State	District office	Address
Illinois a/	Champaign	605 South Neil Street.
Indiana b/	Indianapolis	311 West Washington Street.
Kentucky c/	Louisville	Commerce Building, Third and Liberty.
Maryland d/	College Park	106 Engineering Building, University of Maryland.
New York	Albany	526 Federal Building.
Ohio e/	Columbus	1509 Hess Street.
Pennsylvania f/	Harrisburg	490 Education Building.
Virginia	Charlottesville	Cabell Hall, University of Virginia.
West Virginia g/	Charleston	111 United States Court House.

a/ Except for Little Wabash River at Carmi, Ohio River at Golconda and at Metropolis, and Wabash River at Mount Carmel.
b/ Except for Ohio River at Evansville.
c/ Including Little Wabash River at Carmi, Ill., Ohio River at Cincinnati, Ohio, at Evansville, Ind., at Golconda and at Metropolis, Ill., and Wabash River at Mount Carmel, Ill.
d/ Including Big Piney Run near Salisbury, Pa.
e/ Except for Ohio River at Bellaire, Cincinnati, and Pomeroy.
f/ Except Big Piney Run near Salisbury and Monongahela River at lock 8, at Point Marion but including Ohio River at Bellaire, Ohio.
g/ Including Ohio River at Pomeroy, Ohio.

Information of a more detailed nature than that published for most of the gaging stations given in this report is on file in the district offices listed above. Provisional records of discharge prior to publication, and other unpublished data concerning the gaging station records may usually be obtained from the district office.

DEFINITION OF TERMS AND ABBREVIATIONS

The terms of streamflow and other hydrologic data, as used in this report, are defined as follows:

Cubic foot per second (cfs) is the rate of discharge of a stream whose channel is 1 square foot in cross-sectional area and whose average velocity is 1 foot per second.

Cubic feet per second per square mile (cfsm) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Runoff, in inches is the depth to which an area would be covered if all the water draining from it in a given period were uniformly distributed on its surface. The term is used for comparing runoff with rainfall, which is also usually expressed in inches.

Acre-foot is the quantity of water required to cover an acre to the depth of 1 foot and is equivalent to 43,560 cubic feet. The term is commonly used in relation to storage for irrigation.

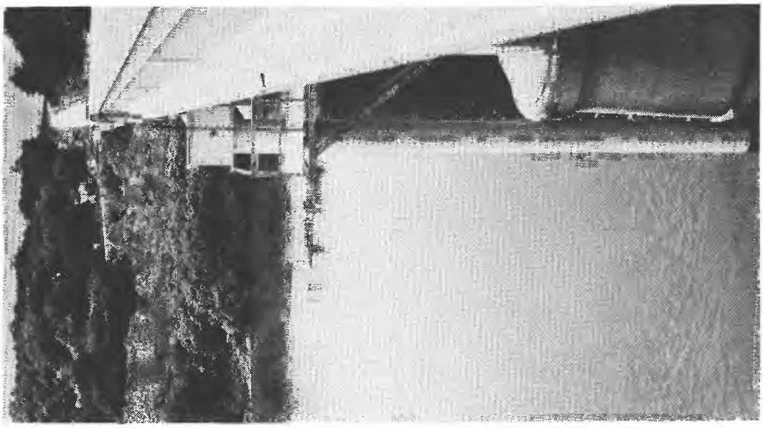
Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.983471 acre-feet, or 646,317 gallons, and represents a runoff of 0.0372 inch from 1 square mile.

Stage-discharge relation is the relation between gage height and the amount of water flowing in a channel, expressed as volume per unit of time.

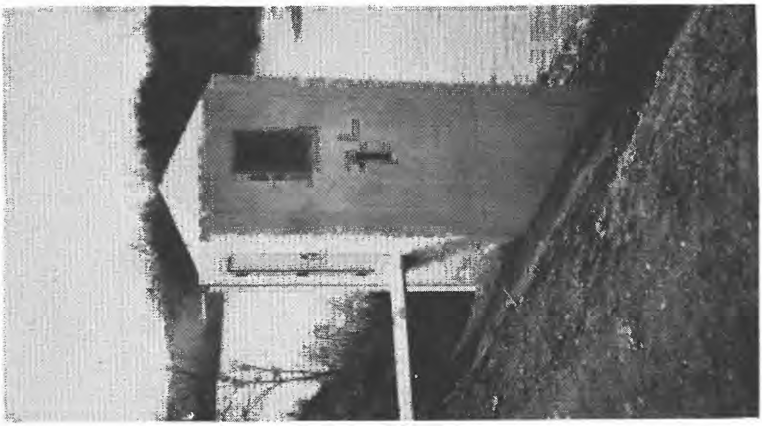
Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, a long reach of the channel, or an artificial structure.

