05	.00	.19	.25			
11	.00	.00	.00	.00	.00	.00	.00	.02	.26	.00	.00	.00			
12	.08	1.69	.00	.20	.75	.00	.00	1.43	.00	.00	.00	.00			
13	.12	.09	.00	.00	.24	.00	.00	.00	.00	.11	.00	.00			
14	.00	.00	.09	.00	.00	.00	.00	.20	.00	.00	.00	.00			
15	.00	.30	.00	.00	.00	.00	.00	.00	.00	1.13	.00	.00			
16	.00	.03	.00	.00	1.19	.00	.64	.00	.00	.00	.00	.00			
17	.00	.00	.00	.00	.00	.00	.00	.35	.00	.22	.00	.00			
18	.025	.00	.00	.06	.72	.00	.00	.42	.92	.55	.10	.00			
19	.00	.00	.00	.00	.00	.00	.03	.00	.77	.00	.00	.00			
20	.00	.00	.00	.97	.00	.00	.00	.02	.00	.00	.00	.00			
21	.00	.00	.00	.16	.25	.00	.00	.01	.02	.00	.00	.00			
22	.465	.00	.00	.00	.00	.00	.00	.18	.00	.00	.00	.00			
23	.00	.00	.04	.00	.00	.00	.00	.00	.00	.00	.00	.475			
24	.165	.00	.00	.96	1.26	.00	.00	.00	.00	.00	.00	.00			
25	.00	.00	.06	.74	.00	.00	.00	.00	.00	.00	.00	.00			
26	.00	.00	.00	.11	.00	.00	.00	.00	.00	.00	.00	.00			
27	.00	.12	.00	.11	.00	.00	.00	.00	.44	.00	.09	1.16			
28	.00	.38	.00	.25	.00	.00	.00	.00	1.86	.00	.00	1.13			
29	.235	-----	.00	.01	.00	.05	.44	.00	.00	.00	.00	.00			
30	.00	-----	.00	2.03	.00	.00	.00	.00	1.03	.00	.00	.74			
31	.00	-----	.00	-----	.00	-----	.00	.00	-----	.00	-----	.13			
TOTAL	2.67	7.75	1.65	4.08	5.20	.66	.76	3.14	5.69	2.78	1.33	6.04			
STAAV	3.72	5.20	4.87	4.55	3.52	3.03	4.03	3.21	4.99	2.11	4.26	4.76			

NOTES: DAILY PRECIPITATION VALUES THIESSEN WEIGHTED FROM RAIN GAGES 7, 8, AND 18.

1966 MEAN DAILY DISCHARGE (cfs)						OXFORD, MISSISSIPPI							WATERSHED W-4A		62.01
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC			
1	.00	.05	.00	.00	8.85	.00	.00	.00	.00	.00	.00	.00			
2	.25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
3	.00	.00	14.09	.00	.00	.00	.00	.00	.00	.00	.00	.00			
4	.00	.00	.66	.00	.00	.00	.00	.00	.00	.00	.00	.00			
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.83			
9	.00	2.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.36			
10	.00	65.51	.00	.00	.00	.00	.00	.00	.00	.00	.68	.00			
11	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
12	.00	21.65	.00	.00	.00	.00	.00	4.57	.00	.00	.00	.00			
13	.00	.96	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.49	.00	.00			
16	.00	.00	.00	.00	9.67	.00	.00	.00	.00	.00	.00	.00			
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
18	.00	.00	.00	.00	6.64	.00	.00	.00	.00	.40	.00	.00			
19	.00	.00	.00	.00	.00	.00	.00	.00	1.35	.00	.00	.00			
20	.00	.00	.00	.12	.00	.00	.00	.00	.00	.00	.00	.00			
21	.00	.00	.00	.00	.54	.00	.00	.00	.00	.00	.00	.00			
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
24	.00	.00	.00	.00	4.45	.00	.00	.00	.00	.00	.00	.00			
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.77			
28	.00	.00	.00	.00	.00	.00	.00	.00	21.44	.00	.00	14.62			
29	.00	-----	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
30	.00	-----	.00	5.44	.00	.00	.00	.00	.78	.00	.00	.00			
31	.00	-----	.00	-----	.00	-----	.00	.00	-----	.00	-----	.00			
MEAN	.1	3.22	.48	.20	.97	.05	.00	.15	.79	.04	.02	.64			
INCHES	.00	1.36	.22	.09	.45	.00	.00	.07	.35	.02	.01	.29			

NOTES: TO CONVERT DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY 0.01506. QUALITY OF RECORDS: FAIR. ESTIMATED TO BE WITHIN 15% OF ACTUAL.

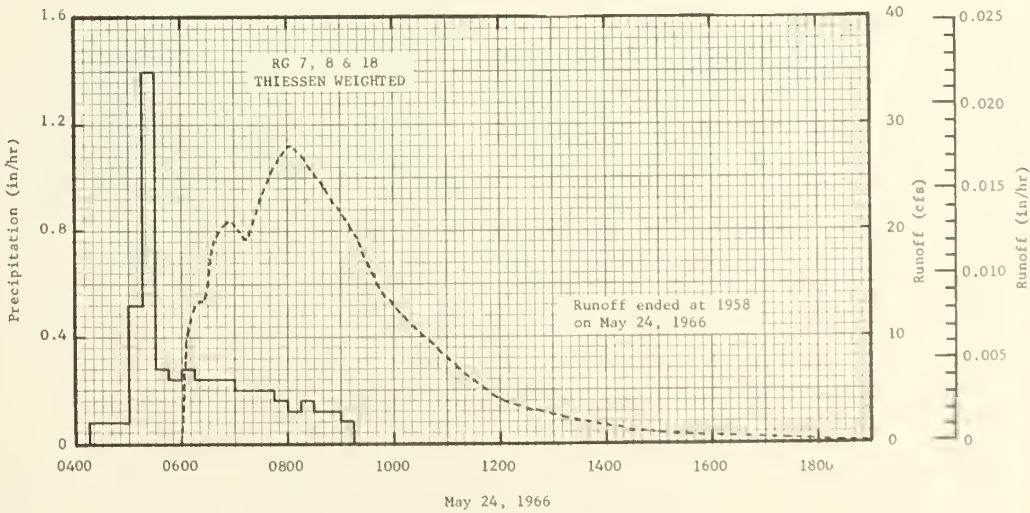
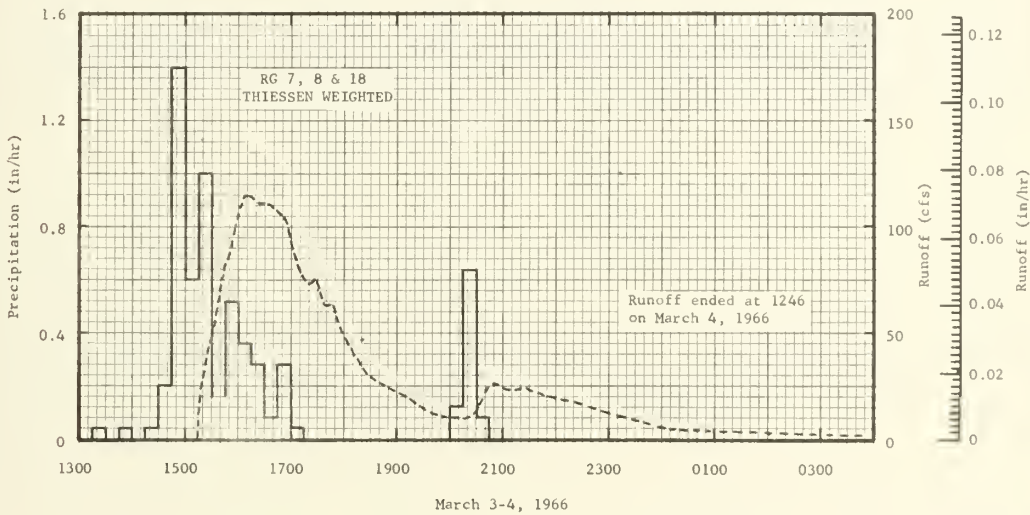
1966 SELECTED RUNOFF EVENTS			OXFORD, MISSISSIPPI				WATERSHED W-4A			62-01
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
Event of March 3-4, 1966										
3-3	.00	.0000	3-3	3 PG	AVG 1/		3-3	1514	.00	.0000
				1315	.00	.00		1518	21.53	.0005
				1330	.04	.01		1522	35.19	.0017
				1345	.00	.01		1530	48.23	.0052
				1400	.04	.02		1538	66.42	.0100
				1415	.00	.02		1544	80.00	.0146
				1430	.04	.03		1552	90.95	.0217
				1445	.20	.08		1600	105.25	.0299
				1500	1.40	.43		1608	115.00	.0392
				1515	.60	.58		1622	111.09	.0557
				1530	1.00	.83		1634	111.09	.0697
				1545	.16	.87		1652	103.34	.0898
				1600	.52	1.00		1706	84.63	.1036
				1615	.36	1.09		1720	73.83	.1152
				1630	.28	1.16		1726	75.36	.1199
				1645	.08	1.18		1738	63.62	.1286
				1700	.28	1.25		1746	63.62	.1339
				1715	.04	1.26		1808	43.35	.1462
				2000	.00	1.26		1826	30.22	.1532
				2015	.12	1.29		1846	25.30	.1590
				2030	.64	1.45		1918	18.00	.1662
				2045	.08	1.47		1940	12.49	.1697
								2000	10.51	.1721
								2018	9.93	.1741
								2030	12.49	.1755
								2040	23.36	.1773
								2050	25.96	.1799
								2104	23.36	.1835
								2130	23.36	.1899
								2158	19.77	.1962
								2226	16.76	.2016
								2242	14.83	.2042
								2312	10.21	.2081
								2334	8.49	.2103
								2400	5.80	.2122
								3-4	0102	3.42
									0202	2.10
									0256	1.97
									0434	1.35
									0636	.69
									0910	.27
									1100	.16
									1246	.00
										.2152
										.2169
										.2181
										.2198
										.2211
										.2219
										.2221
										.2222
Event of May 24, 1966 2/										
5-24	.00	.0000	5-24	3 RG	AVG 1/		5-24	0600	.00	.0000
				0415	.00	.00		0606	10.21	.0004
				0430	.08	.02		0616	13.02	.0016
				0445	.08	.04		0626	13.59	.0030
				0500	.08	.06		0638	19.18	.0050
				0515	.52	.19		0644	20.35	.0063
				0530	1.40	.54		0654	20.94	.0084
				0545	.28	.61		0712	19.18	.0122
				0600	.24	.67		0730	23.36	.0162
				0615	.28	.74		0744	25.96	.0198
				0630	.24	.80		0802	28.01	.0249
				0645	.24	.86		0830	25.30	.0327
				0700	.24	.92		0852	22.74	.0382
				0715	.20	.97		0920	19.18	.0444
				0730	.20	1.02		0948	14.20	.0493
										.0249
										.0327
										.0382
										.0444
										.0493

Continued on next page.

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.000628. FOR WATERSHED MAP, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 62.1-4. 1/ THIESSEN WEIGHTED STORM RAINFALL, RAIN GAGES 7,8, AND 18. 2/ ISOHYETAL MAP ON P. 62.11-5. DAILY TOTALS FOR INDIVIDUAL RAIN GAGES LISTED ON P. 62.11-3. FOR 30-DAY ANTECEDENT P AND Q, SEE TABLES ON PREVIOUS PAGE.

1966 SELECTED RUNOFF EVENTS			OXFORD, MISSISSIPPI				WATERSHED W-4A 62.01				
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)	
Event of May 24, 1966--Continued											
				0745	.20	1.07		1016	11.57	.0530	
				0800	.16	1.11		1058	8.49	.0574	
				0815	.12	1.14		1158	4.18	.0614	
				0830	.16	1.18		1308	2.64	.0639	
				0845	.12	1.21		1412	1.47	.0653	
				0900	.12	1.24		1516	.85	.0661	
				0915	.08	1.26		1816	.16	.0670	
								1958	.00	.0671	

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.000628



OXFORD, MISSISSIPPI WATERSHED W-4A

MONTHLY PRECIPITATION AND RUNOFF (inches)						OXFORD, MISSISSIPPI WATERSHED W-5 1/2 AREA—1,130 ACRES (1.76 SQ. MILES) 62.02							
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 TO	2.60	7.47	1.55	4.19	5.40	.37	1.41	2.90	5.62	2.03	1.64	6.08	41.26
1966 FROM	.01	4.06	.59	.22	1.09	.00	.00	.07	.75	.00	.06	1.20	8.05
STA AVG (57-66)	3.82	5.19	5.01	4.61	3.66	3.03	3.90	3.65	4.75	2.08	4.27	4.87	48.84
MEAN	1.34	2.02	1.88	1.27	.50	.32	.22	.31	.47	.13	.73	1.41	10.60
47 YR	5.75	5.31	5.95	5.06	4.58	3.79	4.26	3.21	3.49	2.89	4.56	5.07	53.92

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	9-28	.69	9-28	.52	2-10	.76	2-10	2.05	2-9	2.80	2-9	3.10	2-9	3.11	2-9	4.04

MAXIMUMS FOR PERIOD OF RECORD																
1957 TO	3-4	1.19	3-4	.99	3-4	1.63	3-4	2.12	2-9	2.80	2-9	3.10	1-30	3.72	1-27	5.25
1966 FROM	1964		1964		1964		1964		1966		1966		1957		1957	

NOTES: Watershed conditions: About 12% in cultivation (cotton and corn), fair cover November to March, poor cover April and May improving to good by mid-July; 65% in pasture and idle land, good cover April to October with fair cover remainder of year; 22% in woods, good cover; 1% bare gullies. Percentages of total area in various land use categories are based on the latest survey completed in 1966. 1/ About 32% of drainage area above small desilting and retention dams. 2/ Monthly precipitation Thiessen weighted from rain gages 8 and 33. 3/ Precipitation and runoff records began Jan. 1957. 4/ Mean P based on 47-yr (1920-66) U. S. Weather Bureau record period at Holly Springs 2N, Miss.

1966 DAILY PRECIPITATION (inches)						OXFORD, MISSISSIPPI WATERSHED W-5 62.02							
OAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	.00	.33	.00	.00	.83	.00	.00	.00	.05	.00	.31	.00	
2	1.13	.00	.00	.00	.14	.00	.19	.24	.00	.00	.00	.00	
3	.00	.00	1.40	.00	.00	.00	.00	.00	.00	.00	.00	.00	
4	.12	.00	.00	.00	.00	.00	.00	.00	.31	.02	.00	.00	
5	.36	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
6	.01	.12	.00	.00	.00	.32	.00	.00	.00	.00	.00	.11	
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	
8	.00	.00	.00	.03	.00	.00	.00	.00	.00	.00	.00	1.79	
9	.03	1.49	.00	.00	.00	.00	.32	.03	.00	.08	.00	.95	
10	.00	3.11	.00	.00	.00	.00	.00	.45	.05	.00	.99	.30	
11	.00	.00	.00	.00	.00	.00	.00	.06	.29	.00	.00	.00	
12	.06	1.57	.00	.34	.84	.00	.00	1.32	.00	.00	.00	.00	
13	.15	.12	.00	.00	.28	.00	.00	.00	.00	.09	.00	.00	
14	.00	.00	.08	.00	.00	.00	.00	.34	.00	.00	.00	.00	
15	.00	.31	.00	.00	.00	.00	.00	.00	.00	1.07	.00	.00	
16	.00	.00	.00	.00	1.03	.00	.33	.00	.00	.00	.00	.00	
17	.00	.00	.00	.00	.00	.00	.00	.01	.00	.22	.00	.00	
18	.025	.00	.00	.05	.70	.00	.00	.10	.66	.54	.19	.00	
19	.00	.00	.00	.00	.00	.00	.27	.00	.80	.00	.03	.00	
20	.00	.00	.00	.93	.00	.00	.04	.02	.00	.00	.00	.00	
21	.00	.00	.00	.18	.01	.00	.00	.02	.02	.00	.00	.00	
22	.445	.00	.00	.00	.00	.00	.00	.31	.00	.00	.00	.00	
23	.00	.00	.03	.00	.00	.00	.00	.00	.00	.01	.00	.505	
24	.125	.00	.00	.12	1.57	.00	.00	.00	.00	.00	.00	.00	
25	.00	.00	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	
26	.00	.00	.00	.17	.00	.00	.00	.00	.00	.00	.00	.00	
27	.00	.13	.00	.17	.00	.00	.00	.00	.58	.00	.12	1.16	
28	.00	.29	.00	.00	.00	.00	.00	.00	1.74	.00	.00	1.09	
29	.165	-----	.00	.06	.00	.05	.26	.00	.00	.00	.00	.00	
30	.00	-----	.00	2.13	.00	.00	.00	.00	1.10	.00	.00	.04	
31	.00	-----	.00	-----	.00	-----	-----	.00	-----	.00	-----	.13	
TOTAL	2.60	7.47	1.55	4.19	5.40	.37	1.41	2.90	5.62	2.03	1.64	6.08	
STA AV	3.82	5.19	5.01	4.61	3.66	3.03	3.90	3.65	4.75	2.08	4.27	4.87	

NOTES: FOR DAILY AIR TEMPERATURES IN THE VICINITY, SEE TABLE FOR WATERSHED W-4A, P. 62.1-1. DAILY PRECIPITATION VALUES THIESSEN WEIGHTED FROM RAIN GAGES 8 AND 33. STATION AVERAGE IS FOR 10-YR (1957-66) RECORD PERIOD.

1+66 MEAN DAILY DISCHARGE (cfs)						XFORD, MISSISSIPPI					WATERSHED W-5		62.02
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	.00	1.05	.00	.00	23.09	.00	.00	.00	.00	.00	.00	.00	
2	.63	.04	.00	.00	.04	.00	.00	.00	.00	.00	.00	.00	
3	.00	.00	26.50	.00	.00	.00	.00	.00	.00	.00	.00	.00	
4	.00	.00	1.47	.00	.00	.00	.00	.00	.00	.00	.00	.00	
5	.72	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
6	.1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.46	
9	.00	7.68	.00	.00	.00	.00	.00	.00	.00	.00	.00	14.49	
10	.00	139.93	.00	.00	.00	.00	.00	.00	.00	.00	2.74	.26	
11	.00	.06	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
12	.00	42.20	.00	.00	.00	.00	.00	3.30	.00	.00	.00	.00	
13	.00	1.54	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	
14	.00	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
15	.00	.01	.00	.00	.00	.00	.00	.00	.00	.13	.00	.00	
16	.00	.20	.00	.00	11.05	.00	.00	.00	.00	.00	.00	.00	
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
18	.00	.00	.00	.00	5.15	.00	.00	.00	.00	.08	.00	.00	
19	.00	.00	.00	.00	.00	.00	.00	.00	.38	.00	.00	.00	
20	.00	.00	.00	.07	.00	.00	.00	.00	.00	.00	.00	.00	
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
24	.00	.00	.00	.00	12.56	.00	.00	.00	.00	.00	.00	.00	
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
27	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	3.14	
28	.00	.00	.00	.00	.00	.00	.00	.00	34.96	.00	.00	37.66	
29	.00	-----	.00	.00	.00	.00	.00	.00	.00	.00	.00	.12	
30	.00	-----	.00	10.62	.00	.00	.00	.00	.44	.00	.00	.00	
31	.00	-----	.00	-----	.00	-----	.00	-----	-----	.00	-----	.00	
MEAN	.2	6.88	.90	.36	1.67	.00	.00	.11	1.19	.01	.09	1.84	
INCHES	.01	4.06	.59	.22	1.09	.00	.00	.07	.75	.00	.06	1.20	

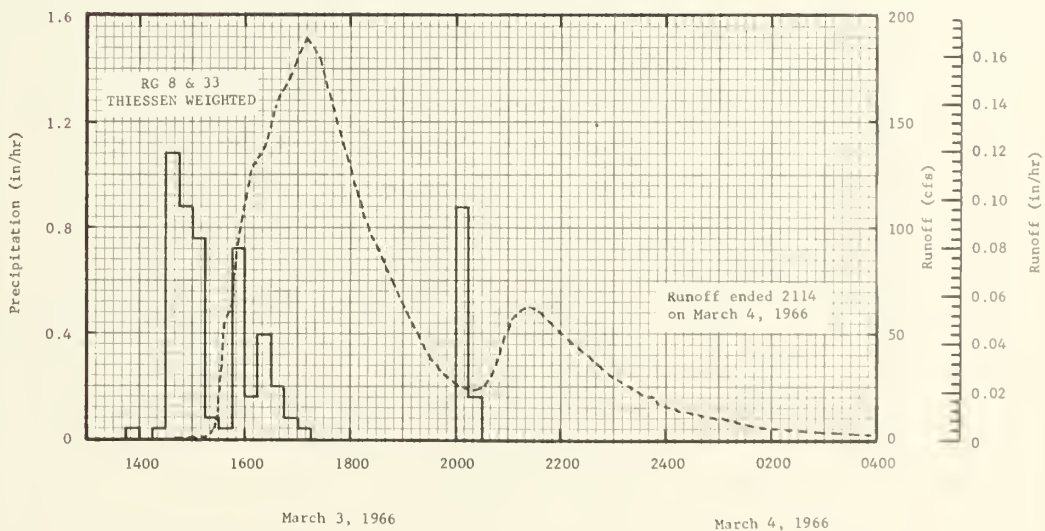
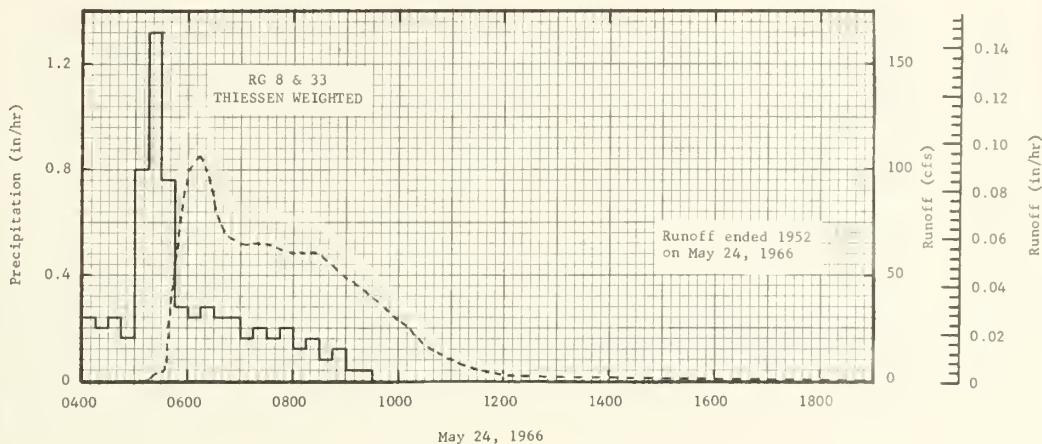
NOTES: TO CONVERT DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY 0.02106. QUALITY OF RECORDS: GOOD, ESTIMATED TO BE WITHIN 10% OF ACTUAL.

1+66 SELECTED RUNOFF EVENTS				XFORD, MISSISSIPPI				WATERSHED W-5				62.02
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF					
DATE MD-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MD-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MD-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)		
Event of May 24, 1966 1/												
5-24	.00	.0000	5-24	2 30	AV. 2/		5-24	0506	.00	.0000		
				0400	.00	.00		0516	.20	.0001		
				0415	.24	.06		0522	3.62	.0002		
				0430	.20	.11		0532	3.89	.0008		
				0445	.24	.17		0544	41.42	.0048		
				0500	.16	.21		0554	80.85	.0137		
				0515	.30	.41		0600	99.60	.0216		
				0530	1.32	.74		0614	106.80	.0428		
				0545	.76	.93		0624	94.79	.0575		
				0600	.28	1.00		0632	77.90	.0676		
				0615	.24	1.06		0644	68.00	.0804		
				0630	.28	1.13		0700	65.00	.0960		
				0645	.24	1.19		0734	64.00	.1281		
				0700	.24	1.25		0758	61.00	.1500		
				0715	.16	1.29		0824	61.00	.1732		
				0730	.20	1.34		0852	51.94	.1961		
				0745	.16	1.38		0928	41.42	.2204		
0800	.20	1.43	1002	28.30	.2378							
0815	.12	1.46	1040	14.77	.2497							
0830	.16	1.50	1124	6.44	.2566							
0845	.08	1.52	1216	3.35	.2603							
0900	.12	1.55	1310	1.50	.2622							
0915	.04	1.56	1438	.43	.2614							
0930	.04	1.57	1550	.57	.2640							
			1740	.09	.2645							
			1952	.00	.2646							

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.000878. FOR MAP OF WATERSHED, SEE SELECTED RUNOFF EVENTS FOR SMALL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, ARS, SWC, JANUARY 1960, P. 62.2-3. 1 ISOHYETAL MAP ON P. 62.11-5. FOR 30-DAY ANTECEDENT P AND Q, SEE TABLES ON THIS AND PREVIOUS PAGE. 2 THIESSEN WEIGHTED STORM RAINFALL, RAIN GAGES 8 AND 33. DAILY TOTALS FOR INDIVIDUAL RAIN GAGES LISTED ON P. 62.11-3.

1966 SELECTED RUNOFF EVENTS			OXFORD, MISSISSIPPI			WATERSHED W-5		62.02													
ANTECEDENT CONDITIONS			RAINFALL			RUNOFF															
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)											
Event of March 3-4, 1966																					
3-3	.00	.0000	3-3	2 RG	AVG 1/		3-3	1454	.00	.0000											
				1345	.00	.00		1506	.24	.0001											
				1400	.04	.01		1514	.30	.0001											
				1415	.00	.01		1520	.74	.0002											
				1430	.04	.02		1526	1.10	.0003											
Watershed conditions: 12% of area in cultivation, chiefly cotton and corn, poor cover provided by crop residue from 1965 crop, 28% in pasture and 37% idle, fair to good cover; 22% in woods, good cover; 1% in bare gullies.																					
															1445	1.03	.29		1538	56.00	.0059
															1500	.88	.51		1544	6.00	.0111
															1515	.76	.70		1554	93.60	.0229
															1530	.03	.72		1602	120.00	.0358
															1545	.04	.73		1606	127.31	.0430
															1600	.72	.91		1614	133.49	.0582
															1615	.16	.95		1624	139.50	.0782
															1630	.40	1.05		1636	159.00	.1044
															1645	.20	1.10		1652	172.50	.1432
															1700	.98	1.12		1702	183.00	.1692
															1715	.04	1.13		1710	189.00	.1909
															2000	.00	1.13		1724	180.00	.2207
															2015	.88	1.35		1750	142.50	.2901
															2030	.16	1.39		1812	108.00	.3304
								1844	77.90	.3789											
								1904	61.00	.3942											
								1928	40.61	.4120											
								2000	2.15	.4277											
								2012	24.03	.4321											
								2020	23.34	.4349											
								2034	20.15	.4399											
								2046	34.54	.4453											
								2056	48.88	.4514											
								2104	56.00	.4575											
								2112	61.00	.4643											
								2122	62.00	.4733											
								2134	60.00	.4840											
								2150	54.00	.4974											
								2216	44.92	.5162											
								2246	33.13	.5333											
								2322	24.03	.5483											
								2334	21.36	.5523											
								2342	21.36	.5548											
								2350	17.18	.5571											
								2400	16.00	.5595											
							3-4	0014	14.13	.5620											
								0130	7.49	.5746											
								0250	3.89	.5813											
								0444	1.66	.5839											
								0624	.84	.5877											
								0916	.30	.5892											
								1514	.09	.5902											
								2114	.00	.5905											
			STORM	TOTAL RG 8 RG 33	EACH 1.43 1.34	GAGE															

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR. MULTIPLY BY 0.000878. 1/ THIESSEN WEIGHTED STORM RAINFALL, RAIN GAGES 8 AND 33.



OXFORD, MISSISSIPPI WATERSHO W-5

MONTHLY PRECIPITATION AND RUNOFF (inches)						OXFORD, MISSISSIPPI		WATERSHED W-10 ^{1/}				62.03					
						AREA—5,530 ACRES (8.64 SQ. MILES)											
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966	P 2/ Q	2.58 3/	8.26	1.61	3.83	6.64	.49	2.14	3.57	4.40	2.23 .02	1.95 .09	6.61 .91	44.31			
	STA AVG P 4/ (57-66) Q	3.89	5.39	4.90	4.70	4.17	3.16	4.01	3.56	4.80	2.09	4.38	5.04	50.09			
	MEAN P 5/ 47 YR	1.12	1.51	1.52	1.14	.57	.22	.29	.30	.53	.13	.65	1.34	9.32			
		5.75	5.31	5.95	5.06	4.58	3.79	4.26	3.21	3.49	2.89	4.56	5.07	53.92			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																	
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL														
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS		
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	
1966	6/	12-28	.12	12-28	.11	12-28	.20	12-28	.41	12-27	.47	12-27	.48	12-27	.48	12-21	.48
MAXIMUMS FOR PERIOD OF RECORD																	
1957 TO 1966	2-23 1962	1.12	2-23 1962	1.00	2-23 1962	1.61	2-23 1962	2.13	2-23 1962	2.39	12-3 1964	2.66	1-30 1957	2.98	3-24 1965	4.17	
NOTES: Watershed conditions: About 23% in cultivation (cotton, corn and soybeans), fair cover November to March, poor cover April and May improving to good by mid-July; 35% in pasture and idle land, good cover April to October with fair cover remainder of year; 40% in woods, good cover; 2% in bare gullies. Percentages of total area in various land use categories are based on the latest survey completed in 1967. 1/ About 19% of drainage area above small desilting and retention dams. 2/ Monthly precipitation Thiessen weighted from rain gages 13, 14, 20, 24 and 26. 3/ Gaging station inoperative Oct. through Dec. 1965, and Jan. through Sept. 1966. 4/ Precipitation and runoff records began Jan. 1957. Station average P is for 10-yr (1957-66) record period. Station average Q is for 9-yr (Jan. 57 - Sept. 65 -- Oct. 66 - Dec. 66) record period. 5/ Mean P based on 47-yr (1920-66) U. S. Weather Bureau record period at Holly Springs 2N, Miss. 6/ For period Oct. through Dec. only.																	
1966 DAILY PRECIPITATION (inches)						OXFORD, MISSISSIPPI		WATERSHED W-10				62.03					
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC					
1	.00	.36	.00	.00	.79	.00	.00	.00	.01	.00	.34	.00					
2	.96	.00	.00	.00	.15	.00	.11	.74	.00	.00	.00	.00					
3	.00	.00	1.44	.00	.00	.00	.00	.00	.01	.00	.00	.00					
4	.05	.00	.00	.00	.00	.00	.00	.00	.45	.03	.00	.00					
5	.39	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
6	.01	.11	.00	.00	.00	.26	.00	.00	.00	.00	.00	.11					
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
8	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	2.07					
9	.07	1.92	.00	.00	.00	.00	.48	.04	.00	.10	.00	.98					
10	.00	3.00	.00	.00	.00	.00	.00	.29	.07	.00	1.20	.31					
11	.00	.00	.00	.00	.00	.00	.00	.02	.27	.00	.00	.00					
12	.07	1.82	.00	.25	1.07	.00	.00	1.35	.09	.00	.00	.00					
13	.10	.16	.00	.00	.25	.00	.00	.00	.00	.10	.00	.00					
14	.00	.00	.08	.00	.00	.00	.00	.57	.11	.00	.00	.00					
15	.00	.30	.00	.00	.37	.00	.00	.00	.00	1.28	.00	.00					
16	.06	.02	.00	.00	.71	.00	.00	.00	.00	.00	.00	.00					
17	.00	.00	.00	.00	.00	.00	.00	.05	.00	.23	.00	.00					
18	.025	.00	.00	.04	.79	.00	.30	.00	.41	.48	.26	.00					
19	.00	.00	.00	.00	.00	.00	.59	.00	.55	.00	.01	.00					
20	.00	.00	.00	.85	.00	.00	.29	.10	.04	.00	.00	.00					
21	.00	.00	.00	.14	.00	.00	.00	.13	.00	.00	.00	.00					
22	.525	.00	.00	.00	.00	.00	.00	.28	.00	.00	.00	.00					
23	.00	.00	.03	.01	.00	.00	.00	.00	.00	.01	.00	.495					
24	.155	.00	.00	.02	2.51	.00	.00	.00	.00	.00	.00	.00					
25	.00	.00	.06	.00	.00	.00	.00	.00	.00	.00	.00	.00					
26	.00	.00	.00	.15	.00	.00	.00	.00	.00	.00	.00	.00					
27	.00	.17	.00	.14	.00	.00	.00	.00	.70	.00	.14	1.37					
28	.00	.40	.00	.00	.00	.07	.00	.00	.49	.00	.00	1.06					
29	.245	-----	.00	.11	.00	.16	.37	.00	.00	.00	.00	.00					
30	.00	-----	.00	2.11	.00	.00	.00	.00	1.20	.00	.00	.06					
31	.00	-----	.00	-----	.00	-----	.00	-----	.00	-----	-----	.16					
TOTAL	2.58	8.26	1.61	3.83	6.64	.49	2.14	3.57	4.40	2.23	1.95	6.61					
STAAV	3.89	5.39	4.90	4.70	4.17	3.16	4.01	3.56	4.80	2.09	4.38	5.04					
NOTES: FOR DAILY AIR TEMPERATURES IN THE VICINITY, SEE TABLE FOR WATERSHED W-4A, P. 62.1-1. DAILY PRECIPITATION VALUES THIESSEN WEIGHTED FROM RAIN GAGES 13, 14, 20, 24, AND 26. STATION AVERAGE IS FOR 10-YR (1957-66) RECORD PERIOD.																	

1966 MEAN DAILY DISCHARGE (cfs)						OXFORD, MISSISSIPPI					WATERSHED W-10		62-03
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1										.00	.00	.00	
2										.00	.00	.00	
3										.00	.00	.00	
4										.00	.00	.00	
5										.00	.00	.00	
6										.00	.00	.00	
7										.00	.00	.00	
8										.00	.00	56.14	
9										.00	.00	44.34	
10										.00	21.39	.01	
11										.00	.00	.00	
12										.00	.00	.00	
13										.00	.00	.00	
14										.00	.00	.00	
15										3.93	.00	.00	
16										.00	.00	.00	
17										.00	.00	.00	
18										.04	.00	.00	
19										.00	.00	.00	
20										.00	.00	.00	
21										.00	.00	.00	
22										.00	.00	.00	
23										.00	.00	.00	
24										.00	.00	.00	
25										.00	.00	.00	
26										.00	.00	.00	
27										.00	.00	1.75	
28										.00	.00	109.54	
29										.00	.00	.08	
30										.00	.00	.00	
31										.00	.00	.00	
MEAN										.13	.71	6.83	
INCHES										.02	.09	.91	

NOTES: TO CONVERT DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY 0.0043041. QUALITY OF RECORDS: FAIR, ESTIMATED TO BE WITHIN 15% OF ACTUAL.

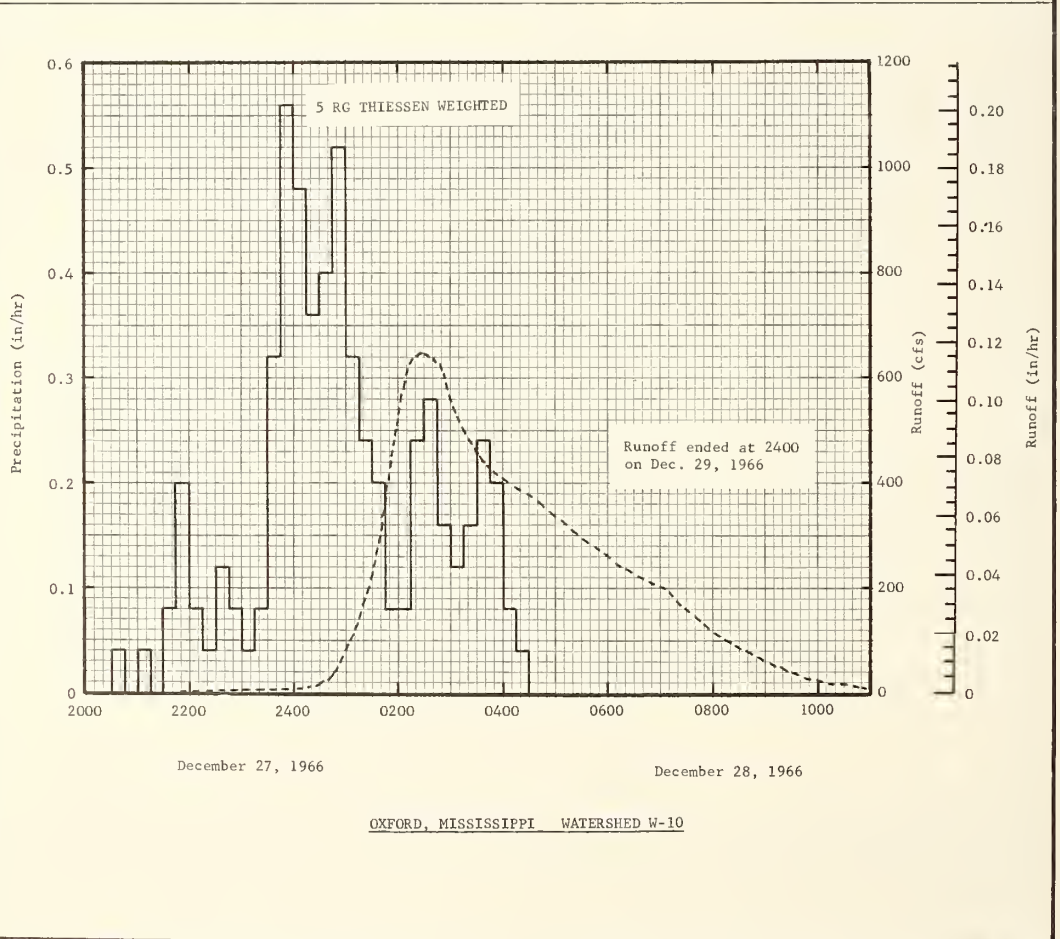
1966 SELECTED RUNOFF EVENT			OXFORD, MISSISSIPPI				WATERSHED W-10				62-03
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)	
Event of December 27-28, 1966											
12-27	1/.95	2/.0051	12-27	5 RG	AV. 3/		12-27	2152	3.97	.0000	
				2030	.00	.00		2300	5.11	.0010	
				2045	.04	.01		2400	6.48	.0020	
				2100	.00	.01	12-28	0030	17.45	.0031	
				2115	.04	.02		0054	62.06	.0059	
				2130	.00	.02		0126	197.00	.0183	
				2145	.08	.04		0142	337.84	.0311	
				2200	.20	.09		0154	466.00	.0455	
				2215	.08	.11		0204	570.00	.0610	
				2230	.04	.12		0214	630.00	.0789	
				2245	.12	.15		0226	650.00	.1019	
				2300	.08	.17		0248	630.00	.1440	
				2315	.04	.18		0302	547.68	.1686	
				2330	.08	.20		0346	426.00	.2324	
				2345	.32	.28		0432	376.00	.2877	
				2400	.56	.42		0524	306.27	.3408	
				0015	.48	.54		0614	242.00	.3818	
				0030	.36	.63		0652	204.00	.4074	
				0045	.40	.73		0706	200.00	.4160	
				0100	.52	.86		0750	131.00	.4377	
				0115	.32	.94		0846	76.86	.4551	
				0130	.24	1.00		0950	28.38	.4652	
				0145	.20	1.05		1016	17.62	.4671	
				0200	.08	1.07		1144	1.11	.4703	
				0215	.08	1.09		1446	2.06	.4723	

Continued on next page

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.0001793. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 62.3-3. 1/ RAINFALL PRIOR TO 2030 ON 12-27-66. 2/ RUNOFF PRIOR TO 2152 ON 12-27-66. FOR 30-DAY ANTECEDENT P AND Q, SEE TABLES ON THIS AND PREVIOUS PAGE. 3/ THIESSEN WEIGHTED STORM RAINFALL, RAIN GAGES 13, 14, 20, 24 AND 26. FOR LOCATION OF GAGES, SEE MAP ON P. 62.11-5.

1966 SELECTED RUNOFF EVENT			OXFORD, MISSISSIPPI				WATERSHED W-10		62.03	
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
Event of December 27-28, 1966 - Continued										
				0230	.24	1.15		1744	.82	.4730
				0245	.28	1.22		2058	.28	.4733
				0300	.16	1.26		2400	.16	.4735
				0315	.12	1.29	12-29	2400	.00	.4738
				0330	.16	1.33				
				0345	.24	1.39				
				0400	.20	1.44				
				0415	.03	1.46				
				0430	.04	1.47				
			STORM	TOTAL	EACH	GAGE				
				RG 13	1.72					
				RG 14	1.38					
				RG 20	1.22					
				RG 24	1.46					
				RG 26	1.35					

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.0001793



MONTHLY PRECIPITATION AND RUNOFF (inches)						OXFORD, MISSISSIPPI WATERSHED W-12/ 62.04 AREA—22,800 ACRES (35.6 SQ. MILES)							
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ₂ / Q	2.42 .02	7.62 1.84	1.63 .33	3.62 .11	6.39 1.33	.41 .03	1.34 .03	3.31 .05	4.18 .06	2.10 .01	1.62 .03	6.14 .41	40.78 4.25
STA AVG P ₃ / (57-66) O	3.77 .74	5.17 1.19	4.84 1.16	4.50 .67	3.79 .42	3.17 .19	3.99 .17	3.40 .13	4.59 .26	2.07 .06	4.28 .34	4.78 .73	48.35 6.06
MEAN P ₄ / 47 YR	5.75	5.31	5.95	5.06	4.58	3.79	4.26	3.21	3.49	2.89	4.56	5.07	53.92

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-10	.17	2-10	.17	2-10	.32	2-10	.90	2-10	1.23	2-9	1.33	2-9	1.35	2-9	1.82

MAXIMUMS FOR PERIOD OF RECORD																
1957 TO 1966	2-23 1962	.35	2-23 1962	.35	2-23 1962	.68	2-23 1962	1.38	2-23 1962	1.62	2-23 1962	1.84	1-30 1957	2.28	3-24 1965	4.36

NOTES: Watershed conditions: About 18% in cultivation (cotton, corn and soybeans), fair cover November to March, poor cover April and May improving to good by mid-July; 44% in pasture and idle land, good cover April to October with fair cover remainder of year; 33% in woods, good cover; 1% in bare gullies; 4% urban. Percentages of total area in various land use categories are based on the latest survey completed in 1963. 1/ About 23% of drainage area above small desilting and retention dams. 2/ Monthly precipitation Thiessen weighted from 16 rain gages. 3/ Precipitation and runoff records began Jan. 1957. 4/ Mean P based on 47-yr (1920-66) U. S. Weather Bureau record period at Holly Springs 2N, Miss.

1966 DAILY PRECIPITATION (inches)						OXFORD, MISSISSIPPI WATERSHED W-12 62.04						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.00	.16	.00	.00	.92	.00	.02	.01	.03	.00	.29	.00
2	.93	.00	.00	.00	.15	.00	.17	.46	.01	.00	.00	.01
3	.00	.00	1.45	.00	.00	.00	.04	.00	.04	.00	.00	.00
4	.12	.00	.00	.00	.00	.00	.00	.00	.27	.02	.00	.00
5	.39	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
6	.01	.08	.00	.00	.00	.36	.00	.00	.00	.00	.00	.03
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
8	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	1.86
9	.04	1.56	.00	.00	.00	.00	.23	.10	.00	.16	.00	.98
10	.00	3.08	.00	.00	.00	.00	.62	.46	.07	.00	1.03	.30
11	.00	.00	.00	.00	.00	.00	.03	.13	.29	.00	.00	.00
12	.07	1.61	.00	.25	.90	.00	.04	1.33	.00	.00	.00	.00
13	.12	.11	.00	.00	.19	.00	.00	.00	.00	.11	.00	.00
14	.00	.00	.08	.00	.00	.00	.00	.31	.00	.00	.00	.00
15	.00	.28	.00	.00	.03	.00	.00	.00	.00	1.12	.00	.00
16	.00	.02	.00	.00	1.39	.00	.06	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.10	.00	.20	.00	.00
18	.025	.00	.00	.00	.73	.00	.34	.04	.50	.08	.19	.00
19	.00	.00	.00	.00	.00	.00	.41	.00	.57	.00	.01	.00
20	.00	.00	.00	.00	.99	.00	.08	.01	.00	.00	.00	.00
21	.00	.00	.00	.10	.34	.00	.00	.13	.02	.00	.00	.00
22	.425	.00	.00	.00	.00	.00	.00	.23	.00	.00	.00	.00
23	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.975
24	.145	.00	.00	.03	1.74	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.05	.01	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.24	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.14	.00	.13	.00	.00	.00	.00	.24	.00	.10	1.18
28	.00	.38	.00	.03	.00	.00	.00	.00	1.02	.00	.00	1.04
29	.165	.00	.00	.04	.00	.05	.27	.00	.00	.00	.00	.00
30	.00	.00	.00	1.73	.00	.00	.03	.00	1.12	.00	.00	.04
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.16
TOTAL	2.42	7.62	1.63	3.62	6.39	.41	1.34	3.31	4.18	2.10	1.62	6.14
STA AVG	3.77	5.17	4.84	4.50	3.79	3.17	3.99	3.40	4.59	2.07	4.28	4.78

NOTES: FOR DAILY AIR TEMPERATURES IN THE VICINITY, SEE TABLE FOR WATERSHED W-4A, P. 62.1-1. DAILY PRECIPITATION VALUES THIESSEN WEIGHTED FROM RAIN GAGES 4-9, 13, 15, 18-20, 25, 29, 30, 31 AND 33. STATION AVERAGE IS FOR 10-YR (1957-66) RECORD PERIOD.

1966 MEAN DAILY DISCHARGE (cfs)						OXFORD, MISSISSIPPI						WATERSHED W-12		62.04
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC		
1	.39	1.83	1.41	.87	278.39	1.40	.94	1.00	.28	.30	.31	.47		
2	1.45	1.71	1.12	1.00	4.12	1.40	.94	1.84	.25	.06	.25	.47		
3	.54	1.26	217.44	1.12	2.06	1.33	1.06	.53	.25	.12	.22	.42		
4	.43	1.00	33.97	1.00	1.87	1.33	1.06	.22	.25	.09	.22	.38		
5	2.37	.82	4.49	.94	1.87	1.33	1.00	.22	.25	.14	.18	.38		
6	1.23	.66	3.68	.94	1.55	1.26	1.00	.29	.22	.29	.20	.42		
7	.51	.43	3.21	.87	1.27	1.26	1.00	.42	.16	.35	.22	.47		
8	.47	.23	2.98	.94	1.00	1.26	1.00	.56	.14	.31	.22	2.01		
9	.47	8.12	2.87	1.00	1.00	1.26	1.00	.60	.16	.39	.25	76.08		
10	.42	1272.82	2.66	1.00	1.00	1.26	1.00	.56	.14	.47	16.16	.86		
11	.38	10.66	2.77	.94	.94	1.13	1.00	.60	.14	.39	.71	.73		
12	.38	407.25	2.87	.94	2.21	1.06	1.00	31.65	.16	.35	.56	.47		
13	.38	29.64	2.87	1.00	2.08	1.12	1.00	2.35	.16	.38	.61	.47		
14	.38	3.97	2.98	1.00	.47	1.19	1.00	1.15	.16	.38	.66	.42		
15	.38	3.70	2.77	1.00	.42	1.19	1.00	.87	.16	.47	.60	.35		
16	.38	3.58	2.56	1.00	325.76	1.12	1.00	.87	.16	.47	.60	.28		
17	.38	2.50	2.77	1.00	3.65	1.00	1.00	.82	.16	.57	.56	.25		
18	.38	1.94	3.21	1.00	119.94	.94	1.00	.71	.16	.57	.56	.28		
19	.38	1.78	3.43	1.00	9.72	.94	1.00	.56	.16	.47	.47	.25		
20	.35	1.70	2.81	3.92	5.87	.94	1.00	.47	.16	.47	.42	.18		
21	.35	1.55	2.03	2.46	36.26	1.00	1.00	.51	.14	.42	.42	.16		
22	.38	1.33	1.86	1.19	6.79	1.00	1.00	.43	.13	.42	.38	.18		
23	.42	1.19	1.86	1.26	3.80	1.00	1.00	.31	.14	.42	.38	.25		
24	.42	1.06	1.78	1.33	435.91	1.00	1.00	.39	.14	.42	.38	.28		
25	.38	1.00	1.62	1.47	13.93	1.00	1.00	.51	.14	.35	.38	.25		
26	.63	1.06	1.47	1.47	2.06	.94	1.00	.47	.16	.31	.38	.36		
27	.87	1.06	1.33	1.47	1.55	.94	1.00	.35	.16	.25	.38	5.81		
28	.87	1.35	1.33	1.40	1.47	1.06	1.00	.39	55.53	.25	.38	295.25		
29	.87	-----	1.33	1.40	1.40	1.06	1.00	.39	.43	.31	.38	3.25		
30	.87	-----	1.13	67.65	1.40	1.00	1.00	.35	.46	.35	.42	1.18		
31	.56	-----	.94	-----	1.40	-----	1.00	.35	-----	.35	-----	.76		
MEAN	.60	63.04	10.30	3.45	41.00	1.12	.99	1.63	2.03	.35	.93	12.68		
INCHES	.02	1.84	.33	.11	1.33	.03	.03	.05	.06	.01	.03	.41		

NOTES: TO CONVERT DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY 0.0010439. QUALITY OF RECORDS: GOOD, ESTIMATED TO BE WITHIN 10% OF ACTUAL.

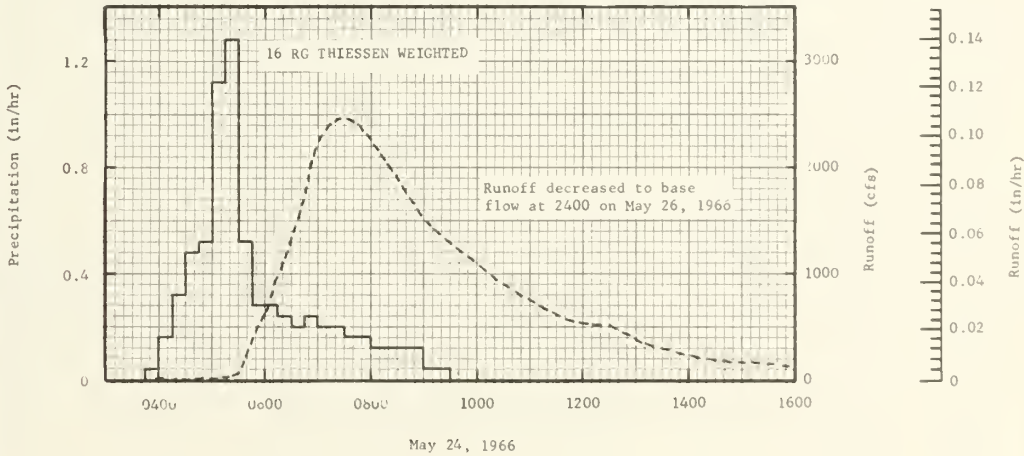
1966 SELECTED RUNOFF EVENT			OXFORD, MISSISSIPPI				WATERSHED W-12				62.04
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)	
Event of May 24, 1966 1/											
5-24	.00	2/0007	5-24	16 RG	AVG 3/		5-24	0358	3.93	.0000	
				0345	.00	.00		0426	4.46	.0001	
				0400	.04	.01		0444	5.35	.0002	
				0415	.16	.05		0454	8.20	.0002	
				0430	.32	.13		0502	16.00	.0003	
				0445	.48	.25		0512	20.56	.0005	
				0500	.52	.38		0522	32.95	.0006	
				0515	1.12	.66		0530	60.52	.0009	
				0530	1.28	.98		0534	132.00	.0012	
				0545	.52	1.11		0540	228.54	.0020	
				0600	.28	1.18		0544	333.76	.0028	
				0615	.28	1.25		0552	509.76	.0052	
				0630	.24	1.31		0604	680.00	.0104	
				0645	.20	1.36		0612	982.00	.0152	
				0700	.24	1.42		0624	1192.00	.0247	
				0715	.20	1.47		0638	1541.00	.0386	
				0730	.20	1.52		0646	1772.00	.0482	
				0745	.16	1.56		0656	2170.00	.0625	
				0800	.16	1.60		0702	2290.00	.0722	
				0815	.12	1.63		0712	2402.00	.0892	
				0830	.12	1.66		0726	2474.00	.1139	
				0845	.12	1.69		0744	2410.00	.1458	
				0900	.12	1.72		0800	2250.00	.1728	
				0915	.04	1.73		0816	2081.95	.1979	
				0930	.04	1.74		0840	1765.00	.2314	

Continued on next page

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.0000435. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 62.4-6. 1/ ISOHYETAL MAP ON P. 62.11-5. 2/ RUNOFF PRIOR TO 0358 ON 5-24-66. FOR 30-DAY ANTECEDENT P AND Q, SEE TABLES ON THIS AND PREVIOUS PAGE. 3/ THIESSEN WEIGHTED STORM RAINFALL, RAIN GAGES 4-9, 13, 15, 18-20, 25, 29-31 AND 33. DAILY TOTALS FOR INDIVIDUAL GAGES LISTED ON P. 62.11-3.

1966 SELECTED RUNOFF EVENT			OXFORD, MISSISSIPPI				WATERSHED W-12		62.04	
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
			Event of May 24, 1966 - Continued							
								0856	1548.00	.2506
								0924	1318.00	.2797
								0954	1144.00	.3065
								1018	982.00	.3250
								1044	838.00	.3421
								1116	680.00	.3597
								1146	570.00	.3733
								1206	530.00	.3813
								1230	504.69	.3903
								1240	475.30	.3938
								1334	292.86	.4089
								1428	190.66	.4183
								1514	167.25	.4243
								1644	121.81	.4337
								1814	88.39	.4406
								1956	61.62	.4462
								2146	45.00	.4505
								2400	35.05	.4544
			5-25					0616	17.75	.4619
								1516	7.05	.4671
								2400	2.56	.4690
			5-26					2400	1/1.55	.4711

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.0000435. 1/ RUNOFF DECREASED TO 1.5 CFS (NORMAL BASE FLOW) AT 2400 ON MAY 26, 1966.



OXFORD, MISSISSIPPI WATERSHED W-12

MONTHLY PRECIPITATION AND RUNOFF (inches)						OXFORD, MISSISSIPPI					WATERSHED W-17 ^{1/2}			62.05
						AREA—32,100 ACRES (50.2					SQ. MILES)			
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P ^{2/} Q	2.40	7.73	1.69	3.53	6.56	.45	1.52	3.82	3.87	2.10	1.53	6.14	41.34
		.19	2.12	.66	.30	1.80	.22	.18	.30	.21	.16	.19	.53	6.86
	STA AVG (57-66) P ^{3/} Q	3.82	5.20	4.81	4.55	3.82	3.22	4.02	3.60	4.44	2.07	4.26	4.86	48.67
	MEAN P ^{4/} 47 YR	1.02	1.51	1.54	.97	.72	.36	.37	.40	.44	.25	.60	1.04	9.22
		5.75	5.31	5.95	5.06	4.58	3.79	4.26	3.21	3.49	2.89	4.56	5.07	53.92

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-10	.16	2-10	.16	2-10	.31	2-10	.88	2-10	1.26	2-9	1.37	2-9	1.39	2-9	1.95

MAXIMUMS FOR PERIOD OF RECORD																
1957 TO	2-23	.21	2-23	.21	2-23	.41	2-23	1.12	2-23	1.50	12-3	2.01	3-24	2.39	3-24	4.68
1966	1962		1962		1962		1962		1962		1964		1965		1965	

NOTES: Watershed conditions: About 19% in cultivation (cotton, corn and soybeans), fair cover November to March, poor cover April and May improving to good by mid-July; 38% in pasture and idle land, good cover April to October with fair cover remainder of year; 38% in woods, good cover; 2% in bare gullies; 3% urban. Percentages of total area in various land use categories are based on the latest survey completed in 1965. 1/ About 22% of drainage area above small desilting and retention dams. 2/ Monthly precipitation Thiessen weighted from 21 rain gages. 3/ Precipitation and runoff records began Jan. 1957. 4/ Mean P based on 47-yr (1920-66) U. S. Weather Bureau record period at Holly Springs 2N, Miss.

1966 DAILY PRECIPITATION (inches)						OXFORD, MISSISSIPPI					WATERSHED W-17			62.05
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC		
1	.00	.35	.00	.00	.91	.00	.01	.02	.04	.00	.29	.00		
2	.91	.00	.00	.00	.16	.00	.17	.69	.03	.00	.00	.01		
3	.00	.00	1.52	.00	.00	.00	.03	.00	.04	.00	.00	.00		
4	.11	.00	.00	.00	.00	.00	.00	.00	.27	.02	.00	.00		
5	.39	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.01		
6	.01	.08	.00	.00	.00	.37	.00	.00	.00	.00	.00	.07		
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01		
8	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	1.93		
9	.03	1.62	.00	.00	.00	.00	.27	.07	.00	.18	.00	.98		
10	.00	3.07	.00	.00	.00	.00	.02	.42	.10	.00	.92	.29		
11	.00	.00	.00	.00	.00	.00	.07	.11	.30	.00	.00	.00		
12	.07	1.65	.00	.24	.88	.00	.03	1.46	.00	.00	.00	.00		
13	.12	.12	.00	.00	.18	.00	.00	.00	.00	.10	.00	.00		
14	.00	.00	.07	.00	.00	.00	.00	.41	.00	.00	.00	.00		
15	.00	.27	.00	.00	.03	.00	.00	.00	.00	1.15	.00	.00		
16	.00	.03	.00	.00	1.41	.00	.05	.00	.00	.00	.00	.00		
17	.00	.00	.00	.00	.00	.00	.00	.10	.00	.20	.00	.00		
18	.025	.00	.00	.06	.75	.00	.15	.07	.45	.44	.19	.00		
19	.00	.00	.00	.00	.00	.00	.30	.00	.48	.00	.01	.00		
20	.00	.00	.00	.98	.00	.00	.18	.03	.00	.00	.00	.00		
21	.00	.00	.00	.09	.32	.00	.00	.20	.02	.00	.00	.00		
22	.435	.00	.00	.00	.00	.00	.00	.24	.00	.00	.00	.00		
23	.00	.00	.05	.00	.00	.00	.00	.00	.00	.01	.00	.485		
24	.195	.00	.00	.03	1.92	.00	.00	.00	.00	.00	.00	.00		
25	.00	.00	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00		
26	.00	.00	.00	.28	.00	.00	.00	.00	.00	.00	.00	.00		
27	.00	.14	.00	.10	.00	.00	.00	.00	.17	.00	.11	1.16		
28	.00	.40	.00	.02	.00	.00	.00	.00	.82	.00	.00	1.02		
29	.165	-----	.00	.05	.00	.08	.22	.00	.00	.00	.00	.00		
30	.00	-----	.00	1.65	.00	.00	.02	.00	1.15	.00	.00	.04		
31	.00	-----	.00	-----	.00	-----	.00	.00	-----	.00	-----	.14		
TOTAL	2.40	7.73	1.69	3.53	6.56	.45	1.52	3.82	3.87	2.10	1.53	6.14		
STAAV	3.82	5.20	4.81	4.55	3.82	3.22	4.02	3.60	4.44	2.07	4.26	4.86		

NOTES: FOR DAILY AIR TEMPERATURES IN THE VICINITY, SEE TABLE FOR WATERSHED W-4A, P. 62.1-1. DAILY PRECIPITATION VALUES THIESSEN WEIGHTED FROM RAIN GAGES 2, 4-9, 13-15, 17-20, 22, 25, 28-31, AND 33. STATION AVERAGE IS FOR 10-YR (1957-66) RECORD PERIOD.

1966 MEAN DAILY DISCHARGE (cfs)					OXFORD, MISSISSIPPI				WATERSHED W-17				62-05
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	6.68	21.34	12.74	10.77	386.93	12.40	8.40	7.22	7.60	6.67	7.22	8.19	
2	12.87	13.55	12.12	10.77	19.55	12.99	8.61	13.82	7.41	7.40	7.04	7.99	
3	8.70	9.06	500.39	10.51	14.64	12.42	8.61	8.61	7.03	7.22	6.86	7.99	
4	7.40	8.61	79.69	10.77	13.29	11.29	8.61	8.61	7.03	6.86	7.41	7.99	
5	7.60	8.83	16.94	10.51	12.70	11.57	8.40	8.40	7.03	6.51	7.79	7.99	
6	7.99	9.28	12.12	10.00	11.84	12.70	8.19	8.19	7.03	6.33	7.79	7.80	
7	7.79	9.76	11.29	10.25	12.12	12.42	8.19	7.99	7.22	6.33	8.65	7.80	
8	7.60	9.30	10.77	10.25	12.12	11.56	8.19	7.99	7.40	6.33	9.76	15.67	
9	7.40	27.57	10.25	9.76	12.42	11.56	12.97	8.19	7.60	6.01	10.00	105.92	
10	7.60	1833.27	10.25	9.76	12.70	11.56	9.09	8.62	7.60	6.01	18.66	14.73	
11	7.79	30.21	10.51	10.25	12.11	11.29	7.99	8.83	7.22	6.00	9.06	11.86	
12	7.79	590.56	10.51	10.51	16.79	10.77	7.41	143.31	7.41	6.00	8.40	10.76	
13	7.79	95.45	10.25	10.25	19.55	10.51	6.86	12.87	7.60	5.84	8.19	10.51	
14	7.99	20.58	10.00	10.25	15.29	9.56	6.86	20.56	7.60	6.18	8.19	10.01	
15	7.99	16.31	10.00	10.25	14.25	8.40	7.03	9.06	7.60	10.82	8.19	9.51	
16	7.79	16.96	9.53	10.25	437.87	8.40	7.03	8.01	7.60	8.40	7.99	8.85	
17	7.60	13.34	9.05	10.51	15.64	8.40	7.03	7.04	7.79	8.62	7.99	8.85	
18	7.60	11.84	9.28	10.51	234.29	7.99	7.59	7.04	8.20	8.83	8.19	8.85	
19	7.79	12.12	9.51	10.77	28.86	7.79	8.14	6.87	8.20	8.40	8.19	8.62	
20	7.79	13.30	9.28	14.22	25.47	7.79	9.77	6.68	7.79	7.99	7.99	8.62	
21	8.20	12.47	9.78	14.79	71.72	7.79	7.99	6.86	7.99	7.60	7.79	8.62	
22	8.40	11.02	10.51	11.31	33.28	7.99	7.79	9.80	7.99	7.40	7.79	8.83	
23	8.40	11.02	10.51	10.25	26.93	8.19	7.79	6.86	7.99	7.40	7.79	9.06	
24	8.40	11.57	10.51	9.76	855.42	8.19	7.60	7.23	8.19	7.22	7.79	9.28	
25	7.99	11.31	10.51	9.51	37.15	7.99	7.60	7.60	7.99	7.03	7.79	9.05	
26	7.99	10.25	10.77	10.54	16.63	7.79	7.79	7.40	7.79	7.03	7.99	8.83	
27	8.19	10.25	11.02	10.54	13.30	7.79	7.79	7.22	7.99	7.03	8.40	13.89	
28	8.85	16.44	10.51	9.28	12.40	7.99	7.60	7.41	64.92	7.03	8.40	334.02	
29	9.06	-----	10.00	9.53	11.84	7.99	7.60	7.60	8.01	7.22	7.99	15.37	
30	8.83	-----	10.25	96.81	11.56	7.99	7.60	7.22	8.54	7.40	7.99	8.20	
31	9.05	-----	10.51	-----	11.84	-----	7.40	7.22	-----	7.22	-----	7.41	
MEAN	8.16	102.14	28.68	13.44	78.40	9.69	8.04	12.91	9.57	7.16	8.43	23.25	
INCHES	.19	2.12	.66	.30	1.80	.22	.18	.30	.21	.16	.19	.53	

NOTES: TO CONVERT DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY 0.0007415. QUALITY OF RECORDS: GOOD, ESTIMATED TO BE WITHIN 10% OF ACTUAL.

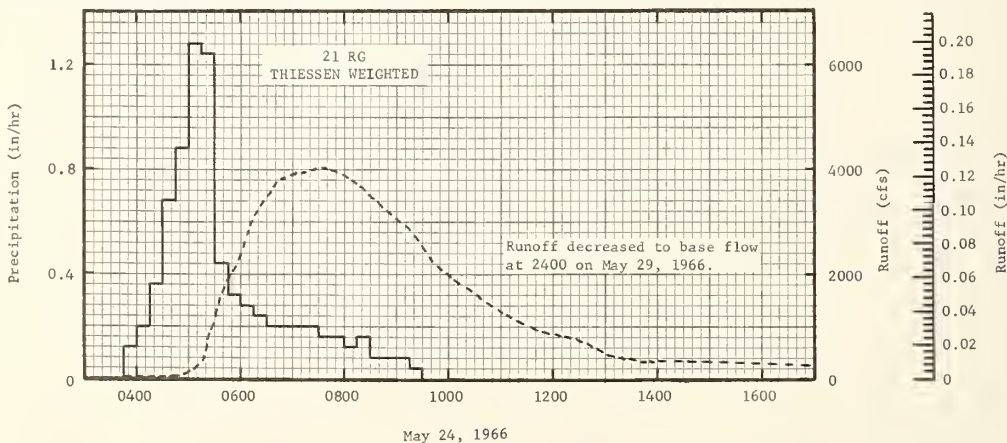
1966 SELECTED RUNOFF EVENT			OXFORD, MISSISSIPPI				WATERSHED W-17				62-05
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)	
Event of May 24, 1966 ^{1/}											
5-24	.00	.0000	5-24	21 RG	AV. .21		5-23	2400	24.05	.0000	
				0345	.00	.00	5-24	0414	25.95	.0033	
				0400	.12	.03		0436	31.82	.0036	
				0415	.20	.08		0448	80.70	.0040	
				0440	.17	.17		0502	140.20	.0048	
				0445	.08	.34		0508	224.00	.0054	
				0500	.88	.56		0514	309.65	.0062	
				0515	1.28	.88		0522	863.50	.0086	
				0530	1.24	1.19		0530	1141.00	.0127	
				0545	.44	1.30		0536	1567.76	.0167	
				0600	.32	1.38		0544	1859.00	.0240	
				0615	.28	1.45		0552	2160.00	.0323	
				0630	.24	1.31		0602	2517.64	.0443	
				0645	.20	1.26		0610	2945.52	.0576	
				0700	.20	1.61		0620	3280.00	.0710	
				0715	.20	1.66		0632	3570.00	.0928	
				0730	.20	1.71		0642	3803.00	.1118	
				0745	.16	1.75		0654	3864.00	.1355	
				0800	.16	1.79		0706	3936.00	.1576	
				0815	.12	1.82		0714	3960.00	.1758	
				0830	.16	1.86		0730	4048.00	.2088	
				0845	.08	1.88		0742	4008.00	.2317	
				0900	.03	1.70		0800	3904.00	.2704	
				0915	.08	1.92		0814	3736.00	.2979	
				0930	.04	1.93		0830	3488.00	.3277	

Continued on next page

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.0000309. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 62.5-5. 1 ISOTHERMAL MAP ON P. 62.11-5. FOR 30-DAY ANTECEDENT P AND Q, SEE TABLES ON THIS AND PREVIOUS PAGE. 2 THIESSEN WEIGHTED STORM RAINFALL, RAIN GAGES 2, 4-9, 13-15, 17-20, 22, 25, 28-31 AND 33. DAILY TOTALS FOR INDIVIDUAL RAIN GAGES LISTED ON P. 62.11-3.

1966 SELECTED RUNOFF EVENT			OXFORD, MISSISSIPPI				WATERSHED W-17 62.05			
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
Event of May 24, 1966 - Continued										
								0844	3272.00	.3521
								0900	3088.00	.3783
								0914	2882.36	.3998
								0924	2652.64	.4140
								0938	2384.00	.4322
								0948	2167.00	.4439
								1002	1943.00	.4587
								1022	1718.68	.4776
								1044	1466.48	.4956
								1114	1165.00	.5159
								1142	951.12	.5312
								1154	890.50	.5369
								1202	858.00	.5405
								1216	803.00	.5465
								1230	759.00	.5521
								1242	630.93	.5564
								1302	438.93	.5620
								1318	408.95	.5655
								1336	379.28	.5691
								1354	364.85	.5726
								1414	359.15	.5763
								1434	370.59	.5801
								1448	359.15	.5827
								1504	347.87	.5856
								1520	336.75	.5894
								1546	320.37	.5928
								1614	286.12	.5972
								1644	260.92	.6014
								1730	224.00	.6072
								1814	197.88	.6120
								1908	163.96	.6170
								2014	138.28	.6221
								2114	119.68	.6261
								2246	90.36	.6311
								2400	79.12	.6343
							5-25	2400	1/ 19.34	.6619

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.0000309. 1/ RUNOFF DECREASED TO 11.5 CFS (NORMAL BASE FLOW) AT 2400 ON MAY 29, 1966.



OXFORD, MISSISSIPPI WATERSHED W-17

MONTHLY PRECIPITATION AND RUNOFF (inches)						OXFORD, MISSISSIPPI WATERSHED W-24 ^{1/}							62.07
						AREA—512 ACRES							
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ₂ / _o	2.39	7.71	1.81	3.10	7.06	.58	1.39	3.23	3.06	2.15	1.64	6.16	40.28
	.01	2.77	.67	.08	1.52	.00	.00	.01	.01	.02	.02	.64	5.75
STA AVG P ₃ / _o (57-66)	3.86	5.29	4.89	4.43	3.95	3.18	3.99	3.28	4.24	2.06	4.27	4.84	48.28
MEAN P ₄ / _o	1.06	1.72	1.43	1.12	.56	.13	.16	.11	.20	.06	.45	.90	7.90
47 YR	5.75	5.31	5.95	5.06	4.58	3.79	4.26	3.21	3.49	2.89	4.56	5.07	53.92

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	5-5	.37	5-5	.30	2-10	.48	2-10	1.22	2-9	1.73	2-9	1.90	2-9	1.93	2-9	2.76

MAXIMUMS FOR PERIOD OF RECORD																
1957 TO	2-23	1.04	2-23	.90	2-23	1.36	2-23	1.64	2-23	1.86	3-28	2.39	1-30	3.16	3-24	5.32
1966	1962		1962		1962		1962		1962		1965		1957		1965	

NOTES: Watershed conditions: About 3% in cultivation (cotton and corn), fair cover November to March, poor cover April and May improving to good by mid-July; 22% in pasture and idle land, good cover April to October with fair cover remainder of year; 73% in woods, good cover; 2% in bare gullies. Percentages of total area in various land use categories are based on the latest survey completed in 1962. ^{1/} About 9% of drainage area above small desilting and retention dams. ^{2/} Monthly precipitation Thiessen weighted from rain gages 4 and 30. ^{3/} Precipitation and runoff records began Jan. 1957. ^{4/} Mean P based on 47-yr (1920-66) U. S. Weather Bureau record period at Holly Springs 2N, Miss.

1966 DAILY PRECIPITATION (inches)						OXFORD, MISSISSIPPI WATERSHED W-24							62.07
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	.00	.49	.00	.00	1.26	.00	.10	.00	.00	.00	.27	.00	
2	.82	.00	.00	.00	.15	.00	.10	.58	.00	.00	.00	.04	
3	.00	.00	1.63	.00	.00	.00	.23	.00	.02	.00	.00	.00	
4	.16	.00	.00	.00	.00	.00	.00	.00	.25	.03	.00	.00	
5	.37	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.03	
6	.01	.01	.00	.00	.00	.51	.00	.00	.00	.00	.00	.07	
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.89	
9	.03	1.54	.00	.00	.00	.00	.00	.33	.00	.29	.00	.99	
10	.00	3.09	.00	.00	.00	.00	.10	.10	.09	.00	.95	.31	
11	.00	.00	.00	.00	.00	.00	.00	.49	.29	.00	.00	.00	
12	.07	1.68	.00	.27	.93	.00	.26	.96	.00	.00	.00	.00	
13	.14	.11	.00	.00	.15	.00	.00	.00	.00	.16	.00	.00	
14	.00	.00	.07	.00	.00	.00	.00	.27	.60	.00	.00	.00	
15	.00	.27	.00	.00	.00	.00	.00	.00	.00	1.08	.00	.00	
16	.00	.04	.00	.00	1.79	.00	.05	.00	.00	.00	.00	.00	
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.19	.00	.00	
18	.015	.00	.00	.05	.72	.00	.01	.00	.32	.40	.29	.00	
19	.00	.00	.00	.00	.00	.00	.28	.00	.36	.00	.00	.00	
20	.00	.00	.00	1.05	.00	.00	.10	.00	.00	.00	.00	.00	
21	.00	.00	.00	.07	.25	.00	.00	.23	.04	.00	.00	.00	
22	.425	.00	.00	.00	.00	.00	.00	.27	.00	.00	.00	.00	
23	.00	.00	.08	.00	.00	.00	.00	.00	.00	.00	.00	.545	
24	.255	.00	.00	.00	1.31	.00	.00	.00	.00	.00	.00	.00	
25	.00	.00	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00	
26	.00	.00	.00	.40	.00	.00	.00	.00	.00	.00	.00	.00	
27	.00	.15	.00	.08	.00	.00	.00	.00	.00	.00	.11	1.12	
28	.00	.33	.00	.00	.00	.00	.00	.00	.46	.00	.00	1.00	
29	.175	.00	.00	.05	.00	.07	.16	.00	.00	.00	.00	.00	
30	.00	.00	.00	1.12	.00	.00	.00	.00	1.23	.00	.00	.04	
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.12	
TOTAL	2.37	7.71	1.81	3.10	7.06	.58	1.39	3.23	3.06	2.15	1.64	6.16	
STAAV	3.86	5.29	4.89	4.43	3.95	3.18	3.99	3.28	4.24	2.06	4.27	4.84	

NOTES: FOR DAILY AIR TEMPERATURES IN THE VICINITY, SEE TABLE OF WATERSHED W-24, P. 127. DAILY PRECIPITATION VALUES THIESSEN WEIGHTED FROM RAIN GAGES 4 AND 30. STATION AVERAGE IS FOR 10-YR (1957-66) RECORD PERIOD.

1966 MEAN DAILY DISCHARGE (cfs)						OXFORD, MISSISSIPPI				WATERSHED W-24			62.07
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	.00	.29	.00	.00	7.81	.00	.00	.00	.00	.00	.00	.00	
2	.11	.00	.00	.00	.12	.00	.00	.00	.00	.00	.00	.00	
3	.00	.00	11.79	.00	.00	.00	.00	.00	.00	.00	.00	.00	
4	.00	.00	2.20	.00	.00	.00	.00	.00	.00	.00	.00	.00	
5	.00	.00	.37	.00	14.22	.00	.00	.00	.00	.00	.00	.00	
6	.00	.00	.12	.00	.00	.00	.00	.00	.00	.00	.00	.00	
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.30	
9	.00	3.18	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.09	
10	.00	37.91	.00	.00	.00	.00	.00	.00	.00	.00	.36	.17	
11	.00	.50	.00	.00	.00	.00	.04	.01	.00	.00	.00	.00	
12	.00	14.59	.00	.00	.00	.00	.00	.18	.00	.00	.00	.00	
13	.00	2.51	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
14	.00	.30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
15	.00	.22	.00	.00	.00	.00	.00	.00	.00	.40	.00	.00	
16	.00	.21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
17	.00	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
18	.00	.00	.00	.00	2.28	.00	.00	.00	.00	.07	.00	.00	
19	.00	.00	.00	.00	.78	.00	.00	.00	.01	.00	.00	.00	
20	.00	.00	.00	.87	.51	.00	.00	.00	.00	.00	.00	.00	
21	.00	.00	.00	.00	.39	.00	.00	.00	.00	.00	.00	.00	
22	.00	.00	.00	.00	.39	.00	.00	.02	.00	.00	.00	.00	
23	.00	.00	.00	.00	.20	.00	.00	.00	.00	.00	.00	.00	
24	.00	.00	.00	.00	6.10	.00	.00	.00	.00	.00	.00	.00	
25	.00	.00	.00	.00	.10	.00	.00	.00	.00	.00	.00	.00	
26	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	
27	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	1.13	
28	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.08	
29	.00	-----	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
30	.00	-----	.00	.86	.00	.00	.00	.00	.15	.00	.00	.00	
31	.00	-----	.00	-----	.00	-----	.00	-----	.00	-----	.00	.00	
MEAN	.00	2.13	.47	.06	1.06	.00	.00	.01	.01	.01	.01	.44	
INCHES	.01	2.77	.67	.08	1.52	.00	.00	.01	.01	.02	.02	.64	

NOTES: TO CONVERT DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY 0.046488. QUALITY OF RECORDS: FAIR, ESTIMATED TO BE WITHIN 15% OF ACTUAL.

1966 SELECTED RUNOFF EVENT			OXFORD, MISSISSIPPI				WATERSHED W-24			62.07
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
			Event of May 24, 1966 ^{1/}							
5-24	2/ .04	.0000	5-24	2 RG	AVG 3/		5-24	0426	.00	.0000
				0400	.00	.00		0442	.39	.0001
				0415	.12	.03		0502	.92	.0006
				0430	.44	.14		0512	4.98	.0015
				0445	.60	.29		0524	12.17	.0048
				0500	.60	.44		0534	14.96	.0092
				0515	1.60	.84		0538	14.96	.0111
				0530	1.04	1.10		0544	24.00	.0149
				0545	.40	1.20		0548	26.94	.0182
				0600	.24	1.26		0554	42.00	.0249
				0615	.24	1.32		0558	51.80	.0309
				0630	.24	1.38		0606	54.60	.0447
				0645	.20	1.43		0614	46.87	.0578
				0700	.20	1.48		0626	36.60	.0740
				0715	.24	1.54		0636	31.80	.0850
				0730	.24	1.60		0646	26.78	.0947
				0745	.16	1.64		0712	27.55	.1184
				0800	.12	1.67		0730	22.94	.1331
				0815	.16	1.71		0738	25.73	.1394
				0830	.12	1.74		0752	26.94	.1513
				0845	.12	1.77		0814	21.93	.1686
				0900	.08	1.79		0842	20.47	.1878
				0915	.08	1.81		0928	15.96	.2148
								1018	11.73	.2372
								1104	7.58	.2515

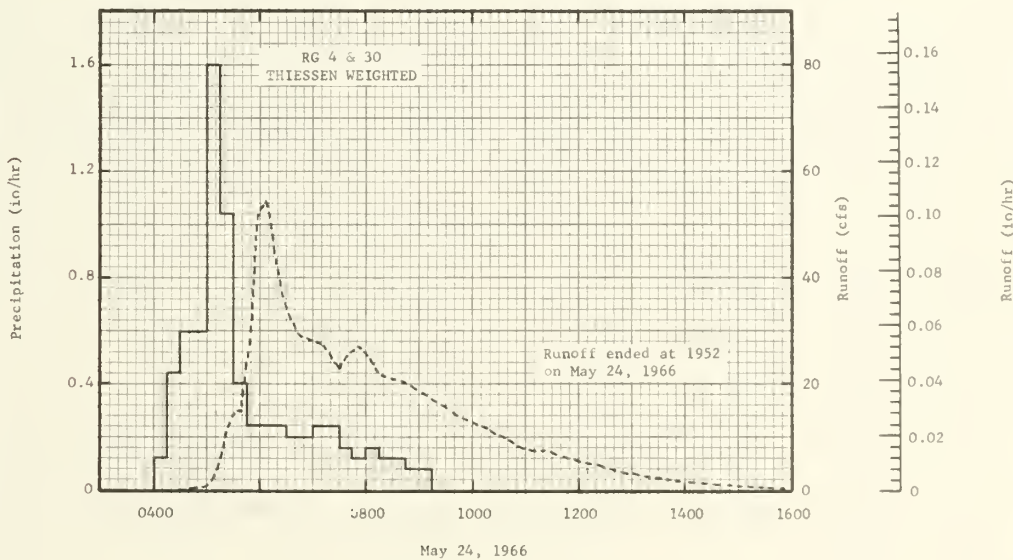
Watershed conditions: 3% of area in cultivation, chiefly cotton and corn, generally poor cover; 7% in pasture and 15% idle, fair to good cover; 73% in woods, good cover; 2% in bare gullies.

Continued on next page

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.001937. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 62.7-4. ^{1/} ISOHYETAL MAP ON P. 62.11-5. ^{2/} RAINFALL PRIOR TO 0400 ON 5-24-66. FOR 30-DAY ANTECEDENT P AND Q, SEE TABLES ON THIS AND PREVIOUS PAGE. ^{3/} THIESSEN WEIGHTED STORM RAINFALL, RAIN GAGES 4 AND 30. DAILY TOTALS FOR INDIVIDUAL RAIN GAGES LISTED ON P. 62.11-3.

1966 SELECTED RUNOFF EVENT			OXFORD, MISSISSIPPI				WATERSHED W-24 62.07			
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MD-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MD-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MD-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
			Event of May 24, 1966 - Continued							
							1124 7.58 .2564			
							1254 1.27 .2721			
							1414 1.47 .2783			
							1644 .30 .2826			
							1952 .00 .2835			

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.001937.



OXFORD, MISSISSIPPI WATERSHED W-24

MONTHLY PRECIPITATION AND RUNOFF (inches)						OXFORD, MISSISSIPPI							WATERSHED W-28 ^{1/}		62.08
						AREA—1,080 ACRES (1.69 SQ. MILES)									
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966	P ₂ / _Q	2.71	7.82	1.72	3.43	6.21	.37	.98	3.51	4.39	2.15	1.55	6.20	41.04	
		.00	.57	.10	.02	.33	.00	.00	.05	.02	.00	.01	.03	1.13	
	STA AVG P ₃ / _O	3.75	5.23	4.83	4.38	3.65	3.23	4.10	2.93	4.62	2.13	4.26	4.74	47.85	
		.37	.55	.49	.28	.14	.05	.09	.05	.14	.04	.14	.26	2.60	
	MEAN P ₄ / _O	5.75	5.31	5.95	5.06	4.58	3.79	4.26	3.21	3.49	2.89	4.56	5.07	53.92	

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	5-16	.19	5-16	.13	5-16	.17	2-10	.33	2-9	.40	2-9	.41	2-9	.41	2-9	.57

MAXIMUMS FOR PERIOD OF RECORD																
19 57 to 19 66	9-9 1959	.58	9-9 1959	.42	9-9 1959	.54	2-23 1962	.70	1-31 1957	.92	1-31 1957	1.45	1-30 1957	2.02	1-27 1957	2.68

NOTES: Watershed conditions: About 12% in cultivation (cotton and corn), fair cover November to March, poor cover April and May improving to good by mid-July; 29% in pasture and idle land, good cover April to October with fair cover remainder of year; 58% in woods, good cover; 1% in bare gullies. Percentages of total area in various land use categories are based on the latest survey completed in 1967. 1/ About 61% of drainage area above small desilting and retention dams. 2/ Monthly precipitation Thiessen weighted from raingages 5, 6, and 7. 3/ Precipitation and runoff records began Jan. 1957. 4/ Mean P based on 47-yr (1920-66) U. S. Weather Bureau record period at Holly Springs 2N, Miss.

1966 DAILY PRECIPITATION (inches)						OXFORD, MISSISSIPPI							WATERSHED W-28		62.08
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC			
1	.00	.45	.00	.00	.76	.00	.00	.00	.07	.00	.29	.00	.00		
2	.98	.00	.00	.00	.15	.00	.24	.21	.02	.00	.00	.00	.00		
3	.00	.00	1.52	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
4	.21	.00	.00	.00	.00	.00	.00	.00	.25	.00	.00	.00	.00		
5	.38	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
6	.01	.09	.00	.00	.00	.33	.00	.00	.00	.00	.00	.00	.08		
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01		
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.90		
9	.06	1.50	.00	.00	.00	.00	.00	.08	.00	.13	.00	.98	.00		
10	.00	3.16	.00	.00	.00	.00	.00	1.22	.05	.00	1.01	.29	.00		
11	.00	.00	.00	.00	.00	.00	.00	.06	.28	.00	.00	.00	.00		
12	.07	1.67	.00	.21	.87	.00	.00	1.39	.00	.00	.00	.00	.00		
13	.13	.10	.00	.00	.24	.00	.00	.00	.00	.15	.00	.00	.00		
14	.00	.00	.10	.00	.00	.00	.00	.27	.00	.00	.00	.00	.00		
15	.00	.29	.00	.00	.00	.00	.00	.00	.00	1.14	.00	.00	.00		
16	.00	.03	.00	.00	1.59	.00	.00	.00	.00	.00	.00	.00	.00		
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	.00	.00	.00		
18	.025	.00	.00	.07	.71	.00	.00	.00	.66	.52	.15	.00	.00		
19	.00	.00	.00	.00	.00	.00	.30	.00	.78	.00	.00	.00	.00		
20	.00	.00	.00	.97	.00	.00	.00	.00	.00	.00	.00	.00	.00		
21	.00	.00	.00	.09	.58	.00	.00	.09	.04	.00	.00	.00	.00		
22	.465	.00	.00	.00	.00	.00	.00	.19	.00	.00	.00	.00	.00		
23	.00	.00	.05	.00	.00	.00	.00	.00	.00	.01	.00	.555	.00		
24	.175	.00	.00	.04	1.31	.00	.00	.00	.00	.00	.00	.00	.00		
25	.00	.00	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00		
26	.00	.00	.00	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00		
27	.00	.12	.00	.14	.00	.00	.00	.00	.14	.00	.10	1.12	.00		
28	.00	.41	.00	.06	.00	.00	.00	.00	1.06	.00	.00	1.09	.00		
29	.225	-----	.00	.03	.00	.04	.39	.00	.00	.00	.00	.00	.00		
30	.00	-----	.00	1.70	.00	.00	.05	.00	1.04	.00	.00	.05	.00		
31	.00	-----	.00	-----	.00	-----	.00	.00	-----	.00	-----	.13	.00		
TOTAL	2.71	7.82	1.72	3.43	6.21	.37	.98	3.51	4.39	2.15	1.55	6.20	41.04		
STA AV	3.75	5.23	4.83	4.38	3.65	3.23	4.10	2.93	4.62	2.13	4.26	4.74	47.85		

NOTES: FOR DAILY AIR TEMPERATURES IN THE VICINITY, SEE TABLE FOR WATERSHED W-4A, P. 62.1-1. DAILY PRECIPITATION VALUES THIESSEN WEIGHTED FROM RAIN GAGES 5, 6, AND 7. STATION AVERAGE IS FOR 10-YR (1957-66) RECORD PERIOD.

1966 MEAN DAILY DISCHARGE (cfs)						OXFORD, MISSISSIPPI			WATERSHED W-28				62-08
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	.00	.00	.00	.00	1.93	.00	.00	.00	.00	.00	.00	.00	
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
3	.00	.00	4.58	.00	.00	.00	.00	.00	.00	.00	.00	.00	
4	.00	.00	.15	.00	.00	.00	.00	.00	.00	.00	.00	.00	
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
9	.00	.42	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	
10	.00	18.36	.00	.00	.00	.00	.00	.25	.00	.00	.33	.00	
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
12	.00	6.78	.00	.00	.00	.00	.00	2.08	.00	.00	.00	.00	
13	.00	.27	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
16	.00	.00	.00	.00	8.17	.00	.00	.00	.00	.00	.00	.00	
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
18	.00	.00	.00	.00	1.65	.00	.00	.00	.00	.00	.00	.00	
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
20	.00	.00	.00	.07	.00	.00	.00	.00	.00	.00	.00	.00	
21	.00	.00	.00	.00	.48	.00	.00	.00	.00	.00	.00	.00	
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
24	.00	.00	.00	.00	2.70	.00	.00	.00	.00	.00	.00	.00	
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
28	.00	.00	.00	.00	.00	.00	.00	.00	.88	.00	.00	1.28	
29	.00	-----	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
30	.00	-----	.00	.96	.00	.00	.00	.00	.00	.00	.00	.00	
31	.00	-----	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
MEAN	.00	.92	.15	.03	.48	.00	.00	.08	.03	.00	.01	.05	
INCHES	.00	.57	.10	.02	.33	.00	.00	.05	.02	.00	.01	.03	

NOTES: TO CONVERT DISCHARGE IN CFS TO IN/OAY, MULTIPLY BY 0.0220387. QUALITY OF RECORDS: FAIR, ESTIMATED TO BE WITHIN 15% OF ACTUAL.

1966 SELECTED RUNOFF EVENT OXFORD, MISSISSIPPI WATERSHED W-28 62-08

ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
			Event of May 24, 1966 ¹ / ₁							
5-24	.00	.0000	5-24	3:40	AVG ² / ₁		5-24	0530	.00	.0000
				0430	.00	.00		0534	1.50	.0001
				0445	.04	.01		0538	7.67	.0004
				0500	.16	.05		0546	8.23	.0014
				0515	.28	.12		0554	11.49	.0030
				0530	1.40	.47		0600	17.63	.0046
				0545	.56	.61		0610	23.10	.0077
				0600	.28	.68		0620	20.29	.0111
				0615	.28	.75		0634	16.00	.0149
				0630	.32	.83		0646	13.12	.0176
				0645	.24	.89		0704	9.40	.0207
				0700	.20	.94		0718	10.59	.0229
				0715	.24	1.00		0724	9.40	.0238
				0730	.24	1.06		0738	13.12	.0262
				0745	.16	1.10		0750	11.20	.0284
				0800	.16	1.14		0758	9.40	.0297
				0815	.16	1.18		0808	9.40	.0311
				0830	.12	1.21		0814	11.82	.0321
				0845	.12	1.24		0826	10.59	.0341
				0900	.12	1.27		0844	9.40	.0369
				0915	.08	1.29		0900	7.11	.0389
				0930	.08	1.31		0906	7.11	.0396
								0928	4.62	.0415
								1130	3.44	.0491
								1428	1.30	.0555

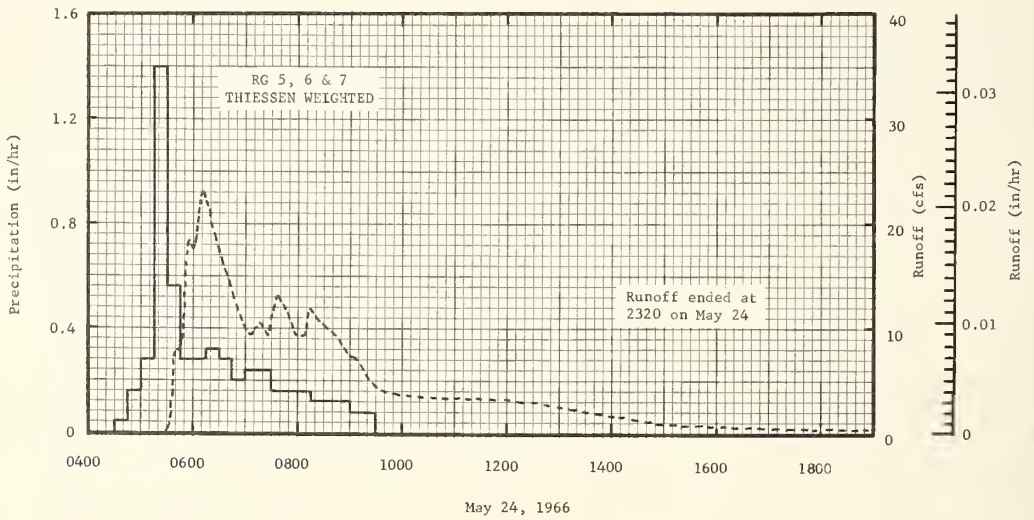
Watershed conditions: 12% of area in cultivation, chiefly cotton and corn, generally poor cover; 10% in pasture, and 19% idle, fair to good cover; 58% in woods, good cover; 1% in bare gullies.

Continued on next page

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.0009183. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USOA MISC. PUB. 945, P. 62.8-5. ¹ ISOHYETAL MAP ON P. 62.11-5. FOR 30-DAY ANTECEDENT P AND Q, SEE TABLES ON THIS AND PREVIOUS PAGE. ² THIENSEN WEIGHTED STORM RAINFALL, RAIN GAGES 5, 6 AND 7. DAILY TOTALS FOR INDIVIDUAL RAIN GAGES LISTED ON P. 62.11-3.

1966 SELECTED RUNOFF EVENT			OXFORD, MISSISSIPPI			WATERSHED W-28 62.08				
ANTECEDENT CONDITIONS			RAINFALL			RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-OAY	TIME OF OAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF OAY	RATE (cfs)	ACC. (inches)
			Event of May 24, 1966 - Continued							
								1758	.49	.0584
								1946	.30	.0591
								2142	.09	.0594
								2320	.00	.0595

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.0009183.



OXFORD, MISSISSIPPI WATERSHED W-28

MONTHLY PRECIPITATION AND RUNOFF (inches)						OXFORD, MISSISSIPPI WATERSHED W-32 ^{1/}							62.10	
						AREA—20,000 ACRES (31.3 SQ. MILES)								
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P ₂	2.50	7.91	1.59	3.46	6.03	.62	1.88	3.44	4.33	2.21	1.82	6.37	42.16
	O	.00	2.94	.54	.12	1.60	.00	.03	.09	.00	.02	.05	.79	6.18
	P ₃	3.84	5.31	4.88	4.68	4.19	3.12	3.97	3.37	4.91	2.02	4.30	4.96	49.55
	O	1.14	1.91	1.80	1.13	.83	.16	.24	.22	.51	.09	.60	1.36	9.99
	P ₄	5.75	5.31	5.95	5.06	4.58	3.79	4.26	3.21	3.49	2.89	4.56	5.07	53.92
	O													

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-10	.30	2-10	.29	2-10	.58	2-10	1.49	2-9	2.09	2-9	2.23	2-9	2.24	2-9	2.94

MAXIMUMS FOR PERIOD OF RECORD

19 57 TO	2-23	.57	2-23	.56	2-23	.83	12-3	1.94	12-3	2.45	12-3	3.48	12-3	3.72	3-24	6.13
19 66	1962		1962		1962		1964		1964		1964		1964		1965	

NOTES: Watershed conditions: About 29% in cultivation (cotton, corn, and soybeans), fair cover November to March, poor cover April and May improving to good by mid-July; 39% in pasture and idle land, good cover April to October with fair cover remainder of year; 30% in woods, good cover; 2% bare gullies. Percentages of total area in various land use categories are based on the latest survey completed in 1964. 1/ About 14% of drainage area above small desilting and retention dams. 2/ Monthly precipitation Thiessen weighted from 10 rain gages. 3/ Precipitation and runoff records began Jan. 1957. 4/ Mean P based on 47-yr (1920-66) U. S. Weather Bureau record period at Holly Springs 2N, Miss.

