# Summary of Floods in the United States During 1953

*Prepared under the direction of* J. V. B. WELLS, *Chief, Surface Water Branch*

## FLOODS OF 1953

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1320-E

*Prepared in cooperation with Federal, State, and local agencies*

UNITED STATES GOVERNMENT PRINTING OFFICE, WASHINGTON : 1959

UNITED STATES DEPARTMENT OF THE INTERIOR

FRED A. SEATON, *Secretary*

GEOLOGICAL SURVEY

Thomas B. Nolan, *Director*

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Washington 25, D.C. - Price 20 cents (paper cover)

# PREFACE

This report on the summary of floods in the United States during 1953 was prepared by the Geological Survey, Water Resources Division, Luna B. Leopold, chief hydraulic engineer, under the direction of J. V. B. Wells, chief, Surface Water Branch.

The continuing investigations of surface-water resources in the areas covered by this report are made by the Geological Survey in cooperation with State agencies, the Corps of Engineers, the Bureau of Reclamation, and other Federal or local agencies.

The basic data and information were collected by the district offices of the Surface Water Branch, in those districts where the floods occurred.

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## ABSTRACT

Major floods occurred in four areas in the United States during 1953: western Oregon and northwestern California, Louisiana and adjacent States, the Missouri River basin in Montana, and northwestern Iowa.

Monetary loss from floods in 1953 was much lower than in any one of the preceding 3 years and was less than half the national annual average as computed by the Weather Bureau.


## INTRODUCTION

This summary chapter to the series "Floods of 1953" assembles data on all known severe floods in the United States, whether local or of wide areal extent. Floods described in previous chapters of Water-Supply Paper 1320 or elsewhere are noted here, and references to the reports containing detailed descriptions are given. Local floods for which no individual reports have been prepared are described briefly.

Areas covered by the chapters in this series are shown on figure 54. A summary, listed alphabetically by States, of peaks of the floods that are not included in those reports is given in the table on p. 355.

According to figures compiled by the Weather Bureau from all available sources, flood losses and loss of life in the United States during the 4 years 1950 to 1953 were as follows:

| *Year* | *Monetary loss* | *Loss of life* |
|---|---|---|
| 1950 | $176,000,000 | 93 |
| 1951 | 1,029,000,000 | 51 |
| 1952 | 254,000,000 | 54 |
| 1953 | 122,000,000 | 40 |

On the basis of fragmentary information, the Weather Bureau estimates that the savings resulting from the flood forecasting and warning service was at least $12 million in 1953.

The national average annual flood loss, based on a 10-year period adjusted to the 1952 price index, is $275 million. The average annual

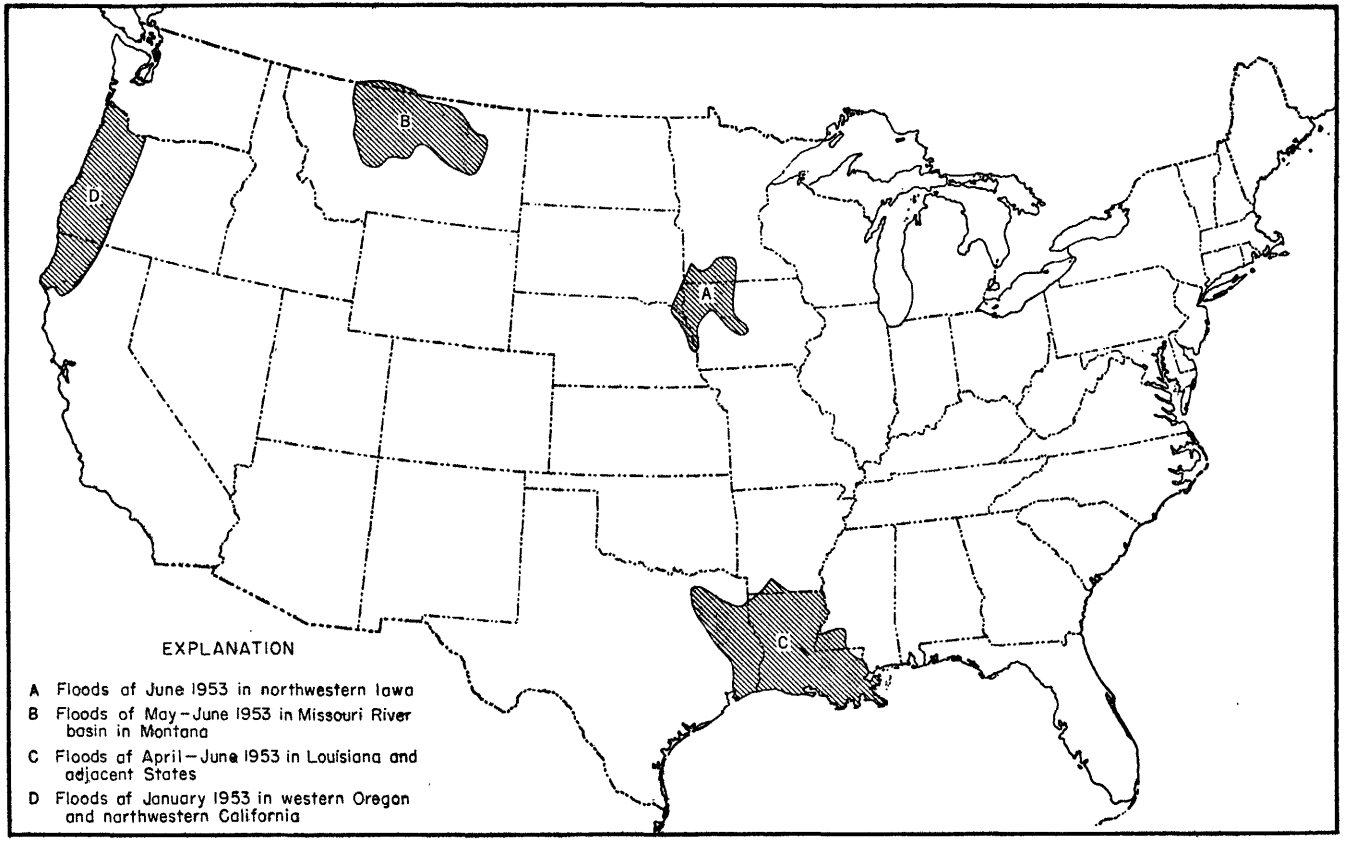


FIGURE 54.—Map of the United States showing outline of areas for which reports on floods occurring in 1953 were prepared.

loss of life for the 32-year period 1922–53 is 75. Nationwide, the loss of life does not bear a close relation to monetary loss in any one year. With the present-day system of flood warning, major floods of large areal extent usually develop at a rate that enables a majority of the inhabitants of the flood plains to evacuate the flood area, whereas localized flash floods may occur without the possibility of any warning being given. As an example, the great Kansas-Missouri floods of July 1951 caused damage estimated at more than $800 million, and took the lives of 19 persons. By contrast, a flash flood in West Virginia in the basins of Middle Island Creek and the West Fork, Hughes, and Little Kanawha Rivers during the night of June 24–25, 1950, caused damage estimated at about $10 million but took the lives of 31 persons.

## SUMMARY OF FLOODS

### ALABAMA

Heavy rains on December 3–7 resulted in high water in the southern part of the State. Peak discharges were not record high and were generally less than maxima occurring between 1936 and 1951, but the peak stage on Styx River near Loxley was the highest since the flood of September 1926 (see table).

### CALIFORNIA

*January.*—Streams in western Oregon and northwestern California were in flood during the period January 17–21 as a result of a frontal storm that extended from San Francisco Bay to the Canadian boundary. The area affected coincided very closely with that affected by the flood of November–December 1950 (described in Water-Supply Paper 1137–E), but streams were generally much higher in 1953 than in 1950. Notably high rainfall totals for the storm period January 15–20 were 21.21 inches at Klamath and 23.02 inches near Crescent City. The flood is described in Water-Supply Paper 1320–D, "Floods of January 1953 in western Oregon and northwestern California".

*November.*—Heavy rains on November 21–23 over the extreme northwestern part of the State resulted in a flood on Smith River. The peak at the gaging station near Crescent City was exceeded only by the peak in October 1950 since records began in 1931 (see table). All roads north and east out of Crescent City were blocked by slides or were washed out, and considerable loss of livestock in the coastal area was reported.

