

**Author:**

**Title: Elevations of major floods along Pennsylvania rivers**

**Place of Publication: Harrisburg, Pa.**

**Copyright Date: 1942**

**Master Negative Storage Number: MNS# PSt SNP aAg084.6**

<977832> \*OCLC\* Form:mono 2 Input:LEF Edit:FMD  
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University, Pattee Library, University Park, PA 16802-1805  
090 00 GB1225.P4 \$bA5 1942 \$cem\*18606775  
090 20 Microfilm D344 reel 84.6 \$cmc+(service copy, print master, archival  
master)  
245 00 Elevations of major floods along Pennsylvania rivers \$cprepared in  
cooperation with the United States Geological survey.  
26 ) Harrisburg, Pa. \$bCommonwealth of Pa., Dept. of Forests and Waters  
\$c1942.  
300 28 p. \$c23 cm.  
533 Microfilm \$bUniversity Park, Pa. : \$cPennsylvania State University  
\$d1998. \$e1 microfilm reel ; 35 mm. \$f(USAIN state and local literature  
preservation project. Pennsylvania) \$f(Pennsylvania agricultural  
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COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF FORESTS AND WATERS

G. ALBERT STEWART, Secretary  
CHARLES E. RYDER, Chief Engineer

**ELEVATIONS OF MAJOR FLOODS  
ALONG  
PENNSYLVANIA RIVERS**

Prepared in Cooperation With the  
United States Geological Survey

John W. Mangan  
District Engineer  
Harrisburg, Pennsylvania  
1942



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ELEVATIONS OF MAJOR FLOODS  
ALONG  
PENNSYLVANIA RIVERS

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There is no factor in the study of floods that is of more importance than the elevation or altitude which the water surface attained. It is a direct index to the extent of damage and, except where affected by backwater from ice or discharge from a tributary stream, it is an essential factor in the determination of discharge at various places in a river.

For several years the Pennsylvania Department of Forests and Waters and the United States Geological Survey have been collecting records of flood elevations along Pennsylvania rivers. These records, supplemented by authentic data supplied by other agencies, are given in the accompanying tables.

It should be borne in mind that there is always some doubt as to the accuracy of the early flood heights. In later years, particularly since the turn of the century, gages were established on most of our important rivers where daily readings were obtained with more frequent observations at times of floods. Today, all principal river stations are equipped with water-stage recorders that furnish continuous records of river heights and eliminate all uncertainty and questionable accuracy.

From the greater number of flood heights listed for the more recent years, one might mistakenly infer that floods have been increasing in number if not in magnitude, particularly since the latter part of the 19th century. There is no evidence that floods occurred less frequently in the earlier part of the period covered by the record. A more logical

explanation of the predominance of records in recent years is that, in the earlier period, the greatest floods made a more lasting impression and consequently the records have been preserved; whereas those of lesser significance were lost in the intervening years.

River distances in miles are given in the tables for all locations in order that crest elevations may be interpolated for intervening points. Flood profiles may also be developed from the data if desired.

The crest heights are shown as elevations in feet above mean sea level, Sandy Hook Datum. The elevations are based on the latest information available as to the results of adjustments to the precise level nets. All elevations in any one column were taken on the same structure or group of structures.

At locations where river gages have been maintained, the zero of the gage and the flood stage are given where this information is known.

Flood-height tables for the floods of March 1936 covering all major streams in the Susquehanna and Ohio River Basins are given in far more detail in the special state publication, "The Floods of March 1936 in Pennsylvania." The United States Engineer Offices have also developed flood profiles of some of the major floods in their respective districts.

#### SOURCES OF DATA

The Water Supply Commission of Pennsylvania made an exhaustive study of historic floods in Pennsylvania and published the results of their work in Part VIII of the Water Resources Inventory Report in 1914. Many of the flood heights of the earlier floods given in that publication were converted into elevations above mean sea level for use in this report.

It has been the custom of many people living in areas periodically inundated by floods to carefully mark the crest heights at locations where the crests of previous floods were identified. After the disastrous floods of March 1936, this office collected data for the develop-

ment of elaborate profiles of this flood. At that time, the crest heights of previous floods that have been carefully preserved were obtained. Many of the tabulated elevations were derived from these sources.

The United States Engineer Offices of Baltimore, Philadelphia, Wilkes-Barre, and Pittsburgh, and the United States Weather Bureau have aided the United States Geological Survey and the Pennsylvania Department of Forests and Waters in the preparation of the tabulations by furnishing many flood elevations obtained in their respective districts.

There is doubtless considerably more information on flood elevations in possession of other federal, state, municipal, and private agencies. As such data are made known and authenticated, they may very desirably be included in future revisions of this compilation.

July 1942



ELEVATIONS OF MAJOR FLOODS  
DELAWARE RIVER BASIN

Delaware River, (Morrisville, Pa. to Stockton, N. J.)