1966 DAILY PRECIPITATION (inches)						OXFORD, MISSISSIPPI WATERSHED W-32							62.10
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	.00	.35	.00	.00	.76	.00	.00	.00	.02	.00	.32	.00	
2	.92	.00	.00	.00	.13	.00	.08	.76	.00	.00	.00	.00	
3	.00	.00	1.42	.00	.00	.00	.00	.00	.01	.00	.00	.00	
4	.05	.00	.00	.00	.00	.00	.00	.00	.74	.03	.00	.00	
5	.35	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
6	.01	.11	.00	.00	.00	.24	.00	.00	.00	.00	.00	.09	
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.60	.00	2.10	
9	.09	1.85	.00	.00	.00	.00	.52	.02	.00	.10	.00	.91	
10	.00	2.89	.00	.00	.00	.00	.12	.23	.10	.00	1.12	.32	
11	.00	.00	.00	.00	.00	.00	.00	.07	.28	.00	.00	.00	
12	.08	1.73	.00	.23	1.04	.00	.00	1.29	.06	.00	.00	.00	
13	.10	.15	.00	.00	.28	.00	.00	.00	.00	.10	.00	.00	
14	.00	.00	.07	.00	.00	.00	.00	.53	.20	.00	.00	.00	
15	.00	.29	.00	.00	.10	.00	.00	.00	.00	1.27	.00	.00	
16	.00	.02	.00	.00	.90	.00	.00	.00	.00	.00	.00	.00	
17	.00	.00	.00	.00	.00	.00	.00	.02	.00	.22	.00	.00	
18	.035	.00	.00	.04	.69	.00	.19	.00	.39	.47	.23	.00	
19	.00	.00	.00	.00	.00	.00	.39	.00	.52	.00	.02	.00	
20	.00	.00	.00	.67	.00	.00	.52	.13	.03	.00	.00	.00	
21	.00	.00	.00	.13	.00	.00	.00	.14	.00	.00	.00	.00	
22	.505	.00	.00	.00	.00	.00	.00	.25	.00	.00	.00	.00	
23	.00	.00	.03	.00	.00	.00	.00	.00	.00	.02	.00	.455	
24	.165	.00	.00	.03	2.13	.00	.00	.00	.00	.00	.00	.00	
25	.00	.00	.07	.01	.00	.00	.00	.00	.00	.00	.00	.00	
26	.00	.00	.00	.16	.00	.00	.00	.00	.00	.00	.00	.00	
27	.00	.16	.00	.14	.00	.00	.00	.00	.49	.00	.13	1.30	
28	.00	.36	.00	.01	.00	.14	.00	.00	.31	.00	.00	.98	
29	.215	.00	.00	.12	.00	.24	.26	.00	.00	.00	.00	.00	
30	.00	.00	.00	1.72	.00	.00	.00	.00	1.18	.00	.00	.06	
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.15	
TOTAL	2.90	7.91	1.59	3.46	6.03	.62	1.88	3.44	4.33	2.21	1.82	6.37	
STAAV	3.84	5.31	4.88	4.68	4.19	3.12	3.97	3.37	4.91	2.02	4.30	4.96	

NOTES FOR DAILY AIR TEMPERATURES IN THE VICINITY, SEE TABLE FOR WATERSHED W-4A, P. 62.1-1. DAILY PRECIPITATION VALUES THIESSEN WEIGHTED FROM RAIN GAGES 3, 10-14, 20, 21, 24 AND 26. STATION AVERAGE IS FOR 10-YR (1957-66) RECORD PERIOD.

1966 MEAN DAILY DISCHARGE (cfs)					OXFORD, MISSISSIPPI WATERSHED W-32 62.10							
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.00	.00	.00	.00	242.31	.00	.00	.00	.00	2.52	.00	.00
2	2.72	.00	.00	.00	2.07	.00	.00	3.91	.00	.00	.00	.00
3	.00	.00	392.47	.00	.38	.00	.00	5.36	.00	.00	.00	.00
4	.00	.00	57.63	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.89	.00	.00	.00	.00	.00	.03	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	12.71
9	.00	55.93	.00	.00	.00	.00	.00	.00	.00	.00	.00	134.29
10	.00	1822.67	.00	.00	.00	.00	.00	.00	.00	.00	40.49	.18
11	.00	4.94	.00	.00	.00	.00	.00	.00	.00	.00	.50	.02
12	.00	541.75	.00	.00	.70	.00	.00	42.00	.00	.00	.00	.00
13	.00	42.80	.00	.00	18.27	.00	.00	8.84	.00	.00	.00	.00
14	.00	.07	.00	.00	.30	.00	.00	11.76	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	2.38	.00	12.53	.00	.00
16	.00	.00	.00	.00	147.58	.00	.00	.00	.00	.24	.00	.00
17	.00	.00	.00	.00	1.33	.00	.00	.00	.00	.01	.00	.00
18	.00	.00	.00	.00	116.72	.00	6.10	.00	.00	1.93	.00	.00
19	.00	.00	.00	.00	1.18	.00	9.36	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.07	.00	6.05	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	2.82	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	793.38	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	16.66	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.34	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.94
28	.00	.00	.00	.00	.00	.00	.00	.00	.73	.00	.00	510.99
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.42
30	.00	.00	.00	97.14	.00	.00	.00	.00	2.61	.00	.00	.00
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MEAN	.09	88.15	14.55	3.24	43.27	.00	.78	2.39	.11	.56	1.37	21.50
INCHES	.00	2.94	.54	.12	1.60	.00	.03	.09	.00	.02	.05	.79

NOTES: TO CONVERT DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY 0.0011901. QUALITY OF RECORDS: GOOD, ESTIMATED TO BE WITHIN 10% OF ACTUAL.

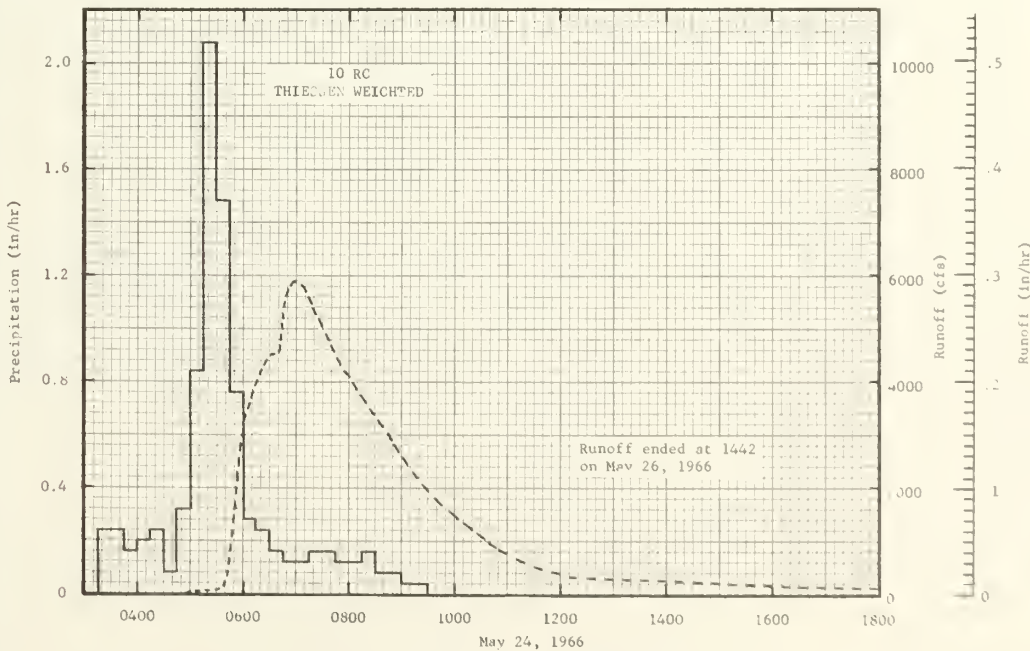
1966 SELECTED RUNOFF EVENT			OXFORD, MISSISSIPPI				WATERSHED W-32 62.10			
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
			Event of May 24, 1966 ^{1/}							
5-24	.00	.0000	5-24	10 RG	AVG 2/		5-24	0450	.00	.0000
				0315	.00	.00		0454	.60	.0001
				0330	.24	.06		0500	30.00	.0001
				0345	.24	.12		0508	30.00	.0003
				0400	.16	.16		0518	38.42	.0006
				0415	.20	.21		0530	78.49	.0012
				0430	.24	.27		0538	192.00	.0021
				0445	.08	.29		0544	814.00	.0046
				0500	.32	.37		0550	1630.00	.0106
				0515	.64	.58		0554	2578.00	.0176
				0530	2.08	1.10		0600	3220.00	.0320
				0545	1.48	1.47		0612	3961.00	.0676
				0600	.76	1.66		0622	4325.00	.1018
				0615	.28	1.73		0628	4468.00	.1236
				0630	.24	1.79		0636	4520.00	.1533
				0645	.16	1.83		0640	4546.00	.1683
				0700	.12	1.86		0646	5564.00	.1934
				0715	.12	1.89		0652	5802.00	.2216
				0730	.16	1.93		0700	5900.00	.2602
				0745	.16	1.97		0710	5718.00	.3083
				0800	.12	2.00		0728	5088.00	.3886
				0815	.12	2.03		0742	4598.00	.4447
				0830	.16	2.07		0754	4195.00	.4883
				0845	.08	2.09		0800	4104.00	.5088
				0900	.08	2.11		0808	3844.00	.5351

Continued on next page

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.0000496. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 62.10-5. ^{1/} ISOTHERMAL MAP ON P. 62.11-5. FOR 30-DAY ANTECEDENT P AND Q, SEE TABLES ON THIS AND PREVIOUS. ^{2/} THIESSEN WEIGHTED STORM RAINFALL, RAIN GAGES 3, 10-14, 20, 21, 24 AND 26. DAILY TOTALS FOR INDIVIDUAL RAIN GAGES LISTED ON P. 62.11-3.

1/66 SELECTED RUNOFF EVENT			OXFORD, MISSISSIPPI				WATERSHED W-32		62.10	
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
			Event of May 24, 1966 - Continued							
				0915	.04	2.12		0822	3545.00	.5779
				0930	.04	2.13		0842	3090.00	.6327
								0846	2946.95	.6427
								0906	2470.00	.6874
								0924	2021.84	.7209
								0942	1754.36	.7490
								0958	1500.00	.7705
								1020	1239.52	.7954
								1040	954.37	.8136
								1106	731.84	.8317
								1126	558.00	.8424
								1152	403.36	.8527
								1206	341.50	.8570
								1218	334.50	.8604
								1228	320.49	.8631
								1240	320.49	.8663
								1302	306.37	.8720
								1328	282.27	.8783
								1402	252.69	.8858
								1426	223.00	.8905
								1454	201.09	.8954
								1530	171.64	.9010
								1628	145.38	.9086
								1654	148.31	.9117
								1806	118.04	.9196
								1912	103.18	.9257
								2040	87.00	.9325
								2112	82.81	.9347
								2400	54.13	.9442
							5-25	0258	38.42	.9510
								0600	24.10	.9557
								0858	16.71	.9587
								1158	11.36	.9608
								1458	7.82	.9623
								1756	1/4.93	.9632

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.0000496. 1/ RUNOFF ENDED AT 1442 ON MAY 26, 1966.



OXFORD, MISSISSIPPI WATERSHED W-32

MONTHLY PRECIPITATION AND RUNOFF (inches)						OXFORD, MISSISSIPPI AREA=75,000 ACRES (117.2 SQ. MILES)						WATERSHED W-34 ^{1/}		62.11
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P ^{2/} Q ^{3/}	2.39 .35	7.72 2.74	1.70 .92	3.47 .49	6.53 2.09	.66 .40	1.83 .45	4.60 .64	3.61 .31	2.09 .30	1.50 .32	6.06 .82	42.16 9.83
	STA AVG P ^{4/} (57-66) O	3.79 1.37	5.21 1.98	4.84 1.96	4.63 1.35	3.93 1.01	3.22 .49	3.97 .58	3.72 .54	4.62 .77	1.99 .38	4.16 .85	4.91 1.49	48.99 12.77
	MEAN P ^{5/} 47 YR	5.75	5.31	5.95	5.06	4.58	3.79	4.26	3.21	3.49	2.89	4.56	5.07	53.92

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
			DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-10	.09	2-10	.09	2-10	.18	2-10	.54	2-10	1.00	2-9	1.42	2-9	1.53	2-9	2.44

MAXIMUMS FOR PERIOD OF RECORD																
1957 TO 1966	2-23 1962	.14	2-23 1962	.14	2-23 1962	.27	2-23 1962	.78	2-23 1962	1.35	12-3 1964	2.23	12-3 1964	2.72	3-24 1965	4.77

NOTES: Watershed conditions: About 24% in cultivation (cotton, corn, and soybeans), fair cover November to March, poor cover April and May improving to good by mid-July; 35% in pasture and idle land, good cover April to October with fair cover remainder of year; 39% in woods, good cover; 1% in bare gullies; 1% urban. Percentages of total area in various land use categories are based on the latest survey completed in 1965. 1/ About 18% of area, principally in upper reaches, above small desilting and retention dams. 2/ Monthly precipitation Thiessen weighted from 32 rain gages. 3/ Monthly values of runoff include relatively insignificant flow through auxiliary station 34-A. 4/ Precipitation and runoff records began Jan. 1957. 5/ Mean P based on 47-yr (1920-66) U. S. Weather Bureau record period at Holly Springs 2N, Miss.

1966 DAILY PRECIPITATION (inches)					OXFORD, MISSISSIPPI								WATERSHED W-34		62.11
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC			
1	.00	.33	.00	.00	.84	.00	.01	.06	.02	.00	.29	.00			
2	.89	.00	.00	.00	.15	.00	.13	1.04	.02	.00	.00	.01			
3	.00	.00	1.53	.00	.00	.00	.01	.00	.04	.00	.00	.00			
4	.08	.00	.00	.00	.00	.00	.00	.00	.38	.03	.00	.00			
5	.37	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.02			
6	.01	.07	.00	.00	.00	.39	.00	.00	.00	.00	.00	.07			
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01			
8	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	2.01			
9	.04	1.79	.00	.00	.00	.00	.36	.09	.00	.20	.00	.92			
10	.00	2.90	.00	.00	.00	.00	.05	.33	.13	.00	.86	.30			
11	.00	.00	.00	.00	.00	.00	.05	.13	.31	.00	.00	.00			
12	.07	1.68	.00	.24	.98	.00	.01	1.41	.02	.00	.00	.00			
13	.11	.12	.00	.00	.22	.00	.00	.02	.00	.08	.00	.00			
14	.00	.00	.06	.00	.00	.00	.00	.66	.05	.00	.00	.00			
15	.00	.27	.00	.00	.04	.00	.00	.00	.00	1.15	.00	.00			
16	.00	.03	.00	.00	1.15	.00	.03	.00	.00	.00	.00	.00			
17	.00	.00	.00	.00	.00	.00	.00	.10	.00	.21	.00	.00			
18	.025	.00	.00	.05	.78	.00	.28	.05	.40	.39	.20	.00			
19	.00	.00	.00	.00	.00	.00	.31	.00	.37	.00	.02	.00			
20	.00	.00	.00	.92	.00	.00	.41	.10	.02	.00	.00	.00			
21	.00	.00	.00	.09	.17	.00	.00	.36	.01	.00	.00	.00			
22	.475	.00	.00	.00	.00	.00	.00	.25	.00	.00	.00	.00			
23	.00	.00	.06	.00	.00	.00	.00	.00	.00	.03	.00	.435			
24	.155	.00	.00	.04	2.20	.00	.00	.00	.00	.00	.00	.02			
25	.00	.00	.05	.02	.00	.00	.00	.00	.00	.00	.00	.00			
26	.00	.00	.00	.27	.00	.00	.00	.00	.00	.00	.00	.00			
27	.00	.15	.00	.10	.00	.00	.00	.00	.21	.00	.12	1.17			
28	.00	.38	.00	.01	.00	.04	.00	.00	.47	.00	.00	.92			
29	.185	-----	.00	.08	.00	.21	.17	.00	.00	.00	.00	.00			
30	.00	-----	.00	1.64	.00	.00	.01	.00	1.16	.00	.00	.05			
31	.00	-----	.00	-----	.00	-----	.00	.00	-----	.00	-----	.13			
TOTAL	2.39	7.72	1.70	3.47	6.53	.66	1.83	4.60	3.61	2.09	1.50	6.06			
STA AV	3.79	5.21	4.84	4.63	3.93	3.22	3.97	3.72	4.62	1.99	4.16	4.91			

NOTES: FOR DAILY AIR TEMPERATURES IN THE VICINITY, SEE TABLE FOR WATERSHED W-4A, P. 62.1-1. DAILY PRECIPITATION VALUES THIESSEN WEIGHTED FROM RAIN GAGES 1-31, AND 33. STATION AVERAGE IS FOR 10-YR (1957-66) RECORD PERIOD.

1966 MEAN DAILY DISCHARGE (cfs)						OXFORD, MISSISSIPPI				WATERSHED W-34				62.11
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC		
1	33.49	90.78	59.06	34.15	1157.71	48.92	41.74	37.37	33.07	36.12	30.33	33.52		
2	66.67	62.69	48.98	34.52	102.57	47.21	43.17	131.28	33.41	29.22	31.07	33.86		
3	46.19	35.90	1380.22	35.63	49.00	46.36	41.08	87.57	33.41	29.21	31.07	34.21		
4	34.92	33.50	438.84	36.48	39.43	46.34	41.06	33.14	33.07	29.21	31.07	34.21		
5	37.48	33.17	57.35	37.43	36.12	46.31	43.90	31.04	32.74	28.85	31.07	34.58		
6	37.88	32.49	40.53	38.49	35.25	45.50	41.28	29.57	31.70	28.49	31.44	34.91		
7	34.92	31.82	37.85	39.05	34.87	44.68	40.49	28.84	31.00	28.84	31.80	34.18		
8	34.19	31.82	35.29	39.05	34.87	44.68	42.38	28.13	30.63	28.49	32.14	49.42		
9	33.17	102.25	35.26	39.68	34.86	43.90	47.23	30.81	30.63	28.49	32.82	393.67		
10	32.49	4441.50	34.89	39.68	34.49	43.12	50.42	30.69	30.26	28.49	74.98	83.88		
11	33.16	314.84	34.52	39.68	34.86	43.12	50.85	31.91	30.26	27.78	36.11	52.27		
12	33.83	2036.95	34.88	39.69	53.10	43.12	47.30	360.35	30.26	27.78	31.87	41.06		
13	33.49	508.57	35.25	39.06	139.72	42.38	47.30	145.48	30.26	28.49	31.49	38.62		
14	33.16	102.25	34.88	39.69	49.94	41.64	41.69	343.12	31.00	28.49	31.47	36.54		
15	33.49	67.89	34.88	41.00	41.72	41.64	40.26	69.23	31.00	48.50	31.83	36.10		
16	33.16	80.19	34.87	40.98	775.42	42.38	40.95	34.59	30.63	32.79	32.17	34.64		
17	32.82	66.43	34.87	39.63	75.74	41.69	40.95	32.80	29.89	30.71	32.52	33.19		
18	33.49	56.89	34.87	40.32	616.22	40.26	58.95	45.99	29.89	32.10	33.18	32.86		
19	33.49	53.33	34.50	41.64	94.07	40.26	57.47	32.09	30.25	32.10	33.52	32.52		
20	34.21	51.57	34.50	52.20	49.94	39.63	85.31	32.09	30.99	30.32	33.52	32.52		
21	34.89	51.57	34.87	67.71	70.24	38.44	59.71	34.70	31.72	29.58	33.85	33.19		
22	34.52	49.83	34.87	44.00	61.16	39.76	43.12	91.35	30.99	29.58	33.85	33.86		
23	34.52	48.95	34.50	42.38	35.72	41.64	41.69	34.26	30.25	29.95	34.57	35.92		
24	34.52	49.81	34.50	42.40	2355.99	41.64	40.95	32.80	30.25	30.32	34.57	37.49		
25	34.51	48.95	34.50	42.43	227.71	42.38	40.32	32.80	30.63	29.95	33.52	36.54		
26	34.17	48.08	34.50	46.92	72.55	42.38	41.06	32.46	30.63	29.58	33.19	35.69		
27	33.83	49.83	34.86	54.19	58.72	40.32	41.06	32.09	30.63	29.95	33.52	54.61		
28	34.97	59.93	34.52	40.56	55.09	38.44	39.00	32.73	79.52	29.95	33.52	1021.24		
29	35.69	-----	34.15	39.82	53.31	38.46	39.63	33.41	30.96	29.58	33.19	73.42		
30	35.69	-----	34.15	333.99	52.42	39.68	39.63	33.07	33.22	29.58	33.19	38.36		
31	35.31	-----	34.15	-----	50.66	-----	37.94	33.07	-----	29.59	-----	38.40		
MEAN	35.74	308.62	93.40	51.41	212.36	42.53	45.41	65.11	32.77	30.38	34.07	83.07		
INCHES	.35	2.74	.92	.49	2.09	.40	.45	.64	.31	.30	.32	.82		

NOTES: TO CONVERT DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY 0.00031736. QUALITY OF RECORDS: GOOD, ESTIMATED TO BE WITHIN 10% OF ACTUAL. DAILY DISCHARGE VALUES INCLUDE RELATIVELY INSIGNIFICANT FLOW THROUGH AUXILIARY STATION 34-A.

1966 SELECTED RUNOFF EVENT			OXFORD, MISSISSIPPI				WATERSHED W-34				62.11
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)	
Event of May 24 - June 4, 1966 ^{1/}											
5-24	.00	.0000	5-24	32 RG	AVC 2/		5-23	2400	34.50	.0000	
				0315	.00	.00	5-24	0454	73.52	.0035	
				0330	.08	.02		0514	100.40	.0039	
				0345	.08	.04		0526	135.57	.0042	
				0400	.12	.07		0530	169.83	.0044	
				0415	.24	.13		0538	240.89	.0047	
				0430	.40	.23		0544	338.15	.0051	
				0445	.64	.39		0552	515.71	.0059	
				0500	1.08	.66		0600	684.57	.0069	
				0515	1.52	1.04		0604	784.80	.0076	
				0530	1.52	1.42		0608	873.68	.0083	
				0545	.76	1.61		0614	1589.91	.0099	
				0600	.40	1.71		0618	2302.89	.0117	
				0615	.28	1.78		0624	2826.13	.0150	
				0630	.24	1.84		0634	3629.80	.0222	
				0645	.16	1.88		0646	4512.69	.0329	
				0700	.16	1.92		0658	5205.17	.0458	
				0715	.16	1.96		0710	5717.65	.0602	
				0730	.20	2.01		0720	5992.72	.0731	
				0745	.12	2.04		0736	6194.03	.0946	
				0800	.12	2.07		0750	6328.93	.1139	
				0815	.12	2.10		0800	6364.00	.1279	
				0830	.12	2.13		0810	6399.91	.1420	
				0845	.12	2.16		0826	6448.58	.1646	
				0900	.08	2.18		0840	6474.66	.1846	

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.00001322. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USOA MISC. PUB. 945, P. 62.11-4. ^{1/} ISOHYETAL MAP ON P. 62.11-5. FOR 30-DAY ANTECEDENT P AND Q, SEE TABLES ON THIS AND PREVIOUS PAGE. ^{2/} THIESSEN WEIGHTED STORM RAINFALL, RAIN GAGES 1-31 AND 33. DAILY TOTALS FOR INDIVIDUAL GAGES LISTED ON P. 62.11-3.

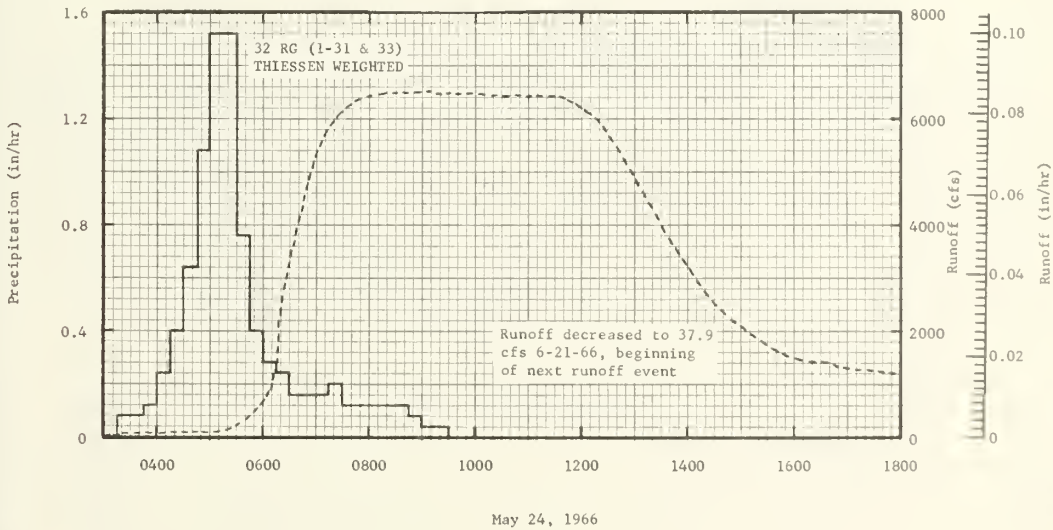
1966 SELECTED RUNOFF EVENT			OXFORD, MISSISSIPPI				WATERSHED W-34 62.11			
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MD-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
Event of May 24 - June 4, 1966 - Continued										
				0915	.04	2.19		0858	6446.91	.2102
				0930	.04	2.20		0926	6455.08	.2500
								0946	6438.91	.2784
								1000	6410.91	.2983
								1010	6393.98	.3124
			TOTALS	EACH	RAIN	GAGE		1018	6387.77	.3236
			RG 1	3.66	RG 17	3.85		1034	6364.35	.3461
			RG 2	2.55	RG 18	1.25		1112	6387.10	.3995
			RG 3	1.74	RG 19	2.63		1146	6286.46	.4470
			RG 4	1.72	RG 20	2.48		1158	6183.64	.4635
			RG 5	1.20	RG 21	1.90		1224	5780.57	.4978
			RG 6	1.35	RG 22	1.90		1230	5643.70	.5053
			RG 7	1.25	RG 23	2.31		1242	5352.28	.5199
			RG 8	1.35	RG 24	2.04		1256	4980.01	.5358
			RG 9	2.75	RG 25	2.24		1312	4486.00	.5525
			RG 10	1.97	RG 26	2.15		1328	3971.98	.5674
			RG 11	1.60	RG 27	2.45		1350	3485.70	.5855
			RG 12	2.05	RG 28	1.66		1400	3190.06	.5928
			RG 13	3.07	RG 29	1.52		1406	3015.94	.5969
			RG 14	2.70	RG 30	1.90		1428	2548.99	.6104
			RG 15	2.43	RG 31	1.51		1454	2087.96	.6237
			RG 16	2.55	RG 33	1.91		1508	1939.31	.6299
								1514	1873.31	.6324
								1532	1675.91	.6395
								1554	1494.00	.6472
								1600	1474.00	.6491
								1610	1441.49	.6523
								1634	1400.48	.6599
								1648	1356.24	.6641
								1710	1276.70	.6705
								1744	1221.71	.6799
								1800	1187.61	.6841
								1830	1124.34	.6917
								1918	1050.31	.7033
								2000	960.19	.7126
								2014	932.01	.7155
								2108	830.85	.7260
								2200	745.11	.7350
								2202	741.92	.7353
								2304	665.50	.7449
							5-25	2400	594.84	.7527
								0116	514.87	.7620
								0246	437.78	.7715
								0300	428.01	.7728
								0416	375.76	.7795
								0546	328.64	.7865
								0600	320.45	.7875
								0716	276.35	.7925
								0846	237.77	.7976
								1000	211.04	.8013
								1016	205.31	.8020
								1144	175.02	.8057
								1400	147.82	.8105
								1444	139.01	.8119
								1744	114.21	.8169
								1800	112.50	.8173
								2046	95.09	.8211
								2400	84.71	.8250
							5-26	0800	76.56	.8335
								1600	68.46	.8412
								2000	64.50	.8447
								2400	60.59	.8480
							5-27	1200	58.73	.8575
								1700	57.94	.8613
								2400	56.86	.8666

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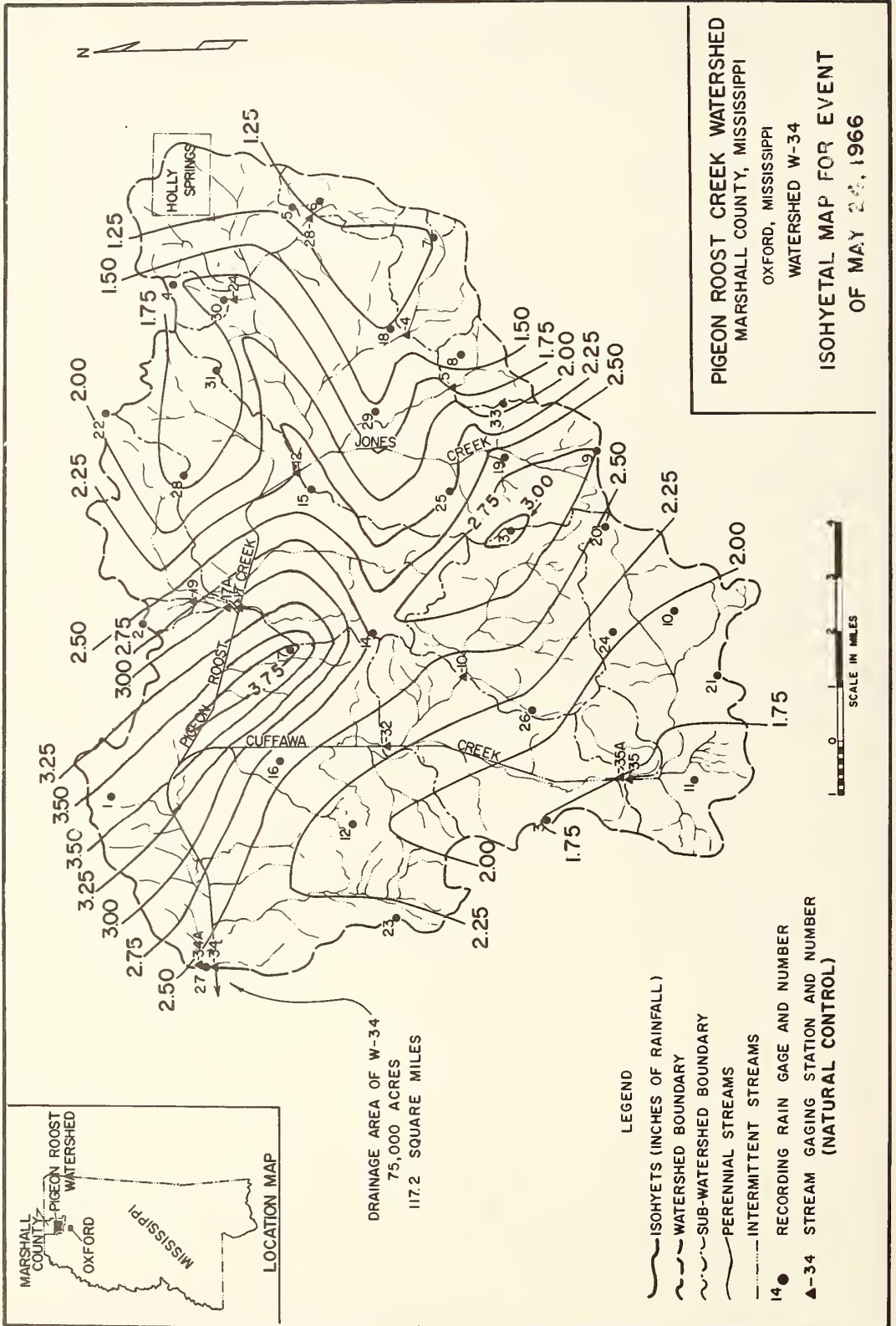
NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.0001322.

1966			SELECTED RUNOFF EVENT				OXFORD, MISSISSIPPI		WATERSHED W-34		62.11	
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF					
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)		
Event of May 24 - June 4, 1966 - Continued												
							5-28	0800	55.68	.8726		
								1800	54.20	.8799		
								2400	53.31	.8841		
							5-29	1000	53.31	.8912		
								1800	53.31	.8968		
								2400	53.31	.9010		
							5-30	2400	51.54	.9177		
							5-31	2400	49.79	.9338		
							6-1	2400	48.06	.9493		
							6-2	2400	46.37	.9643		
							6-3	2400	46.36	.9790		
							6-4	2400	1/46.31	.9937		

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.00001322. 1/ RUNOFF DECREASED TO 37.9 CFS ON 6-21-66, BEGINNING OF NEXT RUNOFF EVENT.



OXFORD, MISSISSIPPI WATERSHED W-34



MONTHLY PRECIPITATION AND RUNOFF (inches)						OXFORD, MISSISSIPPI WATERSHED W-35 ^{1/} AREA—7,550 ACRES (11.8 SQ MILES)							62.12
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	2.51 P2/ Q	7.64 2.90	1.52 .38	3.17 .01	5.79 .90	.54 .00	1.73 .00	2.30 .00	4.76 .01	2.19 .01	1.95 .04	6.33 .57	40.43 4.82
STA AVG (57-66)	3.78 P3/ O	5.25 2.04	4.90 1.86	4.65 1.18	4.31 .82	3.10 .14	3.97 .22	3.11 .19	5.11 .50	1.97 .04	4.21 .56	4.89 1.32	49.25 10.25
MEAN 47 YR	5.75 P4/	5.31	5.95	5.06	4.58	3.79	4.26	3.21	3.49	2.89	4.56	5.07	53.92

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	2-10	.31	2-10	.31	2-10	.60	2-10	1.57	2-9	2.13	2-9	2.26	2-9	2.26	2-9	2.90

MAXIMUMS FOR PERIOD OF RECORD																
19 57 TO	5-26	.88	5-26	.84	5-26	1.48	2-23	2.19	2-23	2.43	12-3	3.09	1-30	3.46	3-24	5.69
19 66	1963		1963		1963		1962		1962		1964		1957		1965	

NOTES: Watershed conditions: About 27% in cultivation (cotton, corn, and soybeans), fair cover November to March, poor cover April and May improving to good by mid-July; 47% in pasture and idle land; good cover April to October with fair cover remainder of year; 24% in woods, good cover; 2% in bare gullies. Percentages of total area in various land use categories are based on the latest survey completed in 1964. 1/ About 12% of drainage area above small desilting and retention dams. 2/ Monthly precipitation Thiessen weighted from 5 rain gages. 3/ Precipitation and runoff records began Jan. 1957. 4/ Mean P based on 47-yr (1920-66) U. S. Weather Bureau record period at Holly Springs 2N, Miss.

1966 DAILY PRECIPITATION (inches)						OXFORD, MISSISSIPPI WATERSHED W-35							62.12
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	.00	.36	.00	.00	.80	.00	.00	.00	.05	.00	.32	.00	
2	.94	.00	.00	.00	.12	.00	.05	.48	.01	.00	.00	.00	
3	.00	.00	1.34	.00	.00	.00	.00	.00	.00	.00	.00	.00	
4	.04	.00	.00	.00	.00	.00	.00	.00	1.22	.01	.00	.00	
5	.34	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
6	.00	.11	.00	.00	.00	.19	.00	.00	.00	.00	.00	.11	
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.60	.00	2.06	
9	.13	1.73	.00	.00	.00	.00	.53	.03	.00	.12	.00	.88	
10	.00	2.86	.00	.00	.00	.00	.32	.07	.09	.00	1.32	.32	
11	.00	.00	.00	.00	.00	.00	.00	.14	.30	.00	.00	.00	
12	.10	1.64	.00	.25	1.14	.00	.00	.76	.00	.00	.00	.00	
13	.09	.14	.00	.00	.32	.00	.00	.00	.00	.10	.00	.00	
14	.00	.00	.08	.00	.00	.00	.00	.42	.31	.00	.00	.00	
15	.00	.29	.00	.00	.00	.00	.00	.00	.00	1.77	.00	.00	
16	.00	.02	.00	.00	.84	.00	.01	.00	.00	.00	.00	.00	
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.23	.00	.00	
18	.045	.00	.00	.03	.67	.00	.02	.00	.44	.52	.16	.00	
19	.00	.00	.00	.00	.00	.00	.36	.00	.63	.00	.03	.00	
20	.00	.00	.00	.87	.00	.00	.27	.13	.03	.00	.00	.00	
21	.00	.00	.00	.14	.00	.00	.00	.01	.00	.00	.00	.00	
22	.485	.00	.00	.01	.00	.00	.00	.26	.00	.00	.00	.00	
23	.00	.00	.01	.01	.00	.00	.00	.00	.00	.04	.00	.475	
24	.165	.00	.00	.02	1.90	.00	.00	.00	.00	.00	.00	.00	
25	.00	.00	.09	.01	.00	.00	.00	.00	.00	.00	.00	.00	
26	.00	.00	.00	.14	.00	.00	.00	.00	.00	.00	.00	.00	
27	.00	.15	.00	.21	.00	.00	.00	.00	.20	.00	.12	1.32	
28	.00	.34	.00	.00	.00	.17	.00	.00	.34	.00	.00	.96	
29	.195	.00	.00	.11	.00	.18	.12	.00	.00	.00	.00	.00	
30	.00	.00	.00	1.37	.00	.00	.00	.00	1.14	.00	.00	.06	
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	
TOTAL	2.51	7.64	1.52	3.17	5.79	.54	1.73	2.30	4.76	2.19	1.95	6.33	
STA AV	3.78	5.25	4.90	4.65	4.31	3.10	3.97	3.11	5.11	1.97	4.21	4.89	

NOTES: FOR DAILY AIR TEMPERATURES IN THE VICINITY, SEE TABLE FOR WATERSHED W-4A, P. 62.1-1. DAILY PRECIPITATION VALUES THIESSEN WEIGHTED FROM RAIN GAGES 10, 11, 20, 21 AND 24. STATION AVERAGE IS FOR 10-YR (1957-66) RECORD PERIOD.

1966 MEAN DAILY DISCHARGE (cfs)						OXFORD, MISSISSIPPI			WATERSHED W-35				62.12
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	.00	1.22	.00	.00	63.35	.00	.00	.00	.00	.02	.00	.00	
2	.00	.13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
3	.00	.00	104.79	.00	.00	.00	.00	.00	.00	.00	.00	.00	
4	.00	.00	15.30	.00	.00	.00	.00	.00	1.74	.00	.00	.00	
5	.00	.00	.06	.00	.00	.00	.00	.00	.00	.00	.00	.00	
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.09	
9	.00	20.34	.00	.00	.00	.00	.00	.00	.00	.00	.00	37.08	
10	.00	695.87	.00	.00	.00	.00	.00	.00	.00	.00	13.49	.13	
11	.00	.30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
12	.00	175.36	.00	.00	.80	.00	.00	.36	.00	.00	.00	.00	
13	.00	26.15	.00	.00	8.26	.00	.00	.00	.00	.00	.00	.00	
14	.00	.43	.00	.00	.00	.00	.00	.88	.00	.00	.00	.00	
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.26	.00	.00	
16	.00	1.28	.00	.00	22.00	.00	.00	.00	.00	.00	.00	.00	
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
18	.00	.00	.00	.00	27.10	.00	.00	.00	.00	.04	.00	.00	
19	.00	.00	.00	.00	.00	.00	.00	.00	.29	.00	.00	.00	
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
24	.00	.00	.00	.00	164.01	.00	.00	.00	.00	.00	.00	.00	
25	.00	.00	.00	.00	.20	.00	.00	.00	.00	.00	.00	.00	
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.77	
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	130.09	
29	.00	-----	.00	.00	.00	.00	.00	.00	.00	.00	.00	.81	
30	.00	-----	.00	3.28	.00	.00	.00	.00	.25	.00	.00	.00	
31	.00	-----	.00	-----	.00	-----	.00	-----	.00	-----	.00	.00	
MEAN	.00	32.89	3.88	.11	9.22	.00	.00	.04	.08	.07	.45	5.80	
INCHES	.00	2.90	.38	.01	.90	.00	.00	.00	.01	.01	.04	.57	

NOTES: TO CONVERT DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY 0.0031526. QUALITY OF RECORDS: FAIR, ESTIMATED TO BE WITHIN 15% OF ACTUAL.

1966 SELECTED RUNOFF EVENT			OXFORD, MISSISSIPPI			WATERSHED W-35			62.12	
ANTECEDENT CONDITIONS			RAINFALL			RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
			Event of May 24, 1966 ^{1/}							
5-24	.00	.0000	5-24	5 RG	AV ^{2/}		5-24	0530	.00	.0000
				0315	.00	.00		0544	3.10	.0001
				0330	.04	.01		0558	29.13	.0006
				0345	.40	.11		0610	125.00	.0026
				0400	.16	.15		0612	197.01	.0033
				0415	.12	.18		0618	561.37	.0083
				0430	.04	.19		0626	915.34	.0212
				0445	.00	.19		0638	1266.00	.0499
				0500	.04	.20		0646	1371.00	.0730
				0515	.16	.24		0654	1413.00	.0974
				0530	2.20	.79		0710	1476.00	.1480
				0545	1.76	1.23		0722	1511.00	.1872
				0600	.88	1.45		0732	1462.00	.2197
				0615	.28	1.52		0748	1294.00	.2680
				0630	.16	1.56		0806	1055.92	.3143
				0645	.16	1.60		0832	683.92	.3638
				0700	.10	1.04		0850	495.87	.3871
				0715	.12	1.67		0908	402.69	.4048
				0730	.16	1.71		0930	335.62	.4226
				0745	.12	1.74		0948	279.75	.4347
				0800	.16	1.78		1000	247.70	.4416
				0815	.12	1.81		1030	187.36	.4559
				0830	.12	1.84		1048	156.00	.4627
				0845	.08	1.86		1108	127.92	.4689
				0900	.08	1.88		1126	109.60	.4736

Continued on next page

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.0001314. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 62.12-5. 1/ ISOHYETAL MAP ON P. 62.11-5. FOR 30-DAY ANTECEDENT P AND Q, SEE TABLES ON THIS AND PREVIOUS PAGE. 2/ THIESSEN WEIGHTED STORM RAINFALL, RAIN GAGES 10, 11, 20, 21 AND 24. DAILY TOTALS FOR INDIVIDUAL RAIN GAGES LISTED ON P. 62.11-3.

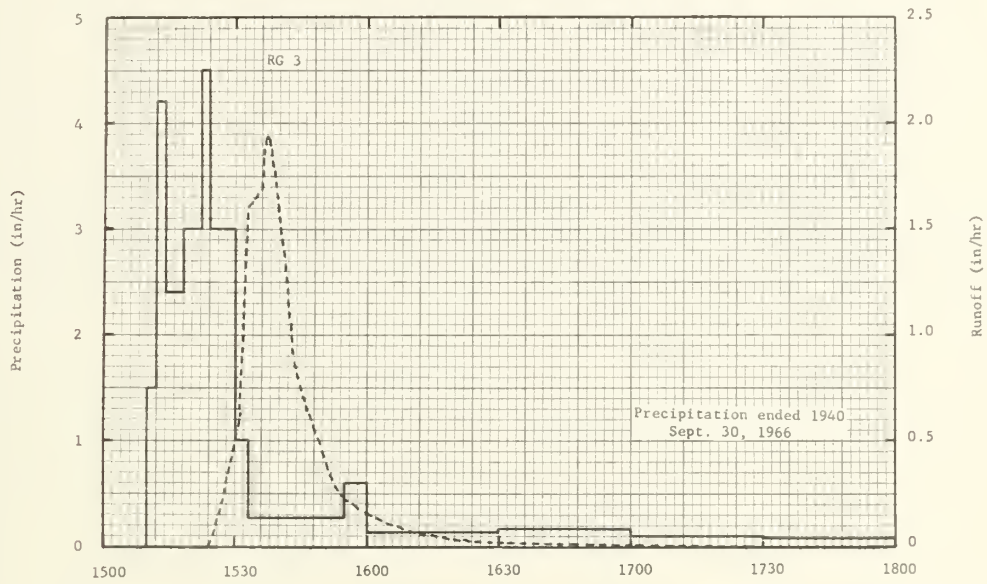
1966 SELECTED RUNOFF EVENT			OXFORD, MISSISSIPPI				WATERSHED W-35		62.12	
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MD-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MD-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MD-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
			<u>Event of May 24, 1966 - Continued</u>							
				0915	.08	1.90		1200	89.08	.4809
								1254	66.38	.4901
								1330	53.90	.4949
								1432	37.94	.5011
								1534	29.13	.5057
								1630	20.26	.5087
								1736	16.36	.5113
								1850	10.07	.5135
								2030	6.31	.5153
								2210	3.93	.5164
							5-25	2400	2.04	.5171
								0302	.50	.5176
								0602	.09	.5177
								0832	.00	.5177

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.0001314.



OXFORD, MISSISSIPPI WATERSHED W-35

MONTHLY PRECIPITATION AND RUNOFF (inches)						OXFORD, MISSISSIPPI WATERSHED WC-1 AREA—3.88 ACRES										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P1/	2.53	7.87	1.66	3.40	7.39	.99	1.27	3.35	3.30	2.24	1.48	5.74	41.22			
Q	.60	3.50	.88	.42	3.22	.00	.10	.42	.50	.14	.12	1.16	11.06			
STA AVG P2/	3.53	5.06	5.43	4.50	4.31	3.38	3.91	4.21	3.66	2.01	3.61	4.91	48.52			
(58-66) Q	1.35	2.02	2.53	1.10	1.24	.79	.78	1.04	.75	.36	.85	1.76	14.57			
MEAN P3/																
47 YR	5.75	5.31	5.95	5.06	4.58	3.79	4.26	3.21	3.49	2.89	4.56	5.07	53.92			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	5-16	3.07	5-16	.64	5-1	.75	2-10	1.49	2-9	2.43	2-9	2.55	2-9	2.55	2-9	3.50
MAXIMUMS FOR PERIOD OF RECORD4/																
1958 TO	6-10	7.34	6-10	1.94	6-10	1.98	1-22	2.45	1-22	2.71	12-3	2.93	3-28	3.675/	3-24	5.395/
1966	1961	-	1961	-	1961	-	1962	-	1962	-	1964	-	1965	-	1965	-
NOTES: Watershed conditions: Watershed strip-cropped on the contour. 50% of area cultivated in corn on the contour with 0.2 to 0.4% row slope, high plant population, low crop yield, fair to good cover provided by vegetation except during planting and early growing season. 50% of area in first year alfalfa, poor stand, poor cover. 1/ Precipitation data from rain gage 3. 2/ Precipitation and runoff records began Jan. 1958. 3/ Mean P based on 47-yr (1920-66) U. S. Weather Bureau record period at Holly Springs 2N, Miss. 4/ Maximum discharge and volumes listed were, most likely, exceeded on Mar. 28-29, 1965 when the stage recorder was inoperative. 5/ Estimated.																
1966 SELECTED RUNOFF EVENT						OXFORD, MISSISSIPPI WATERSHED WC-1										
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF									
DATE MO-OAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-OAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)						
Event of September 30, 1966																
	RG 3		9-30	RG	3		9-30									
9-4	.49	.000		1510	.00	.00		1524	.000	.000						
9-10	.07	.000		1512	1.50	.05		1526	.133	.002						
9-11	.32	.000		1514	4.20	.19		1528	.334	.010						
9-13	.04	.000		1518	2.40	.35		1531	.628	.034						
9-18	.28	.000		1522	3.00	.55		1533	1.610	.071						
9-19	.25	.000		1524	4.50	.70		1536	1.698	.154						
9-20	.02	.000		1530	3.00	1.00		1537	1.935	.184						
9-28	.20	.000		1533	1.00	1.05		1541	1.351	.294						
				1555	.27	1.15		1543	.918	.332						
				1600	.60	1.20		1547	.613	.383						
				1630	.12	1.26		1551	.380	.416						
				1700	.16	1.34		1554	.248	.432						
				1730	.10	1.39		1600	.158	.452						
				1818	.08	1.45		1613	.062	.476						
				1830	.20	1.49		1620	.034	.481						
				1930	.10	1.59		1627	.023	.485						
				1940	.06	1.60		1637	.012	.488						
								1647	.008	.489						
								1706	.006	.492						
								1726	.005	.493						
								1807	.000	.495						
Watershed conditions: Watershed strip-cropped on the contour. 25% of area in mature corn, 12,000 plants per acre, estimated 75% ground and canopy cover; 50% in first year alfalfa, poor stand, estimated 50% ground cover; 25% planted in alfalfa on 9-15-66, poor cover.																
NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 3.912. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 62.16-4.																



September 30, 1966

OXFORD, MISSISSIPPI WATERSHED WC-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						OXFORD, MISSISSIPPI WATERSHED WC-2 AREA—1.45 ACRES											
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL				
1966	2.53	7.87	1.66	3.40	7.39	.99	1.27	3.35	3.30	2.24	1.48	5.74	41.22				
1966	.21	5.85	1.07	.35	4.53	.00	.00	.13	.34	.00	.04	1.34	13.86				
STA AVG (58-66)	3.53	5.06	5.43	4.50	4.31	3.38	3.91	4.21	3.66	2.01	3.61	4.91	48.52				
MEAN 47 YR	1.52	2.64	2.78	1.04	1.24	.58	.52	.58	.46	.17	.62	1.86	14.01				
	5.75	5.31	5.95	5.06	4.58	3.79	4.26	3.21	3.49	2.89	4.56	5.07	53.92				

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	5-16	2.92	5-16	.68	2-10	1.00	2-10	2.47	2-9	3.72	2-9	4.14	2-9	4.14	2-9	5.85

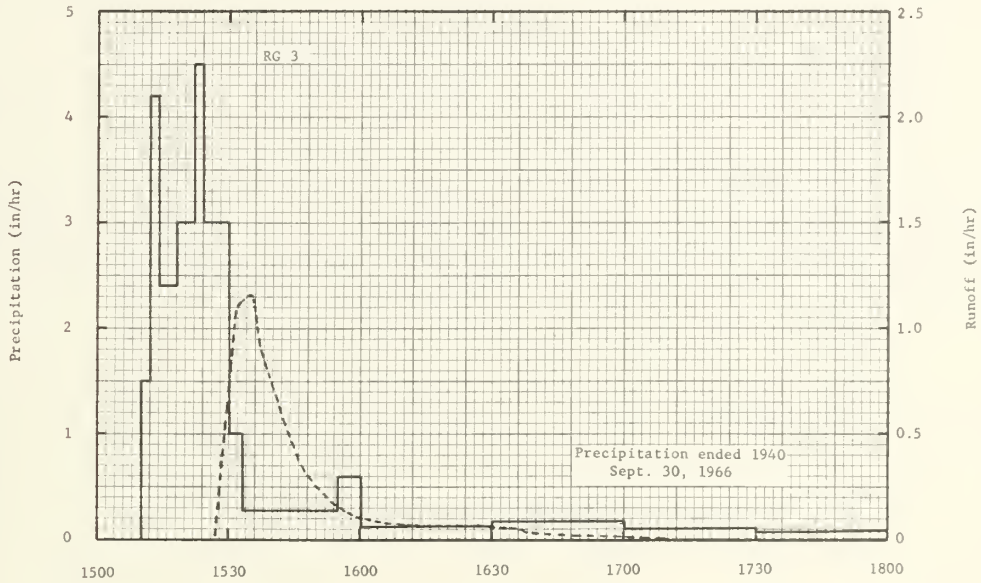
MAXIMUMS FOR PERIOD OF RECORD																
1958 TO 1966	3-28 1965	4.93	3-28 1965	1.57	3-28 1965	2.61	3-28 1965	2.82	3-28 1965	3.81	12-3 1964	4.40	12-3 1964	4.50	3-24 1965	7.35

NOTES: Watershed conditions: 100% of area cultivated in corn, high plant population, low crop yield, fair to good cover provided by vegetation except during planting and early growing season. Terraced with rows on 0.2 to 0.4% slope.
 1/ Precipitation data from rain gage 3. 2/ Precipitation records began Jan. 1958, runoff records began July 1958.
 3/ Mean P based on 47-yr (1920-66) U. S. Weather Bureau record period at Holly Springs 2N, Miss.

1966 SELECTED RUNOFF EVENT						OXFORD, MISSISSIPPI WATERSHED WC-2					
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
Event of September 30, 1966											
	RG 3		9-30	RG	3		9-30				
9-4	.49	.000		1510	.00	.00		1527	.000	.000	
9-10	.07	.000		1512	1.50	.05		1528	.252	.002	
9-11	.32	.000		1514	4.20	.19		1532	1.116	.048	
9-13	.04	.000		1518	2.40	.35		1535	1.160	.105	
9-18	.28	.000		1522	3.00	.55		1537	.922	.139	
9-19	.25	.000		1524	4.50	.70		1543	.540	.212	
9-20	.02	.000		1530	3.00	1.00		1546	.372	.235	
9-28	.20	.000		1533	1.00	1.05		1554	.171	.272	
				1555	.27	1.15		1559	.109	.283	
				1600	.60	1.20		1604	.085	.291	
				1630	.12	1.26		1613	.065	.303	
				1700	.16	1.34		1635	.053	.324	
				1730	.10	1.39		1638	.038	.327	
				1818	.08	1.45		1710	.000	.337	
				1830	.20	1.49					
				1930	.10	1.59					
				1940	.06	1.60					

Watershed conditions: 100% of area in mature corn, 12,000 plants per acre. Terraced with rows on 0.2 to 0.4% slope. Last tillage operation 6-7-66. Estimated 80% ground and canopy cover provided by vegetation.

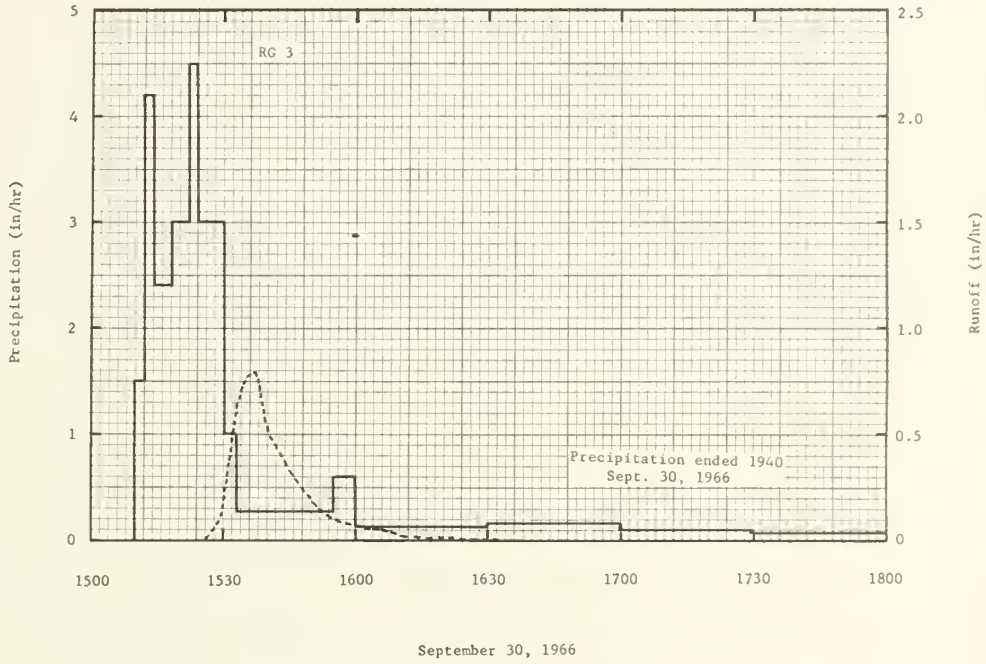
NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 1.462. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 62.16-4.



September 30, 1966

OXFORD, MISSISSIPPI WATERSHED WC-2

MONTHLY PRECIPITATION AND RUNOFF (inches)						OXFORD, MISSISSIPPI WATERSHED WC-3 AREA—1.61 ACRES										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 p ₁ / o	2.53 .31	7.87 4.13	1.66 1.05	3.40 .27	7.39 3.39	.99 .00	1.27 .00	3.35 .04	3.30 .20	2.24 .00	1.48 .04	5.74 .47	41.22 9.90			
STA AVG P ₂ / (58-66) o	3.53 1.30	5.06 2.35	5.43 2.85	4.50 .93	4.31 1.12	3.38 .83	3.91 .87	4.21 1.16	3.66 .81	2.01 .36	3.61 .90	4.91 1.80	48.52 15.28			
MEAN P ₃ / 47 YR	5.75	5.31	5.95	5.06	4.58	3.79	4.26	3.21	3.49	2.89	4.56	5.07	53.92			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	3-3	2.74	3-3	.74	3-3	1.02	2-10	2.03	2-9	2.91	2-9	3.04	2-9	3.04	2-9	4.13
MAXIMUMS FOR PERIOD OF RECORD																
19 58 TO	3-28	6.48	3-28	1.92	3-28	3.14	3-28	3.23	3-28	4.25	3-28	4.71	3-28	4.71	3-24	7.55
19 66	1965		1965		1965		1965		1965		1965		1965		1965	
NOTES: Watershed conditions: 100% of area cultivated in corn, high plant population, low crop yield, fair to good cover provided by vegetation except during planting and early growing seasons. Contour cultivation 0.2 to 0.4% row slope. 1/ Precipitation data from rain gage 3. 2/ Precipitation records began Jan. 1958, runoff records began July 1958. 3/ Mean P based on 47-yr (1920-66) U. S. Weather Bureau record period at Holly Springs 2N, Miss.																
1966 SELECTED RUNOFF EVENT				OXFORD, MISSISSIPPI				WATERSHED WC-3								
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF									
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)						
Event of September 30, 1966																
	RG 3		9-30	RG	3		9-30									
9-4	.49	.000		1510	.00	.00		1526	.000	.000						
9-10	.07	.000		1512	1.50	.05		1529	.084	.002						
9-11	.32	.000		1514	4.20	.19		1533	.643	.026						
9-13	.04	.000		1518	2.40	.35		1535	.768	.050						
9-18	.28	.000		1522	3.00	.55		1537	.797	.076						
9-19	.25	.000		1524	4.50	.70		1540	.524	.109						
9-20	.02	.000		1530	3.00	1.00		1546	.304	.150						
9-28	.20	.000		1533	1.00	1.05		1550	.187	.167						
				1555	.27	1.15		1554	.115	.177						
				1600	.60	1.20		1603	.052	.189						
				1630	.12	1.26		1608	.044	.193						
				1700	.16	1.34		1611	.019	.195						
				1730	.10	1.39		1622	.013	.198						
				1818	.08	1.45		1650	.000	.201						
				1830	.20	1.49										
				1930	.10	1.59										
				1940	.06	1.60										
Watershed conditions: 100% of area in mature corn, 12,000 plants per acre. Contour cultivation with rows on 0.2 to 0.4% slope. Last tillage operation 6-7-66. Estimated 75% ground and canopy cover provided by vegetation.																
NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 1.623. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 62.16-4.																



OXFORD, MISSISSIPPI WATERSHED WC-3

MONTHLY PRECIPITATION AND RUNOFF (inches)						OXFORD, MISSISSIPPI		WATERSHED W-17A ^{1/}				62.17		
						AREA—3,200 ACRES (5.00 SQ. MILES)								
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P ^{2/}	2.22	7.36	1.85	3.36	6.86	.81	2.66	5.65	2.79	1.95	1.15	5.70	42.36
	Q	.00	2.51	.71	.04	1.73	.00	.01	.11	.00	.01	.00	.22	5.34
STA AVG (58-66)	P ^{3/}	3.37	4.86	4.96	4.55	3.50	2.79	4.21	4.34	4.00	1.84	3.30	4.83	46.55
	Q	.69	1.45	1.41	.75	.38	.07	.16	.18	.44	.06	.08	.75	6.42
MEAN	P ^{4/}													
47 YR		5.75	5.31	5.95	5.06	4.58	3.79	4.26	3.21	3.49	2.89	4.56	5.07	53.92

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	3-3	.20	3-3	.20	3-3	.36	2-10	1.00	2-10	1.54	2-9	1.80	2-9	1.81	2-9	2.50

MAXIMUMS FOR PERIOD OF RECORD ^{5/}																
19 61 TO	2-23	.42	2-23	.42	2-23	.84	2-23	2.20	2-23	3.18	2-23	3.33	2-23	3.34	2-23	4.15
19 66	1962	1962	1962	1962	1962	1962	1962	1962	1962	1962	1962	1962	1962	1962	1962	1962

NOTES: Watershed conditions: About 15% of area in cultivation (cotton and corn), fair cover November to March, poor cover April and May improving to good by mid-July; 22% in pasture and idle land, good cover April to October with fair cover remainder of year; 62% in woods, good cover; 1% in bare gullies. Percentages of total area in various land use categories are based on the latest survey completed in 1965. ^{1/} About 25% of drainage area above small desilting and retention dams. ^{2/} Monthly precipitation Thiessen weighted from rain gages 2, 17, 22, and 28. ^{3/} Precipitation and runoff records began Jan. 1957. Runoff for 1957 was estimated, therefore was not included in the station averages. ^{4/} Mean P based on 47-yr (1920-66) U. S. Weather Bureau record at Holly Springs 2N, Miss. ^{5/} Maximum discharges and volumes were not computed prior to 1961; poor records 1958-60.

1966 DAILY PRECIPITATION (inches)						OXFORD, MISSISSIPPI		WATERSHED W-17A				62.17	
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	.00	.26	.00	.00	.90	.00	.00	.66	.02	.00	.25	.00	
2	.89	.00	.00	.00	.14	.00	.17	.78	.04	.00	.00	.04	
3	.00	.00	1.72	.00	.00	.00	.00	.00	.05	.00	.00	.00	
4	.09	.00	.00	.00	.00	.00	.00	.00	.20	.04	.00	.00	
5	.37	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.04	
6	.01	.07	.00	.00	.00	.67	.00	.00	.00	.00	.00	.07	
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
8	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00	2.01
9	.01	1.70	.00	.00	.00	.00	.02	.00	.00	.27	.00	.88	
10	.00	2.80	.00	.00	.00	.00	.08	.27	.19	.00	.55	.24	
11	.00	.00	.00	.00	.00	.00	.30	.21	.31	.00	.00	.00	
12	.04	1.60	.00	.24	1.02	.00	.00	1.56	.00	.00	.00	.00	
13	.10	.09	.00	.00	.20	.00	.00	.00	.00	.05	.00	.00	
14	.00	.00	.05	.00	.00	.00	.00	.75	.00	.00	.00	.00	
15	.00	.26	.00	.00	.00	.00	.00	.00	.00	1.08	.00	.00	
16	.00	.04	.00	.00	1.12	.00	.03	.00	.00	.00	.00	.00	
17	.00	.00	.00	.00	.00	.00	.00	.09	.00	.21	.00	.00	
18	.015	.00	.00	.06	.93	.00	1.10	.15	.32	.28	.02	.00	
19	.00	.00	.00	.00	.00	.00	.14	.00	.15	.00	.21	.00	
20	.00	.00	.00	.86	.00	.00	.70	.12	.01	.00	.00	.00	
21	.00	.00	.00	.05	.47	.00	.00	.62	.01	.00	.00	.00	
22	.415	.00	.00	.00	.00	.00	.00	.44	.00	.00	.00	.00	
23	.00	.00	.06	.00	.00	.00	.00	.00	.00	.02	.00	.405	
24	.195	.00	.00	.07	2.08	.00	.00	.00	.00	.00	.00	.00	
25	.00	.00	.02	.04	.00	.00	.00	.00	.00	.00	.00	.00	
26	.00	.00	.00	.47	.00	.00	.00	.00	.01	.00	.00	.00	
27	.00	.14	.00	.01	.00	.00	.00	.00	.01	.00	.11	1.08	
28	.00	.40	.00	.01	.00	.00	.00	.00	.11	.00	.00	.79	
29	.105	-----	.00	.09	.00	.14	.07	.00	.00	.00	.00	.00	
30	.00	-----	.00	1.44	.00	.00	.00	.00	1.36	.00	.00	.04	
31	.00	-----	.00	-----	.00	-----	.00	.00	-----	.00	-----	.11	
TOTAL	2.22	7.36	1.85	3.36	6.86	.81	2.66	5.65	2.79	1.95	1.15	5.70	
STA AV	3.37	4.86	4.96	4.55	3.50	2.79	4.21	4.34	4.00	1.84	3.30	4.83	

NOTES: FOR DAILY AIR TEMPERATURES IN THE VICINITY, SEE TABLE FOR WATERSHED W-4A, P. 62.1-1. DAILY PRECIPITATION VALUES THIESSEN WEIGHTED FROM RAIN GAGES 2, 17, 22 AND 28. STATION AVERAGE IS FOR 9-YR (1958-66) RECORD PERIOD.

1966 MEAN DAILY DISCHARGE (cfs)						OXFORD, MISSISSIPPI			WATERSHED W-17A 62.17			
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.00	.79	.06	.07	41.81	.00	.00	.00	.00	.04	.00	.00
2	.13	.06	.06	.03	.16	.00	.00	7.28	.00	.08	.00	.00
3	.00	.00	88.78	.00	.09	.00	.00	.07	.00	.08	.00	.00
4	.00	.00	6.35	.00	.04	.00	.00	.00	.00	.08	.00	.00
5	.00	.00	.05	.00	.03	.00	.00	.00	.00	.08	.00	.00
6	.00	.00	.00	.00	.07	.00	.00	.00	.00	.08	.00	.00
7	.00	.00	.00	.03	.08	.00	.00	.00	.00	.08	.00	.00
8	.00	.00	.00	.03	.07	.00	.00	.00	.00	.08	.00	.96
9	.00	5.69	.04	.00	.06	.00	.00	.00	.00	.07	.00	6.51
10	.00	237.05	.04	.00	.03	.00	.00	.00	.00	.06	.00	.04
11	.00	1.20	.00	.00	.03	.00	.00	.00	.03	.07	.00	.04
12	.00	87.90	.00	.00	1.39	.00	.00	.19	.06	.08	.00	.00
13	.00	3.80	.00	.00	2.57	.00	.00	.00	.03	.08	.00	.00
14	.00	.20	.00	.00	.00	.00	.00	2.70	.00	.04	.00	.00
15	.00	.12	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00
16	.00	.13	.00	.00	26.58	.00	.00	.00	.00	.03	.00	.00
17	.00	.11	.00	.00	.20	.00	.00	.00	.00	.06	.00	.00
18	.00	.09	.00	.00	30.77	.00	.30	.00	.00	.06	.00	.00
19	.00	.08	.00	.00	3.82	.00	.00	.00	.00	.06	.00	.00
20	.00	.08	.00	.00	1.89	.00	.47	.00	.00	.06	.00	.00
21	.00	.07	.00	.00	2.82	.00	.00	.00	.00	.06	.00	.00
22	.00	.07	.00	.00	2.17	.00	.00	3.93	.00	.06	.00	.00
23	.00	.08	.00	.00	.84	.00	.00	.00	.00	.03	.00	.00
24	.00	.08	.00	.00	115.23	.00	.00	.00	.00	.00	.00	.00
25	.00	.07	.04	.00	1.58	.00	.00	.00	.00	.00	.00	.00
26	.00	.06	.07	.00	.18	.00	.00	.00	.00	.00	.00	.03
27	.00	.06	.03	.00	.03	.00	.00	.00	.00	.00	.00	.34
28	.00	.06	.04	.00	.00	.00	.00	.00	.03	.00	.00	20.94
29	.00	-----	.04	.00	.00	.00	.00	.00	.07	.00	.00	.47
30	.00	-----	.04	5.06	.00	.00	.00	.00	.04	.00	.00	.16
31	.00	-----	.08	-----	.00	-----	.00	.00	.00	.00	-----	.16
MEAN	.00	12.06	3.08	.17	7.50	.00	.02	.46	.01	.04	.00	.95
INCHES	.00	2.51	.71	.04	1.73	.00	.01	.11	.00	.01	.00	.22

NOTES: TO CONVERT DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY 0.0074380. QUALITY OF RECORDS: POOR, ESTIMATED TO BE WITHIN 20% OF ACTUAL.

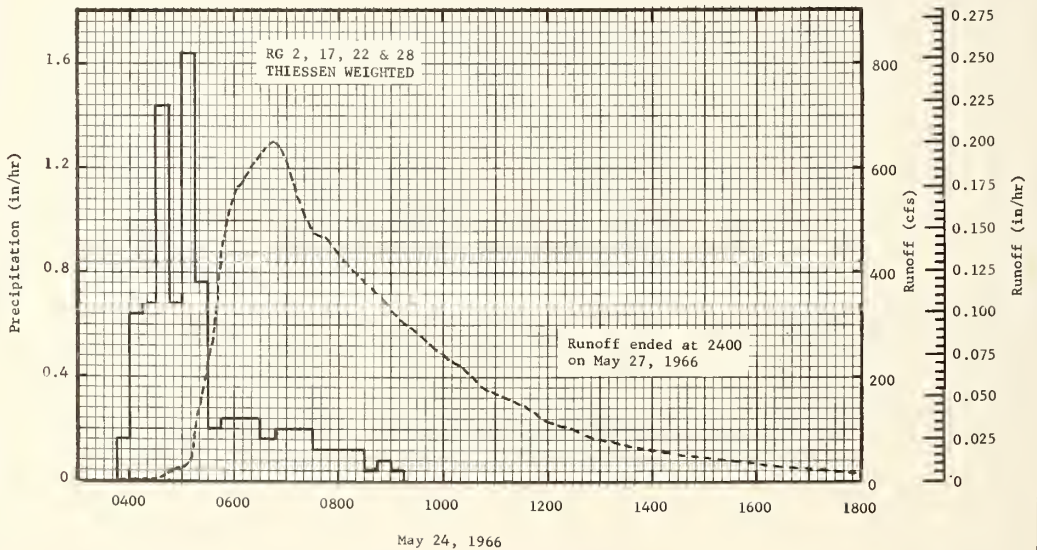
1966 SELECTED RUNOFF EVENT			OXFORD, MISSISSIPPI			WATERSHED W-17A 62.17				
ANTECEDENT CONDITIONS			RAINFALL			RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
Event of May 24, 1966 ¹ / ₁										
5-24	.00	.0000	5-24	4 RG	AVG 2/		5-23	2400	.77	.0000
				0345	.00	.00	5-24	0414	1.08	.0013
				0400	.16	.04		0426	1.99	.0014
				0415	.64	.20		0444	15.52	.0022
				0430	.68	.37		0454	21.16	.0031
				0445	1.44	.73		0504	28.20	.0044
				0500	.68	.40		0510	40.00	.0054
				0515	1.64	1.31		0516	108.62	.0077
				0530	.76	1.50		0520	146.66	.0104
				0545	.20	1.55		0534	260.00	.0253
				0600	.24	1.61		0540	348.00	.0348
				0615	.24	1.67		0546	456.00	.0473
				0630	.24	1.73		0554	520.00	.0674
				0645	.16	1.77		0602	564.00	.0898
				0700	.20	1.82		0608	570.00	.1074
				0715	.20	1.87		0618	600.00	.1370
				0730	.20	1.92		0628	620.00	.1691
				0745	.12	1.95		0642	657.00	.2151
				0800	.12	1.98		0654	630.00	.2549
				0815	.12	2.01		0708	572.00	.2983
				0830	.12	2.04		0720	511.00	.3320
				0845	.04	2.05		0730	478.00	.3577
				0900	.03	2.07		0744	470.00	.3920
				0915	.04	2.08		0804	424.00	.4382
								0818	400.00	.4680

Continued on next page

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.0003099. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISG. PUB. 945, P. 62.5-5. 1 ISOHYETAL MAP ON P. 62.11-5. FOR 30-DAY ANTECEDENT P AND Q, SEE TABLES ON THIS AND PREVIOUS PAGE. 2 THIESSEN WEIGHTED STORM RAINFALL, RAIN GAGES 2, 17, 22 AND 28. DAILY TOTALS FOR INDIVIDUAL RAIN GAGES LISTED ON P. 62.11-3.

1966 SELECTED RUNOFF EVENT			OXFORD, MISSISSIPPI				WATERSHED W-17A 62.17			
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MD-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MD-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MD-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
Event of May 24, 1966 - Continued										
								0840	368.00	.5116
								0910	310.00	.5641
								0922	294.00	.5828
								0944	262.00	.6144
								1004	234.00	.6400
								1020	223.94	.6590
								1032	200.88	.6721
								1042	184.75	.6821
								1108	162.07	.7054
								1136	141.62	.7273
								1156	118.90	.7408
								1226	102.03	.7579
								1248	88.57	.7687
								1312	77.73	.7791
								1342	68.53	.7904
								1426	53.14	.8042
								1512	41.00	.8154
								1558	30.06	.8238
								1658	24.60	.8323
								1748	18.68	.8379
								1908	13.25	.8445
								2026	9.59	.8491
								2202	7.60	.8534
								2400	4.82	.8571
							5-25	0600	1.99	.8635
								1158	1.08	.8663
								2400	.30	.8689
							5-26	2400	.06	.8702
							5-27	2400	.00	.8705

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.0003099.



OXFORD, MISSISSIPPI WATERSHED W-17A

MONTHLY PRECIPITATION AND RUNOFF (inches)						OXFORD, MISSISSIPPI WATERSHED W-35A ^{1/}							62.18
						AREA—1,090 ACRES (1.70 SQ. MILES)							
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P ₂ / ₉ 2.45 .02	7.70 3.61	1.52 .60	3.18 .03	5.57 1.56	.77 .00	1.65 .00	3.16 .06	4.23 .02	2.11 .04	1.97 .09	6.26 1.16	40.57 7.19
STA AVG (58-66)	P ₃ / ₀ 3.34 1.10	5.06 2.05	5.09 2.21	4.35 1.11	3.85 .76	2.75 .14	4.10 .26	3.25 .23	4.55 .42	1.78 .06	3.65 .36	4.89 1.36	46.66 10.06
MEAN 47 YR	P ₄ / ₁ 5.75	5.31	5.95	5.06	4.58	3.79	4.26	3.21	3.49	2.89	4.56	5.07	53.92

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	5-24	.47	5-24	.44	5-24	.67	2-10	1.67	2-9	2.31	2-9	2.48	2-9	2.51	2-9	3.50

MAXIMUMS FOR PERIOD OF RECORD 5/																
19 61 TO	2-23	.59	2-23	.58	2-23	1.11	2-23	1.76	2-9	2.31	12-3	2.92	12-2	3.15	3-24	5.12
19 66	1962		1962		1962		1962		1966		1964		1964		1965	

NOTES: Watershed conditions: About 19% in cultivation (cotton and corn), fair cover November to March, poor cover April and May improving to good by mid-July; 58% in pasture and idle land, good cover April to October with fair cover remainder of year; 22% in woods, good cover; 1% in bare gullies. Percentages of total area in various land use categories are based on the latest survey completed in 1964. 1/ About 9% of drainage area above small desilting and retention dams. 2/ Monthly precipitation Thiessen weighted from rain gages 3, 11, 24 and 26. 3/ Precipitation and runoff records began Jan. 1957. Runoff for 1957 was estimated, therefore was not included in the station averages. 4/ Mean P based on 47-yr (1920-66) U. S. Weather Bureau record period at Holly Springs 2N, Miss. 5/ Maximum discharges and volumes were not computed prior to 1961; poor records 1957-60.

1966 DAILY PRECIPITATION (inches)						OXFORD, MISSISSIPPI WATERSHED W-35A							62.18
OAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	.00	.33	.00	.00	.64	.00	.00	.00	.00	.00	.31	.00	
2	.90	.00	.00	.00	.12	.00	.05	.67	.00	.00	.00	.00	
3	.00	.00	1.35	.00	.00	.00	.00	.00	.00	.00	.00	.00	
4	.04	.00	.00	.00	.00	.00	.00	.00	.79	.02	.00	.00	
5	.33	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
6	.00	.11	.00	.00	.00	.23	.00	.00	.00	.00	.00	.09	
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.10	
9	.10	1.82	.00	.00	.00	.00	.59	.00	.00	.06	.00	.82	
10	.00	2.80	.00	.00	.00	.00	.06	.21	.06	.00	1.25	.31	
11	.00	.00	.00	.00	.00	.00	.00	.06	.24	.00	.00	.00	
12	.06	1.67	.00	.22	1.09	.00	.00	1.12	.11	.00	.00	.00	
13	.10	.14	.00	.00	.35	.00	.00	.00	.00	.09	.00	.00	
14	.00	.00	.06	.00	.00	.00	.00	.59	.22	.00	.00	.00	
15	.00	.28	.00	.00	.00	.00	.00	.00	.00	1.24	.00	.00	
16	.00	.02	.00	.00	.91	.00	.00	.00	.00	.00	.00	.00	
17	.00	.00	.00	.00	.00	.00	.00	.01	.00	.21	.00	.00	
18	.035	.00	.00	.03	.57	.00	.08	.00	.36	.47	.25	.00	
19	.00	.00	.00	.00	.00	.00	.27	.00	.57	.00	.03	.00	
20	.00	.00	.00	.80	.00	.00	.33	.15	.04	.00	.00	.00	
21	.00	.00	.00	.12	.00	.00	.00	.08	.00	.00	.00	.00	
22	.515	.00	.00	.00	.00	.00	.00	.27	.00	.00	.00	.00	
23	.00	.00	.03	.00	.00	.00	.00	.00	.00	.02	.00	.415	
24	.175	.00	.00	.01	1.89	.00	.00	.00	.00	.00	.00	.00	
25	.00	.00	.08	.01	.00	.00	.00	.00	.00	.00	.00	.00	
26	.00	.00	.00	.10	.00	.00	.00	.00	.00	.00	.00	.00	
27	.00	.16	.00	.13	.00	.00	.00	.00	.61	.00	.13	1.31	
28	.00	.37	.00	.00	.00	.27	.00	.00	.06	.00	.00	1.00	
29	.215	.00	.00	.15	.00	.27	.27	.00	.00	.00	.00	.00	
30	.00	.00	.00	1.61	.00	.00	.00	.00	1.17	.00	.00	.06	
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.15	
TOTAL	2.45	7.70	1.52	3.18	5.57	.77	1.65	3.16	4.23	2.11	1.97	6.26	
STA AV	3.34	5.06	5.09	4.35	3.85	2.75	4.10	3.25	4.55	1.78	3.65	4.89	

NOTES: FOR DAILY AIR TEMPERATURES IN THE VICINITY, SEE TABLE FOR WATERSHED W-4A, P. 62.1-1. DAILY PRECIPITATION VALUES THIESSEN WEIGHTED FROM RAIN GAGES 3, 11, 24, AND 26. STATION AVERAGE IS FOR 9-YR (1958-66) RECORD PERIOD.

1966 MEAN DAILY DISCHARGE (cfs)						OXFORD, MISSISSIPPI				WATERSHED W-35A 62.18			
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	.00	3.55	.12	.00	7.77	.00	.00	.00	.00	.07	.00	.00	
2	.95	.48	.00	.00	.54	.00	.00	.00	.00	.00	.00	.00	
3	.00	.00	23.44	.00	.00	.00	.00	.00	.00	.00	.00	.00	
4	.00	.00	3.25	.00	.00	.00	.00	.00	.00	.00	.00	.00	
5	.00	.00	.56	.00	.00	.00	.00	.00	.00	.00	.00	.00	
6	.00	.00	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.92	
9	.00	5.98	.00	.00	.00	.00	.00	.00	.00	.00	.00	11.86	
10	.00	107.77	.00	.00	.00	.00	.00	.00	.00	.00	4.10	1.51	
11	.00	1.23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.19	
12	.00	36.24	.00	.00	.88	.00	.00	1.53	.00	.00	.00	.00	
13	.00	5.37	.00	.00	5.01	.00	.00	.01	.00	.00	.00	.00	
14	.00	.90	.00	.00	.10	.00	.00	1.08	.00	.00	.00	.00	
15	.00	.56	.00	.00	.00	.00	.00	.00	.00	1.59	.00	.00	
16	.00	1.79	.00	.00	8.69	.00	.00	.00	.00	.00	.00	.00	
17	.00	.46	.00	.00	.68	.00	.00	.00	.00	.00	.00	.00	
18	.00	.00	.00	.00	4.55	.00	.00	.00	.00	.37	.00	.00	
19	.00	.00	.00	.00	.42	.00	.00	.00	.17	.00	.00	.00	
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
24	.00	.00	.00	.00	41.99	.00	.00	.00	.00	.00	.00	.00	
25	.00	.00	.00	.00	.80	.00	.00	.00	.00	.00	.00	.00	
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.27	
28	.00	.94	.00	.00	.00	.00	.00	.00	.00	.00	.00	32.96	
29	.00	-----	.00	.00	.00	.00	.00	.00	.00	.00	.00	.80	
30	.00	-----	.00	1.28	.00	.00	.00	.00	.69	.00	.00	.04	
31	.00	-----	.00	-----	.00	-----	.00	.00	-----	.00	-----	.50	
MEAN	.03	5.90	.88	.04	2.30	.00	.00	.08	.03	.06	.14	1.71	
INCHES	.02	3.61	.60	.03	1.56	.00	.00	.06	.02	.04	.09	1.16	

NOTES: TO CONVERT DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY 0.0218365. QUALITY OF RECORDS: FAIR, ESTIMATED TO BE WITHIN 15% OF ACTUAL.

1966 SELECTED RUNOFF EVENT			OXFORD, MISSISSIPPI				WATERSHED W-35A 62.18				
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)	
Event of May 24, 1966 ^{1/}											
5-24	.00	.0000	5-24	4 RG	AVG 2/		5-24	0540	.00	.0000	
				0315	.00	.00		0544	1.85	.0001	
				0330	.24	.06		0548	4.67	.0003	
				0345	.24	.12		0600	10.31	.0017	
				0400	.08	.14		0612	12.90	.0038	
				0500	.00	.14		0620	17.49	.0056	
				0515	.36	.23		0632	124.95	.0186	
				0530	2.12	.76		0640	174.38	.0367	
				0545	1.64	1.22		0644	212.83	.0485	
				0600	.88	1.44		0654	316.13	.0886	
				0615	.32	1.52		0702	386.93	.1312	
				0630	.20	1.57		0712	488.29	.1976	
				0645	.16	1.61		0720	510.85	.2582	
				0700	.12	1.64		0730	519.43	.3363	
				0715	.12	1.67		0738	513.70	.3990	
				0730	.10	1.71		0748	485.52	.4747	
				0745	.12	1.74		0756	437.28	.5307	
				0800	.16	1.78		0806	350.66	.5904	
				0815	.12	1.81		0818	244.10	.6445	
				0830	.12	1.84		0826	184.75	.6706	
				0845	.08	1.86		0834	145.17	.6906	
				0900	.08	1.88		0840	117.50	.7025	
				0915	.08	1.90		0852	101.12	.7224	
								0902	83.38	.7364	
								0916	67.32	.7524	

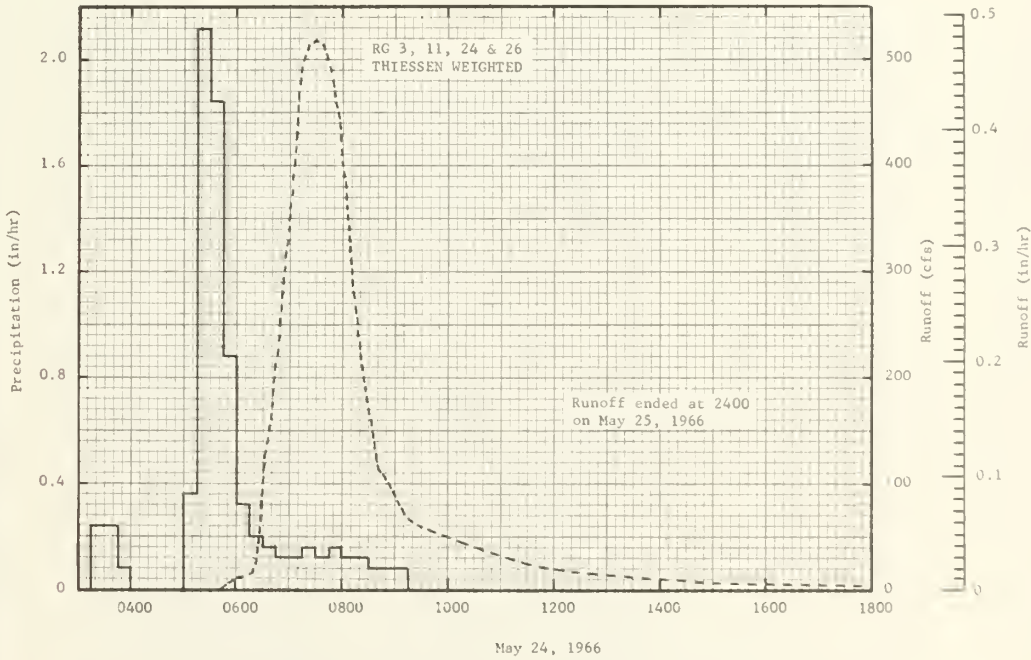
watershed conditions: 19% of area in cultivation, chiefly cotton and corn, generally poor cover; 48% in pasture and 10% idle, fair to good cover; 22% in woods, good cover; 1% in bare gullies.

Continued on next page

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.0009099. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945. P. 62.12-5. ^{1/} ISORHYETAL MAP ON P. 62.11-5. FOR 30-DAY ANTECEDENT P AND Q, SEE TABLES ON THIS AND PREVIOUS PAGE. ^{2/} THIENEN WEIGHTED STORM RAINFALL, RAIN GAGES 3, 11, 24 AND 26. DAILY TOTALS FOR INDIVIDUAL RAIN GAGES LISTED ON P. 62.11-3.

1966 SELECTED RUNOFF EVENT			OXFORD, MISSISSIPPI				WATERSHED W-35A 62.18				
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)	
			Event of May 24, 1966 - Continued								
								0934	59.38	.7697	
								1006	48.88	.7960	
								1052	35.00	.8252	
								1216	18.72	.8594	
								1338	11.32	.8781	
								1516	6.43	.8913	
								1648	4.67	.8990	
								1948	2.61	.9090	
								2400	1.61	.9170	
							5-25	2400	.00	.9346	

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR, MULTIPLY BY 0.0009099.

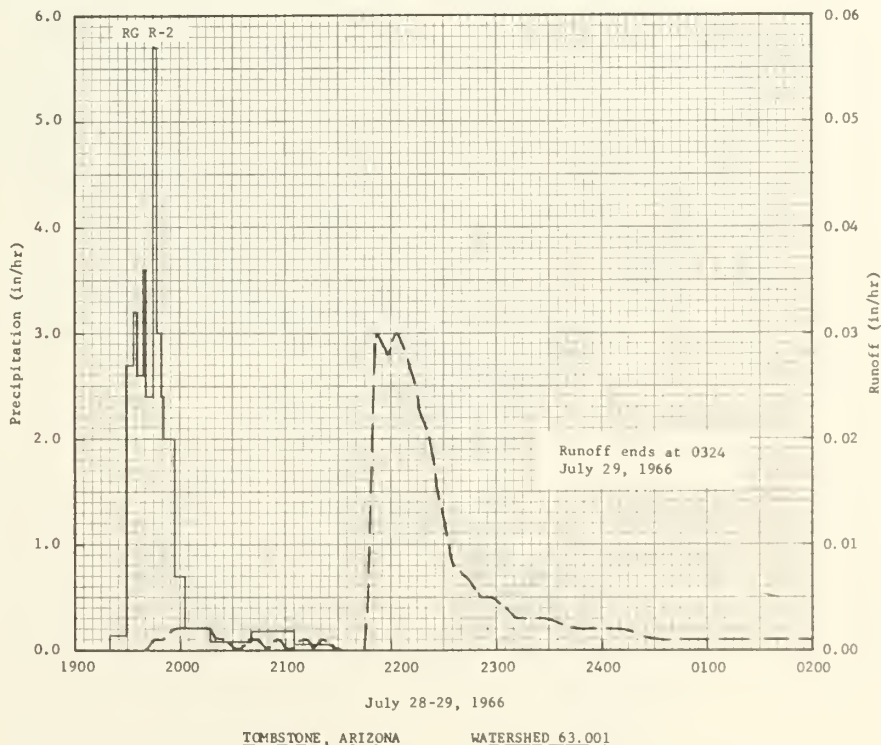


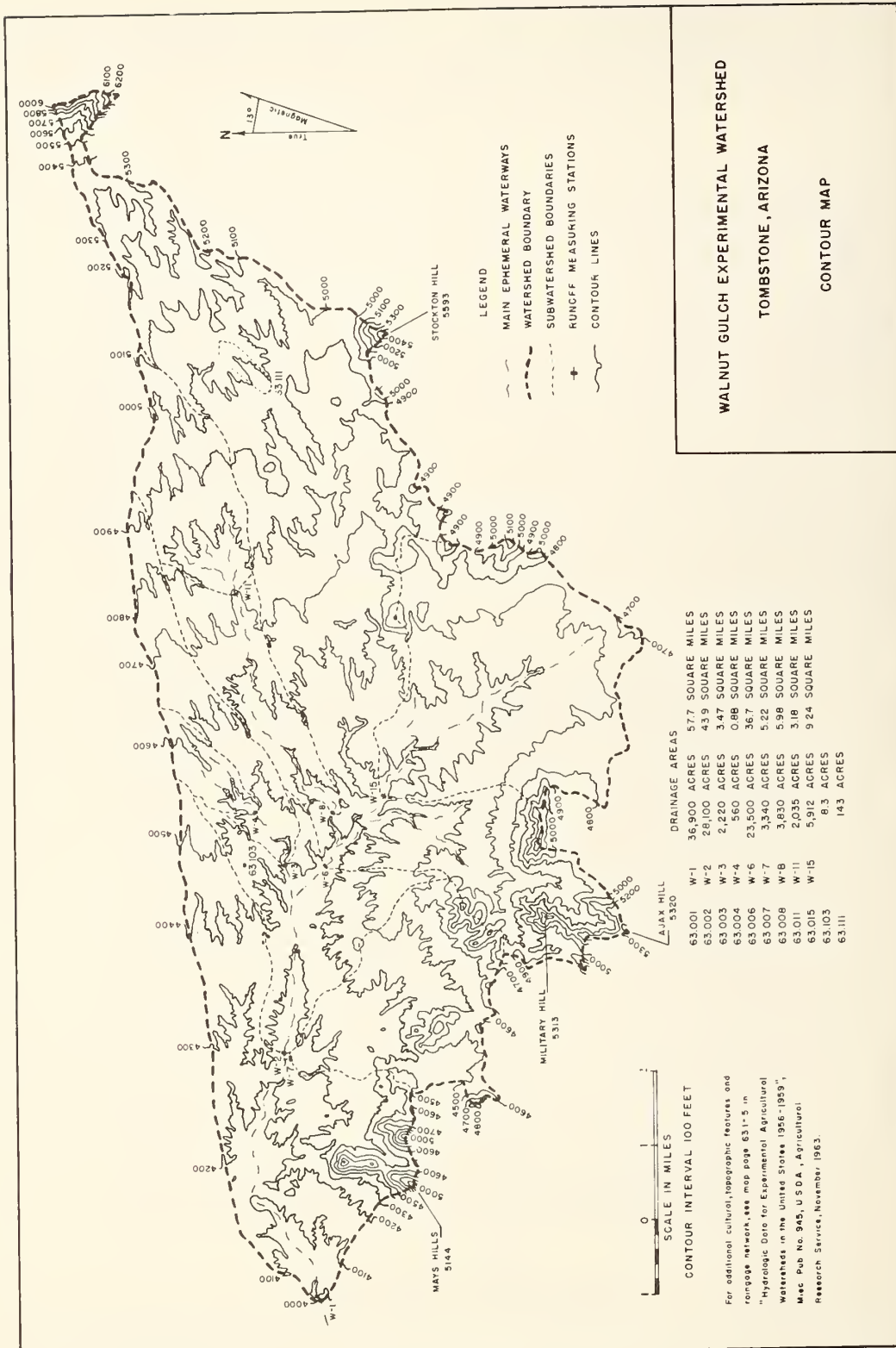
OXFORD, MISSISSIPPI WATERSHED W-35A

MONTHLY PRECIPITATION AND RUNOFF (inches)						TOMBSTONE, ARIZONA WATERSHED 63.001 AREA 36,900 ACRES (57.66 SQ. MILES) 63.01										
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL		
1966	P ^{1/} _Q	.00	.00	.00	.00	.00	.00	.04	.05	.01	.00	.00	.00	.10		
STA AV2/P (54-66) Q																
MEAN	P ^{2/} _Q	.84	.77	.61	.28	.18	.49	3.65	3.50	1.52	.66	.63	.88	14.01		
70 YR																
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE	MAXIMUM VOLUME FOR SELECTED TIME INTERVAL														
		1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS		
DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	
1966	8-14	.034	7-28	.02	7-28	.02	7-28	.03	7-28	.03	7-28	.03	7-28	.03	8-13	.04
MAXIMUMS FOR PERIOD OF RECORD																
1964 TO 1965	7-22 1964	.13	7-22 1964	.08	9-9 1964	.13	9-9 1964	.16	9-9 1964	.19	9-9 1964	.19	9-8 1964	.23	9-8 1964	.31
NOTES: Watershed conditions: Same as for selected event, see following page. 1/ Not available, data are being re-evaluated. 2/ Precipitation records began January 1954, runoff records began April 1964. Station averages not available, data are being re-evaluated. 3/ Mean P based on 70-yr (1897-1966) U.S. Weather Bureau record period at Tombstone, Ariz.																
1966 SELECTED RUNOFF EVENT						TOMBSTONE, ARIZONA WATERSHED 63.001 63.01										
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF									
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)						
Event of July 28-29, 1966 4/																
7-3	RG R-1	.06	7-28	RG	R-1	.00	7-28	1941	.000	.0000						
7-13		.77			.00	.00		1945	.001	.0000						
7-14		.03			.05	.01		1947	.001	.0001						
7-15		.36			.06	.02		1951	.001	.0001						
					.86	.12										
7-16		.49						1956	.002	.0003						
7-17		.29			1935	2.40	.32	1958	.002	.0003						
7-23		.11			1939	3.60	.56	2000	.002	.0004						
7-24		.13			1943	2.85	.75	2002	.002	.0005						
7-26		.03			1946	3.60	.93	2008	.002	.0007						
					1948	4.80	1.09									
7-27		.27						2012	.002	.0008						
					1951	2.20	1.20	2016	.002	.0009						
					1953	4.80	1.36	2020	.001	.0011						
					1959	1.00	1.46	2024	.001	.0011						
					2007	.75	1.56	2032	.000	.0012						
					2015	.45	1.62									
					2045	.10	1.67	2039	.001	.0013						
					2105	.27	1.76	2044	.001	.0013						
					2126	.06	1.78	2049	.000	.0014						
								2055	.001	.0014						
								2100	.000	.0015						
7-13	RG R-2	.59	7-28	RG	R-2	.00	.00	2102	.000	.0015						
7-15		.04			.00	.00		2112	.001	.0016						
7-16		.30			.13	.02		2116	.000	.0016						
7-17		.40			1933	2.70	.20	2120	.001	.0016						
					1936	3.20	.36	2132	.000	.0017						
7-20		.08						2134	.000	.0017						
7-22		.03			1939	2.60	.49	2145	.000	.0018						
7-23		.27			1941	3.60	.61	2147	.005	.0019						
7-24		.17			1945	2.40	.77	2149	.021	.0023						
7-26		.07			1947	5.70	.96	2151	.028	.0032						
					1949	3.00	1.06									
7-27		.28						2152	.030	.0037						
					1951	2.40	1.14	2158	.028	.0066						
					1954	2.00	1.24	2204	.030	.0095						
					1957	2.00	1.34	2211	.027	.0128						
					2003	.70	1.41	2216	.023	.0149						
					2017	.21	1.46									
					2041	.08	1.49	2221	.021	.0168						
					2105	.18	1.56	2226	.016	.0183						
					2127	.05	1.58	2231	.012	.0195						
								2236	.008	.0203						
								2243	.007	.0212						
Continued on next page																
NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 37,207. FOR TOPOGRAPHIC MAP OF WATERSHED, SEE P. 63.1-3, THIS VOLUME. GEOLOGIC AND VEGETATION MAPS P. 63.1-4 AND P. 63.1-5. 4/ ISOHYETAL MAP ON P. 63.1-6.																