Contents is the volume of water in a reservoir. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

The drainage area of a stream at a specified location is that area, measured in a horizontal plane, which is so enclosed by a topographic divide that direct surface runoff from precipitation normally would drain by gravity into the river above the specified point.



A. Wabash River at Delphi, Ind.



B. Stillwater River at Pleasant Hill, Ohio.

FIGURE 1.—GAGING-STATION STRUCTURES.

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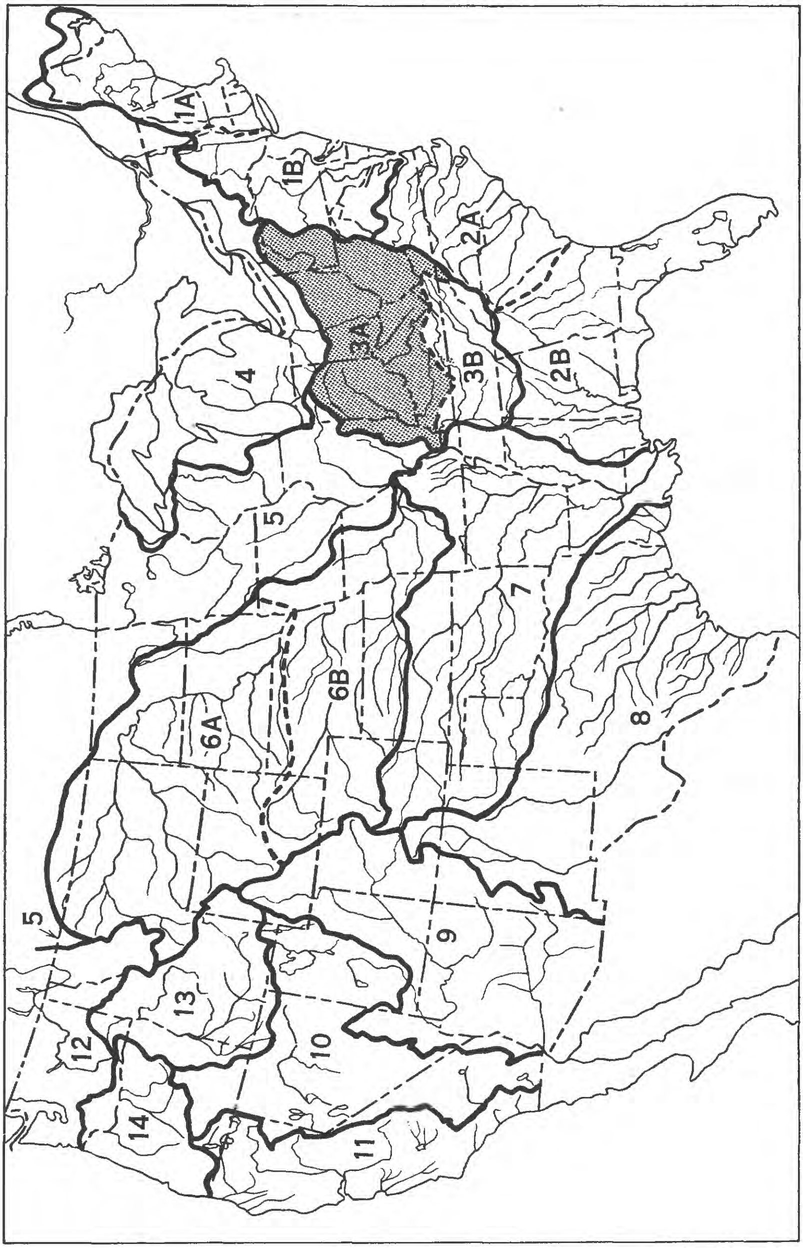

Figure 2.--Map of the United States showing areas covered by the 18 annual volumes on surface-water supply. The area covered by this report is shaded.

viously published in its water-supply papers. The following table contains a list of these reports for the area covered by this report.