Miles from initial point	0.0	3.5	5.05	5.2	7.8	8.8	13.5	13.7	14.3	14.4	17.5	18.0	
Zero of gage		0.00							0.11			0.04	
Flood stage		19.8											
Date													
1786, October.....	0.15 mi. below Calhoun Street MORRISVILLE, PA. 465 N. Delmar Ave.	Calhoun St. TRENTON, N. J. Gage	YARDLEY, PA. Highway Bridge	SCUDDER'S FALLS, N. J. BUNGALOW COLONY	SCUDDER'S FALLS, N. J. White's Farm	WASHINGTON CROSSING N. J. Steele residence	TITUSVILLE, N. J. Canning factory	NEW HOPE, PA. Union Paper Mill	NEW HOPE, PA. Canal lock	LAMBERTVILLE, N. J. Highway Bridge	NEW HOPE, PA. Borden residence	STOCKTON, N. J. Highway Bridge	STOCKTON, N. J. Smith Mill
1841, January.....													
1846, March.....													
1857, May.....													
1862, June.....													
1865, March.....													
1869, October.....													
1878, December.....													
1895, April.....													
1901, December.....													
1902, March.....													
1903, October.....	27.8				46.2	49.4		65.4	65.1			77.7	
1904, March.....	*20.3				47.4	53.8		68.5	66.1			77.7	
1907, December.....					52.0							79.2	
1913, March.....												80.1	
1914, March.....												84.2	
1923, March.....													
1924, April.....													
1924, October.....													
1925, February.....													
1933, August.....													
1934, March.....													
1935, July.....													
1936, January.....													
1936, March 12-13..													
1936, March 18-19..	23.7				46.7	48.6		64.6	65.5			81.8	
1938, September....					48.6	50.6			67.1			79.7	
1940, April.....					42.7				60.4			70.4	
1942, May.....					45.5				62.6			73.0	
									65.5			74.8	

\*Affected by ice.  
aDate of flood somewhat doubtful.

ELEVATIONS OF MAJOR FLOODS  
DELAWARE RIVER BASIN  
Delaware River, (Lumberville, Pa. to Easton, Pa.)

Miles from initial point	20.0	21.1	22.6	25.5	27.6	27.9	33.1	40.0	48.5	48.6	48.9	49.5	49.7	
Zero of Gage			-0.48				99.83	125.12			100.21			
Flood stage											122.2			
Date	LUMBERVILLE, PA. Taylor Mill	LUMBERVILLE, PA. Lumberville Bridge Lumberville Lumber Tipton's Lumber Mill	POINT PLEASANT, PA. Highway Bridge	S. J. Ridge Store TREASURE ISLAND, PA.	ERMWINA, PA. Storer Mill	ERMWINA, PA. French Town Bridge 1.8 mi. below ERMWINA, PA. ERMWINA Road boat house	MILFORD, N. J. Highway Bridge	Highway Bridge	RINGERSVILLE, N. J. Highway Bridge Gage	EASTON, PA. Keubler Brewery	0.2 mi. below mouth Lehigh River PHILLIPSBURG, N. J. C.R.R. of N. J. Bridge	EASTON, PA. W. B. Gage Old Highway Bridge	EASTON, PA. Wilson Bros. Mfg. Co.	EASTON, PA. Easton Pumping Sta.
1786, October.....	87.0			107.2			132.5			187.1				
1841, January.....							127.2							
1846, March.....							127.2							
1857, May.....	86.8	92.0		106.5			131.8							
1862, June.....		88.1					128.5							
1865, March.....		90.4												
1869, October.....		89.5		104.0			129.5							
1878, December.....		89.5		104.0			129.1							
1895, April.....	84.5	90.7		103.0			129.2							
1901, December.....		92.0		106.3			131.2							
1902, March.....	86.6	96.1	101.7	110.6			135.6		190.4	191.2	193.5	194.3	194.8	
1903, October.....														
1904, March.....														
1907, December.....							127.7							
1913, March.....														
1914, March.....														
1923, March.....														
1924, April.....														
1924, October.....														
1925, February.....														
1933, August.....														
1934, March.....														
1935, July.....														
1936, January.....														
1936, March 12-13..	88.9	92.3	97.0	106.2			130.9		186.4	182.9	185.7	189.5	190.0	
1936, March 18-19..		94.3	98.9	108.1			133.0				188.1			
1938, March 18-19..			90.6				125.7				181.4			
1938, September.....			93.6				128.1				185.2			
1940, April.....			94.6				129.2							
1942, May.....														

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ELEVATIONS OF MAJOR FLOODS  
DELAWARE RIVER BASIN  
Delaware River, (Belvidere, N. J. to Callicoon, N. Y.)