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## COLORADO

*July.*—Heavy rain on July 29 produced a peak discharge in Plum Creek near Louviers that was nearly three times the previous maximum, in a record extending back to 1947.

*August.*—The highest peak discharge since May 1935 occurred in Landsman Creek near Hale on August 19 (see table). The May 1935 flood was associated with the great flood of May–June 1935 on the Republican and Kansas Rivers (Water-Supply Paper 796–B).

## FLORIDA

*September.*—Hurricane "Florence" crossed the northwestern part of the State in a northeasterly direction on September 26. Moderate to heavy rainfall accompanied the storm but because of dry conditions prior to the storm, flooding was confined to a band about 50 miles wide between the Blackwater and Choctawhatchee River basins where the most intensive rainfall occurred. At short-term stations the peak discharge exceeded the previous maximum, and at longer term stations the peak discharge approached the maximum for the period of record.

*October.*—On October 9 hurricane "Hazel" entered the Gulf Coast area between Fort Myers and Punta Gorda and moved in a northeasterly path across the Florida peninsula. On the same day the center of the storm moved out into the Atlantic Ocean near Vero Beach. The hurricane, accompanied by moderate rainfall, traversed an area already flooded by rains that had occurred almost daily for several weeks. Many thousands of acres of pasture and farm land were inundated, and some damage was done to roads and highways. At most short-term gaging stations the peak discharges were the maximum of record; the peak discharge of St. Johns River was the greatest in 20 years (see table).

*December.*—Heavy rainfall on the 4th and 5th caused flooding in the northwestern part of the State. At most stations, except those affected by hurricane "Florence" in September, peak discharges approached or exceeded the maximums for the period of record. Flash flooding occurred in the Yellow River basin.

## IOWA

*February.*—Severe flooding occurred in several small areas in the southeastern part of the State as a result of heavy thundershowers on February 19 and melting snow. Rapid Creek near Iowa City reached the highest stage in 15 years of record (see table). Many small tributaries of Cedar, Iowa, Wapsipinicon, and Maquoketa Rivers overflowed their banks at scattered points as a result of backwater from ice; no general flooding occurred along main streams.

*June.*—The highest flood of record occurred in northwestern Iowa as a result of rains on June 7 that generally exceeded 7 inches and totaled as much as 11 inches, according to unofficial measurements. Floyd River at James was the highest since record began in 1934. The flood on Floyd River was known to exceed the flood of May 1892, which previously was the maximum known since settlement of the area began. Statistics compiled by the Corps of Engineers showed flood damage in the Floyd River basin was nearly $26 million, most of which was in Sioux City. The flood is described in Water-Supply Paper 1320–A, "Floods of June 1953 in Northwestern Iowa."

### KANSAS

Flash floods occurred at Eldorado on May 27 and at Norton on May 28 as a result of intense local rains of 4 to 12 inches. Indirect measurements of peak discharge were made near Eldorado on West Branch Walnut River and Walnut River. Two lives were lost, and damage to crops and property was extensive. Considerable flooding occurred in Gypsum.

Rains of 8 to 11 inches in the Prairie Dog Creek basin produced a phenomenal rise of 17 feet in a 45-minute period at Norton and the peak discharge on May 28 was the greatest in 9 years of record. Peak discharges are listed in the table.

### LOUISIANA

Floods during April–June were caused by continued heavy rains beginning on April 24 and culminating in an unusually heavy 24-hour rain on May 18–19. There were two periods of heavy rainfall—April 24 to May 5 and May 11–19. On most streams peaks following the second rainfall period were higher than those following the first. The flood in southwestern Louisiana exceeded all previous records. Twelve lives were lost in Louisiana and Texas, and direct flood damage in the 2 States was estimated at $35 million. The floods are described in detail in Water-Supply Paper 1320–C, "Floods of April–June 1953 in Louisiana and Adjacent States."

### MAINE

Floods occurred in the southern half of the State during the latter part of March as a result of heavy rains and the melting of a substantial snow cover in the wooded areas in central and western Maine. The already wet ground and high ground-water levels contributed to the rapid rates of runoff. The peak discharge of Little Androscoggin River near South Paris was the greatest for the 33-year period of record, and some other streams almost equaled the previously known

maximum floods of 1936 (see table). Flood damage was high, particularly in the Swift, Androscoggin, and Sandy River basins.

### MARYLAND

The hurricane on August 8 produced a peak discharge on Northwest Branch Anacostia River near Colesville that was the highest in at least 30 years (see table).

### MASSACHUSETTS

Floods occurred in the Conecticut and Merrimack River basins in March as a result of above-normal rainfall and rapid melting of snow. Although peak discharges were high, they were greatly exceeded by those of 1936 and 1938 (see table; also New Hampshire, p. 348).

### MICHIGAN

Floods occurred on July 1–4 in a relatively small area along the Michigan-Wisconsin State line in the Menominee and Ontonagon River basins. Peak discharges approached or exceeded previous maximums of record, but most streamflow records in the area were for periods of not more than about 10 years (see table).

In the Ontonagon River basin, flooding occurred mainly in the eastern and southern fringes. The flood of August 1942 dwarfs all others recorded for the lower reach of the Middle Branch Ontonagon River and the Ontonagon River downstream from the mouths of the several branches.

The flood was relatively more severe in the Menominee River basin than in the Ontonagon River basin. Mr. Wyss, power-production superintendent of the Wisconsin-Michigan Power Co., Iron Mountain, Mich., stated that the 1953 flood was the greatest he had seen since World War I; his statement agrees with the record at the gaging station on Menominee River at Twin Falls (see table). Because the area covered by the flood is sparsely populated, flood damage was light and consisted mostly of washouts of secondary roads and bridges.

### MINNESOTA

Record-breaking floods occurred in the headwaters of the Des Moines and Little Sioux River basins as a result of rains of as much as 9 inches on June 7. Although flood damage in the State was small, the floodwaters contributed to the disastrous floods in Iowa on June 7 and 8. Those floods are described in detail in Water-Supply Paper 1320–A, "Floods of June 1953 in Northwestern Iowa." (See also Iowa, pp. 344–345.)

## MISSISSIPPI

A flash flood occurred on August 22 near Tylertown, about 10 miles north of the Mississippi-Louisiana State line, as a result of heavy rainfall in the basin of Bogue Chitto. Rainfall records of the U.S. Weather Bureau and unofficial measurements made in cans, tubs, and other vessels indicate that the rainfall probably exceeded 12 inches in the storm center, an area of about 100 square miles embracing the watersheds of Topisaw, Carter, Leatherwood, Union, and Dry Creeks and other small creeks in that area.

Streams rose rapidly. According to the August 27 issue of the Tylertown Times, "The flood hit Tylertown about 6:00 o'clock (a.m.) as Dry Creek burst from its banks with stunning suddenness * * *." At the gaging station on Bogue Chitto 9 miles northwest of Tylertown, the discharge increased from 500 cubic feet per second (cfs) at midnight on August 21 to 34,400 cfs at 7:30 p.m. on August 22. No lives were lost, but damage in Lincoln, Pike and Walthall Counties—mostly to roads, bridges, and railroads—was estimated at $110,000. Information from local residents indicates that on the smaller streams the flood was about equal to that of April 1900 and was the highest since then. Indirect measurements of peak discharge were made on four creeks in or near the storm center (see table).

A more detailed report, "Flood of August 1953 in the Vicinity of Tylertown, Miss.," was released to the open files of the Geological Survey in 1954.

## MONTANA

*May–June.*—Floods during late May and early June in the Missouri River basin exceeded previously known floods in a somewhat localized area south and east of Great Falls, and in a larger surrounding area were nearly as high as the disastrous floods of June 1908. Damage in 15 counties exceeded $9 million. The floods are described in Water-Supply Paper 1320–B, "Floods of May–June 1953 in Missouri River basin in Montana."

