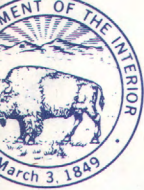
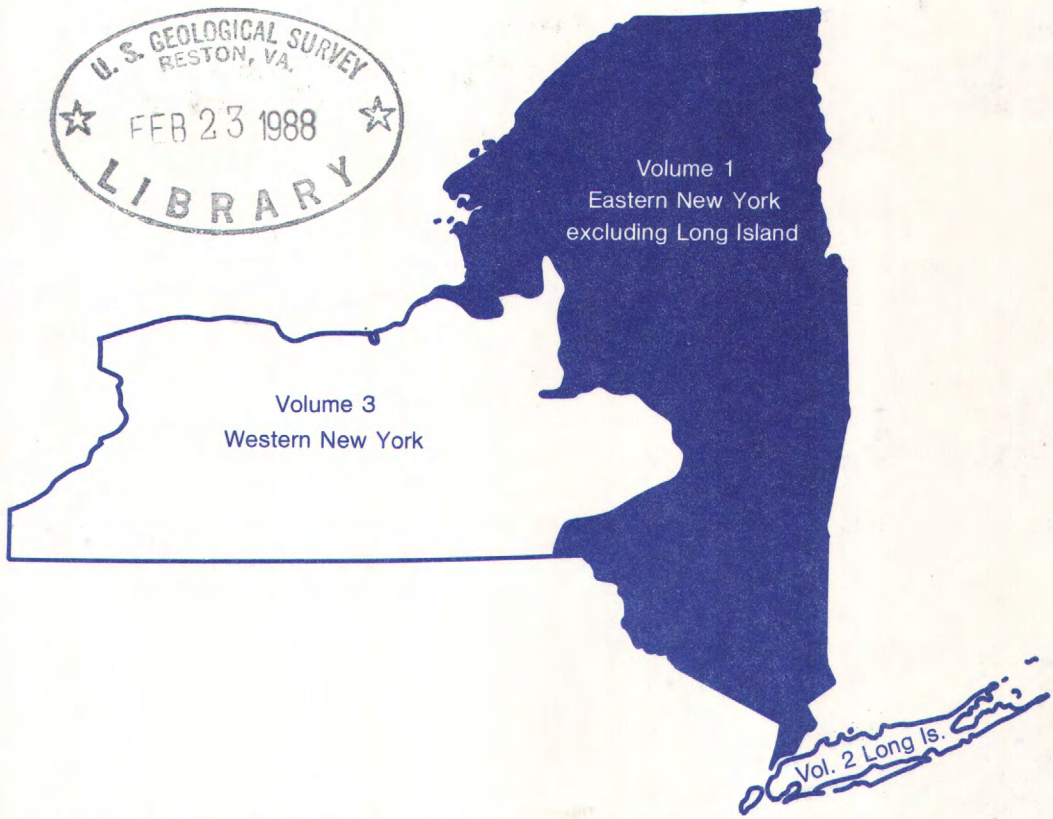
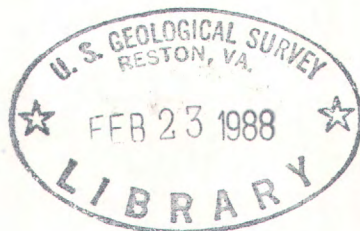


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# Water Resources Data New York Water Year 1986

Volume 1. Eastern New York excluding  
Long Island



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NY-86-1  
Prepared in cooperation with the State of New York  
and with other agencies



**CALENDAR FOR WATER YEAR 1986**

1985

## OCTOBER

S	M	T	W	T	F	S
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1986

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## SEPTEMBER

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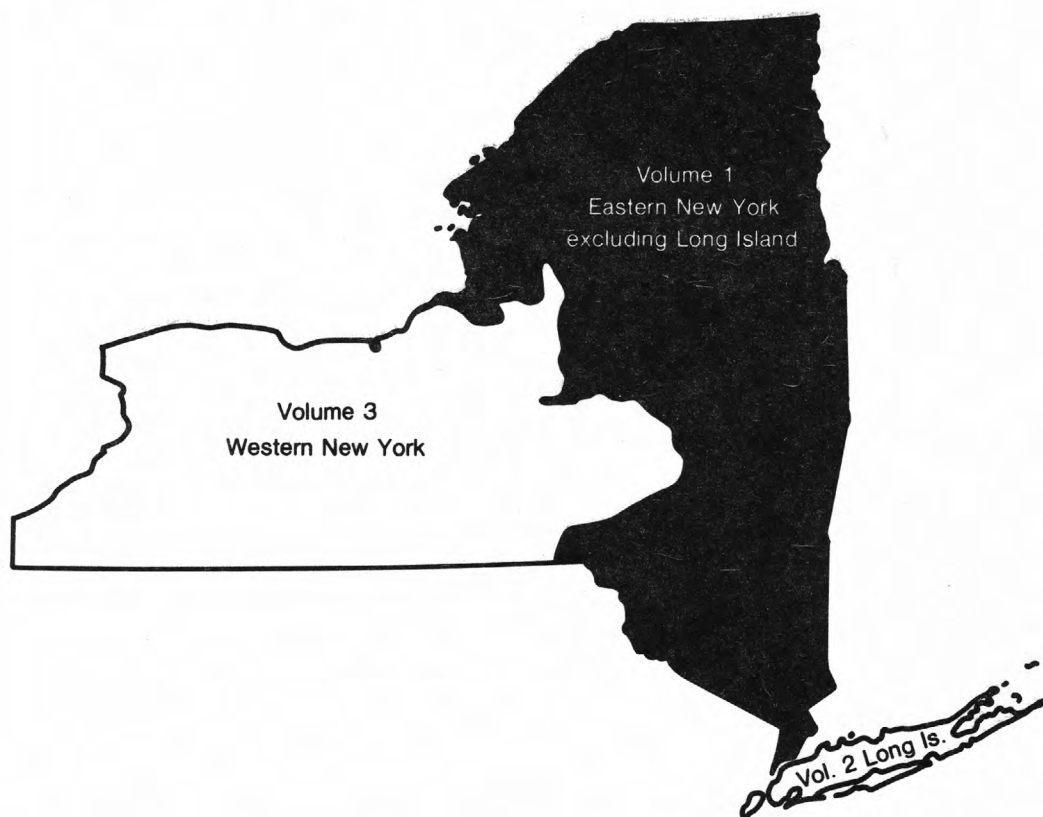




# Water Resources Data New York Water Year 1986

Volume 1. Eastern New York excluding  
Long Island

by Gary D. Firda, Richard R. Lumia and Patricia M. Burke



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NY-86-1  
Prepared in cooperation with the State of New York  
and with other agencies



UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For information on the water program in New York write to:

District Chief, Water Resources Division  
U.S. Geological Survey  
U.S. Post Office and Courthouse  
P.O. Box 1669  
Albany, New York 12201

1987



## PREFACE

This volume of the annual hydrologic data report of New York is one of a series of annual reports that document hydrologic data gathered from the U. S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and water quality provide the hydrologic information needed by state, local, and federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for New York are contained in three volumes:

Volume 1. Eastern New York excluding Long Island

Volume 2. Long Island

Volume 3. Western New York

In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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# CONTENTS

	Page
Preface.....	iii
List of surface-water stations, in downstream order, for which records are published.....	vi
List of ground-water wells, by county, for which records are published.....	ix
Introduction.....	1
Cooperation.....	2
Summary of hydrologic conditions.....	3
Surface Water.....	3
Surface-Water Quality.....	6
Ground Water.....	6
Special networks and programs.....	10
Explanation of records.....	10
Station identification numbers.....	10
Downstream order system.....	10
Latitude-longitude system.....	10
Records of stage and water discharge.....	11
Data collection and computation.....	11
Data presentation.....	12
Identifying estimated daily discharge.....	13
Accuracy of the records.....	14
Other records available.....	14
Records of surface-water quality.....	14
Classification of records.....	14
Arrangement of records.....	14
On-site measurements and sample collection.....	15
Water temperature.....	15
Sediment.....	15
Laboratory measurements.....	16
Data presentation.....	16
Categories of water-quality data.....	16
Frequency-of-sampling notation.....	17
Records of ground-water levels.....	17
Data collection and computation.....	17
Data presentation.....	17
Access to WATSTORE data.....	18
Definition of terms.....	19
List of discontinued gaging stations.....	25
Publications on Techniques of Water-Resources Investigations.....	30
Station records, surface water.....	35
Discharge at partial-record stations and miscellaneous sites.....	214
Crest-stage partial record stations.....	214
Miscellaneous sites.....	219
Analyses of samples collected at miscellaneous sites.....	221
Station records, ground water.....	235
Ground-water levels.....	235
Index.....	259

## ILLUSTRATIONS

Figure	1. Map showing 1986 water year runoff as a percentage of the average annual runoff for 1960-84 for eastern New York excluding Long Island.....	4
	2. Comparison of average month-end reservoir contents and month-end contents during 1986 water year for two selected reservoir systems in eastern New York.....	3
	3. Comparison of monthly runoff for 1986 water year and average monthly runoff for 1960-84 for selected gaging stations in eastern New York.....	5
	4. Hydrographic comparisons, West Branch Oswegatchie River near Harrisville, NY.....	7
	5. Hydrographic comparisons, Wappinger Creek near Wappingers Falls, NY.....	8
	6. System for numbering wells.....	11
7A.	Map showing location of gaging stations and observation wells in eastern part of State and north of Rockland and Westchester Counties.....	32
7B.	Map showing location of gaging stations and observation wells in Rockland and Westchester Counties.....	34
8.	Map showing gaging stations and diversions near mouth of Mohawk River.....	81

## TABLE

Table	1. Factors for converting inch-pound units to International System Units (SI).....	inside of back cover
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[Letter after station name designates type of data: (d) discharge, (e) contents and/or elevation, (c) chemical, (b) biological, (t) water temperature, (s) sediment]

# NORTH ATLANTIC SLOPE BASINS

Page

## HOUSATONIC RIVER BASIN

### Housatonic River:

Tenmile River near Gaylordsville, CT (d).....	35
<u>BLIND BROOK BASIN</u>	
Blind Brook at Rye (d).....	36
<u>BEAVER SWAMP BROOK BASIN</u>	
Beaver Swamp Brook at Mamaroneck (d).....	37
<u>MAMARONECK RIVER BASIN</u>	
Mamaroneck River at Mamaroneck (d).....	38
<u>HUTCHINSON RIVER BASIN</u>	
Hutchinson River at Pelham (d).....	39
<u>BRONX RIVER BASIN</u>	
Bronx River at Bronxville (d).....	40
<u>HUDSON RIVER BASIN</u>	
Hudson River near Newcomb (d).....	41
Indian Lake (head of Indian River) near Indian Lake (e).....	42
Indian River near Indian Lake (d).....	43
Hudson River at North Creek (d).....	44
Hudson River at Hadley (d).....	45
Sacandaga River near Hope (d).....	46
Great Sacandaga Lake at Conklingville (e).....	47
Sacandaga River at Stewarts Bridge, near Hadley (d).....	48
Hudson River at Fort Edward (d).....	49
Hudson River at Rogers Island at Fort Edward (cs).....	50
Hudson River near Fort Miller (cs).....	51
Hudson River at Schuylerville (cs).....	52
Kayaderosseras Creek (head of Fish Creek) near West Milton (d).....	53
Hudson River at Stillwater (dcs).....	54
Hoosic River near Williamstown, MA (d).....	57
Green River at Williamstown, MA (d).....	58
Little Hoosic River at Petersburg (d).....	59
Walloomsac River near North Bennington, VT (d).....	60
Hoosic River near Eagle Bridge (d).....	61
Hudson River above Lock 1 near Waterford (d).....	62
Hudson River at Water Treatment Plant at Waterford (c).....	63
Hudson River at Waterford (cs).....	64
<u>Mohawk River:</u>	
Mohawk River below Delta Dam, near Rome (d).....	66
West Canada Creek at Kast Bridge (d).....	67
Mohawk River near Little Falls (d).....	68
East Canada Creek at East Creek (d).....	69
Otsquago Creek at Fort Plain (d).....	70
Schoharie Creek at Prattsville (d).....	71
Schoharie Reservoir near Grand Gorge (e).....	72
Schoharie Creek at Gilboa (d).....	73
Platter Kill at Gilboa (d).....	74
Mine Kill near North Blenheim (d).....	75
Schoharie Creek at North Blenheim (d).....	76
West Kill at North Blenheim (d).....	77
Schoharie Creek at Breakabeen (d).....	78
Schoharie Creek at Burtonsville (d).....	79
Mohawk River at Cohoes (d).....	80
Hudson River at Green Island (dcbs).....	82
Hudson River at Albany (e).....	85
Moordener Kill at Castleton-on-Hudson (d).....	86
Esopus Creek at Shandaken (dcbs).....	87
Hollow Tree Brook at Lanesville (c).....	92
Esopus Creek at Coldbrook (d).....	93
Esopus Creek at Mount Marion (d).....	94
Rondout Creek above Red Brook at Peekamoose (c).....	95
Rondout Creek near Lowes Corners (d).....	96
Chestnut Creek at Grahamsville (d).....	97
Rondout Creek at Rosendale (d).....	98
Wallkill River at Gardiner (d).....	99
Wappinger Creek near Wappingers Falls (d).....	100
Croton River at New Croton Dam, near Croton-on-Hudson (d).....	101
Saw Mill River at Yonkers (d).....	102
Reservoirs in Hudson River basin (de).....	103
Diversions in Hudson River basin (d).....	105

NORTH ATLANTIC SLOPE BASINS--Continued

HACKENSACK RIVER BASIN	
Hackensack River at West Nyack (d).....	106
Hackensack River at Rivervale, NJ (d).....	107
Reservoirs in Hackensack River basin (de).....	108
Diversions from Hackensack River basin (d).....	109
PASSAIC RIVER BASIN	
Pequannock River (head of Pompton River):	
Ramapo River at Ramapo (d).....	110
Ramapo River at Suffern (d).....	111
Mahwah River near Suffern (d).....	112
Ramapo River near Mahwah, NJ (d).....	113
DELAWARE RIVER BASIN	
East Branch Delaware River at Margaretville (d).....	114
Mill Brook near Dunraven (d).....	115
Tremper Kill near Andes (d).....	116
East Branch Delaware River at Downsville (d).....	117
East Branch Delaware River at Harvard (dt).....	118
Beaver Kill above Black Brook near Turnwood (c).....	121
Beaver Kill at Cooks Falls (d).....	122
East Branch Delaware River at Fishs Eddy (dt).....	123
West Branch Delaware River at Walton (d).....	126
West Branch Delaware River at Stilesville (dt).....	127
West Branch Delaware River at Hale Eddy (dt).....	130
Delaware River at Lordville (t).....	133
Delaware River at Callicoon (dt).....	135
Delaware River above Lackawaxen River near Barryville (dt).....	138
Delaware River at Barryville (t).....	141
Delaware River at Pond Eddy (t).....	143
Mongaup River near Mongaup (d).....	145
Delaware River at Port Jervis (dt).....	146
East Branch Neversink River above Tray Mill Brook, near Denning (c).....	150
East Branch Neversink River at Denning (c).....	151
West Branch Neversink River:	
Biscuit Brook above Pigeon Brook, at Frost Valley (dc).....	152
Pigeon Brook at mouth, at Frost Valley (c).....	157
High Falls Brook at Frost Valley (c).....	158
Neversink River near Claryville (d).....	159
Neversink River at Neversink (d).....	160
Neversink River at Woodbourne (dt).....	161
Neversink River at Godeffroy (d).....	164
Delaware River at Montague, NJ (d).....	165
Reservoirs in Delaware River basin (de).....	166
Diversions from Delaware River basin (d).....	168

\* \* \* \* \*



ST. LAWRENCE RIVER BASINSTREAMS TRIBUTARY TO LAKE ONTARIO

Sandy Creek near Adams (dcbs).....	169
Black River near Boonville (d).....	172
Independence River at Donnattsburg (d).....	173
Cranberry Pond Outlet near Big Moose (d).....	174
Woods Lake Tributary near Big Moose (d).....	175
Woods Lake Outlet near Big Moose (d).....	176
Stillwater Reservoir near Beaver River (e).....	177
Beaver River below Stillwater Dam, near Beaver River (d).....	178
Beaver River at Croghan (d).....	179
Black River at Watertown (dcbs).....	180
Lakes and reservoirs in streams tributary to Lake Ontario (e).....	183

STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

Oswegatchie River:	
West Branch Oswegatchie River near Harrisville (d).....	184
Oswegatchie River near Heuvelton (dcbs).....	185
St. Lawrence River near Waddington (e).....	188
St. Lawrence River at Cornwall, Ontario--near Massena, NY (dcbs).....	189
Little Simon Pond Outlet near Tupper Lake (d).....	193
Raquette River at Piercefield (d).....	194
Raquette River at South Colton (d).....	195
Raquette River at Raymondville (dcbs).....	196
St. Regis River at Brasher Center (dcbs).....	199
Salmon River:	
Little Salmon River at Bombay (d).....	202
Chateaugay River below Chateaugay (d).....	203
Lake Champlain (head of Richelieu River):	
Saranac River at Plattsburgh (d).....	204
Ausable River:	
West Branch Ausable River:	
East Branch Ausable River at Au Sable Forks (d).....	205
Lake George at Rogers Rock (e).....	206
Northwest Bay Brook near Bolton Landing (d).....	207
Poultney River below Fair Haven, VT (d).....	208
Lake Champlain at Burlington, VT (e).....	209
Richelieu River (Lake Champlain) at Rouses Point (ecbs).....	210
Lakes and Reservoirs in streams tributary to St. Lawrence River (e).....	213

\* \* \* \* \*

Discharge at partial-record stations and miscellaneous sites.....	214
Crest-stage partial-record stations.....	214
Miscellaneous sites.....	219
Analyses of samples collected at water-quality miscellaneous sites.....	221

## GROUND-WATER LEVELS

Page

<u>ALBANY COUNTY</u>			
Well 424114073495402	Local number A 636.....		235
Well 424044073535101	Local number A 637.....		236
<u>DELAWARE COUNTY</u>			
Well 420748075043101	Local number D 492.....		237
<u>DUTCHESS COUNTY</u>			
Well 414737073563301	Local number Du 321.....		238
Well 414128073475201	Local number Du 1009.....		239
<u>GREENE COUNTY</u>			
Well 422319073482001	Local number G 1.....		240
<u>HAMILTON COUNTY</u>			
Well 432832074122201	Local number H 3.....		241
<u>MONTGOMERY COUNTY</u>			
Well 430141074423501	Local number Mt 1.....		242
<u>ONEIDA COUNTY</u>			
Well 433112075091501	Local number Oe 151.....		243
Well 433012075134202	Local number Oe 766.....		244
<u>PUTNAM COUNTY</u>			
Well 412450073413101	Local number P 609.....		245
<u>RENSSELAER COUNTY</u>			
Well 423834073391001	Local number Re 700.....		246
Well 423534073423401	Local number Re 703.....		247
<u>ROCKLAND COUNTY</u>			
Well 411802073593001	Local number Ro 18.....		248
<u>ST. LAWRENCE COUNTY</u>			
Well 444904074455201	Local number St 40.....		249
Well 445216074593001	Local number St 404.....		250
<u>SARATOGA COUNTY</u>			
Well 430327073475401	Local number Sa 529.....		251
Well 430013073370401	Local number Sa 1072.....		252
Well 425242073473201	Local number Sa 1100.....		253
<u>SCHENECTADY COUNTY</u>			
Well 424910073591401	Local number Sn 363.....		254
<u>ULSTER COUNTY</u>			
Well 414425074213601	Local number U 204.....		255
Well 414948074035101	Local number U 405.....		256
<u>WASHINGTON COUNTY</u>			
Well 431030073192101	Local number W 533.....		257
<u>WESTCHESTER COUNTY</u>			
Well 411421073481201	Local number We 3.....		258





WATER RESOURCES DATA FOR NEW YORK, 1986  
Volume 1.--Eastern New York excluding Long Island

INTRODUCTION

Water resources data for the 1986 water year for New York consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and ground-water levels. This volume contains records for water discharge at 97 gaging stations; stage only at 5 gaging stations; stage and contents at 4 gaging stations, and 19 other lakes and reservoirs; water quality at 34 gaging stations; and water levels at 24 observation wells. Also included are data for 45 crest-stage partial-record stations. Additional water data were collected at various sites not involved in the systematic data-collection program, and are published as miscellaneous measurements and analyses in this volume. These data together with the data in Volumes 2 and 3 represent that part of the National Water Data System operated by the U.S. Geological Survey in cooperation with State, Municipal, and Federal agencies in New York.

Records of discharge and stage of streams, and contents and stage of lakes and reservoirs, were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground--Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities and universities in the United States or may be purchased from the U.S. Geological Survey, Branch of Distribution, 604 South Pickett Street, Alexandria, VA 22304.

Since the 1961 water year, streamflow data and since the 1964 water year, water-quality data have been released by the Geological Survey in annual reports on a State-boundary basis. These reports provided rapid release of water data in each state shortly after the end of the water year. Through 1970 the data were also released in the water-supply paper series mentioned above.

Streamflow and water-quality data beginning with the 1971 water year, and ground-water data beginning with the 1975 water year are published only in reports on a State-boundary basis. Beginning with the 1975 water year, these Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report NY-86-1." Water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices for ordering specific reports, may be obtained from the District Chief at the address given on the back of the title page or by telephone (518) 472-3107.



## COOPERATION

The U.S. Geological Survey and organizations of the State of New York and other agencies have had cooperative agreements for the systematic collection of water records since 1900. Organizations that assisted in collecting data included in Volume 1, water year 1986, through cooperative agreement with the Survey are:

New York State Department of Environmental Conservation  
New York State Department of Transportation  
County of Ulster, County Legislature  
County of Westchester, Department of Public Works  
City of New York, Bureau of Water Resources Development  
City of New York, Department of Environmental Protection  
Village of Nyack  
Board of Hudson River-Black River Regulating District  
New York Power Authority

Assistance in the form of funds for collecting records at gaging stations published in this report was also given by the U.S. Army Corps of Engineers, the Environmental Protection Agency, and the St. Lawrence Seaway Development Corp.

The following municipalities and organizations aided in collecting records:

Plattsburgh, Tarrytown, Tupper Lake, and Yonkers; Indian River Co.; New York State Electric and Gas Corp.; Niagara Mohawk Power Corp.; Orange and Rockland Utilities, Inc.; Oswegatchie River-Cranberry Reservoir Commission; Spring Valley Water Co.; and Utica Board of Water Supply.

Organizations that supplied data are acknowledged in station descriptions.

## SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

Annual precipitation over eastern New York during water year 1986 generally was above average during the fall months, below average through the winter and spring, and much above average during the summer months. This rainfall distribution, in conjunction with above average snowfalls in northern New York and unseasonably warm temperatures from late January through May, were reflected in highly variable monthly runoff of streams in eastern New York. Although monthly runoff varied, the annual runoff of streams in eastern New York during water year 1986 generally was near average throughout the area. Annual runoff in extreme northern New York, northwest of the Adirondack Mountains, was average to above average (greater than 120 percent of average, fig. 1). Runoff in the Upper Hudson River, Lake Champlain, and Mohawk River basins and in the Catskill Mountain region, was above average to average (100 to 120 percent of average), and runoff in the extreme Lower Hudson River, Schoharie Creek, and mid-Hudson River basins generally was below average to average (80 to 100 percent of average).

Figure 2A shows average month-end reservoir contents and month-end contents of the New York City reservoir system during 1986; figure 2B compares 1986 month-end storage in Great Sacandaga Lake at Conklingville (in the Upper Hudson River basin) with the average month-end storage for 1931-85. Although the New York City reservoir system experienced much-below-average storage during 1985, the generally above-average runoff during early 1986 throughout the Delaware River basin and Catskill Mountain region brought the reservoir system to near-normal conditions by the end of November. Storage in Great Sacandaga Lake generally was above normal throughout 1986.

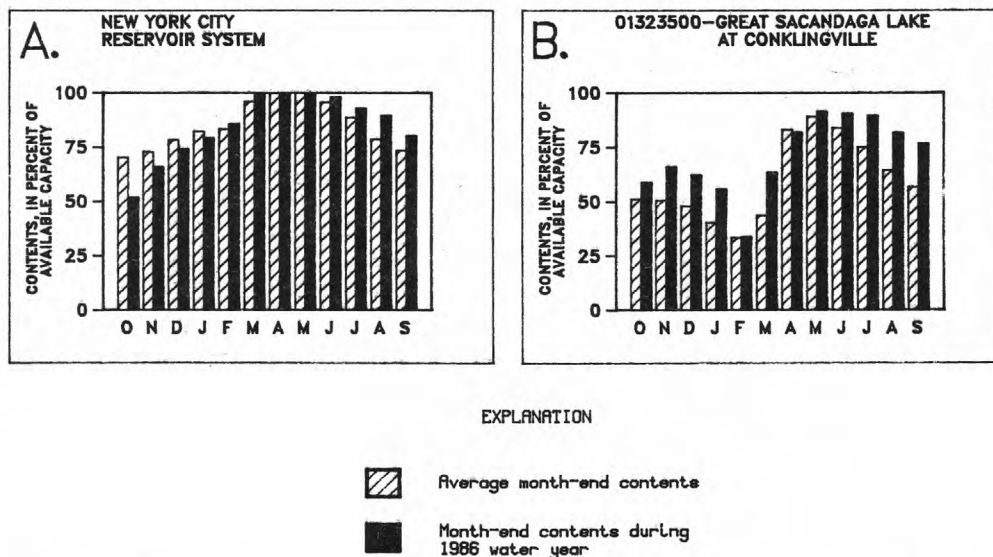


Figure 2.--Comparison of average month-end reservoir contents and month-end contents during 1986 water year for two selected reservoir systems in eastern New York.

The 1986 monthly runoff for selected stations in eastern New York is compared with each site's 1960-84 average monthly runoff in figure 3. (The letters A through I on figure 1 show the locations of the sites represented in figure 3.) October and November flows were above average in most of eastern New York. The Statewide average rainfall total for November was 6.0 inches, making it the second wettest November on record. More than 8 inches of rain was recorded at Slide Mountain in the Catskills and at Central Park in New York City during November.

Stream runoff throughout eastern New York during the winter months generally was average. Snowfall was light during December and February, except adjacent to Lake Ontario where a record snowfall for December (108 inches) was recorded at Watertown. January snowfall was above average in the Upper Hudson, Mohawk, and Lake Champlain Valleys, and along Lake Ontario. A January thaw, in conjunction with a large storm on January 20, caused some minor flooding in the Catskills and some ice-jam problems in northern areas. A second storm January 25-26 left almost 4 inches of rain in sections of Westchester County.

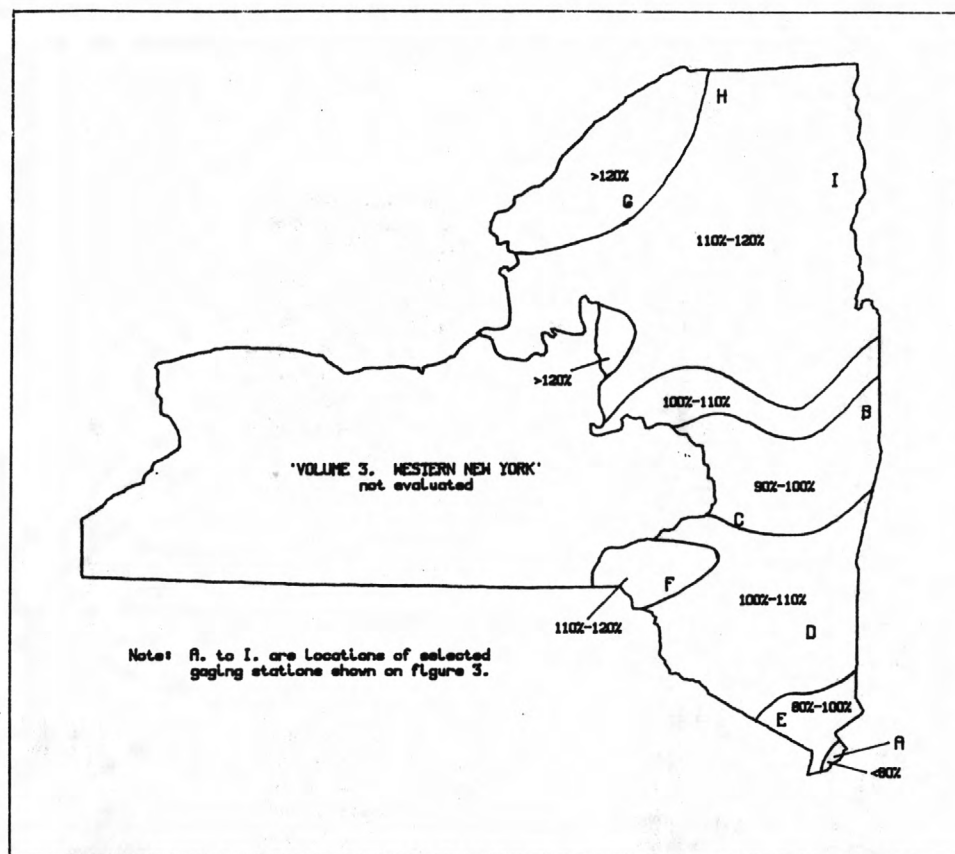


Figure 1.--1986 water year runoff as a percentage of the average annual runoff for 1960-84 for eastern New York excluding Long Island.



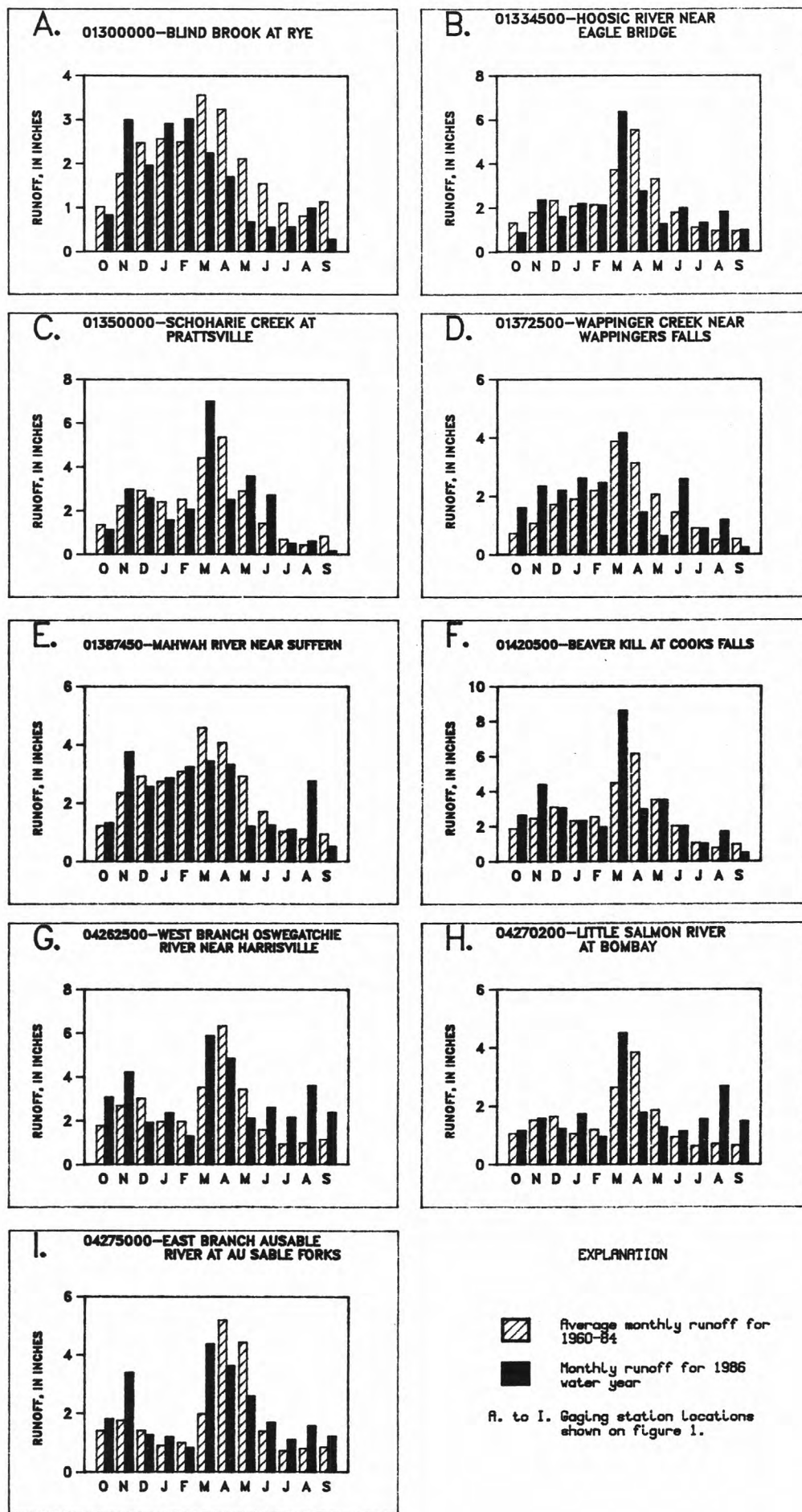


Figure 3.--Comparison of monthly runoff for 1986 water year and average monthly runoff for 1960-84 for selected gaging stations in eastern New York (site locations are shown on figure 1).

Stream runoff was above average during March throughout eastern New York. Flows generally were receding the first 10 days of the month, but heavy rains (nearly 3 inches in some parts of southeastern New York) on March 14-15 in conjunction with warm temperatures and resultant snowmelt caused high runoff throughout most of eastern New York, particularly in the Schoharie Creek and Delaware River basins. Ice jams on the Mohawk River caused some severe flooding in Albany, Saratoga, and Schenectady Counties. Runoff generally decreased northward. A second storm on March, 19-20 left another 1 to 1.5 inches of rain over eastern New York; the greatest stream runoff occurred in the Adirondack Mountain region and decreased southward. Prior to the March 19-20 storm, snowcover southwest of the Adirondacks contained up to 12 inches of water equivalent. New peak discharges of record occurred at the following gaging stations throughout southeastern New York during the March 15-16 flooding:

Station (site locations shown on figure 7A)	Period of record	March 15-16 peak discharge (ft <sup>3</sup> /s)	Previous flood of record	
			Discharge (ft <sup>3</sup> /s)	Water year
01359750--Moordener Kill at Castleton-on-Hudson	1958-current	1,850	1,350	1959
01423000--West Branch Delaware River at Walton	1951-current	19,500	17,900	1981
01425000--West Branch Delaware River at Stilesville	1953-current	17,800	17,500	1959
01427510--Delaware River at Callicoon	1976-current	68,000	66,000	1981

Streamflow generally receded throughout April and May as unseasonably warm temperatures and below-average precipitation resulted in below-average runoff throughout eastern New York. The most significant anomaly to these dry conditions was a storm system over the Catskills that left 3 to 5 inches of rain during May 19-23, causing some small stream flooding. The spring of 1986 (March to May) was the warmest on record, statewide, since 1955.

Heavy rains and numerous thunderstorms during June through August made the summer of 1986 one of the wettest on record for eastern New York. As a result, streamflow was much above average throughout the region, except in extreme southeastern New York where precipitation and resulting runoff generally were below average. Statewide, June was the fifth wettest on record and July the wettest since 1947. Severe thunderstorms during July caused localized flooding. The damages included a bridge washout on State Route 7 in Schenectady County following more than 6 inches of rain on July 29. Thunderstorms again battered eastern New York during August and caused extensive small-stream flooding in Albany County (August 1-3), Saratoga County (August 7), and Herkimer and southern St. Lawrence Counties (August 15). Local urban flooding forced Saratoga Racecourse to close for the first time in its 119-year history. Moderate flooding of a localized nature occurred throughout eastern New York during the summer months, as a result of these numerous, severe storms.

Streamflow throughout southeastern New York returned to near-average conditions during September, as rainfall was generally below average in this region. In contrast, runoff throughout northern New York remained above average as several thunderstorms tracked through this area during the month. Figures 4 and 5 show this variation of regional runoff at two representative stations for September and throughout the 1986 water year.

#### Surface-Water Quality

Water-quality data from the Hydrologic Benchmark station and the eight NASQAN stations in eastern upstate New York generally were within the historic extremes of the individual stations' period of record. A few new extremes were measured, but most were only minor changes. On July 8, 1986, at Sandy Creek near Adams a pH of 8.9 was measured. This exceeded the previous extreme of 8.7 and was the second year in the past 3 years that the maximum was extended. On May 27, 1986, at St. Lawrence River at Cornwall, Ontario, near Massena a sample was collected that lowered the minimum extremes for hardness, noncarbonate hardness, bicarbonate, dissolved calcium, magnesium, potassium, sulfate, chloride, and dissolved solids, and raised the maximum for dissolved silica.

#### Ground Water

Heavy rains from Hurricane Gloria at the end of September 1985 and above-normal precipitation during the rest of the fall generally reversed the downward trend of ground-water levels over most of eastern New York. However, ground-water levels continued to be below average in the east-central and southeastern parts of the State. Ground-water levels rose during the winter, following seasonal trends, and, by February, were near or above average.

In March, ground-water levels rose throughout the area in response to snowmelt and heavy rains. Many wells had levels 1 to 3 feet above the monthly average. During April, ground-water levels generally declined in contrast to average years because of below-normal precipitation and early depletion of the snowpack.

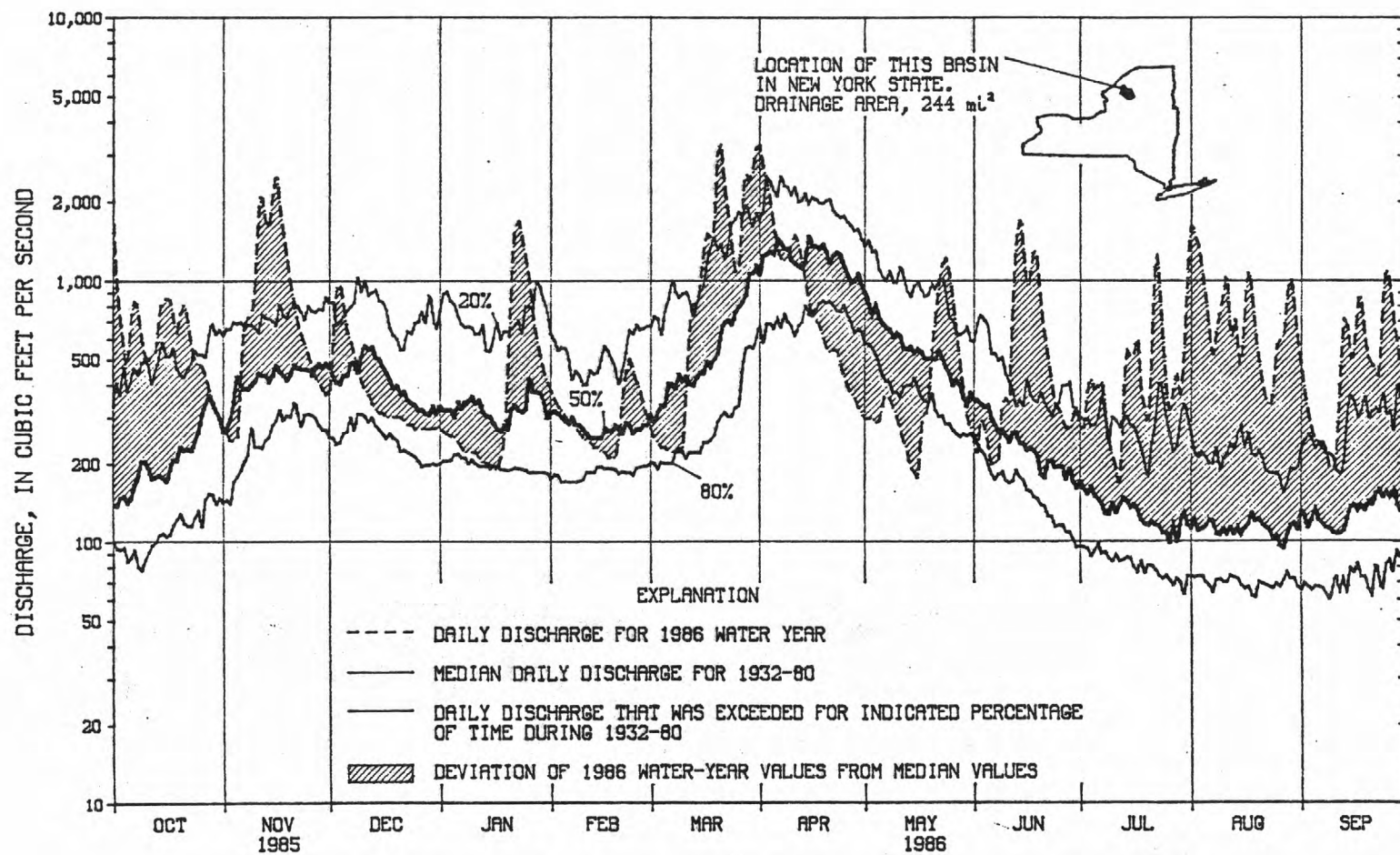


Figure 4.--Hydrographic comparisons, West Branch Oswegatchie River near Harrisville, N.Y.



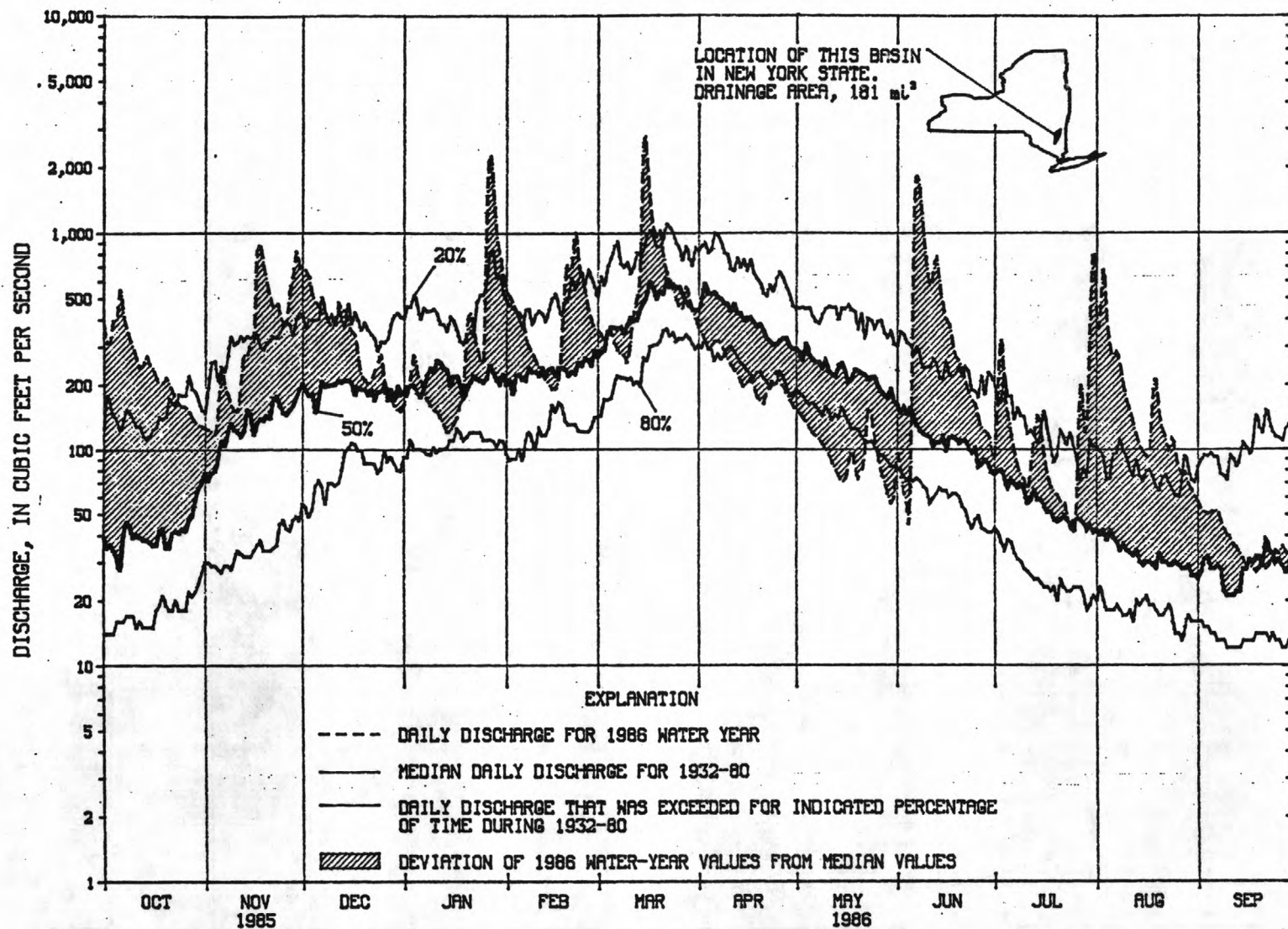
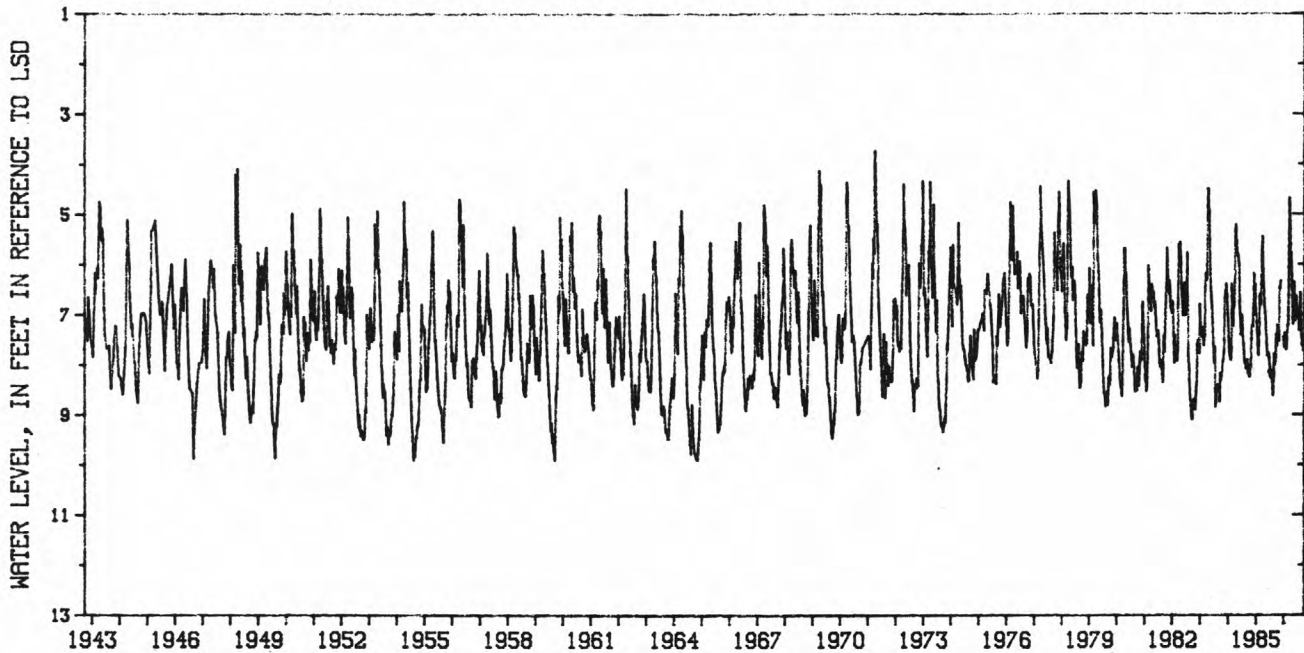


Figure 5.--Hydrographic comparisons, Wappinger Creek near Wappingers Falls, N.Y.

During the early summer months, ground-water levels showed typical seasonal declines and generally were below the seasonal average. In July and August, above-normal precipitation caused ground-water levels to recover to average or above-average conditions. At the end of the water year, ground-water levels in the northeastern and east-central areas were significantly above average and, in the southeastern area, were slightly below average.

The period-of-record hydrograph for a shallow aquifer in Montgomery County (well Mt-1) is shown below. This well is a water-table well in glacial till in an upland setting. The record clearly shows the seasonal pattern of recharge and discharge to the system, as well as a periodic rise and fall of several years duration that reflects climatic variations of the precipitation cycle. Of particular note is that the 43-year record shows no trend of declining water levels. The record represents the general condition of the shallow water table in east central New York for the last half century.



## SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National Stream Quality Accounting Network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

## EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1986 water year that began October 1, 1985, and ended September 30, 1986. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface water, and ground-water level data. The locations of the stations and wells where the data were collected are shown in figures 7A and B. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether streamsite or well, in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells.

## Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indentation in the "List of Stations" in the front of this report. Each indentation represents one rank. This downstream order and system of indentation show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations, miscellaneous sites, and other stations; therefore, the station number for a partial-record station or a miscellaneous site indicates downstream-order position in a list made up of all types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station, such as 01300500, includes the 2-digit part number "01" plus the 6-digit downstream-order number "300500". The Part number designates the major river basin. In a few instances where no gaps were left in the 8-digit numbering sequence, one or two digits were added (making a 9- or 10-digit station number) and (or) a latitude-longitude number was used for identification.

## Latitude-Longitude System

The identification numbers for wells are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the



last 2 digits (assigned sequentially) identify the wells within a 1-second grid. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure 6 below.)

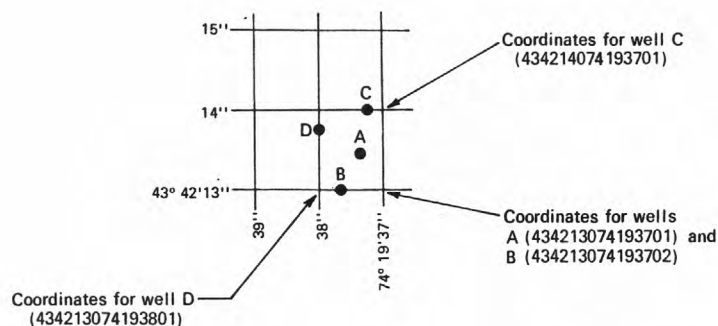


Figure 6. System for numbering wells (latitude and longitude)

#### Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Locations of all gaging stations and observation wells in this report are shown in figures 7A and 7B.

#### Data Collection and Computation

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow-over-dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharges are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by hydrographers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed. If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

For some gaging stations there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, prior and subsequent record, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise, daily contents may be estimated from operator's log, prior and subsequent records, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

#### Data Presentation

The records published for each gaging station consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location; period of record; average discharge; historical extremes; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

**LOCATION.**--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for some stations, were determined and used by the U.S. Army Corps of Engineers or other agencies.

**DRAINAGE AREA.**--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

**PERIOD OF RECORD.**--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

**REVISED RECORDS.**--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

**GAGE.**--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

**REMARKS.**--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a remarks statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

**COOPERATION.**--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

**AVERAGE DISCHARGE.**--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development. The median of yearly mean discharges also is given under this heading for stations having 10 or more water years of record, if the median differs from the average given by more than 10 percent.

**EXTREMES FOR PERIOD OF RECORD.**--Extremes may include maximum and minimum stages and maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

**EXTREMES FOR CURRENT YEAR.**--Extremes given here are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

**REVISIONS.**--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District office to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN."), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years. At some stations monthly and/or yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These are called measurements at miscellaneous sites. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

#### Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.



### Accuracy of the Records

The accuracy of streamflow data depends primarily on: (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The degree of accuracy of the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good," within 10 percent; and "fair," within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy. Different accuracies may be attributed to different parts of a given record.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft<sup>3</sup>/s; to tenths between 1.0 and 10 ft<sup>3</sup>/s; to whole numbers between 10 and 1,000 ft<sup>3</sup>/s; and to 3 significant figures above 1,000 ft<sup>3</sup>/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

### Other Records Available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge-measurement notes, gage-height records, and rating tables is on file in the district office. Also, most gaging-station records are available in computer-usable form and many statistical analyses have been made. Information on the availability of unpublished data or statistical analyses of the published records may be obtained from the district office.

### Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

### Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing record station is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station, where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently.

### Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, unless otherwise footnoted under "REMARKS". Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites. Data for precipitation-quality stations appear next. The table of ground-water quality data follow the ground-water level records. Data for quality of ground water are listed alphabetically by County, and are identified by well number.

### On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey District office.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals, depends on flow conditions and other factors which must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the District office.

### Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures and/or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the District office.

### Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

### Laboratory Measurements

Samples for indicator bacteria and daily samples for specific conductance are analyzed locally. Sediment samples are analyzed in the Geological Survey laboratory in Harrisburg, Pa. All other samples are analyzed in the Geological Survey laboratories in Arvada, Colo., or Doraville, Ga. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratories are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

### Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to insure the most recent updates.

The surface-water-quality records for miscellaneous sampling sites are published in a separate table following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

### Categories of Water-Quality Data

There is a broad range of water-quality parameters available for most stations whose record exceeds more than a few years operation. Sampling schedules are often intermittent for certain types of data, with analyses available for some but not all years within a station's period of record. An accurate description of the variety of data available is shown by grouping similar parameters into a few general categories, which are listed in the "PERIOD OF RECORD" paragraph. Each category of data is followed by a notation of the water year(s) for which data is available and a letter code describing the frequency of sampling (see following section, "Frequency-of-Sampling Notation"). Thus, "CHEMICAL DATA: 1972-74(c), 1977-81(a).", shows there are at least six analyses each year for the first three years of record, no data for this category in 1975 and 1976, and 1 or 2 samples for each of the five most recent years.



The "PERIOD OF RECORD" paragraph lists the following categories of data to describe information available.

**CHEMICAL DATA:** Usually includes most of the "major ions", and may often include some of the following physical properties: specific conductance, pH, temperature, color, turbidity, dissolved oxygen.

**MINOR ELEMENT DATA:** Comprises the "heavy metals" and some of the "alkaline earth" groups. Determinations often include some but not all of the following: Al, As, Ba, Cd, Cr, Co, Cu, Hg, Li, Ni, Pb, Se, Sn, Sr, Zn.

**RADIOCHEMICAL DATA:** The determinations of the concentration of individual radioactive elements, such as radium 226, cobalt 60, strontium 90, and tritium. This category also includes the gross measurement of radioactivity (alpha, beta, gamma) without regard to the radiochemical species that produce the radioactivity.

**PESTICIDE DATA:** The organic compounds (insecticides and herbicides) used to control insects and plants. Routinely, the analyses searches for traces of between 12 to 22 compounds.

**ORGANIC DATA:** Organic data (other than pesticides) such as, OC, PCB, PCN.

**NUTRIENT DATA:** Constituents containing nitrogen or phosphorus. Results usually include several of the following: nitrate plus nitrite, phosphorus, ammonia nitrogen, organic nitrogen, ammonia nitrogen plus organic nitrogen (Kjeldahl nitrogen).

**BIOLOGICAL DATA:** The identification and concentration of microscopic plant organisms (phytoplankton, periphyton), or enteric bacteria (total coliform, fecal coliform, or fecal streptococcal) living in aquatic habitats.

**SEDIMENT DATA:** Suspended-sediment concentration, suspended-sediment discharge, and particle-size data for discrete samples.

#### Frequency-of-Sampling Notation

The categories of data given in the "PERIOD OF RECORD" paragraph are followed by the water year(s) for which that kind of data was collected. The amount of data available is specified by the following letter codes:

- |                              |                                    |
|------------------------------|------------------------------------|
| (a) 1 or 2 samples per year. | (d) 10 to 20 samples per year.     |
| (b) 3 to 5 samples per year. | (e) more than 20 samples per year. |
| (c) 6 to 9 samples per year. |                                    |

#### Records of Ground-Water Levels

Ground-water level data consist of water-level measurements made in observation wells. Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. (See figure 6.)

#### Data Collection and Computation

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to land-surface datum (lstd). Land-surface datum is a datum plane that is approximately at land surface at each well; National Geodetic Vertical Datum of 1929 is the datum plane on which the national network of precise levels is based. If known, the elevation of the land-surface datum above National Geodetic Vertical Datum of 1929 is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported as mean daily values, and the extremes are instantaneous values selected from the digital record. Water levels in wells not equipped with recording gages are read periodically or measured periodically with a weighted tape by U.S. Geological Survey personnel and/or an observer.

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot.

#### Data Presentation

Each well record consists of three parts, the station description, the data table of water levels observed during the water year, and the 10-year hydrograph. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings.



**LOCATION.**--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); a landline location designation; the hydrologic unit number; the distance and direction from a geographic point of reference; and the owner's name.

**AQUIFER.**--This entry designates by name (if a name exists) and geologic age the aquifer(s) open to the well.

**WELL CHARACTERISTICS.**--This entry describes the well in terms of depth, diameter, casing depth and/or screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

**INSTRUMENTATION.**--This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on weekly, monthly, or some other frequency of measurement.

**DATUM.**--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above (or below) National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision depending on the method of determination.

**REMARKS.**--This entry describes factors that may influence the water level in a well or the measurement of the water level. It should identify wells that also are water-quality observation wells, and may be used to acknowledge the assistance of local (non-Survey) observers.

**PERIOD OF RECORD.**--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the Geological Survey, may be noted.

**EXTREMES FOR PERIOD OF RECORD.**--This entry contains the highest and lowest water levels of the period of record, with respect to land-surface datum, and the dates of their occurrence.

A table of water levels follows the station description for each well. Water levels are reported in feet below land-surface datum and all taped measurements of water level are listed for wells without recorders. The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the table for wells with recorders. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of the water level.

A hydrograph of water levels follows the data table for each well. The current year and the previous 9 years of record are plotted in feet below land-surface datum. If the period of record is less than 10 years, the water levels for the entire record are plotted.

#### ACCESS TO WATSTORE DATA

The National WATER Data STORAGE and RETRIEVAL System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer costs incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's district offices (see address given on the back of the title page).

General inquiries about WATSTORE may be directed to:

Chief Hydrologist  
U.S. Geological Survey  
437 National Center  
Reston, Virginia 22092

## DEFINITION OF TERMS

Terms related to streamflow, water quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting inch-pound system units to International System of units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons.

Algae are mostly aquatic single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as the organisms which produce colonies within 24 hours when incubated at 35°C  $\pm$  1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C  $\pm$  0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brainheart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C  $\pm$  1.0°C on KF medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material See Bottom material.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter ( $\text{g}/\text{m}^3$ ), and periphyton and benthic organisms in grams per square meter ( $\text{g}/\text{m}^2$ ).

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Biomass pigment ratio is an indicator of the total proportion of periphyton which are autotrophic (plants). This is also called the Autotrophic Index.

Bottom material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Total in bottom material is the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material".

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, or about 646,000 gallons.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Colloid is any substance with particles in such a fine state of subdivision dispersed in a medium, for example water, that they do not settle out; but not in so fine a state of subdivision that they can be said to be truly dissolved.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Confined aquifer is a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table (it can also be above ground level). Formerly called artesian aquifer.

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

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, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

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.

Cubic foot per second (FT<sup>3</sup>/S, ft<sup>3</sup>/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.



Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = - \sum_{i=1}^s \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where  $n_i$  is the number of individuals per taxon,  $n$  is the total number of individuals, and  $s$  is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontribution areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ( $\text{CaCO}_3$ ).

High tide is the maximum tidal peak reached each day.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Low tide is the minimum tidal trough reached each day.

Mean high or low tide is the average of all high or low tides, respectively, over a specific period.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram ( $\mu\text{g/g}$ ) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Micrograms per liter ( $\mu\text{g/L}$ ,  $\mu\text{g/L}$ ) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter ( $\text{MG/L}$ ,  $\text{mg/L}$ ) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in  $\text{mg/L}$ , and is based on the mass of sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.



Organic carbon (OC) is a measure of the organic matter present in aqueous solution and(or) suspension. May be reported in any of three categories (DOC, dissolved organic carbon; SOC, suspended organic carbon; TOC, total organic carbon).

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m<sup>2</sup>), acres, or hectares. Periphyton benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in distilled water (chemically dispersed).

Particle-size classification used in this report agrees with recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

<u>Classification</u>	<u>Size (mm)</u>	<u>Method of analysis</u>
Clay.....	0.00024 - 0.004	Sedimentation
Silt.....	.004 - .062	Sedimentation
Sand.....	.062 - 2.0	Sedimentation or sieve
Gravel.....	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. The sample is subjected to mechanical and chemical dispersion in distilled water before analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass or volume.

Periphyton is the assemblage of algae, fungi, and bacteria which are attached to or live upon submerged objects in lakes and rivers.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocurie (PCI, pCi) is one trillionth ( $1 \times 10^{12}$ ) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields  $3.7 \times 10^{10}$  radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells/mL of sample.

Euglenoids (Euglenophyta) are a group of algae that are usually free-swimming and rarely creeping. They have the ability to grow either photosynthetically in the light or heterotrophically in the dark.

Fire algae (Pyrrhophyta) are free-swimming unicells characterized by a red spot.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells/mL of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Polychlorinated naphthalenes (PCNs) are industrial chemicals that are mixtures of chlorinated naphthalene compounds. They have properties and applications similar to polychlorinated biphenyls (PCBs) and have been identified in commercial PCB preparations.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [ $\text{mg C}/(\text{m}^2 \cdot \text{time})$ ] for periphyton and macrophytes and [ $\text{mg C}/(\text{m}^3 \cdot \text{time})$ ] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [ $\text{mg O}_2/(\text{m}^2 \cdot \text{time})$ ] for periphyton and macrophytes and [ $\text{mg O}_2/(\text{m}^3 \cdot \text{time})$ ] for phytoplankton are units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Runoff in inches (IN., in.) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lived.

Natural substrates refers to any naturally occurring emersed or submersed solid surface, as a rock or tree, upon which an organism lived.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total".

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata is the following:

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Kingdom.....Animal
Phylum.....Arthropoda
Class.....Insecta
Order.....Ephemeroptera
Family.....Ephemeridae
Genus.....Hexagenia
Species.....Hexagenia limbata
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Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.



Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of substance in solution or suspension that passes a stream section during a 24-hour day.

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Total (as used in tables of chemical analyses):

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total". (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

Water table is the surface of a ground-water body at which the water is at atmospheric pressure. It is defined by the levels at which water stands in wells that penetrate the water body just far enough to hold standing water.

Water-table aquifer is an unconfined aquifer whose upper boundary is the water table.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980, is called the "1980 water year".

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual basic-data reports. (WRD was used as an abbreviation for "Water Resources Data" in reports published prior to 1976.)

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

#### DISCONTINUED GAGING STATIONS

The following continuous-record streamflow or stage stations in eastern New York excluding Long Island have been discontinued or converted to partial-record stations. Daily streamflow or stage records were collected and published for the period of record shown for each station.

Station number	Station name	Drainage area (mi <sup>2</sup> )	Period of record
Housatonic River Basin			
01199420	Tenmile River near Wassaic, NY	120	1959-60
01199490	Swamp River near Dover Plains, NY	46.6	1961-68
01199500	Tenmile River at Dover Plains, NY	189	1902-04
Mianus River Basin			
01210000	Mianus River at Bedford, NY	10.4	1903-04



Station number	Station name	Drainage area (mi <sup>2</sup> )	Period of record
Byram River Basin			
01211500	West Branch Byram River near Port Chester, NY	11.2	1903-04
Hudson River Basin			
01311900	Opalescent River below Flowedland near Tahawus, NY	9.02	1921-23
01313000	Cedar River near Indian Lake, NY	85.3	1911-18
01313500	Cedar River below Chain Lakes near Indian Lake, NY	160	1931-61
01314000	Hudson River at Gooley near Indian Lake, NY	419	1916-68
01316000	North Creek at North Creek, NY	21.9	1924-32
01317000	Schroon River at Riverbank, NY	527	1907-70
01317500	Schroon River at Warrensburg, NY	567	1896-1902
01318000	Hudson River at Thurman, NY	1,533	1907-20
01319000	East Branch Sacandaga River at Griffin, NY	114	1933-78
01319500	Sacandaga River at Wells, NY	260	1907-11
01320500	West Branch Sacandaga River at Blackbridge near Wells, NY	210	1911-16
01321500	West Stony Creek near Northville, NY	88.0	1933-37
01322000	East Stony Creek near Northville, NY	88.7	1933-37
01322500	Sacandaga River at Northville, NY	712	1907-11
01323000	Kennyetto Creek near Broadalbin, NY	28.3	1939-46
01326500	Hudson River at Spier Falls, NY	2,779	1899-1923
01327000	Glens Falls Feeder at Glens Falls, NY		1919-21
			1924-25
			1927-63
01327500	Glens Falls Feeder at Dunham Basin, NY		1945-80
01328000	Bond Creek at Dunham Basin, NY	14.7	1947-82
01329500	Batten Kill at Battenville, NY	394	1908
			1923-68
01330000	Glowegee Creek at West Milton, NY	26.0	1948-63
01335000	Hoosic River at Buskirk, NY	577	1904-09
01335500	Hudson River at Mechanicville, NY	4,500	1888-1956
01336500	Mohawk River at Ridge Mills near Rome, NY	155	1899-1901
01338500	Oriskany Creek at State Dam at Oriskany, NY	140	1899-1901
01339000	Sauquoit Creek at New York Mills, NY	47.2	1899-1900
01340000	Mohawk River at Utica, NY	510	1901-03
01340500	Reall Creek near Utica, NY	5.68	1901-05
01341000	Johnston Brook near Utica, NY	0.62	1903-05
01341500	Sylvan Glen Creek near New Hartford, NY	1.03	1903-07
01342000	Graefenburg Creek near New Hartford, NY	0.35	1903-07
01342500	Starch Factory Creek near New Hartford, NY	3.66	1903-07
01342730	Steele Creek at Ilion, NY	26.2	1967-68
01342800	West Canada Creek at Nobleboro, NY	193	1967-68
01343000	West Canada Creek at Wilmurt, NY	196	1909-15
01343500	West Canada Creek at Twin Rock Bridge near Hinckley, NY	360	1901-10
01344000	West Canada Creek at Hinckley, NY	375	1919-59
01344500	Ninemile Feeder near Holland Patent, NY		1919-68
01345000	West Canada Creek at Poland, NY	463	1913
01345500	West Canada Creek at Middleville, NY	522	1899-1901
01346500	Mohawk River at Little Falls, NY	1,288	1899-1914
01347500	East Canada Creek at Dolgeville, NY	258	1899-1913
			1928-46
01349500	Cayadutta Creek near Johnstown, NY	38.4	1899-1900
01349858	Silver Lake Outlet at Hensonville, NY	6.66	1976-77
01350500	Schoharie Creek at Middleburg, NY	534	1906-18
			1927-39
01351000	Fox Creek at West Berne, NY	67.2	1924-32
			1962-68
01352000	Schoharie Creek near Fort Hunter, NY	900	1900-01
01355000	Alplaus Kill near Charlton, NY	23.7	1913-16
01356000	Mohawk River at Vischer Ferry Dam, NY	3,371	1899-1911
			1913-19
01358400	Quacken Kill at Quacken Kill, NY	17.6	1893-95
01358500	Poesten Kill near Troy, NY	89.4	1923-68
01359150	Mill Creek near East Greenbush, NY	9.74	1975-77
01359500	Normans Kill at Frenchs Mill, NY	121	1891
01359513	Hunger Kill at Guilderland, NY	8.16	1967-77
01359519	Normans Kill near Westmere, NY	131	1968-79
01359528	Normans Kill at Albany, NY	168	1979-83
01359902	Coeymans Creek near Selkirk, NY	35.1	1967-77
01359918	Silver Creek at Dormansville, NY	2.90	1978-81
01359924	Hannicroids Creek near New Baltimore, NY	61.6	1968-77
01360000	Kinderhook Creek at Wilsons Dam near Garfield, NY	62.8	1893-95
01360500	Kinderhook Creek at East Nassau, NY	116	1892
01361000	Kinderhook Creek at Rossman, NY	329	1906-14
			1928-68

Station number	Station name	Drainage area (mi <sup>2</sup> )	Period of record
Hudson River Basin--Continued			
01361200	Claverack Creek at Claverack, NY	60.6	1960-68
01361500	Catskill Creek at Oak Hill, NY	98.0	1910-77
01361570	Tenmile Creek at Oak Hill, NY	35.3	1969-78
01362000	Catskill Creek at South Cairo, NY	270	1901-07
01362100	Roeliff Jansen Kill near Hillsdale, NY	27.4	1957-60
01363500	Esopus Creek near Olive Bridge, NY	239	1903-04
			1907-14
01364000	Esopus Creek at Kingston, NY	317	1901-09
01364800	Saw Kill at Red Hook, NY	20.9	1959-66
01365450	Chestnut Creek above Red Brook at Grahamsville, NY	12.2	1937-39
01366500	Rondout Creek near Lackawack, NY	100	1906-67
01366650	Sandburg Creek at Ellenville, NY	56.7	1957-77
01368000	Wallkill River near Unionville, NY	140	1938-81
01368500	Rutgers Creek at Gardnerville, NY	59.7	1943-68
01369000	Pochuck Creek near Pine Island, NY	98.0	1937-77
01369500	Quaker Creek at Florida, NY	9.69	1938-79
01370000	Wallkill River at Pellets Island Mountain, NY	385	1920-68
01370500	Wallkill River near Phillipsburg, NY	419	1937-59
01370600	Crystal Brook near Middletown, NY	8.4	1964-68
01371000	Shawangunk Kill at Pine Bush, NY	102	1925-32
			1957-71
01372000	Wallkill River at New Paltz, NY	739	1901-04
01372040	Crum Elbow Creek at Hyde Park, NY	17.3	1959-62
01372065	Casper Creek near Wappingers Falls, NY	10.1	1969-76
01372100	East Branch Wappinger Creek near Clinton Corners, NY	33.6	1956-63
01372200	Wappinger Creek near Clinton Corners, NY	92.4	1956-76
01372300	Little Wappinger Creek at Salt Point, NY	32.9	1956-76
01372400	Great Spring Creek at Pleasant Valley, NY	15.5	1960-66
01372800	Fishkill Creek at Hopewell Junction, NY	57.3	1958-76
01372850	Whortlekill Creek at Hopewell Junction, NY	7.37	1959-68
01373500	Fishkill Creek at Beacon, NY	190	1945-68
01373600	Seely Brook near Chester, NY	12.8	1964-68
01373690	Woodbury Creek near Highland Mills, NY	11.2	1966-68
01374000	Foundry Brook near Cold Spring, NY	1.33	1903
01374420	Lake Tiorati Brook at Cedar Flats, NY	10.5	1960-63
01374440	Cedar Pond Brook at Stony Point, NY	17.4	1960-62
01374480	Minisceongo Creek at Thiells, NY	15.0	1960-63
01374990	Croton River at Old Croton Dam near Croton Heights, NY	354	1868-1906
01375500	Bird Brook near Croton, NY	0.40	1933-41
01376270	Sparkill Creek at Tappan, NY	4.90	1960-63
			1965-66
01376275	Sparkill Creek at Tappan Station, NY	9.50	1965-66
01376280	Sparkill Creek at Sparkill, NY	11.1	1960-68
			1976-78
Hackensack River Basin			
01376600	Hackensack River at Brookside Park, NY	13.2	1960-63
01376850	Naurauschaun Brook at Naurauschaun, NY	5.89	1960-63
01376900	Hackensack River at Naurauschaun, NY	44.6	1960-62
01377200	Pascack Brook Tributary at Spring Valley, NY	4.19	1960-62
01377300	Pascack Brook at Pearl River, NY	9.83	1960-63
Passaic River Basin			
01387250	Ramapo River at Sloatsburg, NY	60.1	1960-63
01387300	Stony Brook at Sloatsburg, NY	18.3	1960-62
01387480	Mahwah River at Suffern, NY	20.8	1959-62
01390200	Saddle River near Spring Valley, NY	2.46	1960-63
01390300	Pine Brook near Spring Valley, NY	2.17	1959-62
Delaware River Basin			
01414000	Platte Kill at Dunraven, NY	35.0	1942-62
01415500	Terry Clove Kill near Pepacton, NY	13.6	1937-62
01416000	Fall Clove Kill near Pepacton, NY	11.3	1942-43
01416500	Coles Clove Kill near Pepacton, NY	28.0	1945-53
01418000	Beaver Kill near Turnwood, NY	40.8	1949-59
01418500	Beaver Kill at Craigie Clair, NY	81.9	1937-70
01419000	Willowemoc Creek at DeBruce, NY	41.2	1949-52
01419500	Willowemoc Creek near Livingston Manor, NY	62.6	1937-70
01420000	Little Beaver Kill near Livingston Manor, NY	20.1	1924-81
01421500	East Branch Delaware River at Hancock, NY	839	1903-13

Station number	Station name	Drainage area (mi <sup>2</sup> )	Period of record
Delaware River Basin--Continued			
01422000	West Branch Delaware River at Delhi, NY	142	1937-70
01422500	Little Delaware River near Delhi, NY	49.7	1938-70
01422700	West Branch Delaware River near Hamden, NY	256	1959-67
01423500	Dryden Creek near Granton, NY	8.10	1952-67
01424000	Trout Creek near Rock Royal, NY	20.0	1952-67
01424500	Trout Creek at Cannonsville, NY	49.5	1941-63
01425500	Cold Spring Brook at China, NY	1.49	1935-68
01425642	Butler Brook at Deposit, NY	8.46	1976-77
01425675	Oquaga Creek near North Sanford, NY	4.69	1970-81
01426000	Oquaga Creek at Deposit, NY	67.6	1941-73
01427000	West Branch Delaware River at Hancock, NY	650	1903-13
01427405	Delaware River near Callicoon, NY	1,708	1967-75
01427500	Callicoon Creek at Callicoon, NY	110	1940-82
01428000	Tenmile River at Tusten, NY	45.6	1946-73
01433400	Mongaup River near Rio, NY	191	1909-13
01434500	Neversink River at Claryville, NY	61.9	1949-50
01435500	Neversink River at Halls Mills near Curry, NY	68.7	1938-49
01437000	Neversink River at Oakland Valley, NY	223	1928-73
Streams tributary to Lake Ontario			
04249500	Salmon River near Redfield, NY	188	1911-14
04249910	Beaverdam Brook at Altmar, NY	14.6	1974-76
04250000	Orwell Brook near Altmar, NY	22.3	1911-16
04250500	Salmon River near Pulaski, NY	257	1901-14
04251000	Forestport Feeder near Boonville, NY		1915-33
04251500	Mill Creek Sluiceway at Boonville, NY		1934-40
04252000	Black River Canal (flowing south) near Boonville, NY		1916-80
04253000	Sugar River at Talcottsville, NY	43.1	1926-32
			1967-68
04253500	Middle Branch Moose River at Old Forge, NY	55.0	1912-73
04254000	Middle Branch Moose River near McKeever, NY	151	1926-68
04254375	Panther Lake Outlet near Old Forge, NY	0.51	1978-82
04254500	Moose River at McKeever, NY	363	1900-70
04255000	Otter Creek near Glenfield, NY	64.5	1924-33
04255500	Independence River at Sperryville, NY	81.8	1928-42
04256484	Woods Lake near Big Moose, NY	0.80	1979-82
04257500	Beaver River near Number Four, NY	225	1921-25
04257955	Beaver River near Croghan, NY		1901-03
04258500	Deer River at Copenhagen, NY	86.6	1930-57
04258700	Deer River at Deer River, NY	94.8	1957-68
04259500	Black River at Black River, NY	1,842	1897-1920
Streams tributary to St. Lawrence River			
04261000	Oswegatchie River at Cranberry Lake, NY	140	1923-82
04261500	Oswegatchie River at Newton Falls, NY	170	1913-23
04262000	Oswegatchie River near Oswegatchie, NY	259	1925-68
04263500	Oswegatchie River near Ogdensburg, NY	1,562	1903-17
04264100	Sucker Brook near Waddington, NY	25.6	1961-64
04264200	Little Sucker Brook at Waddington, NY	19.9	1959-60
04264300	Brandy Brook near Waddington, NY	27.0	1959-63
04264400	Middle Branch Grass River near Clare, NY	63.0	1959-60
04264500	North Branch Grass River near South Colton, NY	28.1	1925-32
04264700	North Branch Grass River near Clare, NY	46.3	1958-63
04264800	Plumb Brook at Russell, NY	35.3	1958-60
04265000	Grass River at Pyrites, NY	333	1924-77
04265100	Elm Creek near Hermon, NY	32.6	1958-68
04265200	Tanner Creek at Stellaville, NY	30.3	1958-60
04265300	Little River near Canton, NY	42.4	1958-60
04265400	Grannis Brook at Crary Mills, NY	20.9	1959-60
0426545290	Lost Brook near Raquette Lake, NY	17.0	1978-80
0426545295	Sagamore Lake Outlet near Raquette Lake, NY	19.1	1978-82
04265500	Raquette River near Coreys, NY	418	1908-13
04266000	Bog River at mouth near Tupper Lake, NY	132	1908-12
04267000	Raquette River near South Colton, NY	927	1904-05
04267700	Parkhurst Brook near Potsdam, NY	16.8	1958-63
04267800	Trout Brook at Allen Corners, NY	54.2	1958-63
04268200	Plum Brook near Grantville, NY	43.9	1958-63
04268300	Squeak Brook near Massena, NY	39.1	1958-60
04268390	St. Regis River near Paul Smiths, NY	22.0	1973-75
04268500	Raquette River at Massena Springs, NY	1,197	1904-17
04268600	East Branch St. Regis River near Meacham Lake, NY	52.2	1958-68

Station number	Station name	Drainage area (mi <sup>2</sup> )	Period of record
Streams tributary to St. Lawrence River--Continued			
04268700	St. Regis River at St. Regis Falls, NY	234	1958-68
04268710	Lake Otonia Outlet near St. Regis Falls, NY	28.3	1961-63
04268720	Hopkinton Brook at Hopkinton, NY	20.0	1961-62
04268800	West Branch St. Regis River near Parishville, NY	171	1959-68
04268900	Trout Brook at Stockholm Center, NY	42.4	1958-60
04269043	Deer River at North Lawrence, NY	78.0	1973-79
04269050	Allen Brook near Brasher Falls, NY	16.0	1961-66
04269100	Lawrence Brook near Moira, NY	25.7	1958-60
04269500	Deer River at Brasher Iron Works, NY	182	1912-16
			1958-68
04270000	Salmon River at Chasm Falls, NY	132	1925-82
04270150	East Branch Deer Creek at Fort Covington Center, NY	23.9	1961-62
04270180	Farrington Brook near Moira, NY	17.7	1961-66
04270500	Chateaugay River near Chateaugay, NY	112	1909
			1927-66
04270600	Little Trout River near Burke, NY	27.6	1961-63
04270700	Trout River at Trout River, NY	107	1960-66
04270800	English River near Mooers Forks, NY	40.8	1960-68
04271000	Great Chazy River at Mooers, NY	204	1908
04271500	Great Chazy River at Perry Mills, NY	247	1929-68
04272500	Saranac River near Saranac Lake, NY	146	1902-03
04273000	Saranac River at Saranac, NY	521	1931-43
04273700	Salmon River at South Plattsburgh, NY	61.9	1959-68
04273900	Lake Placid at Lake Placid, NY	20.1	1960-82
04274000	West Branch Ausable River near Lake Placid, NY	116	1916-68
04274500	Black Brook at Black Brook, NY	49.4	1925-61
04275500	Ausable River near Au Sable Forks, NY	448	1910-68
04276500	Bouquet River at Willsboro, NY	275	1908-09
			1923-68
04276895	West Brook at Lake George, NY	8.4	1980-83
04276920	English Brook at Lake George, NY	7.8	1980-83
04279000	La Chute at Ticonderoga, NY	234	1904-06
			1943-79
04280500	Mettawee River at Grays Corner near Whitehall, NY		1909

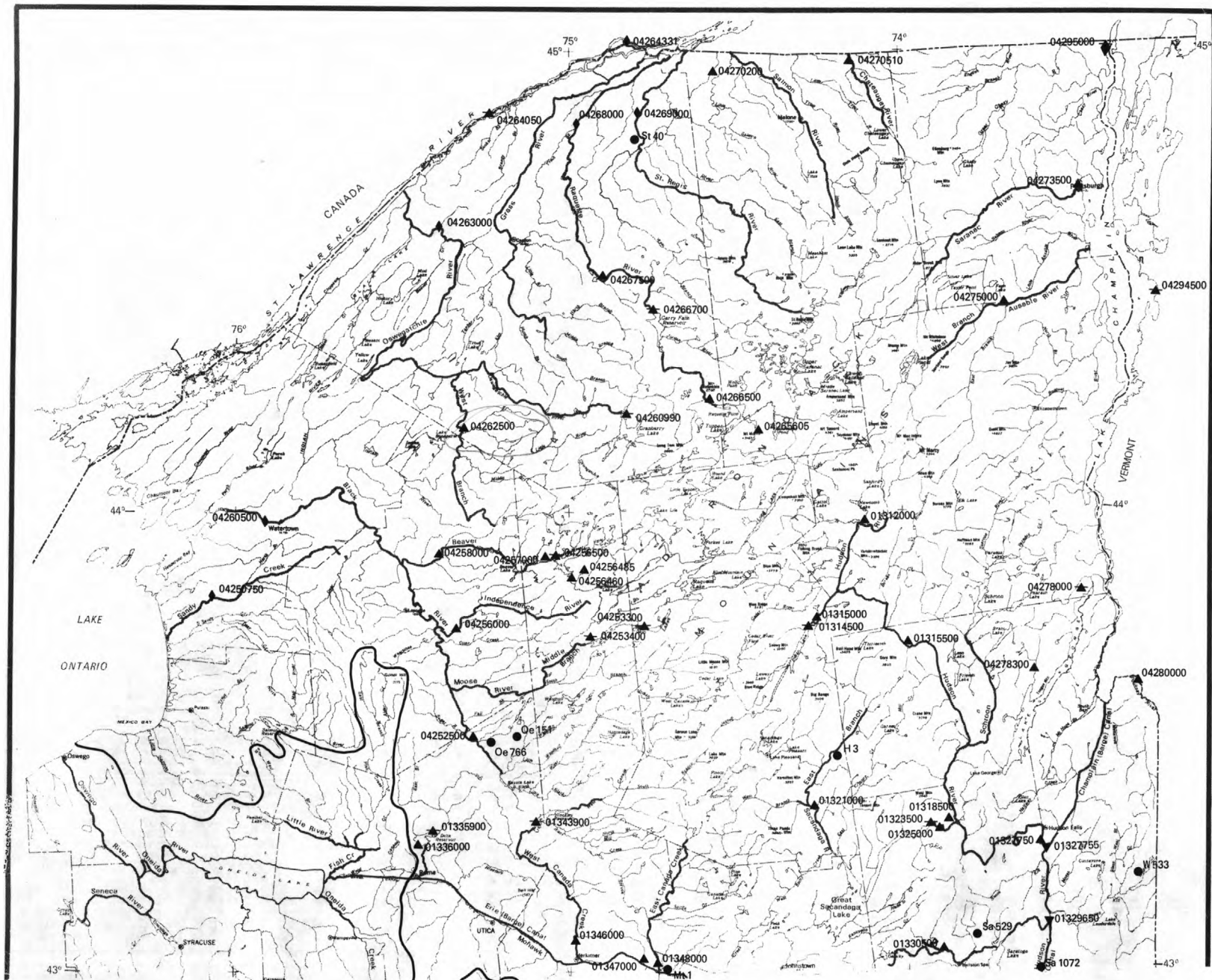


The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

- 1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
- 3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 Pages.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
- 3-A9. *Measurement of time of travel and dispersion in streams by dye tracing*, by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.
- 3-A10. *Discharge ratings at gaging stations*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.
- 3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-A13. *Computation of continuous records of streamflow*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
- 3-A14. *Use of flumes in measuring discharge*, by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.
- 3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
- 3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.