Miles from initial point	62.6	72.4	72.5	72.6	77.5	79.6	80.1	91.6	103.1	111.8	120.0	155.5	168.8
Zero of gage			199.53								415.35		
Flood stage											433.4		
Date	0.2 mi. below Belvidere Bridge BELVIDERE, N. J. Gage	PORTLAND, PA. Barber Shop	PORTLAND, PA. Highway Bridge	COLUMBIA, N. J. Washington & Columbia Sts.	DELAWARE WATER GAP, PA. Railroad Station	SHAWNEE, PA. Buckwood Inn	SHAWNEE, PA. Northampton residence	BUSHKILL, PA. Trick farm	DINGMAN'S FERRY, PA. Highway Bridge	MILFORD, PA. Highway Bridge	Highway Bridge PORT JERVIS, N. Y. Gage	NARROWSBURG, N. Y.	CALLICOON, N. Y. Highway Bridge
1786, October.....													
1841, January.....													
1846, March.....													
1857, May.....													
1862, June.....													
1865, March.....													
1869, October.....													
1878, December.....													
1895, April.....													
1901, December.....													
1902, March.....	255.1	295.8	296.1	296.2	321.6		326.3	357.6	384.4	405.4	438.6		
1903, October.....											*440.8		
1904, March.....											428.4		
1907, December.....											430.8		
1913, March.....											431.4		
1914, March.....											*433.6		
1923, March.....											427.8		
1924, April.....											430.0		
1924, October.....											430.2		
1925, February.....											430.4		
1933, August.....											430.3		
1934, March.....											425.4		
1935, July.....											431.4		
1936, January.....											431.4		
1936, March 12-13..	248.7	291.7	285.3	316.3	319.9		326.3	352.9	379.6	400.1	432.9	694.8	753.4
1936, March 18-19..			287.6								430.3		
1938, September.....			287.6								430.9		
1940, April.....			287.6								430.9		
1942, May.....											433.1		

\* Affected by ice.

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ELEVATIONS OF MAJOR FLOODS  
DELAWARE RIVER BASIN

Lackawaxen River  
Dyberry Creek

Miles from Mouth	Location	March 1936	Sept. 1938	May 1942
Lackawaxen River				
0.0	Mouth; junction with Delaware River			695.5
4.2	Rowlands; highway bridge			841.2
13.4	P. P. & L. Co.; hydro-electric plant	828.8	824.4	888.9
16.0	Hawley; recorder gage	882.6	876.6	893.2
16.2	Hawley; highway bridge; Welwood St.	887.8		900.5
16.7	Mouth of Middle Creek			907.9
17.2	West Hawley; Riverside Bridge	900.8	898.0	932.1
20.7	White Mills; highway bridge			972.3
24.59	Mouth of Carley Brook	960.2	956.4	974.8
25.10	Honesdale; Florence Mills	964.6		977.6
25.35	Honesdale; Fourth St.	970.0	965.4	979.4
25.52	Honesdale; Sixth St.	970.8	966.0	979.6
25.63	Honesdale; Eighth St.	972.3	968.6	982.7
25.78	Honesdale; Court House	972.5		984.3
25.95	Junction with Dyberry Creek			988.1
26.08	Honesdale; Court St. footbridge	977.4	974.0	999.8
26.19	Honesdale; Main St.			1,007.8
26.46	Honesdale; School	982.6		
26.95	Honesdale; Clark St.	994.4	990.9	
27.25		1,003.9		
Dyberry Creek				
0.00	Junction with Lackawaxen River			984.1
.04	Honesdale; highway bridge	977.1	971.4	984.5
.31	Honesdale; Fifteenth St.	978.4		985.2
.58	Honesdale; Eighteenth St.	978.6	974.1	985.8
.73	Honesdale; Stanton St.	979.6		985.9
.88	Penna. Dept. of Highways shed	979.5	974.7	986.6
1.83				986.8
2.08	Highway bridge	979.5	975.0	

Note.- Three greatest floods since 1908.

ELEVATIONS OF MAJOR FLOODS  
DELAWARE RIVER BASIN

Lehigh River (Bethlehem to Allentown)

Miles from initial point	Zero of Gage	Flood Stage	Date			
-1.45			BETHLEHEM, PA.			
			Beth. Steel Co.			
			BETHLEHEM, PA.			
			Recorder Gage			
			BETHLEHEM, PA.			
			Beth. Steel Co.			
			BETHLEHEM, PA.			
			New St. Bridge			
			BETHLEHEM, PA.			
			Beth. Steel Co.			
			BETHLEHEM, PA.			
			Reed Millwork Co.			
			BETHLEHEM, PA.			
			Fitch Milling Co.			
			BETHLEHEM, PA.			
			Hill to Hill			
			Bridge down-stream side.			
			BETHLEHEM, PA.			
			Hill to Hill			
			Bridge upstream side.			
			BETHLEHEM, PA.			
			Bridge upstream side.			
			BETHLEHEM, PA.			
			Pettino Graphite			
			BETHLEHEM, PA.			
			Sure-It slip Cover Co.			
			BETHLEHEM, PA.			
			Saquoit Silk Mill			
			BETHLEHEM, PA.			
			C.R.R. of N.J. Sta. Jordan Creek			
			ALLEN TOWN, PA.			
			Hamilton St.			
			ALLEN TOWN, PA.			
			Below Dam #7			
			ALLEN TOWN, PA.			
			Hamilton St.			
			ALLEN TOWN, PA.			
			Above Dam #7			

\*Affected by dam failure.  
40.1 Mile above New Street Bridge.