State reports containing compilations of records of discharge

State	Period	Report	Issued by
Illinois......	1908-11	Water resources of Illinois................	Rivers and Lake Commission.
Do.........	1900-1934	Streamflow data of Illinois................	Division of Waterways.
Indiana.......	1923-27	Pub. 72, Surface water supply of Indiana...	Department of Conservation.
Do.........	1927-30	Pub. 112, Surface water supply of Indiana..	Do.
Kentucky......	1910-20	Surface waters of Kentucky.................	Kentucky Geological Survey.
Maryland......	1892-1943	Bull. 1, Summary of records of surface waters of Maryland and the Potomac River basin.	Department of Geology, Mines, and Water Resources.
North Carolina	1889-1923	Bull. 34, Discharge records of North Carolina streams.	Department of Conservation and Development.
Do.........	1889-1936	Bull. 39, Discharge records of North Carolina streams. a/	Do.
Ohio..........	1898-1921	Bull. 73, Ohio streamflow, Part 1..........	Engineering Experiment Station, Ohio State University.
Do.........	1898-1939	Bull. 111, Ohio stream-drainage areas and flow-duration tables.	Do.
Do.........	1898-1944	Bull. 127, Ohio streamflow, Part 2.........	Do.
Do.........	1902-39	Bull. 200, Compilation of streamflow records of Ohio.	Department of Agriculture, Division of Conservation and Natural Resources.
Pennsylvania..	1890-1911	Report of Water Supply Commission of Pennsylvania.	Water Supply Commission of Pennsylvania.
Do.........	1928-32	Streamflow records of Pennsylvania.........	Department of Forests and Waters.
Virginia......	1895-1927	Bull. 31, Water resources of Virginia......	Virginia Geological Survey.
Do.........	1927-42	Bull. 7, Surface water supply of Virginia (New, Tennessee, and Big Sandy River basins).	Virginia Conservation Commission.
Do.........	1942-50	Bull. 15, Surface water supply of Virginia (New, Tennessee, and Big Sandy River basins).	Do.

a/ Contains records of maximum and minimum daily, weekly and monthly discharge and yearly mean discharge.

The reports listed in the foregoing tables contain the customary records of discharge collected during the systematic operation of gaging stations. Detailed information on the stage and discharge of many streams during major floods has been included in special reports on these floods published by the Geological Survey. The more recent of these special reports also contain other pertinent hydrologic information and analyses and compilations of data relating to earlier notable floods. The following list gives the numbers and titles of these reports:

Water-Supply Paper	Title
147.........	Destructive floods in the United States in 1904.
162.........	Destructive floods in the United States in 1905.
334.........	The Ohio Valley flood of March-April 1913.
771.........	Floods in the United States, magnitude and frequency.
773-E.......	The New York State flood of July 1935.
800.........	The floods of March 1936, part 3, Potomac, James, and upper Ohio Rivers.
838.........	Floods of Ohio and Mississippi Rivers, January-February, 1937.
847.........	Maximum discharges at stream-measurement stations through September 1938.
869.........	Flood of August 1935 in Muskingham River basin, Ohio.
967-B.......	Flood of July 5, 1939, in eastern Kentucky.
1066........	Floods of August 1940 in the southeastern States.
1134-A......	Floods of August 4-5, 1943, in Central West Virginia.
1134-B......	Floods of July 18, 1942, in North Central Pennsylvania.

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The Soil Conservation Service of the United States Department of Agriculture has been collecting records of runoff from selected areas in the Ohio River basin as follows: near Blacksburg, Va., beginning in 1939, 3 areas of less than 20 acres each; near Coshocton, Ohio, beginning in 1937, 4 areas of 2,000 to 5,000 acres each, 3 areas of 500 to 2,000 acres each, 5 areas of 200 to 500 acres each, 3 areas of 50 to 200 acres each, and 27 areas of less than 50 acres each; and near Lafayette, Ind., 20 areas of less than 4 acres each. These records are in the files of the Soil Conservation Service.

HYDROLOGIC CONDITIONS

The water year 1951 was characterized by above normal runoff over most of the area covered by this report. For a discussion of floods of Jan. 14-16, 1951, in western Kentucky, see Water-Supply Paper 1227-D. Also minor floods occurred in the lower Wabash River basin in February. For three key stations in the area covered by this report, a comparison of monthly and yearly mean discharge during the 1951 water year with the median discharge for the 25-year period 1921-45 is shown in figure 3 below.