1966 SELECTED RUNOFF EVENT			TOMBSTONE, ARIZONA				WATERSHED 63.001		63.01			
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF					
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)		
<p>Watershed conditions: 65% of area in desert shrubs (white-thorn, creosotebush, and tarbush), with 23% cover and 2% grass cover. 35% is grassland, with approximately 20% grass cover (crown spread) and 5% shrub cover. Subwatersheds 63.002, 63.003, 63.004, 63.006, 63.008, 63.011, and 63.015 lie within the boundaries of Watershed 63.001.</p>			Event of July 28-29, 1966 - Continued									
			7-28	2252	.005	.0221						
				2258	.005	.0226						
				2306	.004	.0231						
				2312	.003	.0235						
				2326	.003	.0242						
				2347	.002	.0250						
				2400	.002	.0254						
			7-29	0011	.002	.0257						
				0034	.001	.0262						
				0045	.001	.0263						
				0054	.001	.0265						
				0058	.001	.0266						
				0101	.001	.0266						
				0105	.001	.0267						
	0108	.001	.0267									
	0122	.001	.0271									
	0126	.001	.0272									
	0136	.001	.0274									
	0146	.001	.0276									
	0324	.000	.0285									

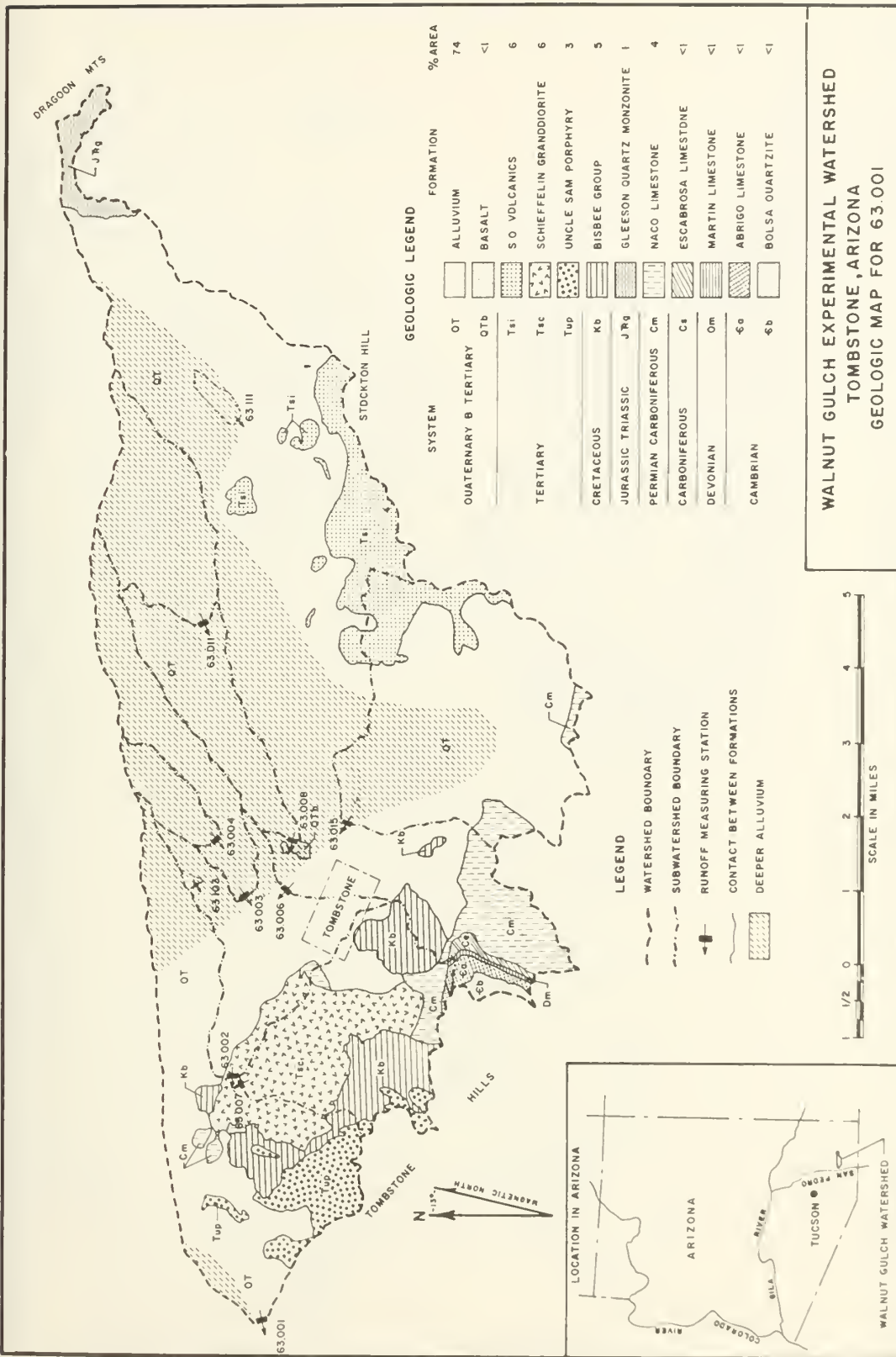
NOTE: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 37,207.

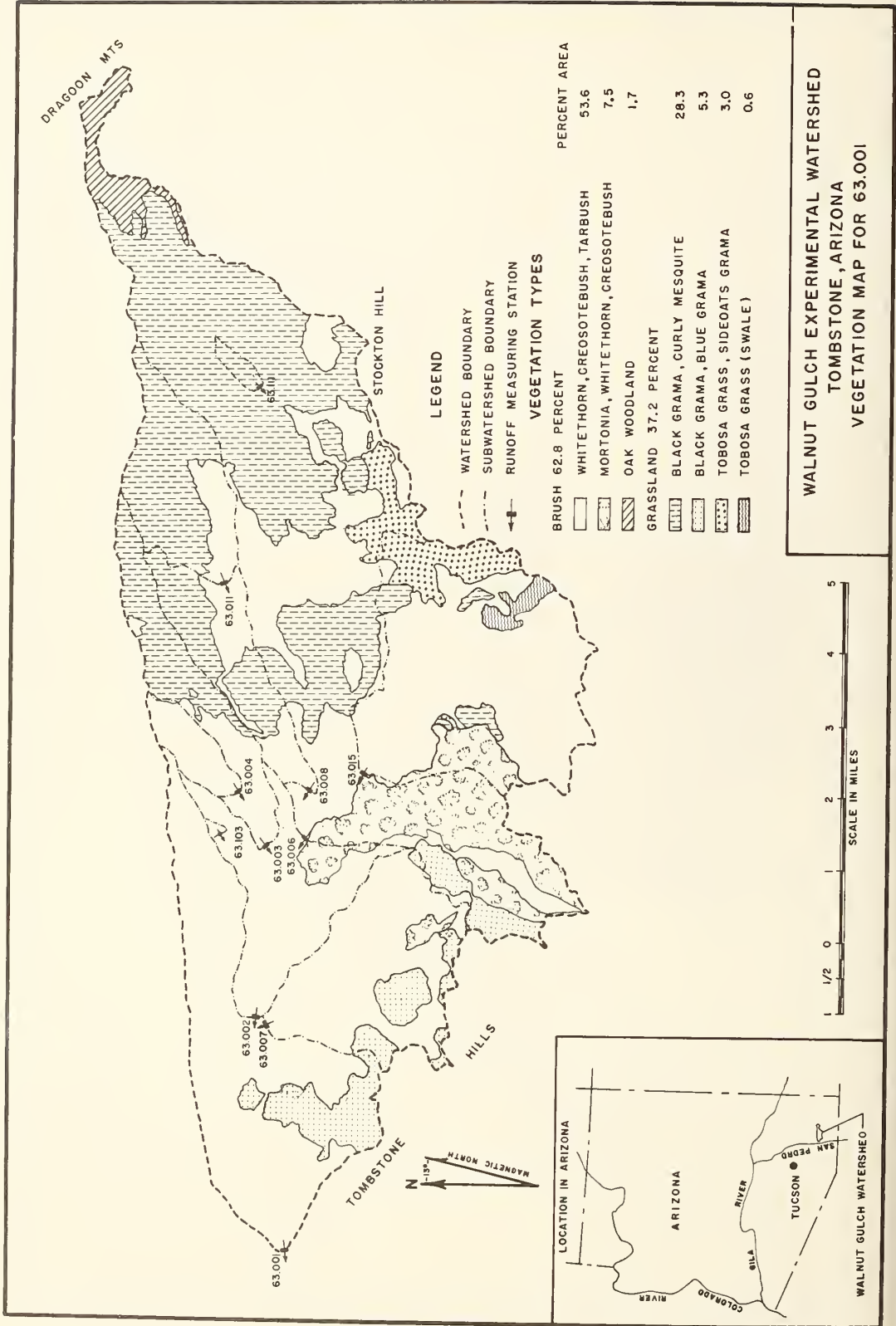


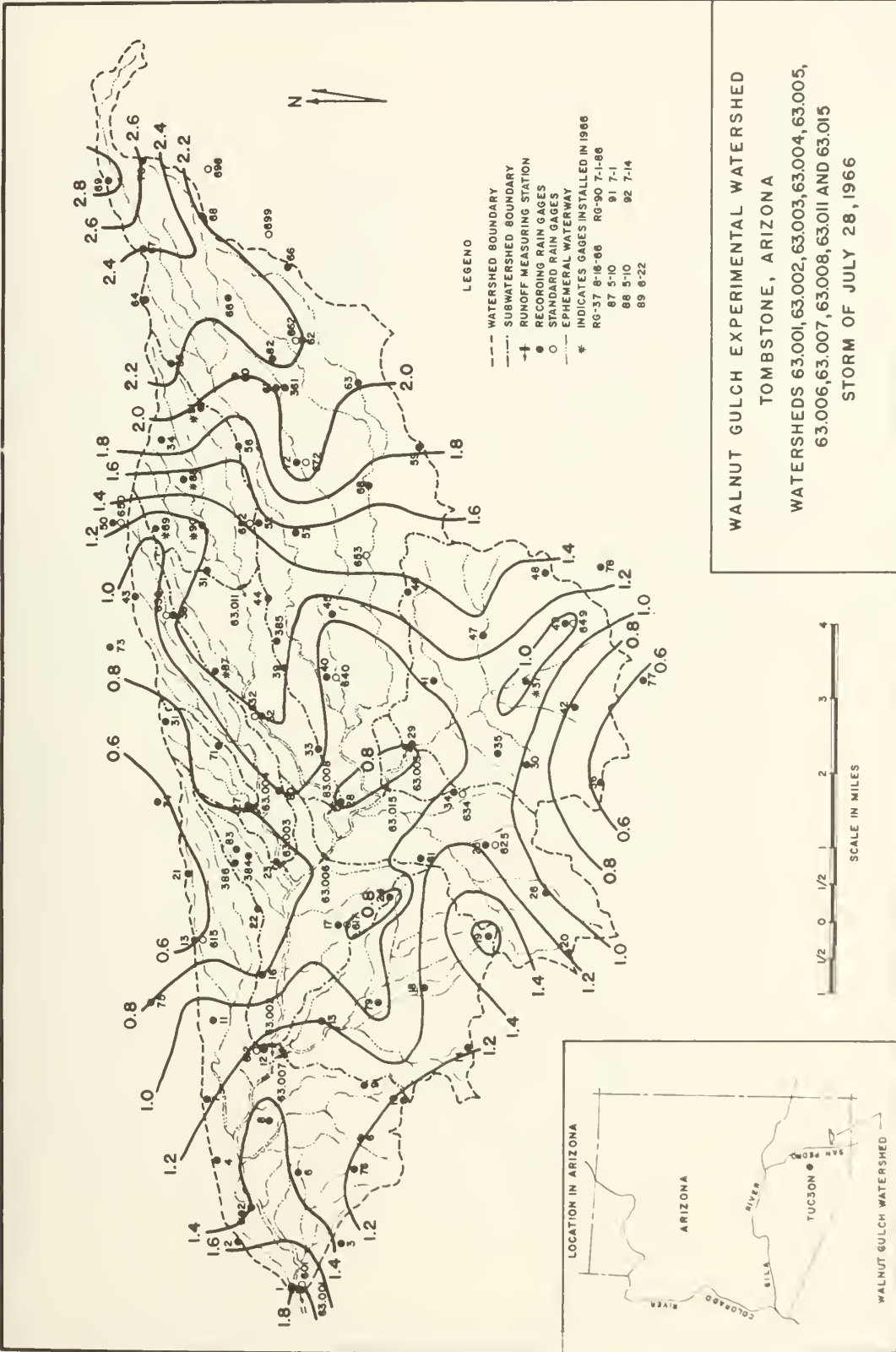


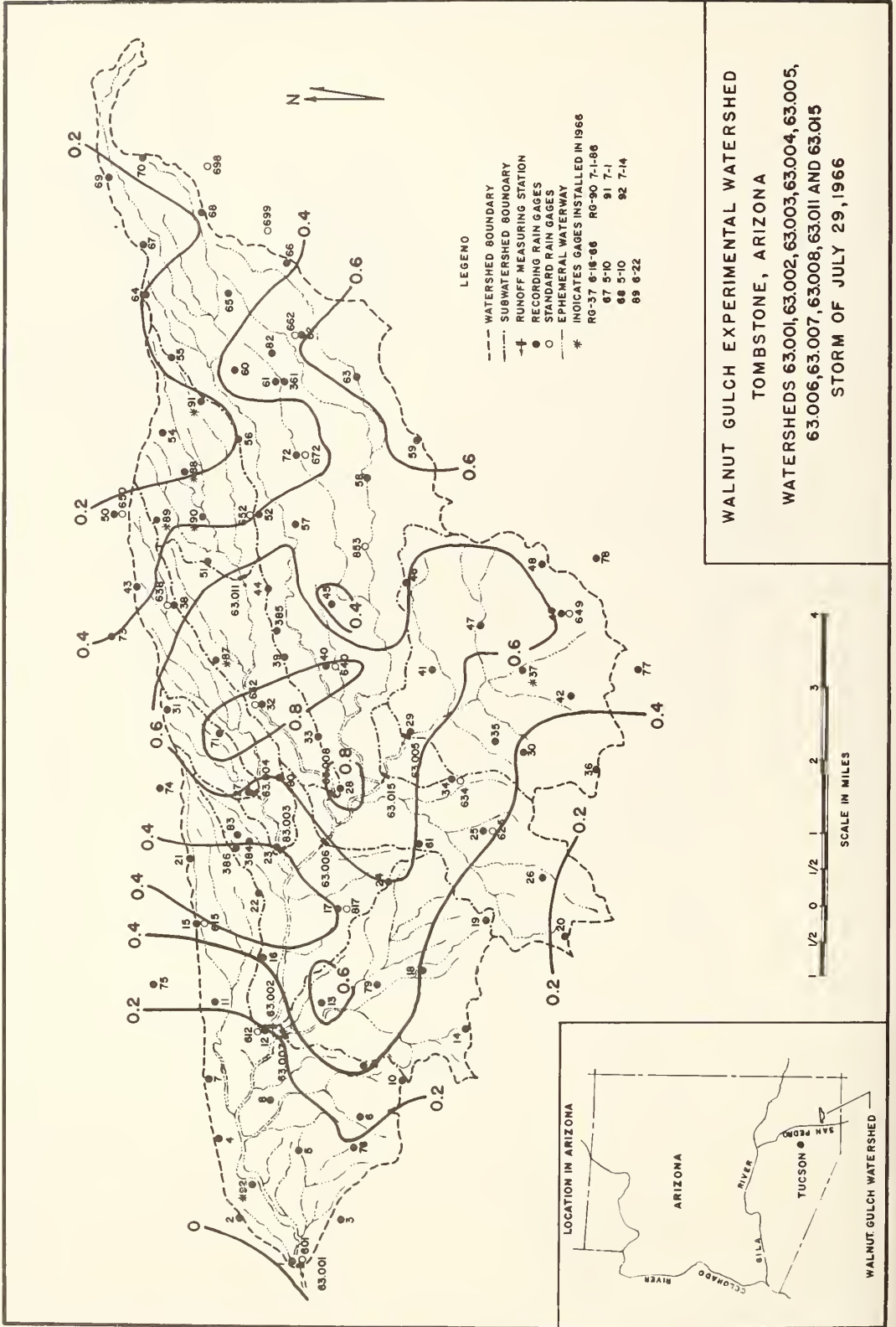
WALNUT GULCH EXPERIMENTAL WATERSHED
TOMBSTONE, ARIZONA
CONTOUR MAP

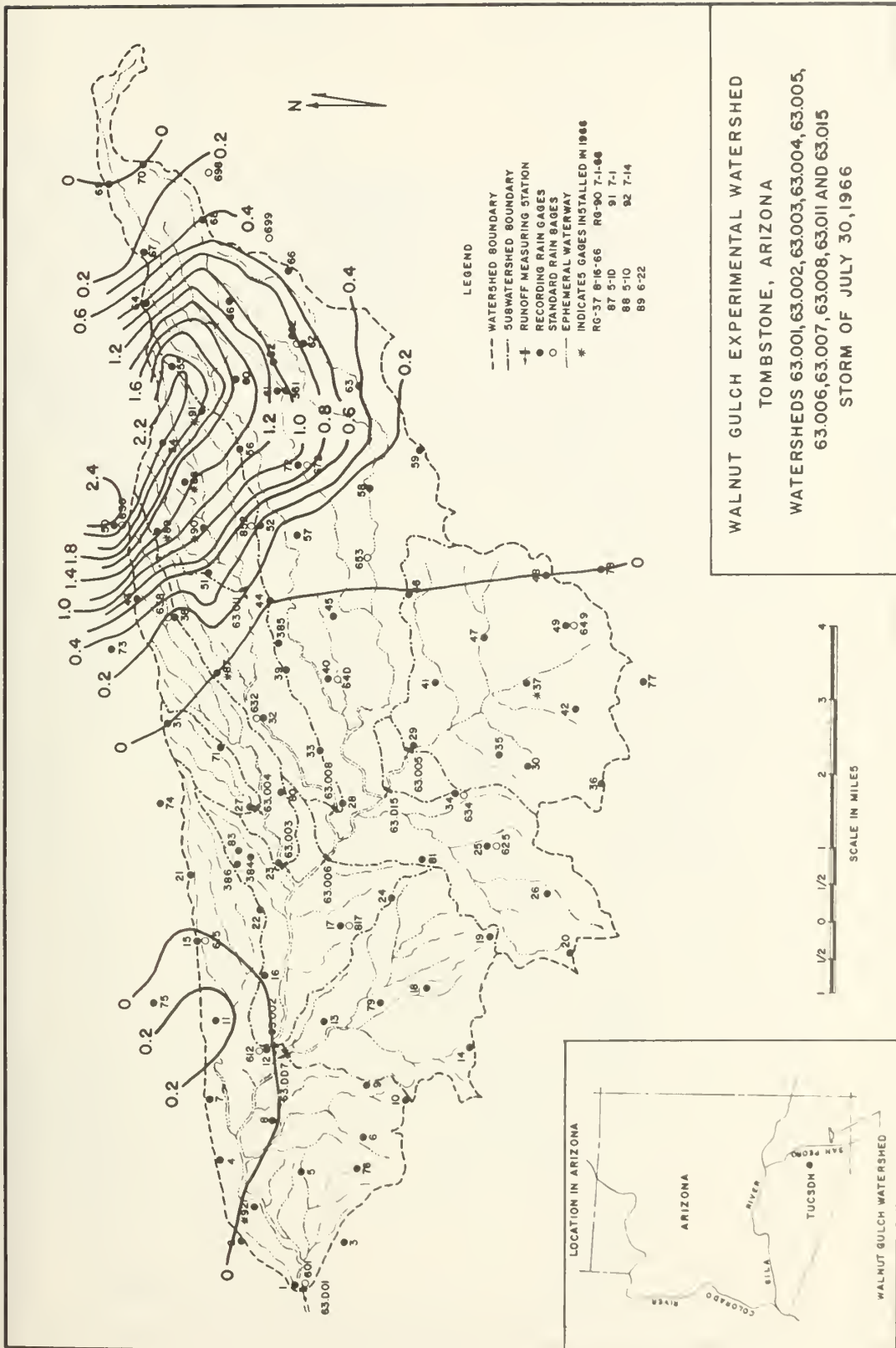
For additional cultural, topographic features and range network, see map page 63.1-5 in "Hydrologic Data for Experimental Agricultural Watersheds in the United States 1956-1959", Misc. Pub. No. 945, U.S.D.A., Agricultural Research Service, November, 1963.



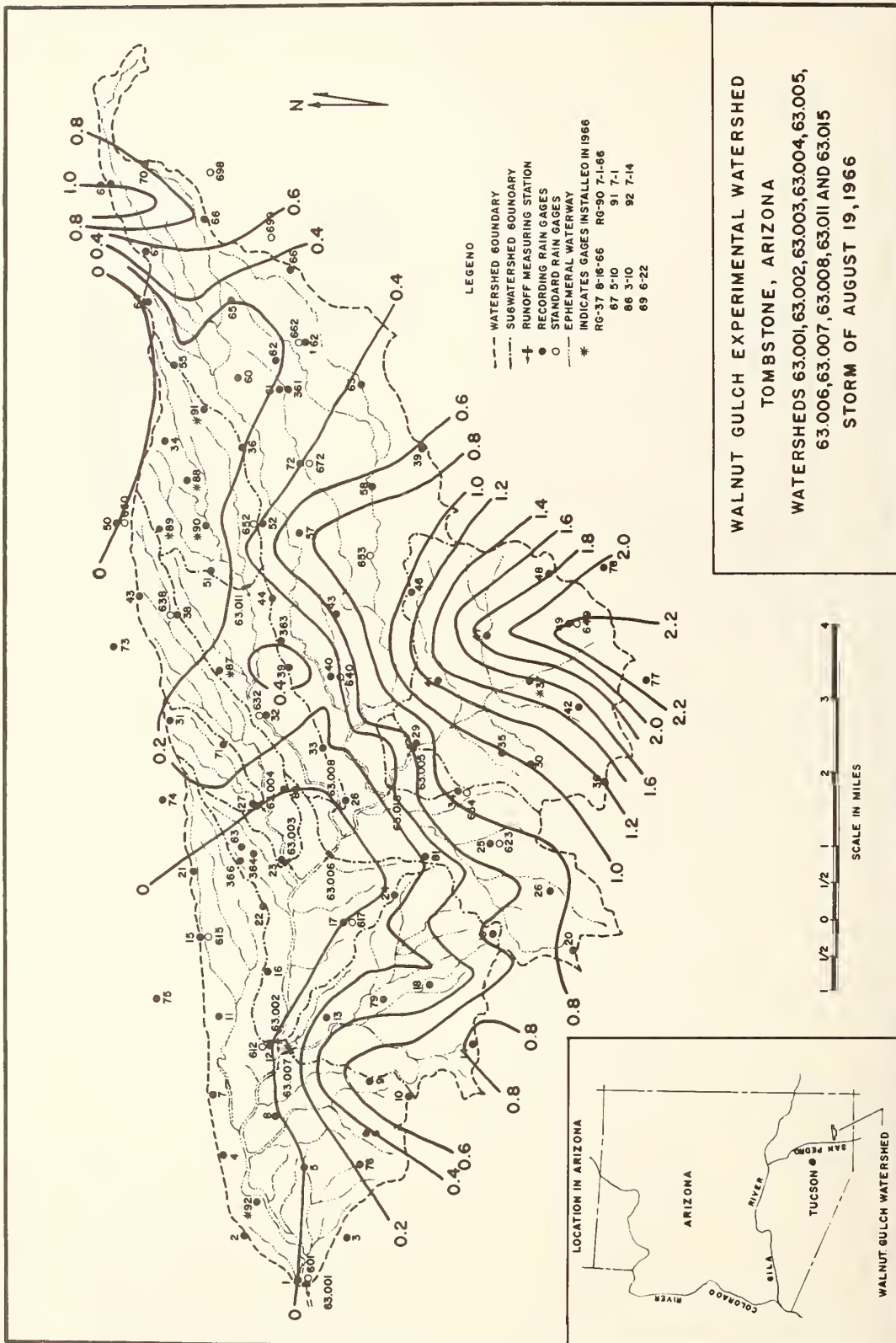








WALNUT GULCH EXPERIMENTAL WATERSHED
TOMBSTONE, ARIZONA
WATERSHEDS 63.001, 63.002, 63.003, 63.004, 63.005,
63.006, 63.007, 63.008, 63.011 AND 63.015
STORM OF JULY 30, 1966



**WALNUT GULCH EXPERIMENTAL WATERSHED
 TOMBSTONE, ARIZONA**

WATERSHEDS 63.001, 63.002, 63.003, 63.004, 63.005,
 63.006, 63.007, 63.008, 63.011 AND 63.015

STORM OF AUGUST 19, 1966

MONTHLY PRECIPITATION AND RUNOFF (inches)						TOMBSTONE, ARIZONA WATERSHED 63.002 AREA - 28,100 ACRES (43.9 SQ. MILES)							
MONTH YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ₁ / Q	.00	.00	.00	.00	.00	.00	.13	.08	.01	T	T	T	.22
STA AV2/P (59-65) Q													
MEAN 70 YR P ₃ / Q	.84	.77	.61	.28	.18	.49	3.65	3.50	1.52	.66	.63	.88	14.01

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	7-28	.07	7-28	.05	7-28	.07	7-28	.08	7-28	.08	7-28	.08	7-28	.08	7-28	.12

MAXIMUMS FOR PERIOD OF RECORD																
19 59 TO 19 66	7-26 1959	.16	7-26 1959	.13	7-26 1959	.17	7-26 1959	.21	9-9 1964	.24	9-9 1964	.24	9-9 1964	.24	9-9 1964	.43

NOTES: Watershed conditions: Same as for selected event, see below. 1/ Not available, data are being re-evaluated. 2/ Precipitation records began Jan. 1954; runoff records began July 1959. Station averages for period of record are not available, data are being re-evaluated. 3/ Mean P based on 70-yr (1897-1966) U.S. Weather Bureau record period at Tombstone, Ariz.

1966 SELECTED RUNOFF EVENT			TOMBSTONE, ARIZONA WATERSHED 63.002				63.02			
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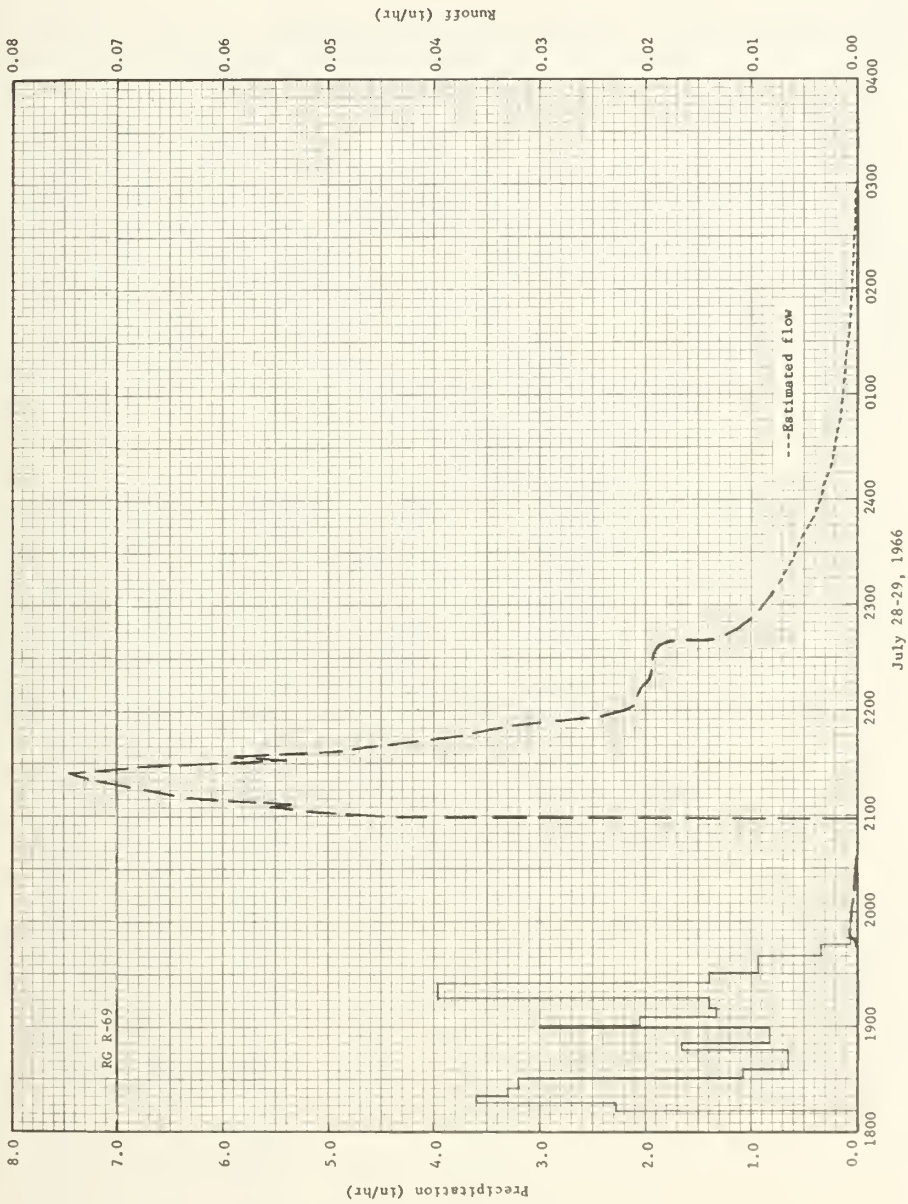
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
<u>Event of July 28-29, 1966</u> ^{4/}										
	RG R-19		7-28	RG	R-19		7-28			
7-3	.18	.0000		1848	.00	.00		1945	.0000	.0000
7-13	.02	.0000		1903	.08	.02		1946	.0000	.0000
7-16	.39	.0000		1912	.27	.06		1947	.0001	.0000
7-17	.27	.0000		1920	.60	.14		1948	.0002	.0000
7-18	.23	.0000		1927	1.71	.34		1949	.0004	.0000
7-20	.46	.0017		1933	3.60	.70		1950	.0007	.0000
7-24	.21	.0000		1941	3.60	1.18		1951	.0008	.0000
7-26	.14	.0000		1949	1.95	1.44		1952	.0007	.0000
7-27	.10	.0000		1958	.53	1.52		1954	.0006	.0001
				2018	.12	1.56		1956	.0007	.0001
				2104	.10	1.64		1959	.0007	.0001
				2127	.05	1.66		2003	.0007	.0002
				2253	.00	1.66		2008	.0005	.0002
								2013	.0003	.0002
	RG R-69			RG	R-69			2018	.0002	.0003
7-8	.04	.0000		1812	.00	.00		2023	.0002	.0003
7-16	.09	.0000		1817	2.28	.19		2028	.0001	.0003
7-18	.15	.0000		1821	3.60	.43		2038	.0000	.0003
7-20	.64	.0017		1825	3.30	.65		2048	.0000	.0003
7-22	.71	.0000		1831	3.20	.97		2057	.0000	.0003
7-23	.02	.0000		1836	1.08	1.06		2058	.0004	.0003
7-24	.29	.0000		1847	.65	1.18		2059	.0202	.0005
7-26	.05	.0000		1851	1.65	1.29		2100	.0430	.0010
7-27	.73	.0000		1859	.82	1.40		2101	.0489	.0018
				1901	3.00	1.50		2103	.0516	.0034
				1906	2.04	1.67		2105	.0554	.0052
				1911	1.32	1.78		2107	.0534	.0070
				1917	1.40	1.92		2108	.0558	.0080
				1925	3.97	2.45		2109	.0621	.0089
				1931	1.40	2.59		2113	.0649	.0132
				1940	.93	2.73		2115	.0668	.0154
				1947	.34	2.77		2118	.0690	.0188
				2005	.07	2.79		2121	.0717	.0223
								2123	.0738	.0247
								2124	.0743	.0259
								2126	.0717	.0284
								2127	.0702	.0295
								2128	.0671	.0307
								2129	.0636	.0318

Continued on next page

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 28,334. FOR TOPOGRAPHIC MAP OF WATERSHED, SEE P. 63.1-3, THIS VOLUME. GEOLOGIC AND VEGETATION MAPS ON P. 63.1-4 AND P. 63.1-5. 4/ ISOHYETAL MAP ON P. 63.1-6.

1966 SELECTED RUNOFF EVENT			TOMBSTONE, ARIZONA				WATERSHED 63.002			63.02
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
Event of July 28-29, 1966 - Continued										
							7-28	2130	.0611	.0328
								2131	.0588	.0338
								2132	.0540	.0348
								2133	.0588	.0357
								2135	.0558	.0376
								2136	.0523	.0385
								2138	.0488	.0402
								2143	.0425	.0440
								2148	.0361	.0473
								2150	.0342	.0484
								2153	.0310	.0501
								2158	.0237	.0524
								2200	.0219	.0531
								2203	.0211	.0542
								2213	.0205	.0577
								2218	.0196	.0593
								2233	.0193	.0642
								2238	.0187	.0658
								2239	.0172	.0661
								2240	.0140	.0663
								2242	.0129	.0668
								2243	.0124	.0670
								2248	.0109	.0680
								2253	.0099	.0688
								2258	.0091	.0696
								2308	.0079E	.0710E
								2318	.0069E	.0723E
								2328	.0060E	.0734E
								2338	.0052E	.0743E
								2348	.0044E	.0751E
								2358	.0037E	.0758E
							7-29	2400	.0036E	.0759E
								0008	.0032E	.0763E
								0018	.0026E	.0768E
								0028	.0022E	.0772E
								0038	.0019E	.0776E
								0048	.0016E	.0779E
								0058	.0014E	.0781E
								0108	.0012E	.0783E
								0118	.0011E	.0785E
								0128	.0009E	.0787E
								0138	.0007E	.0788E
								0148	.0006E	.0789E
								0158	.0005E	.0790E
								0208	.0004E	.0791E
								0218	.0003E	.0791E
								0228	.0002E	.0792E
								0238	.0001E	.0792E
								0248	.0001E	.0792E
								0258	.0000E	.0792E
								0308	.0000E	.0792E
								0318	.0000E	.0792E
								0330	.0000E	.0792E

NOTE: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 28,334.

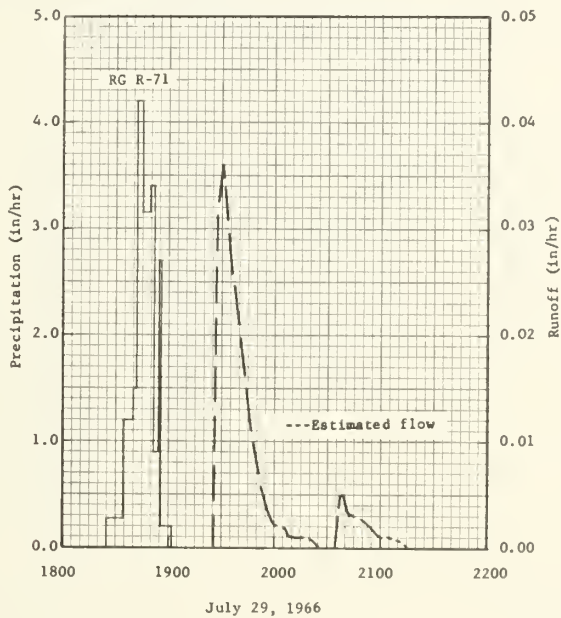


TOMBSTONE, ARIZONA WATERSHED 63.002

MONTHLY PRECIPITATION AND RUNOFF (inches)						TOMBSTONE, ARIZONA WATERSHED 63.003 AREA - 2220 ACRES (3.47 SQ. MILES) 63.03										
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DCT	NOV	DEC	ANNUAL		
1966	P 1/	.00	.00	.00	.00	.00	.00	.01	.01	T	.00	.00	.00	.02		
STA AV2/P (61-66) Q																
	MEAN P 3/	.84	.77	.61	.28	.18	.49	3.65	3.50	1.52	.66	.63	.88	14.01		
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
1966	7-29	.04	7-29	.01	7-29	.01	7-29	.01	7-29	.01	7-29	.01	7-29	.01	7-29	.01
MAXIMUMS FOR PERIOD OF RECORD																
1961 TD 1966	8-17 1961	.43	8-17 1961	.28	8-17 1961	.32	8-17 1961	.32	8-17 1961	.32	8-17 1961	.32	8-17 1961	.32		
NOTES: Watershed conditions: Same as for selected event, see below. 1/ Not available, data are being re-evaluated. 2/ Precipitation records began Aug. 1954; runoff records began June 1961. Station averages for period of record are not available, data are being re-evaluated. 3/ Mean P based on 70-yr (1897-1966) U.S. Weather Bureau record period at Tombstone, Ariz.																
1966 SELECTED RUNOFF EVENT						TOMBSTONE, ARIZONA WATERSHED 63.003 63.03										
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF									
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME DF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME DF DAY	RATE (in/hr)	ACC. (inches)						
Event of July 29, 1966 ^{4/}																
	RG R-71		7-29	RG	R-71		7-29									
	7-16 .28	.0000		1825	.00	.00		1855	.000	.0000						
	7-17 .40	.0000		1834	.27	.04		1856	.000	.0000						
	7-18 .31	.0000		1840	1.20	.16		1859	.000	.0000						
	7-19 .05	.0000		1842	1.50	.21		1900	.000	.0000						
	7-20 .59	.0000		1845	4.20	.42		1901	.000	.0000						
	7-23 .07	T		1849	3.15	.63		1910	.000	.0000						
	7-24 .37	.0000		1852	3.40	.80		1913	.000	.0000						
	7-26 .15	.0000		1854	.90	.83		1919	.000	.0001						
	7-27 .16	.0000		1856	2.70	.92		1926	.000	.0001						
	7-28 1.07	.0001E		1902	.20	.94		1927	.007	.0001						
								1928	.029	.0004						
								1929	.034	.0009						
								1931	.036	.0021						
								1934	.028	.0037						
								1937	.025	.0050						
								1940	.021	.0062						
								1943	.017	.0071						
								1945	.013	.0076						
								1947	.011	.0080						
								1949	.008	.0083						
								1951	.007	.0086						
								1955	.004	.0089						
								1958	.003	.0091						
								2000	.002	.0092						
								2003	.002	.0093						
								2005	.002	.0094						
								2008	.001	.0094						
								2011	.001	.0095						
								2017	.001	.0096						
								2025	.000	.0096						
								2034	.000	.0097						
								2035	.001	.0097						
								2036	.003	.0097						
								2037	.005	.0098						
								2038	.005	.0098						
								2040	.005	.0100						
								2043	.003	.0102						
								2046	.003	.0103						
								2055	.002	.0107						
Continued on next page																
NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 2,238. FOR TOPOGRAPHIC MAP OF WATERSHED, SEE P. 63.1-3, THIS VOLUME. GEOLOGIC AND VEGETATION MAPS ON P. 63.1-4 AND P. 63.1-5. 4/ ISOHYETAL MAP ON P. 63.1-7.																

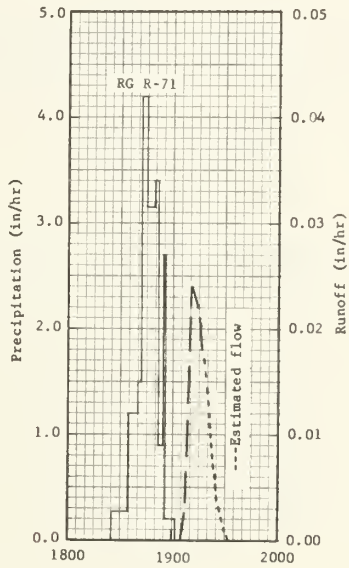
1966 SELECTED RUNOFF EVENT			TOMBSTONE, ARIZONA				WATERSHED 63.003				
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
			Event of July 29, 1966 - Continued								
							7-29	2100	.001E	.0108E	
								2105	.001E	.0108E	
								2115	.000E	.0109E	
								2125	T	.0109E	
								2140	.000E	.0109E	

NOTES: TO CONVERT IN/HR TO CFS, MULTIPLY BY 2238.



TOMBSTONE, ARIZONA WATERSHED 63.003

MONTHLY PRECIPITATION AND RUNOFF (inches)							TOMBSTONE, ARIZONA WATERSHED 63.004 AREA - 560 ACRES								63.04	
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P 1 Q	.00	.00	.00	.00	.00	.00	.005	.009	.003	.00	.00	.00	.017			
STA AV2/P (55-66) Q																
MEAN P 3 70 YR	.84	.77	.61	.28	.18	.49	3.65	3.50	1.52	.66	.63	.88	14.01			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	7-29	.024	7-29	.005E	7-29	.005E	7-29	.005E	7-29	.005E	7-29	.005E	7-29	.005E	7-29	.005E
MAXIMUMS FOR PERIOD OF RECORD																
19 55 TO 19 66	7-19 1955	2.25	7-19 1955	.99	7-19 1955	1.05	7-19 1955	1.10	7-19 1955	1.10	7-19 1955	1.63	7-25 1955	1.68	7-19 1955	4.37
NOTES: Watershed conditions: Same as for selected event, see below. 1/ Not available, data are being re-evaluated. 2/ Precipitation and runoff records began in 1955. Station averages are not available, data are being re-evaluated. 3/ Mean P based on 70-yr (1897-1966) U.S. Weather Bureau record period at Tombstone, Ariz.																
1966 SELECTED RUNOFF EVENT							TOMBSTONE, ARIZONA WATERSHED 63.004								63.04	
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF									
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)						
Event of July 29, 1966 4/																
	RG R-71		7-29	RG	R-71		7-29									
	7-16 .28	.0000		1825 .00		.00		1905 .000	.0000							
	7-17 .40	.0000		1834 .27		.04		1906 .001	.0000							
	7-18 .31	.0000		1840 1.20		.16		1907 .002	.0000							
	7-19 .05	.0000		1842 1.50		.21		1908 .008	.0001							
	7-20 .59	.0000		1845 4.20		.42		1909 .018	.0003							
	7-23 .07	.0000		1849 3.15		.63		1910 .022	.0007							
	7-24 .37	.0000		1852 3.40		.80		1911 .024	.0010							
	7-26 .15	.0000		1854 .90		.83		1914 .022	.0022							
	7-27 .16	.0000		1856 2.70		.92		1917 .018E	.0032E							
	7-28 1.07	.0000		1902 .20		.94		1920 .014E	.0040E							
								1921 .011E	.0042E							
								1922 .009E	.0044E							
								1923 .007E	.0045E							
								1925 .005E	.0047E							
								1927 .003E	.0048E							
								1929 .001E	.0049E							
								1930 .001E	.0049E							
								1932 .000E	.0049E							
								1934 .000E	.0049E							
								1935 .000E	.0049E							
Watershed conditions: Vegetative cover: Entire area dominated by desert shrubs (whitethorn, creosotebush, and tarbush) with a crown spread approximating 38% and an understory of grasses with approximately .6% basal cover.																
NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 565. FOR TOPOGRAPHIC MAP OF WATERSHED, SEE P. 63.1-3, THIS VOLUME. GEOLOGIC AND VEGETATION MAPS ON P. 63.1-4 AND P. 63.1-5. 4/ ISOHYETAL MAP ON P. 63.1-7.																



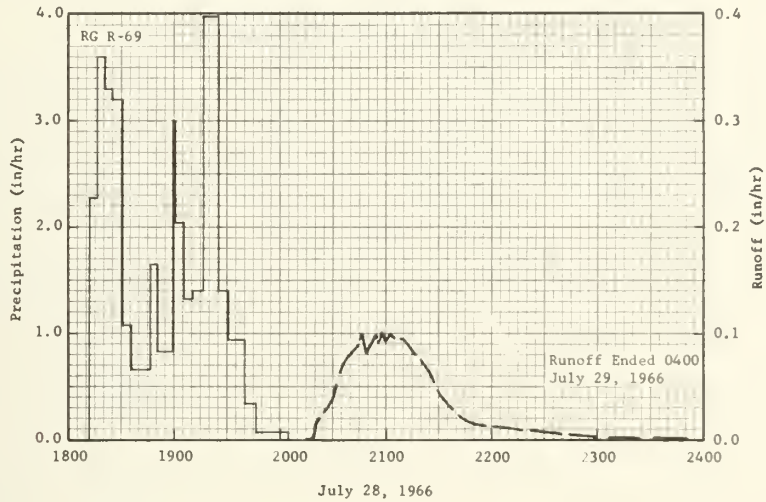
July 29, 1966

TOMBSTONE, ARIZONA WATERSHED 63.004

MONTHLY PRECIPITATION AND RUNOFF (inches)						TOMBSTONE, ARIZONA WATERSHED 63.006 AREA - 23,500 ACRES (36.7 SQ. MILES)								63.06		
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P 1 Q	.00	.00	.00	.00	.00	.00	.16	.06	.02	.00	.00	.00	.24			
STA AV2/P (62-66) Q																
MEAN P 3 70 YR	.84	.77	.61	.28	.18	.49	3.65	3.50	1.52	.66	.63	.88	14.01			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	7-28	.10	7-28	.08	7-28	.10	7-28	.11	7-28	.11	7-28	.11	7-28	.12	7-28	.15
MAXIMUMS FOR PERIOD OF RECORD																
1962 TO 1966	7-28 1966	.10	7-28 1966	.08	7-28 1966	.10	7-28 1966	.11	7-28 1966	.11	7-28 1966	.11	7-28 1966	.12	8-19 1963	.18
NOTES: Watershed conditions: Same as for selected event, see below. 1/ Not available, data are being re-evaluated. 2/ Precipitation and runoff records began in 1962. Station averages are not available, data are being re-evaluated. 3/ Mean P based on 70-yr (1897-1966) U.S. Weather Bureau record period at Tombstone, Ariz.																
1966 SELECTED RUNOFF EVENT				TOMBSTONE, ARIZONA				WATERSHED 63.006				63.06				
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF									
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)						
<u>Event of July 28-29, 1966 4/</u>																
	RG R-69		7-28	RG	R-69		7-28									
7-8	.04	.0000		1812	.00	.00		1915	.0000	.0000						
7-16	.09	.0000		1817	2.28	.19		1945	.0000	.0000						
7-18	.15	.0000		1821	3.60	.43		2011	.0000	.0000						
7-20	.64	.0067		1825	3.30	.65		2015	.0000	.0000						
7-22	.71	.0000		1831	3.20	.97		2018	.0001	.0000						
7-23	.02	T		1836	1.08	1.06		2019	.0011	.0000						
7-24	.29	T		1847	.65	1.18		2020	.0148	.0001						
7-26	.05	.0000		1851	1.65	1.29		2022	.0189	.0007						
7-27	.73	T		1859	.82	1.40		2025	.0266	.0018						
				1901	3.00	1.50		2030	.0375	.0045						
				1906	2.04	1.67		2035	.0678	.0089						
				1911	1.32	1.78		2040	.0791	.0150						
				1917	1.40	1.92		2045	.0901	.0221						
				1925	3.98	2.45		2047	.0991	.0252						
				1931	1.40	2.59		2049	.0819	.0282						
				1940	.93	2.73		2055	.0982	.0372						
				1947	.34	2.77		2056	.0919	.0388						
				2005	.07	2.79		2057	.1028	.0405						
								2100	.0928	.0453						
	RG R-70			RG	R-70			2103	.0991	.0501						
7-8	.07	.0000		1817	.00	.00		2104	.0955	.0518						
7-16	.23	.0000		1820	1.20	.06		2110	.0955	.0613						
7-18	.21	.0000		1825	3.12	.32		2115	.0835	.0688						
7-20	1.09	.0067		1830	2.52	.53		2120	.0761	.0754						
7-22	.20	.0000		1834	2.55	.70		2125	.0642	.0812						
7-23	.03	T		1846	.25	.75		2130	.0467	.0859						
7-24	.24	T		1853	1.54	.93		2135	.0334	.0892						
7-26	.07	.0000		1856	.80	.97		2140	.0256	.0917						
7-27	.22	T		1902	2.50	1.22		2145	.0196	.0936						
Watershed conditions: Includes subwatersheds 63.008, 63.011, and 63.015. Vegetation cover: oak woodland and desert shrubs (white-thorn, creosote bush, tarbush, mortonia) occupy approximately 45% of the area, with a crown spread of 25% cover. The remaining 55% of the area supports a grass cover (black grama, curly mesquite grass, tobosa grass, blue grama, and sideoats grama) with a basal area of 2.5% cover and shrub cover of approximately 6% crown spread.											2150	.0157	.0950			
											2155	.0140	.0963			
											2200	.0127	.0974			
											2210	.0114	.0994			
											2220	.0091	.1011			
											2230	.0075	.1025			
											2240	.0060	.1036			
											2250	.0035	.1044			
											2300	.0026	.1049			
											2320	.0017	.1056			
<u>Continued on next page</u>																
NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 23,696. FOR TOPOGRAPHIC MAP OF WATERSHED, SEE P. 63.1-3, THIS VOLUME. GEOLOGIC AND VEGETATION MAPS ON P. 63.1-4 AND P. 63.1-5. 4/ ISOHYETAL MAP ON P. 63.1-6.																

1966 SELECTED RUNOFF EVENT			TOMBSTONE, ARIZONA			WATERSHED 63.006		63.06		
ANTECEDENT CONDITIONS			RAINFALL			RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
			Event of July 28-29, 1966 - Continued							
						7-28				
						2340				
						2400				
						7-29				
						0030				
						0100				
						0130				
						0200				
						0230				
						0400				

NOTE: TO CONVERT RUNOFF IN IN/HR, MULTIPLY BY 23,696.



TOMBSTONE, ARIZONA WATERSHED 63.006

TOMBSTONE, ARIZONA WATERSHED 63.007

LOCATION: Cochise County, Ariz.; 2 3/4 miles NW of Tombstone; Walnut Gulch, San Pedro River, Gila River, Colorado River Basin.

AREA: 3340 acres (5.22 sq. mi.).

SHAPE: Rectangular, about 2 miles wide by 3 miles long.

SLOPES:	Slope - percent	0-3	3-8	8-15	15-30
	Percent of area	2	25	54	19

SOILS: Celler rocky sandy loam and House Mountain very rocky loam (Entisols) comprise 24% of the area; Sonoita sandy loam, Chiricahua very gravelly clay loam. Cave-Rillito gravelly loam, Laveen loam, and Nickel gravelly loam (Aridisols) comprise 33% and Tortugas rocky loam and Comoro sandy loam (Mollisols) comprise 43% of the area.

EROSION:	Erosion Class	4
	Percent of area	100

LAND CAPABILITY:	Class	VI
	Percent of area	100

GEOLOGY: The major rock types of this area are the Schieffelin granodiorite (Tertiary) and the Bisbee Group (Cretaceous). The Schieffelin granodiorite occupies the northern portion of the watershed and is expressed as low, rounded, boulder-covered hills. The intrusion extends to unknown depths in this particular area. The granodiorite is easily eroded and is rapidly being reduced to alluvium and residual soil. Small natural lysimeters formed by alluvium filling depressions in the undulating granodiorite surface are used as local water supplies. The Bisbee Group (Cretaceous) is present in the southern portion of the watershed as sharp peaks and ridges of limestone and quartzite, as well as low, gently sloping alluvial plains. Portions of this area are mineralized and have been extensively mined in past years. The formations have been folded and shattered, with large-scale faulting and intrusion of igneous dikes further complicating the structural geology. Massive Naco Group limestones appear as high ridges on the southern boundary of the watershed, with the western boundary of the area formed by the Uncle Sam Porphyry. The porphyry is a fine grained, highly resistant, intrusive rock which forms steep slopes and sharp peaks along the southwestern boundary of the watershed. The Abrigo limestone (Cambrian), an impure limestone with some shale beds, occupies a small portion of the southern boundary of the watershed.

Stratigraphy and Hydrogeology of Walnut Gulch Watershed 63.007

System	Formation and percent of area	Description
Quaternary	Alluvium 10%	Interbedded sand, clay, gravel, conglomerate, some caliche, minor water producer.
Tertiary	Schieffelin granodiorite 45%	Intrusive, light grey biotite-hornblende granodiorite, much surface alteration, highly fractured and jointed, secondary carbonate in many fractures.
	Uncle Sam porphyry 4%	Quartz-lattice porphyry, phenocrysts of feldspar, quartz, biotite, hornblende, augite, uneven texture, glassy matrix, contains some volcanic breccia and flows. Not important as a water producer.
Cretaceous	Bisbee Group 32%	Limestone, quartzite, sandstone, and mudstone. Some portions highly folded, fractured, and faulted. Some areas important as water producers.
Cm	Naco limestone (Naco Group) 7%	Thin to thick-bedded light-tan to dark-blue limestone, dolomitic in some areas. Characteristic silica blebs in most upper layers. Faulting of major proportions in many areas. An important water producer in some areas.
Ca	Abrigo limestone 2%	Sandy impure limestone with some shale beds. Not important as a water producer.

Source of data: General Geology of Central Cochise County, Arizona, by James Gilluly, U. S. Geological Survey, Professional Paper 281, 1956, and extended field studies by project staff.

SURFACE DRAINAGE: Excellent except in SE 1/4 where many old roads, mine shafts, and tailing dumps slow, divert, and often entrap runoff. Principle channel 3.8 miles in length over relatively steep clean channels.

CHARACTER OF FLOW: Ephemeral, Continuous.

INSTRUMENTATION: PRECIPITATION: Measured by two 6-in., 24-hour weighing rain gages (scales on chart: 1 in. = 1 in. rain; 125 minutes), and nine 4.5-in., 24-hour weighing rain gages (scales on chart: 1 in. = .333 in. rain; 1 in. = 125 minutes). RUNOFF: Measured by a precalibrated, super-critical depth flume, AD-35 analog strip chart, water level recorder (scale on chart: 1 in. = .10 ft. of stage; 1 in. = 50 minutes).

WATERSHED CONDITIONS: Vegetation: Desert shrubs (whitethorn, creosotebush, tarbush, and mormonia) occupy approximately 75 percent of the watershed. The remaining 25 percent of the area is grass. Most prevalent grasses are black grama, curly mesquite sidecoats grama, blue grama, and tobosa grass.

GENERALLY REPRESENTS: Desert grassland ranges in the Southeastern Arizona Basin and Rangeland resources area (D-41).

MONTHLY PRECIPITATION AND RUNOFF (inches)						TOMBSTONE, ARIZONA WATERSHED 63.007 AREA—3340 ACRES (5.22 SQ. MILES)								63.07
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P ^{1/} O						.00	.01	.07	.01	.00	.00	.00	.09
	STA AV2/P (1966) Q													
	MEAN 70 YR P ^{3/}	.84	.77	.61	.28	.18	.49	3.65	3.50	1.52	.66	.63	.88	14.01

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																	
YEAR	MAXIMUM DISCHARGE	MAXIMUM VOLUME FOR SELECTED TIME INTERVAL															
		1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS			
		DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME		
1966		8-14	.09	8-14	.03	8-14	.03	8-14	.03	8-14	.03	8-14	.03	8-14	.03	8-14	.05

MAXIMUMS FOR PERIOD OF RECORD																
1966 TO	8-14	.09	8-14	.03	8-14	.03	8-14	.03	8-14	.03	8-14	.03	8-14	.03	8-14	.05
19--	1966		1966		1966		1966		1966		1966		1966		1966	

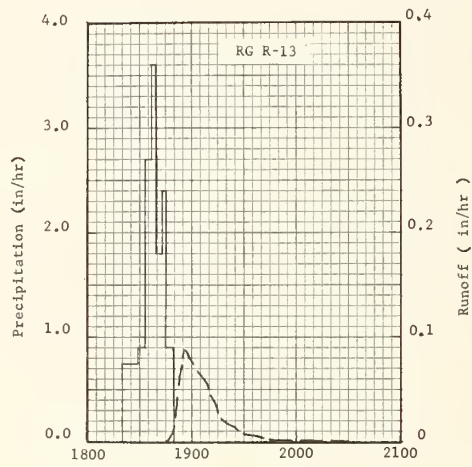
Notes: Watershed condition same as described under WATERSHED CONDITIONS. 1/ Not available, data are being re-evaluated. 2/ Precipitation record began January 1966; runoff record began June 1966. 3/ Mean P based on 70-yr (1897-1966) U.S. Weather Bureau record period at Tombstone, Ariz.

1966	SELECTED RUNOFF EVENT				TOMBSTONE, ARIZONA				WATERSHED 63.007				63.07
ANTECEDENT CONDITIONS				RAINFALL				RUNOFF					
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)		DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)		

Event of August 14, 1966															
RG R-13			8-14				RG R-13			8-14					
7-15	.02	.0000					.00					8-14	1839	.000	.0000
7-16	.07	.0000				1829	.73	.11				8-14	1844	.000	.0000
7-17	.21	.0000				1833	.90	.17				8-14	1846	.000	.0000
7-18	.23	.0000				1837	2.70	.35				8-14	1847	.003	.0000
7-20	.15	.0000				1839	3.60	.47				8-14	1848	.006	.0001
7-23	.25	.0000				1843	1.80	.59				8-14	1849	.012	.0003
7-24	.26	.0000				1845	2.40	.67				8-14	1850	.020	.0005
7-26	.12	.0000				1849	.90	.73				8-14	1851	.027	.0009
7-27	.40	.0000				1906	.00	.73				8-14	1852	.042	.0015
7-28	1.20	.0089										8-14	1853	.063	.0024
7-29	.67	.0038										8-14	1854	.071	.0035
7-30	.02	.0000										8-14	1855	.082	.0048
8-3	.53	.0004										8-14	1856	.088	.0062
8-5	1.05	.0047										8-14	1859	.080	.0104
8-8	.05	.0000										8-14	1904	.067	.0165
8-10	.03	.0000										8-14	1909	.056	.0217
8-13	.03	.0000										8-14	1912	.043	.0241
												8-14	1914	.036	.0255
												8-14	1915	.031	.0260
												8-14	1917	.022	.0269
												8-14	1920	.017	.0279
												8-14	1925	.014	.0292
												8-14	1930	.008	.0301
												8-14	1939	.004	.0310
												8-14	1945	.002	.0313
												8-14	2000	.001	.0316
												8-14	2030	.000	.0319
												8-14	2100	.000	.0320
												8-14	2200	.000	.0321

Watershed conditions: Vegetation: Desert shrubs (whitethorn, creosote bush, tarbush, and mortonia) occupy approximately 75% of the watershed. The remaining 25% of the area is grass. Most prevalent grasses are black grama, curly mesquite sideoats grama, blue grama, and tobosa grass.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 3367.8. FOR TOPOGRAPHIC MAP OF WATERSHED, SEE P. 63.1-3, THIS VOLUME. GEOLOGIC AND VEGETATION MAPS ON P. 63.1-4 AND P. 63.1-5.



August 14, 1966

TOMBSTONE, ARIZONA WATERSHED 63.007

MONTHLY PRECIPITATION AND RUNOFF (inches)							TOMBSTONE, ARIZONA WATERSHED 63.008 AREA — 3830 ACRES (5.98 SQ. MILES)							63.08
YEAR	MDNTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DCT	NDV	DEC	ANNUAL
1966	^{1/} Q	.00	.00	.00	.00	.00	.00	.09	.05	.00	.00	.00	.00	.14
STA AV2/P (63-66) Q														
MEAN	^{2/} 70 YR	.84	.77	.61	.28	.18	.49	3.65	3.50	1.52	.66	.63	.88	14.01

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	7-30	.14	7-30	.06	7-30	.08	7-30	.09	7-30	.09	7-29	.11	7-29	.13	7-28	.17

MAXIMUMS FOR PERIOD OF RECORD																
¹⁹ 63 TO	7-22	1.11	7-22	.31	7-22	.32	7-22	.34	7-22	.34	7-22	.34	7-22	.34	7-22	.34
¹⁹ 66	1964		1964		1964		1964		1964		1964		1964		1964	

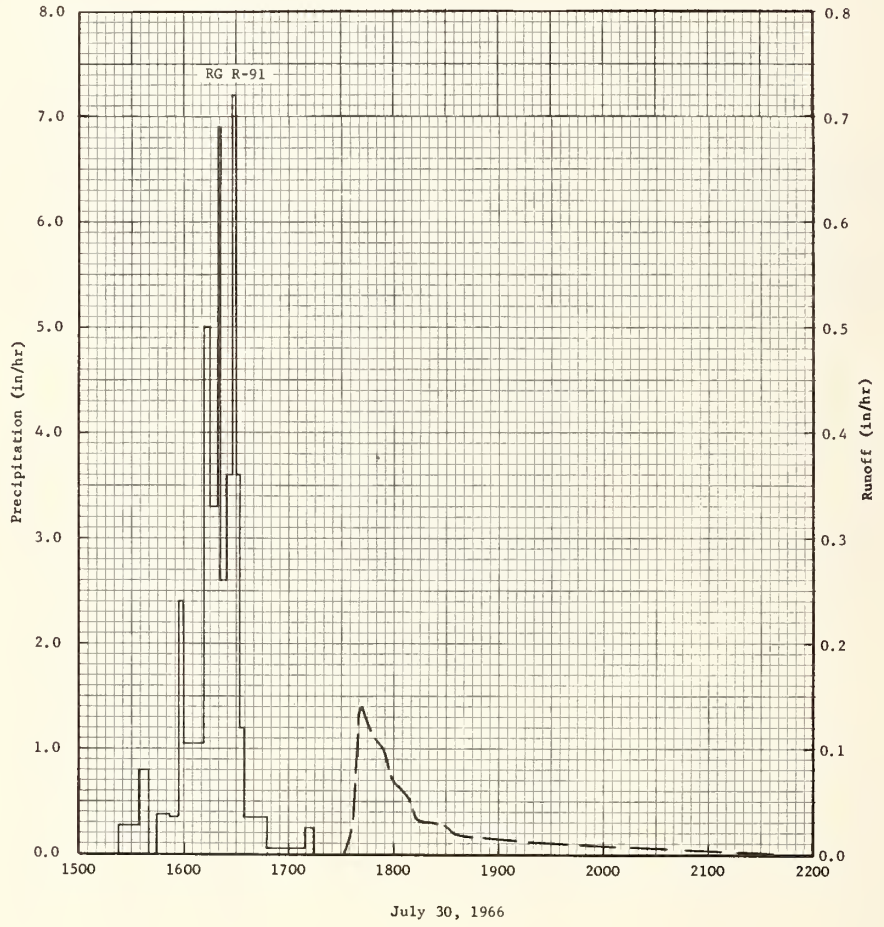
Notes: Watershed conditions: Same as for selected events, see below. 1/ Not available, data are being re-evaluated. 2/ Precipitation and runoff records began in 1963. 3/ Mean P based on 70-yr (1897-1966) U.S. Weather Bureau record period at Tombstone, Ariz.

1966 SELECTED RUNOFF EVENT							TOMBSTONE, ARIZONA WATERSHED 63.008							63.08
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ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MD-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MD-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MD-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
<u>Event of July 30, 1966</u> ^{4/}											
	RG R-56		7-30	RG	R-56		7-30				
7-18	.06	.0000		1525	.00	.00		1732	.000	.0000	
7-19	.05	.0000		1540	.21	.05		1735	.015	.0004	
7-20	.96	T		1600	.06	.07		1738	.068	.0024	
7-22	.05	.0000		1614	.18	.12		1740	.134	.0058	
7-24	.13	.0000		1616	5.43	.30		1742	.140	.0104	
7-26	.06	.0000		1619	6.39	.62		1747	.117	.0210	
7-27	.32	.0000		1622	4.90	.86		1754	.100	.0337	
7-28	2.47	.0435		1624	6.07	1.07		1757	.081	.0382	
7-29	.35	.0409		1627	2.34	1.18		1800	.068	.0419	
				1630	1.70	1.27		1803	.065	.0453	
				1632	2.56	1.35		1809	.052	.0511	
				1644	.11	1.37		1813	.034	.0540	
				1707	.03	1.38		1817	.030	.0561	
				1718	.17	1.42		1820	.030	.0576	
	RG R-91			RG	R-91			1823	.030	.0591	
7-8	.10	.0000		1523	.00	.00		1825	.029	.0600	
7-16	.28	.0000		1534	.27	.05		1830	.027	.0624	
7-18	.17	.0000		1540	.80	.13		1835	.019	.0643	
7-19	.08	.0000		1544	.00	.13		1841	.018	.0662	
7-20	1.50	T		1552	.38	.18		1845	.017	.0673	
7-22	.15	.0000		1557	.36	.21		1853	.015	.0694	
7-24	.23	.0000		1600	2.40	.33		1930	.010	.0773	
7-26	.07	.0000		1604	1.05	.40		2043	.003	.0853	
7-27	.34	.0000		1612	1.05	.54		2138	.000	.0866	
7-28	2.70	.0435		1615	5.00	.79		2215	.000	.0866	
7-29	.51	.0409		1619	3.30	1.01					
				1621	6.90	1.24					
				1624	2.60	1.37					
				1628	3.60	1.61					
				1630	7.20	1.85					
				1632	3.60	1.97					
				1634	1.20	2.01					
				1648	.34	2.09					
				1709	.06	2.11					
				1714	.24	2.13					

Watershed conditions: (Includes Watershed 63.011) Vegetation cover; approximately one-third of the area is dominated by desert shrubs (whitethorn, creosotebush, tarbush) with a crown spread of approximately 30% and an understory of grasses with less than 1% basal area. The remaining two-thirds of the area is dominated by grasses (black grama, curly mesquite grass, sideoats grama), with a basal area of about 2.5%, interspersed by desert shrubs with a crown spread of about 5%.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 3861.9. FOR TOPOGRAPHIC MAP OF WATERSHED, SEE P. 63.1-3, THIS VOLUME. GEOLOGIC AND VEGETATION MAPS ON P. 63.1-4 AND P. 63.1-5. 4/ ISOHYETAL MAP ON P. 63.1-8.



TOMBSTONE, ARIZONA WATERSHED 63.008

MONTHLY PRECIPITATION AND RUNOFF (inches)						TOMBSTONE, ARIZONA WATERSHED 63.011 AREA — 2035 ACRES (3.18 SQ. MILES)								63.11
MONTH YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966 P 1/ o	.00	.00	.00	.00	.00	.00	.31	.06	T	.00	.00	.00	.37	
STA AV2/P (63-66) Q														
MEAN P 3/ 70 YR	.84	.77	.61	.28	.18	.49	3.65	3.50	1.52	.66	.63	.88	14.01	

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		8 DAYS			
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME		
1966	7-30	.52	7-30	.24	7-30	.26E	7-30	.26E	7-30	.26E	7-30	.26E	7-30	.26E	7-28	.31E

MAXIMUMS FOR PERIOD OF RECORD																
1963 TO 1966	9-11 1964	.83	9-10 1964	.62	9-9 1964	.75	9-9 1964	.77	9-9 1964	.97	9-9 1964	.97	9-10 1964	1.46	9-8 1964	1.70

Notes: Watershed conditions: Same as for Selected Events, see below. 1/ Not available, data are being reevaluated. 2/ Precipitation and runoff records began in 1963. 3/ Mean P based on 70-yr (1897-1966) U.S. Weather Bureau record period at Tombstone, Ariz.

1966 SELECTED RUNOFF EVENT			TOMBSTONE, ARIZONA WATERSHED 63.011								63.11
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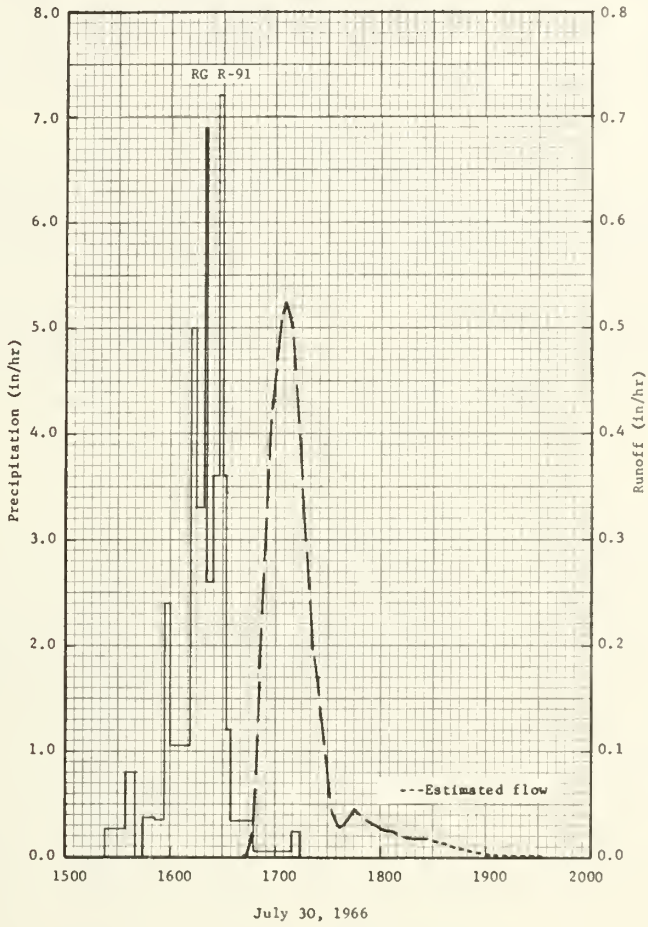
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
			<u>Event of July 30, 1966 4/</u>							
	RG R-55		7-30	RG	R-55		7-30			
7-8	.09	.0000		1532	.00	.00		1643	.000	.0000
7-16	.21	.0000		1537	.48	.04		1644	.001	.0000
7-18	.09	.0000		1539	1.50	.09		1645	.004	.0000
7-19	.12	.0000		1543	1.95	.22		1646	.013	.0002
7-20	1.36	.0033		1545	2.70	.31		1647	.038	.0006
7-22	.11	.0000		1553	.30	.35		1648	.057	.0014
7-24	.27	.0000		1557	1.50	.45		1649	.079	.0025
7-26	.07	.0000		1559	1.50	.50		1650	.116	.0041
7-27	.28	.0000		1603	.75	.55		1651	.161	.0065
7-28	2.88	.0443		1605	2.10	.62		1652	.223	.0097
7-29	.65	.0050E		1611	.70	.69		1653	.266	.0137
				1615	1.80	.81		1654	.296	.0184
				1621	.40	.85		1655	.317	.0235
				1623	3.00	.95		1656	.349	.0291
				1625	6.30	1.16		1657	.390	.0352
				1627	2.40	1.24		1659	.431	.0489
				1631	2.25	1.39		1701	.469	.0639
				1636	1.68	1.53		1703	.507	.0801
				1639	4.40	1.75		1706	.523	.1059
				1641	6.30	1.96		1708	.509	.1231
				1647	.50	2.01		1710	.489	.1398
				1651	1.50	2.11		1711	.467	.1477
				1655	1.05	2.18		1712	.431	.1552
				1702	.26	2.21		1713	.399	.1621
					.26					
				1719	.00	2.21		1714	.376	.1686
				1731	.40	2.29		1715	.358	.1747
								1716	.327	.1804
								1717	.300	.1856
								1718	.264	.1903
								1820	.243	.1988
								1722	.196	.2061
								1724	.169	.2122
								1726	.136	.2173
								1728	.112	.2214

Continued on next page

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 2051.9. FOR TOPOGRAPHIC MAP OF WATERSHED, SEE P. 63.1-3, THIS VOLUME. GEOLOGIC AND VEGETATION MAPS ON P. 63.1-4 AND P. 63.1-5. 4/ ISOHYETAL MAP ON P. 63.1-8.

1966 SELECTED RUNOFF EVENT			TOMBSTONE, ARIZONA				WATERSHED 63.011		63.11	
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
<u>Event of July 30, 1966 - Continued</u>										
	RG R-91		7-30	RG	R-91		7-30			
7-8	.10	.0000		1523	.00	.00		1730	.089	.2247
7-16	.28	.0000		1534	.27	.05		1732	.054	.2271
7-18	.17	.0000		1540	.80	.13		1734	.035	.2286
7-19	.08	.0000		1544	.00	.13		1737	.027	.2302
								1742	.036	.2328
7-20	1.50	.0033		1552	.38	.18		1746	.044	.2355
7-22	.15	.0000		1557	.36	.21		1748	.039	.2369
7-24	.23	.0000		1600	2.40	.33		1752	.035	.2393
7-26	.07	.0000		1604	1.05	.40		1757	.030	.2420
7-27	.34	.0000		1612	1.05	.54		1802	.025	.2443
7-28	2.70	.0443		1615	5.00	.79		1807	.024	.2463
7-29	.51	.0050E		1619	3.30	1.01		1812	.020	.2481
				1621	6.90	1.24		1817	.017	.2497
				1624	2.60	1.37		1822	.018	.2511
				1628	3.60	1.61		1827	.017	.2526
				1630	7.20	1.85		1832	.014E	.2539E
				1632	3.60	1.97		1837	.012E	.2549E
				1634	1.20	2.01		1842	.009E	.2558E
				1648	.34	2.09		1847	.007E	.2565E
				1709	.06	2.11		1852	.005E	.2570E
				1714	.24	2.13		1857	.003E	.2573E
								1902	.002E	.2575E
								1912	.001E	.2578E
								1922	.001E	.2579E
								1932	.000E	.2580E
								1947	.000E	.2580E
								2002	.000E	.2581E
								2032	.000E	.2581E
								2102	.000E	.2581E
							7-31	0002	.000E	.2581E
								0300E	.000E	.2581E

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 2051.9.



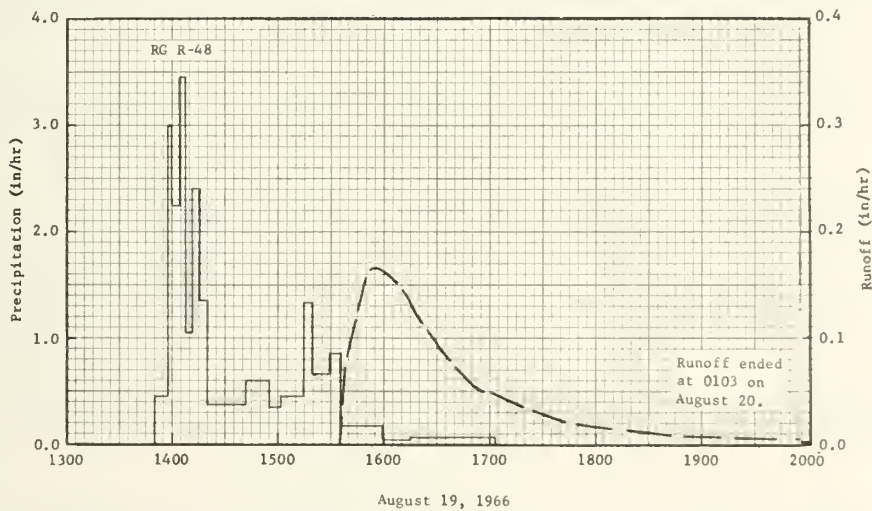
TOMBSTONE, ARIZONA WATERSHED 63.011

MONTHLY PRECIPITATION AND RUNOFF (inches)							TOMBSTONE, ARIZONA WATERSHED 63.015 AREA—5,912 ACRES (9.24 SQ. MILES) 63.15									
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P 1/ O	.00	.00	.00	.00	.00	.00	.08	.25	.00	.00	.00	.00	.33			
STA AV2/P (65-66) Q																
MEAN P 3/ 70 YR	.84	.77	.61	.28	.18	.49	3.65	3.50	1.52	.66	.63	.88	14.01			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		8 DAYS			
1966	8-19	.17	8-19	.13	8-19	.18	8-19	.20	8-19	.20	8-19	.23	8-19	.25	8-19	.25
MAXIMUMS FOR PERIOD OF RECORD																
19 65 TO 19 66	8-19 1966	.17	8-19 1966	.13	8-19 1966	.18	8-19 1966	.20	8-19 1966	.20	8-19 1966	.23	8-19 1966	.25	8-19 1966	.25
NOTES: Watershed conditions: Same as for selected event, see following page. 1/ Not available, data are being re-evaluated. 2/ Precipitation records began January 1965; runoff records began June 1965. Station averages are not available, data are being re-evaluated. 3/ Mean P based on 70-yr (1897-1966) U. S. Weather Bureau record period at Tombstone, Ariz.																
1966 SELECTED RUNOFF EVENT				TOMBSTONE, ARIZONA WATERSHED 63.015 63.15												
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF									
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)						
Event of August 19, 1966 4/																
	RG R-47		8-19	RG R-47			8-19									
7-20	1.01	.0219		1410	.00	.00		1512	.000	.0000						
7-24	.31	.0000		1412	2.40	.08		1515	.000	.0000						
7-26	.15	.0000		1422	1.02	.25		1535	.000	.0000						
7-27	.17	.0000		1429	.77	.34		1536	.015	.0001						
7-28	1.36	.0217		1438	1.47	.56		1537	.052	.0007						
7-29	.51	.0361		1446	1.28	.73		1538	.075	.0017						
7-30	.02	.0000		1451	.48	.77		1541	.092	.0059						
7-31	.06	.0000		1458	1.20	.91		1543	.109	.0093						
8-3	.47	.0000		1508	1.32	1.13		1545	.126	.0132						
8-6	.59	.0000		1513	1.80	1.28		1548	.145	.0200						
8-8	.04	.0000		1517	2.10	1.42		1553	.163	.0328						
8-10	.02	.0000		1522	1.92	1.58		1556	.165	.0410						
8-14	.30	.0000		1526	2.55	1.75		1603	.160	.0599						
8-16	.14	.0000		1538	.30	1.81		1608	.152	.0729						
8-17	.32	.0000		1556	.07	1.83		1613	.141	.0851						
8-18	.14	.0000		1703	.04	1.88		1618	.126	.0962						
8-19	5/ .03	.0000						1623	.113	.1061						
								1628	.100	.1150						
								1633	.088	.1228						
	RG R-48			RG R-48				1638	.079	.1298						
7-20	1.49	.0219		1350	.00	.00		1643	.069	.1360						
7-23	.01	.0000		1358	.45	.06		1648	.060	.1414						
7-24	.31	.0000		1400	3.00	.16		1653	.053	.1461						
7-26	.20	.0000		1404	2.25	.31		1658	.050	.1504						
7-27	.07	.0000		1408	3.45	.54		1703	.047	.1544						
7-28	1.33	.0217		1412	1.05	.61		1713	.040	.1617						
7-29	.64	.0361		1416	2.40	.77		1723	.033	.1678						
7-30	.02	.0000		1420	1.35	.86		1733	.027	.1728						
8-3	.77	.0000		1442	.38	1.00		1743	.021	.1768						
Watershed conditions: (See next page.)							Continued on next page									
NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 5,961. FOR TOPOGRAPHIC MAP OF WATERSHED, SEE P. 63.1-3, THIS VOLUME. GEOLOGIC AND VEGETATION MAPS ON P. 63.1-4 AND P. 63.1-5. 4/ ISOHYETAL MAP ON P. 63.1-9. 5/ OCCURRED BETWEEN 0415 AND 0420.																

1966 SELECTED RUNOFF EVENT			TOMBSTONE, ARIZONA				WATERSHED 63.015		63 15	
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
Event of August 19, 1966 (continued)										
	RG R-48		8-19	RG	R-48		8-19			
8-4	.03	.0000		1455	.60	1.13		1803	.016	.1830
8-6	.59	.0000		1502	.34	1.17		1843	.008	.1910
8-8	.03	.0000		1514	.45	1.26		1923	.005	.1954
8-10	.03	.0000		1519	1.32	1.37		2023	.003	.1994
8-14	.07	.0000		1529	.66	1.48		2123	.001	.2014
8-16	.26	.0000		1536	.86	1.58		2223	.001	.2023
8-17	.23	.0000		1559	.18	1.65		2323	.000	.2027
8-18	.34	.0000		1615	.04	1.66	8-20	0103	.000	.2028
				1703	.06	1.71				

Watershed conditions:
 Vegetation cover: Desert shrubs (whitethorn, creosote bush, tarbush) occupy 78% of the area with a crown spread of approximately 30% and an understory of grasses of less than 1% basal area. The remaining 22% of the area supports a grass cover (black grama, tobosa grass, blue grama, sideoats grama, and curly mesquite grass) of approximately 2% basal area

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 5,961.



TOMBSTONE, ARIZONA WATERSHED 63.015

TOMBSTONE, ARIZONA WATERSHED 63.103

LOCATION: Cochise County; 2 miles north of Tombstone; Walnut Gulch, tributary of San Pedro River.

AREA: 8.3 acres.

SHAPE: Fan shape - 500 feet wide by 1150 feet long.

<u>SLOPES:</u>	Slope - percent	0-3	3-8	8-15	15-30
	Percent of area	0	90	10	0

SOIL: Nickel gravelly loam. An arid soil, typic Calciorthid, loamy-skeletal, mixed, thermic.

<u>EROSION:</u>	Erosion Class	2
	Percent of area	100

<u>LAND CAPABILITY:</u>	Class	VII
	Percent of area	100

GEOLOGY: One hundred percent alluvium, with an erosional gravel cover. Particle size ranges from sand grain size to boulders. Topographic expression is that of low, rolling hills dissected by the present day drainage system. The predominant rock types of the erosional gravels are chert, quartzite, limestones, and andesite. Lesser amounts of rhyolite, breccia, mudstone, tuff, and sandstones are also present. Caliche conglomerates are exposed in many stream channels. The alluvium is made up of disconnected sand, gravel, and clay layers and lenses and is known to exist in depths of more than 1200 feet in this area.

Source of data: General Geology of Central Cochise County, Arizona, by James Gilluly, U. S. Geological Survey, Professional Paper 281, 1956 and extended field studies by project staff.

SURFACE DRAINAGE: Good; length of principal drainage 700 feet.

CHARACTER OF FLOW: Ephemeral, continuous.

INSTRUMENTATION: Precipitation: Measured by one 24-hour weighing rain gage (scales on chart: 1 in. = 1 in. rain; 1 in. = 125 minutes) and 6-hour rain gage (1 in. = .333 in. rain; 1 in. = 31.25 minutes). Runoff: Measured by 2:1 broad-crested V-notch weir with a FW-1 stage recorder (scales on chart 1 in. = .20 ft. of stage and 1 in. = 25 min.).

WATERSHED CONDITIONS: Vegetation cover: Entire area dominated by desert shrubs (whitethorn, creosote bush, and tarbush) with a crown spread approximating 25 percent and an understory of grasses with approximately 0.6 percent basal cover.

GENERALLY REPRESENTS: Desert grassland ranges in the Southeastern Arizona Basin and Range land resource area (D-41).

MONTHLY PRECIPITATION AND RUNOFF (inches)						TOMBSTONE, ARIZONA WATERSHED 63.103 AREA—8.3 ACRES							63.103
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1965 P ₁ /O	.63	.07	.26	.04	.06	.22	3.22 .00	2.06 .54	1.32 T	.00 .00	.26 .00	3.71 .04	11.85 .58
1966 P ₁ /O	.50 .00	1.08 .00	.00 .00	.10 .00	.00 .00	.00 .00	3.86 .15E	4.95 .16	1.65 .05	.00 .00	.30 .00	.15 .00	12.59 .36
STA AV ² /P (65-66) Q	.56 .00	.58 .00	.13 .00	.07 .00	.03 .00	.11 .00	3.54 .08	3.51 .35	1.49 .03	.00 .00	.28 .00	1.93 .02	12.23 .48
MEAN P ₂ /3 70 YR	.84	.77	.61	.28	.18	.49	3.65	3.50	1.52	.66	.63	.88	14.01

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
			DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1965	8-13	2.07	8-13	.53	8-13	.53	8-13	.53	8-13	.53	8-13	.53	8-13	.53	8-13	.53
1966	8-31	.36	8-31	.09	8-31	.09	8-31	.09	8-31	.09	8-31	.09	8-31	.09	8-31	.09

MAXIMUMS FOR PERIOD OF RECORD																
19 65 TO 1966	8-13 1965	2.07	8-13 1965	.53	8-13 1965	.53	8-13 1965	.53	8-13 1965	.53	8-13 1965	.53	8-13 1965	.53	8-13 1965	.53

Notes: Watershed condition same as described under WATERSHED CONDITIONS. 1/ Monthly precipitation is the record of 1 rain gage. 2/ Precipitation record began January 1965 and runoff record began July 1965. 3/ Mean P based on 70-yr (1897-1966) U.S. Weather Bureau record period at Tombstone, Ariz.

1965	SELECTED RUNOFF EVENT					TOMBSTONE, ARIZONA WATERSHED 63.103					63.103
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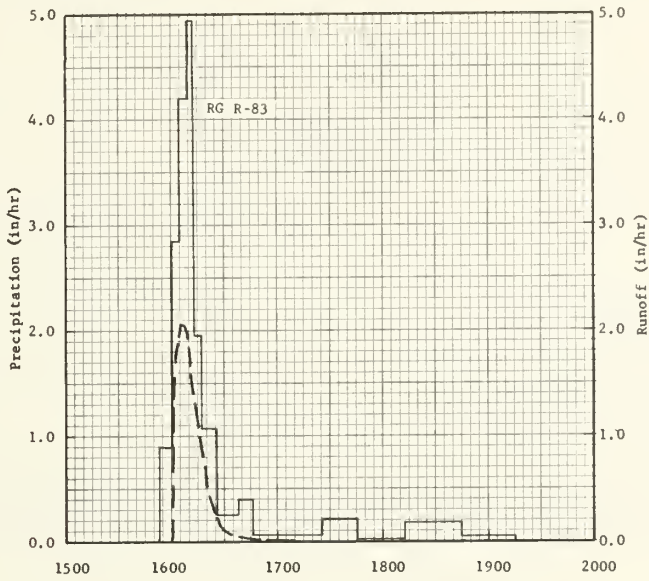
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
<u>Event of August 13, 1965</u>										
	RG R-83		8-13	RG	R-83		8-13			
7-13	.14	.00		1553	.00	.00		1600	.000	.0000
7-16	.44	.00		1601	.90	.12		1601	.277	.0023
7-17	.26	.00		1605	2.85	.31		1602	1.123	.0140
7-21	.22	.00		1609	4.20	.59		1603	1.768	.0381
7-22	.14	.00		1613	4.95	.92		1604	1.900	.0686
7-23	.06	.00		1617	1.95	1.05		1606	2.067	.1348
7-25	.44	.00		1626	1.07	1.21		1608	2.031	.2031
7-27	.95	.00		1638	.25	1.26		1610	1.924	.2690
7-28	.05	.00		1647	.40	1.32		1612	1.589	.3275
8-5	.05	.00		1726	.05	1.35		1614	1.267	.3751
8-8	.22	.00		1746	.21	1.42		1616	1.099	.4146
				1813	.02	1.43		1618	.820	.4465
				1845	.18	1.53		1620	.580	.4699
				1916	.04	1.55		1622	.410	.4863
								1624	.308	.4983
								1626	.220	.5071
								1628	.151	.5133
								1630	.114	.5177
								1635	.061	.5250
								1640	.035	.5290
								1645	.021	.5314
								1650	.013	.5328
								1700	.005	.5342
								1710	.001	.5347
								1720	.000	.5348
								1730	.000	.5349
								1740	.000	.5349

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 8.37. FOR TOPOGRAPHIC MAP OF WATERSHED, SEE P. 63.1-3. THIS VOLUME. GEOLOGIC AND VEGETATION MAPS ON P. 63.1-4 AND P. 63.1-5

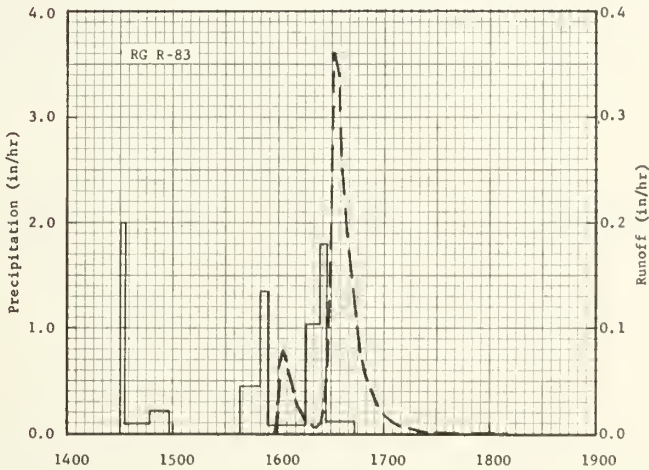
1966 SELECTED RUNOFF EVENT			TOMBSTONE, ARIZONA WATERSHED 63.103							
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-OAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-OAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-OAY	TIME OF OAY	RATE (in/hr)	ACC. (inches)
<u>Event of August 31, 1966</u>										
	RG R-83		8-31	RG	R-83		8-31			
8-3	.57	.00		1430	.00	.00		1558	.000	.0000
8-5	1.06	.00		1433	2.00	.10		1559	.007	.0001
8-10	.04	.00		1447	.09	.12		1600	.028	.0003
8-13	.05	.00		1458	.22	.16		1601	.054	.0010
8-14	.75	T		1538	.00	.16		1602	.069	.0021
8-16	.65	.02		1550	.45	.25		1603	.078	.0033
8-17	.29	.00		1554	1.35	.34		1605	.069	.0057
8-19	.06	.00		1616	.08	.37		1607	.054	.0078
8-20	.39	.05		1623	1.03	.49		1609	.038	.0093
8-29	.30	T		1627	1.80	.61		1611	.028	.0104
				1643	.11	.64		1613	.021	.0112
								1616	.011	.0121
								1619	.008	.0137
								1622	.006	.0143
								1623	.008	.0152
								1624	.011	.0169
								1625	.018	.0199
								1626	.028	.0244
								1627	.038	.0299
								1628	.069	.0416
								1629	.131	.0516
								1630	.229	.0595
								1631	.308	.0658
								1632	.362	.0711
								1634	.341	.0753
								1636	.258	.0785
								1638	.211	.0809
								1640	.172	.0829
								1642	.143	.0864
								1644	.108	.0884
								1646	.083	.0896
								1648	.065	.0904
								1650	.054	.0911
								1655	.030	.0913
								1700	.018	.0884
								1705	.011	.0896
								1710	.007	.0904
								1720	.002	.0911
								1730	.001	.0913
								1740	.000	.0914
								1750	.000	.0914
								1810	.000	.0915

Watershed conditions: Vegetation cover: Entire area dominated by desert shrubs (whitethorn, creosote bush, and tarbush) with a crown spread approximating 25% and an understory of grasses with approximately 0.6% basal cover.

Notes: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 8.37.



August 13, 1965



August 31, 1966

TOMBSTONE, ARIZONA WATERSHED 63.103

TOMBSTONE, ARIZONA WATERSHED 63.111

LOCATION: Cochise County; 6½ miles NW of Tombstone; Walnut Gulch, tributary of San Pedro River.

AREA: 143 Acres

SHAPE: Oblong

<u>SLOPES:</u>	Slope - Percent	0-3	3-10	10-20	20-35
	Percent of area	0	25	75	0

SOILS: Are mapped as complexes. Bernadino (Aridisol, Mollic Haplarid) - Hathaway and comprises 74%. Hathaway (Mollisol Typic Calcustoll)-Bernadino comprises 22% of area. The remainder is sandy and loamy alluvium.

<u>EROSION:</u>	Erosion Class	2
	Percent of area	100

<u>LAND CAPABILITY:</u>	Class	VI
	Percent of area	100

GEOLOGY: The watershed lies wholly within the Tombstone pediment. It is typified by low, rounded hills with few rock outcrops present. An erosional remnant cover blankets the area with particle sizes ranging from sand grain size to boulders. Predominant rock types are tuffs, breccia, hornblende andesite, sandstones, and conglomerates. Disconnected sand, gravel, and clay layers make up the subsurface alluvium, which extends to unknown depths in this area.

Stratigraphy and Hydrogeology of Walnut Gulch Watershed 63.111

System	Formation and percent of area	Description
Quaternary	Recent alluvium, 100%	Sand, silt, gravel, cobbles, boulders. Surface gravels consist mainly of andesite, rhyolite, quartz, and tuff from surrounding hills. Outer surface of gravel and cobbles weathered to reddish-brown to brown.

Source of data: General Geology of Central Cochise County, Arizona, by James Gilluly, U. S. Geological Survey, Professional Paper 281, 1956, and extended field studies by project staff.

SURFACE DRAINAGE: Good; length of principal drainage .97 mi.

CHARACTER OF FLOW: Ephemeral, continuous.

INSTRUMENTATION: Precipitation: Measured by two 24-hour (scales on chart: 1 in. = 1 in. rain; 1 in. = 125 minutes) and one 6-hour weighing rain gage (1 in. = .333 in. rain; 1 in. = 31.25 minutes). Runoff: Measured by 3:1 broad-crested V-notch weir with FW-1 recorder (scales on chart 1 in. = .20 ft. of stage and 1 in. = 25 minutes).