- 3-C1. *Fluvial sediment concepts* by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. *Field methods for measurement of fluvial sediment* by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
- 4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
- 4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
- 4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
- 4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
- 4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
- 4-D1. *Computation of rate and volume of stream depletion by wells* by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments* by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
- 5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P. E. Greenson, T. A. Ehlike, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.
- 5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
- 5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.
- 5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
- 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
- 7-C3. *A model for simulation of flow in singular and interconnected channels* by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.
- 8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
- 8-A2. *Installation and service manual for U.S. Geological Survey manometers* by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.
- 8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.





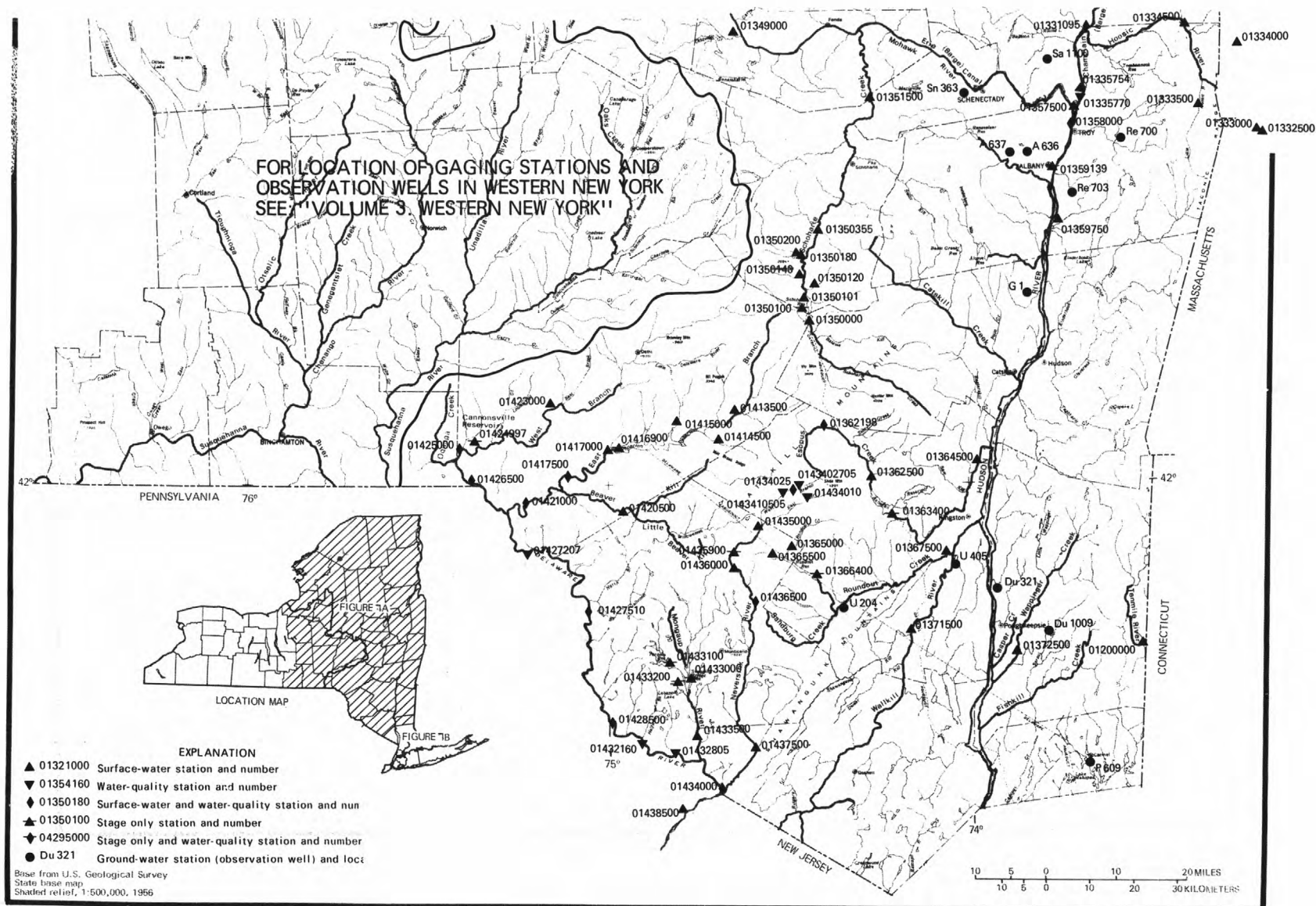
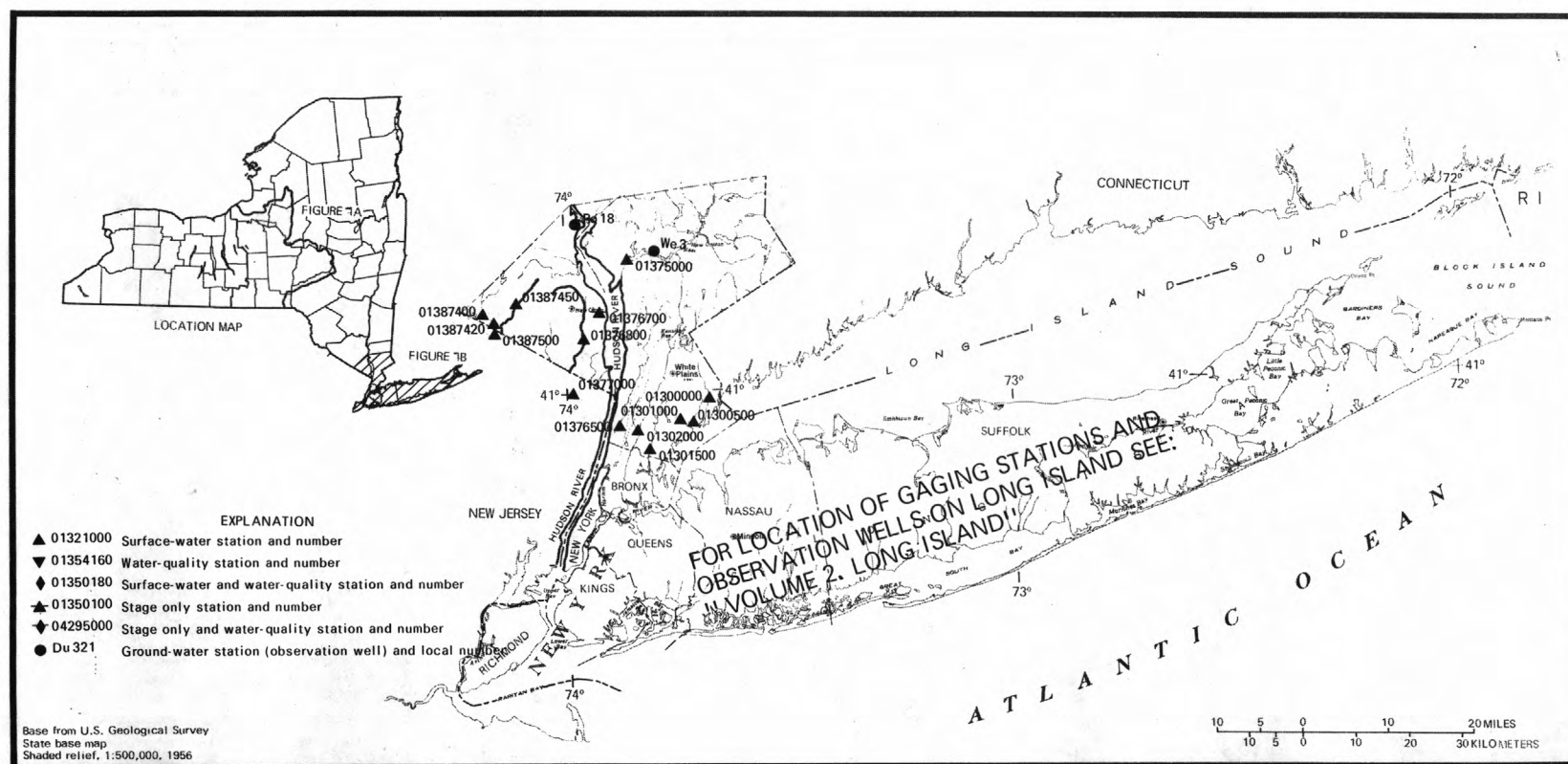


FIGURE 7A-- LOCATION OF GAGING STATIONS AND OBSERVATION WELLS



**FIGURE 7B-- LOCATION OF GAGING STATIONS AND OBSERVATION WELLS**

## HOUSATONIC RIVER BASIN

35

01200000 TENMILE RIVER NEAR GAYLORDSVILLE, CONN.

LOCATION.--Lat 41°39'32", long 73°31'44", Dutchess County, New York, Hydrologic Unit 01100005, on right bank 0.1 mi downstream from Deuel Hollow Brook, 1.2 mi upstream from New York-Connecticut State line, 1.7 mi upstream from mouth, and 2.5 mi northwest of Gaylordsville.

DRAINAGE AREA.--203 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for period October to December 1929, published in WSP 1301.

REVISED RECORDS.--WSP 1201: 1939. WSP 1701: 1955-56, 1957(M), 1958-59. WSP 1901: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 304.4 ft above National Geodetic Vertical Datum of 1929, (levels to Connecticut Light and Power Company).

REMARKS.--Estimated daily discharges during water year: Dec. 20-25, 30, Jan. 8-13, 16, 17, Feb. 10, 14, 16-28 and Mar. 1 to Apr. 3. Records good except for periods of estimated record, which are fair. Several measurements of water temperature were made during the year. Infrequent regulation at low flow. Records of iron, specific conductance, and pH of daily samples for 1958-59 available in Connecticut office at Hartford, Connecticut. Chemical analyses available for water years 1959 (WSP 1641), 1968 (WSP 2091), 1973-74 (WRDC 1973-74), 1975 (WDR CT-75-1), 1980 (WDR CT-80-1), and water temperatures available for water year 1959 (WSP 1641).

AVERAGE DISCHARGE.--57 years, 303 ft<sup>3</sup>/s, 20.27 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,400 ft<sup>3</sup>/s Aug. 19, 1955, gage height, 14.9 ft from high-water mark, from rating curve extended above 9,800 ft<sup>3</sup>/s; minimum, 5 ft<sup>3</sup>/s Sept. 8, 1957; minimum gage height, 0.52 ft Sept. 24, 26, 1939; minimum daily discharge, 7 ft<sup>3</sup>/s Oct. 7, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 27	0800	*3670	*6.75	June 7	1230	2770	5.90

Minimum discharge, 43 ft<sup>3</sup>/s Sept. 21, 22, gage height, 0.94 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	299	111	602	210	546	310	415	234	166	123	248	87
2	251	114	645	198	509	300	405	229	120	297	276	82
3	278	115	610	217	480	295	400	218	97	430	608	81
4	380	118	509	278	449	300	389	219	87	256	409	78
5	348	161	470	255	434	340	393	198	90	204	290	78
6	398	240	455	240	415	380	434	189	1100	170	242	80
7	329	195	433	214	348	370	437	198	2320	147	242	77
8	284	175	408	200	332	300	415	193	1670	128	217	71
9	252	153	392	190	310	230	416	180	1030	113	186	66
10	231	142	370	182	290	230	372	173	701	103	159	62
11	216	144	374	175	272	230	351	168	574	91	144	57
12	193	212	513	170	255	470	337	161	660	114	131	55
13	211	291	473	165	244	420	323	147	777	148	121	52
14	270	269	480	161	232	550	305	136	571	189	109	49
15	223	299	418	159	223	909	286	130	471	160	99	47
16	208	279	373	154	221	1200	295	130	408	124	93	46
17	195	750	357	150	220	821	301	161	399	106	106	45
18	198	732	329	149	250	612	287	186	339	97	377	45
19	203	562	277	180	640	537	260	163	298	104	413	45
20	216	494	270	408	700	600	247	136	292	93	290	49
21	193	441	263	470	660	680	267	145	275	89	229	44
22	174	407	256	371	800	600	309	159	238	86	207	43
23	172	453	251	352	740	510	301	169	219	75	175	47
24	158	397	246	285	620	465	345	150	207	67	183	52
25	147	366	244	274	500	440	340	136	204	60	164	55
26	149	367	242	1710	420	405	290	123	177	74	134	53
27	137	529	277	3260	360	390	276	109	157	201	123	55
28	134	633	273	1830	330	400	252	100	160	151	123	53
29	121	810	240	1050	---	510	236	87	154	132	108	50
30	116	667	228	823	---	500	239	79	132	224	99	49
31	114	---	217	667	---	450	---	95	---	285	93	---
TOTAL	6798	10626	11495	15147	11800	14754	9923	4901	14093	4641	6398	1753
MEAN	219	354	371	489	421	476	331	158	470	150	206	58.4
MAX	398	810	645	3260	800	1200	437	234	2320	430	608	87
MIN	114	111	217	149	220	230	236	79	87	60	93	43
CFSM	1.08	1.74	1.83	2.41	2.08	2.34	1.63	.78	2.31	.74	1.02	.29
IN.	1.25	1.95	2.11	2.78	2.16	2.70	1.82	.90	2.58	.85	1.17	.32

CAL YR 1985 TOTAL 74630 MEAN 204 MAX 1150 MIN 42 CFSM 1.01 IN. 13.7  
WTR YR 1986 TOTAL 112329 MEAN 308 MAX 3260 MIN 43 CFSM 1.52 IN. 20.6



## BLIND BROOK BASIN

01300000 BLIND BROOK AT RYE, NY

LOCATION.--Lat 40°59'00", long 73°41'14", Westchester County, Hydrologic Unit 02030102, on left bank at Rye, just upstream from bridge on Theodore Fremd Avenue, 0.25 mi southwest of Penn Central Transportation Co. railroad station, and 0.85 mi upstream from mean high tide in Milton Harbor.

DRAINAGE AREA.--9.20 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1943 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 13.05 ft above National Geodetic Vertical Datum of 1929 (levels by City of Rye).

REMARKS.--No estimated daily discharges. Records fair. Medium and high flows affected by detention reservoir 2 mi upstream (capacity, about 26 acre-ft at spillway level or 50 acre-ft at crest of concrete dam). Several measurements of water temperature were made during the year. Radio gage-height telemeter at station.

AVERAGE DISCHARGE.--42 years (1945-86), 15.7 ft<sup>3</sup>/s, 23.17 in./yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,320 ft<sup>3</sup>/s June 19, 1972, gage height, 12.44 ft, from floodmark in gage house, from rating curve extended above 800 ft<sup>3</sup>/s on basis of computation of peak flow through culvert; minimum discharge, 0.12 ft<sup>3</sup>/s July 5, 1953, gage height, 0.80 ft, result of temporary regulation.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 406 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 26	1200	*494	*4.69	No other peak greater than base discharge.			
Minimum discharge, 0.84 ft <sup>3</sup> /s July 24, 25, 26, gage height, 0.93 ft.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	3.4	49	6.2	15	14	8.9	8.1	2.0	1.4	5.8	2.1
2	5.3	3.5	56	6.2	26	13	8.8	8.0	1.7	23	6.9	1.9
3	14	3.9	30	9.9	20	13	8.1	7.2	1.5	7.7	46	1.9
4	13	4.0	24	13	18	12	8.1	6.5	1.6	3.3	6.7	2.5
5	38	61	20	30	34	12	9.1	6.4	1.7	2.2	3.6	2.9
6	17	14	17	18	29	12	13	6.2	4.0	2.0	3.0	3.3
7	8.7	7.7	16	13	20	11	14	9.8	26	1.7	8.7	2.9
8	7.4	6.3	15	8.5	18	8.9	11	8.1	11	1.4	20	2.3
9	6.0	5.4	15	6.9	17	8.2	10	6.5	4.9	1.3	6.4	2.0
10	5.4	4.7	13	6.5	15	8.6	8.6	5.7	3.3	1.2	3.6	1.8
11	5.3	4.4	13	6.5	15	11	7.8	5.3	2.6	1.4	14	1.7
12	4.7	6.9	30	6.1	14	11	7.5	5.0	17	14	5.4	1.6
13	4.8	18	21	6.1	13	18	7.2	4.8	21	9.6	3.3	1.4
14	5.1	15	19	5.9	11	39	6.7	4.6	6.6	3.4	2.5	1.3
15	4.9	13	14	5.9	11	114	6.4	4.4	4.2	2.4	2.1	1.3
16	4.9	20	11	5.0	9.9	32	12	4.6	3.2	1.9	1.9	1.7
17	4.2	152	11	4.9	11	22	68	4.7	2.6	1.6	3.2	1.3
18	3.8	29	10	5.2	57	19	23	4.5	2.3	1.3	20	1.3
19	3.9	15	9.0	7.7	66	23	14	4.2	2.0	2.0	5.8	1.3
20	3.7	15	8.1	19	72	21	11	3.9	1.9	1.7	5.1	1.3
21	3.6	12	8.1	14	70	16	22	5.1	1.8	1.5	8.9	2.5
22	3.7	28	8.3	10	56	15	31	9.6	1.7	1.3	21	2.5
23	3.6	30	8.2	8.2	32	14	18	7.5	1.6	1.1	6.4	2.5
24	3.5	14	8.4	7.2	24	13	20	4.9	1.6	.94	9.9	2.8
25	3.8	11	9.2	7.6	22	12	13	3.6	1.4	.88	5.3	2.5
26	3.9	29	8.2	270	19	11	12	3.3	1.3	2.0	3.5	2.1
27	3.6	49	7.1	117	17	12	12	3.0	1.3	4.7	2.9	7.2
28	3.6	73	6.8	36	15	13	11	2.8	1.9	2.2	3.4	5.1
29	3.5	63	6.6	23	---	9.2	9.6	2.7	1.9	7.6	3.6	2.9
30	3.5	31	6.5	19	---	8.2	9.2	2.3	1.6	11	3.0	2.3
31	3.4	---	6.1	17	---	8.1	---	2.4	---	20	2.4	---
TOTAL	205.6	742.2	484.6	719.5	746.9	554.2	421.0	165.7	137.2	137.72	244.3	70.2
MEAN	6.63	24.7	15.6	23.2	26.7	17.9	14.0	5.35	4.57	4.44	7.88	2.34
MAX	38	152	56	270	72	114	68	9.8	26	23	46	7.2
MIN	3.4	3.4	6.1	4.9	9.9	8.1	6.4	2.3	1.3	.88	1.9	1.3
CFSM	.72	2.68	1.70	2.52	2.90	1.95	1.52	.58	.50	.48	.86	.25
IN.	0.83	3.00	1.96	2.91	3.02	2.24	1.70	0.67	0.55	0.56	0.99	0.28
CAL YR 1985	TOTAL	4015.0	MEAN	11.0	MAX	182	MIN	1.2	CFSM	1.20	IN.	16.23
WTR YR 1986	TOTAL	4629.12	MEAN	12.7	MAX	270	MIN	.88	CFSM	1.38	IN.	18.72

## BEAVER SWAMP BROOK BASIN

37

01300500 BEAVER SWAMP BROOK AT MAMARONECK, NY

LOCATION.--Lat 40°57'21", long 73°43'07", Westchester County, Hydrologic Unit 02030102, on right bank just downstream from bridge on Short Street, in Mamaroneck, 0.2 mi downstream from Brentwood Brook, and 0.2 mi upstream from tidal barrier in Guion Creek, Mamaroneck Harbor.

DRAINAGE AREA.--4.71 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1943 to current year. Prior to October 1967, published as "near Harrison."

GAGE.--Water-stage recorder and concrete control. Datum of gage is 24.99 ft above National Geodetic Vertical Datum of 1929. Prior to June 8, 1946, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Feb. 10 to Mar. 18, and May 22 to June 18. Records good except those for period of doubtful gage-height record, May 22 to June 18, which are fair, and those for period of no gage-height record, Feb. 10 to Mar. 18, which are poor. Flow affected by natural storage in swampy areas upstream from station. Several measurements of water temperature were made during the year. Radio gage-height telemeter at station.

AVERAGE DISCHARGE.--42 years (1945-86), 6.48 ft<sup>3</sup>/s, 18.68 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 288 ft<sup>3</sup>/s Jan. 21, 1979, gage height, 4.28 ft; minimum, no flow at times during 1944, 1953, 1959, 1964, 1965, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 86 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Aug. 8	1345	*104	*1.99	No other peak greater than base discharge.			
Minimum discharge, 0.10 ft <sup>3</sup> /s July 24, 25, 26.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	1.2	24	2.8	6.8	6.0	3.9	3.4	.96	.21	4.0	1.2
2	3.6	1.1	26	2.6	11	5.6	3.8	3.7	.83	13	6.2	1.2
3	8.4	1.0	16	6.5	9.0	5.5	3.5	3.0	.90	2.4	9.6	1.2
4	6.6	.89	11	5.2	7.8	5.2	3.3	2.8	.88	.63	2.9	1.5
5	11	18	9.4	13	14	5.2	3.5	2.7	.84	.40	1.7	1.7
6	9.8	8.8	9.5	7.5	12	5.0	4.8	2.3	2.7	.29	1.3	2.1
7	5.6	4.0	8.5	4.7	8.6	4.5	4.3	3.4	5.9	.26	11	1.2
8	3.9	2.1	8.8	5.7	7.5	3.8	4.3	2.5	2.6	.25	30	1.2
9	3.3	1.6	7.7	2.9	6.6	3.6	3.9	2.3	1.5	.24	19	1.0
10	3.0	1.5	7.3	2.7	6.0	3.7	3.3	2.0	1.2	.23	3.6	.90
11	2.6	1.0	7.4	2.7	5.7	4.7	3.1	1.8	1.0	.18	13	.80
12	2.3	1.2	11	3.6	5.4	4.9	2.8	1.9	3.2	5.0	3.6	.76
13	2.5	1.5	8.4	3.2	5.1	8.6	2.6	1.7	3.6	1.7	2.5	.60
14	2.4	1.7	7.6	4.1	4.7	17	2.5	1.7	1.8	.60	1.8	.59
15	2.3	2.8	5.9	4.1	4.7	40	2.5	1.3	1.1	.36	1.4	.50
16	2.2	9.9	5.5	4.7	4.3	13	6.0	1.4	.92	.26	1.3	1.2
17	1.7	56	5.1	2.2	4.6	9.1	24	1.4	.85	.24	2.4	.62
18	1.6	20	4.7	2.3	12	8.1	12	1.3	.56	.21	10	.57
19	1.7	10	3.9	4.3	23	10	6.9	1.4	.41	.85	3.8	.57
20	1.7	8.3	3.7	7.5	26	12	5.2	1.3	.42	.27	2.9	.55
21	2.0	6.8	3.9	5.1	25	7.8	8.8	2.0	.34	.22	7.9	3.2
22	1.5	13	3.6	3.9	20	6.5	8.2	4.6	.33	.15	15	1.0
23	1.4	12	3.7	3.3	13	5.9	8.0	3.0	.33	.14	5.2	1.0
24	1.6	7.8	3.8	2.9	10	5.4	7.0	2.4	.33	.12	8.3	1.1
25	1.8	6.0	3.8	4.4	9.1	4.9	5.9	2.1	.27	.11	3.1	.86
26	1.6	12	3.3	62	7.9	4.8	5.3	1.7	.25	2.3	2.2	1.4
27	1.5	15	2.9	59	7.0	6.4	4.9	1.7	.25	4.5	2.0	5.5
28	1.3	27	2.9	23	6.5	6.4	4.4	1.5	.41	.68	3.1	1.7
29	1.2	28	2.7	13	---	5.1	3.8	1.4	.27	19	2.1	1.2
30	1.3	16	2.7	9.7	---	4.4	3.5	1.1	.24	8.8	1.6	1.1
31	1.1	---	2.6	8.1	---	4.1	---	1.1	---	5.2	1.3	---
TOTAL	96.2	296.19	227.3	286.7	283.3	237.2	166.0	65.9	35.19	68.80	183.8	38.02
MEAN	3.10	9.87	7.33	9.25	10.1	7.65	5.53	2.13	1.17	2.22	5.93	1.27
MAX	11	56	26	62	26	40	24	4.6	5.9	19	30	5.5
MIN	1.1	.89	2.6	2.2	4.3	3.6	2.5	1.1	.24	.11	1.3	.50
CFSM	.66	2.10	1.56	1.96	2.14	1.62	1.17	.45	.25	.47	1.26	.27
IN.	0.76	2.34	1.80	2.26	2.24	1.87	1.31	0.52	0.28	0.54	1.45	0.30
CAL YR 1985	TOTAL	1790.77	MEAN	4.91	MAX	56	MIN	.37	CFSM	1.04	IN.	14.14
WTR YR 1986	TOTAL	1984.60	MEAN	5.44	MAX	62	MIN	.11	CFSM	1.15	IN.	15.67

## MAMARONECK RIVER BASIN

01301000 MAMARONECK RIVER AT MAMARONECK, NY

LOCATION.--Lat 40°57'14", long 73°44'06", Westchester County, Hydrologic Unit 02030102, on left bank in Mamaroneck, 113 ft downstream from bridge on Halstead Avenue, 700 ft downstream from Sheldrake River, and 0.3 mi upstream from mean high tide in Mamaroneck Harbor.

DRAINAGE AREA.--23.4 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1943 to July 1953, September 1954 to current year.

REVISED RECORDS.--WSP 1502: 1944(M), 1951(M). WDR NY-76-1; 1972(M), 1973(M), 1974(M), 1975(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 11.46 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 10, 1954, water-stage recorder at same site at datum 0.41 ft higher.

REMARKS.--No estimated daily discharges. Records good. Storage in former water-supply reservoir on Mamaroneck River, effect unknown. Several measurements of water temperature were made during the year. Radio gage-height telemeter at station.

AVERAGE DISCHARGE.--40 years (1945-52, 1955-86), 35.5 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,700 ft<sup>3</sup>/s Sept. 26, 1975, gage height, 10.15 ft, from rating curve extended above 2,000 ft<sup>3</sup>/s on basis of flow-through-culvert measurement of peak flow at 10.15 ft; minimum discharge, 0.06 ft<sup>3</sup>/s Sept. 30, 1965; minimum daily, 0.10 ft<sup>3</sup>/s Sept. 29, 30, 1965; minimum gage height since Sept. 9, 1954, 0.10 ft July 21, 22, Aug. 18, 19, 1957, Aug. 14, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Backwater from hurricane wave reached a stage of about 11.5 ft present datum, Sept. 21, 1938, from information by officials of village of Mamaroneck.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,020 ft<sup>3</sup>/s Jan. 26, gage height, 4.06 ft; minimum, 2.3 ft<sup>3</sup>/s July 24, 25, 26, gage height, 0.27 ft; minimum daily, 2.4 ft<sup>3</sup>/s July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	5.3	130	15	60	36	23	27	5.5	3.3	48	5.8
2	15	5.4	132	15	85	35	27	26	5.3	64	28	5.6
3	42	5.3	80	34	52	35	26	22	5.0	14	165	5.7
4	39	15	65	24	46	38	26	21	4.7	6.2	35	7.6
5	79	100	59	73	87	37	27	19	4.7	4.6	40	7.3
6	45	31	61	41	64	37	36	17	13	4.0	21	11
7	26	17	55	41	48	35	30	29	66	4.0	25	6.1
8	17	14	51	37	45	28	23	18	20	6.3	57	5.1
9	15	12	46	31	40	23	20	15	13	12	26	4.7
10	13	10	35	17	39	24	18	13	14	5.1	11	4.3
11	12	10	38	16	44	29	17	12	12	3.0	46	4.1
12	11	25	64	15	41	25	17	12	43	41	12	4.1
13	10	29	40	15	38	49	16	11	40	16	8.5	3.6
14	11	21	39	20	36	108	15	11	14	6.8	6.6	3.3
15	11	32	30	20	36	233	15	18	9.2	6.3	6.0	3.2
16	15	49	29	12	32	97	40	11	8.3	4.6	6.1	5.6
17	14	273	28	12	39	54	152	12	9.3	4.2	23	4.5
18	12	68	26	13	148	45	61	10	8.0	4.2	103	3.4
19	8.8	60	23	24	125	52	40	9.2	5.8	9.9	19	3.4
20	7.7	56	22	37	159	55	34	9.0	5.5	5.4	21	3.6
21	7.5	45	22	23	164	41	70	17	4.6	4.4	30	15
22	7.0	69	25	19	134	38	72	25	4.1	3.5	69	6.0
23	7.5	56	21	18	100	36	77	17	4.2	3.0	17	8.2
24	6.8	36	21	15	75	34	70	13	4.2	2.5	39	9.2
25	7.9	30	22	20	58	26	36	12	3.7	2.4	22	4.9
26	7.5	67	19	562	48	26	33	11	3.3	5.1	30	5.5
27	6.2	93	17	276	43	34	31	9.7	3.2	23	19	28
28	6.0	162	17	128	39	41	29	7.2	7.0	9.0	14	11
29	5.7	126	16	91	---	26	30	6.1	4.2	119	11	8.1
30	6.2	83	16	79	---	25	28	5.9	3.3	41	7.2	6.9
31	5.7	---	15	68	---	22	---	5.4	---	80	6.2	---
TOTAL	494.5	1605.0	1264	1811	1925	1424	1139	451.5	348.1	517.8	971.6	204.8
MEAN	16.0	53.5	40.8	58.4	68.8	45.9	38.0	14.6	11.6	16.7	31.3	6.83
MAX	79	273	132	562	164	233	152	29	66	119	165	28
MIN	5.7	5.3	15	12	32	22	15	5.4	3.2	2.4	6.0	3.2
CAL YR 1985	TOTAL	10212.2	MEAN	28.0	MAX	364	MIN	1.9				
WTR YR 1986	TOTAL	12156.3	MEAN	33.3	MAX	562	MIN	2.4				

## HUTCHINSON RIVER BASIN

39

01301500 HUTCHINSON RIVER AT PELHAM, NY

LOCATION.--Lat 40°54'41", long 73°48'55", Westchester County, Hydrologic Unit 02030102, on right bank in Pelham, just upstream from Penn Central Transportation Co. bridge, 100 ft downstream from Pelham Lake, and 1.5 mi west of New Rochelle.

DRAINAGE AREA.--5.76 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1943 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 12.92 ft above National Geodetic Vertical Datum of 1929 (levels by county of Westchester).

REMARKS.--Estimated daily discharges: Oct. 17-23, Oct. 27 to Nov. 4, and Mar. 7-8. Records good except those for Nov. 9-13, Mar. 9 to Sept. 30, and those for estimated daily discharges, which are poor. Flow controlled by Pelham Lake and three reservoirs upstream from station. Several measurements of water temperature were made during the year. Radio gage-height telemeter at station.

AVERAGE DISCHARGE.--42 years, 7.09 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 526 ft<sup>3</sup>/s Aug. 28, 1971, gage height, 5.18 ft, from rating curve extended above 260 ft<sup>3</sup>/s; maximum gage height, 5.38 ft Jan. 21, 1979; minimum, 0.01 ft<sup>3</sup>/s July 27, 1957; minimum gage height, 1.86 ft Aug. 2, 5, 1955; minimum daily discharge, 0.02 ft<sup>3</sup>/s Aug. 2-6, 1955, July 26, 27, 1957, Oct. 26-30, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 198 ft<sup>3</sup>/s Jan. 26, gage height, 4.26 ft; maximum gage height, 4.50 ft July 29; minimum discharge, 0.46 ft<sup>3</sup>/s Sept. 14, 15, 16, gage height, 2.04 ft; minimum gage height, 2.04 ft Oct. 26, Sept. 14, 15, 16; minimum daily discharge, 0.49 ft<sup>3</sup>/s Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	.77	17	2.7	6.2	5.8	4.0	3.9	1.9	.78	6.4	1.3
2	1.8	.81	21	2.7	11	5.6	3.6	3.6	1.6	16	12	2.5
3	8.4	.87	13	6.6	8.6	5.3	3.3	3.2	.90	3.0	26	2.4
4	7.8	.96	8.1	5.7	8.0	5.3	3.3	2.8	.87	3.8	10	2.5
5	12	29	6.2	15	15	5.2	3.2	2.4	1.0	2.4	4.9	4.0
6	10	15	6.9	8.1	11	5.1	6.3	2.4	4.5	1.9	2.9	4.6
7	5.9	5.6	6.9	4.9	8.9	4.9	5.4	4.1	7.0	1.7	4.3	3.7
8	3.8	2.3	6.0	3.7	8.3	4.6	5.3	4.3	6.9	1.6	4.2	2.7
9	2.7	1.5	5.2	3.1	6.9	4.3	4.7	3.1	4.6	1.9	7.4	1.7
10	2.0	1.8	5.0	2.8	6.2	3.4	4.1	2.4	2.7	1.2	4.7	.93
11	1.5	1.5	5.7	2.7	6.3	4.2	3.9	1.9	2.3	1.1	14	.76
12	1.0	2.0	8.9	2.7	6.2	4.8	3.6	1.7	6.5	9.0	6.0	.68
13	1.0	2.1	7.7	2.6	5.5	11	3.3	1.5	9.4	2.3	3.3	.57
14	.96	2.7	6.6	2.5	5.0	24	2.9	1.4	6.2	1.8	2.0	.50
15	.94	3.6	5.8	2.3	4.9	42	3.0	1.5	3.6	1.6	1.3	.49
16	.90	13	4.6	2.3	4.6	18	12	1.5	2.4	1.5	1.1	.99
17	.86	64	4.2	2.1	6.6	9.9	36	1.7	1.8	1.7	7.2	.58
18	.88	16	4.0	2.2	26	7.2	20	1.5	1.5	1.6	23	.66
19	.84	7.5	3.8	5.4	26	7.6	9.8	1.9	1.4	5.0	7.9	.63
20	.82	5.1	3.1	8.3	28	12	6.4	2.1	1.4	1.7	4.2	.56
21	.84	4.1	3.0	6.0	25	9.2	17	6.1	1.1	1.7	9.9	6.0
22	.82	12	2.9	4.5	20	6.3	14	9.9	1.2	1.3	16	3.7
23	.80	11	3.2	3.6	13	5.0	17	7.3	1.2	1.0	7.3	3.0
24	.86	6.8	3.4	3.1	10	4.2	14	4.7	1.4	1.2	13	2.3
25	.90	4.9	3.5	5.6	8.8	5.1	8.1	3.4	1.2	1.1	5.8	1.5
26	.81	10	3.3	117	7.5	4.7	7.0	2.7	1.2	7.1	3.3	3.2
27	.80	14	3.1	59	6.8	5.8	6.0	2.2	1.0	8.3	2.3	13
28	.78	29	3.0	21	6.2	6.8	5.2	2.0	1.1	6.4	4.2	8.8
29	.78	24	2.8	11	---	5.5	4.5	1.9	.93	58	2.3	4.2
30	.77	12	2.7	8.4	---	4.6	4.0	2.1	.83	57	1.8	2.4
31	.75	---	2.7	7.1	---	4.3	---	2.1	---	13	1.4	---
TOTAL	76.21	303.91	183.3	334.7	306.5	251.7	240.9	93.3	79.63	217.68	220.1	80.84
MEAN	2.46	10.1	5.91	10.8	10.9	8.12	8.03	3.01	2.65	7.02	7.10	2.69
MAX	12	64	21	117	28	42	36	9.9	9.4	58	26	13
MIN	.75	.77	2.7	2.1	4.6	3.4	2.9	1.4	.83	.78	1.1	.49
CAL YR 1985	TOTAL	1968.46	MEAN	5.39	MAX	71	MIN	.46				
WTR YR 1986	TOTAL	2388.74	MEAN	6.54	MAX	117	MIN	.49				



## BRONX RIVER BASIN

01302000 BRONX RIVER AT BRONXVILLE, NY

LOCATION.--Lat 40°56'09", long 73°50'10", Westchester County, Hydrologic Unit 02030102, on right bank in Bronxville, just upstream from Penn Central Transportation Co. bridge, and 800 ft downstream from Grassy Sprain Brook.

DRAINAGE AREA.--26.5 mi<sup>2</sup>, not including 18.1 mi<sup>2</sup>, from which the entire flow is diverted for municipal water supply and drainage purposes.

PERIOD OF RECORD.--November 1943 to current year.

REVISED RECORDS.--WSP 1382: Drainage area. WDR NY-71-1: 1961-67(P), 1968(M), 1970(M). WDR NY-72-1: 1969(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 73.74 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Diversions from 18.1 mi<sup>2</sup> for municipal water supply and flood control use. Included in these diversions is drainage from 12.8 mi<sup>2</sup> from Kensico Reservoir for City of New York, 4.58 mi<sup>2</sup> from Grassy Sprain Reservoir for Yonkers, 0.67 mi<sup>2</sup> from White Plains Reservoirs 1 and 2 for White Plains, and 0.1 mi<sup>2</sup> for flood control from outflow from Grassy Sprain Reservoir. Several measurements of water temperature were made during the year. Radio gage-height telemeter at station.

AVERAGE DISCHARGE.--42 years (1945-86), 42.1 ft<sup>3</sup>/s, 21.57 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,500 ft<sup>3</sup>/s June 19, 1972, gage height, 9.63 ft from rating curve extended above 1,200 ft<sup>3</sup>/s on basis of flow through culvert computation of peak flow; minimum discharge, 1.0 ft<sup>3</sup>/s Sept. 10, 1944, gage height, 0.14 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 26	0945	*927	*5.09	Aug. 17	1300	660	4.02
Aug. 2	2245	757	4.42				

Minimum discharge, 7.6 ft<sup>3</sup>/s Sept. 15; minimum gage height, 0.43 ft July 1, Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	12	121	22	46	44	32	33	14	9.7	23	12
2	21	12	110	21	82	42	31	32	14	117	87	12
3	60	12	60	46	56	41	30	27	13	24	179	12
4	40	14	49	29	49	41	31	27	13	13	25	16
5	87	139	46	85	94	40	33	26	13	12	17	16
6	42	36	50	31	61	39	48	28	39	11	15	21
7	26	20	43	24	48	37	38	51	166	11	53	12
8	22	15	40	20	47	31	37	28	31	10	100	11
9	21	14	38	20	43	31	31	25	20	10	22	11
10	21	14	35	20	41	32	27	23	16	9.8	16	10
11	20	14	45	20	41	38	26	22	14	9.2	63	11
12	17	34	74	19	38	32	26	22	94	93	18	11
13	19	31	41	19	36	71	26	21	61	34	14	9.8
14	19	20	41	18	34	111	25	20	21	15	13	9.6
15	18	33	33	16	34	189	26	20	16	13	12	9.0
16	17	64	31	17	32	69	65	21	16	11	13	12
17	15	255	30	17	45	54	182	22	15	11	127	9.0
18	15	52	28	18	177	49	58	19	13	11	60	8.6
19	15	36	26	42	118	65	39	18	12	20	21	9.7
20	15	29	26	43	141	52	35	18	13	11	19	9.3
21	15	27	26	27	130	42	75	51	12	10	49	38
22	15	77	26	22	103	40	54	49	12	9.6	74	11
23	16	50	26	21	78	40	67	24	11	9.3	20	11
24	14	30	26	19	68	39	56	19	11	9.0	52	16
25	15	26	26	43	63	37	39	18	11	8.9	17	9.9
26	14	75	24	569	54	36	40	17	11	18	14	15
27	13	79	22	224	51	57	37	17	11	35	15	57
28	12	171	22	97	47	55	34	16	17	14	26	16
29	12	105	22	70	---	37	33	15	11	155	19	11
30	12	61	22	58	---	35	32	15	11	49	13	10
31	13	---	23	51	---	34	---	15	---	43	12	---
TOTAL	684	1557	1232	1748	1857	1560	1313	759	732	816.5	1208	426.9
MEAN	22.1	51.9	39.7	56.4	66.3	50.3	43.8	24.5	24.4	26.3	39.0	14.2
MAX	87	255	121	569	177	189	182	51	166	155	179	57
MIN	12	12	22	16	32	31	25	15	11	8.9	12	8.6
CFSM	.83	1.96	1.50	2.13	2.50	1.90	1.65	.92	.92	.99	1.47	.54
IN.	0.96	2.19	1.73	2.45	2.61	2.19	1.84	1.07	1.03	1.15	1.70	0.60
CAL YR 1985	TOTAL	12193.2	MEAN	33.4	MAX	459	MIN	8.7	CFSM	1.26	IN.	17.12
WTR YR 1986	TOTAL	13893.4	MEAN	38.1	MAX	569	MIN	8.6	CFSM	1.44	IN.	19.50

## HUDSON RIVER BASIN

41

01312000 HUDSON RIVER NEAR NEWCOMB, NY

LOCATION.--Lat 43°58'00", long 74°07'55", Essex County, Hydrologic Unit 02020001, on right bank 30 ft downstream from bridge on State Highway 28N, 0.5 mi downstream from outlet of Harris Lake, 2 mi east of Newcomb, and 4 mi upstream from Wolf Creek.

DRAINAGE AREA.--192 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1925 to October 1982, January 1983 to current year.

REVISED RECORDS.--WSP 696: 1928(M). WSP 711: 1930(m).

GAGE.--Water-stage recorder. Datum of gage is 1,550.38 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 6, 1931, nonrecording gage at site 125 ft downstream at same datum. Aug. 6, 1931 to Nov. 4, 1960, water-stage recorder on left bank at same site and datum.

REMARKS.--Estimated daily discharges: Feb. 2-20. Records good except those for estimated daily discharges which are fair. Flow slightly regulated by small reservoirs upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--60 years (1926-82, 1984-86), 399 ft<sup>3</sup>/s, 28.22 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,440 ft<sup>3</sup>/s Jan. 1, 1949, gage height, 11.40 ft; minimum, 11 ft<sup>3</sup>/s Sept. 3, 1934; minimum gage height, 0.46 ft Sept. 26, 27, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr. 1	0615	*3,440	*6.89	No other peak greater than base discharge.			
Minimum discharge, 105 ft <sup>3</sup> /s part of each day Mar. 5-9, gage height, 1.32 ft.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	742	262	280	134	232	121	3330	573	258	220	726	394
2	585	237	345	131	220	118	3110	498	268	246	1120	315
3	500	216	511	128	205	114	3030	425	268	371	965	263
4	429	200	463	125	195	111	2470	334	235	458	715	223
5	382	219	422	124	185	107	1850	291	205	465	533	201
6	447	405	380	124	175	105	1470	341	185	574	404	210
7	481	594	331	122	170	107	1300	430	170	631	331	228
8	428	576	307	121	160	110	1330	464	183	528	385	211
9	357	526	279	120	155	109	1480	426	282	408	418	187
10	309	616	253	119	150	113	1340	360	313	318	416	168
11	284	1160	242	117	145	121	1130	304	313	255	417	168
12	262	1330	237	114	140	133	952	267	511	228	439	340
13	310	1120	225	113	140	143	804	237	842	298	398	514
14	696	1260	217	113	135	164	699	210	963	373	332	439
15	863	1630	200	112	135	258	653	190	819	453	282	339
16	1230	1700	199	113	130	588	670	183	639	439	263	337
17	1190	1330	194	113	130	995	759	228	614	359	250	392
18	866	1080	184	112	125	997	877	353	578	294	231	383
19	811	921	175	111	125	891	948	372	479	245	209	355
20	1020	867	168	147	120	1090	950	431	406	235	185	317
21	932	939	164	309	133	1380	951	648	345	396	166	308
22	757	854	158	644	136	1270	1120	1240	292	487	163	301
23	622	720	156	690	133	987	1000	1410	265	409	159	315
24	512	612	154	578	132	771	732	1350	262	324	261	573
25	480	522	154	475	130	609	580	1190	236	264	621	701
26	490	438	153	438	129	518	588	953	210	230	716	567
27	450	392	149	411	127	629	753	743	189	291	692	449
28	397	358	147	367	124	1020	809	588	182	386	1260	371
29	350	329	144	326	---	1200	729	455	182	361	1130	320
30	318	302	140	288	---	1490	663	360	207	431	732	340
31	290	---	136	257	---	2690	---	294	---	496	518	---
TOTAL	17790	21715	7267	7196	4216	19059	37077	16148	10901	11473	15437	10229
MEAN	574	724	234	232	151	615	1236	521	363	370	498	341
MAX	1230	1700	511	690	232	2690	3330	1410	963	631	1260	701
MIN	262	200	136	111	120	105	580	183	170	220	159	168
CFSM	2.99	3.77	1.22	1.21	.79	3.20	6.44	2.71	1.89	1.93	2.59	1.78
IN.	3.45	4.21	1.41	1.39	0.82	3.69	7.18	3.13	2.11	2.22	2.99	1.98

CAL YR 1985	TOTAL	167905	MEAN	460	MAX	2680	MIN	24	CFSM	2.40	IN.	32.53
WTR YR 1986	TOTAL	178508	MEAN	489	MAX	3330	MIN	105	CFSM	2.55	IN.	34.59

## HUDSON RIVER BASIN

01314500 INDIAN LAKE NEAR INDIAN LAKE, NY

LOCATION.--Lat 43°45'20", long 74°16'35", Hamilton County, Hydrologic Unit 02020001, at Indian Lake Dam on Indian River, and 2.0 mi south of village of Indian Lake.

DRAINAGE AREA.--131 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1900 to current year. Prior to October 1956, published as "Indian Lake Reservoir near Indian Lake."

GAGE.--Nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by masonry dam, completed in 1898. Usable capacity, about 4.500 bil ft<sup>3</sup> at elevation, 1,651.29 ft (crest of spillway). Sills of double sluice gates at lowest outlet at elevation 1,615.50 ft. Dead storage unknown. Water is used for power development, for improvement of navigation in lower Hudson River, and to compensate for flow diverted from Hudson River at Glens Falls into Champlain (Barge) Canal.

COOPERATION.--Gage-height record provided by Indian River Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 1,656.71 ft Mar. 28, 1913, contents, 5.781 bil ft<sup>3</sup>; minimum observed, 1,616.81 ft, estimated, Feb. 13, 1948, contents, 0.20 bil ft<sup>3</sup>.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 1,651.86 ft June 23, contents, 4.780 bil ft<sup>3</sup>; minimum observed, 1,640.92 ft Mar. 13, contents 2.882 bil ft<sup>3</sup>.

Capacity table, current water year  
(elevation, in feet and capacity, in billions of cubic feet)

1,635.0	1.958	1,643.0	3.221
1,636.0	2.110	1,648.0	4.068
1,638.0	2.417	1,653.0	5.007

ELEVATION, IN FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1645.05	1648.48	1648.81	1645.37	1644.39	1641.96	1648.51	1649.31	1650.99	1649.38	1650.54	1648.29
2	1645.12	1648.46	1648.71	1645.26	1644.26	1641.84	1649.21	1649.26	1651.03	1649.36	1650.79	1648.23
3	1645.16	1648.38	1648.63	1645.16	1644.33	1641.71	1649.84	1649.03	1650.99	1649.36	1650.84	1648.11
4	1645.16	1648.31	1648.58	1645.06	1644.05	1641.60	1650.25	1648.89	1651.03	1649.34	1650.92	1647.99
5	1645.25	1648.28	1648.43	1644.97	1643.94	1641.41	1650.51	1648.83	1651.07	1649.33	1650.86	1647.89
6	1645.33	1648.53	1648.33	1644.86	1643.82	1641.38	1650.71	1648.89	1651.02	1649.37	1650.81	1647.73
7	1645.34	1648.64	1648.19	1644.76	1643.86	1641.27	1650.79	1648.88	1651.07	1649.37	1650.73	1647.59
8	1645.33	1648.72	1648.04	1644.65	1643.76	1641.16	1650.88	1648.85	1651.07	1649.33	1650.77	1647.50
9	1645.36	1648.78	1647.83	1644.55	1643.66	1641.13	1651.14	1648.87	1650.79	1649.28	1650.66	1647.34
10	1645.46	1649.11	1647.66	1644.45	1643.56	1641.08	1651.29	1648.86	1650.71	1649.26	1650.64	1647.23
11	1645.44	1649.26	1647.43	1644.35	1643.50	1640.96	1651.36	1648.82	1650.66	1649.24	1650.62	1647.21
12	1645.44	1649.79	1647.26	1644.25	1643.41	1640.96	1651.32	1648.81	1650.80	1649.25	1650.51	1647.06
13	1645.66	1649.79	1647.06	1644.15	1643.31	1640.92	1651.30	1648.82	1650.99	1649.54	1650.41	1646.91
14	1645.76	1649.36	1647.00	1644.05	1643.22	1640.98	1651.15	1648.81	1651.24	1649.74	1650.25	1646.76
15	1645.91	1649.69	1646.94	1643.95	1643.13	1641.25	1651.03	1648.80	1651.34	1649.84	1650.06	1646.64
16	1646.36	1650.16	1646.84	1643.85	1643.02	1641.86	1650.93	1648.81	1651.38	1649.89	1650.03	1646.56
17	1646.74	1650.31	1646.80	1643.75	1642.91	1642.36	1650.89	1648.87	1651.41	1649.88	1649.91	1646.64
18	1646.98	1650.40	1646.67	1643.55	1642.82	1642.73	1650.87	1648.85	1651.48	1649.84	1649.78	1646.60
19	1647.12	1650.39	1646.61	1643.45	1642.73	1643.07	1650.81	1648.96	1651.33	1649.81	1649.62	1646.51
20	1647.32	1650.35	1646.53	1643.51	1642.66	1643.78	1650.76	1649.10	1651.30	1649.83	1649.46	1646.40
21	1647.56	1650.33	1646.43	1643.83	1642.59	1644.47	1650.71	1649.38	1651.16	1649.82	1649.31	1646.40
22	1647.65	1650.25	1646.35	1644.13	1642.54	1644.88	1650.76	1649.86	1651.03	1649.81	1649.13	1646.38
23	1647.74	1650.23	1646.25	1644.19	1642.49	1645.08	1650.49	1650.28	1651.86	1649.78	1648.96	1646.39
24	1647.85	1650.15	1646.18	1644.41	1642.41	1645.21	1650.36	1650.65	1650.62	1649.69	1648.91	1646.61
25	1647.98	1649.81	1646.05	1644.45	1642.32	1645.29	1650.23	1650.78	1650.45	1649.66	1648.73	1646.76
26	1648.10	1649.71	1645.98	1644.56	1642.18	1645.36	1650.05	1650.91	1650.30	1649.71	1648.63	1646.76
27	1648.21	1649.54	1645.88	1644.66	1642.08	1645.56	1649.91	1650.91	1650.20	1649.77	1648.61	1646.77
28	1648.26	1649.33	1645.76	1644.61	1641.97	1645.88	1649.76	1651.07	1650.00	1649.84	1648.63	1646.75
29	1648.36	1649.17	1645.66	1644.56	---	1646.16	1649.56	1651.07	1649.77	1649.88	1648.56	1646.70
30	1648.41	1648.99	1645.58	1644.53	---	1646.61	1649.43	1651.07	1649.53	1650.14	1648.56	1646.69
31	1648.47	---	1645.46	1644.46	---	1647.59	---	1650.99	---	1650.34	1648.41	---
MEAN	1646.58	1649.42	1647.03	1644.40	1643.18	1643.08	1650.49	1649.53	1650.89	1649.63	1649.83	1647.05
MAX	1648.47	1650.40	1648.81	1645.37	1644.39	1647.59	1651.36	1651.07	1651.86	1650.34	1650.92	1648.29
MIN	1645.05	1648.28	1645.46	1643.45	1641.97	1640.92	1648.51	1648.80	1649.53	1649.24	1648.41	1646.38
#	4.157	4.227	3.625	3.457	3.042	4.105	4.297	4.614	4.315	4.498	4.123	3.864
**	+224	+27.0	-225	-62.7	-172	+397	+74.1	+118	-115	+68.3	-140	-99.9
CAL YR 1985	MEAN	1645.92	MAX	1650.40	MIN	1638.88	**	-3.77				
WTR YR 1986	MEAN	1647.61	MAX	1651.86	MIN	1640.92	**	+9.70				

# Contents, in billions of cubic feet, at 2400 hours on last day of month, by interpolation.

\*\* Change in contents, equivalent in cubic feet per second.

## HUDSON RIVER BASIN

43

## 01315000 INDIAN RIVER NEAR INDIAN LAKE, NY

LOCATION.--Lat 43°45'30", long 74°16'05", Hamilton County, Hydrologic Unit 02020001, on right bank 0.8 mi downstream from Indian Lake Dam, 1.0 mi upstream from Big Brook, and 2.0 mi south of village of Indian Lake.

DRAINAGE AREA.--132 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1912 to June 1914, June 1915 to current year. Monthly discharge only for some periods published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 1,604.23 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 30, 1916, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Indian Lake (see station 01314500). Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--72 years (1913, 1916-86), 296 ft<sup>3</sup>/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,460 ft<sup>3</sup>/s Mar. 28, 1913, gage height, 7.8 ft; minimum, less than 1 ft<sup>3</sup>/s frequently, when entire flow of river is being stored in Indian Lake.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 657 ft<sup>3</sup>/s June 18, gage height, 3.24 ft; minimum, 13 ft<sup>3</sup>/s Oct. 8, 9, gage height, 0.53 ft; minimum daily, 28 ft<sup>3</sup>/s Oct. 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	139	618	302	291	274	591	460	209	187	331	368
2	47	183	618	299	291	273	612	456	207	188	331	367
3	45	183	606	299	289	271	629	456	207	187	330	365
4	45	182	606	296	288	271	631	302	206	187	330	365
5	47	187	602	296	288	271	633	195	205	185	328	365
6	47	186	602	296	288	271	637	192	242	192	326	364
7	46	185	602	296	288	269	640	192	337	187	329	363
8	28	184	599	296	288	269	642	170	336	187	350	362
9	28	186	599	296	288	269	635	109	335	111	372	362
10	40	191	599	296	285	269	648	256	333	64	372	270
11	39	310	591	294	285	269	649	104	337	64	373	357
12	39	474	591	293	285	266	648	104	344	70	373	353
13	43	477	408	291	285	268	645	104	338	69	425	350
14	41	484	311	291	283	270	643	104	337	120	484	349
15	44	488	311	291	282	280	642	104	341	182	483	349
16	42	488	311	291	282	281	640	105	413	182	483	353
17	41	493	311	290	282	280	638	301	494	182	481	349
18	41	561	308	287	282	281	636	114	541	182	481	349
19	42	637	308	286	279	292	634	116	647	182	479	347
20	40	633	308	293	277	297	635	114	640	185	478	347
21	40	629	308	295	277	294	631	118	639	187	476	347
22	40	629	308	293	279	294	629	118	638	184	474	346
23	40	629	305	293	277	295	628	291	635	183	475	349
24	40	626	305	293	277	295	625	502	634	182	473	347
25	42	626	305	294	277	296	624	498	632	182	472	348
26	41	626	305	294	277	301	619	498	630	183	471	348
27	41	622	305	294	275	443	610	321	622	184	411	346
28	40	618	302	293	274	560	609	207	620	184	370	346
29	40	618	302	293	---	567	568	207	619	185	370	349
30	40	618	302	291	---	576	462	207	529	187	370	336
31	40	---	302	291	---	586	---	207	---	283	368	---
TOTAL	1274	13092	13158	9103	7919	9998	18713	7232	13247	5217	12669	10516
MEAN	41.1	436	424	294	283	323	624	233	442	168	409	351
MAX	47	637	618	302	291	586	649	502	647	283	484	368
MIN	28	139	302	286	274	266	462	104	205	64	326	270

## ADJUSTED FOR CHANGE IN CONTENTS OF INDIAN LAKE

MEAN	265	463	199	231	111	720	698	351	327	236	269	251
CFSM	2.01	3.51	1.51	1.75	0.84	5.45	5.29	2.66	2.48	1.79	2.04	1.90
IN	2.31	3.91	1.74	2.02	0.88	6.29	5.90	3.07	2.76	2.06	2.35	2.12

## OBSERVED

## ADJUSTED

CAL YR 1985	TOTAL	90679	MEAN	248	MAX	637	MIN	28	MEAN	244	CFSM	1.85	IN	25.09
WTR YR 1986	TOTAL	122138	MEAN	335	MAX	649	MIN	28	MEAN	345	CFSM	2.61	IN	35.47



## HUDSON RIVER BASIN

01315500 HUDSON RIVER AT NORTH CREEK, NY

LOCATION.--Lat 43°42'03", long 73°59'02", Warren County, Hydrologic Unit 02020001, on left bank 125 ft upstream from bridge on State Highway 28N in village of North Creek, 500 ft upstream from North Creek, and 26 mi downstream from Indian Lake.

DRAINAGE AREA.--792 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1907 to current year.

REVISED RECORDS.--WSP 621: Drainage area. WSP 1432: 1908-18, 1920, 1922. WDR NY-78-1: 1977.

GAGE.--Water-stage recorder. Datum of gage is 987.51 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 15, 1930, nonrecording gages at sites 80 ft and 125 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 4-25, Jan 2-21, Jan. 27 to Feb. 8, Feb. 15 to Mar. 1, and Mar. 8-9. Records good except those for estimated daily discharges, which are fair. Appreciable regulation by Indian Lake (see station 01314500) and other reservoirs above station. Several measurements of water temperature were made during the year. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--79 years, 1,565 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,900 ft<sup>3</sup>/s Dec. 31, 1948, gage height, 12.14 ft; minimum, 112 ft<sup>3</sup>/s July 26, 1934, gage height, 1.96 ft; minimum daily, 114 ft<sup>3</sup>/s July 26, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,000 ft<sup>3</sup>/s Mar. 31, gage height, 8.60 ft; minimum, 542 ft<sup>3</sup>/s May 16, gage height, 2.98 ft; minimum daily, 575 ft<sup>3</sup>/s May 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2060	905	1690	841	1100	680	10700	1800	1120	1060	2930	1350
2	1630	947	2210	820	1100	702	10400	1650	1430	848	3220	1190
3	1430	937	2650	800	1000	726	9330	1660	1420	1310	2790	1010
4	1240	921	2300	780	1000	680	7300	1430	1250	1410	2230	898
5	1250	1130	2100	760	980	664	6040	1140	1030	1350	1820	900
6	1520	2300	1900	740	960	661	5080	1210	892	1780	1510	910
7	1420	2470	1800	700	940	658	4710	1260	902	2140	1420	917
8	1290	2240	1700	680	920	640	4880	1340	1030	1790	1570	885
9	1040	2120	1600	660	977	680	5200	1280	1160	1430	1590	819
10	883	2690	1500	720	898	681	4690	1250	1160	1010	1580	743
11	802	4150	1400	660	887	703	4110	898	1470	736	1560	692
12	786	4260	1400	740	883	823	3520	689	2880	818	1500	1040
13	952	3770	1300	640	849	997	3170	722	4530	2250	1400	1370
14	2010	3710	1200	620	800	1190	2860	696	3730	2710	1340	1370
15	2520	5860	1200	600	780	2590	2720	645	2890	2470	1260	1200
16	3430	5480	1100	600	800	4520	2630	575	2300	2010	1380	1480
17	3180	4440	1000	640	900	4260	2740	853	2620	1630	1430	1850
18	2480	3760	920	700	920	3840	2870	1110	2560	1370	1370	1650
19	2470	3410	860	780	720	3970	2890	1600	2340	1180	1350	1430
20	2870	3440	800	1100	720	6030	2850	1930	2210	1030	1210	1350
21	2620	3340	750	2500	760	5490	2780	3080	2020	1810	1090	1290
22	2190	2970	800	2950	780	4590	3100	4890	1780	1930	1090	1260
23	1860	2730	860	2730	800	3610	3020	5220	1460	1610	1000	1460
24	1630	2480	900	2230	780	2880	2490	6550	1560	1340	1180	2270
25	1610	2240	900	1890	760	2440	2150	4970	1570	1120	1510	2340
26	1530	2030	859	1760	740	2310	2070	3620	1450	1000	1730	1980
27	1500	1950	874	1600	720	3940	2070	2830	1370	1540	1890	1700
28	1360	1880	884	1400	700	5360	2130	2020	1320	1490	2590	1440
29	1200	1800	863	1300	---	5410	2090	1670	1240	1670	2550	1400
30	1080	1770	868	1200	---	7670	1960	1390	1240	2720	2010	1590
31	992	---	856	1100	---	11700	---	1250	---	2720	1620	---
TOTAL	52835	82130	40044	35241	24174	91095	122550	61228	53934	49282	52720	39784
MEAN	1704	2738	1292	1137	863	2939	4085	1975	1798	1590	1701	1326
MAX	3430	5860	2650	2950	1100	11700	10700	6550	4530	2720	3220	2340
MIN	786	905	750	600	700	640	1960	575	892	736	1000	692
CAL YR 1985	TOTAL	580095	MEAN	1589	MAX	6720	MIN	216				
WTR YR 1986	TOTAL	705017	MEAN	1932	MAX	11700	MIN	575				

## HUDSON RIVER BASIN

45

01318500 HUDSON RIVER AT HADLEY, NY

LOCATION.--Lat 43°19'08", long 73°50'41", Saratoga County, Hydrologic Unit 02020001, on right bank at Hadley, 400 ft downstream from outlet of Lake Luzerne, and 0.3 mi upstream from Sacandaga River.

DRAINAGE AREA.--1,664 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1921 to current year.

REVISED RECORDS.--WSP 561: 1921-22. WSP 756: Drainage area. WSP 1432: 1931 (m).

GAGE.--Water-stage recorder. Datum of gage is 563.99 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 20, 21, and Feb. 19 to Mar. 8. Records excellent except those for estimated daily discharges, which are fair. Some diurnal fluctuation caused by powerplant on Schroon River. Flow regulated by Indian Lake (see station 01314500) and other reservoirs upstream from station. Several measurements of water temperature were made during the year. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--65 years, 2,917 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,700 ft<sup>3</sup>/s Jan. 1, 1949, gage height, 21.21 ft; minimum, 281 ft<sup>3</sup>/s Sept. 3, 1934, gage height, 0.94 ft; minimum daily, 292 ft<sup>3</sup>/s July 24, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 31	2245	*20,600	*12.22	No other peak greater than base discharge.			
Minimum discharge, 1,000 ft <sup>3</sup> /s Jan. 15, gage height, 2.41 ft; minimum daily, 1,060 ft <sup>3</sup> /s Jan. 15.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3140	1930	3360	1670	2270	1200	19700	3100	2800	1870	4170	2120
2	2570	1850	4140	1630	1990	1200	19100	2840	2960	1720	4670	1880
3	2280	1840	5190	1610	2120	1200	18300	2730	3040	2000	4490	1720
4	2050	1770	4590	1560	2080	1200	15600	2570	2590	2190	3850	1540
5	1980	1920	4480	1430	1780	1200	13400	2350	2270	2130	3280	1510
6	2420	3410	4030	1430	2030	1200	11900	2220	2060	2280	2820	1510
7	2450	4040	3760	1440	1810	1100	11300	2220	1940	2980	2570	1500
8	2260	3780	3570	1330	1690	1100	11100	2210	2000	2760	3260	1460
9	2050	3540	3400	1390	1720	1140	10900	2210	2060	2320	3160	1400
10	1840	3820	3090	1450	1640	1230	10100	2090	2010	1920	3010	1320
11	1720	5640	2800	1490	1640	1360	8970	2120	2050	1540	2850	1230
12	1610	6200	2950	1380	1590	1480	8130	1690	3600	1420	2680	1280
13	1660	6060	2860	1390	1500	1570	7040	1530	7060	2730	2470	1590
14	2510	5650	2710	1340	1520	1850	6590	1510	6520	3860	2290	1780
15	3580	8660	2380	1060	1550	3030	5880	1430	5220	3850	2150	1670
16	5160	8850	2330	1150	1500	6740	5700	1370	4440	3300	2180	1810
17	5140	7800	2260	1150	1410	7430	5400	1560	5040	2830	2270	2350
18	4370	7100	1900	1170	1420	7340	5470	1810	4950	2440	2230	2300
19	3910	6620	1550	1300	1400	8460	5270	2110	4290	2150	2180	2050
20	4380	6430	1500	1620	1400	12000	5120	3340	4460	1930	2020	1890
21	4320	6400	1600	3040	1400	11100	5000	5220	4180	2100	1850	1940
22	3830	5790	1700	4410	1400	9820	5180	8470	3600	2810	1780	1890
23	3360	5440	1810	4380	1400	8690	5290	8810	3220	2510	1680	2010
24	3020	5030	1920	3810	1400	7510	4690	10300	2770	2160	1750	2950
25	3160	4640	1910	3370	1400	6640	4070	9810	2840	1870	1950	3280
26	3050	4240	1610	2820	1300	6490	3800	7350	2570	1680	2260	2940
27	2890	3990	1570	2850	1300	9300	3730	6310	2390	1870	2440	2530
28	2670	3880	1670	2850	1200	11400	3710	4980	2160	2230	3060	2220
29	2410	3690	1580	2490	---	11400	3610	4140	2000	2470	3410	2030
30	2210	3530	1590	2410	---	14300	3330	3600	1900	3700	2990	2170
31	2070	---	1700	2390	---	19800	---	3130	---	4200	2460	---
TOTAL	90070	143540	81510	62810	44860	179480	247380	115130	98990	75820	84230	57870
MEAN	2905	4785	2629	2026	1602	5790	8246	3714	3300	2446	2717	1929
MAX	5160	8850	5190	4410	2270	19800	19700	10300	7060	4200	4670	3280
MIN	1610	1770	1500	1060	1200	1100	3330	1370	1900	1420	1680	1230

CAL YR 1985	TOTAL	1019424	MEAN	2793	MAX	10800	MIN	314
WTR YR 1986	TOTAL	1281690	MEAN	3511	MAX	19800	MIN	1060

## HUDSON RIVER BASIN

01321000 SACANDAGA RIVER NEAR HOPE, NY

LOCATION.--Lat 43°21'10", long 74°16'15", Hamilton County, Hydrologic Unit 02020002, on left bank 1.5 mi downstream from West Branch Sacandaga River, on State Highway 30, and 4.5 mi upstream from Hope.

DRAINAGE AREA.--491 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1911 to current year.

GAGE.--Water-stage recorder. Datum of gage is 881.31 ft above National Geodetic Vertical Datum of 1929. Prior to July 24, 1929, nonrecording gage at site 300 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 17 to Jan. 21 and Jan. 25 to Mar. 4. Records good except those for estimated daily discharges, which are poor. Some seasonal regulation at Piseco Lake Outlet and, since 1959, intermittent regulation by Lake Algonquin at Wells 4 mi upstream. Infrequent minor fluctuations by mill upstream. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--75 years, 1,102 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,000 ft<sup>3</sup>/s Mar. 27, 1913, gage height, 11.0 ft, from floodmarks at site then in use; maximum gage height, 13.32 ft Mar. 1, 1955 (ice jam); minimum discharge, about 16 ft<sup>3</sup>/s Sept. 30, 1913, gage height, 1.17 ft; minimum daily discharge, 18 ft<sup>3</sup>/s Sept. 20, 1913.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,100 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 30	2400	*11,800	*7.22	No other peak greater than base discharge.			

Minimum discharge, 190 ft<sup>3</sup>/s July 1, gage height, 1.80 ft; minimum daily discharge, 198 ft<sup>3</sup>/s Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	791	639	848	520	560	500	7480	695	620	337	1110	447	
2	750	588	1810	520	580	540	7840	654	842	472	1130	399	
3	694	549	2000	500	600	500	6670	602	746	653	966	365	
4	584	516	1580	500	540	470	5210	571	637	525	790	329	
5	627	666	1440	490	500	449	4700	580	557	458	655	347	
6	899	1250	1300	480	470	433	4240	610	506	449	559	445	
7	729	1230	1090	470	450	438	4110	581	483	481	552	411	
8	607	1080	1040	460	450	422	4810	544	572	391	1380	360	
9	526	971	940	460	440	445	4700	524	599	324	1180	323	
10	470	1080	800	450	440	449	3670	489	487	274	1110	264	
11	430	1490	817	450	430	503	3210	454	455	237	903	220	
12	387	1510	783	450	430	687	2540	426	1170	308	755	217	
13	537	1570	725	440	430	762	2310	393	2950	941	638	229	
14	1090	1830	687	440	420	1120	2060	365	2120	1300	556	212	
15	1510	4130	628	430	430	3230	1930	340	1380	1200	504	198	
16	2390	2610	618	430	430	4370	1970	350	1290	940	667	544	
17	1710	2450	620	450	430	3250	1930	831	2120	773	637	644	
18	1390	2350	600	640	470	2910	1850	809	1630	655	999	499	
19	1340	2210	600	940	540	5400	1720	1340	1260	557	786	426	
20	1470	2320	600	2000	660	7530	1580	2190	2030	499	639	438	
21	1250	2050	600	3300	580	4680	1510	4120	1780	519	555	834	
22	1070	1810	600	2430	540	3850	1560	4400	1400	479	461	738	
23	932	1660	640	1900	500	3160	1400	4240	1380	332	415	1360	
24	851	1480	780	1500	490	2700	1240	3590	1330	279	558	2420	
25	1430	1280	700	1200	480	2340	1070	2840	1070	248	567	1760	
26	1430	1130	660	980	470	2490	908	1960	870	258	472	1460	
27	1210	1070	620	900	460	5090	930	1630	734	348	739	1270	
28	1030	1050	600	720	460	5460	856	1260	647	335	900	1090	
29	889	981	560	660	---	4610	793	968	560	556	700	974	
30	785	903	540	600	---	7830	757	786	497	1810	588	1010	
31	703	---	540	580	---	9780	---	677	---	1210	505	---	
TOTAL	30511	44453	26366	26290	13680	86398	85554	39819	32722	18148	22976	20233	
MEAN	984	1482	851	848	489	2787	2852	1284	1091	585	741	674	
MAX	2390	4130	2000	3300	660	9780	7840	4400	2950	1810	1380	2420	
MIN	387	516	540	430	420	422	757	340	455	237	415	198	
CAL YR 1985	TOTAL	341367	MEAN	935	MAX	5680	MIN	41					
WTR YR 1986	TOTAL	447150	MEAN	1225	MAX	9780	MIN	198					

## 01323500 GREAT SACANDAGA LAKE AT CONKLINGVILLE, NY

LOCATION.--Lat 43°18'57", long 73°55'39", Saratoga County, Hydrologic Unit 02020002, 800 ft upstream from right end of Conklingville Dam on Sacandaga River at Conklingville.

DRAINAGE AREA.--1,044 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1930 to current year. Prior to October 1969, published as "Sacandaga Reservoir at Conklingville."

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum, adjustment of 1912. Prior to Apr. 23, 1930, nonrecording gage at same datum in outlet channel 800 ft downstream.

REMARKS.--Reservoir is formed by earth and concrete dam; storage began in March 1930; dam completed in 1930. Usable capacity for stream regulation, 29.670 bil ft<sup>3</sup> between elevations 735.0 ft and 768.0 ft. Between elevations 768.0 ft and 771.0 ft (spillway crest) an additional 3.450 bil ft<sup>3</sup> is available exclusively for flood storage. Elevation of invert of three Dow valves is 699.0 ft. Capacity of 4.600 bil ft<sup>3</sup> below elevation 735.0 ft is considered dead storage, except for extraordinary emergencies or for necessary inspection of structures. Purpose of reservoir is to provide flood control and low-water stream regulation for sanitary improvement, navigation, and power, as required by the public welfare, including public health and safety. Area of water surface of reservoir filled to capacity, elevation, 771.0 ft, is 41.7 mi<sup>2</sup>. Discharge over spillway May 1-10, 1983 (only spillage since dam completion in 1930).

COOPERATION.--Records provided by Board of Hudson River-Black River Regulating District.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 773.29 ft May 4, 1983, contents, 40.418 bil ft<sup>3</sup>; minimum since first filling, 729.55 ft Mar. 30, 1940, contents, 2.100 bil ft<sup>3</sup>.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 769.25 ft June 17, contents, 35.700 bil ft<sup>3</sup>; minimum, 743.76 ft Mar. 14, contents, 10.638 bil ft<sup>3</sup>.

Capacity table, current water year  
(elevation, in feet, and contents, in billions of cubic feet)

738	6.43	760	25.61
740	7.80	764	29.85
745	11.64	768	34.27
750	15.94	771	37.72
755	20.61	774	41.26

ELEVATION, IN FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	755.08	756.61	759.31	757.92	755.30	746.61	757.62	764.79	768.23	767.76	767.49	764.83
2	755.03	756.58	759.68	757.80	755.10	746.29	759.01	764.81	768.22	767.76	767.44	764.76
3	755.00	756.67	759.77	757.67	754.82	746.01	760.18	764.72	768.28	767.84	767.45	764.65
4	755.00	756.57	759.80	757.54	754.48	745.79	761.30	764.80	768.30	767.93	767.43	764.57
5	755.18	756.85	759.83	757.46	754.24	745.56	762.12	764.82	768.20	767.95	767.30	764.58
6	755.25	756.63	759.88	757.38	753.89	745.37	762.81	764.80	768.13	767.92	767.20	764.44
7	755.24	756.67	759.88	757.24	753.55	745.25	764.04	764.82	768.20	767.85	767.09	764.35
8	755.23	756.67	759.82	757.17	753.26	744.97	764.50	764.73	768.31	767.79	767.15	764.28
9	755.20	756.51	759.81	757.04	752.95	744.66	764.86	764.65	768.33	767.75	767.17	764.17
10	755.15	756.62	759.74	756.90	752.72	744.38	765.19	764.71	768.34	767.73	767.15	764.07
11	755.10	756.66	759.69	756.77	752.40	744.24	765.26	764.73	768.27	767.68	767.12	763.89
12	755.04	756.82	759.73	756.68	752.07	744.03	765.32	764.68	768.36	767.66	766.98	763.87
13	755.18	756.88	759.73	756.45	751.72	743.88	765.29	764.68	768.73	767.74	766.89	763.72
14	755.15	757.06	759.69	756.30	751.36	743.78	765.20	764.60	768.98	767.89	766.77	763.54
15	755.40	757.52	759.69	756.17	750.92	743.96	765.12	764.53	769.09	768.00	766.67	763.44
16	755.63	757.97	759.53	756.00	750.51	744.64	765.05	764.49	769.12	768.06	766.58	763.31
17	755.83	758.37	759.45	755.87	749.85	745.65	764.95	764.62	769.20	768.09	766.46	763.26
18	755.92	758.80	759.32	755.72	749.37	746.28	764.80	764.73	769.13	768.06	766.32	763.20
19	756.01	758.89	759.22	755.60	748.97	746.98	764.77	764.93	768.96	768.02	766.24	763.10
20	756.16	759.09	759.09	755.63	748.65	749.02	764.80	765.75	768.90	767.99	766.03	763.00
21	756.23	759.16	759.03	755.02	748.35	750.37	764.99	765.84	768.94	767.95	765.93	763.01
22	756.27	759.27	758.90	756.35	748.03	751.20	765.08	766.80	768.84	767.90	765.74	763.08
23	756.27	759.32	758.77	756.56	747.70	751.82	764.98	767.35	768.69	767.78	765.64	763.17
24	756.37	759.37	758.67	756.60	747.71	752.34	764.88	767.72	768.51	767.74	765.56	763.35
25	756.48	759.32	758.58	756.62	747.46	752.58	764.75	768.00	768.30	767.66	765.37	763.47
26	756.58	759.33	758.45	756.75	747.26	752.65	764.78	768.12	768.07	767.59	765.23	763.46
27	756.72	759.34	758.38	756.75	747.04	753.11	764.90	768.19	768.04	767.54	765.23	763.32
28	756.72	759.23	758.30	756.45	746.83	754.10	764.92	768.19	768.01	767.47	765.13	763.15
29	756.72	759.34	758.18	756.17	---	754.74	764.87	768.19	767.97	767.39	765.02	763.07
30	756.70	759.29	758.05	756.90	---	755.58	764.82	768.10	767.85	767.37	764.93	763.08
31	756.66	---	757.95	756.60	---	757.49	---	768.08	---	767.43	764.86	---
MEAN	755.76	757.91	759.22	756.65	750.95	748.17	764.04	765.81	768.48	767.78	766.37	763.71
MAX	756.72	759.37	759.88	757.92	755.30	757.49	765.32	768.19	769.20	768.09	767.49	764.83
MIN	755.00	756.51	757.95	755.02	746.83	743.78	757.62	764.49	767.85	767.37	764.86	763.00
#	22.23	24.88	23.49	21.05	12.72	23.92	30.80	34.43	34.05	33.67	30.76	28.81
**	+638	+1022	-519	-911	-3443	+4182	+2654	+1355	-147	-142	-1086	-752
CAL YR 1985	MEAN	756.98	MAX	765.63	MIN	744.71	**	+180				
WTR YR 1986	MEAN	760.45	MAX	769.20	MIN	743.78	**	+263				

# Contents, in billions of cubic feet, at 2400 hours on last day of month.

\*\* Change in contents, equivalent in cubic feet per second.



## HUDSON RIVER BASIN

## 01325000 SACANDAGA RIVER AT STEWARTS BRIDGE, NEAR HADLEY, NY

LOCATION.--Lat 43°18'41", long 73°52'04", Saratoga County, Hydrologic Unit 02020002, on left bank 1.0 mi downstream from Stewarts Bridge, 1.1 mi west of Hadley, 1.4 mi upstream from mouth, and 1.5 mi downstream from Stewarts Bridge hydroelectric plant.

DRAINAGE AREA.--1,055 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1907 to current year. Published as "near Hadley" 1907-1910, "at Hadley" 1911-32 and "at Conklingville" 1932-52. Records published for both sites October 1951 to September 1952.

REVISED RECORDS.--WSP 1302: 1908. WSP 1432: 1910-12, 1916-21, WDR NY-83-1: 1968(M), 1971-72(M), 1976-77(M), 1979(M).

GAGE.--Water-stage recorder. Datum of gage is 582.00 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 1, 1911, nonrecording gage at site about 1 mi upstream at different datum. Jan. 1, 1911 to Sept. 30, 1932, water-stage recorder at site 0.8 mi downstream at datum 8.82 ft lower than present datum. Oct. 1, 1932 to Sept. 30, 1952, water-stage recorder at site 3.6 mi upstream at datum 85.47 ft higher than present datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Great Sacandaga Lake since Mar. 27, 1930 (see station 01323500); discharge over spillway only May 1-10, 1983. Extensive diurnal fluctuation caused by release of water from Great Sacandaga Lake, through Elmer J. West hydroelectric station as directed by Board of Hudson River-Black River Regulating District, and through Stewarts Bridge hydroelectric station. Several measurements of water temperature were made during the year.

COOPERATION.--From Oct. 1, 1932, to Dec. 4, 1979 discharge computed by Board of Hudson River-Black River Regulating District from rating developed by Geological Survey. Since Dec. 4, 1979, discharge computed by U.S. Geological Survey.

AVERAGE DISCHARGE.--79 years, 2,144 ft<sup>3</sup>/s, adjusted for storage since 1930.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 35,500 ft<sup>3</sup>/s Mar. 28, 1913, gage height, 12.36 ft site and datum then in use; minimum, 4.2 ft<sup>3</sup>/s May 4, 1985; minimum daily, 4.7 ft<sup>3</sup>/s Apr. 28 to May 5, 1985. Maximum discharge since construction of Conklingville Dam in 1930, 13,300 ft<sup>3</sup>/s May 4, 1983, gage height, 9.68 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,630 ft<sup>3</sup>/s Nov. 1, gage height, 8.22 ft; minimum, 28 ft<sup>3</sup>/s Apr. 3, 4; minimum daily, 30 ft<sup>3</sup>/s Apr. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	1270	1930	2000	4700	2730	170	1700	192	1610	1840	1110
2	1040	1020	2040	2030	4120	4050	167	1830	1350	1660	1740	1510
3	1040	38	1260	2090	4610	3360	30	43	1340	1050	1740	1540
4	705	1030	2040	2000	4590	2190	50	41	1320	45	2040	1650
5	1010	1990	2070	2050	4640	2770	58	1220	1340	1580	2050	1570
6	35	2000	2040	1960	4530	2840	55	1390	1360	1580	2070	1540
7	955	2020	2000	1700	4510	2780	4240	1390	36	1420	2090	1540
8	1070	2070	2020	2070	4480	2840	4220	1350	35	1080	2050	1360
9	1040	2060	2040	2030	4520	4100	4100	1420	1320	1100	2050	1720
10	1040	42	2040	2030	5040	2910	4090	38	1350	47	2020	1690
11	1060	2010	2070	2050	3900	2520	4100	37	1410	1400	2080	1700
12	1040	1980	1030	2090	4300	2780	4120	1370	1590	1090	2070	1690
13	36	2050	2030	2090	4330	3610	4120	1370	2130	1080	1980	2590
14	1560	2060	1990	2140	4850	2780	4090	1380	1990	1130	2420	1730
15	1540	1070	2090	2130	5310	4020	4070	1370	1950	1110	2190	1610
16	1340	37	2030	2100	5130	2300	4090	1400	2080	1080	2500	1750
17	34	36	2050	2050	5160	55	4140	39	2870	1580	2390	1750
18	1060	35	2070	2100	4970	2740	4330	36	4690	1530	2400	1710
19	1070	2010	2060	2130	4570	468	4150	1430	4850	1580	2420	1750
20	39	1990	2090	2040	4580	249	314	1410	4950	1610	3620	1820
21	1030	2040	2100	2030	4530	50	71	1050	5020	1570	2360	47
22	1050	2030	2090	2000	4540	46	3820	2620	5100	1670	2360	1560
23	1040	2030	2070	2000	4450	44	3130	4060	5080	1600	2370	1400
24	1180	2040	2000	1970	4480	1310	3480	3220	4350	1590	2050	2010
25	1000	2050	2040	2130	3060	2920	2870	2970	4520	1600	2010	2020
26	1000	2050	2010	2020	3000	4020	67	3000	3340	1670	2000	2030
27	37	1970	2010	3050	2740	4120	59	2180	2040	1540	1590	4020
28	1040	2090	2040	4200	3320	4200	2540	2020	1530	1680	1890	3990
29	1020	2010	2020	4280	---	4150	2070	2050	1650	1570	2320	2180
30	1610	2020	2020	4620	---	347	1730	1640	1420	1590	1560	1890
31	869	---	2010	4690	---	62	---	37	---	1250	1110	---
TOTAL	27621	47148	61400	73870	122960	73361	74541	45111	72203	41692	65380	54477
MEAN	891	1572	1981	2383	4391	2366	2485	1455	2407	1345	2109	1816
MAX	1610	2090	2100	4690	5310	4200	4330	4060	5100	1680	3620	4020
MIN	31	35	1030	1700	2740	44	30	36	35	45	1110	47

Adjusted for change in contents in Great Sacandaga Lake and Stewarts Bridge Pool

	MEAN	1534	2573	1462	1491	933	6565	5136	2813	2257	1205	1023	1062
CFSM	1.45	2.44	1.39	1.41	0.88	6.22	4.87	2.67	2.14	1.14	0.97	1.01	
IN	1.68	2.72	1.60	1.63	0.92	7.17	5.43	3.07	2.39	1.32	1.12	1.12	

Observed

Adjusted

CAL YR	1985	TOTAL	532991.7	MEAN	1460	MAX	5110	MIN	4.7	MEAN	1638	CFSM	1.55	IN	21.08
WTR YR	1986	TOTAL	759764	MEAN	2082	MAX	5310	MIN	30	MEAN	2345	CFSM	2.22	IN	30.17

## HUDSON RIVER BASIN

49

01327750 HUDSON RIVER AT FORT EDWARD, NY

LOCATION.--Lat 43°16'10", long 73°35'47", Washington County, Hydrologic Unit 02020003, on left bank 40 ft upstream from Scott Paper Mill, 150 ft south of River Street in Fort Edward, and 0.4 mi upstream from bridge on State Highway 197.