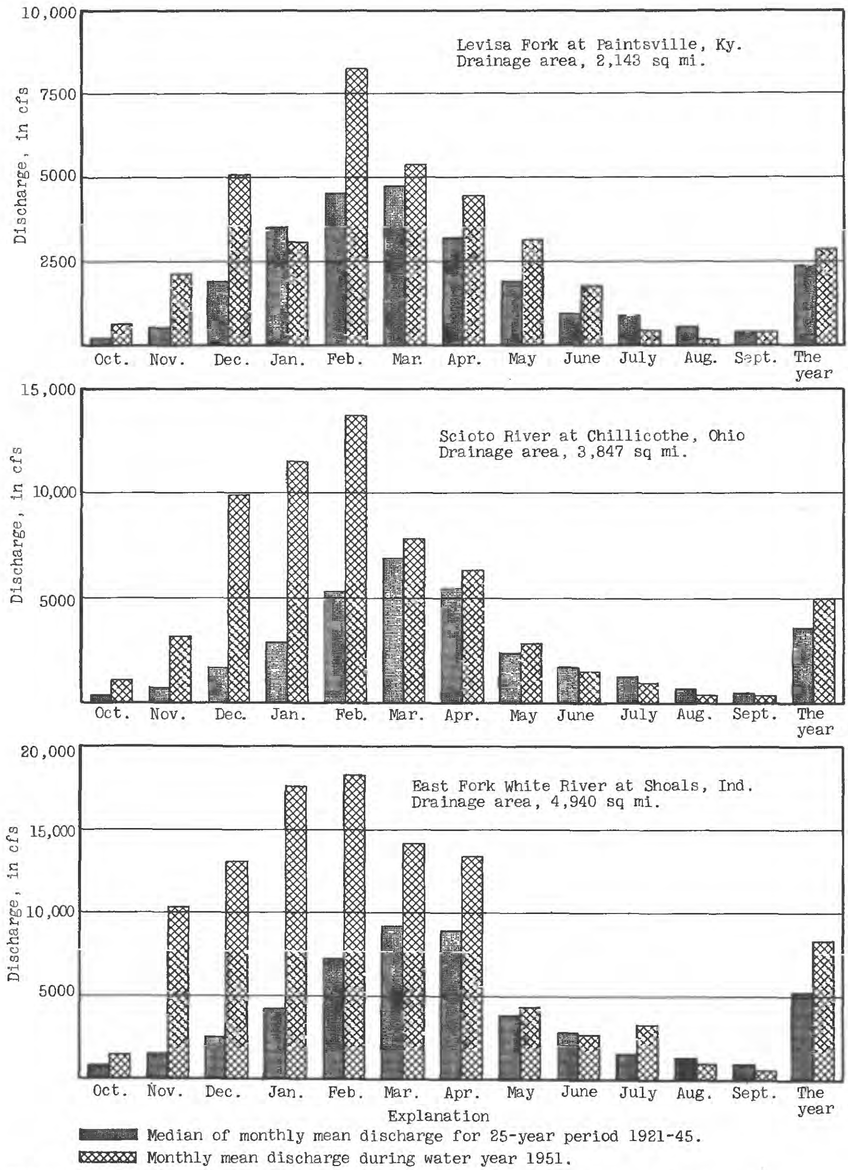

Figure 3.--Comparison of discharge at three key stations during 1951 water year with median discharge for 25-year period.

OHIO RIVER MAIN STEM

Allegheny River at Eldred, Pa.

Location.--Lat 41°57'50", long. 78°23'10", on right bank at site of former highway bridge, 600 ft upstream from bridge on State Highway 346, 1,000 ft upstream from Knapp Creek, and half a mile north of Eldred, McKean County.

Drainage area.--550 sq mi, approximately.

Records available.--July 1939 to September 1951.

Gage.--Water-stage recorder. Datum of gage is 1,416.20 ft above mean sea level, unadjusted.

Average discharge.--12 years, 1,009 cfs.

Extremes.--Maximum discharge during year, 19,700 cfs Nov. 26 (gage height, 20.94 ft); minimum, 40 cfs Sept. 13 (gage height, 1.71 ft).
1939-51: Maximum discharge, 55,000 cfs July 19, 1942 (gage height, 27.6 ft, from floodmark), from rating curve extended above 15,000 cfs on basis of slope-area determination of peak flow; minimum, 30 cfs Sept. 25, 26, 1939.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair.