ELEVATIONS OF MAJOR FLOODS  
DELAWARE RIVER BASIN  
Lehigh River (Catasauqua to White Haven)

Miles from initial point	9.6	11.1	14.4	16.8	23.2	28.3	31.0	34.8	37.4	57.3	57.4	59.2
Zero of Gage				443.9							1,041.80	
Flood Stage				452.9								
Date	CATASAUQUA, PA. Above Dam #6	0.35 mi. above Coplay Street Bridge NORTHAMPTON, PA. Hungarian Hall	LAURYS, PA. Above Dam #5	FREICHLERS, PA. Above Dam #4	LEHIGH GAP Above Dam #3	DOWNANSTOWN, PA. Above Dam #2	Leighton WEISSPORT, PA. Highway Bridge	MAUCH CHUNK, PA. Above Dam #1	GLEN-ONOKA, PA. C.R.R. of N.J. Tunnel	TANNERY, PA. Highway Bridge	TANNERY, PA. Recorder Gage	WHITE HAVEN, PA. Above Dam
1786, October..												
1839, January..												
1841, January..												
1850, Sept.....												
1862, June.....												
1869, October..												
1894, May.....	287.0		326.1	341.7	388.3	459.0	464.7	535.0	589.8	cl,037.9		1,124.0
1901, December.	288.6			343.1	389.9	440.2		537.1		1,042.4		
1920, March....										1,044.2		
1824, Sept.....								*b533.2			1,054.3	1,123.9
1826, November.								a529.9			1,054.9	1,123.9
1835, August...		289.7	325.4	341.6	386.0	436.3	460.8	a226.4			1,055.1	1,124.0
1935, July.....	284.1		324.6	340.5	385.2	435.9	459.8	526.4			1,054.8	1,123.9
1936, March.12.	283.8		323.6	340.5		435.4		525.3			1,058.3	1,123.9
1936, March.18.	282.9		322.6	340.2		440.5	464.6	*532.2	592.1			
1942, May.....			328.1									

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- \* Affected by dam failure.
- a Affected by Mauch Chunk Creek.
- b Dam not since rebuilt.
- c Affected by ice.

ELEVATIONS OF MAJOR FLOODS  
DELAWARE RIVER BASIN

Schuylkill River

Miles from Mouth	9.4	15.5	20.0	23.2	35.2	52.4	73.7	95.9	99.1	113.1	118.1
Zero of Gage						117.61	188.50		385.53		599.28
Flood Stage							199.50		410.6		
Date	PHILADELPHIA, PA. Fairmount Dam	FLAT ROCK DAM near Manayunk	CONSHOHOCKEN, PA. Dam	NORRISTOWN, PA. Dam	PHOENIXVILLE, PA. Highway Bridge	POTTSTOWN, PA. Hanover St. Bridge	READING, PA. Penn St. Bridge	HAMBURG, PA. Highway Bridge	PORT CLINTON, PA. R. R. Station	SCHUYLKILL HAVEN, PA. Columbia Street	POTTSTOWN, PA. Palo Alto Hy. Bridge
1757, July.....											
1786, October.....											
1841, January.....											
1850, July.....					90.4						
1850, September.....					96.9						
1862, June.....					95.8						
1869, October.....					92.2						
1894, May.....	22.2	50.6	61.7	68.4	93.3	138.8					
1902, Feb.-Mar.....	20.0	48.0		66.1							
1904, March.....											
1920, March.....											
1924, Sept.-Oct.....											
1933, August.....	19.9	48.1	52.0	60.5	86.9	137.0					
1935, July.....	19.3	47.4	57.9	65.1	91.3	132.7					
1936, Mar. 12.....	16.8	44.6				132.9					
1942, May.....	17.7	46.0				138.0					

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\*Affected by ice.