*June.*—The same weather pattern that produced the floods of early June in the Missouri River basin was prevalent west of the Continental Divide, especially in the Blackfoot River basin where rain and melting snow caused notable floods higher than those of 1948. Roads and bridges were damaged along the Clark Fork below the mouth of Blackfoot River as far downstream as Missoula. At Rogers Pass (elev. 5,470) on the Continental Divide, precipitation from May 23 to June 4, including water equivalent of new-fallen snow, totaled 17.09 inches; precipitation on May 24–25 of 9.90 inches left 37 inches of new snow on the ground. At lower elevations precipitation totals

for the entire storm period ranged generally from 4 to 6 inches. Stages and discharges at five gaging stations in the area are listed in the table.

On June 30 a rain and hail storm of high intensity near Plentywood in northeastern Montana produced the most damaging flash flood in the town's history. From 2 to 6 inches of rain fell within a period of 2 hours or less. Boxelder Creek flooded 20 blocks in the lower part of town, causing the loss of 2 lives and property damage of $325,000. The peak discharge of Boxelder Creek was measured by an indirect method (see table).

*August.*—Plentywood was flooded again in the early morning of August 1, following a heavy rain that began shortly before midnight. Rainfall at Plentywood totaled 1.28 inches in 40 minutes but was less in the upper part of the Boxelder Creek drainage basin. The flood crest was about 2 feet lower than that of the June flood, and the peak discharge was substantially less (see table). Flood damage was estimated at $98,000.

### NEBRASKA

Minor flood runoff, the highest since 1948, occurred in Spring Creek basin in the east-central part of the State on May 10 as a result of local rains ranging from 2 to 5 inches in the headwaters of the basin.

### NEW HAMPSHIRE

Outstanding floods occurred in the northern part of the State on March 27 and 28 as a result of highly concentrated rainfall, which began March 24, and rapid melting of snow. Peak discharges of some streams were the greatest of record (see table), and Ossipee Lake reached the highest level known. Direct and indirect flood damages were estimated at $1.5 million.

### NEW YORK

A flood occurred on August 13 in the headwaters of Delaware River near Delhi and Bovina Center as a result of torrential rains of as much as 6 inches in 2 hours. Damages were estimated at a quarter of a million dollars. Some bridges were damaged or destroyed, and many homes along smaller streams were damaged by floodwaters. The Little Delaware River near Delhi reached a unit peak discharge of 91 cfs per square mile, the highest in a 15-year record; small ungaged streams near Bovina Center reached much higher peak discharges per square mile (see table).

### NORTH DAKOTA

Heavy rains on June 14 and 15 caused flooding in small streams in the Maple River basin. The peak discharge of Maple River at Mapleton was record high for the period 1944–53, the towns of Mapleton and Casselton were inundated, and bridges on rural roads were destroyed.

On June 24 Little Muddy Creek near Williston reached the highest peak discharge of the period 1946–53 and a stage about equal to the previous maximum stage, which occurred in 1904 (see table).

### OKLAHOMA

*June.*—A flood occurred in Otter Creek in southwestern Oklahoma on June 5 and 6, as a result of a rainfall of 4 to 9 inches during the afternoon and evening of June 5 over the drainage area above the gaging station at Snyder Lake, near Mountain Park. The peak discharge at the gaging station was nearly three times the previous maximum, and upstream near Roosevelt the peak discharge was greater than at Snyder Lake. At Roosevelt a small unnamed tributary to Otter Creek reached a unit peak discharge of 774 cfs per square mile (see table). Damage to county roads was extensive and several small bridges were washed out. Wheat and cotton crops were damaged considerably; most of the cotton had to be replanted.

*October.*—Flooding occurred in small streams in the south-central part of the State as a result of rains on October 22 and 23, but crest stages were generally below previous maximums. Little Beaver Creek near Duncan reached the highest peak discharge in a 6-year record.

*November.*—Four Mile Creek at El Reno reached the highest stage known, following a torrential rainstorm on the night of November 18, during which 6½ inches of rain fell at El Reno and more than 8 inches was reported from nearby areas. At El Reno, 150 blocks were flooded and 200 buildings were damaged.

### OREGON

*January.*—Flooding occurred on many streams in western Oregon during the period January 17–21 as a result of prolonged rains that reached maximum intensity on January 17 and 18. Peak discharges were generally greater than during the flood of October–November 1950, but were record-breaking only at a few gaging stations where streamflow records had been collected for comparatively short periods of time. The unusually high temperatures, which melted a considerable amount of snow below the 5,000-foot level, contributed to the

flood runoff. The Corps of Engineers estimated that the peak discharge of the Willamette River at Salem was reduced 41,000 cfs by the operation of flood-control reservoirs on tributaries. The Weather Bureau estimated that flood damage, direct and indirect, totaled about $2.5 million. The flood is described in Water-Supply Paper 1320–D, "Floods of January 1953 in Western Oregon and Northwestern California." (See also California, page 343.)

*May.*—Record-breaking peak discharges occurred on May 19 in the Donner und Blitzen River near Frenchglen and Bridge Creek near Frenchglen. Streamflow records at those 2 points, which are fragmentary, were started in 1910 and 1911, respectively.

*August.*—On August 26, as a result of a cloudburst-type storm, a flash flood occurred in Bull Run Canyon near Klondike, which Mr. Dewey Thompson, a local rancher for the past 56 years, stated was the highest within his memory. No Weather Bureau rain gages are in this area, but another rancher in Bull Run Canyon reported that 0.82 inches of rain fell in 20 minutes. An indirect measurement of peak discharge (see table) was made at a site approximately in W ½ sec. 23, T. 1 N., R. 18 E., on State Highway 206, about 4½ miles south of Klondike; no gaging station is operated on Bull Run.

On August 28 a cloudburst-type storm occurred in a small part of Willow Creek basin. The storm passed between Lexington and Heppner in a belt about 6 miles wide, crossing the headwaters of 3 small streams in the basin (see table).

Both these storms occurred in sparsely settled farming communities. Little is known about flood damages; however, engineers of the Geological Survey observed that fields had been gullied and roads and crops had been damaged.

*November.*—Floods occurred throughout western Oregon on November 21 to 23 as a result of rains that at places exceeded 8 inches during the 3-day period. Owing to unseasonally high temperatures, rain fell at fairly high elevations. The area affected was about the same as the area affected by the January floods, which are described in Water-Supply Paper 1320–D, "Floods of January 1953 in Western Oregon and Northwestern California." The table gives data on peak discharges at gaging stations where the peaks in November 1953 exceeded those in January 1953.

Two lives were lost as a consequence of the November floods. No firm figures are available, but damage was believed to be nearly as great as in the January floods. Many bridges were washed out, and in several places highways were washed out or were buried by earth slides to depths of as much as 12 feet; some coastal communities were isolated for a few days. A cofferdam at Savage Rapids Dam on the

Rogue River was swept away, and some livestock were drowned in the Rogue and Coquille River basins.

### TEXAS

*April.*—Heavy rains caused rises in all streams in east and central Texas. The peak discharge of South Sulphur River near Cooper was the highest in an 11-year record. The North Fork Sulphur River near Cooper also reached a relatively high discharge. Gaging station records of the North Fork have been kept only since 1949, but the peak discharge was known to be the highest since 1944 (see table).

*April–May.*—Major floods occurred in the Sabine and Neches River basins during the last few days of April and continued to about May 20 as a result of heavy rains. At Bon Wier on the Sabine River the rainfall in April totalled 11.05 inches, of which 8.00 inches fell on April 29; rainfall for May 1-19 totaled 20.44 inches; 8.65 inches of this fell on May 18 and 15.60 inches in the 7-day period May 13–19. The peak discharge of the Sabine River at Bon Wier was the greatest since 1913, and at Ruliff the greatest since the historic flood of 1884. Flood damage, direct and indirect, in the two basins amounted to about $2.7 million, according to an estimate by the Corps of Engineers. A detailed report on the floods appears in Water-Supply Paper 1320–C, "Floods of April–June 1953 in Louisiana and Adjacent States."

*August.*—On August 19 a flash flood occurred on the upper Colorado River, where rains of as much as 10 inches were reported. The peak discharge at Robert Lee was the greatest since 1939, and at Ballinger the greatest since 1936.

### UTAH

*June.*—Floods occurred in the upper parts of the Bear, Duchesne, Provo, and Weber River basins from rapid melting of a high-elevation snow pack, which, although below normal, had had little previous melting. Some of the peak discharges were as high as, or higher than, those during the flood of 1952, but the peaks were less prolonged. Peak discharges on the upper Duchesne River were the highest of record (see table).