WATERSHED CONDITIONS: Representative of desert grassland. Vegetation dominated by short grasses (blue, sideoats, black and hairy grama, curly mesquite); also, present shrubs include (soapweed, mesquite, burroweed), basal cover of grasses approximately 2.5 percent. Canopy approximately 20 percent.

GENERALLY REPRESENTS: Desert grassland ranges in the Southeastern Arizona Basin and Range land resource area (D-41).

MONTHLY PRECIPITATION AND RUNOFF (inches)						TOMBSTONE, ARIZONA AREA — 143 ACRES						WATERSHED 63.111 63.111		
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1962	P	1.00	.00	.47	.00	.00	.28	2.40	.33	1.57	.08	.48	.55	7.16
	Q	.00	.00	.00	.00	.00	.00	.25	.00	.29	.00	.00	.00	.54
1963	P	.13	.28	.00	.15	.00	.00	3.58	3.12	.68	.32	1.62	.31	10.19
	Q	.00	.00	.00	.00	.00	.00	.35	.66	.00	.00	.00	.00	1.01
1964	P	.19	.10	.39	.27	.00	.02	5.14	2.25	5.54	.56	.66	.31	15.43
	Q	.00	.00	.00	.00	.00	.00	1.08	.27	1.45	.00	.00	.00	2.80
1965	P	1.00	.04	.25	.00	.00	.21	3.59	2.34	2.45	.00	.29	2.77	12.94
	Q	.00	.00	.00	.00	.00	.00	T	T	.41	.00	.00	.00	.41
1966	P1/	.94	.85	.00	.22	.00	.02	7.07	4.38	2.10	.03	.40	.11	16.12
	Q	.00	.00	.00	.00	.00	.00	1.25	.15	.14	.00	.00	.00	1.54
STA AV ² /P (62-66) Q		.65	.25	.22	.13	.00	.11	4.36	2.48	2.47	.20	.69	.81	12.37
		.00	.00	.00	.00	.00	.00	.59	.22	.46	.00	.00	.00	1.27
MEAN 70 YR	P3/	.84	.77	.61	.28	.18	.49	3.65	3.50	1.52	.66	.63	.88	14.01

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1962	9-24	.8877	9-24	.2801	9-24	.2861	9-24	.2870	9-24	.2870	9-24	.2870	9-24	.2870	9-24	.2870
1963	8-19	1.8309	8-19	.3993E	8-19	.3993E	8-19	.3993E	8-19	.3993E	8-19	.3993E	8-19	.3993E	8-19	.6260E
1964	7-22	2.8989	7-22	.8296E	7-22	.8327E	7-22	.8327E	7-22	.8327E	7-22	.8376E	9-10	1.3365	9-8	1.4546
1965	9-4	.6235	9-4	.2199	9-4	.2218	9-4	.2218	9-4	.2218	9-4	.2218	9-4	.2218	9-2	.4137
1966	7-28	1.2830	7-28	.6927	7-28	.7368	7-28	.7370	7-28	.7556	7-28	.7660	7-28	1.0468	7-28	1.0654

MAXIMUMS FOR PERIOD OF RECORD																
19 62 TO 19 66	7-22 1964	2.8989	7-22 1964	.8296E	7-22 1964	.8327E	7-22 1964	.8327E	7-22 1964	.8327E	7-22 1964	.8376E	9-10 1964	1.3365	9-8 1964	1.4546

Notes: Watershed condition same as described under WATERSHED CONDITIONS. 1/Monthly precipitation is arithmetic average of 2 rain gages. 2/Precipitation and runoff record began in 1962. 3/Mean P based on 70-yr (1897-1966) U.S. Weather Bureau record period at Tombstone, Ariz.

1962 SELECTED RUNOFF EVENT			TOMBSTONE, ARIZONA				WATERSHED 63.111				63.111			
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF							
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)				
<u>Event of September 24, 1962</u>														
	RG R-61		9-24	RG	R-61		9-24							
9-4	.25	.00		1425	.00	.00		1433	.000	.0000				
9-6	.20	.00		1429	4.50	.30		1434	.007	.0001				
9-11	.21	.00		1433	4.20	.58		1435	.034	.0004				
9-13	.16	.00						1436	.085	.0014				
9-22	.17	.00						1437	.139	.0033				
								1438	.191	.0060				
								1439	.282	.0100				
								1440	.352	.0153				
								1441	.479	.0222				
								1442	.585	.0310				
								1443	.707	.0418				
								1444	.770	.0541				
								1445	.839	.0675				
								1446	.888	.0819				
								1448	.881	.1114				
								1450	.804	.1395				
								1452	.721	.1649				
								1454	.610	.1871				
								1456	.479	.2052				
								1458	.380	.2196				
								1500	.298	.2308				
								1502	.251	.2400				
								1504	.200	.2475				
								1506	.162	.2535				
								1508	.135	.2585				
								1510	.105	.2625				
								1515	.069	.2697				
								1520	.039	.2742				
								1530	.019	.2790				

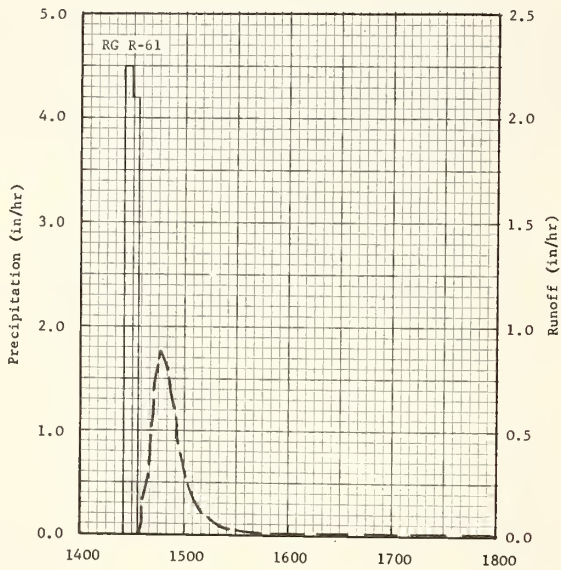
Watershed conditions: Representative of desert grassland. Vegetation dominated by short grasses (blue, sideoats, black and hairy grama, curly mesquite); also present shrubs include (soapweed, mesquite, burroweed), basal cover of grasses approximately 2.5%. Canopy approximately 20%.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 144.19. FOR TOPOGRAPHIC MAP, SEE P. 63.1-3, THIS VOLUME. GEOLOGIC AND VEGETATION MAPS ON P. 63.1-4 AND 63.1-5.

Continued on next page

1962 SELECTED RUNOFF EVENT			TOMBSTONE, ARIZONA				WATERSHED 63.111		63.111	
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
			<u>Event of September 24, 1962—Continued</u>							
							9-24	1540	.010	.2814
								1550	.006	.2827
								1600	.004	.2836
								1630	.002	.2851
								1700	.001	.2857
								1800	.000	.2865
								1900	.000	.2868
								2100	.000	.2870

NOTE: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 144.19.



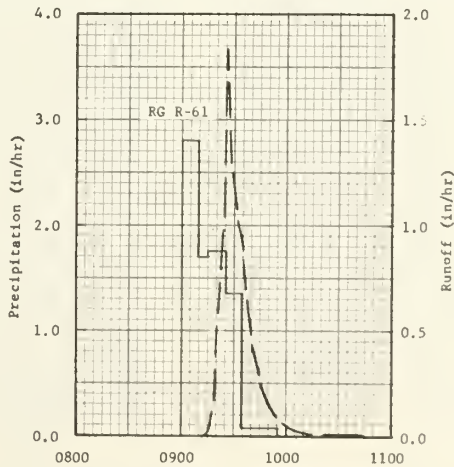
September 24, 1962

TOMBSTONE, ARIZONA WATERSHED 63.111

1963 SELECTED RUNOFF EVENT			TOMBSTONE, ARIZONA				WATERSHED 63.111			
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MD-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MD-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MD-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
Event of August 19, 1963										
	RG R-61		8-19	RG	R-61		8-19			
7-19	.10	.00		0900	.00	.00		0913	.000	.0000
7-22	.12	.00		0909	2.80	.42		0914	.003	.0000
7-24	.08	.00		0915	1.70	.59		0915	.008	.0001
7-25	.12	.00		0926	1.75	.91		0916	.020	.0003
7-26	.05	.00		0934	1.35	1.09		0917	.047	.0009
7-27	.13	.00		0956	.08	1.12		0918	.117	.0023
7-28	.63	.08						0919	.234	.0052
7-29	.56	.15						0920	.352	.0101
7-31	.60	.13						0921	.506	.0172
8-2	.36	T						0922	.657	.0269
8-12	.11	.00						0923	.798	.0390
								0924	.978	.0538
								0925	1.165	.0717
								0926	1.831	.0967
	RG R-82			RG	R-82			0927	1.366	.1233
7-19	.05	.00		0900	.00	.00		0928	1.304	.1456
7-22	.15	.00		0907	.69	.08		0930	1.207	.1874
7-24	.21	.00		0911	.75	.13		0932	1.033	.2247
7-25	.14	.00		0922	2.78	.64		0934	.929	.2574
7-26	.11	.00		0939	1.59	1.09		0936	.770	.2858
7-27	.18	.00		0949	.54	1.18		0938	.643	.3093
7-28	.95	.08		1015	.12	1.23		0940	.518	.3287
7-29	.84	.15						0942	.380	.3436
7-31	.81	.13						0944	.293	.3549
8-2	.43	T						0946	.248	.3639
8-12	.10	.00						0948	.188	.3711
								0950	.150	.3768
								0955	.083	.3865
								1000	.047	.3919
								1005	.025	.3950
								1010	.016	.3967
								1015	.010E	.3977E
								1020	.006E	.3984E
								1025	.003E	.3988E
								1030	.002E	.3990E
								1035	.001E	.3992E
								1040	.001E	.3992E
								1045	.000E	.3993E
								1055	T	.3993E
								1125	.000E	.3993E

Watershed conditions: Representative of desert grassland. Vegetation dominated by short grasses (blue, sideoats, black and hairy grama, curly mesquite); also, present shrubs include (soapweed, mesquite, burroweed), basal cover of grasses approximately 2.5%. Canopy approximately 20%.

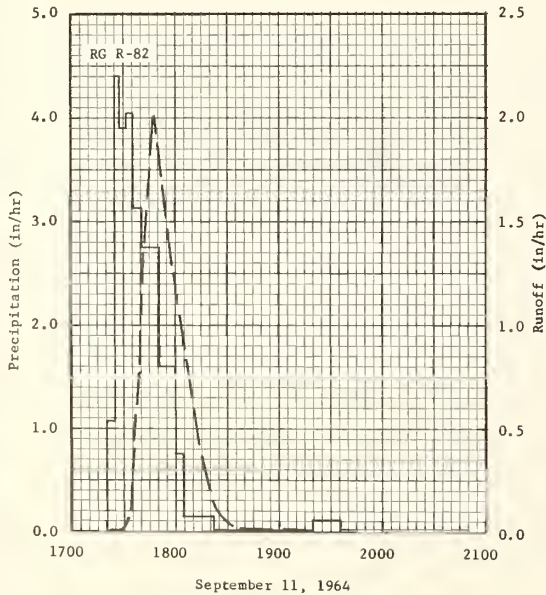
NOTE: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 144.19.



August 19, 1963
TOMBSTONE, ARIZONA WATERSHED 63.111

1964 SELECTED RUNOFF EVENT			TOMBSTONE, ARIZONA				WATERSHED 63.111		63.111	
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
Event of September 11, 1964										
	RG R-61		9-11	RG	R-61		9-11			
8-12	.15	.00		1705	.00	.00		1720	.000	.0000
8-19	.15	.00		1707	1.50	.05		1721	.000	.0000
8-20	.11	.00		1712	.48	.09		1723	.001	.0000
8-25	.06	.00		1717	1.92	.25		1724	.001	.0000
8-27	.32	.00		1726	3.53	.78		1727	.002	.0001
9-6	.31	.00		1731	3.12	1.04		1728	.002	.0001
9-8	.86	.10		1735	3.15	1.25		1729	.005	.0002
9-9	1.80	.54		1742	3.08	1.61		1730	.013	.0003
				1749	1.54	1.79		1731	.033	.0007
				1802	.65	1.93		1732	.059	.0015
				1808	.30	1.96		1733	.072	.0026
				1830	.05	1.98		1734	.170	.0046
				1928	.02	2.00		1735	.270	.0083
				1949	.09	2.03		1736	.352	.0134
	RG R-82			RG	R-82			1737	.535	.0208
8-12	.22	.00		1720	.00	.00		1738	.630	.0305
8-19	.09	.00		1725	1.08	.09		1739	.770	.0422
8-20	.05	.00		1728	4.40	.31		1740	1.013	.0571
8-26	.05	.00		1732	3.90	.57		1741	1.144	.0750
8-27	.28	.00		1736	4.05	.84		1742	1.359	.0959
9-6	.31	.00		1741	3.12	1.10		1743	1.526	.1199
9-8	1.14	.10		1751	2.76	1.56		1744	1.637	.1463
9-9	1.35	.54		1800	1.60	1.80		1745	1.762	.1746
				1804	.75	1.85		1746	1.824	.2045
Watershed conditions: Representative of desert grassland. Vegetation dominated by short grasses (blue, sideoats, black and hairy grama, curly mesquite); also, present shrubs include (soapweed, mesquite, burroweed), basal cover of grasses approximately 2.5%. Canopy approximately 20%.				1822	.13	1.89		1748	2.018	.2685
				1919	.01	1.90		1750	1.859	.3331
				1936	.11	1.93		1752	1.734	.3930
				2050	.02	1.96		1754	1.595	.4485
								1756	1.436	.4990
								1758	1.304	.5447
								1800	1.207	.5865
								1802	1.068	.6244
								1803	1.013	.6418
								1805	.888	.6734
								1807	.798	.7015
								1808	.721	.7142
								1809	.650	.7256
								1810	.598	.7360
								1811	.535	.7454
								1812	.495	.7540
								1813	.424	.7617
								1815	.352	.7746
								1816	.309	.7802
								1817	.270	.7850
								1818	.234	.7892
								1819	.200	.7928
								1820	.176	.7959
								1821	.155	.7987
								1822	.132	.8011
								1823	.117	.8032
								1825	.085	.8065
								1827	.059	.8089
								1830	.041	.8114
								1832	.031	.8126
								1834	.023	.8135
								1837	.017	.8145
								1840	.013	.8153
								1845	.009	.8162
								1850	.005	.8167
								1855	.003	.8171
								1900	.002	.8173
								1905	.001	.8174
								1910	.001	.8175
								1915	T	.8175
								2010	.000	.8175

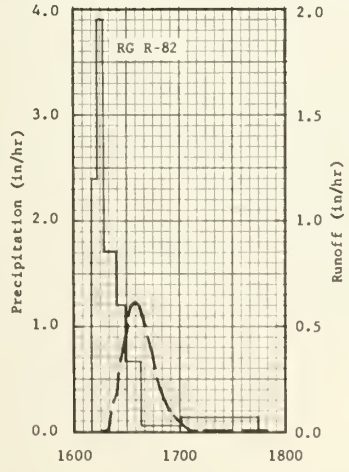
NOTE: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 144.19.



TOMBSTONE, ARIZONA WATERSHED 63.111

1965 SELECTED RUNOFF EVENT			TOMBSTONE, ARIZONA				WATERSHED 63.111				63.111
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
<u>Event of September 4, 1965</u>											
	RG R-61		9-4	RG	R-61		9-4				
8-5	.05	.00		1605	.00	.00		1614	.000	.0000	
8-8	.66	.00		1611	.50	.05		1615	.001	.0000	
8-9	.08	.00		1616	3.84	.37		1616	.001	.0000	
8-13	.39	.00		1622	1.10	.48		1617	.002	.0000	
8-15	.15	.00		1630	.98	.61		1618	.006	.0001	
8-16	.02	.00		1639	.47	.68		1619	.009	.0002	
8-17	.02	.00		1708	.06	.71		1620	.017	.0005	
8-18	.69	T		1748	.12	.79		1621	.044	.0010	
8-20	.10	.00						1622	.083	.0020	
8-21	.05	.00						1623	.132	.0038	
8-22	.16	.00						1624	.176	.0064	
8-26	.04	.00						1625	.220	.0097	
9-1	.10	.00						1626	.270	.0138	
9-2	1.13	.13						1627	.326	.0187	
9-3	.40	.06						1628	.399	.0248	
								1629	.473	.0321	
								1630	.518	.0403	
								1631	.566	.0493	
								1632	.591	.0590	
	RG R-82			RG	R-82			1633	.610	.0690	
8-5	.07	.00		1610	.00	.00		1634	.617	.0792	
8-8	.58	.00		1613	2.40	.12		1635	.623	.0896	
8-9	.10	.00		1617	3.90	.38		1636	.617	.0999	
8-13	.35	.00		1624	1.71	.58		1637	.610	.1101	
8-15	.04	.00		1629	1.20	.68		1638	.590	.1201	
8-16	.02	.00		1638	.67	.78		1639	.566	.1298	
8-17	.03	.00		1701	.05	.80		1640	.542	.1390	
8-18	.59	T		1744	.13	.89		1641	.506	.1477	
8-20	.22	.00						1642	.467	.1558	
8-22	.05	.00						1643	.424	.1633	
8-26	.10	.00						1644	.380	.1700	
8-29	.07	.00						1645	.335	.1759	
9-2	.83	.13						1646	.300	.1812	
9-3	.58	.06						1647	.270	.1860	
								1648	.237	.1902	
								1649	.210	.1939	
								1650	.182	.1972	
								1651	.159	.2000	
								1652	.137	.2025	
								1653	.125	.2047	
								1654	.112	.2067	
								1655	.100	.2084	
								1656	.089	.2100	
								1657	.078	.2114	
								1658	.067	.2126	
								1659	.057	.2136	
								1700	.049	.2145	
								1702	.036	.2159	
								1704	.028	.2170	
								1706	.022	.2178	
								1708	.019	.2185	
								1710	.015	.2191	
								1712	.013	.2195	
								1714	.010	.2199	
								1716	.009	.2202	
								1718	.007	.2205	
								1720	.006	.2207	
								1725	.004	.2212	
								1730	.002	.2214	
								1735	.002E	.2216E	
								1740	.001E	.2217E	
								1745	.001E	.2218E	
								1750	T	.2218E	
								1825	.000E	.2218E	

NOTE: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 144.19.



September 4, 1965

TOMBSTONE, ARIZONA WATERSHED 63.111

1966 SELECTED RUNOFF EVENT			TOMBSTONE, ARIZONA				WATERSHED 63.111				63.111
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
<u>Event of July 28, 1966</u>											
	RG R-61		7-28	RG	R-61		7-28				
7-16	.06	.00		1830	.00	.00		1834	.000	.0000	
7-17	.07	.00		1837	3.69	.43		1835	.000	.0000	
7-18	.20	.00		1851	.73	.60		1836	.000	.0000	
7-19	.24	.00		1855	2.85	.79		1837	.004	.0000	
7-20	1.31	.19		1903	1.95	1.05		1838	.022	.0003	
7-22	.15	.00		1908	.96	1.13		1839	.059	.0009	
7-24	.19	.00		1911	1.60	1.21		1840	.112	.0024	
7-26	.11	.00		1915	2.85	1.40		1841	.129	.0044	
7-27	.39	.00		1919	2.85	1.59		1842	.159	.0068	
7-28	1/ .49	2/.02		1927	1.50	1.79		1843	.176	.0096	
				1931	.75	1.84		1845	.191	.0157	
				2001	.22	1.95		1851	.200	.0353	
				2031	.06	1.98		1853	.214	.0422	
				2051	.09	2.01		1855	.241	.0497	
	RG R-82			RG	R-82			1857	.277	.0584	
7-8	.06	.00		1825	.00	.00		1858	.309	.0633	
7-16	.20	.00		1829	1.20	.08		1859	.339	.0687	
7-18	.10	.00		1832	3.60	.26		1900	.371	.0746	
7-19	.21	.00		1834	3.60	.38		1901	.404	.0810	
7-20	1.60	.19		1842	1.05	.52		1902	.430	.0880	
7-22	.15	.00		1848	1.00	.62		1903	.456	.0954	
7-24	.23	.00		1850	1.50	.67		1904	.484	.1032	
7-26	.12	.00		1852	1.20	.71		1906	.560	.1206	
7-27	.42	.00		1858	1.90	.90		1908	.610	.1401	
7-28	1/ .56	2/.02		1904	1.90	1.09		1910	.637	.1609	
				1906	.90	1.12		1916	.657	.2256	
				1914	1.13	1.27		1920	.721	.2715	
				1917	3.00	1.42		1922	.791	.2967	
				1922	2.64	1.64		1924	.902	.3249	
				1926	2.70	1.82		1926	.999	.3566	
				1930	1.80	1.94		1928	1.151	.3924	
				1943	.37	2.02		1930	1.234	.4322	
				2002	.26	2.10		1932	1.283	.4741	
				2028	.05	2.12		1934	1.234	.5161	
				2058	.12	2.18		1936	1.144	.5557	
								1938	.978	.5911	
								1940	.860	.6217	
								1941	.763	.6353	
								1942	.657	.6471	

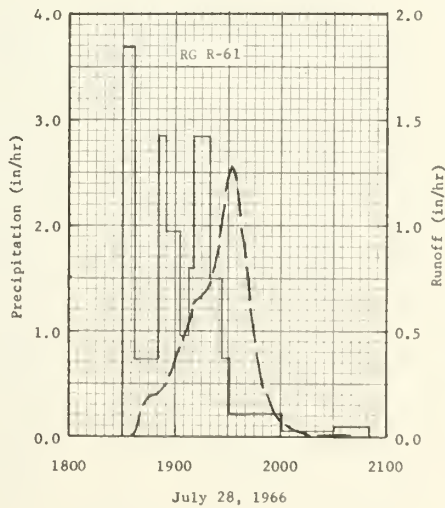
Watershed conditions: Representative of desert grassland. Vegetation dominated by short grasses grama, curly mesquite); also, present shrubs include (soapweed, mesquite, burroweed), basal cover of grasses approximately 2.5%. Canopy approximately 20%.

Continued on next page

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 144.19. 1/ OCCURRED BETWEEN 1310 AND 1355. 2/ PRIOR TO 1834.

1966			SELECTED RUNOFF EVENT				TOMBSTONE, ARIZONA		WATERSHED 63.111		63.111		
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF						
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)			
			<u>Event of July 28, 1966 Continued</u>										
							7-28	1943		.604	.6576		
								1944		.542	.6671		
								1945		.484	.6757		
								1946		.424	.6833		
								1947		.361	.6898		
								1948		.318	.6955		
								1949		.277	.7004		
								1950		.241	.7047		
								1951		.200	.7084		
								1952		.170	.7115		
								1953		.148	.7142		
								1954		.125	.7164		
								1956		.103	.7202		
								1958		.091	.7235		
								2000		.079	.7263		
								2002		.059	.7286		
								2004		.047	.7304		
								2006		.040	.7318		
								2008		.027	.7329		
								2010		.022	.7337		
								2013		.015	.7346		
								2016		.011	.7353		
								2019		.008	.7358		
								2022		.006	.7361		
								2025		.004	.7364		
								2030		.003	.7367		
								2035		.002	.7368		
								2040		.001	.7369		
								2045		.000	.7370		
								2055		.000E	.7370E		
								2105		.000E	.7370E		
								2115		.000E	.7370E		

NOTE: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 144.19.

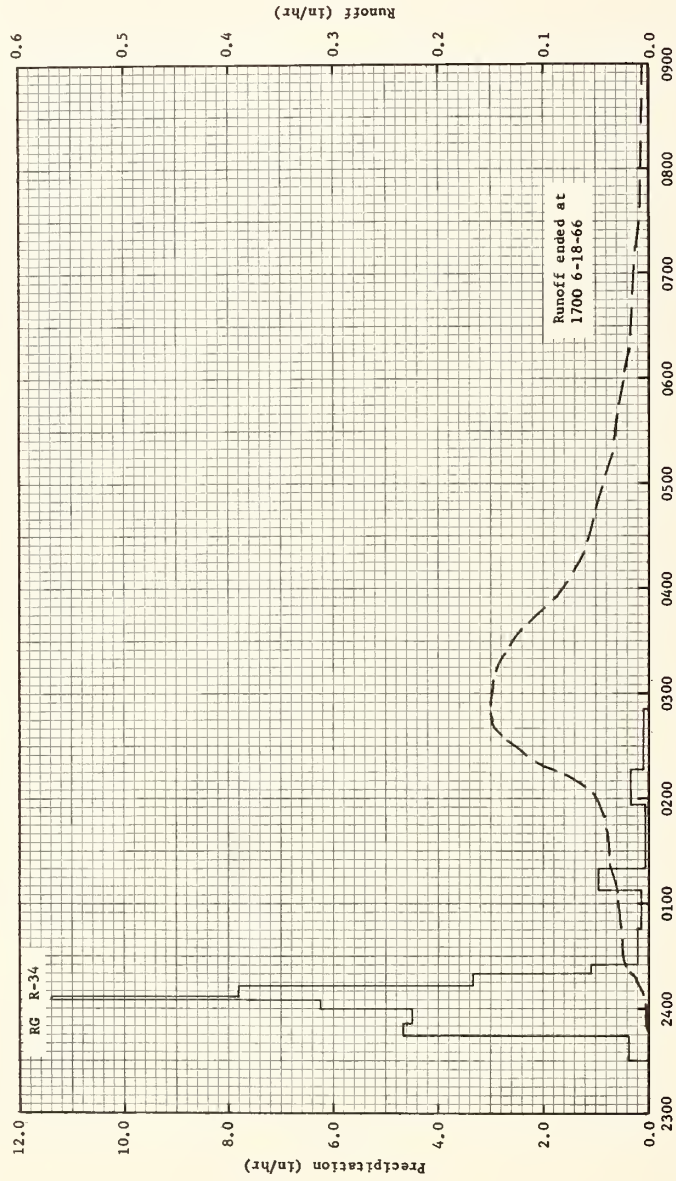


TOMBSTONE, ARIZONA WATERSHED 63.111

MONTHLY PRECIPITATION AND RUNOFF (inches) ^{1/}						SANTA ROSA, NEW MEXICO WATERSHED 64.001 AREA 42,880 ACRES (67 SQ. MILES)							64.01			
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
YEAR																
P																
Q																
STA AVG P																
Q																
MEAN P																
59 YR	.36	.44	.61	.81	1.71	1.44	2.34	2.52	1.46	1.18	.38	.55	13.80			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
1966	6-17	.1506	6-17	.1822	6-17	.2855	6-17	.3992	6-16	.4458	6-16	.4507E	6-16	.4510E	6-16	.6073E
MAXIMUMS FOR PERIOD OF RECORD ^{1/}																
19	TO															
49																
NOTES: ^{1/} Precipitation and runoff data are being re-evaluated, and when complete, the revised data will be reported.																
^{2/} Mean P based on 59-yr (1908-66) U. S. Weather Bureau record period at Santa Rosa, N. Mex.																
1966 SELECTED RUNOFF EVENT						SANTA ROSA, NEW MEXICO WATERSHED 64.001										
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF									
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)						
<u>Event of June 16-17, 1966 ^{3/}</u>																
	RG R-33		6-16	RG	R-33		6-16									
5-24	.10	.0000		2315	0.00	0.00		2347	.0000	.0000						
5-25	.12	.0000		2331	0.08	0.02		2353	.0001	.0000						
5-31	.34	T		2337	0.30	0.05		2359	.0003	.0002						
6-1	.28	.0005		2347	0.30	0.10	6-17	0007	.0021	.0003						
				2352	6.72	0.66		0009	.0037	.0005						
				2400	6.45	1.52		0011	.0065	.0010						
			6-17	0006	6.30	2.15		0015	.0100	.0014						
				0011	1.68	2.29		0017	.0119	.0016						
				0015	7.80	2.81		0018	.0120	.0021						
				0022	2.66	3.12		0020	.0173	.0064						
				0055	0.24	3.25		0033	.0231	.0121						
				0112	0.07	3.27		0047	.0259	.0143						
				0122	0.90	3.42		0052	.0265	.0179						
				0131	0.60	3.51		0100	.0274	.0212						
				0206	0.00	3.51		0107	.0295	.0266						
				0219	0.28	3.57		0117	.0346	.0325						
				0306	0.06	3.62		0127	.0370	.0356						
								0132	.0375	.0388						
								0137	.0377	.0419						
	RG R-34		6-16	RG	R-34			0142	.0382	.0560						
5-24	.06	.0000		2330	0.00	0.00		0201	.0506	.0587						
5-25	.13	.0000		2344	0.38	0.09		0204	.0566	.0616						
5-31	.49	T		2352	4.65	0.71		0207	.0618	.0728						
6-1	.23	.0005		2400	4.50	1.31		0216	.0871	.0743						
			6-17	0005	6.24	1.83		0217	.0928	.0759						
				0007	11.40	2.21		0218	.0990	.0965						
				0013	7.80	2.99		0229	.1263	.1053						
				0020	3.34	3.38		0233	.1348	.1121						
				0025	1.08	3.47		0236	.1398	.1145						
				0046	0.20	3.54		0237	.1420	.1265						
				0108	0.13	3.59		0242	.1476	.1364						
				0120	0.95	3.78		0246	.1498	.1414						
				0157	0.06	3.82		0248	.1506	.1515						
				0217	0.33	3.93		0252	.1506	.1640						
				0252	0.09	3.98		0257	.1495	.1764						
								0302	.1485	.2060						
								0314	.1471	.2275						
								0323	.1396	.2498						
								0333	.1286	.2911						
<u>Continued on next page</u>																
NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 43,237.19. CONTOUR MAP OF WATERSHED NOT AVAILABLE. ^{3/} ISOHYETAL MAP ON PAGE 64.1-4.																

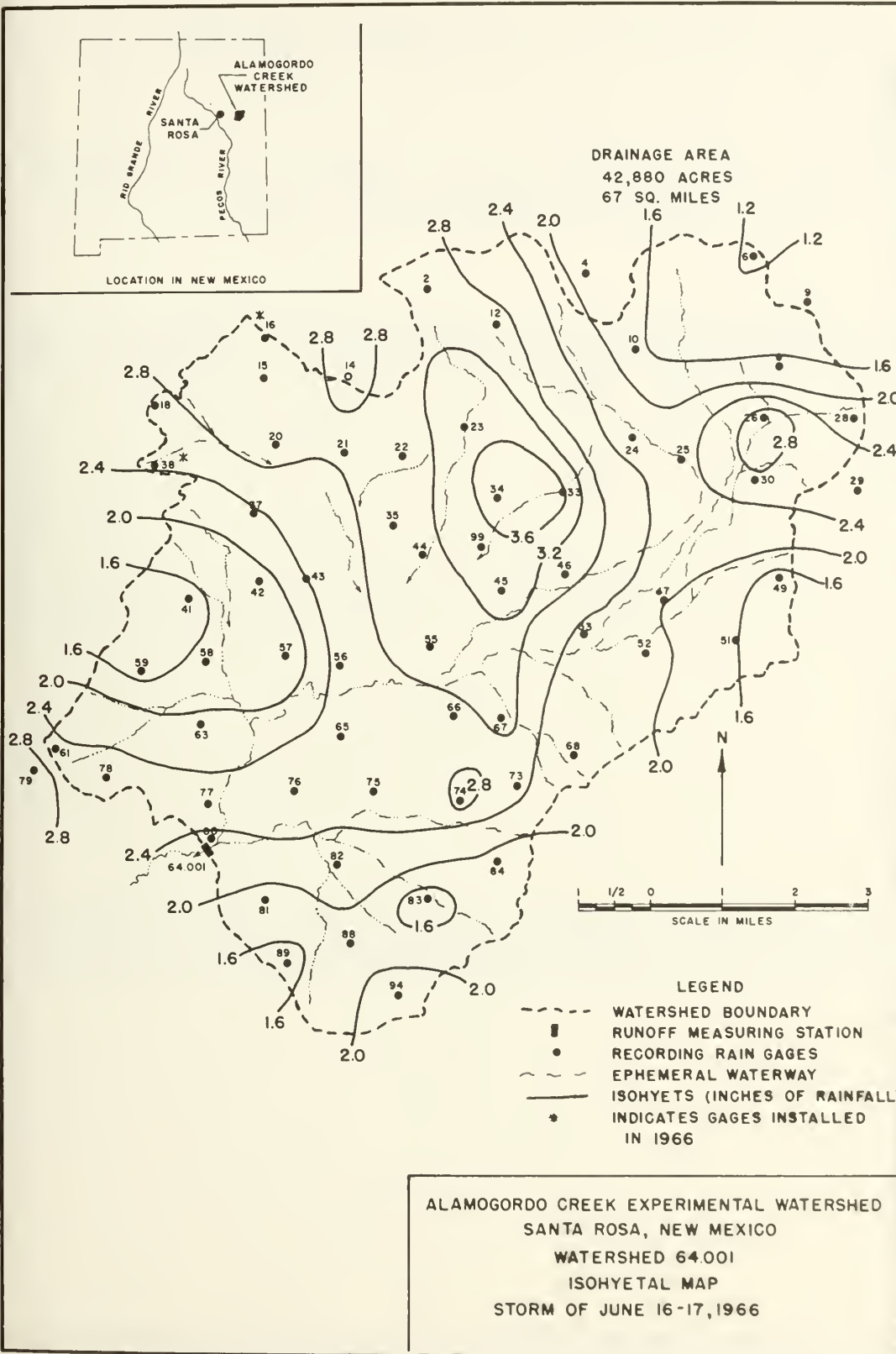
1966			SELECTED RUNOFF EVENT				SANTA ROSA, NEW MEXICO				WATERSHED 64.001	
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF					
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)		
Event of June 16-17, 1966 -Continued												
							6-17	0356	.0867	.3371		
								0435	.0550	.3795		
								0533	.0326	.4004		
								0622	.0188	.4026		
								0629	.0178	.4040		
								0634	.0168	.4056		
								0640	.0159	.4101		
								0657	.0153	.4170		
								0731	.0093	.4178		
								0736	.0088	.4286		
								0752	.0083	.4300		
								0803	.0075	.4339		
								0837	.0063	.4354		
								0852	.0055	.4363		
								0902	.0047	.4402		
								1000	.0034	.4426		
								1052	.0023	.4441		
								1132	.0020	.4445		
								1152	.0014	.4458E		
								1252	.0012	.4469E		
								1352	.0010	.4478E		
								1452	.0008	.4485E		
								1552	.0007	.4490E		
								1652	.0005	.4493E		
								1723	.0004	.4500E		
								2030	.0003	.4502E		
								2130	.0002	.4504E		
								2230	.0002	.4506E		
								2400	.0001	.4508E		
							6-18	0200	.0001	.4509E		
								0400	.0000	.4509E		
								0600	.0000	.4510E		
								0800	.0000	.4510E		
								1000	.0000	.4510E		
								1400	.0000	.4510E		
								1700	.0000	.4510E		

NOTE: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 43,237.19.



June 16-17, 1966

SANTA ROSA, NEW MEXICO WATERSHED 64.001



MONTHLY PRECIPITATION AND RUNOFF (inches)						NEWELL, SOUTH DAKOTA WATERSHED W-2 AREA - 115 ACRES							57M-2	
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P1/	.07	.25	2.42	1.24	1.20	2.98	4.39	1.50	.60	.25	.51	.29	15.70
	Q	.00	.00	.50	.04	.01	.05	.65	T	.00	0.00	.00	.00	1.25
STA AV2/P		.21	.25	.51	1.04	2.27	3.13	1.84	1.14	1.01	.47	.29	.23	12.39
(58-66) Q		.01	.06	.17	.01	.05	.09	.12	.00	.01	.00	.00	.00	.52
MEAN														
59 YR P3/		.42	.37	.74	1.64	2.71	3.01	2.13	1.37	1.27	.99	.52	.37	15.54

Notes: Watershed conditions: 100% rangeland; condition classes: excellent - 19%, good - 64%, fair - 17%; degree of grazing: moderate. 1/ Precipitation from rain gage W-2A. 2/ Precipitation and runoff records began January 1958. 3/ Mean P based on 59-yr (1908-66) U.S. Weather Bureau record period at Newell, So. Dak.

1966 DAILY PRECIPITATION (inches)						NEWELL, SOUTH DAKOTA WATERSHED W-2							57M-2
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1			.02			.18	1.02						
2			.10	.10			.02		.06	.11			
3			1.40	.06						.02			
4			.75			1.30		.02					
5												.07	
6						.04							
7		.01		.03								.03	
8		.02			.39					.02	.25	.02	
9		.09									.02	.01	
10					.30	.19							
11				.07	.02	.11		.64					
12		.01		.19	.01		.09	.18					
13				.02	.14		.25		.02	.10			
14		.02			.09								
15	.01	.02				.14							
16		.02		.19	.19								
17		.06	.09						.20				
18				.10									
19						.20	.04	.35					
20							.03	.21					
21			.03				2.61	.02				.10	
22			.03		.03	.73						.02	
23													
24	.04										.20	.01	
25						.05							
26				.34					.20		.04	.02	
27	.02			.14									
28							.33						
29						.04			.08				
30									.04				
31					.03			.08				.01	
TOTAL	.07	.25	2.42	1.24	1.20	2.98	4.39	1.50	.60	.25	.51	.29	
STA AV	.21	.25	.51	1.04	2.27	3.13	1.84	1.14	1.01	.47	.29	.23	

NOTES: PRECIPITATION VALUES ARE FOR RAIN GAGE W-2A. SNOW PRECIPITATION JANUARY 1-APRIL 20, MAY 8, 11, 12, NOVEMBER 1 - DECEMBER 31. RAIN AND SNOW MIXED APRIL 26-27; ALL OTHER PRECIPITATION IS RAIN. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA EXPERIMENTAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, PAGE 65.2-4.

1966 MEAN DAILY DISCHARGE (inches)						NEWELL, SOUTH DAKOTA						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1							.04					
2												
3												
4						.04						
5												
6												
7					.01							
8												
9												
10												
11				.01				T				
12				.01								
13												
14			.25									
15						T						
16				.01								
17												
18												
19												
20								T				
21			.15				.61					
22						.01						
23												
24												
25												
26												
27				.01								
28												
29												
30			.10									
31												
MEAN			.50	.04	.01	.05	.65	T				

NOTES: DISCHARGE RECORD OBTAINED BY A-35 RECORDER ON POND.

MONTHLY PRECIPITATION AND RUNOFF (inches)						NEWELL, SOUTH DAKOTA WATERSHED W-5 AREA - 46 ACRES							57M-5	
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P ₁ /Q	.16	.45	2.78	1.92	1.19	5.75	3.03	2.10	.70	.72	.93	.38	20.11
	Q	.00	.00	.44	T	.00	.44	.09	.00	.00	.00	0.00	.00	.97
STA AV2/P (58-66)	P	.25	.29	.67	1.18	2.70	3.87	1.68	1.45	.89	.39	.27	.30	13.94
	Q	.00	.01	.14	.01	.08	.24	.04	.11	T	.00	.00	.00	.63
MEAN 59 YR	P ₃ /Q	.42	.37	.74	1.64	2.71	3.01	2.13	1.37	1.27	.99	.52	.37	15.54

Notes: Watershed conditions: 100% rangeland; condition classes: excellent - 7%, good - 93%; degree of grazing: moderate; production of cover: 3400 pounds per acre of oven dry material. 1/ Precipitation from rain gage W-5A 2/ Precipitation and runoff records began January 1958. 3/ Mean P based on 59-yr (1908-66) U.S. Weather Bureau record period at Newell, So. Dak.

1966 DAILY PRECIPITATION (inches)						NEWELL, SOUTH DAKOTA WATERSHED W-5							57M-5
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1						1.32							
2				.10		.13	.33			.10			
3			.63							.22		.03	
4			1.75			.32						.02	
5												.04	
6								.16					
7				.07							.03	.03	
8		.02			.45					.02	.07	.02	
9		.34								.04	.35		
10					.35	.41					.05	.02	
11				.14		.18		.70					
12				.37			.65	.25					
13					.14				.10	.29	.03		
14											.02		
15	.01	.09					.02						
16				.23					.25	.05			
17				.09	.15								
18			.18	.20		.03							
19	.03					.03		.56					
20	.11					.14		.28					
21	.01		.12				1.83					.08	
22			.10		.10	1.75						.02	
23													
24						1.12			.03		.25		
25				.02					.02		.10	.01	
26				.50					.10			.05	
27				.20									
28							.20				.03		
29									.20				
30						.35		.05				.03	
31								.10				.03	
TOTAL	.16	.45	2.78	1.92	1.19	5.75	3.03	2.10	.70	.72	.93	.38	
STA AV	.25	.29	.67	1.18	2.70	3.87	1.68	1.45	.89	.39	.27	.30	

NOTES: PRECIPITATION VALUES ARE FOR RAIN GAGE W-5A. SNOW JANUARY 1-APRIL 18, MAY 8, 11, 12, NOVEMBER 1 - DECEMBER 31. RAIN AND SNOW MIXED APRIL 26-27; ALL OTHER PRECIPITATION IS RAIN. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, PAGE 65.5-4.

1966 MEAN DAILY DISCHARGE (inches)						NEWELL, SOUTH DAKOTA						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1						.04						
2						T						
3												
4												
5												
6												
7												
8												
9												
10												
11			.37	T								
12				T			T					
13												
14			.05									
15												
16												
17												
18												
19												
20												
21			.01									
22			T			.28	.09					
23												
24						.12						
25												
26												
27			.01									
28												
29												
30												
31												
MEAN			.44	T		.44	.09					
INCHES												

NOTES: DISCHARGE RECORD OBTAINED BY A-35 RECORDER ON POND.

MONTHLY PRECIPITATION AND RUNOFF (inches)						NEWELL, SOUTH DAKOTA WATERSHED W-7							57M-7	
						AREA - 160 ACRES								
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P ^{1/}	.09	.14	2.54	1.27	.91	4.48	2.38	1.43	.41	.59	.70	.33	15.27
	Q	.00	.00	.62	.00	0.00	.17	.02	.00	.00	.00	.00	.00	.81
	STA AV2/P (58-66) Q	.23	.30	.64	1.11	2.56	3.62	1.71	1.45	.87	.39	.29	.31	13.48
	MEAN P ^{3/}	.00	.03	.16	.02	.04	.10	.04	.02	T	.00	.00	.00	.41
59 YR		.42	.37	.74	1.64	2.71	3.01	2.13	1.37	1.27	.99	.52	.37	15.54

Notes: Watershed conditions: 100% Rangeland; condition classes: Good - 82%, fair - 18%; degree of grazing: Moderate; production of cover: 3000 Pounds per acre. ^{1/} Precipitation from rain gage W-7A. ^{2/} Precipitation and runoff records began January 1958. ^{3/} Mean P based on 59-yr. (1908-66) U.S. Weather Bureau record period at Newell, So. Dak.

1966 DAILY PRECIPITATION (inches)						NEWELL, SOUTH DAKOTA WATERSHED W-7							57M-7
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1				.05		.46	.20						
2						.10				.19			
3										.08		.02	
4							.29					.02	
5												.04	
6			2.12			.03		.13					
7											.03	.03	
8		.05			.22					.03	.06	.02	
9		.06								.04	.18		
10					.27	.30					.04	.02	
11				.02		.19		.22					
12				.29			.45	.33	.03				
13					.16					.20	.03		
14					.04						.02		
15	.02	.03											
16				.20	.17				.10				
17			.10										
18				.20		.03							
19	.02							.39					
20	.01					.12	1.53	.23					
21	.04		.13							.05		.05	
22			.19		.05	1.73						.01	
23													
24						.83			.03		.21		
25				.02					.02			.01	
26				.33							.10	.05	
27				.16					.10				
28							.20						
29						.40			.13				
30								.05				.03	
31								.08				.03	
TOTAL	.09	.14	2.54	1.27	.91	4.48	2.38	1.43	.41	.59	.70	.33	
STA AV	.23	.30	.64	1.11	2.56	3.62	1.71	1.45	.87	.39	.29	.31	

NOTES: PRECIPITATION VALUES ARE FOR RAIN GAGE W-7A. SNOW JANUARY 1-APRIL 18, MAY 8, 11, 12, NOVEMBER 1 - DECEMBER 31. RAIN AND SNOW MIXED APRIL 26-27; ALL OTHER PRECIPITATION IS RAIN. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, PACE 65.7-4.

1966 MEAN DAILY DISCHARGE (inches)						NEWELL, SOUTH DAKOTA		WATERSHED W-7		57M-7		
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1						T						
2												
3												
4												
5												
6												
7												
8												
9			.07									
10												
11			.14									
12			.11				T					
13			.10									
14			.11									
15			.07									
16			.01									
17												
18												
19												
20												
21			T				.02					
22						.13						
23												
24						.04						
25												
26												
27												
28			.01									
29												
30												
31												
MEAN INCHES			.62			.17	.02					

NOTES DISCHARGE RECORD OBTAINED BY A-35 RECORDER ON POND.

MONTHLY PRECIPITATION AND RUNOFF (inches)						NEWELL, SOUTH DAKOTA							WATERSHED W-12 AREA - 90 ACRES		57F-12
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL		
1966															
P ₁ /O	.08	.21	3.45	1.63	.77	1.33	1.27	2.16	1.70	1.04	.58	.39	14.61		
	.00	.16	1.68	.44	.00	.00	.00	.00	.00	.00	.00	.00	2.28		
STA AV2/P	.23	.27	.71	1.22	2.70	3.48	1.69	1.09	1.09	.49	.33	.27	13.57		
(58-66) Q	.00	.05	.44	.18	.82	.71	.14	.06	.00	.00	.01	.01	2.42		
MEAN P ₃ /59 YR	.42	.37	.74	1.64	2.71	3.01	2.13	1.37	1.27	.99	.52	.37	15.54		

Notes: Watershed conditions: 100% rangeland; condition classes: good - 94%, fair - 6%; degree of grazing: moderate.
 1/ Precipitation from rain gage W-12A. 2/ Precipitation and runoff records began January 1958. 3/ Mean P based on 59-yr (1908-66) U.S. Weather Bureau record period at Newell, So. Dak.

1966 DAILY PRECIPITATION (inches)						NEWELL, SOUTH DAKOTA							WATERSHED W-12		57F-12
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC			
1			.01			.09	.38								
2			.14	.10					.06	.18		.03			
3			2.68							.33					
4				.04		.10		.03				.01			
5												.05			
6	.02											.05			
7				.15								.04			
8		.12	.01		.25			.06				.18			
9								.05				.04			
10					.04	.07						.01			
11				.10	.06	.13		.14				.01			
12				.18	.02		.05	.77	.07						
13				.03	.06		.18		1.02	.36					
14		.04			.04					.12		.02			
15	.03	.01							.03			.01			
16				.33	.12	.02			.13	.03					
17		.03	.08			.18									
18				.20											
19	.03	.01						.57							
20								.23							
21			.51				.38	.24			.04	.09			
22			.02		.10	.57						.02			
23						.03			.04						
24						.14									
25									.03		.16	.12			
26				.30											
27				.13					.21		.02				
28							.28								
29				.03	.04				.11						
30					.04			.02			.04				
31								.05		.02		.02			
TOTAL	.08	.21	3.45	1.63	.77	1.33	1.27	2.16	1.70	1.04	.58	.39			
STAAV	.23	.27	.71	1.22	2.70	3.48	1.69	1.09	1.09	.49	.33	.27			

NOTES: PRECIPITATION VALUES ARE FOR RAIN GAGE W-12A. SNOW JANUARY 1-APRIL 18, MAY 8, 11, 12, NOVEMBER 1-DECEMBER 31. RAIN AND SNOW MIXED APRIL 26-27; ALL OTHER PRECIPITATION IS RAIN. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, PAGE 65.12-4.

1966 MEAN DAILY DISCHARGE (inches)					NEWELL, SOUTH DAKOTA								WATERSHED W-12		57F-12	
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC				
1				.05												
2				.03												
3																
4																
5				.01												
6				.01												
7				.01												
8																
9																
10				.01												
11																
12				.04												
13																
14			.81													
15																
16				.03												
17																
18			.06													
19			.04													
20			.06	.09												
21			.11	.10												
22																
23																
24			.03													
25			.01													
26			.02	.01												
27			.07	.05												
28		.16	.20													
29			.12													
30			.15													
31																
MEAN INCHES		.16	1.68	.44												

NOTES: DISCHARGE RECORD OBTAINED BY A-35 RECORDER ON POND. SPILLWAY FLOW DURING APRIL.

MONTHLY PRECIPITATION AND RUNOFF (inches)						NEWELL, SOUTH DAKOTA WATERSHED W-13 AREA - 160 ACRES								57F-13
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P1/ Q	.08 .00	.18 .06	2.26 1.01	1.73 .07	.66 .00	1.82 .02	2.22 .03	1.89 .02	.54 .00	.63 T	.44 .00	.12 .00	12.57 1.21
	STA AV2/P (58-66) Q	.23 .00	.26 .03	.55 .24	1.01 .02	2.63 .32	3.23 .32	1.42 .01	1.16 .01	.83 .00	.43 .00	.29 T	.27 .00	12.31 .95
	MEAN P 3/ 59 YR	.42	.37	.74	1.64	2.71	3.01	2.13	1.37	1.27	.99	.52	.37	15.54

Notes: Watershed conditions: 100% rangeland; condition classes: excellent - 8%, good - 67%, fair - 25%; degree of grazing: moderate. 1/ Thiessen weighted precipitation from gages W-13B and W-13C. 2/ Precipitation and runoff records began January 1958. 3/ Mean P based on 59-yr (1908-66) U.S. Weather Bureau record period at Newell, So. Dak.

1966 DAILY PRECIPITATION (inches)						NEWELL, SOUTH DAKOTA WATERSHED W-13 57F-13							
OAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1			.10	.08		.10	.28					.02	
2			1.70	.02		.05			.08	.20		.02	
3										.10			
4						.20							
5						.07						.04	
6								.17					
7			.02	.12				.04			.04		
8					.38						.20		
9		.08											
10		.02			.05	.10					.02		
11				.20	.03	.05		.45					
12				.45			.68	.41					
13				.03	.09					.31			
14					.05	.08				.02			
15	.02	.05				.05							
16				.25		.05			.18				
17		.03	.13	.20									
18	.02					.10		.46					
19								.34					
20													
21			.28				.43					.04	
22			.03		.06	.40							
23													
24						.33	.37						
25	.04												
26				.20					.09		.14		
27				.15									
28							.46						
29				.03		.24			.19				
30								.02				.04	
31													
TOTAL	.08	.18	2.26	1.73	.66	1.82	2.22	1.89	.54	.63	.44	.12	
STA AV	.23	.26	.55	1.01	2.63	3.23	1.42	1.16	.83	.43	.29	.27	

NOTES: THIESSEN WEIGHTED PRECIPITATION USING RAIN GAGES W-13B AND W-13C. SNOW JANUARY 1-APRIL 18, MAY 8, 11, 12, NOVEMBER 1-DECEMBER 31. RAIN AND SNOW MIXED APRIL 26-27; ALL OTHER PRECIPITATION IS RAIN. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, PAGE 65.13-4.

1966 MEAN DAILY DISCHARGE (inches)						NEWELL, SOUTH DAKOTA		WATERSHED W-13		57F-13		
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1												
2												
3										T		
4						.01						
5												
6								T				
7												
8												
9												
10												
11			.22					T				
12			.28	.02			.01	.01				
13			.15									
14										T		
15			.11									
16				.01								
17			.07									
18			.04	.01								
19			.01									
20			.01			T						
21			.02	.02			.01					
22			.02			.01						
23		.06	T					.01				
24			.01			T						
25												
26			T									
27			.05	.01								
28			.02				.01					
29												
30		-----	T			-----			-----			
31												
MEAN INCHES		.06	1.01	.07		.02	.03	.02		T		

NOTES: DISCHARGE RECORD OBTAINED BY A-35 RECORDER ON POND.

MONTHLY PRECIPITATION AND RUNOFF (inches)						NEWELL, SOUTH DAKOTA						WATERSHED W-14 AREA - 35 ACRES		57F-14
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P ^{1/}	.17	.45	3.48	2.31	.57	.97	1.35	2.12	1.46	1.26	.68	.50	15.32
	Q	.25	.00	.89	.15	.00	.00	.02	.01	.00	.00	.00	.00	1.32
STA AV ^{2/} P (58-66) Q		.30	.30	.74	1.60	2.63	3.24	1.90	1.08	.95	.57	.37	.33	14.01
		.04	.03	.27	.08	.28	.39	.16	.03	.01	T	.01	T	1.30
MEAN P ^{3/} 59 YR		.42	.37	.74	1.64	2.71	3.01	2.13	1.37	1.27	.99	.52	.37	15.54
Notes: Watershed conditions: 100% rangeland; condition classes: good - 54%, fair - 46%; degree of grazing: moderate. 1/ Precipitation from rain gage W-14A. 2/ Precipitation and runoff records began January 1958. 3/ Mean P based on 59-yr (1908-66) U.S. Weather Bureau record period at Newell, So. Dak.														
1966 DAILY PRECIPITATION (inches)						NEWELL, SOUTH DAKOTA						WATERSHED W-14		57F-14
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC		
1			.01				.35			.10		.02		
2			.14							.44		.05		
3			2.68	.03								.02		
4						.18								
5														
6	.02			.05		.10								
7				.10		.11						.03		
8		.16			.35			.02				.44		
9		.09						.04				.06		
10						.10		.30						
11				.28		.01		.75						
12				.35						.70		.50		
13				.05						.18				
14	.01	.04							.05					
15		.02							.13					
16				.30	.19									
17		.11	.15											
18		.03		.55				.60						
19								.36						
20														
21			.44				.25			.04				
22			.06		.03	.25	.25							
23	.14					.02			.05					
24						.20						.05		
25									.02					
26				.20					.43			.16		
27				.28										
28							.75							
29									.08					
30														
31								.05						
TOTAL	.17	.45	3.48	2.31	.57	.97	1.35	2.12	1.46	1.26	.68	.50		
STAAV	.30	.30	.74	1.60	2.63	3.24	1.90	1.08	.95	.57	.37	.33		
NOTES: PRECIPITATION VALUES ARE FOR RAIN GAGE W-14A. SNOW JANUARY 1-APRIL 18, MAY 8, 11, 12, NOVEMBER 1-DECEMBER 31. RAIN AND SNOW MIXED APRIL 26-27; ALL OTHER PRECIPITATION IS RAIN. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, PAGE 65.14-4.														

1966 MEAN DAILY DISCHARGE (inches)						NEWELL, SOUTH DAKOTA		WATERSHED W-14		57F-14		
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1							T					
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12				.03				.01				
13			.53									
14			.11									
15			.07									
16			.04									
17												
18												
19			.02									
20												
21				.08			.01					
22			.06									
23			.03									
24			T									
25			T									
26				.04								
27			.03									
28							.01					
29												
30	.25	-----										
31												
MEAN INCHES	.25		.89	.15			.02	.01				

NOTES: DISCHARGE RECORD OBTAINED BY A-35 RECORDER ON POND.

MONTHLY PRECIPITATION AND RUNOFF (inches)						NEWELL, SOUTH DAKOTA						WATERSHED W-15		57F-15
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966 P ^{1/} Q	.05 .01	.19 .00	3.62 .42	1.64 .23	.51 .00	1.07 .00	1.50 .00	1.94 .00	1.26 T	1.29 T	.50 .00	.32 .00	13.89 .66	
STA AV ^{2/} (58-66) Q	.35 T	.28 T	.79 .13	1.56 .11	2.74 .37	3.28 .32	2.01 .19	1.06 .01	.95 .01	.60 T	.40 .01	.33 .00	14.35 1.15	
MEAN P ^{3/} 59 YR	.42	.37	.74	1.64	2.71	3.01	2.13	1.37	1.27	.99	.52	.37	15.54	
Notes: Watershed conditions: 100% rangeland; condition classes: good - 41%, fair - 59%; degree of grazing: moderate. 1/ Precipitation from rain gage W-15A. 2/ Precipitation and runoff records began January 1958. 3/ Mean P based on 59-yr (1908-66) U.S. Weather Bureau record period at Newell, So. Dak.														
1966 DAILY PRECIPITATION (inches)						NEWELL, SOUTH DAKOTA						WATERSHED W-15		57F-15
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC		
1			.01				.38							
2			.14	.10						.16		.04		
3			2.68	.03		.20				.37		.04		
4												.02		
5														
6	.02			.01		.10						.02		
7				.11		.06						.02		
8		.02			.34			.02			.03	.02		
9		.03						.04			.25	.06		
10						.10								
11				.21		.01								
12				.29				.69						
13				.04						.56	.56			
14		.02								.16				
15	.01	.02							.04					
16				.20	.14					.11				
17		.08	.13											
18				.25										
19	.02	.02						.60						
20								.25						
21			.64				.23				.04			
22			.02		.03	.33						.08		
23						.03			.07			.04		
24						.24					.06			
25									.03					
26				.21					.38		.16			
27				.19										
28							.89							
29									.07					
30														
31								.06						
TOTAL	.05	.19	3.62	1.64	.51	1.07	1.50	1.94	1.26	1.29	.50	.32		
STA AV	.35	.28	.79	1.56	2.74	3.28	2.01	1.06	.95	.60	.40	.33		
NOTES: PRECIPITATION VALUES ARE FOR RAIN GAGE W-15A. SNOW JANUARY 1-APRIL 18, MAY 8, 11, 12, NOVEMBER 1-DECEMBER 31. RAIN AND SNOW MIXED APRIL 26-27; ALL OTHER PRECIPITATION IS RAIN. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, PAGE 65.15-4.														

1966 MEAN DAILY DISCHARGE (inches)						NEWELL, SOUTH DAKOTA			WATERSHED W-15 57F-15			
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1												
2												
3										T		
4												
5				.11								
6												
7			.34									
8												
9												
10												
11												
12				.02								
13									T			
14										T		
15												
16												
17												
18												
19				.01								
20												
21			T									
22			.04	.09								
23												
24												
25									T			
26	.01											
27			.04									
28												
29												
30												
31												
MEAN INCHES	.01		.42	.23					T	T		*

NOTES: DISCHARGE RECORD OBTAINED BY A-35 RECORDER ON POND.

MONTHLY PRECIPITATION AND RUNOFF (inches)						MOOREFIELD, WEST VIRGINIA WATERSHED W-1 AREA—8.57 ACRES								
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P ^{1/} O	3.19	2.94	.36	4.90	1.15	.45	1.96	2.02	5.25	2.05	1.87	1.63	27.77
		.00	.17	.15	.44	.35	.00	.00	.01	.02	.29	T	.00	1.43
	STA AVG ^{2/} (58-66) O	2.01	2.56	2.87	3.09	2.53	2.84	2.83	2.47	3.12	1.60	1.68	1.66	29.26
	MEAN ^{3/} 69 YR O	.27	.58	1.21	.41	.23	.05	.01	.06	.01	.05	.02	.02	2.92
		2.19	2.04	2.78	2.74	3.36	3.75	3.55	3.34	2.53	2.37	1.79	1.99	32.43

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE	MAXIMUM VOLUME FOR SELECTED TIME INTERVAL														
		1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS		
		DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	
1966	10-1	.05	10-1	.04	10-1	.07	10-1	.13	10-1	.18	10-1	.22	4-30	.28	4-27	.54

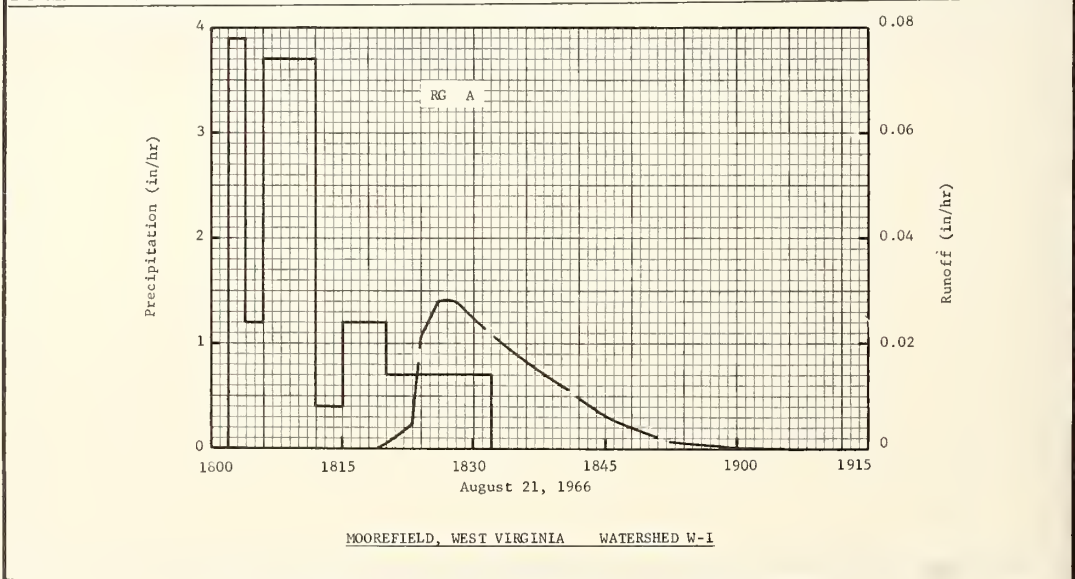
MAXIMUMS FOR PERIOD OF RECORD																	
1958	TD	8-3	.44	8-3	.17	3-19	.25	3-19	.68	3-19	.89	3-20	1.08	3-12	1.35	3-11	1.87
1966		1958		1958		1963		1963		1963		1963		1962		1962	

NOTES: Watershed conditions: 100% permanent pasture with controlled grazing. 1/ Precipitation records from rain gage A. 2/ Precipitation records began April 1958; runoff records began May 1958. 3/ Mean P based on 69-yr (1896-1964) U. S. Weather Bureau record period at Moorefield and Moorefield McNeill, West Va.

1966 SELECTED RUNOFF EVENT						MOOREFIELD, WEST VIRGINIA WATERSHED W-1					
ANTECEDENT CONDITIONS			RAINFALL			RUNOFF					
DATE MD-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MD-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MD-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
Event of August 21, 1966											
	RG A			RG	A						
7-25	.06	.0000	8-21	1802	.00	.00	8-21	1819	.0000	.0000	
7-28	.36	.0000		1804	3.90	.13		1820	.0013	T	
7-29	.56	.0000		1806	1.20	.17		1823	.0047	.0002	
8 -2	.09	.0000		1812	3.70	.54		1824	.0211	.0004	
8 -9	.18	.0000		1815	.40	.56		1826	.0280	.0012	
8-11	.29	.0000		1820	1.20	.66		1828	.0280	.0021	
8-12	.03	.0000		1832	.70	.80		1835	.0179	.0048	
8-14	.19	T						1844	.0067	.0066	
8-16	.10	.0000						1852	.0017	.0072	
								1900	.0001	.0073	
								1908	.0000	.0073	

Watershed conditions
Permanent pasture, very dry conditions, native grasses and weeds dormant, very poor cover.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 8.6414. FOR REVISED MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1962, USDA MISC. PUB. 1070, P. 66.1-3.



MOOREFIELD, WEST VIRGINIA WATERSHED W-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						MOOREFIELD, WEST VIRGINIA WATERSHED W-2 AREA—9.73 ACRES								
YEAR	MDNTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P ₁	3.19	2.94	.36	4.90	1.15	.45	1.96	2.02	5.25	2.05	1.87	1.63	27.77
	O	.00	.64	.10	.65	.12	.00	.00	T	.06	.37	.03	.02	1.99
	STA AVC ₂ ^b	2.01	2.56	2.87	3.09	2.53	2.84	2.83	2.47	3.12	1.60	1.68	1.66	29.26
	(58-66) O	.36	.64	1.21	.47	.28	.07	.03	.07	.04	.08	.03	.06	3.34
	MEAN P ₃	2.19	2.04	2.78	2.74	3.36	3.75	3.55	3.34	2.53	2.37	1.79	1.99	32.43

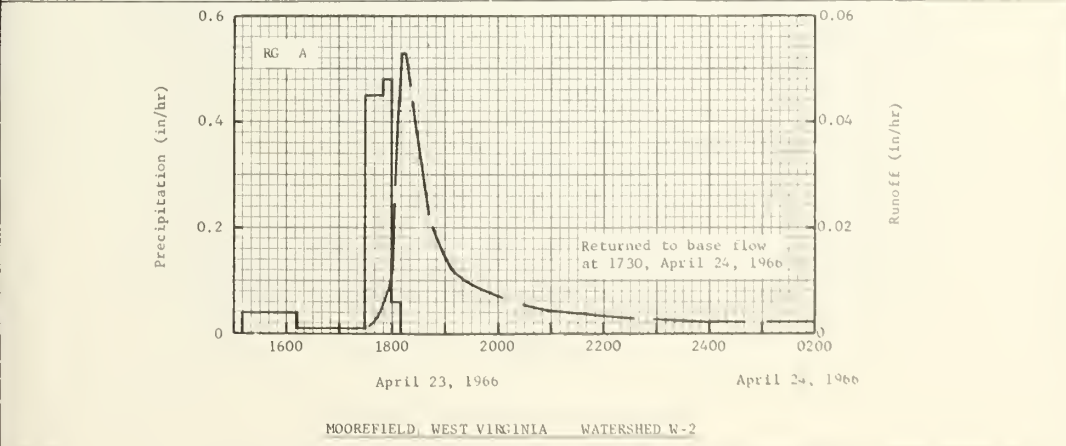
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
			DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	10-1	.07	10-1	.06	2-28	.12	2-28	.23	10-1	.32	2-28	.36	2-28	.39	4-23	.59

MAXIMUMS FOR PERIOD OF RECORD																
1958 TO 1966	8-3 1958	.76	8-3 1958	.34	8-3 1958	.38	3-19 1963	.82	3-20 1963	1.05	3-20 1963	1.21	3-12 1962	1.44	3-20 1963	2.02

Notes: Watershed conditions: 100% permanent pasture with controlled grazing. 1/ Precipitation records from rain gage A. 2/ Precipitation runoff records began April 1958. 3/ Mean P based on 69-yr (1896-1964) U.S. Weather Bureau record period at Moorefield and Moorefield McNeill, West Va.

1966 **SELECTED RUNOFF EVENT** MOOREFIELD, WEST VIRGINIA WATERSHED W-2

ANTECEDENT CONDITIONS			RAINFALL				RUNOFF					
DATE MD-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MD-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MD-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)		
Event of April 23-24, 1966												
3-24	RG A .20	.0000	4-23	1510	A .00	.00	4-23	1734	.0015	.0000		
3-31	.07	.0000		1612	.04	.04		1744	.0028	.0004		
4 -4	.04	.0000		1730	.01	.05		1750	.0059	.0008		
4 -9	.20	.0000		1750	.45	.20		1759	.0098	.0020		
4-12	.92	.0002		1800	.48	.28		1808	.0439	.0060		
4-13	.73	.0746		1810	.06	.29		1812	.0530	.0092		
4-14	.08	.0237						1816	.0530	.0128		
4-15	.00	.0020						1824	.0439	.0192		
4-21	.21	.0000						1840	.0247	.0284		
4-22	.45	.0022						1858	.0158	.0344		
4-23	4/.30	.0227						1924	.0098	.0400		
Watershed conditions									2000	.0068	.0450	
Permanent pasture, native grasses and weeds beginning to grow but very short, poor to fair cover.									2050	.0042	.0495	
									2230	.0028	.0553	
									2400	.0021	.0590	
									4-24	0200	.0021	.0633
									0830	.0011	.0739	
									1020	.0011	.0759	
									1200	.0007	.0774	
									1540	.0003	.0793	
									1730	5/.0001	.0797	



Cooperative Research Project of USDA, Potomac Valley Soil Conservation District and West Virginia University Agricultural Experiment Station

MONTHLY PRECIPITATION AND RUNOFF (inches)						MOOREFIELD, WEST VIRGINIA WATERSHED W-4 AREA—6.32 ACRES								
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966 P ₁ o	3.30 T	2.99 .65	.36 .19	5.00 .27	1.57 .12	.74 .00	2.07 .01	1.78 .02	5.40 .06	2.12 .25	1.85 .01	1.66 T	28.84 1.58	
STA AVG P (58-66) o	2.04	2.54	2.90	3.12	2.65	2.89	2.71	2.40	3.10	1.55	1.70	1.63	29.23	
MEAN P ₃ 69 YR	.31	.53	.83	.22	.15	.05	.05	.09	.05	.06	.03	.05	2.42	
	2.19	2.04	2.78	2.74	3.36	3.75	3.55	3.34	2.53	2.37	1.79	1.99	32.43	

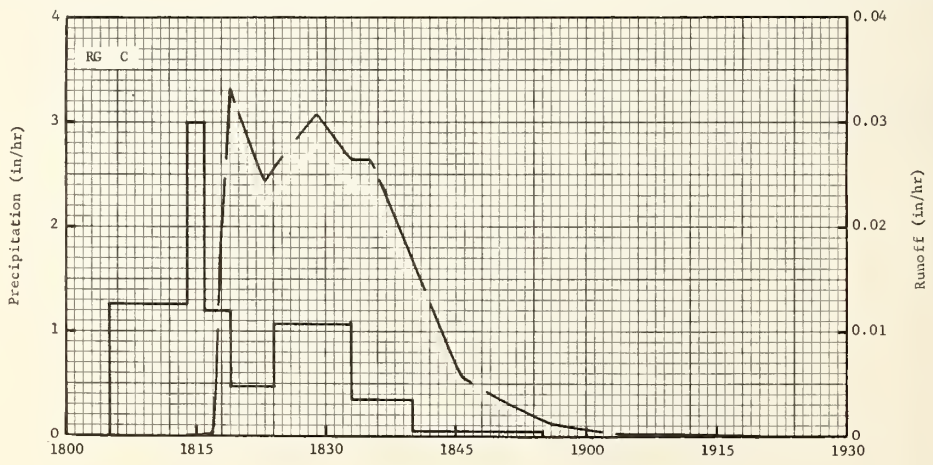
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
1966	8-21	.03	10-1	.02	10-1	.04	10-1	.08	10-1	.12	10-1	.18	2-12	.25	2-11	.46

MAXIMUMS FOR PERIOD OF RECORD																
1958 TO 1966	8-3 1958	.69	8-3 1958	.27	2-19 1961	.31	3-19 1963	.64	3-19 1963	.76	3-20 1963	.85	2-18 1961	.97	2-17 1961	1.54

NOTES: Watershed conditions: 100% permanent pasture with controlled grazing. 1/ Precipitation records from rain gage C. 2/ Precipitation records began June 1958; runoff records began May 1958. 3/ Mean P based on 69-yr (1896-1964) U. S. Weather Bureau record period at Moorefield and Moorefield McNeill, West Va.

1966 SELECTED RUNOFF EVENT						MOOREFIELD, WEST VIRGINIA WATERSHED W-4					
ANTECEDENT CONDITIONS			RAINFALL			RUNOFF					
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
<u>Event of August 21, 1966</u>											
	RG C				RG	C					
7-25	.06	.0000	8-21	1805	.00	.00	8-21	1814	.0000	.0000	
7-28	.39	.0030		1814	1.27	.19		1817	.0002	.0002 T	
7-29	.54	.0016		1816	3.00	.29		1818	.0204	.0002	
8-2	.10	.0000		1819	1.20	.35		1819	.0331	.0006	
8-9	.18	.0000		1824	.48	.39		1823	.0243	.0025	
8-11	.25	.0003		1833	1.07	.55		1829	.0308	.0053	
8-12	.02	.0000		1840	.34	.59		1833	.0263	.0072	
8-14	.18	.0046		1855	.04	.60		1835	.0263	.0081	
8-16	.10	.0000						1846	.0054	.0110	
								1856	.0011	.0115	
<u>Watershed conditions</u>									1904	.0002	.0116
Permanent pasture, very dry conditions, native grasses and weeds dormant, very poor cover.									1920	.0000	.0116

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 6.3727. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59, USDA MISC. PUB. 945, P. 66.4-3.



August 21, 1966

MOOREFIELD, WEST VIRGINIA WATERSHED W-4

MONTHLY PRECIPITATION AND RUNOFF (inches)													MOOREFIELD, WEST VIRGINIA WATERSHED W-5 AREA—9.55 ACRES			
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966	P ₁ / Q	3.30 .00	2.99 .68	.36 .33	5.00 .47	1.57 .21	.74 .00	2.07 .00	1.78 .00	5.40 .01	2.12 .44	1.85 T	1.66 T	28.84 2.14		
STA AVE (58-66)	P ₂ / Q	2.04 .42	2.54 .79	2.90 1.27	3.12 .41	2.65 .26	2.89 .06	2.71 .02	2.40 .06	3.10 .02	1.55 .09	1.70 .03	1.63 .07	29.23 3.50		
MEAN 69 YR	P ₃ / Q	2.19	2.04	2.78	2.74	3.36	3.75	3.55	3.34	2.53	2.37	1.79	1.99	32.43		

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	10-1	.05	10-1	.04	10-1	.08	10-1	.17	10-1	.26	10-1	.35	10-1	.42	4-27	.56

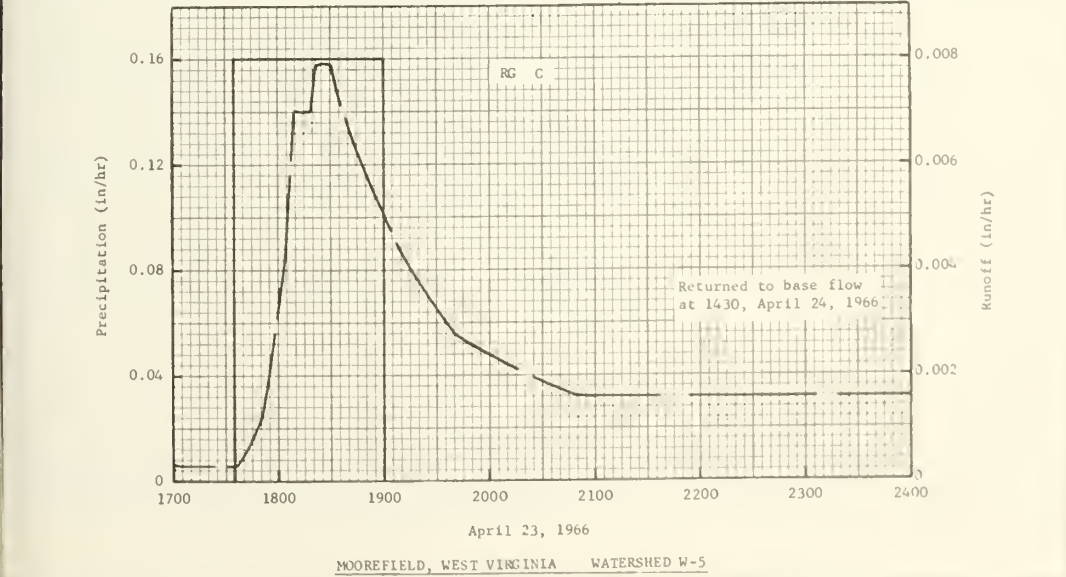
MAXIMUMS FOR PERIOD OF RECORD																
1958 TO 1966	8-3 1958	.65	8-3 1958	.27	8-3 1958	.31	3-19 1963	.70	3-19 1963	.95	3-20 1963	1.14	2-18 1961	1.39	2-17 1961	2.21

NOTES: Watershed conditions: 100% permanent pasture with controlled grazing. 1/ Precipitation records from rain gage C. 2/ Precipitation records began June 1958; runoff records began May 1958. 3/ Mean P based on 69-yr (1896-1964) U. S. Weather Bureau record period at Moorefield and Moorefield McNeill, West Va.

1966 SELECTED RUNOFF EVENT						MOOREFIELD, WEST VIRGINIA WATERSHED W-5					
ANTECEDENT CONDITIONS			RAINFALL			RUNOFF			RUNOFF		
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
Event of April 23-24, 1966											
	RG C			RG	C						
3-24	.23	.0000	4-23	1735	.00	.00	4-23	1736	.0003	.0000	
3-31	.05	.0000		1900	.16	.23		1750	.0011	.0002	
4-1	.02	.0000						1758	.0028	.0004	
4-4	.07	.0000						1804	.0043	.0008	
4-9	.20	.0000						1810	.0070	.0013	
4-12	.93	.0000						1818	.0070	.0023	
4-13	.82	.0135						1822	.0079	.0028	
4-14	.00	.0217						1830	.0079	.0038	
4-15	.00	.0047						1910	.0043	.0079	
4-16	.00	.0012						1940	.0028	.0096	
4-21	.20	.0000						2050	.0016	.0122	
4-22	.43	.0019						2400	.0016	.0171	
4-23	4/.30	5/.0048					4-24	0930	.0016	.0319	
								1200	.0011	.0353	
								1430	6/.0007	.0376	

Watershed conditions: Permanent pasture, native grasses and weeds beginning to grow but very short, poor to fair cover.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 9.6296. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1956-59. USDA MISC. PUB. 945, P.66.5-3. 4/1200 TO 1350. 5/PRIOR TO 1736. 6/RETURNED TO BASE FLOW.



MONTHLY PRECIPITATION AND RUNOFF (inches)						REYNOLDS, IDAHO WATERSHED W-1 (68 036068)								
						AREA—57,700 ACRES (90.2 SQ. MILES)								
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P ₁	.95	.78	1.00	.78	.56	.62	.00	.03	.38	.58	2.66	1.77	10.11
	O	.071	.055	.187	.167	.069	.035	.006	.002	.003	.006	.019	.054	.674
STA AVG P (63-66)	P ₁	2.32	.98	.78	1.40	1.46	1.85	.15	.80	.40	.60	2.54	2.09	15.37
	O	.596	.368	.239	.581	.545	.272	.037	.031	.013	.020	.048	.389	3.039
MEAN P ₂ 27 YR		1.32	1.33	1.32	1.16	1.29	.89	.21	.16	.39	.84	1.20	1.32	11.43

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	4-1	.001	4-1	.001	4-1	.002	4-1	.006	4-1	.011	4-2	.018	4-1	.032	3-29	.105

MAXIMUMS FOR PERIOD OF RECORD																
19 63 TO 19 66	12-23 1964	.065	12-23 1964	.064	12-23 1964	.125	12-23 1964	.270	12-23 1964	.270	12-23 1964	.327	12-23 1964	.721	1-28 1965	1.313

NOTES: Watershed Conditions: Predominately sagebrush rangeland, 95%; small stands of forest, 2%; permanent fields of flow irrigated alfalfa, 3%. 1/ Precipitation values are Thiessen weighted from 20 gages. 2/ Mean P based on 27-yr. (1939-65) U.S. Weather Bureau record period at Boise, Idaho; 50 miles N.E. of watershed.

1966 DAILY AIR TEMPERATURE (degrees F)												REYNOLDS, IDAHO WATERSHED W-1 (68 036068)												68.01	
DAY	JAN		FEB		MAR		APR		MAY		JUNE		JULY		AUG		SEPT		OCT		NOV		DEC		
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	30	11	38	21	35	21	83	38	70	33	63	30	90	53	94	56	78	45	80	36	64	31	48	33	
2	39	24	43	26	33	18	55	41	82	41	62	46	69	48	94	58	79	48	61	41	63	31	44	36	
3	43	36	45	28	32	17	56	33	87	41	59	40	71	41	95	69	83	52	59	35	59	32	44	35	
4	45	38	42	28	36	11	59	25	87	46	58	33	80	44	90	56	89	47	66	33	61	31	45	32	
5	51	31	39	23	41	25	69	26	84	51	70	33	87	50	82	57	93	55	72	37	43	39	49	33	
6	51	45	42	28	45	27	70	34	77	46	74	44	90	56	84	53	91	55	76	37	49	32	36	26	
7	53	35	34	23	45	35	71	39	74	39	71	53	87	53	87	57	71	42	40	27	37	30			
8	54	30	31	17	49	33	73	38	75	49	75	55	90	51	87	54	87	53	68	41	45	28	31	21	
9	42	23	34	24	55	41	61	44	73	51	67	49	86	61	86	56	84	45	65	33	54	41	28	17	
10	39	24	32	19	46	27	52	41	66	43	74	47	88	53	90	58	85	49	74	33	48	41	41	23	
11	39	31	38	20	52	21	55	42	59	40	64	40	85	54	74	50	78	54	70	35	56	46	35	19	
12	40	30	37	10	60	31	54	33	64	37	66	38	87	55	79	46	67	49	53	36	63	43	48	30	
13	54	31	33	17	56	36	57	28	64	38	84	43	80	50	84	45	66	49	47	32	59	50	45	29	
14	42	36	33	21	59	31	67	30	52	33	83	53	85	59	79	54	57	39	50	24	60	50	41	29	
15	39	26	31	17	54	37	70	37	65	27	82	53	89	52	90	51	69	47	52	23	63	46	40	24	
16	36	19	30	29	39	29	60	40	63	36	86	56	87	58	93	57	79	46	59	27	54	32	39	23	
17	34	14	49	28	39	19	48	33	61	32	89	51	82	60	88	59	86	48	60	25	49	32	38	21	
18	31	13	48	28	50	26	42	28	67	35	88	53	91	51	86	59	76	41	72	30	54	61	39	22	
19	28	18	46	24	47	27	40	23	79	36	83	51	87	58	85	58	75	53	67	34	59	30	42	23	
20	28	14	45	28	45	21	49	21	83	41	74	50	80	56	73	51	84	49	47	26	61	40	36	24	
21	34	12	45	24	36	25	51	32	80	46	75	48	83	48	78	50	89	53	57	26	47	34	37	19	
22	33	21	44	24	41	19	57	29	50	33	70	50	88	52	87	43	91	56	62	37	41	28	34	17	
23	33	18	38	29	50	18	62	32	64	27	62	40	91	53	91	51	83	56	67	35	39	23	32	21	
24	34	17	42	28	56	24	70	33	76	37	63	43	95	65	97	54	85	47	73	35	39	17	34	15	
25	41	20	39	31	62	25	67	47	85	41	73	34	78	54	91	69	67	50	75	39	43	17	32	20	
26	41	17	40	30	69	29	51	29	91	52	85	41	84	47	76	51	57	46	63	31	39	25	30	23	
27	41	13	43	34	67	36	50	27	78	58	88	51	87	52	79	46	69	41	65	31	47	23	28	15	
28	44	21	43	33	71	36	55	24	77	52	89	55	86	60	82	51	80	41	67	30	43	37	32	24	
29	42	25	---	---	72	38	58	30	76	53	82	56	90	52	73	45	79	49	67	35	46	38	37	30	
30	39	27	---	---	77	38	68	31	70	46	80	50	90	56	69	40	70	41	66	39	50	39	34	23	
31	37	21	---	---	69	43	---	---	59	40	---	---	89	62	73	43	---	---	66	30	---	---	---	41	32
AV.	40	24	40	25	51	28	59	33	72	41	75	46	86	54	84	53	79	49	64	33	51	35	38	25	
MEAN	31.9		32.2		39.5		46.1		56.7		60.4		69.6		68.7		63.7		48.8		43.0		31.4		
STA AV	36	17	43	25	47	25	56	30	67	40	73	46	85	50	82	49	77	43	65	33	51	28	40	21	

NOTES: TEMPERATURE DATA READINGS TAKEN FROM HYGROTHERMOGRAPH RECORD. STA AV BASED ON 1963-66 RECORD PERIOD. FOR MAP OF WATERSHED SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1963, P.68.1-8.

1966 DAILY PRECIPITATION (inches)						REYNOLDS, IOAHO WATERSHEO W-1 (68 036068)						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.01	.0	.04	.0	.0	.0	.0	.0	.0	.0	.0	.15
2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.15	.0	.35
3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.14
4	.26	.0	.0	.0	.0	.01	.0	.0	.0	.0	.0	.02
5	.08	.02	.0	.0	.0	.0	.0	.0	.0	.0	.16	.19
6	.15	.17	.0	.0	.0	.0	.0	.0	.0	.0	.45	.01
7	.0	.0	.19	.0	.0	.11	.0	.0	.0	.0	.0	.13
8	.05	.02	.03	.0	.0	.02	.0	.0	.0	.0	.0	.01
9	.0	.21	.0	.07	.08	.14	.0	.0	.0	.0	.21	.02
10	.02	.0	.09	.61	.0	.0	.0	.0	.0	.0	.26	.07
11	.05	.0	.0	.01	.0	.0	.0	.0	.0	.0	.24	.0
12	.02	.12	.0	.07	.0	.0	.0	.0	.0	.11	.04	.02
13	.0	.0	.15	.0	.0	.01	.0	.0	.17	.0	.0	.23
14	.01	.06	.0	.0	.08	.0	.0	.0	.0	.0	.0	.0
15	.03	.0	.17	.0	.0	.0	.0	.0	.0	.0	.0	.0
16	.0	.0	.07	.0	.0	.09	.0	.0	.0	.0	.38	.0
17	.0	.0	.02	.0	.0	.0	.0	.0	.0	.0	.0	.0
18	.0	.0	.0	.0	.0	.0	.0	.0	.04	.0	.0	.0
19	.0	.04	.14	.0	.0	.0	.0	.0	.0	.0	.0	.0
20	.0	.0	.01	.01	.0	.0	.0	.0	.0	.07	.13	.0
21	.0	.0	.09	.01	.09	.0	.0	.0	.0	.0	.01	.0
22	.03	.0	.0	.0	.08	.04	.0	.0	.0	.25	.07	.0
23	.12	.09	.0	.0	.0	.20	.0	.0	.0	.0	.0	.0
24	.09	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
25	.0	.02	.0	.0	.0	.0	.0	.0	.0	.0	.11	.28
26	.0	.02	.0	.0	.0	.0	.0	.03	.17	.0	.03	.02
27	.0	.0	.0	.0	.04	.0	.0	.0	.0	.0	.0	.0
28	.0	.01	.0	.0	.06	.0	.0	.0	.0	.0	.31	.01
29	.0	---	.0	.0	.05	.0	.0	.0	.0	.0	.26	.11
30	.03	---	.0	.0	.03	.0	.0	.0	.0	.0	.0	.0
31	.0	---	.0	.0	.05	.0	.0	.0	.0	.0	.0	.01
TOTAL	.95	.78	1.00	.78	.56	.62	.0	.03	.38	.58	2.66	1.77
STA AV	2.32	.98	.78	1.40	1.46	1.85	.15	.80	.40	.60	2.54	2.09

NOTES PRECIPITATION AMOUNTS ARE THIESSEN WEIGHTED VALUES FROM 20 GAGES. STA AV BASED ON RECORD PERIOD 1963 THROUGH 1966. TOTAL PRECIPITATION FOR YEAR = 10.11 INCHES.

1966 MEAN DAILY DISCHARGE (cfs)						REYNOLDS, IOAHO WATERSHEO W-1 (68 036068)						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	3.98	3.56	5.34	38.16	6.93	2.44	.73	.26	0.16	.22	.65	4.82
2	4.98	4.18	3.78	39.87	8.19	2.45	.76	.23	0.12	.30	.69	5.49
3	5.77	4.49	3.73	28.02	6.61	2.89	.92	.18	0.11	.28	.69	10.31
4	6.20	4.43	4.27	24.88	5.14	2.80	.92	.22	0.11	.29	.69	6.86
5	7.42	4.43	5.01	24.85	8.20	2.90	.74	.20	0.11	.30	.71	6.39
6	9.86	4.70	5.10	26.54	11.03	2.70	.84	.22	0.19	.32	1.19	4.59
7	10.46	4.40	6.99	26.21	8.96	2.62	.95	.17	0.19	.30	.97	4.57
8	8.51	3.80	7.70	24.20	8.13	3.00	.88	.20	0.18	.30	.86	3.36
9	5.54	4.31	10.67	21.50	7.14	4.87	.89	.28	0.16	.31	.82	2.61
10	6.23	4.55	15.75	24.96	6.92	4.48	.79	.29	0.18	.33	1.25	4.66
11	6.63	4.93	11.29	19.98	5.19	4.09	.70	.28	.16	.35	1.35	3.99
12	6.64	4.21	10.74	15.08	4.59	3.85	.63	.16	.16	.41	1.09	4.02
13	6.21	3.99	30.36	9.53	4.08	3.60	.59	.15	.18	.42	1.03	4.89
14	6.70	4.29	32.42	7.14	5.13	3.33	.55	.15	.36	.42	1.02	7.57
15	6.45	5.31	21.58	6.06	6.69	3.24	.51	.11	.29	.43	.96	4.73
16	3.14	4.81	18.49	8.16	5.18	3.37	.44	.09	.27	.46	1.59	4.00
17	3.51	4.92	12.51	9.55	5.52	3.83	.37	.05	.23	.49	1.79	4.12
18	4.52	4.91	11.46	5.03	5.27	3.41	.29	.05	.20	.50	1.58	4.43
19	4.53	4.62	11.86	3.24	4.93	3.30	.28	.09	.25	.49	1.52	4.06
20	4.25	4.97	9.23	3.12	4.71	2.45	.25	.04	.24	.40	1.43	4.26
21	4.26	5.55	11.21	3.25	4.84	2.49	.24	.0	.20	.47	1.56	3.46
22	4.63	5.71	9.27	3.46	5.32	2.58	.23	.01	.15	.66	1.56	1.99
23	4.64	5.42	9.52	2.41	4.57	2.30	.19	.04	.15	.63	1.48	2.04
24	4.62	5.24	10.20	2.05	3.09	2.64	.19	.07	.18	.64	1.08	3.04
25	4.57	5.47	12.18	2.43	3.58	2.45	.23	.06	.18	.62	1.05	3.34
26	4.54	5.24	17.25	4.01	3.31	2.08	.23	.17	.28	.62	1.70	2.72
27	4.26	4.89	21.66	4.73	3.00	1.47	.24	.25	.33	.65	1.41	2.10
28	5.04	5.25	23.85	5.51	3.19	.78	.20	.15	.28	.66	1.94	2.98
29	5.30	---	28.33	5.33	3.41	.86	.18	.11	.25	.68	5.74	3.48
30	4.85	---	32.82	5.93	2.97	.80	.22	.13	.21	.68	6.52	2.98
31	4.96	---	37.94	---	2.33	---	.24	.13	---	.65	---	2.99
MEAN	5.59	4.74	14.60	13.51	5.43	2.80	.50	.15	.20	.46	1.53	4.22
INCHES	.071	.055	.187	.167	.069	.035	.006	.002	.003	.006	.019	.054

NOTES TO CONVERT CFS TO IN/DAY, MULTIPLY BY 0.000413.

MONTHLY PRECIPITATION AND RUNOFF (inches)						REYNOLDS, IDAHO WATERSHED W-2 (SALMON CREEK 68 046017) AREA—8,990 ACRES (14.05 SQ. MILES)								
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P ₁	.85	.85	1.03	1.05	.25	.41	.00	.07	.32	.76	3.36	1.69	10.64
	Q	.110	.091	.283	.281	.093	.037	.005	.003	.006	.021	.070	.171	1.171
STA AVG P (65-66) Q		2.85	.65	.59	1.32	2.08	1.02	.13	1.93	.42	.58	2.42	1.19	15.18
MEAN P ₂ 27 YR		.929	.445	.267	.319	.423	.137	.037	.139	.056	.061	.086	.126	3.025
		1.32	1.33	1.32	1.16	1.29	.89	.21	.16	.39	.84	1.20	1.32	11.43

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	3-13	.001	3-13	.001	3-13	.002	3-13	.006	3-13	.012	3-13	.021	3-13	.036	3-10	.100

MAXIMUMS FOR PERIOD OF RECORD																
19 65 TO 19 66	8-23 1965	.073	8-23 1965	.044	8-23 1965	.056	1-28 1965	.114	1-28 1965	.208	1-28 1965	.379	1-28 1965	.766	1-28 1965	1.495

Notes: Watershed Conditions: Predominately sagebrush rangeland, 99%; irrigated pasture and hay crops, 1%. For Maximum and Minimum Daily Air Temperatures, see Table for Watershed W-1, p. 68.1-1. 1/ Precipitation values are Thiessen weighted from gages 012029, 022040, and 024095. 2/ Mean P based on 27-yr. (1939-65) U.S. Weather Bureau record period at Boise, Idaho; 50 miles N.E. of watershed.

1966 DAILY PRECIPITATION (inches)						REYNOLDS, IDAHO WATERSHED W-2 (SALMON CREEK 68 046017)							
OAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	.0	.0	.05	.0	.0	.0	.0	.0	.0	.0	.0	.09	
2	.0	.0	.01	.0	.0	.0	.0	.0	.0	.24	.0	.36	
3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.15	
4	.22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.04	
5	.01	.0	.0	.0	.0	.0	.0	.0	.0	.0	.35	.19	
6	.09	.23	.0	.0	.0	.0	.0	.0	.0	.0	.52	.0	
7	.0	.0	.23	.0	.0	.01	.0	.0	.0	.0	.01	.08	
8	.04	.01	.0	.0	.0	.05	.0	.0	.0	.0	.0	.0	
9	.0	.23	.0	.06	.0	.10	.0	.0	.0	.0	.30	.01	
10	.03	.0	.13	.88	.0	.0	.0	.0	.0	.0	.25	.10	
11	.11	.0	.0	.01	.0	.0	.0	.0	.0	.0	.36	.0	
12	.04	.19	.0	.10	.0	.0	.0	.0	.0	.14	.08	.01	
13	.0	.0	.09	.0	.0	.04	.0	.0	.21	.0	.02	.22	
14	.01	.03	.0	.0	.13	.0	.0	.0	.0	.0	.0	.0	
15	.01	.0	.20	.0	.01	.0	.0	.0	.0	.0	.0	.0	
16	.0	.0	.06	.0	.0	.09	.0	.0	.0	.0	.50	.0	
17	.0	.0	.04	.0	.0	.0	.0	.01	.0	.0	.0	.0	
18	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
19	.0	.0	.14	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20	.0	.0	.0	.0	.0	.0	.0	.0	.0	.04	.17	.0	
21	.0	.0	.08	.0	.04	.0	.0	.0	.0	.01	.01	.0	
22	.02	.0	.0	.0	.02	.0	.0	.0	.0	.33	.05	.0	
23	.14	.09	.0	.0	.0	.07	.0	.0	.0	.0	.0	.0	
24	.09	.0	.0	.0	.0	.01	.0	.0	.0	.0	.0	.0	
25	.0	.05	.0	.0	.0	.04	.0	.0	.0	.0	.16	.20	
26	.0	.02	.0	.0	.0	.0	.0	.06	.11	.0	.05	.04	
27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.27	.01	
29	.0	---	.0	.0	.0	.0	.0	.0	.0	.0	.26	.16	
30	.04	---	.0	.0	.02	.0	.0	.0	.0	.0	.0	.0	
31	.0	---	.0	.0	.03	---	.0	.0	.0	.0	.0	.03	
TOTAL	.85	.85	1.03	1.05	.25	.41	.0	.07	.32	.76	3.36	1.69	
STA AV	2.85	.65	.59	1.32	2.08	1.02	.13	1.93	.42	.58	2.42	1.19	

NOTES: PRECIPITATION AMOUNTS ARE THIESSEN WEIGHTED VALUES FROM GAGES 012029, 022040, AND 024095. STA AV BASED ON RECORD PERIOD 1965 THROUGH 1966. FOR MAP OF WATERSHED SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1965, P. 68.2-7. TOTAL PRECIPITATION FOR YEAR = 10.64 INCHES.