DRAINAGE AREA.--2,817 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 100.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 25-27, Jan. 6-9, 11, 14-17, May 23 to June 18, June 28 to July 3, and July 5-27. Records fair. Flow regulated appreciably by Great Sacandaga Lake (see station 01323500) and Indian Lake (see station 01314500). Diurnal fluctuation caused by powerplants upstream from station. Water is diverted into St. Lawrence River basin through Glens Falls feeder, Bond Creek, and Champlain (Barge) Canal, and occasionally may be received from that basin through summit level of Champlain (Barge) Canal at Dunham Basin. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--9 years, 5,240 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,200 ft<sup>3</sup>/s May 3, 1983, gage height, 28.34 ft; maximum gage height, 28.71 ft Jan. 11, 1978, ice jam; minimum discharge, 234 ft<sup>3</sup>/s July 25, 1983, minimum gage height, 19.33 ft Sept. 4, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,400 ft<sup>3</sup>/s Apr. 1, gage height, 25.47 ft; minimum, 363 ft<sup>3</sup>/s July 4, gage height, 19.68 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3430	3150	5160	3370	7760	4450	21700	4920	3500	3500	5310	3160
2	3690	2840	5350	3710	6710	4430	20800	4810	4500	3400	5960	3340
3	3490	2140	6180	3510	6130	4890	20300	3450	4700	3200	5800	3390
4	3470	3050	6710	3790	6790	4470	18400	3040	4400	1970	5730	3620
5	3060	3550	5740	3330	6450	3730	15200	3300	4000	3900	5310	2180
6	1900	4460	5960	3300	6080	4290	13400	4020	3700	4300	4400	2910
7	3470	5520	5400	3200	6460	3920	15600	3530	2200	4700	4360	2950
8	3840	6290	5460	3300	6190	4020	17500	3610	2300	4100	4840	2620
9	3680	5320	5260	3400	6030	4430	16900	3680	3500	3500	5250	2940
10	3170	5280	5270	3380	6080	4530	15800	3000	3600	2200	4780	2690
11	2840	5890	5250	3500	6600	4250	14400	2420	3700	3100	4570	2980
12	2670	7420	4800	3320	5290	4060	13200	3160	6000	2700	4630	2800
13	2210	8380	3760	3170	5690	4380	11900	3030	9600	4300	4500	3540
14	3400	7740	4560	3200	5580	5300	11200	2870	9000	4700	4070	3590
15	4460	9480	4190	3100	6850	5750	10800	3150	8000	5200	4300	3470
16	5370	9330	4590	3200	6640	9520	10300	3170	7200	4500	4380	3320
17	6030	7950	4220	3200	6550	8120	10000	1880	9000	4500	4350	3530
18	5200	6980	3980	3230	6330	8930	10300	2320	9800	4200	4340	3930
19	5160	6920	3770	3340	6290	10400	9920	3110	8590	3900	4580	3790
20	4890	7980	3670	3460	5970	14900	7860	4490	9130	3900	4790	3510
21	4870	8030	3690	4710	6100	12800	5730	5930	9300	4200	4520	2700
22	4970	7640	4020	5440	6010	10300	7320	11100	8330	4600	3800	2700
23	4960	6960	3810	6020	5290	9280	8770	14000	8440	4200	4210	3970
24	4410	6810	3570	6050	5920	8660	8970	15000	7800	3900	3630	3530
25	4120	6560	4100	5680	5340	9230	8850	14000	7750	3700	3590	5170
26	4210	6290	3800	5340	4480	10800	6380	12000	7700	3600	4000	5120
27	3530	5650	3600	5150	4280	13200	2310	10000	4770	4100	4020	6120
28	3220	5710	3390	6480	4110	17600	5120	8400	4000	3630	3900	5890
29	2990	5150	4080	7730	---	17100	5800	7000	3700	3580	5420	4530
30	3840	5230	3470	7340	---	16900	5600	6000	3500	4580	4790	3770
31	3530	---	4190	6980	---	20100	---	5200	---	5290	4040	---
TOTAL	120080	183700	141000	133930	168000	264740	350330	175590	181710	121150	142170	107760
MEAN	3874	6123	4548	4320	6000	8540	11680	5664	6057	3908	4586	3592
MAX	6030	9480	6710	7730	7760	20100	21700	15000	9800	5290	5960	6120
MIN	1900	2140	3390	3100	4110	3730	2310	1880	2200	1970	3590	2180
CAL YR 1985	TOTAL	1547616	MEAN	4240	MAX	14800	MIN	784				
WTR YR 1986	TOTAL	2090160	MEAN	5726	MAX	21700	MIN	1880				

## HUDSON RIVER BASIN

01327755 HUDSON RIVER AT ROGERS ISLAND AT FORT EDWARD, NY

LOCATION.--Lat 43°15'52", long 73°35'28", Saratoga-Washington Counties, Hydrologic Unit 02020003, at bridges on State Highway 197 over Rogers Island in Fort Edward, 0.4 mi downstream from discharge station (01327750, Hudson River at Fort Edward), and 0.6 mi upstream from Champlain Canal.

DRAINAGE AREA.--2,817 mi<sup>2</sup>, at gage.

PERIOD OF RECORD.--Water years 1975 to current year.

CHEMICAL DATA: 1975-76 (a), 1980 (b), 1981 (d), 1982-84 (e), 1985 (d), 1986 (e).

MINOR ELEMENT DATA: 1975 (b), 1976-77 (a), 1978-79 (e), 1980 (d).

PESTICIDE DATA: 1975, 1977 (a); 1978-79 (e), 1980 (a).

ORGANIC DATA: OC--1975 (a).

PCB--1975, 1977 (a); 1978-84 (e), 1985 (d), 1986 (e).

PCN--1977 (a), 1978-79 (e), 1980 (a).

NUTRIENT DATA: 1975-77 (a), 1978 (e).

SEDIMENT DATA: 1975 (b), 1980-84 (e), 1985 (d), 1986 (e).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: March 1978 to September 1979.

REMARKS.--Water-discharge data is that for Hudson River at Fort Edward (station 01327750). Samples are collected from both the navigation canal (east channel) and river (west channel). Composite samples are from both the main channel and the navigation canal.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	PCB TOTAL (UG/L)	IDENTIFIED AROCLO(S)	LOCATION
NOV							
29...	1020	5040	7	95	< 0.01	1242	COMPOSITE
DEC							
24...	1200	3160	3	26	< .01	1242	COMPOSITE
MAR							
06...	1000	4060	4	44	< .01	1242	COMPOSITE
20...	1230	15100	10	408	.02	1242	COMPOSITE
31...	1520	21300	23	1320	< .01	1242	COMPOSITE
MAY							
01...	1100	4660	12	151	.07	1242	COMPOSITE
09...	1520	4090	16	177	< .01	1242	COMPOSITE
16...	1320	4060	10	110	.01	1242	COMPOSITE
23...	1630	e14000	31	1170	.01	1242	COMPOSITE
JUN							
04...	1630	e4400	16	190	.01	1242	COMPOSITE
13...	0900	e9600	8	207	.02	1242	RIVER
13...	0915	e9600	34	881	.02	1242	CANAL
24...	1445	7540	4	81	--	1242	CANAL
24...	1520	7370	--	--	.15	1242	COMPOSITE
JUL							
02...	1705	3400	4	37	.04	1242	COMPOSITE
18...	1415	4200	7	79	.03	1242	COMPOSITE
28...	1520	4090	4	44	.04	1242	COMPOSITE
AUG							
14...	0850	3630	9	88	.03	1242	COMPOSITE
28...	1200	4190	2	23	.03	1242	RIVER
28...	1215	4220	3	34	.04	1242	CANAL
SEP							
08...	1000	1820	1	5	.02	1242	RIVER
08...	1015	1950	3	16	.01	1242	CANAL

e Estimated.

## HUDSON RIVER BASIN

51

01328730 HUDSON RIVER NEAR FORT MILLER, NY

LOCATION.--Lat 43°10'03", long 73°35'22", Washington County, Hydrologic Unit 02020003, about 0.2 mi upstream from Tuttle Brook, 1.6 mi downstream from Thompson Island dam, and 0.7 mi northwest of Fort Miller.

DRAINAGE AREA.--2,920 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--Water year 1986.

ORGANIC DATA: PCB--1986 (c).

SEDIMENT DATA: 1986 (b).

REMARKS.--Water discharge data based on records obtained for Hudson River at Fort Edward (station 01327750).

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	PCB, TOTAL (UG/L)	IDENTIFIED AROCLO(S)
MAY					
16...	1230	--	--	0.02	1242
23...	1600	--	--	.02	1242
JUN					
13...	1030	--	--	.05	1242
JUL					
02...	**	--	--	.03	1242
28...	1315	--	--	.01	1242
AUG					
14...	1000	2	--	.15	1242
SEP					
08...	1100	3	--	.01	1242

\*\* Cross-section composite, 1320 hours to 1410 hours.



## HUDSON RIVER BASIN

01329650 HUDSON RIVER AT SCHUYLERVILLE, NY

LOCATION.--Lat 43°05'54", long 73°34'25", at Saratoga-Washington County line, Hydrologic Unit 02020003, at bridge on State Highway 29, 0.2 mi east of Schuylerville, 0.8 mi downstream from Batten Kill, and 1.0 mi downstream from Champlain (Barge) Canal lock 5.

DRAINAGE AREA.--3,440 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--Water years 1977 to current year.

CHEMICAL DATA: 1980 (b), 1981 (c), 1982-84 (e), 1985-86 (d).

MINOR ELEMENTS DATA: 1977 (e), 1978-79 (d), 1980 (b).

PESTICIDE DATA: 1977 (e), 1978-79 (d).

ORGANIC DATA: PCB--1977 (e), 1978-80 (d), 1981-84 (e), 1985-86 (d).

PCN--1977 (e), 1978-79 (d).

NUTRIENT DATA: 1977 (e), 1978 (d).

SEDIMENT DATA: 1980 (d), 1981-84 (e), 1985 (d), 1986 (e).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: March 1977 to September 1979.

REMARKS.--Water discharge estimated from wire-weight gage located at bridge. Streamflow affected by regulation for power generation and diversion for canal operations.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	PCB TOTAL (UG/L)	IDENTIFIED AROCLO(S)
NOV						
29...	1100	4690	16	203	< 0.01	1242
29...	1105	4690	--	--	< 0.01	1242
DEC						
24...	1300	--	5	--	.07	1242
MAR						
06...	1000	4210	2	23	< .01	1242
20...	1350	25800	131	9130	.01	1242
21...	1010	16400	36	1590	.01	1242
26...	1315	14400	12	467	.10	1242
MAY						
01...	1500	5280	8	114	.02	1242
09...	1600	3790	3	31	.01	1242
16...	1300	2790	6	45	.02	1242
16...	1305	2790	--	--	.04	1242
23...	1500	14000	20	756	.04	1242
JUN						
04...	1600	4940	4	53	.01	1242
13...	1200	8050	11	239	.01	1242
24...	1515	6870	9	167	.03	1242
JUL						
02...	1730	4690	29	367	.03	1242
18...	1500	4970	7	94	< .01	1242
28...	1600	--	4	--	.03	1242
AUG						
14...	1030	--	3	--	.04	1242
28...	1300	--	3	--	.04	1242

## HUDSON RIVER BASIN

53

01330500 KAYADEROSSERAS CREEK NEAR WEST MILTON, NY

LOCATION.--Lat 43°02'18", long 73°54'35", Saratoga County, Hydrologic Unit 02020003, on left bank 600 ft downstream from Glowegee Creek, 1.0 mi east of West Milton, and 3.5 mi northwest of Ballston Spa.

DRAINAGE AREA.--90.0 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1927 to current year.

REVISED RECORDS.--WSP 741: Drainage area. WSP 1202: 1935-40.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 376.06 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 3-5, Dec. 7 to Mar. 16, Mar. 19-20, May 11-14, 20-27, and June 2, 12-14, 17-19. Records fair except those for estimated daily discharges, which are poor. Slight occasional diurnal fluctuation at low flow caused by mills upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--59 years, 137 ft<sup>3</sup>/s, 20.67 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,710 ft<sup>3</sup>/s Mar. 18, 1936, gage height, 10.78 ft, from floodmarks; maximum gage height, 11.20 ft Mar. 14, 1977, from floodmarks; minimum discharge, 6.1 ft<sup>3</sup>/s Aug. 23, 1927, gage height, 0.86 ft; minimum daily discharge, 12 ft<sup>3</sup>/s Aug. 5-9, Sept. 8, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 16	unknown	a*1,570	ab*5.9	Mar. 20	unknown	1,430	c5.63

a About.  
b From reconstructed profile.  
c From floodmark in well.

Minimum discharge, 30 ft<sup>3</sup>/s July 25; gage height, 1.37 ft; minimum daily discharge, 35 ft<sup>3</sup>/s Oct. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	50	123	58	90	92	536	91	80	62	92	49
2	42	47	340	58	92	90	442	88	180	295	148	49
3	46	45	280	56	96	90	362	86	142	304	158	47
4	39	43	180	56	94	92	315	82	105	168	105	46
5	97	68	150	54	90	94	314	81	88	127	76	51
6	142	117	127	54	86	94	372	82	95	102	87	70
7	79	102	110	52	84	92	639	83	103	84	204	55
8	56	82	110	50	86	90	485	80	107	71	539	49
9	47	71	100	50	88	90	383	79	102	62	216	45
10	43	71	98	52	90	88	302	76	75	57	149	43
11	52	120	98	56	92	100	250	74	70	51	126	42
12	35	141	110	58	96	120	221	71	150	89	101	45
13	48	187	110	54	100	250	198	64	300	305	87	49
14	60	157	100	50	110	700	183	60	200	334	78	43
15	92	307	94	48	110	1100	169	57	137	174	72	40
16	147	188	88	47	100	1300	174	60	124	115	141	58
17	92	225	86	50	110	860	170	143	200	89	127	57
18	68	243	82	62	120	560	151	103	190	77	105	48
19	70	199	80	90	120	880	137	93	121	68	88	47
20	87	166	78	200	130	1160	129	190	573	84	73	57
21	69	137	74	300	130	701	155	290	342	150	66	102
22	58	120	72	270	130	488	201	520	185	93	62	79
23	55	126	70	180	120	397	162	400	169	67	58	261
24	58	124	76	120	110	374	141	320	154	57	70	241
25	124	111	70	110	110	358	126	250	218	46	62	127
26	96	102	68	120	100	461	127	200	144	129	54	91
27	75	133	66	110	100	776	133	170	113	225	98	76
28	62	170	64	110	96	861	112	124	99	118	88	68
29	59	142	62	100	---	682	102	101	81	87	66	77
30	51	127	62	100	---	729	99	89	70	116	57	121
31	53	---	60	94	---	711	---	75	---	117	53	---
TOTAL	2140	3921	3288	2869	2880	14480	7290	4282	4717	3923	3506	2233
MEAN	69.0	131	106	92.5	103	467	243	138	157	127	113	74.4
MAX	147	307	340	300	130	1300	639	520	573	334	539	261
MIN	35	43	60	47	84	88	99	57	70	46	53	40
CFSM	.77	1.46	1.18	1.03	1.14	5.19	2.70	1.53	1.74	1.41	1.26	.83
IN.	0.88	1.62	1.36	1.19	1.19	5.99	3.01	1.77	1.95	1.62	1.45	0.92
CAL YR 1985	TOTAL	35368	MEAN	96.9	MAX	786	MIN	16	CFSM	1.08	IN.	14.62
WTR YR 1986	TOTAL	55529	MEAN	152	MAX	1300	MIN	35	CFSM	1.69	IN.	22.95

## HUDSON RIVER BASIN

01331095 HUDSON RIVER AT STILLWATER, NY

LOCATION.--Lat 42°56'16", long 73°39'04" at Saratoga-Rensselaer County line, Hydrologic Unit 02020003, at bridge on Stillwater Bridge Road in Stillwater, 0.4 mi upstream from Champlain (Barge) Canal lock 4, and 0.9 mi upstream from Hoosic River.

DRAINAGE AREA.--3,773 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 78.99 ft above National Geodetic Vertical Datum of 1929. Prior to January 1978, nonrecording gages in upper pool of Champlain (Barge) Canal lock 4, at Barge Canal datum.

REMARKS.--Estimated daily discharges: Oct. 1-11, Jan. 8 to Feb. 7, and Feb. 22-24. Records good except those for periods below 3,000 ft<sup>3</sup>/s and those for estimated daily discharges, which are fair. Streamflow affected by regulation for power generation and diversion for canal operations. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--9 years, 6,455 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,600 ft<sup>3</sup>/s May 4, 1983, gage height, 8.69 ft; minimum daily, 900 ft<sup>3</sup>/s July 25, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30,900 ft<sup>3</sup>/s Mar. 20, gage height, 7.68 ft; minimum daily, 2,400 ft<sup>3</sup>/s May 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4100	3870	6760	4280	8800	5430	25500	5780	4080	4200	6110	3890
2	4500	3690	7750	4210	7600	5420	23900	5670	4850	4410	6540	3610
3	4200	3150	9300	4230	7400	5750	22800	4900	5900	5570	6900	4030
4	4200	3140	8680	4260	7800	5520	20400	3440	5330	3430	6700	4330
5	3900	4160	7970	3840	7200	4970	17400	3730	4920	3620	6470	2640
6	3600	5230	7420	4340	7000	4980	15500	4650	4520	4270	5580	3370
7	4100	6210	7220	4010	7400	4880	16500	4140	3940	4280	6950	3450
8	4500	6950	6870	4000	7240	5150	18800	4170	2720	4900	10200	3430
9	4300	6440	6750	4100	6800	5240	17900	4300	3390	4410	7960	3220
10	3700	6060	6430	4200	6740	5450	17000	3910	4100	3690	7260	3300
11	3300	6190	6480	4200	7310	5230	15700	2870	4340	2750	6670	3320
12	2870	7900	6330	4100	6370	5640	14500	3400	4610	3280	6410	3310
13	3020	9760	5330	4000	6200	5950	13200	3590	7710	3270	6140	3670
14	3220	8960	5600	3800	6310	7220	12100	3030	11100	5520	5620	4170
15	4840	10700	5540	3700	7040	15700	11900	3300	8660	6010	5620	3950
16	5680	12000	5580	3800	7200	18500	11200	3600	7720	5780	5550	3840
17	6760	10600	5390	3800	6990	16000	10800	2770	8980	5430	5370	4040
18	5610	9910	4930	3900	6840	15700	10900	2400	10400	5140	5520	4390
19	5700	8530	4300	4000	6760	21200	10400	3050	10400	4420	5690	4330
20	5670	9730	4280	4500	6770	29600	8950	4600	11000	4150	5560	4070
21	5560	9900	4780	5600	7070	24400	6550	6280	11400	4250	5720	3770
22	5620	9460	4250	6400	6600	17600	7410	10500	9840	4570	4660	3110
23	5460	8940	4500	7000	7000	15200	9090	15300	9410	4750	5010	5580
24	4920	8440	4650	7000	6800	13700	8960	16500	8980	4460	4760	4710
25	4810	8100	4990	6600	7070	13100	8780	15900	8090	3680	4310	6220
26	4870	7570	4780	6200	5930	14800	7800	13400	8280	3760	4630	6350
27	4410	7090	4300	6000	5350	16800	4060	11200	5810	3990	4810	6700
28	3880	7530	4080	7800	5130	20800	4930	9130	4760	4330	4590	6780
29	3510	6780	4230	9000	---	20200	6660	8140	4890	4750	5750	5780
30	4320	6510	4360	8400	---	20100	6440	6640	4110	4850	5560	4710
31	4570	---	4350	8000	---	22300	---	5790	---	6210	4750	---
TOTAL	139700	223500	178180	159270	192720	392530	386030	196080	204240	138130	183370	128070
MEAN	4506	7450	5748	5138	6883	12660	12870	6325	6808	4456	5915	4269
MAX	6760	12000	9300	9000	8800	29600	25500	16500	11400	6210	10200	6780
MIN	2870	3140	4080	3700	5130	4880	4060	2400	2720	2750	4310	2640
CAL YR 1985	TOTAL	1876200	MEAN	5140	MAX	17700	MIN	1210				
WTR YR 1986	TOTAL	2521820	MEAN	6909	MAX	29600	MIN	2400				

## HUDSON RIVER BASIN

01331095 HUDSON RIVER AT STILLWATER, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to 1975, 1977 to current year.

CHEMICAL DATA: 1969 (c), 1970-74 (d), 1975 (c), 1980 (b), 1981 (c), 1982-85 (e), 1986 (d).

MINOR ELEMENTS DATA: 1972 (b), 1973-75 (a), 1977-79 (e), 1980 (c).

PESTICIDE DATA: 1977-79 (e), 1980 (a).

ORGANIC DATA: OC--1974 (a), 1975 (c).

PCB--1977-85 (e), 1986 (d).

PCN--1977-79 (e), 1980 (a).

NUTRIENT DATA: 1969 (c), 1970-74 (d), 1975 (c), 1977-78 (e).

SEDIMENT DATA: 1977 (d), 1978 (a), 1981-86 (e).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: March 1977 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD (Water years 1977-84).--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 202 mg/L Dec. 14, 1983; minimum daily mean, 1 mg/L on many days each year.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 14,800 tons Dec. 14, 1983; minimum daily 4.0 Sept. 7, 1980.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	PCB TOTAL (UG/L)	IDENTIFIED AROCLO(S)
NOV						
29...	1300	6900	10	186	< 0.01	1242
DEC						
24...	1235	4530	2	24	.02	1242
FEB						
06...	1500	7000	1	9	.03	1242
MAR						
06...	1130	5130	2	8	< .01	1242
20...	1430	30000	144	11700	.01	1242
26...	1415	14600	14	552	< .01	1242
31...	1615	23500	30	1900	.01	1242
MAY						
01...	1600	5180	3	42	.01	1242
09...	1630	4090	3	33	.01	1242
16...	1400	3020	5	41	.01	1242
23...	1445	15200	26	1070	.02	1242
JUN						
04...	1510	4980	4	54	.01	1242
13...	1345	7820	13	274	.02	1242
24...	1600	8550	7	162	.04	1242
JUL						
02...	1800	4730	3	38	.02	1242
18...	1530	5030	3	41	.03	1242
28...	1630	4040	1	11	.05	1242
AUG						
14...	1100	6020	10	163	.03	1242
28...	1500	4330	6	70	.06	1242
SEP						
08...	1530	2680	4	29	.01	1242



## HUDSON RIVER BASIN

01331095 HUDSON RIVER AT STILLWATER, NY--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)
OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1			---	---	---	---			---	---	2	29
2			---	---	---	---			---	---	2	29
3			---	---	---	---			---	---	2	31
4			---	---	---	---			---	---	1	15
5			---	---	---	---			---	---	2	27
6			---	---	---	---			1	19	2	27
7			---	---	---	---			---	---	1	13
8			---	---	---	---			---	---	1	14
9			---	---	---	---			---	---	2	28
10			---	---	---	---			---	---	1	15
11			---	---	---	---			---	---	15	212
12			---	---	---	---			---	---	15	228
13			---	---	---	---			---	---	13	209
14			---	---	---	---			---	---	22	429
15			---	---	---	---			---	---	67	2840
16			---	---	---	---			---	---	42	2100
17			---	---	---	---			---	---	16	691
18			---	---	---	---			---	---	18	763
19			---	---	---	---			---	---	125	7160
20			---	---	---	---			---	---	147	11700
21			---	---	---	---			---	---	59	3890
22			---	---	---	---			---	---	33	1570
23			---	---	---	---			---	---	22	903
24			---	---	2	25			---	---	13	481
25			---	---	---	---			---	---	10	354
26			---	---	---	---			---	---	15	599
27			---	---	---	---			---	---	12	544
28			---	---	---	---			---	---	12	674
29			10	183	---	---			---	---	13	709
30			---	---	---	---			---	---	9	488
31			---	---	---	---			---	---	30	1810
TOTAL			---	---	---	---			---	---	---	38582

DAY	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	46	3170	3	47	3	33	5	57	6	99	4	42
2	27	1740	4	61	6	79	3	36	9	159	1	10
3	9	554	2	26	6	96	7	105	12	224	2	22
4	9	496	3	28	4	58	3	28	10	181	2	23
5	9	423	3	30	3	40	4	39	5	87	3	21
6	8	335	2	25	5	61	4	46	3	45	4	36
7	9	401	3	34	3	32	4	46	4	75	2	19
8	6	305	5	56	4	29	9	119	8	220	4	37
9	6	290	3	35	10	92	4	48	27	580	3	26
10	6	275	3	32	9	100	4	40	14	274	4	36
11	5	212	4	31	7	82	2	15	8	144	8	72
12	5	196	4	37	10	124	2	18	3	52	4	36
13	5	178	5	48	13	271	2	18	10	166	4	40
14	5	163	3	25	12	360	3	45	4	61	4	45
15	5	161	3	27	7	164	3	49	8	121	7	75
16	4	121	3	29	7	146	3	47	5	75	6	62
17	4	117	1	7	32	776	3	44	2	29	6	65
18	4	118	2	13	16	449	3	42	1	15	4	47
19	4	112	2	16	17	477	2	24	2	31	3	35
20	3	72	12	149	77	2290	4	45	1	15	3	33
21	4	71	3	51	9	277	1	11	3	46	5	51
22	4	80	12	340	9	239	2	25	3	38	4	34
23	6	147	26	1070	9	229	5	64	4	54	11	166
24	4	97	27	1200	7	170	1	12	4	51	16	203
25	3	71	8	343	8	175	3	30	7	81	6	101
26	3	63	10	362	6	134	2	20	4	50	7	120
27	2	22	11	333	3	47	1	11	7	91	6	109
28	2	27	7	173	2	26	1	12	6	74	7	128
29	3	54	4	88	7	92	2	26	7	109	5	78
30	2	35	4	72	3	33	1	13	5	75	4	51
31	---	---	3	47	---	---	3	50	4	51	---	---
TOTAL	---	10106	---	4835	---	7181	---	1185	---	3373	---	1823

## HUDSON RIVER BASIN

57

01332500 HOOSIC RIVER NEAR WILLIAMSTOWN, MASS.

LOCATION.--Lat 42°42'01", long 73°09'34", Berkshire County, Hydrologic Unit 02020003, on left bank 0.3 mi downstream from Sherman Brook and 2.7 mi east of junction of U.S. Highway 7 and State Highway 2 in Williamstown.

DRAINAGE AREA.--126 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: July 1940 to current year.  
Water-quality records: Water years 1953-54, 1957-58, 1967-69.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 616.11 ft above National Geodetic Vertical Datum of 1929, (U.S. Army Corps of Engineers benchmark). Prior to June 6, 1979, at site 1.2 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 11 to Dec. 18, Dec. 22 to Jan. 19, Feb. 2-21, Feb. 23 to Mar. 13. Records good except those for estimated daily discharges, which are poor. Prior to 1966, slight diurnal fluctuation at low flow caused by mills upstream. Some regulation by Cheshire Reservoir 16 mi upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--46 years, 272 ft<sup>3</sup>/s, 29.32 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft<sup>3</sup>/s Dec. 31, 1948, gage height, 14.85 ft, former site and datum, from rating curve extended above 4,300 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow; minimum, 5.8 ft<sup>3</sup>/s Aug. 30, 31, Oct. 26, 1940; minimum daily, 24 ft<sup>3</sup>/s Sept. 9, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 15	0445	*3,440	*8.98	Mar. 19	2230	3,400	8.95

Minimum discharge, 79 ft<sup>3</sup>/s July 26-28; minimum daily, 79 ft<sup>3</sup>/s July 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	151	109	330	115	303	135	792	174	132	123	330	106
2	131	112	760	110	280	130	656	171	236	327	251	102
3	125	109	490	120	260	130	528	159	160	300	445	101
4	146	109	280	130	240	125	454	154	129	240	280	95
5	227	305	240	115	250	130	397	154	111	180	212	105
6	253	426	230	115	220	125	373	154	287	163	166	142
7	174	327	200	110	220	115	575	162	534	143	343	123
8	151	258	190	105	210	110	619	170	388	122	543	112
9	137	217	180	105	210	120	485	161	412	110	493	104
10	126	210	170	105	200	130	422	146	264	105	341	99
11	116	375	170	100	200	210	371	137	218	102	459	95
12	108	540	290	100	180	240	342	127	440	97	312	96
13	142	640	230	96	130	220	309	124	565	94	230	104
14	163	600	210	92	125	806	298	112	379	187	200	96
15	188	900	180	88	125	2610	274	112	269	306	187	85
16	238	480	200	85	120	1220	249	112	230	203	317	88
17	176	730	190	90	120	962	236	123	329	186	367	92
18	153	680	174	100	130	908	218	127	225	151	357	90
19	215	560	123	130	160	2020	204	111	184	141	288	89
20	239	520	129	508	140	2110	195	106	811	117	235	95
21	188	440	133	475	290	896	211	157	462	108	205	158
22	173	390	135	307	527	674	322	217	282	135	190	131
23	161	390	130	270	270	586	242	252	244	111	144	659
24	148	350	125	200	200	557	239	234	213	96	180	505
25	176	320	120	189	170	489	240	207	189	82	150	259
26	160	300	105	980	145	709	217	169	168	81	133	199
27	148	360	125	1750	145	1120	213	149	150	79	236	177
28	131	360	130	762	140	942	194	130	141	87	196	156
29	119	310	130	489	---	986	188	121	128	106	152	151
30	115	290	125	396	---	1180	181	106	125	255	134	150
31	112	---	120	349	---	1100	---	103	---	531	122	---
TOTAL	4990	11717	6344	8686	5690	21795	10244	4641	8405	5068	8198	4564
MEAN	161	391	205	280	203	703	341	150	280	163	264	152
MAX	253	900	760	1750	527	2610	792	252	811	531	543	659
MIN	108	109	105	85	120	110	181	103	111	79	122	85
CFSM	1.28	3.10	1.63	2.22	1.61	5.58	2.71	1.19	2.22	1.29	2.10	1.21
IN.	1.47	3.46	1.87	2.56	1.68	6.43	3.02	1.37	2.48	1.50	2.42	1.35

CAL YR 1985	TOTAL	72440	MEAN 198	MAX 1570	MIN 45	CFSM 1.57	IN. 21.39
WTR YR 1986	TOTAL	100342	MEAN 275	MAX 2610	MIN 79	CFSM 2.18	IN. 29.62

## HUDSON RIVER BASIN

01333000 GREEN RIVER AT WILLIAMSTOWN, MASS.

LOCATION.--Lat 42°42'32", long 73°11'50", Berkshire County, Hydrologic Unit 02020003, on left bank 0.1 mi upstream from bridge on State Highway 2 at Williamstown and 0.8 mi upstream from mouth.

DRAINAGE AREA.--42.6 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: September 1949 to current year.  
Water-quality records: Water years 1967-69.

REVISED RECORDS.--WDR MA-RI-84-1: 1977-78(P), 1979, 1980-83(P).

GAGE.--Water-stage recorder. Elevation of gage is 615 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 19 to Jan. 20, Jan. 29 to Feb. 14, Feb. 16-18, 21, Feb. 24 to Mar. 14. Records good except those for winter period, which are poor. Slight diurnal fluctuation at times caused by mill upstream. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--37 years, 82.4 ft<sup>3</sup>/s, 26.27 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,060 ft<sup>3</sup>/s Dec. 21, 1973, gage height, 5.68 ft in gage well, from rating curve extended above 750 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 4.94 ft; maximum gage height, 6.35 ft Mar. 13, 1977, from floodmarks, gage height in well unknown; minimum discharge, 3.1 ft<sup>3</sup>/s Sept. 20, 22, 24, 25, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 31, 1948, reached a stage of about 7.5 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 850 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 15	0115	*2,110	*5.02	Aug. 17	1815	1,010	3.83
Mar. 19	1700	1,090	3.93				

Minimum discharge, 13 ft<sup>3</sup>/s July 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	24	85	36	98	46	160	58	34	33	35	26
2	29	23	201	34	90	45	144	60	50	83	77	25
3	26	23	144	39	80	44	128	54	32	56	41	24
4	27	23	119	42	73	44	120	51	28	46	34	23
5	54	46	110	36	66	45	111	50	27	41	28	26
6	48	53	102	34	63	42	114	47	69	37	26	30
7	37	49	89	33	60	39	146	51	116	34	42	24
8	32	47	82	32	57	36	134	49	102	30	69	22
9	29	42	76	32	55	40	124	46	103	27	70	20
10	28	43	70	31	53	45	120	44	74	25	50	19
11	25	73	70	31	51	76	112	42	67	24	75	18
12	23	101	101	30	50	84	101	40	92	29	48	19
13	28	121	78	29	48	72	91	37	102	44	42	20
14	27	138	75	28	47	480	83	35	83	38	37	16
15	37	198	64	26	46	1050	78	33	68	31	34	15
16	43	138	63	26	46	421	78	33	62	31	57	19
17	34	220	61	26	45	345	74	37	81	26	173	16
18	32	179	53	28	47	303	68	33	59	24	101	15
19	39	154	46	37	56	664	63	29	52	22	78	15
20	39	141	48	180	49	541	61	27	185	23	64	16
21	36	120	51	146	120	310	73	35	116	23	54	20
22	34	113	50	114	133	239	87	47	93	20	49	16
23	32	106	49	97	85	198	78	60	83	18	44	43
24	31	92	47	71	70	170	77	49	71	16	47	34
25	35	80	45	65	59	150	76	46	62	15	38	24
26	32	77	42	408	52	169	75	40	54	15	34	22
27	29	101	41	493	50	210	71	36	49	32	57	20
28	28	95	41	218	48	200	68	33	46	19	39	19
29	27	84	40	145	---	192	64	30	41	36	33	19
30	26	79	39	120	---	209	61	27	36	50	31	19
31	25	---	37	105	---	191	---	26	---	35	28	---
TOTAL	1003	2783	2219	2772	1797	6700	2840	1285	2137	983	1635	644
MEAN	32.4	92.8	71.6	89.4	64.2	216	94.7	41.5	71.2	31.7	52.7	21.5
MAX	54	220	201	493	133	1050	160	60	185	83	173	43
MIN	23	23	37	26	45	36	61	26	27	15	26	15
CFSM	.76	2.18	1.68	2.10	1.51	5.07	2.22	.97	1.67	.74	1.24	.50
IN.	.88	2.43	1.94	2.42	1.57	5.85	2.48	1.12	1.87	.86	1.43	.56
CAL YR 1985	TOTAL	19782.5	MEAN	54.2	MAX	706	MIN	7.7	CFSM	1.27	IN.	17.27
WTR YR 1986	TOTAL	26798	MEAN	73.4	MAX	1050	MIN	15	CFSM	1.72	IN.	23.40

## HUDSON RIVER BASIN

59

01333500 LITTLE HOOSIC RIVER AT PETERSBURG, NY

LOCATION.--Lat 42°45'50", long 73°20'16", Rensselaer County, Hydrologic Unit 02020003, on left bank 100 ft downstream from highway bridge on dirt road, 1.0 mi downstream from Petersburg, and 4.9 mi upstream from mouth.

DRAINAGE AREA.--56.1 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1951 to current year.

REVISED RECORDS.--WSP 1702: 1959.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 587.40 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 13 to Jan. 25, Jan. 28 to Feb. 16, and Feb. 22 to Mar. 10. Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--35 years, 94.5 ft<sup>3</sup>/s, 22.88 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,000 ft<sup>3</sup>/s June 30, 1973, gage height, 9.20 ft; minimum, 1.9 ft<sup>3</sup>/s Sept. 11, 12, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 31, 1948, reached a stage of 9.4 ft, from floodmarks, discharge, 7,470 ft<sup>3</sup>/s, on basis of contracted-opening measurements of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,250 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 15	0030	*3,190	a*7.23	Aug. 8	1745	1,370	5.15

a Recorded in well; outside gage height was 7.53 ft, from crest-stage gage.

Minimum discharge, 12 ft<sup>3</sup>/s Oct. 12, 13, gage height, 1.52 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	18	102	49	140	58	165	75	36	32	54	27
2	14	18	280	48	130	56	148	74	119	84	103	26
3	13	17	194	46	110	56	132	68	55	69	68	24
4	13	17	158	45	100	54	122	63	41	54	59	23
5	20	34	139	45	90	54	111	60	37	42	48	24
6	24	57	130	43	84	52	118	57	58	37	44	25
7	19	58	114	41	80	52	171	54	76	32	51	22
8	17	54	105	40	74	52	145	52	71	28	234	20
9	15	46	96	39	68	56	134	48	74	25	152	19
10	14	54	87	41	64	62	131	44	58	22	97	18
11	13	103	87	45	62	233	123	40	55	21	95	17
12	12	130	130	44	60	138	113	38	76	23	75	17
13	15	143	100	42	66	161	104	35	79	37	64	18
14	15	154	90	39	70	812	96	32	68	48	55	16
15	17	238	78	38	60	1760	89	30	58	29	51	15
16	26	170	72	37	52	781	92	29	54	26	123	17
17	21	288	68	41	48	578	87	30	81	23	86	16
18	20	216	64	58	48	485	78	27	56	21	96	15
19	27	179	62	140	57	794	73	25	48	20	85	14
20	31	155	58	270	58	722	69	24	264	21	71	16
21	27	130	56	200	196	459	85	30	135	21	63	17
22	26	121	54	170	160	345	112	37	103	18	56	15
23	24	115	52	140	100	275	96	59	100	17	49	107
24	23	100	52	110	90	227	100	63	83	15	74	60
25	29	88	54	120	78	191	97	46	70	14	51	36
26	26	84	54	558	70	198	99	36	61	28	41	28
27	24	116	52	713	64	226	94	31	53	307	64	25
28	23	107	50	350	60	218	88	28	47	83	46	23
29	21	97	49	250	---	199	84	25	40	63	38	23
30	20	94	48	200	---	197	79	23	36	61	34	23
31	20	---	47	170	---	187	---	22	---	55	30	---
TOTAL	625	3201	2782	4172	2339	9738	3235	1305	2192	1376	2262	746
MEAN	20.2	107	89.7	135	83.5	314	108	42.1	73.1	44.4	73.0	24.9
MAX	31	288	280	713	196	1760	171	75	264	307	234	107
MIN	12	17	47	37	48	52	69	22	36	14	30	14
CFSM	.36	1.91	1.60	2.41	1.49	5.60	1.93	.75	1.30	.79	1.30	.44
IN.	0.41	2.12	1.84	2.77	1.55	6.46	2.15	0.87	1.45	0.91	1.50	0.49
CAL YR 1985	TOTAL	24532.0	MEAN	67.2	MAX	930	MIN	5.6	CFSM	1.20	IN.	16.27
WTR YR 1986	TOTAL	33973	MEAN	93.1	MAX	1760	MIN	12	CFSM	1.66	IN.	22.53



## HUDSON RIVER BASIN

01334000 WALLOOMSAC RIVER NEAR NORTH BENNINGTON, VT.

LOCATION.--Lat 42°54'47", long 73°15'25", Bennington County, Hydrologic Unit 02020003, on left bank 0.6 mi downstream from Paran Creek and 1.4 mi south of North Bennington.

DRAINAGE AREA.--111 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: June 1931 to current year.  
Water-quality records: Water years 1953-54.

REVISED RECORDS.--WSP 781: 1933(M).

GAGE.--Water-stage recorder. Elevation of gage is 525 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 18-20, 26-28, Jan. 2-16, 24, 25, 28-31, Feb. 1-3, 7, 9-14, 16, 26-28, Mar. 8. Records good except for estimated daily discharges, which are fair. Occasional diurnal fluctuation at low flow caused by mills upstream; diurnal fluctuation greater prior to 1960. Diver- sion upstream for municipal supply of Bennington and North Bennington since 1961. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--55 years, 222 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,450 ft<sup>3</sup>/s Sept. 21, 1938, gage height, 12.04 ft, from rating curve extended above 2,800 ft<sup>3</sup>/s on basis of contracted-opening measurements at gage heights 10.13 ft, 10.49 ft, 11.50 ft, and 12.04 ft and slope-area measurement and computation of flow over dam at gage height 12.04 ft; minimum, 4 ft<sup>3</sup>/s Sept. 27, 1932; minimum daily, 21 ft<sup>3</sup>/s Sept. 22, 23, 1964, July 12, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 15	0300	*3,430	*7.40	Mar. 19	2300	2,470	6.22

Minimum daily discharge, 60 ft<sup>3</sup>/s Jan. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	99	173	87	200	111	738	196	129	98	259	103
2	107	94	400	75	180	106	627	189	479	339	414	95
3	104	87	318	80	165	108	492	171	250	433	300	91
4	108	95	215	80	171	109	421	164	162	371	206	89
5	173	166	189	90	171	119	380	169	137	242	167	101
6	223	316	183	85	153	115	355	168	160	190	142	143
7	143	341	168	85	140	107	486	166	191	155	173	102
8	117	261	161	85	144	95	539	160	163	136	436	91
9	103	202	156	120	130	92	469	159	167	118	416	88
10	95	207	146	125	128	101	418	140	125	105	340	78
11	93	443	145	85	120	313	360	130	136	95	245	76
12	87	400	200	75	120	274	315	122	269	106	190	88
13	110	474	179	65	110	228	287	114	411	180	158	106
14	121	461	162	60	110	738	297	108	260	251	134	80
15	126	706	128	95	106	2260	302	104	186	163	121	71
16	160	424	132	140	105	887	276	103	234	135	333	92
17	119	451	126	133	99	622	255	121	397	112	237	92
18	103	418	110	115	105	565	233	115	228	104	269	78
19	239	357	105	104	120	1200	216	98	174	95	221	74
20	282	340	100	338	120	1540	204	93	838	98	159	79
21	180	280	106	335	281	720	239	124	487	115	139	145
22	148	248	103	212	380	531	375	222	299	96	125	112
23	130	234	103	177	232	459	272	322	254	81	112	467
24	119	210	106	110	164	422	246	250	220	74	171	479
25	156	186	110	120	142	371	231	203	185	69	138	247
26	139	177	108	600	125	459	238	154	159	76	110	174
27	122	226	123	1170	130	774	221	129	143	238	326	150
28	111	217	128	525	120	677	196	116	138	131	218	133
29	105	190	193	350	---	693	185	102	118	753	150	126
30	106	174	104	275	---	978	244	94	107	605	126	132
31	111	---	93	230	---	1020	---	92	---	344	112	---
TOTAL	4161	8484	4773	6226	4271	16794	10117	4598	7206	6108	6647	3982
MEAN	134	283	154	201	153	542	337	148	240	197	214	133
MAX	282	706	400	1170	380	2260	738	322	838	753	436	479
MIN	87	87	93	60	99	92	185	92	107	69	110	71

CAL YR 1985 TOTAL 65380 MEAN 179 MAX 894 MIN 38  
WTR YR 1986 TOTAL 83367 MEAN 228 MAX 2260 MIN 60

## HUDSON RIVER BASIN

61

01334500 HOOSIC RIVER NEAR EAGLE BRIDGE, NY

LOCATION.--Lat 42°56'19", long 73°22'39", Rensselaer County, Hydrologic Unit 02020003, on right bank 0.5 mi upstream from Case Brook, 1.2 mi downstream from Walloomsac River, and 1.2 mi southeast of Eagle Bridge.

DRAINAGE AREA.--510 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1910 to March 1922, July 1923 to current year.

REVISED RECORDS.--WSP 741: Drainage area. WSP 756: 1913(m). WSP 1302: 1922(M). WSP 1432: 1913 (minimum gage height). WSP 1502: 1911-12, 1914, 1920-21, 1928(M), 1936(M).

GAGE.--Water-stage recorder. Datum of gage is 355.41 ft above National Geodetic Vertical Datum of 1929. Prior to March 1922, nonrecording gage and July 24, 1923 to July 18, 1936, water-stage recorder, at site 0.2 mi upstream at different datums.

REMARKS.--Estimated daily discharges: Dec. 15 to Jan. 23, Feb. 1-18, and Feb. 27 to Mar. 10. Records good except those for estimated daily discharges, which are poor. Diurnal fluctuation at medium and low flow caused by powerplants upstream from station. Several measurements of water temperature were made during the year. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--74 years (1911-21, 1924-86), 945 ft<sup>3</sup>/s, 25.16 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,400 ft<sup>3</sup>/s Dec. 31, 1948, gage height, 21.15 ft, from highwater mark in gage house, from rating curve extended above 13,000 ft<sup>3</sup>/s on basis of peak flow over downstream dams and contracted-opening measurements at gage heights 17.8 ft and 21.15 ft; minimum discharge, 24 ft<sup>3</sup>/s Sept. 14, 1913; minimum daily, 30 ft<sup>3</sup>/s Sept. 14, 1913.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 27	1015	8,630	9.32	Mar. 20	0230	12,300	10.80
Mar. 15	0815	*19,100	*13.07				

Minimum discharge, 190 ft<sup>3</sup>/s Oct. 12; minimum daily, 238 ft<sup>3</sup>/s Oct. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	405	288	849	310	1300	580	2620	745	378	412	738	384
2	347	257	2180	310	1100	540	2200	724	1140	799	1160	361
3	324	264	2000	350	1000	520	1810	676	794	1200	904	343
4	312	289	1260	400	900	500	1560	641	546	1030	673	330
5	359	332	1060	350	800	540	1430	627	459	712	553	342
6	644	878	975	320	760	520	1350	624	555	612	485	422
7	470	906	866	300	700	450	1790	624	1060	524	520	378
8	383	697	798	290	1200	400	2020	619	915	460	1460	335
9	335	594	742	290	1800	420	1760	626	1020	406	1620	315
10	306	544	692	300	1700	480	1590	565	747	370	1160	293
11	290	970	662	320	1500	1450	1430	531	619	317	1050	270
12	238	1170	960	320	1300	1310	1300	504	869	335	910	294
13	279	1780	900	320	1200	1190	1180	476	1570	491	698	337
14	362	1420	808	270	1100	3570	1120	447	1120	831	593	287
15	374	2680	640	250	1000	15300	1080	430	841	604	528	262
16	483	1680	560	250	900	6060	1030	421	803	525	983	286
17	429	2090	500	280	820	4160	968	437	1250	444	849	298
18	362	2170	450	330	760	3670	881	459	895	405	1550	269
19	418	1720	410	400	655	6210	818	435	711	379	1090	256
20	649	1570	400	900	601	9110	774	416	2540	372	817	263
21	500	1300	400	1800	1120	3860	771	413	1930	429	695	374
22	428	1130	400	1200	2060	2770	1220	635	1170	364	622	373
23	401	1120	390	1000	1170	2310	996	900	998	310	538	1220
24	365	987	380	752	875	2100	950	828	878	282	645	1810
25	401	858	400	701	782	1790	923	749	748	264	572	841
26	408	792	380	2990	653	1860	903	589	644	259	477	610
27	368	1000	360	6740	640	3140	881	497	576	795	774	531
28	338	1070	350	3090	620	2900	807	444	532	486	767	473
29	300	920	340	1890	---	2650	768	403	480	968	546	443
30	313	844	330	1620	---	3270	809	373	436	1440	472	443
31	305	---	320	1430	---	3420	---	353	---	963	424	---
TOTAL	11896	32320	21762	30073	29016	87050	37739	17211	27224	17788	24873	13443
MEAN	384	1077	702	970	1036	2808	1258	555	907	574	802	448
MAX	649	2680	2180	6740	2060	15300	2620	900	2540	1440	1620	1810
MIN	238	257	320	250	601	400	768	353	378	259	424	256
CFSM	.75	2.11	1.38	1.90	2.03	5.51	2.47	1.09	1.78	1.13	1.57	.88
IN.	0.87	2.36	1.59	2.19	2.12	6.35	2.75	1.26	1.99	1.30	1.81	0.98

CAL YR 1985	TOTAL	249794	MEAN	684	MAX	6440	MIN	121	CFSM	1.34	IN.	18.22
WTR YR 1986	TOTAL	350395	MEAN	960	MAX	15300	MIN	238	CFSM	1.88	IN.	25.56

## HUDSON RIVER BASIN

01335754 HUDSON RIVER ABOVE LOCK 1 NEAR WATERFORD, NY

LOCATION.--Lat 42°49'45", long 73°40'00", Saratoga County, Hydrologic Unit 02020003, 0.4 mi upstream from dam at Lock 1c and 3.4 mi downstream from dam at Lock 2c Champlain (Barge) Canal.

DRAINAGE AREA.--4,611 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1976 to current year. Prior to October 1981 published as 01335770 Hudson River at Waterford, NY.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to February 1978, nonrecording gage 200 ft downstream of this site.

REMARKS.--Estimated daily discharges: Dec. 6, Dec. 26 to Jan. 8, Jan. 11-12, 14-16, Jan. 21 to Feb. 21, Apr. 15, and June 25. Records fair. Streamflow affected by regulation for power generation and diversion for canal operations.

AVERAGE DISCHARGE.--10 years, 8,107 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,800 ft<sup>3</sup>/s Mar. 15, 1977; minimum daily, 1,170 ft<sup>3</sup>/s July 25, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 45,300 ft<sup>3</sup>/s Mar. 20, gage height, 31.93 ft; maximum gage height, 32.40 ft May 25; minimum daily discharge, 2,500 ft<sup>3</sup>/s May 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4250	4060	7480	4300	11000	6980	31100	6310	4310	4490	6910	4550
2	4610	3840	9340	4200	10500	6730	28700	6090	5250	4970	7200	4230
3	3910	3450	11700	4300	10000	6800	27200	5470	6600	6610	7820	4330
4	3950	3150	10100	4400	10500	6480	24900	3790	5990	5040	7560	4800
5	3470	4240	9200	4000	10000	5900	21500	4120	5500	4270	7200	3070
6	3830	5460	9000	4300	9000	5830	19100	5050	5070	5050	6260	3610
7	2780	6880	7700	4000	8000	5730	20600	4500	4730	4880	6960	3980
8	4780	7420	7210	4000	8600	5720	23800	4620	3520	5370	13800	4130
9	4350	6870	7120	4110	8300	5730	22600	4750	4170	4920	10900	3470
10	3810	6460	6880	4220	8500	6290	21100	4420	4970	4080	9470	3680
11	3460	6530	6870	4200	8800	6500	19400	3340	4940	2970	8040	3580
12	3130	8560	6770	4100	7800	8010	17700	3660	5350	3490	7670	3710
13	3460	10900	5860	4020	7200	8040	15800	3720	8770	3390	7060	3780
14	3140	10200	6080	3800	7400	10500	14100	3220	13100	5930	6480	4490
15	4880	12100	5950	3700	8000	38100	14000	3450	9660	6550	6330	4220
16	5860	13600	5880	3800	8800	40500	12300	4060	8900	6230	6600	4230
17	6650	12300	5700	3720	8200	32200	12000	3200	11200	5940	6490	4250
18	5520	12100	5190	3320	7800	28700	11700	2500	11900	5600	6590	4740
19	5690	10200	4750	3830	7500	32100	11200	3320	11900	4960	7290	4740
20	6020	11100	4820	4680	7600	44000	9690	4660	14000	4660	6650	4480
21	5730	11100	4930	7300	8200	35900	7160	6200	15300	4630	6680	4370
22	5570	10400	5250	7400	12200	26300	7970	10400	12200	4920	5440	3480
23	5680	9920	5100	7600	12000	22700	9940	16100	11400	4890	5570	6160
24	4990	9240	4580	7400	9730	18600	9730	17300	10800	4600	5510	5940
25	4960	8810	5060	7100	9410	17300	9430	17100	8070	3920	5010	7290
26	5080	8200	4800	8000	8480	19100	8670	14600	9080	3950	5260	7270
27	4740	7780	4500	15000	7390	22600	5120	12000	6670	4380	5580	7150
28	4050	8480	4200	16500	7070	27100	5320	9540	5240	4870	5260	7410
29	3700	7620	4200	13000	---	26100	7260	8420	5450	5380	6280	6760
30	4240	7250	4300	12000	---	26100	7000	6880	4420	5380	6330	5550
31	4750	---	4300	11500	---	27900	---	6210	---	7350	5360	---
TOTAL	141040	248220	194820	193800	247980	580540	456090	209000	238460	153670	215560	143450
MEAN	4550	8274	6285	6252	8856	18730	15200	6742	7949	4957	6954	4782
MAX	6650	13600	11700	16500	12200	44000	31100	17300	15300	7350	13800	7410
MIN	2780	3150	4200	3320	7070	5720	5120	2500	3520	2970	5010	3070
CAL YR 1985	TOTAL	2141580	MEAN	5867	MAX	28500	MIN	1600				
WTR YR 1986	TOTAL	3022630	MEAN	8281	MAX	44000	MIN	2500				

01335769 HUDSON RIVER AT WATER TREATMENT PLANT AT WATERFORD, NY

LOCATION.--Lat 42°47'38", long 73°40'24", Saratoga County, Hydrologic Unit 02020003, at raw-water tap for water supply intake in Waterford water treatment plant, 0.3 mi upstream from bridge on U.S. Highway 4 in Waterford.

DRAINAGE AREA.--4,620 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--Water years 1969 to 1976, March to November 1985 (discontinued).

CHEMICAL DATA: 1969 (d), 1970-71 (e), 1972-73 (d), 1974 (e), 1976 (a), 1985 (e), 1986 (d).

MINOR ELEMENTS DATA: 1971 (a), 1972-73 (b), 1974, 1976 (d).

PESTICIDE DATA: 1976 (c), 1985 (e).

ORGANIC DATA: PCB--1976 (c), 1985 (e), 1986 (d).

PCN--1976 (b).

NUTRIENT DATA: 1969 (d), 1970-71 (e), 1972-73 (d), 1974 (e).

REMARKS.--Water discharge data based on records obtained above Lock 1 near Waterford (station 01335754) 2.9 mi upstream.

## WATER QUALITY DATA, OCTOBER TO NOVEMBER 1985

DATE	TIME	STREAM- FLOW INSTAN- TANEOUS (CFS)	PCB, TOTAL (UG/L)	IDENTIFIED AROCLO(S)
OCT				
04...	1120	3920	0.01	1242
07...	0620	2190	.01	1242
18...	0750	5620	.02	1242
21...	0700	5930	.01	1242
25...	0730	5320	.01	1242
28...	0630	3920	.01	1242
NOV				
01...	0800	4170	.01	1242
04...	0800	3300	.01	1242
08...	1000	7790	.02	1242
11...	0630	6250	.01	1242



## HUDSON RIVER BASIN

01335770 HUDSON RIVER AT WATERFORD, NY

LOCATION.--Lat 42°47'19", long 73°40'28", at Saratoga-Rensselaer County line, Hydrologic Unit 02020003, at bridge on U.S. Highway 4 in Waterford, 0.4 mi upstream from first branch of Mohawk River, and 2.8 mi downstream from dam at lock 1 of the Champlain (Barge) Canal.

DRAINAGE AREA.--9,620 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1975 to current year.

CHEMICAL DATA: 1975-76 (b), 1977 (c), 1978-79 (d), 1980-84 (e), 1985 (c), 1986 (e):

MINOR ELEMENTS DATA: 1975-76 (c), 1977-79 (e), 1980-81 (d), 1982 (a), 1983 (b).

PESTICIDE DATA: 1975 (b), 1976 (d), 1977-79 (e), 1980, 1982 (a).

ORGANIC DATA: OC--1975-77 (c), 1978 (d), 1979 (c).

PCB--1975 (b), 1976 (d), 1977-84 (e), 1985 (c), 1986 (e).

PCN--1977-79 (e), 1980, 1982 (a).

NUTRIENT DATA: 1975-76 (c), 1977-78 (e), 1979-81 (d).

BIOLOGICAL DATA:

Bacteria--1977 (c), 1978 (d), 1979 (e), 1980-81 (d).

SEDIMENT DATA: 1975 (b), 1976-77 (e), 1978 (a), 1979 (b), 1980 (c), 1981-86 (e).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: October 1976 to current year.

REMARKS.--Water discharge data based on records obtained above Lock 1 near Waterford (station 01335754) 3.2 mi upstream.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean (water years 1977-84), 810 mg/L March 14, 1977; minimum daily mean, 1 mg/L on many days.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily (water years 1977-84), 119,000 tons March 14, 1977; minimum daily, 3.9 tons Sept. 7, 1981.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	PCB TOTAL (UG/L)	IDENTIFIED ARCLOR(S)
NOV						
29	1345	7670	5	104	< 0.01	1242
DEC						
24...	1130	4370	16	189	.03	1242
FEB						
06...	1700	9000	6	146	.01	1242
MAR						
06...	1230	6000	6	97	< .01	1242
20...	1200	45200	220	26800	.01	1242
20...	1700	44000	202	24000	.01	1242
20...	1705	44000	200	23800	.01	1242
21...	1145	35600	72	6920	.01	1242
APR						
02...	1400	28500	7	539	.02	1242
MAY						
01...	1630	5620	3	46	.01	1242
09...	1730	4390	3	36	.01	1242
16...	1500	3430	4	37	.01	1242
23...	1300	16500	21	936	.01	1242
JUN						
13...	1430	9150	21	519	.01	1242
24...	1715	10900	2	59	.05	1242
JUL						
02...	1900	5280	8	114	.01	1242
18...	1615	5470	2	30	.03	1242
28...	1715	4320	2	23	.03	1242
AUG						
14...	1230	6730	5	91	.04	1242
28...	1600	4830	6	78	.04	1242
SEP						
08...	1630	3330	4	36	.02	1242

01335770 HUDSON RIVER AT WATERFORD, NY--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1			4	44	---	---			---	---	6	113
2			4	41	---	---			---	---	6	109
3			4	37	---	---			---	---	6	110
4			4	34	---	---			---	---	6	105
5			11	126	---	---			---	---	6	96
6			11	162	6	146			6	146	6	94
7			2	37	3	62			---	---	6	93
8			6	120	3	58			---	---	6	93
9			5	93	---	---			---	---	6	93
10			4	70	---	---			---	---	6	102
11			5	88	---	---			---	---	6	105
12			8	185	---	---			---	---	8	173
13			8	235	---	---			---	---	8	174
14			13	358	---	---			---	---	99	3390
15			14	457	---	---			---	---	206	20300
16			12	441	---	---			---	---	138	15100
17			10	329	---	---			---	---	69	5980
18			8	261	---	---			---	---	58	4360
19			7	193	---	---			---	---	199	17800
20			5	150	---	---			---	---	213	25100
21			4	120	---	---			---	---	82	8220
22			3	84	---	---			---	---	38	2700
23			3	80	---	---			---	---	25	1530
24			2	50	16	198			---	---	20	1000
25			2	48	---	---			---	---	20	934
26			3	66	---	---			---	---	24	1230
27			8	168	---	---			---	---	29	1770
28			5	114	---	---			---	---	30	2200
29			5	103	---	---			---	---	22	1550
30			5	98	---	---			---	---	22	1550
31			---	---	---	---			---	---	25	1880
TOTAL			---	4392	---	---			---	---	---	118054

DAY	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)	MEAN CONCEN- TRATION (MG/L)	SEDI- MENT DIS- CHARGE (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	35	2940	3	51	5	58	3	36	5	93	3	37
2	32	2480	3	49	4	57	8	107	5	97	3	34
3	20	1470	3	44	5	89	7	125	6	127	4	47
4	10	672	3	31	4	65	6	82	5	102	4	52
5	6	348	1	11	2	30	5	58	5	97	8	66
6	7	361	3	41	3	41	6	82	5	85	4	39
7	21	1170	4	49	2	26	6	79	5	94	4	43
8	8	514	3	37	10	95	6	87	40	1480	4	44
9	8	488	3	38	6	68	4	53	25	736	4	37
10	5	285	3	36	3	40	4	44	6	153	5	50
11	5	262	3	27	3	40	4	32	6	130	3	29
12	4	191	3	30	13	188	4	38	7	145	3	30
13	4	171	3	30	12	284	4	37	5	95	4	41
14	5	190	3	26	21	743	4	64	5	87	4	48
15	5	189	3	28	22	574	4	71	6	103	3	34
16	5	166	4	44	16	384	3	50	13	232	3	34
17	4	129	2	17	20	605	4	64	7	123	7	80
18	3	95	1	7	10	321	2	30	2	36	4	51
19	3	91	2	18	29	932	3	40	5	98	7	90
20	3	78	2	25	29	1090	4	50	4	72	5	60
21	3	58	2	33	12	496	6	75	4	72	4	47
22	3	65	21	590	14	461	5	66	4	59	4	38
23	2	54	21	913	10	308	5	66	4	60	4	67
24	6	158	20	934	2	58	3	37	4	60	7	112
25	3	76	23	1060	2	44	3	32	4	54	7	138
26	2	47	9	355	2	49	3	32	4	57	8	157
27	1	14	3	97	4	72	3	35	4	60	5	97
28	2	29	4	103	1	14	2	26	6	85	10	200
29	3	59	8	182	2	29	2	29	3	51	3	55
30	4	76	4	74	2	24	6	87	3	51	3	45
31	---	---	9	151	---	---	10	198	3	43	---	---
TOTAL	---	12926	---	5131	---	7285	---	1912	---	4837	---	1902

## HUDSON RIVER BASIN

01336000 MOHAWK RIVER BELOW DELTA DAM, NEAR ROME, NY

LOCATION.--Lat 43°15'52", long 75°26'12", Oneida County, Hydrologic Unit 02020004, on right bank at Rome Fish Hatchery, 1.0 mi downstream from Delta Dam, and 4.0 mi north of Rome.

DRAINAGE AREA.--152 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1921 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR NY-85-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 474.00 ft above Barge Canal datum. Prior to Jan. 24, 1937, nonrecording gage at site 200 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. During canal navigation season, water is diverted from Black River through Forestport feeder and Black River Canal (flowing south) into basin above Delta Reservoir. Flow regulated by Delta Reservoir (usable capacity, 2,800 mil ft<sup>3</sup>). Small quantity of water diverted from Delta Reservoir for fish hatchery use and later returned to river, part upstream and part downstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--65 years, 377 ft<sup>3</sup>/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,560 ft<sup>3</sup>/s Oct. 2, 1945, gage height, 11.18 ft; minimum, 18 ft<sup>3</sup>/s July 21, 27, Oct. 24, 25, 1983, minimum gage height, 0.63 ft Oct. 24, 25, 1983; minimum daily, 45 ft<sup>3</sup>/s Jan. 17, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,360 ft<sup>3</sup>/s Mar. 31, gage height, 6.11 ft; minimum, 158 ft<sup>3</sup>/s part or all of each day May 11-16, gage height, 1.72 ft; minimum daily, 158 ft<sup>3</sup>/s May 11-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	224	235	319	517	986	229	1800	195	241	234	739	184
2	227	234	697	515	977	227	1710	205	246	241	625	171
3	224	234	809	513	969	227	1380	186	232	240	710	167
4	221	234	566	513	963	226	1080	168	232	234	538	167
5	227	245	443	512	950	226	1000	162	232	232	389	167
6	226	244	376	511	539	226	1040	161	231	232	303	167
7	222	240	317	509	349	227	1110	168	231	232	346	167
8	221	246	288	507	347	226	988	163	233	232	639	166
9	219	246	394	506	286	226	942	160	232	232	537	165
10	220	284	366	506	229	225	788	160	232	232	463	165
11	223	264	317	502	228	235	655	158	233	232	440	165
12	221	251	313	502	226	241	552	158	275	234	377	165
13	261	260	289	500	226	242	464	158	605	254	303	165
14	238	285	277	497	226	275	407	158	627	257	258	165
15	267	274	327	494	225	342	365	158	469	239	251	165
16	249	252	350	494	225	295	447	161	376	234	1110	167
17	239	281	349	494	224	274	636	165	603	233	884	166
18	236	259	350	493	224	275	538	164	494	232	582	165
19	276	277	350	500	226	395	432	190	370	232	393	165
20	252	322	349	611	235	317	361	496	812	281	280	187
21	242	332	348	555	247	269	394	1270	691	370	299	176
22	240	323	347	525	246	262	497	1230	474	336	266	170
23	238	338	471	512	240	261	424	1050	567	277	215	461
24	240	349	523	506	234	717	337	750	585	242	228	859
25	251	333	521	504	233	1210	367	527	447	232	207	608
26	241	317	521	505	231	1240	328	385	339	239	184	458
27	240	323	521	770	230	1250	283	415	284	259	350	385
28	239	349	520	1000	229	1220	248	345	268	246	413	310
29	237	333	518	1000	---	1250	224	274	252	245	317	368
30	237	310	518	998	---	1220	206	241	239	256	248	869
31	237	---	517	991	---	2200	---	232	---	590	208	---
TOTAL	7335	8474	13171	18062	10750	16255	20003	10413	11352	8061	13102	8025
MEAN	237	282	425	583	384	524	667	336	378	260	423	268
MAX	276	349	809	1000	986	2200	1800	1270	812	590	1110	869
MIN	219	234	277	493	224	225	206	158	231	232	184	165
CAL YR 1985	TOTAL	139932	MEAN	383	MAX	2240	MIN	165				
WTR YR 1986	TOTAL	145003	MEAN	397	MAX	2200	MIN	158				

## 01346000 WEST CANADA CREEK AT KAST BRIDGE, NY

LOCATION.--Lat 43°04'08", long 74°59'26", Herkimer County, Hydrologic Unit 02020004, on right bank 600 ft downstream from bridge on old State Highway 28 at Kast Bridge, 1.2 mi downstream from North Creek, 2.2 mi north of Herkimer, and 4.0 mi upstream from mouth. Prior to Oct. 23, 1985, at site on left bank.

DRAINAGE AREA.--560 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1907, April to December 1907, March 1908 to December 1909, April 1910 to December 1913, April to December 1914, April 1915 to January 1917, April to November 1917, April to June 1918, October 1920 to current year. Monthly discharge only for some periods, published in WSP 1302. Gage height and discharge measurements only, May 1905 to December 1906.

REVISED RECORDS.--WDR NY-85-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 438.99 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 18, 1920, nonrecording gage at former highway bridge 500 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Jan. 15-18, 25-26, Feb. 2-3, 9-18, and Feb. 27 to Mar. 1. Records good except those for estimated daily discharges, which are poor. Since March 1914, flow regulated by Hinckley Reservoir, 31 mi upstream from station (usable capacity, 3,320 mil ft<sup>3</sup>). Diurnal fluctuation at low and medium flow caused by powerplants upstream from station. Diversion at Trenton Falls, 26 mi upstream from station, by Ninemile feeder since 1915 during canal navigation season. Diversion from Hinckley Reservoir for Utica water supply returned to Mohawk River. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--66 years (1921-86), 1,319 ft<sup>3</sup>/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,300 ft<sup>3</sup>/s Mar. 26, 1913, from reports of State Engineer and Surveyor; maximum gage height, 10.47 ft probably Feb. 17, 1943, from floodmark in gage well (ice jam); minimum discharge, 20 ft<sup>3</sup>/s Sept. 3, 1929, gage height, 0.90 ft; minimum daily, 59 ft<sup>3</sup>/s Sept. 2, 1929.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 15,700 ft<sup>3</sup>/s July 20, gage height, 7.23 ft; minimum, 297 ft<sup>3</sup>/s Jan. 14; minimum daily, 457 ft<sup>3</sup>/s Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	699	724	1010	998	1160	960	7280	1510	816	819	2290	938
2	568	711	2500	892	1150	924	7470	1410	899	1320	2070	821
3	565	569	1710	878	1180	991	7280	1390	801	1100	2140	817
4	525	602	1640	885	1140	1100	5590	1320	829	888	1680	815
5	457	803	1320	894	1090	1110	4870	1330	1000	642	1550	870
6	678	887	874	854	1100	1110	4500	1320	1040	622	1440	951
7	618	760	1210	821	1050	1080	4260	1270	792	722	1410	926
8	579	816	1170	866	1000	1070	3860	1150	857	807	2070	902
9	505	834	1020	939	900	1070	3930	1030	875	789	1870	1100
10	516	1250	811	922	900	1110	3670	1050	812	834	2050	1100
11	526	1270	823	929	980	1410	3110	1050	922	749	2370	1100
12	501	987	1130	917	800	1750	2530	1050	1710	880	2050	1110
13	727	1260	1050	777	640	2230	2070	728	2930	1250	1950	1110
14	845	1630	903	821	600	3240	2050	675	2670	1530	1350	1090
15	1020	4180	800	800	580	6190	1930	646	2110	1600	533	1120
16	1080	4200	806	750	640	3830	1920	709	2000	1360	1400	1280
17	740	3900	833	700	660	1990	2160	1140	1920	1230	1680	1160
18	695	2890	914	850	620	2710	2150	792	1630	1200	2190	1120
19	769	2260	891	1090	759	6230	2020	1020	2010	993	1240	1070
20	851	2040	756	3190	958	4250	2080	1250	3440	3280	1040	1380
21	567	2050	932	2450	1250	2490	2110	2670	2930	2920	1010	1450
22	688	1790	1160	1640	1170	2130	2280	2430	2050	1490	995	1200
23	708	1870	966	1420	1060	2070	2230	2400	2370	1120	990	2900
24	751	1710	908	1240	830	2070	1780	2620	2360	895	1130	1830
25	1100	1130	914	1100	1410	2270	1540	2350	2160	866	996	1320
26	819	1250	943	1050	1140	3590	1530	2000	1950	879	969	1310
27	716	1230	1030	930	1100	4490	1520	1910	1270	1110	1400	1290
28	706	1180	970	1000	1000	4080	1510	1090	1080	1370	1140	1100
29	687	1120	743	1040	---	3840	1510	885	884	1170	1000	2340
30	693	1050	987	1220	---	4380	1520	799	845	1220	966	2250
31	689	---	1130	1180	---	6130	---	805	---	1680	953	---
TOTAL	21588	46953	32854	34043	26867	81895	92260	41799	47962	37335	45922	37770
MEAN	696	1565	1060	1098	960	2642	3075	1348	1599	1204	1481	1259
MAX	1100	4200	2500	3190	1410	6230	7470	2670	3440	3280	2370	2900
MIN	457	569	743	700	580	924	1510	646	792	622	533	815

CAL YR 1985 TOTAL 399230 MEAN 1094 MAX 5430 MIN 209  
WTR YR 1986 TOTAL 547248 MEAN 1499 MAX 7470 MIN 457



## HUDSON RIVER BASIN

01347000 MOHAWK RIVER NEAR LITTLE FALLS, NY

LOCATION.--Lat 43°00'52", long 74°46'48", Herkimer County, Hydrologic Unit 02020004, on left bank 1,800 ft downstream from Rocky Rift Dam, 2.1 mi upstream from East Canada Creek, and 4.5 mi southeast of city of Little Falls.

DRAINAGE AREA.--1,342 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1927 to current year.

REVISED RECORDS.--WSP 741: 1929(M). WSP 1302: 1901, 1932(M). WSP 1432: 1928-30. WDR NY-85-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 308.84 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Estimated daily discharges: Jan. 15-18. Records good except those for estimated daily discharges, which are poor. Records of daily discharge do not include diversion at Rocky Rift Dam into Erie (Barge) Canal for lockages at lock 16, near St. Johnsville. Monthly and annual figures of diversion at Rocky Rift Dam are published separately below. During canal navigation season, water is received from Black River basin through Black River Canal flowing south, and from Chenango River basin through Oriskany Creek feeder. Water is diverted into (or may occasionally be received from) Oswego River basin through summit level of Erie (Barge) Canal between New London and Utica. Diurnal fluctuation caused by powerplants and locks and dams on Erie (Barge) Canal. Regulation by Delta and Hinckley Reservoirs (combined usable capacity, 6,120 mil ft<sup>3</sup>) (see Reservoirs in Hudson River Basin). Telephone gage-height telemeter at station.

COOPERATION.--Figures of diversions at Rocky Rift Dam into Erie (Barge) Canal provided by New York State Department of Transportation.

AVERAGE DISCHARGE.--59 years, 2,805 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (river channel only), 33,100 ft<sup>3</sup>/s Mar. 14, 1977, gage height, 19.17 ft, from high-water mark in gage house; minimum discharge (river channel only), 214 ft<sup>3</sup>/s Aug. 18, 1949, gage height, 3.75 ft; minimum daily discharge (including canal), probably not less than 463 ft<sup>3</sup>/s Sept. 2, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 16,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 15	1515	19,400	14.75	Mar. 19	2245	*25,600	*16.83

Minimum discharge (river channel only), 408 ft<sup>3</sup>/s Apr. 29, gage height, 4.22 ft;  
minimum daily (river channel only), 1,100 ft<sup>3</sup>/s May 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1940	1410	2760	2060	2960	2260	11100	1910	1510	1390	3730	1480
2	1630	1450	8230	1990	2730	2060	11100	2170	1670	2400	4180	1390
3	1540	1270	7160	1980	3040	2030	10600	2130	1540	2870	4050	1270
4	1390	1220	5590	2010	2930	2160	8690	2050	1450	2070	3520	1260
5	1300	1470	3640	1980	2940	2210	7590	1830	1530	1410	2750	1300
6	1600	2080	2780	1960	3080	2230	7980	2000	1690	1300	2340	1410
7	1420	1870	2740	1860	2830	2170	9140	1960	1380	1310	2140	1410
8	1290	1780	2580	1850	2190	1940	8050	1840	1530	1350	4700	1310
9	1140	1850	2550	1950	2230	2000	7590	1600	1700	1290	4670	1490
10	1120	2400	3080	1900	2200	2190	6850	1620	1430	1300	4010	1500
11	1190	3850	2370	1900	2450	3060	5990	1590	1480	1220	3750	1480
12	1170	3180	2910	1900	2430	5240	5050	1560	2560	1290	3380	1510
13	1300	3150	3200	1960	1600	5410	4210	1290	6170	2100	2890	1520
14	2020	4140	2820	2040	1540	8230	3890	1230	5580	3440	2410	1510
15	2150	8710	2260	2000	1490	17000	3490	1100	3920	3230	1290	1510
16	3330	8130	2120	1700	1760	17700	3740	1190	2970	2470	5080	1670
17	2320	7480	2160	1500	1800	13800	4590	2170	4370	1950	4630	1670
18	1810	7450	2030	1900	1610	11900	4650	1840	3500	1830	3990	1560
19	1770	5230	1870	2170	1750	16800	4030	2140	3380	1660	3460	1520
20	2960	3990	1790	7760	2550	17400	3710	2800	6320	3130	2220	1730
21	2190	3810	1930	9560	4120	11700	3550	6710	6320	6500	1910	2810
22	1790	3400	2120	7990	4980	8280	3830	7550	4160	3330	1800	2140
23	1670	3460	2010	6390	4300	6000	3800	7100	3670	2120	1710	5330
24	1600	3420	2040	4190	3400	5050	3300	6070	4430	1630	2110	6520
25	2230	2710	2200	3040	3310	5280	2750	5030	3640	1470	1860	4290
26	2330	2550	2040	2770	2730	8500	2570	3410	3040	1410	1650	3050
27	1840	2800	2170	2600	2550	10900	2530	3000	2290	3060	2000	2720
28	1610	3280	2110	2640	2480	10000	2050	2300	1860	2910	2200	2350
29	1490	3010	2010	3230	---	8970	1380	1860	1630	2190	1920	3500
30	1430	2720	1740	3080	---	9170	1850	1570	1460	2510	1740	8000
31	1400	---	2100	3000	---	10100	---	1500	---	2830	1600	---
TOTAL	53970	103270	87110	92860	73980	231740	159650	82120	88180	68970	89690	70210
MEAN	1741	3442	2810	2995	2642	7475	5322	2649	2939	2225	2893	2340
MAX	3330	8710	8230	9560	4980	17700	11100	7550	6320	6500	5080	8000
MIN	1120	1220	1740	1500	1490	1940	1380	1100	1380	1220	1290	1260
#	14.5	5.2	0	0	0	0	0	20.3	25.5	30.0	19.2	19.8

CAL YR 1985 TOTAL 912148 MEAN 2499 MAX 12600 MIN 609 # 10.1  
WTR YR 1986 TOTAL 1201750 MEAN 3292 MAX 17700 MIN 1100 # 11.3

# Diversion, equivalent in cubic feet per second, at Rocky Rift Dam into Erie (Barge) Canal for lockages at Lock 16.

## HUDSON RIVER BASIN

69

01348000 EAST CANADA CREEK AT EAST CREEK, NY

LOCATION.--Lat 43°01'00", long 74°44'28", Herkimer County, Hydrologic Unit 0202004, on right bank at village of East Creek, 0.2 mi downstream from Niagara Mohawk Power Corp. Beardslee powerplant, 1.2 mi upstream from mouth, and 3.5 mi northwest of St. Johnsville.

DRAINAGE AREA.--289 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1945 to current year.

REVISED RECORDS.--WDR NY-85-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 335.70 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Mar. 29 to May 8. Records good except those for estimated daily discharges, which are poor. Extensive diurnal fluctuation and slight regulation caused by powerplants upstream from station. City of Little Falls diverts about 5 ft<sup>3</sup>/s for municipal supply. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--40 years (1947-86), 680 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft<sup>3</sup>/s Dec. 29, 1984, gage height, 7.68 ft; minimum, 0.05 ft<sup>3</sup>/s July 9, 1978, gage height, 0.47 ft; minimum gage height, 0.44 ft July 29, 1977; minimum daily discharge, 0.22 ft<sup>3</sup>/s July 9, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 2, 1945, reached a stage of 9.0 ft, from floodmarks (discharge, 24,000 ft<sup>3</sup>/s, from slope-area measurement of peak flow).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 19	2315	8,680	6.54	July 20	2145	*11,100	*7.15
Mar. 31	Unknown	(a)Unknown	Unknown				

(a) May have been greater than base discharge, but not greater than July 20 peak discharge.

Minimum discharge, 7.5 ft<sup>3</sup>/s Nov. 1, gage height, 0.88 ft; minimum daily, 11 ft<sup>3</sup>/s July 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	814	244	386	298	384	450	4000	370	227	212	196	213
2	380	41	1060	340	416	403	3500	260	260	519	233	223
3	685	128	1000	270	405	320	3000	180	311	799	257	188
4	575	656	832	116	411	285	2500	180	232	469	908	207
5	77	502	751	146	404	307	2100	260	184	404	257	205
6	487	440	767	366	418	306	2300	270	171	347	218	202
7	443	480	751	405	263	308	2700	340	228	267	70	200
8	376	103	446	261	173	168	2300	230	273	179	803	210
9	255	371	691	214	161	69	2100	262	253	203	546	209
10	327	757	504	78	282	327	1800	221	198	11	809	158
11	326	1010	250	67	491	342	1500	207	149	71	396	80
12	223	1100	195	53	407	403	1200	223	620	96	406	159
13	284	985	372	324	275	744	950	135	2300	452	72	30
14	594	1100	537	233	237	919	810	136	1730	1100	355	29
15	919	3040	191	235	212	2190	790	142	1090	1260	103	149
16	1420	1830	377	219	47	3790	900	177	737	872	628	142
17	1440	1480	320	218	62	2720	930	493	994	665	296	386
18	796	1490	397	103	579	2290	850	800	963	388	522	229
19	758	1370	267	238	325	2870	720	769	794	12	459	229
20	995	1210	269	364	504	5420	580	1220	1870	1470	513	22
21	928	1120	108	1590	399	3420	550	2160	2000	3240	124	555
22	817	1350	48	1610	529	2270	590	2410	1180	1410	49	759
23	750	836	303	1600	455	1860	500	2200	1010	841	138	1240
24	565	662	241	712	513	1390	510	1630	1170	405	13	2710
25	522	881	340	555	474	1210	400	1210	925	411	165	1390
26	770	744	335	591	495	1680	360	862	791	291	133	1040
27	736	619	276	638	358	3500	370	539	528	459	274	875
28	579	730	290	457	401	3800	390	381	387	357	544	399
29	533	723	18	406	---	3100	380	335	271	313	342	565
30	279	187	241	503	---	4500	360	243	240	259	136	1510
31	327	---	372	450	---	5000	---	187	---	426	190	---
TOTAL	18980	26189	12935	13660	10080	56361	39940	19032	22086	18208	10155	14513
MEAN	612	873	417	441	360	1818	1331	614	736	587	328	484
MAX	1440	3040	1060	1610	579	5420	4000	2410	2300	3240	908	2710
MIN	77	41	18	53	47	69	360	135	149	11	13	22
CAL YR 1985	TOTAL	200713	MEAN	550	MAX	4070	MIN	13				
WTR YR 1986	TOTAL	262139	MEAN	718	MAX	5420	MIN	11				

## HUDSON RIVER BASIN

01349000 OTSQUAGO CREEK AT FORT PLAIN, NY

LOCATION.--Lat 42°55'46", long 74°37'35", Montgomery County, Hydrologic Unit 02020004, on left bank 25 ft downstream from bridge on State Highway 163 in Fort Plain, and 0.5 mi upstream from mouth.

DRAINAGE AREA.--59.2 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 302.16 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1973, at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Dec. 3-11, Dec. 13 to Jan. 20, Jan. 23 to Mar. 14, Mar. 19-27, and July 17-23. Records fair except those for estimated daily discharges, which are poor. Occasional diurnal fluctuation at low flow. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--37 years, 85.3 ft<sup>3</sup>/s, 19.57 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,400 ft<sup>3</sup>/s Oct. 28, 1981, gage height, 11.24 ft in gage well, revised, 11.8 ft from floodmarks, revised, from rating curve extended above 3,200 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow; minimum discharge, 0.6 ft<sup>3</sup>/s Nov. 30, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 15	1300	2,530	5.57	June 20	0500	2,240	5.78
Mar. 19	Unknown	*7,430	*8.96	Aug. 16	0215	4,020	6.84

Minimum discharge, 6.5 ft<sup>3</sup>/s Sept. 14, 15.