ELEVATIONS OF MAJOR FLOODS  
SUSQUEHANNA RIVER BASIN

North Branch of Susquehanna River

Miles from Mouth	10.8	30.4	45.8	62.6	81.7	104.3	124.7	144.7	162.4	203.6
Zero of Gage	431.07			511.94				693.85	743.96	821.49
Flood Stage	454.0			534.0				710.0		835.5
Date	DANVILLE, PA. Highway Bridge	CREAST, PA. P.R.R. Station	SHICKSHINNY, PA. Highway Bridge	MILKES-BARRR, PA. Market Street	WEST FALLS, PA. Highway Bridge	REHOOPANY, PA.	WYALUSING, PA. Highway Bridge	TOWANDA, PA. Bridge Street	SAYRE, PA. 1/3 mile above Highway Bridge	BINGHAMTON, N.Y. Washington Street
1784, March.....				541.9*						
1786, October....				540.9						
1807, April.....				541.8						
1833, May.....				539.9						
1865, March.....	459.1	486.9		545.0				718.8		
1891, January....				538.7				709.2		
1895, March.....				540.6*				700.4		
1899, January....				538.9*						
1901, December..	455.9			538.9				718.4		
1902, March.....	457.9*	485.1		545.3				705.8		
1904, February..	455.6*			537.6*				707.6		
1904, March.....	461.8*	488.5		542.5*				712.2		
1910, March.....	452.1			538.0				714.0		
1913, March.....	454.2			540.4				714.0		
1914, March.....	453.8			540.2				712.4		
1916, April.....	452.9			538.4				711.0		
1920, March.....	452.0			537.9				712.6		
1925, February..	451.4			537.0				711.2		
1927, October...	451.0			536.6				713.8		
1929, April.....	451.4			538.4				715.0		
1935, July.....	451.1			537.5				716.2		
1936, Mar. 13....	454.3			540.7				718.9		
1936, Mar. 19-20..	459.1*	486.1		545.0		632.3	671.7	713.0	765.4	
1939, February..	450.3			543.5				717.7	759.2	
1940, Apr. 1-2...	456.5	484.5	520.7	538.2				715.6	783.0	
1940, Apr. 4-6...	452.7			535.7				712.0		
1940, Apr. 7-10..	450.9			535.7				712.0		
1941, Apr. 6-7...	450.5			535.4				712.3		
										838.1
										836.0
										838.6
										839.3
										838.9
										844.5
										840.5
										838.3
										835.5

\*Affected by ice.  
\*\*Affected by backwater from West Branch.

ELEVATIONS OF MAJOR FLOODS  
SUSQUEHANNA RIVER BASIN  
SUSQUEHANNA RIVER

Miles from Mouth	44.2	56.4	60.0	63.6	66.8	69.5	75.4	84.6	94.3	111.3	120.5	121.5
Zero of gage	200.00					290.04						419.0
Flood stage	258.0		297.0			307.0						455.0
Date	MARLETTA, PA. Mouth of Chickies Creek	PAIMOUTH, PA. E. Conewago Creek	MIDDLETOWN, PA. Mouth of Swatara Creek	HIGHSPIRE, PA. Pump station	STEELTON, PA. Pump station	HARRISBURG, PA. Walnut Street	ROCKVILLE, PA. P.R.R. Bridge	CLARKS FERRY, PA. Mouth of Juniata River	MONTGOMERY FERRY, PA. Shuler Store	PORT TREVERTON, PA.	SHAMOKIN DAM, PA.	SUNBURY, PA. Highway Bridge
1786, October...						312.0						
1846, March....						312.0						
1865, March....						314.6						
1868, March....						310.0						
1886, February..						*310.8						
1889, June.....	258.5	292.0	299.9	303.9	311.2	316.8	324.1	385.7	375.3	416.6	489.0	440.0
1894, May.....			299.2			315.4	322.4		375.7		488.1	
1901, December..			*297.7	*307.7	*311.3	311.2	*320.7		*374.2		*489.2	
1902, March.....			*305.0			*313.5						
1904, March.....						310.2						
1920, March.....	254.7					311.8						437.0
1936, Mar. 13...	260.7	295.2	303.6	307.1	314.4	320.4	327.5	361.1	379.7	423.0	443.9	438.5
1936, Mar. 19...	253.4					320.4					445.8	445.8
1940, Apr. 1-2...						311.0					457.8	439.1

(18)

\*Affected by ice.

FLOOD ELEVATIONS  
SUSQUEHANNA RIVER BASIN  
LACKAWANNA RIVER

Miles from Mouth	Location	March 1940 (feet)	May 1942 (feet)
0.0	Mouth		565.21
.8	Duryea, Stevenson St. Bridge (D.S.)		610.78
3.2	Old Forge (gage); 150 feet above D.L.W.R.R. bridge	606.94	632.06
3.9	Moosic (gage); River St. Bridge		693.05
10.8	Scranton; Carbon (Olive) St. Bridge; Old U.S.W.B. gage		697.35
11.9	Scranton; Albright St. Bridge; new U.S.W.B. gage	694.75	768.38
17.5	Olyphant (gage); West Lackawanna Street Bridge	766.61	899.97
23.2	Archbald (gage); half mile above mouth of White Oak Run	896.53	1,046.70
29.1	Carbondale; D & H R.R. Station		1,430.64
36.1	Forest City (gage); 4.8 miles above mouth of Elk Creek	1,429.02	1,472.41
36.5	Forest City (gage); dam of Scranton-Spring Brook Water Co.		