1966 MEAN DAILY DISCHARGE (cfs)					REYNOLDS, IDAHO WATERSHED W-2 (SALMON CREEK 68 046017)							
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	1.030	1.078	1.463	5.962	1.955	.824	.126	.045	.034	.163	.423	2.149
2	1.080	1.142	1.075	5.450	1.837	.763	.114	.037	.034	.220	.488	2.149
3	1.080	1.210	1.054	4.591	1.630	.707	.128	.033	.035	.197	.461	4.230
4	1.482	1.221	1.235	4.165	1.521	.729	.123	.025	.033	.197	.443	3.065
5	1.900	1.261	1.344	3.969	1.470	.682	.112	.014	.033	.190	.471	3.170
6	2.437	1.324	1.307	3.719	1.406	.657	.098	.015	.035	.175	.885	2.509
7	2.412	1.176	1.869	3.504	1.379	.626	.088	.038	.045	.131	.724	2.368
8	1.967	1.025	2.187	3.330	1.339	.641	.077	.029	.048	.152	.613	1.956
9	1.534	1.115	2.918	3.279	1.353	.804	.079	.033	.051	.182	.570	1.442
10	1.461	.944	4.343	5.728	1.247	.672	.091	.030	.055	.192	.982	2.009
11	1.533	1.141	3.359	5.541	1.329	.616	.080	.030	.055	.206	1.018	1.870
12	1.508	1.039	3.485	5.105	1.267	.563	.068	.035	.061	.226	.853	1.906
13	1.492	1.091	8.094	4.479	1.174	.511	.070	.040	.072	.230	.758	2.515
14	1.465	1.129	5.578	4.175	1.318	.410	.066	.035	.110	.218	.627	3.519
15	1.395	.969	4.784	3.933	1.241	.350	.055	.035	.085	.242	.562	2.938
16	.687	1.215	4.697	3.685	1.159	.395	.044	.040	.072	.242	1.058	2.547
17	1.487	1.152	3.692	3.377	1.092	.414	.029	.035	.068	.230	.897	2.391
18	1.047	1.150	3.578	3.483	1.031	.279	.020	.035	.069	.248	.799	2.351
19	.838	1.138	3.544	2.705	.971	.255	.032	.035	.085	.266	.831	2.157
20	.624	1.227	2.950	2.968	.887	.258	.059	.030	.084	.227	.906	2.091
21	.943	1.251	2.945	2.897	.823	.293	.056	.040	.084	.254	.988	1.708
22	1.624	1.423	2.374	2.601	.986	.324	.044	.050	.096	.376	.965	1.134
23	1.439	1.425	2.426	2.462	.922	.385	.035	.041	.101	.346	.908	1.192
24	1.205	1.4 5	2.597	2.344	.838	.424	.028	.024	.101	.346	.659	1.562
25	1.200	1.519	2.912	2.273	.773	.333	.021	.021	.118	.338	.749	1.650
26	1.132	1.452	3.718	2.343	.692	.279	.039	.021	.157	.354	1.034	1.188
27	1.085	1.465	4.707	2.167	.607	.227	.060	.027	.159	.345	.861	1.046
28	1.132	1.465	5.307	2.002	.663	.171	.060	.029	.148	.362	1.058	1.598
29	1.118	---	5.584	1.939	.652	.124	.060	.030	.143	.386	2.477	1.518
30	1.136	-----	5.786	1.983	.720	.122	.055	.040	.150	.362	2.361	1.323
31	1.105	-----	6.051	-----	.833	-----	.055	.040	-----	.378	-----	1.296
MEAN	1.341	1.222	3.450	3.539	1.133	.461	.067	.033	.081	.257	.880	2.082
(INCHES)	.110	.091	.283	.281	.093	.037	.005	.003	.006	.021	.070	.171

NOTES: TO CONVERT CFS TO IN/OAY, MULTIPLY BY 0.002648.

REYNOLDS, IDAHO WATERSHED W-3 (MACKS CREEK 68 046084)

LOCATION: Owyhee County, Idaho; 34 miles south of Nampa; east flowing tributary to Reynolds Creek.

AREA: 7,846 acres (12.26 sq. miles)

SLOPES:	Slope--Percent	0-30	30-60
	Percent of area	51	49

SOILS: Residual, derived mostly from basalt; lesser amounts from lacustrine sediments, granite and pediment alluvium and colluvium.

Soil	Per- cent of area	Topsoil			Subsoil		Substratum		Internal drainage
		Avg. depth (in.)	Structure	Perme- ability	Structure	Perme- ability	Avg. depth to (in.)	Perme- ability	
Harmehl and Demast Series (gravelly loam, stony gravelly loam, very gravelly loam, loam, stony loam, very stony loam)	12.8	-	See Characteristics for Harmehl and Bakeoven Series						
Ruclick and Babbington Series (gravelly loam, stony gravelly loam, very stony gravelly loam, stony very gravelly loam, stony loam, rocky stony loam)	10.8	-	See Characteristics for Ruclick and Babbington Series						
Babbington Series (gravelly loam, loam, stony loam, very stony loam)	9.8	8	Weak very thin platy (very fine granular)	Moderate	Moderate to strong fine and very fine sub-angular blocky	Moderately slow	20	Moderate or rapid	Medium
Gemid Series (very cobbly loam, gravelly loam, loam, stony loam, very stony loam)	8.6	9	Moderate or strong very fine to medium	Moderate	Strong or moderate medium sub-angular blocky	Slow	32	Very slow or none	Medium to slow
Gemson Series (clay loam, very cobby clay loam, stony, gravelly loam, stony loam)	6.6	10	Moderate platy or granular	Moderate to moderately rapid	Prismatic angular blocky	Moderate or moderately slow	55	Moderate	Medium
Gabica Series (cobby gravelly loam, very gravelly loam, rocky loam, very rocky loam, stony loam, very stony loam)	6.6	9	Moderate fine granular	Moderate	Weak fine subangular blocky	Moderately slow	17	Very slow or none	Medium
Reywat and Bakeoven Series (stony gravelly loam, rocky loam, stony loam, very stony loam, rocky very stony loam)	6.1	-	See Characteristics for Reywat Series and Bakeoven Series						
Reywat and Licksillet Series (gravelly loam, stony gravelly loam, loam)	6.1	-	See Characteristics for Reywat Series and Licksillet Series						
Glasgow Series (very cobbly loam, gravelly loam, stony gravelly loam)	5.3	7	Weak very fine granular	Moderate	Moderate fine and very fine subangular blocky	Moderately slow	40	Moderate	Medium
Bakeoven Series (very gravelly loam, stony very gravelly loam, extremely rocky loam, very rocky loam, extremely stony loam, rocky extremely stony loam)	4.2	3	Weak very fine platy to granular	Moderate	Weak very fine and subangular blocky	Moderate or moderately slow	7	Very slow or none	Medium
Additional Series (which occur in less than 4% of area)	23.1								
Total	100.0								

Individual Series Descriptions
Which Occur in Combinations
on Previous Page

Soil	Percent of area	Topsoil			Subsoil		Substratum		
		Avg. depth (in.)	Structure	Permeability	Structure	Permeability	Avg. depth to (in.)	Permeability	Internal drainage
Demast loam		15	Very weak very thin platy	Moderate	Weak medium prismatic	Moderate	60	Moderate	Medium to rapid
Harmehl loam		10	Weak medium prismatic fine sub-angular blocky fine granular	Moderate	Moderate fine and medium subangular blocky	Slow to moderate	39	Very slow	Medium
Ruclick very stony gravelly loam		10	Weak fine subangular blocky parting to moderate fine granular	Moderately rapid	Moderate or strong fine angular and subangular blocky	Moderate	39	Moderate	Medium to rapid
Reywat stony loam		10	Weak thin platy fine granular	Moderately rapid	Weak or moderate subangular blocky	Slow to moderate	20	Moderate	Medium
Licksillet series		12	Weak thin platy very fine granular	Moderately rapid	Weak medium subangular blocky	Moderate	17	Moderate	Medium

EROSION:

Erosion class	1	2	3	4
Percent area	78	14	8	0

LAND CAPABILITY:

Class	1	II	III	IV	V	VI	VII	VIII
Percent area	0	0	0	20	25	30	20	5

GEOLOGY: The Macks Creek Watershed lies along the west dipping limb of a faulted and intruded anticline, the lower elevations of which are overlapped with lake sediments. The geologic formations are composed approximately of 45% basaltic volcanics, 25% granite, 10% latite, 10% lake sediments, and 10% alluvium. Source of data: Cenozoic Geology of the Reynolds Creek Watershed, Owyhee County, Idaho, by David H. McIntyre, Idaho Bureau of Mines Bulletin (in print).

SURFACE DRAINAGE: Good; length of principal waterway 7.73 miles; overall slope 5.52%; a natural watershed with well incised channels.

CHARACTER OF FLOW: Perennial interrupted stream.

INSTRUMENTATION: Runoff: Precalibrated 3,500 cfs capacity Drop-Box Weir, three water stage recorders, and low flow ratings by volumetric measurement and current meter. Precipitation: 11 Belfort recording rain gages with 24-hour time scale.

WATERSHED CONDITIONS: The watershed is sagebrush rangeland, except for about 170 acres of pasture and hay crops which receive only limited irrigation water. The watershed topography is steep, except in the lower valley, with numerous basalt outcrops at the higher elevations. Sagebrush, bitterbrush, mountain mahogany and willow are the major cover with a fair density of forage plants such as cheatgrass, bluebunch wheatgrass, and Idaho fescue. Vegetative cover estimates are:

Vegetative cover percentage	0-25	26-50	51-75	76-100
Percent of area	35.5	32.9	18.0	13.6

GENERALLY REPRESENTS: Extensive low water yield rangeland areas of southern Idaho, eastern Oregon, Nevada, and portions of other western states.

MONTHLY PRECIPITATION AND RUNOFF (inches)						REYNOLDS, IDAHO WATERSHED W-3 (MACKS CREEK 68 0-6084) AREA--7,846 ACRES (12.26 SQ. MILES)							
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P1	1.06	.81	1.14	1.18	.42	.40	.00	.05	.38	.80	3.73	1.64	11.70
O	.067	.056	.197	.115	.044	.011	.004	.002	.001	.001	.001	.028	.22
STA AVG 2/b	1.06	.81	1.14	1.18	.42	.49	.00	.05	.38	.80	3.73	1.64	11.70
(1966) O	.067	.056	.197	.115	.044	.011	.004	.002	.001	.001	.001	.028	.22
MEAN P3													
27 YR	1.32	1.33	1.32	1.16	1.29	.89	.21	.16	.39	.84	1.20	1.32	11.43

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	3-13	.002	3-13	.002	3-13	.003	3-13	.009	3-13	.017	3-13	.026	3-13	.03	3-12	.08
1966 to 1966	3-13	.002	3-13	.002	3-13	.003	3-13	.009	3-13	.017	3-13	.026	3-13	.03	3-12	.08

Notes: Watershed Conditions: Same as described above under WATERSHED CONDITIONS. For Daily Maximum and Minimum Temperatures see Table for Watershed W-1, p. 68.1-1. 1/ Precipitation values are Thiessen weighted from gages 04397, 054088, and 072067. 2/ STA AVG P and Q based on 1966 data only. 3/ Mean P based on 27-yr. (1919-65) U.S. Weather Bureau record period at Boise, Idaho; 50 miles N.E. of watershed.

1966 DAILY PRECIPITATION (inches)						REYNOLDS, IDAHO WATERSHED W-3 (MACKS CREEK 68-046084)						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.0	.0	.02	.0	.0	.0	.0	.0	.0	.0	.0	.21
2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.24	.0	.20
3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.16
4	.31	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.02
5	.07	.01	.0	.0	.0	.0	.0	.0	.0	.0	.25	.23
6	.18	.18	.0	.0	.0	.0	.0	.0	.0	.0	.56	.03
7	.0	.0	.26	.0	.0	.02	.0	.0	.0	.0	.0	.09
8	.06	.03	.01	.0	.0	.02	.0	.0	.0	.0	.0	.0
9	.0	.27	.0	.07	.0	.14	.0	.0	.0	.0	.46	.02
10	.03	.0	.12	.98	.0	.0	.0	.0	.0	.0	.54	.06
11	.10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.31	.0
12	.01	.15	.0	.10	.0	.0	.0	.0	.0	.12	.02	.02
13	.0	.0	.13	.0	.0	.0	.0	.0	.21	.01	.0	.31
14	.03	.01	.0	.0	.11	.0	.0	.0	.0	.0	.0	.01
15	.01	.0	.27	.0	.0	.0	.0	.0	.0	.0	.0	.0
16	.0	.0	.03	.0	.0	.06	.0	.0	.0	.0	.54	.0
17	.0	.0	.03	.0	.0	.0	.0	.0	.0	.0	.0	.0
18	.0	.0	.0	.0	.0	.0	.0	.0	.03	.0	.0	.0
19	.0	.0	.14	.0	.0	.0	.0	.0	.0	.0	.0	.0
20	.0	.0	.0	.02	.0	.0	.0	.0	.0	.05	.22	.0
21	.0	.0	.13	.01	.09	.0	.0	.0	.0	.0	.0	.0
22	.04	.0	.0	.0	.07	.09	.0	.0	.0	.38	.06	.0
23	.10	.12	.0	.0	.0	.16	.0	.0	.0	.0	.0	.0
24	.09	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
25	.0	.03	.0	.0	.0	.0	.0	.0	.0	.0	.11	.14
26	.0	.01	.0	.0	.0	.0	.0	.05	.14	.0	.02	.01
27	.0	.0	.0	.0	.10	.0	.0	.0	.0	.0	.0	.0
28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.28	.03
29	.0	---	.0	.0	.01	.0	.0	.0	.0	.0	.36	.10
30	.03	---	.0	.0	.03	.0	.0	.0	.0	.0	.0	.0
31	.0	---	.0	.0	.01	.0	.0	.0	.0	.0	.0	.0
TOTAL	1.06	.81	1.14	1.18	.42	.49	.0	.05	.38	.80	.73	1.64
STA AV	1.06	.81	1.14	1.18	.42	.49	.0	.05	.38	.80	.73	1.64

NOTES: PRECIPITATION AMOUNTS ARE THIESSEN WEIGHTED VALUES FROM GAGES 043097, 054088, AND 072067. STA AV BASED ON 1966 RECORD PERIOD ONLY. TOTAL PRECIPITATION FOR YEAR = 11.70 INCHES.

1966 MEAN DAILY DISCHARGE (cfs)						REYNOLDS, IDAHO WATERSHED W-3 (MACKS CREEK 68 046084)						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.414	.548	.763	2.656	.560	.230	.068	.024	.017	.013	.007	.027
2	.464	.574	.571	2.445	.521	.221	.063	.020	.023	.013	.010	.074
3	.524	.624	.532	1.812	.524	.213	.068	.024	.026	.013	.013	.421
4	.867	.645	.571	1.634	.455	.196	.062	.019	.020	.013	.013	.253
5	1.313	.686	.627	1.330	.406	.176	.063	.020	.014	.013	.013	.355
6	1.767	.736	.711	1.178	.353	.167	.057	.020	.017	.013	.013	.243
7	1.382	.629	1.084	1.092	.369	.152	.051	.024	.020	.013	.016	.250
8	1.032	.573	1.290	1.312	.592	.142	.053	.026	.020	.010	.016	.169
9	.720	.593	2.015	1.319	.605	.143	.048	.022	.020	.007	.013	.167
10	.776	.616	3.207	2.667	.556	.128	.053	.016	.017	.007	.013	.299
11	.776	.614	2.078	2.512	.579	.125	.052	.013	.020	.007	.013	.273
12	.746	.612	2.283	1.913	.619	.124	.043	.013	.024	.007	.013	.309
13	.762	.600	7.802	1.758	.574	.119	.039	.016	.024	.010	.013	.478
14	.757	.605	4.508	1.341	.623	.106	.039	.020	.020	.013	.013	.682
15	.705	.584	3.238	1.415	.633	.099	.039	.020	.016	.013	.013	.403
16	.473	.652	3.127	1.221	.647	.102	.031	.024	.013	.013	.020	.306
17	.537	.677	2.280	1.204	.582	.099	.052	.027	.010	.010	.020	.302
18	.562	.687	2.104	1.049	.569	.099	.035	.024	.007	.007	.020	.343
19	.520	.616	2.226	.778	.502	.092	.031	.016	.010	.007	.020	.329
20	.559	.682	1.774	.793	.419	.092	.031	.010	.013	.007	.020	.326
21	.486	.652	1.896	.915	.433	.086	.031	.017	.013	.007	.020	.294
22	.611	.758	1.671	.791	.424	.092	.030	.027	.013	.007	.020	.200
23	.590	.802	1.785	.546	.376	.093	.024	.024	.013	.010	.020	.259
24	.557	.750	1.963	.551	.384	.088	.024	.016	.010	.013	.020	.312
25	.556	.835	2.516	.541	.395	.086	.024	.013	.010	.013	.020	.338
26	.586	.757	2.217	.556	.355	.080	.024	.016	.013	.013	.020	.327
27	.569	.680	1.494	.635	.342	.074	.029	.016	.016	.013	.020	.284
28	.602	.758	1.607	.669	.334	.074	.027	.013	.016	.013	.020	.282
29	.636	---	1.842	.573	.276	.070	.024	.013	.013	.013	.020	.293
30	.635	---	2.505	.552	.261	.068	.031	.016	.013	.013	.020	.250
31	.622	---	2.742	.257	.257	.024	.024	.014	---	.010	---	.245
MEAN	0.714	.662	2.098	1.259	.469	.121	.041	.019	.016	.011	.016	.293
INCHES	0.067	.056	.197	.115	.044	.011	.004	.002	.001	.001	.001	.028

NOTES: TO CONVERT CFS TO IN/OAY, MULTIPLY BY 0.003034.



NORTHWEST WATERSHED RESEARCH CENTER
 REYNOLDS CREEK EXPERIMENTAL WATERSHED
 OWYHEE COUNTY, IDAHO
 TOPOGRAPHY MAP
 OF
 MACKS CREEK WATERSHED W-3

REYNOLDS, IDAHO WATERSHED W-13 (REYNOLDS MOUNTAIN 68 166076)

LOCATION: Owyhee County, Idaho; 34 miles south of Nampa, north flowing tributary to the east fork of Reynolds Creek.

AREA: 100 acres.

SLOPES:	Slope--Percent	0-30	30-60
	Percent of area	78	22

SOILS: Residual, derived mostly from basalt; lesser amounts from rhyolitic volcanics.

Soil	Percent of area	Topsoil			Subsoil		Substratum		Internal drainage
		Avg. depth (in.)	Structure	Permeability	Structure	Permeability	Avg. depth to (in.)	Permeability	
Bullrey Series (Gravelly loam, flaggy gravelly loam)	33.6	9	Fine granular	Moderately rapid	Fine and very fine granular	Moderately rapid	40	Moderately rapid	Medium
Nettleton Series (Gravelly loam)	31.3	9	Moderate or weak, medium and fine sub-angular blocky	Moderate	Moderate coarse and medium angular blocky	Moderate	60	Moderate	Medium
Cabica Series (Cobbly gravelly loam, rocky loam, very rocky loam, very stony loam)	19.3	5	Moderate fine granular	Moderate	Weak fine subangular blocky	Moderately slow	15	Very slow or none	Medium
Harmehl Series (Cobbly loam, loam)	11.9	10	Moderate fine and very fine granular	Moderate	Moderate medium and fine sub-angular blocky	Slow to moderate	30	Slow to moderate	Medium
Harmehl Demast Series (Loam)	3.9	See characteristics for Harmehl and Demast Series.							
Individual Series Descriptions Which Occur in Combinations Above									
Demast Loam	----	15	Very weak very thin platy	Moderate	Weak medium prismatic	Moderate	60	Moderate	Medium to rapid
TOTAL	100								

EROSION:	Erosion Class	1	2	3	4
	Percent of area	31	37	28	4

LAND CAPABILITY:	Class	I	II	III	IV	V	VI	VII	VIII
	Percent of area	0	0	0	0	72	24	4	0

CEOLOGY: The East Reynolds Mountain Study Basin* lies in a gently folded belt of latite and basalt with post-basalt rhyolite extrusions. The geologic formations are composed of approximately 80% latite, 15% basalt and 5% rhyolite. Source of data: Cenozoic Ceology of the Reynolds Creek Watershed, Owyhee County, Idaho, by David H. McIntyre, Idaho Bureau of Mines and Geology Bulletin (In Print).
*W-13 (68 166076)

SURFACE DRAINAGE: Good; length of the principal waterway approximately 3680 ft., overall slope 11%, a natural mountain watershed with well defined waterways and good surface drainage.

CHARACTER OF FLOW: Spring-fed, perennial stream, continuous.

INSTRUMENTATION: Runoff: 14 cfs capacity 90 degree V-notch weir, equipped with FW-1 water level recorder, with 192-hour time scale.

Precipitation: Recording rain gage with 24-hour time scale.

Snow Surveys: Monthly or more frequently near rain gage location.

WATERSHED CONDITIONS: Rangeland watershed with seasonal cattle and sheep grazing. Scrub aspen, willow, scattered Douglas-fir, and sagebrush with natural mountain meadows. Vegetative cover varies with annual precipitation. Type of cover is 32% shrub and brush, 17% grass and forbes, and 9% rock and rock fragments. Estimates of average vegetative cover are:

Vegetative Cover percentage	0-25	26-50	51-75	76-100
Percent of area	15.7	18.6	5.7	60.0

GENERALLY REPRESENTS: High elevation watersheds with snowdrift accumulation in southern Idaho, eastern Oregon, Nevada, and portions of other western states. Grazing is mainly by cattle during May-October, with heavy use in drought years.

MONTHLY PRECIPITATION AND RUNOFF (inches)						REYNOLDS, IDAHO WATERSHED W-13 (REYNOLDS MOUNTAIN 68 166076) AREA—100 ACRES								
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966 P ₁ / _o	2.88 .193	1.56 .137	1.90 .391	.91 3.122	1.17 3.978	.83 .693	.00 .155	.04 .056	.62 .030	.89 .048	4.14 .115	2.72 .141	17.66 9.059	
STA AVG ₂ / _o (1966)	2.88 .193	1.56 .137	1.90 .391	.91 3.122	1.17 3.978	.83 .693	.00 .155	.04 .056	.62 .030	.89 .048	4.14 .115	2.72 .141	17.66 9.059	
MEAN P ₃ / _o 27 YR	1.32	1.33	1.32	1.16	1.29	.89	.21	.16	.39	.84	1.20	1.32	11.43	

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	5-5	.013	5-5	.013	5-5	.025	5-5	.074	5-5	.155	5-5	.250	5-5	.485	5-2	1.730

MAXIMUMS FOR PERIOD OF RECORD																
19 66 TO 19 66	5-5 1966	.013	5-5 1966	.013	5-5 1966	.025	5-5 1966	.074	5-5 1966	.155	5-5 1966	.250	5-5 1966	.485	5-2 1966	1.730

Notes: Watershed Conditions: Same as described under WATERSHED CONDITIONS, p. 68.13-1. 1/ Precipitation values are from gage 176107. 2/ STA AVG P and Q based on 1966 data only. 3/ Mean P based on 27-yr. (1939-65) U.S. Weather Bureau record period at Boise, Idaho; 60 miles N.E. of watershed.

1966 DAILY AIR TEMPERATURE (degrees F)												REYNOLDS, IDAHO WATERSHED W-13 (REYNOLDS MTN 68 166076)													
DAY	JAN		FEB		MAR		APR		MAY		JUNE		JULY		AUG		SEPT		OCT		NOV		DEC		
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	--	--	--	--	--	--	61	41	57	34	55	23	70	51	81	62	65	43	59	41	57	42	43	27	
2	--	--	--	--	--	--	41	24	69	47	57	36	53	37	86	67	68	46	47	25	56	42	35	27	
3	--	--	--	--	--	--	42	19	68	51	57	35	61	34	83	63	72	52	40	23	48	34	33	25	
4	--	--	--	--	--	--	46	24	70	53	55	28	71	45	81	59	77	58	56	31	46	30	33	25	
5	--	--	--	--	--	--	54	35	70	54	54	28	77	57	75	55	77	63	59	43	43	31	33	21	
6	--	--	--	--	--	--	56	41	63	42	64	39	76	57	75	54	80	62	65	50	52	27	26	20	
7	--	--	--	--	--	--	55	38	63	43	67	38	75	57	78	61	76	60	57	48	40	25	23	20	
8	--	--	--	--	--	--	58	42	63	48	66	43	74	53	79	57	75	55	56	41	33	20	20	12	
9	--	--	--	--	--	--	45	31	57	44	70	48	71	53	75	53	76	59	52	32	29	17	27	13	
10	--	--	--	--	--	--	33	28	51	29	65	40	72	54	79	55	78	59	57	46	33	29	30	27	
11	--	--	--	--	--	--	35	25	43	27	63	41	71	52	81	46	69	42	56	45	32	32	38	27	
12	--	--	--	--	--	--	35	25	50	33	54	35	71	50	75	48	57	39	45	23	38	33	39	31	
13	--	--	--	--	--	--	46	25	52	30	57	36	70	46	77	59	52	35	30	20	43	39	37	27	
14	--	--	--	--	--	--	53	35	37	23	69	44	74	52	80	50	49	34	37	19	44	41	37	24	
15	--	--	--	--	--	--	57	42	53	30	73	53	79	59	78	46	57	35	37	25	45	41	41	25	
16	--	--	--	--	--	--	45	30	50	31	77	54	78	55	82	51	69	49	43	25	44	29	42	30	
17	--	--	--	--	--	--	30	18	49	26	73	56	77	56	83	52	75	56	43	31	40	37	39	30	
18	--	--	--	--	--	--	24	12	57	33	69	51	81	60	77	54	65	51	53	32	45	35	43	33	
19	--	--	--	--	--	--	38	18	21	8	63	35	70	49	81	60	74	41	64	45	55	47	41	34	
20	--	--	--	--	--	--	26	17	20	6	68	47	63	44	70	53	62	41	71	46	53	27	49	39	25
21	--	--	--	--	22	12	36	21	65	32	61	44	75	50	69	46	78	61	30	19	31	25	29	16	
22	--	--	--	--	27	9	41	21	58	25	56	39	78	60	73	41	75	60	39	28	29	20	24	17	
23	--	--	--	--	33	16	47	29	47	25	51	39	83	67	77	46	69	52	49	37	25	15	35	14	
24	--	--	--	--	43	26	57	36	60	30	50	33	81	60	79	48	67	52	60	43	32	16	31	20	
25	--	--	--	--	47	31	50	34	65	35	59	32	73	49	81	50	53	39	63	45	31	22	23	15	
26	--	--	--	--	59	35	33	18	71	41	72	53	77	55	79	47	42	33	57	41	28	19	19	13	
27	--	--	--	--	55	38	37	19	72	46	77	56	80	57	64	40	49	32	53	38	40	26	23	9	
28	--	--	--	--	59	39	43	16	68	43	90	56	77	57	68	39	61	41	51	40	41	33	21	11	
29	--	--	--	--	61	39	44	26	66	40	73	50	81	50	66	40	59	40	59	44	38	36	25	20	
30	--	--	--	--	59	41	52	35	65	44	71	47	83	65	59	41	55	33	57	40	46	35	23	15	
31	--	--	--	--	52	36	---	---	69	37	---	---	75	58	61	43	---	---	53	40	---	---	---	---	
AV.	--	--	--	--	43	27	60	37	64	42	75	54	75	50	66	48	51	35	40	30	32	32	22	22	
MEAN	--	--	--	--	35.0	48	7	53	3	64	3	64	3	62	8	56	9	43	0	34	9	29	9	9	
STA AV	--	--	--	--	43	27	60	37	64	42	75	54	75	50	66	48	51	35	40	30	32	32	22	22	

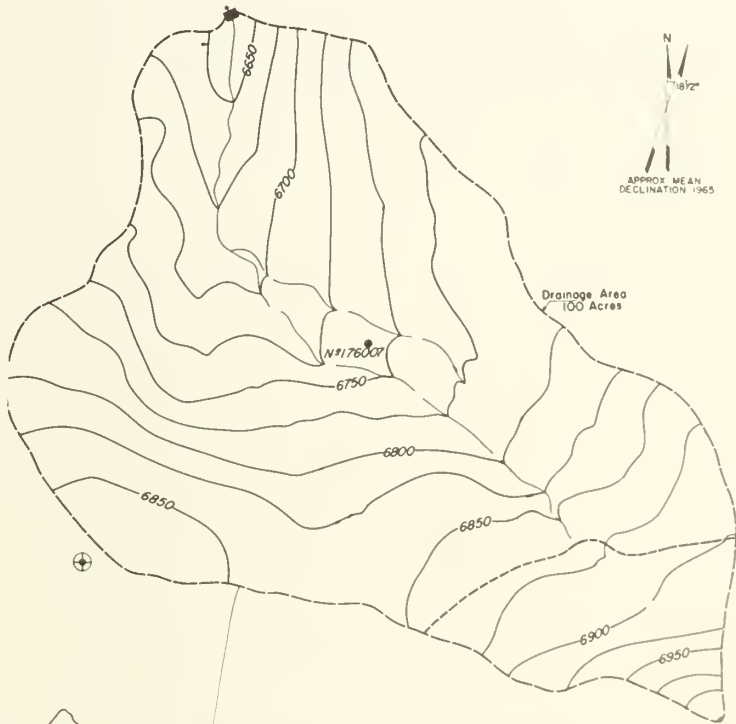
NOTES: TEMPERATURE DATA READINGS TAK'N FROM HYGROTHERMOGRAPH RECORD. STA AV BASED ONLY ON 1966 RECORD PERIOD. HYGROTHERMOGRAPH INSTALLED MARCH 19, 1966.

1966 DAILY PRECIPITATION (inches)						REYNOLDS, IDAHO WATERSHED W-13 (REYNOLDS MTN 68 166076)						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.04	.0	.07	.0	.0	.03	.0	.0	.0	.0	.0	.13
2	.04	.0	.0	.0	.0	.0	.0	.0	.0	.21	.0	.23
3	.0	.0	.0	.0	.0	.04	.0	.0	.0	.0	.0	.22
4	.89	.0	.0	.0	.0	.02	.0	.0	.0	.0	.0	.03
5	.41	.03	.0	.0	.0	.0	.0	.0	.02	.0	.13	.30
6	.32	.33	.0	.0	.0	.0	.0	.0	.0	.0	.49	.07
7	.0	.0	.41	.0	.0	.23	.0	.0	.0	.0	.0	.25
8	.04	.02	.17	.0	.0	.15	.0	.0	.0	.0	.0	.10
9	.0	.39	.0	.07	.32	.03	.0	.0	.0	.0	.31	.02
10	.06	.0	.10	.60	.0	.0	.0	.0	.0	.0	.46	.16
11	.06	.0	.0	.06	.0	.0	.0	.0	.0	.0	.52	.0
12	.10	.15	.0	.13	.0	.0	.0	.0	.0	.09	.18	.07
13	.0	.0	.23	.0	.0	.0	.0	.0	.14	.0	.0	.41
14	.05	.22	.0	.0	.13	.0	.0	.0	.0	.0	.0	.0
15	.06	.0	.36	.0	.0	.0	.0	.0	.0	.0	.0	.0
16	.0	.0	.21	.0	.0	.21	.0	.0	.0	.0	.19	.0
17	.0	.0	.02	.0	.0	.0	.0	.03	.0	.0	.0	.0
18	.0	.0	.0	.0	.0	.0	.0	.01	.16	.0	.0	.0
19	.0	.16	.13	.0	.0	.0	.0	.0	.0	.0	.0	.0
20	.0	.01	.02	.05	.0	.0	.0	.0	.0	.16	.11	.0
21	.0	.0	.18	.0	.12	.0	.0	.0	.0	.0	.0	.0
22	.12	.0	.0	.0	.14	.02	.0	.0	.0	.43	.30	.0
23	.43	.13	.0	.0	.0	.10	.0	.0	.0	.0	.0	.0
24	.13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
25	.0	.07	.0	.0	.0	.0	.0	.0	.0	.0	.27	.43
26	.0	.02	.0	.0	.0	.0	.0	.0	.30	.0	.07	.04
27	.0	.0	.0	.0	.04	.0	.0	.0	.0	.0	.0	.0
28	.0	.03	.0	.0	.31	.0	.0	.0	.0	.0	.40	.01
29	.0	---	.0	.0	.07	.0	.0	.0	.0	.0	.71	.25
30	.11	---	.0	.0	.02	.0	.0	.0	.0	.0	.0	.0
31	.02	---	.0	---	.02	.0	.0	.0	---	.0	.0	.0
TOTAL	2.88	1.56	1.90	.91	1.17	.83	.0	.04	.62	.89	4.14	2.72
STA AV	2.88	1.56	1.90	.91	1.17	.83	.00	.04	.62	.89	4.14	2.72

NOTES: PRECIPITATION AMOUNTS ARE FROM GAGE 176107. STA AV BASED ON 1966 RECORD PERIOD ONLY. TOTAL PRECIPITATION FOR YEAR = 17.66 INCHES.

1966 MEAN DAILY DISCHARGE (cfs)						REYNOLDS, IDAHO WATERSHED W-13 (REYNOLDS MTN 68 166076)						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.012	.019	.023	.350	.691	.226	.032	.012	.004	.006	.007	.037
2	.016	.019	.023	.480	.865	.201	.033	.009	.004	.006	.006	.029
3	.022	.019	.023	.293	.833	.188	.036	.010	.003	.006	.007	.026
4	.023	.019	.023	.273	.907	.176	.037	.009	.003	.006	.006	.024
5	.023	.019	.023	.337	.977	.162	.036	.008	.005	.006	.006	.022
6	.029	.019	.023	.475	1.022	.153	.031	.008	.004	.006	.007	.024
7	.043	.017	.023	.553	.905	.187	.031	.008	.003	.006	.009	.019
8	.037	.016	.023	.642	.835	.179	.029	.008	.003	.006	.007	.021
9	.035	.016	.023	.605	.926	.154	.029	.008	.003	.006	.003	.021
10	.038	.016	.023	.480	.808	.124	.027	.007	.003	.006	.004	.019
11	.038	.016	.023	.333	.675	.101	.027	.010	.003	.006	.006	.019
12	.035	.017	.024	.290	.607	.092	.026	.010	.003	.006	.012	.019
13	.033	.019	.063	.261	.573	.084	.023	.009	.003	.006	.019	.017
14	.031	.021	.094	.358	.574	.075	.023	.008	.003	.006	.021	.017
15	.028	.023	.067	.528	.493	.071	.021	.008	.003	.006	.033	.019
16	.026	.023	.053	.679	.436	.077	.019	.006	.004	.006	.029	.019
17	.026	.023	.042	.551	.395	.064	.017	.007	.005	.006	.017	.017
18	.026	.023	.038	.355	.348	.057	.013	.009	.005	.006	.016	.016
19	.026	.023	.035	.288	.309	.052	.015	.009	.005	.005	.013	.016
20	.024	.023	.035	.265	.309	.052	.014	.009	.005	.004	.023	.016
21	.023	.023	.035	.249	.323	.049	.012	.010	.005	.005	.013	.016
22	.023	.023	.035	.269	.346	.055	.013	.007	.005	.006	.012	.016
23	.023	.023	.035	.397	.256	.056	.012	.005	.005	.014	.013	.016
24	.023	.023	.035	.587	.235	.050	.011	.004	.005	.012	.012	.016
25	.023	.023	.042	.730	.273	.047	.011	.005	.005	.009	.012	.016
26	.023	.023	.053	.571	.294	.038	.012	.006	.005	.007	.012	.016
27	.023	.023	.068	.442	.300	.038	.012	.005	.005	.006	.010	.016
28	.021	.023	.091	.443	.361	.035	.012	.005	.005	.006	.016	.016
29	.019	---	.128	.485	.303	.035	.011	.005	.005	.006	.082	.016
30	.019	---	.179	.549	.282	.033	.011	.006	.006	.006	.049	.016
31	.019	---	.239	---	.253	---	.014	.006	---	.007	---	.016
MEAN	.026	.020	.053	.437	.539	.097	.021	.008	.004	.006	.016	.019
INCHES	.193	.137	.391	3.122	3.978	.693	.155	.056	.030	.048	.115	.141

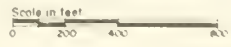
NOTES: TO CONVERT CFS TO IN/OAY, MULTIPLY BY 0.238018.



LEGEND

- Watershed Boundary
- 6800- Contours
- Continuous Stream
- - - Intermittent Stream
- Recording Raingauge and Snow Course
- Weir
- Dirt Road
- ⊕ Meteorological Station

Contour Interval 25 Feet



NORTHWEST WATERSHED RESEARCH CENTER
 REYNOLDS CREEK EXPERIMENTAL WATERSHED
 OWYHEE COUNTY, IDAHO
 TOPOGRAPHY MAP
 OF
 REYNOLDS MOUNTAIN EAST WATERSHED W-13

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED 100 AT ANADARKO AREA — 2,339,800 ACRES (3,656 SQ. MILES)							
YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	.068	.068	.100	.056	.046	.037	.012	.037	.031	.018	.017	.018	.508
STA AVG	.048	.054	.061	.063	.077	.171	.032	.043	.154	.126	.130	.062	1.021
MEAN 66 YR	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	3-14	.0005	3-14	.0005	3-14	.0010	3-14	.003	3-14	.006	3-13	.011	3-13	.020	3-13	.051

MAXIMUMS FOR PERIOD OF RECORD 4/											
19 61 TO 1966	9-23 1965	9-23 1965	9-23 1965	9-23 1965	9-23 1965	9-23 1965	9-23 1965	9-23 1965	9-23 1965	9-23 1965	9-21 1965
	.0044	.0044	.0088	.026	.052	.100	.188	.384			

NOTES: Watershed conditions are not available. For revised composite map, see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1965, p. 7-21. For Geologic map, see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1962, p. 7-9. 1/ No precipitation record is shown because all of watershed lies outside of the area in which precipitation was measured. 2/ Runoff records began Oct. 1961. 3/ Mean P based on 66-yr (1901-66) U. S. Weather Bureau record period at Chickasha, Okla.; missing records estimated. 4/ Period of record began Oct. 1961.

MISCELLANEOUS DATA

RUNOFF PEAK DATA: YEAR (1966): Maximum — Mar. 14, 1,230 cfs (10.07 ft). Minimum — Aug. 4, 16 cfs (6.57 ft). PERIOD OF RECORD: Maximum — Sept. 23, 1965, 11,000 cfs (24.20 ft). Minimum — no flow. PEAK DISCHARGES: (Above base of 3,000 cfs) — none.

DAILY TEMPERATURE: See page 69.7-3.

1966 MEAN DAILY DISCHARGE (cfs)					CHICKASHA, OKLAHOMA WATERSHED 100 AT ANADARKO							
OAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	374	155	248	180	220	94	58	24	439	160	48	48
2	323	160	E 225	171	* 214	101	55	22	162	101	47	48
3	259	162	E 284	165	207	134	50	* 19	126	82	47	47
4	255	165	305	160	187	101	45	16	108	74	50	48
5	236	165	288	150	184	94	* 41	17	99	68	50	* 50
6	229	171	280	150	177	99	40	17	92	63	6	51
7	225	177	* 271	* 160	168	92	39	18	88	63	55	51
8	229	194	197	179	162	91	35	* 20	120	58	* 58	51
9	225	222	194	179	159	365	35	22	101	58	58	55
10	225	351	201	188	150	555	34	23	84	* 56	58	56
11	* 222	* 724	211	184	147	171	29	31	76	53	56	59
12	222	430	295	170	145	128	* 28	* 336	68	53	58	61
13	222	374	* 821	165	145	* 120	27	115	* 68	48	58	59
14	222	336	* 1120	160	142	120	27	74	74	43	58	59
15	218	280	846	* 153	142	111	27	61	66	40	56	59
16	214	218	680	151	* 142	97	23	61	65	44	56	59
17	211	211	469	153	139	86	27	70	61	45	56	61
18	211	225	415	155	136	103	* 35	56	65	47	53	63
19	211	222	379	153	128	126	30	76	63	47	55	63
20	211	207	318	153	126	101	* 36	78	61	47	56	* 63
21	211	201	263	153	134	86	37	58	65	48	* 56	65
22	211	194	184	160	126	80	39	150	59	50	58	65
23	211	* 187	145	170	120	78	53	142	56	48	55	65
24	* 211	181	139	198	145	74	56	142	59	* 47	55	63
25	194	181	142	225	150	82	37	* 118	59	47	53	61
26	180	181	142	237	118	86	31	204	55	47	55	60
27	170	190	145	245	108	* 92	34	142	74	47	53	59
28	160	211	145	275	106	80	74	113	92	47	53	58
29	150	E	150	300	99	66	* 55	* 454	* 82	47	50	57
30	140	E	177	260	97	61	47	309	322	47	51	56
31	150	E	* 201	94	94	61	35	631	47	47	51	55
MEAN	206	238	319	183	146	122	39	117	100	57	54	57
INCHES	.068	.068	.100	.056	.046	.037	.012	.037	.031	.018	.017	.018

NOTES: TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY .00001017. TO CONVERT DISCHARGE IN INCHES TO AC-FT, MULTIPLY BY 195,000. YEARLY MEAN DISCHARGE, 137 CFS. YEARLY DISCHARGE, .508 INCHES. MAXIMUM AND MINIMUM FLOWS EACH MONTH UNDERLINED. * DISCHARGE MEASUREMENTS.

NO SELECTED RUNOFF EVENT REPORTED FOR 1966.

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED 200 AT VERDEN AREA — 2,612,500 ACRES (4,082 SQ. MILES)										
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL		
1966	P ¹ / _Q	.41 .078	1.52 .081	1.06 .103	3.06 .056	.87 .047	2.40 .035	1.07 .012	5.83 .034	3.97 .034	.45 .021	.29 .017	.36 .022	21.29 .540		
	STA AVG P ² / _Q	.49 .056	1.05 .057	1.09 .058	2.39 .058	3.06 .076	4.15 .169	1.37 .034	3.12 .040	4.80 .140	1.32 .125	1.97 .126	.94 .063	25.75 1.002		
	MEAN P ³ / _Q 66 YR	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09		
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	3-13	.0005	3-14	.0005	3-14	.0010	3-14	.003	3-14	.006	3-14	.010	3-13	.019	3-13	.041
MAXIMUMS FOR PERIOD OF RECORD ⁴ / _Q																
19 61 TO 1966	9-24 1965	.0023	9-24 1965	.0023	9-24 1965	.0046	9-24 1965	.014	9-24 1965	.028	9-23 1965	.055	9-22 1965	.108	9-21 1965	.344
NOTES: Watershed conditions same as that described in Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1962, p. 69.2-1. For Geologic map, see foregoing reference, p. 69.7-9. For revised Composite map, see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1965, p.69.7-21. ¹ / Precipitation data obtained from a Thiessen weighted average of 66 gages for the reach between stations at Anadarko and Verden. ² / Precipitation records began Oct. 1961; runoff records began Sept. 1961. ³ / Mean P based on 66-yr (1901-66) U. S. Weather Bureau record period at Chickasha, Okla.; missing months estimated. ⁴ / Records began Sept. 1961.																
MISCELLANEOUS DATA																
RUNOFF PEAK DATA: YEAR (1966): Maximum --- Mar. 14, 1,255 cfs (14.43 ft). Minimum --- Aug. 9, 19 cfs (7.68 ft). PERIOD OF RECORD: Maximum --- Sept. 24, 1965, 8,410 cfs (27.93 ft). Minimum --- Aug. 2, 1964, 1.2 cfs (7.10 ft). PEAK DISCHARGE: (Above base flow of 3,000 cfs) None.																
DAILY TEMPERATURES: See page 69.7-3.																
NO SELECTED RUNOFF EVENT REPORTED FOR 1966.																

1966 DAILY PRECIPITATION (inches)						CHICKASHA, OKLAHOMA WATERSHED 200 AT VERDEN						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.07	.00	.00	.00	.10	.07	.00	.07	.29	.00	.00	.00
2	.00	.00	.00	.00	.00	.09	.00	.20	.03	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.43	.00	.00	.00
4	.00	.00	.00	.00	.00	.01	.00	.00	.01	.00	.00	.02
5	.00	.00	.00	.00	.00	.03	.00	.01	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.11	.00	.00	.00	.00
8	.00	.48	.00	.00	.00	.87	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.07	.13
10	.00	.00	.00	.00	.00	.00	.00	.89	.00	.00	.00	.00
11	.00	.00	.93	.00	.01	.00	.00	.34	.00	.00	.00	.00
12	.00	.00	.13	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.02	.00	.02	.00	.00	.00	.34	.93	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.05	.30	.00	.00	.00
15	.00	.00	.00	.00	.00	.54	.00	.00	.02	.00	.00	.00
16	.00	.00	.00	.00	.00	.36	.00	.00	.17	.00	.00	.00
17	.00	.00	.00	.00	.00	.15	.00	.00	.20	.45	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.95	.00	.00	.00	.00
19	.23	.00	.00	.00	.00	.00	.01	.05	.00	.00	.00	.00
20	.00	.00	.00	.00	.22	.00	.31	.00	.00	.00	.00	.00
21	.10	.23	.00	.00	.53	.00	.00	.06	.00	.00	.00	.00
22	.00	.00	.00	1.62	.00	.00	.00	.37	.00	.00	.00	.08
23	.00	.00	.00	.45	.00	.00	.21	1.58	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.26	.00	.00	.00	.00
25	.00	.00	.00	.68	.00	.00	.26	.00	.00	.00	.00	.00
26	.00	.23	.00	.22	.00	.27	.00	.00	.00	.00	.22	.00
27	.00	.56	.00	.00	.00	.00	.00	.00	1.57	.00	.00	.11
28	.01	.00	.00	.01	.00	.00	.04	.00	.00	.00	.00	.00
29	.00	-----	.00	.01	.00	.00	.04	.00	.00	.00	.00	.00
30	.00	-----	.00	.05	.01	.00	.20	.02	.02	.00	.00	.02
31	.00	-----	.00	-----	.00	-----	.00	.53	-----	.00	-----	.00
TOTAL	.41	1.52	1.06	3.06	.87	2.40	1.07	5.83	3.97	.45	.29	.36
STA AV	.49	1.05	1.09	2.39	3.06	4.15	1.37	3.12	4.80	1.32	1.27	.94

NOTES: YEARLY PRECIPITATION 21.29 INCHES. PRECIPITATION VALUES ARE A THIESSEN WEIGHTED AVERAGE OF 66 GAGES ON THE WATERSHED.

1966 MEAN DAILY DISCHARGE (cfs)						CHICKASHA, OKLAHOMA WATERSHED 200 AT VERDEN						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	<u>451</u>	<u>221</u> E	333	219	<u>277</u>	* 92	56	* 33	<u>698</u>	<u>356</u>	52	71
2	433	231 E	305	198	* 251	91	55	28	* 315	169	52	72
3	340	255 E	296	188	240	135	52	26	175	117	<u>51</u>	72
4	324	256 E	362	178	225	135	48	21	135	93	51	74
5	320	261	336	170	202	103	* 49	<u>20</u>	117	85	53	79
6	310	263	320	173	197	97	48	21	100	76	54	* 79
7	305	255	* 308	170	189	98	44	21	91	70	55	78
8	298	271	263	* 169	184	92	44	* 20	98	68	* 55	77
9	294	308	205	167	175	111	39	19	118	65	59	77
10	296	* 328	<u>202</u>	167	173	* <u>662</u>	40	22	97	* 63	61	77
11	287	<u>698</u>	204	166	173	328	38	28	85	60	61	79
12	* 277	596	306	167	173	152	* 32	* 232	80	60	62	80
13	276	467	586	166	174	135	28	281	* 77	60	62	<u>84</u>
14	276	429	* <u>1100</u>	166	171	125	26	117	136	53	63	83
15	273	386	972	166	173	121	33	95	111	<u>48</u>	62	80
16	269	313	694	165	* 166	113	28	77	90	48	61	80
17	264	282	532	162	160	99	<u>24</u>	78	86	53	63	80
18	259	281	445	* 162	154	92	* 32	76	83	58	63	80
19	261	308	401	162	147	133	36	82	84	60	61	* 80
20	263	277	360	158	138	* 128	* 32	106	75	60	61	80
21	261	271	334	<u>154</u>	161	100	40	82	70	60	63	80
22	255	271	322	201	151	89	41	* 99	73	60	* 64	81
23	256	* 273	268	213	130	82	44	174	64	61	65	81
24	* 251	271	243	271	119	76	62	166	<u>61</u>	61	64	80
25	248	264	237	268	158	74	61	170	<u>63</u>	* 58	64	78
26	242	264	229	<u>344</u>	140	67	40	170	61	56	66	76
27	221	279	226	310	119	76	34	219	62	57	68	74
28	211	315	223	295	109	89	45	146	149	56	<u>71</u>	72
29	201	E	* 214	331	102	80	<u>88</u>	158	* 111	55	69	71
30	<u>191</u>	E	216	<u>344</u>	97	<u>52</u>	<u>63</u>	<u>552</u>	195	54	68	70
31	<u>201</u>	E	<u>248</u>	-----	95	-----	53	400	-----	54	-----	<u>68</u>
MEAN	278	318	364	206	165	128	44	121	125	76	61	77
INCHES	.078	.081	.103	.056	.047	.035	.012	.034	.034	.021	.017	.022

NOTES: TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/OAY, MULTIPLY BY .000009111. TO CONVERT DISCHARGE IN INCHES TO AC-FT, MULTIPLY BY 217.700. YEARLY MEAN DISCHARGE, 163 CFS. YEARLY DISCHARGE, 540 INCHES. MAXIMUM AND MINIMUM FLOWS EACH MONTH UNDERLINED. * DISCHARGE MEASUREMENTS.

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED 400 NEAR CHICKASHA AREA — 2,725,800 ACRES (4,259 SQ. MILES)										
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL		
1966	P ^{1/}	.48	1.66	1.10	3.42	.37	2.58	1.20	7.23	3.67	.41	.51	.26	22.89		
	O	.076	.074	.094	.050	.044	.035	.010	.042	.047	.020	.016	.021	.529		
STA AVG	P ^{2/}	.54	1.12	1.25	2.69	2.56	3.46	1.37	3.73	3.19	1.16	2.26	.88	24.21		
	O	.057	.055	.057	.057	.074	.170	.032	.040	.125	.116	.119	.062	.964		
MEAN 66 YR	P ^{3/}	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09		
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FDR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	3-14	.0007	9-14	.0007	9-14	.0014	9-14	.004	9-14	.008	9-14	.011	3-14	.015	3-12	.040
MAXIMUMS FOR PERIOD OF RECORD																
1961 TO 1966	9-25 1965	.0025	9-25 1965	.0025	9-25 1965	.0050	9-25 1965	.015	9-25 1965	.029	9-24 1965	.057	9-23 1965	.109	9-22 1965	.298
Notes: Watershed conditions: Same as that described in Hydrology Data for Experimental Agricultural Watersheds in the United States, 1962, p. 69.4-1. For Geology map, see foregoing reference, p. 69.7-9. For revised Composite map, see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1965, p. 69.7-21. 1/ Precipitation data obtained from a Thiessen weighted average of 33 gages on the watershed reach between stations at Verden and Chickasha. 2/ Precipitation and runoff records began Oct., 1961. 3/ Mean P based on 66-yr (1901-66) U.S. Weather Bureau record period at Chickasha, Okla.; missing months estimated.																
MISCELLANEOUS DATA																
RUNOFF PEAK DATA: YEAR (1966): Maximum — Sept. 14, 1,964 cfs (16.56 ft). Minimum — Aug. 4 and 5, 18 cfs (7.26 ft). PERIOD OF RECORD: Maximum — Sept. 26, 1965, 6,902 cfs (26.23 ft). Minimum — Aug. 1, 1964, no flow (6.45 ft). PEAK DISCHARGES: (Above base flow of 3,000 cfs) None.																
DAILY TEMPERATURES: See page 69.7-3																
NO SELECTED RUNOFF EVENT REPORTED FOR 1966.																

1966 DAILY PRECIPITATION (inches)					CHICKASHA, OKLAHOMA				WATERSHED 400 NEAR CHICKASHA			
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.12	.00	.00	.00	.13	.03	.00	.14	.21	.00	.00	.00
2	.00	.00	.00	.00	.00	.09	.00	.38	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.22	.00	.00	.00
4	.00	.00	.00	.00	.00	.01	.00	.00	.17	.00	.00	.03
5	.03	.00	.00	.00	.00	.04	.00	.01	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.01
8	.00	.48	.00	.00	.00	1.21	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.03
10	.00	.00	.00	.00	.00	.00	.00	.17	.00	.00	.00	.00
11	.00	.00	.93	.00	.08	.00	.00	.28	.00	.00	.00	.00
12	.00	.00	.17	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.03	.00	.00	.00	.73	1.54	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.02	.27	.00	.00	.00
15	.00	.00	.00	.00	.00	.41	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.49	.00	.00	.19	.00	.00	.00
17	.00	.00	.00	.00	.00	.08	.00	.00	.13	.41	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	1.12	.00	.00	.00	.00
19	.25	.00	.00	.00	.00	.00	.03	.37	.00	.00	.00	.00
20	.00	.00	.00	.00	.05	.00	.11	.00	.00	.00	.00	.00
21	.05	.20	.00	.00	.11	.00	.01	.08	.00	.00	.00	.00
22	.00	.00	.00	1.33	.00	.00	.00	.98	.00	.00	.00	.03
23	.00	.00	.00	.73	.00	.00	.49	1.61	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.21	.24	.00	.00	.00	.00
25	.00	.00	.00	.93	.00	.00	.02	.00	.00	.00	.00	.00
26	.00	.18	.00	.32	.00	.22	.00	.00	.00	.00	.42	.00
27	.00	.80	.00	.00	.00	.00	.00	.00	.93	.00	.00	.14
28	.03	.00	.00	.00	.00	.00	.06	.00	.00	.00	.00	.00
29	.00		.00	.01	.00	.00	.08	.02	.00	.00	.00	.00
30	.00		.00	.07	.00	.00	.19	.05	.01	.00	.00	.02
31	.00		.00		.00		.00			.00		.00
TOTAL	.48	1.66	1.10	3.42	.37	2.58	1.20	7.23	3.67	.41	.51	.26
ST.AAV	.54	1.12	1.25	2.69	2.56	3.46	1.37	3.73	3.19	1.16	2.26	.88

NOTES: YEARLY PRECIPITATION 22.89 INCHES. PRECIPITATION VALUES ARE A THIESSEN WEIGHTED AVERAGE OF 33 GAGES ON THE WATERSHED.

1966 MEAN DAILY DISCHARGE (cfs)					CHICKASHA, OKLAHOMA				WATERSHED 400 NEAR CHICKASHA			
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	<u>440</u>	<u>211</u> E	313	223	<u>298</u>	107	56	32	<u>546</u>	<u>277</u>	57	<u>65</u>
2	<u>426</u> E	221	317	198	252	105	59	30	480	221	<u>56</u>	66
3	381	231 E	282	186	241	101	<u>63</u>	21	215	142	56	66
4	<u>324</u>	241 E	318	179	230	148	<u>52</u>	<u>18</u>	154	107	55	68
5	317	251 E	329	173	208	122	44	18	217	91	56	78
6	301	261 E	317	* 169	194	104	38	19	124	84	57	* 80
7	298	272	312	165	188	100	42	21	105	77	59	80
8	291	275	301	165	181	98	36	24	94	71	59	79
9	283	301	248	163	171	199	36	22	111	69	61	79
10	283	342	226	162	165	341	37	28	112	* 65	64	77
11	280	442 E*	225	160	162	<u>494</u>	40	38	94	63	64	76
12	278	<u>615</u> E	503	153	163	<u>227</u>	37	35	86	62	64	79
13	273	461 E	404	* 152	156	159	<u>21</u>	270	80	61	64	<u>83</u>
14	272	410	765	146	156	142	<u>22</u>	189	<u>1218</u>	56	<u>65</u>	<u>83</u>
15	270	381	<u>946</u>	145	154	* 129	* 22	111	<u>233</u>	<u>46</u>	65	82
16	267	335	689	141	153	141	25	94	125	46	62	80
17	260	279	520	141	149	121	25	88	104	49	61	80
18	260	269	* 431	145	145	99	23	97	96	54	62	80
19	260	280	352	146	139	111	* 23	225	E 92	52	59	79
20	262	278	335	141	137	142	33	244	E 87	53	58	79
21	262	265	306	* 137	135	119	30	129	E 82	54	58	80
22	260	256	294	162	160	100	35	327	E 80	54	57	79
23	260	255	270	194	139	89	38	<u>521</u>	E 80	54	58	78
24	260	255	234	217	123	86	46	434	E 72	54	61	77
25	259	256	225	258	128	75	57	188	E 70	51	59	76
26	253	255	221	319	155	75	50	173	E 73	51	61	75
27	252	258	215	<u>330</u>	133	82	36	199	E 82	54	65	74
28	231	297	212	288	121	87	25	209	E 231	57	65	73
29	221	E	210	291	115	83	36	143	156	56	64	72
30	211	E	<u>206</u>	319	114	<u>68</u>	52	296	E 114	55	64	71
31	<u>201</u> E		<u>212</u>		<u>109</u>		43	512		<u>56</u>		70
MEAN	281	302	346	192	164	135	38	153	180	76	61	76
INCHES	.076	.074	.094	.050	.044	.035	.010	.042	.047	.020	.016	.021

NOTES: TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY .000008732. TO CONVERT DISCHARGE IN INCHES TO AC=FT, MULTIPLY BY 227.100. YEARLY MEAN DISCHARGE, 166 CFS. YEARLY DISCHARGE, .529 INCHES. MAXIMUM AND MINIMUM FLOWS EACH MONTH UNDERLINED. * DISCHARGE MEASUREMENTS.

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED 500 NEAR CHICKASHA AREA — 2,768,000 ACRES (4,325 SQ. MILES)										
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL		
1966	P ^{1/}	.44	1.35	.73	4.16	.87	1.82	1.19	5.72	3.33	.39	.61	.26	20.87		
	O	.076	.072	.099	.054	.042	.035	.010	.041	.049	.020	.014	.019	.531		
STA AVG	P ^{2/}	.62	1.15	1.15	2.31	2.87	3.34	1.56	3.70	3.49	1.14	2.48	.88	24.69		
	O	.045	.050	.056	.052	.066	.081	.014	.046	.132	.141	.127	.062	.872		
66 YR	MEAN P ^{3/}	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09		
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	9-14	.0007	9-14	.0007	9-14	.0014	9-14	.004	9-14	.008	9-14	.011	9-14	.014	3-12	.043
MAXIMUMS FOR PERIOD OF RECORD ^{4/}																
19 64 TO 19 66	9-26 1965	.0022	9-26 1965	.0022	9-26 1965	.0045	9-26 1965	.013	9-26 1965	.026	9-25 1965	.052	9-25 1965	.099	9-22 1965	.284
NOTES: Watershed conditions same as that described in Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1964, p. 69.5-1. For Geologic map, see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1962, p. 69.7-9. For revised Composite map, see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1965, p. 69.7-21. ^{1/} Precipitation data obtained from a Thiessen weighted average of 17 gages for the reach between stations at Chickasha (4th St.) and Chickasha (Turnpike). ^{2/} Precipitation records began Oct., 1961; runoff records began Jan., 1964. ^{3/} Mean P based on 66-yr (1901-66) U. S. Weather Bureau record period at Chickasha, Okla.; missing months estimated. ^{4/} Period of record began Jan., 1964.																
MISCELLANEOUS DATA																
RUNOFF PEAK DATA: YEAR (1966): Maximum — Sept. 14, 2,012 cfs (13.55 ft). Minimum — Aug. 10, 9.2 cfs (4.07 ft).																
PERIOD OF RECORD: Maximum — Sept. 26, 1965, 6,247 cfs (22.13 ft). Minimum — Aug. 1, 1964, no flow, (4.00 ft).																
PEAK DISCHARGES: (Above base flow of 3,000 cfs) None.																
DAILY TEMPERATURE: See page 69.7-3.																
NO SELECTED RUNOFF EVENT REPORTED FOR 1966.																

1966 DAILY PRECIPITATION (inches)						CHICKASHA, OKLAHOMA WATERSHEO 500 NEAR CHICKASHA						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.04	.00	.00	.00	.14	.00	.00	.00	.04	.00	.00	.00
2	.00	.00	.00	.00	.00	.10	.00	.25	.01	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.32	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.03
5	.03	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.01
8	.00	.31	.00	.00	.00	.30	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.11	.03
10	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00	.00
11	.00	.00	.62	.00	.22	.00	.00	.92	.00	.00	.00	.00
12	.00	.00	.11	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.01	.00	.07	.00	.00	.00	.38	1.04	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.29	.70	.00	.00	.00
15	.00	.00	.00	.00	.00	1.08	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.15	.00	.00	.16	.00	.00	.00
17	.00	.00	.00	.00	.00	.19	.00	.00	.21	.39	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.66	.00	.00	.00	.00
19	.25	.00	.00	.00	.00	.00	.00	.27	.00	.00	.00	.00
20	.00	.00	.00	.00	.06	.00	.00	.00	.00	.00	.00	.00
21	.07	.26	.00	.00	.45	.00	.00	.53	.00	.00	.00	.00
22	.00	.00	.00	1.51	.00	.00	.00	.45	.00	.00	.00	.02
23	.00	.00	.00	.86	.00	.00	.42	1.03	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.19	.31	.00	.00	.00	.00
25	.00	.00	.00	1.29	.00	.00	.01	.00	.00	.00	.00	.00
26	.00	.14	.00	.33	.00	.00	.00	.00	.00	.00	.50	.00
27	.00	.63	.00	.00	.00	.00	.00	.00	.74	.00	.00	.16
28	.05	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00
29	.00	-----	.00	.01	.00	.00	.09	.12	.00	.00	.00	.00
30	.00	-----	.00	.09	.00	.00	.47	.00	.10	.00	.00	.01
31	.00	-----	.00	-----	.00	-----	.00	.40	-----	.00	-----	.00
TOTAL	.44	1.35	.73	4.16	.87	1.82	1.19	5.72	3.33	.39	.61	.26
STA AV	.62	1.15	1.15	2.31	2.87	3.34	1.56	3.70	3.49	1.14	2.48	.88

NOTES: YEARLY PRECIPITATION 20.87 INCHES. PRECIPITATION VALUES ARE A THIESSEN WEIGHTED AVERAGE OF 17 GAGES ON THE WATERSHEO.

1966 MEAN DAILY DISCHARGE (cfs)						CHICKASHA, OKLAHOMA WATERSHEO 500 NEAR CHICKASHA						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	<u>443</u>	208	331	* 243	<u>319</u>	96	58	50	595	<u>303</u>	52	* <u>59</u>
2	429	<u>206</u>	341	208	258	94	57	* 36	596	301	52	60E
3	386	213	298	196	* 237	86	58	22	259	148	51	60E
4	327	231	325	187	230	129	54	19	180	112	48	62E
5	323	243	358	185	205	120	* 49	15	231	85	<u>47</u>	71
6	308	243	341	180	189	97	36	16	133	78	50	74E
7	302	243	331	175	182	89	40	12	106	71	* 54	72E
8	296	261	325	173	176	91	38	17	90	64	54	72
9	292	* 265	259	172	165	178	34	12	106	61	54	72
10	292	298	228	168	160	* 299	34	<u>9.2</u>	118	60	<u>60</u>	70
11	* 289	388	228	165	157	597	36	50	99	* 58	60	70
12	283	<u>670</u>	* 547	* 160	162	267	36	22	* 85	55	60	71
13	283	483	385	158	151	157	27	* 246	77	55	59	<u>76</u>
14	279	427	* 773	158	151	139	18	229	<u>1250</u>	54	59	76
15	275	394	<u>1040</u>	154	150	128	* <u>15</u>	130	<u>349</u>	<u>40</u>	58	75
16	275	356	759	154	149	158	19	95	140	40	54	74
17	269	287	584	157	* 143	127	19	78	99	47	55	74
18	265	269	479	157	137	100	22	78	90	50	56	74
19	271	281	427	153	130	99	16	230	80	52	53	* 72
20	269	283	399	* 147	130	* 137	* 27	240	78	52	52	72
21	267	267	354	<u>143</u>	129	131	25	121	69	54	52	74
22	269	261	331	187	156	108	31	225	66	52	* 51	72
23	267	261	304	232	136	95	42	382	66	54	52	71E
24	263	263	250	233	117	85	46	* 560	60	56	55	71E
25	252	261	233	309	116	78	59	208	<u>55</u>	* 51	54	70E
26	* 243	256	224	<u>409</u>	149	75	57	184	58	50	60	68E
27	243	273	215	356	130	74	40	193	61	51	59	67E
28	241	E* 304	213	295	115	78	29	201	* 224	55	59	66E
29	222	E - - - -	210	293	109	70	37	166	164	53	58	65E
30	212	E - - - -	<u>204</u>	326	101	64	83	277	113	51	58	64E
31	<u>202</u>	E - - - -	215	-----	98	-----	65	* 603	-----	52	-----	64E
MEAN	285	300	371	208	159	135	39	152	190	76	55	70
INCHES	.076	.072	.099	.054	.042	.035	.010	.041	.049	.020	.014	.019

NOTES: TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/OAY, MULTIPLY BY .000008599. TO CONVERT DISCHARGE IN INCHES TO AC-FT, MULTIPLY BY 230,700. YEARLY MEAN DISCHARGE, 169 CFS. YEARLY DISCHARGE, .531 INCHES. MAXIMUM AND MINIMUM FLOWS EACH MONTH UNDERLINED. * DISCHARGE MEASUREMENTS.

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED 600 NEAR TABLER AREA — 3,011,800 ACRES (4,706 SQ. MILES)										
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL		
1966	P ^{1/} _o	.59	1.47	1.09	4.39	1.11	1.49	1.54	5.57	3.01	.39	.64	.29	21.58		
		.076	.070	.095	.058	.045	.039	.011	.048	.068	.021	.015	.020	.566		
STA AVG	P ^{2/} _o	1.02	1.49	1.10	2.57	3.90	1.96	1.07	5.46	3.45	.89	2.27	.65	25.83		
		.048	.050	.057	.054	.081	.084	.015	.044	.107	.104	.104	.052	.800		
MEAN	P ^{3/} _o	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09		
66 YR																
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	9-14	.0011	9-14	.0011	9-14	.0022	9-14	.006	9-14	.012	9-14	.019	9-14	.022	3-12	.044
MAXIMUMS FOR PERIOD OF RECORD ^{4/}																
19 63 to	9-26	.0020	9-26	.0020	9-26	.0039	9-26	.012	9-26	.023	9-26	.045	9-25	.087	9-22	.256
1966	1965		1965		1965		1965		1965		1965		1965		1965	
NOTES: Watershed conditions same as that described in Hydrologic Data For Experimental Agricultural Watersheds in the United States, 1963, p. 69.6-1. For Geologic map of watershed, see Hydrologic Data For Experimental Agricultural Watersheds in the United States, 1962, p. 69.7-9. For revised Composite map, see Hydrologic Data For Experimental Agricultural Watersheds in the United States, 1965, p. 69.7-21. 1/ Precipitation data based on a Thiessen weighted average of 66 gages for the reach between stations at Chickasha (Turnpike) and Tabler, Okla. 2/ Precipitation records began Oct., 1961; runoff records began July, 1963. 3/ Mean P based on 66-yr (1901-66) U. S. Weather Bureau record period at Chickasha, Okla.; missing records (months) estimated. 4/ Period of record began July, 1963.																
MISCELLANEOUS DATA																
RUNOFF PEAK DATA: YEAR (1966): Maximum — Sept. 14, 3,376 cfs (19.10 ft). Minimum — Aug. 10, 11 cfs (10.31 ft). PERIOD OF RECORD: Maximum — Sept. 26, 1965, 5,939 cfs (23.18 ft). Minimum — Aug. 1, 1964, no flow (9.85 ft). PEAK DISCHARGES: (Above base flow of 3,000 cfs) 1966 — Sept. 14, 3,376 cfs (19.10 ft.).																
DAILY TEMPERATURE: See p. 69.7-3.																
NO SELECTED EVENT REPORTED FOR 1966.																

1966 DAILY PRECIPITATION (inches)						CHICKASHA, OKLAHOMA WATERSHED 600 NEAR TABLER						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.11	.00	.00	.00	.20	.00	.00	.00	.05	.00	.00	.00
2	.00	.00	.00	.00	.00	.04	.00	.30	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.27	.00	.00	.00
4	.01	.00	.00	.00	.00	.01	.00	.00	.03	.00	.00	.05
5	.03	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
8	.00	.51	.00	.00	.00	.33	.04	.00	.00	.03	.00	.00
9	.00	.00	.00	.00	.00	.08	.00	.00	.00	.00	.10	.03
10	.00	.00	.00	.00	.01	.00	.01	.08	.00	.00	.00	.00
11	.00	.00	.88	.00	.19	.00	.00	.63	.00	.00	.00	.00
12	.00	.00	.15	.00	.13	.05	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.10	.00	.00	.00	.25	.58	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.03	.85	.00	.00	.00
15	.00	.00	.00	.00	.00	.60	.00	.00	.02	.00	.00	.00
16	.00	.00	.00	.00	.00	.22	.00	.00	.14	.00	.00	.00
17	.00	.00	.00	.00	.00	.16	.00	.00	.19	.36	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.61	.00	.00	.00	.00
19	.28	.00	.00	.00	.00	.00	.00	.32	.00	.00	.00	.00
20	.00	.00	.00	.00	.02	.00	.03	.00	.00	.00	.00	.00
21	.09	.23	.00	.00	.56	.00	.01	.91	.00	.00	.00	.00
22	.00	.00	.00	1.67	.00	.00	.00	.36	.00	.00	.00	.02
23	.00	.00	.00	.91	.00	.00	.81	1.10	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.38	.38	.00	.00	.00	.00
25	.00	.00	.00	1.29	.00	.00	.02	.00	.00	.00	.00	.00
26	.00	.14	.00	.28	.00	.00	.00	.00	.00	.00	.54	.00
27	.00	.59	.06	.00	.00	.00	.00	.00	.81	.00	.00	.17
28	.07	.00	.00	.01	.00	.00	.01	.03	.00	.00	.00	.00
29	.00	-----	.00	.01	.00	.00	.02	.21	.00	.00	.00	.00
30	.00	-----	.00	.12	.00	.00	.14	.00	.07	.00	.00	.02
31	.00	.00	.00	.00	.00	-----	.07	.34	.00	.00	.00	.00
TOTAL	.59	1.47	1.09	4.39	1.11	1.49	1.54	5.57	3.01	.39	.64	.29
STA AV	1.02	1.49	1.10	2.57	3.90	1.96	1.07	5.46	3.45	.89	2.27	.65

NOTES: YEARLY PRECIPITATION 21.58 INCHES. PRECIPITATION VALUES ARE A THIESSEN WEIGHTED AVERAGE OF 66 GAGES ON THE WATERSHED.

1966 MEAN DAILY DISCHARGE (cfs)						CHICKASHA, OKLAHOMA WATERSHED 600 NEAR TABLER						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	<u>580</u>	<u>233</u>	E 324	239	<u>367</u>	99	57	* 63	619	174	<u>55</u>	77
2	518	233	E 321	230	326	99	51	55	* 646	<u>234</u>	55	77
3	483	243	E 300	214	* 288	96	50	42	373	201	56	81
4	406	300	E 277	200	270	99	50	29	311	141	56	81
5	<u>359</u>	314	E 334	200	250	131	* 45	26	241	114	56	* 86
6	341	283	321	198	222	102	39	20	211	100	56	<u>92</u>
7	326	274	314	192	208	85	31	19	133	92	* 59	89
8	317	277	* 309	188	200	86	33	16	118	85	61	89
9	309	305	286	192	186	92	32	* 14	109	79	61	85
10	* 302	* 300	230	196	184	* 191	30	<u>11</u>	133	72	62	85
11	300	324	214	* 194	184	* <u>774</u>	30	53	120	* 69	67	82
12	293	* <u>610</u>	* 787	182	190	574	* 31	45	* 102	66	67	86
13	286	578	548	181	188	277	26	69	<u>93</u>	66	68	86
14	286	468	671	181	177	201	20	* 309	* <u>1950</u>	63	67	88
15	281	434	* <u>1040</u>	173	171	169	16	193	* 840	57	67	86
16	279	393	* 847	171	168	378	<u>13</u>	* 116	318	<u>51</u>	68	85
17	277	324	649	155	* 159	189	14	93	228	52	62	85
18	272	288	533	159	148	115	18	78	190	62	62	83
19	274	281	445	* 153	141	99	* 20	154	168	62	62	* 85
20	281	293	390	151	138	* 121	15	* 361	153	61	62	83
21	277	279	* 354	<u>145</u>	166	136	21	* 387	143	60	63	83
22	268	272	329	163	159	115	21	* <u>548</u>	133	57	* 62	82
23	263	261	302	317	155	99	39	* 389	130	57	61	82
24	272	* 261	270	384	133	88	* <u>176</u>	* 866	121	* 60	62	79
25	* 274	261	243	304	120	82	147	333	111	60	64	76
26	268	254	235	<u>735</u>	138	78	57	240	106	55	68	74
27	259	272	226	460	150	77	56	196	106	54	<u>90</u>	74E
28	256	297	* 224	369	128	77	42	248	* 249	55	85	73E
29	236	E -----	222	333	114	79	34	240	267	56	78	72E
30	<u>206</u>	E -----	216	359	108	<u>74</u>	55	184	186	56	74	71E
31	226	E -----	<u>214</u>	* 103	-----	-----	78	* 572	-----	55	-----	70E
MEAN	309	318	386	244	182	163	43	196	287	85	65	82
INCHES	.076	.070	.095	.058	.045	.039	.011	.048	.068	.021	.015	.020

NOTES: TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/OAY, MULTIPLY BY .000007903. TO CONVERT DISCHARGE IN INCHES TO AC-FT. MULTIPLY BY 251,000. YEARLY MEAN DISCHARGE, 196 CFS. YEARLY DISCHARGE, .566 INCHES. MAXIMUM AND MINIMUM FLOWS EACH MONTH UNDERLINED. * DISCHARGE MEASUREMENTS.

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED 700 AT ALEX AREA — 3,061,120 ACRES (4,783 SQ. MILES)											
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966	P 1/ Q	.67 .071	1.99 .072	.94 .097	4.29 .058	.72 .042	1.89 .033	2.52 .011	5.73 .047	2.88 .066	.34 .021	.62 .016	.29 .020	22.88 .554			
STA AVG	2/P Q	1.22 .059	1.69 .059	1.14 .062	2.47 .068	4.06 .087	1.88 .176	1.58 .036	4.34 .049	3.26 .122	.74 .112	2.39 .126	.67 .064	25.44 1.020			
MEAN 66 YR	P 3/ Q	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																	
YEAR	MAXIMUM DISCHARGE	MAXIMUM VOLUME FOR SELECTED TIME INTERVAL															
		1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS			
		DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME		
1966		9-14	.0011	9-14	.0011	9-14	.0022	9-14	.006	9-14	.012	9-14	.018	9-14	.023	3-12	.043
MAXIMUMS FOR PERIOD OF RECORD 4/																	
19 61 TO 1966	9-20 1962	.0032	9-20 1962	.0032	9-20 1962	.0063	9-20 1962	.019	9-20 1962	.035	9-20 1962	.057	9-20 1962	.097	9-22 1965	.241	
NOTES: Watershed conditions same as that described in Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1962, p. 69.7-1. For Geologic map, see foregoing reference, p. 69.7-9. For revised Composite map, see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1965, p. 69.7-21. 1/ Precipitation data based on a Thiessen weighted average of 21 gages on the reach from Tabler to Alex. 2/ Precipitation records began Oct., 1961; runoff records began Sept., 1961. 3/ Mean P based on 66-yr (1901-66) U. S. Weather Bureau record period at Chickasha, Okla.; missing records estimated. 4/ Period of record began Sept. 1961.																	
MISCELLANEOUS DATA																	
RUNOFF PEAK DATA: YEAR (1966): Maximum — Sept. 14, 3,348 cfs (10.74 ft). Minimum — Aug. 10, 9.9 cfs (3.26 ft). PERIOD OF RECORD: Maximum — Sept. 20, 1962, 9,750 cfs (16.18 ft). Minimum — July 28, 1964, no flow. PEAK DISCHARGES: (Above base flow of 3,000 cfs) 1966 — Sept. 14, 3,348 cfs (10.74 ft).																	
DAILY TEMPERATURE: See page 69.7-3.																	
NO SELECTED RUNOFF EVENT REPORTED FOR 1966.																	

1966 DAILY PRECIPITATION (inches)						CHICKASHA, OKLAHOMA WATERSHED 700 AT ALEX						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.17	.00	.00	.00	.28	.00	.00	.00	.12	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.36	.03	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.19	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.02	.00	.01	.00	.00	.04
5	.05	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.82	.00	.00	.00	.29	.15	.00	.00	.02	.00	.00
9	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.10	.04
10	.00	.00	.00	.00	.03	.00	.00	.06	.00	.00	.00	.00
11	.00	.00	.66	.00	.08	.00	.00	1.43	.00	.00	.00	.00
12	.00	.00	.25	.00	.23	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.06	.00	.00	.00	.06	.73	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.70	.00	.00	.00
15	.00	.00	.00	.00	.00	1.25	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.20	.00	.00	.20	.00	.00	.00
17	.00	.00	.00	.00	.00	.14	.00	.00	.17	.32	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.59	.00	.00	.00	.00
19	.27	.00	.00	.00	.00	.00	.00	.26	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.09	.23	.00	.00	.10	.00	.01	1.03	.00	.00	.00	.00
22	.00	.00	.00	1.80	.00	.00	.00	.11	.00	.00	.00	.01
23	.00	.00	.00	.93	.00	.00	1.38	.98	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.74	.31	.00	.00	.00	.00
25	.00	.00	.00	1.19	.00	.00	.19	.00	.00	.00	.00	.00
26	.00	.15	.00	.11	.00	.00	.00	.00	.00	.00	.52	.00
27	.00	.79	.03	.00	.00	.00	.00	.00	.54	.00	.00	.18
28	.09	.00	.00	.05	.00	.00	.00	.02	.00	.00	.00	.00
29	.00	-----	.00	.01	.00	.00	.01	.08	.00	.00	.00	.00
30	.00	-----	.00	.14	.00	.00	.02	.00	.19	.00	.00	.02
31	.00	-----	.00	-----	.00	-----	.00	.43	-----	.00	-----	.00
TOTAL	.67	1.99	.94	4.29	.72	1.89	2.52	5.73	2.88	.34	.62	.29
STA AAV	1.22	1.69	1.14	2.47	4.06	1.88	1.58	4.34	3.26	.74	2.32	.67

NOTES:
YEARLY PRECIPITATION 22.88 INCHES. PRECIPITATION VALUES ARE A THIESSEN WEIGHTED AVERAGE OF 21 GAGES ON THE WATERSHED.

1966 MEAN DAILY DISCHARGE (cfs)						CHICKASHA, OKLAHOMA WATERSHED 700 AT ALEX						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	597	240	335	235	359	105	64	* 66	606	154	.55	74
2	521	265	338	235	* 335	105	50	59	* 633	353	56	74
3	488	303	320	206	268	102	47	42	437	248	56	79
4	410	315	281	201	250	92	50	32	322	158	56	80
5	359	329	335	* 201	230	142	* 46	26	245	127	57	* 85
6	338	284	338	201	195	119	39	20	244	110	57	92
7	320	271	329	190	179	92	28	15	140	100	* 60	94
8	309	276	* 320	181	173	85	29	* 14	115	94	65	100
9	301	* 318	301	181	169	94	30	13	103	86	66	95
10	* 289	295	247	181	160	* 182	28	9.9	122	80	68	92
11	287	320	225	179	160	* 464	27	* 69	122	* 74	70	91
12	281	* 598	* 760	171	175	422	26	62	* 103	73	72	88
13	271	607	554	169	171	216	24	32	92	72	72	88
14	271	480	612	* 166	160	155	23	* 279	* 1790	72	73	89
15	268	439	* 1060	162	160	126	22	198	* 1110	66	74	91
16	263	406	* 886	158	162	295	20	* 117	305	55	79	91
17	257	338	686	150	* 164	171	20	93	198	56	77	91
18	250	292	530	152	154	127	20	81	180	66	69	91
19	252	284	453	152	150	102	* 18	110	152	66	72	* 91
20	257	301	426	148	144	* 107	15	* 313	133	60	69	91
21	260	295	* 390	146	171	139	16	316	120	53	* 69	88
22	252	289	362	198	173	120	18	* 670	108	52	69	86
23	252	279	338	401	173	102	43	468	103	48	68	85
24	255	* 271	303	458	137	89	* 145	* 942	102	* 48	69	85
25	* 255	273	268	372	124	82	194	386	89	50	73	77
26	255	271	260	797	131	79	79	269	80	49	79	77
27	237	298	250	457	160	80	68	209	101	49	98	76
28	232	318	240	356	141	76	49	261	* 189	50	94	75E
29	200	E	235	309	119	82	38	229	236	54	80	74E
30	180	E	220	341	110	77	47	189	183	54	73	73E
31	210	E	223	-----	* 107	-----	85	* 473	-----	55	-----	72
MEAN	296	331	401	248	176	141	45	196	282	88	70	85
INCHES	.071	.072	.097	.058	.042	.033	.011	.047	.066	.021	.016	.020

NOTES: TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/OAY, MULTIPLY BY .00007776. TO CONVERT DISCHARGE IN INCHES TO AC-FT, MULTIPLY BY 255,100. YEARLY MEAN DISCHARGE, 196 CFS. YEARLY DISCHARGE, .554 INCHES. MAXIMUM AND MINIMUM FLOWS EACH MONTH UNDERLINED. * DISCHARGE MEASUREMENTS.

CLIMATOLOGICAL DATA APPLICABLE TO ENTIRE EXPERIMENTAL WATERSHED (ANADARKO TO ALEX)

1966		DAILY AIR TEMPERATURE (degrees F)								CHICKASHA, OKLAHOMA															
		JAN		FEB		MAR		APR		MAY		JUNE		JULY		AUG		SEPT		OCT		NOV		DEC	
DAY		MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1		67	52	35	21	67	35	71	41	53	47	88	64	99	68	99	77	92	70	71	41	50	27	44	24
2		52	28	39	19	74	52	82	36	71	42	92	66	96	72	89	67	90	69	75	52	45	20	32	27
3		52	22	44	25	60	32	67	49	77	44	91	67	99	71	90	63	87	68	87	63	60	25	35	28
4		50	26	56	21	45	31	61	38	77	47	91	71	98	73	89	64	89	66	68	53	66	40	51	35
5		59	36	61	32	46	28	61	32	82	52	95	70	100	73	85	67	88	65	70	49	61	37	67	51
6		51	32	57	23	50	22	77	32	85	53	89	66	99	75	94	64	85	62	76	42	87	44	71	46
7		59	30	70	31	60	24	81	39	86	52	94	72	97	73	97	69	83	59	77	51	80	60	82	37
8		57	25	63	51	55	40	65	42	88	58	98	71	95	75	94	68	77	66	80	60	81	64	56	33
9		68	45	60	44	69	46	69	40	69	50	77	58	98	79	97	68	78	65	93	57	66	35	41	30
10		62	36	56	34	66	55	80	43	61	49	87	58	95	78	92	68	75	60	78	47	66	30	32	16
11		63	34	51	31	67	52	88	57	87	54	97	71	100	75	86	68	74	62	81	44	60	38	40	14
12		59	34	57	30	62	44	57	49	57	45	92	72	99	78	85	70	76	61	80	64	64	30	46	18
13		48	24	47	28	67	38	64	46	67	40	90	64	98	73	85	71	87	59	90	69	69	32	56	17
14		58	18	44	27	68	47	67	45	82	49	95	62	99	74	89	72	79	65	81	48	72	35	61	31
15		56	26	54	25	76	48	78	37	93	69	100	64	105	79	91	74	65	61	64	35	74	44	56	32
16		43	29	44	23	80	49	86	51	94	67	81	66	98	78	95	74	67	61	68	31	78	49	56	32
17		33	23	52	19	82	56	82	61	98	74	77	62	97	74	96	73	70	60	52	48	78	53	62	26
18		43	15	65	30	64	40	77	62	80	58	83	65	102	79	97	69	75	57	64	41	68	46	68	25
19		36	29	51	27	78	41	92	46	82	56	85	64	106	80	93	69	71	55	61	37	61	38	69	27
20		36	29	48	27	82	57	58	37	86	59	95	66	93	77	89	74	76	53	70	34	77	38	74	28
21		30	18	32	25	81	64	71	35	89	64	88	66	87	79	91	72	82	52	74	50	79	55	69	30
22		23	10	33	19	82	39	62	49	95	70	91	65	96	76	78	64	81	55	66	37	79	60	45	25
23		30	4	40	15	51	29	62	55	86	64	91	67	88	73	68	58	85	51	69	32	75	59	29	14
24		36	26	52	20	53	27	71	57	79	56	90	70	84	75	72	59	83	51	72	34	73	62	52	11
25		34	31	60	32	67	38	65	57	82	50	94	74	91	75	80	56	89	62	78	36	72	61	32	20
26		37	19	50	40	64	34	67	57	83	50	95	73	94	74	80	58	87	60	84	39	67	50	35	18
27		46	20	46	42	79	35	87	57	84	53	94	69	96	75	81	64	73	56	80	43	51	33	37	25
28		27	12	61	36	62	40	57	49	90	53	96	68	98	76	85	66	78	52	85	47	56	30	31	20
29		17	7	---	---	74	31	63	49	90	57	96	66	96	78	84	69	85	56	69	46	60	30	43	15
30		26	6	---	---	80	35	63	46	92	59	97	64	97	76	80	71	75	44	79	40	43	27	33	22
31		46	21	---	---	91	42	---	---	82	64	---	---	---	98	74	84	70	---	73	42	---	---	49	26
AV.		45	25	51	29	68	40	71	46	82	55	91	67	97	75	88	68	80	59	75	46	67	42	50	26
MEAN		35.0	39.9	54.0	58.8	68.2	78.2	86.0	86.0	77.5	69.5	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
STA AV		48	24	52	27	62	26	75	51	81	59	89	67	96	73	91	69	83	62	77	50	64	41	51	25

NOTES: AVERAGE AND STATION AVERAGE ARE ROUNDED TO NEAREST DEGREE. MEAN ROUNDED TO THE NEAREST TENTH OF A DEGREE. STATION AVERAGE BASED ON RECORDS FROM SEPT. 1962 THROUGH DEC. 1966.

1966 MONTHLY EVAPORATION AND WIND

MONTH	EVAPORATION (INCHES)	TOTAL WIND (MILES)
APRIL	---	3975
MAY	9.59	3262
JUNE	12.64	3801
JULY	12.87	2394
AUGUST	8.35	1802
SEPTEMBER	4.90	1430
OCTOBER	6.33	2547

EVAPORATION DATA ARE BASED ON CHICKASHA EXPERIMENT STATION RECORDS PUBLISHED IN U. S. WEATHER BUREAU CLIMATOLOGICAL DATA FOR OKLAHOMA.

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED 612 NEAR ALEX AREA — 563 ACRES (.88 SQ. MILES)										
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL		
1966	P ^{1/} Q	.54 .000	1.93 .004	1.07 .000	4.53 .051	.59 .000	2.26 .021	2.63 .101	5.56 .017	4.40 .118	.37 .000	.57 .000	.29 .000	24.74 .312		
	2/ P	.76	1.21	1.32	2.74	2.96	3.22	2.19	3.40	3.41	1.23	2.32	.87	25.63		
	3/ Q	.156	.109	.106	.270	.121	.346	.078	.016	.141	.011	.038	.185	1.577		
	MEAN 66 YR	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09		
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	7-24	.1460	7-24	.1017	7-24	.1144	7-24	.115	7-24	.115	7-23	.115	7-23	.116	7-23	.108
MAXIMUMS FOR PERIOD OF RECORD ^{4/}																
1961 TO 1966	6-23 1963	.4014	6-23 1963	.3454	6-23 1963	.5487	6-23 1963	.733	6-23 1963	.756	6-23 1963	.756	6-23 1963	.756	6-23 1963	.785
NOTES: Watershed conditions same as that described in Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1962, p. 69.9-1. For maps, see foregoing reference, Topography, p. 69.8-5 and Geologic, p. 69.7-9. For revised composite map see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1965, p. 69.7-21. 1/ Precipitation data obtained from a Thiessen weighted average of 2 gages on the watershed. 2/ Precipitation records began Oct., 1961; runoff records began Nov., 1961. 3/ Mean P based on 66-yr (1901-66) U. S. Weather Bureau record period at Chickasha, Okla.; missing records estimated. 4/ Period of record began Nov., 1961.																
MISCELLANEOUS DATA																
RUNOFF PEAK DATA: YEAR (1966): Maximum — July 24, 86 cfs (2.20 ft). Minimum — Jan. 1, no flow (0.39 ft). PERIOD OF RECORD: Maximum — June 23, 1963, 231 cfs (2.26 ft). Minimum — no flow. PEAK DISCHARGES: (Above base flow of 100 cfs) None.																
DAILY TEMPERATURE: See page 69.7-3.																

1966 DAILY PRECIPITATION inches.					CHICKASHA, OKLAHOMA WATERSHED 612 NEAR ALEX							
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.07	.00	.00	.00	.26	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.02	.00	.43	.29	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.22	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.94	.00	.00	.00	.21	.00	.00	.00	.02	.00	.00
9	.00	.00	.00	.00	.00	.04	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00
11	.00	.00	.78	.00	.00	.00	.00	.75	.00	.00	.00	.00
12	.00	.00	.18	.00	.18	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.03	.00	.00	.00	.12	1.08	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.88	.00	.00	.00
15	.00	.00	.00	.00	.00	1.54	.00	.00	.06	.00	.00	.00
16	.00	.00	.00	.00	.00	.31	.00	.00	.19	.00	.00	.00
17	.00	.00	.00	.00	.00	.14	.00	.00	.26	.35	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.72	.00	.00	.00	.00
19	.23	.00	.00	.00	.00	.00	.00	.54	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.12	.24	.00	.00	.15	.00	.00	.73	.00	.00	.00	.00
22	.00	.00	.00	1.91	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.96	.00	.00	1.30	.93	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	1.33	.34	.00	.00	.00	.00
25	.00	.00	.00	1.35	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.10	.00	.13	.00	.00	.00	.00	.00	.00	.48	.00
27	.00	.65	.11	.00	.00	.00	.00	.00	1.28	.00	.00	.17
28	.11	.00	.00	.01	.00	.00	.00	.09	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.20	.00	.00	.00	.00
30	.00	.00	.00	.14	.00	.00	.00	.00	.14	.00	.00	.02
31	.00	.00	.00	.00	.00	.00	.00	.66	.00	.00	.00	.00
TOTAL	.54	1.93	1.07	4.93	.59	2.26	2.63	5.56	4.40	.37	.57	.29
STAV	.76	1.21	1.32	2.74	2.96	3.22	2.19	3.40	3.41	1.23	2.32	.87

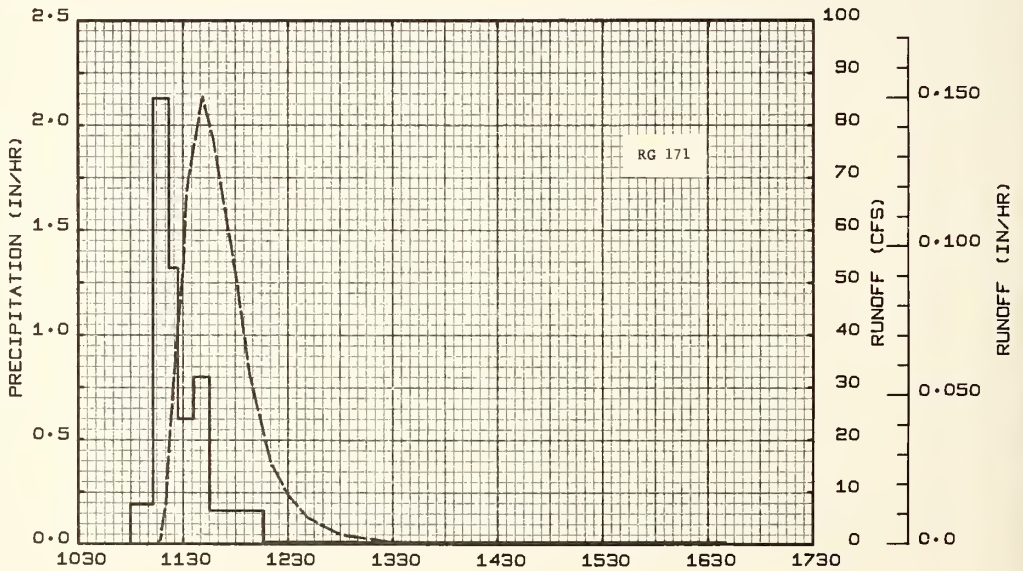
NOTES YEARLY PRECIPITATION 24.74 INCHES. PRECIPITATION VALUES ARE A THIESSEN WEIGHTED AVERAGE OF 2 GAGES ON THE WATERSHED.

