

III BASIN DESCRIPTION

The Youghiogheny Basin covers 1768 sq mi and extends from northern Maryland to McKeesport, Pennsylvania. This report deals only with the 1,255 sq mi of the basin within Pennsylvania and for purposes of this report the term Youghiogheny Basin means only that portion within Pennsylvania. The basin includes portions of four Pennsylvania counties: Allegheny, Fayette, Somerset, and Westmoreland.

1. RIVER SYSTEM

The Youghiogheny is part of the Mississippi drainage system. It discharges to the Monongahela at McKeesport, approximately 16 river miles from the confluence of the Monongahela and the Allegheny Rivers.

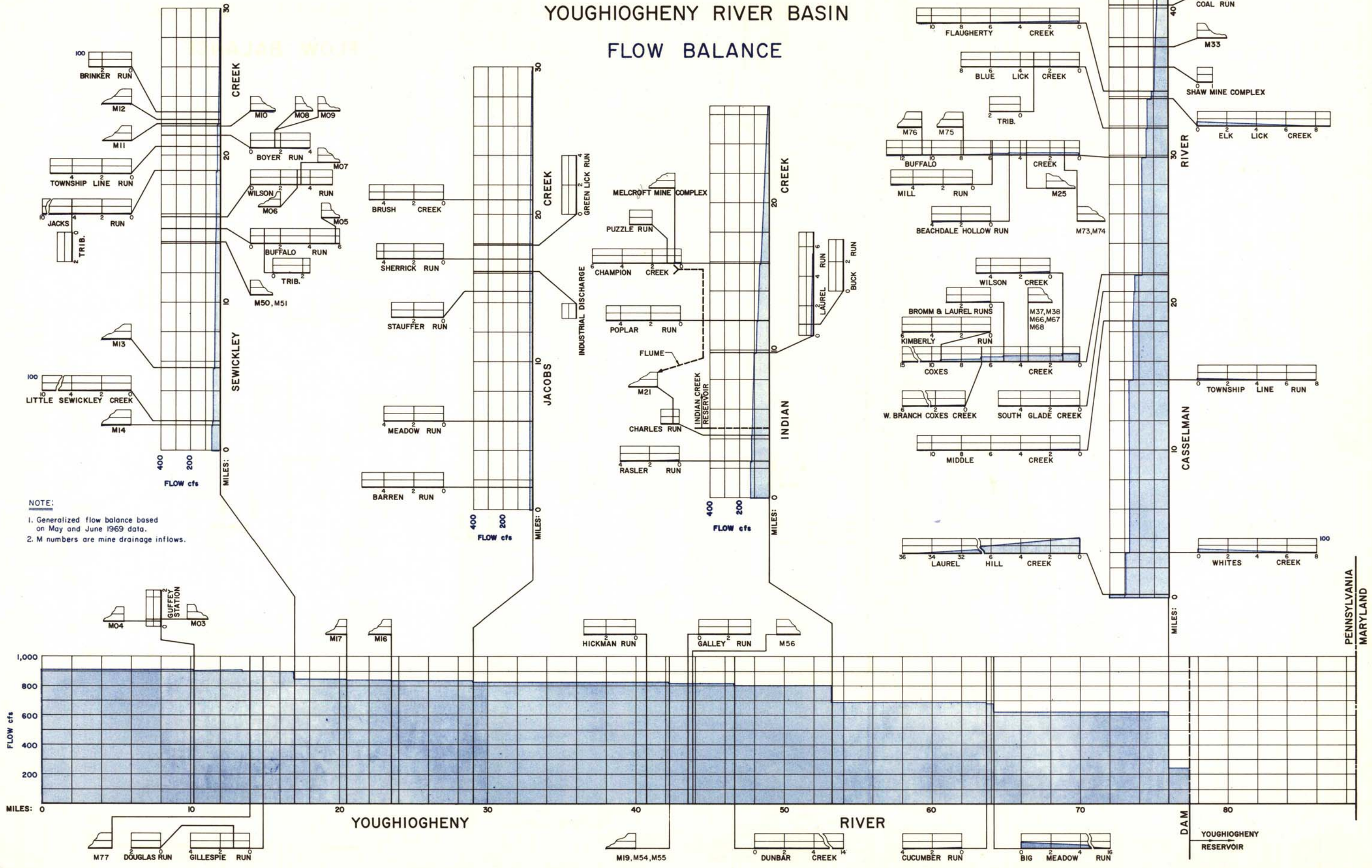
The main stem flows north from Maryland and enters the Youghiogheny Reservoir which extends from within Maryland to the dam near Confluence, Pennsylvania and approximately 5.5 miles north of the Maryland border. It then flows north to Confluence where it is joined by the Casselman River, thence northwest to Victoria and Ohio, north to Indian Creek Station, west and north to South Connellsville and Connellsville, northwest to Dawson and Perryopolis, north to Smithton, north and west to Sutersville, north to South Versailles, west to White Oak and the southern tip of McKeesport and Versailles, and then northwest to Liberty, Port Vue and McKeesport.