*July.*—Flash floods occurred repeatedly in tributary streams and dry washes during the latter part of July, as a result of an unusually large number of severe thunderstorms, some of which were of the cloudburst type. Peak discharges at gaging stations were not record breaking, with a few exceptions; at the gaging station above the upper powerplant the American Fork reached a stage nearly 2 feet higher than the previous maximum since records were started in 1927.

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### VIRGINIA

*May.*—Flash floods occurred on May 19 and 20 in the extreme southwestern part of the State as a result of localized rains of as much as 4 inches at some points. The peak discharge of the Clinch River at Richland was the maximum in a record beginning in 1946 (see table). One life was lost, and flood damage was estimated at $60,000.

*July.*—As a result of cloudburst rains near Groseclose on July 6, the peak discharge of Middle Fork Holston River greatly exceeded the previous maximum in a record beginning in 1947.

### WASHINGTON

*January.*—Satus and Rock Creeks in south-central Washington were in flood on January 9 as a result of heavy rain and rapidly melting snow. Considerable damage was done to highways, bridges, and farmlands. Indirect measurements of peak discharge were made at two ungaged sites on Satus Creek (see table).

Many streams in western Washington were at bankful and flood stages during a large part of the month because of heavy rains. No record-high discharges occurred, but some buildings and farmlands were damaged and some secondary highways were closed for short periods.

*December.*—Heavy rains during the month caused floods in several areas in western Washington. Peak discharges were generally not record high except at some gaging stations having records for comparatively short periods, but on many streams the peak discharges approached previous highs. Considerable damage was done to homes and farmlands, and many small bridges were damaged by log jams.

### WISCONSIN

General rains in the Menominee River headwaters on July 1 and 2 produced peak discharges that were the maximum of record on a few streams having gaging-station records for comparatively short periods (see table). Flood damage was not appreciable.

## SUMMARY OF FLOOD STAGES AND DISCHARGES

The table that follows is a summary of flood stages and discharges, listed alphabetically by States and chronologically within States, for local floods that are not reported in chapters A–D of Water-Supply Paper 1320. The table includes results of measurements of maximum flood flows at existing stream-gaging stations and other places on streams in the areas affected by the floods.

Gaging stations and other points can be identified in the table by the entry in the column "Period of record": a period of record is

shown for all gaging stations; leaders indicate that no record of the discharge at that point has been collected systematically.

Figure 55 shows the flood discharges, in cubic feet per second per square mile, which are listed in the table, plotted against the corresponding drainage areas. The figure provides a convenient method for comparing flood discharges from drainage basins that differ widely in size, although it does not bring out the comparative influence of topographic or other basin characteristics that may influence flood discharge. Some of the discharges may be affected by artificial regulation. Discharges of 10 cfs per square mile or less were not plotted.

In some extreme-flood formulas the discharge is expressed in terms of some power of the drainage area, ranging from about 0.5 to 0.8. A form of the Myers [1] formula is

$$q = C_m/\sqrt{M},$$

where $q$ is the peak discharge in cubic feet per second per square mile, $C_m$ is a coefficient varying with locality, and $M$ is the area of the drainage basin in square miles. The Myers rating is $C_m/100$; thus a Myers rating of 50 is equivalent to a $C_m$ factor of 5,000. For the convenience of those who use the Myers formula, lines representing ratings of 30, 50, and 100 are drawn in figure 55.

Using the Myers scale as an index, the highest flood peaks in 1953 were not as high as those in 1951 or 1952. In 1953 the highest point was No. 30 in figure 55, the West Branch Walnut River in Kansas, which plots at about 60. During the Kansas-Missouri flood of July 1951, the peak discharges at 3 gaging stations on Neosho River in Kansas reached about 75 on the Myers scale (see Water-Supply Paper 1227–D, p. 290). In September 1952, the Pedernales River and North Grape Creek in Texas reached peak discharges of about 130 on the Myers scale (see Water-Supply Paper 1260–F, p. 702).

[1] National Resources Committee, 1938, Low dams: Washington, D.C., U.S. Govt. Printing Office, p. 32–33.

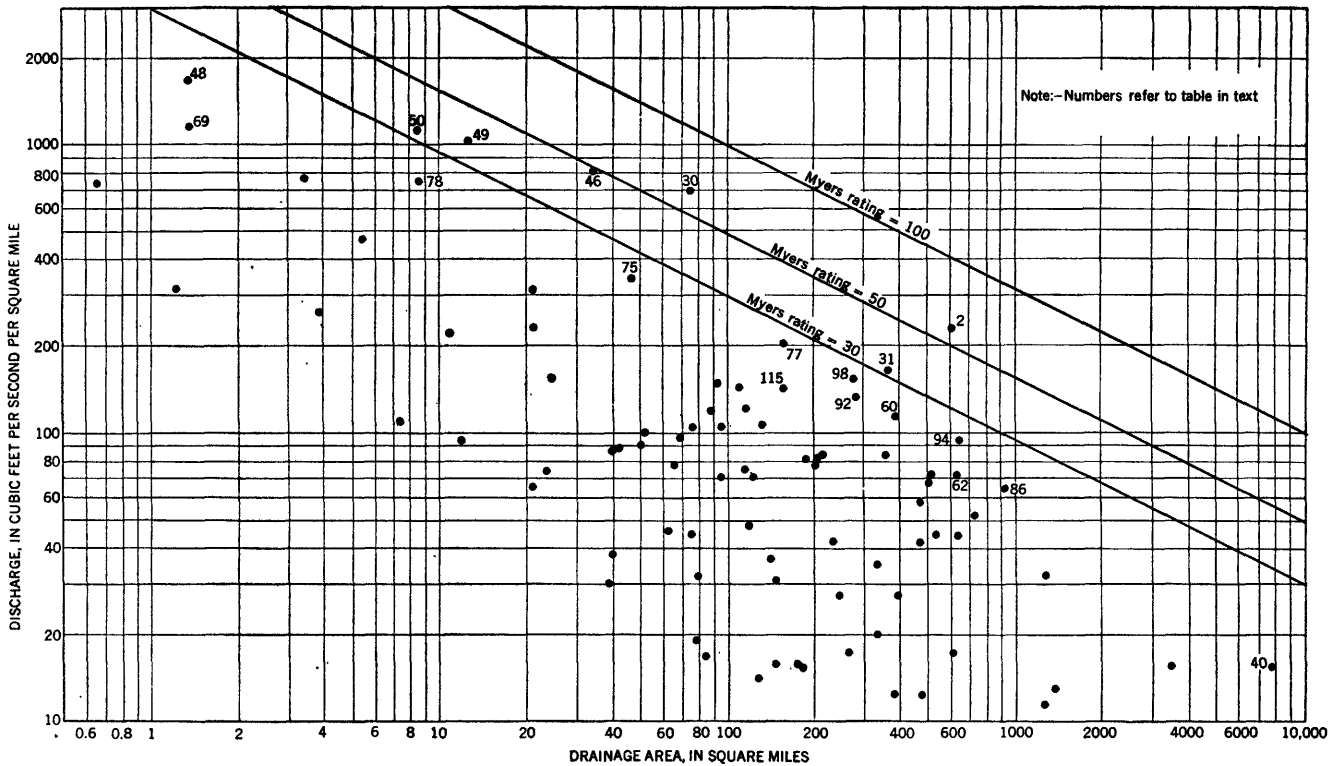


FIGURE 55.—Relation of unit discharge to size of drainage basin.