1966 MEAN DAILY DISCHARGE (cfs)					CHICKASHA, OKLAHOMA WATERSHED 612 NEAR ALEX							
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
14	.0	.0	.0	.0	.0	.0	.0	.0	2.3	.0	.0	.0
15	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0
16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
18	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
19	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
20	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23	.0	.0	.0	.3	.0	.0	.0	.2	.0	.0	.0	.0
24	.0	.0	.0	.0	.0	.0	2.4	.0	.0	.0	.0	.0
25	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
26	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
29	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
31	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
MEAN	.0	.0	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0
INCHES	.000	.004	.000	.051	.000	.021	.101	.017	.118	.000	.000	.000

NOTES TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY .04228. TO CONVERT DISCHARGE IN INCHES TO AC-FT, MULTIPLY BY 46.92. YEARLY MEAN DISCHARGE, .0 CFS. YEARLY DISCHARGE, .112 INCHES. MAXIMUM AND MINIMUM FLOWS EACH MONTH UNDERLINED. * DISCHARGE MEASUREMENTS.

ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
Event of July 24, 1966										
			7-24	1100	1.71	.00	7-24	1100	.00	.0000
Watershed conditions: The land use of this .88 sq. mi. watershed is not monitored seasonally. For a general description of the watershed cover see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1962, USDA Misc. Pub. 1070, p. 69.9-1.				1110	.00	.00		1110	.00	.0000
				1115	.19	.04		1115	.00	.0000
				1122	2.15	.96		1122	.00	.0000
				1127	1.32	.47		1127	7.00	.0000
				1136	.00	.00		1136	17.00	.0000
				1145	.00	.68		1147	37.00	.0000
				1210	.18	.76		1200	30.00	.0000
				1240	.01	.79		1217	30.00	.0000
								1231	10.00	.0000
								1235	7.00	.0000
								1242	5.00	.0000
								1300	1.00	.0000
								1310	.00	.0000
					1320	.00	.0000			
					1400	.00	.0000			
					1400	.00	.0000			

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR MULTIPLY BY .001762. FOR 30-DAY ANTECEDENT P AND Q, SEE P. 69.9-2, THIS PUBLICATION.



JULY 24, 1966

CHICKASHA, OKLAHOMA WATERSHED 612

SELECTED RUNOFF EVENTS

ANTECEDENT CONDITIONS			RAINFALL				RUNOFF					
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)		
Event of September 13-14, 1966												
Watershed conditions: The land use of this .88 sq. mi. watershed is not monitored seasonally. For a general description of the watershed cover see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1962, USDA Misc. Pub. 1070, p. 69.9-1.												

NOTES: TO CONVERT RUNOFF IN CFS TO IN/HR MULTIPLY BY .001762. FOR 30-DAY ANTECEDENT P AND Q, SEE P. 69.9-2, THIS PUBLICATION.



SEPTEMBER 13-14, 1966

CHICKASHA, OKLAHOMA WATERSHED 612

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED 111 NEAR ANADARKO AREA — 16,634 ACRES (26.0 SQ. MILES)											
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966	P ₁ /O	.42	1.38	.71	3.84	1.46	1.28	1.16	5.27	3.04	.43	.41	.33	19.73			
		.065	.081	.073	.091	.066	.011	.008	.013	.046	.014	.029	.044	.541			
	STA AVG P	.50	1.13	1.11	2.40	3.53	3.46	1.48	2.94	3.53	1.21	2.26	.76	24.31			
	O	.102	.107	.115	.135	.186	.068	.047	.026	.079	.032	.096	.081	1.074			
	MEAN P ₃ /O	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																	
YEAR	MAXIMUM DISCHARGE	MAXIMUM VOLUME FOR SELECTED TIME INTERVAL															
		1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS			
		DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME		
1966		9-27	.0048	9-27	.0044	9-27	.0077	9-27	.015	9-27	.018	9-27	.020	9-27	.022	9-27	.023
MAXIMUMS FOR PERIOD OF RECORD ⁴ / ₁																	
19 62 to	5-10	.0564	5-10	.0538	5-10	.0962	5-10	.156	5-10	.172	5-10	.185	5-9	.324	5-9	.326	
1966	1964		1964		1964		1964		1964		1964		1964		1964		
NOTES: Watershed conditions same as that described in Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1962, p. 69.10-1. For maps, see foregoing reference, Topography, p. 69.10-4 and Geologic, p. 69.7-9. For revised Composite map, see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1965, p. 69.7-21. ¹ / Precipitation data obtained from a Thiessen weighted average of 6 gages on the watershed. ² / Precipitation records began Oct. 1961; runoff records began June, 1962. ³ / Mean P based on 66-yr (1901-66) U. S. Weather Bureau record period at Chickasha, Oklahoma; missing months estimated. ⁴ / Period of record began June, 1962.																	
MISCELLANEOUS DATA																	
RUNOFF PEAK DATA: YEAR (1966): Maximum — Sept. 27, 80 cfs (2.99 ft). Minimum — June 23, no flow (1.00 ft). PERIOD OF RECORD: Maximum — May 10, 1964, 946 cfs (5.76 ft). Minimum — no flow. PEAK DISCHARGES: (Above base flow of 400 cfs) None.																	
DAILY TEMPERATURE: See page 69.7-3.																	
NO SELECTED EVENTED REPORTED FOR 1966.																	

1966 DAILY PRECIPITATION (inches)					CHICKASHA, OKLAHOMA WATERSHED 111 NEAR ANADARKO							
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.02	.00	.00	.00	.11	.00	.00	.01	.49	.00	.00	.00
2	.00	.00	.00	.00	.00	.14	.00	.40	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.08	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
8	.00	.38	.00	.00	.00	.62	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.06	.00	.00	.00	.00	.11	.11
10	.00	.00	.00	.00	.00	.00	.01	.14	.00	.00	.00	.00
11	.00	.00	.64	.00	.00	.00	.00	.64	.00	.00	.00	.00
12	.00	.00	.07	.00	.00	.01	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.08	.00	.00	.00	.26	.19	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.15	.61	.00	.00	.00
15	.00	.00	.00	.00	.00	.08	.00	.00	.08	.00	.00	.00
16	.00	.00	.00	.00	.00	.05	.00	.00	.09	.00	.00	.00
17	.00	.00	.00	.00	.00	.27	.00	.00	.29	.43	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.98	.00	.00	.00	.00
19	.26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.34	.00	.00	.00	.00	.00	.00	.00
21	.10	.28	.00	.00	1.01	.00	.00	.23	.00	.00	.00	.00
22	.00	.00	.00	1.56	.00	.00	.00	.36	.00	.00	.00	.04
23	.00	.00	.00	.75	.00	.00	.07	1.50	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.01	.37	.00	.00	.00	.00
25	.00	.00	.00	.89	.00	.00	.02	.00	.00	.00	.00	.00
26	.00	.19	.00	.41	.00	.05	.00	.00	.00	.00	.30	.00
27	.00	.53	.00	.00	.00	.00	.00	.00	1.20	.00	.00	.14
28	.04	.00	.00	.09	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	-----	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	-----	.00	.06	.00	.00	1.05	.01	.02	.00	.00	.01
31	.00	-----	.00	-----	.00	-----	.00	.21	-----	.00	-----	.00
TOTAL	.42	1.38	.71	3.84	1.46	1.28	1.16	5.27	3.04	.43	.41	.33
STAVV	.50	1.13	1.11	2.40	3.53	3.46	1.48	2.94	3.53	1.21	2.26	.76

NOTES: YEARLY PRECIPITATION 19.73 INCHES. PRECIPITATION VALUES ARE A THIESSEN WEIGHTED AVERAGE OF 6 GAGES ON THE WATERSHED.

1966 MEAN DAILY DISCHARGE (cfs)					CHICKASHA, OKLAHOMA WATERSHED 111 NEAR ANADARKO							
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	1.4	1.8	1.9	1.3	2.3	.6	.0	.0	2.2	.4	.4	.9
2	1.4	1.8	1.8	1.3	2.1	.5	.0	.0	.3	.3	.5	.9
3	1.3	1.8	1.8	1.3	1.8	.3	.0	.0	.1	.3	.5	.9
4	1.3	2.1	1.6	1.3	1.8	.1	.0	.0	.0	.3	.5	.9
5	1.3	2.3	1.2	1.3	1.7	.2	.0	.0	.0	.3	.5	.9
6	1.3	2.4	1.4	1.3	1.6	.1	.0	.0	.0	.3	.6	.9
7	1.3	2.6	1.6	1.3E	1.4	.1	.0	.0	.0	.3	.6	.9
8	1.3	2.7	1.7	1.3E	1.3	.2	.0	.0	.0	.3	.6	.9
9	1.4	2.1	1.7	1.3E	1.1	2.1	.0	.0	.0	.3	.7	.9
10	1.4	2.0	1.7	1.3E	1.2	.5	.0	.0	.3	.2	.7	.9
11	1.4	1.9	1.8	1.3E	1.3	.5	.0	.8	.3	.1	.7	.9
12	1.4	1.8	1.3	1.3	1.1	.3	.0	.0	.3	.1	.7	.9
13	1.4	1.8	1.8	1.2	1.61	.2	.0	.0	.2	.3	.7	.9
14	1.4	1.8	1.8	1.2	1.2	.2	.0	.0	9.8	.1	.7	1.1
15	1.4	1.7	1.8	1.2	1.1	.1	.0	.0	.7	.1	.7	1.1
16	1.3	1.7	1.8	1.5	1.1	.1	.0	.0	.5	.1	.7	1.1
17	1.3	1.4	1.7	1.6	.9	.4	.0	.0	.5	.3	.7	1.1
18	1.3	1.4	1.4	1.2	.7	.6	.0	.0	.6	.6	.7	1.1
19	1.6	1.4	1.4	1.1	.7	.3	.0	3.9	.3	.5	.7	1.1
20	1.8	1.4	1.4	.5	.7	.3	.0	.0	.2	.4	.7	1.1
21	1.7	1.6E	1.5	.9	1.1	.1	.0	.0	.1	.4	.7	1.1
22	1.4	1.8E	1.4	3.8	1.7	.1	.0	.0	.1	.4	.7	1.1
23	1.3	2.1E	1.4	6.3	1.3	.0	.0	1.9	.1	.4	.7	.9
24	1.4	2.7E	1.4	4.2	.9	.0	.0	1.6	.1	.5	.7	.9
25	1.5	2.3	1.4	5.4	.9	.0	.0	.6	.1	.6	.7	1.1
26	1.6	2.1	1.4	7.4	.8	.0	.0	.2	.1	.4	.9	.9
27	1.8	3.0	1.3	3.0	.8	.0	.0	.1	1.3	.4	.9	1.4
28	1.8	3.1	1.4	2.4	.7	.0	.0	.1	1.5	.4	.9	1.0
29	1.8	-----	1.3	2.4	.6	.0	.0	.1	.5	.4	.9	1.0
30	1.8	-----	1.3	2.4	.5	.0	5.4	.1	.5	.4	.9	1.1
31	1.8	-----	1.3	-----	.5	-----	.4	.0	-----	.4	-----	1.1
MEAN	1.5	2.0	1.6	2.1	1.5	.3	.2	.3	1.1	.3	.7	1.0
INCHES	.065	.081	.073	.091	.066	.011	.008	.013	.046	.016	.029	.044

NOTES TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/OAY, MULTIPLY BY .001431. TO CONVERT DISCHARGE IN INCHES TO AC-FT, MULTIPLY BY 1.386. YEARLY MEAN DISCHARGE, 1.0 CFS. YEARLY DISCHARGE, .041 INCHES. MAXIMUM AND MINIMUM FLOWS EACH MONTH UNDERLINED. * DISCHARGE MEASUREMENTS.

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED 131 NEAR ANADARKO AREA — 25,660 ACRES (40.1 SQ. MILES)										
YEAR	MDNTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL		
1966	P 1/ Q	.51 .018	1.48 .040	.70 .043	4.20 .077	1.67 .050	1.02 .001	.92 .000	4.58 .001	3.89 .007	.44 .000	.50 .000	.27 .006	20.18 .243		
	STA AVG P D	.61 .067	1.22 .080	1.10 .082	2.46 .098	3.58 .113	3.16 .022	1.68 .001	3.19 .005	3.65 .018	1.42 .013	2.61 .041	.80 .045	25.48 .585		
	MEAN P 3/ 66 YR	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09		
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE	MAXIMUM VOLUME FOR SELECTED TIME INTERVAL														
		1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS		
		DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	
1966	5-21	.0023	5-21	.0022	5-21	.0035	5-21	.007	4-25	.013	4-25	.021	4-25	.027	4-22	.057
MAXIMUMS FOR PERIOD OF RECORD 4/																
19 62 TO 19 66	5-9 1965	.0177	5-9 1965	.0171	5-9 1965	.0327	5-9 1965	.078	5-9 1965	.096	5-9 1965	.106	5-9 1965	.112	5-9 1965	.135
NOTES: Watershed conditions same as that described in Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1962, p. 69.11-1. For maps, see foregoing reference, Topography, p. 69.11-4 and Geologic, p. 69.7-9. For revised Composite map, see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1965, p. 69.7-21. 1/ Precipitation data obtained from a Thiessen weighted average of 10 gages on the watershed. 2/ Precipitation records began Oct. 1961; runoff records began Aug. 1962. 3/ Mean P based on 66-yr (1901-66) U. S. Weather Bureau record period at Chickasha, Okla.; missing records (months) estimated. 4/ Period of record began Aug. 1962.																
MISCELLANEOUS DATA																
RUNOFF PEAK DATA: YEAR (1966): Maximum — May 21, 61 cfs (2.94 ft). Minimum — June 14, no flow (1.00 ft). PERIOD OF RECORD: Maximum — May 9, 1965, 459 cfs (5.06 ft). Minimum — no flow. PEAK DISCHARGES: (Above base flow of 400 cfs) None. DAILY TEMPERATURE: See page 69.7-3																
NO SELECTED RUNOFF EVENT REPORTED FOR 1966.																

1966 DAILY PRECIPITATION (inches)						CHICKASHA, OKLAHOMA WATERSHED 131 NEAR ANAOKARCO						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.01	.00	.00	.00	.12	.00	.00	.00	.13	.00	.00	.00
2	.00	.00	.00	.00	.00	.12	.00	.27	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
8	.00	.49	.00	.00	.00	.42	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.04	.00	.00	.00	.00	.12	.06
10	.00	.00	.00	.00	.00	.00	.01	.12	.00	.00	.00	.00
11	.00	.00	.60	.00	.07	.00	.00	.49	.00	.00	.00	.00
12	.00	.00	.09	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.13	.00	.00	.00	.43	.41	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.17	1.29	.00	.00	.00
15	.00	.00	.00	.00	.00	.18	.00	.03	.04	.00	.00	.00
16	.00	.01	.00	.00	.00	.02	.00	.00	.10	.00	.00	.00
17	.00	.00	.00	.00	.00	.24	.00	.00	.27	.44	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.60	.00	.00	.00	.00
19	.27	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00
20	.00	.00	.00	.00	.23	.00	.00	.00	.00	.00	.00	.00
21	.15	.35	.00	.00	1.25	.00	.00	.31	.00	.00	.00	.00
22	.00	.00	.00	1.55	.00	.00	.00	.32	.00	.00	.00	.03
23	.00	.00	.00	.77	.00	.00	.18	1.09	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.41	.00	.00	.00	.00
25	.00	.00	.00	1.17	.00	.00	.01	.00	.00	.00	.00	.00
26	.00	.21	.00	.48	.00	.00	.00	.00	.00	.00	.38	.00
27	.00	.42	.01	.00	.00	.00	.00	.00	1.51	.00	.00	.14
28	.08	.00	.00	.02	.00	.00	.01	.00	.00	.00	.00	.00
29	.00	-----	.00	.00	.00	.00	.25	.00	.00	.00	.00	.00
30	.00	-----	.00	.08	.00	.00	.46	.02	.05	.00	.00	.01
31	.00	-----	.00	-----	-----	-----	.00	.28	-----	.00	-----	.00
TOTAL	.51	1.48	.70	4.20	1.67	1.02	.92	4.58	3.89	.44	.50	.27
STA AV	.61	1.22	1.10	2.46	3.58	3.16	1.68	3.19	3.65	1.42	2.61	.80

NOTES:
 YEARLY PRECIPITATION 20.18 INCHES. PRECIPITATION VALUES ARE A THIENSEN WEIGHTED AVERAGE OF 10 GAGES ON THE WATERSHED.

1966 MEAN DAILY DISCHARGE (cfs)						CHICKASHA, OKLAHOMA WATERSHED 131 NEAR ANAOKARCO						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.7	.1E	2.6	1.0	3.3	.4	.0	.0	.0	.0	.0	.1
2	.7	.1E	2.2	.9	3.2	.3	.0	.0	.0	.0	.0	.1
3	.7	.2E	1.8	.8	2.6	.2	.0	.0	.0	.0	.0	.1
4	.7	.4E	1.3	.7	2.3	.1	.0	.0	.0	.0	.0	.2
5	.7	.7E	1.2	.8	2.0	.1	.0	.0	.0	.0	.0	.2
6	.7	1.2	1.2	.8	1.8	.0	.0	.0	.0	.0	.0	.2
7	.7	1.2	1.3	.9	1.6	.0	.0	.0	.0	.0	.0	.2
8	.6	2.1	1.3	.9	1.4	.0	.0	.0	.0	.0	.0	.2
9	.7	2.9	1.3	.9	1.1	.2	.0	.0	.0	.0	.0	.1
10	.6	1.6	1.4	.9	1.1	.1	.0	.0	.0	.0	.0	.2
11	.6	1.5	1.5	.9	1.2	.0	.0	.0	.0	.0	.0	.2
12	.7	1.7	4.4	.9	1.0	.0	.0	.0	.0	.0	.0	.1
13	.7	1.6	2.3	.9	1.0	.0	.0	.0	.0	.0	.0	.2
14	.7	1.5	1.8	1.2	1.0	.0	.0	.0	5.7	.0	.0	.2
15	.7	1.6	1.7	.9	.9	.0	.0	.0	.1	.0	.0	.2
16	.7	1.6	1.5	.8	.8	.0	.0	.0	.0	.0	.0	.2
17	.7	1.5	1.5	.8	1.0	.0	.0	.0	.0	.0	.0	.2
18	.7	1.5	1.4	.8	.5	.0	.0	.0	.0	.0	.0	.2
19	1.0	1.5	1.2	.8	.4	.0	.0	.3	.0	.0	.0	.2
20	.9	1.5	1.3	.6	.5	.0	.0	.0	.0	.0	.0	.3
21	.8	1.2E	1.1	.6	1.2	.0	.0	.0	.0	.0	.0	.2
22	.7	1.0E	1.0	4.0	1.9	.0	.0	.0	.0	.0	.0	.2
23	.5	.9E	.9	10	1.0	.0	.0	.0	.0	.0	.0	.2
24	.5E	1.2E	1.0	7.0	1.1	.0	.0	.2	.0	.0	.0	.2
25	.5E	1.6	1.1	8.0	2.3	.0	.0	.1	.0	.0	.0	.2
26	.9E	2.5	1.1	20	2.1	.0	.0	.0	.0	.0	.0	.3
27	.5E	4.3	1.2	6.1	2.0	.0	.0	.0	1.3	.0	.2	.4
28	.4E	4.0	1.2	3.4	1.7	.0	.0	.0	.5	.0	.1	.4
29	.3E	-----	1.1	3.2	.7	.0	.0	.0	.0	.0	.1	.3
30	.2E	-----	1.0	3.3	.4	.0	.0	.0	.0	.0	.1	.4
31	.2E	-----	1.0	-----	.3	-----	-----	-----	-----	-----	-----	.4
MEAN	.6	1.5	1.5	2.8	1.7	.0	.0	.0	.3	.0	.0	.2
INCHES	.018	.040	.043	.077	.050	.001	.000	.001	.007	.000	.000	.006

NOTES TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/OAY. MULTIPLY BY .0009276. TO CONVERT DISCHARGE IN INCHES TO AC-FT. MULTIPLY BY 2.138. YEARLY MEAN DISCHARGE, .7 CFS. YEARLY DISCHARGE, .243 INCHES. MAXIMUM AND MINIMUM FLOWS EACH MONTH UNDERLINED. * DISCHARGE MEASUREMENTS.

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED 411 AT CHICKASHA AREA — 33,300 ACRES (52.0 SQ. MILES)										
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL		
1966	P ^{1/} Q	.41	1.31	.63	4.05	.96	1.98	1.14	5.55	3.53	.40	.57	.24	20.77		
		.000	.000	.001	.019	.001	.009	.000	.007	.031	.000	.000	.000	.068		
	2/ STA AVG P	.59	1.13	1.09	2.26	2.92	3.35	1.62	3.57	3.55	1.14	2.46	.86	24.54		
	Q	.004	.006	.008	.036	.031	.038	.015	.086	.041	.001	.049	.010	.325		
	MEAN P ^{3/}	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09		
66 YR																
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE	MAXIMUM VOLUME FOR SELECTED TIME INTERVAL														
		1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS		
		DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	
1966	9-14	.0027	9-14	.0027	9-14	.0051	9-14	.011	9-14	.014	9-14	.023	9-13	.030	9-13	.030
MAXIMUMS FOR PERIOD OF RECORD ^{4/}																
1962 TO 1966	8-28	.0598	8-28	.0532	8-28	.0962	8-28	.204	8-28	.274	8-28	.302	8-28	.316	8-27	.318
	1965		1965		1965		1965		1965		1965		1965		1965	
NOTES: Watershed conditions same as that described in Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1962, p. 69.12-1. For maps, see foregoing reference, Topography, p. 69.12-4 and Geologic, p. 69.7-9. For revised Composite map, see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1965, p. 69.7-21. ^{1/} Precipitation data obtained from a Thiessen weighted average of 13 gages on the watershed. ^{2/} Precipitation records began Oct. 1961; runoff records began Sept. 1962. ^{3/} Mean P based on 66-yr (1901-66) U. S. Weather Bureau record period at Chickasha, Okla.; missing months estimated. ^{4/} Period of record began Sept. 1962.																
MISCELLANEOUS DATA																
RUNOFF PEAK DATA: YEAR (1966): Maximum — Sept. 14, 92 cfs (12.92 ft). Minimum — Jan. 1, no flow (9.00 ft) .																
PERIOD OF RECORD: Maximum — Aug. 28, 1965, 2,008 cfs (19.45 ft). Minimum — no flow.																
PEAK DISCHARGES: (Above base flow of 400 cfs) None.																
DAILY TEMPERATURE: See page 69.7-3.																
NO SELECTED EVENTS REPORTED FOR 1966.																

1966 DAILY PRECIPITATION (inches)						CHICKASHA, OKLAHOMA WATERSHED 411 AT CHICKASHA						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.03	.00	.00	.00	.14	.00	.00	.00	.03	.00	.00	.00
2	.00	.00	.00	.00	.00	.10	.00	.25	.02	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.25	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03
5	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
8	.00	.26	.00	.00	.00	.34	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.11	.03
10	.00	.00	.00	.00	.00	.00	.00	.08	.00	.00	.11	.00
11	.00	.00	.53	.00	.18	.00	.00	.79	.00	.00	.00	.00
12	.00	.00	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.01	.00	.08	.00	.00	.00	.48	1.03	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.37	.84	.00	.00	.00
15	.00	.00	.00	.00	.00	1.21	.00	.00	.01	.00	.00	.00
16	.00	.00	.00	.00	.00	.12	.00	.00	.14	.00	.00	.00
17	.00	.00	.00	.00	.00	.21	.00	.00	.23	.40	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.63	.00	.00	.00	.00
19	.23	.00	.00	.00	.00	.00	.00	.25	.00	.00	.00	.00
20	.00	.00	.00	.00	.08	.00	.00	.00	.00	.00	.00	.00
21	.08	.27	.00	.00	.56	.00	.00	.55	.00	.00	.00	.00
22	.00	.00	.00	1.49	.00	.00	.00	.42	.00	.00	.00	.02
23	.00	.00	.00	.85	.00	.00	.36	1.02	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.16	.33	.00	.00	.00	.00
25	.00	.00	.00	1.26	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.13	.00	.27	.00	.00	.00	.00	.00	.00	.46	.00
27	.00	.64	.00	.00	.00	.00	.00	.00	.88	.00	.00	.15
28	.05	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00
29	.00	.00	.00	.01	.00	.00	.12	.01	.00	.00	.00	.00
30	.00	.00	.00	.09	.00	.00	.49	.00	.10	.00	.00	.01
31	.00	.00	.00	.00	.00	.00	.00	.36	.00	.00	.00	.00
TOTAL	.41	1.31	.63	4.05	.96	1.98	1.14	5.55	3.53	.90	.57	.24
ST. AV.	.59	1.13	1.09	2.26	2.92	3.35	1.62	3.57	3.55	1.14	2.46	.86

NOTES: YEARLY PRECIPITATION 20.77 INCHES. PRECIPITATION VALUES ARE A THIESSEN WEIGHTED AVERAGE OF 13 GAGES ON THE WATERSHED.

1966 MEAN DAILY DISCHARGE cfs)						CHICKASHA, OKLAHOMA WATERSHED 411 AT CHICKASHA						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0
4	.0	.0	.0	.0	.0	.0	.0	.0	.7	.0	.0	.0
5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8	.0	.2	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
9	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11	.0	.0	.2	.0	.1	.0	.0	2.0	.0	.0	.0	.0
12	.0	.0	.6	.0	.4	.0	.0	.0	.0	.0	.0	.0
13	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
14	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15	.0	.0	.0	.0	.0	2.1	.0	.0	* 32 9.1	.0	.0	.0
16	.0	.0	.0	.0	.0	9.0	.0	.0	1.3	.0	.0	.0
17	.0	.0	.0	.0	.0	1.1	.0	.0	.5	.2	.0	.0
18	.0	.0	.0	.0	.3	.0	.0	.4	.1	.0	.0	.0
19	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0	.0
20	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
21	.0	.0	.0	.0	.1	.0	.0	.7	.0	.0	.0	.0
22	.0	.0	.0	1.6	.0	.0	.0	.4	.0	.0	.0	.0
23	.0	.0	.0	2.6	.0	.0	.2	2.8	.0	.0	.0	.0
24	.0	.0	.0	1.5	.0	.0	.0	1.7	.0	.0	.0	.0
25	.0	.0	.0	4.3	.0	.0	.0	.1	.0	.0	.0	.0
26	.0	.0	.0	.13	.0	.0	.0	.0	.0	.0	.6	.0
27	.0	.3	.0	4.0	.0	.0	.0	.0	.6	.0	.0	.0
28	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0
29	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
30	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0
31	.0	.0	.0	.0	.0	.0	.0	.8	.0	.0	.0	.0
MEAN	.0	.0	.0	.9	.0	.4	.0	.3	1.5	.0	.0	.0
INCHES	.000	.000	.001	.019	.001	.009	.000	.007	.031	.000	.000	.000

NOTES TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY .0007148. TO CONVERT DISCHARGE IN INCHES TO AC-FT. MULTIPLY BY 2.775. YEARLY MEAN DISCHARGE: .3 CFS. YEARLY DISCHARGE: .065 INCHES. MAXIMUM AND MINIMUM FLOWS EACH MONTH UNDERLINED. * DISCHARGE MEASUREMENTS.

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED 511 NEAR TABLER AREA — 38,020 ACRES (59.4 SQ. MILES)										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966	.52	1.57	1.21	4.09	.48	1.51	1.63	7.66	3.84	.38	.77	.34	24.00			
1966	.034	.037	.126	.129	.028	.005	.004	.378	.782	.015	.025	.028	1.591			
STA AVG	.69	1.18	1.45	2.64	2.49	3.14	1.74	4.36	3.14	1.15	2.45	.92	25.35			
MEAN	.051	.051	.093	.215	.084	.066	.021	.298	.218	.013	.122	.058	1.290			
66 YR	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	9-14	.0752	9-14	.0742	9-14	.1452	9-14	.375	9-14	.533	9-14	.584	9-14	.612	9-14	.646
MAXIMUMS FOR PERIOD OF RECORD ^{4/}																
1962 TO 1966	8-8 1965	.0815	8-8 1965	.0811	8-8 1965	.1610	8-8 1965	.432	8-7 1965	.544	9-14 1966	.584	9-14 1966	.612	9-14 1966	.646
NOTES: Watershed conditions same as that described in Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1962, p. 69.13-1. For maps, see foregoing reference, Topography, p. 69.13-4 and Geologic, p. 69.7-9. For revised Composite map, see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1965, p. 69.7-21. 1/ Precipitation data obtained from a Thiessen weighted average of 15 gages on the watershed, 2/ Precipitation records began Oct. 1961; runoff records began Oct. 1962. 3/ Mean P based of 66-yr (1901-66) U. S. Weather Bureau record period at Chickasha, Okla.; missing months estimated. 4/ Period of record began Oct. 1962.																
MISCELLANEOUS DATA																
RUNOFF PEAK DATA: YEAR (1966): Maximum — Sept. 14, 2,882 cfs (15.69 ft). Minimum — June 28, no flow (0.90 ft). PERIOD OF RECORD: Maximum — Aug. 8, 1965, 3,122 cfs (16.41 ft). Minimum — no flow. PEAK DISCHARGES: (Above base flow of 600 cfs) 1966 — Aug. 22, 1,331 cfs (10.27 ft); Aug. 23, 928 cfs (8.53 ft); Sept. 14, 2,882 cfs (15.69 ft). DAILY TEMPERATURE: See page 69.7-3.																
NO SELECTED RUNOFF EVENT REPORTED FOR 1966.																

1966 DAILY PRECIPITATION (inches)						CHICKASHA, OKLAHOMA WATERSHED 511 NEAR TABLER						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.09	.01	.00	.00	.11	.00	.00	.03	.12	.00	.00	.00
2	.00	.00	.00	.00	.00	.06	.00	.24	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.66	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.16	.00	.00	.04
5	.05	.00	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.01
8	.00	.58	.00	.00	.00	.60	.03	.00	.00	.01	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.03
10	.00	.00	.00	.00	.00	.00	.00	.10	.00	.00	.00	.00
11	.00	.00	.99	.00	.21	.00	.00	.36	.00	.00	.00	.00
12	.00	.00	.22	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.01	.00	.05	.00	.00	.00	.21	1.43	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.80	.00	.00	.00
15	.00	.00	.00	.00	.00	.46	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.33	.00	.00	.19	.00	.00	.00
17	.00	.00	.00	.00	.00	.06	.00	.00	.10	.37	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	1.53	.00	.00	.00	.00
19	.29	.00	.00	.00	.00	.00	.03	.52	.00	.00	.00	.00
20	.00	.00	.00	.00	.03	.00	.14	.00	.00	.00	.00	.00
21	.04	.17	.00	.00	.12	.00	.04	.57	.00	.00	.00	.00
22	.00	.00	.00	1.57	.00	.00	.00	1.37	.00	.00	.00	.03
23	.00	.00	.00	.88	.00	.00	.83	1.37	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.38	.23	.00	.00	.00	.00
25	.00	.00	.00	1.08	.00	.00	.07	.00	.00	.00	.00	.00
26	.00	.14	.00	.37	.00	.00	.00	.00	.00	.00	.67	.00
27	.00	.66	.00	.00	.00	.00	.00	.00	.34	.00	.00	.21
28	.05	.00	.00	.01	.00	.00	.03	.07	.00	.00	.00	.00
29	.00	-----	.00	.04	.00	.00	.03	.15	.00	.00	.00	.00
30	.00	-----	.00	.09	.01	.00	.05	.01	.04	.00	.00	.02
31	.00	-----	.00	-----	.00	-----	.00	.85	-----	.00	-----	.00
TOTAL	.52	1.57	1.21	4.09	.48	1.51	1.63	7.66	3.84	.38	.77	.34
STA AV	.69	1.18	1.45	2.64	2.49	3.14	1.74	4.36	3.14	1.15	2.45	.92

NOTES: YEARLY PRECIPITATION 24.00 INCHES. PRECIPITATION VALUES ARE A THIESSEN WEIGHTED AVERAGE OF 15 GAGES ON THE WATERSHED.

1966 MEAN DAILY DISCHARGE (cfs)						CHICKASHA, OKLAHOMA WATERSHED 511 NEAR TABLER						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	2.0	1.9	3.0	1.6	<u>4.1</u>	.4	.0	.0	6.5	<u>1.4</u>	.4	1.4
2	2.0	1.8	2.5	1.4	3.1	.2	.0	.0	2.1	1.1	.4	1.4
3	1.6	1.8	2.2	1.3	2.5	.2	.0	.0	1.3	1.1	.4	1.4
4	1.6	1.9	1.7	1.3	2.2	.1	.0	.0	113	.9	.7	1.4
5	1.7	2.1	1.5	1.2	2.2	.1	.0	.0	31	.9	.8	1.6
6	1.8	2.1	<u>1.3</u>	1.3	2.1	.1	.0	.0	8.6	.9	.8	<u>1.7</u>
7	1.8	2.2	1.6	1.4	1.9	<u>1.0</u>	.0	.0	4.7	.9	.9	1.6
8	1.6	2.5	1.6	1.4	1.7	.0	.0	.0	3.0	.9	.9	1.6
9	1.6	3.8	1.7	1.4	1.6	.8	.0	.0	2.1	.9	.9	1.4
10	1.7	3.2	1.8	1.4	1.5	<u>2.6</u>	.0	.0	1.7	.7	.9	1.2
11	1.7	2.2	2.0	1.6	1.6	.6	.0	2.0	1.6	.6	1.0	1.2
12	1.7	1.8	* 138	1.6	2.5	.2	.0	.1	1.9	.5	1.1	1.2
13	1.7	1.7	6.8	1.6	2.2	.1	.0	.0	1.1	.5	1.1	1.3
14	1.6	<u>1.6</u>	3.8	1.4	1.7	.0	.0	.0	* 924	.6	1.1	1.3
15	1.6	1.6	3.1	1.5	1.6	.0	.0	.0	* 50	.4	1.1	1.4
16	1.6	1.7	2.7	1.4	1.5	1.1	.0	.0	25	.4	1.1	1.5
17	<u>1.5</u>	1.6	2.4	1.4	1.4	1.1	.0	.0	16	.4	1.1	1.5
18	1.6	1.6	2.0	1.4	1.1	.6	.0	.0	12	1.1	1.2	1.5
19	1.7	1.7	1.9	1.2	.8	.3	.0	34	7.7	1.3	1.6	1.6
20	<u>2.1</u>	1.7	1.9	<u>1.1</u>	.7	.1	.0	42	5.8	.9	1.1	1.6
21	2.0	1.8	1.9	.7	.9	.1	.0	15	4.9	.7	1.1	1.6
22	1.8	2.1	1.7	5.4	.9	.0	.0	* 245	3.8	.7	1.2	1.6
23	1.8	1.9	1.4	29	.9	.0	.0	* 167	3.2	.6	1.3	1.2
24	1.8	1.9	1.4	21	.6	.0	<u>3.9</u>	34	2.8	.5	1.3	<u>1.1</u>
25	2.0	1.9	1.5	35	.5	.0	2.9	6.6	2.6	.5	1.3	1.1
26	2.0	1.9	1.5	<u>6.6</u>	<u>.4</u>	.0	.3	2.6	2.2	.6	2.9	1.3
27	1.9	2.5	1.6	10	.4	.0	.0	1.7	1.9	.7	<u>7.7</u>	1.4
28	1.7	<u>4.6</u>	1.6	4.7	.4	.0	.0	2.5	3.9	.7	2.3	1.6
29	1.6	-----	1.6	3.5	.4	.0	.0	6.4	3.0	.6	1.5	1.6
30	1.8	-----	1.6	3.5	.4	.0	.0	1.8	1.7	.6	1.5	1.6
31	1.5	-----	1.6	-----	.4	.0	.0	43	-----	.6	-----	1.6
MEAN	1.7	2.1	6.5	6.9	1.4	.3	.2	19	42	.7	1.4	1.4
INCHES	.034	.037	.126	.129	.028	.005	.004	.378	.782	.015	.025	.028

NOTES TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY .0006260. TO CONVERT DISCHARGE IN INCHES TO AC-FT. MULTIPLY BY 3.168. YEARLY MEAN DISCHARGE, 7.0 CFS. YEARLY DISCHARGE, 1.591 INCHES. MAXIMUM AND MINIMUM FLOWS EACH MONTH UNDERLINED. * DISCHARGE MEASUREMENTS.

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED 110 NEAR ANADARKO AREA — 25,020 ACRES (39.1 SQ. MILES)										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ₁ Q	.43 .000	1.39 .000	.91 .000	3.81 .000	1.56 .000	1.38 .000	1.04 .000	5.19 .000	3.22 .000	.43 .000	.41 .000	.33 .000	20.10 .000			
STA AVG P ₂ Q	.50 .000	1.11 .004	1.14 .009	2.44 .034	3.40 .044	3.44 .004	1.44 .000	2.99 .001	3.53 .000	1.18 .000	2.23 .005	.76 .000	24.16 .101			
MEAN P ₃ 66 YR	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	3-11	.0001	3-11	.0001	3-11	.0001	3-11	.0003	3-11	.0003	3-11	.0003	3-11	.0003	3-11	.0003
MAXIMUMS FOR PERIOD OF RECORD ⁴ / ₁																
1963 TO 1966	5-11 1964	.0037	5-11 1964	.0037	5-11 1964	.0074	5-11 1964	.021	5-11 1964	.038	5-11 1964	.061	5-11 1964	.087	5-11 1964	.114
<p>NOTES: Watershed conditions same as that described in Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1963, p. 69.14-1. For maps, see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1962, Topography, p. 69.10-4 and Geologic, p. 69.7-9. For revised Composite map, see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1965, p. 69.7-21. ¹/ Precipitation data obtained from a Thiessen weighted average of 10 gages on the watershed. ²/ Precipitation records began Oct. 1961; runoff records began Apr. 1963. ³/ Mean P based on 66-yr (1901-66) U.S. Weather Bureau record period at Chickasha, Okla.; missing months estimated. ⁴/ Period of record began Apr. 1963.</p>																
MISCELLANEOUS DATA																
<p><u>RUNOFF PEAK DATA:</u> YEAR (1966): Maximum — Mar. 11 and Sept. 14, 2.7 cfs (6.05 ft). Minimum — Jan. 1, no flow (5.40 ft). PERIOD OF RECORD: Maximum — May 11, 1964, 95 cfs (8.18 ft). Minimum — no flow. PEAK DISCHARGES: (Above base flow of 100 cfs) None. <u>DAILY TEMPERATURE:</u> See page 69.7-3.</p>																
NO SELECTED RUNOFF EVENT REPORTED FOR 1966.																

1966 DAILY PRECIPITATION (inches)						CHICKASHA, OKLAHOMA		WATERSHED 110 NEAR ANADARKO				
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.03	.00	.00	.00	.10	.00	.00	.01	.41	.00	.00	.00
2	.00	.00	.00	.00	.00	.14	.00	.38	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.15	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
8	.00	.36	.00	.00	.00	.73	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.10	.10
10	.00	.00	.00	.00	.00	.00	.01	.14	.00	.00	.00	.00
11	.00	.00	.84	.00	.00	.00	.00	.50	.00	.00	.00	.00
12	.00	.00	.07	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.07	.00	.00	.00	.33	.30	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.13	.72	.00	.00	.00
15	.00	.00	.00	.00	.00	.11	.00	.00	.06	.00	.00	.00
16	.00	.00	.00	.00	.00	.04	.00	.00	.09	.00	.00	.00
17	.00	.00	.00	.00	.00	.27	.00	.00	.28	.43	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.83	.00	.00	.00	.00
19	.26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.39	.00	.00	.00	.00	.00	.00	.00
21	.10	.31	.00	.00	1.07	.00	.00	.19	.00	.00	.00	.00
22	.00	.00	.00	1.56	.00	.00	.00	.43	.00	.00	.00	.04
23	.00	.00	.00	.71	.00	.00	.07	1.50	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.01	.37	.00	.00	.00	.00
25	.00	.00	.00	.91	.00	.00	.01	.00	.00	.00	.00	.00
26	.00	.20	.00	.44	.00	.04	.00	.00	.00	.00	.31	.00
27	.00	.52	.00	.00	.00	.00	.00	.00	1.18	.00	.00	.15
28	.04	.00	.00	.08	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.04	.00	.00	.94	.00	.03	.00	.00	.01
31	.00	.00	.00	.00	.00	.00	.00	.37	.00	.00	.00	.00
TOTAL	.43	1.39	.91	3.81	1.56	1.38	1.04	5.19	3.22	.43	.41	.33
STATION	.50	1.11	1.14	2.44	3.40	3.44	1.44	2.99	3.53	1.18	2.23	.76

NOTES
 YEARLY PRECIPITATION 20.10 INCHES. PRECIPITATION VALUES ARE A THIESSEN WEIGHTED AVERAGE OF 10 GAGES ON THE WATERSHED.

1966 MEAN DAILY DISCHARGE (cfs)						CHICKASHA, OKLAHOMA		WATERSHED 110 NEAR ANADARKO				
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
14	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
15	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
18	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
24	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
29	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
31	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
MEAN	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
INCHES	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

NOTES TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY .0009513. TO CONVERT DISCHARGE IN INCHES TO AC-FT, MULTIPLY BY 2.085. YEARLY MEAN DISCHARGE, .0 CFS. YEARLY DISCHARGE, .000 INCHES. MAXIMUM AND MINIMUM FLOWS EACH MONTH UNDERLINED. * DISCHARGE MEASUREMENTS.

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED 522 NEAR NINNEKAH AREA — 132,990 ACRES (207.8 SQ. MILES)										
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL		
1966	P ^{1/} Q	.58 .055	1.31 .068	1.07 .110	4.37 .119	1.44 .093	1.27 .025	1.02 .004	4.43 .044	2.85 .055	.41 .018	.58 .027	.27 .041	19.60 .659		
	STA AVG P Q	.71 .081	1.15 .078	1.19 .089	2.55 .116	3.44 .273	3.09 .093	1.58 .026	3.27 .074	3.61 .057	1.39 .025	2.49 .135	.78 .056	25.25 1.103		
	MEAN P Q 66 YR	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09		
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	3-12	.0060	3-12	.0058	3-12	.0108	3-12	.022	3-12	.029	3-12	.036	3-12	.042	4-22	.078
MAXIMUMS FOR PERIOD OF RECORD ^{4/}																
1963 TO 1966	5-10 1964	.0699	5-10 1964	.0672	5-10 1964	.1310	5-9 1964	.301	5-9 1964	.364	5-9 1964	.410	5-9 1964	.516	5-5 1964	.579
Notes: Watershed conditions same as that described in Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1963, p. 69.15-1. For Topography map, see foregoing reference. For Geologic map, see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1962, p. 69.7-9. For revised Composite map, see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1965, p. 69.7-21. 1/ Precipitation data obtained from a Thiessen weighted average of 36 gages on the watershed. 2/ Precipitation records began Oct. 1961; runoff records began Apr. 1963. 3/ Mean P based on 66-yr (1901-66) U.S. Weather Bureau record period at Chickasha, Okla.; missing months estimated. 4/ Period of record began Apr. 1963.																
MISCELLANEOUS DATA																
<p><u>RUNOFF PEAK DATA:</u> YEAR (1966): Maximum — Mar. 12, 811 cfs (11.77 ft). Minimum — July 2, no flow (8.50 ft). PERIOD OF RECORD: Maximum — May 10, 1964, 9,360 cfs (20.62 ft). Minimum — no flow. PEAK DISCHARGES: (Above base flow of 1,500 cfs) None. U.S. Geological Survey records available back to Oct. 1, 1951.</p>																
<u>DAILY TEMPERATURE:</u> See P. 69.7-3.																
NO SELECTED RUNOFF EVENT REPORTED FOR 1966.																

1966 DAILY PRECIPITATION (inches)						CHICKASHA, OKLAHOMA WATERSHED 522 NEAR NINNEKAH						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.07	.00	.00	.00	.21	.00	.00	.00	.03	.00	.00	.00
2	.00	.00	.00	.00	.00	.06	.00	.29	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.15	.00	.00	.00
4	.02	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	.05
5	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.42	.00	.00	.00	.25	.03	.00	.00	.03	.00	.00
9	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00	.09	.03
10	.00	.00	.00	.00	.01	.00	.02	.10	.00	.00	.00	.00
11	.00	.00	.85	.00	.14	.00	.00	.43	.00	.00	.00	.00
12	.00	.00	.12	.00	.19	.09	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.12	.00	.00	.00	.34	.13	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.06	.95	.00	.00	.00
15	.00	.00	.00	.00	.00	.29	.00	.01	.03	.00	.00	.00
16	.00	.00	.00	.00	.00	.20	.00	.00	.10	.00	.00	.00
17	.00	.00	.00	.00	.00	.22	.00	.00	.23	.38	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.26	.00	.00	.00	.00
19	.27	.00	.00	.00	.00	.00	.00	.22	.00	.00	.00	.00
20	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00
21	.12	.23	.00	.00	.88	.00	.00	.81	.00	.00	.00	.00
22	.00	.00	.00	1.67	.00	.00	.00	.12	.00	.00	.00	.02
23	.00	.00	.00	.91	.00	.00	.59	1.06	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.04	.48	.00	.00	.00	.00
25	.00	.00	.00	1.37	.00	.00	.01	.00	.00	.00	.00	.00
26	.00	.13	.00	.17	.00	.00	.00	.00	.00	.00	.49	.00
27	.00	.53	.10	.00	.00	.00	.00	.00	1.19	.00	.00	.15
28	.09	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00
29	.00	-----	.00	.00	.00	.00	.02	.10	.00	.00	.00	.00
30	.00	-----	.00	.13	.00	.00	.18	.00	.04	.00	.00	.02
31	.00	-----	.00	-----	.00	-----	.12	.15	-----	.00	-----	.00
TOTAL	.58	1.31	1.07	4.37	1.44	1.27	1.02	4.43	2.85	.41	.58	.27
STAV	.71	1.15	1.19	2.55	3.44	3.09	1.58	3.27	3.61	1.39	2.69	.78

NOTES: YEARLY PRECIPITATION 19.60 INCHES. PRECIPITATION VALUES ARE A THIESSEN WEIGHTED AVERAGE OF 36 GAGES ON THE WATERSHED.

1966 MEAN DAILY DISCHARGE (cfs)						CHICKASHA, OKLAHOMA WATERSHED 522 NEAR NINNEKAH						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	11	<u>1.5E</u>	17	12	30	7.9	.4	<u>.0</u>	7.8	5.3	1.5	4.2
2	11	<u>1.5E</u>	15	12	29	7.2	<u>.0</u>	.0	6.6	4.8	<u>.9</u>	<u>3.7</u>
3	9.3	<u>5.9E</u>	12	12	23	5.9	.0	.0	6.2	4.2	1.5	3.7
4	10	25	<u>9.3</u>	10	21	5.3	.0	.0	5.9	3.7	2.7	4.8
5	11	21	8.6	9.3	19	4.8	.0	.0	3.5	3.2	2.7	7.9
6	12	15	9.3	11	16	E 3.7	.0	.0	2.1	3.7	3.2	8.6
7	8.6	12	12	11	16	E 4.2	.0	.0	2.1	4.2	4.2	8.6
8	8.6	15	12	9.3	16	E 3.7	.0	.0	2.1	5.3	5.3	8.6
9	9.3	20	12	7.2	15	E 4.2	.0	.0	3.2	5.3	5.3	8.6
10	9.3	13	13	<u>5.9</u>	15	10	.0	.0	4.8	3.7	5.9	8.6
11	9.3	11	17	6.6	18	7.2	.0	.0	4.8	* 2.7	5.3	7.9
12	9.3	12	* <u>1.96</u>	7.2	23	4.8	.0	.0	5.5	3.2	5.3	10
13	9.3	11	* 39	12	23	5.9	.0	.0	6.6	4.2	5.3	11
14	10	12	* 17	12	20	5.9	.0	28	* <u>1.16</u>	3.7	4.2	<u>12</u>
15	11	12	15	12	18	6.3	.0	24	5.5	1.5	4.8	12
16	9.3	12	16	11	16	9.2	.0	3.0	4.3	<u>1.2</u>	5.9	12
17	8.6	11	14	10	12	* 5.3	.0	.0	5.5	3.2	6.6	9.3
18	7.2	12	9.3	10	12	5.9	.0	.0	5.9	<u>8.6</u>	5.3	9.3
19	9.3	12	9.3	12	13	5.3	.0	.0	5.1	5.3	5.3	8.6
20	11	11	13	10	14	3.7	.0	.0	4.3	3.7	5.3	7.9
21	7.2	15	* 14	* 8.6	<u>6.0</u>	3.7	.0	* 33	3.6	* 2.7	* 5.3	8.6
22	11	E 17	13	31	20	2.7	.0	26	3.3	1.9	5.3	7.9
23	12	E 16	10	* <u>1.92</u>	11	2.7	6.9	* 19	1.9	1.2	4.8	7.2
24	<u>2.0</u>	E 12	11	49	7.2	2.7	* <u>13</u>	* 36	1.9	1.5	4.2	5.3
25	19	14	12	* 50	<u>6.6</u>	2.3	1.2	20	1.7	1.9	4.8	4.2
26	15	14	13	104	6.6	1.9	.0	10	<u>1.3</u>	2.3	7.2	3.7
27	9.3	19	14	* 41	7.2	1.5	.0	6.6	36	2.3	<u>15</u>	3.7
28	9.3E	<u>29</u>	16	29	7.9	1.2	.0	5.5	35	2.7	7.2	4.2
29	7.2E	-----	15	23	7.9	1.2	.0	17	7.2	2.3	4.2	5.9
30	<u>1.5E</u>	-----	15	20	7.9	.9	.0	6.7	5.1	2.3	4.2	5.9
31	<u>1.5E</u>	-----	14	-----	6.6	-----	.0	7.8	-----	1.5	-----	6.6
MEAN	9.9	14	20	22	17	4.6	.7	7.9	10	3.3	5.0	7.4
INCHES	.055	.068	.110	.119	.093	.025	.004	.044	.055	.018	.027	.041

NOTES: TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/OAY, MULTIPLY BY .0001790. TO CONVERT DISCHARGE IN INCHES TO AC-FT, MULTIPLY BY 11.082. YEARLY MEAN DISCHARGE, 10.1 CFS. YEARLY DISCHARGE, .659 INCHES. MAXIMUM AND MINIMUM FLOWS EACH MONTH UNDERLINED. * DISCHARGE MEASUREMENTS.

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED 512 AT TABLER AREA — 22,530 ACRES (35.2 SQ. MILES)										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966	^{1/} .71	1.86	1.23	4.38	.65	1.71	2.57	7.29	2.81	.40	.74	.34	24.69			
	^q .082	.106	.178	.249	.083	.053	.091	.504	.391	.030	.055	.057	1.879			
STA AVG	^{2/} .84	1.31	1.41	2.64	2.88	3.67	1.85	4.58	3.53	1.35	2.53	.90	27.49			
P	^o .115	.122	.163	.183	.243	.078	.035	.366	.173	.054	.236	.089	1.857			
MEAN	^{3/} 1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09			
66 YR																
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-21	.0719	8-21	.0638	8-21	.1023	8-21	.141	8-21	.260	8-21	.322	8-21	.341	8-18	.425
MAXIMUMS FOR PERIOD OF RECORD ^{4/}																
19 63 TO 1966	8-8 1965	.1343	8-8 1965	.1294	8-8 1965	.2441	8-7 1965	.472	8-7 1965	.523	8-7 1965	.543	8-7 1965	.552	8-6 1965	.568
Notes: Watershed conditions same as that described in Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1963, p. 69.16-1. For Topography map, p. 69.16-4, see foregoing reference. For Geologic map, see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1962, p. 69.7-9. For revised Composite map, see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1965, p. 69.7-21.																
1/ Precipitation data obtained from a Thiessen weighted average of 10 gages on the watershed. 2/ Precipitation record began Oct. 1961; runoff records began July 1963. 3/ Mean P based on 66-yr (1901-66) U.S. Weather Bureau record period at Chickasha, Okla.; missing months estimated. 4/ Period of record began July 1963.																
MISCELLANEOUS DATA																
RUNOFF PEAK DATA: YEAR (1966): Maximum — Aug. 21, 1,634 cfs (8.42 ft). Minimum — June 30, no flow (0.90 ft). PERIOD OF RECORD: Maximum — Aug. 8, 1965, 3,051 cfs (10.73 ft). Minimum — no flow. PEAK DISCHARGES: (Above base flow of 600 cfs). 1966 — July 24, 687 cfs (6.42 ft); Aug. 21, 1,634 cfs (8.42 ft); Sept. 14, 1,446 cfs (8.10 ft).																
DAILY TEMPERATURE: See P. 69.7-3.																
NO SELECTED RUNOFF EVENT REPORTED FOR 1966.																

1966 DAILY PRECIPITATION (inches)					CHICKASHA, OKLAHOMA		WATERSHED 512 AT TABLER					
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.20	.00	.00	.00	.16	.00	.00	.00	.12	.00	.00	.00
2	.00	.00	.00	.00	.00	.01	.00	.32	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.30	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.05
5	.08	.00	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
8	.00	.74	.00	.00	.00	.35	.15	.00	.00	.04	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.06
10	.00	.00	.00	.00	.03	.00	.00	.06	.00	.00	.00	.00
11	.00	.00	1.02	.00	.33	.00	.00	.86	.00	.00	.00	.00
12	.00	.00	.21	.00	.02	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.04	.00	.00	.00	.13	1.15	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.52	.00	.00	.00
15	.00	.00	.00	.00	.00	.98	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.29	.00	.00	.20	.00	.00	.00
17	.00	.00	.00	.00	.00	.08	.00	.00	.10	.36	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	1.09	.00	.00	.00	.00
19	.30	.00	.00	.00	.00	.00	.00	.54	.00	.00	.00	.00
20	.00	.00	.00	.00	.02	.00	.04	.00	.00	.00	.00	.00
21	.07	.25	.00	.00	.09	.00	.00	1.67	.00	.00	.00	.00
22	.00	.00	.00	1.64	.00	.00	.00	.57	.00	.00	.00	.03
23	.00	.00	.00	.93	.00	.00	1.20	.93	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	1.13	.22	.00	.00	.00	.00
25	.00	.00	.00	1.22	.00	.00	.01	.00	.00	.00	.00	.00
26	.00	.13	.00	.38	.00	.00	.00	.00	.00	.00	.64	.00
27	.00	.74	.00	.00	.00	.00	.00	.00	.25	.00	.00	.18
28	.06	.00	.00	.04	.00	.00	.01	.09	.00	.00	.00	.00
29	.00	.00	.00	.04	.00	.00	.00	.06	.00	.00	.00	.00
30	.00	.00	.00	.09	.00	.00	.03	.00	.12	.00	.00	.00
31	.00	.00	.00	.00	.00	.00	.00	.72	.00	.00	.00	.00
TOTAL	.71	1.86	1.23	4.38	.65	1.71	2.57	7.29	2.81	.40	.74	.34
STA AV	.84	1.31	1.41	2.64	2.88	3.67	1.85	4.58	3.53	1.35	2.53	.90

NOTES: YEARLY PRECIPITATION 24.69 INCHES. PRECIPITATION VALUES ARE A THIESSEN WEIGHTED AVERAGE OF 10 GAGES ON THE WATERSHED.

1966 MEAN DAILY DISCHARGE cfs					CHICKASHA, OKLAHOMA		WATERSHED 512 AT TABLER					
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	<u>5.6</u>	2.7	3.1	2.0	5.8	.7	.0	.0	4.9	1.2	.8	1.8
2	2.8	2.5	2.6	1.8	5.3	.7	.0	.1	2.6	1.1	1.0	1.8
3	2.4	2.8	2.4	1.8	4.1	.6	.0	.1	1.7	1.0	1.0	1.8
4	2.4	2.8E	2.1	1.8	3.6	.4	.0	.0	1.4	.9	1.2	2.0
5	2.5	3.5	<u>1.8</u>	1.9	3.4	.4	.0	.0	3.4	.8	1.2	<u>2.2</u>
6	2.5	3.5	1.8	2.0	3.3	.4	.0	.0	1.3	.9	1.3	2.3
7	2.4	3.5	2.0	2.0	2.9	.4	.0	.0	1.2	.8	1.3	2.1
8	2.4	12	2.2	1.8	2.8	.3	.0	.0	1.2	.9	1.3	2.0
9	2.4	<u>12</u>	2.3	1.8	2.7	.7	1.2	.0	1.2	.9	1.4	1.9
10	2.3	3.4	2.3	1.9	2.5	.6	.1	.0	1.2	.8	1.3	1.8
11	2.3	2.8	2.6	2.0	3.2	.5	.0	8.8	1.1	.8	1.4	1.7
12	2.4	2.7	<u>9.6</u>	2.0	<u>7.0</u>	.2	.0	.4	1.1	.8	1.4	1.7
13	2.2	2.6	5.0	2.1	3.6	.2	.0	.2	1.2	.8	1.5	1.7
14	2.2	<u>2.6</u>	3.5	1.9	3.1	.1	.0	.1	* <u>29.6</u>	<u>.7</u>	1.5	1.8
15	2.3	2.4	3.2	1.9	2.8	.9	.0	.1	1.4	.7	1.6	1.7
16	2.3	2.5	2.8	1.7	2.6	* <u>37</u>	.0	.1	6.1	.7	1.5	1.7
17	2.1	2.4	2.5	1.7	2.5	2.5	.0	.0	.5	<u>1.3</u>	1.5	1.7
18	2.2E	2.4	2.3	1.8	2.0	1.0	.0	6.6	.4	1.2	1.7	1.8
19	2.6	2.4	2.2	1.8	1.7	.7	.0	15	.2	1.0	1.8	1.8
20	3.1	2.4	2.3	1.6	1.6	.6	.0	10	1.2	.9	1.7	1.8
21	2.8	2.4E	2.3	<u>1.5</u>	1.9	.4	.0	* <u>22.8</u>	1.2	* .9	1.8	1.8
22	2.5	2.4E	2.2	* 10	1.8	.3	.0	* 90	2.4	.9	1.9	1.7
23	2.3	2.7E	1.8	3.5	1.4	.2	4.4	41	1.7	.9	1.7	1.7
24	2.5	2.6E	2.0	1.4	.9	.2	* <u>7.4</u>	12	1.5	.9	1.7	<u>1.4</u>
25	2.8	2.6	2.1	* 5.3	.8	.1	4.8	3.4	1.3	.9	1.8	1.4
26	2.8	2.6	2.2	<u>5.6</u>	.9	.1	1.0	1.9	1.2	1.0	3.2	1.4
27	2.4	4.4	2.2	11	1.0	.1	.4	1.4	1.2	.9	5.9	1.5
28	2.0	6.3	2.2	6.3	1.0	.0	.2	1.2	1.9	1.1	2.3	1.6
29	1.9E	.00	2.2	5.9	.8	.0	.1	2.7	1.7	.9	2.1	1.5
30	<u>1.8E</u>	.00	2.1	5.6	.7	.0	.1	61.3	1.2	1.0	1.9	1.6
31	2.2	.00	2.1	.00	.7	.00	.1	53	1.2	1.2	1.7	1.8
MEAN	2.5	3.6	5.4	7.9	2.5	1.7	2.8	15	12	.9	1.7	1.8
INCHES	.082	.106	.178	.249	.083	.053	.091	.504	.391	.030	.055	.057

NOTES: TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY .001056. TO CONVERT DISCHARGE IN INCHES TO AC-FT, MULTIPLY BY 1.877. YEARLY MEAN DISCHARGE, 4.9 CFS. YEARLY DISCHARGE, 1.879 INCHES. MAXIMUM AND MINIMUM FLOWS EACH MONTH UNDERLINED. * DISCHARGE MEASUREMENTS.

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED 621 NEAR TABLER AREA — 21,310 ACRES (33.3 SQ. MILES)										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966	^{1/} .76	1.99	.92	4.00	.71	1.73	2.67	5.82	2.24	.33	.67	.30	22.14			
	^{2/} .099	.168	.203	.210	.185	.055	.055	.162	.094	.026	.053	.077	1.387			
STA AVG	^{2/} .98	1.31	1.25	2.74	3.29	3.46	1.70	3.97	3.69	1.31	2.49	.90	27.09			
MEAN	^{3/} .143	.157	.163	.192	.438	.083	.026	.247	.255	.066	.257	.102	2.129			
66 YR	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	4-22	.0066	4-23	.0064	4-23	.0123	4-23	.027	4-23	.034	4-23	.041	4-22	.064	4-22	.129
MAXIMUMS FOR PERIOD OF RECORD ^{4/}																
1963	5-10	.2074	5-10	.1790	5-10	.2690	5-10	.337	5-10	.350	5-9	.618	5-9	.672	5-5	.790
1966	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964
NOTES: Watershed conditions same as that described in Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1963, p. 69.17-1. For maps -- revised Topography, see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1965, p. 69.17-8; revised Composite, see foregoing publication, p. 69.7-21; Geologic, see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1962, p. 69.7-9. ^{1/} Precipitation data obtained from a Thiessen weighted average of 9 gages on the watershed. ^{2/} Precipitation records began Oct. 1961; runoff records began Oct. 1963. ^{3/} Mean P based on 66-yr (1901-66) U. S. Weather Bureau record period at Chickasha, Oklahoma; missing months estimated. ^{4/} Period of record began Oct. 1963.																
MISCELLANEOUS DATA																
<u>RUNOFF PEAK DATA:</u> YEAR(1966): Maximum — Aug. 21, 148 cfs (3.53) <u>RUNOFF PEAK DATA:</u> YEAR (1966): Maximum — Aug. 21, 148 cfs (3.53 ft). Minimum — July 5, no flow (0.98 ft). PERIOD OF RECORD: Maximum — May 10, 1964, 4,460 cfs (8.62 ft). Minimum — no flow. PEAK DISCHARGES: (Above base flow of 500 cfs). None. <u>DAILY TEMPERATURE:</u> See page 69.7-3.																
NO SELECTED RUNOFF EVENT REPORTED FOR 1966.																

1966 DAILY PRECIPITATION (inches)						CHICKASHA, OKLAHOMA WATERSHED 621 NEAR TABLER						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.29	.00	.00	.00	.29	.00	.00	.00	.12	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.30	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.22	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.05	.00	.02	.00	.00	.05
5	.06	.00	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.80	.00	.00	.00	.34	.36	.00	.00	.01	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.04
10	.00	.00	.00	.00	.06	.00	.00	.05	.00	.00	.00	.00
11	.00	.00	.65	.00	.10	.00	.00	1.41	.00	.00	.00	.00
12	.00	.00	.27	.00	.18	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.07	.00	.00	.00	.05	.50	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.69	.00	.00	.00
15	.00	.00	.00	.00	.00	1.03	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.21	.00	.00	.20	.00	.00	.00
17	.00	.00	.00	.00	.00	.15	.00	.00	.11	.32	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.66	.00	.00	.00	.00
19	.28	.00	.00	.00	.00	.00	.00	.24	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.06	.22	.00	.00	.08	.00	.00	1.26	.00	.00	.00	.00
22	.00	.00	.00	1.70	.00	.00	.00	.22	.00	.00	.00	.01
23	.00	.00	.00	.95	.00	.00	1.52	.91	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.36	.27	.00	.00	.00	.00
25	.00	.00	.00	1.03	.00	.00	.32	.00	.00	.00	.00	.00
26	.00	.16	.00	.10	.00	.00	.00	.00	.00	.00	.57	.00
27	.00	.81	.00	.00	.00	.00	.00	.00	.16	.00	.00	.18
28	.07	.00	.00	.04	.00	.00	.00	.03	.00	.00	.00	.00
29	.00	-----	.00	.00	.00	.00	.01	.02	.00	.00	.00	.00
30	.00	-----	.00	.11	.00	.00	.05	.00	.22	.00	.00	.02
31	.00	.00	.00	.00	.00	.00	.00	.38	-----	.00	.00	.00
TOTAL	.76	1.99	.92	4.00	.71	1.73	2.67	5.82	2.24	.33	.67	.30
STAAV	.98	1.31	1.25	2.74	3.29	3.46	1.70	3.97	3.69	1.31	2.49	.90

NOTES:
 YEARLY PRECIPITATION 22.14 INCHES. PRECIPITATION VALUES ARE A THIESSEN WEIGHTED AVERAGE OF 9 GAGES ON THE WATERSHED.

1966 MEAN DAILY DISCHARGE (cfs)						CHICKASHA, OKLAHOMA WATERSHED 621 NEAR TABLER						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	4.3	2.8	10	2.6	5.9	2.8	.2	.6	3.0	1.2	.7	2.0
2	3.1	2.6	10	2.5	4.3	4.1	.1	.9	1.7	.8	.8	2.0
3	2.6	3.1E	10	2.5	3.7	1.6	.0	.3	1.4	.7	1.0	1.8
4	2.6	4.3E	9.0	2.0	3.3	1.4	.0	.1	1.2	.6	1.1	2.1
5	3.1	5.2E	8.1	2.1	3.3	1.1	.0	.1	1.2	.7	1.2	2.5
6	3.0	4.1	7.6	2.1	3.0	1.1	.0	.1	.7	.6	1.2	2.5
7	2.8	3.5	6.7	2.1	2.4	.7	.0	.0	.6	.5	1.2	2.2
8	2.6	10	6.2	2.1	2.4	.6	.0	.0	.6	.5	1.2	2.1
9	2.5	5.4	4.9	2.1	2.1	1.5	.0	.0	.7	.6	1.3	2.1
10	2.4	4.5	4.9	2.2	2.5	.7	.0	.0	.8	.3	1.6	1.7
11	2.5	5.9	5.2	2.2	2.8	.6	.0	1.4	.8	.4	1.5	1.8
12	2.5	5.9	2.2	2.2	7.0	.5	.0	2.5	1.0	.4	1.3	2.4
13	2.4	5.6	8.4	2.4	2.8	.4	.0	2.0	.9	.5	1.4	2.8
14	2.5	5.4	7.9	2.6	2.6	.4	.0	1.2	2.6	.3	1.5	2.2
15	2.8	4.7	6.2	2.1	2.4	.9	.0	.5	7.9	2.2	1.4	1.8
16	2.5	2.8	4.9	2.0	2.2	8.3	.0	.1	6.4	.3	1.4	2.1
17	2.5	2.4	4.7	1.8	4.9	4.5	.0	.0	5.6	1.2	1.4	2.1
18	3.7E	2.8	4.3	2.2	10	4.3	.0	.1	4.5	1.5	1.5	2.1
19	4.1E	2.4	4.3	1.7	10	3.7	.0	6.0	3.1	1.1	1.5	2.1
20	4.5	2.4	4.1	1.5	10	3.1	.0	1.7	2.6	1.0	1.5	2.2
21	2.5E	1.5E	3.7	1.6	10	2.1	.0	20	2.0	.8	1.5	2.2
22	2.5E	1.7E	3.3	1.9	10	1.3	.0	17	1.7	.7	1.5	2.1
23	2.4E	2.1E	2.2	3.5	8.4	1.0	7.4	30	1.3	.7	1.5	1.5
24	3.1	5.2E	2.8	9.7	7.6	.7	7.2	16	1.3	.9	2.1	1.8
25	4.1	12	2.8	2.7	7.9	.5	1.2	9.0	1.1	1.0	2.1	2.2
26	3.7E	12	3.0	1.6	7.6	.4	5.4	5.2	1.0	1.0	4.1	2.0
27	3.3E	1.7	3.0	7.9	8.1	2.2	4.9	3.9	1.5	.9	2.6	3.7
28	1.3E	1.3	2.8	7.9	6.2	.3	4.5	2.6	1.3	.8	2.1	2.8
29	1.7E	-----	3.0	5.6	5.2	.3	3.7	2.4	1.0	.9	2.0	2.5
30	1.6	-----	3.0	5.6	3.7	.2	2.2	1.8	1.4	1.0	2.0	2.1
31	3.1	-----	3.0	-----	3.0	-----	1.3	6.9	-----	1.0	-----	3.7
MEAN	2.8	5.4	5.9	6.3	5.3	1.6	1.6	4.7	2.8	0.7	1.6	2.2
INCHES	.099	.168	.203	.210	.185	.055	.055	.162	.094	.026	.053	.077

NOTES: TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY .001117. TO CONVERT DISCHARGE IN INCHES TO AC-FT, MULTIPLY BY 1.776. YEARLY MEAN DISCHARGE, 3.4 CFS. YEARLY DISCHARGE, 1.387 INCHES. MAXIMUM AND MINIMUM FLOWS EACH MONTH UNDERLINED. * DISCHARGE MEASUREMENTS.

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED 121 AT GRACEMONT AREA — 131,780 ACRES (205.9 SQ. MILES)										
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL		
1966	P ^{1/} _o	.34	1.54	1.07	2.66	.69	2.39	1.49	5.98	4.01	.47	.21	.48	21.33		
	O	.069	.072	.117	.080	.033	.011	.000	.092	.052	.015	.017	.051	.609		
STA AVG	P ^{2/} _D	.46	.99	1.02	2.11	2.97	4.47	1.39	2.87	5.94	1.41	1.74	1.02	26.39		
	D	.043	.055	.064	.063	.139	.069	.000	.031	.450	.040	.021	.046	1.021		
MEAN	P ^{3/} _{66 YR}	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09		
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-11	.0059	8-11	.0057	8-11	.0106	8-11	.018	8-11	.021	8-11	.027	8-11	.035	8-11	.068
MAXIMUMS FOR PERIOD OF RECORD ^{4/}																
1963 TO 1966	9-21 1965	.0640	9-21 1965	.0622	9-21 1965	.1220	9-21 1965	.318	9-21 1965	.497	9-21 1965	.653	9-21 1965	.815	9-21 1965	1.238
NOTES: Watershed conditions same as that described in Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1963, p. 69.18-1. For maps -- Topography, see foregoing reference, p. 69.18-4; revised Composite, see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1965, p. 69.7-21; Geologic, see Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1962, p. 69.7-9. The stream gaging station was maintained from Oct. 1955 to Oct. 1963 by the U. S. Geological Survey. ^{1/} Precipitation data obtained from a Thiessen weighted average of 32 gages on the watershed. ^{2/} Precipitation records began Oct. 1961; runoff records began Oct. 1963. ^{3/} Mean P based on 66-yr (1901-1966) U. S. Weather Bureau record period at Chickasha, Okla.; missing months estimated. ^{4/} Period of record began Oct. 1963.																
MISCELLANEOUS DATA																
<p><u>RUNOFF PEAK DATA:</u> YEAR (1966): Maximum — Aug. 11, 790 cfs (7.45 ft). Minimum — June 9, no flow (3.41 ft). PERIOD OF RECORD: Maximum — Sept. 21, 1965, 8,500 cfs (10.77 ft). Minimum — no flow. PEAK DISCHARGES: (Above base flow of 900 cfs) None.</p> <p><u>DAILY TEMPERATURE:</u> See page 69.7-3.</p>																
NO SELECTED RUNOFF EVENT REPORTED FOR 1966																

1966 DAILY PRECIPITATION (inches)						CHICKASHA, OKLAHOMA WATERSHED 121 AT GRACEMONT						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.03	.00	.00	.00	.09	.12	.00	.04	.31	.00	.00	.00
2	.00	.00	.00	.00	.00	.08	.00	.07	.05	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.58	.00	.00	.01
4	.00	.00	.00	.00	.00	.02	.00	.00	.02	.00	.00	.02
5	.00	.00	.00	.00	.00	.01	.00	.01	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.	.00	.00	.00	.01
8	.00	.52	.00	.00	.00	.81	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06	.20
10	.00	.00	.00	.00	.00	.00	.00	1.68	.00	.00	.00	.00
11	.00	.00	.91	.00	.00	.00	.00	.27	.00	.00	.00	.00
12	.00	.00	.16	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.03	.00	.00	.00	.00	.00	.14	1.01	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00
15	.00	.00	.00	.00	.00	.61	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.50	.00	.00	.17	.00	.00	.00
17	.00	.00	.00	.00	.00	.08	.00	.00	.18	.47	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	1.20	.00	.00	.00	.00
19	.22	.00	.00	.00	.00	.00	.02	.08	.00	.00	.00	.00
20	.00	.00	.00	.00	.20	.00	.62	.00	.00	.00	.00	.00
21	.09	.15	.00	.00	.39	.00	.01	.02	.00	.00	.00	.00
22	.00	.00	.00	1.75	.00	.00	.00	.03	.00	.00	.00	.12
23	.00	.00	.00	.26	.00	.00	.23	1.58	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.20	.00	.00	.00	.00
25	.00	.00	.20	.46	.00	.00	.54	.00	.00	.00	.00	.00
26	.00	.25	.00	.14	.00	.16	.00	.00	.00	.00	.15	.00
27	.00	.59	.00	.00	.00	.00	.00	.00	1.66	.00	.00	.10
28	.00	.00	.00	.00	.00	.00	.06	.00	.00	.00	.00	.00
29	.00	-----	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	-----	.00	.04	.01	.00	.01	.01	.02	.00	.00	.02
31	.00	-----	.00	.00	.00	.00	.00	.47	-----	.00	.00	.00
TOTAL	.34	1.54	1.07	2.66	.69	2.39	1.49	5.98	4.01	.47	.21	.48
ST. AV.	.46	.99	1.02	2.11	2.97	4.47	1.39	2.87	5.94	1.41	1.74	1.02

NOTES: YEARLY PRECIPITATION 21.33 INCHES. PRECIPITATION VALUES ARE A THIESSEN WEIGHTED AVERAGE OF 32 GAGES ON THE WATERSHED.

1966 MEAN DAILY DISCHARGE (cfs)						CHICKASHA, OKLAHOMA WATERSHED 121 AT GRACEMONT						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	18.	.0E	31.	7.0	15.	* 2.1	.0	.0	3.1	7.5	2.1	5.6
2	17.	.0E	22.	6.5	15.	* 2.8	.0	.0	1.5	5.6	1.8	5.1
3	14.	.0E	19.	6.0	13.	2.8	.0	.0	1.8	4.3	1.2	14.
4	17.	1.5E	16.	6.0	11.	2.4	.0	.0	9.6	3.1	1.5	15.
5	* 21.	19. E	11.	5.6	11.	1.8	.0	.0	6.0	2.4	2.1	* 15.
6	26.	15. E	10.	5.1	9.1	1.2	.0	.0	3.9	1.8	2.1	14.
7	21.	13.	9.1	* 6.0	8.0	2.1	.0	.0	2.4	1.5	2.4	12.
8	16.	17.	9.6	6.0	6.5	* 3.5	.0	.0	2.1	1.8	3.1	10.
9	13.	33.	13.	6.5	5.6	* 11.	.0	.0	2.4	1.8	3.1	11.
10	15.	* 26.	12.	6.5	6.0	.0	.0	.0	2.4	* 2.4	3.1	10.0E
11	14.	19.	15.	7.0	7.0	.0	.0	* 138.	1.8	2.1	3.1	9.1E
12	13.	15.	* 159.	6.5	5.6	.0	.0	47.	1.5	2.1	2.4	10.2E
13	13.	13.	40.	7.0	6.6	.0	.0	* 43.	* 1.5	2.1	2.8	13.
14	12.	13.	* 35.	6.5	6.0	.0	.0	36.	41.	1.5	2.8	12.
15	13.	12.	30.	* 6.5	6.5	.1	.0	31.	22.	.3	2.8	11.
16	11.	11.	26.	6.5	5.1	* 14.	.0	* 26.	15.	.6	* 3.1	9.6
17	9.6	10.	* 22.	5.6	4.3	3.9	.0	* 24.	13.	3.1	2.4	9.6
18	9.6	11.	19.	5.6	3.1	2.1	.0	27.	12.	5.1	2.1	9.6
19	12.	10.	15.	6.0	2.4	2.1	.0	32.	10.	4.7	2.4	9.6
20	13.	9.6	15.	5.1	2.1	1.5	.0	18.	8.0	5.1	3.1	* 9.1
21	15.	7.5E	14.	4.7	11.	* 1.2	.0	11.	6.0	3.5	3.5	9.6
22	11. E	3.1E	13.	24.	4.7	1.0	.0	6.0	4.3	2.1	3.5	9.6
23	5.0E	4.3E	9.6	* 51.	3.1	.7	.0	* 9.1	3.1	1.8	3.5	9.1
24	5.0E	11. E	9.1	44.	2.1	.6	.0	15.	2.4	1.8	3.9	9.0
25	6.4E	21.	9.1	* 47.	1.8	.4	.9	* 11.	1.8	1.8	3.9	5.5E
26	12. E	19.	9.1	* 43.	1.2	1.1	1.1	8.0	1.5	1.8	5.1	4.3E
27	9.6E	35.	* 8.5	29.	1.8	1.3	.0	4.7	* 4.8	.8	5.6	3.5E
28	7.0E*	43.	* 9.1	26.	2.1	.2	.0	3.5	29.	1.5	* 4.3	3.0E
29	4.3E	-----	8.5	22.	2.1	.3	.0	2.8	15.	2.4	4.3	3.1E
30	1.5E	-----	8.5	19.	1.5	.2	.0	1.8	10.	2.4	7.0	3.3E
31	.0E	-----	8.5	1.2	1.2	.0	.0	3.9	-----	* 2.1	3.6E	-----
MEAN	12	14	71	14	5.8	2.0	.1	16	9.4	2.6	3.1	9.0
INCHES	.069	.072	.117	.080	.033	.011	.000	.092	.052	.015	.017	.051

NOTES TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY .0001806. TO CONVERT DISCHARGE IN INCHES TO AC-FT. MULTIPLY BY 10.980. YEARLY MEAN DISCHARGE, 9.1 CFS. YEARLY DISCHARGE, .609 INCHES. MAXIMUM AND MINIMUM FLOWS EACH MONTH UNDERLINED. * DISCHARGE MEASUREMENTS.

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED 513 NEAR TABLER AREA — 12,314 ACRES (19.24 SQ. MILES)										
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL		
1966	P ^{1/}	.57	1.72	1.25	4.51	.66	1.55	2.49	7.60	3.27	.40	.79	.35	25.16		
	O	.079	.087	.187	.296	.099	.031	.074	.508	.593	.038	.064	.068	2.124		
STA AVG	P ^{2/}	1.06	1.49	1.24	3.18	1.87	2.02	1.65	7.30	3.04	.73	.42	.72	24.72		
	O	.132	.125	.216	.276	.140	.060	.042	.650	.342	.044	.058	.074	2.159		
MEAN	P ^{3/}	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09		
66 YR	O															
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	9-14	.0984	9-14	.0946	9-14	.1770	9-14	.408	9-14	.462	9-14	.489	9-14	.505	9-14	.517
MAXIMUMS FOR PERIOD OF RECORD ^{4/}																
19 65 TO	8-8	.1692	8-8	.1637	8-8	.3070	8-7	.562	8-7	.594	8-7	.609	8-7	.617	8-7	.618
1966	1965		1965		1965		1965		1965		1965		1965		1965	
NOTES: Watershed conditions same as described in Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1965, p. 69.19-1. Maps -- Topography, p. 69.16-8; Composite, p. 69.7-21; of foregoing reference.																
^{1/} Precipitation data obtained from a Thiessen weighted average of 18 gages on the watershed. ^{2/} Precipitation records began Jan. 1965; runoff records began Jan. 1965. ^{3/} Mean P based on 66-yr (1901-66) U.S. Weather Bureau record period at Chickasha, Okla.; missing months estimated. ^{4/} Period of record began Jan. 1965.																
MISCELLANEOUS DATA																
RUNOFF PEAK DATA: YEAR (1966): Maximum — Sept. 14, 1,222 cfs (7.58 ft). Minimum — June 23, no flow (0.90 ft). PERIOD OF RECORD: Maximum — Aug. 8, 1965, 2,100 cfs (9.15 ft). Minimum — No flow. PEAK DISCHARGES: (Above base flow of 500 cfs) 1966 — Aug. 21, 927 cfs (6.90 ft); Sept. 14, 1,222 cfs (7.58 ft).																
DAILY TEMPERATURE: See page 69.7-3																
NO SELECTED RUNOFF EVENT REPORTED FOR 1966.																

1966 DAILY PRECIPITATION (inches)						CHICKASHA, OKLAHOMA WATERSHED 513 NEAR TABLER						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.10	.00	.00	.00	.13	.00	.00	.00	.09	.00	.00	.00
2	.00	.00	.00	.00	.00	.02	.00	.31	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.40	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.07	.00	.00	.05
5	.07	.00	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00
8	.00	.66	.00	.00	.00	.34	.06	.00	.00	.04	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.06
10	.00	.00	.00	.00	.02	.00	.00	.07	.00	.00	.00	.00
11	.00	.00	1.05	.00	.40	.00	.00	.47	.00	.00	.00	.00
12	.00	.00	.20	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.04	.00	.00	.00	.20	1.38	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.67	.00	.00	.00
15	.00	.00	.00	.00	.00	.89	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.27	.00	.00	.20	.00	.00	.00
17	.00	.00	.00	.00	.00	.03	.00	.00	.09	.36	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	1.28	.00	.00	.00	.00
19	.29	.00	.00	.00	.00	.00	.00	.65	.00	.00	.00	.00
20	.00	.00	.00	.00	.01	.00	.06	.00	.00	.00	.00	.00
21	.06	.22	.00	.00	.10	.00	.00	1.52	.00	.00	.00	.00
22	.00	.00	.00	1.60	.00	.00	.00	.83	.00	.00	.00	.03
23	.00	.00	.00	.92	.00	.00	1.10	1.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	1.22	.21	.00	.00	.00	.00
25	.00	.00	.00	1.34	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.12	.00	.43	.00	.00	.00	.00	.00	.00	.70	.00
27	.00	.72	.00	.00	.00	.00	.00	.00	.29	.00	.00	.19
28	.05	.00	.00	.05	.00	.00	.01	.08	.00	.00	.00	.00
29	.00	-----	.00	.05	.00	.00	.00	.05	.00	.00	.00	.00
30	.00	-----	.00	.08	.00	.00	.04	.00	.08	.00	.00	.02
31	.00	-----	.00	.00	.00	.00	.00	.89	-----	.00	-----	.00
TOTAL	.57	1.72	1.25	4.51	.66	1.55	2.49	7.60	3.27	.40	.79	.35
STAV	1.06	1.49	1.24	3.18	1.87	2.02	1.65	7.30	3.04	.73	.62	.77

NOTES
YEARLY PRECIPITATION 25.16 INCHES. PRECIPITATION VALUES ARE A THIESSEN WEIGHTED AVERAGE OF 7 GAGES ON THE WATERSHED.

1966 MEAN DAILY DISCHARGE (cfs)						CHICKASHA, OKLAHOMA WATERSHED 513 NEAR TABLER						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	1.5	<u>1.2E</u>	1.4	1.1	2.9	.5	<u>0</u>	<u>0</u>	3.2	.7	<u>.6</u>	1.2
2	1.4	<u>1.4E</u>	1.3	1.1	2.5	.5	<u>0</u>	<u>0</u>	1.3	.7	<u>.6</u>	1.2
3	1.3	<u>1.4E</u>	1.3	1.1	2.5	.4	<u>0</u>	<u>0</u>	.8	.7	<u>.7</u>	1.1
4	1.3	<u>1.6E</u>	1.1	1.1	2.3	.3	<u>0</u>	<u>0</u>	14	.6	<u>.8</u>	1.3
5	1.5	<u>1.5</u>	1.1	1.1	2.2	.2	<u>0</u>	<u>0</u>	2.3	.6	<u>.8</u>	<u>1.5</u>
6	1.4	<u>1.5</u>	<u>1.0</u>	1.2	2.1	.2	<u>0</u>	<u>0</u>	.8	.6	.9	1.5
7	1.3	<u>1.5</u>	<u>1.2</u>	1.2	2.1	.2	<u>0</u>	<u>0</u>	<u>.5</u>	.7	.9	1.3
8	1.3	<u>2.0</u>	<u>1.3</u>	1.2	2.0	.2	<u>0</u>	<u>0E</u>	<u>.5</u>	.6	.9	1.2
9	1.3	<u>5.2</u>	<u>1.3</u>	1.2	1.7	.3	<u>0</u>	<u>0</u>	<u>0</u>	.6	.8	1.1
10	1.3	<u>1.5</u>	<u>1.3</u>	1.3	1.8	.3	<u>0</u>	<u>0</u>	<u>0</u>	.6	.9	<u>1.0</u>
11	1.2	<u>1.3</u>	<u>1.7</u>	1.3	2.2	.1	<u>0</u>	<u>0</u>	.6	.5	.8	1.0
12	1.3	<u>1.4</u>	<u>.55</u>	1.1	<u>5.3</u>	<u>0</u>	<u>0</u>	<u>0</u>	.6	.5	.8	1.1
13	1.2	<u>1.3</u>	<u>2.8</u>	1.1	2.4	<u>0</u>	<u>0</u>	<u>0</u>	.6	.6	.9	1.1
14	1.3	<u>1.3</u>	<u>1.9</u>	1.1	2.1	<u>0</u>	<u>0</u>	<u>0</u>	<u>252</u>	.5	.9	1.3
15	1.3	<u>1.3</u>	<u>1.7</u>	1.1	2.0	<u>0</u>	<u>0</u>	<u>0</u>	9.1	.3	1.0	1.2
16	1.3	<u>1.3</u>	<u>2.5</u>	1.0	1.9	<u>11</u>	<u>0</u>	<u>0</u>	3.6	<u>.2</u>	.9	1.2
17	1.2	<u>1.3</u>	<u>1.4</u>	1.0	1.6	<u>.7</u>	<u>0</u>	<u>0</u>	2.7	<u>.6</u>	.9	1.1
18	1.3	<u>1.3</u>	<u>1.2</u>	1.0	1.3	.3	<u>0</u>	<u>0</u>	2.2	<u>1.1</u>	1.2	1.1
19	1.5	<u>1.3</u>	<u>1.3</u>	1.1	1.1	.2	<u>0</u>	13	1.4	<u>.8</u>	1.1	1.1
20	<u>1.7</u>	<u>1.2</u>	<u>1.4</u>	<u>.9</u>	1.1	.2	<u>0</u>	5.7	.2	.6	1.1	1.0
21	1.5	<u>1.2</u>	<u>1.4</u>	.9	1.3	.1	<u>0</u>	<u>84</u>	.6	.6	1.0	1.0
22	<u>1.4E</u>	<u>1.3</u>	<u>1.3</u>	4.5	1.1	.1	<u>0</u>	71	1.3	.6	1.1	1.0
23	<u>1.3E</u>	<u>1.2</u>	<u>1.0</u>	22	.9	<u>0</u>	<u>0</u>	29	.9	.6	1.1	1.0
24	1.4	<u>1.3</u>	<u>1.1</u>	7.1	.6	<u>0</u>	<u>27</u>	6.9	.8	.7	1.0	1.0
25	1.5	<u>1.4</u>	<u>1.3</u>	<u>44</u>	.6	<u>0</u>	1.3	1.9	.8	.8	1.1	1.0
26	1.5	<u>1.4</u>	<u>1.3</u>	37	.6	<u>0</u>	.2	.9	.7	.8	2.9	1.0
27	1.2	<u>2.3</u>	<u>1.3</u>	6.1	.6	<u>0</u>	<u>0</u>	.6	.9	.7	<u>2.5</u>	1.0
28	1.1	<u>3.0</u>	<u>1.3</u>	3.2	.6	<u>0</u>	<u>0</u>	1.5	1.5	.9	1.4	1.0
29	1.1	-----	<u>1.2</u>	3.2	.6	<u>0</u>	<u>0</u>	.6	1.0	.6	1.3	1.0
30	<u>1.0</u>	-----	<u>1.2</u>	2.9	.6	<u>0</u>	<u>0</u>	.5	.8	.6	1.3	1.2
31	<u>1.1</u>	-----	<u>1.2</u>	.4	.4	<u>0</u>	<u>0</u>	47	.6	.6	1.2	1.2
MEAN	1.3	1.6	3.1	5.1	1.6	.5	1.2	8.5	10	.6	1.1	1.1
INCHES	.079	.087	.187	.286	.099	.031	.074	5.08	5.93	.338	.284	.088

NOTES TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY .001933. TO CONVERT DISCHARGE IN INCHES TO AC-FT, MULTIPLY BY 1.026. YEARLY MEAN DISCHARGE, 3.0 CFS. YEARLY DISCHARGE, 2.12 INCHES. MAXIMUM AND MINIMUM FLOWS EACH MONTH UNDERLINED. * DISCHARGE MEASUREMENTS.

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED C-1 AREA - 17.8 ACRES						69.30		
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P 1	.42	1.48	1.27	4.97	.83	1.78	2.36	8.09	2.90	.37	.57	.27	25.31
	Q	.000	.000	.033	.184	.000	.006	.034	1.643	.400	.000	.000	.000	2.300
	2/ STA AVG P (65-66)	.86	1.20	1.18	3.30	1.64	2.27	1.54	8.41	2.98	.74	.31	.56	24.99
66 YR	MEAN P	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-29	.056	8-29	.054	8-29	.107	8-29	.298	8-29	.519	8-29	.693	8-29	.753	8-23	1.153

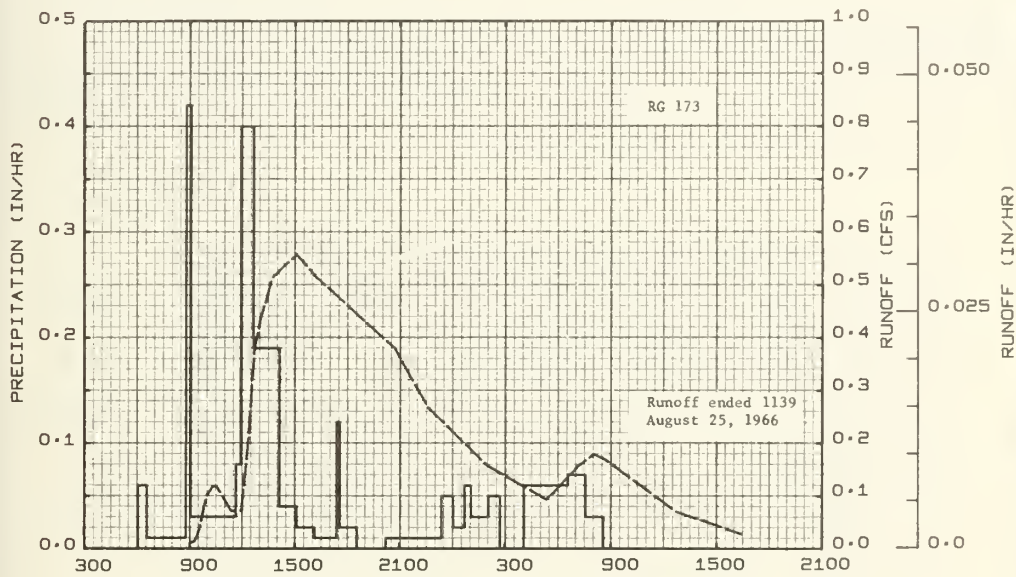
MAXIMUMS FOR PERIOD OF RECORD																
1965 TO 1966	8-28 1965	.068	8-28 1965	.065	8-28 1965	.128	8-28 1965	.349	8-28 1965	.614	8-28 1965	.920	8-28 1965	1.049	8-23 1966	1.153

NOTES: Watershed conditions: Continuous cotton - tillage during fallow period consisted of shredding stalks, disking, chiseling, spring-tooth harrowing and spike-tooth harrowing. Cotton was planted in mid-June. Tillage during growing season consisted of rotary hoeing and cultivating. Principal drain with less than 0.05-foot grade per 100 feet was maintained during growing season by use of field cultivator. 1/ Monthly precipitation values obtained from one recording rain gage, No. 173, located near the 1.5-foot H-flume. 2/ Precipitation and runoff records began January 1, 1965. 3/ Mean P based on 66-year (1901-66) U. S. Weather Bureau record period at Chickasha, Oklahoma.

1966 SELECTED RUNOFF EVENTS						CHICKASHA, OKLAHOMA WATERSHED C-1						69.30
ANTECEDENT CONDITIONS			RAINFALL			RUNOFF						
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)		
Event of August 23-24, 1966												
	RG 173				RG 173							
7-23	.68	.000	8-23	0604	.00	.00	8-23	0843	.00000	.00000		
7-24	1.13	.034		0634	.06	.03		0846	.00002	.00000		
7-30	.55	.000		0847	.01	.04		0848	.00021	.00000		
8-02	.31	.000		0904	.42	.16		0855	.00012	.00002		
8-07	.04	.000		1139	.03	.24		0857	.00012	.00002		
8-10	.08	.000		1155	.08	.26		0901	.00043	.00004		
8-11	1.97	.127		1238	.40	.55		0902	.00057	.00005		
8-13	.06	.000		1408	.19	.83		0916	.00072	.00020		
8-18	.60	.000		1508	.04	.87		0924	.00111	.00033		
8-19	.80	.135		1608	.02	.89		0931	.00177	.00049		
8-20	.00	.009		1724	.01	.90		0943	.00358	.00103		
8-21	.64	.133		1734	.12	.92		0958	.00562	.00218		
8-22	.22	.073 ^{4/}		1834	.02	.94		1019	.00657	.00432		
8-23	.00			2014	.00	.94		1031	.00657	.00563		
				2324	.01	.97		1059	.00517	.00838		
			8-24	0004	.05	1.00		1122	.00395	.01013		
				0044	.02	1.01		1156	.00395	.01237		
				0104	.06	1.03		1204	.00608	.01304		
				0204	.03	1.06		1220	.01129	.01535		
				0244	.05	1.09		1230	.01573	.01761		
				0404	.00	1.09		1241	.02113	.02099		
				0634	.06	1.23		1302	.02419	.02892		
				0734	.07	1.30		1342	.02858	.04651		
				0834	.03	1.33		1420	.02975	.06499		
								1506	.03097	.08827		
								1614	.02858	.12202		
								2043	.02113	.23348		
								2236	.01496	.26747		
								0202	.00873	.30814		
								0522	.00517	.33132		
								0710	.00873	.34384		
								0802	.00995	.35194		
								0843	.00934	.35853		
								1239	.00395	.38468		
								1623	.00153	.39493		

Watershed conditions:
100% nonirrigated cropland. Planted to cotton and last cultivated August 4, 1966.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 17.948. FOR GENERAL DESCRIPTION OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1965, P. 69.30-1. MAPS - REVISED COMPOSITE, P. 69.7-21; TOPOGRAPHY, P. 69.30-3 OF FOREGOING REFERENCE. 4/ TRACE OF RUNOFF PRIOR TO 0604.