REVISIONS.--The gage heights of the maximum discharge for the water year 1982 have been revised to 11.24 ft in gage well, 11.8 ft from floodmarks.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	18	131	35	31	24	122	31	16	17	37	10
2	21	16	576	32	31	23	100	29	51	184	58	10
3	20	15	160	31	40	23	82	25	24	82	39	9.7
4	17	15	90	29	45	22	79	23	16	44	51	9.3
5	25	40	78	28	47	22	79	22	14	30	24	10
6	33	52	70	27	40	21	292	21	16	23	46	12
7	19	36	68	26	37	21	420	24	20	19	59	10
8	14	31	64	25	35	23	196	21	23	16	140	9.3
9	11	26	60	24	36	35	121	20	16	13	43	8.5
10	10	29	60	25	35	60	100	16	11	11	41	7.9
11	10	71	66	27	33	100	87	14	12	9.9	29	7.6
12	10	70	139	27	31	70	78	13	224	23	21	7.3
13	18	114	110	26	30	150	65	11	160	218	16	7.3
14	31	272	80	24	31	300	58	10	69	209	14	6.7
15	224	338	68	23	28	1780	51	9.5	38	66	15	6.6
16	133	104	62	23	25	849	137	11	31	39	689	8.8
17	56	265	58	27	23	566	107	32	135	26	105	8.2
18	40	247	56	40	23	621	68	22	39	19	235	7.5
19	46	124	54	50	26	3200	56	23	27	15	245	7.4
20	59	92	52	400	45	1600	50	121	701	24	57	11
21	38	70	49	427	150	800	49	234	113	40	38	20
22	31	58	47	167	80	500	48	192	64	21	30	14
23	26	73	46	90	50	330	51	242	147	14	24	211
24	24	66	46	45	40	220	72	84	76	11	38	87
25	67	51	45	45	32	150	45	56	53	10	25	34
26	45	50	43	50	27	250	41	39	39	9.9	18	25
27	33	182	41	50	26	450	38	29	34	12	22	24
28	26	133	40	45	25	524	34	23	29	10	20	19
29	23	96	38	40	---	354	31	19	24	40	15	27
30	21	92	36	35	---	282	38	16	19	41	13	97
31	19	---	33	36	---	181	---	14	---	49	12	---
TOTAL	1171	2846	2566	1979	1102	13551	2795	1446.5	2241	1345.8	2219	733.1
MEAN	37.8	94.9	82.8	63.8	39.4	437	93.2	46.7	74.7	43.4	71.6	24.4
MAX	224	338	576	427	150	3200	420	242	701	218	689	211
MIN	10	15	33	23	23	21	31	9.5	11	9.9	12	6.6
CFSM	.64	1.60	1.40	1.08	.66	7.38	1.57	.79	1.26	.73	1.21	.41
IN.	.74	1.79	1.61	1.24	.69	8.52	1.76	.91	1.41	.85	1.39	.46
CAL YR 1985	TOTAL	21234.2	MEAN	58.2	MAX	1640	MIN	2.2	CFSM	.98	IN.	13.3
WTR YR 1986	TOTAL	33995.4	MEAN	93.1	MAX	3200	MIN	6.6	CFSM	1.57	IN.	21.4

## HUDSON RIVER BASIN

71

01350000 SCHOHARIE CREEK AT PRATTSVILLE, NY

LOCATION.--Lat 42°19'15", long 74°26'10", Greene County, Hydrologic Unit 02020005, on left bank 100 ft upstream from bridge on State Highway 23 in Prattsville, 0.2 mi upstream from Schoharie Reservoir, 0.2 mi downstream from Huntersfield, and 1.6 mi downstream from Batavia Kill.

DRAINAGE AREA.--236 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1902 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 351: Drainage area. WSP 1432: 1937-38.

GAGE.--Water-stage recorder. Datum of gage is 1,134.98 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1915, nonrecording gage, and Oct. 1, 1915 to July 17, 1936, water-stage recorder, at old highway bridge 80 ft upstream, and July 18, 1936 to July 15, 1954, water-stage recorder at site 0.2 mi downstream, all at datum 1.56 ft lower than present datum.

REMARKS.--Estimated daily discharges: Dec. 19 to Mar. 6. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. Telephone gage-height telemeter at station. Intermittent water-quality data for this station are included in section "ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES".

AVERAGE DISCHARGE.--83 years, 461 ft<sup>3</sup>/s, 26.53 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,200 ft<sup>3</sup>/s Oct. 16, 1955, gage height, 19.14 ft, from rating curve extended above 16,000 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow; maximum gage height, 19.57 ft Mar. 5, 1979 (ice jam); minimum daily discharge, 4.8 ft<sup>3</sup>/s Sept. 22, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 15	0330	*17,300	*11.26	May 22	1145	5,540	7.16

Minimum discharge, 24 ft<sup>3</sup>/s Sept. 15, 16, and part of each day Sept. 19-23, gage height, 1.68 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	365	121	598	180	400	420	662	874	372	109	224	38
2	292	117	2810	160	400	390	601	746	460	134	481	35
3	264	111	1610	200	390	370	540	616	362	172	299	38
4	239	106	1070	250	370	360	480	534	272	129	218	33
5	371	294	837	220	450	350	444	475	301	107	170	34
6	608	612	722	80	470	340	444	429	2160	93	143	43
7	397	474	614	130	350	264	481	421	2070	84	139	50
8	310	395	543	150	340	226	459	378	1290	78	183	42
9	258	334	496	150	330	321	423	361	863	69	150	36
10	225	304	445	140	310	308	402	321	627	63	120	112
11	201	356	455	140	290	1840	372	294	554	57	145	30
12	177	464	604	130	270	1040	348	272	901	147	142	30
13	191	694	505	90	270	979	321	244	1050	197	107	34
14	208	658	471	80	260	3830	296	221	726	186	91	28
15	202	1100	398	70	260	10600	277	203	557	131	81	25
16	224	816	376	70	250	3640	308	193	502	99	93	27
17	193	2040	336	80	250	2030	362	329	680	84	89	28
18	170	1490	302	140	300	1560	333	267	474	76	127	26
19	173	1110	230	280	500	3070	299	231	392	70	121	25
20	203	931	260	1100	700	2940	283	269	442	63	91	25
21	178	761	290	850	1000	1490	287	1750	364	61	78	25
22	160	670	270	650	1300	1110	325	4410	297	56	72	25
23	148	692	260	400	850	928	359	2360	264	50	66	27
24	144	575	290	330	700	799	434	1980	244	46	68	36
25	220	482	260	310	600	669	799	1230	236	43	61	32
26	209	480	210	1000	500	657	1200	867	195	45	52	35
27	177	799	220	800	480	761	1110	685	172	123	53	39
28	159	735	230	500	450	807	830	572	158	98	50	35
29	145	623	190	400	---	715	1130	464	142	118	45	31
30	135	589	200	400	---	749	1270	391	127	176	42	32
31	129	---	190	450	---	798	---	334	---	179	39	---
TOTAL	7075	18933	16292	9930	13040	44361	15879	22721	17254	3143	3840	1056
MEAN	228	631	526	320	466	1431	529	733	575	101	124	35.2
MAX	608	2040	2810	1100	1300	10600	1270	4410	2160	197	481	112
MIN	129	106	190	70	250	226	277	193	127	43	39	25
CFSM	.97	2.67	2.23	1.36	1.97	6.06	2.24	3.11	2.44	.43	.52	.15
IN.	1.12	2.98	2.57	1.57	2.06	6.99	2.50	3.58	2.72	.50	.61	.17

CAL YR 1985	TOTAL 102849	MEAN 282	MAX 2810	MIN 12	CFSM 1.19	IN. 16.2
WTR YR 1986	TOTAL 173524	MEAN 475	MAX 10600	MIN 25	CFSM 2.01	IN. 27.4



## HUDSON RIVER BASIN

## 01350100 SCHOHARIE RESERVOIR NEAR GRAND GORGE, NY

LOCATION.--Lat 42°21'21", long 74°26'42", Schoharie County, Hydrologic Unit 02020005, in Shandaken Tunnel intake house on Intake Road, 1.6 mi north of junction of Intake Road and State Highway 23, 2.5 mi upstream from Gilboa Dam, and 2.6 mi east of Grand Gorge.

DRAINAGE AREA.--314 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1973 to current year. Monthly contents only published as "at Gilboa" for September 1928 to December 1972.

GAGE.--Water-stage recorder. Supplementary nonrecording gage used for periods when reservoir elevation is below 1,072.50 ft. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Board of Water Supply, City of New York).

REMARKS.--Reservoir is formed by masonry and earth dam. Storage began July 24, 1926. Usable capacity 19,583 mil gal between minimum operating level, elevation, 1,050.00 ft, and crest of spillway, elevation, 1,130.00 ft. Dead storage below elevation 1,050.00, 1,968 mil gal. Figures given herein represent usable contents. Reservoir impounds water except for periods of spilling, for diversion through Shandaken Tunnel into Esopus Creek to Ashokan Reservoir, for New York City water supply. Gage-height telemeter at station.

COOPERATION.--Capacity table and once-daily nonrecording gage readings provided by Department of Environmental Protection, City of New York.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 1,136.26 ft, revised, Oct. 16, 1955, contents, 22,058 mil gal; minimum observed (after initial filling), 1,062.00 ft Aug. 20, 1970, contents, 1,520 mil gal.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,132.75 ft Mar. 15, contents, 20,652 mil gal; minimum, 1,085.76 ft Jan. 18, contents, 6,347 mil gal.

REVISIONS.--The maximum elevation for the water year 1956 has been revised to 1,136.26 ft, Oct. 16, 1955, contents, 22,058 mil gal.

Capacity table (elevation, in feet, and usable contents in million gallons).

1,063.0	1,670	1,120.0	16,100
1,080.0	4,970	1,133.0	20,700

ELEVATION, IN FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1102.16	1094.82	1105.88	1096.98	1102.53	1106.23	1130.35	1130.43	1130.30	1129.43	1121.19	1113.48
2	1102.19	1093.83	1108.72	1095.68	1102.48	1106.16	1130.33	1130.43	1130.30	1129.25	1121.42	1113.10
3	1102.11	1092.73	1112.98	1094.41	1102.38	1105.99	1130.30	1130.43	1130.28	1129.19	1121.75	1112.67
4	1101.94	1091.56	1114.53	1093.27	1102.21	1105.77	1130.28	1130.40	1130.22	1129.06	1121.80	1112.23
5	1101.84	1090.26	1115.33	1092.16	1102.09	1105.52	1130.27	1130.33	1130.12	1128.88	1121.74	1111.81
6	1102.61	1089.98	1115.75	1090.99	1102.23	1105.24	1130.26	1130.26	1130.73	1128.68	1121.58	1111.41
7	1103.01	1089.86	1115.91	1090.35	1102.10	1104.87	1130.29	1130.26	1130.91	1128.46	1121.39	1110.99
8	1103.09	1089.89	1115.86	1089.78	1101.81	1104.28	1130.28	1130.21	1130.64	1128.21	1121.20	1110.59
9	1103.01	1090.08	1115.64	1089.25	1101.58	1103.73	1130.27	1130.13	1130.51	1127.93	1120.81	1110.17
10	1102.81	1090.18	1115.31	1088.74	1101.24	1103.58	1130.30	1130.08	1130.39	1127.62	1120.32	1109.74
11	1102.51	1090.39	1114.92	1088.27	1100.84	1105.38	1130.30	1130.06	1130.35	1127.29	1119.88	1109.33
12	1102.14	1090.82	1114.84	1087.73	1100.34	1108.86	1130.29	1130.00	1130.42	1127.06	1119.69	1108.80
13	1101.78	1091.84	1114.79	1087.26	1099.81	1110.57	1130.28	1129.80	1130.51	1127.05	1119.45	1107.62
14	1101.51	1092.77	1114.54	1086.97	1099.25	1114.24	1130.25	1129.56	1130.40	1127.06	1119.17	1106.29
15	1101.24	1094.35	1113.99	1086.64	1098.74	1130.80	1130.19	1129.28	1130.32	1126.97	1118.87	1105.04
16	1100.99	1095.42	1113.40	1086.32	1098.18	1131.22	1130.19	1129.01	1130.29	1126.78	1118.62	1104.42
17	1100.68	1097.81	1112.76	1086.00	1097.63	1130.80	1130.17	1128.98	1130.35	1126.55	1118.36	1103.88
18	1100.29	1101.07	1112.00	1085.78	1097.13	1130.62	1130.15	1128.96	1130.27	1126.30	1118.16	1103.34
19	1099.92	1102.78	1110.99	1085.91	1097.01	1130.97	1130.11	1128.80	1130.22	1126.04	1117.98	1102.79
20	1099.65	1103.83	1109.94	1087.84	1097.56	1131.03	1130.10	1128.70	1130.21	1125.77	1117.73	1102.24
21	1099.33	1104.42	1108.99	1091.10	1098.64	1130.64	1130.12	1129.77	1130.18	1125.47	1117.44	1101.71
22	1098.94	1104.65	1108.03	1092.83	1101.51	1130.51	1130.20	1131.22	1130.12	1125.10	1117.12	1101.15
23	1098.52	1104.91	1107.04	1094.10	1103.60	1130.47	1130.26	1130.89	1130.10	1124.73	1116.79	1100.64
24	1098.08	1104.99	1106.09	1094.76	1104.77	1130.42	1130.27	1130.77	1130.07	1124.35	1116.47	1100.17
25	1097.75	1104.79	1105.17	1095.12	1105.55	1130.37	1130.40	1130.59	1130.02	1123.91	1116.12	1099.64
26	1097.52	1104.46	1104.06	1096.49	1105.89	1130.33	1130.51	1130.47	1129.97	1123.04	1115.77	1099.14
27	1097.19	1104.77	1102.90	1099.30	1106.06	1130.37	1130.53	1130.41	1129.93	1122.18	1115.41	1098.67
28	1096.78	1105.43	1101.80	1100.77	1106.20	1130.40	1130.43	1130.38	1129.87	1121.47	1115.04	1098.15
29	1096.34	1105.74	1100.63	1101.47	---	1130.41	1130.49	1130.34	1129.76	1121.16	1114.63	1097.64
30	1095.86	1105.84	1099.44	1102.08	---	1130.39	1130.62	1130.33	1129.61	1121.02	1114.24	1097.15
31	1095.38	---	1098.20	1102.55	---	1130.40	---	1130.28	---	1121.20	1113.87	---
MEAN	1100.23	1097.48	1110.01	1092.29	1101.41	1119.70	1130.29	1130.05	1130.25	1126.04	1118.52	1105.47
MAX	1103.09	1105.84	1115.91	1102.55	1106.20	1131.22	1130.62	1131.22	1130.91	1129.43	1121.80	1113.48
MIN	1095.38	1089.86	1098.20	1085.78	1097.01	1103.58	1130.10	1128.70	1129.61	1121.02	1113.87	1097.15
#	8751	11748	9425	10819	11865	19730	19773	19688	19411	16496	14094	9239
**	-97.4	+155	-116	+69.6	+57.8	+393	+2.22	-4.24	-14.3	-145	-120	-250
CAL YR 1985	MEAN	1096.69	MAX	1115.91	MIN	1077.97	**	+9.74				
WTR YR 1986	MEAN	1113.55	MAX	1131.22	MIN	1085.78	**	-6.21				

# Contents, in million gallons, at 2400 hours on last day of month.

\*\* Change in contents, equivalent in cubic feet per second.

## 01350101 SCHOHARIE CREEK AT GILBOA, NY

LOCATION.--Lat 42°23'50", long 74°27'03", Schoharie County, Hydrologic Unit 02020005, on left bank, 200 ft upstream from bridge on County Highway 322, 0.2 mi west of village of Gilboa, 0.4 mi downstream from dam on Schoharie Reservoir, and 0.8 mi upstream from the Platter Kill.

DRAINAGE AREA.--314 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1975 to current year (since October 1983, discharges only for days of Schoharie Reservoir spill).

GAGE.--Water-stage recorder. Datum of gage is 939.56 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharge: Mar. 15. Records fair. Entire flow, runoff from 314 mi<sup>2</sup>, except for periods of spill (Mar. 15 to May 12 and May 21 to June 25), diverted from Schoharie Reservoir through Shandaken Tunnel into Esopus Creek upstream from Ashokan Reservoir for water supply of city of New York.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,500 ft<sup>3</sup>/s Mar. 21, 1980 determined by flow-over-dam computations at Schoharie Reservoir dam, gage height, 28.6 ft from floodmarks; minimum daily, 0.04 ft<sup>3</sup>/s on many days, June to October 1976, and Sept. 11-13, 1980, but may have been lower since October 1983 (see PERIOD OF RECORD).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 32,000 ft<sup>3</sup>/s Mar. 18, 1936, from information furnished by Bureau of Water Resources Development, City of New York.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,600 ft<sup>3</sup>/s Mar. 15, gage height, 19.59 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							840	926	467			
2							729	744	679			
3							653	588	535			
4							574	484	351			
5							534	427	133			
6							526	368	2250			
7							552	345	3060			
8							544	283	1660			
9							496	170	1010			
10							455	119	719			
11							431	84	568			
12							398		883			
13							371		1200			
14							327		782			
15						8290	307		543			
16						5330	304		453			
17						2900	243		638			
18						2130	209		434			
19						3930	161		314			
20						4220	139		383			
21						2060	136		307			
22						1510	171	5130	200			
23						1260	222	3190	140			
24						1060	265	2550	105			
25						862	651	1670				
26						829	1060	1150				
27						929	1130	875				
28						994	791	712				
29						888	989	573				
30						907	1510	477				
31						968	---	406				
TOTAL							15718					
MEAN							524					
MAX							1510					
MIN							136					

NOTE.--Discharges only for days when Schoharie Reservoir spilled for the entire day.

## HUDSON RIVER BASIN

01350120 PLATTER KILL AT GILBOA, NY

LOCATION.--Lat 42°24'18", long 74°26'36", Schoharie County, Hydrologic Unit 02020005, on right bank, 190 ft upstream from culvert on County Highway 17, 0.5 mi upstream from mouth, and 0.6 mi northeast of Gilboa.

DRAINAGE AREA.--11.1 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1975 to current year. Occasional discharge measurements, water years 1969-73.

GAGE.--Water-stage recorder. Concrete control since Nov. 12, 1976. Elevation of gage is 1,110 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 15, 19-23, 25-29, 31, Jan. 2, 6-10, 14, 24-26, Jan. 28 to Feb. 2, Feb. 7-8, 12-18, Feb. 24 to Mar. 10. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years, 15.2 ft<sup>3</sup>/s, 18.60 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 767 ft<sup>3</sup>/s Mar. 15, 1986, gage height, 4.78 ft; maximum gage height, 4.84 ft Feb. 12, 1982 (ice jam); minimum discharge, 0.32 ft<sup>3</sup>/s Nov. 18, 1980 (result of freezeup); minimum gage height (subsequent to concrete control installation), 0.76 ft Nov. 18, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 15	0345	*767	*4.78	Mar. 19	1915	195	3.35

Minimum discharge, 1.5 ft<sup>3</sup>/s Sept. 13, 14, gage height, 0.86 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	3.0	19	7.1	11	15	30	21	15	7.0	8.9	2.1
2	3.2	2.9	49	6.8	11	14	28	19	36	8.9	7.8	1.9
3	3.0	2.9	37	6.7	11	14	25	16	23	9.0	8.2	1.9
4	3.0	2.9	29	6.7	11	13	24	15	15	7.1	7.5	1.9
5	7.0	4.0	26	6.6	14	13	23	14	16	5.7	5.5	2.1
6	6.2	5.8	25	6.4	13	12	22	13	68	5.3	4.7	2.2
7	5.3	6.6	22	7.0	12	12	23	13	87	5.0	4.7	1.9
8	4.3	5.7	20	8.0	11	18	20	12	59	4.7	5.0	1.9
9	3.8	4.9	18	6.4	11	16	18	11	44	4.5	3.9	1.8
10	3.6	4.9	17	6.0	11	18	17	9.9	37	4.2	3.6	1.7
11	3.5	6.7	18	5.2	10	61	15	9.3	35	4.0	3.8	1.7
12	3.4	7.6	25	5.1	9.6	50	13	8.8	34	6.5	3.2	1.7
13	3.8	9.5	21	5.1	9.0	45	13	8.3	34	7.8	3.0	1.6
14	3.7	10	18	5.0	8.8	129	11	7.0	23	7.5	2.9	1.6
15	4.1	15	16	4.0	8.6	467	11	5.7	15	5.8	2.8	1.6
16	3.7	13	15	7.1	8.4	148	13	6.0	13	4.6	4.1	1.9
17	3.5	26	14	7.1	9.0	91	13	9.5	17	4.3	3.1	1.7
18	3.4	22	15	5.8	10	80	11	7.0	12	4.1	3.9	1.6
19	4.2	18	14	8.0	12	134	9.8	6.6	11	3.9	3.3	1.7
20	4.0	16	13	16	20	118	9.5	9.9	27	3.8	2.9	1.8
21	3.6	14	12	14	29	77	9.6	30	13	3.6	2.9	1.8
22	3.5	14	11	12	34	64	9.7	45	8.6	3.3	2.8	1.8
23	3.4	16	11	12	33	55	12	45	8.1	3.1	2.7	3.4
24	3.4	14	10	11	20	50	16	41	8.4	2.9	2.8	2.5
25	3.6	12	10	10	18	44	18	33	7.0	2.8	2.4	1.9
26	3.3	13	10	18	16	44	16	27	9.4	2.8	2.3	3.0
27	3.3	23	11	16	16	43	15	22	9.2	2.9	2.3	2.1
28	3.2	22	11	14	15	43	13	17	8.5	2.8	2.2	1.8
29	3.2	19	9.0	13	---	39	19	13	7.9	3.4	2.2	1.7
30	3.2	18	7.7	12	---	36	25	11	7.3	4.7	2.2	1.8
31	3.1	---	7.6	12	---	33	---	9.7	---	5.9	2.2	---
TOTAL	116.7	352.4	541.3	280.1	402.4	1996	502.6	515.7	708.4	151.9	119.8	58.1
MEAN	3.76	11.7	17.5	9.04	14.4	64.4	16.8	16.6	23.6	4.90	3.86	1.94
MAX	7.0	26	49	18	34	467	30	45	87	9.0	8.9	3.4
MIN	3.0	2.9	7.6	4.0	8.4	12	9.5	5.7	7.0	2.8	2.2	1.6
CFSM	.34	1.06	1.57	.81	1.29	5.80	1.51	1.50	2.13	.44	.35	.17
IN.	.39	1.18	1.81	.94	1.35	6.69	1.68	1.73	2.37	.51	.40	.19
CAL YR 1985	TOTAL	2677.0	MEAN	7.33	MAX	49	MIN	1.1	CFSM	.66	IN.	8.97
WTR YR 1986	TOTAL	5745.4	MEAN	15.7	MAX	467	MIN	1.6	CFSM	1.42	IN.	19.3

## HUDSON RIVER BASIN

75

01350140 MINE KILL NEAR NORTH BLENHEIM, NY

LOCATION.--Lat 42°25'44", long 74°28'24", Schoharie County, Hydrologic Unit 02020005, on left bank 200 ft upstream from bridge on State Highway 30, 0.6 mi upstream from mouth, and 3.0 mi southwest of North Blenheim.

DRAINAGE AREA.--16.3 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1974 to current year. Occasional discharge measurements, water years 1969-74.

GAGE.--Water-stage recorder. Concrete control since Sept. 23, 1975. Elevation of gage is 1,060 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 24 to Feb. 18, Feb. 21 to Mar. 10. Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years (1976-86), 25.1 ft<sup>3</sup>/s, 20.91 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,320 ft<sup>3</sup>/s May 29, 1984, gage height, 3.81 ft; minimum, 0.10 ft<sup>3</sup>/s Aug. 27, 28, 29, 30, 1980, gage height, 0.49 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 550 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 14	unknown	*1,130	*3.28	No other peaks greater than base discharge.			
Minimum discharge, 0.48 ft <sup>3</sup> /s Sept. 12, 15, 16, gage height, 0.58 ft.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	7.1	46	13	22	21	42	23	45	4.4	10	.70
2	9.7	7.0	161	11	22	21	40	22	83	11	4.8	.70
3	9.3	6.6	76	12	23	20	38	21	36	9.3	3.3	.64
4	8.3	6.6	54	11	24	19	36	19	24	5.9	3.0	.64
5	54	12	45	11	30	19	36	20	32	4.7	1.8	.68
6	33	15	39	10	25	18	35	19	121	3.2	1.6	.98
7	20	13	35	5.6	23	18	37	20	149	2.1	3.3	.89
8	15	12	32	4.7	21	28	36	16	90	1.8	5.8	.77
9	13	9.8	31	8.2	20	21	33	16	52	1.4	3.6	.65
10	11	10	31	12	19	23	33	15	32	1.2	2.4	.58
11	11	30	32	9.0	18	224	33	14	30	.98	3.4	.56
12	9.0	31	59	8.6	18	89	32	13	38	4.3	2.4	.53
13	13	45	39	8.0	17	84	30	11	42	6.3	1.4	.60
14	13	54	31	7.6	17	325	26	11	30	7.7	1.0	.64
15	12	72	26	7.2	16	369	23	9.6	22	3.1	.95	.53
16	12	49	22	11	16	165	35	9.6	18	1.6	5.2	.53
17	9.9	107	23	18	15	120	33	25	37	1.2	3.9	.70
18	8.4	60	23	35	18	98	24	17	16	1.0	12	.63
19	15	46	21	45	49	207	21	12	13	.79	5.1	.58
20	17	40	19	60	138	178	20	18	53	.96	2.7	.65
21	12	34	18	50	107	109	21	99	24	1.3	1.8	1.4
22	10	31	17	45	74	107	22	142	17	1.1	1.5	1.6
23	9.5	37	16	30	40	75	21	131	15	.91	1.3	4.4
24	9.2	32	16	22	32	67	33	109	13	.78	1.4	7.2
25	15	26	15	30	27	54	33	67	12	.70	1.4	3.9
26	12	28	16	40	24	50	31	47	9.2	.70	.90	6.2
27	10	80	19	35	22	50	29	37	7.9	1.7	.89	6.8
28	9.0	52	17	25	25	46	27	30	7.8	1.3	1.2	4.8
29	8.2	41	14	23	---	42	26	24	6.5	1.0	.89	4.7
30	8.2	38	14	22	---	39	28	20	6.0	5.2	.77	5.2
31	7.7	---	13	22	---	43	---	17	---	9.3	.74	---
TOTAL	416.4	1032.1	1020	651.9	902	2749	914	1054.2	1081.4	96.92	90.44	59.38
MEAN	13.4	34.4	32.9	21.0	32.2	88.7	30.5	34.0	36.0	3.13	2.92	1.98
MAX	54	107	161	60	138	369	42	142	149	11	12	7.2
MIN	7.7	6.6	13	4.7	15	18	20	9.6	6.0	.70	.74	.53
CFSM	.82	2.11	2.02	1.29	1.98	5.44	1.87	2.09	2.21	.19	.18	.12
IN.	.95	2.36	2.33	1.49	2.06	6.27	2.09	2.41	2.47	.22	.21	.14
CAL YR 1985	TOTAL	6171.61	MEAN	16.9	MAX	182	MIN	.34	CFSM	1.04	IN.	14.1
WTR YR 1986	TOTAL	10067.64	MEAN	27.6	MAX	369	MIN	.53	CFSM	1.69	IN.	23.0



## HUDSON RIVER BASIN

01350180 SCHOHARIE CREEK AT NORTH BLENHEIM, NY

LOCATION.--Lat 42°27'57", long 74°27'45", Schoharie County, Hydrologic Unit 02020005, on left bank 2,300 ft upstream from West Kill, and 1.2 mi upstream from bridge on State Highway 30 in North Blenheim.

DRAINAGE AREA.--359 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1970 to current year. Occasional measurements, water years 1969-70.

GAGE.--Water-stage recorder. Elevation of gage is 800 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1971, at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Jan. 7-9, 14-15, Feb. 24, May 27 to June 6, and July 27-29. Records good except those for estimated daily discharges, which are fair. Regulation of flow by Blenheim-Gilboa Pumped Storage Project immediately upstream from gage. Entire flow, runoff from 314 mi<sup>2</sup>, except for periods of spill, diverted from Schoharie Reservoir through Shandaken Tunnel into Esopus Creek upstream from Ashokan Reservoir for water supply of City of New York. For periods of spill see station 01350101. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--16 years, 448 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,900 ft<sup>3</sup>/s Mar. 21, 1980, gage height, 14.72 ft from floodmark, from rating curve extended above 14,000 ft<sup>3</sup>/s; minimum discharge, no flow Oct. 21-28, 1972, Sept. 12-14, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,400 ft<sup>3</sup>/s Mar. 15, gage height, 11.59 ft; minimum, 2.9 ft<sup>3</sup>/s Oct. 27; minimum gage height, 0.83 ft July 8; minimum daily discharge, 4.0 ft<sup>3</sup>/s Oct. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	6.9	75	29	39	53	895	933	430	7.6	7.2	7.2
2	6.5	7.1	391	24	58	63	824	761	840	7.5	6.9	7.4
3	14	6.9	160	17	70	67	678	612	560	10	8.5	7.1
4	7.3	7.7	104	12	53	55	671	531	300	5.3	8.5	7.1
5	37	10	103	11	64	61	654	531	200	5.9	6.8	7.2
6	55	23	72	19	55	63	619	379	2100	5.3	7.2	7.1
7	20	24	69	17	27	55	663	414	3320	6.6	6.9	6.8
8	11	18	76	18	28	37	641	425	1780	5.1	6.8	6.9
9	7.0	15	63	19	31	22	550	154	1170	6.9	6.9	7.0
10	7.0	13	51	17	49	49	578	178	915	6.7	6.7	7.0
11	7.0	47	64	17	40	538	437	104	630	6.8	7.4	7.1
12	7.2	52	128	15	26	200	472	106	869	6.8	6.8	7.2
13	6.8	95	94	15	21	243	389	17	1190	12	6.8	6.9
14	8.8	71	71	15	23	679	406	4.6	766	78	6.8	6.9
15	24	168	42	11	24	10200	307	5.4	606	23	6.7	7.3
16	20	68	52	9.1	24	5820	444	6.2	553	5.2	7.2	7.0
17	12	206	69	8.4	52	3100	192	5.7	642	6.6	7.1	6.8
18	7.6	118	29	8.3	37	2210	266	10	575	7.0	17	6.8
19	9.9	92	22	40	84	4220	167	22	341	7.9	7.0	7.0
20	26	80	20	156	113	4480	220	23	472	5.8	6.1	7.0
21	21	58	28	70	160	2050	183	644	423	7.7	6.5	6.9
22	21	42	39	60	227	1560	204	5330	206	6.9	6.8	7.0
23	29	70	41	74	106	1350	345	3190	190	6.0	7.2	7.5
24	21	70	38	19	128	1070	254	2590	115	6.4	6.4	7.0
25	30	44	49	8.5	78	965	636	1680	105	7.1	6.0	6.7
26	7.6	55	27	170	70	961	904	1180	41	8.1	6.4	7.0
27	4.0	185	12	82	69	1000	1120	900	21	6.5	7.3	7.0
28	6.8	115	8.8	38	52	1030	790	700	23	6.0	7.1	7.1
29	6.7	86	16	68	---	964	850	560	22	6.8	7.1	7.5
30	6.6	85	27	53	---	928	1460	380	16	7.2	7.2	7.2
31	6.8	---	29	39	---	1070	---	370	---	7.1	7.1	---
TOTAL	461.0	1938.6	2069.8	1159.3	1808	45163	16819	22745.9	19421	301.8	226.4	211.7
MEAN	14.9	64.6	66.8	37.4	64.6	1457	561	734	647	9.74	7.30	7.06
MAX	55	206	391	170	227	10200	1460	5330	3320	78	17	7.5
MIN	4.0	6.9	8.8	8.3	21	22	167	4.6	16	5.1	6.0	6.7
CAL YR 1985	TOTAL	11263.4	MEAN	30.9	MAX	391	MIN	4.0				
WTR YR 1986	TOTAL	112324.9	MEAN	308	MAX	10200	MIN	4.0				

## 01350200 WEST KILL AT NORTH BLENHEIM, NY

LOCATION.--Lat 42°28'07", long 74°27'34", Schoharie County, Hydrologic Unit 02020005, on left bank 75 ft upstream from highway bridge on State Highway 30, in North Blenheim, 100 ft downstream from Mill Creek and 0.2 mi upstream from mouth.

DRAINAGE AREA.--44.6 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1975 to current year. Occasional discharge measurements, water years 1970-72.

GAGE.--Water-stage recorder. Elevation of gage is 810 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 20 to Jan. 2, Jan. 7-16, 20, 22-23, 26-27, Jan. 30 to Feb. 9, Feb. 12-16, 18-19, Feb. 27 to Mar. 3 and Mar. 8. Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years, 81.5 ft<sup>3</sup>/s, 24.82 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,100 ft<sup>3</sup>/s Oct. 18, 1975, gage height, 5.91 ft from rating curve extended above 2,700 ft<sup>3</sup>/s; maximum gage height, 7.82 ft Oct. 17, 1977; minimum discharge, 0.37 ft<sup>3</sup>/s several days during Sept. 1983; minimum gage height, 0.68 ft July 25, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 15	0445	*9,000	*7.16	No other peak greater than base discharge.			

Minimum discharge, 3.70 ft<sup>3</sup>/s Sept. 15, gage height, 1.78 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	18	108	25	70	70	91	62	56	15	41	5.0
2	18	17	383	27	68	66	83	61	135	33	17	4.8
3	17	16	200	29	64	62	73	53	66	30	12	4.6
4	15	15	147	27	60	59	69	48	48	22	12	4.5
5	65	24	123	26	58	57	66	45	61	14	9.1	5.1
6	52	30	112	25	54	54	71	41	262	12	7.9	6.0
7	31	25	97	22	50	47	75	39	290	10	8.0	5.5
8	24	23	87	21	49	47	67	35	199	9.1	8.7	5.1
9	28	21	79	19	47	50	60	35	133	7.6	7.1	4.7
10	21	23	73	20	45	55	60	31	95	6.9	6.8	4.4
11	19	58	82	21	42	360	58	27	88	6.2	9.0	4.1
12	16	70	132	22	41	218	53	25	128	12	7.8	4.4
13	21	103	99	21	40	209	47	22	132	46	6.0	4.6
14	21	152	86	19	38	873	43	20	90	56	5.5	4.2
15	23	244	69	18	36	3910	41	18	70	26	5.1	3.9
16	25	148	78	17	35	760	81	18	61	15	44	4.4
17	19	289	63	20	33	423	73	35	73	11	21	4.6
18	17	184	52	38	39	342	56	23	50	9.8	25	4.4
19	29	142	50	125	52	1030	50	20	43	9.1	15	4.3
20	36	121	43	220	106	678	47	35	159	9.2	11	4.6
21	26	102	41	158	162	310	49	169	74	8.3	8.6	5.4
22	23	93	38	110	231	226	51	372	54	7.0	8.0	5.2
23	21	103	36	90	163	191	57	391	52	6.2	6.9	9.2
24	21	86	35	62	136	158	75	264	45	5.7	7.6	13
25	42	73	33	76	116	134	79	175	37	5.4	7.0	7.4
26	31	74	32	120	89	150	70	125	31	5.6	6.3	6.7
27	26	146	30	110	84	172	65	96	27	7.1	7.6	7.0
28	23	123	29	81	76	147	57	77	25	6.1	7.0	6.0
29	21	103	28	82	---	127	64	62	23	6.1	5.9	5.6
30	20	97	27	76	---	120	74	51	18	8.5	5.4	6.8
31	19	---	26	72	---	106	---	43	---	15	5.1	---
TOTAL	790	2723	2518	1799	2084	11211	1905	2518	2625	440.9	354.4	165.5
MEAN	25.5	90.8	81.2	58.0	74.4	362	63.5	81.2	87.5	14.2	11.4	5.52
MAX	65	289	383	220	231	3910	91	391	290	56	44	13
MIN	15	15	26	17	33	47	41	18	18	5.4	5.1	3.9
CFSM	.57	2.04	1.82	1.30	1.67	8.11	1.42	1.82	1.96	.32	.26	.12
IN.	.66	2.27	2.10	1.50	1.74	9.35	1.59	2.10	2.19	.37	.30	.14

CAL YR 1985 TOTAL 16526.7 MEAN 45.3 MAX 640 MIN .63 CFSM 1.02 IN. 13.8  
WTR YR 1986 TOTAL 29133.7 MEAN 79.8 MAX 3910 MIN 3.9 CFSM 1.79 IN. 24.3

## HUDSON RIVER BASIN

01350355 SCHOHARIE CREEK AT BREAKABEEN, NY

LOCATION.--Lat 42°32'10", long 74°24'40", Schoharie County, Hydrologic Unit 02020005, on left bank 100 ft downstream from bridge on State Highway 30, 0.9 mi north of Breakabeen, and 1.1 mi downstream from Keyser Kill.

DRAINAGE AREA.--443 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1975 to current year.

REVISED RECORDS.--WDR NY-79-1: Drainage area. WDR NY-81-1: 1980(M).

GAGE.--Water-stage recorder. Datum of gage is 686.79 ft above National Geodetic Vertical Datum of 1929. (Soil Conservation Service Benchmark.)

REMARKS.--Estimated daily discharges: Dec. 25-27, 29, Jan. 2, 6-9, 14-15, Feb. 6-8, 11-16, 24-25, and Mar. 5-7. Records good except those for estimated daily discharges, which are fair. Regulation of flow by Blenheim-Gilboa Pumped Storage Project. Entire flow, runoff from 314 mi<sup>2</sup>, except for periods of spill, diverted from Schoharie Reservoir through Shandaken Tunnel into Esopus Creek upstream from Ashokan Reservoir for water supply of City of New York. For periods of spill see station 01350101. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years, 553 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,000 ft<sup>3</sup>/s Mar. 21, 1980, gage height, 18.34 ft, from floodmarks, from rating curve extended above 11,000 ft<sup>3</sup>/s; minimum discharge, 1.7 ft<sup>3</sup>/s Oct. 14, 1980; minimum gage height, 0.25 ft Sept. 26, 1985; minimum daily discharge, 5.8 ft<sup>3</sup>/s Sept. 13, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24,100 ft<sup>3</sup>/s Mar. 15, gage height, 12.58 ft, from rating curve extended above 19,000 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow at gage height 19.5 ft, for flood of Apr. 5, 1987; minimum discharge, 15 ft<sup>3</sup>/s, all or part of each day Sept. 10-12, 14-20; minimum gage height, 0.48 ft Sept. 15; minimum daily discharge, 15 ft<sup>3</sup>/s Sept. 11-12, 14-15, 17-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	36	279	99	211	194	1040	1180	543	52	69	17
2	37	35	1320	90	199	180	927	951	1090	57	45	17
3	43	34	708	77	215	179	791	742	688	71	39	17
4	35	33	426	73	195	161	765	646	398	53	36	16
5	99	41	365	65	203	150	734	608	285	40	30	17
6	187	94	310	66	220	140	697	471	2630	35	25	18
7	97	91	258	66	190	130	760	476	4190	31	25	18
8	65	73	256	64	170	114	713	474	2310	29	26	17
9	50	66	231	64	161	116	643	270	1440	26	24	17
10	56	60	211	67	190	126	632	230	1010	24	22	16
11	40	134	216	65	170	1270	539	198	712	22	23	15
12	37	169	396	58	160	656	587	153	1070	28	24	15
13	38	268	310	58	140	611	492	116	1560	61	21	16
14	45	276	257	56	140	1960	483	63	951	134	19	15
15	60	669	196	52	130	15300	405	55	668	85	18	15
16	74	335	197	46	120	7780	575	53	574	44	50	16
17	52	796	208	46	126	4220	401	80	702	34	44	15
18	40	553	148	49	151	3180	336	65	590	30	61	15
19	41	390	140	85	202	5710	309	65	355	28	40	15
20	95	328	136	449	303	6290	291	107	607	26	30	16
21	78	262	135	406	462	2900	286	713	466	25	26	16
22	65	225	151	293	718	2080	296	5490	256	24	24	17
23	68	260	153	287	397	1780	443	4150	230	21	23	19
24	72	250	145	174	300	1400	391	3210	186	19	22	31
25	85	201	140	167	250	1250	789	2110	171	19	20	23
26	78	202	130	437	216	1210	1070	1410	123	18	19	19
27	47	456	110	340	239	1360	1440	1070	88	22	21	19
28	44	413	97	227	217	1320	1010	851	72	21	22	19
29	43	294	100	212	---	1210	980	687	73	22	19	18
30	40	278	101	245	---	1120	1850	472	64	24	18	18
31	38	---	102	226	---	1310	---	453	---	37	18	---
TOTAL	1893	7322	7932	4709	6395	65407	20675	27619	24102	1162	903	522
MEAN	61.1	244	256	152	228	2110	689	891	803	37.5	29.1	17.4
MAX	187	796	1320	449	718	15300	1850	5490	4190	134	69	31
MIN	35	33	97	46	120	114	286	53	64	18	18	15
CAL YR 1985	TOTAL	43443	MEAN	119	MAX	1320	MIN	7.3				
WTR YR 1986	TOTAL	168641	MEAN	462	MAX	15300	MIN	15				

## 01351500 SCHOHARIE CREEK AT BURTONSVILLE, NY

LOCATION.--Lat 42°48'00", long 74°15'48", Schenectady County, Hydrologic Unit 02020005, on right bank 0.4 mi south of Burtonsville, 2.7 mi north of Esperance, and 13.5 mi upstream from mouth.

DRAINAGE AREA.--883 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 507.98 ft above National Geodetic Vertical Datum of 1929, unadjusted.

REMARKS.--Estimated daily discharges: Dec. 19 to Jan. 25, Jan. 27 to Feb. 18, and Feb. 23 to Mar. 10. Records good except those for estimated daily discharges, which are fair. Regulation of flow by Blenheim-Gilboa Pumped Storage Project. Entire flow, runoff from 314 mi<sup>2</sup>, except for periods of spill, diverted from Schoharie Reservoir through Shandaken Tunnel into Esopus Creek upstream from Ashokan Reservoir for water supply of City of New York. For periods of spill see station 01350101. Several measurements of water temperature were made during the year. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--47 years, 1,006 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 76,500 ft<sup>3</sup>/s Oct. 16, 1955, gage height, 12.39 ft; minimum, 2.4 ft<sup>3</sup>/s Sept. 24, 25, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of March 1936 and September 1938 reached stages of 10.5 and 10.2 ft, respectively, from information provided by local resident. However, flood of October 1903 is known to have reached a higher stage than the 1936 or 1938 flood.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 37,400 ft<sup>3</sup>/s Mar. 15, gage height, 8.14 ft; minimum, 31 ft<sup>3</sup>/s Sept. 14, 15, 16, 17, gage height, 0.70 ft; minimum daily, 31 ft<sup>3</sup>/s, Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	230	139	1110	390	800	700	2420	2020	871	202	143	58
2	182	134	4060	370	740	620	2000	1710	2190	234	272	53
3	164	120	3320	320	800	600	1840	1380	1970	364	425	50
4	148	112	1820	300	740	600	1590	1130	1200	293	243	46
5	203	144	1480	270	800	540	1560	959	848	211	186	47
6	590	363	1300	260	680	540	1600	945	1200	176	145	50
7	403	496	1080	260	600	520	2030	736	6730	154	127	51
8	283	379	998	250	540	450	1740	707	4370	133	146	49
9	213	314	924	250	500	430	1560	703	2770	117	144	45
10	180	284	867	260	540	460	1390	414	1980	103	130	42
11	163	363	829	250	540	1680	1270	391	1460	93	117	40
12	140	617	1290	230	450	3370	1140	343	1930	95	98	37
13	139	960	1400	220	500	2270	1100	313	3250	163	86	35
14	149	1130	1130	210	450	3940	904	247	2310	443	79	33
15	172	2410	839	210	440	28900	900	198	1690	358	72	31
16	242	1630	803	180	440	21000	942	184	1210	232	122	34
17	228	2330	760	180	440	10300	1380	237	1370	167	273	33
18	176	2490	689	190	440	8350	779	286	1320	137	392	34
19	161	1700	600	300	580	14000	808	229	924	119	300	34
20	185	1400	560	1800	1300	17300	617	425	3490	109	194	38
21	217	1130	580	1500	1940	6570	655	1430	2120	99	148	55
22	193	927	600	1200	2950	4420	676	6560	1180	90	120	60
23	172	1020	600	1100	1500	3740	738	8940	834	82	105	153
24	165	1020	580	700	1100	3260	1020	5430	709	77	101	273
25	191	832	560	640	950	2900	1190	3990	553	68	90	194
26	234	727	520	1260	800	2920	1630	2760	458	69	86	133
27	213	1040	450	1700	900	3780	2070	2140	356	71	85	114
28	169	1560	380	1000	800	3940	1770	1720	304	70	80	95
29	151	1200	400	800	---	3210	1480	1390	258	81	79	89
30	143	1060	400	900	---	2730	2470	1120	229	88	72	87
31	132	---	400	800	---	2660	---	829	---	134	65	---
TOTAL	6331	28031	31329	18300	23260	156700	41269	49866	50084	4832	4725	2093
MEAN	204	934	1011	590	831	5055	1376	1609	1669	156	152	69.8
MAX	590	2490	4060	1800	2950	28900	2470	8940	6730	443	425	273
MIN	132	112	380	180	440	430	617	184	229	68	65	31
CAL YR 1985	TOTAL	175940	MEAN	482	MAX	7230	MIN	20				
WTR YR 1986	TOTAL	416820	MEAN	1142	MAX	28900	MIN	31				



## HUDSON RIVER BASIN

01357500 MOHAWK RIVER AT COHOES, NY

LOCATION.--Lat 42°47'07", long 73°42'29", Albany County, Hydrologic Unit 02020004, on right bank at Niagara Mohawk Power Corp. School Street powerplant in Cohoes, and 2.0 mi upstream from mouth.

DRAINAGE AREA.--3,456 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1917 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to July 17, 1925, published as "at Crescent Dam".

REVISED RECORDS.--WSP 741: Drainage area. WSP 1302: 1919-23 (M).

GAGE.--Water-stage recorder. Datum of gage is 49.13 ft above National Geodetic Vertical Datum of 1929. Dec. 1, 1917, to July 16, 1925, water-stage recorder at site 1.7 mi upstream at Crescent Dam at datum 130.87 ft higher. July 17 to Oct. 19, 1925, powerplant gage at present site.

REMARKS.--No estimated daily discharges. Records good. Total flow of Mohawk River equals flow published at Cohoes which includes small diversion for Cohoes water supply, plus flow diverted at Crescent Dam to Barge Canal through Lock 6. Prior to 1925 records published as total flow. See Diversions in Hudson River Basin for regulation and diversions upstream from this station. Telephone gage-height telemeter at station.

COOPERATION.--Diversions through Barge Canal at Lock 6 provided by New York State Department of Transportation.

AVERAGE DISCHARGE.--7 years (1919-25), 5,820 ft<sup>3</sup>/s, includes diversion at Lock 6; 61 years (1926-86), 5,691 ft<sup>3</sup>/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 143,000 ft<sup>3</sup>/s Mar. 6, 1964, result of release from ice jam, gage height, 23.15 ft, from rating curve extended above 100,000 ft<sup>3</sup>/s; minimum discharge, 6 ft<sup>3</sup>/s Sept. 18, 1941, gage height, 3.40 ft; minimum daily, 23 ft<sup>3</sup>/s Aug. 24, 1941.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 41,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 15	1700	a79,000	a19.90	Mar. 16	1130	76,200	19.72
Mar. 16	0030	a*91,800	a*20.68	Mar. 20	1000	75,900	19.70

a Result of release from ice jam.

Minimum discharge, 229 ft<sup>3</sup>/s May 14, gage height 5.42 ft; minimum daily discharge, 1,320 ft<sup>3</sup>/s Sept. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2560	1590	5070	2530	5010	4500	21900	3270	2750	1630	4640	1320
2	3090	1820	12100	3170	4520	4250	20300	3590	3780	2440	6660	1710
3	2750	1830	18200	3090	4360	3840	19300	3480	5240	5880	8230	1770
4	1870	1480	12600	3130	4630	3710	17000	3270	3590	3990	5100	1700
5	2490	1990	9290	2750	4510	3700	14700	3060	3270	2640	4810	1500
6	2640	2610	6560	2680	4630	3970	14300	1470	2340	2510	2830	1740
7	2700	4020	5490	2620	4650	3970	19100	1840	6960	2290	3080	1560
8	2230	2780	5360	2980	4180	3680	17500	3050	6570	1390	6410	1730
9	1880	2640	4840	3300	3820	3120	14900	2940	4840	1630	6300	1660
10	1660	2920	4750	2530	3630	3000	13400	2820	4330	1470	5750	1830
11	1450	4640	4810	2500	3530	3640	11800	2120	2930	1440	4830	1450
12	1630	6750	4640	2420	3610	5540	10100	2150	5070	1400	4270	1570
13	1570	5530	4840	2630	3650	9450	8530	2170	15600	2280	3690	1760
14	1620	6190	5560	2790	3220	11200	7130	1390	12200	6220	2130	1520
15	3360	16600	4980	2370	2580	37300	6360	1590	7460	6670	2790	1640
16	5070	13300	4470	2290	2400	67500	5140	1750	6260	4460	8630	1460
17	4970	11400	4430	1670	2360	47800	5820	1610	9230	3480	5620	1540
18	3290	15200	4020	2540	2350	33800	6670	2980	6190	2830	5640	1740
19	3250	10500	2930	2330	2630	35400	6730	2920	5070	1820	6620	2260
20	3010	8400	2680	2710	3080	64500	6220	5250	19900	1860	3320	1680
21	4680	6640	2890	12500	3880	32900	5520	10200	15000	13200	2940	2900
22	2870	6300	2110	14500	6760	21300	5410	18800	8470	4620	1760	3000
23	2410	6690	2980	12200	8690	16400	5730	24400	6950	4610	1900	5920
24	2940	6010	2530	9370	7590	14300	4800	15100	6470	2610	2600	12300
25	2980	6700	3790	6620	6240	12400	4500	13100	6460	1520	2290	8140
26	3160	5680	3300	4920	5470	14100	2560	8260	4800	1600	1900	4470
27	3550	5110	3060	5360	5010	24400	4690	6350	4450	3230	2130	4230
28	3270	7370	2740	4900	4600	28100	4840	3950	3340	3610	3180	4090
29	3000	10900	3120	4280	---	21200	2850	3620	2560	3500	2750	2880
30	2470	8180	2840	4380	---	19800	1940	3410	2870	3370	1570	9290
31	2140	---	2720	4660	---	20900	---	2870	---	4050	2380	---
TOTAL	86560	191770	159700	136720	121590	579670	289740	162780	194950	104250	126750	90360
MEAN	2792	6392	5152	4410	4343	18700	9658	5251	6498	3363	4089	3012
MAX	5070	16600	18200	14500	8690	67500	21900	24400	19900	13200	8630	12300
MIN	1450	1480	2110	1670	2350	3000	1940	1390	2340	1390	1570	1320
CAL YR 1985	TOTAL	1474834	MEAN	4041	MAX	37400	MIN	153				
WTR YR 1986	TOTAL	2244840	MEAN	6150	MAX	67500	MIN	1320				

## HUDSON RIVER BASIN

81

## 01357500 MOHAWK RIVER AT COHOES, NY--Continued

(01357499) Diversion, in cubic feet per second, from Mohawk River at Crescent Dam, NY, through Barge Canal at lock 6, water year October 1985 to September 1986

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	116	92	3.0	3.0	3.0	3.0	92	116	146	164	170
2	158	98	92	3.0	3.0	3.0	3.0	92	128	146	152	152
3	140	110	92	3.0	3.0	3.0	3.0	92	134	146	140	116
4	140	98	92	3.0	3.0	3.0	3.0	92	152	164	140	140
5	128	92	92	3.0	3.0	3.0	3.0	146	146	152	140	140
6	134	92	92	3.0	3.0	3.0	3.0	128	134	182	128	128
7	140	116	98	3.0	3.0	3.0	3.0	104	122	146	134	140
8	134	104	92	3.0	3.0	3.0	3.0	134	128	158	122	128
9	122	98	98	3.0	3.0	3.0	3.0	128	134	158	140	146
10	128	104	98	3.0	3.0	3.0	3.0	110	152	146	146	128
11	128	104	98	3.0	3.0	3.0	3.0	122	140	182	128	146
12	140	104	3.0	3.0	3.0	3.0	3.0	122	128	158	134	122
13	152	104	3.0	3.0	3.0	3.0	3.0	116	146	170	134	134
14	140	116	3.0	3.0	3.0	3.0	3.0	140	140	122	122	158
15	116	104	3.0	3.0	3.0	3.0	3.0	128	122	128	152	116
16	110	104	3.0	3.0	3.0	3.0	3.0	134	134	134	134	128
17	116	92	3.0	3.0	3.0	3.0	3.0	128	140	122	116	122
18	116	116	3.0	3.0	3.0	3.0	92	122	116	158	128	116
19	122	116	3.0	3.0	3.0	3.0	92	146	134	158	140	128
20	140	98	3.0	3.0	3.0	3.0	92	134	146	170	110	134
21	134	110	3.0	3.0	3.0	3.0	92	134	146	146	152	140
22	104	98	3.0	3.0	3.0	3.0	92	116	164	146	134	146
23	104	110	3.0	3.0	3.0	3.0	92	116	122	140	140	140
24	98	98	3.0	3.0	3.0	3.0	104	104	134	134	140	122
25	116	98	3.0	3.0	3.0	3.0	92	134	128	146	140	122
26	110	92	3.0	3.0	3.0	3.0	92	170	152	128	146	146
27	116	92	3.0	3.0	3.0	3.0	92	140	152	164	146	128
28	122	92	3.0	3.0	3.0	3.0	98	128	146	122	158	128
29	122	110	3.0	3.0	---	3.0	92	110	158	140	146	134
30	128	92	3.0	3.0	---	3.0	98	134	146	116	164	122
31	104	---	3.0	3.0	---	3.0	---	128	---	122	158	---
TOTAL	3884	3078	1096.0	93.0	84.0	93.0	1271.0	3824	4140	4550	4328	4020
MEAN	125	103	35.4	3.00	3.00	3.00	42.4	123	138	147	140	134
MAX	158	116	98	3.0	3.0	3.0	104	170	164	182	164	170
MIN	98	92	3.0	3.0	3.0	3.0	3.0	92	116	116	110	116

CAL YR 1985 TOTAL 30932.0 MEAN 84.7 MAX 176 MIN 3.0  
WTR YR 1986 TOTAL 30461.0 MEAN 83.5 MAX 182 MIN 3.0

## 01357500 MOHAWK RIVER AT COHOES, NY

REGULATION  
(see Reservoirs in Hudson River Basin)

Delta Dam.  
Hinckley Reservoir.  
Schoharie Reservoir.

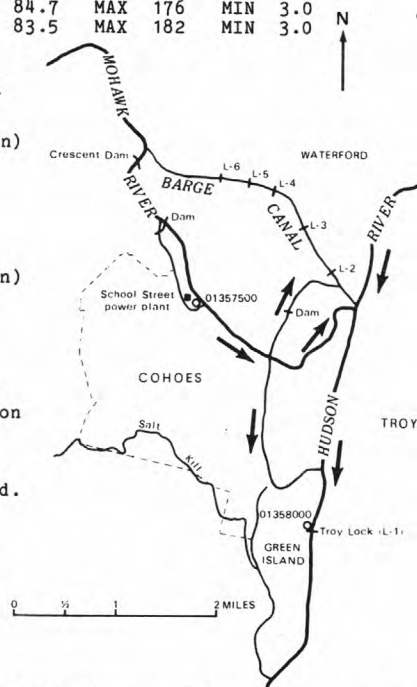
DIVERSIONS  
(see Reservoirs in Hudson River Basin)

From Chenango River basin through  
Oriskany Creek Feeder.

From (and occasionally into) Oswego  
River basin through summit level of  
Erie (Barge) Canal between New London  
and Utica.

From Black River basin through Black  
River Canal during navigation period.

Into Esopus Creek from Schoharie  
Reservoir through Shandaken Tunnel  
for New York City water supply.



## 01358000 HUDSON RIVER AT GREEN ISLAND, NY

## REGULATION

Great Sacandaga Lake at Conklingville  
(see station 01323500).  
Indian Lake near Indian Lake (see  
station 01314500).  
Mohawk River regulation listed  
under Mohawk River at Cohoes.

## DIVERSIONS

Mohawk River diversions listed  
under Mohawk River at Cohoes.

Into St. Lawrence River basin through:  
Glens Falls feeder at Dunham Basin.  
Bond Creek at Dunham Basin.  
Champlain (Barge) Canal.

From St. Lawrence River basin through  
summit level of Champlain (Barge)  
Canal at Dunham Basin

Figure 8.--Gaging stations and diversions near mouth of Mohawk River.

## HUDSON RIVER BASIN

01358000 HUDSON RIVER AT GREEN ISLAND, NY

(National stream-quality accounting network station)  
(National radiochemical network station)

LOCATION.--Lat 42°45'08", long 73°41'22", Albany County, Hydrologic Unit 02020003, on right bank at Green Island, just upstream from Troy lock and dam, and 0.5 mi downstream from 5th branch Mohawk River. Water-quality sampling site at bridge on State Highway 7, 1.7 mi downstream from discharge station.

DRAINAGE AREA.--8,090 mi<sup>2</sup>, approximately (including that above site of former auxiliary gage).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 0.31 ft below National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). From July 1, 1946 to Mar. 12, 1962 auxiliary water-stage recorder on bypass channel at datum 10.59 ft higher. Totalizing flowmeter on each turbine in powerplant.

REMARKS.--Estimated daily discharges. Dec. 28-30. Records fair. Records include flow over spillway, estimates of flow through lock, and flow through powerplant. Powerplant, located on right bank just downstream from gage, was inoperative from Nov. 20, 1960 to Feb. 23, 1971. See Diversions in Hudson River Basin for regulation and diversions upstream from this station. Satellite gage-height and flowmeter telemeter readings at station.

COOPERATION.--Turbine flowmeter readings provided by Niagara Mohawk Power Corporation.

AVERAGE DISCHARGE.--40 years, 13,700 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 181,000 ft<sup>3</sup>/s Dec. 31, 1948, gage height, 27.05 ft, from high-water mark in gage well; maximum daily, 152,000 ft<sup>3</sup>/s Mar. 14, 1977; minimum daily, 882 ft<sup>3</sup>/s Sept. 2, 1968; minimum gage height, 13.68 ft July 6, 1981, when pool was lowered for inspection of flashboards.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 19, 1936, reached a stage of 29.48 ft at gage on opposite bank, from information by Corps of Engineers (discharge, 215,000 ft<sup>3</sup>/s). Flood of Mar. 28, 1913, prior to construction of Sacandaga Reservoir and Troy lock and dam, reached a stage about 0.2 ft higher upstream from former dam near same site. Downstream from dams, flood in 1913 was about 3.3 ft higher than flood in 1936, from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 117,000 ft<sup>3</sup>/s Mar. 16, gage height, 23.41 ft; minimum daily, 3,730 ft<sup>3</sup>/s Sept. 5; minimum gage height, 14.99 ft May 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6220	5600	11900	6840	15400	11000	51100	9290	6300	5130	11400	5370
2	7960	5530	21000	7290	14600	10600	47700	9460	8320	6940	13100	5480
3	6910	5300	31900	7390	13500	10400	45100	8590	12100	12900	16200	5630
4	5500	4590	23800	7220	14300	10000	40300	5830	9180	9180	12600	5760
5	5920	6130	19500	6890	14000	9430	34500	6140	8220	5890	12100	3730
6	6140	7790	16900	7050	13300	9460	31600	6540	6520	6840	8620	5440
7	5720	11200	14100	7240	12100	9880	37600	6220	10500	6280	9580	5790
8	7230	10000	13200	6100	12300	9430	39300	7450	9620	5620	20100	5130
9	6280	9310	12600	5810	11500	8810	35700	6980	8090	5600	17900	5790
10	5450	9430	12100	6780	11500	8810	32500	6590	8660	4350	16100	5200
11	5130	11100	12400	7120	11800	9750	29400	5540	6760	4180	13600	4850
12	5450	15900	11700	6850	10900	13500	26600	5410	9410	4750	12100	5220
13	4450	16600	10700	6710	10400	18100	23500	5140	24300	5530	10600	5600
14	3740	16500	11700	7020	10100	21800	20900	4220	25200	12300	7840	6240
15	6890	28900	11200	6410	9940	70300	18500	5130	17800	13900	8540	5820
16	10100	27900	10400	6150	10700	100000	17500	5980	15500	11100	14500	5830
17	12300	23800	10200	5230	10200	74600	17900	5090	20000	9440	12000	5820
18	8680	28200	8890	6060	10300	60000	18900	5460	18400	8340	12000	6590
19	8270	21200	7660	6640	10300	62900	18300	6550	17500	6600	13800	7060
20	8470	19500	7420	7520	11100	104000	15900	10200	33100	5840	9680	5850
21	11100	18300	7880	21500	12600	66300	12500	16300	30700	17800	8910	7140
22	8030	16500	7050	25300	17700	44800	13500	29400	20700	9600	6240	6330
23	7770	16900	7530	22800	19300	36700	15900	41500	18500	9440	6860	13000
24	7920	15100	7010	18600	17300	32400	15100	33200	17400	6790	8140	19700
25	7990	15600	8630	13500	15300	28700	14700	31100	16500	4880	6780	15400
26	8050	14100	8420	12800	12700	31200	11400	23600	14500	5320	6720	11300
27	8160	12600	7370	19900	11000	44500	9620	19000	11500	7820	6990	10900
28	7070	16200	6940	20700	10400	52900	9660	14900	8410	7960	8360	10600
29	6470	18400	7330	16300	---	45900	9780	13200	7410	8710	9130	9560
30	6370	15800	7140	15600	---	44000	8470	10800	6630	8630	7780	14500
31	6860	---	6620	15400	---	46800	---	9270	---	11500	7620	---
TOTAL	222600	443980	361190	336720	354540	1106970	723430	374080	427730	249160	335890	230630
MEAN	7181	14800	11650	10860	12660	35710	24110	12070	14260	8037	10840	7688
MAX	12300	28900	31900	25300	19300	104000	51100	41500	33100	17800	20100	19700
MIN	3740	4590	6620	5230	9940	8810	8470	4220	6300	4180	6240	3730
CAL YR 1985	TOTAL	3803780	MEAN	10420	MAX	66000	MIN	2240				
WTR YR 1986	TOTAL	5166920	MEAN	14160	MAX	104000	MIN	3730				

## 01358000 HUDSON RIVER AT GREEN ISLAND, NY--Continued

## WATER-QUALITY RECORDS

## PERIOD OF RECORD.--Water years 1955 to current year.

CHEMICAL DATA: 1963 (a), 1964-65 (e), 1966-77 (d), 1978 (c), 1979-82 (d), 1983-86 (b).

MINOR ELEMENTS DATA: 1970-71 (a); 1972-73, 1975-79 (b), 1980-85 (b), 1986 (a).

RADIOCHEMICAL DATA: 1968-71 (c), 1973-75 (a), 1976 (d), 1977 (a), 1978 (b), 1979-80 (a), 1981 (b), 1982-85 (a).

PESTICIDE DATA: 1976-77 (b), 1978 (a), 1979 (c), 1980, 82 (a).

ORGANIC DATA: OC--1974 (a), 1975 (c), 1976-77 (b), 1978 (a), 1979 (c), 1980-81 (d).

PCB--1978 (a), 1979 (b), 1980 (a).

NUTRIENT DATA: 1968 (b), 1969-76 (d), 1977-79 (c), 1980-82 (d), 1983-86 (b).

## BIOLOGICAL DATA:

Bacteria--1971 (a), 1973-74 (d), 1975 (a), 1976-78 (c), 1979-81 (d), 1983-86 (b).

Phytoplankton--1975 (a), 1976-77 (c), 1978 (b), 1979-81 (c).

Periphyton--1976-77 (b), 1978 (a), 1979-80 (b).

SEDIMENT DATA: 1975 (b), 1976 (d), 1977 (b), 1978 (c), 1979-82 (d), 1983-86 (b).

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to September 1965, once-daily measurements, unpublished.

pH: October 1964 to September 1965, once-daily measurements, unpublished.

WATER TEMPERATURES: April 1947 to September 1954, once-daily measurements, unpublished; October 1954 to September 1981.

REMARKS.--Prior to October 1968 sampling site at old bridge on State Highway 7 about 100 ft upstream, and between April 1971 and September 1973 sampling site at former bridge on road between Green Island and Troy at Starbuck Island.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL KF AGAR (COLS. PER 100 ML)
NOV 26...	1300	14100	175	7.70	4.5	4.1	767	10.4	80	430	K240
MAY 06...	1130	6540	150	7.70	14.0	2.0	765	9.9	96	260	52
AUG 05...	1200	12100	178	--	--	23	--	--	--	390	240

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD (MG/L AS CACO3)	BICAR- BONATE WH WAT TOTAL FIELD (MG/L AS HCO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV 26...	71	22	22	3.8	7.7	0.90	51	60	19	12	<0.10
MAY 06...	56	17	17	3.2	7.0	1.0	39	47	18	10	<0.10
AUG 05...	69	18	21	3.9	7.8	1.1	40	56	18	11	<0.10

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHOPHOS- PHATE, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (MG/L AS AL)
NOV 26...	5.4	99	100	0.490	0.170	0.170	0.60	0.060	0.030	0.020	30
MAY 06...	3.9	91	84	0.550	0.340	0.340	0.60	0.030	0.010	0.010	--
AUG 05...	5.7	131	99	0.480	0.050	0.030	0.40	0.050	0.060	0.030	--

DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 26...	<1	21	<0.5	<1	<1	<3	4	59	<1	<4	15
MAY 06...	--	--	--	--	--	--	--	--	--	--	--
AUG 05...	--	--	--	--	--	--	--	--	--	--	--

K Results based on colony count outside the acceptable range (non-ideal colony count).



## HUDSON RIVER BASIN

01358000 HUDSON RIVER AT GREEN ISLAND NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 26...	<0.1	<10	<1	<1	<1	110	<6	29
MAY 06...	--	--	--	--	--	--	--	--
AUG 05...	--	--	--	--	--	--	--	--

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 26...	1300	14100	8	305	94
MAR 19...	1200	62900	81	13800	95
MAY 06...	1130	6540	6	106	73

## HUDSON RIVER BASIN

85

01359139 HUDSON RIVER AT ALBANY, NY

LOCATION.--Lat 42°38'57", long 73°44'46", Albany County, Hydrologic Unit 02020006, on right bank 0.5 mi upstream from bridge on U.S. Highways 9 and 20 in Albany, and 0.5 mi downstream from the Penn Central Transportation Company bridge.

DRAINAGE AREA.--8,290 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1972 to September 1976, April 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft below National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Gage-height record converted to elevation above or below (-) mean sea level for publication.

REMARKS.--Records good. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation recorded, 10.05 ft May 31, 1984; minimum recorded, -4.50 ft Mar. 8, 1986.

## TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
<u>Maximum high tide</u>												
Elevation	5.63	5.63	5.89	5.84	5.29	8.57	6.16	6.33	6.09	5.61	5.83	5.08
Date	15	12,16,29	2	27	23	16	9	24	13	21	19	5
<u>Minimum low tide</u>												
Elevation	-2.67	-2.12	-2.82	-3.34	-1.44	-4.50	-2.10	-2.83	-2.45	-1.96	-2.32	-3.74
Date	28	11	20	7	28	8	23	4	2	11	25	16
Mean high tide	4.29	4.81	4.32	3.24	3.68	5.23	5.20	4.79	4.74	4.65	4.67	4.31
Mean water level	1.44	2.15	1.58	1.23	1.82	2.94	2.65	1.91	1.87	1.73	1.80	1.50
Mean low tide	-1.49	-0.67	-1.34	-0.83	0.01	0.35	-0.06	-1.13	-1.20	-1.35	-1.15	-1.48

## HUDSON RIVER BASIN

01359750 MOORDENER KILL AT CASTLETON-ON-HUDSON, NY

LOCATION.--Lat 42°32'02", long 73°44'15", Rensselaer County, Hydrologic Unit 02020006, on left bank 800 ft downstream from bridge on State Highway 150, 0.2 mi east of village of Castleton-on-Hudson, 0.5 mi downstream from unnamed tributary, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--32.6 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 98.72 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 25, 1957, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 4 to Jan. 18, Jan. 24 to Feb. 19, Feb. 25 to Mar. 3, and Mar. 8-12. Records good except those for estimated daily discharges, which are poor. Slight diurnal fluctuation of low flow by mills upstream and occasional regulation at dam 800 ft upstream. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--29 years, 38.2 ft<sup>3</sup>/s, 15.91 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,850 ft<sup>3</sup>/s Mar. 15, 1986, gage height, 4.25 ft; minimum, 0.30 ft<sup>3</sup>/s Aug. 9, 10, 1964, gage height, 0.25 ft; minimum daily, 1.0 ft<sup>3</sup>/s Sept. 6, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 15	0645	*1,850	*4.25	No other peak greater than base discharge.			

Minimum discharge, 4.1 ft<sup>3</sup>/s Oct. 3, July 23, 24, 25, 26; minimum gage height, 0.62 ft July 23, 24, 25, 26; minimum daily discharge, 4.2 ft<sup>3</sup>/s July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	5.9	61	22	38	39	45	19	12	8.7	22	5.0
2	4.5	5.9	176	22	36	37	42	20	18	16	67	4.9
3	4.4	5.9	132	23	33	35	38	18	19	21	41	4.9
4	4.5	5.9	62	23	32	39	36	16	13	14	62	5.1
5	7.2	18	54	24	30	49	35	16	11	11	33	5.4
6	12	27	48	23	30	54	43	16	30	9.3	24	5.7
7	8.1	21	43	22	29	45	53	16	63	8.5	23	5.4
8	6.2	16	40	22	29	42	45	16	36	7.5	28	5.1
9	5.3	13	38	21	28	42	38	15	26	6.9	24	4.8
10	5.0	12	36	21	27	44	35	13	19	6.4	20	4.6
11	4.9	18	34	21	26	56	34	13	16	6.1	23	4.7
12	4.5	30	31	21	25	80	31	13	25	8.1	18	5.0
13	5.5	40	30	23	25	117	29	12	36	18	14	5.2
14	6.2	34	28	27	24	398	27	11	25	20	12	5.1
15	7.3	44	27	35	24	1230	26	10	19	14	10	4.9
16	7.8	34	25	48	23	402	26	11	16	9.1	21	5.2
17	8.0	86	24	58	23	297	29	14	21	7.1	25	5.3
18	6.9	73	22	70	24	267	26	12	17	6.2	30	5.4
19	7.9	51	22	110	25	282	24	10	13	5.7	31	5.4
20	12	42	21	293	35	253	22	9.7	82	5.3	20	5.8
21	10	35	21	217	86	132	22	13	55	5.2	16	6.4
22	8.5	32	21	101	161	106	31	22	31	4.9	13	6.3
23	7.9	41	21	70	135	94	28	38	24	4.6	12	13
24	7.3	34	20	64	90	84	29	53	20	4.4	12	20
25	7.1	29	20	60	62	68	26	40	17	4.2	10	12
26	6.9	29	22	58	58	66	26	25	14	7.7	8.5	9.5
27	6.7	54	22	54	50	68	26	18	12	23	8.0	8.4
28	6.4	66	22	49	43	82	23	15	12	15	7.3	7.9
29	6.4	59	21	45	---	66	21	12	11	12	6.2	7.9
30	6.4	56	21	41	---	58	20	11	9.3	14	5.5	8.6
31	5.9	---	21	39	---	52	---	9.5	---	28	5.3	---
TOTAL	212.4	1017.6	1186	1727	1251	4684	936	537.2	722.3	331.9	651.8	202.9
MEAN	6.85	33.9	38.3	55.7	44.7	151	31.2	17.3	24.1	10.7	21.0	6.76
MAX	12	86	176	293	161	1230	53	53	82	28	67	20
MIN	4.4	5.9	20	21	23	35	20	9.5	9.3	4.2	5.3	4.6
CFSM	.21	1.04	1.17	1.71	1.37	4.63	.96	.53	.74	.33	.64	.21
IN.	0.24	1.16	1.35	1.97	1.43	5.34	1.07	0.61	0.82	0.38	0.74	0.23
CAL YR 1985	TOTAL	7769.1	MEAN	21.3	MAX	335	MIN	2.3	CFSM	.65	IN.	8.87
WTR YR 1986	TOTAL	13460.1	MEAN	36.9	MAX	1230	MIN	4.2	CFSM	1.13	IN.	15.36

## HUDSON RIVER BASIN

87

01362198 ESOPUS CREEK AT SHANDAKEN, NY  
(Hydrologic bench-mark station)

LOCATION.--Lat 42°06'59", long 74°23'20", Ulster County, Hydrologic Unit 02020006, on right bank 2,400 ft downstream from bridge on State Highway 28, at Shandaken, 0.5 mi downstream from Bushnellsville Creek, 0.5 mi upstream from Fox Hollow Creek, and 5.2 mi northwest of Phoenicia. Water-quality sampling site at discharge station.

DRAINAGE AREA.--59.5 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,017.27 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 14 to Jan. 20, Jan. 29 to Feb. 21, Feb. 23 to Mar. 12, Mar. 15, July 28 to Aug. 3, and Aug. 29 to Sept. 10. Records poor. Occasional slight regulation when filling or draining swimming pools or small ponds upstream from station.

AVERAGE DISCHARGE.--23 years, 137 ft<sup>3</sup>/s, 31.27 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,900 ft<sup>3</sup>/s Mar. 21, 1980, gage height, 13.00 ft from floodmarks, from rating curve extended above 2,200 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 10.88 ft; minimum discharge, 2.1 ft<sup>3</sup>/s Sept. 16, 1983 (result of slight regulation upstream from station).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 15	Unknown	*3,680	*8.73	May 22	1100	1,340	6.79
Mar. 19	2000	1,810	7.29				

Minimum discharge, 8.5 ft<sup>3</sup>/s Sept. 22, 23, gage height, 3.51 ft; Oct. 13; minimum daily, 8.5 ft<sup>3</sup>/s Sept. 22.DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	75	194	52	110	98	254	202	142	54	140	24
2	113	73	449	50	120	88	230	181	119	65	250	22
3	101	70	431	60	100	82	204	162	101	58	190	21
4	94	68	357	58	94	76	184	147	90	52	133	23
5	102	112	298	52	110	72	169	134	88	56	110	30
6	101	121	255	47	100	68	165	123	155	51	102	31
7	93	127	219	43	88	62	163	114	185	45	173	24
8	87	128	196	40	80	56	151	103	180	47	144	21
9	83	125	176	52	76	54	144	94	163	48	116	23
10	80	119	159	49	70	64	139	86	142	47	100	19
11	74	126	153	45	66	110	130	80	138	45	102	14
12	70	155	158	43	58	150	121	74	224	69	89	13
13	82	191	143	39	54	172	113	70	257	68	81	13
14	75	210	130	35	52	570	106	67	250	67	71	11
15	77	271	120	32	54	2590	100	62	230	57	67	11
16	81	266	110	49	52	1160	119	62	210	50	68	12
17	75	476	100	52	56	704	145	114	236	45	62	11
18	74	450	90	62	70	527	142	84	179	40	57	9.8
19	79	387	84	78	80	1140	140	81	157	40	52	9.8
20	82	331	78	220	90	1170	139	128	153	43	48	8.9
21	80	273	86	286	120	716	146	553	127	39	45	8.9
22	77	239	80	259	178	506	149	1040	111	36	44	8.5
23	76	217	78	229	170	385	157	817	101	31	40	9.8
24	78	190	78	196	150	305	169	559	88	23	45	12
25	96	170	74	177	140	256	216	392	82	21	39	11
26	93	166	58	242	120	237	279	292	72	49	36	10
27	91	195	66	214	110	249	292	229	67	63	33	11
28	88	199	68	182	110	263	268	190	68	86	32	10
29	85	199	60	170	---	256	249	161	66	39	29	9.3
30	82	196	58	140	---	278	222	137	59	45	26	9.7
31	79	---	54	100	---	290	---	132	---	150	24	---
TOTAL	2676	5925	4660	3353	2678	12754	5205	6670	4240	1629	2548	451.7
MEAN	86.3	198	150	108	95.6	411	174	215	141	52.5	82.2	15.1
MAX	128	476	449	286	178	2590	292	1040	257	150	250	31
MIN	70	68	54	32	52	54	100	62	59	21	24	8.5
CFSM	1.45	3.33	2.52	1.82	1.61	6.91	2.92	3.61	2.37	.88	1.38	.25
IN.	1.67	3.70	2.91	2.10	1.67	7.97	3.25	4.17	2.65	1.02	1.59	0.28

CAL YR 1985	TOTAL	33474.8	MEAN	91.7	MAX	805	MIN	6.8	CFSM	1.54	IN.	20.93
WTR YR 1986	TOTAL	52789.7	MEAN	145	MAX	2590	MIN	8.5	CFSM	2.44	IN.	33.00



## HUDSON RIVER BASIN

01362198 ESOPUS CREEK AT SHANDAKEN, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

CHEMICAL DATA: 1963-65 (a), 1966-67 (b), 1968-82 (d), 1983-84 (b), 1985 (c), 1986 (b).

MINOR ELEMENT DATA: 1964-65, 1967-73, 1975-76 (a), 1977 (b), 1978-86 (a).

RADIOCHEMICAL DATA: 1967-77, 1979-85 (a).

PESTICIDE DATA: 1967-72, 1974-77, 1979-82 (a).

ORGANIC DATA: OC--1979 (a), 1981 (c).

PCB--1974-77, 1979-82 (a).

PCN--1977, 1979-82 (a).

NUTRIENT DATA: 1968 (a), 1969-71 (d), 1972 (c), 1974 (a), 1975-82 (d), 1983-84 (b), 1985 (c), 1986 (a).

BIOLOGICAL DATA:

Bacteria--1968-69 (d), 1970-72 (c), 1973-82 (d), 1983-85 (b), 1986 (a).

SEDIMENT DATA: 1969-71 (c), 1972-75, 1977-82 (d), 1983-86 (b).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: July 1963 to July 1968, January 1970 to current year.

INSTRUMENTATION.--Water-temperature digital recorder since November 1981, provides one-hour interval punches.

Prior to November 1981, water-temperature recorder provided continuous recordings.

REMARKS.--Interruption in temperature record was due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (except water years 1969, 1977, 1981, 1983-84), 28.5°C Aug. 16, 1965, Aug. 9, 1980; minimum, 0.0°C on many days during winter periods except water years 1967 and 1976.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 23.0°C on July 6, 21, 22; minimum, 0.0°C on many days during winter period.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 27...	1500	200	54	6.80	6.0	1.3	736	11.8	98	14	11
MAR 14...	1445	333	73	6.84	3.0	--	--	--	--	--	--
MAY 19...	1045	82	59	7.25	14.5	--	--	--	--	--	--
22...	1515	1040	45	6.95	10.5	--	--	--	--	--	--
AUG 06...	1000	99	61	--	14.0	2.3	--	--	--	52	86
DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
NOV 27...	17	9	5.0	1.2	2.8	0.60	9	7.6	4.5	<0.10	3.1
MAR 14...	18	12	5.3	1.2	4.9	0.40	6	7.1	11	--	2.4
MAY 19...	18	9	5.4	1.2	3.0	--	9	7.1	4.6	--	--
22...	13	9	3.9	0.90	2.1	--	5	6.3	3.2	--	--
AUG 06...	19	5	5.6	1.2	2.8	0.50	13	8.1	3.7	<0.10	3.4
DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)
NOV 27...	22	31	0.270	0.280	0.020	0.020	0.30	0.020	0.010	0.010	10
MAR 14...	--	38	0.486	--	--	--	--	--	--	--	20
MAY 19...	--	--	0.217	--	--	--	--	--	--	--	20
22...	--	--	0.398	--	--	--	--	--	--	--	30
AUG 06...	49	34	--	0.130	0.010	<0.010	<0.20	0.020	0.020	0.010	--

## HUDSON RIVER BASIN

89

01362198 ESOPUS CREEK AT SHANDAKEN, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 27...	<1	17	<0.5	<1	<1	<3	<1	13	<1	<4	4
MAR 14...	--	--	--	--	--	--	--	<3	--	--	1
MAY 19...	--	--	--	--	--	--	--	36	--	--	2
22...	--	--	--	--	--	--	--	14	--	--	4
AUG 06...	--	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 27...	<0.1	<10	<1	<1	<1	13	<6	16
MAR 14...	--	--	--	--	--	--	--	--
MAY 19...	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--
AUG 06...	--	--	--	--	--	--	--	--

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 27...	1500	200	4	2.2	77
MAR 20...	1100	1190	24	77	78
MAY 06...	1100	126	17	5.8	10

## HUDSON RIVER BASIN

01362198 ESOPUS CREEK AT SHANDAKEN, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	15.5	11.5	13.0	8.5	5.0	6.5	5.5	5.0	5.0	.5	.0	.5
2	14.0	12.0	13.0	7.5	5.0	6.5	6.5	3.5	5.5	.5	.0	.0
3	12.0	11.5	12.0	9.0	7.0	8.0	3.0	2.0	2.5	2.0	.5	1.0
4	13.0	12.0	12.5	7.5	7.0	7.5	4.0	2.0	3.0	1.5	.0	.5
5	13.5	11.5	12.5	8.5	7.5	8.0	3.5	2.5	3.0	.5	.0	.0
6	12.5	10.5	11.5	9.0	8.0	8.5	4.0	3.0	3.5	.0	.0	.0
7	12.5	9.0	10.5	9.5	7.5	8.5	4.0	2.5	3.5	.0	.0	.0
8	12.5	8.5	10.5	8.5	6.5	7.5	4.0	3.5	4.0	.0	.0	.0
9	14.0	10.5	12.0	8.0	6.0	7.0	4.5	4.0	4.0	.0	.0	.0
10	14.5	11.5	13.0	9.5	7.5	8.5	4.5	4.0	4.0	.0	.0	.0
11	13.0	10.0	12.0	9.0	7.0	8.0	5.0	4.0	4.5	.0	.0	.0
12	11.0	8.0	9.5	7.5	6.5	7.0	5.0	3.5	4.5	.0	.0	.0
13	11.0	9.5	10.0	10.0	7.0	9.0	3.5	2.5	3.0	.5	.0	.0
14	13.5	10.5	12.0	9.0	8.0	8.5	3.0	.5	2.5	.0	.0	.0
15	14.0	12.0	13.0	8.5	5.5	6.5	1.5	.0	1.0	.0	.0	.0
16	12.5	9.5	11.5	5.5	3.0	4.5	2.5	1.0	2.0	.0	.0	.0
17	11.0	8.0	9.5	7.0	5.0	6.0	2.0	.5	1.5	.0	.0	.0
18	11.5	8.0	10.0	8.0	6.5	7.0	1.0	.0	.5	.0	.0	.0
19	12.5	10.5	11.5	9.5	6.5	8.0	.0	.0	.0	.0	.0	.0
20	11.5	9.0	10.5	11.0	8.0	9.5	.0	.0	.0	2.0	.0	1.0
21	10.5	7.5	9.0	8.0	5.5	6.5	.0	.0	.0	2.5	1.5	2.0
22	10.5	6.5	8.5	6.0	5.0	5.5	.0	.0	.0	4.5	1.0	2.5
23	10.5	6.5	8.5	7.0	5.0	6.0	1.0	.0	.5	2.5	.5	1.5
24	10.5	7.0	9.0	6.5	4.5	5.5	3.0	1.5	2.5	1.5	.0	.5
25	11.5	8.5	10.5	5.5	4.0	4.5	2.5	.0	1.0	.0	.0	.0
26	10.5	7.5	9.0	4.5	3.0	4.0	.0	.0	.0	1.5	.0	1.0
27	11.0	7.0	9.0	6.0	4.5	5.5	.0	.0	.0	2.0	.5	1.5
28	9.0	6.5	7.5	5.0	3.5	4.5	.0	.0	.0	.0	.0	.0
29	8.0	5.0	6.5	5.5	4.5	5.0	.0	.0	.0	.0	.0	.0
30	7.5	5.0	6.5	5.0	5.0	5.0	.5	.0	.0	.0	.0	.0
31	8.5	6.5	7.5	---	---	---	.5	.0	.5	.0	.0	.0
MONTH	15.5	5.0	10.5	11.0	3.0	6.5	6.5	0.0	2.0	4.5	0.0	0.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	.0	.0	.0	3.5	.0	1.0	11.0	4.5	7.5	10.5	7.5	9.0
2	1.0	.0	.5	2.0	.0	1.0	10.5	6.0	7.5	9.0	5.5	7.5
3	2.5	.5	1.5	3.5	.0	1.5	10.5	4.5	7.0	10.0	5.0	7.0
4	1.5	.0	1.0	3.0	.0	2.0	7.5	5.5	6.5	11.5	4.5	7.5
5	2.5	.0	1.5	4.5	1.5	3.0	7.5	5.0	6.0	15.0	6.5	10.5
6	2.5	.0	1.5	3.0	1.5	2.0	5.5	4.5	4.5	13.0	8.5	10.5
7	.0	.0	.0	1.5	.0	.5	8.0	4.5	6.5	16.0	9.5	12.0
8	.5	.0	.0	.0	.0	.0	10.5	5.0	7.5	11.5	8.5	10.0
9	1.5	.0	1.0	.0	.0	.0	7.0	5.0	6.0	15.0	7.5	10.5
10	1.5	.0	.5	3.5	.0	1.5	7.0	4.0	5.5	15.5	7.0	11.0
11	1.5	.0	.5	3.5	1.5	3.0	6.5	3.5	5.0	14.5	7.5	11.0
12	.0	.0	.0	4.5	.5	2.5	6.5	4.0	5.0	15.0	7.5	11.0
13	.0	.0	.0	3.0	2.5	2.5	10.0	3.0	6.0	16.5	9.0	12.5
14	.0	.0	.0	3.5	1.0	2.5	12.0	3.5	7.5	16.5	8.5	12.5
15	.5	.0	.0	3.5	1.0	2.5	9.0	4.5	7.0	12.0	9.5	11.0
16	.5	.0	.0	4.0	3.0	3.5	6.5	5.5	6.0	15.0	10.0	12.5
17	.5	.0	.0	4.5	3.0	3.5	9.0	5.5	7.0	14.5	11.0	12.5
18	1.0	.5	.5	6.5	2.5	4.0	12.5	5.5	8.5	17.5	10.0	13.5
19	2.5	1.0	2.0	5.0	3.5	4.5	13.0	5.5	9.0	19.5	12.0	15.0
20	2.0	1.0	1.5	4.5	1.0	3.0	10.5	6.0	8.0	14.0	12.5	13.5
21	2.0	1.0	1.5	4.0	.5	2.0	8.0	6.5	7.5	12.5	11.0	12.0
22	3.5	.5	2.0	5.0	1.0	2.5	7.5	5.0	6.5	11.0	9.5	10.5
23	2.5	1.0	1.5	6.5	1.5	3.5	4.5	2.5	3.5	11.0	9.5	10.0
24	3.5	.5	2.0	6.0	2.5	4.0	11.0	3.0	6.5	10.5	9.0	9.5
25	3.0	.0	1.0	7.5	1.5	4.0	12.5	4.5	8.0	13.5	9.0	11.0
26	.0	.0	.0	9.5	3.5	6.0	10.0	6.5	8.0	14.5	9.0	11.5
27	.5	.0	.0	7.0	4.5	6.0	11.0	7.0	8.5	14.5	9.5	11.5
28	2.0	.0	.5	8.0	4.0	5.5	14.5	6.5	10.0	16.0	10.0	12.5
29	---	---	---	10.5	4.5	7.0	12.5	7.5	10.0	16.0	10.0	13.0
30	---	---	---	10.5	5.5	7.5	13.5	8.0	10.5	17.0	11.5	13.5
31	---	---	---	10.5	5.5	7.5	---	---	---	15.5	11.5	13.5
MONTH	3.5	0.0	0.5	10.5	0.0	3.0	14.5	2.5	7.0	19.5	4.5	11.5

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

[illegible]



## HUDSON RIVER BASIN

01362342 HOLLOW TREE BROOK AT LANESVILLE, NY

LOCATION.--Lat 42°08'32", long 74°15'55", Green County, Hydrologic Unit 02020006, at bridge on Diamond Notch Road, 1.1 mi upstream from Stoney Clove Creek, 0.9 mi north of Lanesville, and about 4.8 mi northeast of Phoenecia.