*Summary of flood stages and discharges for local floods in the United States during 1953*

| No. on fig. 40 | Stream and place of determination | Drainage area (square miles) | Period of record | Maximum flood previously known | | | | Maximum during present flood | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Date | Gage height (feet) | Discharge | | Date | Gage height (feet) | Discharge | |
| | | | | | | Cfs | Cfs per square mile | | | Cfs | Cfs per square mile |
| | **ALABAMA** | | | | | | | | | | |
| | Perdido River basin: | | | | | | | | | | |
| 1 | Styx River near Loxley | 93.2 | 1951–53 | 1910 or 1911<br>Sept. 1926<br>Apr. 12, 1953 | [1] 33<br>[2] 22.2<br>7.85 | [3]<br>[3]<br>1,790 | <br><br>19.2 | Dec. 6 | 19.73 | 14,000 | 150 |
| | **CALIFORNIA** | | | | | | | | | | |
| | Smith River basin: | | | | | | | | | | |
| 2 | Smith River near Crescent City | 613 | 1931–53 | Oct. 29, 1950 | 39.51 | 152,000 | 248 | Nov. 23 | 38.0 | 141,000 | 230 |
| | **COLORADO** | | | | | | | | | | |
| | Platte River basin: | | | | | | | | | | |
| 3 | Plum Creek near Louviers | 319 | 1947–53 | June 13, 1949 | 2.72 | 948 | 2.97 | July 29 | 4.41 | 2,700 | 8.46 |
| | Kansas River basin: | | | | | | | | | | |
| 4 | South Fork Republican River near Idalia | [4] 1,300 | 1950–53 | May 31, 1935<br>July 12, 1951 | <br>7.40 | [5] 103,300<br>6,660 | 79.5<br>5.12 | Aug. 19 | 7.53 | 6,920 | 5.32 |
| 5 | Landsman Creek near Hale | 450 | 1950–53 | May 30, 31, 1935<br>July 12, 1951 | [1] 10<br>7.69 | <br>3,110 | <br>6.91 | Aug. 19 | 8.79 | 4,510 | 10.0 |
| | **FLORIDA** | | | | | | | | | | |
| | St. Johns River basin: | | | | | | | | | | |
| 6 | Jane Green Creek near Deer Park | 248 | 1953 | | | | | Oct. 9 or 10 | 8.65 | 6,880 | 27.7 |
| 7 | St. Johns River near Christmas | 1,418 | 1933–53 | Oct. 12, 13, 1947 | 9.68 | 10,700 | 7.55 | Oct. 12 | 10.59 | 11,700 | 8.25 |
| 8 | St. Johns River above Lake Harney | 1,910 | 1951–53 | Oct. 1924<br>Oct. 10, 1951 | 10.1<br> | <br>[6] 5,400 | <br>2.83 | Oct. 7<br>Oct. 13 | <br>10.62 | [6] 13,800 | 7.23 |
| 9 | St. Johns River near Sanford | 2,420 | 1941–53 | 1880<br>Sept. 25, 1945 | [7] 13.28<br> | <br>[6] 13,000 | <br>5.37 | Oct. 14<br>Oct. 15 | <br>8.52 | [6] 17,500 | 7.23 |
| 10 | St. Johns River near DeLand | 2,960 | 1934–53 | Sept. 30, 1945 | | [8] 14,400 | 4.86 | Oct. 15<br>Oct. 11, 12 | <br>7.17 | [8] 17,100 | 5.78 |

See footnotes at end of table.

*Summary of flood stages and discharges for local floods in the United States during 1953*—Continued

| No. on fig. 40 | Stream and place of determination | Drainage area (square miles) | Period of record | Maximum flood previously known | | | | Maximum during present flood | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Date | Gage height (feet) | Discharge | | Date | Gage height (feet) | Discharge | |
| | | | | | | Cfs | Cfs per square mile | | | Cfs | Cfs per square mile |
| | FLORIDA—Continued | | | | | | | | | | |
| | Lake Okeechobee and the Everglades: | | | | | | | | | | |
| 11 | Tohopekaliga-Cypress Canal near St. Cloud. | 540 | 1942–53 | Sept. 22, 1945 | 9.35 | [6] 2,290 | 4.24 | Oct. 9 | 10.25 | [6] 2,650 | 4.91 |
| 12 | Hatchineha-Kissimmee Canal near Lake Wales. | | 1942–53 | Oct. 1–4, 6, 1949 | | [6] 2,400 | | Oct. 1 | | [6] 2,820 | |
| | | | | Oct. 11, 1947 | 9.6 | | | Oct. 9 | 9.74 | | |
| 13 | Cypress-Kissimmee Canal near Lake Wales. | | 1950–53 | | | | | Oct. 16 | | [6] 3,230 | |
| 14 | Kissimmee River below Lake Kissimmee. | 1,609 | 1933–53 | Oct. 5 or 6, 1948 | 11.92 | 8,820 | 5.48 | Oct. 9 | 13.16 | 7,170 | 4.46 |
| | | | | Oct. 13, 1947 | 12.70 | | | | | | |
| 15 | Istokpoga Canal near Cornwell | 624 | 1934–53 | Sept. 22, 1948 | | 2,040 | 3.27 | Oct. 9 | | [6] 1,860 | 2.98 |
| | | | | Oct. 6, 1948 | 10.62 | | | Oct. 12 | 11.41 | | |
| 16 | Kissimmee River near Okeechobee | 2,886 | 1930–53 | Aug. 1928 | 30.3 | 20,000 | 6.93 | Oct. 14 | 28.37 | 17,800 | 6.17 |
| | | | | Oct. 6, 7, 1948 | 29.34 | 17,400 | 6.03 | | | | |
| | Peace River basin: | | | | | | | | | | |
| 17 | Charlie Apopka Creek near Gardner | 330 | 1950–53 | 1928 | [1] 24.2 | | | Oct. 10 | 17.85 | 6,640 | 20.1 |
| | | | | Sept. 28, 1953 | 17.03 | 4,980 | 15.1 | | | | |
| 18 | Joshua Creek at Nocatee | 115 | 1950–53 | Sept. 1948 | [1] 17.7 | | | Oct. 10 | 18.80 | 8,670 | 75.4 |
| | | | | Oct. 2, 1951 | 17.89 | 6,860 | 59.7 | | | | |
| | Choctawhatchee River basin: | | | | | | | | | | |
| 19 | Choctawhatchee River at Caryville | 3,499 | 1929–53 | Mar. 17, 1929 | [9] 27.1 | 206,000 | 58.9 | Dec. 9 | 15.50 | 54,800 | 15.7 |