Note.- Flood of March 1936 reached an elevation of 765.31 feet at Olyphant.

(19)



ELEVATIONS OF MAJOR FLOODS  
SUSQUEHANNA RIVER BASIN  
West Branch of Susquehanna River

Miles from Mouth	0.1	7.3	11.6	15.8	39.3	55.6	70.0	97.6	110.2	132.2	174.8	199.8	204.4
Zero of Gage		427.74			494.74	513.00	534.95	633.99	830.31	830.31	1,093.66	1,206.39	
Flood Stage		443.0			514.5	542.5	556.0	650.0			1,103.0		
Date		LEWISBURG, PA. 0.3 mile below P.R.R. Bridge.	MILTON, PA. 0.3 mile above highway bridge.	WATSONTOWN, PA. Highway Bridge	WILLIAMSPORT, PA. Market Street	NEW JERSEY SHORE, PA. 0.2 mile above highway bridge.	LOCK HAVEN, PA. Highway Bridge	ARMONK, PA. Highway Bridge	KEATING, PA. Mouth of Stinemahoning Cr.	KARTRUS, PA. Mouth of Mosquito Creek.	CLARFELD, PA. Market Street	BOWER, PA. Highway Bridge	MAHAFREY, PA. Mouth of Chest Creek.
1846, March.....					518.7								
1847, October.....					514.7								
1851, July.....					516.7								
1861, September.....					518.7								
1865, March.....				467.3	520.7	546.2	560.7	661.3	721.2	850.9	1,109.0	1,225.0	1,266.3
1886, January.....	448.1	457.1	466.9	473.6	517.7								
1889, May-June.....		456.3	464.5	472.1	527.1								
1891, February.....					516.7								
1894, May.....					524.7								
1898, March.....					515.7								
1901, December.....					515.4								
1902, March.....					*516.4								
1904, March.....					515.7								
1909, May.....					515.7								
1913, March.....					513.1		554.7	649.5					
1916, March.....					515.2			648.8					
1916, June.....					515.7		649.9	649.5					
1918, February.....					516.1		*561.8	648.7					
1919, May.....					515.6			649.5					
1920, March.....					515.1			647.7					
1923, March.....					518.4		*560.1	649.0					
1936, Mar. 11-12....		459.3	469.0	475.4	518.4	551.1	567.3	649.6					
1936, Mar. 18-19....	450.6	450.4			528.3	538.5	556.7	663.4	724.8	853.4	1,110.8	1,226.1	1,268.9
1940, Mar. 31.....					517.5			650.5					
1940, Apr. 31.....													

\*Affected by ice.

ELEVATIONS OF MAJOR FLOODS  
SUSQUEHANNA RIVER BASIN

Juniata River and Tributaries

Miles from Mouth	12.3	46.9	62.8	85.3	93.7	105.8	119.5	135.2	177.6			
Zero of Gage	363.16	443.67		556.89	595.12		831.78	794.73				
Flood Stage	385.0	473.0		582.0								
Date	NEWPORT, PA. Highway Bridge		Juniata River		Frankstown Branch			Little Juniata		Raystown Branch		
			MCVEYTTOWN, PA. Highway Bridge	MAPLETON, PA. Highway Bridge	HUNTINGDON, PA. (4TH Street)	ALEXANDRIA, PA.	WILLIAMSBURG, PA. Highway Bridge	TRHONE, PA. Penn Avenue	SAXTON, PA. Highway Bridge	EVERETT, PA.		
1810, November.....	391.2											
1846, March.....	383.2											
1847, October.....	391.7											
1889, June.....	399.1	487.0	512.4	597.4	613.7	705.9	850.9	892.7	817.7	1,012.9		
1894, May.....	394.2											
1901, December.....	385.2											
1902, March.....	388.5											
1907, March.....	386.7											
1908, March.....	394.5											
1916, June.....	383.2											
1920, March.....	*384.1											
1936, February.....	*386.6	486.7	512.0	596.0	619.3	707.2	846.8	896.5	819.3	1,019.3		
1936, Mar. 18-19....	387.4											
1937, April.....	387.6											

\*Affected by ice.