The main stem within Pennsylvania is 80 miles. It flows along the boundary line between Fayette and Westmoreland Counties, then through Westmoreland and then along the boundary between Allegheny and Westmoreland Counties. Major tributaries are: Casselman River, Indian Creek, Jacobs Creek and Sewickley Creek. Major sub-basins are listed in Table III-A together with drainage area of each, length of the main tributary and map reference locations along the main tributary. Relative locations of the tributaries and flows are shown on Exhibit 1.

Table III-A, Major Sub -basins of the Youghiogheny Basin

<u>Sub-basin</u>	Main Trib. Length <u>mi</u>	Drainage Area <u>sq mi</u>	Locations along main stream <u>COUNTY: location</u>
Casselman River	44	475	SOMERSET; Salisbury Meyersdale, Rockwood, Casselman, Confluence
Indian Creek	27	125	FAYETTE; Champion, Melcroft, Indian Head, Indian Creek Sta. WESTMORELAND; Jones Mills
Jacobs Creek	29	95	FAYETTE; Laurelville, Hammondville, Everson WESTMORELAND; Stauffer, Scottdale
Sewickley Creek	30	165	WESTMORELAND; Pleasant Unity, Youngwood, New Stanton, Hunkers, Yukon, Lowber, Gratztown
Youghiogheny Main Stem	80	395	SOMERSET - Confluence FAYETTE - Ohiopyle Connellsville, Dawson Perryopolis WESTMORELAND - Smithton, West Newton, Sutersville ALLEGHENY - Versailles, Liberty, Port Vue, McKeesport

COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF ENVIRONMENTAL RESOURCES
 YOUGHIOGHENY RIVER BASIN
 FLOW BALANCE



NOTE:
 1. Generalized flow balance based on May and June 1969 data.
 2. M numbers are mine drainage inflows.

2. RAINFALL AND RUNOFF

Average annual precipitation varies throughout the watershed from a low of about 38 in. at the river mouth to 50 in. at Somerset, where the greatest annual precipitation of 66.6 in. was recorded in 1890. The overall average for the watershed is 43 in. per year.

Distribution of rainfall throughout the basin is shown on page I. Appendix D. The lowland valleys receive the least amount and the uplands receive a maximum. June and July are the wettest months, and November is usually the driest.

Based on a 25 year average of USGS data, a generalized balance of inflows, outflows and losses for the Youghiogheny Basin is as follows:

	billion gallons <u>per year</u>
Inflows:	
Casselman River from Maryland	25
Youghiogheny River from Maryland	<u>183. 5</u>
Total surface inflow	208. 5
Precipitation in basin	<u>940. 5</u>
Total inflow	1,149
Outflow:	
Youghiogheny River to Monongahela	<u>(-) 640</u>
Evaporation and other losses	509

3. POPULATION AND WATER USE

Portions of the area and populations (1960 census) of the four counties included in the Youghiogheny watershed are estimated as follows:

<u>County</u>	Total		Youghiogheny <u>Watershed</u>	
	<u>Sq Mi</u>	<u>Population</u>	<u>Sq Mi</u>	<u>Population</u>
Allegheny	730	1,628,587	40	83,000
Fayette	800	169,340	350	56,000
Somerset	1,084	77,405	505	35,000
Westmoreland	<u>1,025</u>	<u>352,629</u>	<u>360</u>	<u>141,000</u>
TOTAL YOUGHIOGHENY	1,255	315,000	1,255	315,000

Communities within the watershed with populations of over 5,000 are as follows:

<u>Communities</u>	<u>Population</u>
Allegheny County:	
Elizabeth Township	14,159
McKeesport City	45,159
Port Vue Borough	6,635
White Oak Borough	9,047
Fayette County:	
Connellsville City	12,814
Dunbar Township	7,656
Washington Township	5,245
Somerset County:	
Somerset Borough	6,347
Westmoreland County:	
Greensburg City	17,383
Hempfield Township	12,421
Mt. Pleasant Borough	6,107
Rostraver Township	9,884
Scottsdale Borough	6,224
Sewickley Township	6,703
S. Huntington Township	6,073

Water resources of the Youghiogheny Basin are utilized for municipal and industrial water supply and recreation. While there appears to be no question as to adequacy of the quantity of water available, fuller development of the resources would require improvement of quality to both reduce water treatment costs and increase recreational use.

A. Public Water Supply

Public water supplies within the basin serve approximately 176,700 people with average consumption of 20 million gallons per day.

B. Lakes, Reservoirs and Fishing Streams

The more significant lakes, reservoirs and fishing streams within the various sub-basins are as follows:

Sewickley Creek sub-basin;

- Unity Reservoir used solely for water supply,
- Lonesome lake, boating

Jacobs Creek sub-basin;

- Westmoreland Water Authority reservoir one near Brush Creek and the Greenlick Reservoir, both are used for water supply
- Meadow Run, includes an 8 mi stretch of recommended fishing stream Indian

Creek sub-basin;

- Indian Creek Reservoir, used for water supply
- Indian Creek, includes a 6 mi stretch of recommended fishing stream Casselman

River sub-basin;

- Laurel Hill Lake, within Laurel Hill State Park, has a water area of 65 acres; used for fishing and boating and swimming
- Lake Stonycreek, 250 acres; boating and fishing for property owners
- Cranberry Glade Lake, 112 acres; fishing and boating

Youghiogheny main stem sub-basin;

- Youghiogheny Reservoir, portion within Pennsylvania is 2,172 acres; flood control, boating and fishing
- Ohiopyle rapids on the Youghiogheny; used for white water boating.

4. RECREATIONAL DEVELOPMENT PROGRAMS

All of the watershed is reasonably convenient to Pittsburgh area residents for recreation. Driving time from Pittsburgh is less than two hours to the furthest point and less than one hour to most of the watershed area. Recreational potential of the area is indicated by increasing attendance at State parks, planned development of additional park facilities and, federal recognition of scenic values and recreational potential.

A. State Parks

Attendance

	<u>Acres</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>Facilities *</u>
Laurel Hill	4169	427,101	412,307	423,302	B,C,F,H,P,R,S,
Kooser	375	341,838	307,017	141,304	C,FC, F,H,P,R,S,
Ohiopyle	18,500	159,510	165,055	359,360	Being developed
Laurel Ridge	15,000	17,467	--	--	Being developed

* B-Boating F-Fishing R-Refreshment Concession C-Camping H-Hiking Trails S-Swimming
 FC - Family Cabins P-Picnicking

Ohiopyle and Laurel Ridge State Parks are being developed under Pennsylvania's "Project 70" which is a master program to conserve and improve open space and natural resources and provide quality recreational facilities.

Work at Ohiopyle started in 1969. Development will eventually provide greater recreational use of the river system for fishing, boating and white water boating at the Youghiogheny rapids. Also, adjacent to Ohiopyle, at Bear Run, the Western Pennsylvania Conservancy maintains 7,000 acres including a famous Frank Lloyd Wright house, Falling Waters, an important attraction in the area.

Planned development of Laurel Ridge will provide a scenic trail some 55 miles long stretching along the ridge from the Youghiogheny. The park will consist of some 15, 000 acres, most of which is within the Youghiogheny basin. Plans include development of facilities for public enjoyment and preservation of natural characteristics along the crest of Laurel Ridge.

B. Federal Recognition

Two bills signed by the President in 1968 recognized that the natural characteristics and recreational potential of the Youghiogheny basin were worthy of consideration for development under federal programs.

Public Law 90-542, Wild and Scenic Rivers Act, listed the Youghiogheny River as one to be studied for possible designation as a scenic river.

Public Law 90-543, National Trails Systems Act, directed the Department of Interior to study the Potomac Heritage Trail. This would be an 825 mile trail beginning at Washington, D. C. and terminating at Ohiopyle State Park with the last portion running along the Youghiogheny from Connellsville to Ohiopyle. This hiking trail would connect with Pennsylvania's planned Laurel Ridge Trail.