DRAINAGE AREA.--1.95 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1985 to current year.

CHEMICAL DATA: 1985 (b), 1986 (d).

MINOR ELEMENT DATA: 1985 (b), 1986 (d).

ORGANIC DATA: OC--1985 (b), 1986 (c).

REMARKS.--All anion and cation analyses were performed on water samples which passed through a 0.1-micrometer membrane filter.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO <sub>3</sub> )	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO <sub>3</sub>	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
DEC 03...	1100	--	39	6.88	16	11	5.0	0.83	0.50	0.30
JAN 21...	1015	11	39	6.60	15	11	4.9	0.82	0.70	0.20
FEB 28...	1845	4.6	44	6.96	18	9	5.6	0.96	0.70	0.30
MAR 14...	1010	7.0	40	7.02	15	10	4.9	0.77	0.60	0.30
MAR 15...	1600	55	34	6.65	12	9	3.9	0.67	0.40	0.30
APR 08...	2000	10	--	6.94	15	9	4.7	0.76	0.50	0.30
MAY 20...	0925	2.7	45	6.98	18	10	5.6	0.94	0.70	0.40
MAY 22...	0835	50	37	6.79	13	9	3.9	0.72	0.50	0.40
MAY 22...	0840	--	34	6.74	13	9	4.1	0.69	0.50	0.40
MAY 22...	0845	--	35	6.79	13	9	3.9	0.69	0.50	0.40
MAY 22...	0850	--	34	6.80	13	9	4.0	0.75	0.90	0.30

DATE	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO <sub>3</sub>	SULFATE DIS- SOLVED (MG/L AS SO <sub>4</sub> )	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO <sub>2</sub> )	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
DEC 03...	5	--	--	3.0	--	--	10	4	<1	--
JAN 21...	5	7.6	0.71	2.5	23	0.691	20	5	1	--
FEB 28...	9	8.6	0.84	2.6	27	0.524	20	11	<1	2.8
MAR 14...	6	7.6	0.73	2.6	24	0.571	10	4	<1	1.1
MAR 15...	3	6.8	0.54	2.2	20	0.707	30	12	3	1.8
APR 08...	6	7.4	0.64	2.3	22	0.451	7	<3	<1	1.1
MAY 20...	8	7.6	0.73	3.4	26	0.492	10	<3	<1	1.0
MAY 22...	4	6.8	0.52	2.3	20	0.575	30	8	<1	71
MAY 22...	4	6.8	0.53	2.3	20	0.571	30	9	<1	7.8
MAY 22...	4	6.7	0.53	2.3	20	0.564	30	8	<1	5.6
MAY 22...	4	6.8	0.53	2.3	20	0.571	30	11	1	7.4

## HUDSON RIVER BASIN

93

01362500 ESOPUS CREEK AT COLDBROOK, NY

LOCATION.--Lat 42°00'51", long 74°16'16", Ulster County, Hydrologic Unit 02020006, on left bank at downstream side of bridge on Coldbrook Road in Coldbrook, 0.3 mi downstream from Little Beaver Kill, 1.5 mi upstream from Ashokan Reservoir, and 2.5 mi south of Mount Tremper.

DRAINAGE AREA.--192 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1914 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 621.54 ft above National Geodetic Vertical Datum of 1929. Prior to June 15, 1916, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Apr. 1-2. Records good. Since 1924, water diverted from Schoharie Reservoir through Shandaken Tunnel (see Reservoirs in Hudson River Basin) enters Esopus Creek 10.5 mi upstream from station and is included in records of daily discharge. Slight diversion from Beaver Kill into Cooper Lake for water supply of Kingston. Several measurements of water temperature were made during the year. Telephone gage-height telemeter at station. Intermittent water-quality data for this station are included in section "ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES".

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 65,300 ft<sup>3</sup>/s Mar. 21, 1980, gage height 21.94 ft, from rating curve extended above 13,000 ft<sup>3</sup>/s on basis of slope-area measurements at gage heights 12.39 ft, 15.15 ft, and 20.70 ft; minimum daily, 8 ft<sup>3</sup>/s Oct. 14, 1914.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,200 ft<sup>3</sup>/s Mar. 15, gage height, 11.93 ft; minimum, 209 ft<sup>3</sup>/s June 4, 5, gage height, 4.27 ft; minimum daily, 225 ft<sup>3</sup>/s June 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	776	631	1480	949	973	926	799	683	376	362	756	307
2	729	808	2920	932	976	899	713	624	306	428	1180	308
3	689	794	2380	966	927	877	604	570	259	395	834	323
4	668	826	1990	962	896	858	543	529	225	362	678	326
5	906	1060	1770	943	954	839	494	494	453	343	592	342
6	886	1080	1620	855	931	831	502	460	863	331	638	348
7	787	1040	1500	533	881	805	521	435	763	322	964	327
8	734	779	1420	525	869	756	476	429	868	313	853	318
9	696	686	1350	555	845	779	450	516	734	307	823	324
10	670	670	1290	547	824	768	430	503	568	300	740	314
11	643	696	1280	530	807	966	401	483	554	293	882	303
12	623	831	1330	522	780	1030	370	494	989	398	602	382
13	685	985	1280	482	764	1140	336	603	1120	388	541	711
14	644	1080	1250	327	754	2320	311	591	961	400	496	706
15	661	1350	1190	315	758	8760	292	582	822	341	468	610
16	655	1430	1180	362	739	3610	385	576	736	318	477	347
17	626	2440	1160	378	740	2200	590	828	825	308	455	339
18	614	2280	1120	393	780	1690	566	654	652	300	456	335
19	627	2040	1080	548	826	3860	554	630	584	295	431	335
20	627	1830	1070	1580	879	3990	550	689	578	291	409	330
21	611	1650	1080	1470	1040	2150	577	2540	515	305	397	327
22	601	1560	1060	1220	1210	1510	599	4660	468	315	388	328
23	592	1520	1060	1080	1130	1200	630	2630	449	308	376	326
24	621	1410	1050	928	1090	996	665	1650	449	304	384	323
25	689	1320	1050	846	1050	823	779	1180	424	351	356	318
26	649	1310	986	1380	985	756	924	893	402	653	346	314
27	635	1450	1010	1400	983	812	977	697	394	707	342	309
28	622	1560	1010	1060	955	857	921	570	408	587	332	322
29	610	1550	977	903	---	801	841	471	399	389	325	316
30	602	1480	972	860	---	835	739	397	377	421	319	316
31	591	---	957	855	---	872	---	345	---	778	312	---
TOTAL	20769	38146	40872	25206	25346	49516	17539	27406	17521	11913	17152	10834
MEAN	670	1272	1318	813	905	1597	585	884	584	384	553	361
MAX	906	2440	2920	1580	1210	8760	977	4660	1120	778	1180	711
MIN	591	631	957	315	739	756	292	345	225	291	312	303
CAL YR 1985	TOTAL	225191	MEAN	617	MAX	2920	MIN	154				
WTR YR 1986	TOTAL	302220	MEAN	828	MAX	8760	MIN	225				

## HUDSON RIVER BASIN

01364500 ESOPUS CREEK AT MOUNT MARION, NY

LOCATION.--Lat 42°02'16", long 73°58'21", Ulster County, Hydrologic Unit 02020006, on left bank at downstream side of bridge on Glasco Turnpike, 0.8 mi east of Mount Marion, 1.6 mi downstream from Plattekill Creek, and 4.5 mi upstream from mouth.

DRAINAGE AREA.--419 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1970 to current year. Monthly discharge only May 1907 to March 1918, published in WSP 1302. Occasional miscellaneous measurements, 1902, 1951, 1956, 1966, 1967, 1969.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 40.16 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 12, 1970, nonrecording gage at same site (at different datum May 1907 to March 1918, and at present datum June 9, 1966 to Aug. 12, 1970).

REMARKS.--Estimated daily discharges: Dec. 26, Jan. 5-9, 13-16, and Feb. 2-3, 5-18. Records good except those for estimated daily discharges, which are fair. Flow from 256 mi<sup>2</sup> of drainage area regulated by Ashokan Reservoir since Sept. 9, 1913. Water diverted from Schoharie Creek through Shandaken Tunnel (see Reservoirs in Hudson River Basin) since Feb. 3, 1924, enters Esopus Creek about 12.2 mi upstream from Ashokan Reservoir. Diversion from Plattekill Creek for water supply of village of Saugerties. Slight diversion at headwaters into Cooper Lake for water supply of Kingston. Diversions upstream during summer months for irrigation purposes. Diversions for water supply of city of New York made from Ashokan Reservoir (see Reservoirs in Hudson River Basin). Discharge records for this station now represent the natural flow from 112 mi<sup>2</sup>, together with spillage during high stages from the upstream reservoirs. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--16 years (1971-86), 514 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 28,000 ft<sup>3</sup>/s Apr. 26, 1910, gage height, 25.10 ft, datum then in use; maximum discharge since March 1970, 19,500 ft<sup>3</sup>/s Mar. 22, 1980, gage height, 24.31 ft; minimum discharge, 9.7 ft<sup>3</sup>/s Sept. 16, 17, 1980, gage height, 11.79 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,840 ft<sup>3</sup>/s Mar. 15, gage height, 20.29 ft; minimum, 22 ft<sup>3</sup>/s Sept. 30, gage height, 12.02 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	216	100	629	130	369	265	737	618	289	83	311	39
2	188	96	1120	122	320	246	696	553	229	153	1000	37
3	166	93	1000	147	290	228	638	494	218	206	637	34
4	168	89	684	196	276	224	534	413	166	140	399	34
5	212	126	534	180	260	227	486	303	127	107	271	36
6	373	173	451	170	250	241	469	232	660	90	209	52
7	307	164	391	150	230	227	486	213	1060	77	337	50
8	242	151	345	145	210	184	455	214	1150	69	285	42
9	199	139	312	145	195	181	426	183	906	62	210	38
10	170	134	286	151	185	178	381	137	665	57	164	36
11	146	134	265	145	175	207	327	119	465	51	219	34
12	129	169	322	138	165	312	263	107	670	62	182	32
13	148	267	320	130	155	399	244	104	1250	97	144	30
14	155	283	320	115	145	1080	211	96	1220	109	123	27
15	142	328	282	105	140	6600	190	87	996	96	106	26
16	141	322	257	105	135	3330	183	84	772	80	110	26
17	126	1340	242	104	130	1660	207	154	775	67	117	25
18	118	1380	222	108	155	1150	208	142	627	61	159	24
19	113	911	182	125	250	1520	183	115	410	56	134	24
20	115	654	174	418	340	1780	170	113	302	49	103	24
21	107	491	171	654	497	2400	179	601	249	58	89	23
22	100	404	160	568	925	2790	257	1610	195	55	85	24
23	100	425	158	466	766	2070	351	3740	162	45	75	25
24	104	371	160	363	591	1510	487	3580	142	40	74	26
25	140	320	172	291	485	1190	556	2210	128	37	66	26
26	143	316	155	1090	375	1140	515	1360	117	43	58	25
27	143	449	149	2480	331	1120	596	884	110	82	56	24
28	137	582	151	1510	297	1110	678	630	100	70	53	24
29	115	804	140	982	---	924	703	516	90	57	48	24
30	107	707	138	630	---	765	719	364	80	65	44	23
31	103	---	130	471	---	754	---	277	---	426	41	---
TOTAL	4873	11922	10022	12534	8642	36012	12535	20253	14330	2750	5909	914
MEAN	157	397	323	404	309	1162	418	653	478	88.7	191	30.5
MAX	373	1380	1120	2480	925	6600	737	3740	1250	426	1000	52
MIN	100	89	130	104	130	178	170	84	80	37	41	23
CAL YR 1985	TOTAL	57309	MEAN	157	MAX	1380	MIN	28				
WTR YR 1986	TOTAL	140696	MEAN	385	MAX	6600	MIN	23				

01364959 RONDOUT CREEK ABOVE RED BROOK, AT PEEKAMOOSE, NY

LOCATION.--Lat 41°56'13", long 74°22'30", Ulster County, Hydrologic Unit 02020007, at State Forest Preserve boundary, 500 ft upstream from Red Brook, 0.8 mi upstream from outlet of Peekamoose Lake, and 0.8 mi north of Peekamoose.

DRAINAGE AREA.--5.36 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1984 to current year.

CHEMICAL DATA: 1984 (b), 1985-86 (c).

MINOR ELEMENT DATA: 1984 (b), 1985-86 (c).

ORGANIC DATA: OC--1984-85 (b), 1986 (c).

REMARKS.--All anion and cation analyses were performed on water samples which passed through a 0.1-micrometer membrane filter.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
NOV 05...	1720	30	22	5.10	8	0	2.0	0.63	0.40	0.30
DEC 03...	1100	35	26	5.00	6	0	1.6	0.51	0.30	0.30
JAN 20...	2315	19	29	5.05	8	0	1.9	0.70	0.40	0.30
FEB 27...	1200	15	28	5.38	6	0	1.5	0.48	0.30	0.20
MAR 14...	1340	47	27	4.95	6	0	1.5	0.57	0.40	0.30
18...	1800	36	27	5.03	7	0	1.7	0.58	0.40	0.30
MAY 14...	1800	7.7	23	5.69	7	7	1.7	0.64	0.50	0.30
21...	1621	246	26	4.78	5	0	1.3	0.51	0.30	0.40

DATE	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
NOV 05...	0	--	--	2.3	--	--	290	23	96	3.1
DEC 03...	0	6.2	0.55	2.0	--	0.344	290	5	72	2.6
JAN 20...	0	5.9	0.61	1.9	--	0.901	360	<3	89	--
FEB 27...	0	6.3	0.60	2.6	--	0.486	220	7	50	1.4
MAR 14...	0	5.7	0.53	1.8	--	0.608	390	8	110	2.1
18...	0	5.8	0.50	1.9	--	0.707	280	3	75	1.3
MAY 14...	0	6.4	0.59	2.2	14	0.254	120	5	39	1.0
21...	0	5.9	0.52	1.8	--	0.412	440	9	100	--



## HUDSON RIVER BASIN

01365000 RONDOUT CREEK NEAR LOWES CORNERS, NY

LOCATION.--Lat 41°52'00", long 74°29'12", Sullivan County, Hydrologic Unit 02020007, on left bank 100 ft downstream from small tributary, 350 ft upstream from bridge on county road, 1.1 mi upstream from Sugarloaf Brook, 1.1 mi east of Lowes Corners, and 1.9 mi southwest of Sundown.

DRAINAGE AREA.--38.5 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1937 to current year.

REVISED RECORDS.--WSP 1702: 1952.

GAGE.--Water-stage recorder. Datum of gage is 874.44 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 4, 1938, nonrecording gage at highway bridge 350 ft downstream at datum 847.00 ft above NGVD (levels by Board of Water Supply, City of New York). Oct. 4, 1938 to July 5, 1951, water-stage recorder at site 1.2 mi downstream; Oct. 4, 1938 to July 3, 1949, datum 847.00 ft above NGVD and July 4, 1949 to July 5, 1951, datum 846.00 ft above NGVD (levels by Board of Water Supply, City of New York).

REMARKS.--Estimated daily discharges: Dec. 20-25. Records fair except those for estimated daily discharges, which are poor. Intermittent water-quality data for this station are included in section "ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES".

AVERAGE DISCHARGE.--49 years, 97.8 ft<sup>3</sup>/s, 34.49 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 7,600 ft<sup>3</sup>/s July 22, 1938, from rating curve extended above 2,600 ft<sup>3</sup>/s; maximum gage height, 10.5 ft Mar. 21, 1980, from floodmarks; minimum discharge, 3.3 ft<sup>3</sup>/s Sept. 16, 17, Oct. 17, 18, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 15	0045	*2,220	*6.12	Mar. 19	1600	1,560	5.51

Minimum discharge, 15 ft<sup>3</sup>/s, all or part of each day Sept. 18-20, 22, 26, 28-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	76	153	46	105	84	148	105	84	42	22	18
2	90	73	290	44	100	82	137	99	69	122	23	18
3	85	69	224	59	93	78	122	91	58	67	24	18
4	86	66	198	53	89	76	116	86	53	50	19	19
5	138	98	176	48	107	68	109	82	94	43	18	33
6	120	94	156	44	95	72	124	78	259	40	22	48
7	102	86	136	36	89	66	127	74	253	37	61	26
8	96	80	133	35	82	61	107	68	193	34	35	23
9	90	76	123	39	74	60	100	64	146	33	26	20
10	84	75	116	43	71	60	95	59	114	31	23	19
11	76	88	119	40	72	74	89	55	118	29	87	18
12	70	109	136	40	68	77	84	51	283	41	40	18
13	82	118	123	39	64	97	79	48	268	42	32	18
14	75	124	116	30	62	420	75	44	185	51	29	16
15	89	155	104	27	60	1480	72	43	142	34	26	16
16	85	153	100	30	58	603	102	43	172	29	29	17
17	74	383	96	34	62	428	113	61	170	27	31	16
18	68	293	88	39	75	366	93	43	124	26	49	15
19	73	253	79	70	85	834	87	39	110	25	41	16
20	71	218	74	166	90	641	85	59	106	24	31	16
21	65	175	70	141	122	408	103	168	93	24	30	16
22	61	148	68	131	133	308	104	304	84	22	31	15
23	59	145	66	125	118	264	105	235	79	20	26	19
24	31	130	62	112	111	233	126	180	74	19	34	21
25	132	127	58	106	103	206	142	149	67	19	26	17
26	102	136	52	198	98	201	138	123	62	25	24	15
27	97	190	59	169	92	205	132	107	57	33	24	17
28	93	183	57	139	88	188	123	95	59	25	23	16
29	89	166	51	135	---	175	118	84	53	23	21	15
30	85	150	50	120	---	172	111	75	47	22	20	15
31	80	---	47	110	---	163	---	70	---	23	19	---
TOTAL	2687	4237	3380	2448	2466	8250	3266	2882	3676	1082	946	574
MEAN	86.7	141	109	79.0	88.1	266	109	93.0	123	34.9	30.5	19.1
MAX	138	383	290	198	133	1480	148	304	283	122	87	48
MIN	59	66	47	27	58	60	72	39	47	19	18	15
CFSM	2.25	3.67	2.83	2.05	2.29	6.91	2.83	2.41	3.18	.91	.79	.50
IN.	2.60	4.09	3.27	2.37	2.38	7.97	3.16	2.78	3.55	1.05	.91	.55

CAL YR 1985	TOTAL	28221	MEAN	77.3	MAX	422	MIN	21	CFSM	2.01	IN.	27.3
WTR YR 1986	TOTAL	35894	MEAN	98.3	MAX	1480	MIN	15	CFSM	2.55	IN.	34.7

## HUDSON RIVER BASIN

97

01365500 CHESTNUT CREEK AT GRAHAMSVILLE, NY

LOCATION.--Lat 41°50'42", long 74°32'27", Sullivan County, Hydrologic Unit 02020007, on right bank just downstream from bridge in Grahamsville, 600 ft downstream from Red Brook, and 0.6 mi upstream from bridge on State Highway 55.

DRAINAGE AREA.--20.9 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 880.96 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 15-22 and June 19 to Sept. 30. Records fair except those for estimated daily discharges, which are poor. Slight seasonal regulation caused by Beaverdam Pond on Red Brook. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--48 years, 39.0 ft<sup>3</sup>/s, 25.34 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,640 ft<sup>3</sup>/s Oct. 15, 1955, gage height, 5.02 ft, from rating curve extended above 1,300 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 4.68 ft; minimum discharge, 1.4 ft<sup>3</sup>/s Nov. 1, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 14	2330	*1,270	*2.64	May 22	0930	740	2.22
Mar. 19	1500	827	2.30	June 5	2330	873	2.34

Minimum daily discharge, 5.4 ft<sup>3</sup>/s Sept. 30; minimum discharge not determined (occurred during period of estimated daily discharges).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	22	90	26	39	36	52	37	28	15	11	6.2
2	31	21	197	24	42	34	47	35	25	60	12	6.2
3	31	20	103	30	39	34	44	34	21	35	9.6	6.0
4	32	20	80	29	37	33	43	35	19	20	8.0	7.0
5	62	29	69	27	46	33	43	32	87	14	7.0	10
6	50	36	64	25	42	32	56	29	287	12	9.0	18
7	43	36	58	19	36	28	61	30	161	11	21	11
8	38	33	54	19	36	25	49	26	96	10	16	8.8
9	28	28	51	21	35	27	43	25	69	9.6	12	7.6
10	28	27	48	22	33	26	42	22	48	9.0	9.0	7.0
11	25	38	57	20	32	43	40	21	43	8.4	25	6.8
12	19	60	82	20	29	40	37	21	83	11	12	6.4
13	28	62	64	19	29	58	35	17	105	14	9.0	6.2
14	27	63	59	15	27	225	32	16	74	30	8.0	6.0
15	35	79	51	14	28	875	31	16	54	12	7.0	6.0
16	32	78	48	15	26	330	53	16	47	10	8.2	6.4
17	25	277	46	16	28	166	53	26	57	9.0	25	6.0
18	22	134	41	18	45	142	42	18	46	8.2	80	5.8
19	24	96	34	32	52	455	37	16	35	8.0	40	6.0
20	24	78	35	80	66	289	34	46	31	7.4	20	6.2
21	27	65	37	70	87	128	45	92	29	7.2	15	6.0
22	23	64	35	60	89	98	45	218	27	7.0	12	5.6
23	23	68	36	51	68	87	47	112	23	6.8	10	7.0
24	35	58	35	40	58	79	65	72	21	6.8	9.0	7.6
25	48	51	35	37	50	73	64	50	19	6.8	8.0	6.8
26	38	66	27	156	44	79	55	38	17	12	7.8	6.4
27	34	129	32	109	44	84	50	33	16	35	7.6	6.2
28	31	142	31	71	39	75	45	30	19	15	7.4	5.8
29	27	108	28	58	---	68	42	26	22	10	7.0	5.6
30	25	88	27	47	---	64	40	24	17	11	6.8	5.4
31	23	---	26	42	---	59	---	25	---	13	6.4	---
TOTAL	965	2076	1680	1232	1226	3825	1372	1238	1626	444.2	445.8	212.0
MEAN	31.1	69.2	54.2	39.7	43.8	123	45.7	39.9	54.2	14.3	14.4	7.07
MAX	62	277	197	156	89	875	65	218	287	60	80	18
MIN	19	20	26	14	26	25	31	16	16	6.8	6.4	5.4
CFSM	1.49	3.31	2.59	1.90	2.10	5.90	2.19	1.91	2.59	.69	.69	.34
IN.	1.72	3.70	2.99	2.19	2.18	6.81	2.44	2.20	2.89	.79	.79	.38
CAL YR 1985	TOTAL	11620.2	MEAN	31.8	MAX	366	MIN	7.0	CFSM	1.52	IN.	20.7
WTR YR 1986	TOTAL	16342.0	MEAN	44.8	MAX	875	MIN	5.4	CFSM	2.14	IN.	29.1

## HUDSON RIVER BASIN

01367500 RONDOUT CREEK AT ROSENDALE, NY

LOCATION.--Lat 41°50'35", long 74°05'11", Ulster County, Hydrologic Unit 02020007, on left bank 30 ft upstream from bridge on James Street in Rosendale, and 3 mi upstream from Wallkill River.

DRAINAGE AREA.--378 mi<sup>2</sup>, revised (see REMARKS below).

PERIOD OF RECORD.--July 1901 to November 1903, October 1905 to January 1919, August 1926 to current year. Monthly discharge only for some periods, published in WSP 1302, and WDR NY-70-1.

REVISED RECORDS.--WSP 641: Drainage Area. WSP 756: 1933.

GAGE.--Water-stage recorder. Datum of gage is 32.83 ft above National Geodetic Vertical Datum of 1929. Prior to January 1919, nonrecording gage at site 150 ft downstream at datum 38.83 ft above NGVD. Aug. 3, 1926 to Sept. 10, 1969, at present site at datum 42.83 ft above NGVD. Sept. 11, 1969 to Feb. 3, 1970, water-stage recorder, and June 9, 1970 to Jan. 18, 1971, nonrecording gage at site 0.2 mi upstream at datum 44.03 ft above NGVD.

REMARKS.--Estimated daily discharges: Dec. 20-23, Dec. 26 to Jan. 21, Feb. 5-16, and Mar. 6-7. Records good except for flows below 100 ft<sup>3</sup>/s, which are fair, and those for estimated daily discharges, which are poor. Occasional regulation from hydroelectric plant upstream from station. Diversion from Rondout Creek through the emergency connection to the Delaware Aqueduct at Lackawack for New York City water supply during period April 1944 to May 1951. Since October 1950, flow regulated by Rondout Reservoir (see Reservoirs in Hudson River Basin). Subsequent to May 1951, entire flow except for period of spilling, diverted from Rondout Reservoir for New York City water supply. Discharge records for this station now represent the natural flow from 283 mi<sup>2</sup> (corrected), together with spillage during high flow from Rondout Reservoir. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,800 ft<sup>3</sup>/s Oct. 16, 1955, gage height, 36.8 ft, present datum, from floodmarks, from rating curve extended above 15,000 ft<sup>3</sup>/s on basis of contracted-opening measurement at gage height 33.93 ft, present datum; minimum discharge, 2.2 ft<sup>3</sup>/s July 16, 1965; minimum daily, 3.0 ft<sup>3</sup>/s July 16, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,200 ft<sup>3</sup>/s Mar. 15, gage height, 18.16 ft; minimum, 60 ft<sup>3</sup>/s Sept. 15, 16, 18, gage height, 8.89 ft; minimum daily discharge, 61 ft<sup>3</sup>/s Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	540	179	1390	450	719	509	560	533	301	183	335	85
2	418	163	2710	440	639	484	528	503	270	577	342	82
3	465	162	2080	440	640	466	468	457	232	862	751	91
4	670	158	1430	600	554	462	422	416	212	468	434	96
5	944	264	1160	500	560	466	426	390	239	364	296	101
6	1380	475	938	500	520	440	496	348	2690	290	241	108
7	879	401	811	470	490	410	624	346	3960	251	222	116
8	610	337	730	450	470	329	571	330	2490	217	208	92
9	479	294	647	430	450	363	485	308	1610	187	185	82
10	384	278	590	450	430	359	427	279	986	180	160	79
11	379	294	601	490	420	621	402	262	718	162	160	76
12	319	467	1140	490	410	1000	373	249	1560	207	185	75
13	300	761	926	440	390	1240	346	234	2490	331	148	73
14	315	626	841	380	380	3000	323	219	1610	435	131	67
15	290	976	710	350	370	11600	285	199	1070	398	122	61
16	287	860	638	330	370	6430	399	201	903	286	126	63
17	260	4090	605	330	384	3410	1030	290	1070	225	135	64
18	235	2840	547	340	512	2430	898	299	743	202	347	62
19	237	1880	556	500	1100	2840	670	230	611	216	250	65
20	247	1390	540	2000	1290	3760	543	215	552	184	194	69
21	235	1100	520	1600	1280	2170	519	378	462	160	164	71
22	210	871	500	1080	1900	1570	638	1200	373	148	161	74
23	188	968	490	899	1300	1320	772	1530	330	132	145	83
24	185	774	487	744	1040	1130	1140	929	299	123	139	85
25	257	680	507	645	891	895	1510	580	285	114	147	89
26	287	762	520	2760	714	845	1220	445	256	119	120	82
27	252	1610	500	3280	611	899	1050	380	231	183	111	82
28	223	2210	500	1860	570	868	825	324	222	251	107	97
29	203	2150	480	1270	---	775	681	277	234	264	97	89
30	193	1610	470	1120	---	717	604	241	204	266	93	84
31	175	---	460	938	---	610	---	254	---	363	89	---
TOTAL	12046	29630	25024	26576	19404	52418	19235	12846	27213	8348	6345	2443
MEAN	389	988	807	857	693	1691	641	414	907	269	205	81.4
MAX	1380	4090	2710	3280	1900	11600	1510	1530	3960	862	751	116
MIN	175	158	460	330	370	329	285	199	204	114	89	61
CAL YR 1985	TOTAL	154961	MEAN	425	MAX	4090	MIN	67				
WTR YR 1986	TOTAL	241528	MEAN	662	MAX	11600	MIN	61				

## HUDSON RIVER BASIN

99

01371500 WALLKILL RIVER AT GARDINER, NY

LOCATION.--Lat 41°41'10", long 74°09'56", Ulster County, Hydrologic Unit 02020007, on left bank 400 ft upstream from bridge on U.S. Highway 44, 500 ft downstream from Shawangunk Kill, and 0.7 mi northwest of Gardiner.

DRAINAGE AREA.--711 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1924 to current year.

REVISED RECORDS.--WSP 756: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 185.70 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 14 to Feb. 25 and Mar. 4-8. Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--62 years, 1,062 ft<sup>3</sup>/s, 20.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,800 ft<sup>3</sup>/s Oct. 16, 1955, gage height, 19.81 ft; minimum, 9.5 ft<sup>3</sup>/s Sept. 28, 1964; minimum gage height, 1.59 ft Aug. 14, 15, 16, 19, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 17	1200	7,750	8.22	Mar. 15	1100	*14,100	11.75
Jan. 26	1800	ice jam	*14.33	June 7	0700	6,550	7.46

Minimum discharge, 50 ft<sup>3</sup>/s Sept. 15, gage height, 1.93 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2090	243	3430	520	1800	1260	887	1590	353	217	1040	141
2	1440	251	4150	520	2000	1160	821	1410	370	344	1240	135
3	1170	242	3670	700	1800	1090	766	1230	315	700	2240	126
4	1480	232	2760	660	1500	1100	701	1080	245	578	1840	101
5	1770	311	2260	600	1200	1200	777	980	273	412	1270	132
6	1830	806	1930	580	1100	1200	873	899	1610	255	791	131
7	1350	1010	1730	540	1100	1100	1040	884	4820	238	591	128
8	1080	809	1610	520	1000	1000	1060	897	2770	226	479	165
9	871	630	1520	500	940	882	915	821	2020	184	419	157
10	763	536	1430	490	900	867	818	730	1320	167	334	143
11	639	475	1470	480	840	1890	660	668	900	160	307	97
12	554	577	2800	470	800	3640	700	597	1420	198	272	104
13	524	1180	2470	450	780	4250	585	535	3460	318	239	119
14	494	1190	2000	430	780	6200	586	524	2200	1040	212	114
15	514	1290	1600	390	800	13100	569	476	1470	1020	181	62
16	488	1240	1200	360	900	10200	747	525	1160	621	174	107
17	417	6600	940	350	1100	7580	3030	511	1160	422	202	84
18	413	5730	740	400	1500	6190	4260	488	916	281	194	78
19	364	3960	660	1200	2300	5190	3540	496	719	258	326	84
20	372	3000	660	5000	2800	4760	2860	565	628	230	276	101
21	308	2330	700	3500	3000	3220	2270	559	564	253	249	74
22	281	1830	900	2000	4500	2400	2100	1530	473	268	208	168
23	293	2060	800	1700	3500	2010	2640	2710	395	194	299	111
24	291	1850	700	1400	2600	1780	4240	1710	409	188	342	111
25	316	1560	740	1300	2300	1570	4610	1110	328	149	286	112
26	329	1650	700	3200	1910	1430	3680	809	327	156	277	123
27	307	3080	640	5400	1630	1350	3210	653	290	226	214	141
28	294	4560	620	4500	1440	1230	2630	569	277	493	193	151
29	287	5300	600	3400	---	1200	2150	395	254	719	151	183
30	245	4170	580	2600	---	1040	1830	445	251	536	149	187
31	239	---	540	2100	---	972	---	282	---	668	149	---
TOTAL	21813	58702	46550	46260	46820	92061	55555	26678	31697	11719	15144	3670
MEAN	704	1957	1502	1492	1672	2970	1852	861	1057	378	489	122
MAX	2090	6600	4150	5400	4500	13100	4610	2710	4820	1040	2240	187
MIN	239	232	540	350	780	867	569	282	245	149	149	62
CFSM	.99	2.75	2.11	2.10	2.35	4.18	2.60	1.21	1.49	.53	.69	.17
IN.	1.14	3.07	2.44	2.42	2.45	4.82	2.91	1.40	1.66	0.61	0.79	0.19
CAL YR 1985	TOTAL	295954	MEAN	811	MAX	6600	MIN	93	CFSM	1.14	IN.	15.48
WTR YR 1986	TOTAL	456669	MEAN	1251	MAX	13100	MIN	62	CFSM	1.76	IN.	23.89



## HUDSON RIVER BASIN

01372500 WAPPINGER CREEK NEAR WAPPINGERS FALLS, NY

LOCATION.--Lat 41°39'11", long 73°52'23", Dutchess County, Hydrologic Unit 02020008, on left bank 700 ft downstream from Red Oak Mill dam, and 4.5 mi northeast of village of Wappingers Falls.

DRAINAGE AREA.--181 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1903 to June 1905 (gage heights only during some winter months), August 1928 to current year.

REVISED RECORDS.--WSP 741: 1932. WSP 1902: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 114.37 ft above National Geodetic Vertical Datum of 1929, (levels by Corps of Engineers). May 1903 to June 1905 staff gage at site 2.5 mi downstream at different datum. Aug. 7, 1928 to Sept. 25, 1931, water-stage recorder at site 2 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 18-23, Dec. 26 to Jan. 2, Jan. 5-17, 23-25, Feb. 7-17, 26-28, and Mar. 6-8. Records fair. Several measurements of water temperature were made during the year. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--58 years (1929-86), 253 ft<sup>3</sup>/s, 18.98 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,600 ft<sup>3</sup>/s Aug. 19, 1955, gage height, 19.60 ft, from floodmarks in gage shelter, from rating curve extended above 6,000 ft<sup>3</sup>/s on basis of flow-over-dam and contracted-opening measurement at gage height 18.02 ft and contracted-opening and flow-over-road measurement at gage height 19.60 ft; minimum discharge, 0.90 ft<sup>3</sup>/s Sept. 20, 21, 1964, gage height, 2.05 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 27	1645	2,510	7.26	June 7	1915	1,980	6.58
Mar. 15	1815	*3,150	*8.00				

Minimum discharge, 25 ft<sup>3</sup>/s Sept. 19, gage height, 2.65 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	377	125	654	160	537	351	367	149	95	90	450	57
2	313	123	669	180	514	344	348	146	82	190	392	53
3	313	121	627	212	478	319	318	140	63	323	680	51
4	403	117	526	273	440	338	298	133	53	201	437	50
5	403	151	481	230	429	353	301	125	63	147	308	51
6	546	233	459	210	407	310	315	119	833	117	264	52
7	433	199	435	190	330	290	318	114	1820	98	282	52
8	366	181	410	170	300	270	302	110	1550	84	250	47
9	323	162	390	160	280	272	279	105	1050	75	205	43
10	296	151	367	150	260	252	260	99	708	72	170	40
11	266	151	367	150	240	322	244	94	568	64	153	39
12	240	202	477	140	220	425	234	87	654	84	134	36
13	247	275	442	130	210	499	222	80	766	114	117	35
14	275	270	440	120	200	753	205	75	594	143	105	33
15	250	315	388	120	190	2600	192	70	475	125	97	31
16	239	314	353	130	190	2200	203	72	400	95	93	29
17	216	826	341	140	210	1400	212	82	379	76	94	29
18	202	895	270	163	329	1030	195	99	314	67	168	28
19	203	711	220	191	629	953	176	83	266	62	211	27
20	216	596	210	356	713	1030	164	73	256	61	156	28
21	201	513	200	430	701	787	161	79	242	57	125	29
22	186	453	210	368	1010	663	188	93	207	58	114	28
23	173	482	230	300	766	609	191	152	184	49	99	29
24	162	429	248	260	611	555	220	143	168	43	113	32
25	158	382	274	250	549	491	229	112	162	40	98	34
26	158	383	210	1180	450	458	203	93	139	67	82	33
27	151	535	190	2310	400	446	194	79	124	189	77	36
28	141	623	170	1640	360	561	180	71	121	148	78	34
29	134	817	160	987	---	508	168	62	117	126	69	32
30	131	715	150	799	---	447	159	56	102	369	65	28
31	128	---	150	645	---	404	---	59	---	825	61	---
TOTAL	7850	11450	10718	12744	11953	20240	7046	3054	12555	4259	5747	1126
MEAN	253	382	346	411	427	653	235	98.5	419	137	185	37.5
MAX	546	895	669	2310	1010	2600	367	152	1820	825	680	57
MIN	128	117	150	120	190	252	159	56	53	40	61	27
CFSM	1.40	2.11	1.91	2.27	2.36	3.61	1.30	.54	2.31	.76	1.02	.21
IN.	1.61	2.35	2.20	2.62	2.46	4.16	1.45	0.63	2.58	0.88	1.18	0.23
CAL YR 1985	TOTAL	66516	MEAN	182	MAX	1150	MIN	32	CFSM	1.01	IN.	13.67
WTR YR 1986	TOTAL	108742	MEAN	298	MAX	2600	MIN	27	CFSM	1.65	IN.	22.35

## HUDSON RIVER BASIN

101

01375000 CROTON RIVER AT NEW CROTON DAM, NEAR CROTON-ON-HUDSON, NY

LOCATION.--Lat 41°13'32", long 73°51'32", Westchester County, Hydrologic Unit 02030101, on left bank 1,000 ft downstream from New Croton Dam, and 1.8 mi northeast of Croton-On-Hudson.

DRAINAGE AREA.--378 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1933 to current year. Prior to Oct. 1, 1941, published as "at Quaker Bridge," (low-flow records at this site are not equivalent owing to well pumpage upstream). Fragmentary records published during August 1933 to September 1941 for "at Cornell Dam near Croton" and "at New Croton near Croton" are equivalent. Oct. 1, 1941 to Sept. 30, 1955 published as "at New Croton Dam near Croton".

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 50 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1941, supplementary water-stage recorder and concrete control at site 1.1 mi downstream at Quaker Bridge.

REMARKS.--No estimated daily discharges. Records good above 20 ft<sup>3</sup>/s and fair below. Entire flow, except for periods of spilling and releases to augment Croton-on-Hudson water supply, diverted from New Croton Reservoir for municipal supply of City of New York. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,400 ft<sup>3</sup>/s, Oct. 16, 1955, gage height, 18.44 ft, from floodmarks, from rating curve extended above 9,700 ft<sup>3</sup>/s on basis of slope-area measurements of peak flow; minimum daily discharge, 0.1 ft<sup>3</sup>/s, Mar. 14, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,540 ft<sup>3</sup>/s, Mar. 15, gage height, 5.06 ft; minimum daily, 1.7 ft<sup>3</sup>/s, Oct. 8, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	2.4	3.0	2.1	584	475	374	179	16	21	387	21
2	4.5	2.3	3.0	2.1	528	433	361	148	21	112	230	21
3	5.0	2.4	2.7	2.2	403	400	313	126	16	170	423	26
4	5.0	2.5	2.6	2.2	316	395	284	102	16	85	281	28
5	5.4	3.0	2.5	2.4	338	405	293	69	16	35	174	21
6	4.1	2.8	2.5	2.2	352	425	333	55	43	23	104	21
7	2.0	2.6	2.4	2.1	306	404	372	107	339	17	171	21
8	1.7	2.8	2.5	2.0	267	327	377	145	342	15	322	21
9	1.8	3.0	2.5	2.0	243	272	370	99	238	19	200	21
10	2.1	2.4	2.4	2.0	221	258	312	55	138	19	115	21
11	2.3	2.1	2.6	2.0	229	296	280	43	149	19	143	21
12	2.4	2.3	3.0	2.1	203	357	254	45	310	24	117	19
13	1.8	2.1	2.6	2.1	177	498	221	35	408	90	57	19
14	1.7	2.1	2.6	2.1	162	958	196	34	266	234	31	20
15	1.9	2.1	2.5	2.0	161	2290	181	42	196	169	23	19
16	2.0	2.4	2.5	2.0	146	2030	289	54	173	96	22	19
17	2.2	3.8	2.3	2.0	199	1780	356	66	133	51	102	18
18	2.2	2.6	2.3	2.0	510	1460	394	55	105	32	257	18
19	2.2	2.4	2.2	2.1	899	1290	265	38	98	24	144	18
20	2.5	2.3	2.2	2.3	857	1170	212	29	124	21	78	18
21	3.0	2.3	2.2	2.2	828	935	235	43	116	23	69	18
22	3.8	2.6	2.2	2.2	944	774	344	78	125	21	152	17
23	3.2	2.5	2.2	2.3	811	709	418	90	173	21	113	16
24	2.5	2.3	2.2	2.3	973	665	419	71	182	21	73	12
25	3.4	2.0	2.2	2.4	944	606	347	67	221	21	39	12
26	3.4	2.5	2.1	4.9	797	573	286	44	235	21	31	10
27	3.0	2.8	2.1	490	667	576	283	27	218	21	27	9.6
28	2.7	3.6	2.1	890	551	614	259	24	205	21	33	10
29	2.4	3.3	2.1	598	---	556	231	21	105	22	26	11
30	2.6	2.9	2.1	594	---	494	220	19	36	50	21	9.6
31	2.5	---	2.1	585	---	453	---	18	---	596	21	---
TOTAL	89.6	77.2	74.5	3215.3	13616	22878	9079	2028	4763	2114	3986	536.2
MEAN	2.89	2.57	2.40	104	486	738	303	65.4	159	68.2	129	17.9
MAX	5.4	3.8	3.0	890	973	2290	419	179	408	596	423	28
MIN	1.7	2.0	2.1	2.0	146	258	181	18	16	15	21	9.6
CAL YR 1985	TOTAL	7492.1	MEAN	20.5	MAX	297	MIN	1.7				
WTR YR 1986	TOTAL	62456.8	MEAN	171	MAX	2290	MIN	1.7				

01376500 SAW MILL RIVER AT YONKERS, NY

LOCATION.--Lat 40°56'11", long 73°53'12", Westchester County, Hydrologic Unit 02030101, on right bank in Yonkers, just upstream from Old Croton aqueduct, near intersection of Nepperhan Avenue and Center Street, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--25.6 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1943 to September 1973, April 1974 to current year.

REVISED RECORDS.--WDR NY-71-1: 1965, 1966.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 90 ft above National Geodetic Vertical Datum of 1929; from topographic map. Prior to Aug. 17, 1978, water-stage recorder and concrete control at same site but at different datum. Aug. 17, 1978 to Sept. 9, 1980, nonrecording and crest-stage gage; and Sept. 10, 1980 to Sept. 30, 1982, water-stage recorder and crest-stage gage at site 1,300 ft downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow affected by diversion by city of Yonkers, village of Tarrytown, and several industries for water supply and industrial purposes. Diurnal fluctuations caused by water supply and industrial operations. Several measurements of water temperature were made during the year. Radio gage-height telemeter at station.

COOPERATION.--Figures for diversion and return in upstream water supply provided by city of Yonkers and village of Tarrytown.

AVERAGE DISCHARGE.--41 years (1945-73, 1975-86), 33.7 ft<sup>3</sup>/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,450 ft<sup>3</sup>/s Jul. 7, 1984, gage height, 7.84 ft; minimum, no flow during part of several days in Oct., Nov., and June-Sept. of 1981 water year because of construction in channel upstream from gage; minimum daily discharge, 0.11 ft<sup>3</sup>/s Sept. 14, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,080 ft<sup>3</sup>/s Aug. 17, gage height, 6.68 ft; minimum, 5.1 ft<sup>3</sup>/s July 25, 26, gage height, 1.42 ft; minimum daily, 5.9 ft<sup>3</sup>/s July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	7.9	103	18	50	45	44	31	12	7.8	21	11
2	17	8.2	99	18	87	43	49	30	12	78	51	10
3	42	7.9	64	30	65	39	48	28	12	25	134	11
4	40	10	49	27	53	40	46	26	10	12	22	12
5	51	82	46	56	86	41	50	25	10	9.6	16	17
6	50	34	48	29	71	39	71	27	41	7.9	13	15
7	24	18	43	20	50	36	62	33	152	8.0	110	11
8	21	14	40	16	50	30	55	26	34	7.5	356	10
9	18	13	38	18	46	30	52	23	20	7.7	48	9.3
10	18	12	34	17	43	30	54	21	16	7.1	30	8.6
11	17	11	42	17	43	33	53	21	15	6.4	74	8.2
12	14	19	74	17	39	33	52	20	65	71	31	8.1
13	15	30	44	17	36	53	49	19	61	43	23	7.6
14	16	19	45	15	34	98	47	19	21	13	19	7.3
15	15	26	36	14	35	215	49	18	16	11	20	7.2
16	16	41	34	15	31	86	66	19	48	8.9	20	8.8
17	12	221	33	14	41	67	137	20	20	8.7	91	7.3
18	12	56	32	14	137	59	56	18	14	8.2	51	6.9
19	12	35	27	30	140	64	37	19	14	11	23	7.2
20	11	30	25	39	136	56	33	18	14	7.8	17	7.3
21	11	27	25	24	119	48	55	31	12	6.5	35	24
22	10	54	24	19	118	43	55	34	11	6.2	53	9.5
23	9.7	51	25	17	84	42	63	22	11	6.2	20	8.6
24	10	29	25	16	73	44	64	17	10	5.8	37	11
25	9.9	26	26	31	68	50	42	16	9.7	5.9	17	7.3
26	10	54	21	429	59	46	41	14	8.6	12	14	10
27	8.7	86	21	296	53	62	38	14	8.8	43	14	35
28	8.2	135	20	103	49	68	36	14	12	14	21	14
29	8.8	126	19	75	---	52	34	12	9.1	56	18	8.7
30	8.1	69	19	66	---	48	32	12	8.2	58	12	7.8
31	8.2	---	18	56	---	50	---	12	---	56	11	---
TOTAL	542.6	1352.0	1199	1573	1896	1690	1570	659	707.4	629.2	1422	326.7
MEAN	17.5	45.1	38.7	50.7	67.7	54.5	52.3	21.3	23.6	20.3	45.9	10.9
MAX	51	221	103	429	140	215	137	34	152	78	356	35
MIN	8.1	7.9	18	14	31	30	32	12	8.2	5.8	11	6.9
#	1.0	1.1	1.2	1.1	1.3	1.3	1.2	1.4	1.5	1.4	1.4	1.4

CAL YR 1985 TOTAL 10069.6 MEAN 27.6 MAX 241 MIN 5.5 # 1.2  
WTR YR 1986 TOTAL 13566.9 MEAN 37.2 MAX 429 MIN 5.8 # 1.3

# Indicated net diversion, in cubic feet per second, for diversion and return in upstream supply.

## RESERVOIRS IN HUDSON RIVER BASIN

- 01335900 DELTA RESERVOIR.--Lat 43°16'20", long 75°25'50", Oneida County, Hydrologic Unit 02020004, on superstructure of gatehouse at Delta Dam on Mohawk River, and 4 mi upstream from Rome. DRAINAGE AREA, 148 mi<sup>2</sup>. PERIOD OF RECORD, May 1913 to current year. REVISED RECORDS, WDR NY-85-1: Drainage area. GAGE, nonrecording gage read daily at 0800. Datum of gage is Barge Canal datum.  
Dam completed Aug. 3, 1912, and controlled storage for which records are available began May 1, 1913. Usable capacity 2,800 mil ft<sup>3</sup> at crest of spillway, elevation 550.0 ft. Reservoir is used for navigation in Barge Canal. Records provided by New York State Department of Transportation.  
EXTREMES FOR PERIOD OF RECORD (1951-86).--Maximum contents observed, 3,136 mil ft<sup>3</sup> June 22, 1972, elevation, 552.8 ft; minimum observed, 2.0 mil ft<sup>3</sup> Jan. 10, 13, 16-21, Feb. 7-15, Feb. 22 to Mar. 2, 1959, elevation, 492.0 ft.  
EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 3,016 mil ft<sup>3</sup> Mar. 31, elevation, 551.8 ft; minimum observed, 1,306 mil ft<sup>3</sup> Feb. 16-20, elevation, 534.7 ft.
- 01343900 HINCKLEY RESERVOIR.--Lat 43°18'45", long 75°06'25", Oneida County, Hydrologic Unit 02020004, on south side of north gatehouse at Hinckley Dam on West Canada Creek at Hinckley, and 2.2 mi east of Prospect. DRAINAGE AREA, 372 mi<sup>2</sup>. PERIOD OF RECORD, March 1914 to current year. REVISED RECORDS, WDR NY-85-1: Drainage area. GAGE, nonrecording gage read daily at 0800. Datum of gage is Barge Canal datum.  
Reservoir is formed by earth and concrete dam; storage began March 1914. Usable capacity 3,320 mil ft<sup>3</sup> between elevation 1,173.5 and 1,225.0 ft. Elevation of inverts of four 60-inch discharge pipes at north end of spillway is 1,169.5 ft, and elevation of inverts of two 42-inch pipes at south end for diverting water to city of Utica is 1,164.25 ft. Crest of Ogee spillway is at elevation 1,225.0 ft. Length of spillway is 400 ft. Area of water surface at crest elevation is 4.46 mi<sup>2</sup>. Telephone gage-height telemeter at station. Records provided by New York State Department of Transportation.  
EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 4,041 mil ft<sup>3</sup> Oct. 2, 1945, elevation, 1,230.2 ft; minimum observed (after initial filling), not determined.  
EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 3,652 mil ft<sup>3</sup> Apr. 1, elevation, 1,227.5 ft; minimum observed, 980 mil ft<sup>3</sup> Mar. 15, elevation, 1,198.2 ft.
- 01350100 SCHOHARIE RESERVOIR (see station for mean daily elevations, skeleton capacity table, monthly contents and change in contents).
- 01363400 ASHOKAN RESERVOIR.--Lat 41°57'01", long 74°12'30", Ulster County, Hydrologic Unit 02020006, at gatehouse located at Dividing Weir Dyke, and 1.6 mi south of Shokan. DRAINAGE AREA, 256 mi<sup>2</sup>. PERIOD OF RECORD, September 1913 to current year. REVISED RECORDS, WDR NY-72-1: 1968. WDR NY-83-1: (M)(m). GAGE, nonrecording gage read daily at 0900. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Board of Water Supply, City of New York).  
The reservoir is formed by the masonry Olive Bridge Dam across Esopus Creek and a series of earth embankments between hills. The reservoir is divided into two basins separated by a weir containing a gatehouse. Storage began Sept. 9, 1913. Usable capacity of West basin 47,180 mil gal between minimum operating level elevation 495.50 ft and crest of spillway to East basin, elevation 590.00 ft; dead storage below minimum operating level 2,237 mil gal. Usable capacity of East basin 80,678 mil gal between elevation 500.00 ft and crest of spillway, elevation 587.10 ft; no dead storage. Figures given herein represent total contents for each basin. Reservoir impounds water for diversion into Catskill Aqueduct for New York City water supply (see elsewhere in this section). Any flood spillage enters the Esopus Creek channel below Olive Bridge Dam. Records provided by Department of Environmental Protection, City of New York.  
EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, in West basin, 54,001 mil gal Mar. 31, 1951, elevation, 594.33 ft, in East basin, 89,411 mil gal Mar. 31, 1951, elevation, 592.23 ft; minimum observed, in West basin, 9,098 mil gal Oct. 24, 1926, elevation, 530.56 ft, in East basin, 8,394 mil gal Oct. 24, 1926, elevation, 525.91 ft.  
EXTREMES FOR CURRENT YEAR.--Maximum contents observed, in West basin, 50,773 mil gal Mar. 20, elevation, 591.28 ft, in East basin, 82,725 mil gal May 23, elevation, 588.32 ft; minimum observed, in West basin, 31,994 mil gal Oct. 1, elevation, 570.80 ft, in East basin, 16,817 mil gal Oct. 9, elevation, 536.86 ft.
- 01366400 RONDOUT RESERVOIR.--Lat 41°47'57", long 74°25'48", Ulster County, Hydrologic Unit 02020007, at release chamber at Merriman Dam on Rondout Creek, 1.1 mi upstream from Brandy Brook, and 1.3 mi northwest of Lackawack. DRAINAGE AREA, 95.4 mi<sup>2</sup>. PERIOD OF RECORD, May 1951 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Board of Water Supply, City of New York).  
Reservoir is formed by an earthfill rockfaced dam; storage began May 10, 1951. Initial filling (to crest of spillway) Mar. 28, 1955. Usable capacity 50,048 mil gal between minimum operating level, elevation, 720.00 ft and crest of spillway, elevation, 840.00 ft. Dead storage below elevation 720.00 ft, 2,387 mil gal. Figures given herein represent total contents. Reservoir impounds water from Rondout Creek; water diverted from Cannonsville Reservoir in the Delaware River basin through West Delaware Tunnel; water diverted from Pepacton Reservoir through East Delaware Tunnel; and water diverted from Neversink Reservoir through Neversink-Grahamsville Tunnel. Water is diverted from Rondout Reservoir for New York City water supply through West Branch Tunnel of Delaware Aqueduct (see elsewhere in this section). Records provided by Bureau of Water Resources Development, City of New York.  
EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 53,355 mil gal June 23, 1972, elevation, 841.34 ft; minimum observed (after initial filling), 8,335 mil gal Oct. 15, 1957, elevation, 748.75 ft.  
EXTREMES FOR CURRENT YEAR.--Maximum contents, 51,985 mil gal June 23, elevation, 839.34 ft; minimum, 27,192 mil gal Oct. 7, elevation, 796.94 ft.



## HUDSON RIVER BASIN

## RESERVOIRS IN HUDSON RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet) #	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet) #	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)
	01335900 Delta Reservoir			01343900 Hinckley Reservoir		
Sept. 30	538.6	1,624		1,207.8	1,654	
Oct. 31	543.8	2,120	+185	1,220.3	2,783	+422
Nov. 30	550.3	2,836	+276	1,225.0	3,320	+207
Dec. 31	547.0	2,460	-140	*1,222.0	2,970	-131
CAL YR 1985	-	-	- 15.3	-	-	+ 2.79
Jan. 31	540.3	1,777	-255	1,218.4	2,590	-142
Feb. 28	535.4	1,362	-172	*1,208.2	1,686	-374
Mar. 31	551.7	3,004	+613	1,227.3	3,625	+724
Apr. 30	550.1	2,812	- 74.1	1,222.8	3,062	-217
May 31	550.0	2,800	- 4.48	1,224.2	3,224	+ 60.5
June 30	550.0	2,800	0.0	1,223.4	3,131	- 35.9
July 31	550.4	2,848	+ 17.9	1,224.8	3,296	+ 61.6
Aug. 31	550.0	2,800	- 17.9	1,222.6	3,039	- 96.0
Sept. 30	550.8	2,896	+ 37.0	1,219.4	2,690	-135
WTR YR 1986	-	-	+ 40.3	-	-	+ 32.9

Date	Elevation (feet) **	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet) **	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet) **	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)
	01363398 Ashokan Reservoir West Basin			01363399 Ashokan Reservoir East Basin			01366400 Rondout Reservoir		
Sept. 30	570.37	31,641		539.20	18,889		797.48	27,457	
Oct. 31	572.63	33,495	+ 92.5	544.80	24,173	+264	802.67	30,055	+130
Nov. 30	575.65	36,006	+129	561.55	43,042	+973	817.88	38,385	+430
Dec. 31	575.20	35,613	- 19.6	575.10	61,530	+923	829.76	45,677	+364
CAL YR 1985	-	-	+ 49.6	-	-	+ 88.6	-	-	+ 41.9
Jan. 31	580.06	39,855	+212	577.79	65,677	+207	831.48	46,780	+ 55.1
Feb. 28	582.20	41,841	+110	581.59	71,651	+330	824.83	42,584	-232
Mar. 31	590.27	49,704	+392	587.56	81,450	+489	836.53	50,093	+375
Apr. 30	590.38	49,820	+ 5.98	587.56	81,450	0.0	835.97	49,720	- 19.2
May 31	590.20	49,630	- 9.48	587.34	81,081	- 18.4	837.70	50,877	+ 57.7
June 30	590.18	49,609	- 1.08	586.55	79,755	- 68.4	838.76	51,592	+ 36.9
July 31	590.13	49,556	- 2.65	581.45	71,425	-416	837.73	50,897	- 34.7
Aug. 31	590.15	49,577	+ 1.05	579.11	67,713	-185	831.28	46,651	-212
Sept. 30	586.45	45,882	-191	577.07	64,567	-162	826.49	43,615	-157
WTR YR 1986	-	-	+ 60.4	-	-	+194	-	-	+ 68.5

# Elevation at 2400 hours by interpolation.

\*\* Elevation at 0900 hours on first day of following month.

\* Float froze; record estimated by interpolation.

## DIVERSIONS IN HUDSON RIVER BASIN

Undetermined diversion at Solsville from Chenango River in Susquehanna River basin into Oriskany Creek in Mohawk River Basin through Oriskany Creek Feeder.

Undetermined diversion from (and occasionally into) Oswego River, tributary to Lake Ontario, through Summit level of Erie (Barge) Canal.

Undetermined diversion from Black River tributary into Lake Ontario through Black River canal into Mohawk River in Hudson River basin.

Undetermined diversion from Hudson River basin to summit level of Champlain (Barge) Canal.

01343899 Diversion from Hinckley Reservoir (see preceding pages) for municipal supply of Utica. Diversion began prior to 1921. Records provided by Utica Board of Water Supply.

Diversion from Schoharie Reservoir (see preceding pages) on Schoharie Creek through Shandaken Tunnel to Esopus Creek at, 01362230 Lat 42°06'52", long 74°21'51", near Phoenicia, Ulster County. No diversion prior to 1924. Records provided by Department of Environmental Protection, City of New York.

01363401 Diversion from Ashokan Reservoir (see preceding pages) on Esopus Creek through the Catskill Aqueduct for municipal supply of New York City. Completed in 1917. Records provided by Department of Environmental Protection, City of New York.

01366399 Diversion from Rondout Reservoir. Total diversion from Rondout Reservoir to Delaware Aqueduct for municipal supply of City of New York. Rondout Reservoir is a collection basin for diversion from: Cannonsville Reservoir, Pepacton Reservoir, and Neversink Reservoir in the Delaware River basin and the Rondout Creek in the Hudson River basin. Diversion began April 1944 by means of temporary emergency connection to aqueduct. Records provided by Bureau of Water Resources Development, City of New York.

01367630 Diversion from Morris Lake, tributary to Wallkill River, by Newtown Water and Sewer Authority for municipal use in New Jersey. After use the water is released into the Paulins Kill (Delaware River basin). Records available from the Delaware River Basin Commission.

## DIVERSION, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Month	01343899 Hinckley Reservoir	01362230 Schoharie Reservoir	01363401 Ashokan Reservoir	01366399 Rondout Reservoir
October.....	33.8	448	397	1,083
November.....	31.6	701	393	1,007
December.....	31.5	834	531	1,081
CAL YR 1985	33.7	356	552	1,049
January.....	33.4	396	553	1,099
February.....	33.7	608	611	1,050
March.....	34.4	274	745	913
April.....	32.6	84.8	467	1,192
May.....	34.1	200	625	1,240
June.....	34.8	198	708	1,340
July.....	34.4	294	832	1,308
August.....	33.3	272	762	1,229
September.....	32.6	308	671	1,371
WTR YR 1986	33.3	384	608	749

## HACKENSACK RIVER BASIN

01376800 HACKENSACK RIVER AT WEST NYACK, NY

LOCATION.--Lat 41°05'44", long 73°57'52", Rockland County, Hydrologic Unit 02030103, on right bank 20 ft downstream from Penn Central Transportation Co. railroad bridge at West Nyack, 1,000 ft upstream from State Highway 59, and 1.0 mi downstream from DeForest Lake.

DRAINAGE AREA.--29.4 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1958 to current year.

GAGE.--Water-stage recorder, stop-log control, and crest-stage gage. Datum of gage is 53.50 ft above National Geodetic Vertical Datum of 1929 (levels by Hackensack Water Co.).

REMARKS.--No estimated daily discharges. Records good. Flow regulated by DeForest Lake (see Reservoirs in Hackensack River Basin). Diversion from gaging station pool for municipal supply for village of Nyack (see Diversions in Hackensack River Basin). Discharge given for this station represents the flow of Hackensack River downstream from this diversion. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,550 ft<sup>3</sup>/s Feb. 3, 1973, gage height, 9.38 ft, from floodmarks, from rating curve extended above 840 ft<sup>3</sup>/s; maximum gage height, 10.52 ft May 30, 1984; minimum daily, 2.6 ft<sup>3</sup>/s June 12, 1965, Sept. 25, 26, 30, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 381 ft<sup>3</sup>/s Mar. 15, gage height, 6.10 ft; minimum daily, 11 ft<sup>3</sup>/s May 14-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	19	27	16	56	50	32	35	15	17	35	17
2	15	19	32	15	65	46	34	33	17	33	42	18
3	18	19	23	18	63	44	30	29	16	22	129	18
4	17	19	21	17	54	43	26	24	15	19	82	17
5	31	28	20	23	71	43	29	19	16	19	56	17
6	21	23	20	19	77	43	31	19	24	19	39	19
7	16	19	19	17	72	43	35	22	45	18	32	17
8	16	17	18	15	65	38	36	24	20	18	28	16
9	16	14	18	15	57	32	36	24	17	19	23	16
10	16	16	17	14	50	31	31	18	16	18	18	17
11	16	17	21	14	50	32	27	14	16	18	24	16
12	16	20	28	15	46	32	27	18	31	29	17	13
13	17	20	21	19	42	42	23	12	25	23	14	12
14	18	19	21	20	40	71	21	11	20	20	13	13
15	19	21	17	19	37	304	19	11	17	19	13	15
16	20	26	17	16	34	143	30	15	17	18	13	15
17	19	72	17	16	40	87	87	16	19	20	48	15
18	20	21	17	16	105	74	99	15	17	20	37	14
19	20	18	16	17	209	68	66	16	16	21	21	16
20	19	17	16	21	212	72	52	17	18	21	16	14
21	17	16	16	19	170	61	50	19	16	20	20	17
22	17	24	15	18	178	49	61	18	15	18	28	14
23	17	22	16	16	104	47	85	15	15	13	20	14
24	17	19	15	16	85	47	73	16	16	12	25	16
25	17	17	16	21	80	39	60	17	18	12	20	12
26	17	27	16	111	69	36	50	14	17	17	18	12
27	17	30	16	88	62	38	48	13	18	24	19	17
28	17	51	15	118	55	42	43	13	18	14	19	12
29	17	32	16	95	---	38	38	14	18	25	18	12
30	17	23	15	82	---	36	39	16	18	72	16	15
31	18	---	16	66	---	37	---	16	---	56	16	---
TOTAL	554	705	578	992	2248	1808	1318	563	566	694	919	456
MEAN	17.9	23.5	18.6	32.0	80.3	58.3	43.9	18.2	18.9	22.4	29.6	15.2
MAX	31	72	32	118	212	304	99	35	45	72	129	19
MIN	15	14	15	14	34	31	19	11	15	12	13	12
CAL YR 1985	TOTAL	7039	MEAN	19.3	MAX	90	MIN	10				
WTR YR 1986	TOTAL	11401	MEAN	31.2	MAX	304	MIN	11				

## HACKENSACK RIVER BASIN

107

01377000 HACKENSACK RIVER AT RIVERVALE, NJ

LOCATION.--Lat 40°59'55", long 73°59'27", Bergen County, Hydrologic Unit 02030103, on upstream right bank at bridge on Westwood Avenue in Rivervale, 1.5 mi upstream from Pascack Brook, 4.6 mi upstream from Oradell Dam, and 27.2 mi upstream from mouth.

DRAINAGE AREA.--58.0 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to current year.

REVISED RECORDS.--WRD-NJ-80-1: 1968-79(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 22.51 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by De Forest Lake and Lake Tappan (see Hackensack River basin, reservoirs in). Diversions from De Forest Lake and West Nyack, NY, for municipal water supply (see Hackensack River basin, diversions). Water occasionally diverted from Oradell Reservoir to Lake Tappan. Several measurements of water temperature, other than those published, were made during the year.

COOPERATION.--Gage-height record collected in cooperation with Hackensack Water Co.

AVERAGE DISCHARGE.--45 years, 88.6 ft<sup>3</sup>/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,440 ft<sup>3</sup>/s, May 30, 1984, gage height, 7.85 ft; no flow part of Jan. 16, 1970 and May 30, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 778 ft<sup>3</sup>/s, Jan. 26, gage height, 3.74 ft; minimum, 15 ft<sup>3</sup>/s, Sept. 8, 9, 10, gage height 1.52 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	25	120	29	97	87	55	62	176	128	31	18
2	22	24	136	29	108	81	53	57	145	127	43	18
3	35	25	104	35	109	75	49	48	133	34	69	18
4	29	27	72	37	102	73	45	41	119	26	22	18
5	71	63	58	59	127	73	47	38	118	25	21	18
6	78	56	57	53	136	72	58	37	91	25	21	21
7	55	47	50	43	131	71	61	47	62	81	29	18
8	43	41	47	37	117	62	62	45	31	144	23	16
9	36	34	44	33	101	56	62	43	29	145	21	15
10	33	30	43	31	90	55	54	36	28	127	20	16
11	31	32	47	30	88	56	47	34	27	101	29	17
12	28	40	86	30	83	55	45	32	48	91	20	21
13	27	46	79	30	75	70	42	29	35	29	19	122
14	27	41	75	31	67	114	40	26	29	26	19	123
15	26	47	56	30	64	412	38	26	27	32	18	122
16	26	49	49	29	58	390	66	25	27	87	18	122
17	25	372	46	29	64	191	208	27	27	105	111	113
18	25	156	43	30	155	141	217	27	26	98	51	105
19	25	89	39	34	338	118	139	26	26	91	22	105
20	25	65	36	46	402	126	107	28	26	92	20	104
21	25	52	37	46	354	108	97	38	47	91	26	109
22	24	64	36	41	342	92	103	47	106	90	36	103
23	24	76	36	39	225	81	134	43	135	96	20	103
24	24	58	37	35	161	78	146	37	131	102	28	103
25	24	46	38	41	143	68	121	33	121	116	19	101
26	24	66	36	552	126	63	104	32	150	127	18	85
27	23	111	34	418	108	67	91	27	181	50	18	51
28	23	187	34	200	97	77	80	59	180	83	20	24
29	23	233	33	157	---	69	71	96	145	195	18	22
30	23	118	32	134	---	65	70	120	120	83	18	51
31	25	---	30	114	---	62	---	164	---	48	18	---
TOTAL	952	2320	1670	2482	4068	3208	2512	1430	2546	2695	866	1882
MEAN	30.7	77.3	53.9	80.1	145	103	83.7	46.1	84.9	86.9	27.9	62.7
MAX	78	372	136	552	402	412	217	164	181	195	111	123
MIN	22	24	30	29	58	55	38	25	26	25	18	15

CAL YR 1985 TOTAL 14854 MEAN 40.7 MAX 372 MIN 14  
WTR YR 1986 TOTAL 26631 MEAN 73.0 MAX 552 MIN 15



## HACKENSACK RIVER BASIN

## RESERVOIRS IN HACKENSACK RIVER BASIN

- 01376700 DE FOREST LAKE.--Lat 41°06'23", long 73°58'01", Rockland County, NY, Hydrologic Unit 02030103, at dam on Hackensack River, 0.85 mi north of West Nyack, NY. DRAINAGE AREA, 27.5 mi<sup>2</sup>. PERIOD OF RECORD, February 1956 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.  
REMARKS.--Reservoir is formed by earthfill dam with sheet piling cutoff and concrete spillway; dam completed and storage began in February 1956. Total capacity at crest of dam 4,068,000,000 gal, elevation, 80.00 ft. Crest of dam topped by two 50-foot Bascule gates 5 ft high. Flow regulated by 12-inch Howell-Bunger valve at elevation, 59.25 ft and 24-inch Howell-Bunger valve at elevation, 61.25 ft. Reservoir used for storage and water released by Hackensack Water Co., for municipal water supply.  
COOPERATION.--Records provided by Hackensack Water Company.  
REVISED RECORDS.--WDR NJ-84-1: Drainage area.
- 01376950 LAKE TAPPAN.--Lat 41°01'05", long 74°00'05", Bergen County, Hydrologic Unit 02030103, at dam on Hackensack River, 0.50 mi north of Old Tappan. DRAINAGE AREA, about 49.0 mi<sup>2</sup>. PERIOD OF RECORD, October 1966 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.  
REMARKS.--Reservoir is formed by earthfill dam, completed in 1966. Capacity at spillway level, 3,378,000,000 gal, elevation, 55.00 ft. Flow regulated by four Bascule gates and one sluice gate. Water is released by Hackensack Water Co., for municipal water supply.  
COOPERATION.--Records provided by Hackensack Water Company.
- 01377450 WOODCLIFF LAKE.--Lat 41°01', long 74°03', Bergen County, Hydrologic Unit 02030103, at dam on Pascack Brook, 0.75 mi north of Hillsdale. DRAINAGE AREA, 19.4 mi<sup>2</sup>. PERIOD OF RECORD, December 1929 to current year. Monthend contents only, prior to September 1953, published in WSP 1302, 1722. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.  
REMARKS.--Reservoir is formed by earthfill dam, completed about 1905. Capacity at spillway level, 835,000,000 gal, elevation, 94.33 ft. Flow is regulated by flashboards and one 36-inch gate in center of dam. Water is released for diversion at New Milford by Hackensack Water Co., for municipal supply.  
COOPERATION.--Records provided by Hackensack Water Company.
- 01378480 ORADELL RESERVOIR.--Lat 40°57', long 74°02', Bergen County, Hydrologic Unit 02030103, at dam on Hackensack River at Oradell. DRAINAGE AREA, 113 mi<sup>2</sup>. PERIOD OF RECORD, December 1922 to current year. Monthend contents only, prior to September 1953, published in WSP 1302, 1722. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.  
REMARKS.--Reservoir is formed by hollow concrete dam, completed in 1922. Capacity at spillway level, 5,267,000,000 gal, elevation, 23.16 ft. Flow regulated by seven sluice gates (7 by 9 ft). Water is released for diversion by Hackensack Water Co., 1 mi downstream from dam for municipal supply.  
COOPERATION.--Records provided by Hackensack Water Company.  
REVISED RECORDS.--WDR NJ-84-1: Spillway elevation.

## MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)
01376700 DE FOREST LAKE				01376950 LAKE TAPPAN		
Sept. 30.....	79.06	3,839	-	54.93	3,827	-
Oct. 31.....	78.88	3,786	-2.6	55.00	3,852	+1.2
Nov. 30.....	81.90	4,690	+46.6	55.27	3,949	+5.0
Dec. 31.....	83.34	5,137	+22.3	55.00	3,852	-4.8
CAL YR 1985	-	-	+7.8	-	-	+8.2
Jan. 31.....	85.18	5,729	+29.5	55.29	3,957	+5.2
Feb. 29.....	85.18	5,729	0	55.27	3,949	-4
Mar. 31.....	85.10	5,703	-1.3	55.20	3,924	-1.2
Apr. 30.....	85.13	5,713	+5	55.22	3,931	+4
May 31.....	84.50	5,507	-10.3	54.43	3,648	-14.1
June 30.....	84.02	5,352	-8.0	51.82	2,766	-45.5
July 31.....	85.09	5,699	+17.3	50.08	2,229	-26.8
Aug. 31.....	84.57	5,529	-8.5	53.30	3,256	+51.3
Sept. 30.....	83.31	5,127	-20.7	50.90	2,477	-40.2
WTR YR 1986	-	-	+5.5	-	-	-5.7

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)
01377450 WOODCLIFF LAKE				01378480 ORADELL RESERVOIR		
Sept. 30.....	90.70	578	-	20.69	2,868	-
Oct. 31.....	89.05	500	-3.9	18.20	2,282	-29.2
Nov. 30.....	90.86	586	+4.4	23.43	3,581	+67.0
Dec. 31.....	78.00	123	-23.1	22.15	3,236	-17.2
CAL YR 1985	-	-	+0.5	-	-	+3.9
Jan. 31.....	84.90	328	+10.2	23.34	3,556	+16.0
Feb. 29.....	79.60	161	-9.2	23.33	3,553	-2
Mar. 31.....	83.82	290	+6.4	22.48	3,323	-11.5
Apr. 30.....	93.41	719	+22.1	23.18	3,512	+9.7
May 31.....	95.09	814	+4.7	18.40	2,327	-59.9
June 30.....	95.04	873	+3.0	18.52	2,355	+1.4
July 31.....	95.35	891	+9	20.68	2,865	+25.5
Aug. 31.....	94.99	870	-1.0	21.36	3,034	+8.4
Sept. 30.....	95.10	876	+3.9	18.89	2,440	-30.6
WR YR 1986	-	-	+1.3	-	-	-1.8

† Elevation at 2400 of the last day of each month.

## DIVERSIONS INTO AND FROM HACKENSACK RIVER BASIN

- 01376272 Hackensack Water Co., diverts water from Sparkill Creek at foot of Danny Lane in Northvale, 300 ft south of New York-New Jersey state line and 0.6 mi upstream of Sparkill Brook. Water is diverted into Oradell Reservoir on the Hackensack River, for municipal supply. Records provided by Hackensack Water Co.
- 01376699 Spring Valley Water Co., diverts water at De Forest Lake for municipal supply in Rockland County, NY. Records provided by Spring Valley Water Co.
- 01376810 Village of Nyack, NY, diverts water from Hackensack River 100 ft downstream from gaging station on Hackensack River at West Nyack, NY (station 01376800) for municipal supply. Records provided by Board of Water Commissioners of Nyack, NY.
- 01378490 Hackensack Water Co., diverts water for municipal supply from Oradell Reservoir at Haworth pumping station 2.0 mi upstream from gaging station on Hackensack River at New Milford and from Hackensack River about 50 ft above gaging station on Hackensack River at New Milford, NJ (station 01378500).
- 01378520 Hackensack Water Co., diverts water from Hirshfeld Brook, a tributary of the Hackensack River, below the gaging station on Hackensack River at New Milford, NJ, for municipal supply. Records provided by Hackensack Water Co.
- 01387991 Hackensack Water Co. diverts water from the Ramapo River by pumping from Pompton Lake above the gaging station into Oradell Reservoir on the Hackensack River, for municipal supply. Pumping began Feb. 14, 1985. Records provided by Hackensack Water Co.
- 01391210 Hackensack Water Co., diverts water from Saddle River just north of bridge on State Route 4 at Arcola. Water is diverted into Oradell Reservoir on the Hackensack River, for municipal supply. Records provided by Hackensack Water Co.

## DIVERSIONS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

MONTH	01376699 SPRING VALLEY WATER CO.	01376810 WEST NYACK, NY	01378490 HACKENSACK WATER CO.
October.....	0	2.65	132
November.....	0	2.60	132
December.....	0	2.73	134
CAL YR 1985.....	3.48	2.69	129
January.....	0	2.86	136
February.....	0	2.90	135
March.....	0	2.96	138
April.....	0	3.10	139
May.....	.05	3.14	162
June.....	12.7	3.12	176
July.....	12.3	3.25	174
August.....	10.2	3.00	154
September.....	11.0	3.16	154
WTR YR 1986.....	2.77	2.96	147

The following are diversions by pumpage from sources other than the Hackensack River into Oradell Reservoir. These figures are included in diversions from Hackensack River as noted above (station 01378490).

MONTH	01376272 SPARKILL CREEK (HUDSON RIVER BASIN)	01378520 HIRSHFELD BROOK (HACKENSACK RIVER BASIN)	01387991 RAMAPO RIVER (PASSAIC RIVER BASIN)	01391210 SADDLE RIVER (PASSAIC RIVER BASIN)	WELLS TO SURFACE SUPPLY
October.....	0.12	2.58	15.6	13.9	0.55
November.....	0.13	2.73	3.84	16.0	0.43
December.....	0	0	0	0	0.43
CAL YR 1985	0.80	2.16	13.6	14.9	2.01
January.....	0	0	0	12.9	0
February.....	0	0	0	0	0
March.....	0	0	0	0	0.03
April.....	0	0	0	4.85	0.13
May.....	0.06	0.79	5.53	12.2	1.06
June.....	0.16	2.14	15.3	11.6	2.23
July.....	0.03	2.11	14.8	10.0	2.33
August.....	0.18	2.74	6.12	18.9	0.42
September.....	0	1.76	9.02	9.58	0.20
WTR YR 1986	0.06	1.24	5.89	9.23	0.65

## PASSAIC RIVER BASIN

01387400 RAMAPO RIVER AT RAMAPO, NY

LOCATION.--Lat 41°08'25", long 74°10'14", Rockland County, Hydrologic Unit 02030103, on right bank, 105 ft downstream from highway bridge on New York State Thruway at Ramapo, 500 ft upstream from local bridge, and 0.4 mi upstream from Torne Brook.

DRAINAGE AREA.--86.7 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1979 to current year.

REVISED RECORDS.--WDR NY-81-1: 1980(m).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 297.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Apr. 26 to May 19. Records poor. Occasional regulation by Lake Sebago. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--7 years, 167 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft<sup>3</sup>/s Apr. 5, 1984, gage height, 13.82 ft, from rating curve extended above 3,600 ft<sup>3</sup>/s on basis of runoff comparison with station 1.5 mi downstream; minimum discharge, 5.3 ft<sup>3</sup>/s Aug. 7, 1983, gage height, 1.27 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,050 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 27	0545	1,690	5.38	Aug. 2	2300	*2,070	*5.93
Mar. 15	1730	1,380	4.91				

Minimum discharge, 14 ft<sup>3</sup>/s part or all of each day Sept. 15-19, gage height, 1.55 ft;  
minimum gage height, 1.54 ft Sept. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	206	34	556	81	245	196	147	260	33	29	52	20
2	157	34	606	78	261	184	139	240	30	120	455	19
3	169	34	514	85	277	172	131	210	27	137	1090	19
4	233	33	392	100	242	170	122	180	25	80	384	18
5	254	170	328	99	254	166	131	170	23	59	185	20
6	317	243	296	98	273	175	146	150	62	47	129	44
7	235	167	271	84	240	168	166	160	267	40	104	32
8	178	126	243	81	228	139	157	150	193	35	89	26
9	139	106	212	68	207	129	162	130	148	30	76	22
10	123	98	174	67	192	125	130	120	103	30	65	19
11	112	86	191	67	186	157	115	110	82	28	61	17
12	98	97	325	65	180	209	109	100	174	66	51	17
13	91	147	291	65	164	238	102	88	347	101	44	17
14	92	130	279	61	154	426	99	80	225	145	39	15
15	89	162	228	61	149	1200	99	70	163	105	36	15
16	84	163	193	48	140	941	173	74	137	74	33	14
17	72	887	176	45	145	588	725	70	110	59	51	14
18	66	758	155	46	297	452	766	64	88	47	67	14
19	63	481	142	69	507	401	455	58	72	42	57	15
20	62	376	124	136	520	413	337	59	66	37	44	15
21	58	303	118	134	494	334	301	113	58	34	40	20
22	54	287	114	109	545	269	343	153	49	29	70	19
23	52	341	114	101	430	254	492	148	44	28	53	17
24	49	281	114	90	360	235	583	102	40	26	50	17
25	47	234	115	87	303	217	647	80	38	24	39	16
26	49	260	105	1000	262	205	540	67	34	29	30	17
27	46	419	102	1480	233	201	450	57	31	60	27	25
28	43	579	98	810	211	199	380	49	34	45	25	27
29	39	791	92	489	---	186	310	42	52	36	23	22
30	36	612	86	366	---	177	290	37	36	38	22	19
31	34	---	83	290	---	165	---	34	---	60	21	---
TOTAL	3347	8439	6837	6460	7699	9091	8747	3425	2791	1720	3512	591
MEAN	108	281	221	208	275	293	292	110	93.0	55.5	113	19.7
MAX	317	887	606	1480	545	1200	766	260	347	145	1090	44
MIN	34	33	83	45	140	125	99	34	23	24	21	14
CAL YR 1985	TOTAL	45169	MEAN	124	MAX	1430	MIN	19				
WTR YR 1986	TOTAL	62659	MEAN	172	MAX	1480	MIN	14				

## PASSAIC RIVER BASIN

111

01387420 RAMAPO RIVER AT SUFFERN, NEW YORK

LOCATION.--Lat 41°07'06", long 74°09'38", Rockland County, Hydrologic Unit 02030103, on left bank, 145 ft downstream from highway bridge on New York State Thruway at Suffern, and 1.1 mi upstream from Mahwah River.