| | | | | Sept. 4, 1937 | 15.55 | 56,600 | 16.2 | | | | |
| | Alaqua Creek basin: | | | | | | | | | | |
| 20 | Alaqua Creek near De Funiak Springs | 65.6 | 1951–53 | Feb. 16, 1952 | 14.07 | 763 | 11.6 | Sept. 26 | 18.47 | 5,160 | 78.7 |
| | Yellow River basin: | | | | | | | | | | |
| 21 | Yellow River at Mulligan | 624 | 1938–53 | 1929 | [1] 26.2 | | | Dec. 6 | 15.13 | 28,000 | 44.9 |
| | | | | Sept. 13, 1944 | 13.29 | 21,200 | 34.0 | | | | |
| 22 | Shoal River near Mossy Head | 123 | 1951–53 | Mar. 30, 1951 | 12.33 | 1,540 | 12.5 | Sept. 27 | 21.86 | 8,690 | 70.7 |
| 23 | Shoal River near Crestview | 474 | 1938–53 | July 7, 1940 | 14.26 | 21,700 | 45.8 | Sept. 28 | 13.93 | 20,000 | 42.2 |
| | Blackwater River basin: | | | | | | | | | | |
| 24 | Blackwater River near Baker | 205 | 1950–53 | Sept. 27, 1953 | 15.21 | 4,990 | 24.3 | Dec. 4 | 20.80 | 17,200 | 83.9 |
| | Escambia River basin: | | | | | | | | | | |
| 25 | Pine Barren Creek near Barth | 75.3 | 1952–53 | | | | | Dec. 6 | 13.26 | 3,450 | 45.8 |
| | Perdido River basin: | | | | | | | | | | |
| 26 | Perdido River at Barrineau Park | 394 | 1941–53 | Mar. 15, 1929 | [1] 25.7 | | | Dec. 6 | 16.60 | 11,100 | 28.2 |
| | | | | Mar. 24, 1944 | 16.17 | 9,390 | 23.8 | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **IOWA** | | | | | | | | | | |
| | Iowa River Basin: | | | | | | | | | | |
| 27 | Rapid Creek near Iowa City | 24.5 | 1938–53 | May 20, 1944 | 12.66 | 3,530 | 144 | Feb. 20 | 13.05 | 3,800 | 155 |
| | **KANSAS** | | | | | | | | | | |
| | Kansas River basin: | | | | | | | | | | |
| 28 | Sappa Creek near Oberlin | 1,050 | 1929–32, 1944–53 | July 16, 1944 | 15.28 | 10,600 | 10.1 | May 28 | 15.09 | 9,440 | 8.99 |
| 29 | Prairie Dog Creek at Norton | 721 | 1944–53 | July 12, 1951 | 23.65 | 14,400 | 20.0 | May 28 | 25.6 | 37,500 | 52.0 |
| | Arkansas River basin: | | | | | | | | | | |
| 30 | West Branch Walnut River north of Eldorado. | 75 | | | | | | May 27 | | 52,400 | 699 |
| 31 | Walnut River south of Eldorado | 364 | | | | | | May 27 | | 60,000 | 165 |
| 32 | Whitewater River at Augusta | 468 | 1950–53 | May 1, 1951 | 25.58 | 11,800 | 25.2 | May 27 | 26.52 | 27,200 | 58.0 |
| | **MAINE** | | | | | | | | | | |
| | Kennebec River basin: | | | | | | | | | | |
| 33 | Carrabassett River near North Anson. | 354 | 1925–53 | Mar. 19, 1936 | 21.17 | 30,800 | 87.0 | Mar. 27 | 20.76 | 30,400 | 85.9 |
| 34 | Sandy River near Mercer | 514 | 1928–53 | Mar. 19, 1936 | 16.75 | 38,600 | 75.1 | Mar. 28 | 16.34 | 36,900 | 71.8 |
| | Androscoggin River basin: | | | | | | | | | | |
| 35 | Swift River near Roxbury | 95.8 | 1929–53 | June 15, 1942 | 12.42 | 14,500 | 151 | Mar. 27 | 10.25 | 10,200 | 106 |
| 36 | Little Androscoggin River near South Paris. | 76.2 | 1913–24, 1931–53 | Mar. 19, 1936 | 11.72 | 6,980 | 91.6 | Mar. 27 | 12.41 | 8,000 | 105 |
| | Saco River basin: | | | | | | | | | | |
| 37 | Saco River at Cornish | 1,298 | 1916–53 | Mar. 21, 22, 1936 | 21.90 | 45,000 | 34.7 | Mar. 29 | 20.51 | 42,400 | 32.7 |
| | **MARYLAND** | | | | | | | | | | |
| | Potomac River basin: | | | | | | | | | | |
| 38 | Bennett Creek at Park Mills | 62.8 | 1948–53 | Nov. 21, 1952 | 10.34 | 3,230 | 51.5 | Aug. 8 | 9.49 | 2,890 | 46.0 |
| 39 | Northwest Branch Anacostia River near Colesville. | 21.3 | 1924–53 | Aug. 23, 1933 | 9.3 | 4,500 | 211 | Aug. 8 | 10.99 | 4,910 | 231 |
| | **MASSACHUSETTS** | | | | | | | | | | |
| | Connecticut River basin: | | | | | | | | | | |
| 40 | Connecticut River at Montague City | 7,865 | 1904–53 | Mar. 19, 1936 | 49.2 | 236,000 | 30.0 | Mar. 28 | 35.40 | 123.000 | 15.6 |
| | **MICHIGAN** | | | | | | | | | | |
| | Streams tributary to Lake Superior: | | | | | | | | | | |
| 41 | East Branch Ontonagon River near Mass. | 265 | 1942–53 | Apr. 18, 1952 | 10.32 | 4,260 | 16.1 | July 1 | 10.57 | 4,590 | 17.3 |
| | Streams tributary to Lake Michigan: | | | | | | | | | | |
| 42 | Iron River at Caspian | 84 | 1948–53 | Apr. 8, 1951 | | 695 | 8.28 | July 2 | 10.20 | 1,430 | 17.0 |
| | | | | July 23, 1952 | 8.59 | 695 | 8.28 | | | | |
| 43 | Paint River at Crystal Falls | 616 | 1944–53 | May 7, 1950 | 8.10 | 7,400 | 12.0 | July 2 | 9.70 | 10,700 | 17.4 |
| 44 | Michigamme River near Crystal Falls. | 670 | 1944–53 | May 13, 1950 | | 5,590 | 8.34 | July 4 | 9.32 | 5,440 | 8.11 |
| | | | | May 5, 1951 | 9.45 | 5,590 | 8.34 | | | | |
| 45 | Menominee River at Twin Falls, near Iron Mountain. | 1,790 | 1914–53 | Apr. 23, 24, 1916 | | [8] 16,700 | 9.34 | July 3 | | [8] 15,300 | 8.55 |