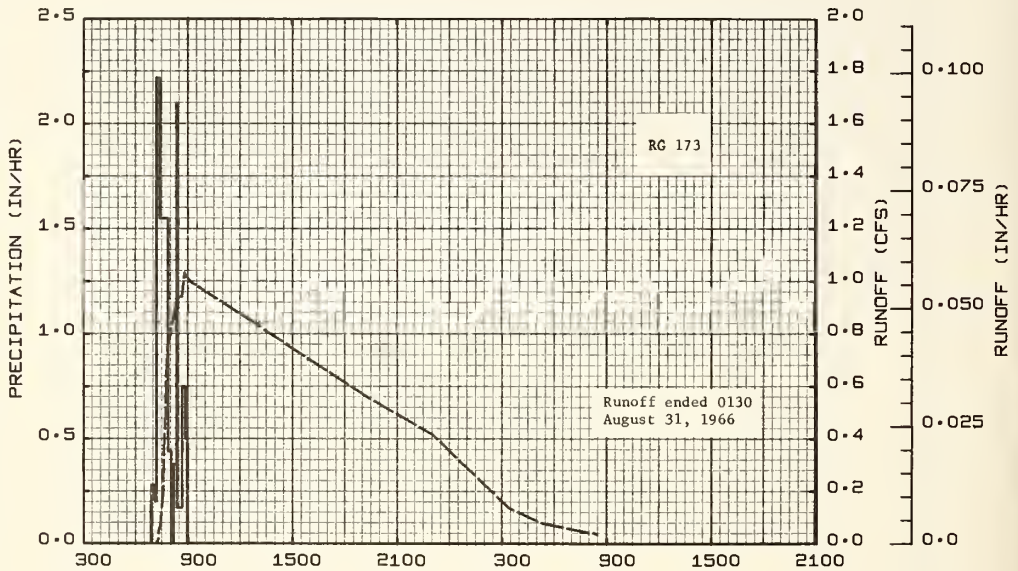
AUGUST 23-24, 1966

CHICKASHA, OKLAHOMA WATERSHED C-1

1966 SELECTED RUNOFF EVENTS			CHICKASHA, OKLAHOMA				WATERSHED C-1				69.30
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MD-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MD-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MD-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
Event of August 29, 1966											
	RG 173			RG	173						
7-30	.55	.000	8-29	0652	.00	.00	8-29	0710	.00000	.00000	
8-02	.31	.000		0705	.28	.06		0717	.00111	.00006	
8-07	.04	.000		0711	.20	.08		0718	.00259	.00009	
8-10	.08	.000		0721	2.22	.45		0723	.00358	.00035	
8-11	1.97	.127		0750	1.55	1.20		0726	.00657	.00060	
8-13	.06	.000		0801	.44	1.28		0733	.01195	.00168	
8-18	.60	.000		0810	.00	1.28		0740	.02858	.00405	
8-19	.80	.135		0818	.38	1.33		0742	.03342	.00508	
8-20	.00	.009		0820	2.10	1.40		0747	.04154	.00821	
8-21	.64	.133		0838	.17	1.45		0818	.05072	.03204	
8-22	.22	.073		0850	.75	1.60		0820	.05239	.03376	
8-23	1.00	.287		0856	.50	1.65		0837	.05239	.04860	
8-24	.33	.109						0846	.05745	.05684	
8-25	.00	.001						0903	.05572	.07288	
8-28	.05	.000						1922	.03097	.52013	
							8-30	2303	.02313	.61979	
								0322	.00762	.68619	
								0515	.00433	.69745	
								0826	.00202	.70759	

Watershed conditions: 100% nonirrigated cropland. Planted to cotton and last cultivated August 4, 1966.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 17.948.



AUGUST 29-30, 1966

CHICKASHA, OKLAHOMA WATERSHED C-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED C-2 AREA - 32.5 ACRES							69.31			
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ¹	.32	1.32	1.50	4.20	.57	2.01	.88	5.85	2.36	.41	.52	.20	20.14			
Q	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000			
STA AVG P ²	.56	1.16	1.42	2.56	2.68	3.47	1.26	3.56	3.24	.92	1.99	.79	23.61			
(62-66) Q	.000	.000	.000	.008	.002	.074	.000	.004	.009	.000	.000	.000	.097			
MEAN P ³																
66 YR	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966			There was no runoff during				1966									
MAXIMUMS FOR PERIOD OF RECORD																
19 62 TO	6-1	.076	6-1	.055	6-1	.103	6-1	.208	6-1	.246	6-1	.246	6-1	.246	6-1	.332
19 66	1962		1962		1962		1962		1962		1962		1962		1962	
NOTES: Watershed conditions: This 32.5-acre watershed was continued in mixed cropping. The north 7.0 acres was continued in cotton. The remainder of the watershed was in alfalfa until March 1966 when the north 8.5 acres of alfalfa was plowed under and planted to cotton on June 6, 1966. The south 16.8 acres remained in alfalfa, however was not harvested because the area was a part of the ASCS program of the USDA. These 16.8 acres were disc plowed in September 1966. The 0.2-acre drainage way was in wheat. ¹ / Monthly precipitation values obtained from one weighing type rain gage, No. 174. ² / Precipitation and runoff records began May 1, 1962. ³ / Mean P based on 66-year (1901-66) U. S. Weather Bureau record period at Chickasha, Oklahoma.																
NO SELECTED RUNOFF EVENT REPORTED FOR 1966. FOR GENERAL DESCRIPTION OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL WATERSHEDS IN THE UNITED STATES, 1965, P. 69.31-1. MAPS -- REVISED COMPOSITE, P. 69.7-21; TOPOGRAPHY, P. 69.31-3 OF FOREGOING REFERENCE.																

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED C-3							69.32	
						AREA - 44.3 ACRES								
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P 1/	.50	1.60	1.32	4.65	.78	1.65	3.02	8.08	2.84	.40	.68	.27	25.79
	Q	.000	.003	.050	.363	.000	.107	.676	2.842	.639	.000	.000	.000	4.680
	2/	.50	1.60	1.32	4.65	.78	1.65	3.02	8.08	2.87	.73	.38	.60	26.18
	STA AVG P	.000	.003	.050	.363	.000	.107	.676	2.842	.394	.001	.000	.000	4.436
	(65-66) P													
	MEAN P 3/													
66	YR	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-29	.390	8-29	.355	8-29	.616	8-29	1.029	8-29	1.093	8-29	1.094	8-29	1.132	8-21	1.768

MAXIMUMS FOR PERIOD OF RECORD

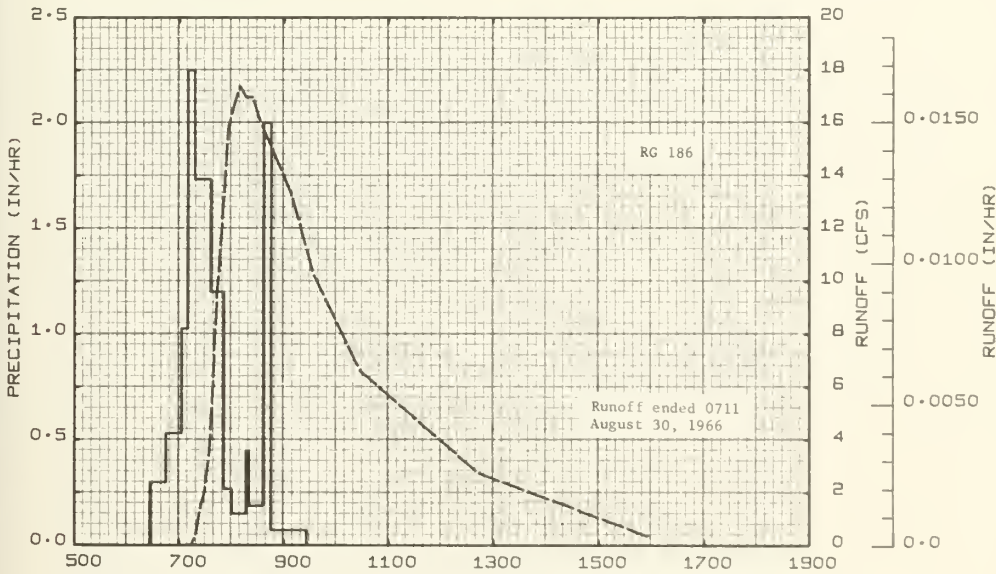
1965 TO	8-29	.390	8-29	.355	8-29	.616	8-29	1.029	8-29	1.093	8-29	1.094	8-29	1.132	8-21	1.768
1966	1966		1966		1966		1966		1966		1966		1966		1966	

NOTES: Watershed conditions: Cropland, previously graded and smoothed for row irrigation. Watershed moldboard plowed December 7, 1965, 8-10 inches deep. Normal tillage consisting of disking and spring-tooth and spike harrowing before planting to cotton on May 7, 1966 and May 16, 1966. Tillage during growing season consisted of rotary hoe and cultivating with sweep type cultivator. Irrigated entire watershed four times between July 6 and August 18, 1966. Quantity of irrigation water applied unknown, estimated to be 7.0 inches. 1/ Monthly precipitation data obtained from one recording weighing type rain gage, No. 185 prior to February 11, 1966 and from Thiessen weighted rainfall values from two recording weighing type gages, No. 186 and Cotton Research Station gage after February 11, 1966. 2/ Precipitation and runoff records began September 1, 1965. 3/ Mean P based on 66-year (1901-66) U. S. Weather Bureau record period at Chickasha, Oklahoma.

1966 SELECTED RUNOFF EVENT			CHICKASHA, OKLAHOMA				WATERSHED C-3				69.32
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
Event of August 29, 1966											
	2 RG 1/			RG	186						
7-30	.47	.010	8-29	0627	.00	.00	8-29	0712	.00000	.00000	
8-02	.33	.000		0645	.30	.09		0715	.00128	.00003	
8-07	.05	.000		0703	.53	.25		0718	.00645	.00022	
8-10	.06	.000		0710	1.03	.37		0720	.01166	.00052	
8-11	1.66	.564		0718	2.25	.67		0725	.03432	.00244	
8-13	.09	.000		0736	1.73	1.19		0729	.04306	.00502	
8-18	.55	.014		0751	1.20	1.49		0735	.08064	.01120	
8-19	.85	.520		0800	.27	1.53		0740	.15909	.02119	
8-20	.00	.001		0816	.15	1.57		0744	.21778	.03376	
8-21	.80	.277		0820	.45	1.60		0749	.27314	.05421	
8-22	.20	.031		0836	.19	1.65		0756	.35404	.09080	
8-23	.94	.349		0845	2.00	1.95		0802	.37174	.12709	
8-24	.26	.049		0926	.22	2.00		0809	.38989	.17152	
8-28	.08	.000						0816	.38070	.21647	
								0824	.38070	.26723	
								0831	.36278	.31060	
								0909	.29600	.51921	
								0933	.23079	.62458	
								1027	.14871	.79536	
								1244	.06146	1.03532	
								1559	.00719	1.14688	

Watershed conditions:
100% irrigated cotton.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 44.671. FOR GENERAL DESCRIPTION OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL WATERSHEDS IN THE UNITED STATES, 1965, P. 69.32-1. MAPS - REVISED COMPOSITE, P. 69.7-21; TOPOGRAPHY, P. 69.32-3. 1/ THIESSEN WEIGHTED RAINFALL USING RAIN GAGES 186 AND CRS.



AUGUST 29, 1966

CHICKASHA, OKLAHOMA WATERSHED C-3

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED C-4 AREA - 29.9 ACRES							69.33
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P 1/	.52	1.55	1.32	4.46	.83	1.82	3.24	8.20	2.83	.40	.57	.29	26.03
o	.000	.006	.089	.248	.000	.046	.745	2.162	.326	.000	.000	.000	3.622
2/													
STA AVG P	.52	1.55	1.32	4.46	.83	1.82	3.24	8.20	2.86	.73	.32	.60	26.45
(65-66) o	.000	.006	.089	.248	.000	.046	.745	2.162	.174	.000	.000	.000	3.470
MEAN P 3/													
66 YR	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-29	.268	8-29	.258	8-29	.496	8-29	.813	8-29	.849	8-29	.856	8-29	.858	8-21	1.326

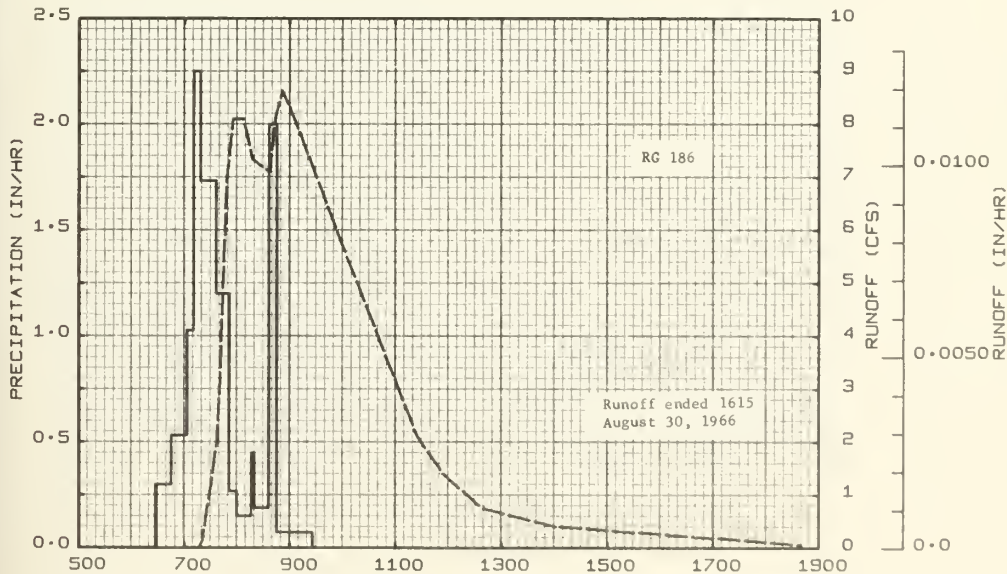
MAXIMUMS FOR PERIOD OF RECORD																
1965 TO	8-29	.268	8-29	.258	8-29	.496	8-29	.813	8-29	.849	8-29	.856	8-29	.858	8-21	1.326
1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966

NOTES: Watershed conditions: Cropland, previously graded and smoothed for row irrigation. Watershed moldboard plowed December 1, 1965, 8-10 inches deep. Normal preplant tillage consisted of disking 3-5 inches deep, incorporation of herbicide, spring-tooth harrowing for seedbed preparation. Planted cotton in mid-May. Tillage during growing season consisted of rotary hoeing two times and cultivating as needed with sweep type cultivator. Irrigated watershed four times between July 5 and August 18. Total quantity of irrigation water applied estimated at 7.0 inches. 1/ Monthly precipitation data from one weighing recording type rain gage, No. 185, located near the southwest corner of Watershed C-7 (69.36) prior to February 11, 1966, and from Thiessen weighted rainfall values from two recording weighing type rain gages, Nos. 186 and 187, after February 11, 1966. 2/ Precipitation and runoff records began September 1, 1965. 3/ Mean P based on 66-year (1901-66) U. S. Weather Bureau record period at Chickasha, Oklahoma.

1966 SELECTED RUNOFF EVENT			CHICKASHA, OKLAHOMA			WATERSHED C-4			69.33	
ANTECEDENT CONDITIONS			RAINFALL			RUNOFF				
DATE MD-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MD-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MD-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
	2 RG 1/									
					Event of August 29, 1966					
					RG 186					
7-30	.55	.000	8-29	0627	.00	.00	8-29	0717	.00000	.00000
8-02	.33	.000		0645	.30	.09		0721	.00461	.00015
8-07	.05	.000		0703	.53	.25		0723	.01348	.00045
8-10	.06	.000		0710	1.03	.37		0726	.02488	.00141
8-11	1.65	.537		0718	2.25	.67		0728	.02896	.00231
8-13	.10	.000		0736	1.73	1.19		0737	.06584	.00942
8-18	.55	.000		0751	1.20	1.49		0741	.10803	.01521
8-19	.88	.255		0800	.27	1.53		0744	.16400	.02202
8-20	.00	.011		0816	.15	1.57		0748	.22740	.03506
8-21	.88	.183		0820	.45	1.60		0755	.26836	.06398
8-22	.16	.014		0836	.19	1.65		0801	.26836	.09082
8-23	.94	.238		0845	2.00	1.95		0807	.26836	.11765
8-24	.30	.064		0926	.07	2.00		0817	.24327	.16029
8-28	.10	.000						0837	.23525	.24005
								0843	.26836	.26523
								0851	.28595	.30218
								0905	.26836	.36685
								0959	.19058	.57338
								1039	.13421	.68165
								1125	.06949	.75973
								1154	.04649	.78776
								1238	.02488	.81393
								1359	.01348	.83983
								1840	.00196	.87602

Watershed conditions: 100% irrigated cotton.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 30.150. FOR GENERAL DESCRIPTION OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1965, P. 69.33-1. MAPS — REVISED COMPOSITE, P. 69.7-2; TOPOGRAPHY, P. 69.33-3 OF FOREGOING REFERENCE. 1/ THIESSEN WEIGHTED RAINFALL USING RAIN GAGES 186 AND 187.



AUGUST 29, 1966

CHICKASHA, OKLAHOMA WATERSHED C-4

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED C-5 AREA - 12.8 ACRES							69.34	
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P 1	.54	1.52	1.29	4.24	.92	1.90	3.43	8.23	2.96	.39	.54	.29	26.25
	O	.000	.000	.018	.043	.000	.000	.007	.256	.000	.000	.000	.000	.324
	2/ STA AVG P (65-66)	.54	1.52	1.29	4.24	1.74	2.16	2.14	8.32	2.93	.72	.31	.60	26.51
	D	.000	.000	.018	.043	.000	.000	.004	.203	.002	.000	.000	.000	.270
	3/ MEAN P													
66 YR		1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09

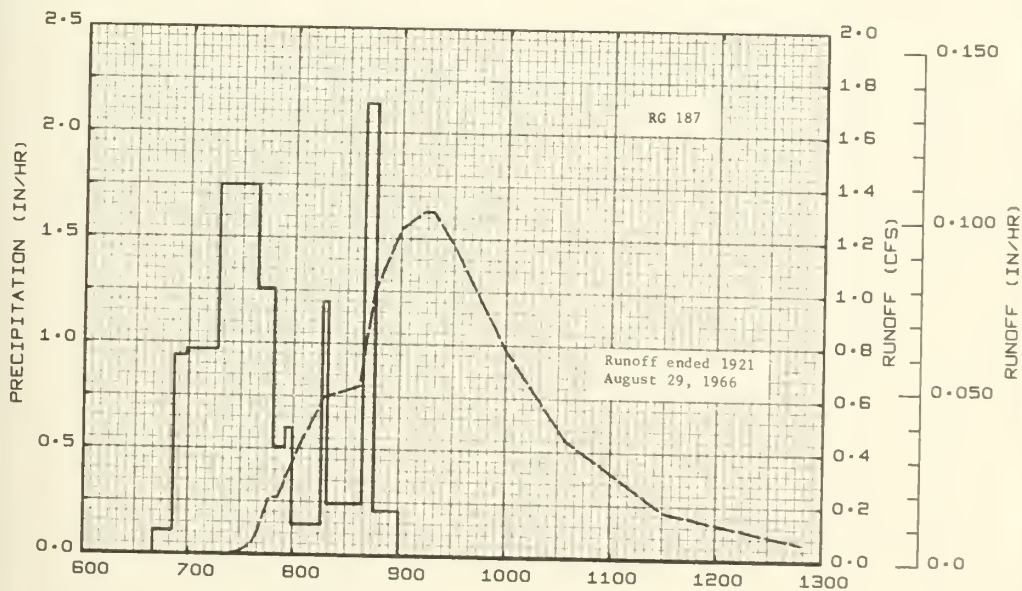
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-29	.101	8-29	.090	8-29	.146	8-29	.209	8-29	.213	8-29	.213	8-29	.213	8-21	.235

MAXIMUMS FOR PERIOD OF RECORD																
19 65 TO 19 66	8-29 1966	.101	8-29 1966	.090	8-29 1966	.146	8-29 1966	.209	8-29 1966	.213	8-29 1966	.213	8-29 1966	.213	8-21 1966	.235

NOTES: Watershed conditions: Watershed was planted to wheat in October 1965 and harvested for grain in June 1966. Summer tillage consisted of tandem disking 5-6 inches deep on June 21, chiseling 8-10 inches deep on July 2, chiseling 8-10 inches deep on August 5, tandem disking 4-5 inches deep September 12 and September 26, and spring-tooth harrowing October 3. Wheat planted in mid-October 1966. 1/ Monthly precipitation data from one weighing, recording type rain gage, No. 185, located near the southwest corner of Watershed C-7 (69.36) prior to February 11, 1966 and from Thiessen weighted rainfall values from two weighing, recording type rain gages, Nos. 186 and 187 after February 11, 1966. 2/ Precipitation and runoff records began May 1, 1965. 3/ Mean P based on 66-year (1901-66) U. S. Weather Bureau record period at Chickasha, Oklahoma.

1966 SELECTED RUNOFF EVENT			CHICKASHA, OKLAHOMA			WATERSHED C-5		69.34		
ANTECEDENT CONDITIONS			RAINFALL			RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
			Event of August 29, 1966							
	2 RG 1/			RG	187					
7-30	.55	.000	8-29	0640	.00	.00	8-29	0723	.00000	.00000
8-02	.33	.000		0651	.11	.02		0730	.00089	.00005
8-07	.05	.000		0658	.94	.13		0736	.00303	.00024
8-10	.06	.000		0716	.97	.42		0740	.00692	.00058
8-11	1.75	.000		0727	1.75	.74		0746	.01679	.00176
8-13	.10	.000		0738	1.75	1.06		0751	.01679	.00316
8-18	.56	.000		0748	1.26	1.27		0803	.03188	.00803
8-19	.91	.000		0755	.51	1.33		0817	.04648	.01717
8-21	.90	.005		0759	.60	1.37		0837	.04980	.03322
8-22	.13	.000		0816	.14	1.41		0840	.06066	.03598
8-23	.96	.014		0819	1.20	1.47		0845	.07722	.04173
8-24	.32	.005		0839	.24	1.55		0900	.09633	.06342
8-28	.10	.000		0846	2.14	1.80		0913	.10146	.08485
Watershed conditions:				0900	.21	1.85		0918	.10146	.09331
100% dryland wheat, planted fall of 1965, harvested summer of 1966. Tandem disked 5-6" on June 21, chiseled 8-10" on July 2, and chiseled 8-10" on August 5.								0930	.09128	.11258
								1000	.06066	.15057
								1034	.03453	.17754
								1130	.01352	.19997
								1248	.00482	.21189

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 12.907. FOR GENERAL DESCRIPTION OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL WATERSHEDS IN THE UNITED STATES, 1965, P. 69.34-1. MAPS - REVISED COMPOSITE, P. 69.7-21; TOPOGRAPHY, P. 69.34-3 OF FOREGOING REFERENCE. 1/ THIESSEN WEIGHTED RAINFALL USING RAIN GAGES 185 AND 187.



AUGUST 29 1966

CHICKASHA, OKLAHOMA WATERSHED C-5

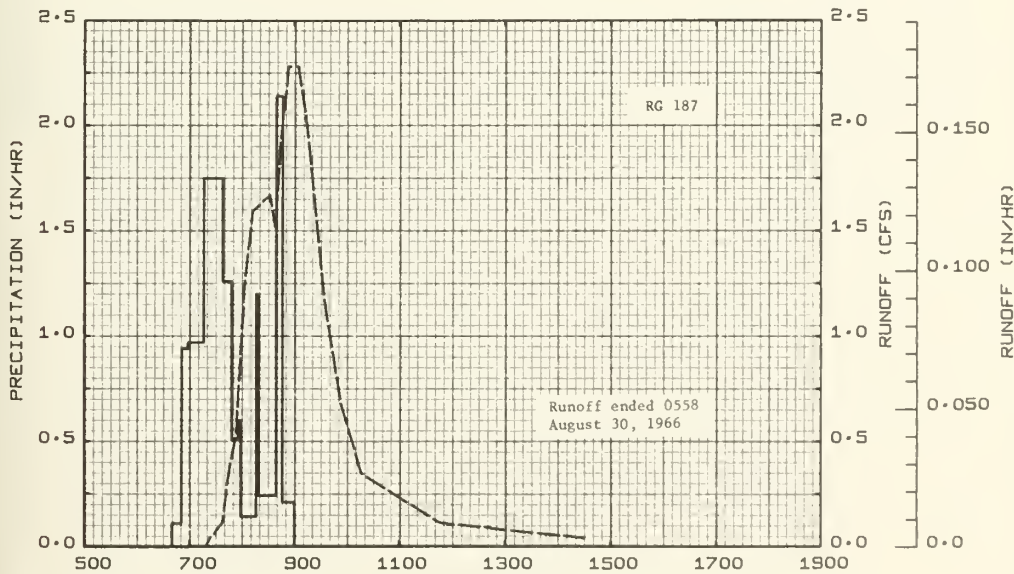
MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED C-6 AREA - 13.0 ACRES							69.35			
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL		
1966	P 1/	.54	1.51	1.28	4.31	.91	1.89	3.45	8.23	2.97	.39	.54	.29	26.31		
	O	.000	.000	.065	.101	.000	.000	.008	.390	.024	.000	.000	.000	.588		
	2/															
	STA AVG P	.54	1.51	1.28	4.31	1.74	2.16	2.15	8.32	2.94	.72	.31	.60	26.58		
	(65-66) O	.000	.000	.065	.101	.000	.000	.004	.435	.027	.000	.000	.000	.632		
	MEAN P 3/															
66 YR		1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09		
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-29	.174	8-29	.145	8-29	.240	8-29	.295	8-29	.309	8-29	.317	8-29	.317	8-23	.363
MAXIMUMS FOR PERIOD OF RECORD																
1965 TO 1966	8-28 1965	.305	8-28 1965	.202	8-28 1965	.243	8-28 1965	.406	8-28 1965	.418	8-27 1965	.421	8-27 1965	.421	8-27 1965	.488
NOTES: Watershed conditions: Watershed was planted to wheat in October 1965 and harvested for grain in June 1966. Summer tillage consisted of tandem disking 5-6 inches deep on June 21, chiseling 8-10 inches deep on July 2, chiseling 8-10 inches deep on August 5, tandem disking 4-5 inches deep September 12 and September 26, and spring-tooth harrowing October 3. Wheat planted in mid-October 1966. 1/ Monthly precipitation data from one weighing, recording type rain gage, No. 185, located near the southwest corner of Watershed C-7 (69.36) prior to February 11, 1966 and from Thiessen weighted rainfall values from two weighing, recording type rain gages, Nos. 186 and 187 after February 11, 1966. 2/ Precipitation and runoff records began May 1, 1965. 3/ Mean P based on 66-year (1901-66) U. S. Weather Bureau record period at Chickasha, Oklahoma.																

1966 SELECTED RUNOFF EVENT			CHICKASHA, OKLAHOMA				WATERSHED C-6				69.35
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
			<u>Event of August 29, 1966</u>								
			RG 187								
7-30	.55	.000	8-29	0640	.00	.00	8-29	0719	.00000	.00000	
8-02	.33	.000		0651	.11	.02		0722	.00209	.00005	
8-07	.05	.000		0658	.94	.13		0738	.00858	.00147	
8-10	.06	.000		0716	.97	.42		0746	.02880	.00396	
8-11	1.75	.000		0727	1.75	.74		0753	.03947	.00795	
8-13	.10	.000		0738	1.75	1.06		0803	.09450	.01911	
8-18	.57	.000		0748	1.26	1.27		0812	.12150	.03531	
8-19	.91	.004		0755	.51	1.33		0832	.12745	.07681	
8-21	.89	.016		0759	.60	1.37		0838	.11578	.08897	
8-22	.13	.000		0816	.14	1.41		0844	.14622	.10207	
8-23	.97	.036		0819	1.20	1.47		0853	.17383	.12608	
8-24	.32	.010		0839	.24	1.55		0901	.17383	.14925	
8-28	.10	.000		0846	2.14	1.80		0904	.17383	.15795	
				0900	.21	1.85		0914	.15285	.18517	
								0934	.08954	.22557	
								0953	.05227	.24803	
								1017	.02645	.26377	
								1146	.00858	.28976	
								1430	.00297	.30555	

Watershed conditions:

100% dryland wheat, planted fall of 1965, harvested summer of 1966. Trandem disked 5-6" on June 21, chiseled 8-10" on July 2, and chiseled 8-10" on August 5.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 13.108. FOR GENERAL DESCRIPTION OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL WATERSHEDS IN THE UNITED STATES, 1965, P. 69.35-1. MAPS - REVISED COMPOSITE, P. 69.7-21; TOPOGRAPHY, P. 69.34-3 OF FOREGOING REFERENCE. 1/ THIESSEN WEIGHTED RAINFALL USING RAIN GAGES 185 AND 187.



AUGUST 29 1966

CHICKASHA, OKLAHOMA WATERSHED C-6

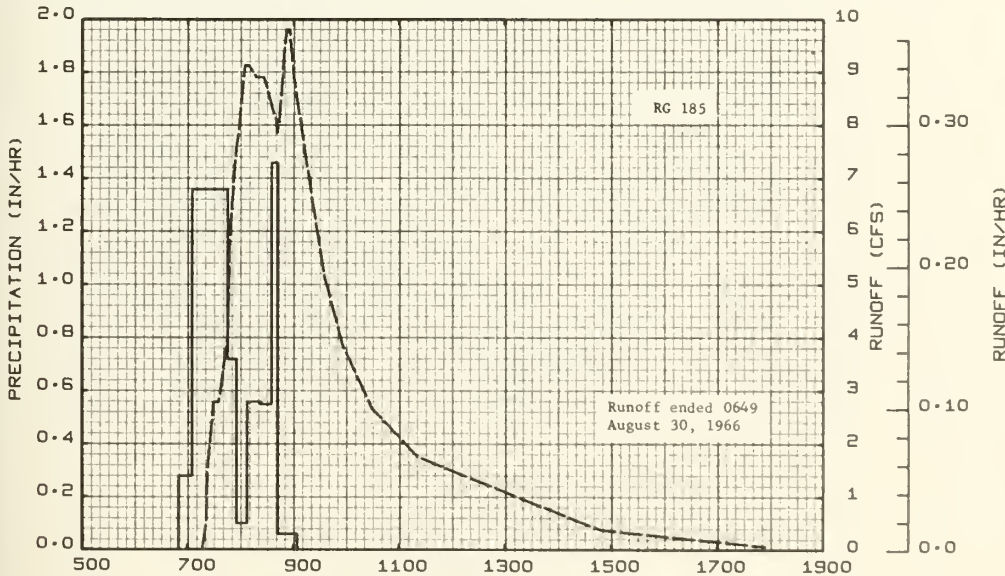
MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED C-7 AREA - 26.5 ACRES							69.36			
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P 1	.54	1.50	1.26	4.28	.92	1.92	3.50	8.19	3.00	.39	.54	.27	26.31			
Q	.000	.056	.000	.180	.000	.240	.516	1.998	.443	.000	.000	.000	3.433			
STA AVG P 2/	.54	1.50	1.26	4.28	1.74	2.17	2.18	8.30	2.95	.72	.31	.60	26.55			
(65-66) Q	.000	.056	.000	.180	.001	.124	.258	1.290	.238	.000	.000	.000	2.147			
MEAN P 3/																
66 YR	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	7-24	.430	8-29	.330	8-29	.578	8-29	.878	8-29	.932	8-29	.937	8-29	.968	8-23	1.312
MAXIMUMS FOR PERIOD OF RECORD																
1965 TO	7-24	.430	8-29	.330	8-29	.578	8-29	.878	8-29	.932	8-29	.937	8-29	.968	8-23	1.312
1966	1966		1966		1966		1966		1966		1966		1966		1966	
NOTES: Watershed conditions: Cropland, previously graded and smoothed to drain. Watershed tillage during spring consisted of tandem disking 5-6 inches deep on February 10, chiseled 8-10 inches deep March 18, spike-tooth harrowed May 9 and May 17. Planted cotton in north field on May 18. Planted cotton and grain sorghum in south field on May 20 and May 27. Rotary hoed all crops soon after emergence, cultivated as needed. Grain sorghum was harvested for fodder in October and cotton harvested in November. All watershed area was chiseled 8-10 inches deep in December. 1/ Monthly precipitation data from one weighing recording type rain gage, No. 185, located near the southwest corner of watershed prior to February 11, 1966 and from Thiessen weighted rainfall values from two recording weighing type rain gages, Nos. 185 and 187, after February 11, 1966. 2/ Precipitation and runoff records began May 1, 1965. 3/ Mean P based on 66-year (1901-66) U.S. Weather Bureau record period at Chickasha, Oklahoma.																

1966 SELECTED RUNOFF EVENT			CHICKASHA, OKLAHOMA				WATERSHED C-7			69.36
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
			Event of August 29, 1966							
			RG 185							
7-30	2 RG 1/ .54	.000	8-29	0650	.00	.00	8-29	0716	.00000	.00000
8-02	.33	.000		0705	.28	.07		0721	.01935	.00080
8-07	.06	.000		0745	1.36	.98		0722	.05404	.00141
8-10	.05	.000		0755	.72	1.10		0727	.08886	.00737
8-11	1.76	.176		0807	.10	1.12		0729	.10420	.01059
8-13	.09	.000		0823	.56	1.27		0735	.10420	.02101
8-18	.57	.000		0835	.55	1.38		0745	.14938	.04214
8-19	.93	.244		0842	1.46	1.55		0747	.21109	.04815
8-20	.00	.009		0904	.06	1.57		0750	.24352	.05951
8-21	.88	.245						0755	.28627	.08159
8-22	.12	.008						0757	.29382	.09125
8-23	.98	.278						0804	.34158	.12832
8-24	.32	.062						0809	.34158	.15678
8-28	.09	.000						0817	.33332	.20178
								0826	.33332	.25178
								0840	.30145	.32583
								0841	.29382	.33079
								0843	.30145	.34072
								0850	.35849	.37921
								0852	.36698	.39130
								0855	.36698	.40965
								0900	.33332	.43883
								0920	.25036	.53611
								0935	.19295	.59153
								0956	.14444	.65057
								1029	.10023	.71786
								1122	.06548	.79106
								1448	.01412	.92772
								1754	.00261	.95367

Watershed conditions:

100% cropland planted to dryland row crops, cotton and grain sorghum in May. Normal summer tillage practices followed.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 26.721. FOR GENERAL DESCRIPTION OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL WATERSHEDS IN THE UNITED STATES, 1965, P. 69.36-1. MAPS - REVISED COMPOSITE, P. 69.7-21; TOPOGRAPHY, P. 69.36-3 OF FOREGOING REFERENCE. 1/ THIESSEN WEIGHTED RAINFALL USING RAIN GAGES 185 AND 187.



AUGUST 29 1966

CHICKASHA, OKLAHOMA WATERSHED C-7

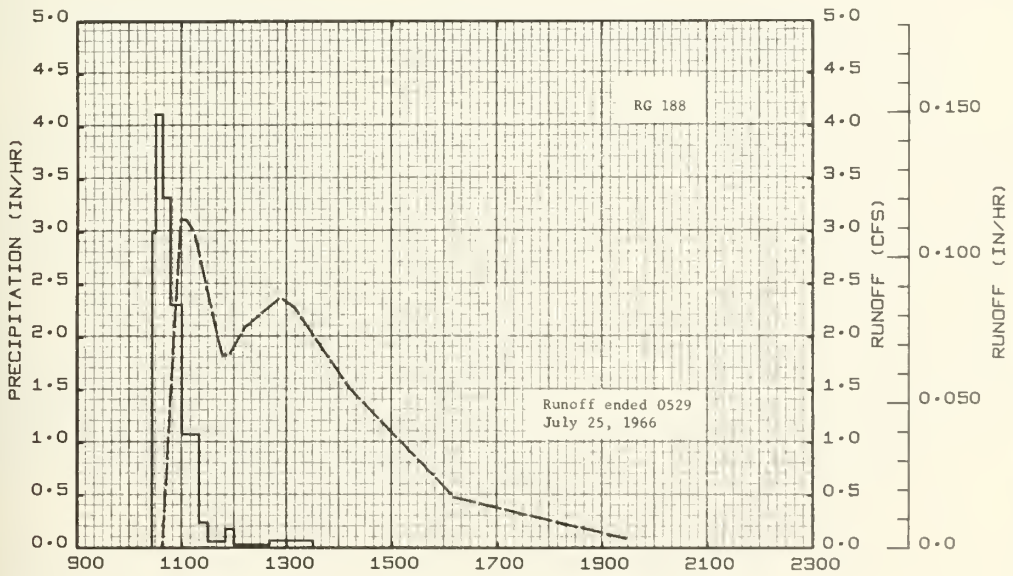
MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED C-8 AREA - 27.3 ACRES							69.37			
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966	P 1/	.54	1.53	1.17	4.28	1.00	1.93	3.60	8.19	3.09	.40	.58	.28	26.59		
	O	.000	.000	.042	.036	.000	.011	.379	.923	.126	.000	.000	.000	1.517		
	2/															
STA AVG	P	.54	1.53	1.17	3.02	1.78	2.18	2.22	8.30	3.00	.73	.33	.60	25.40		
(65-66)	O	.000	.000	.042	.018	.000	.006	.190	.651	.370	.001	.000	.000	1.278		
MEAN	P 3/															
66-YR		1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09		
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	7-24	.113	7-24	.092	8-29	.172	8-29	.374	8-29	.430	8-29	.436	8-29	.436	8-21	.678
MAXIMUMS FOR PERIOD OF RECORD																
1966 TO	9-19	.257	9-19	.190	9-19	.249	8-29	.374	8-29	.430	8-29	.436	9-19	.610	8-21	.678
1966	1965		1965		1965		1966		1966		1966		1965		1966	

NOTES: Watershed conditions: Cropland, previously graded to drain. Watershed was drilled to alfalfa in early September 1965 and remained in alfalfa through 1966. Because of poor moisture conditions, the alfalfa was harvested only two times during 1966 (June 7 and September 21). 1/ Monthly precipitation data from one weighing recording type rain gage, No. 185, located near the southwest corner of Watershed C-7 (69.36) prior to February 11, 1966 and from Thiessen weighted rainfall values from two recording weighing type rain gages, Nos. 185 and 188, after February 11, 1966. 2/ Precipitation and runoff records began April 1, 1965. 3/ Mean P based on 66-year (1901-66) U. S. Weather Bureau record period at Chickasha, Oklahoma.

1966 SELECTED RUNOFF EVENT			CHICKASHA, OKLAHOMA				WATERSHED C-8		69.37	
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
			Event of July 24, 1966							
	2 RG <u>1/</u>		7-24	RG	188		7-24			
				1026	.00	.00	1037	1037	.00000	.00000
				1030	3.00	.20	1038	1038	.00225	.00001
				1038	4.12	.75	1042	1042	.02173	.00081
7-02	.02	.000		1047	3.33	1.25	1047	1047	.05253	.00391
7-23	.74	.000		1100	2.31	1.75	1055	1055	.09366	.01365
				1120	1.08	2.11	1059	1059	.11347	.02056
				1130	.24	2.15	1105	11347	.11347	.03191
				1150	.06	2.17	1114	10933	.10933	.04862
				1200	.18	2.20	1146	1146	.06664	.09553
				1240	.03	2.22	1154	1154	.06664	.10443
				1330	.07	2.28	1212	1212	.07613	.12585
							1252	1252	.08638	.18002
							1309	1309	.08286	.20400
							1411	1411	.05519	.27533
							1611	1611	.01745	.34798
							1927	1927	.00323	.38177

Watershed conditions: 100% cropland. This watershed was seeded to alfalfa in the fall of 1965 and harvested in June 1966.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 27.528. FOR GENERAL DESCRIPTION OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL WATERSHEDS IN THE UNITED STATES, 1965, P. 69.37-1. MAPS — REVISED COMPOSITE, P. 69.7-21; TOPOGRAPHY, P. 69.37-5 OF FOREGOING REFERENCE. 1/ THIESSEN WEIGHTED RAINFALL USING RAIN GAGES 195 AND 188.



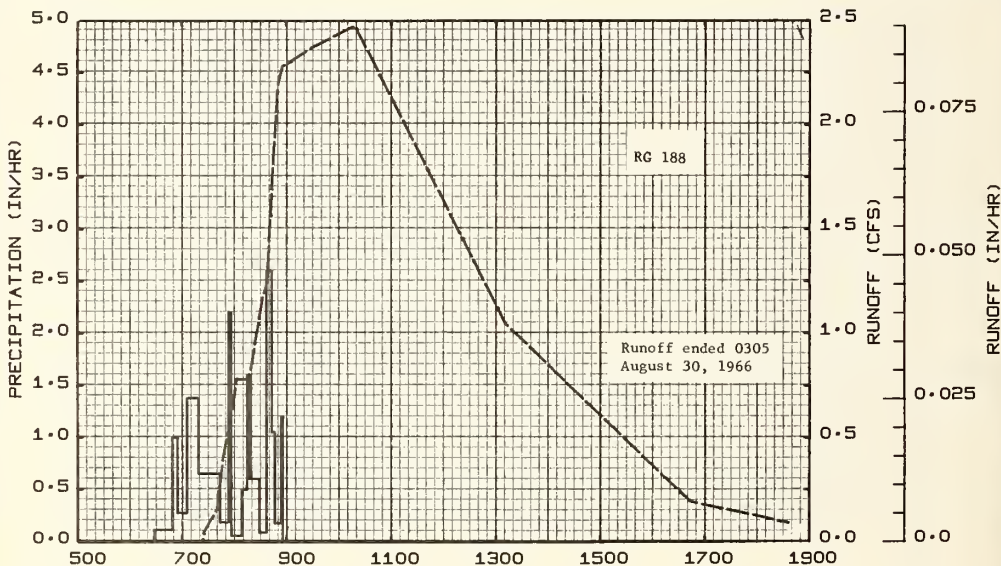
JULY 24, 1966

CHICKASHA, OKLAHOMA WATERSHED C-8

1966 SELECTED RUNOFF EVENT			CHICKASHA, OKLAHOMA				WATERSHED C-8				69.37
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
Event of August 29, 1966											
	2 RG 1/			RG	188						
7-30	.53	.000	8-29	0628	.00	.00	8-29	0724	.00000	.00000	
8-02	.36	.000		0649	.11	.04		0726	.00163	.00002	
8-07	.06	.000		0655	1.00	.14		0733	.00363	.00033	
8-10	.05	.000		0706	.27	.19		0741	.00563	.00095	
8-11	1.78	.133		0719	1.38	.49		0748	.01491	.00215	
8-13	.09	.000		0744	.65	.76		0800	.02491	.00613	
8-18	.56	.000		0754	.18	.79		0803	.02836	.00746	
8-19	.93	.073		0757	2.20	.90		0817	.02836	.01408	
8-20	.00	.009		0809	.05	.91		0826	.03611	.01892	
8-21	.91	.085		0815	.50	.96		0833	.04268	.02351	
8-22	.08	.003		0818	1.60	1.04		0838	.04504	.02717	
8-23	1.08	.170		0829	.60	1.15		0845	.06664	.03368	
8-24	.35	.014		0837	.08	1.16		0850	.07944	.03977	
8-28	.09	.000		0843	2.60	1.42		0855	.08286	.04653	
				0847	1.05	1.49		0931	.08638	.09731	
				0854	.17	1.51		2/1018	.08998	.16639	
				0856	1.20	1.55		1310	.03821	.35015	
								1643	.00706	.43051	
								1836	.00323	.44021	

Watershed conditions: 100% watershed was seeded to alfalfa in the fall of 1965 and harvested in June 1966.

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 27.528. 1/ THIESSEN WEIGHTED RAINFALL USING RAIN GAGES 185 AND 188. 2/ EXCESS TIME TO PEAK DUE TO FLOW RETARDANCE BY ALFALFA.



AUGUST 29, 1966

CHICKASHA, OKLAHOMA WATERSHED C-8

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED R-1 AREA - 17.8 ACRES							69.38
MONTH YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ¹ / _O	.40 .0000	1.32 .0000	1.05 .0006	3.10 .0011	.54 .0000	5.16 .0061	.20 .0000	8.65 .0036	3.36 .0055	.42 .0000	.30 .0000	.22 .0000	24.72 .0169
STA AVG P (62-66) O	.46 .0000	1.00 .0001	1.17 .0002	2.99 .0146	2.64 .0095	4.69 .0047	.88 .0000	4.04 .0083	3.20 .0046	1.14 .0005	1.96 .0032	.72 .0004	24.89 .0461
MEAN P ² / _O													
66 YR	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09

Notes: Watershed 100% rangeland. 1/ Precipitation record began Jan. 1, 1962 using Rain Gage No. 74 with 24-hr time scale until Feb. 17, 1966 and from Rain Gage No. 189, with 12-hr time scale thereafter. Runoff records began July 1, 1962 using FW-1 water level recorder located on face of farm pond dam. 2/ Mean P based on 66-yr (1901-66) U.S. Weather Bureau record period at Chickasha, Okla.

NO SELECTED EVENTS TO REPORT FOR 1966. FOR GENERAL DESCRIPTION OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1965, P. 69.38-1. MAPS—REVISED COMPOSITE, P. 69.7-21; TOPOGRAPHY, P. 69.38-2 OF FOREGOING REFERENCE.

Cooperative Research Project of USOA and Oklahoma Agricultural Experiment Station
69.38-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED R-2 AREA - 24.1 ACRES							69.39
MONTH YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ¹ / _O	.40 .0000	1.22 .0015	1.09 .0085	3.09 .0051	.53 .0000	4.96 .0535	.18 .0000	3.14 .0349	8.26 .0450	.43 .0000	.30 .0000	.22 .0000	23.82 .1485
STA AVG P (62-66) O	.46 .0000	.98 .0004	1.18 .0021	2.99 .0410	2.64 .0136	4.65 .0345	.88 .0002	3.94 .0505	3.18 .0241	1.15 .0041	1.96 .0147	.72 .0058	24.73 .1910
MEAN P ² / _O													
66 YR	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09

Notes: Watershed 100% rangeland. 1/ Precipitation record began Jan. 1, 1962 using Rain Gage No. 74 with 24-hr time scale until Feb. 17, 1966 and from Rain Gage No. 190 with 12-hr time scale thereafter. Runoff records began July 1, 1962 using FW-1 water level recorder located on face of farm pond dam. 2/ Mean P based on 66-yr (1901-66) U.S. Weather Bureau record period at Chickasha, Okla.

NO SELECTED EVENTS TO REPORT FOR 1966. FOR GENERAL DESCRIPTION OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1965, P. 69.39-1. MAPS—REVISED COMPOSITE, P. 69.7-21; TOPOGRAPHY, P. 69.39-2 OF FOREGOING REFERENCE.

Cooperative Research Project of USDA and Oklahoma Agricultural Experiment Station
69.39-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED R-3 AREA - 25.8 ACRES							69.40
MONTH YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ¹ / _O	.40 .0000	1.21 .0001	1.17 .0043	3.05 .0016	.57 .0000	4.82 .0227	.17 .0000	8.18 .0191	3.12 .0168	.42 .0000	.30 .0000	.24 .0000	23.65 .0646
STA AVG P (62-66) O	.46 .0001	.98 .0004	1.19 .0011	2.98 .0207	2.65 .0074	4.62 .0140	.88 .0000	3.94 .0234	3.15 .0176	1.14 .0021	1.96 .0079	.72 .0014	24.67 .0961
MEAN P ² / _O													
66 YR	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09

Notes: Watershed 100% rangeland. 1/ Precipitation record began Jan. 1, 1962 using Rain Gage No. 74 with 24-hr time scale until Feb. 17, 1966 and from Rain Gage No. 191 with 12-hr time scale thereafter. Runoff records began July 1, 1962 using FW-1 water level recorder located on face of farm pond dam. 2/ Mean P based on 66-yr (1901-66) U.S. Weather Bureau record period at Chickasha, Okla.

NO SELECTED EVENTS TO REPORT FOR 1966. FOR GENERAL DESCRIPTION OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1965, P. 69.40-1. MAPS—REVISED COMPOSITE, P. 69.7-21; TOPOGRAPHY, P. 69.39-2 OF FOREGOING REFERENCE.

Cooperative Research Project of USDA and Oklahoma Agricultural Experiment Station
69.40-1

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED R-4 AREA - 18.1 ACRES							69.41
MONTH YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ¹ / _O	.40 .0000	1.14 .0000	1.10 .0018	3.07 .0007	.57 .0000	5.25 .0126	.19 .0000	8.51 .0182	3.42 .0386	.38 .0000	.33 .0000	.23 .0000	24.59 .0719
STA AVG P (62-66) O	.46 .0000	.96 .0000	1.18 .0006	2.99 .0590	2.65 .0056	4.71 .0312	.88 .0000	4.01 .0369	3.21 .0141	1.14 .0016	1.96 .0061	.72 .0002	24.87 .1553
MEAN P ² / _O													
66 YR	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09

Notes: Watershed 100% rangeland. 1/ Precipitation record began Jan. 1, 1962 using Rain Gage No. 74 with 24-hr time scale until Feb. 17, 1966 and from Rain Gage No. 192 with 12-hr time scale thereafter. Runoff records began July 1, 1962 using FW-1 water level recorder located on face of farm pond dam. 2/ Mean P based on 66-yr (1901-66) U.S. Weather Bureau record period at Chickasha, Okla.

NO SELECTED EVENTS TO REPORT FOR 1966. FOR GENERAL DESCRIPTION OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1965, P. 69.41. MAPS—REVISED COMPOSITE, P. 69.7-21; TOPOGRAPHY, P. 69.41-2 OF FOREGOING REFERENCE.

Cooperative Research Project of USOA and Oklahoma Agricultural Experiment Station
(See 69.38-1; 39-1; 40-1 above)
69.41-1

CHICKASHA, OKLAHOMA WATERSHED R-5

LOCATION: Grady County, Oklahoma; SW 1/4, sec. 12, T. 7 N., R. 6 W., about 8 miles east and 3 miles north of Chickasha, Oklahoma; Washita River Basin.

AREA: 23.7 acres.

SLOPES:

Slope - Percent	0-1	1-3	3-5	5-8
Percent of area	10	55	30	5

 1/

SOILS: Residual, derived from the Chickasha Formation of the Permian Age. 1/

Soil	Per- cent of area	Topsoil			Subsoil		Substratum		Internal drainage
		Avg. depth (in.)	Structure	Permea- bility	Structure	Permea- bility	Avg. depth to (in.)	Permea- bility	
Renfrow silt loam	51	11	Moderate fine granular	Moderate	Moderate fine blocky	Moderately slow	55	Moderately slow	Slow
Grant silt loam	43	11	Moderate medium and fine granular	Moderate	Moderate medium and coarse subangular blocky	Moderate	50	Moderate	Slow
Kingfisher silt loam (eroded)	6	6	Moderate medium granular	Moderate	Moderate fine and medium subangular blocky	Moderate	34	Moderate	Slow

EROSION:

Erosion class	1	2	3	4
Percent of area	80	15	5	0

 1/

LAND CAPABILITY:

Class	I	II	III	IV	V	VI	VII
Percent of area	0	10	85	5	0	0	0

 1/

GEOLOGY: The Chickasha Formation is composed of a heterogeneous mixture of sandstones, shales, siltstones, and siltstone conglomerates. The rocks of any given bed may exhibit an abrupt change in composition and texture. Many of the siltstone and sandstone lenses are highly cross-bedded and cemented by iron oxide. The regional strike is north-south with a slight west dip. The formation is relatively impermeable and yields only moderate quantities of ground water to wells. The top soil ranges in depth from a few inches to three feet. Source of data: Jack Clayton, Geologist, SGS; and Bulletin No. 73, Geology and Ground Water Resource of Grady and Northern Stephens counties, Oklahoma, by Leon V. Davis, Geologist, U.S.G.S.

SURFACE DRAINAGE: Good, length of principal waterway 700 feet.

CHARACTER OF FLOW: Ephemeral, continuous.

INSTRUMENTATION: **Precipitation:** Two recording type rain gages with 12-hour time scale. **Runoff:** Three-foot V-notch concrete weir having 3:1 side slopes and an FW-1 water level recorder with 12-hour time scale installed on an 18-inch diameter gauge well located 10 feet upstream and 10 feet to right of notch.

WATERSHED CONDITIONS: Native grass rangeland, generally under continuous grazing by beef cattle. Approximately 51% of the area is Renfrow silt loam and supports a cover of short grasses consisting primarily of buffalo grass and blue grama grass. The remainder of the area is Grant silt loam and Kingfisher silt loam that supports a cover of mid-tall grasses consisting primarily of little bluestem. Closest available livestock water is from a nearby well located approximately 1,000 feet to the northwest of the runoff gaging location. Watersheds R-5 and R-6 are in the same pasture area and are subjected to approximately the same grazing rate.

GENERALLY REPRESENTS: Rangelands in the Central Great Plains, specifically the silt loam soils of the Central Rolling Red Prairies land resource area (H-80).

Notes: 1/ Information presented for general descriptive purposes and not intended to be precise data.

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED R-5 AREA - 23.7 ACRES							69.42	
MONTH YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL	
1966	1/1/	--	--	--	--	--	3.36	6.09	2.22	.44	.72	.36	--	
	2/	--	--	--	--	--	.144	.001	.000	.000	.000	.000	--	
STA AVG	P													
MEAN	Q													
66 YR	3/	1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

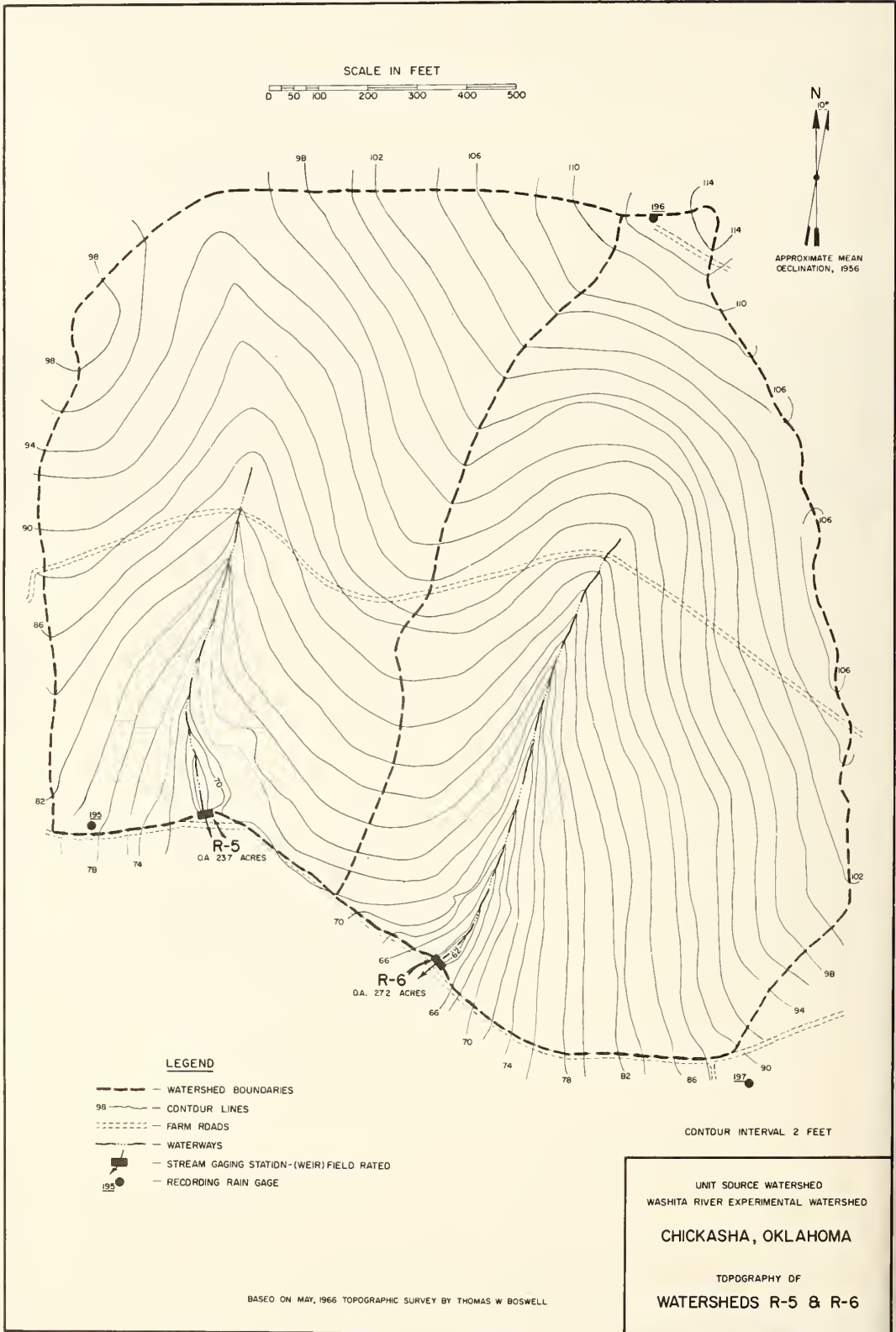
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL															
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS			
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME		
1966	7-24	.280	7-24	.126	7-24	.137	7-24	.144	7-24	.144	7-24	.144	7-24	.144	7-24	.144	7-24	.144

MAXIMUMS FOR PERIOD OF RECORD

1966 TO	7-24	.280	7-24	.126	7-24	.137	7-24	.144	7-24	.144	7-24	.144	7-24	.144	7-24	.144	7-24	.144
1966	1966		1966		1966		1966		1966		1966		1966		1966		1966	

NOTES: Watershed Conditions: Native grass rangeland, continuously grazed by beef cattle during recent years. Range condition class during 1966 was good, however entire area was slightly overgrazed from September through November. The vegetative cover in November 1966, based on 25 clipped samples uniformly spaced, averaged 2,900 pounds per acre of standing vegetation and 2,200 pounds per acre of mulch. This watershed was within the same pasture area as Watershed R-6 however was subjected to a slightly heavier grazing rate. 1/ Monthly precipitation obtained from Thiessen weighted rainfall values from two gages, Nos. 195 and 196. 2/ Precipitation and runoff records began July 1, 1966 therefore no station average data is shown. 3/ Mean P based on 66-year (1901-66) U. S. Weather Bureau record period at Chickasha, Oklahoma.

NO SELECTED RUNOFF EVENT REPORTED FOR 1966. FOR RELATIVE LOCATION SEE REVISED COMPOSITE MAP, HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1965, P. 69.7-21.



CHICKASHA, OKLAHOMA WATERSHED R-6

LOCATION: Grady County, Oklahoma; SW 1/4, sec. 12, T. 7 N., R. 6 W., about 8-1/2 miles east and 3 miles north of Chickasha, Oklahoma; Washita River Basin.

AREA: 27.2 acres.

SLOPES:	Slope - Percent	0-1	1-3	3-5	5-8	1/
	Percent of area	10	55	30	5	

SOILS: Residual, derived from the Chickasha Formation of the Permian Age. 1/

Soil	Per- cent of area	Topsoil			Subsoil		Substratum		Internal drainage
		Avg. depth (in.)	Structure	Permea- bility	Structure	Permea- bility	Avg. depth to (in.)	Permea- bility	
Grant silt loam	53	11	Moderate medium and fine granular	Moderate	Moderate medium and coarse subangular blocky	Moderate	50	Moderate	Slow
Renfrow silt loam	42	11	Moderate fine granular	Moderate	Moderate fine blocky	Moderately slow	55	Moderately slow	Slow
Kingfisher silt loam (eroded)	5	6	Moderate medium granular	Moderate	Moderate fine and medium subangular blocky	Moderate	34	Moderate	Slow

EROSION:	Erosion class	1	2	3	4	1/
	Percent of area	80	15	5	0	

LAND CAPABILITY:	Class	I	II	III	IV	V	VI	VII	1/
	Percent of area	0	10	85	5	0	0	0	

GEOLOGY: The Chickasha Formation is composed of a heterogeneous mixture of sandstones, shales, siltstones, and siltstone Conglomerates. The rocks of any given bed may exhibit an abrupt change in composition and texture. Many of the siltstone and sandstone lenses are highly cross-bedded and cemented by iron oxide. The Regional strike is north-south with a slight west dip. The formation is relatively impermeable and yields only moderate quantities of ground water to wells. The top soil ranges in depth from a few inches to three feet. Source of data: Jack Clayton, Geologist, SCS; and Bulletin No. 73, Geology and Ground Water Resource of Grady and Northern Stephens counties, Oklahoma, by Leon V. Davis, Geologist, U.S.G.S.

SURFACE DRAINAGE: Good, length of principal waterway 950 feet.

CHARACTER OF FLOW: Ephemeral, continuous.

INSTRUMENTATION: Precipitation: Two recording type rain gages with 12-hour time scale. Runoff: Three-foot V-notch concrete weir having 3:1 side slopes and an FW-1 water level recorder with 12-hour time scale installed on an 18-inch diameter gauge well located 10 feet upstream from weir and 10 feet to left of notch.

WATERSHED CONDITIONS: Native grass rangeland, generally under continuous grazing by beef cattle. Approximately 42% of the area is Renfrow silt loam and supports a cover of short grasses consisting primarily of buffalo grass and blue grama grass. The remainder of the area is Grant silt loam and Kingfisher silt loam that supports a cover of mid-tall grasses consisting primarily of little bluestem. Nearest available livestock water is from a nearby well located approximately 1,600 feet to the northwest of the runoff gaging location. Watersheds R-5 and R-6 are in the same pasture area and are subjected to approximately the same grazing rate.

GENERALLY REPRESENTS: Rangelands in the Central Great Plains, specifically the silt loam soils of the Central Rolling Red Prairies land resource area (H-80).

Notes: 1/ Information presented for general descriptive purposes and not intended to be precise data.

MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED R-6							69.43				
						AREA - 27.2 ACRES											
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966	P 1/	--	--	--	--	--	--	3.44	6.13	2.14	.42	.71	.36	--			
	Q	--	--	--	--	--	--	.124	.047	.003	.000	.000	.000	--			
	2/																
	STA AVG P																
	Q																
	3/																
	MEAN P																
66 YR		1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																	
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL														
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS		
1966	7-24	.212	7-24	.111	7-24	.121	7-24	.124	7-24	.124	7-24	.124	7-24	.124	7-24	.124	
MAXIMUMS FOR PERIOD OF RECORD																	
19	TO	7-24	.212	7-24	.111	7-24	.121	7-24	.124	7-24	.124	7-24	.124	7-24	.124	7-24	.124
1966		1966		1966		1966		1966		1966		1966		1966		1966	
<p>NOTES: Watershed conditions: Native grass rangeland, continuously grazed by beef cattle during recent years. Range condition class during the year was good, however 75 percent of the area was slightly overgrazed from September through November. The vegetative cover in November 1966, based on 25 clipped samples uniformly spaced, averaged 4,400 pounds per acre of standing vegetation and 3,100 pounds per acre of mulch. This watershed was within the same pasture area as Watershed R-5, however was subjected to a slightly lighter grazing rate. 1/ Monthly precipitation obtained from Thiessen weighted rainfall values from two gages, Nos. 196 and 197. 2/ Precipitation and runoff records began July 1, 1966 therefore no station average values are shown. 3/ Mean P based on 66-year (1901-66) U. S. Weather Bureau record period at Chickasha, Oklahoma.</p> <p>NO SELECTED RUNOFF EVENT REPORTED FOR 1966. FOR MAP OF WATERSHED, SEE P. 69.42-3 OF THIS PUBLICATION. FOR RELATIVE LOCATION SEE REVISED COMPOSITE MAP, HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1965, P. 69.7-21.</p>																	

CHICKASHA, OKLAHOMA WATERSHED R-7

LOCATION: Grady County, Oklahoma; NW 1/4, sec. 13, T. 7 N., R. 6 W., about 8 miles east and 2-1/2 miles north of Chickasha, Oklahoma; Washita River Basin.

AREA: 19.2 acres.

SLOPES:

Slope - Percent	0-1	1-3	3-5	5-8	8+	1/
Percent of area	10	30	54	5	1	

SOILS: Residual, derived from the Chickasha Formation of the Permian Age. 1/

Soil	Per- cent of area	Topsoil			Subsoil		Substratum		Internal drainage
		Avg. depth (in.)	Structure	Permea- bility	Structure	Permea- bility	Avg. depth to (in.)	Permea- bility	
Kingfisher silt loam (eroded)	32	5	Moderate medium granular	Moderate	Moderate fine and medium subangular blocky	Moderate	32	Moderate	Slow
Renfrow silt loam	19	10	Moderate - fine granular	Moderate	Moderate fine blocky	Moderately slow	50	Moderately slow	Slow
Kingfisher- Lucien complex (eroded)	18	5	Weak fine granular	Moderate	Moderate medium granular and moderate medium subangular blocky	Moderate	32	Moderately slow	Slow
Renfrow silt loam (severely eroded)	17	5	Moderate fine blocky	Moderately slow	Moderate medium and fine blocky	Slow	46	Slow	Slow
Kingfisher silt loam (severely eroded)	14	5	Moderate medium granular	Moderate	Moderate fine and medium subangular blocky	Moderate	36	Moderate	Slow

EROSION:

Erosion class	1	2	3	4	1/
Percent of area	0	20	55	25	

LAND CAPABILITY:

Class	I	II	III	IV	V	VI	VII	1/
Percent of area	0	5	20	10	0	65	0	

GEOLOGY: The Chickasha Formation is composed of a heterogeneous mixture of sandstones, shales, siltstones, and siltstone Conglomerates. The rocks of any given bed may exhibit an abrupt change in composition and texture. Many of the siltstone and sandstone lenses are highly cross-bedded and cemented by iron oxide. The Regional strike is north-south with a slight west dip. The formation is relatively impermeable and yields only moderate quantities of ground water to wells. The top soil ranges in depth from a few inches to three feet. Source of data: Jack Clayton, Geologist, SCS; and Bulletin No. 73, Geology and Ground Water Resource of Grady and Northern Stephens counties, Oklahoma, by Leon V. Davis, Geologist, U.S.G.S.

SURFACE DRAINAGE: Good, length of principal waterway 1,350 feet.

CHARACTER OF FLOW: Ephemeral, continuous.

INSTRUMENTATION: Precipitation: Two recording weighing type gages with 12-hour time scale. Runoff: Three-foot V-notch concrete weir having 3:1 side slopes and an FW-1 water level recorder with 12-hour time scale installed on an 18-inch diameter gauge well located 10 feet upstream from weir and 10 feet to right of notch.

WATERSHED CONDITIONS: Entire watershed was cultivated from about 1907 until about 1935. Severe erosion occurred during the latter years that the watershed was in cultivation. The area was changed to pasture use without the establishment of grass cover or the installation of mechanical structures. Through natural plant succession since the area was last cultivated, a fair cover of little bluestem grass has become established on 69 percent of the area. Severely eroded areas (39 percent) support a cover consisting primarily of annual threeawn grass with a few scattered little bluestem plants.

GENERALLY REPRESENTS: Formerly cultivated, upland, cropland, changed to pasture use because of severe erosion, located in the Central Great Plains, specifically the silt loam soils of the Central Rolling Red Prairies land resource area (H-80).

Notes: 1/ Information presented for general descriptive purposes and not intended to be precise data.

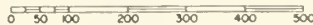
MONTHLY PRECIPITATION AND RUNOFF (inches)						CHICKASHA, OKLAHOMA WATERSHED R-7 AREA - 19,2 ACRES								69.44			
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL				
1966	P 1/	--	--	--	--	--	3.18	6.55	2.05	.42	.72	.36	--				
	Q	--	--	--	--	--	.547	.644	.032	.000	.000	.000	--				
STA AVG	P																
	Q																
MEAN	P 3/																
66 YR		1.17	1.24	1.99	3.31	5.02	3.81	2.52	2.70	3.27	2.90	1.76	1.40	31.09			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																	
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL														
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS		
1966	7-24	.793	7-24	.434	7-24	.519	7-24	.533	7-24	.534	7-24	.534	7-23	.547	7-23	.547	
MAXIMUMS FOR PERIOD OF RECORD																	
19	TO	7-24	.793	7-24	.434	7-24	.519	7-24	.533	7-24	.534	7-24	.534	7-23	.547	7-23	.547
1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966
NOTES: Watershed conditions: Formerly cultivated from about 1907 until about 1935 when the land use was changed to pasture because of severe erosion. Although the watershed has not been reseeded to grass, the predominant grass species was little bluestem. Range condition class during the year was poor. The vegetative cover in November 1966, based on 25 clipped samples uniformly spaced, averaged 2,500 pounds per acre of standing vegetation and 900 pounds per acre of mulch. This watershed was within the same pasture area as Watershed R-8. 1/ Monthly precipitation obtained from Thiessen weighted rainfall values from two gages, Nos. 193 and 194. 2/ Precipitation and runoff records began July 1, 1966, therefore no station average values are shown. 3/ Mean P based on 66-year (1901-66) U. S. Weather Bureau record period at Chickasha, Oklahoma.																	
NO SELECTED RUNOFF EVENT REPORTED FOR 1966. FOR RELATIVE LOCATION SEE REVISED COMPOSITE MAP, HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1965, P. 69.7-21.																	



LEGEND

- WATERSHED BOUNDARY
- 74 --- CONTOUR LINES
- FARM ROADS
- WATERWAYS
- --- STREAM GAGING STATION-(WEIR) FIELD RATED
- --- RECORDING RAIN GAGE

SCALE IN FEET



CONTOUR INTERVAL 2 FEET

BASED ON OCTOBER, 1966 TOPOGRAPHIC SURVEY BY THOMAS W. BOSWELL

UNIT SOURCE WATERSHED
WASHITA RIVER EXPERIMENTAL WATERSHED

CHICKASHA, OKLAHOMA

TOPOGRAPHY OF
WATERSHED R-7

CHICKASHA, OKLAHOMA WATERSHED R-8

LOCATION: Crady County, Oklahoma; NW 1/4, sec. 13, T. 7 W., R. 6 W., about 8-1/2 miles east and 2-1/2 miles north of Chickasha, Oklahoma; Washita River Basin.

AREA: 18.5 acres

SLOPES:

Slope - Percent	0-1	1-3	3-5	5-8	8+
Percent of area	5	30	54	10	1

 1/

SOILS: Residual, derived from the Chickasha Formation of the Permian Age. 1/

Soil	Percent of area	Topsoil			Subsoil		Substratum		Internal drainage
		Avg. depth (in.)	Structure	Permeability	Structure	Permeability	Avg. depth to (in.)	Permeability	
Kingfisher silt loam (severely eroded)	29	5	Moderate	Moderate	Moderate fine and medium subangular blocky	Moderate	36	Moderate	Slow
Renfrow silt loam	22	10	Moderate fine granular	Moderate	Moderate fine blocky	Moderately slow	50	Moderately slow	Slow
Kingfisher-Lucien complex (eroded)	20	5	Weak fine granular	Moderate	Moderate medium granular and subangular blocky	Moderate	32	Moderately slow	Slow
Breaks-Alluvial	14	12	Moderate to weak fine granular	Moderate	Weak fine granular and moderate medium subangular blocky	Moderate	36	Moderate	Moderate
Crant silt loam	8	10	Moderate medium and fine granular	Moderate	Moderate medium and coarse subangular blocky	Moderate	50	Moderate	Slow
Renfrow silt loam (severely eroded)	7	5	Moderate fine blocky	Moderately slow	Moderate medium and fine blocky	Slow	46	Slow	Slow

EROSION:

Erosion class	1	2	3	4
Percent of area	10	20	60	10

 1/

LAND CAPABILITY:

Class	I	II	III	IV	V	VI	VII
Percent of area	0	5	20	10	0	65	0

 1/

CEOLOGY: The Chickasha Formation is composed of a heterogeneous mixture of sandstones, shales, siltstones, and siltstone conglomerates. The rocks of any given bed may exhibit an abrupt change in composition and texture. Many of the siltstone and sandstone lenses are highly cross-bedded and cemented by iron oxide. The Regional strike is north-south with a slight west dip. The formation is relatively impermeable and yields only moderate quantities of ground water to wells. The top soil ranges in depth from a few inches to three feet. Source of data: Jack Clayton, Geologist, SCS; and Bulletin No. 73, Geology and Ground Water Resource of Crady and Northern Stephens counties, Oklahoma by Leon V. Davis, Geologist, U.S.C.S.

SURFACE DRAINAGE: Good, length of principal waterway 1,450 feet.

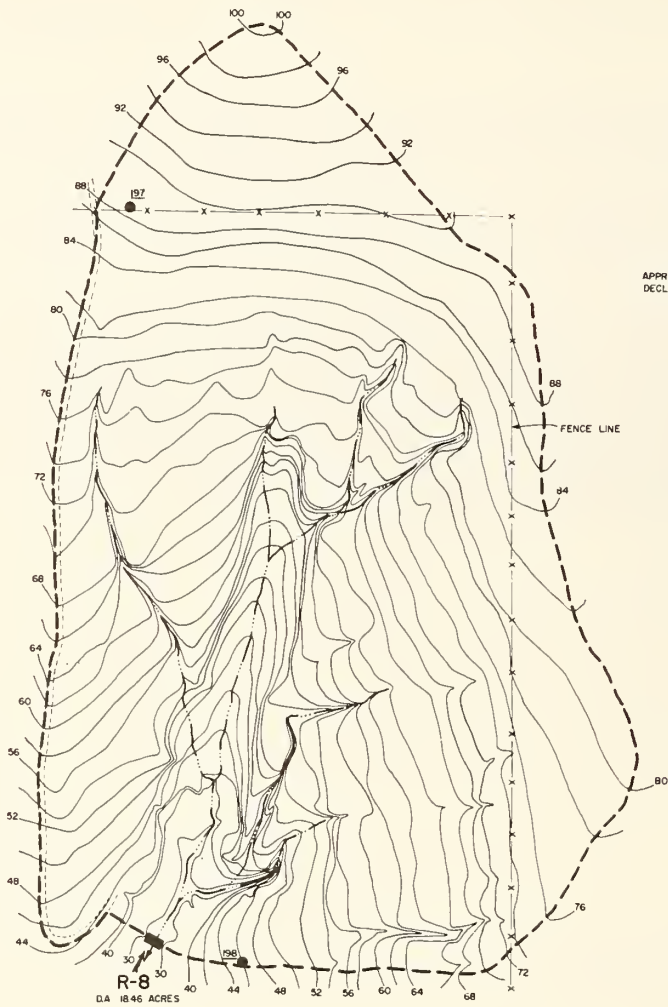
CHARACTER OF FLOW: Ephemeral, continuous.

INSTRUMENTATION: **Precipitation:** Two recording weighing type gages with 12-hour time scale. **Runoff:** Three-foot V-notch concrete weir having 3:1 side slopes and an FW-1 water level recorder with 12-hour time scale installed on an 18-inch diameter gauge well located 10 feet upstream from weir and 10 feet to left of notch.

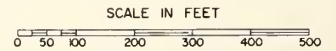
WATERSHED CONDITIONS: Eighty-six percent of the watershed was cultivated from about 1907 until about 1935. Severe erosion occurred during the latter years that the watershed was in cultivation. The remaining 14 percent of the area consists of rough, steep breaks which was utilized as pasture. The cultivated area was changed to pasture use without the establishment of grass cover or the installation of mechanical structures. Through natural plant succession since the area was last cultivated, a fair cover of little bluestem grass has become established on the area. Several active gullies serve as the principal drainage way.

GENERALLY REPRESENTS: Formerly cultivated, upland, cropland, changed to pasture use because of severe erosion, located in the Central Great Plains, specifically the silt loam soils of the Central Rolling Red Prairies land resource area (H-80).

Notes: 1/ Information presented for general descriptive purposes and not intended to be precise data.



N
10°
APPROXIMATE MEAN DECLINATION, 1956



LEGEND

- WATERSHED BOUNDARY
- 64 --- CONTOUR LINES
- FARM ROADS
- WATERWAYS
- --- STREAM GAGING STATION-(WEIR) FIELD RATE
- --- RECORDING RAIN GAGE

CONTOUR INTERVAL 2 FEET

UNIT SOURCE WATERSHED
WASHITA RIVER EXPERIMENTAL WATERSHED
CHICKASHA, OKLAHOMA
TOPOGRAPHY OF
WATERSHED R-8

BASED ON OCTOBER, 1966 TOPOGRAPHIC SURVEY BY THOMAS W. BOSWELL

MONTHLY PRECIPITATION AND RUNOFF (inches)						TREYNOR, IOWA								WATERSHED 1	
						AREA—74.5 ACRES									
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL		
1966 P 1/	1.06	.47	.88	.57	2.82	4.96	3.46	2.30	2.66	.51	.31	.32	20.32		
Q	.42	.22	.29	.28	.27	.71	.20	.15	.16	.16	.15	.18	3.19		
STA AV 2/P	.59	.77	1.26	3.05	4.65	6.90	3.86	3.99	6.32	.69	.95	.73	33.76		
(64-66) Q	.27	.64	.90	.48	1.03	1.72	.50	.47	1.13	.28	.25	.26	7.93		
MEAN P 3/															
96 YR	.72	.92	1.42	2.60	3.74	4.64	3.71	3.45	3.11	2.02	1.18	.86	28.37		

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE	MAXIMUM VOLUME FOR SELECTED TIME INTERVAL														
		1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS		
		DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	
1966	6-26	1.95	6-26	.36	6-26	.36	6-25	.42	6-25	.42	6-25	.43	6-25	.44	6-25	.47

MAXIMUMS FOR PERIOD OF RECORD																
19 64 TO	6-29	4.16	6-29	.84	6-28	1.31	6-28	1.65	6-28	1.67	6-28	1.67	6-27	1.70	6-27	1.97
1966	1965	1965	1965	1965	1965	1965	1965	1965	1965	1965	1965	1965	1965	1965	1965	1965

Notes: Watershed conditions: 95% contoured corn; 5% gullies and grassed waterways. 1/ Precipitation from gage 117 before Mar. 20 and after Nov. 9; Thiessen average of gages 116, 117 and 118 for remainder of year. 2/ Precipitation records began Jan. 1, 1964. Runoff records began Feb. 10, 1964. Jan. 1-Feb. 10, 1964 runoff estimated and included in average. 3/ Mean P based on 96-yr (1871-1966) U.S. Weather Bureau record period at Omaha, Nebr.

1966 SELECTED RUNOFF EVENT				TREYNOR, IOWA				WATERSHED 1			
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ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO.-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO.-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO.-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
Event of June 26, 1966											
	3 RG 4/			RG	117		6-26	0234	.0020	.000	
5-27	.00	.0058	6-26	0232	.00	.00		0235	.0048	.000	
5-28	.00	.0067		0237	3.00	.25		0236	.0072	.000	
5-29	.04	.0067		0240	4.80	.49		0239	.0198	.001	
5-30	.06	.0069		0244	3.00	.69		0241	.0382	.002	
5-31	.00	.0054		0250	.30	.72		0242	.150	.003	
6-1	.00	.0066		0256	1.10	.83		0243	.377	.008	
6-2	.03	.0077		0310	.17	.87		0244	.700	.017	
6-3	.00	.0072		0330	.09	.90		0245	.941	.030	
6-4	.00	.0072						0246	1.28	.049	
6-5	.91	.0902		RG	116	.93		0247	1.60	.073	
6-6	.00	.0080		RG	118	.93		0248	1.78	.101	
6-7	.00	.0080						0249	1.95	.132	
6-8	.40	.0087		3 RG	AVG 4/	.92		0250	1.78	.163	
6-9	.09	.0059						0251	1.54	.191	
6-10	.00	.0045						0252	1.33	.215	
6-11	.02	.0054						0253	1.11	.235	
6-12	.47	.0091						0254	.952	.252	
6-13	.00	.0071						0255	.718	.266	
6-14	.00	.0073						0256	.547	.277	
6-15	.02	.0078						0258	.409	.293	
6-16	.00	.0066						0300	.312	.305	
6-17	.00	.0054						0302	.253	.314	
6-18	.00	.0055						0304	.189	.322	
6-19	.00	.0055						0308	.150	.333	
6-20	.00	.0062						0315	.0962	.347	
6-21	.00	.0054						0320	.0547	.354	
6-22	.00	.0045						0326	.0300	.358	
6-23	.00	.0054						0334	.0161	.361	
6-24	.00	.0057						0338	.0088	.362	
6-25	1.47	.0615						0339	.0072	.362	
6-26	5/ .10	6/ .0016						0344	.0048	.362	
								0351	.0031	.363	
								0358	.0025	.363	
								0423	.0020	.364	
								0432	.0018	.364	
								0500	7/ .0007	.365	

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 75.121. FOR TOPOGRAPHIC MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1964, USDA MISC. PUB. 1194, P. 71.1-5. 4/ THIESSEN AVERAGE OF THREE RECORDING RAIN GAGES. 5/ RAINFALL FROM 0200 TO 0232. 6/ RUNOFF PRIOR TO 0234. 7/ RETURN TO NEAR BASE FLOW.



June 26, 1966

TREYNOR, IOWA WATERSHED 1

MONTHLY PRECIPITATION AND RUNOFF (inches)						TREYNOR, IOWA							WATERSHED 2	
						AREA—82.8 ACRES								
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P 1/	1.06	.47	.81	.55	2.78	5.11	3.63	2.15	2.83	.51	.31	.32	20.53
	Q	.32	.23	.27	.22	.30	.82	.20	.19	.18	.17	.18	.20	3.28
STA AV	2/P	.59	.77	1.25	3.02	4.59	6.94	3.78	3.78	6.30	.65	.95	.73	33.35
(64-66)	Q	.26	.76	.93	.46	1.03	1.72	.38	.41	1.01	.26	.23	.24	7.69
MEAN P	3/	.72	.92	1.42	2.60	3.74	4.64	3.71	3.45	3.11	2.02	1.18	.86	28.37
96	YR													

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
			DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	6-26	1.84	6-26	.40	6-26	.40	6-25	.49	6-25	.49	6-25	.50	6-25	.50	6-25	.56

MAXIMUMS FOR PERIOD OF RECORD

1964 TO	6-22	2.59	6-28	.72	6-28	1.26	6-28	1.67	6-28	1.68	6-28	1.69	2-27	1.78	6-27	2.00
1966	1964		1965		1965		1965		1965		1965		1965		1965	

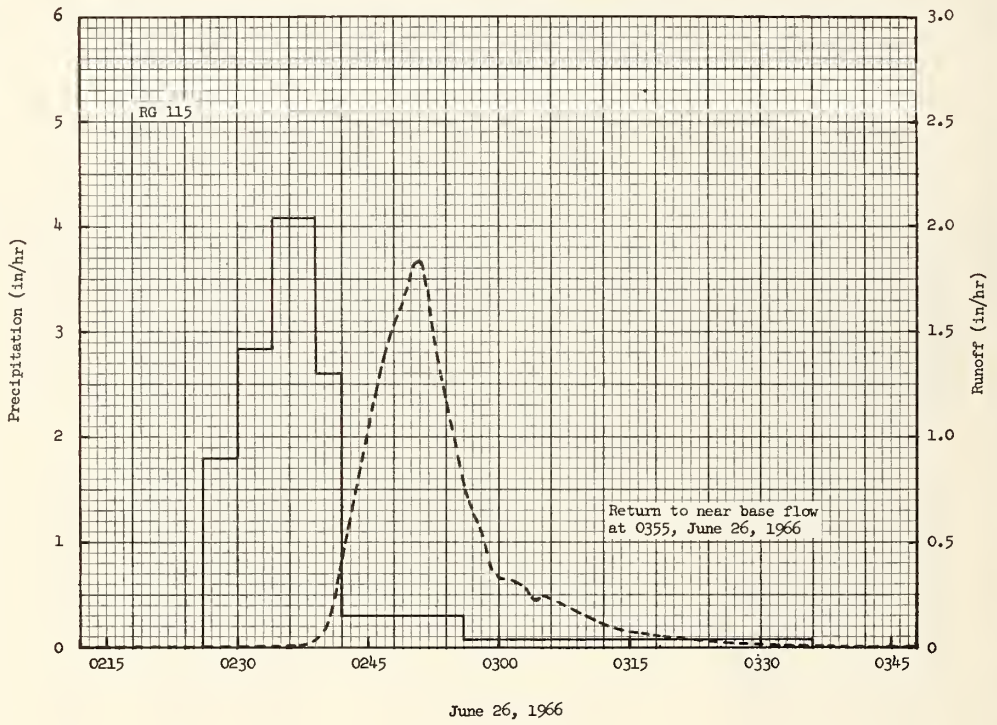
Notes: Watershed conditions: 95% contoured corn; 5% gullies and grassed waterways. 1/ Precipitation from gage 117 before Mar. 20 and after Nov. 9; Thiessen average of gages 115, 116 and 118 for remainder of year. 2/ Precipitation records began Jan. 1, 1964. Runoff records began Feb. 3, 1964. Jan 1-Feb. 3, 1964 runoff estimated and included in average. 3/ Mean P based on 96-yr (1871-1966) U.S. Weather Bureau record period at Omaha, Nebr.

1966 SELECTED RUNOFF EVENT

TREYNOR, IOWA WATERSHED 2

ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
<u>Event of June 26, 1966</u>											
	3 RG 4/			RG	115		6-26	0235	.0026	.000	
5-27	.00	.0049	6-26	0226	.00	.00		0236	.0030	.000	
5-28	.00	.0049		0230	1.80	.12		0237	.0088	.000	
5-29	.02	.0051		0234	2.85	.31		0239	.0371	.001	
5-30	.06	.0060		0239	4.08	.65		0240	.0863	.002	
5-31	.00	.0056		0242	2.60	.78		0241	.194	.004	
6-1	.00	.0064		0256	.30	.85		0242	.410	.009	
6-2	.04	.0063		0336	.08	.90		0243	.615	.018	
6-3	.00	.0063						0244	.809	.030	
6-4	.00	.0063						0245	1.02	.045	
6-5	.88	.1276		RG	116	.96		0246	1.23	.064	
6-6	.00	.0063		RG	118	.93		0247	1.40	.086	
6-7	.00	.0063						0248	1.53	.110	
6-8	.36	.0094		3 RG	AVG 4/	.93		0249	1.64	.137	
6-9	.10	.0063						0250	1.76	.165	
6-10	.00	.0063						0251	1.84	.195	
6-11	.01	.0063						0252	1.59	.223	
6-12	.55	.0177						0253	1.38	.248	
6-13	.00	.0049						0254	1.17	.269	
6-14	.00	.0049						0255	.954	.287	
6-15	.02	.0050						0256	.762	.301	
6-16	.00	.0049						0258	.562	.324	
6-17	.00	.0049						0259	.410	.332	
6-18	.00	.0049						0300	.335	.338	
6-19	.00	.0050						0302	.307	.348	
6-20	.00	.0049						0303	.286	.353	
6-21	.00	.0046						0304	.237	.358	
6-22	.00	.0044						0305	.249	.362	
6-23	.00	.0049						0308	.188	.373	
6-24	.00	.0047						0311	.129	.381	
6-25	1.55	.0894						0315	.0713	.387	
6-26	5/ .09	6/ .0038						0317	.0676	.390	
								0321	.0413	.393	
								0326	.0212	.396	
								0330	.0173	.397	
								0335	.0138	.398	
								0337	.0120	.399	
								0338	.0114	.399	
								0339	.0108	.399	
								0344	.0062	.400	
								0349	.0035	.400	
								0355	7/ .0030	.401	

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 83.490. FOR TOPOGRAPHIC MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1964, USDA MISC. PUB. 1194, P. 71.2-5. 4/ THIESSEN AVERAGE OF THREE RECORDING RAIN GAGES. 5/ RAINFALL FROM 0200 TO 0226. 6/ RUNOFF PRIOR TO 0235. 7/ RETURN TO NEAR BASE FLOW.



TREYNOR, IOWA WATERSHED 2

MONTHLY PRECIPITATION AND RUNOFF (inches)						TREYNOR, IOWA							WATERSHED 3	
						AREA—197 ACRES								
YEAR	MDNTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P 1/	.95	.46	.87	.63	2.57	7.18	3.64	1.74	2.87	.46	.30	.34	22.01
	Q	.43	.32	.29	.29	.26	.52	.22	.15	.11	.10	.11	.12	2.92
STA AV 2/P		.56	.78	1.20	3.32	4.69	7.86	3.46	3.17	5.91	.72	.91	.68	33.26
	(64-66) Q	.22	.64	.79	.44	.38	.62	.38	.20	.46	.33	.29	.22	4.97
MEAN P 3/		.72	.92	1.42	2.60	3.74	4.64	3.71	3.45	3.11	2.02	1.18	.86	28.37
96 YR														

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	6-25	.18	6-25	.13	6-25	.16	6-25	.31	6-25	.32	6-25	.33	6-25	.34	6-25	.39

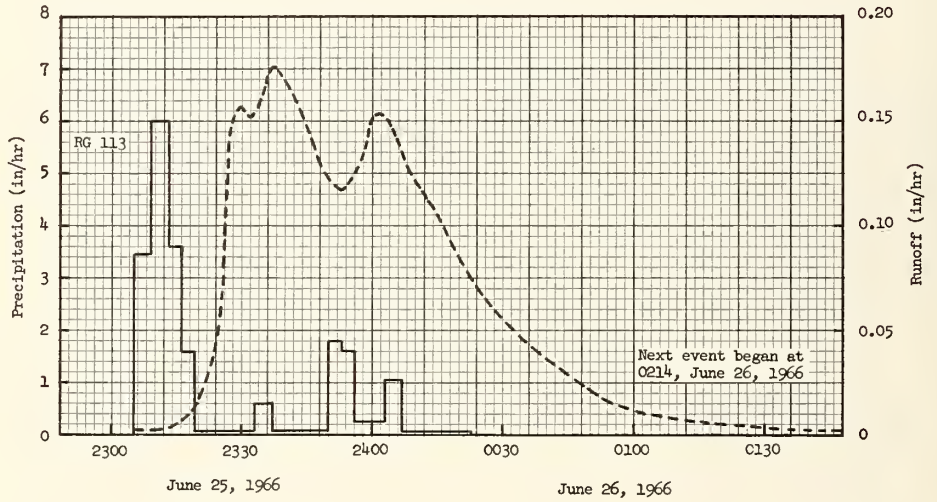
MAXIMUMS FOR PERIOD OF RECORD																
19 64 TO	4-5	.31	4-5	.22	2-28	.37	2-28	.82	2-28	1.04	2-28	1.34	2-27	1.54	2-27	1.60
19 66	1965	1965	1965	1965	1965	1965	1965	1965	1965	1965	1965	1965	1965	1965	1965	1965

Notes: Watershed conditions: 96% permanent pasture with controlled grazing; 4% gravel roads and farmstead. 1/ Precipitation: Arithmetic average of gages 113 and 114 before Mar. 20 and after Nov. 9; Thiessen average of gages 112, 113 and 114 for remainder of year. 2/ Precipitation records began Jan. 1, 1964. Runoff records began Jan. 2, 1964. Jan. 1, 1964 runoff estimated and included in average. 3/ Mean P based on 96-yr (1871-1966) U.S. Weather Bureau record period at Omaha, Nebr.

1966 SELECTED RUNOFF EVENT TREYNOR, IOWA WATERSHED 3

ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)
<u>Event of June 25 and 26, 1966</u>										
	3 RG 4/									
5-26	.00	.0067	6-25	RG	113		6-25	2308	.0034	.0000
5-27	.00	.0067		2305	.00	.00		2311	.0034	.0002
5-28	.00	.0067		2309	3.45	.23		2313	.0045	.0003
5-29	.02	.0067		2313	6.00	.63		2316	.0061	.0006
				2316	3.60	.81		2319	.0134	.0011
5-30	.02	.0067		2319	1.60	.89	2321	.0217	.0017	
5-31	.00	.0067		2333	.04	.90	2324	.0423	.0033	
6-1	.00	.0060		2337	.60	.94	2325	.0573	.0041	
6-2	.04	.0060		2350	.05	.95	2326	.0990	.0054	
6-3	.00	.0060		2353	1.80	1.04	2327	.141	.0074	
6-4	.00	.0060	6-26	2356	1.60	1.12	2329	.157	.0124	
6-5	.97	.0088		0003	.26	1.15	2332	.152	.0201	
6-6	.00	.0060		0007	1.05	1.22	2334	.160	.0253	
6-7	.00	.0060		0023	.04	1.23	2336	.173	.0308	
6-8	.39	.0065					2337	.176	.0337	
6-9	.35	.0072		RG	112	1.42	2339	.173	.0396	
6-10	.00	.0056		RG	114	1.13	2344	.152	.0531	
6-11	.03	.0058					2347	.136	.0603	
6-12	.80	.0085		3 RG	AVG 4/	1.25	2353	.118	.0730	
6-13	.00	.0053					2357	.129	.0812	
6-14	.00	.0056					6-26	2400	.152	.0883
6-15	.03	.0060						0002	.154	.0934
6-16	.00	.0055						0004	.149	.0984
6-17	.00	.0055						0007	.134	.1055
6-18	.00	.0055						0009	.125	.1098
6-19	.00	.0055						0016	.103	.1231
6-20	.00	.0049						0020	.0860	.1294
6-21	.00	.0060						0024	.0724	.1347
6-22	.00	.0061						0031	.0545	.1421
6-23	.00	.0055					0045	.0296	.1519	
6-24	.00	.0055					0050	.0217	.1541	
6-25	5/ 1.75	6/.0139					0058	.0139	.1564	
							0108	.0093	.1584	
							0118	.0061	.1596	
							0202	.0020	.1626	
							0214	7/ .0020	.1630	

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 107.89. FOR TOPOGRAPHIC MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1964, USDA MISC. PUB. 1194, P. 71.3-4. 4/ THIESSEN AVERAGE OF THREE RECORDING RAIN GAGES. 5/ RAINFALL FROM 1724 TO 2305. 6/ RUNOFF PRIOR TO 2308. 7/ BEGINNING OF NEXT EVENT.