DRAINAGE AREA.--93.0 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 264.44 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Aug. 17-18. Records poor. Flow affected by diversion from Spring Valley Water Company well field upstream from station and by occasional regulation by Lake Sebago. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--7 years, 172 ft<sup>3</sup>/s, unadjusted.

COOPERATION.--Figures of pumpage from well field provided by Spring Valley Water Company.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,300 ft<sup>3</sup>/s Apr. 5, 1984, gage height, 15.38 ft, from rating curve extended above 5,400 ft<sup>3</sup>/s; minimum discharge, 2.6 ft<sup>3</sup>/s Sept. 30, 1981, gage height, 1.23 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft<sup>3</sup>/s and maximum(\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 17	2015	1,220	6.05	Mar. 15	1800	1,510	6.72
Jan. 27	0115	1,850	7.44	Aug. 2	2300	*2,790	*8.93

Minimum discharge, 11 ft<sup>3</sup>/s June 5, 6, Sept. 17; minimum gage height, 1.44 ft Sept. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	207	25	644	70	254	195	121	253	22	19	50	17
2	189	25	698	67	277	177	103	225	20	127	630	16
3	180	25	598	77	288	158	96	195	16	148	1350	16
4	239	25	435	93	245	153	96	175	14	76	467	17
5	269	182	360	93	276	142	96	159	12	52	240	20
6	348	269	305	87	295	139	110	139	42	40	155	50
7	258	227	270	75	249	139	142	153	282	32	118	34
8	188	160	244	64	233	132	135	139	192	25	96	24
9	151	133	221	69	204	106	141	125	126	20	76	20
10	130	97	197	62	185	97	112	109	82	20	67	17
11	110	91	210	59	177	136	98	100	59	19	61	16
12	93	99	328	55	166	210	92	90	175	59	54	15
13	87	164	295	54	147	253	85	82	378	99	44	14
14	89	143	268	54	129	474	81	73	258	138	39	14
15	83	173	241	48	126	1320	80	69	170	102	35	14
16	77	186	201	25	118	1060	165	68	122	70	32	14
17	68	1040	181	24	127	650	802	66	110	55	50	12
18	60	871	164	31	330	473	826	64	84	43	70	12
19	57	533	142	55	549	425	497	60	67	39	60	15
20	56	398	137	131	584	413	372	55	59	33	51	15
21	53	327	120	123	542	328	335	118	52	28	45	23
22	48	307	123	93	596	291	351	162	41	22	74	21
23	44	349	107	85	460	269	463	153	35	19	57	20
24	42	298	108	73	386	247	531	102	31	16	56	19
25	40	237	114	74	337	232	626	76	29	15	39	18
26	43	260	103	1160	289	211	515	61	24	33	26	18
27	39	461	98	1640	249	199	431	50	20	69	23	33
28	35	678	87	896	222	195	368	41	22	45	21	32
29	32	909	81	554	---	179	303	34	43	34	20	26
30	28	705	77	414	---	139	286	27	26	38	17	23
31	26	---	74	318	---	121	---	22	---	56	17	---
TOTAL	3369	9397	7231	6723	8040	9263	8459	3245	2613	1591	4140	605
MEAN	109	313	233	217	287	299	282	105	87.1	51.3	134	20.2
MAX	348	1040	698	1640	596	1320	826	253	378	148	1350	50
MIN	26	25	74	24	118	97	80	22	12	15	17	12
#	14	15	15	15	15	15	16	15	11	11	11	2.7

CAL YR 1985 TOTAL 45872.0 MEAN 126 MAX 1630 MIN 6.6 # 12  
WTR YR 1986 TOTAL 64676 MEAN 177 MAX 1640 MIN 12 # 13

\* Diversion, in cubic feet per second, by pumpage from well field upstream of station.



## PASSAIC RIVER BASIN

01387450 MAHWAH RIVER NEAR SUFFERN, NY

LOCATION.--Lat 41°08'27", long 74°07'01", Rockland County, Hydrologic Unit 02030103, on left bank 13 ft upstream from bridge on U.S. Highway 202, 2.5 mi northeast of Suffern, and 4.8 mi upstream from mouth.

DRAINAGE AREA.--12.3 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1958 to current year.

REVISED RECORDS.--WDR NY-79-1: 1977.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 321.57 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 18, 1976, water-stage recorder at site on right bank 13 ft downstream, at present datum.

REMARKS.--Estimated daily discharges: Apr. 17 to May 21 and July 2 to Sept. 2. Records fair except those for estimated daily discharges, which are poor. Occasional regulation from unknown source. Several measurements of water temperature were made during the year. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--28 years, 24.8 ft<sup>3</sup>/s, 27.38 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,840 ft<sup>3</sup>/s Nov. 8, 1977, gage height, 9.91 ft, from rating curve extended above 850 ft<sup>3</sup>/s on basis of contracted-opening measurements at gage heights 8.52 ft and 9.91 ft; minimum discharge, 0.05 ft<sup>3</sup>/s Oct. 20, 21, 1970, result of temporary pumping from gage pool.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 17	0515	312	4.27	Mar. 15	0345	208	3.77
Jan. 26	0800	373	4.52	Aug. 3	0115	*630	*5.36

Minimum discharge, 3.6 ft<sup>3</sup>/s July 25, 26; minimum gage height, 1.53 ft July 25, 26, Sept. 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	6.4	68	12	31	28	21	25	8.8	8.1	23	7.2
2	20	6.4	76	11	38	27	20	22	8.7	33	101	6.9
3	19	6.3	57	13	35	26	18	20	8.5	22	304	6.6
4	21	6.4	46	14	31	26	18	19	8.6	14	83	6.7
5	35	38	39	18	37	27	18	17	8.5	9.9	46	6.9
6	32	30	36	16	38	28	21	16	14	8.2	33	9.9
7	25	23	32	12	32	27	23	15	39	7.0	27	7.8
8	21	18	29	9.0	29	23	21	13	21	6.3	22	6.9
9	18	16	28	8.2	27	22	20	12	15	5.8	18	5.8
10	16	14	25	9.1	25	22	19	11	12	5.5	16	5.0
11	15	14	27	9.9	25	28	18	10	11	5.3	16	4.7
12	13	16	41	9.6	23	31	18	9.8	29	12	13	4.7
13	13	21	32	9.3	22	37	17	9.1	30	13	11	4.4
14	13	19	31	8.0	21	54	17	8.5	21	11	9.9	4.0
15	12	22	26	7.8	21	140	16	7.9	16	8.2	9.3	3.8
16	12	26	23	7.3	19	80	23	8.5	18	6.5	8.8	4.5
17	10	194	22	6.7	21	59	121	7.9	16	5.7	19	4.7
18	9.6	90	20	8.7	62	50	73	7.4	13	5.2	15	4.4
19	9.4	58	18	12	65	47	48	7.0	11	4.8	11	4.5
20	9.4	44	17	21	75	45	41	7.0	11	4.6	12	4.4
21	8.6	36	16	16	72	37	40	17	10	4.2	11	6.0
22	8.4	41	16	13	72	32	45	21	9.5	4.1	20	5.3
23	8.1	42	16	12	57	31	56	18	9.0	3.8	12	4.8
24	8.0	34	15	12	48	30	78	15	8.8	3.9	13	4.8
25	8.3	29	17	13	43	28	74	13	8.5	3.8	11	4.6
26	7.8	39	14	262	37	27	63	12	8.0	16	9.3	4.7
27	7.4	61	13	183	34	27	50	10	7.7	51	8.3	7.8
28	7.1	109	13	83	30	26	40	9.9	7.9	14	8.5	6.0
29	6.8	105	12	53	---	24	31	9.6	10	10	8.0	4.8
30	6.7	72	11	42	---	23	28	9.5	9.1	20	7.5	4.7
31	6.6	---	11	35	---	23	---	9.2	---	33	7.4	---
TOTAL	432.2	1236.5	847	946.6	1070	1135	1096	397.3	408.6	359.9	914.0	167.3
MEAN	13.9	41.2	27.3	30.5	38.2	36.6	36.5	12.8	13.6	11.6	29.5	5.58
MAX	35	194	76	262	75	140	121	25	39	51	304	9.9
MIN	6.6	6.3	11	6.7	19	22	16	7.0	7.7	3.8	7.4	3.8
CFSM	1.13	3.35	2.22	2.48	3.11	2.98	2.97	1.04	1.11	.94	2.40	.45
IN.	1.31	3.74	2.56	2.86	3.24	3.43	3.31	1.20	1.24	1.09	2.76	0.51
CAL YR 1985	TOTAL	6069.8	MEAN	16.6	MAX	194	MIN	2.3	CFSM	1.35	IN.	18.36
WTR YR 1986	TOTAL	9010.4	MEAN	24.7	MAX	304	MIN	3.8	CFSM	2.01	IN.	27.25

## PASSAIC RIVER BASIN

113

01387500 RAMAPO RIVER NEAR MAHWAH, NJ

LOCATION.--Lat 41°05'51", long 74°09'48", Bergen County, Hydrologic Unit 02030103, on left bank 350 ft downstream from State Highway 17, 0.6 mi downstream from Mahwah River, and 1.0 mi west of Mahwah. Water-quality samples collected at bridge 350 ft upstream from gage at high flows.

DRAINAGE AREA.--120 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1902 to December 1906, September 1922 to current year. October 1902 to February 1905 monthly discharge only, published in WSP 1302. Figures of daily discharge Feb. 10, 1903, to Dec. 31, 1904, published in WSP 97, 125, are unreliable and should not be used. Gage-height records for 1903-14 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 781: 1904(M). WSP 1031: 1938, 1940. WSP 1552: 1923(M), 1924, 1925-26(M), 1927-28, 1933, 1937. WRD-NJ 1971: 1968(M). WDR NJ-82-1: Drainage area.

GAGE.--Water-discharge recorder. Datum of gage is 253.10 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 31, 1906, nonrecording gage on former bridge at site 250 ft downstream at different datum. Sept. 1, 1922 to Dec. 23, 1936, water-stage recorder just below former bridge at present datum.

REMARKS.--No estimated daily discharges. Records fair. Flow affected by diversion from Spring Valley (NY) Water Company well field upstream from station (see station 01387420). Occasional regulation from lakes and ponds upstream from the station. Several measurements of water temperature, other than those published, were made during the year. Gage-height telemeter at station.

AVERAGE DISCHARGE.--68 years (water years 1903-06, 1923-86), 230 ft<sup>3</sup>/s, 26.03 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft<sup>3</sup>/s, April 5, 1984, gage height, 13.35 ft, from rating curve extended above 1,400 ft<sup>3</sup>/s; minimum, 4.6 ft<sup>3</sup>/s, Sept. 30, 1981 (possible regulation); minimum daily, 6.1 ft<sup>3</sup>/s, Sept. 30, 1981 (possible regulation).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 17	1645	1,470	6.48	Aug. 3	0030	*3,370	*8.27
Mar. 15	1615	1,750	6.85				

Minimum discharge, 26 ft<sup>3</sup>/s, Sept. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	270	58	788	90	333	269	185	317	53	46	103	36
2	208	57	846	87	374	254	170	282	51	232	713	35
3	221	55	714	104	390	235	157	250	48	203	2040	36
4	292	65	533	120	330	229	148	227	45	104	666	38
5	358	274	444	136	369	228	156	210	44	75	335	47
6	433	343	396	121	392	233	185	189	121	61	235	73
7	310	227	351	96	329	225	196	204	392	53	188	49
8	236	166	309	104	312	184	188	185	266	48	155	39
9	193	136	280	76	278	169	189	166	190	45	126	35
10	170	123	251	74	255	165	157	145	132	44	106	32
11	151	115	270	74	245	206	140	132	100	43	113	31
12	132	137	443	71	238	283	133	118	284	123	86	30
13	123	198	382	70	218	327	123	109	445	142	75	29
14	125	178	361	60	207	571	116	101	299	164	67	28
15	120	210	291	52	202	1570	121	94	212	127	61	28
16	111	234	248	54	194	1230	261	94	183	86	57	29
17	99	1330	227	51	192	758	1110	94	150	67	227	28
18	89	1110	203	55	438	577	972	88	116	58	143	28
19	86	689	170	86	732	518	591	82	94	54	90	30
20	85	513	154	182	755	508	450	87	86	49	78	30
21	81	410	149	166	692	418	425	190	78	46	86	49
22	78	418	139	126	765	363	440	233	68	41	136	35
23	73	486	139	114	599	330	590	204	62	39	92	34
24	72	390	140	98	490	303	645	141	58	38	94	32
25	73	323	147	108	427	276	722	110	56	37	67	29
26	76	387	130	526	369	255	603	94	51	117	53	31
27	71	626	120	722	328	245	517	81	48	190	49	57
28	67	903	114	790	291	246	437	73	49	80	48	46
29	64	1150	105	719	---	238	386	66	65	62	42	36
30	61	853	99	497	---	219	360	60	53	99	39	32
31	59	---	91	397	---	204	---	55	---	152	37	---
TOTAL	4587	12164	9034	6026	10744	11836	10873	4481	3899	2725	6407	1092
MEAN	148	405	291	194	384	382	362	145	130	87.9	207	36.4
MAX	433	1330	846	790	765	1570	1110	317	445	232	2040	73
MIN	59	55	91	51	192	165	116	55	44	37	37	28
CFSM	1.23	3.37	2.42	1.62	3.20	3.18	3.02	1.21	1.08	.73	1.72	.30
IN.	1.42	3.77	2.80	1.87	3.33	3.67	3.37	1.39	1.21	.84	1.99	.34

CAL YR 1985 TOTAL 57672 MEAN 158 MAX 1480 MIN 19 CFSM 1.32 IN. 17.88  
WTR YR 1986 TOTAL 83868 MEAN 230 MAX 2040 MIN 28 CFSM 1.92 IN. 26.00

## DELAWARE RIVER BASIN

01413500 EAST BRANCH DELAWARE RIVER AT MARGARETVILLE, NY

LOCATION.--Lat 42°08'41", long 74°39'14", Delaware County, Hydrologic Unit 02040102, on right bank at downstream side of bridge on Fair Street at intersection with Main Street at Margaretville, 0.2 mi upstream from unnamed tributary, and 1.6 mi downstream from Dry Brook.

DRAINAGE AREA.--163 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1937 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,302.38 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 9, 1937, nonrecording gage and Sept. 9, 1937 to Aug. 17, 1944, water-stage recorder, at same site at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Dec. 15-21, Dec. 23 to Jan. 2, Jan. 6-10, 14-19, Jan. 29 to Feb. 1, Feb. 7-17, Feb. 26 to Mar. 3, and Mar. 8-9. Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. Intermittent water-quality data for this station are included in section "ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES".

AVERAGE DISCHARGE.--49 years, 306 ft<sup>3</sup>/s, 25.49 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft<sup>3</sup>/s Nov. 25, 1950, gage height, 13.84 ft, from rating curve extended above 8,700 ft<sup>3</sup>/s; minimum discharge, 5.0 ft<sup>3</sup>/s Aug. 5, 1964; minimum gage height, 0.89 ft Sept. 30, Oct. 1, 1943, present datum.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,800 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 15	0515	*9,900	*12.50	May 22	1245	2,840	7.05
Mar. 19	1700	3,060	7.28	July 30	1715	3,860	8.05

Minimum discharge, 13 ft<sup>3</sup>/s Sept. 18, gage height, 2.31 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	235	142	542	115	280	300	441	351	298	129	842	46
2	214	133	1180	110	269	280	407	337	297	185	638	45
3	198	126	954	121	246	270	366	298	239	164	487	43
4	167	119	799	131	225	252	340	271	200	122	391	42
5	403	177	682	118	305	239	318	250	235	103	325	43
6	364	257	601	100	281	228	325	232	1010	90	289	50
7	290	234	508	90	230	211	337	235	1190	80	321	44
8	242	220	446	80	220	150	300	211	944	73	273	41
9	222	213	397	105	200	180	282	196	730	68	242	36
10	200	212	354	94	190	210	280	176	551	65	214	33
11	186	281	373	88	180	1190	267	162	522	59	223	30
12	163	373	465	85	170	718	252	150	755	195	185	30
13	219	491	370	84	165	772	234	138	717	205	161	35
14	218	598	354	60	160	2560	219	127	575	218	144	35
15	213	996	300	70	155	7770	211	119	480	137	131	24
16	216	825	290	70	150	3150	270	119	441	103	164	28
17	182	1540	280	66	140	1750	270	285	560	88	140	25
18	170	1110	250	80	208	1260	244	190	386	80	138	23
19	209	918	240	150	299	2020	235	160	338	76	117	24
20	235	771	230	694	468	2100	234	223	394	84	101	23
21	203	634	220	618	725	1320	251	1080	305	77	93	23
22	193	561	209	518	923	998	272	1850	258	64	89	22
23	184	546	200	456	724	808	281	1670	237	57	81	25
24	185	448	190	358	614	664	323	1210	219	51	99	46
25	254	385	190	313	530	553	391	861	210	48	80	36
26	213	418	160	666	420	501	437	646	174	90	69	29
27	197	687	160	524	370	509	449	517	162	189	68	31
28	182	564	150	375	330	519	420	433	189	635	65	31
29	169	552	140	330	---	482	397	365	170	579	59	27
30	161	541	130	310	---	487	377	312	148	1410	54	31
31	151	---	120	290	---	496	---	272	---	1420	50	---
TOTAL	6638	15072	11484	7269	9177	32947	9430	13446	12934	6944	6333	1001
MEAN	214	502	370	234	328	1063	314	434	431	224	204	33.4
MAX	403	1540	1180	694	923	7770	449	1850	1190	1420	842	50
MIN	151	119	120	60	140	150	211	119	148	48	50	22
CFSM	1.31	3.07	2.26	1.43	2.01	6.51	1.92	2.66	2.64	1.37	1.25	.20
IN.	1.51	3.43	2.61	1.65	2.09	7.50	2.15	3.06	2.94	1.58	1.44	0.23

CAL YR 1985	TOTAL	78992	MEAN	216	MAX	1540	MIN	15	CFSM	1.32	IN.	17.98
WTR YR 1986	TOTAL	132675	MEAN	363	MAX	7770	MIN	22	CFSM	2.22	IN.	30.21

## DELAWARE RIVER BASIN

115

01414500 MILL BROOK NEAR DUNRAVEN, NY

LOCATION.--Lat 42°06'22", long 74°43'51", Delaware County, Hydrologic Unit 02040102, on left bank 0.4 mi upstream from bridge on New York City Road 9 and Pepacton Reservoir, and 2.7 mi southwest of Dunraven.

DRAINAGE AREA.--25.2 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1937 to current year. Published as "at Arena" 1937-67.

REVISED RECORDS.--WSP 1432: 1937. WDR NY-82-1: Drainage area. WDR NY-84-1: 1979-83.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,298.54 ft Board of Water Supply, City of New York datum. Prior to Oct. 17, 1939, nonrecording gage at site 0.2 mi downstream at different datum. Oct. 17 to Dec. 8, 1939, nonrecording gage at present site at different datum.

REMARKS.--Estimated daily discharges: Nov. 22-24, Dec. 2, Dec. 21 to Jan. 19, Feb. 12-19, Feb. 27 to Mar. 10, and Mar. 14-15. Records poor. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--49 years, 55.2 ft<sup>3</sup>/s, 29.75 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft<sup>3</sup>/s Sept. 21, 1938, from rating curve extended above 960 ft<sup>3</sup>/s on basis of velocity-area study; maximum gage height, 9.92 ft Nov. 25, 1950; minimum discharge observed, 1.2 ft<sup>3</sup>/s Sept. 25, 26, 1939.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 740 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 15	unknown	*2,500	*a8.78	July 28	1345	1,750	b4.47
May 22	1030	768	b3.80				

a From floodmark.

b At site 40 ft downstream.

Minimum discharge, 4.5 ft<sup>3</sup>/s Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	32	59	20	56	41	74	70	52	16	158	15
2	53	30	130	19	53	39	66	62	44	25	117	14
3	45	29	134	18	45	37	53	56	38	22	82	14
4	45	28	106	19	44	35	50	50	33	16	62	13
5	81	34	89	18	53	33	47	44	36	13	50	14
6	67	41	79	17	48	32	50	44	47	13	77	14
7	55	38	71	16	38	31	53	41	63	13	96	12
8	47	37	65	15	40	32	50	36	105	12	74	10
9	44	36	60	17	41	35	50	33	82	12	66	9.5
10	40	36	55	16	40	45	47	31	56	10	53	7.7
11	37	49	56	14	37	153	44	31	86	9.5	65	7.0
12	34	63	60	13	30	106	44	27	243	28	47	7.0
13	40	78	53	13	28	140	38	25	252	32	41	7.0
14	37	83	52	11	27	776	38	23	185	36	36	6.2
15	39	99	50	12	26	1350	36	22	103	25	33	6.2
16	40	96	50	12	25	465	47	22	81	20	44	7.0
17	36	161	48	11	24	327	53	78	89	15	36	6.2
18	35	115	42	14	30	276	50	44	56	14	38	5.6
19	45	96	39	90	45	375	47	38	47	13	33	5.6
20	46	83	38	190	95	309	44	52	50	13	29	5.6
21	43	73	36	151	133	231	41	357	41	14	30	5.6
22	42	70	35	115	126	217	38	490	38	13	31	5.6
23	40	64	35	90	101	158	36	377	36	12	27	7.1
24	44	60	34	68	84	98	62	284	31	10	31	6.8
25	54	56	33	61	74	70	78	217	29	9.5	22	5.6
26	48	63	31	146	62	59	117	133	29	24	18	5.0
27	46	66	28	97	52	74	122	90	25	67	18	5.0
28	44	64	26	70	45	82	103	70	27	297	16	5.0
29	40	61	24	62	---	70	94	56	23	260	15	4.5
30	37	58	22	54	---	103	82	48	20	228	15	4.8
31	34	---	20	51	---	108	---	50	---	210	15	---
TOTAL	1387	1899	1660	1520	1502	5907	1754	3001	2047	1502.0	1475	241.6
MEAN	44.7	63.3	53.5	49.0	53.6	191	58.5	96.8	68.2	48.5	47.6	8.05
MAX	81	161	134	190	133	1350	122	490	252	297	158	15
MIN	34	28	20	11	24	31	36	22	20	9.5	15	4.5
CFSM	1.78	2.51	2.12	1.95	2.13	7.56	2.32	3.84	2.71	1.92	1.89	.32
IN.	2.05	2.80	2.45	2.24	2.22	8.72	2.59	4.43	3.02	2.22	2.18	.36

CAL YR 1985	TOTAL	13370.7	MEAN	36.6	MAX	340	MIN	3.1	CFSM	1.45	IN.	19.7
WTR YR 1986	TOTAL	23895.6	MEAN	65.5	MAX	1350	MIN	4.5	CFSM	2.60	IN.	35.3



## DELAWARE RIVER BASIN

01415000 TREMPER KILL NEAR ANDES, NY

LOCATION.--Lat 42°07'12", long 74°49'08", Delaware County, Hydrologic Unit 02040102, on right bank 500 ft upstream from bridge on County Highway 1, about 1,700 ft upstream from Pepacton Reservoir, and 5 mi south of Andes.

DRAINAGE AREA.--33.2 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1937 to current year. Published as "near Shavertown" 1937-67.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since Nov. 1937. Datum of gage is 1,285.87 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 5, 1937, nonrecording gage at site 500 ft downstream at different datum. Aug. 5 to Sept. 28, 1937, nonrecording gage at site 0.25 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 15, Dec. 19 to Jan. 20, Jan. 24-25, Jan. 29 to Feb. 21, Feb. 25 to Mar. 3, and Mar. 7-9. Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--49 years, 59.3 ft<sup>3</sup>/s, 24.25 in./yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,250 ft<sup>3</sup>/s Sept. 21, 1938, gage height, 7.12 ft, from rating curve extended above 1,500 ft<sup>3</sup>/s; maximum gage height, 7.92 ft Jan. 26, 1976 (ice jam); minimum discharge, 0.5 ft<sup>3</sup>/s Sept. 17, 21, 22, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 5	1230	801	4.72	Mar. 15	0200	*2,350	*6.09

Minimum discharge, 5.3 ft<sup>3</sup>/s Sept. 14, 15, gage height, 2.46 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	37	113	22	58	68	60	49	42	17	121	8.0
2	49	33	172	22	56	64	56	47	43	27	111	7.6
3	42	30	144	20	47	54	49	42	31	21	89	7.5
4	39	27	126	20	42	49	47	37	25	17	71	7.3
5	254	34	108	19	54	44	45	34	58	15	56	8.5
6	199	39	98	20	52	41	49	31	262	14	62	12
7	144	34	83	21	47	34	54	33	236	12	83	8.9
8	109	31	73	22	43	34	45	28	235	10	59	7.6
9	89	27	65	21	39	40	42	25	192	9.9	49	6.8
10	72	29	58	20	38	48	46	21	143	9.2	40	6.3
11	63	46	67	16	36	196	44	20	137	8.4	50	6.1
12	54	73	89	14	35	124	42	18	153	39	34	6.2
13	86	102	70	13	34	165	38	16	146	37	27	7.3
14	67	143	71	15	33	545	35	15	117	37	23	5.9
15	78	203	65	14	32	1410	36	14	98	23	21	5.8
16	70	198	60	14	31	486	59	19	89	17	30	7.4
17	59	273	57	15	30	301	51	63	126	14	22	7.0
18	55	201	53	25	40	235	46	35	77	13	20	6.4
19	80	163	50	40	60	373	45	30	68	12	17	6.8
20	78	131	48	200	120	340	44	37	83	12	15	6.8
21	67	108	45	194	205	225	50	113	58	12	14	6.8
22	62	100	42	153	219	180	51	293	49	10	14	6.5
23	57	94	37	120	176	141	53	293	44	9.7	13	8.8
24	61	76	35	110	140	115	64	206	39	8.0	19	13
25	78	67	34	105	110	95	65	147	34	7.8	14	8.8
26	58	84	33	159	90	85	62	108	28	12	12	7.9
27	53	123	28	114	80	86	60	84	25	17	12	9.9
28	49	116	30	84	70	86	56	67	28	28	11	10
29	46	121	27	66	---	81	55	54	23	97	9.6	8.8
30	44	114	25	60	---	73	54	45	19	146	9.0	8.4
31	41	---	25	66	---	66	---	40	---	141	8.4	---
TOTAL	2356	2857	2031	1804	2017	5884	1503	2064	2708	853.0	1136.0	235.1
MEAN	76.0	95.2	65.5	58.2	72.0	190	50.1	66.6	90.3	27.5	36.6	7.84
MAX	254	273	172	200	219	1410	65	293	262	146	121	13
MIN	39	27	25	13	30	34	35	14	19	7.8	8.4	5.8
CFSM	2.29	2.87	1.97	1.75	2.17	5.72	1.51	2.01	2.72	.83	1.10	.24
IN.	2.64	3.20	2.28	2.02	2.26	6.59	1.68	2.31	3.03	.96	1.27	.26

CAL YR 1985 TOTAL 17118.7 MEAN 46.9 MAX 273 MIN 3.3 CFSM 1.41 IN. 19.2  
WTR YR 1986 TOTAL 25448.0 MEAN 69.7 MAX 1410 MIN 5.8 CFSM 2.10 IN. 28.5

## DELAWARE RIVER BASIN

117

01417000 EAST BRANCH DELAWARE RIVER AT DOWNSVILLE, NY

LOCATION.--Lat 42°04'30", long 74°58'36", Delaware County, Hydrologic Unit 02040102, on left bank 0.5 mi downstream from Downs ville Dam, at downstream end of outlet channel of Pepacton Reservoir, and 1.0 mi east of Downs ville.

DRAINAGE AREA.--372 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1941 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,094.92 ft Board of Water Supply, City of New York datum. Prior to Sept. 26, 1941, nonrecording gage, and Sept. 26, 1941, to June 27, 1955, water-stage recorder, at site 0.8 mi downstream at datum 7.03 ft lower.

REMARKS --No estimated daily discharges. Records good. Subsequent to September 1954, entire flow from drainage area controlled by Pepacton Reservoir (see Reservoirs in Delaware River Basin). Part of flow diverted for New York City municipal supply (see Reservoirs in Delaware River Basin). Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,900 ft<sup>3</sup>/s Nov. 26, 1950, gage height, 14.52 ft, site and datum then in use, from rating curve extended above 12,000 ft<sup>3</sup>/s; minimum discharge, 0.3 ft<sup>3</sup>/s Oct. 11, 1954; minimum daily, 0.6 ft<sup>3</sup>/s Oct. 10, 1954; minimum gage height, 1.39 ft Jan. 17, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 9, 1903, reached a stage of about 16 ft (at former datum).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,890 ft<sup>3</sup>/s May 24, gage height, 5.13 ft; minimum, 17 ft<sup>3</sup>/s Dec. 16, 18; minimum daily, 18 ft<sup>3</sup>/s Oct. 21, Dec. 15-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	19	20	48	52	48	654	70	97	75	69	68
2	19	19	21	48	52	48	564	70	77	76	70	68
3	19	19	20	49	49	49	488	70	74	76	70	68
4	19	19	19	48	49	49	414	70	73	75	70	81
5	20	19	19	49	53	48	374	70	74	75	70	99
6	19	19	19	49	51	49	367	70	205	74	71	87
7	19	19	19	50	50	50	367	70	1130	94	70	70
8	19	19	19	50	51	51	319	70	1460	112	70	67
9	19	19	19	50	51	55	264	71	1470	110	70	68
10	19	19	19	50	51	50	216	71	1100	100	70	68
11	19	19	19	50	51	53	188	72	937	81	70	81
12	19	19	19	50	51	53	154	72	1060	73	70	100
13	19	19	19	50	51	53	127	72	1240	72	70	87
14	19	19	19	50	51	55	98	72	1070	72	70	69
15	19	19	18	50	51	69	84	72	782	72	70	70
16	19	20	18	50	53	55	185	79	557	72	70	69
17	19	21	18	50	50	53	114	78	58	84	70	71
18	19	20	18	50	52	51	101	74	83	95	70	72
19	19	19	33	50	50	50	70	74	279	95	70	72
20	19	19	50	51	50	50	69	74	250	95	70	71
21	18	20	50	51	50	50	70	79	185	95	70	70
22	19	20	50	49	50	61	68	79	100	81	70	72
23	19	20	51	50	50	547	69	894	75	72	70	72
24	19	20	52	51	51	926	69	2680	74	83	70	71
25	19	19	53	51	53	938	70	2550	76	95	70	69
26	19	20	50	52	53	833	70	1850	75	95	70	70
27	19	20	49	53	55	772	71	1330	75	95	70	69
28	19	20	52	52	49	791	70	728	74	95	70	68
29	19	20	49	51	---	754	70	398	74	95	84	68
30	19	20	48	50	---	706	70	219	75	82	97	68
31	19	---	48	51	---	701	---	119	---	68	82	---
TOTAL	589	583	977	1553	1430	8118	5914	12367	13859	2634	2223	2203
MEAN	19.0	19.4	31.5	50.1	51.1	262	197	399	462	85.0	71.7	73.4
MAX	20	21	53	53	55	938	654	2680	1470	112	97	100
MIN	18	19	18	48	49	48	68	70	73	68	69	67
CAL YR 1985	TOTAL	10629.4	MEAN	29.1	MAX	133	MIN	6.4				
WTR YR 1986	TOTAL	52450	MEAN	144	MAX	2680	MIN	18				

## DELAWARE RIVER

01417500 EAST BRANCH DELAWARE RIVER AT HARVARD, NY

LOCATION.--Lat 42°01'28", long 75°07'10", Delaware County, Hydrologic Unit 02040102, on right bank 800 ft downstream from Baxter Brook, and 1,100 ft downstream from highway bridge at Harvard. Water-quality sampling site at discharge station.

DRAINAGE AREA.--458 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1934 to June 1967, November 1977 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area. WDR NY-84-1: 1978-81(M).

GAGE.--Water-stage recorder. Datum of gage is 1,007.41 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 12, 1958, water-stage recorder 1,100 ft upstream at datum 0.65 ft higher, and from Aug. 12, 1958, to June 30, 1967, water-stage recorder at site 100 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 15 to Jan. 19, Jan. 28 to Feb. 19, Feb. 25 to Mar. 3, and Mar. 8-9. Records good except those for estimated daily discharges, which are poor. Subsequent to September 1954, entire flow from 371 mi<sup>2</sup> of drainage area controlled by Pepacton Reservoir (see Reservoirs in Delaware River Basin). Part of flow diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River Basin, as directed by the Delaware River Master. Satellite gage-height and temperature telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,400 ft<sup>3</sup>/s Sept. 22, 1938, gage height, 16.93 ft site and datum then in use, from rating curve extended above 10,000 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 15.58 ft; minimum discharge, 7.2 ft<sup>3</sup>/s Oct. 13, 1954, gage height, 1.63 ft site and datum then in use; minimum daily discharge, 7.6 ft<sup>3</sup>/s Oct. 13, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,710 ft<sup>3</sup>/s Mar. 15, gage height, 9.29 ft; minimum, 56 ft<sup>3</sup>/s Jan. 15, gage height, 1.85 ft; minimum daily, 60 ft<sup>3</sup>/s Jan. 14-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	288	126	422	98	210	220	830	218	237	121	221	87
2	233	116	612	96	200	200	728	213	200	144	279	83
3	196	107	584	96	190	190	641	193	171	138	248	81
4	170	99	476	90	185	178	561	180	153	121	214	81
5	361	109	396	86	185	169	519	170	172	114	187	110
6	406	139	341	82	180	164	516	161	531	110	170	121
7	310	135	283	80	160	143	519	155	1230	108	214	94
8	251	127	244	76	155	140	487	147	1670	144	182	80
9	211	121	215	74	150	145	437	139	1730	142	180	78
10	184	123	191	70	150	151	393	133	1330	136	158	76
11	162	177	187	68	150	290	360	128	1200	113	210	75
12	141	256	245	64	140	311	323	123	1360	180	169	101
13	157	430	225	62	135	330	280	119	1710	203	152	111
14	153	500	227	60	130	930	237	114	1480	263	141	80
15	159	701	200	60	130	4830	212	111	1130	194	133	75
16	161	607	180	62	130	2010	292	111	845	161	145	80
17	141	1120	170	64	130	1050	335	204	831	146	133	77
18	131	811	150	72	140	729	271	155	681	156	124	77
19	165	603	140	98	180	1110	253	141	498	152	116	80
20	211	469	135	503	368	1500	235	151	434	145	109	77
21	184	376	130	623	442	872	236	404	371	155	106	78
22	177	322	125	480	502	613	232	668	257	139	105	77
23	169	307	120	406	422	743	233	1180	188	110	102	81
24	170	251	120	336	368	1090	235	2550	168	103	121	93
25	240	217	115	277	320	1100	291	2570	159	119	103	84
26	203	232	110	402	290	1020	274	2060	146	124	97	88
27	193	415	110	368	260	1010	273	1580	140	132	96	86
28	183	478	105	260	230	1050	262	972	144	124	93	84
29	169	508	105	250	---	987	248	619	136	127	90	82
30	157	451	100	230	---	925	233	421	128	156	111	81
31	140	---	100	220	---	885	---	281	---	212	110	---
TOTAL	6176	10433	6863	5813	6232	25085	10946	16371	19430	4492	4619	2558
MEAN	199	348	221	188	223	809	365	528	648	145	149	85.3
MAX	406	1120	612	623	502	4830	830	2570	1730	263	279	121
MIN	131	99	100	60	130	140	212	111	128	103	90	75
CAL YR 1985	TOTAL	61275	MEAN	168	MAX	1470	MIN	32				
WTR YR 1986	TOTAL	119018	MEAN	326	MAX	4830	MIN	60				

01417500 EAST BRANCH DELAWARE RIVER AT HARVARD, NY--Continued

## WATER-QUALITY RECORDS

## PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: June 1978 to current year.

INSTRUMENTATION.--Water-temperature digital recorder since June 1978, provides one-hour-interval punches.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1978, 1981-82, 1984-86), 28.0°C June 30, 1981; minimum, 0.0°C on many days during winter periods.

## EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 26.5°C July 7; minimum, 0.0°C on many days during December to March.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	15.5	12.5	14.0	8.0	5.0	6.5	6.5	5.0	5.5	.5	.0	.0
2	15.0	12.5	14.0	7.0	5.0	6.0	6.5	3.5	6.0	.0	.0	.0
3	12.5	12.0	12.5	9.0	7.0	7.5	3.5	2.0	2.5	.5	.0	.5
4	13.5	12.0	13.0	8.0	7.5	8.0	3.0	2.0	2.5	.5	.0	.5
5	14.0	12.5	13.5	9.0	8.0	8.5	3.0	2.0	2.5	.5	.0	.0
6	12.5	11.0	12.0	9.0	8.0	8.5	3.5	2.0	3.0	.5	.0	.0
7	12.0	10.0	11.0	10.0	8.0	9.0	3.0	2.0	2.5	.5	.0	.0
8	12.5	9.5	11.0	9.0	7.0	8.0	3.5	3.0	3.0	.5	.0	.0
9	14.5	11.0	12.5	7.5	6.0	6.5	4.0	3.5	3.5	.5	.0	.0
10	15.0	12.5	13.5	9.0	7.5	8.0	4.5	3.5	4.0	.5	.0	.0
11	14.5	11.5	13.5	9.0	8.0	8.5	4.5	4.0	4.0	.5	.0	.0
12	12.0	9.5	11.0	8.0	7.0	7.5	4.5	3.5	4.5	.5	.0	.0
13	11.0	10.0	10.5	9.0	7.0	8.0	3.5	2.5	3.0	.5	.0	.0
14	12.5	10.5	11.5	8.5	8.5	8.5	2.5	.5	2.0	.0	.0	.0
15	13.5	12.5	13.0	8.5	6.0	7.5	.5	.0	.5	.5	.0	.0
16	13.0	11.0	12.0	6.0	4.5	5.0	1.0	.5	1.0	.0	.0	.0
17	12.0	9.0	10.5	7.0	5.0	6.0	.0	.5	.5	.5	.0	.0
18	11.0	8.5	10.0	8.0	7.0	7.0	.5	.0	.5	.5	.0	.0
19	11.5	10.5	11.0	9.0	7.0	8.0	.5	.0	.0	.0	.0	.0
20	11.5	10.0	10.5	10.5	9.0	10.0	.5	.0	.0	.5	.0	.0
21	11.0	8.0	9.5	9.0	5.5	7.5	.0	.0	.0	1.0	.5	.5
22	10.5	7.5	9.0	5.5	5.0	5.0	.0	.0	.0	1.0	.5	1.0
23	11.0	7.5	9.0	6.0	5.0	5.5	.0	.0	.0	2.0	.5	1.0
24	10.5	8.5	9.5	5.5	4.5	5.0	.5	.0	.5	.5	.0	.0
25	12.0	10.0	11.0	4.5	3.5	4.0	.5	.0	.0	.0	.0	.0
26	10.5	8.0	9.5	4.0	3.5	3.5	.5	.0	.0	.5	.0	.0
27	10.0	7.5	9.0	5.0	4.0	4.5	.0	.0	.0	.5	.0	.0
28	9.5	7.0	8.5	4.5	4.5	4.5	.5	.0	.0	.0	.0	.0
29	7.5	5.0	6.5	5.5	4.5	5.0	.0	.0	.0	.0	.0	.0
30	6.5	4.5	5.5	5.5	5.0	5.0	.0	.0	.0	.0	.0	.0
31	8.0	6.0	7.0	---	---	---	.0	.0	.0	.0	.0	.0
MONTH	15.5	4.5	11.0	10.5	3.5	6.5	6.5	0.0	1.5	2.0	0.0	0.0



## DELAWARE RIVER BASIN

01417500 EAST BRANCH DELAWARE RIVER AT HARVARD, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

	FEBRUARY			MARCH			APRIL			MAY		
1	.0	.0	.0	.0	.0	.5	8.5	4.0	6.5	12.5	10.5	11.0
2	.0	.0	.0	.0	.0	.5	8.0	5.5	6.5	10.5	7.0	8.5
3	.5	.0	.0	3.0	.0	1.5	8.5	4.0	6.0	9.5	5.0	7.0
4	.5	.0	.0	2.5	.0	2.0	6.5	5.0	5.5	11.5	5.5	8.5
5	.5	.0	.0	3.5	1.5	2.5	6.0	4.5	5.5	15.5	9.0	12.0
6	.5	.0	.5	2.5	1.5	2.5	5.0	4.0	4.5	16.0	11.5	14.0
7	.0	.0	.0	1.5	.0	.5	7.5	4.5	5.5	18.5	13.5	15.5
8	.0	.0	.0	.5	.0	.0	9.0	5.0	7.0	15.5	12.5	14.0
9	.5	.0	.0	.0	.0	.0	7.0	5.0	6.0	17.0	11.0	13.5
10	.0	.0	.0	1.5	.0	.5	5.5	4.5	5.0	17.5	10.5	14.0
11	.5	.0	.0	3.5	.5	2.5	5.5	3.5	4.5	15.5	12.0	14.0
12	.0	.0	.0	3.0	.5	2.0	6.0	4.0	5.0	17.0	11.0	14.0
13	.0	.0	.0	3.0	2.0	2.5	8.5	3.0	6.0	17.0	11.5	14.5
14	.0	.0	.0	3.0	1.0	2.5	11.5	4.5	8.0	17.0	13.0	15.0
15	.0	.0	.0	3.0	1.0	2.0	8.5	6.5	7.5	14.5	13.0	13.5
16	.0	.0	.0	3.5	2.5	3.0	7.5	6.0	6.5	14.5	13.0	13.5
17	.0	.0	.0	4.0	3.0	3.5	8.0	5.5	6.5	14.5	13.0	13.5
18	.0	.0	.0	6.0	2.5	4.0	12.0	5.5	8.5	19.5	13.0	16.0
19	.5	.0	.0	5.5	4.5	5.0	13.5	7.0	10.5	20.5	15.5	18.0
20	.5	.0	.0	5.0	2.0	3.5	13.0	8.5	10.5	19.0	16.5	17.0
21	.5	.0	.5	3.5	.0	1.5	11.0	8.5	9.5	16.5	13.5	15.0
22	2.0	.0	1.0	4.5	.5	2.5	8.5	6.0	7.5	13.5	12.5	13.0
23	2.0	1.5	1.5	5.0	1.5	3.5	6.0	3.0	4.5	13.5	11.5	12.5
24	2.0	1.0	1.5	4.5	2.0	3.5	10.5	3.5	7.0	14.0	13.0	13.5
25	2.0	.0	1.0	5.5	1.5	3.5	13.0	6.5	9.5	16.5	13.5	15.0
26	.5	.0	.0	7.0	3.0	5.0	12.0	8.5	10.0	18.0	15.0	16.5
27	.5	.0	.0	5.5	4.0	4.5	13.5	8.5	11.0	18.5	15.5	17.0
28	.5	.0	.0	5.5	3.5	4.5	16.5	9.5	12.5	19.0	15.0	17.0
29	---	---	---	8.0	3.5	5.5	14.0	11.0	12.5	19.5	14.5	17.0
30	---	---	---	8.0	4.5	6.5	15.5	10.0	12.5	20.5	15.5	18.0
31	---	---	---	8.0	5.0	6.5	---	---	---	19.5	16.5	18.0
MONTH	2.0	0.0	0.0	8.0	0.0	3.0	16.5	3.0	7.5	20.5	5.0	14.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	21.5	17.0	19.0	21.5	15.5	18.5	19.5	16.5	17.5	18.5	14.0	16.5
2	19.5	15.0	17.5	19.5	16.0	17.5	18.0	16.5	17.0	20.0	16.0	18.0
3	18.5	12.0	15.0	17.5	14.5	16.0	19.5	15.5	17.5	19.0	16.5	18.0
4	19.5	12.5	16.5	20.5	13.5	17.0	20.0	16.5	18.5	17.5	15.5	16.5
5	18.0	15.0	16.5	22.5	16.5	19.5	21.0	16.0	18.5	15.5	14.0	15.0
6	15.0	13.0	14.0	26.0	19.0	22.5	19.5	17.0	18.5	17.0	13.0	15.0
7	17.5	11.5	14.5	26.5	21.0	23.5	19.5	16.5	18.0	15.0	13.0	14.0
8	19.0	17.0	18.0	25.0	20.5	23.0	21.0	17.5	19.0	17.0	12.0	14.0
9	19.0	16.0	17.5	22.5	19.5	21.0	20.5	17.5	19.0	17.5	12.5	15.0
10	20.0	15.5	18.0	20.5	15.5	18.0	20.0	17.0	18.5	18.5	13.5	16.0
11	18.5	16.0	17.5	20.5	15.5	18.0	20.5	17.5	19.0	19.0	16.5	17.5
12	17.0	16.0	16.5	19.0	15.0	16.5	19.5	16.0	17.5	19.0	17.5	18.0
13	16.5	15.5	16.0	15.5	14.0	14.5	20.0	15.0	17.5	18.5	14.5	16.5
14	19.0	15.0	17.0	17.0	14.0	15.5	20.5	16.0	18.0	17.0	13.5	15.5
15	19.5	15.0	17.5	20.0	14.5	17.0	19.5	16.5	18.0	14.0	12.5	13.5
16	20.0	16.5	18.5	19.0	16.0	17.5	20.5	17.0	18.5	13.0	11.0	12.5
17	18.5	16.0	17.5	20.0	16.5	18.0	19.0	17.5	18.5	15.0	9.5	12.0
18	16.0	12.5	14.5	21.5	17.5	19.5	21.0	17.0	19.0	13.5	11.5	12.5
19	16.0	13.5	15.0	20.5	18.0	19.5	21.5	17.5	19.5	14.0	12.5	13.0
20	17.5	14.0	15.5	19.5	17.0	18.0	22.5	18.0	20.0	13.5	12.5	13.0
21	20.0	14.0	17.0	20.0	16.0	17.5	20.0	17.0	18.5	14.5	12.5	13.5
22	19.5	15.5	17.5	22.5	16.0	19.0	20.0	16.0	18.0	13.0	12.5	12.5
23	21.0	16.0	18.5	24.0	17.5	20.5	19.0	16.0	18.0	14.0	12.5	13.0
24	19.5	16.5	18.0	23.5	18.5	21.0	17.5	15.0	16.5	16.0	13.5	14.5
25	18.5	15.0	16.5	21.5	19.5	20.5	19.5	13.5	16.0	16.0	14.0	15.0
26	20.5	13.5	17.0	20.5	19.0	20.0	20.5	15.5	18.0	16.5	14.5	15.5
27	21.0	15.5	18.5	21.0	18.0	19.5	19.0	17.5	18.5	15.5	14.0	15.0
28	20.5	17.5	19.0	22.0	18.0	19.5	17.5	15.0	16.5	14.0	13.0	13.5
29	22.0	17.0	19.5	20.0	18.0	19.0	15.5	12.5	14.0	14.5	12.5	13.5
30	20.5	17.0	19.0	20.0	16.5	18.5	16.5	12.0	14.0	18.0	13.5	15.5
31	---	---	---	18.5	16.0	17.0	18.0	13.0	15.5	---	---	---
MONTH	22.0	11.5	17.0	26.5	13.5	19.0	22.5	12.0	18.0	20.0	9.5	15.0

## DELAWARE RIVER BASIN

121

01417820 BEAVER KILL ABOVE BLACK BROOK, NEAR TURNWOOD, NY

LOCATION.--Lat 42°00'40", long 74°36'15", Ulster County, Hydrologic Unit 02040102, 900 ft upstream from Black Brook, 2.4 mi southwest of Balsam Lake Mountain, and 5.5 mi southeast of Turnwood.

DRAINAGE AREA.--8.08 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1983 to current year.

CHEMICAL DATA: 1984-85 (c), 1986 (b).

MINOR ELEMENT DATA: 1984-85 (c), 1986 (b).

ORGANIC DATA: OC--1984-85 (c), 1986 (b).

REMARKS.--All anion and cation analyses were performed on water samples which passed through a 0.1-micrometer membrane filter.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
DEC 03...	1630	48	32	6.66	12	9	4.1	0.49	0.30	0.40
FEB 18...	1500	9.7	--	6.66	14	9	4.8	0.49	0.30	0.20
MAR 14...	1800	137	30	6.51	12	10	4.0	0.38	0.30	0.30
MAY 02...	1530	23	34	6.97	13	8	4.3	0.46	0.30	0.20
14...	1130	13	36	7.03	14	8	4.7	0.54	0.40	0.30

DATE	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
DEC 03...	3	6.8	0.55	1.8	18	0.455	50	12	5	2.8
FEB 18...	5	6.6	0.54	2.0	20	0.564	20	10	2	1.5
MAR 14...	2	5.9	0.48	1.5	17	0.765	80	56	12	--
MAY 02...	5	6.8	0.50	1.5	19	0.355	30	10	2	--
14...	6	6.8	0.55	1.5	20	0.314	30	15	2	1.1

## DELAWARE RIVER BASIN

01420500 BEAVER KILL AT COOKS FALLS, NY

LOCATION.--Lat 41°56'47", long 74°58'48", Delaware County, Hydrologic Unit 02040102, on left bank 66 ft downstream from road bridge in Cooks Falls, and 5.5 mi downstream from Willowemoc Creek.

DRAINAGE AREA.--241 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1913 to current year.

REVISED RECORDS.--WSP 521: Drainage area. WSP 781: 1933(M). WSP 891: 1936-39(M). WSP 1202: 1950. WSP 1232: 1950(M).

GAGE.--Water-stage recorder. Datum of gage is 1,151.70 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1933, nonrecording gage at site 125 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 14 to Jan. 20, Jan. 29 to Feb. 1, Feb. 6-17, Feb. 23 to Mar. 2, and Mar. 7-9. Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Telephone gage-height telemeter and satellite gage-height, temperature, and rain-gage telemeter at station.

AVERAGE DISCHARGE.--72 years (1915-86), 556 ft<sup>3</sup>/s, 31.33 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,600 ft<sup>3</sup>/s Mar. 31, 1951, gage height, 16.02 ft, from rating curve extended above 13,000 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 15.52 ft; minimum discharge, 16 ft<sup>3</sup>/s Nov. 22, 23, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,700 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 15	0700	*19,800	*13.19	May. 22	1415	6,220	8.38
Mar. 19	1945	8,710	9.57				

Minimum discharge, 79 ft<sup>3</sup>/s Sept. 30; minimum gage height, 1.13 ft Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	602	377	1160	190	420	430	1030	541	458	196	444	136
2	521	364	2390	180	481	420	888	501	387	291	643	127
3	475	350	1740	200	448	406	757	456	331	307	508	123
4	438	328	1280	210	413	386	685	431	296	226	378	120
5	1360	355	1080	190	438	368	636	394	302	202	310	127
6	1270	391	951	160	420	354	691	364	428	184	310	169
7	847	367	816	140	360	300	788	349	535	170	1060	139
8	659	338	719	130	320	220	688	322	460	179	675	123
9	571	312	648	160	300	310	603	302	384	161	543	120
10	498	302	587	200	290	335	567	281	326	145	427	110
11	442	384	589	180	270	461	532	267	343	133	545	103
12	400	599	869	170	250	492	499	256	1040	177	413	100
13	437	940	746	160	240	520	463	235	1140	225	345	99
14	440	1010	640	150	230	1860	434	223	776	343	299	92
15	440	1640	520	140	220	13500	414	212	591	236	287	86
16	476	1270	480	160	230	4640	540	215	511	186	285	90
17	399	2860	440	180	260	2600	718	564	630	164	283	88
18	363	2210	400	220	360	1970	594	398	475	154	463	84
19	395	1640	370	310	510	4880	508	339	414	145	333	91
20	470	1320	350	2000	724	4970	475	351	427	140	268	87
21	415	1070	340	1890	834	2470	507	1780	375	141	240	85
22	377	946	330	1170	1160	1720	648	3910	328	130	230	83
23	355	921	310	939	800	1370	627	3380	303	122	210	87
24	407	781	290	678	660	1190	658	1820	281	113	254	109
25	982	667	270	575	560	1040	918	1260	281	109	213	95
26	649	688	250	1140	500	1200	821	922	246	126	186	93
27	546	1390	250	1040	480	1690	764	730	231	254	175	96
28	499	1690	240	741	450	1620	669	604	252	302	167	89
29	454	1580	220	560	---	1390	620	511	246	369	154	84
30	425	1290	210	450	---	1400	588	451	212	360	145	81
31	400	---	190	400	---	1270	---	397	---	520	141	---
TOTAL	17012	28380	19675	15013	12628	55782	19330	22766	13009	6510	10934	3116
MEAN	549	946	635	484	451	1799	644	734	434	210	353	104
MAX	1360	2860	2390	2000	1160	13500	1030	3910	1140	520	1060	169
MIN	355	302	190	130	220	220	414	212	212	109	141	81
CFSM	2.28	3.93	2.63	2.01	1.87	7.46	2.67	3.05	1.80	.87	1.46	.43
IN.	2.63	4.38	3.04	2.32	1.95	8.61	2.98	3.51	2.01	1.00	1.69	0.48

CAL YR 1985	TOTAL	160558	MEAN	440	MAX	3790	MIN	87	CFSM	1.83	IN.	24.78
WTR YR 1986	TOTAL	224155	MEAN	614	MAX	13500	MIN	81	CFSM	2.55	IN.	34.60

## DELAWARE RIVER BASIN

123

## 01421000 EAST BRANCH DELAWARE RIVER AT FISHS EDDY, NY

LOCATION.--Lat 41°58'23", long 75°10'28", Delaware County, Hydrologic Unit 02040102, on left bank 3,000 ft upstream from bridge on County highway 28 at Fishs Eddy, 0.6 mi upstream from Fish Creek, 4.2 mi downstream from Beaver Kill, and 11 mi upstream from the confluence of East and West Branches near Hancock. Water-quality sampling site at discharge station.

DRAINAGE AREA.--784 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1912 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 955.96 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 27, 1928, nonrecording gage and Sept. 28, 1928 to Nov. 1, 1967, water-stage recorder at site 3,000 ft downstream at datum 5.0 ft lower.

REMARKS.--Estimated daily discharges: Dec. 20 to Jan. 21, and Jan. 30 to Mar. 10. Records good except those for estimated daily discharges, which are poor. Subsequent to September 1954, entire flow from 371 mi<sup>2</sup> of drainage area controlled by Pepacton Reservoir (see Reservoirs in Delaware River Basin). Part flow diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53,300 ft<sup>3</sup>/s Aug. 24, 1933, gage height, 20.60 ft at former site and datum, from rating curve extended above 22,000 ft<sup>3</sup>/s; minimum discharge, 52 ft<sup>3</sup>/s July 23, 1964, gage height, 1.16 ft at former site and datum; minimum daily discharge, 68 ft<sup>3</sup>/s Aug. 29, 1949.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 9, 1903, reached a stage of 23.6 ft at former site and datum, from description obtained in April 1939, from local residents who had experienced the flood (discharge, about 70,000 ft<sup>3</sup>/s, from rating curve extended above 22,000 ft<sup>3</sup>/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30,000 ft<sup>3</sup>/s Mar. 15, gage height, 13.19 ft; minimum, 177 ft<sup>3</sup>/s Sept. 16, 18, 22, 23, gage height, 2.85 ft; minimum daily, 177 ft<sup>3</sup>/s Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1170	656	1990	340	740	900	2270	949	824	360	712	261
2	979	626	3480	330	780	810	1950	903	730	457	1020	256
3	885	597	3000	340	740	760	1670	832	624	551	922	239
4	797	557	2270	350	700	720	1470	784	551	405	745	233
5	2070	574	1870	330	720	680	1370	730	567	363	625	257
6	2300	676	1610	310	700	600	1400	681	1040	331	564	315
7	1520	657	1370	280	640	500	1510	649	1830	312	1280	281
8	1190	605	1200	250	560	400	1380	601	2310	353	1000	236
9	1010	566	1080	270	520	500	1230	567	2280	336	875	221
10	901	556	988	310	500	600	1140	533	1760	309	738	212
11	802	684	970	300	480	855	1070	508	1600	277	874	202
12	726	967	1290	280	450	988	999	486	2360	400	727	214
13	751	1640	1200	260	440	995	925	455	3230	523	620	226
14	773	1830	1130	250	420	2820	855	432	2560	773	553	198
15	754	2980	975	240	400	21300	801	412	1950	563	507	180
16	797	2470	959	260	440	8660	954	411	1520	438	516	185
17	700	4890	908	300	500	4790	1250	844	1570	382	496	186
18	636	3890	797	500	700	3470	1090	713	1270	366	647	178
19	692	2880	650	2000	1000	6470	995	606	1010	365	558	186
20	849	2270	600	5000	1400	8430	933	628	943	338	456	187
21	777	1800	560	3000	1800	4470	925	2380	852	344	411	182
22	722	1560	540	2190	2500	3060	1050	4980	688	316	393	177
23	685	1500	520	1730	2000	2640	1040	5600	582	275	370	186
24	686	1270	500	1260	1700	2810	1040	4960	524	253	442	220
25	1290	1100	480	1090	1500	2620	1390	4340	514	255	386	204
26	1030	1110	450	1710	1300	2660	1270	3410	460	276	334	203
27	910	2060	430	1680	1100	3230	1230	2650	427	397	314	212
28	850	2610	410	1160	1000	3260	1120	1840	454	428	302	202
29	787	2700	390	960	---	2900	1060	1290	449	561	283	195
30	743	2230	370	800	---	2810	1010	1010	391	568	287	191
31	701	---	350	700	---	2610	---	831	---	809	283	---
TOTAL	29483	48511	33337	28780	25730	98318	36397	46015	35870	12684	18240	6425
MEAN	951	1617	1075	928	919	3172	1213	1484	1196	409	588	214
MAX	2300	4890	3480	5000	2500	21300	2270	5600	3230	809	1280	315
MIN	636	556	350	240	400	400	801	411	391	253	283	177
CAL YR 1985	TOTAL	272551	MEAN	747	MAX	6050	MIN	146				
WTR YR 1986	TOTAL	419790	MEAN	1150	MAX	21300	MIN	177				



## DELAWARE RIVER BASIN

01421000 EAST BRANCH DELAWARE RIVER AT FISHS EDDY, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-59, 1968 to current year.

CHEMICAL DATA: 1958-59 (d), 1970 (b), 1971-74 (d), 1975 (c).

MINOR ELEMENTS DATA: 1971-74 (a).

ORGANIC DATA: OC--1974 (a), 1975 (c).

NUTRIENT DATA: 1971-75 (d).

BIOLOGICAL DATA:

Bacteria--1971 (c), 1973-75 (c).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1967 to current year.

INSTRUMENTATION.--Water-temperature digital recorder since October 1975, provides one-hour-interval punches.  
Prior to October 1975, water-temperature recorder provided continuous recordings.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-75, 1978, 1980-82, 1984, 1986), 31.5°C Aug. 2, 1975; minimum (water years 1968-76, 1978-79, 1981-86), 0.0°C on many days during winter periods, except 1978.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 28.0°C July 7, minimum, 0.0°C on many days during winter period.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	15.0	12.5	14.0	8.0	5.5	6.5	5.5	4.5	5.0	.0	.0	.0
2	14.5	12.5	13.5	6.5	5.5	6.0	6.0	3.5	5.5	.0	.0	.0
3	12.5	12.0	12.0	8.5	6.5	7.5	3.0	1.5	2.0	.0	.0	.0
4	13.5	12.0	13.0	8.0	7.5	8.0	2.0	1.5	1.5	.0	.0	.0
5	13.0	12.0	13.0	9.0	7.5	8.5	2.0	2.0	2.0	.0	.0	.0
6	12.0	10.5	11.5	9.0	8.5	9.0	2.5	2.0	2.0	.0	.0	.0
7	12.0	9.5	10.5	10.0	8.0	9.0	2.5	1.5	2.0	.0	.0	.0
8	12.0	9.5	10.5	9.5	7.5	8.0	2.5	2.0	2.5	.0	.0	.0
9	13.5	10.5	12.0	7.0	6.0	6.5	3.0	2.5	3.0	.0	.0	.0
10	14.0	12.0	13.0	8.5	7.0	8.0	3.5	3.0	3.5	.0	.0	.0
11	13.5	11.0	12.5	8.5	8.0	8.5	4.0	3.5	3.5	.0	.0	.0
12	11.0	9.5	10.5	8.0	7.0	7.5	4.0	3.5	4.0	.0	.0	.0
13	10.5	9.5	10.0	8.5	7.0	8.0	3.5	2.0	3.0	.0	.0	.0
14	12.0	10.0	11.0	8.5	8.5	8.5	2.0	.5	1.5	.0	.0	.0
15	13.5	12.0	12.5	8.5	6.0	7.0	.5	.5	.5	.0	.0	.0
16	13.0	10.5	12.0	5.5	4.5	5.0	.5	.5	.5	.0	.0	.0
17	11.5	9.0	10.0	6.0	4.5	5.5	.5	.5	.5	.0	.0	.0
18	10.5	8.5	9.5	7.5	6.0	7.0	.5	.5	.5	.0	.0	.0
19	11.0	10.0	10.5	8.0	7.0	7.5	.5	.0	.5	.0	.0	.0
20	11.0	9.5	10.5	10.0	8.5	9.5	.0	.0	.0	.0	.0	.0
21	10.5	8.0	9.0	9.0	5.5	7.0	.0	.0	.0	1.0	.0	.5
22	10.0	7.0	8.5	5.5	5.0	5.0	.0	.0	.0	1.5	.5	1.0
23	10.5	7.5	9.0	5.5	5.0	5.0	.0	.0	.0	1.5	.5	1.0
24	10.0	8.5	9.0	5.0	4.5	4.5	.0	.0	.0	.5	.5	.5
25	12.0	9.5	10.5	4.0	3.5	4.0	.0	.0	.0	.5	.5	.5
26	10.0	8.0	9.0	3.5	3.0	3.5	.0	.0	.0	.5	.5	.5
27	10.0	7.5	8.5	4.0	3.5	4.0	.0	.0	.0	.5	.5	.5
28	9.0	7.0	8.0	4.0	4.0	4.0	.0	.0	.0	.5	.5	.5
29	7.5	5.0	6.0	4.5	4.0	4.5	.0	.0	.0	.5	.5	.5
30	6.0	5.0	5.5	4.5	4.5	4.5	.0	.0	.0	.5	.5	.5
31	8.0	6.0	7.0	---	---	---	.0	.0	.0	.5	.5	.5
MONTH	15.0	5.0	10.5	10.0	3.0	6.5	6.0	0.0	1.5	1.5	0.0	0.0

## DELAWARE RIVER BASIN

125

01421000 EAST BRANCH DELAWARE RIVER AT FISHS EDDY, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	.5	.5	.5	.0	.0	.0	9.5	6.0	8.0	13.0	11.0	12.0
2	.5	.5	.5	.0	.0	.0	9.5	7.5	8.5	11.0	7.5	9.0
3	.5	.0	.0	.0	.0	.0	10.0	6.0	8.0	9.0	6.0	7.5
4	.0	.0	.0	1.5	.0	1.0	8.5	7.0	7.0	11.0	6.0	9.0
5	.0	.0	.0	3.0	1.0	2.0	7.0	6.0	7.0	15.0	9.5	12.5
6	.0	.0	.0	2.5	1.5	2.0	6.5	5.0	5.5	16.0	12.0	14.0
7	.0	.0	.0	1.5	.0	.5	7.5	5.0	6.0	19.0	14.0	16.5
8	.0	.0	.0	.0	.0	.0	10.0	6.5	8.0	16.0	13.5	15.0
9	.0	.0	.0	.0	.0	.0	8.0	6.5	7.0	17.5	12.0	14.5
10	.0	.0	.0	1.5	.0	.5	6.5	5.0	5.5	17.5	11.5	14.5
11	.0	.0	.0	1.5	.5	.0	5.5	4.0	5.0	16.5	12.5	14.5
12	.0	.0	.0	2.5	.5	1.5	6.0	4.5	5.5	17.5	12.0	14.5
13	.0	.0	.0	2.0	2.0	2.0	8.5	3.5	6.0	18.0	12.5	15.5
14	.0	.0	.0	2.5	1.0	2.0	11.0	5.5	8.5	17.0	13.5	15.5
15	.0	.0	.0	2.5	.5	1.5	9.5	7.5	8.0	15.5	14.0	14.5
16	.0	.0	.0	3.0	2.5	2.5	7.5	7.0	7.0	15.5	13.5	14.5
17	.0	.0	.0	3.0	2.5	3.0	8.0	6.5	7.0	16.0	14.0	15.0
18	.0	.0	.0	5.0	2.5	4.0	12.0	6.0	9.0	20.0	14.5	17.0
19	.0	.0	.0	4.5	4.0	4.0	13.5	8.0	10.5	22.0	17.0	19.5
20	.0	.0	.0	4.0	1.5	3.0	13.0	9.0	11.0	19.0	17.5	18.0
21	.0	.0	.0	2.5	.5	1.5	11.0	9.0	10.0	17.0	14.0	15.0
22	.0	.0	.0	3.5	.5	2.0	9.0	6.0	7.5	14.0	12.5	13.5
23	.0	.0	.0	4.5	1.5	3.0	6.0	3.5	4.5	13.5	12.5	13.0
24	.0	.0	.0	4.5	2.5	3.5	10.0	3.5	6.5	14.0	12.5	13.0
25	1.0	.0	.5	5.5	2.0	4.0	12.0	7.0	9.5	16.5	13.0	14.5
26	.5	.0	.5	7.5	3.5	5.5	12.0	9.0	10.5	17.5	14.0	16.0
27	.5	.0	.0	6.5	5.0	5.5	13.5	9.5	11.5	18.0	15.0	16.5
28	.0	.0	.0	6.0	4.0	5.0	15.5	10.5	13.0	18.5	15.0	16.5
29	---	---	---	8.5	4.5	6.5	14.0	12.0	13.5	19.5	15.0	17.5
30	---	---	---	9.5	6.0	7.5	15.5	11.5	13.5	21.0	16.0	18.5
31	---	---	---	9.5	6.5	8.0	---	---	---	20.5	17.5	19.0
MONTH	1.0	0.0	0.0	9.5	0.0	2.5	15.5	3.5	8.5	22.0	6.0	14.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	22.0	17.5	20.0	22.0	16.5	19.5	21.5	17.5	19.5	20.5	15.5	18.0
2	20.0	15.0	17.5	20.0	17.5	18.5	19.5	18.0	18.5	20.5	17.0	19.0
3	18.5	12.5	15.5	19.0	15.5	17.0	20.5	17.0	19.0	20.0	18.0	19.0
4	20.0	13.5	16.5	20.5	15.0	17.5	22.0	18.0	20.0	18.5	17.0	17.5
5	18.0	15.5	17.0	23.0	17.5	20.5	22.0	18.0	20.0	17.0	16.0	16.5
6	15.5	14.5	15.0	26.5	20.5	23.5	21.5	19.0	20.0	19.0	15.5	17.0
7	16.5	13.5	15.0	28.0	23.0	25.0	20.0	18.0	19.0	16.5	14.5	15.5
8	18.5	16.5	17.5	27.0	22.5	24.5	21.0	18.5	19.5	18.5	13.5	15.5
9	19.0	15.0	17.0	24.5	22.0	23.5	21.0	19.0	20.0	19.0	14.0	16.0
10	19.5	15.0	17.5	23.5	19.0	21.0	20.5	18.0	19.5	19.5	14.5	17.0
11	18.5	16.5	17.5	23.0	18.0	20.5	21.0	19.0	20.0	21.0	17.5	19.0
12	17.5	14.5	16.0	20.5	16.5	18.0	20.0	17.5	18.5	21.0	18.5	19.5
13	15.5	14.0	14.5	17.0	16.0	16.5	21.0	16.5	18.5	20.5	16.0	18.0
14	18.5	14.0	16.0	18.5	15.5	17.0	21.0	16.5	19.0	19.5	15.0	17.0
15	19.0	15.0	17.0	21.0	16.0	18.5	20.5	17.5	19.0	16.0	14.0	15.0
16	19.5	16.5	18.5	20.0	17.0	18.5	22.0	18.5	20.0	14.5	12.0	13.5
17	18.5	16.0	17.5	21.5	17.5	19.5	21.0	20.0	20.5	16.0	10.5	13.0
18	16.0	13.5	15.0	23.5	19.5	21.5	22.0	19.0	20.5	14.5	12.5	13.5
19	15.5	13.5	15.0	22.5	20.5	21.5	23.0	19.0	21.0	15.0	13.5	14.0
20	18.0	14.5	16.0	21.5	19.5	20.5	23.0	19.0	21.0	14.5	14.0	14.5
21	20.0	14.5	17.5	22.5	19.0	20.5	21.0	19.0	20.0	16.5	14.0	15.0
22	20.0	15.5	18.0	24.5	18.5	21.5	22.0	18.0	19.5	15.0	14.0	14.5
23	21.0	17.0	19.0	26.0	20.0	23.0	20.5	17.5	19.5	15.5	14.0	15.0
24	20.5	17.0	18.5	25.0	20.5	23.0	19.5	16.0	17.5	18.0	15.0	16.0
25	19.5	15.0	17.0	24.0	22.0	23.0	20.0	14.5	17.0	17.5	16.0	16.5
26	20.5	14.0	17.5	23.5	21.5	22.5	21.5	16.0	19.0	19.0	16.0	17.0
27	21.0	16.5	19.0	24.5	21.0	22.5	20.5	19.0	19.5	18.0	15.5	17.0
28	22.0	18.5	20.5	25.0	21.5	23.0	18.5	15.5	17.5	15.5	15.0	15.0
29	24.0	19.0	21.0	23.0	21.0	22.0	17.0	13.5	15.0	16.0	14.5	15.5
30	21.5	18.0	20.0	22.5	19.5	21.0	18.0	13.0	15.5	20.0	15.5	17.5
31	---	---	---	21.5	18.5	19.5	20.0	14.5	17.0	---	---	---
MONTH	24.0	12.5	17.5	28.0	15.0	21.0	23.0	13.0	19.0	21.0	10.5	16.0

## DELAWARE RIVER BASIN

01423000 WEST BRANCH DELAWARE RIVER AT WALTON, NY

LOCATION.--Lat 42°09'58", long 75°08'26", Delaware County, Hydrologic Unit 02040101, on left bank at west end of fairgrounds at Walton, and 100 ft downstream from West Brook.

DRAINAGE AREA.--332 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORD.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,190.30 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 16 to Feb. 19, Feb. 25 to Mar. 4, and Mar. 7-10, 15. Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Intermittent water-quality data for this station are included in section "ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES".

AVERAGE DISCHARGE.--36 years, 583 ft<sup>3</sup>/s, 23.84 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,500 ft<sup>3</sup>/s Mar. 15, 1986, gage height, 14.84 ft, from floodmark in gage well; minimum discharge, 12 ft<sup>3</sup>/s Sept. 15, Nov. 22, 1964; minimum gage height, 1.86 ft Nov. 22, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,600 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 15	Unknown	*19,500	a*14.84	Mar. 19	2145	5,210	8.89

a From floodmark in gage well.

Minimum discharge, 58 ft<sup>3</sup>/s Sept. 22, 23, gage height, 2.67 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	670	318	1220	220	500	620	615	447	407	185	854	88
2	598	297	2130	210	490	580	560	449	640	195	664	84
3	542	279	1710	200	450	540	511	397	496	232	559	80
4	460	258	1400	190	420	500	471	353	357	185	490	77
5	864	283	1210	180	500	489	458	320	359	158	404	86
6	1220	354	1070	160	540	469	461	293	1270	141	365	106
7	752	334	926	150	400	380	465	288	2540	130	612	96
8	625	303	809	160	390	270	420	264	1960	123	448	83
9	537	279	725	160	370	380	385	247	1630	112	448	76
10	480	281	658	160	350	450	398	225	1140	105	368	71
11	443	536	697	160	330	2750	403	206	1080	98	433	68
12	386	622	1040	150	310	1780	390	191	1110	222	359	70
13	500	921	823	130	290	1690	359	176	1140	406	284	71
14	524	1130	766	120	290	4090	326	164	895	468	246	68
15	472	2010	649	120	290	16000	307	151	723	265	221	62
16	505	1680	600	130	290	7540	431	161	636	198	252	63
17	420	3310	520	140	300	3750	471	304	839	167	266	63
18	378	2180	480	160	370	2710	393	237	583	151	216	62
19	454	1730	400	400	660	3700	366	192	491	139	198	62
20	639	1420	400	2000	1480	3920	361	281	625	148	169	61
21	497	1170	400	1700	1750	2420	369	972	516	164	153	60
22	460	1020	380	1200	2400	1840	409	1790	408	133	145	59
23	436	1050	370	900	1720	1500	429	2540	365	117	139	71
24	429	851	350	740	1340	1230	500	1740	336	107	190	108
25	618	721	300	680	1100	993	682	1320	354	100	158	95
26	510	735	250	1200	900	895	547	982	280	125	129	77
27	452	1430	250	1000	800	875	562	782	249	194	119	79
28	416	1160	270	600	700	889	525	646	253	208	115	94
29	382	1140	250	560	---	809	494	536	232	252	105	81
30	362	1140	240	520	---	726	482	456	207	524	98	75
31	346	---	230	500	---	672	---	390	---	1110	92	---
TOTAL	16377	28942	21523	14900	19730	65457	13550	17500	22121	6862	9299	2296
MEAN	528	965	694	481	705	2112	452	565	737	221	300	76.5
MAX	1220	3310	2130	2000	2400	16000	682	2540	2540	1110	854	108
MIN	346	258	230	120	290	270	307	151	207	98	92	59
CFSM	1.59	2.91	2.09	1.45	2.12	6.36	1.36	1.70	2.22	.67	.90	.23
IN.	1.84	3.24	2.41	1.67	2.21	7.33	1.52	1.96	2.48	0.77	1.04	0.26

CAL YR 1985	TOTAL	157493	MEAN	431	MAX	3310	MIN	33	CFSM	1.30	IN.	17.65
WTR YR 1986	TOTAL	238557	MEAN	654	MAX	16000	MIN	59	CFSM	1.97	IN.	26.73

## DELAWARE RIVER BASIN

127

## 01425000 WEST BRANCH DELAWARE RIVER AT STILESVILLE, NY

LOCATION.--Lat 42°04'29", long 75°23'47", Delaware County, Hydrologic Unit 02040101, on right bank at Stilesville, 0.5 mi upstream from Cold Spring Creek, 1.4 mi downstream from Cannonsville Dam, and 2.0 mi northeast of Deposit. Water-quality sampling site at discharge station.

DRAINAGE AREA.--456 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1952 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 992.23 ft above National Geodetic Vertical Datum of 1929 (levels by Board of Water Supply, City of New York). Prior to Oct. 1, 1964, at site 600 ft downstream at datum 1.37 ft higher.

REMARKS.--No estimated daily discharges. Records good except those for periods below 700 ft<sup>3</sup>/s, which are fair. Subsequent to October 1963, entire flow from 454 mi<sup>2</sup> of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow diverted for New York City municipal supply (see Reservoirs in Delaware River Basin). Remainder of flow (except for conservation releases and spill) impounded for release during period of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,800 ft<sup>3</sup>/s Mar. 16, 1986, gage height, 13.07 ft; minimum daily, 7.2 ft<sup>3</sup>/s Feb. 8, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,800 ft<sup>3</sup>/s Mar. 16, gage height, 13.07 ft; minimum daily, 28 ft<sup>3</sup>/s Oct. 7-12, 18, 21-23, Oct. 30 to Nov. 4, Nov. 6-9; minimum gage height, 3.59 ft Oct. 25, Nov. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	28	34	36	37	824	1160	197	689	340	340	113
2	29	28	35	36	37	835	1060	136	646	342	340	57
3	29	28	34	36	37	845	960	98	501	340	347	51
4	29	28	33	36	37	785	890	63	346	340	345	286
5	29	29	32	36	38	723	827	53	252	340	345	1080
6	29	28	32	36	37	687	813	53	434	340	368	613
7	28	28	31	36	38	649	806	53	1240	393	360	78
8	28	28	31	36	37	556	761	52	1810	455	352	57
9	28	28	31	35	37	499	707	52	2040	455	352	57
10	28	29	31	36	37	500	679	52	1850	463	351	130
11	28	30	31	36	37	855	668	52	1690	580	349	430
12	28	30	32	36	37	1690	653	52	1460	429	345	1130
13	29	31	31	36	37	1710	625	52	1560	350	345	946
14	29	32	31	35	37	2500	583	51	1540	350	345	347
15	29	34	31	35	37	11000	548	52	1650	345	345	328
16	29	33	30	35	37	14800	595	52	1380	345	345	396
17	29	41	30	151	38	8720	689	57	1310	345	345	708
18	28	35	30	201	39	5750	706	54	1160	386	234	773
19	31	32	29	51	40	4830	683	56	914	535	66	1400
20	29	31	35	44	42	5720	665	59	788	530	53	1210
21	28	30	37	41	44	4840	656	117	694	433	53	1090
22	28	31	37	39	44	3760	660	802	573	345	52	1020
23	28	30	37	38	42	2980	697	1790	474	345	53	877
24	29	30	37	37	41	2430	706	2230	415	340	182	802
25	29	29	37	37	52	2000	799	2130	373	645	193	856
26	29	32	37	39	316	1730	744	1840	344	582	64	639
27	29	34	37	38	564	1540	677	1530	341	503	52	678
28	29	38	37	37	747	1490	604	1290	340	466	51	767
29	29	36	36	37	---	1420	419	1080	341	453	553	688
30	28	34	36	37	---	1330	289	913	340	408	694	694
31	28	---	36	37	---	1240	---	785	---	345	654	---
TOTAL	889	935	1038	1436	2603	89238	21329	15853	27495	12868	8873	18301
MEAN	28.7	31.2	33.5	46.3	93.0	2879	711	511	917	415	286	610
MAX	31	41	37	201	747	14800	1160	2230	2040	645	694	1400
MIN	28	28	29	35	37	499	289	51	252	340	51	51
CAL YR 1985	TOTAL	29305	MEAN	80.3	MAX	684	MIN	11				
WTR YR 1986	TOTAL	200858	MEAN	550	MAX	14800	MIN	28				



## DELAWARE RIVER BASIN

01425000 WEST BRANCH DELAWARE RIVER AT STILESVILLE, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

CHEMICAL DATA: 1959-60 (a) unpublished, 1969 (a), 1970 (a) unpublished, 1971, 1973 (b), 1974 (d), 1975 (b).

MINOR ELEMENTS DATA: 1971 (b).

NUTRIENT DATA: 1970 (a) unpublished, 1971, 1973 (b), 1974 (d), 1975 (b).

BIOLOGICAL DATA:

Bacteria--1973 (b), 1974 (d), 1975 (b).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1962 to current year.

INSTRUMENTATION.--Water-temperature digital recorder since October 1962, provides one-hour-interval punches.

Prior to October 1962, water-temperature recorder provided continuous recordings.