See footnotes at end of table.

*Summary of flood stages and discharges for local floods in the United States during 1953*—Continued

| No. on fig. 40 | Stream and place of determination | Drainage area (square miles) | Period of record | Maximum flood previously known | | | | Maximum during present flood | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Date | Gage height (feet) | Discharge | | Date | Gage height (feet) | Discharge | |
| | | | | | | Cfs | Cfs per square mile | | | Cfs | Cfs per square mile |
| | **MISSISSIPPI** | | | | | | | | | | |
| | Pearl River basin: | | | | | | | | | | |
| 46 | Leatherwood Creek 1 mile upstream from mouth. | 34.2 | ---- | ---- | ---- | ---- | ---- | Aug. 22 | ---- | 27,800 | 813 |
| 47 | Bogue Chitto near Tylertown | 502 | 1944–53 | Jan. 7, 1950 | 33.50 | 45,700 | 91.0 | Aug. 22 | 29.66 | 34,400 | 68.5 |
| 48 | Middle Fork Hickory Flat, 5½ miles northwest of Tylertown. | 1.37 | ---- | ---- | ---- | ---- | ---- | Aug. 22 | ---- | 2,300 | 1,680 |
| 49 | Union Creek 3 miles north of Tylertown. | 12.6 | ---- | ---- | ---- | ---- | ---- | Aug. 22 | ---- | 12,800 | 1,020 |
| 50 | Dry Creek at Tylertown | 8.4 | ---- | ---- | ---- | ---- | ---- | Aug. 22 | ---- | 9,530 | 1,130 |
| | **MONTANA** | | | | | | | | | | |
| | Pend Oreille River basin: | | | | | | | | | | |
| 51 | Blackfoot River near Helmville | 481 | 1940–53 | June 6, 1948 | 7.55 | 3,180 | 6.61 | June 5 | 9.10 | 6,040 | 12.6 |
| 52 | Nevada Creek above reservoir, near Finn. | [10] 128 | 1939–53 | Apr. 16, 1948 | 6.04 | 1,440 | 11.4 | May 29 | [11] 7.40 | ---- | ---- |
| | | | | | | | | June 2 | 6.00 | 1,800 | 14.1 |
| 53 | Blackfoot River near Ovando | 1,274 | 1940–53 | May 22, 1948 | [12] 6.84 | 8,200 | 6.44 | June 4 | 8.45 | 14,600 | 11.5 |
| 54 | Blackfoot River near Bonner | 2,394 | 1898–1901, 1903–05, 1939–53 | June 19–21, 1899 | [12] 8.7 | 17,200 | 7.50 | June 4 | 11.65 | 18,300 | 7.98 |
| 55 | Clark Fork above Missoula | 5,999 | 1929–53 | May 23, 1948 | 13.07 | 31,500 | 5.25 | June 4 | 12.34 | 28,800 | 4.80 |
| | Big Muddy Creek basin: | | | | | | | | | | |
| 56 | Boxelder Creek 1½ miles north of Plentywood. | 17 | ---- | ---- | ---- | ---- | ---- | June 30 | ---- | 5,530 | 311 |
| 57 | Boxelder Creek 1 mile north of Plentywood. | 21 | ---- | ---- | ---- | ---- | ---- | August 1 | ---- | 1,400 | 66.7 |
| | **NEBRASKA** | | | | | | | | | | |
| | Platte River basin: | | | | | | | | | | |
| 58 | Spring Creek at Cushing | ---- | 1949–53 | July 22, 1950 | 15.00 | 2,560 | ---- | May 10 | 19.44 | 5,350 | ---- |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **NEW HAMPSHIRE** | | | | | | | | | | |
| | Androscoggin River basin: | | | | | | | | | | |
| 59 | Androscoggin River near Gorham | 1,363 | 1913–53 | June 18, 1917<br>Apr. 30, 1923 | ---------- | [6] 20,000<br>20,000 | 14.7<br>14.7 | Mar. 27 | 9.93 | 17,900 | 13.1 |
| | Saco River basin: | | | | | | | | | | |
| 60 | Saco River near Conway | 386 | 1903–09, 1929–53 | Mar. 19, 1936 | 16.45 | 40,600 | 105 | Mar. 27 | 17.20 | 43,900 | 114 |
| 61 | Ossipee River at Effingham Falls | 330 | 1942–53 | Apr. 5, 1951 | 8.82 | 4,800 | 14.5 | Mar. 28 | 11.64 | 11,700 | 35.5 |
| | Merrimack River basin: | | | | | | | | | | |
| 62 | Pemigewasset River at Plymouth | 622 | 1903–53 | Mar. 19, 1936 | 29.0 | 65,400 | 105 | Mar. 27 | 21.20 | 44,700 | 71.9 |
| 63 | Warner River at Davisville | 146 | 1939–53 | Sept. 1938<br>June 25, 1944 | [5] 12.8<br>9.64 | [2]<br>3,950 | ----------<br>27.1 | Mar. 27 | 9.88 | 4,510 | 30.9 |
| | Connecticut River basin: | | | | | | | | | | |
| 64 | Upper Ammonoosuc River near Groveton. | 232 | 1940–53 | Mar. 1936<br>June 3, 1947 | [1] 10.6<br>8.49 | [2]<br>7,580 | ----------<br>32.7 | Mar. 27 | 9.44 | 9,950 | 42.9 |
| 65 | Ammonoosuc River at Bethlehem Junction. | 87.6 | 1939–53 | Nov. 26, 1950 | 10.86 | 9,730 | 111 | Mar. 27 | 11.22 | 10,500 | 120 |
| | **NEW YORK** | | | | | | | | | | |
| | Delaware River basin: | | | | | | | | | | |
| 66 | Wilson Brook near Bloomville | 1.22 | ---------- | ---------- | ---------- | ---------- | ---------- | Aug. 13 | ---------- | 383 | 314 |
| 67 | Brush Brook at Bovina Center | 5.42 | ---------- | ---------- | ---------- | ---------- | ---------- | Aug. 13 | ---------- | 2,570 | 474 |
| 68 | Brush Brook tributary near Bovina Center. | .66 | ---------- | ---------- | ---------- | ---------- | ---------- | Aug. 13 | ---------- | 489 | 740 |
| 69 | Miller Creek near Bovina Center | 1.36 | ---------- | ---------- | ---------- | ---------- | ---------- | Aug. 13 | ---------- | 1,560 | 1,150 |
| 70 | Little Delaware River near Delhi | 49.8 | 1937–53 | Sept. 21, 1938 | 8.5 | 3,280 | 65.9 | Aug. 13 | 7.78 | 4,530 | 91.0 |
| | **NORTH DAKOTA** | | | | | | | | | | |
| | Red River of the North basin: | | | | | | | | | | |
| 71 | Maple River at Mapleton | 1,480 | 1944–53 | Apr. 14, 1947 | 18.11 | 3,880 | 2.62 | June 17 | 18.62 | 4,840 | 3.27 |
| 72 | Swan Creek at Casselton | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | June 16 | ---------- | 600 | ---------- |
| | Little Muddy Creek basin: | | | | | | | | | | |
| 73 | Little Muddy Creek near Williston | 920 | 1904–9, 1932–33, 1946–53 | 1904<br>Apr. 6, 1952 | [4] 13<br>12.52 | ----------<br>2,590 | ----------<br>2.82 | June 24 | 13.0 | 2,820 | 3.07 |
| | **OKLAHOMA** | | | | | | | | | | |
| | Red River basin: | | | | | | | | | | |
| 74 | Unnamed tributary to Otter Creek at Roosevelt. | 3.45 | ---------- | ---------- | ---------- | ---------- | ---------- | June 5 | ---------- | 2,670 | 774 |
| 75 | Otter Creek near Roosevelt | 47.0 | ---------- | ---------- | ---------- | ---------- | ---------- | June 6 | ---------- | 16,300 | 347 |
| 76 | Otter Creek at Snyder Lake near Mountain Park. | 132 | 1903–8, 1951–53 | June 9, 1907 | [3] 22.8 | 5,000 | 37.9 | June 6 | 19.50 | 14,200 | 108 |
| 77 | Little Beaver Creek near Duncan | 158 | 1948–53 | May 17, 1951 | 16.87 | 25,200 | 159 | Oct. 23 | 17.13 | 31,800 | 201 |
| | Arkansas River basin: | | | | | | | | | | |
| 78 | Four Mile Creek at El Reno | 8.51 | ---------- | ---------- | ---------- | ---------- | ---------- | Nov. 19 | ---------- | 6,390 | 751 |

See footnotes at end of table.

*Summary of flood stages and discharges for local floods in the United States during 1953*—Continued