TREYNOR, IOWA WATERSHED 3

MONTHLY PRECIPITATION AND RUNOFF (inches)												TREYNOR, IOWA		WATERSHED 4					
												AREA—150 ACRES							
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL						
1966 P 1/	.87	.46	.91	.62	2.48	7.32	3.51	1.61	3.07	.46	.30	.27	21.88						
Q	.77	.52	.55	.51	.45	.60	.70	.55	.41	.37	.35	.32	6.10						
STA AV ² /P	.53	.79	1.21	3.29	4.62	7.95	3.51	3.06	6.59	.74	.91	.65	33.85						
(64-66) Q	.45	.49	.91	.55	.65	1.09	1.05	.66	.83	.76	.60	.50	8.54						
MEAN P 3/																			
96 YR	.72	.92	1.42	2.60	3.74	4.64	3.71	3.45	3.11	2.02	1.18	.86	28.37						

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	6-25	.30	6-25	.07	6-25	.08	6-25	.13	6-25	.15	6-25	.16	6-25	.18	6-25	.35

MAXIMUMS FOR PERIOD OF RECORD																
1964 TO	6-25	.30	6-22	.17	6-22	.20	2-28	.35	2-28	.50	2-28	.65	2-28	.76	3-9	1.01
1966	1966		1964		1964		1965		1965		1965		1965		1965	

NOTES: Watershed conditions: 82% contour corn above level terraces which have a capacity of 2 in. of runoff; 7% contour corn below the bottom terraces; 10% grassed terrace back-slopes; 1% gully. 1/ Precipitation from gage 113 before and after Nov. 9; Thiessen average of gages 111, 112, and 113 for remainder of year. 2/ Precipitation records began Jan. 1, 1964. Runoff records began Feb. 27, 1964. Jan. 1-Feb. 27, 1964 runoff estimated and included in average. 3/ Mean P based on 96-yr (1871-1966) U.S. Weather Bureau record period at Omaha, Nebr.

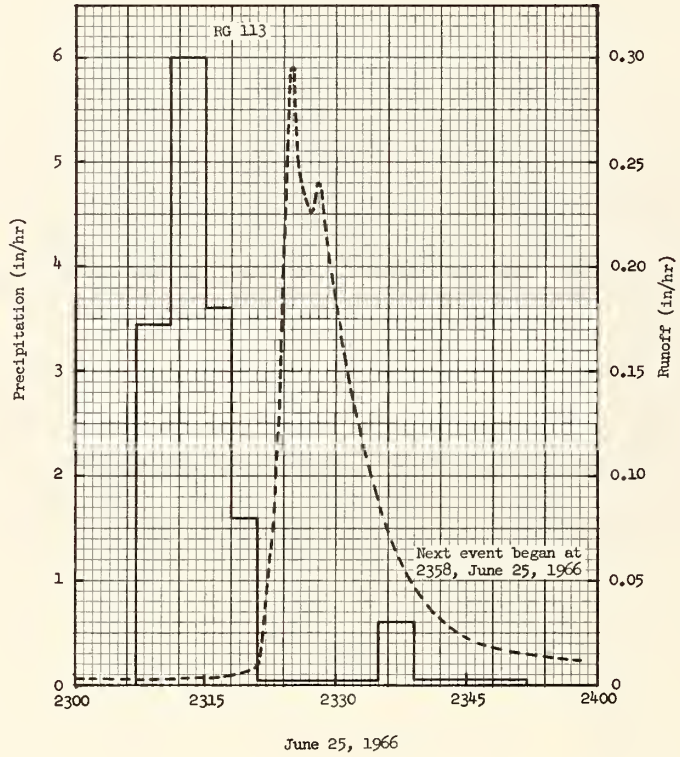
SURFACE DRAINAGE: (Revision) 92 percent of the watershed area is above level terraces having a storage capacity of 2 in. of surface runoff. Length of principal waterway before terracing, 4200 ft.; after terracing 2380 ft.; common boundary with Watershed 3 for approximately 2050 ft. along southeast border. Drainage tile, 2700 ft.; installed May 11, 1965.

1966 SELECTED RUNOFF EVENT			TREYNOR, IOWA				WATERSHED 4			
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)

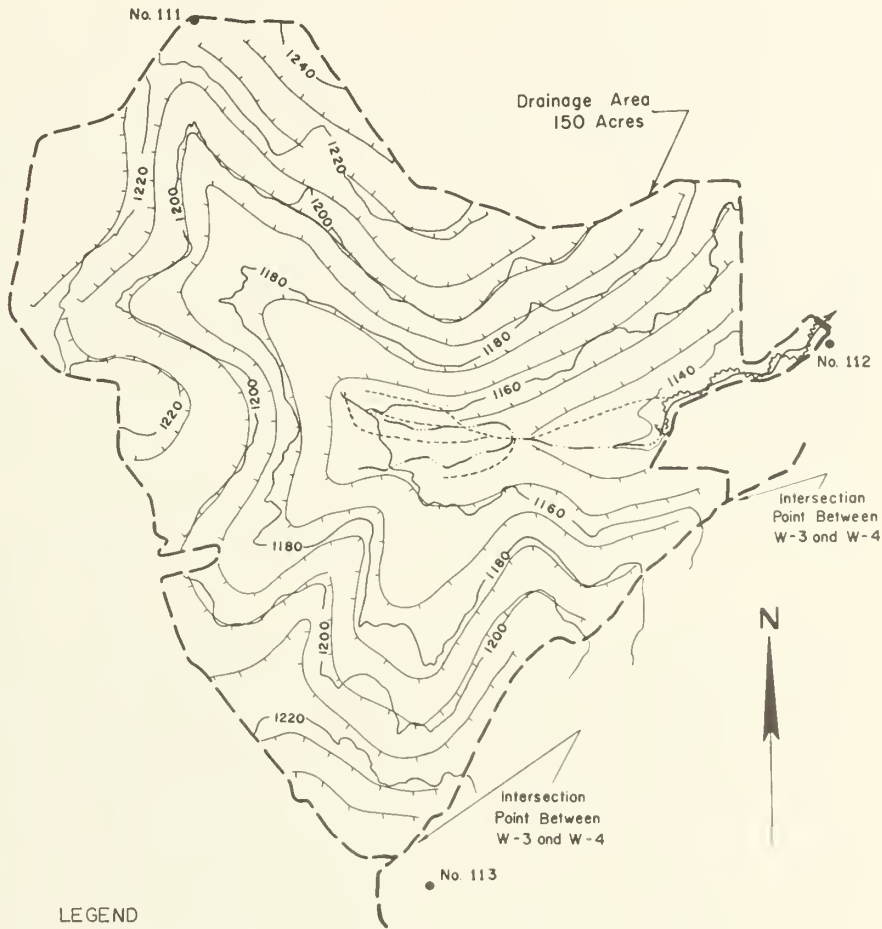
			Event of June 25, 1966								
3 RG 4/			RG 113				6-25				
5-26	.00	.0125	6-25		2307	.00	.00		2315	.0034	.0000
5-27	.00	.0125			2311	3.45	.23		2317	.0048	.0002
5-28	.00	.0125			2315	6.00	.63		2319	.0060	.0004
5-29	.02	.0126			2318	3.60	.81		2321	.0099	.0006
									2322	.0380	.0010
5-30	.02	.0125			2321	1.60	.89		2323	.0870	.0021
5-31	.00	.0122			2335	.04	.90		2324	.206	.0045
6-1	.00	.0116			2339	.60	.94		2325	.296	.0087
6-2	.04	.0116			2352	.05	.95		2326	.241	.0132
6-3	.00	.0122							2327	.226	.0170
6-4	.00	.0125		RG	111	.94 E			2328	.241	.0209
6-5	1.04	.0208		RG	112	.96			2330	.179	.0279
6-6	.00	.0127							2332	.136	.0332
6-7	.00	.0120		3 RG	AVG 4/	.95			2333	.119	.0353
6-8	.34	.0135							2335	.0870	.0387
6-9	.40	.0149							2337	.0645	.0413
6-10	.00	.0127							2341	.0361	.0446
6-11	.05	.0126							2346	.0204	.0470
6-12	.73	.0183							2349	.0174	.0479
6-13	.00	.0133							2354	.0143	.0492
6-14	.00	.0133							2356	.0127	.0497
6-15	.02	.0133							2358	5/.0122	.0501
6-16	.00	.0133									
6-17	.00	.0133									
6-18	.00	.0133									
6-19	.00	.0133									
6-20	.00	.0126									
6-21	.00	.0116									
6-22	.00	.0116									
6-23	.00	.0116									
6-24	.00	.0116									
6-25	6/1.81	7/.0321									

Watershed conditions: 82% contour corn above level terraces, 7% contour corn below terraces, corn 2-3 ft. tall, approx. 60% canopy, just cultivated; terraces dry before event; 10% grassed terrace back-slopes, grass 1-2 ft. tall; 1% gully.

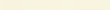


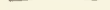

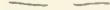
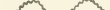

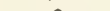

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 151.25. 4/ THIESSEN AVERAGE OF THREE RECORDING RAIN GAGES. 5/ BEGINNING OF NEXT EVENT. 6/ RAINFALL FROM 1724 TO 2307. 7/ RUNOFF PRIOR TO 2315.



TREYNOR, IOWA WATERSHED 4



LEGEND

-  Watershed Boundary
-  Contours
-  Level Terraces
-  Continuous Stream
-  Intermittent Stream
-  Large Deep Gully
-  Overfall
-  Recording Rain Gage
-  Gaging Station
-  Tile Line



SCALE IN FEET
Contour Interval 20 Feet

TREYNOR, IOWA
REVISED TOPOGRAPHIC
MAP OF WATERSHED 4

MONTHLY PRECIPITATION AND RUNOFF (inches)							TREYNOR, IOWA WATERSHED 5 AREA—389 ACRES						
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P 1/ Q	.74 .62	.30 .50	.79 .55	.60 .43	3.14 .38	5.39 .39	3.51 .38	1.81 .25	3.17 .19	.51 .11	.29 .11	.24 .18	20.49 4.09
STA AV2/P (63-66) Q	.50 .27	.70 .43	1.60 .87	3.10 .40	3.64 .38	5.93 .76	3.44 .48	4.21 .33	5.71 .66	.75 .38	1.22 .36	.82 .32	31.62 5.64
MEAN P 3/ 96 YR	.72	.92	1.42	2.60	3.74	4.64	3.71	3.45	3.11	2.02	1.18	.86	28.37

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	6-26	.01	6-26	.01	6-26	.02	6-26	.04	6-25	.05	6-25	.05	6-25	.07	1-1	.19

MAXIMUMS FOR PERIOD OF RECORD																
1963 TO 1966	6-14 1964	.27	6-29 1965	.18	6-29 1965	.25	2-28 1965	.66	2-28 1965	.89	2-28 1965	1.03	2-27 1965	1.17	2-26 1965	1.26

NOTES: Watershed conditions: Percent crop distribution of area above or below level terraces, respectively, is: corn, 31 and 7; beans, 24 and 2; small grain, 15 and 1; alfalfa, 12 and 0; pasture, 1 and 3; and roads and farmsteads, 3 and 1. 1/ Precipitation: Before Mar. 24 and after Nov. 9, arithmetic average of gages 101 and 108; Thiessen average of seven recording gages for remainder of year. 2/ Precipitation and runoff records began Feb. 6, 1963. Jan. 1 - Feb. 6, 1963 precipitation and runoff estimated and included in average. 3/ Mean P based on 96-yr. (1871-1966) U.S. Weather Bureau record period at Omaha, Nebr.

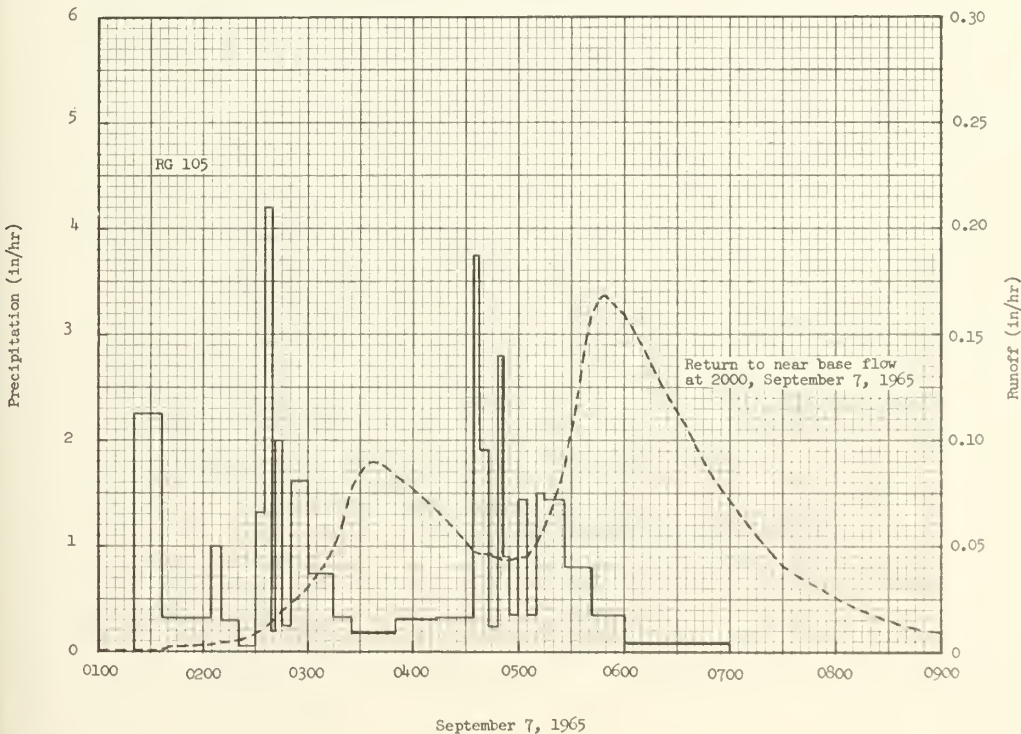
SURFACE DRAINAGE: (Revision) 85 percent of the watershed is above level terraces having a storage capacity of 2 in. of surface runoff. Length of principal waterway before terracing, 7100 ft.; after terracing, 6200 ft. Drainage tile, 2940 ft.; installed March 30, 1966.

1965 SELECTED RUNOFF EVENT				TREYNOR, IOWA WATERSHED 5							
ANTECEDENT CONDITIONS			RAINFALL					RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)	
			Event of September 7, 1965								
	7 RC 4/			RC		105	9-7	0134	.0011	.0000	
8-8	.00	.0203	9-7	0120	.00	.00	0144	.0026	.0003		
8-9	.00	.0187		0136	2.25	.60	0154	.0027	.0008		
8-10	.00	.0180		0204	.32	.75	0202	.0035	.0012		
8-11	.00	.0171		0210	1.00	.85	0220	.0052	.0025		
8-12	.00	.0166		0220	.30	.90	0236	.0117	.0048		
8-13	.00	.0156		0230	.06	.91	0244	.0188	.0068		
8-14	.00	.0155		0235	1.32	1.02	0252	.0238	.0096		
8-15	.00	.0156		0239	4.20	1.30	0258	.0293	.0123		
8-16	.00	.0162		0242	.20	1.31	0302	.0335	.0144		
8-17	.70	.0194		0245	2.00	1.41	0312	.0442	.0209		
8-18	.00	.0191		0250	.24	1.43	0320	.0624	.0280		
8-19	.00	.0158		0300	1.62	1.70	0322	.0690	.0302		
8-20	.04	.0160		0314	.73	1.87	0326	.0795	.0351		
8-21	.41	.0207		0325	.33	1.93	0331	.0856	.0420		
8-22	.00	.0164		0350	.19	2.01	0335	.0889	.0478		
8-23	.00	.0151		0413	.31	2.13	0340	.0889	.0552		
8-24	.10	.0157		0434	.32	2.24	0345	.0856	.0625		
8-25	.00	.0142		0438	3.75	2.49	0354	.0809	.0750		
8-26	.00	.0143		0443	1.92	2.65	0404	.0735	.0879		
8-27	.00	.0132		0448	.24	2.67	0414	.0650	.0994		
8-28	.00	.0132		0451	2.80	2.81	0434	.0489	.1184		
8-29	.63	.0172		0455	.90	2.87	0438	.0466	.1216		
8-30	1.36	.0720		0500	.36	2.90	0445	.0466	.1270		
8-31	.00	.0178		0505	1.44	3.02	0451	.0442	.1315		
9-1	.00	.0160		0510	.36	3.05	0456	.0442	.1352		
9-2	.02	.0163		0514	1.50	3.15	0458	.0454	.1367		
9-3	.00	.0162		0526	1.45	3.44	0504	.0454	.1413		
9-4	.80	.0258		0541	.80	3.64	0510	.0512	.1461		
9-5	.00	.0152		0600	.35	3.75	0520	.0705	.1562		
9-6	.30	.0209		0700	.09	3.84	0526	.0873	.1641		
9-7	.00	5/.0012					0530	.106	.1706		
							0534	.125	.1783		
							0538	.149	.1874		
							0540	.156	.1925		

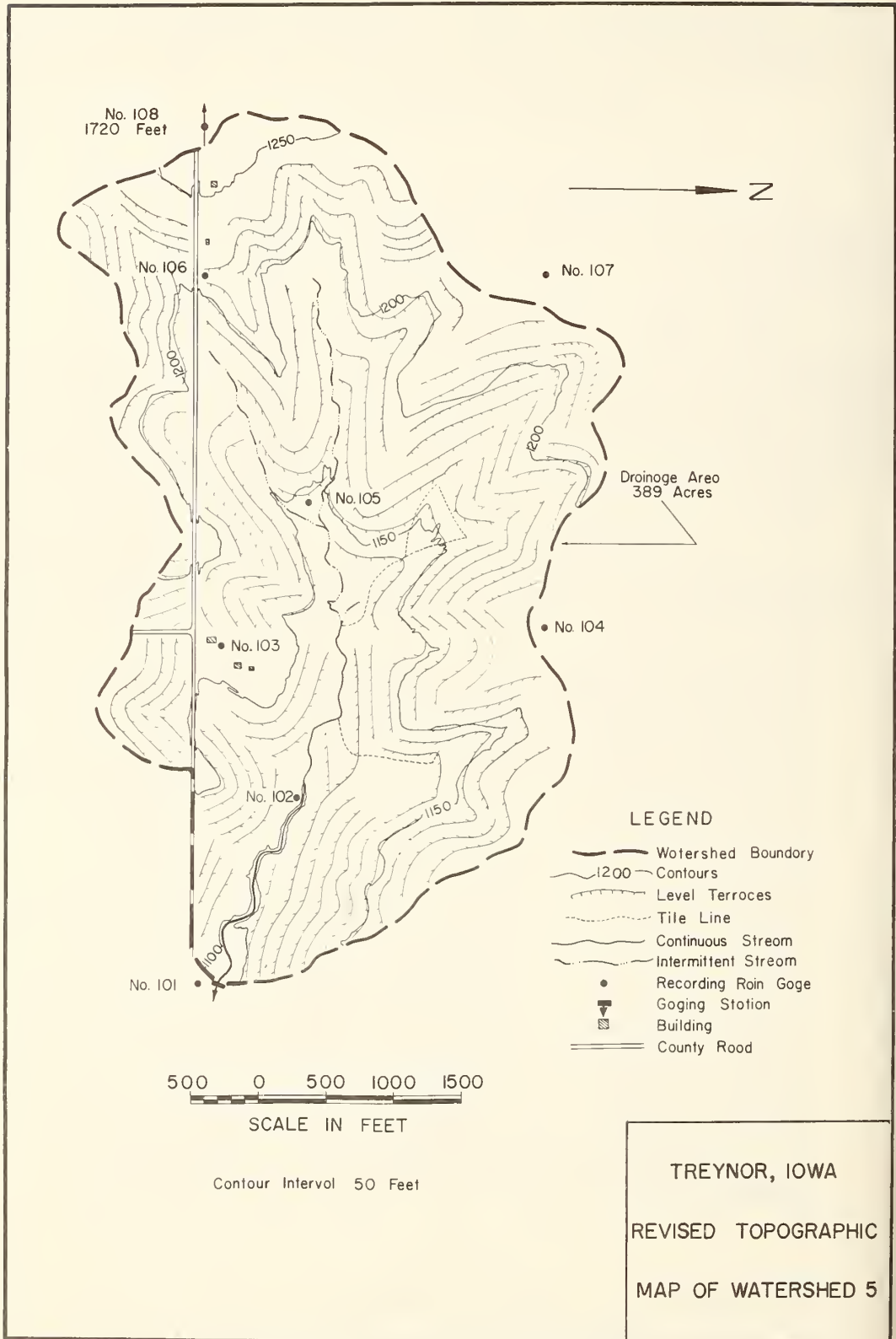
NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 392.24. 4/ THIESSEN AVERAGE OF SEVEN RECORDING RAIN GAGES. 5/ RUNOFF PRIOR TO 0134.

1965 SELECTED RUNOFF EVENT			TREYNOR, IOWA WATERSHED 5										
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF						
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (in/hr)	ACC. (inches)			
Event of September 7, 1965—Continued													
Watershed conditions: Crop heights: Corn, 10-14 ft.; beans, 30-42 in.; small grain, harvested; alfalfa and clover, variable; pasture, 6 in. Percent of watershed in: Above terraces Below terraces Corn 27 2 Beans 23 3 Small grain 3 - Alfalfa and clover 17 - Pasture 12 9 Roads and farmstead 3 1 <hr/> Totals 85 15								9 - 7	0544	.165	.2032		
										0548	.168	.2143	
										0555	.163	.2335	
										0600	.160	.2470	
										0610	.144	.2724	
						RG		101	3.86		0620	.127	.2950
						RG		102	3.94		0638	.101	.3292
						RG		103	3.87		0647	.0873	.3433
						RG		104	3.67		0704	.0664	.3651
						RG		106	4.09		0728	.0423	.3868
						RG		107	3.30		0743	.0343	.3964
						7 RG		AVG 1/	3.83		0816	.0188	.4110
											0842	.0117	.4176
											0854	.0100	.4198
											0910	.0073	.4221
								0930	.0055	.4242			
								0950	.0045	.4258			
								1015	.0035	.4275			
								1056	.0029	.4297			
								1200	.0024	.4326			
								1330	.0021	.4359			
								1630	.0019	.4420			
								2000	2/ .0018	.4485			

NOTES: TO CONVERT RUNOFF IN IN/HR TO CFS, MULTIPLY BY 392.24. 1/ THIESSEN AVERAGE OF SEVEN RECORDING RAIN GAGES. 2/ RETURN TO NEAR BASE FLOW.

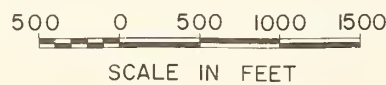


TREYNOR, IOWA WATERSHED 5



LEGEND

- Watershed Boundary
- Contours
- Level Terraces
- Tile Line
- Continuous Stream
- Intermittent Stream
- Recording Rain Gage
- Gaging Station
- Building
- County Road



Contour Interval 50 Feet

TREYNOR, IOWA

REVISED TOPOGRAPHIC

MAP OF WATERSHED 5

MONTHLY PRECIPITATION AND RUNOFF (inches)						COTTONWOOD, SOUTH DAKOTA WATERSHED H-2								72.01		
						AREA—2.13 ACRES										
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966 P ¹ / ₅	.16	.33	2.24	1.25	.52	1.20	1.49	2.97	2.95	.75	.39	.25	14.50			
O	.00	.00	.70	.03	.00	.00	.00	.09	.11	.00	.00	.00	0.93			
STA AV ² /P	.25	.15	.84	1.67	3.34	3.30	1.34	1.39	1.35	.51	.19	.36	14.69			
(63-66) Q	.00	.00	.17	.01	.33	.24	.03	.02	.03	.00	.00	.00	0.83			
MEAN P ³ / ₅₇ YR	.43	.38	.76	1.72	2.80	2.88	1.84	1.58	1.12	.90	.41	.35	15.17			
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	8-19	.33	9-13	.10	3-10	.11	3-10	.27	3-10	.29	3-10	.32	3-10	.56	3-9	.70
MAXIMUMS FOR PERIOD OF RECORD																
19 63 TO	5-30	3.58	5-30	.61	5-30	.63	5-30	1.13	5-30	1.13	5-30	1.13	5-30	1.14		
19 66	1963		1963		1963		1963		1963		1963		1963			
NOTES: Watershed conditions: 100% heavily grazed rangeland. Vegetative cover in late July was 564.6 lb./acre (oven-dry weight.) 1/ Arithmetic mean of rain gages RH-1, RH-2, RH-3 and RH-4. 2/ Precipitation and runoff records began Jan. 1963. 3/ Mean P based on 57-yr. (1910-1966) U. S. Weather Bureau record period at Cottonwood, S. D.																
NO SUITABLE SELECTED RUNOFF TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1965, USDA MISC. PUB. , P. 72.1-5.																

MONTHLY PRECIPITATION AND RUNOFF (inches)						COTTONWOOD, SOUTH DAKOTA WATERSHED L-2 AREA—2.38 ACRES							72.02			
MONTH YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL			
1966	P ₁ / Q	.13 .00	.33 .00	2.13 1.67	1.12 .00	.59 .00	1.31 .00	1.51 .00	2.91 T .00	3.02 .00	.65 .00	.30 .00	.10 .00	14.10 1.67		
STA AV2/P (63-66) Q		.24 .00	.18 .00	.81 .42	1.67 .00	3.31 .07	3.43 .32	1.25 .00	1.36 .00	1.40 .00	.48 .00	.17 .00	.27 .00	14.57 0.81		
MEAN 57 YR	P 3/ Q	.43	.38	.76	1.72	2.80	2.88	1.84	1.58	1.12	.90	.41	.35	15.17		
ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	3-11	.06	3-11	.06	3-11	.11	3-11	.25	3-11	.34	3-11	.51	3-9	.95	3-8	1.54
MAXIMUMS FOR PERIOD OF RECORD																
19 63 TO 19 66	6-15 1963	.54	6-15 1963	.38	6-15 1963	.54	6-15 1963	1.07	6-15 1963	1.16	6-15 1963	1.24	6-15 1963	1.24	3-8 1966	1.54
NOTES: Watershed conditions: 100% lightly grazed rangeland. Vegetative cover in late July was 1089.8 lb./acre (oven-dry weight.) 1/ Arithmetic mean of rain gages RL-1, RL-2, RL-3, and RL-4. 2/ Precipitation and runoff began Jan 1963. 3/ Mean P based on 57-yr. (1910-1966) U. S. Weather Bureau record period at Cottonwood, S. D.																
NO SUITABLE SELECTED RUNOFF TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1965, USDA MISC. PUB. , P. 72.2-4.																

MONTHLY PRECIPITATION AND RUNOFF (inches)						COTTONWOOD, SOUTH DAKOTA WATERSHED M-1							72.05
						AREA—2.35 ACRES							
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P ₁	.17	.34	2.17	1.17	.51	1.27	1.47	2.91	3.01	.61	.42	.18	14.23
O	.00	.00	1.91	.00	.00	.00	.00	.01	T	.00	.00	.00	1.92
STA AV ₂ /P (63-66) Q	.23	.16	.82	1.62	3.33	3.38	1.30	1.39	1.34	.51	.20	.33	14.61
MEAN P ₃ /57 YR	.43	.38	.76	1.72	2.80	2.88	1.84	1.58	1.12	.90	.41	.35	15.17

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
	DATE	RATE	1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
			DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	3-9	.14	3-9	.14	3-9	.28	3-9	.67	3-9	.92	3-9	.98	3-8	1.54	3-8	1.91

MAXIMUMS FOR PERIOD OF RECORD																
19 63 TO	5-30	2.30	5-30	.71	5-30	.76	5-30	1.12E	5-30	1.12E	5-30	1.12E	3-8	1.54	3-8	1.91
19 66	1963		1963		1963		1963		1963		1963		1966		1966	

NOTES: Watershed conditions: 100% moderately grazed rangeland. Vegetative cover in late July was 445.2 lb./acre (oven-dry weight.) 1/ Arithmetic mean of rain gages RM-1, RM-2, RM-3 and RM-4. 2/ Precipitation and runoff began Jan. 1963. 3/ Mean P based on 57-yr. (1910-1966) U. S. Weather Bureau record period at Cottonwood, S. D.

1966 DAILY AIR TEMPERATURE (degrees F)											COTTONWOOD, SOUTH DAKOTA WATERSHED M-1							72.05						
DAY	JAN		FEB		MAR		APR		MAY		JUNE		JULY		AUG		SEPT		OCT		NOV		DEC	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	41	23	13	-18	37	17	57	37	75	33	90	54	88	65	91	63	75	56	70	29	39	22	13	4
2	34	10	30	-11	34	25	62	38	68	31	85	56	92	63	91	58	77	46	68	43	46	8	12	5
3	50	10	28	6	27	10	47	33	70	32	81	61	97	62	102	63	84	57	64	37	47	20	31	7
4	41	3	21	-10	15	7	40	30	92	40	79	52	100	69	97	70	84	45	60	29	45	17	43	16
5	18	3	42	9	19	2	48	24	88	54	72	48	98	62	94	57	84	39	74	30	58	12	45	28
6	39	2	46	17	22	-9	58	21	83	42	73	31	87	60	92	64	81	45	81	36	46	23	48	26
7	41	1	33	28	41	-3	51	26	82	40	70	50	99	60	82	55	95	56	81	40	40	26	43	33
8	52	4	32	27	48	30	47	31	78	34	66	42	105	68	77	53	97	54	80	42	30	13	45	15
9	61	25	34	26	51	28	62	21	56	25	73	38	100	57	69	51	90	53	74	39	22	8	31	0
10	32	4	29	3	48	26	61	35	63	39	91	50	107	70	79	47	85	48	65	28	43	1	24	7
11	43	6	29	-1	51	30	52	32	55	31	80	50	105	64	88	63	96	48	68	27	30	12	48	5
12	46	19	37	15	58	23	41	36	47	32	74	42	95	69	83	54	92	62	69	31	33	5	53	17
13	47	15	25	-10	66	26	52	36	67	30	78	42	88	64	80	44	89	50	60	45	42	15	51	20
14	42	19	28	3	62	30	62	28	70	37	79	47	80	65	84	56	60	40	48	34	54	23	58	21
15	35	15	18	-1	64	28	69	34	71	45	77	51	89	64	93	56	61	41	48	21	58	26	49	30
16	16	3	13	-7	73	34	67	44	76	39	75	41	107	65	102	52	64	48	56	22	50	26	58	26
17	26	3	17	-5	62	33	62	33	73	45	80	42	107	79	96	63	62	41	61	28	54	29	58	28
18	38	-4	13	-11	42	30	41	23	62	41	90	51	98	61	84	49	70	42	50	36	38	18	55	26
19	30	6	8	-10	67	20	26	20	69	34	94	57	100	61	82	56	73	40	69	23	59	21	57	28
20	8	-6	12	5	59	38	37	7	78	41	104	61	93	68	68	52	82	44	77	34	65	20	58	28
21	1	-33	19	-2	58	36	57	19	91	43	93	60	95	67	72	49	77	53	68	40	69	38	38	23
22	12	-21	17	8	47	23	54	28	90	58	96	60	85	63	72	46	83	41	58	26	60	30	23	-5
23	0	-15	36	7	24	4	67	32	66	41	91	57	93	57	72	38	82	40	61	28	39	29	23	-18
24	-1	-11	34	1	43	2	67	33	76	34	90	61	99	59	80	42	80	52	69	36	43	26	22	10
25	7	-25	27	-5	44	25	79	33	88	41	79	58	102	69	89	47	58	47	77	38	57	30	20	14
26	13	-17	38	0	44	18	66	33	90	42	84	44	99	70	94	45	59	50	81	33	50	34	17	11
27	1	-17	48	12	56	22	48	34	88	41	95	62	94	67	97	52	70	40	76	31	44	21	17	10
28	-6	-15	42	16	66	28	53	23	75	42	102	56	86	58	87	50	75	44	56	29	51	18	19	5
29	-6	-21	---	---	67	29	50	25	82	44	103	64	85	52	94	50	72	46	55	24	48	21	27	-1
30	9	-14	---	---	72	34	58	23	80	50	99	74	99	55	95	60	51	38	67	34	21	8	28	-1
31	7	-8	---	---	69	40	---	---	85	51	---	---	106	68	89	63	---	---	59	30	---	---	33	15
AV.	25	-1	28	3	50	22	55	29	75	40	85	52	96	64	86	54	77	47	66	32	46	20	37	14
MEAN	12.0		15.4		35.8		41.9		57.5		68.4		80.0		70.0		61.9		49.2		33.0		25.5	
STA AV	32	6	36	9	46	19	61	32	71	42	81	53	91	59	89	55	79	46	66	33	49	20	37	10

NOTES: TEMPERATURE DATA FROM U. S. WEATHER BUREAU METEOROLOGICAL STATION AT COTTONWOOD, S. D. FOR 24 HOURS ENDING 1700.

1966 DAILY PRECIPITATION (inches)						COTTONWOOD, SOUTH DAKOTA WATERSHED M-1							72.05
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	
1	.00	.00	.00	.00	.00	.00	.45	.00	.00	.00	.00	.06	
2	.00	.00	.14	.07	.00	.03	.00	.00	.00	.02	.00	.05	
3	.00	.00	1.70	.13	.00	.00	.00	.00	.00	.22	.00	.00	
4	.00	.00	.00	.03	.00	.27	.00	.00	.00	.00	.00	.00	
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
7	.00	.00	.00	.04	.00	.00	.00	.00	.00	.00	.20	.00	
8	.00	.16	.00	.00	.15	.00	.00	.00	.00	.00	.00	.00	
9	.00	.08	.00	.00	.01	.00	.00	.10	.00	.02	.00	.00	
10	.00	.00	.00	.00	.04	.07	.00	.00	.00	.00	.00	.00	
11	.00	.00	.00	.04	.30N	.00	.00	.00	.00	.00	.00	.00	
12	T	T	.00	.35M	.00	.00	.00	.29	.00	.00	.00	.00	
13	.00	.00	.00	.00	.00	.00	.66	.00	2.46	.12S	.00	.00	
14	.00	.03	.00	.00	.00	.00	.04	.00	.00	.23S	.00	.00	
15	T	.03	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	
16	.02	.00	.00	.26	.00	.00	.00	.00	.30	.00	.00	.00	
17	.00	.04	.05	.00	T	.04	.00	.00	.00	.00	.00	.00	
18	T	.00	.00	.03S	.01	.00	.00	.07	.00	.00	.00	.00	
19	.07	.00	.00	.00	.00	.00	.00	2.31	.00	.00	.00	.00	
20	.03	T	.00	.00	.00	.00	.00	.04	.00	.00	.00	.00	
21	.00	.00	.11	.00	.00	.00	.14	.00	.00	T	.00	.07	
22	.00	.00	.17	T	.00	.70	.00	.00	.00	.00	.00	.00	
23	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
24	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
26	.00	.00	.00	.14	.00	.00	.00	.00	.04	.00	.15	.00	
27	.00	.00	.00	.08	.00	.00	.00	.00	.00	.00	.00	.00	
28	.01	.00	.00	.00	.00	.00	.07	.00	.00	.00	.00	.00	
29	.00	-----	.00	.00	.00	.00	.00	.00	.07	.00	.00	.00	
30	.00	-----	.00	.00	.00	.16	.00	.00	.09	.00	.07	.00	
31	.00	-----	.00	-----	.00	-----	.11	.10	-----	.00	-----	.00	
TOTAL	.17	.34	2.17	1.17	.51	1.27	1.47	2.91	3.01	.61	.42	.18	
STA AV	.23	.16	.82	1.62	3.33	3.38	1.30	1.39	1.34	.51	.20	.33	

NOTES: PRECIPITATION FROM JAN. 1 THROUGH MAR. 31 AND NOVEMBER 1 THROUGH DEC. 31 IS SNOW, ALL THE REST IS RAIN EXCEPT AS INDICATED. PRECIPITATION IS ARITHMETIC MEAN OF GAGES RM-1, RM-2, RM-3 AND RM-4.

NO SUITABLE SELECTED RUNOFF TO REPORT. FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1965, USDA MISC. PUB. , P. 72.5-7.

FORT STANTON, NEW MEXICO WATERSHED 73.002

LOCATION: Lincoln County, New Mexico, 2 miles south of Fort Stanton, New Mex.

AREA: 32.2 acres

SHAPE: Rectangular

SLOPES:	Slope - percent	0-5
	Percent of area	100

SOILS: Nearly level, wide mesa tops. The deep soils are dark and well developed over calcic horizons. The soils have medium textured surfaces and moderately fine textured subsoils of moderately slow permeabilities.

EROSION:	Erosion class	1
	Percent of area	100

LAND CAPABILITY:	Class	II
	Percent of area	100

GEOLOGY: Mesa is capped with residual stony caliche loam overlying coarse igneous gravels possibly of the late Miocene Ogallala Formation. A disconformity separates the coarse gravels from the underlying lithified red, yellow, and tan sandstones and shales of upper Permian Guadalupian (and possibly some Triassic) rock.

Source of data: Field reconnaissance of project staff.

SURFACE DRAINAGE: Poor; length of principal drainage: None

CHARACTER OF FLOW: Ephemeral, continuous.

INSTRUMENTATION: **PRECIPITATION:** Measured by one 12-hour (scales on chart: 1 in. = 1 in. rain; 1 in. = 62½ minutes) and one 192-hour weighing rain gage; **RUNOFF:** Measured by one V-Notch broad-crested weir with FW-1 recorder (scales on chart: 1 in. = .20 ft. of stage and 1 in. = 25 minutes).

WATERSHED CONDITIONS: Use: Native rangeland, wildlife; watershed is fenced to exclude domestic livestock. Vegetation consists of blue gramma, mat muhly, wolftail, ring-muhly, squirrel tail, vine mesquite and cholla.

GENERALLY REPRESENTS: Arizona and New Mexico Mountains (D-39).

MONTHLY PRECIPITATION AND RUNOFF (inches)						FORT STANTON, NEW MEXICO WATERSHED 73.002							73.02
						AREA—32.2 ACRES							
MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966 P 1	NR	NR	NR	.53	.17	2.58	.78	4.12	.88	.00	.30	.08	9.44
Q	NR	NR	NR	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
STA AV2/P (1966) Q	NR	NR	NR	.53	.17	2.58	.78	4.12	.88	.00	.30	.08	9.44
MEAN P 33 YR	.68	.58	.69	.57	1.16	1.21	2.92	2.65	2.34	.77	.35	.56	14.48

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME

MAXIMUMS FOR PERIOD OF RECORD																
19	TO															
19																

Notes: 1/ Monthly precipitation is record of one gage. 2/ Precipitation and runoff record began April 1966. Precipitation and runoff stations not in operation during months shown as NR. 3/ Mean P based on 33-yr (1933-1966) U.S. Weather Bureau record period at Ft. Stanton, New Mex.

NO SUITABLE SELECTED RUNOFF TO REPORT. MAP OF WATERSHED NOT INCLUDED IN THIS PUBLICATION.

MONTHLY PRECIPITATION AND RUNOFF (inches)						AHO SKIE, NORTH CAROLINA WATERSHED W-A1						75.1						
						AREA—36,480 ACRES (57.0 SQ. MILES)												
MONTH						JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P	4.29	4.96	2.66	.95	6.20	3.47	1.72	5.81	2.30	.69	1.35	3.06	37.46				
	Q	.29	2.78	3.87	.38	1.43	.88	.20	.63	.17	.12	.13	.25	11.13				
	3/ STA AVG P (65-66)	3.02	3.90	3.02	1.51	4.02	4.42	4.65	4.98	2.70	.80	1.00	1.76	35.78				
	4/ MEAN P 57 YR	.92	2.83	3.10	.57	.87	.91	1.14	.73	.20	.14	.12	.19	11.72				
		3.53	3.69	3.69	3.27	3.54	4.90	5.69	4.58	4.00	2.84	2.76	3.33	45.82				

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	3-4	.05	3-4	.05	3-4	.09	3-4	.27	3-4	.54	3-4	1.03	3-4	1.57	2-28	3.22

MAXIMUMS FOR PERIOD OF RECORD														
1950 TO 1966	10-5 1964	10-5 1964	10-5 1964	10-5 1964	10-5 1964	10-5 1964	10-5 1964	10-5 1964	10-5 1964	10-5 1964	10-5 1964	10-3 1964	10-3 1964	10-3 1964
	.07	.07	.14	.42	.83	1.65	3.02	4.15						

NOTES: Watershed conditions: Woodland, 65%; rowcrops, 30%; pasture, 2%; roads, urban, and homesites, 3%.
 1/Precipitation Thiessen weighted using 10 gages. 2/Runoff data furnished by U. S. Geological Survey. 3/ STA AVG computed from rainfall and runoff records for period 1965-1966. 4/Mean P based on 57-yr. (1910-1966) U. S. Weather Bureau record period at Scotland Neck, N. C. Missing records for Oct. 1920, May 1945, Jan. and May 1949, Jan., Feb., and March 1950, and Nov. 1951 estimated from nearby stations.

1966 DAILY AIR TEMPERATURE (degrees F)												AHO SKIE, NORTH CAROLINA WATERSHED W-A1												75.1	
DAY	JAN		FEB		MAR		APR		MAY		JUNE		JULY		AUG		SEPT		OCT		NOV		DEC		
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	74	65	45	25	63	49	80	33	84	62	68	45	91	65	85	55	87	63	84	50	77	41	52	23	
2	74	62	43	30	69	37	77	52	83	45	72	45	90	65	88	59	89	63	67	41	73	54	61	32	
3	70	55	40	20	70	45	72	33	70	44	80	44	92	69	84	68	90	64	73	40	70	36	50	28	
4	57	34	39	18	66	57	67	56	70	48	84	58	95	70	83	66	91	65	80	55	51	23	35	18	
5	51	34	39	20	67	58	65	40	72	36	83	60	94	65	80	65	88	68	79	60	60	25	51	21	
6	58	50	38	10	58	35	60	37	81	54	84	57	93	67	84	57	87	59	66	37	63	37	58	32	
7	59	36	54	28	45	23	67	33	80	57	87	64	93	69	81	63	82	62	68	33	63	28	71	34	
8	55	33	52	33	42	27	66	35	81	50	88	65	94	71	86	68	80	54	75	37	67	33	76	55	
9	42	16	58	27	50	22	60	44	78	61	88	69	92	68	85	69	80	48	77	45	75	43	73	49	
10	56	23	67	33	58	23	59	33	71	39	85	71	94	66	84	69	85	48	83	61	78	65	77	58	
11	53	33	68	59	67	28	64	28	68	30	75	60	96	73	89	71	87	55	76	44	79	60	73	51	
12	45	19	65	56	75	34	71	47	73	43	70	53	94	71	88	73	83	61	74	37	67	51	52	32	
13	48	21	71	60	72	54	70	47	82	57	86	60	96	72	80	69	83	63	77	39	57	39	45	35	
14	45	38	65	42	70	40	50	39	77	52	87	62	95	71	87	69	80	68	79	46	57	32	45	35	
15	41	28	58	42	64	42	62	37	74	49	87	69	93	75	88	70	82	62	80	46	58	25	47	26	
16	37	30	52	41	52	37	63	34	78	45	88	63	85	68	89	70	77	53	80	61	63	25	51	20	
17	40	18	57	45	59	23	68	33	82	56	80	65	85	63	90	72	72	40	70	53	72	30	60	27	
18	36	17	49	27	70	28	76	36	82	57	70	64	89	53	91	70	77	44	62	39	75	41	52	36	
19	39	22	55	37	69	52	---	---	83	69	73	59	92	62	93	74	76	57	81	55	70	49	51	38	
20	42	21	55	26	65	42	80	49	85	65	80	53	91	71	92	70	77	64	65	41	55	30	55	27	
21	46	20	44	18	66	31	80	54	85	66	86	50	86	53	88	68	83	65	65	30	54	30	47	27	
22	48	25	44	23	82	42	72	61	79	61	89	56	88	50	91	68	80	64	75	39	58	36	55	25	
23	49	29	46	22	81	55	79	60	76	52	87	57	86	52	91	72	79	56	80	56	58	31	52	32	
24	42	25	43	33	78	57	83	59	71	55	93	61	90	54	80	64	75	48	81	51	67	23	41	25	
25	40	21	54	33	57	31	83	62	74	65	93	69	90	64	73	62	82	45	71	55	71	32	36	21	
26	36	26	51	33	61	33	71	52	82	64	90	63	90	64	79	57	82	45	65	53	67	47	41	24	
27	36	23	59	26	61	35	75	58	80	65	89	65	93	65	85	60	78	58	62	50	73	39	42	18	
28	40	24	58	39	59	32	69	51	79	67	88	66	95	73	88	59	80	62	69	40	65	43	35	21	
29	39	16	---	---	54	23	59	49	87	62	90	70	96	71	88	60	81	63	78	34	46	28	62	33	
30	23	18	---	---	67	36	78	49	85	59	92	66	79	62	87	60	85	55	64	40	49	29	47	22	
31	35	13	---	---	65	38	---	---	64	55	---	---	82	61	86	64	---	---	67	26	---	---	---	42	28
AV.	47	29	52	32	64	38	70	45	78	55	84	60	91	65	86	66	82	57	73	45	65	37	53	31	
MEAN	37.9		42.4		50.8		57.4		66.2		72.0		78.1		75.9		69.7		59.1		50.7		41.7		
STA AV	52	29	55	32	63	38	74	47	81	55	86	62	89	66	88	65	83	59	73	48	65	39	54	30	

NOTES: TEMPERATURE DATA FROM U.S. WEATHER BUREAU STATION AT LEWISTON. RECORDS BEGAN MARCH 1954.
 FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1965, P. 75.1-8.

1966 DAILY PRECIPITATION (inches)						AHOSSKIE, NORTH CAROLINA WATERSHED W-A1 75.1						
OAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.00	.04	.00	.00	1.00	.00	.00	.00	.00	.50	.60	.00
2	.00	.00	.00	.00	.76	.00	.00	.00	.00	.00	.32	.00
3	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	1.54	.36	.00	.00	.00	.53	.00	.00	.00	.00
5	.75	.00	.09	.03	.00	.00	.07	.18	.00	.00	.00	.00
6	.06	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.03	.00	.13	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00
9	.00	.00	.00	.00	.06	.00	.00	.80	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.78	.11	.00	.00	.10	.00	.05
11	.00	.00	.00	.00	.00	.07	.00	.00	.00	.00	.00	.03
12	.00	.30	.00	.06	.00	.00	.00	.11	.00	.00	.10	.02
13	.00	.47	.00	.03	.00	.00	.00	.52	.00	.00	.00	1.54
14	.00	.00	.00	.16	1.52	.00	.00	.07	.35	.00	.00	.00
15	.72	.31	.00	.00	.00	.00	.00	1.67	.00	.00	.00	.00
16	.16	.26	.00	.00	.00	.26	.00	.21	.00	.00	.00	.00
17	.00	.09	.00	.00	.00	.86	.00	.05	.00	.00	.00	.00
18	.00	.19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.25	.73	.00	.00	1.26	.00	.02	.88	.09	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.27	.52	.00	.00	.09
21	.00	.00	.00	.00	.02	.00	.00	.03	.04	.00	.00	.00
22	1.13	.00	.00	.11	.29	.00	.00	.00	.00	.00	.00	.00
23	.00	.01	.00	.09	.07	.00	.00	.17	.00	.00	.00	.15
24	.00	1.60	.30	.00	.12	.00	.00	.15	.00	.00	.00	.47
25	.00	.06	.00	.00	.39	.00	.00	.71	.00	.00	.00	.00
26	.70	.00	.00	.04	.12	.00	.00	.00	.00	.00	.00	.00
27	.30	.00	.00	.03	.03	.00	.00	.11	.00	.00	.00	.00
28	.11	1.38	.00	.04	.04	.00	.00	.05	.46	.00	.33	.34
29	.31	.00	.00	.00	1.44	.21	.10	.00	.05	.00	.00	.37
30	.00	.00	.00	.00	.26	.00	1.44	.00	.00	.00	.00	.00
31	.05	.00	.00	.00	.06	.00	.00	.01	.00	.00	.00	.00
TOTAL	4.29	4.96	2.66	.95	6.20	3.47	1.72	5.81	2.30	.69	1.35	3.06
STA AV	3.02	3.90	3.02	1.51	4.02	4.42	4.65	4.98	2.70	.80	1.00	1.76

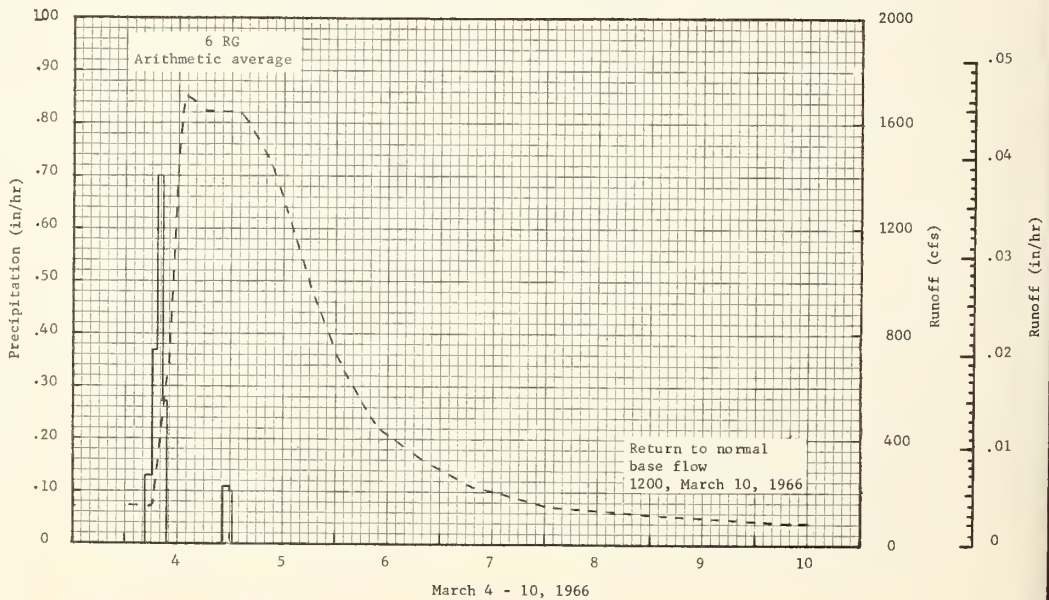
NOTES: PRECIPITATION VALUES ARE THIESSEN WEIGHTED AVERAGES OF 10 GAGES. STA AV BASED ON 2-YEAR PERIOD (1965-66).

1966 MEAN DAILY DISCHARGE (cfs)						AHOSSKIE, NORTH CAROLINA WATERSHED W-A1 75.1						
OAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	6.0	21.0	1170.0	26.0	18.0	118.0	18.0	10.0	12.0	8.0	5.6	6.2
2	6.0	20.0	395.0	24.0	80.0	63.0	14.0	7.8	12.0	8.8	9.8	7.1
3	6.0	25.0	196.0	23.0	149.0	41.0	13.0	7.4	11.0	9.5	10.0	6.5
4	6.3	27.0	977.0	24.0	90.0	29.0	12.0	9.4	10.0	7.1	8.8	6.5
5	7.4	26.0	1160.0	26.0	55.0	24.0	12.0	14.0	9.8	6.2	7.7	6.2
6	10.0	23.0	445.0	26.0	40.0	20.0	13.0	9.0	9.4	6.2	7.7	5.9
7	8.5	23.0	208.0	24.0	30.0	20.0	13.0	8.6	9.0	6.2	7.7	6.2
8	7.4	41.0	130.0	23.0	24.0	18.0	12.0	9.0	8.6	6.2	7.4	6.5
9	7.1	77.0	99.0	22.0	21.0	17.0	11.0	13.0	8.2	6.2	7.1	6.5
10	7.1	73.0	82.0	20.0	21.0	17.0	9.8	18.0	7.8	6.2	6.5	7.1
11	7.1	73.0	69.0	20.0	18.0	11.0	11.0	14.0	7.8	5.6	6.5	6.5
12	6.8	59.0	60.0	19.0	16.0	24.0	9.8	9.8	7.4	5.6	6.5	6.2
13	6.8	198.0	54.0	19.0	14.0	17.0	9.0	14.0	7.0	5.6	6.5	23.0
14	7.1	151.0	49.0	21.0	61.0	17.0	9.0	22.0	8.2	5.6	6.5	26.0
15	8.2	78.0	46.0	20.0	94.0	14.0	8.6	16.0	7.4	5.6	6.5	15.0
16	15.0	119.0	43.0	19.0	56.0	14.0	8.2	305.0	7.0	5.6	6.2	13.0
17	12.0	176.0	40.0	18.0	37.0	53.0	8.2	67.0	7.0	5.6	6.2	12.0
18	9.7	107.0	37.0	17.0	26.0	38.0	8.2	27.0	7.0	5.6	6.2	11.0
19	9.4	181.0	42.0	17.0	21.0	299.0	8.2	61.0	7.8	5.6	6.5	10.0
20	8.7	146.0	113.0	16.0	18.0	176.0	9.0	65.0	21.0	5.6	6.5	10.0
21	8.5	89.0	78.0	16.0	17.0	74.0	8.6	30.0	14.0	5.6	6.5	9.8
22	13.0	66.0	62.0	17.0	20.0	46.0	8.2	20.0	9.0	5.6	6.5	9.1
23	47.0	52.0	49.0	18.0	20.0	32.0	7.4	17.0	7.4	5.6	6.5	9.5
24	24.0	505.0	47.0	17.0	17.0	27.0	6.6	16.0	6.6	5.6	6.5	13.0
25	18.0	965.0	67.0	16.0	16.0	22.0	5.9	30.0	6.6	5.3	6.2	18.0
26	25.0	376.0	51.0	16.0	39.0	20.0	5.6	48.0	6.6	5.3	6.2	14.0
27	34.0	180.0	43.0	17.0	29.0	18.0	5.6	36.0	6.6	5.3	6.2	13.0
28	22.0	386.0	37.0	16.0	24.0	17.0	5.6	22.0	7.8	5.3	6.5	12.0
29	23.0	.00	33.0	16.0	41.0	16.0	5.0	16.0	9.0	5.0	5.9	29.0
30	33.0	.00	29.0	16.0	799.0	21.0	16.0	14.0	9.0	5.0	5.9	32.0
31	29.0	.00	27.0	.00	276.0	.00	20.0	13.0	.00	5.0	.00	23.0
MEAN	14.2	156.2	191.5	19.6	70.5	45.1	10.0	31.3	8.9	6.0	6.9	12.3
INCHES	.29	2.78	3.87	.38	1.43	.88	.20	.63	.17	.12	.13	.25

NOTES: TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/OAY, MULTIPLY BY .0006525. RUNOFF DATA FURNISHED BY U. S. GEOLOGICAL SURVEY. RECORDS ARE GOOD.

1966 SELECTED RUNOFF EVENT			AHOSKIE, NORTH CAROLINA				WATERSHED W-A1				75.1																			
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF																							
DATE MD-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MD-DAY	TIME DF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MD-DAY	TIME DF DAY	RATE (cfs)	ACC. (inches)																				
			Event of March 4 - 10, 1966																											
			6 RG AVG1/																											
3-4	.00	<u>2/</u> .0041	3-4	0430	.00	.00	3-4	0100	151	.0000																				
				0630	.13	.25		0600	147	.0202																				
				0715	.37	.53		1000	686	.0655																				
				0815	.70	1.23		1200	1400	.1222																				
				0915	.27	1.50		1400	1700	.2065																				
				2215	.00	1.50		3-5	1800	1650	.3886																			
				2400	.11	1.70			0200	1650	.7475																			
				Watershed conditions: Approximate land use: 65% in woodland 30% in row crops 2% in pasture 3% misc. (roads, homesites, and urban area)					0030	.10	1.75	0400	1600	.8359																
										0800	1480	1.0033																		
										1200	1300	1.1545																		
1800	980	1.3404																												
2400	720	1.4791																												
3-6												0600	540	1.5818																
												1200	420	1.6601																
												1800	350	1.7229																
								2400				293	1.7754																	
								3-7										0600	236	1.8185										
				1200	201	1.8541																								
				1800	173	1.8846																								
				2400	153	1.9112																								
				3-8																	1200	130	1.9574							
																					2400	111	1.9968							
3-9																					1200	99	2.0310							
																					2400	90	2.0618							
																					3-10							1200	<u>3/</u> 82	2.0900

NOTES: TO CONVERT CFS TO IN/HR, MULTIPLY BY .00002719. 1/ PRECIPITATION IS ARITHMETIC AVERAGE OF RAIN GAGES 1, 2, 3, 4, 6, AND 7. 2/ RUNOFF PRIOR TO 0100 ON 3-4-66. 3/ NORMAL BASE FLOW.



AHOSKIE, NORTH CAROLINA WATERSHED W-A1

1/ MONTHLY PRECIPITATION AND RUNOFF (inches)						2/ AHOSSKIE, NORTH CAROLINA WATERSHED W-A2 AREA—15,360 ACRES (24.0 SQ. MILES)								75.2
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	P	3.92	4.84	2.54	.95	5.49	3.25	1.49	5.66	2.01	.76	1.64	3.13	35.68
	O	.20	2.81	2.86	.32	.99	.56	.09	.77	.09	.09	.11	.22	9.11
	3/ STA AVG-P	2.86	3.76	2.95	1.52	3.80	4.53	4.13	4.98	2.70	.81	1.14	1.79	34.97
	(65-66)	.59	2.65	2.50	.52	.63	.95	.77	.78	.16	.11	.10	.16	9.92
	4/ MEAN	3.53	3.69	3.69	3.27	3.54	4.90	5.69	4.58	4.00	2.84	2.76	3.33	45.82

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE	MAXIMUM VOLUME FOR SELECTED TIME INTERVAL														
		1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS		
		DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	
1966	3-4	.06	3-4	.06	3-4	.11	3-4	.31	3-4	.54	3-4	.87	3-4	1.24	2-26	2.49

MAXIMUMS FOR PERIOD OF RECORD																
1964 to	10-5	10-5	10-5	10-5	10-5	10-5	10-5	10-5	10-5	10-5	10-4	10-3	1964	1964	1964	3.06
1966	.08	.08	.17	.50	.97	1.64	2.37	1964	1964	1964	1964	1964	1964	1964	1964	1964

NOTES: Watershed conditions: Woodland, 75%; row crops, 22%; pasture, 2%; roads and homesites, 1%. 1/Precipitation Thiessen weighted using 5 gages. 2/Runoff data furnished by U. S. Geological Survey. 3/ STA AVG computed from rainfall and runoff records for period 1965-1966. 4/Mean P based on 57-yr. (1910-1966) U. S. Weather Bureau record period at Scotland Neck, N. C. Missing records for Oct. 1920, May 1945, Jan. and May 1949, Jan., Feb., and Mar. 1950, and Nov. 1951 estimated from nearby station.

1966 DAILY PRECIPITATION (inches)						AHOSSKIE, NORTH CAROLINA WATERSHED W-A2								75.2
OAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC		
1	.00	.01	.00	.00	1.13	.00	.00	.00	.00	.58	.71	.00		
2	.00	.00	.00	.00	.73	.00	.00	.00	.00	.00	.53	.00		
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
4	.00	.00	1.45	.39	.00	.00	.00	.42	.00	.00	.00	.00		
5	.69	.00	.13	.04	.00	.00	.00	.17	.00	.00	.00	.00		
6	.11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
7	.00	.00	.00	.00	.00	.00	.00	.07	.00	.00	.00	.00		
8	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.00	.00		
9	.00	.00	.00	.00	.08	.00	.00	.93	.00	.00	.00	.00		
10	.00	.00	.00	.00	.00	.66	.09	.00	.00	.06	.00	.06		
11	.00	.00	.00	.00	.00	.06	.00	.00	.00	.00	.00	.08		
12	.00	.26	.00	.05	.00	.00	.00	.10	.00	.00	.11	.00		
13	.00	.52	.00	.04	.00	.00	.00	.56	.00	.00	.00	1.48		
14	.00	.00	.00	.13	1.54	.00	.00	.11	.36	.00	.00	.00		
15	.76	.33	.00	.00	.00	.00	.00	1.60	.00	.00	.00	.00		
16	.19	.26	.00	.00	.00	.19	.00	.27	.00	.00	.00	.00		
17	.00	.10	.00	.00	.00	.80	.00	.09	.00	.00	.00	.00		
18	.00	.14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
19	.00	.30	.66	.00	.00	1.38	.00	.03	.65	.12	.00	.00		
20	.00	.00	.00	.00	.00	.00	.00	.04	.58	.00	.00	.09		
21	.00	.00	.00	.00	.03	.00	.00	.03	.02	.00	.00	.00		
22	1.05	.00	.00	.09	.34	.00	.00	.00	.00	.00	.00	.00		
23	.00	.00	.00	.07	.03	.00	.00	.30	.00	.00	.00	.16		
24	.00	1.60	.30	.00	.03	.00	.00	.15	.00	.00	.00	.50		
25	.00	.06	.00	.00	.19	.00	.00	.68	.00	.00	.00	.00		
26	.38	.00	.00	.01	.23	.00	.00	.00	.00	.00	.00	.00		
27	.24	.00	.00	.07	.00	.00	.00	.03	.00	.00	.00	.00		
28	.26	1.26	.00	.06	.00	.00	.00	.02	.37	.00	.29	.38		
29	.13	-----	.00	.00	.73	.16	.09	.00	.03	.00	.00	.38		
30	.00	-----	.00	.00	.33	.00	1.31	.00	.00	.00	.00	.00		
31	.11	-----	.00	.10	.00	.00	.00	.02	.00	.00	.00	.00		
TOTAL	3.92	4.84	2.54	.95	5.49	3.25	1.49	5.66	2.01	.76	1.64	3.13		
STAAV	2.86	3.76	2.95	1.52	3.80	4.53	4.13	4.98	2.70	.81	1.14	1.79		

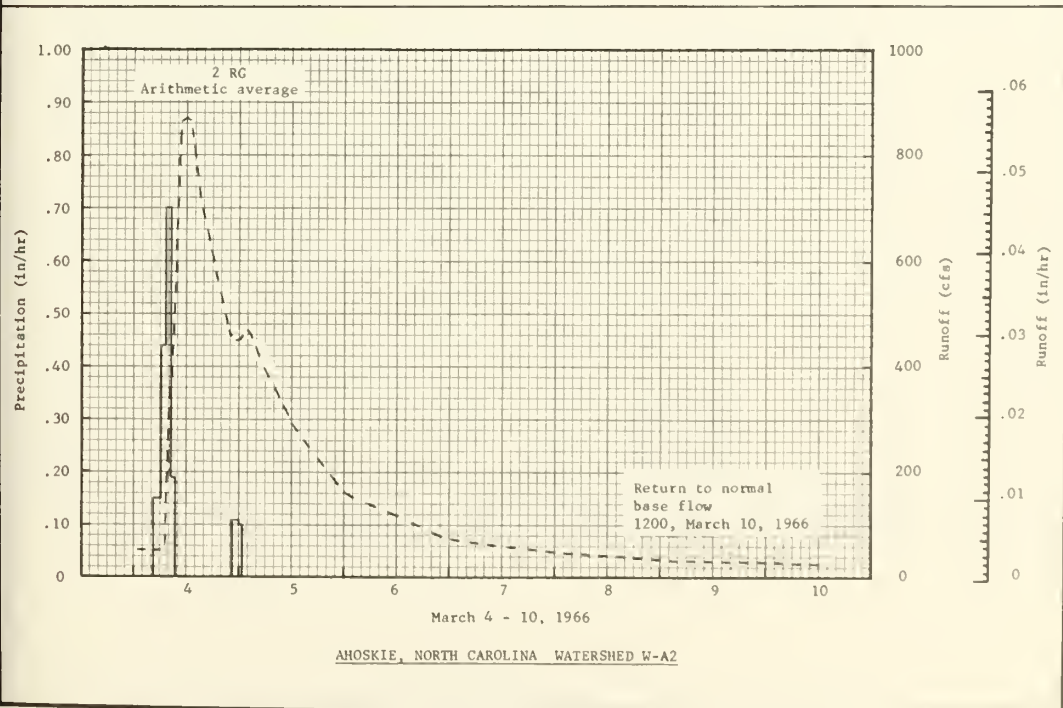
NOTES: PRECIPITATION VALUES ARE THIESSEN WEIGHTED AVERAGES OF 5 GAGES. STA AV BASED ON 2-YEAR PERIOD (1965-1966). FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1965, P. 75.1-8.

1966 MEAN DAILY DISCHARGE (cfs)						AHO SKIE, NORTH CAROLINA WATERSHED W-A2 75.2						
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	1.8	4.9	307.0	9.3	5.1	23.0	3.0	1.7	2.3	3.9	16.0	1.4
2	1.8	6.7	107.0	8.6	57.0	14.0	2.8	1.6	2.0	5.8	6.5	1.4
3	1.8	8.3	63.0	8.1	72.0	10.0	2.6	1.6	1.8	2.3	3.9	1.4
4	1.8	8.6	430.0	8.6	38.0	8.8	2.4	1.6	1.7	2.0	2.2	1.4
5	2.3	8.1	305.0	11.0	22.0	7.4	2.2	2.0	1.7	2.0	1.6	1.4
6	3.7	7.1	111.0	9.8	15.0	6.7	2.2	1.6	1.6	2.0	1.6	1.4
7	2.0	8.4	60.0	8.8	11.0	6.0	2.0	1.5	1.5	1.9	1.6	1.3
8	1.9	28.0	40.0	8.1	8.8	5.3	1.8	1.7	1.5	1.8	1.6	1.3
9	1.8	32.0	31.0	8.1	7.6	4.8	1.7	3.9	1.4	1.8	1.6	1.3
10	1.6	33.0	26.0	7.6	6.9	4.8	1.6	5.3	1.4	1.7	1.6	1.3
11	1.8	32.0	22.0	6.9	5.8	6.4	1.6	1.7	1.2	1.7	1.6	1.4
12	1.6	25.0	20.0	7.1	5.5	4.2	1.7	1.5	1.1	1.6	1.6	1.3
13	1.6	107.0	18.0	7.1	4.9	4.0	1.7	6.2	1.1	1.7	1.6	26.0
14	1.9	59.0	15.0	7.6	44.0	3.7	1.7	4.4	1.5	1.7	1.5	7.2
15	2.4	36.0	14.0	7.1	40.0	3.7	1.7	72.0	1.4	1.7	1.4	3.9
16	6.7	64.0	13.0	6.9	22.0	3.7	1.7	236.0	1.0	1.7	1.5	2.9
17	3.0	85.0	11.0	6.7	14.0	16.0	1.6	30.0	.9	1.6	1.5	2.4
18	2.6	46.0	10.0	6.2	9.3	5.5	1.5	12.0	.9	1.5	1.4	2.2
19	2.6	90.0	17.0	6.0	7.8	116.0	1.5	9.8	1.2	1.5	1.5	2.1
20	2.3	58.0	37.0	5.8	6.9	43.0	1.5	9.8	9.5	1.5	1.5	2.1
21	2.2	38.0	25.0	5.5	6.0	16.0	1.4	5.8	2.9	1.5	1.4	2.1
22	9.4	29.0	20.0	5.3	9.3	9.3	1.2	4.4	1.7	1.5	1.4	2.0
23	15.0	23.0	16.0	5.5	6.9	7.4	1.2	4.2	1.5	1.4	1.4	2.0
24	6.7	287.0	21.0	5.3	5.8	5.8	1.4	6.2	1.4	1.4	1.4	7.8
25	5.3	292.0	26.0	5.8	6.4	4.9	1.5	30.0	1.4	1.4	1.4	5.2
26	8.1	115.0	19.0	4.8	13.0	4.6	1.5	19.0	1.4	1.4	1.4	3.7
27	7.6	63.0	15.0	4.9	8.6	4.2	1.5	8.3	1.5	1.3	1.4	3.0
28	5.8	220.0	13.0	4.8	7.6	4.0	1.4	4.6	2.2	1.3	1.7	3.3
29	5.8	-----	12.0	4.8	7.1	3.7	1.6	3.4	4.2	1.2	1.6	27.0
30	7.4	-----	11.0	4.6	126.1	3.5	3.9	3.0	1.8	1.2	1.4	11.0
31	6.0	-----	10.0	-----	41.0	-----	3.2	2.6	-----	1.2	-----	7.4
MEAN	4.1	64.8	59.5	6.9	20.7	12.0	1.9	16.0	1.9	1.8	2.3	4.5
INCHES	.20	2.81	2.86	.32	.99	.56	.09	.77	.09	.09	.11	.22

NOTES: TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY .0015496. RUNOFF DATA FURNISHED BY U. S. GEOLOGICAL SURVEY. RECORDS ARE GOOD.

1966 SELECTED RUNOFF EVENT			AHOSKIE, NORTH CAROLINA				WATERSHED W-A2		75.2	
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF			
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)
			Event of March 4 - 10, 1966							
			2 RC	AVC1/						
3-4	.00	2/ .0034	3-4	0430	.00	.00	3-4	0100	52	.0000
				0630	.15	.30		0400	50	.0099
				0715	.44	.63		0600	52	.0165
				0815	.70	1.33		0700	59	.0201
				0915	.19	1.52		0900	384	.0487
Watershed conditions:				2215	.00	1.52		1000	671	.0827
Approximate land use:				2400	.11	1.71		1100	848	.1318
75% in woodland			3-5	0030	.10	1.76		1200	868	.1872
22% in row crops								1500	728	.3417
2% in pasture								1800	599	.4703
1% misc. (roads and homesites)								2100	496	.5763
								2300	451	.6374
							3-5	2400	451	.6666
								0200	466	.7256
								0300	451	.7554
								0600	406	.8384
								1200	293	.9738
								2400	161	1.1497
							3-6	2400	76	1.3329
							3-7	2400	48	1.4283
								2400	35	1.4919
							3-8	2400	28	1.5403
							3-9	2400	28	1.5403
							3-10	1200	3/ 26	1.5612

NOTES: TO CONVERT CFS TO IN/HR, MULTIPLY BY .00006457. 1/ PRECIPITATION IS ARITHMETIC AVERAGE OF RAIN GAGES 1 AND 2. 2/ RUNOFF PRIOR TO 0100 ON 3-4-66. 3/ NORMAL BASE FLOW.



MONTHLY PRECIPITATION AND RUNOFF (inches)						AHOSKIE, NORTH CAROLINA WATERSHED W-A3						75.3		
						AREA—2,368 AGRES (3.70 SQ. MILES)								
YEAR	MONTH	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	DCT	NOV	DEC	ANNUAL
1966	P	4.41	4.88	2.80	1.07	5.54	3.38	1.34	5.52	1.83	.84	1.53	3.31	36.45
	Q	.03	2.04	2.43	.07	.36	.09	.01	.10	.01	.00	.01	.03	5.18
	3/ STA AVG P	3.25	3.82	3.07	1.72	3.80	5.23	3.36	5.00	2.56	.90	1.16	1.92	35.79
	4/ MEAN P	.55	2.25	2.19	.24	.20	.75	.02	.48	.02	.01	.01	.02	6.74
57 YR	4/ P	3.53	3.69	3.69	3.27	3.54	4.90	5.69	4.58	4.00	2.84	2.76	3.33	45.82

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS

YEAR	MAXIMUM DISCHARGE	MAXIMUM VOLUME FOR SELECTED TIME INTERVAL															
		1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		8 DAYS			
		DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME		
1966		3-4	.04	3-4	.04	3-4	.08	3-4	.22	3-4	.38	3-4	.65	3-4	.99	2-26	2.15

MAXIMUMS FOR PERIOD OF RECORD

1964 TO 1966	10-5 1964	.12	10-5 1964	.12	10-5 1964	.24	10-5 1964	.67	10-5 1964	1.24	10-5 1964	1.88	10-4 1964	2.57	10-4 1964	3.49
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NOTES: Watershed conditions: Woodland, 88%; row crops, 10%; homesites, pasture, and roads, 2%. 1/Precipitation Thiessen weighted using 2 gages. 2/Runoff data furnished by U. S. Geological Survey. 3/STA AVG computed from rainfall and runoff records for period 1965-1966. 4/Mean P based on 57-yr. (1910-1966) U. S. Weather Bureau record period at Scotland Neck, N. G. Missing records for Oct. 1920, May 1945, Jan. and May 1949, Jan., Feb., and Mar. 1950, and Nov. 1951 estimated from nearby station.

1966 DAILY PRECIPITATION (inches)						AHOSKIE, NORTH CAROLINA WATERSHED W-A3						75.3
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.00	.00	.00	.00	1.10	.00	.00	.00	.00	.76	.46	.00
2	.00	.00	.00	.00	.79	.00	.00	.00	.00	.00	.64	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	1.66	.50	.00	.00	.00	.30	.00	.00	.00	.00
5	.75	.00	.11	.00	.00	.00	.00	.05	.00	.00	.00	.00
6	.12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00
9	.00	.00	.00	.00	.07	.00	.00	1.11	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.81	.07	.00	.00	.00	.00	.09
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07
12	.00	.28	.00	.06	.00	.00	.00	.14	.00	.00	.13	.03
13	.00	.60	.00	.03	.00	.00	.00	.49	.00	.00	.00	1.51
14	.00	.00	.00	.13	1.66	.00	.00	.00	.30	.00	.00	.00
15	.90	.32	.00	.00	.00	.00	.00	2.05	.00	.00	.00	.00
16	.12	.25	.00	.00	.00	.12	.00	.02	.00	.00	.00	.00
17	.00	.07	.00	.00	.00	.81	.00	.00	.00	.00	.00	.00
18	.00	.23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.26	.76	.00	.00	1.48	.00	.00	.76	.08	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.57	.00	.00	.09
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	1.12	.00	.00	.09	.33	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.12	.00	.00	.00	.36	.00	.00	.00	.22
24	.00	1.67	.27	.00	.06	.00	.00	.20	.00	.00	.00	.49
25	.00	.06	.00	.00	.12	.00	.00	.77	.00	.00	.00	.00
26	.67	.00	.00	.03	.21	.00	.00	.00	.00	.00	.00	.00
27	.13	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00
28	.24	1.14	.00	.06	.00	.00	.00	.00	.20	.00	.30	.41
29	.28	----	.00	.00	.82	.16	.03	.00	.00	.00	.00	.40
30	.00	----	.00	.00	.29	.00	1.24	.00	.00	.00	.00	.00
31	.08	----	.00	----	.09	----	.00	.00	----	.00	----	.00
TOTAL	4.41	4.88	2.80	1.07	5.54	3.38	1.34	5.52	1.83	.84	1.53	3.31
STA AV	3.25	3.82	3.07	1.72	3.80	5.23	3.36	5.00	2.56	.90	1.16	1.92

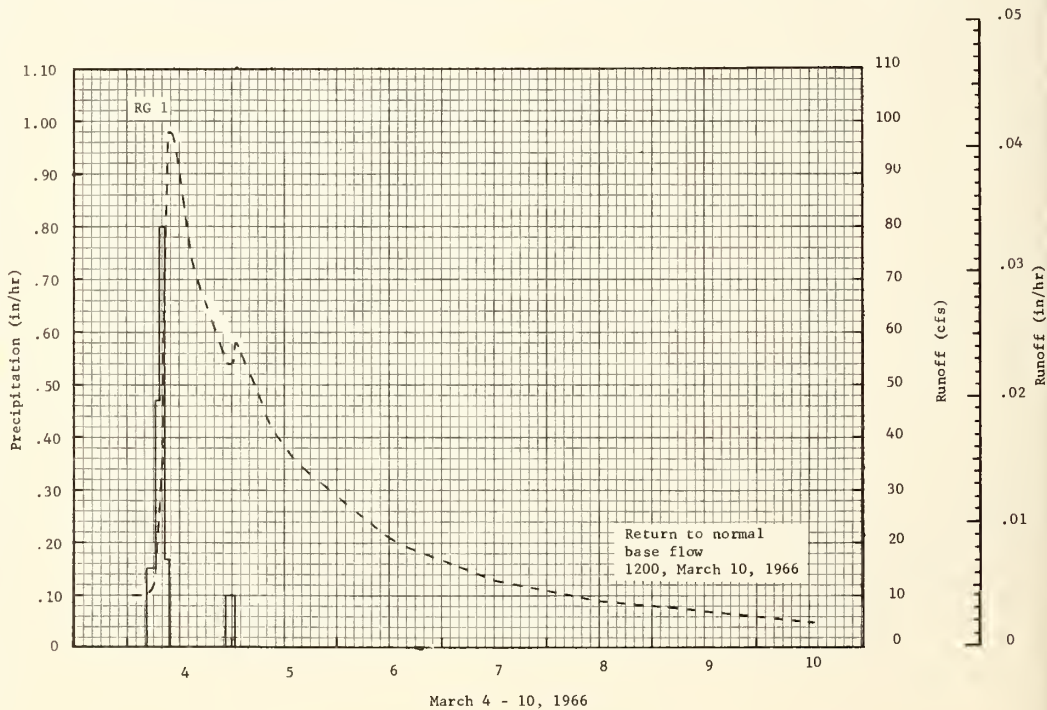
NOTES: PRECIPITATION VALUES ARE THIessen WEIGHTED AVERAGES OF 2 GAGES. STA AV BASED ON 2-YEAR PERIOD (1965-1966). FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1965, P. 75.1-8.

1966 MEAN DAILY DISCHARGE (cfs)						AHSOKIE, NORTH CAROLINA						WATERSHED W-A3		75.3
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC		
1	.00	.20	34.00	.50	.20	.20	.05	.00	.00	.30	.10	.00		
2	.00	.50	18.00	.40	5.20	.10	.05	.00	.00	.05	.05	.05		
3	.00	.80	12.00	.30	7.10	.10	.05	.00	.00	.00	.01	.05		
4	.00	1.20	51.00	.40	3.90	.05	.05	.05	.00	.00	.05	.00		
5	.05	.80	40.00	.70	2.20	.05	.05	.00	.00	.00	.00	.05		
6	.05	.50	20.00	.50	1.30	.05	.05	.00	.00	.00	.00	.05		
7	.00	.30	13.00	.40	.70	.05	.05	.00	.00	.00	.00	.05		
8	.00	.90	8.90	.40	.40	.05	.05	.00	.00	.00	.00	.05		
9	.00	1.10	6.40	.40	.20	.05	.05	.10	.00	.00	.00	.05		
10	.00	1.00	4.70	.30	.20	.05	.05	.10	.05	.00	.00	.05		
11	.00	1.00	3.50	.20	.10	.10	.05	.00	.05	.00	.00	.05		
12	.00	.80	2.80	.20	.05	.05	.05	.00	.05	.00	.05	.05		
13	.00	5.30	2.30	.20	.05	.05	.05	.05	.05	.00	.00	.70		
14	.00	5.30	1.80	.20	2.90	.05	.05	.05	.05	.00	.00	.10		
15	.05	3.80	1.50	.20	3.40	.05	.05	2.80	.00	.00	.00	.05		
16	.05	6.70	1.10	.10	1.90	.05	.05	6.10	.00	.00	.00	.05		
17	.00	9.30	.90	.10	.90	.05	.05	.10	.00	.00	.00	.05		
18	.00	6.60	.80	.10	.40	.20	.05	.05	.00	.00	.00	.05		
19	.00	9.80	1.30	.10	.20	5.20	.00	.05	.05	.00	.00	.05		
20	.00	8.10	3.50	.10	.10	1.30	.00	.00	.20	.00	.00	.05		
21	.00	5.00	2.60	.10	.10	.40	.00	.00	.05	.00	.00	.05		
22	.20	3.20	1.90	.10	.10	.20	.00	.00	.05	.00	.00	.05		
23	.20	2.20	1.40	.10	.10	.10	.00	.05	.00	.00	.00	.05		
24	.05	30.00	1.50	.10	.05	.05	.00	.05	.00	.00	.00	.20		
25	.05	40.00	1.90	.05	.10	.05	.00	.50	.00	.00	.00	.05		
26	.20	22.00	1.40	.05	.30	.05	.00	.05	.00	.00	.00	.05		
27	.50	13.00	1.00	.05	.10	.05	.00	.05	.00	.00	.00	.05		
28	.30	24.00	.90	.05	.10	.05	.00	.00	.05	.00	.05	.05		
29	.40	-----	.70	.05	.05	.05	.00	.00	.05	.00	.05	1.00		
30	.20	-----	.60	.05	2.40	.05	.05	.00	.00	.00	.00	.20		
31	.20	-----	.60	-----	.60	-----	.05	.00	-----	.00	-----	.10		
MEAN	.08	7.26	7.81	.22	1.14	.30	.03	.33	.02	.01	.02	.11		
INCHES	.03	2.04	2.43	.07	.36	.09	.01	.10	.01	.00	.01	.03		

NOTES: TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY .0100514. RUNOFF DATA FURNISHED BY U. S. GEOLOGICAL SURVEY. RECORDS ARE FAIR.

1966			SELECTED RUNOFF EVENT				AHOSKIE, NORTH CAROLINA		WATERSHED W-A3		75.3			
ANTECEDENT CONOITIONS			RAINFALL				RUNOFF							
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME DF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)				
			Event of March 4 - 10, 1966											
3-4	.00	<u>1</u> / .0042	3-4	RG	1		3-4	0100	10	.0000				
				0430	.00	.00		0400	10	.0126				
				0630	.15	.30		0600	12	.0217				
				0715	.47	.65		0800	35	.0412				
				0815	.80	1.45		0900	72	.0637				
				0915	.17	1.62								
Watershed conditions: Approximate land use: 88% in woodland 10% in row crops 2% misc. (homesites, pasture, and roads)			3-5	2215	.00	1.62		1000	98	.0993				
				2400	.10	1.79		1100	96	.1399				
				0030	.10	1.84		1400	78	.2492				
								1700	68	.3409				
								2300	54	.4942				
								2400	54	.5168				
								0100	58	.5403				
								0500	50	.6307				
								0900	42	.7078				
								1400	36	.7895				
								1200	21	1.0521				
								1200	13	1.2229				
								1200	9	1.3320				
								1200	7	1.4094				
								1200	<u>2</u> / 5	1.4682				

NOTES: TO CONVERT CFS TO IN/HR MULTIPLY BY .00041881. 1/RUNOFF PRIOR TO 0100 ON 3-4-66. 2/NORMAL BASE FLOW.



AHOSKIE, NORTH CAROLINA WATERSHED W-A3

1/ MONTHLY PRECIPITATION AND RUNOFF (inches)						2/ AHOSKIE, NORTH CAROLINA WATERSHED W-A4						75.4	
						AREA—1,664 ACRES (2.60 SQ. MILES)							
YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
1966	4.76	4.89	2.85	1.23	7.43	3.50	1.90	5.93	2.73	.63	.90	3.29	40.04
P	.12	2.13	1.84	.12	1.56	.47	.04	.42	.09	.05	.04	.08	6.96
3/ STA AVG	3.10	3.83	3.09	1.51	4.50	3.99	4.10	5.07	3.07	.80	.73	1.86	35.65
(65-66)	.30	1.88	1.64	.22	.83	.38	.21	.34	.12	.07	.04	.06	6.09
4/ MEAN													
57 YR	3.53	3.69	3.69	3.27	3.54	4.90	5.69	4.58	4.00	2.84	2.76	3.33	45.82

ANNUAL MAXIMUM DISCHARGES (inches per hour) AND ANNUAL MAXIMUM VOLUMES OF RUNOFF (inches) FOR SELECTED TIME INTERVALS																
YEAR	MAXIMUM DISCHARGE		MAXIMUM VOLUME FOR SELECTED TIME INTERVAL													
			1 HOUR		2 HOURS		6 HOURS		12 HOURS		1 DAY		2 DAYS		6 DAYS	
	DATE	RATE	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME	DATE	VOLUME
1966	5-30	.16	5-30	.16	5-30	.32	5-29	.82	5-29	1.01	5-29	1.10	5-30	1.19	2-28	1.98

MAXIMUMS FOR PERIOD OF RECORD																
1964 TO	5-30	5-30	5-30	5-30	5-29	5-29	5-29	10-5	10-4	2-28	1966	1966	1966	1966	1966	1966
1966	.16	.16	.16	.32	.82	.82	1.01	1.28	1.28	1.59	1.98	1.98	1.98	1.98	1.98	1.98

NOTES: Watershed conditions: Woodland, 60%; row crops, 39%; homesites, pasture, and roads, 1%. 1/Precipitation Thiessen weighted using 2 gages. 2/Runoff data furnished by U. S. Geological Survey. 3/STA AVG computed from rainfall and runoff records for period 1965-1966. 4/Mean P based on 57-yr. (1910-1966) U. S. Weather Bureau record period at Scotland Neck, N. C. Missing records for Oct. 1920, May 1945, Jan. and May 1949, Jan., Feb., and Mar. 1950, and Nov. 1951 estimated from nearby station.

1966 DAILY PRECIPITATION (inches)						AHOSKIE, NORTH CAROLINA WATERSHED W-A4						75.4
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	.00	.09	.00	.00	.51	.00	.00	.00	.00	.37	.19	.00
2	.00	.00	.00	.00	1.01	.00	.00	.00	.00	.00	.22	.00
3	.00	.00	.00	.00	.16	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	1.81	.47	.00	.00	.00	.73	.00	.00	.00	.00
5	.89	.00	.17	.02	.00	.00	.10	.20	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.18	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.91	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.81	.17	.00	.00	.18	.00	.08
11	.00	.00	.00	.00	.00	.18	.00	.00	.00	.00	.00	.00
12	.00	.37	.00	.04	.00	.00	.00	.23	.00	.00	.11	.02
13	.00	.43	.00	.01	.00	.00	.00	.39	.00	.00	.00	1.67
14	.00	.00	.00	.17	1.48	.00	.00	.00	.40	.00	.00	.00
15	.63	.25	.00	.00	.00	.00	.00	1.61	.00	.00	.00	.00
16	.15	.25	.00	.00	.00	.20	.00	.09	.00	.00	.00	.00
17	.00	.12	.00	.00	.00	1.14	.00	.00	.00	.00	.00	.00
18	.00	.32	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.21	.70	.00	.00	.93	.00	.00	1.06	.08	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.26	.58	.00	.00	.10
21	.00	.00	.00	.00	.02	.00	.00	.00	.05	.00	.00	.00
22	1.20	.00	.00	.19	.20	.00	.00	.00	.00	.00	.00	.00
23	.00	.07	.00	.26	.13	.00	.00	.06	.00	.00	.00	.20
24	.00	1.45	.17	.00	.19	.00	.00	.33	.00	.00	.00	.48
25	.00	.26	.00	.00	.64	.00	.00	.70	.00	.00	.00	.00
26	1.05	.00	.00	.07	.18	.00	.00	.00	.00	.00	.00	.00
27	.38	.00	.00	.00	.00	.00	.00	.16	.00	.00	.00	.00
28	.00	1.07	.00	.00	.34	.00	.00	.06	.59	.00	.38	.31
29	.46	----	.00	.00	1.70	.24	.12	.00	.05	.00	.00	.43
30	.00	----	.00	.00	.77	.00	1.51	.00	.00	.00	.00	.00
31	.00	----	.00	.00	.10	.00	.00	.00	.00	.00	.00	.00
TOTAL	4.76	4.89	2.85	1.23	7.43	3.50	1.90	5.93	2.73	.63	.90	3.29
STA AV	3.10	3.83	3.09	1.51	4.50	3.99	4.10	5.07	3.07	.80	.73	1.86

NOTES. PRECIPITATION VALUES ARE THIESSEN WEIGHTED AVERAGES OF 2 GAGES. STA AV BASED ON 2-YEAR PERIOD (1965-1966). FOR MAP OF WATERSHED, SEE HYDROLOGIC DATA FOR EXPERIMENTAL AGRICULTURAL WATERSHEDS IN THE UNITED STATES, 1965, P. 75.1-8.

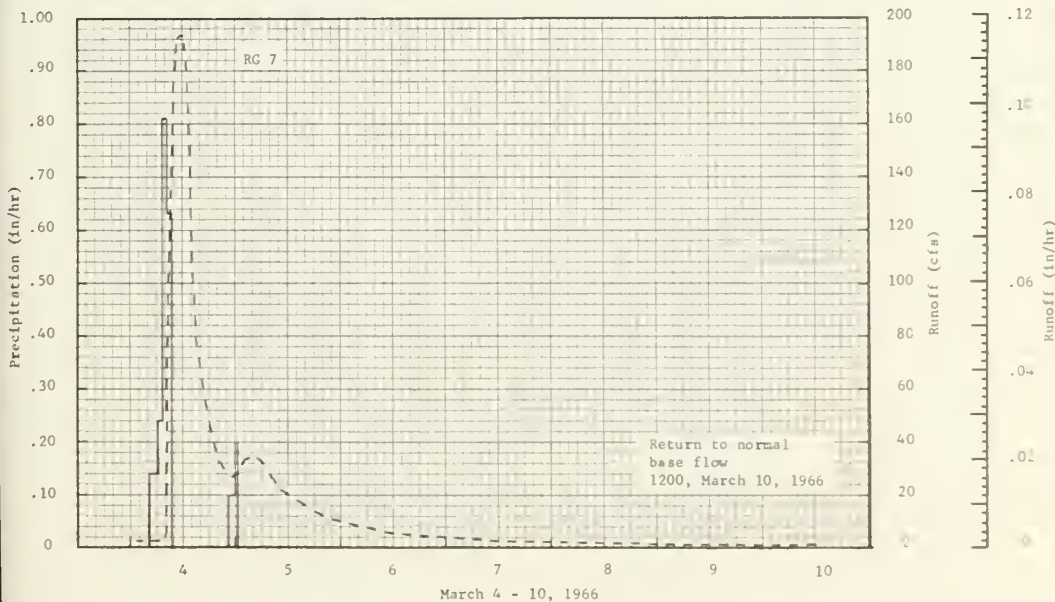
1966 MEAN DAILY DISCHARGE (cfs)						AHOSKIE, NORTH CAROLINA						WATERSHED W-A4		75.4
DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC		
1	.10	.30	18.00	.30	.20	2.30	.05	.10	.20	.10	.10	.10		
2	.10	.50	4.90	.30	2.90	1.10	.05	.10	.20	.20	.10	.10		
3	.10	.80	2.70	.30	3.30	.50	.05	.10	.20	.10	.10	.10		
4	.10	1.10	54.00	.40	1.30	.40	.05	.30	.20	.10	.10	.10		
5	.10	1.10	20.00	.50	.70	.20	.05	.80	.20	.10	.10	.10		
6	.30	1.00	5.40	.40	.40	.20	.05	.20	.20	.10	.10	.10		
7	.20	1.00	2.60	.40	.30	.10	.05	.20	.20	.10	.10	.10		
8	.20	2.60	1.81	.30	.30	.10	.05	.20	.20	.10	.10	.10		
9	.10	2.60	1.30	.30	.20	.10	.05	.50	.20	.10	.10	.10		
10	.10	2.30	1.20	.30	.20	.20	.05	.60	.20	.10	.10	.10		
11	.10	1.70	.90	.30	.20	1.80	.10	.20	.20	.10	.10	.20		
12	.10	1.70	.80	.30	.20	.40	.05	.10	.20	.10	.10	.20		
13	.10	7.80	.70	.20	.20	.20	.05	.40	.20	.10	.10	.80		
14	.10	2.50	.60	.30	2.40	.20	.05	.30	.20	.10	.10	.30		
15	.40	2.00	.50	.30	2.10	.20	.05	2.10	.20	.10	.10	.20		
16	.50	4.90	.50	.30	.90	.10	.05	4.00	.20	.10	.10	.10		
17	.40	4.90	.40	.20	.80	4.80	.05	.50	.20	.10	.10	.10		
18	.30	2.40	.40	.20	.30	1.50	.05	.30	.20	.10	.10	.10		
19	.20	6.60	1.40	.20	.30	14.00	.10	6.60	.20	.10	.10	.10		
20	.20	2.50	3.60	.20	.20	2.70	.10	5.50	1.00	.10	.10	.10		
21	.20	1.60	1.50	.20	.20	.80	.10	1.30	.30	.10	.10	.10		
22	.30	1.20	1.00	.20	.20	.30	.10	.40	.20	.10	.10	.10		
23	1.00	1.00	.60	.30	.20	.20	.10	.30	.20	.10	.10	.10		
24	.40	47.00	.60	.20	.20	.10	.10	.30	.10	.10	.10	.30		
25	.10	10.00	.80	.20	.40	.10	.10	1.50	.10	.10	.10	.20		
26	.30	4.30	.50	.20	1.80	.10	.10	.90	.10	.10	.10	.10		
27	.70	2.40	.50	.20	.60	.10	.20	.80	.10	.10	.10	.10		
28	.40	31.00	.40	.20	.60	.05	.10	.40	.20	.10	.10	.10		
29	.50	-----	.40	.20	9.80	.05	.10	.30	.20	.10	.10	.60		
30	.60	-----	.30	.20	72.00	.05	.50	.20	.10	.10	.10	.30		
31	.20	-----	.30	-----	5.70	-----	.20	.20	-----	.10	-----	.20		
MEAN	.27	5.31	4.15	.27	3.52	1.10	.09	.96	.21	.10	.10	.17		
INCHES	.12	2.13	1.84	.12	1.56	.47	.04	.42	.09	.05	.04	.08		

NOTES: TO CONVERT MEAN DAILY DISCHARGE IN CFS TO IN/DAY, MULTIPLY BY .0143039. RUNOFF DATA FURNISHED BY U.S. GEOLOGICAL SURVEY. RECORDS ARE GOOD.

1966 SELECTED RUNOFF EVENT			AHOSKIE, NORTH CAROLINA				WATERSHED W-A4 15.4				
ANTECEDENT CONDITIONS			RAINFALL				RUNOFF				
DATE MO-DAY	RAINFALL (inches)	RUNOFF (inches)	DATE MO-DAY	TIME OF DAY	INTENSITY (in/hr)	ACC. (inches)	DATE MO-DAY	TIME OF DAY	RATE (cfs)	ACC. (inches)	
Event of March 4 - 10, 1966											
				RG	7						
3-4	.00	<u>1</u> / .0012	3-4	0430	.00	.00	3-4	0100	2	.0000	
				0630	.14	.27		0500	2	.0050	
				0715	.24	.45		0700	3	.0078	
				0815	.81	1.26		0800	7	.0107	
				0915	.63	1.89		0830	26	.0156	
								0900	98	.0341	
								1000	166	.1127	
								1030	183	.1647	
								1130	194	.2771	
								1230	182	.3891	
			1400	118	.5232						
			1500	84	.5834						
			1700	56	.6687						
			1900	40	.7241						
			2300	27	.8037						
						3-5	0100	29	.8368		
							0200	35	.8558		
							0500	34	.9175		
							1000	23	1.0032		
							2100	11	1.1157		
						3-6	1200	6	1.1920		
						3-7	1200	3	1.2557		
						3-8	1200	2	1.2908		
						3-9	1200	1	1.3142		
						3-10	1200	<u>2</u> / 1	1.3319		

Watershed conditions:
 Approximate land use:
 60% in woodland
 39% in row crops
 1% misc. (homesites, pasture, and roads)

NOTES: TO CONVERT CFS TO IN/HR MULTIPLY BY .00059599. 1/RUNOFF PRIOR TO 0100 ON 3-4-66. 2/NORMAL BASE FLOW.



AHOSKIE, NORTH CAROLINA WATERSHED W-A4

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