ELEVATIONS OF MAJOR FLOODS  
OHIO RIVER BASIN

OHIO RIVER

Miles from Pittsburgh	0	5.1	9.6	11.7	13.3	18.6	24.1	24.3	26.2	29.3	31.7	36.5
Zero of Gage	694.00	679.2		690.00	664.5	667.8	662.1			654.9		644.7
Flood Stage	719.0									684.9		674.7
Date	PITTSBURGH, PA. Point at	EMSWORTH, PA. Lock & Dam	CORAOPOLIS, PA.	SEWICKLEY, PA. Highway Bridge	DASHIELDS, PA. Lock & Dam	LEGIONVILLE, PA. Lock & Dam No. 4	FREEDOM, PA. Lock & Dam No. 5	MONACA, PA.	BEAVER, PA.	Lock & Dam No. 6	MONTGOMERY, PA. Lock & Dam	MIDLAND, PA. Lock & Dam No. 7
1762, January..	733.2											
1763, March....	735.1											
1806, April....	731.1											
1810, November.	729.2											
1816, February.	730.2											
1832, February.	732.2											
1851, Sept.....	728.1											
1852, April.....	729.1											
1861, Sept.....	728.2											
1865, March....	728.6	721.1			714.4	711.1	707.6		705.8	703.2	701.4	697.3
1864, February.	730.5											
1891, February.	728.5											
1902, March....	729.6							706.7	705.3	702.1	700.0	696.6
1907, March....	732.7	723.4	719.5	718.3	716.3	711.2	707.9		704.4	701.5	699.5	695.4
1913, January..	740.0	731.8	725.9	724.8	723.2	717.4	712.8	712.7	711.4	709.7	707.5	700.9
1936, March....	740.0	723.2			711.5	707.1	703.7			699.1	697.8	691.6
1937, January..	728.5	722.3			712.6						698.9	691.6
1937, April....	729.1											

Note.-Flood stage of 719.0 feet at Pittsburgh has been exceeded 118 times since 1762. Only floods exceeding 728.0 feet at Pittsburgh are given in table.

ELEVATIONS OF MAJOR FLOODS  
OHIO RIVER BASIN

Kiskiminetas River and Tributaries

Miles from Mouth	4.8	10.8	11.5	22.4	26.8	48.8	57.3	69.7	80.3	80.9	84.5	
Zero of Gage		767.14	769.40	805.64	825.80			1,075.64	1,150.00	1,154.0	1,183.84	
Flood Stage		795.	794.4	850.	841.6	940.		1,095.6	1,162.	1,166.	1,198.6	
Date	LEEBURG, PA. Highway Bridge	VANDERGRIFT, PA. One-third mile downstream from highway bridge.	VANDERGRIFT, PA. One-third mile upstream from highway bridge.	AVONMORE, PA. Highway Bridge	SALTSBURG, PA. Highway Bridge	BLAIRSVILLE, PA. Water Works	ROBINSON, PA. Bolivar Foundry and Casting Comp. any.	SEWARD, PA. Highway Bridge	JOHNSTOWN, PA. Franklin Street	JOHNSTOWN, PA. Poplar Street	FERRDALE, PA. Highway Bridge	
1884, February.....				829.7	836.4				1,164.8			
1888, August.....				837.4	847.4				1,165.8			
1889, June.....				835.4	844.4				1,164.5			
1891, February.....				838.0	844.4							
1902, March.....				832.0	844.4							
1906, June.....				824.7	844.4							
1907, March.....				839.4	844.4							
1908, March.....				836.4	844.4							
1910, February.....				829.3	844.4							
1912, March.....				835.6	844.4							
1913, January.....				827.8	838.6							
1917, January.....				826.6	838.6							
1917, March.....				824.3	835.2							
1918, February.....				827.6	841.1							
1921, November.....		791.6		827.6	841.1							
1924, March.....		790.7		827.6	837.4							
1924, May.....		792.1		830.7	837.4							
1927, October.....		789.6		825.9	837.4							
1928, May.....		789.6		828.9	837.4							
1930, February.....		789.6		828.6	837.4							
1933, March.....		808.2	811.0	827.1	834.4	946.3	1,025.7	1,102.0	1,180.2	1,184.3	1,206.0	
1936, March.....	791.0			834.4	834.4							
1937, January.....				838.9	834.4							
1937, April.....				828.6	834.4							
1937, December.....				827.1	834.4							
1939, February.....				836.6	834.4							
1940, March.....				835.6	834.4							
1940, March.....				842.6	834.4							
1941, June.....				839.6	834.4							

\*Affected by backwater; South Fork dam failure.