| No. on fig. 40 | Stream and place of determination | Drainage area (square miles) | Period of record | Maximum flood previously known | | | | Maximum during present flood | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Date | Gage height (feet) | Discharge | | Date | Gage height (feet) | Discharge | |
| | | | | | | Cfs | Cfs per square mile | | | Cfs | Cfs per square mile |
| | **OREGON** | | | | | | | | | | |
| | Malheur and Harney Lakes basin: | | | | | | | | | | |
| 79 | Donner und Blitzen River near Frenchglen. | 180 | 1910–21, 1937–53 | May 5, 1942 | 5.85 | 2,870 | 15.9 | May 19 | 6.29 | 2,750 | 15.3 |
| 80 | Bridge Creek near Frenchglen | 30 | 1911–16, 1939–53 | Feb. 22, 1943 | 2.55 | 332 | 11.1 | May 19 | 2.73 | 301 | 10.0 |
| | John Day River basin: | | | | | | | | | | |
| 81 | Bull Run Canyon 4½ miles south of Klondike. | 3.9 | | | | | | Aug. 26 | | 1,030 | 264 |
| | Willow Creek basin: | | | | | | | | | | |
| 82 | Black Horse Creek ½ mile upstream from Lexington. | 23.4 | | | | | | Aug. 28 | | 1,740 | 74.4 |
| 83 | Eightmile Canyon 10 miles south of Ione. | | | | | | | Aug. 28 | | 2,110 | |
| 84 | Clark Canyon 0.7 mile downstream from Fuller Canyon near Lexington. | | | | | | | Aug. 28 | | 3,240 | |
| | Willamette River basin: | | | | | | | | | | |
| 85 | Salmon Creek near Oakridge | 117 | 1913–19, 1933–53 | Dec. 28, 1945 | 8.40 | 8,040 | 68.7 | Nov. 23 | 7.19 | 5,760 | 49.2 |
| 86 | Middle Fork Willamette River below North Fork, near Oakridge. | 924 | 1911–12, 1923–53 | Dec. 28, 1945 | [13] 18.8 | 81,800 | 86.9 | Nov. 23 | 12.23 | 60,100 | 65.0 |
| 87 | Fall Creek below Winberry Creek, near Fall Creek. | 186 | 1911, 1935–53 | Dec. 28, 1945 | 18.0 | 22,500 | 12.1 | Nov. 23 | 14.96 | 15,300 | 82.3 |
| 88 | Coast Fork Willamette River at London. | 69 | 1935–53 | Dec. 28, 1945 | 13.25 | 8,800 | 128 | Nov. 23 | 11.28 | 6,630 | 96.1 |
| 89 | Row River above Pitcher Creek near Dorena. | 211 | 1935–53 | Dec. 28, 1945 | 14.33 | 19,600 | 92.9 | Nov. 23 | 13.34 | 18,100 | 85.8 |
| 90 | Mosby Creek at mouth, near Cottage Grove. | 96 | 1946–53 | Oct. 28, 1950 | 10.82 | 7,160 | 74.6 | Nov. 23 | 10.48 | 6,760 | 70.4 |
| 91 | Little North Santiam River near Mehama. | 110 | 1931–53 | Dec. 28, 1945 | 15.20 | 19,900 | 181 | Nov. 22 | 13.10 | 15,700 | 143 |
| 92 | Middle Santiam River at mouth, near Foster. | 287 | 1951–53 | Dec. 28, 1945 | | [14] 41,800 | 155 | Nov. 22 | 19.67 | 38,400 | 134 |
| 93 | Wiley Creek near Foster | 52 | 1947–53 | Jan. 7, 1948 | 7.52 | 5,410 | 104 | Nov. 22 | 7.37 | 5,200 | 100 |
| 94 | South Santiam River at Waterloo | 640 | 1905–7, 1910–11, 1923–53 | Dec. 28, 1945 | 22.85 | 74,200 | 116 | Nov. 22 | 20.21 | 61,300 | 95.8 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Rogue River basin: | | | | | | | | | | |
| 95 | South Fork Rogue River near Prospect. | 79 | 1924–31, 1949–53 | Jan. 18, 1953 | 5.94 | [18] 1,760 | 22.3 | Nov. 23 | 7.34 | [16] 2,540 | 32.2 |
| 96 | Red Blanket Creek near Prospect | 40 | 1925–53 | Jan. 18, 1953 | 6.02 | 1,280 | 37.0 | Nov. 23 | 6.62 | 1,530 | 38.2 |
| | **TEXAS** | | | | | | | | | | |
| | Red River basin: | | | | | | | | | | |
| 97 | South Sulphur River near Cooper | 527 | 1942–53 | Feb. 13, 1950 | 22.09 | 18,300 | 34.5 | Apr. 29 | 23.00 | 23,500 | 44.9 |
| 98 | North Sulphur River near Cooper | 276 | 1949–53 | {May 2, 1944<br>June 12, 1951 | [17] 26.6<br>22.25 | 33,400 | 121 | Apr. 29 | 25.86 | 42,800 | 155 |
| | Colorado River basin: | | | | | | | | | | |
| 99 | Colorado River at Robert Lee | [18] 15,770 | 1915–20, 1923–27, 1939–53 | {April 1922<br>June 22, 1939 | [19] 25.5<br>[20] 21.70 | 31,700 | | Aug. 19 | 20.15 | 24,200 | |
| 100 | Colorado River at Ballinger | [16] 16,840 | 1907–53 | {1884<br>Sept. 18, 1936 | [21] 36<br>28.6 | 75,400 | | Aug. 20 | 23.77 | 35,200 | |
| | **UTAH** | | | | | | | | | | |
| | Duchesne River basin: | | | | | | | | | | |
| 101 | Duchesne River at Provo River Trail near Hanna. | 39 | 1929–33, 1935–43, 1944–53 | June 16, 1951 | 3.98 | 1,020 | 26.1 | June 13 | 4.30 | 1,180 | 30.2 |
| 102 | Duchesne River near Hanna | 78 | 1921–23, 1929–30, 1946–53 | June 8, 9, 1922 | [22] 4.65 | 1,490 | 19.1 | June 13 | 5.65 | 1,500 | 19.2 |
| 103 | Rock Creek near Mountain Home | 149 | 1937–53 | June 10, 1952 | 5.81 | 2,350 | 15.8 | June 14 | 6.02 | 2,390 | 16.0 |
| 104 | Duchesne River at Duchesne | 660 | 1917–53 | June 10, 1922 | [22] 8.65 | 4,420 | 6.70 | June 14 | 5.13 | 4,020 | 6.09 |
| | Bear River basin: | | | | | | | | | | |
| 105 | Bear River near Utah-Wyoming State line. | 176 | 1942–53 | June 7, 1952 | 4.35 | 2,340 | 13.3 | June 14 | 4.89 | 2,750 | 15.6 |
| | Jordan River basin: | | | | | | | | | | |
| 106 | American Fork above upper power plant, near American Fork. | 55 | 1927–53 | Aug. 3, 1951 | 7.38 | 645 | 11.8 | July 30 | 9.2 | (3) | |
| | **VIRGINIA** | | | | | | | | | | |
| | Tennessee River basin: | | | | | | | | | | |
| 107 | Clinch River at Richlands | [23] 139 | 1946–53 | Feb. 2, 1950 | [20] 11.3 | 4,520 | 32.3 | May 19 | 13.23 | 5,080 | 36.5 |
| 108 | Middle Fork Holston River at Groseclose. | 7.39 | 1947–53 | July 26, 1950 | 6.18 | 520 | 70.4 | July 6 | 7.42 | 813 | 110 |

See footnotes at end of table.

*Summary of flood stages and discharges for local floods in the United States during 1953*—Continued

| No. on fig. 40 | Stream and place of determination | Drainage area (square miles) | Period of record | Maximum flood previously known | | | | Maximum during present flood | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Date | Gage height (feet) | Discharge | | Date | Gage height (feet) | Discharge | |
| | | | | | | Cfs | Cfs per square mile | | | Cfs | Cfs per square mile |
| | **WASHINGTON** | | | | | | | | | | |
| | Yakima River basin: | | | | | | | | | | |
| 109 | Satus Creek 12 miles south of Toppenish. | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | Jan. 9 | ---------- | 9,950 | ---------- |
| 110 | Satus Creek tributary 25 miles south of Toppenish. | ---------- | ---------- | ---------- | ---------- | ---------- | ---------- | Jan. 9 | ---------- | 756 | ---------- |
| | Duwamish River basin: | | | | | | | | | | |
| 111 | Snow Creek near Lester | 11.9 | 1945–53 | Jan. 31, 1953 | 4.87 | 1,210 | 102 | Dec. 9 | 4.80 | 1,130 | 95.0 |
| 112 | Charley Creek near Eagle Gorge | 11.0 | 1946–53 | Feb. 11, 1951 | 5.71 | 1,510 | 137 | Dec. 9 | 6.6 | 2,440 | 222 |
| | Lake Washington basin: | | | | | | | | | | |
| 113 | Cedar River near Cedar Falls | 41.8 | 1945–53 | Dec. 11, 1946 | 9.34 | 3,850 | 92.1 | Dec. 9 | 9.13 | 3,730 | 89.2 |
| | Kalama River basin: | | | | | | | | | | |
| 114 | Kalama River below Italian Creek, near Kalama. | 201 | 1946–53 | Dec 13, 1946 | 13.40 | 14,400 | 71.6 | Dec. 9 | 14.93 | 16,000 | 79.6 |
| | Cowlitz River basin: | | | | | | | | | | |
| 115 | Tilton River near Cinebar | 158 | 1941–53 | December 1946 | 14.36 | 14,500 | 91.8 | Dec. 9 | 15.00 | 22,500 | 142 |
| 116 | Winston Creek near Mayfield | 40.0 | 1949–53 | Feb. 24, 1950 | 6.94 | 1,960 | 49.0 | Dec. 9 | 8.58 | 3,510 | 87.8 |
| 117 | South Fork Toutle River at Toutle | 118 | 1939–53 | Dec. 11, 1946 | 458.54 | 8,710 | 73.8 | Dec. 9 | 458.91 | 14,300 | 121 |
| | **WISCONSIN** | | | | | | | | | | |
| | Streams tributary to Lake Michigan: | | | | | | | | | | |
| 118 | Brule River near Florence | 380 | 1914–16, 1944–53 | June 26, 1946 | 4.93 | 2,480 | 6.53 | July 2 | 6.57 | 4,700 | 12.4 |

[1] Information by local residents.
[2] Not determined.
[3] Information by Corps of Engineers.
[4] About.
[5] Slope-area measurement 2 miles downstream; maximum flood since at least 1865.
[6] Maximum discharge measured.
[7] From records of county engineer.
[8] Daily mean discharge.
[9] From U.S. Weather Bureau records and floodmarks.
[10] Gage moved to site 1 mile upstream July 27, 1953, drainage area 116 square miles.
[11] Backwater from diversion dam.
[12] Floodmarks indicate stage of 10 ft reached in recent years.
[13] Site and datum then in use.
[14] At former site upstream where drainage area is 6 percent smaller.
[15] Includes 140 cfs in power canal.
[16] No flow in power canal.
[17] Maximum stage known since at least 1915; flood of 1932 reached about same stage, according to information from Corps of Engineers.
[18] Of which 11,600 square miles probably is noncontributing.
[19] Maximum known since at least 1907.
[20] From graph based on gage readings.
[21] Maximum known since at least 1882.
[22] Datum then in use.
[23] Prior to Aug. 6, 1950, 140 square miles.

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