REMARKS.--Water temperature is affected by release of water from upstream reservoir.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1963-78, 1980-82, 1984-86), 30.5°C July 2, 1963; minimum, 0.0°C on many days during winter periods, except 1969, 1973, and 1986.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 20.5°C June 1; minimum, 0.5°C on several days during winter period.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	16.0	9.5	12.0	11.0	4.5	7.0	6.5	5.5	6.0	2.0	1.5	1.5
2	11.5	9.5	10.5	7.5	4.0	6.0	6.5	2.0	5.5	2.0	1.5	1.5
3	10.5	8.5	9.5	10.5	7.0	8.5	2.5	.5	1.5	2.5	2.0	2.0
4	13.0	9.5	11.0	8.0	7.0	7.5	4.0	1.5	2.5	2.5	1.0	2.0
5	12.0	9.5	11.5	9.5	8.0	8.5	3.5	2.5	3.0	2.5	1.0	1.5
6	12.0	8.0	9.5	8.5	7.5	8.0	4.0	3.0	3.5	1.5	1.0	1.0
7	13.0	7.5	10.0	11.5	7.5	9.0	3.5	2.5	3.0	1.0	1.0	1.0
8	15.0	7.0	10.5	10.0	6.0	7.5	4.5	3.5	4.0	1.0	1.0	1.0
9	15.0	8.5	11.5	8.0	5.0	6.5	4.5	4.0	4.5	1.5	1.0	1.0
10	14.0	9.5	12.0	9.0	7.5	8.5	5.0	4.0	4.5	1.5	1.0	1.5
11	13.0	8.0	10.5	8.5	7.0	7.5	5.0	4.5	4.5	2.0	1.0	1.5
12	12.0	6.0	9.0	7.0	6.0	6.5	5.0	3.5	4.5	3.0	1.0	2.0
13	9.5	8.0	8.5	9.0	6.5	7.5	3.0	2.5	3.0	2.0	1.0	1.5
14	11.0	9.0	10.0	8.5	7.5	8.0	2.5	1.0	2.0	1.0	1.0	1.0
15	13.0	10.0	11.5	7.5	4.5	6.5	2.0	1.0	1.5	1.0	1.0	1.0
16	11.5	7.5	9.5	4.5	3.0	3.5	3.0	2.0	2.5	1.0	1.0	1.0
17	13.5	6.5	9.0	6.5	4.0	5.5	3.5	1.5	2.0	2.0	1.0	1.5
18	11.5	6.5	9.0	10.0	6.0	7.5	2.0	1.0	1.5	2.5	2.0	2.0
19	10.0	9.5	9.5	10.0	6.5	8.0	1.5	1.0	1.0	3.5	1.5	2.5
20	10.5	7.5	9.0	12.0	8.5	10.0	1.5	1.0	1.5	4.0	1.5	3.0
21	12.5	5.5	8.5	8.0	4.5	6.5	1.5	1.5	1.5	4.5	1.5	2.5
22	12.5	5.5	8.5	5.0	4.0	4.5	1.5	1.5	1.5	4.0	1.0	2.5
23	13.5	6.0	9.0	8.0	5.0	6.0	2.0	1.5	1.5	4.0	1.0	2.0
24	11.0	8.0	9.5	6.5	4.0	5.0	3.0	2.0	2.5	3.5	1.0	2.0
25	12.5	7.5	10.0	5.5	3.0	4.5	2.5	1.5	1.5	1.5	.5	1.0
26	12.0	5.5	8.0	4.5	3.5	4.0	1.5	1.0	1.5	1.5	.5	1.0
27	12.0	5.5	8.5	5.0	4.0	4.5	1.0	1.0	1.0	2.0	1.0	1.5
28	10.0	5.0	7.5	5.0	4.5	4.5	2.0	1.0	1.5	1.0	1.0	1.0
29	9.5	3.5	6.0	5.5	4.5	5.0	1.5	1.0	1.0	1.0	1.0	1.0
30	7.5	4.0	6.0	5.5	5.0	5.0	1.5	1.5	1.5	1.0	1.0	1.0
31	11.0	6.0	8.0	---	---	---	1.5	1.0	1.5	1.0	1.0	1.0
MONTH	16.0	3.5	9.5	12.0	3.0	6.5	6.5	0.5	2.5	4.5	0.5	1.5

## DELAWARE RIVER BASIN

129

01425000 WEST BRANCH DELAWARE RIVER AT STILESVILLE, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	1.0	1.0	1.0	1.0	.5	.5	4.5	3.0	3.5	10.5	8.5	9.5
2	1.0	.5	1.0	1.0	1.0	1.0	4.5	3.5	4.0	8.5	5.5	7.0
3	2.5	1.0	1.5	1.5	1.0	1.0	4.5	3.0	4.0	8.0	4.0	6.0
4	2.0	1.0	1.5	1.0	1.0	1.0	4.0	3.5	3.5	11.5	4.5	7.5
5	2.5	1.0	1.5	1.5	1.0	1.0	4.0	3.5	4.0	14.0	6.5	9.5
6	3.5	1.5	2.5	1.0	1.0	1.0	4.0	3.5	3.5	11.5	7.0	9.0
7	1.0	.5	1.0	1.0	.5	.5	4.5	3.5	4.0	14.5	7.5	10.5
8	2.0	.5	1.5	.5	.5	.5	5.0	4.0	4.0	10.5	7.0	8.5
9	2.5	1.5	2.0	1.0	.5	.5	4.0	3.5	4.0	15.0	7.5	10.0
10	2.5	1.5	1.5	2.0	1.0	1.0	4.0	3.5	4.0	15.0	6.0	10.0
11	3.0	1.5	2.0	1.5	1.0	1.5	4.0	3.5	4.0	12.5	6.5	9.5
12	1.5	1.0	1.5	1.5	1.5	1.5	4.0	3.5	4.0	14.5	6.5	10.0
13	1.5	1.0	1.5	1.5	1.5	1.5	5.5	3.5	4.0	15.0	6.5	10.5
14	1.5	1.0	1.0	1.5	1.5	1.5	6.0	3.5	4.5	13.5	7.5	10.0
15	1.5	1.0	1.0	1.5	1.5	1.5	4.5	4.5	4.5	11.0	8.0	9.5
16	1.5	1.0	1.0	1.5	1.5	1.5	5.0	4.5	5.0	12.5	8.5	10.0
17	1.5	1.0	1.5	1.5	1.5	1.5	5.5	5.0	5.0	11.0	8.5	10.0
18	2.0	1.5	1.5	2.0	1.5	2.0	7.0	5.0	5.5	15.5	8.0	11.5
19	3.0	2.0	2.5	2.0	2.0	2.0	8.5	5.0	6.5	15.5	8.5	12.0
20	2.5	2.0	2.0	2.0	2.0	2.0	9.0	6.0	7.0	11.5	9.5	10.5
21	2.0	1.5	2.0	2.0	2.0	2.0	8.0	6.0	7.0	15.0	9.5	11.5
22	4.5	1.0	2.0	2.0	2.0	2.0	7.0	6.0	6.5	17.5	15.0	16.5
23	3.5	1.5	2.0	2.5	2.0	2.5	6.5	6.0	6.0	16.0	13.5	15.0
24	4.0	1.5	2.5	2.5	2.0	2.5	8.0	5.5	6.5	16.0	13.5	14.5
25	3.5	.5	2.0	3.0	2.0	2.5	8.5	5.5	7.0	18.0	14.5	16.5
26	.5	.5	.5	3.5	2.5	3.0	9.0	6.5	7.5	19.0	16.5	17.5
27	.5	.5	.5	3.0	2.5	3.0	10.5	7.5	9.0	18.0	16.0	17.5
28	.5	.5	.5	3.0	2.5	3.0	12.0	9.0	10.0	20.0	16.0	17.5
29	---	---	---	4.0	2.5	3.0	11.0	8.5	9.5	19.5	17.0	18.5
30	---	---	---	4.0	3.0	3.5	12.5	9.0	10.0	19.5	18.0	18.5
31	---	---	---	4.0	3.0	3.5	---	---	---	20.5	18.0	19.5
MONTH	4.5	0.5	1.5	4.0	0.5	2.0	12.5	3.0	5.5	20.5	4.0	12.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	20.5	15.5	18.5	9.5	6.0	7.5	8.5	6.5	7.0	13.0	7.0	9.5
2	19.0	16.0	17.5	7.0	6.0	6.5	8.0	6.5	7.0	13.0	9.0	10.5
3	19.0	16.5	17.5	7.5	6.0	6.5	9.0	6.5	7.5	12.0	9.0	10.5
4	19.5	15.5	17.0	9.5	6.0	7.0	9.0	6.5	7.5	10.5	7.0	8.0
5	16.5	15.5	16.0	9.0	6.0	7.5	9.0	6.5	7.5	7.5	7.0	7.5
6	19.0	16.5	17.5	9.5	6.5	7.5	8.5	6.5	7.5	9.0	7.0	8.0
7	20.0	19.0	19.5	9.0	6.5	7.5	9.5	7.0	8.0	10.0	7.5	9.0
8	19.5	18.5	19.0	9.0	6.5	7.5	8.5	6.5	7.5	14.0	8.0	10.0
9	20.0	17.0	19.0	8.0	6.5	7.0	9.0	6.5	7.5	14.0	8.0	10.5
10	20.0	18.0	19.0	8.5	6.0	7.0	8.5	7.0	7.5	13.0	7.0	9.5
11	19.5	18.0	18.5	8.0	6.5	7.0	8.5	7.0	7.5	12.0	7.0	8.5
12	19.5	19.0	19.5	7.0	6.5	7.0	9.0	6.5	7.5	8.0	7.0	7.5
13	19.0	18.5	19.0	8.0	6.5	7.0	9.5	6.5	7.5	8.5	7.0	7.5
14	19.5	17.5	18.5	8.0	6.5	7.0	9.0	6.5	7.5	9.0	6.5	7.5
15	20.0	18.5	19.0	9.0	6.5	7.5	8.5	6.5	7.5	8.0	6.5	7.0
16	19.0	15.0	18.0	8.5	6.5	7.0	9.0	7.0	7.5	7.5	7.0	7.0
17	18.0	14.0	16.5	8.0	6.5	7.0	8.0	7.0	7.5	8.5	7.0	7.5
18	17.0	15.5	16.5	8.5	6.5	7.5	12.0	6.5	8.5	8.0	7.0	7.5
19	15.5	14.5	15.0	8.0	6.5	7.0	13.0	9.5	11.0	7.5	7.0	7.5
20	15.5	14.5	15.0	7.5	6.5	7.0	14.5	9.5	11.5	7.5	7.5	7.5
21	15.5	13.5	14.5	8.0	6.5	7.0	11.5	9.5	10.5	8.0	7.5	7.5
22	14.0	12.0	13.0	9.5	6.0	7.5	13.5	9.0	11.0	7.5	7.5	7.5
23	11.5	10.0	11.0	9.5	6.5	7.5	12.0	9.5	10.5	8.0	7.5	7.5
24	11.0	8.5	10.0	9.5	6.5	7.5	10.5	7.0	8.5	8.5	7.5	8.0
25	9.0	7.5	8.5	8.0	6.5	7.5	12.0	6.5	9.0	8.5	7.5	8.0
26	9.0	6.5	7.5	7.5	6.5	7.0	14.5	9.0	11.0	9.0	7.5	8.0
27	9.5	6.0	7.5	8.0	6.5	7.0	12.0	10.5	11.0	8.5	7.5	8.0
28	7.5	6.0	7.0	8.5	6.5	7.5	11.5	9.5	10.5	8.0	7.5	8.0
29	9.0	6.5	7.5	9.0	6.5	7.5	9.5	6.5	7.5	8.5	7.5	8.0
30	8.0	6.5	7.0	8.0	6.5	7.5	8.5	6.5	7.0	9.0	7.5	8.5
31	---	---	---	8.0	6.5	7.0	9.0	6.5	7.5	---	---	---
MONTH	20.5	6.0	15.0	9.5	6.0	7.0	14.5	6.5	8.5	14.0	6.5	8.0

## DELAWARE RIVER BASIN

01426500 WEST BRANCH DELAWARE RIVER AT HALE EDDY, NY

LOCATION.--Lat 42°00'11", long 75°23'02", Delaware County, Hydrologic Unit 02040101, on left bank at downstream side of bridge on County Highway 56 in Hale Eddy, and 9 mi upstream from confluence of East and West Branches near Hancock. Water-quality sampling site at discharge station.

DRAINAGE AREA.--595 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1912 to current year.

REVISED RECORDS.--WSP 871: 1916. WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 946.46 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 8, 1928, nonrecording gage.

REMARKS.--Estimated daily discharges: Dec. 13 to Mar. 2, and Mar. 6-10. Records good except those for estimated daily discharges, which are poor. Subsequent to October 1963, entire flow from 454 mi<sup>2</sup> drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Satellite gage-height and temperature telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,900 ft<sup>3</sup>/s Mar. 22, 1948, gage height, 15.69 ft; maximum gage height, 15.8 ft Sept. 30, 1924, from graph based on gage readings; minimum discharge, 17 ft<sup>3</sup>/s Oct. 20, 1963; minimum gage height, 1.03 ft Aug. 4, 1936.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 10, 1903, reached a stage of 20.3 ft, from floodmarks, discharge, about 46,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,700 ft<sup>3</sup>/s Mar. 15, gage height, 13.63 ft; minimum, 71 ft<sup>3</sup>/s Sept. 9, 10, gage height, 1.45 ft; minimum daily, 74 ft<sup>3</sup>/s Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	287	107	735	120	200	1000	1480	395	868	392	938	224
2	294	103	1010	120	200	1100	1340	335	872	433	816	90
3	241	99	755	120	200	1050	1210	263	684	412	720	77
4	200	96	560	120	190	968	1110	208	481	390	631	156
5	199	106	449	120	190	890	1030	174	495	383	536	1030
6	175	114	387	120	190	840	1100	162	1280	376	1460	761
7	147	106	326	120	190	760	1110	163	1820	407	2130	117
8	129	105	287	120	190	700	1010	147	2220	495	1020	82
9	117	103	258	120	190	680	944	137	2300	490	791	74
10	106	103	240	120	190	660	931	126	2050	484	639	122
11	100	266	292	120	190	1240	916	121	2070	590	633	250
12	96	366	524	120	190	2030	888	114	1990	605	534	1090
13	118	633	410	120	190	2120	841	106	2030	529	482	987
14	138	793	380	120	200	3610	783	101	1900	693	447	387
15	148	1160	310	120	200	15300	746	98	1890	507	424	319
16	147	890	290	130	200	15900	975	100	1610	443	456	394
17	129	1760	260	270	210	10100	1290	562	1550	417	423	605
18	121	1060	230	500	280	6830	1200	282	1360	426	633	739
19	186	744	200	800	450	7210	1110	217	1090	628	278	1240
20	239	564	190	2000	1200	7940	1020	309	956	598	183	1230
21	188	439	180	1400	800	5890	981	750	834	508	151	1070
22	170	386	170	700	680	4420	956	1500	695	390	137	976
23	156	373	160	800	560	3500	1000	2280	586	378	126	917
24	155	306	150	700	480	2880	1090	2580	520	370	329	780
25	190	260	150	600	430	2410	1210	2410	463	605	280	810
26	158	350	140	1500	500	2210	1100	2070	416	657	142	795
27	149	792	130	900	700	2250	998	1740	404	966	108	611
28	135	938	130	450	900	2190	897	1460	410	668	100	828
29	127	796	130	250	---	1980	699	1250	424	677	456	673
30	123	667	120	230	---	1820	520	1050	403	881	668	716
31	115	---	120	210	---	1650	---	915	---	1450	686	---
TOTAL	4983	14585	9673	13240	10290	112128	30485	22125	34671	17248	17357	18150
MEAN	161	486	312	427	368	3617	1016	714	1156	556	560	605
MAX	294	1760	1010	2000	1200	15900	1480	2580	2300	1450	2130	1240
MIN	96	96	120	120	190	660	520	98	403	370	100	74

CAL YR 1985 TOTAL 92285 MEAN 253 MAX 3610 MIN 37  
WTR YR 1986 TOTAL 304935 MEAN 835 MAX 15900 MIN 74

01426500 WEST BRANCH DELAWARE RIVER AT HALE EDDY, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-59, 1968 to current year.

CHEMICAL DATA: 1958-59 (d), 1970 (b), 1971-74 (d), 1975 (c).

MINOR ELEMENTS DATA: 1971-74 (a).

ORGANIC DATA: OC--1974 (a), 1975 (c).

NUTRIENT DATA: 1971-74 (d), 1975 (c).

BIOLOGICAL DATA:

Bacteria--1971, 1973 (c); 1974 (d); 1975 (c).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1967 to current year (no winter record for water years 1969-77).

INSTRUMENTATION.--Water-temperature digital recorder since April 1977, provides one-hour-interval punches.

Prior to October 1976, water-temperature recorder provided continuous recordings.

REMARKS.--Water temperature is affected by release of water from upstream reservoir. Interruption of record was due to probe being out of the water.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-77, 1979-83, 1985), 30.5°C July 22, 23, 1972, June 16, 1981; minimum (water years 1968, 1978-86), 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 24.0°C Aug. 20; minimum, 0.0°C on many days during winter period.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	16.5	13.0	14.5	9.5	5.0	7.0	5.0	4.5	4.5	.0	.0	.0
2	15.5	12.5	14.0	6.0	4.5	5.5	5.5	2.5	5.0	.0	.0	.0
3	12.5	11.0	12.0	9.5	6.0	7.5	2.0	.5	1.0	.0	.0	.0
4	13.5	12.0	13.0	7.5	7.5	7.5	1.5	.5	.0	.0	.0	.0
5	15.5	12.5	14.0	9.0	7.5	8.5	1.0	1.0	.0	.0	.0	.0
6	14.0	11.0	12.5	9.0	8.0	8.5	2.0	1.0	1.5	.0	.0	.0
7	14.5	9.5	12.0	11.0	7.5	9.5	2.0	1.0	1.0	.0	.0	.0
8	15.0	9.5	12.0	10.5	6.5	8.5	2.5	1.5	2.0	.0	.0	.0
9	16.5	11.0	13.5	7.0	5.5	6.5	3.0	2.5	3.0	.0	.0	.0
10	16.5	13.0	15.0	9.0	7.0	8.0	3.5	3.0	3.5	.0	.0	.0
11	15.5	11.0	13.5	9.0	7.5	8.5	4.0	3.5	3.5	.0	.0	.0
12	12.5	9.0	11.0	7.0	6.0	6.0	4.0	3.0	3.5	.0	.0	.0
13	10.5	9.5	10.0	9.0	6.5	7.5	2.5	2.0	2.0	.0	.0	.0
14	12.5	10.5	11.5	9.0	8.0	8.5	2.0	.0	1.0	.0	.0	.0
15	15.0	12.5	14.0	8.5	5.5	7.0	.0	.0	.0	.0	.0	.0
16	13.5	10.0	12.5	5.5	3.0	4.0	.5	.0	.0	.0	.0	.0
17	13.5	8.5	10.5	6.5	4.0	5.5	1.0	.0	.5	.0	.0	.0
18	11.5	8.5	10.0	8.0	6.5	7.0	.0	.0	.0	.0	.0	.0
19	11.5	11.0	11.5	9.0	7.0	8.0	.0	.0	.0	.0	.0	.0
20	11.5	10.0	11.0	11.5	9.0	10.5	.0	.0	.0	.0	.0	.0
21	11.5	7.5	9.5	9.0	5.0	7.0	.0	.0	.0	.0	.0	.0
22	11.5	7.0	9.0	5.0	4.0	4.5	.0	.0	.0	.0	.0	.0
23	12.0	7.5	9.5	6.0	4.0	5.0	.0	.0	.0	1.5	.0	.5
24	11.0	9.5	10.0	5.0	4.0	4.5	.0	.0	.0	.0	.0	.0
25	14.0	10.0	11.5	4.5	2.5	3.5	.0	.0	.0	.0	.0	.0
26	11.5	7.5	9.5	3.5	2.5	3.0	.0	.0	.0	.0	.0	.0
27	11.5	7.0	9.0	4.0	3.0	4.0	.0	.0	.0	.0	.0	.0
28	10.0	6.5	8.5	4.0	4.0	4.0	.0	.0	.0	.0	.0	.0
29	8.5	4.0	6.0	4.5	4.0	4.0	.0	.0	.0	.0	.0	.0
30	6.0	4.5	5.0	4.5	4.5	4.5	.0	.0	.0	.0	.0	.0
31	9.5	5.5	7.0	---	---	---	.0	.0	.0	.0	.0	.0
MONTH	16.5	4.0	11.0	11.5	2.5	6.5	5.5	0.0	1.0	1.5	0.0	0.0



## DELAWARE RIVER BASIN

01426500 WEST BRANCH DELAWARE RIVER AT HALE EDDY, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	.0	.0	.0	.0	.0	.0	8.0	3.5	5.5	12.0	10.0	11.5
2	.0	.0	.0	1.0	.0	.5	7.5	4.5	5.5	10.5	6.5	8.5
3	.0	.0	.0	3.0	.5	1.5	8.0	3.0	5.0	9.5	4.5	7.0
4	.0	.0	.0	1.5	.5	1.0	5.0	4.0	4.5	14.0	5.0	9.5
5	.0	.0	.0	3.5	1.0	2.0	5.5	4.0	4.5	---	---	---
6	.0	.0	.0	1.5	1.0	1.0	4.5	3.5	4.0	---	---	---
7	.0	.0	.0	1.0	.0	.5	6.5	3.5	5.0	---	---	---
8	.0	.0	.0	1.5	.0	.5	8.5	4.5	6.0	---	---	---
9	.0	.0	.0	1.0	.0	.5	5.5	4.0	5.0	---	---	---
10	.0	.0	.0	4.5	.5	2.0	5.0	3.5	4.0	---	---	---
11	.0	.0	.0	2.0	1.0	1.5	5.0	3.0	4.0	---	---	---
12	.0	.0	.0	2.0	1.0	1.5	5.5	3.5	4.5	---	---	---
13	.0	.0	.0	1.5	1.5	1.5	8.5	2.5	5.0	---	---	---
14	.0	.0	.0	1.5	1.0	1.5	10.0	3.0	6.5	---	---	---
15	.0	.0	.0	2.0	1.0	1.5	6.0	4.0	5.0	---	---	---
16	.0	.0	.0	2.0	2.0	2.0	6.0	5.0	5.5	---	---	---
17	.0	.0	.0	2.0	2.0	2.0	7.0	5.5	6.0	---	---	---
18	.0	.0	.0	3.0	1.5	2.5	11.0	4.5	7.5	---	---	---
19	.0	.0	.0	3.5	2.5	3.0	11.5	5.5	8.0	---	---	---
20	.0	.0	.0	3.0	1.5	2.0	10.0	7.0	8.5	19.0	17.0	18.0
21	.0	.0	.0	2.5	1.5	2.0	8.5	7.0	8.0	17.0	15.0	15.5
22	.0	.0	.0	3.0	1.5	2.0	6.5	5.5	6.5	16.0	14.0	15.0
23	.0	.0	.0	3.5	1.5	2.5	7.0	4.0	5.0	16.0	13.5	15.0
24	.0	.0	.0	4.0	2.0	2.5	10.5	4.0	7.0	15.0	13.0	14.0
25	.0	.0	.0	5.0	1.5	3.0	10.5	5.5	8.0	18.5	14.0	16.0
26	.0	.0	.0	5.5	2.5	4.0	10.5	7.0	8.5	19.0	15.5	17.5
27	.0	.0	.0	4.5	3.5	4.0	13.0	8.0	10.0	19.5	16.5	17.5
28	.0	.0	.0	5.0	3.0	3.5	15.5	8.5	11.5	19.5	15.0	17.0
29	---	---	---	6.5	3.0	4.5	11.5	9.5	11.0	21.5	16.0	18.5
30	---	---	---	7.0	3.5	5.0	15.5	8.5	12.0	21.5	16.5	18.5
31	---	---	---	7.0	3.5	5.0	---	---	---	21.5	17.5	19.0
MONTH	0.0	0.0	0.0	7.0	0.0	2.0	15.5	2.5	6.5	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	23.5	18.0	20.0	16.0	7.5	11.5	17.0	13.0	14.5	17.0	8.0	12.0
2	18.0	15.5	16.5	12.0	9.5	10.5	15.0	12.5	13.5	20.5	14.5	17.0
3	20.5	14.0	17.0	14.5	8.0	11.0	16.5	12.0	14.0	21.0	16.0	18.0
4	22.5	14.0	18.0	16.0	7.5	11.5	17.0	12.0	14.0	18.0	12.5	16.0
5	19.0	16.5	17.5	16.5	8.5	12.5	16.5	11.0	13.5	10.5	8.0	8.5
6	16.5	16.0	16.5	18.5	9.0	13.5	17.5	11.0	13.5	12.0	8.0	9.5
7	19.5	16.5	18.0	18.0	9.5	13.5	18.5	15.0	16.5	14.0	10.5	11.5
8	20.0	17.5	18.5	17.0	9.0	12.5	16.5	13.5	15.0	19.0	11.0	14.5
9	20.0	16.5	18.5	13.0	9.0	11.0	16.5	12.5	14.5	20.5	12.0	16.0
10	20.5	16.5	18.5	15.5	7.0	11.0	14.5	11.5	13.5	18.5	13.5	15.5
11	19.0	17.5	18.0	12.0	7.0	10.0	16.0	12.5	14.0	16.5	13.0	16.0
12	18.0	17.0	17.5	10.5	8.0	9.5	15.5	10.5	13.0	11.0	8.5	9.5
13	18.0	17.0	17.5	14.0	10.0	11.5	16.5	10.0	13.0	11.5	7.5	9.0
14	20.5	16.5	18.0	15.5	11.5	13.0	15.5	9.5	12.5	13.5	7.0	10.0
15	19.0	15.5	17.0	17.5	10.0	13.5	14.5	10.0	12.5	10.5	7.5	9.0
16	19.5	15.0	17.0	14.5	10.0	12.0	15.5	10.5	13.0	9.5	7.5	9.0
17	17.5	12.0	14.5	14.5	9.5	12.0	13.5	10.5	12.0	12.0	6.5	9.0
18	16.5	12.5	14.5	16.0	10.0	13.0	18.5	11.0	15.0	9.5	7.0	8.0
19	15.0	12.0	13.5	13.0	9.0	11.0	22.5	17.0	19.5	8.5	7.5	8.0
20	16.0	12.5	14.0	11.0	9.0	10.0	24.0	17.5	20.5	8.0	7.5	8.0
21	18.5	12.0	14.5	14.0	9.0	11.0	20.5	17.5	19.0	9.5	8.0	8.5
22	17.0	12.0	14.5	17.5	9.0	13.0	23.0	16.5	19.0	8.5	7.5	8.0
23	18.0	11.5	14.5	18.0	9.5	13.5	20.0	17.0	18.5	9.5	8.0	9.0
24	16.0	10.5	13.0	17.5	9.5	13.0	18.0	14.0	15.5	11.0	8.5	9.5
25	15.5	9.0	12.0	14.5	8.5	11.0	16.5	12.0	14.5	10.0	8.0	9.0
26	16.5	8.0	12.0	11.5	8.5	10.0	21.5	13.5	17.5	12.0	8.5	9.5
27	15.0	8.5	12.0	15.5	10.0	13.5	20.5	18.0	19.0	12.0	8.5	10.5
28	15.0	9.5	12.0	16.0	10.0	12.5	19.0	14.5	17.0	9.5	8.5	9.0
29	17.5	9.0	13.0	15.0	10.0	12.5	14.0	8.5	11.5	10.5	8.5	10.5
30	15.0	9.0	12.0	14.5	12.5	13.5	12.5	7.0	9.0	13.0	8.5	10.0
31	---	---	---	16.0	14.0	15.5	13.5	7.0	9.5	---	---	---
MONTH	23.5	8.0	15.5	18.5	7.0	12.0	24.0	7.0	15.0	21.0	6.5	11.0

## DELAWARE RIVER BASIN

133

01427207 DELAWARE RIVER AT LORDVILLE, NY

LOCATION.--Lat 41°52'05", long 75°12'50", Delaware County, Hydrologic Unit 02040101, at Lordville-Equinunk Interstate Bridge at Lordville, 50 ft downstream from Humphries Brook, and 6.5 mi southeast of Hancock.

DRAINAGE AREA.--1,590 mi<sup>2</sup>.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1967 to August 1971, June 1973 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

INSTRUMENTATION.--Water-temperature digital recorder since June 1973, provides one-hour interval punches. Prior to August 1971, water-temperature recorder provided continuous recordings.

REMARKS.--Interruption of record was due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-70, 1973, 1975-86) 30.5°C June 16, 1976, July 10, 1981; minimum (water years 1968-71, 1974, 1977-78, 1980-86), 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 26.0°C July 8; minimum, 0.0°C on many days during winter period.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	16.0	14.0	15.0	7.5	5.5	6.5	5.0	4.5	4.5	.0	.0	.0
2	16.0	14.5	15.5	6.5	5.5	6.0	5.5	3.5	5.0	.0	.0	.0
3	14.0	13.0	13.5	7.5	6.5	7.0	3.5	1.0	2.0	.0	.0	.0
4	14.0	13.0	13.5	7.5	7.5	7.5	1.0	.5	1.0	.0	.0	.0
5	14.5	13.5	14.0	8.5	7.5	8.5	1.5	.5	1.0	.0	.0	.0
6	13.5	12.0	12.5	9.0	8.5	9.0	2.0	.0	1.5	.0	.0	.0
7	13.0	10.5	12.0	10.0	8.0	9.0	1.5	1.0	1.5	.0	.0	.0
8	13.0	10.5	11.5	9.5	8.0	8.5	2.5	1.5	2.0	.0	.0	.0
9	14.0	11.5	13.0	7.5	6.5	7.5	3.0	2.5	2.5	.0	.0	.0
10	15.5	13.0	14.5	8.5	7.5	8.0	3.5	3.0	3.0	.0	.0	.0
11	15.0	13.0	14.0	8.5	8.0	8.5	3.5	3.5	3.5	.0	.0	.0
12	13.0	11.0	12.0	8.0	7.0	7.0	3.5	3.0	3.5	.0	.0	.0
13	11.5	10.5	11.0	8.0	7.0	7.5	3.0	1.5	2.5	.0	.0	.0
14	12.5	11.0	11.5	8.5	8.5	8.5	1.5	.0	1.0	.0	.0	.0
15	14.0	12.5	13.0	8.5	6.5	7.5	.0	.0	.0	.0	.0	.0
16	14.0	12.5	13.0	6.0	3.5	4.5	.0	.0	.0	.0	.0	.0
17	12.5	10.5	11.5	6.0	4.0	5.0	.0	.0	.0	.0	.0	.0
18	11.5	10.0	11.0	7.0	6.0	6.5	.0	.0	.0	.0	.0	.0
19	11.5	11.0	11.5	8.0	7.0	7.5	.0	.0	.0	.0	.0	.0
20	11.5	10.5	11.0	10.5	8.0	9.5	.0	.0	.0	.0	.0	.0
21	11.0	9.0	10.0	9.5	6.0	8.0	.0	.0	.0	.5	.0	.0
22	10.5	8.5	9.5	6.0	4.5	5.0	.0	.0	.0	.5	.0	.5
23	11.0	8.5	9.5	5.5	4.5	5.0	.0	.0	.0	.5	.0	.5
24	10.5	9.5	10.0	5.0	4.0	4.5	.0	.0	.0	.0	.0	.0
25	12.0	10.0	11.0	4.0	3.0	3.5	.0	.0	.0	.0	.0	.0
26	10.5	9.0	10.0	3.5	3.0	3.0	.0	.0	.0	.0	.0	.0
27	10.0	8.0	9.0	4.0	3.0	3.5	.0	.0	.0	.0	.0	.0
28	9.5	8.0	8.5	4.0	4.0	4.0	.0	.0	.0	.0	.0	.0
29	8.0	6.0	7.0	4.5	4.0	4.0	.0	.0	.0	.0	.0	.0
30	6.5	5.5	6.0	4.5	4.5	4.5	.0	.0	.0	.0	.0	.0
31	7.5	5.5	6.5	---	---	---	.0	.0	.0	.0	.0	.0
MONTH	16.0	5.5	11.5	10.5	3.0	6.5	5.5	0.0	1.0	0.5	0.0	0.0

## DELAWARE RIVER BASIN

01427207 DELAWARE RIVER AT LORDVILLE, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	.0	.0	.0	.0	.0	.0	9.5	6.5	8.0	14.0	11.5	12.5
2	.0	.0	.0	.0	.0	.0	9.5	7.5	8.5	11.5	8.0	10.0
3	.0	.0	.0	.0	.0	.0	9.0	6.5	8.0	9.0	6.5	7.5
4	.0	.0	.0	.0	.0	.0	8.5	6.5	7.5	10.5	6.5	8.5
5	.0	.0	.0	.0	.0	.0	7.0	6.0	6.5	14.5	9.5	12.0
6	.0	.0	.0	.0	.0	.0	6.5	4.5	5.5	15.5	13.0	14.5
7	.0	.0	.0	.5	.0	.0	7.0	4.5	6.0	19.0	15.0	16.5
8	.0	.0	.0	.5	.0	.0	9.0	6.5	8.0	17.0	15.0	16.0
9	.0	.0	.0	.0	.0	.0	8.5	6.5	7.5	17.5	13.0	15.0
10	.0	.0	.0	.5	.0	.0	6.5	5.0	6.0	18.0	13.5	15.5
11	.0	.0	.0	.0	.0	.0	5.5	4.5	5.0	17.5	14.0	16.0
12	.0	.0	.0	.0	.0	.0	6.0	4.5	5.0	18.5	13.5	16.0
13	.0	.0	.0	1.0	.0	.5	7.5	4.0	6.0	19.5	14.5	17.0
14	.0	.0	.0	1.0	.5	1.0	10.0	6.0	8.0	19.0	16.0	17.5
15	.0	.0	.0	1.5	.0	1.0	9.0	7.5	8.0	17.0	15.0	15.5
16	.0	.0	.0	2.5	1.5	2.0	7.0	6.5	6.5	17.0	14.5	15.5
17	.0	.0	.0	2.5	2.0	2.0	7.0	5.5	6.5	17.5	15.5	16.5
18	.0	.0	.0	4.0	1.5	2.5	10.0	5.5	8.0	20.5	16.0	18.0
19	.0	.0	.0	4.0	3.0	3.5	11.5	8.0	10.0	22.5	19.0	20.5
20	.0	.0	.0	3.5	1.5	3.0	11.5	9.5	11.0	21.0	19.0	20.0
21	.0	.0	.0	2.5	.5	1.5	11.0	9.0	10.0	19.0	16.0	17.5
22	.0	.0	.0	3.0	.5	2.0	9.0	6.0	7.5	16.0	14.5	15.0
23	.0	.0	.0	4.0	1.5	2.5	6.0	3.5	4.0	15.0	13.5	14.5
24	.0	.0	.0	4.0	2.0	3.0	8.5	4.0	6.0	15.0	12.5	14.0
25	.0	.0	.0	5.0	2.0	3.5	10.5	6.5	8.5	17.5	13.5	15.0
26	.0	.0	.0	7.0	3.5	5.0	11.0	9.0	10.0	18.5	15.5	17.0
27	.0	.0	.0	6.5	5.0	6.0	12.5	9.5	11.0	19.0	16.0	17.5
28	.0	.0	.0	5.5	4.0	5.0	15.0	11.0	13.0	19.5	16.5	18.5
29	---	---	---	7.5	4.5	6.0	14.5	13.0	13.5	21.0	17.0	19.0
30	---	---	---	9.0	6.0	7.5	14.5	11.5	13.0	21.5	18.5	20.0
31	---	---	---	9.5	7.0	8.5	---	---	---	21.5	20.0	21.0
MONTH	0.0	0.0	0.0	9.5	0.0	2.0	15.0	3.5	8.0	22.5	6.5	16.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	23.5	20.0	21.5	21.5	18.0	19.5	20.5	18.0	19.5	17.5	14.5	16.0
2	22.5	17.0	20.5	20.5	18.0	19.0	19.5	18.5	19.0	21.0	17.0	18.5
3	19.0	14.5	17.0	19.0	16.0	17.5	20.5	18.0	19.5	21.5	19.0	20.0
4	20.5	16.0	18.5	20.0	16.0	18.0	21.5	19.0	20.5	20.0	18.5	19.5
5	20.0	19.0	19.5	22.0	18.5	20.0	21.5	19.5	20.5	18.5	13.5	17.0
6	19.0	16.5	17.5	25.0	20.5	22.5	21.5	20.0	21.0	15.5	12.5	14.0
7	17.5	16.0	16.5	25.5	23.0	24.5	20.5	17.5	19.0	15.5	13.5	14.5
8	20.0	17.5	18.5	26.0	23.0	24.5	20.5	19.0	19.5	18.0	14.0	15.5
9	19.5	17.0	18.5	24.5	22.0	23.0	21.0	19.5	20.0	19.5	15.0	17.0
10	20.5	16.5	18.5	21.5	19.0	20.5	20.5	19.0	20.0	20.0	16.0	17.5
11	20.5	18.5	19.5	20.5	18.0	19.5	21.5	19.5	20.5	21.5	18.0	20.0
12	19.5	16.5	18.0	19.0	15.5	17.0	20.0	18.5	19.5	20.5	15.5	19.0
13	17.0	15.5	16.0	17.5	15.0	16.0	20.5	17.5	19.0	15.5	13.0	14.0
14	20.0	16.0	18.0	18.0	16.5	17.5	21.0	18.0	19.5	15.5	12.5	14.0
15	20.0	17.5	19.0	21.0	17.0	19.0	20.5	18.5	19.5	14.5	13.0	14.0
16	20.5	18.0	19.0	20.5	19.0	20.0	21.0	19.0	20.0	13.5	12.0	13.0
17	20.0	17.0	18.5	21.0	18.5	19.5	21.0	20.0	20.5	14.0	10.0	12.0
18	17.0	15.0	16.5	23.0	20.0	21.5	20.5	19.0	20.0	---	---	---
19	16.5	14.5	15.5	23.0	19.5	21.5	23.0	20.0	21.0	---	---	---
20	18.0	15.0	16.5	19.5	18.0	19.0	23.5	21.5	22.5	---	---	---
21	20.0	15.5	17.5	20.5	17.5	19.0	23.0	21.0	22.5	---	---	---
22	20.5	17.5	19.0	22.5	18.0	20.0	23.0	20.0	21.5	---	---	---
23	21.5	18.5	20.0	24.5	20.5	22.5	21.5	20.0	21.0	---	---	---
24	20.5	18.5	19.5	24.5	21.5	23.0	21.0	18.5	20.0	---	---	---
25	19.5	16.5	18.0	23.0	21.5	22.5	19.5	16.5	18.0	---	---	---
26	20.5	16.0	18.0	21.0	18.5	19.5	21.0	17.5	19.5	---	---	---
27	21.5	18.0	20.0	21.0	17.0	19.0	21.5	20.0	21.0	---	---	---
28	22.0	19.5	20.5	22.0	20.5	21.0	20.5	17.5	19.0	---	---	---
29	23.5	20.0	21.5	22.0	20.5	21.5	17.5	15.5	17.0	---	---	---
30	22.0	20.0	21.0	21.0	18.5	20.0	16.5	13.5	15.0	---	---	---
31	---	---	---	20.5	18.0	19.0	16.5	13.5	15.0	---	---	---
MONTH	23.5	14.5	18.5	26.0	15.0	20.0	23.5	13.5	19.5	---	---	---

## DELAWARE RIVER BASIN

135

01427510 DELAWARE RIVER AT CALLICOON, NY

LOCATION.--Lat 41°45'24", long 75°03'30", Wayne County, Pennsylvania, Hydrologic Unit 02040101, on right bank, 0.5 mi downstream from Callicoon Creek, 0.5 mi downstream from Interstate Bridge 7, and 0.8 mi southeast of Callicoon. Water-quality sampling site at discharge station.

DRAINAGE AREA.--1,820 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1975 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 734.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 19 to Jan. 20, Jan. 30 to Feb. 17, and Feb. 27 to Mar. 8. Records good except those for estimated daily discharges, which are poor. Subsequent to September 1954, entire flow from 371 mi<sup>2</sup> of drainage area controlled by Pepacton Reservoir (see Reservoirs in Delaware River Basin), and subsequent to October 1963, entire flow from 454 mi<sup>2</sup> of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow from these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during period of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Satellite gage-height and temperature telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,000 ft<sup>3</sup>/s Mar. 15, 1986, gage-height, 13.42 ft; maximum gage height, 14.83 ft Jan. 9, 1979 (ice jam); minimum discharge, 307 ft<sup>3</sup>/s Aug. 23, 1985; minimum gage height, 2.20 ft Sept. 13, 1977, Aug. 23, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 68,000 ft<sup>3</sup>/s Mar. 15, gage height, 13.42 ft; minimum, 399 ft<sup>3</sup>/s Sept. 10, 11, gage height, 2.42 ft.

REVISIONS.--The maximum discharges for all previous water years, except 1985, have been revised as shown in the following table. They supersede figures published in WDR NY Vol. 1, 1975-84.

Water year	Date	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Water year	Date	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
1975	Sept. 25, 1975	18,200	7.08	1980	Mar. 22, 1980	45,800	10.90
1976	Jan. 27, 1976	47,600	11.11	1981	Feb. 12, 1981	466,000	13.19
1977	Mar. 14, 1977	50,900	11.49	1982	Apr. 4, 1982	23,000	7.86
1978	Jan. 9, 1978	41,300	10.36	1983	Apr. 16, 1983	37,600	9.89
1979	Mar. 6, 1979	43,900	10.68	1984	May 29, 1984	44,200	10.71

a Result of ice jam release.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2940	1100	5210	700	1350	2400	4900	1920	2280	888	2590	950
2	2330	1030	7540	680	1400	2300	4250	1740	1940	1180	2280	561
3	2040	1000	7010	680	1350	2200	3680	1520	1700	1330	2500	468
4	1760	954	5060	700	1300	2100	3250	1360	1360	1090	1950	442
5	4260	970	4070	680	1300	2000	3060	1250	1220	948	1590	643
6	5220	1180	3540	660	1250	1900	3250	1160	3620	903	1370	1360
7	3310	1340	3060	620	1200	1600	3620	1120	4420	854	3980	954
8	2490	1200	2670	600	1100	1200	3440	1020	5840	862	2940	528
9	2040	1090	2400	610	1050	1410	3010	939	5660	954	2110	441
10	1770	1050	2180	640	1000	1620	2780	879	4930	918	1760	403
11	1550	1170	2190	620	980	2140	2630	830	4140	863	1750	438
12	1360	1820	3140	600	960	3820	2480	798	6070	1020	1670	730
13	1340	3130	3170	600	940	4210	2270	754	7350	1330	1350	1300
14	1420	3920	2890	580	920	8360	2060	704	6300	1860	1200	1050
15	1460	6210	2480	560	900	54800	1900	663	5240	1620	1130	627
16	1470	5520	2250	620	930	35200	2520	644	4350	1220	1100	584
17	1390	11400	2130	800	1000	20400	4350	1190	3970	1060	1140	638
18	1230	9460	1890	917	1100	14400	4070	1610	3540	976	1230	879
19	1190	6780	1500	1600	1490	17500	3360	1150	2800	1040	1390	1030
20	1530	5250	1300	8400	2540	24400	2940	1110	2340	1150	961	1520
21	1530	4050	1250	8540	3640	14600	2720	3330	2100	1080	786	1320
22	1370	3320	1200	5280	4660	10500	2850	8640	1750	969	733	1240
23	1270	3320	1100	4010	4050	8470	2940	11100	1490	835	673	1210
24	1290	2930	1050	3130	3450	7670	3190	9110	1290	768	694	1120
25	1850	2470	960	2360	2930	6850	4010	8380	1170	742	872	1080
26	2010	2570	940	3120	2650	6510	3660	7010	1060	1120	750	1220
27	1640	4740	880	3890	2400	7070	3350	5700	978	1400	600	1140
28	1480	6620	840	2700	2500	7330	3030	4410	1050	1410	528	1140
29	1340	6980	800	1650	---	6630	2650	3310	1090	1270	495	1060
30	1240	5650	760	1600	---	6080	2270	2630	999	2660	858	1020
31	1170	---	740	1500	---	5600	---	2220	---	2840	1000	---
TOTAL	58290	108224	76200	59647	50340	291270	94490	88201	92047	37160	43980	27096
MEAN	1880	3607	2458	1924	1798	9396	3150	2845	3068	1199	1419	903
MAX	5220	11400	7540	8540	4660	54800	4900	11100	7350	2840	3980	1520
MIN	1170	954	740	560	900	1200	1900	644	978	742	495	403
CAL YR 1985	TOTAL	612953	MEAN	1679	MAX	20500	MIN	312				
WTR YR 1986	TOTAL	1026945	MEAN	2814	MAX	54800	MIN	403				



## DELAWARE RIVER BASIN

01427510 DELAWARE RIVER AT CALLICOON, NY--Continued

## WATER-QUALITY RECORDS

## PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: June 1975 to current year.

INSTRUMENTATION.--Water-temperature digital recorder since June 1975, provides one-hour-interval punches.

REMARKS.--Interruptions of record were due to malfunction of recording instrument.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1976-84), 29.5°C Aug. 7-9, 1980; minimum, 0.0°C on many days during winter periods.

## EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 29.0°C July 7, but may have been higher during period of instrument malfunction; minimum, 0.0°C on many days during winter period.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	17.0	15.0	15.5	7.5	5.5	6.5	4.5	4.5	4.5	.0	.0	.0
2	16.0	15.0	15.5	7.0	5.5	6.0	5.5	4.5	5.0	.0	.0	.0
3	15.0	14.0	14.5	8.5	7.0	7.5	4.5	1.0	2.5	.0	.0	.0
4	14.0	13.5	14.0	8.0	7.5	7.5	1.0	.5	1.0	.0	.0	.0
5	14.5	13.5	14.0	9.5	7.5	8.5	1.0	.5	.5	.0	.0	.0
6	13.5	12.5	13.0	9.5	8.5	9.0	1.5	1.0	1.0	.0	.0	.0
7	13.5	11.5	12.5	10.0	8.5	9.0	1.5	1.0	1.5	.0	.0	.0
8	13.5	11.0	12.5	9.5	8.0	8.5	2.0	1.5	2.0	.0	.0	.0
9	15.0	11.5	13.0	8.5	6.5	7.5	2.5	2.0	2.5	.0	.0	.0
10	16.0	13.5	14.5	8.5	8.0	8.5	3.5	2.5	3.0	.0	.0	.0
11	15.0	13.5	14.5	8.5	8.5	8.5	3.5	3.5	3.5	.0	.0	.0
12	13.5	11.0	12.5	8.0	7.5	7.5	4.0	3.5	3.5	.0	.0	.0
13	12.5	11.0	11.5	8.0	7.0	7.5	3.0	2.0	2.5	.0	.0	.0
14	12.5	11.5	12.0	8.5	8.0	8.0	2.0	.0	1.5	.0	.0	.0
15	14.0	12.5	13.0	8.5	7.0	8.0	.0	.0	.0	.0	.0	.0
16	14.0	12.5	13.0	7.0	4.0	5.5	.0	.0	.0	.0	.0	.0
17	13.5	11.0	12.0	5.5	4.0	4.5	.0	.0	.0	.0	.0	.0
18	13.0	10.5	11.5	7.0	5.5	6.5	.0	.0	.0	.0	.0	.0
19	12.0	11.5	12.0	8.0	7.0	7.5	.0	.0	.0	.0	.0	.0
20	12.0	11.0	11.5	9.5	8.0	9.0	.0	.0	.0	.0	.0	.0
21	12.0	9.5	10.5	9.5	7.0	8.5	.0	.0	.0	.0	.0	.0
22	11.5	9.0	10.0	7.0	5.0	6.0	.0	.0	.0	.5	.0	.0
23	11.5	9.0	10.5	5.0	4.5	5.0	.0	.0	.0	.5	.0	.0
24	10.5	9.5	10.0	5.0	4.5	4.5	.0	.0	.0	.0	.0	.0
25	12.0	10.5	11.0	4.5	3.5	4.0	.0	.0	.0	.0	.0	.0
26	11.5	9.5	10.5	3.5	3.0	3.0	.0	.0	.0	.0	.0	.0
27	11.0	8.5	10.0	3.5	3.0	3.5	.0	.0	.0	.0	.0	.0
28	10.0	8.0	9.0	4.0	3.5	4.0	.0	.0	.0	.0	.0	.0
29	8.0	6.5	7.5	4.0	4.0	4.0	.0	.0	.0	.0	.0	.0
30	7.0	5.5	6.5	4.5	4.0	4.5	.0	.0	.0	.0	.0	.0
31	7.5	6.0	6.5	---	---	---	.0	.0	.0	.0	.0	.0
MONTH	17.0	5.5	12.0	10.0	3.0	6.5	5.5	0.0	1.0	0.5	0.0	0.0

## DELAWARE RIVER BASIN

137

01427510 DELAWARE RIVER AT CALLICOON, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	.0	.0	.0	.5	.0	.0	10.5	8.0	9.5	14.0	12.5	13.5
2	.0	.0	.0	.0	.0	.0	11.0	9.0	10.0	12.5	9.0	10.5
3	.0	.0	.0	1.0	.0	.5	11.0	8.0	9.5	11.0	7.5	9.0
4	.0	.0	.0	.0	.0	.0	8.5	7.5	8.5	12.0	7.0	9.5
5	.0	.0	.0	1.5	.0	.5	8.0	7.0	7.5	16.0	9.5	12.5
6	.0	.0	.0	.5	.0	.0	7.0	5.5	6.0	17.0	12.5	15.0
7	.0	.0	.0	.0	.0	.0	7.5	5.0	6.5	20.0	15.0	17.5
8	.0	.0	.0	.0	.0	.0	10.0	6.5	8.5	18.5	15.0	17.0
9	.0	.0	.0	.0	.0	.0	9.0	7.5	8.5	19.0	14.0	16.5
10	.0	.0	.0	.5	.0	.0	7.5	5.5	6.5	19.5	13.5	17.0
11	.0	.0	.0	.5	.0	.5	6.5	5.0	5.5	18.5	14.5	17.0
12	.0	.0	.0	.5	.0	.0	6.5	5.0	5.5	19.5	14.0	17.0
13	.0	.0	.0	.0	.0	.0	9.0	4.0	6.5	20.5	14.5	18.0
14	.0	.0	.0	.5	.0	.0	11.0	6.0	8.5	19.5	16.0	18.0
15	.0	.0	.0	1.5	.0	.5	9.5	7.5	8.5	17.5	15.5	16.5
16	.0	.0	.0	2.5	1.5	2.0	8.0	7.0	7.5	17.5	15.5	16.5
17	.0	.0	.0	2.5	2.0	2.5	7.0	6.5	6.5	19.5	16.5	17.5
18	.0	.0	.0	3.5	2.0	3.0	10.5	6.0	8.5	21.0	16.5	19.0
19	.0	.0	.0	4.0	3.5	3.5	13.0	8.5	10.5	24.0	18.0	21.0
20	.0	.0	.0	4.0	2.0	3.5	13.0	10.0	11.5	22.5	20.0	21.0
21	.0	.0	.0	2.0	1.0	1.5	11.5	10.0	11.0	20.0	17.5	18.5
22	.0	.0	.0	2.5	1.0	1.5	10.0	7.0	9.0	17.5	15.0	16.0
23	.0	.0	.0	3.5	2.0	3.0	6.5	4.5	5.0	15.0	14.0	14.5
24	.0	.0	.0	4.0	3.0	3.5	9.5	4.0	6.5	14.5	14.0	14.0
25	.0	.0	.0	5.0	3.0	4.0	11.5	7.0	9.0	16.5	14.0	15.0
26	.0	.0	.0	6.5	4.5	5.5	12.0	10.0	11.0	18.5	16.0	17.0
27	.0	.0	.0	7.0	6.0	6.5	13.5	10.5	12.0	19.5	17.0	18.0
28	.0	.0	.0	6.0	5.0	5.5	16.5	11.5	14.0	20.5	18.0	19.0
29	---	---	---	7.5	5.0	6.5	16.0	13.5	14.5	21.5	18.0	19.5
30	---	---	---	9.5	7.0	8.0	16.5	12.5	14.5	23.5	19.0	21.0
31	---	---	---	10.5	8.5	9.5	---	---	---	24.0	20.0	22.0
MONTH	0.0	0.0	0.0	10.5	0.0	2.5	16.5	4.0	9.0	24.0	7.0	16.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	24.5	20.5	22.5	24.0	18.5	21.5	22.5	19.0	20.5	20.0	15.5	18.0
2	22.5	19.0	21.0	22.5	19.0	20.5	21.0	19.5	20.5	20.5	17.0	19.0
3	20.5	16.5	18.5	21.5	17.5	19.5	22.0	19.5	20.5	20.0	19.0	19.5
4	22.0	15.5	19.0	22.5	16.5	19.5	23.5	19.5	21.5	20.0	18.0	19.0
5	20.0	19.0	19.5	24.0	18.5	21.5	24.5	20.0	22.5	18.5	18.0	18.0
6	19.5	17.5	18.5	27.5	21.5	24.5	23.5	21.0	22.5	19.0	16.5	18.0
7	17.5	16.5	17.0	29.0	23.5	26.5	22.5	19.5	20.5	16.0	14.5	15.5
8	19.0	17.0	18.0	28.5	24.5	27.0	22.5	19.5	21.0	17.5	13.5	15.5
9	19.5	18.5	19.0	27.0	24.5	25.5	23.0	20.0	21.5	18.0	14.5	16.5
10	20.5	17.5	19.0	25.0	21.5	23.5	22.5	20.0	21.0	19.5	16.0	18.0
11	21.5	19.0	20.0	24.0	20.0	22.5	23.0	20.5	21.5	22.0	18.5	20.0
12	20.0	16.5	18.5	22.5	19.0	20.0	22.5	19.5	21.0	22.0	20.0	21.0
13	16.5	16.0	16.0	19.0	17.5	18.0	23.0	18.5	20.5	20.0	17.5	19.0
14	19.0	16.0	17.5	20.0	17.0	18.5	23.5	18.5	21.0	17.5	14.5	16.0
15	21.0	18.0	19.5	22.5	17.5	20.0	23.0	19.5	21.5	16.0	13.5	14.5
16	21.5	19.5	20.5	22.0	19.0	20.5	23.5	20.5	21.5	15.5	13.0	14.0
17	21.0	18.5	20.0	24.0	19.5	21.5	23.0	21.0	22.0	15.5	11.0	13.5
18	19.0	16.5	18.0	25.5	21.0	23.5	24.0	21.0	22.5	14.5	12.5	13.5
19	19.0	15.5	17.0	25.0	22.5	24.0	24.5	20.0	22.0	15.0	13.0	14.0
20	20.0	16.0	18.0	---	---	---	25.0	21.0	23.0	14.0	12.0	13.0
21	21.5	16.0	19.0	---	---	---	24.0	21.5	22.5	13.5	11.5	12.5
22	22.5	17.5	20.0	---	---	---	24.0	20.0	22.0	13.0	12.0	12.5
23	23.0	19.5	21.0	---	---	---	23.0	20.5	22.0	13.5	12.0	13.0
24	22.5	19.5	20.5	---	---	---	22.5	19.0	20.5	15.0	12.5	13.5
25	20.5	17.5	19.5	---	---	---	21.5	17.0	19.5	---	---	---
26	22.5	16.5	19.5	---	---	---	22.5	18.0	20.5	---	---	---
27	23.5	18.5	21.0	---	---	---	22.0	20.5	21.5	---	---	---
28	24.0	20.5	22.5	---	---	---	21.0	17.5	18.5	---	---	---
29	25.0	21.0	23.0	---	---	---	18.0	15.5	17.0	---	---	---
30	23.5	20.5	22.0	---	---	---	19.5	14.5	17.0	---	---	---
31	---	---	---	---	---	---	20.0	15.0	17.5	---	---	---
MONTH	25.0	15.5	19.5	---	---	---	25.0	14.5	21.0	---	---	---

## DELAWARE RIVER BASIN

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY

LOCATION.--Lat 41°30'31", long 74°59'11", Sullivan County, Hydrologic Unit 02040101, on left bank 1.6 mi upstream from Lackawaxen River, and 4.6 mi northwest of Barryville. Water-quality sampling site at discharge station.

DRAINAGE AREA.--2,020 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 600.22 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 15 to Mar. 12. Records good except those for estimated daily discharges, which are poor. Subsequent to September 1954, entire flow from 371 mi<sup>2</sup> of drainage area controlled by Pepacton Reservoir (see Reservoirs in Delaware River Basin), and subsequent to October 1963, entire flow from 454 mi<sup>2</sup> of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow of these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Telephone gage-height telemeter at stations.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 130,000 ft<sup>3</sup>/s Aug. 19, 1955, gage height, 26.40 ft, from floodmarks in gage house, from rating curve extended above 55,000 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 23.19 ft; minimum discharge, 122 ft<sup>3</sup>/s Sept. 5, 1953, gage height, 1.11 ft; minimum daily, 126 ft<sup>3</sup>/s Sept. 4, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 78,700 ft<sup>3</sup>/s Mar. 15, gage height, 19.28 ft; minimum daily, 459 ft<sup>3</sup>/s Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3640	1350	6210	880	1800	2700	5260	2620	2640	1190	3440	1170
2	2830	1280	8710	860	1700	2700	4680	2360	2370	1400	2680	915
3	2460	1230	8830	860	1700	2600	4130	2140	2180	1860	2890	590
4	2150	1180	6150	880	1600	2500	3690	1910	1810	1560	2430	526
5	4780	1190	4910	860	1600	2300	3470	1750	1610	1280	2010	510
6	6290	1470	4210	800	1550	2200	3630	1620	6540	1160	1730	1230
7	4130	1750	3670	780	1500	1900	4060	1580	6580	1100	3100	1390
8	3040	1570	3190	820	1350	1600	3900	1480	6740	1040	3540	792
9	2460	1400	2870	780	1300	1400	3480	1350	6370	1170	2500	571
10	2120	1320	2620	760	1400	1600	3200	1250	5600	1180	2160	494
11	1880	1380	2540	800	1300	2000	3050	1180	4650	1110	2040	459
12	1650	1960	3590	780	1200	3500	2910	1120	7470	1280	2050	498
13	1620	3240	3810	740	1100	5030	2720	1060	9180	1610	1700	1220
14	1690	4180	3410	720	1100	8010	2520	985	7520	2060	1460	1390
15	1730	6510	2900	700	1100	62800	2350	929	5970	2190	1340	924
16	1750	6310	2600	680	1100	46400	2870	903	5010	1630	1280	689
17	1660	13800	2300	820	1300	26300	4890	1100	4560	1360	1310	722
18	1470	12500	1900	1200	1400	17600	5090	2100	4150	1220	1280	839
19	1370	8460	1500	2100	1800	19100	4060	1590	3410	1190	1620	1120
20	1570	6280	1400	7000	2700	29400	3580	1360	2860	1390	1230	1480
21	1790	4920	1400	10000	3500	17900	3310	2630	2590	1330	995	1580
22	1590	4030	1500	5800	5400	12400	3470	8710	2270	1220	907	1410
23	1470	4010	1400	4400	5100	9660	3670	12900	1950	1070	836	1340
24	1450	3600	1300	3100	4000	8430	3860	9950	1720	977	859	1350
25	1910	3050	1200	2500	3200	7420	5420	9090	1570	918	1000	1200
26	2370	2950	1150	3100	2800	6880	4930	7550	1440	1060	966	1200
27	1980	5060	1100	4500	2600	7330	4270	6050	1310	1560	814	1500
28	1790	7910	1050	3200	2700	7770	3840	4860	1280	1800	686	1100
29	1650	8850	1000	2000	---	7030	3410	3790	1390	1550	615	1320
30	1530	6930	960	1900	---	6340	3010	3080	1310	1980	723	1120
31	1420	---	900	1900	---	5870	---	2600	---	4190	1140	---
TOTAL	69240	129670	90280	66220	58900	338670	112730	101597	114050	45635	51331	30649
MEAN	2234	4322	2912	2136	2104	10920	3758	3277	3802	1472	1656	1022
MAX	6290	13800	8830	10000	5400	62800	5420	12900	9180	4190	3540	1580
MIN	1370	1180	900	680	1100	1400	2350	903	1280	918	615	459
CAL YR 1985	TOTAL	737504	MEAN	2021	MAX	30000	MIN	355				
WTR YR 1986	TOTAL	1208972	MEAN	3312	MAX	62800	MIN	459				

## DELAWARE RIVER BASIN

139

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

CHEMICAL DATA: 1971-73 (a).

NUTRIENT DATA: 1971 (a).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1967 to current year (no winter record for water years 1969-76).

INSTRUMENTATION.--Water-temperature digital recorder since October 1975, provides one-hour-interval punches.

Prior to October 1975, water-temperature recorder provided continuous recordings.

REMARKS.--Interruptions of record were due to malfunctions of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-75, 1980-81, 1983, 1985-86), 32.0°C Aug. 2, 3, 1975, July 10, 1981; minimum (water years 1968, 1977-86), 0.0°C on many days during winter periods, each year except water years 1980-82.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 30.0°C July 8; minimum, 0.0°C on many days during winter period.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	9.0	6.0	7.0	4.5	4.5	4.5	.0	.0	.0
2	16.5	15.5	16.0	7.0	6.0	6.5	5.0	4.5	5.0	.0	.0	.0
3	15.5	14.5	15.0	8.5	7.0	7.5	4.5	2.0	3.5	.0	.0	.0
4	14.5	14.5	14.5	8.0	7.5	8.0	2.0	.0	1.0	.5	.0	.0
5	15.5	14.5	14.5	9.0	8.0	8.5	1.0	.5	.5	.0	.0	.0
6	14.5	13.5	14.0	9.5	9.0	9.0	1.5	1.0	1.0	.0	.0	.0
7	13.5	12.5	13.0	10.5	9.0	9.5	1.5	1.0	1.5	.0	.0	.0
8	13.5	12.0	13.0	10.0	8.5	9.0	2.0	1.5	2.0	.0	.0	.0
9	14.5	12.5	13.5	9.5	7.5	8.5	2.5	2.0	2.5	.0	.0	.0
10	15.5	13.0	14.5	9.0	8.0	8.5	3.5	2.5	3.0	.0	.0	.0
11	16.0	14.5	15.0	9.0	8.5	9.0	3.5	3.5	3.5	.0	.0	.0
12	15.0	12.5	13.5	8.5	8.0	8.0	4.0	3.5	4.0	.0	.0	.0
13	13.5	12.0	12.5	8.0	7.5	8.0	3.5	2.0	3.0	.0	.0	.0
14	12.5	12.0	12.5	8.5	8.0	8.0	2.0	1.0	1.5	.0	.0	.0
15	14.0	12.5	13.0	8.5	7.5	8.0	.5	.0	.5	.0	.0	.0
16	14.5	13.0	13.5	7.5	5.0	6.0	.5	.0	.5	.0	.0	.0
17	14.5	11.5	13.0	5.0	4.0	4.5	.5	.0	.0	.0	.0	.0
18	13.0	11.0	12.5	7.0	5.0	6.0	.0	.0	.0	.5	.0	.0
19	13.0	12.0	12.5	8.0	7.0	7.0	.0	.0	.0	.0	.0	.0
20	12.5	11.5	12.0	9.5	8.0	8.5	.0	.0	.0	.0	.0	.0
21	13.0	10.5	11.5	9.5	8.0	9.0	.0	.0	.0	.5	.0	.0
22	12.5	10.0	11.0	7.5	6.0	6.5	.0	.0	.0	.5	.0	.5
23	13.0	9.5	11.0	6.0	5.0	5.5	.0	.0	.0	.5	.0	.5
24	11.0	10.0	10.5	5.5	4.5	5.0	.0	.0	.0	.5	.0	.0
25	12.5	10.5	11.5	5.0	4.0	4.5	.0	.0	.0	.0	.0	.0
26	12.0	10.5	11.0	4.0	3.5	3.5	.0	.0	.0	.0	.0	.0
27	12.0	9.5	10.5	4.0	3.5	3.5	.0	.0	.0	.5	.0	.0
28	11.0	9.0	10.0	4.0	4.0	4.0	.0	.0	.0	.0	.0	.0
29	9.5	7.5	8.5	4.5	4.0	4.0	.0	.0	.0	.0	.0	.0
30	7.5	6.5	7.0	4.5	4.5	4.5	.0	.0	.0	.0	.0	.0
31	8.0	6.5	7.0	---	---	---	.0	.0	.0	.0	.0	.0
MONTH	---	---	---	10.5	3.5	7.0	5.0	0.0	1.0	0.5	0.0	0.0



TEMPERATURE (DEG. C) OF WATER. WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	.0	.0	.0	1.5	.0	.5	11.0	9.0	10.0	15.0	13.5	14.5
2	.0	.0	.0	.5	.0	.0	11.0	9.5	10.5	13.5	10.5	12.0
3	.5	.0	.5	1.5	.0	.5	11.0	9.5	10.5	11.5	9.0	10.0
4	.0	.0	.0	.5	.0	.5	10.0	9.0	9.5	12.0	8.5	10.0
5	.5	.0	.5	1.5	.0	.5	9.0	8.0	8.5	15.0	10.0	12.5
6	1.0	.0	.5	.5	.0	.5	7.5	6.5	7.0	16.0	13.0	14.5
7	.0	.0	.0	.5	.0	.0	7.5	6.0	7.0	20.0	15.0	17.0
8	.0	.0	.0	1.0	.0	.0	9.0	7.0	8.0	19.0	16.0	17.5
9	.0	.0	.0	.5	.0	.0	9.0	8.0	8.5	19.5	15.0	17.0
10	.0	.0	.0	2.0	.0	.5	8.0	6.5	7.5	20.5	15.0	17.5
11	.0	.0	.0	1.5	.5	1.0	7.0	6.0	6.5	18.0	15.5	17.0
12	.0	.0	.0	1.0	.0	.5	6.5	6.0	6.0	20.0	14.5	17.0
13	.0	.0	.0	.5	.0	.5	8.0	5.5	6.5	21.0	15.5	18.0
14	.0	.0	.0	.5	.0	.5	10.5	6.5	8.5	20.0	16.0	18.0
15	.0	.0	.0	1.5	.0	.5	9.5	8.5	9.0	17.5	16.0	16.5
16	.0	.0	.0	2.5	1.5	2.0	8.5	7.5	8.5	18.0	16.0	17.0
17	.0	.0	.0	2.5	2.5	2.5	7.5	7.0	7.0	20.5	17.0	18.5
18	.0	.0	.0	3.5	2.5	3.0	9.5	7.0	8.0	21.5	18.0	19.5
19	.0	.0	.0	4.0	3.5	4.0	12.0	9.5	10.5	23.5	19.0	21.0
20	.0	.0	.0	4.0	2.5	3.5	12.5	11.5	12.0	21.5	20.5	21.0
21	.0	.0	.0	2.5	1.5	2.0	12.0	11.0	12.0	21.0	19.5	20.5
22	.5	.0	.5	2.5	1.5	2.0	11.0	8.5	10.0	19.5	16.0	17.5
23	.5	.0	.0	3.5	2.0	3.0	8.0	4.5	6.0	16.0	15.0	15.5
24	.5	.0	.5	4.5	3.0	4.0	7.5	4.0	6.0	15.5	14.5	15.0
25	1.0	.0	.5	5.0	3.0	4.0	10.0	7.0	8.5	16.5	14.0	15.5
26	1.0	.0	.0	7.0	4.0	5.5	11.0	10.0	10.5	18.5	16.0	17.5
27	1.0	.0	.5	7.5	6.5	7.0	13.0	11.0	12.0	19.5	17.5	18.5
28	1.0	.0	.5	7.0	6.0	6.5	15.0	12.0	13.5	20.5	18.5	19.5
29	---	---	---	7.5	5.5	6.5	15.5	14.5	15.0	21.5	19.5	20.5
30	---	---	---	9.5	7.0	8.5	16.5	14.5	15.5	23.0	20.5	22.0
31	---	---	---	10.5	8.5	9.5	---	---	---	24.5	22.0	23.0
MONTH	1.0	0.0	0.0	10.5	0.0	2.5	16.5	4.0	9.5	24.5	8.5	17.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	25.0	22.0	23.5	25.0	20.0	22.5	22.0	20.5	21.0	21.0	17.5	19.5
2	23.0	19.5	22.0	22.5	20.5	21.5	21.5	21.0	21.0	22.0	18.5	20.0
3	22.0	18.0	20.0	22.0	19.5	20.5	---	---	---	22.0	19.5	20.5
4	22.0	18.0	20.0	23.0	18.0	20.5	24.0	21.0	22.5	20.0	19.0	19.5
5	21.0	19.5	20.0	24.5	19.5	22.0	24.0	21.5	23.0	19.0	18.5	19.0
6	20.0	17.5	18.5	27.5	22.0	24.5	---	---	---	21.0	18.0	19.5
7	17.5	17.5	17.5	29.5	24.5	27.0	---	---	---	19.0	17.0	18.5
8	19.0	17.0	18.0	30.0	25.5	27.5	---	---	---	19.5	15.5	17.5
9	20.0	18.0	19.0	28.5	25.5	27.0	---	---	---	19.5	16.0	17.5
10	20.0	18.0	19.0	27.5	23.5	25.5	---	---	---	20.0	16.0	18.0
11	21.0	19.5	20.0	25.5	22.0	23.5	---	---	---	22.0	18.0	20.0
12	21.0	17.0	19.5	23.0	21.0	22.0	---	---	---	23.0	20.0	21.5
13	17.0	16.5	16.5	21.0	20.0	21.0	---	---	---	22.0	19.0	20.5
14	19.0	16.0	17.5	21.5	19.5	20.0	24.0	20.0	22.0	20.5	17.5	19.0
15	20.5	18.5	19.5	23.0	19.0	21.0	23.5	21.0	22.5	19.0	15.5	17.0
16	21.5	20.0	21.0	22.0	20.5	21.0	24.0	21.5	22.5	17.0	14.0	16.0
17	21.5	20.0	20.5	24.0	20.5	22.0	24.0	22.5	23.0	17.5	13.0	15.0
18	20.0	18.5	19.0	27.0	22.0	24.5	25.0	22.0	23.5	16.0	14.0	15.0
19	19.0	17.5	18.0	---	---	---	25.0	22.5	23.5	17.0	14.5	15.5
20	20.0	17.5	18.5	---	---	---	26.0	22.5	24.0	15.5	14.5	15.0
21	21.5	18.0	19.5	26.5	23.0	24.5	23.5	21.5	22.5	15.5	14.0	14.5
22	22.5	19.0	20.5	27.0	22.0	24.5	25.5	21.0	23.0	14.0	13.5	14.0
23	24.0	20.5	22.0	28.0	23.0	25.5	24.5	21.5	23.0	15.5	13.5	14.5
24	23.5	20.5	22.0	28.5	24.0	26.0	24.0	19.5	22.0	16.5	14.0	15.0
25	22.0	19.0	20.5	27.0	25.0	26.0	22.5	18.5	20.5	---	---	---
26	23.0	18.0	20.5	27.0	24.5	25.5	23.5	18.5	21.0	---	---	---
27	24.5	19.5	22.0	28.0	24.5	26.0	---	---	---	---	---	---
28	24.5	21.5	23.0	26.5	24.5	25.5	---	---	---	---	---	---
29	26.0	22.5	24.0	25.5	23.5	24.5	19.5	16.5	18.0	---	---	---
30	23.5	21.5	23.0	25.5	23.0	24.0	20.5	16.5	18.0	---	---	---
31	---	---	---	23.0	20.5	21.5	21.5	16.5	19.0	---	---	---
MONTH	26.0	16.0	20.0	---	---	---	---	---	---	---	---	---

## DELAWARE RIVER BASIN

141

01432160 DELAWARE RIVER AT BARRYVILLE, NY

LOCATION.--Lat 41°28'31", long 74°54'46", Pike County, Pa., Hydrologic Unit 02040104, at Shohola-Barryville Bridge at Barryville, just upstream from Halfway Brook, and 1,000 ft upstream from Shohola Brook.

DRAINAGE AREA.--2,659 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1958, 1968 to current year.

CHEMICAL DATA: 1958 (d), 1969 (a), 1973 (b), 1974 (d), 1975 (b).

NUTRIENT DATA: 1973 (b), 1974 (d), 1975 (b).

BIOLOGICAL DATA:

Bacteria.--1973 (b), 1974 (d), 1975 (b).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1967 to September 1973, March 1975 to current year.

INSTRUMENTATION.--Water-temperature digital recorder since March 1975, provides one-hour-interval punches. Prior to September 1973, water-temperature recorder provided continuous recordings.

REMARKS.--Unpublished records of daily temperatures for May to September 1964-66 are available in files of the Geological Survey. Temperature probe may be influenced by solar radiation during periods of low flow. Interruption of record was due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-73, 1976-78, 1980-82, 1986), 32.0°C July 20, 21, 1980; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 25.5°C July 7, 28; minimum, 0.0°C on many days during winter period.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	17.5	16.0	16.5	7.5	6.0	7.0	5.0	5.0	5.0	.0	.0	.0
2	17.0	16.5	17.0	7.0	6.5	6.5	5.5	4.5	5.0	.0	.0	.0
3	16.0	15.5	16.0	8.0	6.5	7.5	4.5	2.5	3.5	.5	.0	.0
4	15.5	15.5	15.5	9.0	7.5	8.0	2.5	2.0	2.0	.5	.0	.0
5	16.5	15.0	15.5	9.5	8.5	9.0	2.0	2.0	2.0	.0	.0	.0
6	14.5	14.0	14.5	9.5	9.0	9.0	2.5	2.0	2.5	.0	.0	.0
7	14.0	13.0	13.5	9.5	9.0	9.5	2.5	1.5	2.0	.0	.0	.0
8	13.5	12.0	12.5	9.5	8.0	8.5	3.5	2.5	3.0	.0	.0	.0
9	14.0	12.0	13.0	8.0	7.0	7.5	3.5	3.0	3.0	.5	.0	.0
10	15.0	13.0	14.0	8.5	8.0	8.5	4.0	3.0	3.5	.0	.0	.0
11	15.0	14.0	14.5	9.5	8.5	9.0	4.0	4.0	4.0	.5	.0	.0
12	13.5	12.0	13.0	9.0	7.5	8.5	4.0	4.0	4.0	.5	.0	.0
13	13.0	12.0	12.5	8.5	7.5	8.0	3.5	2.0	3.0	.5	.0	.0
14	13.0	12.5	12.5	8.5	8.0	8.0	2.5	.5	2.0	.0	.0	.0
15	14.0	13.0	13.5	8.5	7.5	8.0	.5	.0	.0	.0	.0	.0
16	14.0	13.0	13.5	7.5	4.5	6.0	1.5	.0	.5	.0	.0	.0
17	13.0	11.5	12.0	5.0	4.0	4.5	1.0	.0	.5	.5	.0	.0
18	12.0	11.0	12.0	6.5	5.0	5.5	1.0	.0	.0	1.0	.0	.5
19	12.5	12.0	12.5	8.0	6.5	7.0	.0	.0	.0	.0	.0	.0
20	12.5	11.5	12.0	9.5	8.0	8.5	.0	.0	.0	.5	.0	.5
21	11.5	10.5	11.0	9.5	7.5	8.5	.0	.0	.0	.5	.0	.0
22	11.0	9.5	10.5	7.5	5.5	6.5	.0	.0	.0	1.0	.0	.5
23	11.5	10.5	11.0	6.5	5.5	6.0	.0	.0	.0	1.0	.5	1.0
24	11.5	10.5	11.0	6.0	4.5	5.5	.5	.0	.5	1.0	.0	.5
25	12.0	11.5	11.5	6.0	4.5	5.0	.5	.0	.0	.5	.0	.0
26	11.0	9.5	10.5	5.5	3.5	4.5	.0	.0	.0	.0	.0	.0
27	10.5	9.0	10.0	5.0	4.0	4.5	.0	.0	.0	1.0	.0	.5
28	10.5	9.0	9.5	5.0	4.0	4.5	.0	.0	.0	.5	.0	.0
29	8.5	6.5	7.5	5.0	4.5	4.5	.0	.0	.0	.0	.0	.0
30	8.0	6.5	7.0	5.0	5.0	5.0	.0	.0	.0	.5	.0	.0
31	7.5	7.0	7.5	---	---	---	.0	.0	.0	.0	.0	.0
MONTH	17.5	6.5	12.5	9.5	3.5	7.0	5.5	0.0	1.5	1.0	0.0	0.0

## DELAWARE RIVER BASIN

01432160 DELAWARE RIVER AT BARRYVILLE, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	.0	.0	.0	1.0	.0	.5	9.0	8.0	8.5	13.0	12.0	12.5
2	.0	.0	.0	.5	.0	.0	9.5	8.5	9.0	12.0	10.5	11.0
3	2.0	.0	.5	2.0	.0	1.0	9.5	8.0	9.0	10.5	9.0	10.0
4	1.5	.5	1.0	2.0	.5	1.5	9.0	8.5	8.5	10.5	8.5	9.5
5	2.0	1.0	1.0	2.5	.0	2.0	8.5	8.0	8.0	12.5	10.0	11.0
6	2.0	1.0	1.5	2.0	.5	1.0	8.0	7.0	7.5	13.5	11.5	12.5
7	1.0	.0	.5	1.5	.0	.5	7.5	6.5	7.0	15.0	13.0	14.0
8	.5	.0	.0	.0	.0	.0	8.5	7.5	8.0	15.5	13.5	14.5
9	.0	.0	.0	.0	.0	.0	8.5	8.5	8.5	15.0	13.0	14.0
10	1.0	.0	.5	3.0	.0	1.0	8.5	7.5	8.0	16.0	13.0	14.5
11	1.0	.5	1.0	3.0	1.5	2.5	7.5	6.5	7.0	16.0	15.5	16.0
12	1.0	.0	.5	2.0	.5	1.5	6.5	6.0	6.5	16.0	14.5	15.5
13	.5	.0	.0	1.5	1.0	1.0	7.5	5.5	6.5	17.5	14.5	16.0
14	1.0	.0	.5	1.5	1.0	1.5	9.0	6.5	7.5	17.5	16.0	17.0
15	1.0	.0	.5	1.0	.0	.5	9.0	8.0	8.5	16.5	16.0	16.0
16	.0	.0	.0	2.0	1.0	1.5	8.5	8.0	8.0	16.5	15.5	16.0
17	.5	.0	.0	2.5	2.0	2.0	7.5	7.0	7.0	18.0	16.0	17.0
18	1.5	1.0	1.0	3.0	2.0	2.5	8.5	6.5	7.5	19.5	17.0	18.0
19	1.5	1.5	1.5	3.5	3.0	3.5	10.5	8.0	9.0	20.5	18.5	19.5
20	1.5	.0	1.0	3.5	2.5	3.5	11.0	10.0	10.5	20.5	19.5	20.0
21	1.5	.5	1.0	2.5	1.5	2.0	11.0	10.5	11.0	19.5	19.0	19.5
22	1.5	.0	1.0	3.0	1.5	2.0	10.5	9.0	10.0	19.0	16.5	18.0
23	1.0	.5	1.0	3.5	2.0	3.0	9.0	5.0	6.5	16.5	15.5	16.0
24	1.5	.5	.0	4.0	3.0	3.5	7.0	4.5	5.5	15.5	14.5	15.0
25	1.5	.5	1.0	4.5	3.0	4.0	8.5	6.5	7.5	16.5	14.5	15.5
26	1.0	.0	.5	6.0	4.0	5.0	9.5	8.5	8.5	17.5	16.0	16.5
27	1.5	.0	.5	6.0	5.5	6.0	11.0	9.5	10.0	18.0	17.0	17.5
28	1.5	.0	.5	6.0	5.5	6.0	12.0	10.5	11.5	19.0	17.5	18.0
29	---	---	---	6.5	5.0	6.0	13.0	11.5	12.0	19.0	17.5	18.5
30	---	---	---	7.5	6.0	7.0	13.5	11.5	12.5	20.5	18.0	19.0
31	---	---	---	8.5	7.5	8.0	---	---	---	22.0	19.0	20.5
MONTH	2.0	0.0	0.5	8.5	0.0	2.5	13.5	4.5	8.5	22.0	8.5	16.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	23.0	21.0	22.0	21.5	20.0	20.5	22.0	20.5	21.0	20.0	18.5	19.5
2	23.0	21.0	22.0	20.5	19.5	20.0	21.5	20.5	21.0	20.5	19.0	20.0
3	20.5	18.5	19.5	20.0	19.0	19.5	22.0	20.5	21.0	20.0	19.0	19.5
4	20.5	18.5	19.5	20.5	18.0	19.0	23.0	21.0	22.0	20.0	19.0	19.0
5	20.5	19.0	20.0	22.0	20.0	21.0	22.5	21.0	22.0	19.0	18.5	19.0
6	19.0	17.5	18.5	24.0	21.5	22.5	22.5	21.5	22.5	20.0	18.5	19.5
7	17.5	16.5	17.0	25.5	23.5	24.5	23.0	22.0	22.5	20.0	18.5	19.0
8	17.5	16.5	17.0	25.0	22.5	24.0	22.5	21.0	21.5	19.5	17.0	18.5
9	18.0	17.0	17.5	24.5	23.0	23.5	23.0	21.0	22.0	20.0	17.0	18.5
10	18.5	17.0	17.5	23.5	22.0	23.0	23.0	21.5	22.0	20.5	17.0	19.0
11	19.0	18.0	18.5	22.5	21.0	22.0	22.5	22.0	22.5	22.0	19.0	20.5
12	19.0	17.0	18.5	21.5	20.5	20.5	22.0	21.0	21.5	21.5	20.0	21.0
13	17.0	16.5	16.5	20.5	20.0	20.5	22.0	20.0	21.0	21.0	19.0	20.0
14	17.5	16.0	17.0	20.5	20.0	20.0	22.0	20.5	21.5	20.0	19.0	19.5
15	18.5	17.0	17.5	21.0	19.0	20.0	22.5	21.5	22.0	19.0	17.5	18.5
16	19.5	18.5	18.5	21.0	20.0	20.5	22.5	21.0	22.0	18.5	16.5	17.5
17	19.5	19.0	19.0	21.5	19.5	20.5	23.0	22.5	22.5	18.0	15.5	16.5
18	18.5	17.5	18.0	23.0	20.5	21.5	23.0	21.5	22.0	17.5	16.0	16.5
19	18.0	16.5	17.5	23.5	21.5	22.5	23.0	21.0	22.0	17.0	16.0	16.5
20	18.5	17.0	17.5	23.5	23.0	23.0	23.5	22.0	22.5	17.0	16.5	16.5
21	19.5	17.0	18.0	24.0	22.5	23.0	23.0	21.5	22.0	16.5	16.0	16.0
22	19.5	17.5	19.0	24.0	21.5	23.0	22.5	20.5	21.5	16.0	15.0	15.5
23	21.0	18.5	19.5	25.0	22.0	23.5	23.0	20.5	22.0	15.5	15.0	15.5
24	20.5	19.0	20.0	25.0	22.5	24.0	22.0	21.0	21.5	16.0	15.5	15.5
25	20.0	18.5	19.5	25.0	23.0	24.0	20.5	19.5	20.5	16.5	16.0	16.0
26	20.5	18.0	19.0	24.5	23.0	24.0	21.5	19.5	20.5	---	---	---
27	21.0	19.0	20.0	25.5	24.5	25.0	21.5	20.5	21.0	---	---	---
28	21.5	20.0	20.5	25.5	24.5	25.0	21.0	19.0	19.5	---	---	---
29	23.0	21.5	22.0	25.0	23.5	24.0	19.0	17.0	18.5	---	---	---
30	22.5	20.5	22.0	24.0	22.5	23.5	20.5	17.0	18.5	---	---	---
31	---	---	---	23.5	21.5	22.0	19.5	18.0	19.0	---	---	---
MONTH	23.0	16.0	19.0	25.5	18.0	22.0	23.5	17.0	21.5	---	---	---

## DELAWARE RIVER BASIN

143

01432805 DELAWARE RIVER AT POND EDDY, NY

LOCATION.--Lat 41°26'20", long 74°49'11", Pike County, Pa., Hydrologic Unit 02040104, at interstate bridge at Pond Eddy, 450 ft downstream from Mill Brook, and 4.5 mi upstream from Mongaup River.

DRAINAGE AREA.--2,820 mi<sup>2</sup>.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1973 to current year.

INSTRUMENTATION.--Water-temperature digital recorder since October 1973, provides one-hour-interval punches.