ELEVATIONS OF MAJOR FLOODS  
OHIO RIVER BASIN

Monongahela River

Miles from Mouth	1.9	11.2	15.0	23.8	25.3	40.9	41.5	56.5	58.9	68.3	82.5	84.8	87.1	90.6
Zero of Gage			718.25	714.93	716.30	714.5	735.33		741.0		763.17	767.55	774.00	782.5
Flood Stage			738.2	745.5		745.5						797.5		
Date														
1888, July.....	PITTSBURGH, PA. Dam No. 1													
1907, March.....		BRADDOCK, PA. New Dam No. 2	McKEESPORT, PA. National Tube Co.	ELIZABETH, PA. New Dam No. 3	ELIZABETH, PA. Old Dam No. 3	CHARLEROI, PA. Old Dam No. 4	CHARLEROI, PA. New Dam No. 4	BROWNSVILLE, PA. New Dam No. 5	BROWNSVILLE, PA. Old Dam No. 5	RICES LANDING, PA. Dam No. 6	Old Dam No. 7	GREENSBORO, PA. New Dam No. 7	Old Dam No. 8	POINT MARION, PA. New Dam No. 8
1888, July.....		734.3	738.1	746.0	747.3	759.7	760.5	773.7	775.7	796.3	800.3	803.5	806.2	811.7
1907, March.....		741.1	744.0	746.8	747.3	759.7	760.5	773.7	775.7	796.3	800.3	803.5	806.2	811.7
1924, March.....		739.5	747.0	750.8	751.9	759.7	760.5	773.7	775.7	796.3	800.3	803.5	806.2	811.7
1936, March.....		745.8	747.0	750.8	751.9	759.7	760.5	773.7	775.7	796.3	800.3	803.5	806.2	811.7
1937, January.....		734.1	735.2	739.4	742.2	752.2	755.5	767.1	778.8	790.5	796.0	799.0	801.6	804.9
1937, April.....		736.5	738.0	742.2	743.6	752.2	755.5	767.1	778.8	790.5	796.0	799.0	801.6	804.9
1937, October.....		736.0	737.8	742.2	743.6	752.2	755.5	767.1	778.8	790.5	796.0	799.0	801.6	804.9
1939, February.....		734.2	736.0	742.2	743.6	752.2	755.5	767.1	778.8	790.5	796.0	799.0	801.6	804.9
1940, April.....		730.8	732.5	738.2	742.4	754.4	750.4	761.7	773.5	786.1	788.1	786.1	786.1	800.9
1941, June.....		738.2	740.4	745.8	745.8	756.2	756.2	768.1	777.4	791.8	791.8	791.8	791.8	800.9

Notes.- Values for July 1988 flood scaled from U.S.A.E. flood profile.  
All elevations at dams at upper pools.

ELEVATIONS OF MAJOR FLOODS  
OHIO RIVER BASIN  
Youghiogheny River

Miles from Mouth	0.56	8.84	15.18	19.40	44.65	62.88	72.15	73.05
Zero of Gage			733.14	740.3	860.13	1,198.91	1,302.77	1,307.40
Flood Stage			753.1	760.3	876.1			1,319.4
Date								
1860, April.....								1,325.9
1888, August.....								1,321.2
1891, February.....								
1896, July.....								
1897, February.....								
1902, February.....								
1904, March.....								
1907, March.....								
1908, February.....								
1912, February.....								
1912, March.....								
1913, January.....								
1916, March.....								
1917, January.....								
1918, February.....								
1924, March.....								
1928, May.....								
1933, March.....								
1936, March 18.....								
1937, April.....								
1937, October.....								
1939, February.....								
1940, March.....								
1941, June.....								

\*Affected by ice.



ELEVATIONS OF MAJOR FLOODS  
OHIO RIVER BASIN

Beaver and Shenango Rivers

Miles from Mouth	5.2	15.0	25.2	35.1	44.7	49.6	54.0	78.7	83.0	
Zero of Gage	727.48	736.24	787.00			840.00	862.19		955.00	
Flood Stage	742.5	746.2	801.0			849.0	872.2		962.0	
Shenango River										
Date	Beaver River			Shenango River						
	BEAVER FALLS, PA. Hartman Dam	WALFORD, PA. Highway Bridge	NEWCASTLE, PA. Washington Street	PULASKI, PA. Highway Bridge	WHEATLAND, PA. P.R.R. Bridge	SHARON, PA. Chestnut Street	SHARPSVILLE, PA. 700 feet upstream from Erie Rail- road bridge.	GREENVILLE, PA. Main St. Bridge	JAMESSTOWN, PA. Rye Bridge, 2 miles downstream from Jamesstown	
1893, May.....	740.3	786.1	804.8	819.6	839.4	855.4	878.2	945.8	967.3	
1910, March.....	744.9			823.3		858.1	881.3		969.2	
1913, March.....	738.8								964.6	
1920, March.....	740.1								963.0	
1927, December..	739.5									
1929, April.....	739.6									
1936, March.....	741.3	755.5				853.4				
1937, January....	739.5	757.7				853.5				
1937, April.....	738.6	753.0				851.6				
1939, March.....	737.2	751.1				848.8	868.6			
1940, March.....	*739.6	748.2				848.6	869.0			
1940, April.....		753.9				850.8	871.3			

\*Affected by backwater.  
The construction of the Pymatuning Dam (Mile 86.8) completed in 1934.

**End of  
Title**