Rating tables, water year 1950-51, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 25

1.9	60	6.0	1,120
2.5	143	9.0	2,420
3.0	233	13.0	4,990
4.0	475		

Nov. 26 to Sept. 30

1.7	39	6.0	1,180
2.0	72	10.0	3,000
2.5	143	13.0	4,990
3.0	233	17.0	10,200
4.0	490	20.0	17,000

Discharge, in cubic feet per second, water year October 1950 to September 1951

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	85	291	2,430	540	780	*2,630	7,620	1,100	291	1,910	174	44
2	81	*279	1,830	540	840	2,580	6,960	980	277	2,630	164	42
3	78	313	2,490	1,500	780	2,240	5,470	875	323	2,100	149	44
4	75	1,650	3,640	4,000	740	3,000	4,220	822	536	1,580	138	47
5	*77	3,670	4,360	4,000	740	3,400	3,220	752	542	2,580	127	43
6	75	4,990	4,290	3,500	820	3,110	2,280	685	390	2,530	120	52
7	71	4,730	3,460	2,500	800	3,000	1,740	610	338	1,830	118	94
8	73	3,340	3,220	1,800	680	3,460	1,540	565	296	1,420	121	115
9	460	2,080	3,400	1,500	540	3,700	1,380	520	270	1,100	122	81
10	1,820	1,860	3,000	1,250	520	3,340	1,300	475	406	875	112	60
11	2,000	1,520	2,380	1,200	540	2,480	1,220	520	625	718	101	49
12	1,900	1,280	1,920	1,000	640	1,920	1,170	640	460	*1,200	93	44
13	2,040	1,080	1,580	900	2,600	1,660	2,320	625	462	1,360	89	41
14	1,600	975	1,340	800	3,700	1,540	2,480	520	1,260	910	94	129
15	1,200	870	1,140	1,000	3,940	1,580	2,480	460	1,420	718	*89	275
16	940	818	1,060	1,200	3,580	1,380	2,280	432	1,100	610	93	140
17	770	905	910	1,050	2,620	1,180	1,960	418	875	520	88	89
18	650	835	788	*960	1,880	1,060	1,700	404	718	475	81	67
19	560	710	740	1,490	1,660	1,060	1,540	390	595	418	76	58
20	488	1,340	680	2,530	2,060	1,460	*1,340	351	505	377	70	52
21	438	2,790	600	3,060	2,860	1,380	1,140	398	446	*325	66	48
22	400	2,680	*620	3,280	3,640	1,260	1,020	*505	390	294	62	45
23	362	2,180	600	3,000	3,520	1,220	1,920	550	584	313	62	46
24	338	1,820	640	2,480	2,780	1,340	1,920	595	572	282	61	74
25	313	3,580	560	2,010	2,140	1,420	1,780	460	390	242	57	90
26	291	15,100	450	1,620	2,100	1,340	1,830	390	338	219	53	78
27	264	14,500	380	1,340	2,630	1,340	1,660	364	301	205	49	84
28	273	9,360	420	1,260	2,780	1,300	1,460	364	358	229	47	88
29	453	5,900	480	1,180	-	1,380	1,420	446	858	253	46	82
30	375	3,800	540	910	-	2,370	1,300	404	1,140	209	44	66
31	313	3,800	560	740	-	4,420	-	338	-	189	42	-
Total	18,863	95,246	50,508	54,140	52,910	64,550	69,670	16,958	17,066	28,621	2,808	2,267
Mean	608	3,175	1,629	1,746	1,890	2,082	2,322	547	569	923	90.6	75.6
Cfsm	1.11	5.77	2.96	3.17	3.44	3.79	4.22	0.995	1.03	1.68	0.165	0.137
In.	1.28	6.44	3.42	3.66	3.58	4.36	4.71	1.15	1.15	1.94	0.19	0.15

Calendar year 1950:	Max	15,100	Min	66	Mean	1,268	Cfsm	2.31	In.	31.30
Water year 1950-51:	Max	15,100	Min	41	Mean	1,298	Cfsm	2.36	In.	32.03

Peak discharge (base, 5,000 cfs).--Nov. 6 (8 p.m.) 5,370 cfs (13.35 ft); Nov. 26 (about 5 p.m.) 19,700 cfs (20.94 ft); Apr. 1 (2 p.m.) 7,900 cfs (15.52 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Dec. 19-22, Jan. 31 to Feb. 12. No gage-height record Dec. 23 to Jan. 18; discharge estimated on basis of 1 discharge measurement and records for stations at Redhouse, N. Y., and near Kinzua, Pa.