REMARKS.--Temperature probe may be influenced by solar radiation during periods of low flow. Interruptions of record were due to malfunctions of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1976, 1978, 1980-81, 1983-84, 1986) 31.0°C July 21, 1980; minimum (water years 1974, 1977-78, 1980, 1983-86), 0.0°C on many days during winter periods, except 1978, 1980, and 1985.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 27.5°C July 7; minimum, 0.0°C on many days in March and may have been equalled many days during periods of instrument malfunction Jan. 20 to Mar. 3.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	17.5	16.5	17.0	8.5	7.5	8.0	5.5	5.5	5.5	.5	.5	.5
2	17.5	17.0	17.5	8.0	7.0	7.5	6.0	5.0	5.5	.5	.5	.5
3	17.0	16.0	16.0	9.0	7.5	8.0	5.0	3.0	4.0	.5	.5	.5
4	16.0	15.5	15.5	8.5	8.5	8.5	3.0	2.5	2.5	1.0	.5	.5
5	16.5	15.0	16.0	9.5	8.5	9.0	2.5	2.0	2.0	.5	.5	.5
6	15.0	14.5	15.0	10.0	9.5	10.0	3.0	2.0	2.5	.5	.5	.5
7	14.5	14.0	14.0	10.5	9.5	10.0	3.0	2.5	2.5	.5	.5	.5
8	14.0	12.5	13.5	10.0	9.0	9.5	3.5	2.5	3.0	.5	.5	.5
9	14.0	13.0	13.5	9.0	8.5	8.5	4.0	3.5	3.5	.5	.5	.5
10	15.0	14.0	14.5	9.5	8.5	9.0	4.5	3.5	4.0	.5	.5	.5
11	15.5	15.0	15.0	9.5	9.0	9.5	4.5	4.5	4.5	.5	.5	.5
12	14.5	13.5	14.0	9.5	8.5	9.0	4.5	4.5	4.5	.5	.5	.5
13	13.5	13.0	13.5	9.0	8.5	8.5	4.5	3.0	3.5	.5	.5	.5
14	---	---	---	9.0	8.5	8.5	3.0	1.5	2.5	.5	.5	.5
15	---	---	---	9.0	8.5	9.0	1.5	.5	1.0	1.0	.5	.5
16	---	---	---	8.5	5.5	6.5	1.5	.5	1.0	.5	.5	.5
17	---	---	---	6.0	5.0	5.5	1.5	1.0	1.0	.5	.5	.5
18	---	---	---	7.0	5.5	6.5	1.0	.5	.5	.5	.5	.5
19	---	---	---	8.5	7.0	7.5	.5	.5	.5	.5	.5	.5
20	---	---	---	10.0	8.5	9.0	.5	.5	.5	---	---	---
21	---	---	---	10.0	8.5	9.5	.5	.5	.5	---	---	---
22	---	---	---	8.5	6.5	7.5	.5	.5	.5	---	---	---
23	12.5	11.0	11.5	7.0	6.0	6.5	.5	.5	.5	---	---	---
24	12.0	11.0	11.5	6.5	5.5	6.0	.5	.5	.5	---	---	---
25	13.0	11.5	12.0	6.0	5.0	5.5	.5	.5	.5	---	---	---
26	12.0	11.0	11.5	5.5	4.0	5.0	.5	.5	.5	---	---	---
27	11.5	10.0	11.0	5.0	4.5	5.0	.5	.5	.5	---	---	---
28	11.0	9.5	10.5	5.0	4.5	5.0	.5	.5	.5	---	---	---
29	9.5	8.5	9.0	5.0	5.0	5.0	.5	.5	.5	---	---	---
30	8.5	7.5	8.0	5.5	5.0	5.0	.5	.5	.5	---	---	---
31	9.0	7.5	8.0	---	---	---	.5	.5	.5	---	---	---
MONTH	---	---	---	10.5	4.0	7.5	6.0	0.5	2.0	---	---	---



## DELAWARE RIVER BASIN

01432805 DELAWARE RIVER AT POND EDDY, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	11.0	9.0	10.0	14.5	12.5	13.5
2	---	---	---	---	---	---	11.5	9.5	10.5	13.0	11.0	12.0
3	---	---	---	---	---	---	11.5	9.0	10.0	10.5	9.5	10.0
4	---	---	---	2.0	1.0	1.5	10.0	9.0	9.5	11.0	9.0	10.0
5	---	---	---	2.0	1.0	1.5	9.0	8.5	8.5	13.5	10.5	12.0
6	---	---	---	2.0	.0	1.5	8.5	7.0	7.5	15.0	13.0	14.0
7	---	---	---	1.5	.0	1.0	8.5	6.5	7.5	17.0	14.0	15.5
8	---	---	---	.5	.0	.0	9.5	7.5	8.5	16.5	15.0	15.5
9	---	---	---	.5	.0	.0	9.5	8.5	9.0	16.5	13.5	15.0
10	---	---	---	2.0	.0	.5	8.5	7.5	8.0	16.5	13.5	15.0
11	---	---	---	2.5	2.0	2.5	7.5	6.5	7.0	17.5	15.5	16.5
12	---	---	---	2.5	1.0	1.5	7.0	6.0	6.5	17.5	15.0	16.0
13	---	---	---	1.5	1.0	1.0	7.5	5.5	6.5	18.5	15.0	16.5
14	---	---	---	1.5	.0	1.5	9.5	6.5	8.0	18.5	16.5	17.5
15	---	---	---	1.5	.0	.5	9.5	9.0	9.0	17.5	16.0	16.5
16	---	---	---	2.5	1.5	2.0	9.0	8.0	8.5	16.5	15.5	16.0
17	---	---	---	3.0	2.5	2.5	8.0	7.0	7.5	19.0	16.5	17.5
18	---	---	---	3.5	2.5	3.0	9.5	7.0	8.0	20.5	18.0	19.0
19	---	---	---	4.5	3.5	4.0	11.5	8.5	10.0	22.0	20.0	21.0
20	---	---	---	4.0	3.0	4.0	12.0	10.5	11.5	21.5	20.5	21.0
21	---	---	---	3.0	2.0	2.5	12.0	11.0	11.5	20.5	20.0	20.0
22	---	---	---	3.0	1.5	2.5	11.0	9.0	10.0	20.0	17.0	18.5
23	---	---	---	4.0	2.0	3.0	8.5	4.5	6.5	16.5	15.5	16.0
24	---	---	---	5.0	3.5	4.0	7.5	4.0	6.0	16.0	14.5	15.5
25	---	---	---	5.5	3.5	4.5	9.5	6.5	8.0	16.5	14.5	15.5
26	---	---	---	7.0	4.5	5.5	10.5	9.0	9.5	18.0	16.0	17.0
27	---	---	---	7.5	6.5	7.0	12.0	10.5	11.0	19.5	17.5	18.5
28	---	---	---	7.5	6.5	7.0	14.0	11.5	12.5	20.5	18.0	19.0
29	---	---	---	8.0	6.0	7.0	14.5	13.0	14.0	21.0	18.0	19.5
30	---	---	---	9.5	7.5	8.5	15.5	12.5	14.0	22.5	18.5	20.5
31	---	---	---	10.5	8.5	9.5	---	---	---	23.0	19.5	21.5
MONTH	---	---	---	---	---	---	15.5	4.0	9.0	23.0	9.0	16.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	24.0	22.0	23.0	22.5	19.5	21.0	22.0	20.0	21.0	20.5	18.5	19.0
2	24.0	20.5	22.5	21.5	20.0	20.5	22.0	20.5	21.0	21.0	19.0	20.0
3	20.5	18.5	19.5	20.5	19.0	20.0	22.5	20.5	21.5	21.0	19.5	20.0
4	21.0	18.5	19.5	21.0	18.0	19.5	23.5	21.0	22.0	20.0	19.0	19.5
5	21.0	20.0	20.5	23.5	20.0	21.5	23.0	21.5	22.5	19.0	18.5	18.5
6	20.0	17.5	18.5	26.0	22.0	23.5	23.0	22.5	22.5	21.0	18.5	19.5
7	17.5	17.0	17.0	27.5	24.0	25.5	23.5	22.5	23.0	20.0	18.0	19.0
8	18.5	16.5	17.5	26.5	23.5	25.0	23.5	21.5	22.0	19.5	17.0	18.0
9	19.5	17.5	18.5	25.5	23.5	24.5	23.5	21.5	22.5	20.0	17.0	18.0
10	19.0	17.5	18.5	24.0	22.0	23.5	23.0	21.5	22.5	20.0	17.5	18.5
11	20.5	18.5	19.5	23.5	21.5	22.5	23.5	22.5	23.0	21.5	18.5	20.0
12	20.0	17.0	19.0	22.0	20.0	20.5	22.5	21.0	21.5	22.0	20.5	21.0
13	17.0	16.0	16.5	20.5	20.0	20.0	22.5	20.0	21.5	21.0	19.5	20.5
14	18.5	16.0	17.0	21.0	20.0	20.5	23.0	21.5	22.0	20.0	18.5	19.5
15	19.5	18.0	18.5	22.0	19.5	20.5	23.0	21.5	22.0	19.0	17.5	18.5
16	20.5	19.0	20.0	21.5	20.5	21.0	22.5	21.5	22.0	18.0	16.0	17.5
17	20.5	19.5	20.0	22.0	20.0	21.0	23.0	22.5	23.0	18.0	14.5	16.0
18	19.0	17.5	18.5	24.0	21.0	22.5	23.0	22.0	22.5	17.0	15.5	16.0
19	18.5	17.0	18.0	24.0	22.0	23.0	23.5	21.5	22.5	17.5	16.0	16.5
20	19.5	17.0	18.0	24.0	23.5	23.5	23.5	22.5	23.0	17.0	16.5	16.5
21	20.5	17.5	19.0	25.0	23.0	24.0	23.5	21.5	22.5	16.5	16.0	16.0
22	20.5	18.0	19.5	25.0	23.5	24.0	23.0	20.5	21.5	16.0	15.0	15.5
23	22.0	19.0	20.5	26.0	24.0	24.5	22.5	21.0	22.0	15.5	14.5	15.0
24	21.5	19.5	20.5	25.5	24.0	25.0	22.5	21.0	21.5	16.0	15.0	15.5
25	20.5	18.5	19.5	25.5	24.5	25.0	21.0	19.0	20.0	16.5	15.5	16.0
26	21.0	18.0	19.5	25.5	24.0	25.0	22.0	19.5	20.5	18.0	16.0	17.0
27	22.0	19.5	20.5	26.0	24.5	25.0	22.0	21.0	21.5	18.0	17.0	17.5
28	22.5	20.5	21.5	26.0	25.0	25.5	21.0	19.0	20.0	17.0	16.5	16.5
29	24.5	22.0	23.0	25.5	24.0	24.5	19.5	17.0	18.0	17.0	16.0	16.5
30	23.5	22.0	23.0	24.0	23.0	23.5	20.0	17.0	18.0	19.5	17.0	18.0
31	---	---	---	23.5	21.0	22.0	20.5	17.0	18.5	---	---	---
MONTH	24.5	16.0	19.5	27.5	18.0	23.0	23.5	17.0	21.5	22.0	14.5	18.0

01433500 MONGAUP RIVER NEAR MONGAUP, NY

LOCATION.--Lat 41°27'41", long 74°45'33", Sullivan County, Hydrologic Unit 02040104, on right bank 300 ft downstream from Rio hydroelectric plant of Orange and Rockland Utilities, Inc., 0.5 mi downstream from Bush Kill, and 2.8 mi upstream from mouth and Mongaup.

DRAINAGE AREA.--200 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1939 to current year.

REVISED RECORDS.--WDR NY-71-1: 1970. WDR NY-81-1: 1980. WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 625.05 ft Orange and Rockland Utilities, Inc. datum. Prior to July 6, 1956, water-stage recorders at sites 25 ft upstream on Rio Tailrace and 200 ft upstream on natural channel, at datum 4.0 ft higher.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by storage in Cliff Lake, Swinging Bridge, and Toronto Reservoirs (see Reservoirs in Delaware River Basin) and small reservoirs upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--47 years, 344 ft<sup>3</sup>/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,100 ft<sup>3</sup>/s Aug. 19, 1955, gage height, 15.22 ft, present datum; minimum daily, 6 ft<sup>3</sup>/s Oct. 1, 1939.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,270 ft<sup>3</sup>/s Mar. 17, gage height, 5.83 ft; minimum daily, 41 ft<sup>3</sup>/s July 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	797	246	802	435	482	377	608	527	279	315	300	44
2	794	241	895	362	445	302	638	336	256	415	203	108
3	795	83	847	386	630	387	632	225	359	443	174	181
4	772	238	795	185	639	463	610	113	403	299	277	300
5	756	658	768	94	649	446	605	235	276	290	433	312
6	750	692	723	203	639	452	624	345	876	243	384	185
7	709	449	711	321	643	443	625	403	2180	295	343	58
8	704	443	703	366	397	408	423	331	2020	353	334	133
9	532	270	698	376	291	190	122	358	1480	574	495	189
10	438	99	686	378	390	187	176	226	764	369	212	209
11	483	289	658	187	455	175	332	94	762	354	207	277
12	390	444	764	82	230	133	292	208	822	366	153	239
13	268	628	725	247	303	156	340	299	1780	226	76	217
14	330	433	734	345	440	299	364	176	1070	313	142	163
15	500	535	707	387	208	1430	415	232	778	435	263	122
16	444	405	683	309	91	1970	627	312	832	601	259	261
17	464	729	651	278	86	2120	758	167	766	602	190	195
18	413	863	641	199	313	1860	604	84	734	523	199	263
19	406	815	624	156	450	1910	192	253	700	478	286	255
20	218	799	612	339	508	2040	133	384	672	472	198	134
21	291	760	619	540	537	1820	125	406	640	473	184	60
22	442	709	620	480	489	1690	234	482	560	463	240	97
23	417	748	627	482	358	1040	512	702	609	367	170	214
24	472	729	622	624	468	754	752	718	610	96	94	224
25	474	653	629	407	537	698	824	687	529	49	162	160
26	221	729	605	570	531	686	822	519	611	42	228	208
27	85	786	611	781	519	687	788	519	600	41	269	149
28	225	855	608	724	521	671	720	419	530	45	229	57
29	455	852	598	686	---	655	694	575	146	44	233	134
30	418	826	599	672	---	644	660	607	197	116	162	252
31	204	---	603	655	---	621	---	462	---	287	58	---
TOTAL	14667	17006	21168	12256	12249	25714	15251	11404	22841	9989	7157	5400
MEAN	473	567	683	395	437	829	508	368	761	322	231	180
MAX	797	863	895	781	649	2120	824	718	2180	602	495	312
MIN	85	83	598	82	86	133	122	84	146	41	58	44
CAL YR 1985	TOTAL	127788	MEAN	350	MAX	1210	MIN	43				
WTR YR 1986	TOTAL	175102	MEAN	480	MAX	2180	MIN	41				

## DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, NY

LOCATION.--Lat 41°22'14", long 74°41'52", Pike County, Pa., Hydrologic Unit 02040104, on right bank 250 ft downstream from bridge (on U.S. Highways 6 and 209) between Port Jervis, N.Y. and Matamoras, Pa., 1.2 mi upstream from Neversink River, and 6.5 mi downstream from Mongaup River. Water-quality sampling site at discharge station.

DRAINAGE AREA.--3,070 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1904 to current year.

REVISED RECORDS.--WSP 1031: 1905-36. WDR NY-71-1: 1970. WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 415.35 ft above National Geodetic Vertical Datum of 1929. October 1904 to August 13, 1928, nonrecording gage at bridge 250 ft upstream at present datum; operated by U.S. Weather Bureau prior to June 20, 1914.

REMARKS.--Estimated daily discharges: Dec. 21 to Feb. 17. Records good except those for estimated daily discharges, which are fair. Flow regulated by Lake Wallenpaupack and by Toronto, Cliff Lake, and Swinging Bridge Reservoirs (see Reservoirs in Delaware River Basin) and smaller reservoirs. Large diurnal fluctuations at medium and low flows caused by powerplants on tributary streams. Subsequent to September 1954, entire flow from 371 mi<sup>2</sup> of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi<sup>2</sup> of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow from these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Telephone gage-height telemeter and satellite gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 233,000 ft<sup>3</sup>/s Aug. 19, 1955, gage height, 23.91 ft, from floodmarks in gage house, from rating curve extended above 89,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; maximum gage height, 26.6 ft Feb. 12, 1981 (ice jam), from floodmarks; minimum observed discharge, 175 ft<sup>3</sup>/s Sept. 23, 1908, gage height, 0.6 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--The U.S. Weather Bureau reported a discharge of 205,000 ft<sup>3</sup>/s Oct. 10, 1903, gage height, 23.1 ft, from rating curve extended above 70,000 ft<sup>3</sup>/s by velocity-area studies; maximum gage height, 25.5 ft Mar. 8, 1904 (ice jam).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 102,000 ft<sup>3</sup>/s Mar. 15, gage height, 16.02 ft; minimum, 882 ft<sup>3</sup>/s Aug. 31, gage height, 1.82 ft; minimum daily, 1,240 ft<sup>3</sup>/s Aug. 31.

REVISIONS.--Peak and daily discharges have been revised as shown in the following tables. They supersede figures published in WDR NY Vol. 1, 1979, 1980.

Revised peak discharges for 1979-80 water years are given herewith:

Water year	Date	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Water year	Date	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
1979	Mar. 6, 1979	56,600	11.88	1980	Mar. 22, 1980	60,400	12.28

Revised daily discharges, in cubic feet per second, for 1979-80 water years are given herewith:

Water year	Date	Discharge (ft <sup>3</sup> /s)	Water year	Date	Discharge (ft <sup>3</sup> /s)
1979	Mar. 6	52,900	1979	Mar. 8	26,900
1979	Mar. 7	41,000	1980	Mar. 22	50,300

## 01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7990	2070	12400	2300	3800	4900	8020	5820	3480	2300	5710	1390
2	6610	1970	14600	2200	2800	4200	7340	5090	3240	2850	4900	1480
3	5810	1600	15800	2400	3200	4340	6720	4890	3060	3830	4710	1690
4	5300	1720	12100	1900	3800	5010	6160	4130	2720	3020	3960	1660
5	6740	2520	9980	1600	3700	4790	5500	3550	2420	1990	3810	1730
6	12400	2850	8760	1800	3800	4730	5060	3810	9620	1810	3220	1850
7	7960	3560	7160	2500	3600	4470	6030	3920	15800	1770	3400	1730
8	5150	2810	6590	2500	3100	3850	5620	3670	13600	2570	5410	1280
9	4000	2410	6090	2300	2300	2620	4710	3400	12600	2610	4210	1660
10	3370	2030	5750	1700	2600	3010	4270	2980	10100	2520	3450	1560
11	3040	2240	5590	1900	3100	4490	4230	1990	8160	2380	2990	1600
12	2650	3280	7150	1400	2900	6380	4030	2120	11200	2380	3920	1570
13	2430	4700	7800	1600	3000	7950	3840	2160	17700	2430	3170	1820
14	2480	5550	6630	2400	3000	11700	3620	1760	14200	3910	2360	1740
15	2720	8450	5270	2700	2500	76300	3440	1620	11200	4050	2130	1320
16	2710	9230	5070	2400	1700	66400	4190	1680	9810	3370	2800	1800
17	2600	17500	4900	2100	2000	39800	9160	1720	9080	3150	1820	1640
18	2350	20400	4540	1300	3600	27600	10900	2620	8460	2870	3020	1780
19	2160	15000	4190	1400	5240	26600	7510	2540	7260	2870	3540	1730
20	2040	11600	3920	4300	6870	39500	5820	2290	6410	2300	2770	1840
21	2340	9520	3000	13000	8230	27100	5600	2930	5310	2280	2400	1900
22	2420	7980	2800	8400	10400	19400	5910	11300	4740	2480	2310	1620
23	2510	7800	3100	7200	9530	15400	6730	16600	4330	2240	2110	1680
24	2380	7210	3200	5800	8060	13400	7110	13100	4020	1780	1450	1720
25	2830	6320	3000	4400	7210	12200	11000	11400	3550	1590	1690	1520
26	3080	6100	3000	4700	6100	10700	10800	9530	3060	1560	2390	1530
27	2650	8750	3300	7000	5490	10800	8590	8240	3070	1630	2340	1810
28	2540	13200	2600	6400	5440	11200	7830	7370	2740	2000	2000	1410
29	2640	16200	2400	5400	---	10300	7350	6310	1930	2400	1850	1540
30	2480	13600	2600	4400	---	9310	6600	5480	2020	2610	1720	1730
31	2220	---	2700	4300	---	8730	---	4460	---	5590	1240	---
TOTAL	118600	218170	185990	113700	127070	497180	193690	158480	214890	81140	92800	49330
MEAN	3826	7272	6000	3668	4538	16040	6456	5112	7163	2617	2994	1644
MAX	12400	20400	15800	13000	10400	76300	11000	16600	17700	5590	5710	1900
MIN	2040	1600	2400	1300	1700	2620	3440	1620	1930	1560	1240	1280
CAL YR 1985	TOTAL	1266037	MEAN	3469	MAX	48100	MIN	853				
WTR YR 1986	TOTAL	2051040	MEAN	5619	MAX	76300	MIN	1240				



## DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957-60, 1964 to current year.

CHEMICAL DATA: 1958-59 (e), 1964-65 (c), 1966 (a), 1967-68 (c), 1969-76 (d).

MINOR ELEMENTS DATA: 1970 (a), 1972-73 (a), 1974-76 (c).

PESTICIDE DATA: 1974 (a).

ORGANIC DATA: OC--1974 (b), 1975 (d).

NUTRIENT DATA: 1968 (a), 1969-76 (d).

BIOLOGICAL DATA:

Bacteria--1973-76 (d).

Phytoplankton--1974 (b), 1975-76 (c).

Periphyton--1976 (a).

SEDIMENT DATA: 1959 (c), 1976 (c).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1973 to September 1973.

WATER TEMPERATURES: February 1957 to September 1960, January 1973 to September 1973, June 1974 to current year.

SUSPENDED-SEDIMENT DISCHARGE: February 1957 to September 1960, March 1970 to June 1976.

INSTRUMENTATION.--Water-temperature digital recorder since January 1973, provides one-hour-interval punches.

REMARKS.--Interruptions of record were due to malfunctions of recording instrument or probe.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1957-59, 1973-81, 1983-84), 30.0°C July 13, 1981; minimum (water years 1958-60, 1973, 1975-86), 0.0°C on many days during winter periods, except 1984.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 27.5°C July 8, 29, but may have been higher during period of instrument malfunction June 15 to July 7; minimum, 0.0°C on many days during winter period.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	17.5	16.5	17.0	7.5	7.5	7.5	5.0	4.0	4.5	---	---	---
2	17.5	17.0	17.5	8.0	8.0	8.0	4.0	2.5	3.0	---	---	---
3	17.0	16.0	16.0	9.0	8.0	8.5	2.5	1.5	2.0	---	---	---
4	16.0	15.5	16.0	9.5	9.0	9.5	1.5	1.5	1.5	---	---	---
5	16.5	15.5	16.0	10.0	9.0	9.5	2.0	1.5	2.0	---	---	---
6	16.0	14.0	15.0	10.0	9.5	10.0	2.5	2.0	2.0	---	---	---
7	14.5	13.5	14.0	9.5	8.0	9.0	2.5	2.5	2.5	---	---	---
8	13.5	13.0	13.5	9.0	8.5	8.5	3.0	3.0	3.0	---	---	---
9	14.0	13.0	13.5	9.0	9.0	9.0	3.5	3.0	3.5	---	---	---
10	15.0	13.5	14.5	9.0	8.5	9.0	---	---	---	---	---	---
11	15.0	14.5	15.0	8.5	8.5	8.5	---	---	---	---	---	---
12	14.5	13.0	13.5	8.5	8.5	8.5	---	---	---	---	---	---
13	13.5	13.0	13.0	8.5	8.5	8.5	---	---	---	---	---	---
14	13.5	13.0	13.0	8.5	6.5	8.0	---	---	---	---	---	---
15	14.5	13.5	14.0	6.5	5.0	5.5	---	---	---	---	---	---
16	14.5	13.5	14.0	5.5	5.0	5.0	---	---	---	---	---	---
17	13.5	12.5	13.0	6.5	5.5	6.0	---	---	---	.0	.0	.0
18	13.0	12.0	12.5	8.5	7.0	7.5	---	---	---	.0	.0	.0
19	13.5	12.5	13.0	9.0	9.0	9.0	---	---	---	.0	.0	.0
20	13.5	12.5	12.5	9.0	7.5	8.5	---	---	---	.0	.0	.0
21	12.5	11.5	12.0	7.0	6.5	6.5	---	---	---	.0	.0	.0
22	12.0	10.5	11.5	6.5	6.0	6.0	---	---	---	.5	.0	.0
23	---	---	---	6.0	5.5	5.5	---	---	---	.5	.0	.5
24	12.5	10.5	11.5	5.5	4.5	5.0	---	---	---	.0	.0	.0
25	11.5	10.0	11.0	4.5	4.5	4.5	---	---	---	.0	.0	.0
26	11.0	10.0	10.5	4.5	4.5	4.5	---	---	---	.0	.0	.0
27	10.0	8.5	9.5	4.5	4.5	4.5	---	---	---	.0	.0	.0
28	9.0	8.0	8.5	4.5	4.5	4.5	---	---	---	.0	.0	.0
29	8.0	8.0	8.0	4.5	4.5	4.5	---	---	---	.0	.0	.0
30	8.0	7.0	7.5	5.0	4.5	5.0	---	---	---	.0	.0	.0
31	8.0	7.5	7.5	---	---	---	---	---	---	.0	.0	.0
MONTH	---	---	---	10.0	4.5	7.0	---	---	---	---	---	---

## DELAWARE RIVER BASIN

149

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	.0	.0	.0	.5	.0	.5	10.5	9.0	10.0	14.5	13.0	13.5
2	.0	.0	.0	.5	.0	.0	11.0	9.5	10.5	13.0	10.5	12.0
3	.5	.0	.0	1.0	.0	.5	10.5	9.5	10.0	10.5	9.5	10.0
4	.0	.0	.0	1.0	1.0	1.0	10.0	9.0	9.5	11.0	9.5	10.0
5	1.0	.0	.5	2.5	.0	1.5	9.0	8.5	8.5	14.0	10.5	12.0
6	1.5	.5	1.0	1.5	1.0	1.5	8.0	7.0	7.5	15.0	12.5	14.0
7	.5	.0	.0	1.0	.0	.5	8.5	6.5	7.5	17.0	14.5	15.5
8	.0	.0	.0	.0	.0	.0	9.5	8.0	8.5	16.5	15.0	16.0
9	.0	.0	.0	.0	.0	.0	9.0	8.5	9.0	16.5	14.5	15.5
10	.0	.0	.0	1.0	.0	.5	8.5	7.5	8.0	17.0	14.0	15.5
11	.0	.0	.0	3.0	1.0	2.0	7.0	6.5	7.0	17.5	14.5	16.0
12	.0	.0	.0	2.0	1.5	1.5	7.0	6.5	7.0	17.5	15.0	16.5
13	.0	.0	.0	1.5	1.0	1.0	8.0	5.5	7.0	18.5	15.5	17.0
14	.0	.0	.0	1.0	1.0	1.0	9.5	6.5	8.0	18.0	15.5	17.0
15	.0	.0	.0	1.0	.0	.5	9.5	8.5	9.0	17.5	15.5	16.5
16	.0	.0	.0	2.0	.5	1.5	8.5	8.0	8.0	16.5	15.0	16.0
17	.0	.0	.0	2.5	2.0	2.0	8.0	7.0	7.5	19.0	15.5	17.5
18	.0	.0	.0	3.0	2.0	2.5	9.0	7.0	8.0	21.5	17.5	19.5
19	.5	.0	.5	4.0	3.0	3.5	11.0	8.5	10.0	23.0	19.5	21.5
20	.5	.5	.5	4.0	3.0	4.0	11.5	10.5	11.0	21.0	20.0	20.5
21	.5	.5	.5	3.0	2.0	2.0	11.5	11.0	11.5	20.5	19.0	20.0
22	.5	.0	.5	2.5	1.5	2.0	11.0	8.5	10.0	20.0	17.5	19.0
23	.5	.5	.5	3.5	2.0	3.0	8.5	4.5	6.5	17.0	15.5	16.5
24	.5	.5	.5	4.0	3.5	3.5	7.0	4.5	5.5	16.0	15.0	15.5
25	1.0	.5	.5	4.5	3.5	4.0	9.0	6.5	8.0	16.5	15.0	16.0
26	.5	.0	.0	6.5	4.5	5.5	10.0	9.0	9.5	18.0	16.0	17.0
27	.5	.0	.0	7.0	6.5	6.5	12.0	10.0	11.0	19.5	17.5	18.5
28	.5	.0	.0	7.0	6.5	7.0	14.0	11.5	12.5	20.5	18.5	19.5
29	---	---	---	7.5	6.0	7.0	14.5	13.0	14.0	21.5	18.5	20.0
30	---	---	---	9.0	7.0	8.0	15.0	13.0	14.0	22.0	19.5	21.0
31	---	---	---	10.0	8.5	9.5	---	---	---	22.5	20.5	22.0
MONTH	1.5	0.0	0.0	10.0	0.0	2.5	15.0	4.5	9.0	23.0	9.5	16.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	25.0	22.0	23.5	---	---	---	23.0	21.0	22.0	21.0	19.0	20.0
2	23.5	20.5	22.5	---	---	---	22.0	21.0	21.5	21.5	20.0	21.0
3	21.0	18.5	20.0	---	---	---	23.0	20.5	22.0	21.5	20.5	20.5
4	21.5	18.0	20.0	---	---	---	24.0	22.0	23.0	20.5	19.5	20.0
5	22.0	19.0	20.5	---	---	---	25.0	22.5	23.5	19.5	19.0	19.5
6	21.5	18.5	20.0	---	---	---	25.5	22.5	23.5	21.5	19.0	20.0
7	18.5	17.5	18.0	---	---	---	---	---	---	21.0	19.0	20.0
8	19.0	17.5	18.0	27.5	26.0	27.0	24.0	23.0	23.5	19.5	17.5	18.5
9	19.5	18.0	19.0	26.0	24.0	25.0	24.5	22.0	23.5	19.5	17.0	18.5
10	19.5	18.0	19.0	25.0	23.0	24.0	25.0	22.5	24.0	20.0	18.0	19.0
11	21.5	19.0	20.0	23.5	22.5	23.0	25.0	23.0	24.0	21.5	19.5	20.5
12	20.5	18.0	19.5	22.5	20.0	21.5	23.5	22.0	23.0	22.5	21.0	22.0
13	17.5	16.5	17.0	20.5	19.5	20.5	---	---	---	21.5	20.0	21.0
14	18.5	16.5	17.5	22.5	20.0	21.0	---	---	---	21.0	19.0	20.0
15	---	---	---	23.0	20.0	21.5	24.0	21.5	23.0	19.5	18.0	19.0
16	---	---	---	22.0	21.0	21.5	23.5	22.5	23.0	19.0	16.5	18.0
17	---	---	---	23.0	20.5	22.0	24.5	22.5	23.5	17.0	15.0	16.5
18	---	---	---	25.0	22.0	23.5	24.0	23.0	23.5	17.0	15.5	16.5
19	---	---	---	25.0	23.5	24.0	24.0	22.5	23.5	18.0	16.5	17.5
20	---	---	---	24.0	22.5	23.5	24.5	23.0	24.0	18.0	17.0	17.5
21	---	---	---	26.0	23.0	24.5	23.5	22.0	23.0	18.0	17.0	17.5
22	---	---	---	26.5	23.5	25.0	23.5	21.5	22.5	17.5	16.5	16.5
23	---	---	---	27.0	23.0	25.0	24.0	21.5	23.0	16.5	16.0	16.5
24	---	---	---	27.0	24.0	26.0	23.0	21.5	22.0	17.5	16.5	17.0
25	---	---	---	27.0	24.5	26.0	22.0	20.0	21.0	18.0	16.5	17.5
26	---	---	---	26.5	25.0	26.0	22.5	20.0	21.5	19.5	17.0	18.0
27	---	---	---	26.5	25.0	26.0	23.0	21.0	22.0	19.5	18.0	18.5
28	---	---	---	27.0	25.5	26.0	22.0	19.0	20.5	18.0	17.5	17.5
29	---	---	---	27.5	25.5	26.5	19.5	17.5	19.0	18.5	17.0	17.5
30	---	---	---	25.5	23.5	24.5	19.5	17.0	18.5	20.5	17.5	19.0
31	---	---	---	23.5	22.0	23.0	20.5	18.0	19.5	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	22.5	15.0	18.5

## DELAWARE RIVER BASIN

0143400690 EAST BRANCH NEVERSINK RIVER ABOVE TRAY MILL BROOK, NEAR DENNING, NY

LOCATION.--Lat 41°57'51", long 74°27'02", Ulster County, Hydrologic Unit 02040104, 500 ft upstream from Tray Mill Brook, and 2.2 mi northeast of Denning.

DRAINAGE AREA.--9.15 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1984 to current year.

CHEMICAL DATA: 1984 (a), 1985-86 (c).

MINOR ELEMENT DATA: 1984 (a), 1985-86 (c).

ORGANIC DATA: OC--1984 (a), 1985-86 (b).

REMARKS.--All anion and cation analyses were performed on water samples which passed through a 0.1-micrometer membrane filter.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT										
10...	1240	26	20	4.88	--	--	--	--	--	--
10...	1245	--	--	--	6	--	1.3	0.65	0.40	--
DEC										
04...	0830	22	27	4.80	6	--	1.3	0.55	0.30	0.30
FEB										
27...	1700	20	25	5.00	6	6	1.5	0.65	0.40	0.20
MAY										
01...	1630	40	25	4.86	5	5	1.3	0.53	0.40	0.20
16...	1200	17	23	4.98	6	6	1.4	0.64	0.50	0.30

DATE	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
OCT										
10...	0	6.3	0.51	2.3	--	0.409	210	20	70	2.8
10...	--	--	--	2.4	--	--	200	12	61	2.0
DEC										
04...	--	--	--	2.0	--	--	310	15	64	3.0
FEB										
27...	0	6.2	0.54	2.2	14	0.397	230	9	54	2.5
MAY										
01...	0	6.1	0.48	1.7	--	0.216	220	12	53	--
16...	0	6.1	0.52	1.9	--	0.189	190	7	48	1.6

## DELAWARE RIVER BASIN

151

01434010 EAST BRANCH NEVERSINK RIVER AT DENNING, NY

LOCATION.--Lat 41°57'30", long 74°46'18", Ulster County, Hydrologic Unit 02040104, on downstream side of bridge on private road at Strauss Estate, 0.9 mi upstream from Erts Brook, 0.4 mi downstream from Riley Brook, and 1.0 mi northeast of Denning.

DRAINAGE AREA.--13.3 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1983 to current year.

CHEMICAL DATA: 1983 (a), 1984 (e), 1985 (b), 1986 (c).

MINOR ELEMENT DATA: 1983 (a), 1984 (e), 1985 (b), 1986 (c).

ORGANIC DATA: OC--1983 (a), 1984 (e), 1985-86 (b).

REMARKS.--All anion and cation analyses were performed on water samples which passed through a 0.1-micrometer membrane filter.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT										
21...	1530	25	23	5.13	8	8	2.0	0.65	0.40	0.20
FEB										
27...	1800	50	25	5.16	6	6	1.5	0.66	0.30	0.20
MAR										
14...	1640	240	27	4.86	6	6	1.4	0.58	0.40	0.30
15...	1215	--	27	4.63	5	5	1.2	0.43	0.30	0.30
16...	1030	--	--	4.72	6	6	1.4	0.53	0.40	0.40
19...	1142	592	29	4.70	6	6	1.5	0.47	0.40	0.40
MAY										
20...	1010	25	23	5.21	7	7	1.5	0.67	0.40	0.30
21...	1503	19	29	4.53	5	5	1.3	0.54	0.40	0.50

DATE	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SiO2)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
OCT									
21...	0	6.5	0.52	2.5	0.072	170	<9	51	--
FEB									
27...	0	6.3	0.58	2.0	0.383	150	8	37	--
MAR									
14...	0	5.6	0.52	1.7	0.519	320	23	75	3.5
15...	0	4.9	0.41	1.3	0.725	370	37	120	3.8
16...	0	5.8	0.51	1.8	0.619	350	29	96	2.4
19...	0	--	--	1.5	--	330	39	110	--
MAY									
20...	0	6.1	0.55	1.9	0.197	140	7	38	5.0
21...	0	5.5	0.50	1.6	0.328	440	50	83	--



## DELAWARE RIVER BASIN

01434025 BISCUIT BROOK ABOVE PIGEON BROOK AT FROST VALLEY, NY

LOCATION.--Lat 41°59'43", long 74°30'05", Ulster County, Hydrologic Unit 02040104, on right bank 0.2 mi upstream from Pigeon Brook, 0.6 mi upstream from mouth, and 0.8 mi northeast of Frost Valley. Water-quality sampling site at discharge station.

DRAINAGE AREA.--3.80 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1983 to current year. February to May 1983 (occasional discharge measurements).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 2,060 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 20 to Jan. 3, Jan. 6-18, Feb. 13 to Mar. 3, Mar. 14-15, and June 9, 25. Records fair except for those prior to Mar. 23, which are poor. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 803 ft<sup>3</sup>/s Apr. 5, 1984, Sept. 27, 1985, gage height, 2.89 ft; minimum, 0.40 ft<sup>3</sup>/s Sept. 16, 1983; minimum gage height, 0.22 ft Sept. 15, 16, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 15	0100	*414	*2.68	May 21	2200	216	2.29
Mar. 19	1400	310	2.50				

Minimum discharge, 1.6 ft<sup>3</sup>/s Sept. 22; minimum gage height, 0.55 ft, July 24, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	6.1	21	5.3	7.8	7.6	21	12	7.3	4.0	10	2.9
2	9.8	5.9	83	5.2	8.0	7.2	18	9.9	6.4	7.6	11	2.9
3	8.7	5.7	33	5.7	6.9	7.0	15	9.3	5.9	4.9	5.5	2.9
4	9.0	5.5	21	5.4	6.5	7.0	13	8.6	5.5	4.2	4.3	3.0
5	11	9.0	16	5.1	9.8	6.8	12	8.1	5.7	3.8	3.9	5.8
6	9.5	7.8	15	4.5	7.3	6.7	13	7.7	8.4	3.6	17	4.1
7	8.6	7.0	13	4.2	6.7	6.3	14	7.2	9.4	3.4	22	2.7
8	8.1	6.5	12	3.7	6.8	6.8	12	6.7	8.7	3.2	11	2.5
9	7.8	6.0	11	3.8	6.4	6.6	11	6.4	7.3	3.1	7.9	2.3
10	7.7	6.0	9.8	4.0	6.0	6.4	10	6.0	5.9	2.9	6.5	2.2
11	7.4	8.0	11	3.7	6.0	11	9.5	5.7	8.1	2.8	8.9	2.2
12	6.9	15	14	3.5	5.8	8.8	8.7	5.5	25	5.4	6.0	2.5
13	10	16	10	3.3	5.6	11	8.7	5.3	18	5.5	5.3	2.3
14	7.9	19	9.7	3.2	5.4	98	8.1	5.0	12	5.4	4.9	2.0
15	12	23	10	3.3	5.2	171	7.8	4.9	9.1	3.7	4.7	1.9
16	9.5	17	8.5	3.4	4.9	45	12	4.9	9.4	3.1	5.1	2.2
17	7.9	74	8.1	3.6	5.4	25	14	11	12	3.0	5.3	1.9
18	7.5	38	7.4	4.0	5.8	21	11	6.2	8.4	2.9	5.3	1.8
19	11	26	7.7	38	7.0	118	10	5.7	7.5	3.0	4.4	1.9
20	8.9	21	7.7	77	8.0	66	9.8	41	9.8	2.9	4.0	1.7
21	7.7	17	7.1	21	21	36	13	111	7.1	3.2	4.0	1.9
22	7.1	17	6.7	14	13	27	13	96	6.4	2.7	3.8	1.7
23	6.6	19	6.1	11	10	18	13	40	6.0	2.5	4.6	2.8
24	11	15	6.0	12	9.0	16	16	22	6.9	2.5	6.2	2.4
25	12	13	5.6	8.6	8.5	16	25	17	6.0	2.6	4.0	1.8
26	8.4	16	5.5	13	8.8	25	27	13	5.3	4.7	3.7	1.9
27	7.8	30	5.7	11	8.6	34	21	11	5.2	3.9	4.1	1.9
28	7.4	23	5.3	9.8	8.1	29	17	9.5	5.6	3.7	3.6	1.8
29	6.9	19	5.1	9.7	---	30	16	8.2	4.7	3.3	3.3	1.8
30	6.7	16	4.9	9.2	---	36	14	7.4	4.3	3.0	3.2	1.9
31	6.5	---	4.8	8.1	---	29	---	7.1	---	3.2	3.1	---
TOTAL	266.3	507.5	391.7	317.3	218.3	939.2	413.6	519.3	247.3	113.7	196.6	71.6
MEAN	8.59	16.9	12.6	10.2	7.80	30.3	13.8	16.8	8.24	3.67	6.34	2.39
MAX	12	74	83	77	21	171	27	111	25	7.6	22	5.8
MIN	6.5	5.5	4.8	3.2	4.9	6.3	7.8	4.9	4.3	2.5	3.1	1.7
CFSM	2.26	4.45	3.32	2.68	2.05	7.97	3.63	4.42	2.17	.97	1.67	.63
IN.	2.61	4.97	3.83	3.11	2.14	9.19	4.05	5.08	2.42	1.11	1.92	0.70

CAL YR 1985	TOTAL	3220.0	MEAN	8.82	MAX	188	MIN	2.0	CFSM	2.32	IN.	31.52
WTR YR 1986	TOTAL	4202.4	MEAN	11.5	MAX	171	MIN	1.7	CFSM	3.03	IN.	41.14

01434025 BISCUIT BROOK ABOVE PIGEON BROOK, AT FROST VALLEY, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1983 to current year.

CHEMICAL DATA: 1983-86 (e).

MINOR ELEMENT DATA: 1983-86 (e).

ORGANIC DATA: 1983-86 (e)

REMARKS.--All anion and cation analysis were performed on water samples which passed through a 0.1-micrometer membrane filter.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3
OCT												
01...	1054	9.1	20	6.20	--	10	9	2.8	0.61	0.40	0.30	1
15...	1420	17	27	6.30	--	10	9	3.0	0.60	0.30	0.40	1
22...	1000	7.2	27	5.97	--	12	10	3.0	1.0	0.40	0.30	1
25...	1630	10	27	6.57	--	10	9	2.9	0.65	0.30	0.30	1
NOV												
12...	1000	8.1	30	6.24	--	10	8	2.8	0.62	0.30	0.30	2
17...	1400	63	25	5.70	--	8	8	2.5	0.46	0.20	0.30	0
22...	1116	15	31	6.16	--	9	8	2.7	0.56	0.30	0.30	1
26...	0945	13	31	6.22	--	10	9	2.8	0.64	0.30	0.30	1
DEC												
02...	0930	98	21	5.50	--	8	8	2.3	0.45	0.30	0.30	0
03...	0800	36	25	5.79	--	8	8	2.5	0.52	0.30	0.30	0
04...	1200	18	28	6.04	--	9	9	2.6	0.52	0.30	0.30	0
JAN												
03...	1350	6.7	21	6.22	--	10	8	2.8	0.65	0.36	0.0	2
10...	1530	4.0	28	6.07	--	10	8	2.9	0.64	0.30	0.17	2
14...	0943	3.2	28	6.16	--	10	9	2.9	0.64	0.50	0.20	1
19...	1422	22	25	6.21	--	11	10	2.9	0.81	0.41	0.22	1
20...	0014	84	29	5.83	--	10	10	2.9	0.65	0.32	0.26	0
20...	1150	167	29	5.76	--	10	10	2.9	0.62	0.34	0.22	0
20...	1745	44	28	5.51	--	11	11	2.9	0.77	0.39	0.24	0
26...	1000	14	22	6.19	--	10	9	2.9	0.67	0.40	0.20	1
26...	1415	14	19	6.03	--	9	8	2.6	0.59	0.40	0.20	1
FEB												
03...	1730	6.5	28	6.34	0.5	10	--	2.9	0.62	0.30	--	--
11...	1005	6.0	24	6.15	--	9	8	2.8	0.60	0.40	0.20	1
18...	0956	5.0	27	6.29	--	10	8	2.9	0.65	0.40	0.20	2
19...	1240	6.5	28	6.34	--	10	9	2.9	0.71	0.40	0.20	1
25...	1029	9.4	24	6.90	--	9	8	2.8	0.60	0.40	0.20	1
MAR												
04...	1610	7.0	21	6.30	--	9	8	2.7	0.56	0.40	0.20	1
11...	0935	14	29	6.38	--	10	9	2.9	0.63	0.40	0.20	1
13...	1345	9.7	28	6.34	--	9	8	2.8	0.56	0.40	0.30	1
14...	1330	36	26	6.13	--	9	8	2.7	0.46	0.40	0.30	1
14...	1940	167	--	5.62	--	8	8	2.4	0.43	0.30	0.30	0
15...	0642	216	--	4.94	--	7	7	1.9	0.44	0.30	0.40	0
15...	1110	154	27	4.98	--	7	7	2.2	0.46	0.30	0.40	0
15...	1345	114	27	5.03	--	7	7	2.2	0.45	0.30	0.30	0
16...	1440	39	26	5.64	--	8	8	2.4	0.39	0.30	0.30	0
18...	0915	19	26	5.41	--	8	8	2.6	0.40	0.40	0.30	0
19...	1700	216	26	4.98	--	7	7	2.4	0.35	0.30	0.40	0
20...	0930	62	--	5.24	--	8	8	2.3	0.48	0.30	0.30	0
25...	1020	14	26	5.94	--	9	9	2.6	0.57	0.40	0.30	0

## DELAWARE RIVER BASIN

01434025 BISCUIT BROOK ABOVE PIGEON BROOK, AT FROST VALLEY NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
OCT											
01...	6.6	0.58	--	2.2	15	0.151	--	70	38	8	--
15...	7.3	0.79	--	2.2	16	0.035	--	60	14	11	--
22...	6.9	0.64	--	2.4	16	0.069	--	50	<3	<1	--
25...	6.9	0.74	--	2.3	15	0.047	--	80	4	1	--
NOV											
12...	6.9	0.70	--	2.2	16	0.150	--	50	5	3	--
17...	6.5	0.62	--	1.9	--	0.212	--	110	4	32	3.4
22...	6.8	0.61	--	2.2	15	0.179	--	40	<3	5	2.2
26...	6.7	0.63	--	2.2	15	0.189	--	60	5	5	--
DEC											
02...	6.2	0.48	--	1.7	13	0.291	--	200	15	40	--
03...	6.6	0.54	--	1.9	14	0.238	--	120	7	21	--
04...	6.7	0.57	--	2.0	14	0.214	--	80	4	12	2.1
JAN											
03...	6.9	0.72	--	2.1	16	0.324	--	40	<3	2	--
10...	6.9	0.70	--	2.3	16	0.268	--	20	3	1	--
14...	7.0	0.68	--	2.4	16	0.273	--	40	10	2	--
19...	6.5	0.70	--	1.9	17	0.518	--	80	9	15	--
20...	6.1	0.60	--	1.6	16	0.848	--	130	11	34	--
20...	6.0	0.58	--	1.4	17	0.943	--	150	11	43	--
20...	6.0	0.58	--	1.7	17	0.858	--	160	10	45	--
26...	6.8	0.60	--	2.2	16	0.382	--	50	11	6	--
26...	6.7	0.56	--	2.1	15	0.388	--	50	5	6	--
FEB											
03...	--	--	--	2.2	--	--	--	40	7	3	1.7
11...	5.8	0.52	--	2.1	14	0.274	--	40	5	1	--
18...	6.7	0.61	--	2.1	16	0.386	--	30	6	3	--
19...	6.5	0.57	--	2.0	16	0.424	--	40	9	5	--
25...	6.6	0.57	--	2.0	16	0.356	--	50	6	5	--
MAR											
04...	6.8	0.62	--	2.0	15	0.311	--	40	11	3	1.5
11...	6.6	0.65	--	1.8	16	0.496	--	50	7	4	2.7
13...	6.7	0.61	--	1.9	16	0.420	--	50	5	4	1.3
14...	6.7	0.54	--	1.7	16	0.556	--	100	9	18	1.8
14...	5.2	0.43	--	1.4	14	0.756	--	170	22	52	--
15...	5.0	0.36	--	1.3	--	0.729	--	240	43	84	3.7
15...	5.2	0.39	--	1.4	--	0.722	--	210	18	78	3.7
15...	5.3	0.39	--	1.4	--	0.706	--	200	18	72	3.4
16...	5.8	0.43	--	1.7	14	0.590	--	130	7	34	--
18...	5.2	0.41	--	1.9	--	0.423	--	90	40	19	2.0
19...	5.5	0.40	--	1.2	--	0.596	--	230	57	78	--
20...	6.0	0.45	--	1.5	--	0.517	--	160	8	44	2.6
25...	6.5	0.52	--	1.9	15	0.393	--	70	5	10	2.1

01434025 BISCUIT BROOK ABOVE PIGEON BROOK, AT FROST VALLEY NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3
APR												
01...	1050	21	22	5.82	--	8	8	2.4	0.47	0.40	0.30	0
08...	0945	12	19	5.80	--	8	8	2.5	0.52	0.40	0.20	0
14...	1240	8.1	--	6.11	--	8	7	2.5	0.50	0.40	0.30	1
15...	0925	7.7	26	6.26	--	9	8	2.7	0.58	0.50	0.30	1
17...	0850	14	25	6.09	--	9	8	2.5	0.56	0.40	0.20	1
22...	0910	12	25	6.21	--	9	8	2.6	0.57	0.40	0.20	1
MAY												
01...	1430	11	24	6.36	--	8	7	2.4	0.47	0.40	0.20	1
06...	0900	7.7	26	6.19	--	8	7	2.5	0.54	0.40	0.20	1
13...	0930	5.4	26	6.38	--	8	7	2.4	0.52	0.50	0.40	1
15...	1855	4.9	24	5.60	--	8	8	2.3	0.53	0.40	0.20	0
19...	1615	5.5	26	6.56	--	10	9	2.9	0.60	0.40	0.20	1
20...	0925	5.4	27	6.30	--	10	8	2.8	0.68	0.50	0.40	2
20...	1400	9.1	26	6.41	--	9	8	2.7	0.65	0.40	0.50	1
20...	1722	28	25	6.36	--	10	9	2.9	0.69	0.50	0.40	1
21...	1000	91	24	5.27	--	8	8	2.3	0.57	0.30	0.40	0
21...	1215	106	25	5.19	--	8	8	2.3	0.53	0.40	0.40	0
21...	1955	82	24	5.27	--	7	7	2.2	0.42	0.30	0.30	0
27...	0915	12	26	6.24	--	9	8	2.7	0.59	0.40	0.20	1
JUN												
03...	0935	5.8	25	6.35	--	9	8	2.7	0.58	0.40	0.20	1
06...	1746	7.5	26	6.81	--	9	8	2.6	0.62	0.40	0.20	1
09...	1230	6.7	25	6.23	--	8	7	2.3	0.56	0.40	0.20	1
10...	0935	6.0	25	6.30	--	9	7	2.6	0.53	0.40	0.10	1
17...	0915	12	25	6.21	--	9	8	2.7	0.54	0.40	0.10	1
JUL												
01...	0920	4.2	27	6.34	--	9	8	2.7	0.59	0.40	0.40	2
08...	0845	3.4	27	6.33	--	9	8	2.7	0.60	0.70	0.50	2
15...	0935	3.9	26	6.43	--	10	8	2.8	0.64	0.50	0.40	2
15...	0940	3.9	27	6.37	--	7	5	2.1	0.41	0.50	0.50	2
22...	1130	3.0	27	6.39	--	9	8	2.7	0.65	0.60	0.50	2
29...	0935	3.4	27	6.41	--	9	8	2.8	0.55	0.50	0.40	2
30...	1245	3.0	--	6.43	--	10	8	2.8	0.68	0.50	0.30	2
AUG												
05...	1150	4.2	26	6.39	--	9	8	2.7	0.63	0.50	0.30	2
12...	0935	6.2	25	5.71	--	9	8	2.7	0.59	0.50	0.30	2
19...	0930	4.6	26	5.98	--	9	7	2.8	0.59	0.40	0.30	2
26...	0930	3.9	27	5.92	--	10	8	2.8	0.62	0.50	0.30	2
26...	0932	3.9	27	6.11	--	9	7	2.7	0.62	0.50	0.40	2
SEP												
02...	1030	3.1	27	6.10	--	10	8	2.9	0.63	0.50	0.30	2
03...	--	--	27	6.40	--	10	--	2.9	0.71	0.50	0.20	--
09...	0951	2.3	28	6.03	--	10	8	2.9	0.61	0.50	0.30	2
23...	0935	2.3	29	6.50	--	10	6	2.9	0.63	0.50	0.50	4
30...	0910	1.8	29	6.10	--	10	8	2.9	0.60	0.50	0.40	2



## DELAWARE RIVER BASIN

01434025 BISCUIT BROOK ABOVE PIGEON BROOK, AT FROST VALLEY NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
APR											
01...	6.2	0.46	--	1.7	14	0.300	--	80	6	13	2.0
08...	6.6	0.55	--	1.9	14	0.246	--	70	6	6	1.9
14...	6.7	0.54	--	1.8	14	0.191	--	50	<3	4	--
15...	6.7	0.54	--	1.7	14	0.196	--	60	46	4	12
17...	6.5	0.52	--	1.7	14	0.232	--	70	5	8	2.6
22...	6.6	0.52	--	1.8	14	0.227	--	70	8	6	2.0
MAY											
01...	6.7	0.51	--	1.6	13	0.131	--	30	7	4	--
06...	6.8	0.55	--	1.6	14	0.155	--	50	10	2	1.8
13...	6.8	0.57	--	1.4	14	0.154	--	40	50	1	2.7
15...	6.8	0.58	--	1.6	13	0.156	--	40	4	<1	--
19...	6.8	0.56	--	1.9	15	0.150	--	--	<3	<1	--
20...	6.7	0.59	--	1.9	16	0.209	--	50	6	2	1.9
20...	6.5	0.56	--	1.9	15	0.208	--	50	9	3	--
20...	6.1	0.52	--	1.8	15	0.223	--	80	53	5	3.2
21...	5.5	0.46	--	1.6	13	0.457	--	190	24	40	4.6
21...	5.4	0.46	--	1.6	--	0.447	--	230	31	47	--
21...	5.6	0.45	--	1.6	--	0.387	--	190	16	38	--
27...	6.0	0.46	--	1.9	14	0.156	--	60	66	6	2.3
JUN											
03...	6.3	0.49	--	2.1	14	0.178	--	50	19	2	2.9
06...	6.7	0.49	0.020	2.1	15	0.210	<0.010	60	8	3	2.4
09...	6.5	0.48	0.020	2.1	14	0.180	<0.010	50	<3	2	--
10...	6.7	0.55	--	2.2	15	0.175	--	60	5	3	2.2
17...	6.8	0.44	0.020	2.0	15	0.160	<0.010	90	11	6	--
JUL											
01...	6.7	0.54	--	2.3	15	0.182	--	40	4	<1	--
08...	6.9	0.60	--	2.4	16	0.244	--	40	7	<1	--
15...	0.6	0.49	--	2.4	10	0.217	--	50	19	<1	1.9
15...	7.0	0.52	0.020	1.8	15	0.230	<0.010	--	8	<1	--
22...	0.7	0.61	--	2.4	10	0.273	--	40	4	<1	1.7
29...	6.6	0.56	--	2.4	16	0.252	--	70	16	3	--
30...	6.6	0.57	--	2.5	16	0.244	--	30	7	2	--
AUG											
05...	6.6	0.48	--	2.3	16	0.203	--	50	5	<1	2.7
12...	6.7	0.45	--	2.1	15	0.158	--	60	5	<1	2.5
19...	6.7	0.54	--	2.3	16	0.175	--	40	5	2	2.3
26...	7.0	0.51	0.010	2.3	16	0.220	<0.010	40	5	<1	1.6
26...	7.0	0.51	0.010	2.3	16	0.230	<0.010	40	3	<1	1.8
SEP											
02...	7.0	0.55	0.010	2.6	17	0.220	<0.010	40	7	1	--
03...	--	--	--	2.4	--	--	--	50	<3	<1	--
09...	6.9	0.58	--	2.4	16	0.226	--	30	<3	<1	39
23...	7.0	0.64	--	2.5	18	0.203	--	30	5	2	2.1
30...	6.9	0.67	--	2.6	18	0.632	--	40	7	4	3.0

0143402705 PIGEON BROOK AT MOUTH, AT FROST VALLEY, NY

LOCATION.--Lat 41°59'13", long 74°30'11", Ulster County, Hydrologic Unit 02040104, at bridge on private road, 250 ft upstream from Biscuit Brook, at Frost Valley, and 0.4 mi north of West Branch Road.

DRAINAGE AREA.--2.67 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1983 to current year.

CHEMICAL DATA: 1983 (a), 1984-86 (d).

MINOR ELEMENT DATA: 1983 (a), 1984-86 (d).

ORGANIC DATA: OC--1983 (a), 1984 (d), 1985 (c), 1986 (b).

REMARKS.--All anion and cation analyses were performed on water samples which passed through a 0.1-micrometer membrane filter.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CaCO <sub>3</sub> )	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CaCO <sub>3</sub>	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT										
22...	1015	5.2	29	6.78	12	9	4.0	0.60	0.40	0.30
FEB										
19...	1340	7.6	30	6.61	11	8	3.5	0.54	0.40	0.30
MAR										
14...	2345	280	23	5.50	7	7	2.3	0.30	0.30	0.50
15...	0715	275	24	5.31	7	7	2.3	0.39	0.20	0.40
15...	1050	98	25	5.27	8	8	2.4	0.47	0.20	0.30
15...	1445	70	--	5.32	8	8	2.4	0.40	0.20	0.30
16...	1230	78	29	5.98	9	8	2.9	0.35	0.30	0.40
APR										
08...	1730	8.6	--	6.52	9	8	2.9	0.47	0.30	0.20
08...	1735	--	--	--	9	--	2.9	0.53	0.30	0.20
MAY										
19...	1645	3.2	29	6.79	--	--	--	0.60	0.40	0.30
20...	--	--	29	6.66	11	8	3.5	0.64	0.50	0.40
22...	1630	38	23	5.99	8	8	2.5	0.31	0.30	0.21

DATE	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CaCO <sub>3</sub>	SULFATE DIS- SOLVED (MG/L AS SO <sub>4</sub> )	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SiO <sub>2</sub> )	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
OCT										
22...	3	7.0	0.64	2.4	18	0.070	--	9	1	--
FEB										
19...	3	6.5	0.56	2.0	17	0.399	50	10	1	--
MAR										
14...	0	4.5	0.35	1.2	13	0.637	170	33	48	4.1
15...	0	4.9	0.33	1.2	--	0.724	170	25	63	3.6
15...	0	5.1	0.37	1.3	14	0.701	150	20	60	4.4
15...	0	5.3	0.37	1.3	--	0.676	160	21	49	--
16...	1	6.2	0.47	1.7	16	0.709	110	10	30	--
APR										
08...	1	6.6	0.53	1.7	14	0.182	50	6	2	1.9
08...	--	--	--	1.8	--	--	50	5	2	--
MAY										
19...	3	6.8	0.55	1.8	--	0.130	--	4	<1	--
20...	3	4.8	0.39	1.8	15	0.145	60	16	2	--
22...	0	5.7	0.45	1.5	13	0.281	150	25	18	--

## DELAWARE RIVER BASIN

0143410505 HIGH FALLS BROOK AT FROST VALLEY, NY

LOCATION.--Lat 41°58'33", long 74°31'19", Ulster County, Hydrologic Unit 02040104, at bridge on West Branch Road, 0.1 mi upstream from mouth, and 1.0 southwest of Frost Valley.

DRAINAGE AREA.--2.76 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1983 to current year.

CHEMICAL DATA: 1983 (a), 1984 (c), 1985-86 (d).

MINOR ELEMENT DATA: 1983 (a), 1984 (c), 1985-86 (d).

ORGANIC DATA: OC--1983 (a), 1984 (c), 1985-86 (d).

REMARKS.--All anion and cation analyses were performed on water samples which passed through a 0.1-micrometer membrane filter.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT										
22...	0950	7.6	34	7.04	15	10	5.0	0.57	0.40	0.20
NOV										
05...	1520	9.6	30	6.90	13	8	4.2	0.54	0.34	0.24
22...	1735	8.1	31	6.67	12	10	3.9	0.53	0.30	0.30
DEC										
04...	1145	16	30	6.60	12	10	4.0	0.60	0.30	0.30
JAN										
20...	1832	23	27	6.40	--	--	--	--	--	--
21...	0935	8.2	30	6.60	12	9	3.9	0.55	0.31	0.21
FEB										
18...	1750	19	--	6.80	13	9	4.3	0.59	0.30	0.30
28...	1100	4.8	33	6.87	12	9	4.0	0.54	0.30	0.20
MAR										
14...	1430	25	31	6.67	11	8	3.8	0.45	0.40	0.30
15...	0920	160	27	5.67	8	7	2.6	0.28	0.30	0.50
15...	1415	91	28	5.57	9	0	2.7	0.48	0.30	0.40
15...	1920	--	--	--	8	0	2.6	0.28	0.30	0.50
19...	1600	165	26	5.42	8	0	2.6	0.25	0.30	0.40
APR										
08...	1830	11	30	6.92	11	8	3.6	0.47	0.30	0.30
MAY										
01...	1530	13	31	6.87	11	7	3.7	0.48	0.40	0.30
15...	1200	12	33	6.91	13	9	4.4	0.58	0.40	0.30
15...	1205	--	--	--	--	--	--	--	--	--
15...	2015	--	--	--	--	--	--	--	--	--
15...	2030	--	--	--	--	--	--	--	--	--
15...	2100	--	--	--	--	--	--	--	--	--
19...	1540	11	33	7.01	13	8	4.2	0.60	0.40	0.40
21...	1420	46	26	6.42	10	9	3.3	0.43	0.40	0.40

DATE	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
OCT										
22...	5	6.9	0.60	2.5	20	0.140	30	8	<1	--
NOV										
05...	5	6.4	0.69	2.1	18	0.154	40	10	<10	--
22...	2	6.7	0.62	2.1	16	0.232	40	5	2	2.0
DEC										
04...	3	6.8	0.57	2.2	18	0.257	60	12	4	1.9
JAN										
20...	2	6.1	0.56	1.8	--	0.727	80	22	12	--
21...	3	6.3	0.60	1.9	19	0.702	60	6	6	--
FEB										
18...	4	7.0	0.73	2.1	19	0.339	30	6	3	1.4
28...	4	7.0	0.58	2.0	18	0.369	30	20	<10	2.3
MAR										
14...	4	6.2	0.65	1.9	18	0.387	40	7	3	--
15...	0	5.1	0.39	--	--	0.878	--	--	--	3.7
15...	0	5.3	0.38	1.4	--	0.819	150	17	63	--
15...	--	--	--	1.3	--	--	180	28	71	--
19...	0	5.7	0.43	1.3	--	0.614	180	25	61	--
APR										
08...	3	6.7	0.53	1.8	17	0.242	30	13	5	1.6
MAY										
01...	4	6.8	0.50	1.6	17	0.203	30	9	<1	--
15...	5	7.0	0.52	1.8	19	0.211	30	51	<1	1.4
15...	--	--	--	--	--	--	--	--	--	1.3
15...	--	--	--	--	--	--	--	--	--	1.6
15...	--	--	--	--	--	--	--	--	--	1.5
15...	--	--	--	--	--	--	--	--	--	1.3
19...	5	6.9	0.53	1.9	19	0.173	--	10	<1	--
21...	1	5.7	0.47	1.7	15	0.355	140	60	12	--

## DELAWARE RIVER BASIN

159

01435000 NEVERSINK RIVER NEAR CLARYVILLE, NY

LOCATION.--Lat 41°53'24", long 74°35'25", Sullivan County, Hydrologic Unit 02040104, on left bank 50 ft downstream from covered bridge, 300 ft upstream from small tributary, 2.2 mi downstream from confluence of East and West Branches, and 2.2 mi southwest of Claryville.

DRAINAGE AREA.--66.6 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1951 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,522.37 ft above National Geodetic Vertical Datum of 1929. Prior to October 1, 1974, at datum 6.00 ft higher. Oct. 1, 1974 to Sept. 30, 1979 at datum 5.00 ft higher.

REMARKS.--Estimated daily discharges: Dec. 19 to Jan. 1, Jan. 7-18, Jan. 29 to Feb. 1, and Feb. 8-17. Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Intermittent water-quality data for this station are included in section "ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES".

AVERAGE DISCHARGE.--35 years, 188 ft<sup>3</sup>/s, 38.33 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,600 ft<sup>3</sup>/s Mar. 21, 1980; maximum gage height, 13.83 ft present datum, July 10, 1952; minimum discharge, 6.8 ft<sup>3</sup>/s Sept. 24, 25, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 25, 1950, reached a stage of about 15.0 ft present datum, from floodmarks, discharge, 23,400 ft<sup>3</sup>/s by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 15	0215	*4,920	*10.19	Mar. 19	1615	3,420	9.56

Minimum discharge, 40 ft<sup>3</sup>/s Sept. 21, 22, 30, gage height, 5.44 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	172	142	304	96	150	156	359	226	187	86	55	50
2	169	136	836	92	142	145	322	211	144	170	89	48
3	159	131	458	105	135	135	288	196	123	120	66	48
4	159	126	345	104	129	129	262	183	114	93	54	49
5	234	182	301	94	158	125	246	171	117	84	48	73
6	220	188	273	87	150	123	268	159	247	78	150	105
7	177	164	242	74	126	120	287	150	282	72	449	63
8	157	147	222	66	120	107	250	138	229	68	163	55
9	145	136	205	72	115	118	230	128	203	66	108	50
10	138	131	190	80	110	115	217	118	157	63	88	47
11	130	159	196	74	105	160	203	113	183	60	169	46
12	124	207	265	70	105	150	189	110	455	86	103	45
13	155	266	214	66	100	163	173	105	393	91	86	45
14	147	260	193	62	98	788	161	101	293	113	77	42
15	178	395	167	62	95	2940	151	97	236	77	73	41
16	184	299	171	66	98	911	229	97	315	64	76	45
17	152	832	162	70	105	515	271	185	313	60	91	43
18	142	552	153	74	139	413	226	115	237	57	137	41
19	158	445	140	139	165	1720	202	103	208	56	89	42
20	166	377	145	490	177	1260	192	254	217	55	75	41
21	145	316	130	352	248	563	222	1140	181	56	72	41
22	137	289	130	233	286	417	247	1340	155	51	72	40
23	131	299	125	202	211	359	234	729	141	47	66	45
24	181	254	120	166	186	328	244	429	131	45	85	50
25	349	225	115	144	171	307	334	326	124	45	65	44
26	222	236	110	240	158	378	372	275	111	64	60	42
27	193	421	100	230	168	487	323	239	106	95	60	42
28	176	388	105	170	160	445	284	212	115	66	57	41
29	165	339	110	155	---	433	260	188	101	60	54	41
30	157	298	105	145	---	477	242	163	93	54	52	40
31	149	---	100	140	---	446	---	148	---	53	51	---
TOTAL	5271	8340	6432	4220	4110	14933	7488	8149	5911	2255	2940	1445
MEAN	170	278	207	136	147	482	250	263	197	72.7	94.8	48.2
MAX	349	832	836	490	286	2940	372	1340	455	170	449	105
MIN	124	126	100	62	95	107	151	97	93	45	48	40
CFSM	2.55	4.17	3.11	2.04	2.21	7.24	3.75	3.95	2.96	1.09	1.42	.72
IN.	2.94	4.66	3.59	2.36	2.30	8.34	4.18	4.55	3.30	1.26	1.64	0.81

CAL YR 1985	TOTAL	55482	MEAN	152	MAX	1760	MIN	51	CFSM	2.28	IN.	30.99
WTR YR 1986	TOTAL	71494	MEAN	196	MAX	2940	MIN	40	CFSM	2.94	IN.	39.93



## DELAWARE RIVER BASIN

01436000 NEVERSINK RIVER AT NEVERSINK, NY

LOCATION.--Lat 41°49'12", long 74°38'09", Sullivan County, Hydrologic Unit 02040104, on right bank at downstream end of outlet channel, 1,650 ft downstream from Neversink Dam and State Highway 55, 1.7 mi southwest of Neversink, and 2.6 mi upstream from Wynkoop Brook.

DRAINAGE AREA.--92.6 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1941 to current year.

REVISED RECORDS.--WDR NY-72-1: 1961 (M), 1968 (M). WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,255.24 ft Board of Water Supply, City of New York datum. Prior to Jan. 17, 1953, water-stage recorder at site 650 ft downstream at datum 0.20 ft lower. Jan. 17, 1953 to Apr. 16, 1954, water-stage recorder at present site at datum 0.41 ft higher.

REMARKS.--No estimated daily discharges. Records fair. Subsequent to June 1953, entire flow from 92.5 mi<sup>2</sup> of drainage area controlled by Neversink Reservoir (see Reservoirs in Delaware River Basin). Part of flow diverted for New York City municipal supply (see Reservoirs in Delaware River Basin). Remainder of flow (except for conservation release and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,300 ft<sup>3</sup>/s Nov. 25, 1950, from rating curve extended above 2,600 ft<sup>3</sup>/s on basis of contracted-opening and critical-depth measurements of peak flow; maximum gage height, 17.65 ft Sept. 27, 1942, site and datum then in use; minimum discharge, no flow for all or part of each day Sept. 27-24, Oct. 26-29, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,500 ft<sup>3</sup>/s May 22, gage height, 4.95 ft; minimum, 2.4 ft<sup>3</sup>/s Jan. 30, gage height, 2.23 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	15	15	23	22	21	47	43	42	43	47	62
2	15	15	15	23	22	21	45	43	42	43	46	51
3	15	15	14	23	21	21	44	43	42	42	47	51
4	15	15	15	24	21	21	44	42	42	43	45	45
5	15	15	15	24	21	21	43	43	43	43	46	45
6	15	15	15	24	21	21	43	43	43	43	47	48
7	15	15	15	23	21	21	44	43	43	63	47	46
8	15	15	15	23	21	22	43	43	42	87	46	46
9	15	15	15	23	21	22	42	43	42	88	44	46
10	15	15	15	23	21	22	42	43	42	79	45	46
11	15	15	15	22	21	22	42	44	42	60	46	45
12	15	15	15	22	21	22	43	43	43	46	46	52
13	15	15	14	22	21	23	45	45	46	46	46	68
14	15	15	13	22	22	24	43	45	98	45	45	60
15	15	15	14	23	21	24	43	45	91	45	46	46
16	16	15	14	23	21	23	44	45	62	45	46	45
17	15	15	14	22	21	22	45	45	99	55	47	46
18	15	15	14	22	21	22	45	45	50	68	46	46
19	15	15	18	23	21	23	46	45	43	68	47	47
20	15	15	24	23	21	22	46	45	43	68	47	45
21	15	15	24	23	21	22	44	266	43	67	47	46
22	15	15	24	23	21	22	43	1030	43	54	46	45
23	15	15	24	23	21	22	43	806	43	45	46	43
24	15	15	24	23	21	22	43	235	43	57	45	43
25	15	15	23	23	21	22	44	59	42	69	47	43
26	15	16	24	24	21	22	43	45	43	71	47	43
27	15	15	24	22	21	22	43	45	43	70	46	43
28	15	16	23	22	21	22	44	46	43	69	43	44
29	15	15	23	22	---	22	44	44	43	68	45	44
30	15	15	23	16	---	22	43	42	43	58	54	43
31	15	---	23	22	---	34	---	42	---	47	70	---
TOTAL	466	452	563	700	591	694	1313	3536	1469	1795	1458	1423
MEAN	15.0	15.1	18.2	22.6	21.1	22.4	43.8	114	49.0	57.9	47.0	47.4
MAX	16	16	24	24	22	34	47	1030	99	88	70	68
MIN	15	15	13	16	21	21	42	42	42	42	43	43

CAL YR 1985 TOTAL 6477.5 MEAN 17.7 MAX 60 MIN 4.6  
WTR YR 1986 TOTAL 14460 MEAN 39.6 MAX 1030 MIN 13

## DELAWARE RIVER BASIN

161

01436500 NEVERSINK RIVER AT WOODBOURNE, NY

LOCATION.--Lat 41°45'24", long 74°35'52", Sullivan County, Hydrologic Unit 02040104, on left bank 0.2 mi downstream from highway bridge at Woodbourne, 0.3 mi upstream from outlet of South Wind Lake. Water-quality sampling site at discharge station.

DRAINAGE AREA.--113 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to September 1973, October 1977 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,180 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 20, 1938, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 19 to Jan. 19, Feb. 2 to Mar. 10, and Apr. 5-7. Records good except those for estimated daily discharges, which are poor. Subsequent to June 1953, entire flow from 92.5 mi<sup>2</sup> of drainage area controlled by Neversink Reservoir. Part of flow diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Several measurements of water temperature were made during the year. Satellite gage-height and temperature telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,000 ft<sup>3</sup>/s Nov. 26, 1950, gage height, 11.19 ft from rating curve extended above 15,000 ft<sup>3</sup>/s; maximum gage height, 11.2 ft July 22, 1938, from floodmarks; minimum discharge, 6.7 ft<sup>3</sup>/s June 27, 1953; minimum gage height, 0.80 ft Aug. 25, 27, 28, 1949; minimum daily discharge, 8.2 ft<sup>3</sup>/s June 25, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,690 ft<sup>3</sup>/s May 22, gage height, 4.73 ft; minimum, 31 ft<sup>3</sup>/s Oct. 24, Nov. 3, 4, gage height, 1.27 ft; minimum daily discharge, 31 ft<sup>3</sup>/s Nov. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	32	104	45	85	52	97	78	70	54	64	69
2	53	32	205	45	80	50	93	77	62	123	65	53
3	56	31	109	46	74	47	86	74	58	82	63	58
4	58	32	86	47	70	46	84	70	56	63	57	52
5	84	52	75	45	66	45	86	69	112	58	56	54
6	72	66	72	43	64	45	96	68	473	55	57	58
7	55	55	66	41	62	45	108	67	257	63	59	53
8	49	44	63	42	60	45	90	65	157	90	56	53
9	44	39	60	43	60	45	82	63	117	91	52	51
10	41	40	57	46	58	46	78	62	92	86	52	51
11	38	57	65	45	56	60	77	62	92	70	91	49
12	37	85	107	45	56	63	75	61	198	68	61	53
13	42	86	76	44	54	76	74	60	159	69	56	68
14	42	81	68	42	54	232	70	60	157	85	53	65
15	48	120	63	45	54	887	69	59	137	62	53	48
16	49	86	59	45	54	328	106	60	118	57	56	48
17	39	277	54	45	54	199	123	76	192	59	79	47
18	36	152	52	45	70	177	93	64	99	73	163	48
19	38	109	50	70	92	398	86	60	82	73	83	50
20	40	91	48	212	170	288	83	67	80	73	69	47
21	35	78	46	133	190	157	92	273	72	72	66	49
22	33	76	45	92	130	121	96	1150	67	63	68	48
23	32	83	45	75	100	108	97	1010	65	51	61	48
24	41	71	46	81	82	101	116	334	63	56	64	50
25	71	63	46	79	74	97	117	109	61	72	59	48
26	46	77	47	256	68	103	100	82	58	117	56	50
27	41	153	47	198	62	108	94	73	57	117	56	51
28	37	155	46	149	56	101	88	69	60	91	51	49
29	35	122	45	131	---	93	84	65	58	83	52	50
30	36	103	45	107	---	90	82	60	55	75	55	49
31	33	---	45	96	---	88	---	60	---	69	72	---
TOTAL	1415	2548	2042	2478	2155	4341	2722	4607	3384	2320	2005	1567
MEAN	45.6	84.9	65.9	79.9	77.0	140	90.7	149	113	74.8	64.7	52.2
MAX	84	277	205	256	190	887	123	1150	473	123	163	69
MIN	32	31	45	41	54	45	69	59	55	51	51	47
CAL YR 1985	TOTAL	18481	MEAN	50.6	MAX	419	MIN	19				
WTR YR 1986	TOTAL	31584	MEAN	86.5	MAX	1150	MIN	31				

## DELAWARE RIVER BASIN

01436500 NEVERSINK RIVER AT WOODBOURNE, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1965, 1972, 1978 to current year.

CHEMICAL DATA: 1964 (b), 1965 (c), 1972 (a).

NUTRIENT DATA: 1964 (b), 1965 (c), 1972 (a).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: July and August 1978, May 1979 to current year.

INSTRUMENTATION.--Water-temperature digital recorder since July 1978, provides one-hour-interval punches.

REMARKS.--Interruptions of record were due to malfunction of recording instruments.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1979-83, 1985), 26.5°C June 16, 1981; minimum (water years 1980-86), 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Minimum, 0.0°C on many days during winter period.

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	16.0	12.0	14.0	10.0	5.5	7.0	5.0	4.5	4.5	.5	.0	.0
2	15.5	13.5	14.5	7.0	6.0	6.5	6.0	3.0	5.0	.0	.0	.0
3	13.5	12.5	12.5	9.5	7.0	8.0	3.0	.5	1.5	.0	.0	.0
4	13.0	12.0	12.5	8.5	7.5	8.0	2.0	.5	1.0	.0	.0	.0
5	14.5	12.0	13.5	9.0	7.5	8.0	2.0	1.0	1.5	.0	.0	.0
6	13.5	10.5	12.0	9.5	8.5	9.0	3.0	1.5	2.5	.0	.0	.0
7	13.0	9.0	11.0	11.0	8.0	9.0	3.0	1.5	2.5	.0	.0	.0
8	13.5	9.0	11.0	10.0	7.5	8.5	3.5	3.0	3.0	.0	.0	.0
9	14.5	10.5	12.0	8.5	6.0	7.0	4.0	3.5	4.0	.0	.0	.0
10	16.0	11.5	13.5	9.5	8.0	8.5	4.5	3.5	4.0	.0	.0	.0
11	16.0	11.5	13.5	9.5	7.5	9.0	4.5	4.0	4.5	.0	.0	.0
12	12.5	9.0	10.5	7.5	6.5	7.0	5.0	3.5	4.5	.0	.0	.0
13	10.5	10.0	10.5	9.5	7.0	8.5	3.5	1.0	2.0	.0	.0	.0
14	12.5	10.5	11.5	9.5	8.5	9.0	2.5	.5	1.5	.0	.0	.0
15	14.0	12.5	13.5	8.5	5.5	7.5	.5	.5	.5	.0	.0	.0
16	13.5	11.0	12.5	5.5	2.5	4.0	1.5	.5	1.0	.0	.0	.0
17	13.0	8.5	10.5	6.0	3.0	5.0	1.5	.5	1.0	.0	.0	.0
18	12.0	8.5	10.0	8.0	6.0	6.5	1.0	.0	.5	.0	.0	.0
19	11.5	10.5	11.5	9.0	6.5	7.5	.5	.0	.5	.0	.0	.0
20	12.0	10.0	10.5	11.5	9.0	10.0	.5	.0	.5	.0	.0	.0
21	12.5	8.0	9.5	10.0	6.0	8.0	.5	.0	.0	.0	.0	.0
22	12.0	7.0	9.0	5.5	4.5	5.0	.5	.0	.0	.0	.0	.0
23	12.0	7.0	9.0	6.5	5.0	5.5	.0	.0	.0	.0	.0	.0
24	10.5	8.5	9.0	6.0	4.0	5.0	.5	.0	.0	.0	.0	.0
25	13.0	10.5	11.0	5.5	3.5	4.0	.5	.0	.0	.0	.0	.0
26	11.5	8.0	9.5	4.0	3.0	3.5	.5	.0	.0	.0	.0	.0
27	11.5	7.5	9.5	5.0	4.0	4.5	.0	.0	.0	.0	.0	.0
28	10.5	7.0	8.5	4.5	4.0	4.0	.0	.0	.0	.0	.0	.0
29	9.0	4.5	6.5	4.5	4.0	4.5	.0	.0	.0	.0	.0	.0
30	7.0	5.0	6.0	4.5	4.5	4.5	.0	.0	.0	.0	.0	.0
31	9.5	6.5	7.5	---	---	---	.0	.0	.0	.0	.0	.0
MONTH	16.0	4.5	11.0	11.5	2.5	6.5	6.0	0.0	1.5	0.5	0.0	0.0





## DELAWARE RIVER BASIN

01437500 NEVERSINK RIVER AT GODEFFROY, NY

LOCATION.--Lat 41°26'28", long 74°36'07", Orange County, Hydrologic Unit 02040104, on right bank just upstream from highway bridge on Graham Road, 0.5 mi downstream from Basher Kill, 0.8 mi southeast of Godeffroy, 1.7 mi south of Cuddebackville, and 8.5 mi upstream from mouth.

DRAINAGE AREA.--307 mi<sup>2</sup>.

PERIOD OF RECORD.--August to October 1903, July 1937 to current year. Gage heights and discharge measurements, August 1909 to April 1914. Twice-daily figures of discharge, January 1911 to December 1912, which do not represent daily mean discharges because of diurnal fluctuation. August to October 1903, published as "Navesink River at Godeffroy, NY."

REVISED RECORDS.--WSP 1502: 1951(M). WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 459.66 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Apr. 30, 1914, nonrecording gages at same site (August to October 1903 at datum 0.98 ft higher).

REMARKS.--Estimated daily discharges: Dec. 13 to Jan. 20, Jan. 23-26, Jan. 29 to Feb. 17, and Mar. 4-10. Records fair except those for estimated daily discharges, which are poor. Prior to 1949, diurnal fluctuation at low and medium flow caused by powerplant at Cuddebackville. Subsequent to June 1953, entire flow from 92.5 mi<sup>2</sup> of drainage area controlled by Neversink Reservoir (see Reservoirs in Delaware River Basin). Part of flow diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill), impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft<sup>3</sup>/s Aug. 19, 1955, gage height, 12.49 ft, from rating curve extended above 11,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum, practically no flow several times in July 1911.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,200 ft<sup>3</sup>/s Mar. 15, gage height, 7.37 ft; minimum, 128 ft<sup>3</sup>/s Aug. 31; minimum gage height, 3.19 ft Aug. 30, 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	586	185	1040	220	560	454	509	561	294	202	361	140
2	511	190	1630	230	540	425	481	520	265	410	459	143
3	540	230	1330	230	500	401	441	482	232	530	684	141
4	563	218	1090	240	470	380	400	447	206	360	479	149
5	655	314	969	230	470	350	392	417	198	290	418	145
6	789	483	888	220	480	320	427	395	1870	254	372	153
7	602	475	786	210	420	300	467	419	2120	223	355	162
8	519	386	649	210	400	280	431	387	1430	218	339	153
9	456	324	587	200	380	290	390	360	1130	229	299	146
10	400	291	541	190	370	310	360	326	818	222	257	141
11	378	303	552	180	360	423	340	295	718	195	318	142
12	348	431	893	170	340	561	323	276	1120	234	289	139
13	362	638	790	170	330	624	307	257	1450	321	236	141
14	432	590	700	160	310	1100	299	236	1090	497	203	157
15	427	821	580	160	300	4690	287	222	934	357	185	153
16	397	717	540	150	290	3550	491	224	820	282	185	138
17	332	1800	480	140	290	2490	1110	282	906	251	185	135
18	289	1570	430	140	443	1980	870	274	720	239	322	131
19	269	1300	400	170	654	2300	701	230	571	237	256	140
20	252	1130	370	600	798	2640	609	219	520	222	191	145
21	233	983	350	859	788	1700	600	377	473	216	178	159
22	218	884	330	671	979	1330	652	1850	419	194	180	149
23	210	885	320	600	829	1120	734	2170	382	172	168	150
24	215	790	320	500	716	993	811	1060	362	154	231	162
25	312	669	340	450	645	858	1140	640	337	154	189	160
26	291	659	330	980	577	794	1030	499	290	176	164	163
27	245	1000	310	1350	535	800	938	428	263	483	157	253
28	226	1270	280	1030	495	733	797	383	260	539	154	223
29	214	1240	270	840	---	652	700	339	250	364	145	192
30	201	1110	250	720	---	601	625	301	222	318	142	175
31	194	---	230	620	---	555	---	270	---	474	136	---
TOTAL	11666	21886	18575	12840	14269	34004	17662	15146	20670	9017	8237	4680
MEAN	376	730	599	414	510	1097	589	489	689	291	266	156
MAX	789	1800	1630	1350	979	4690	1140	2170	2120	539	684	253
MIN	194	185	230	140	290	280	287	219	198	154	136	131

CAL YR 1985 TOTAL 121982 MEAN 334 MAX 2180 MIN 53  
WTR YR 1986 TOTAL 188652 MEAN 517 MAX 4690 MIN 131

## 01438500 DELAWARE RIVER AT MONTAGUE, NJ

LOCATION.--Lat 41°18'33", long 74°47'44", Pike County, PA, Hydrologic Unit 02040104, on right bank 1,500 ft upstream from toll bridge (on U.S. Route 206) between Montague, NJ and Milford, PA, 0.8 mi downstream from Sawkill Creek, and at river mile 246.3.

DRAINAGE AREA.--3,480 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1936 to September 1939 (gage heights only, published as "at Milford, PA"). October 1939 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR-NJ-81-2: 1980.

GAGE.--Water-stage recorder. Datum of gage is 369.93 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 9, 1940, nonrecording gage on upstream side of left span of subsequently dismantled bridge at present site at datum 70 ft lower.

REMARKS.--Estimated daily discharges: Dec. 20 to Feb. 17. Records excellent except those for period of ice effect, Dec. 20 to Feb. 17, and those from Sept. 3-30, which are good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River basin, diversions). Several measurements of water temperature were made during the year. Satellite telemeter at station.

AVERAGE DISCHARGE.--47 years, 5,801 ft<sup>3</sup>/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 250,000 ft<sup>3</sup>/s, Aug. 19, 1955, gage height, 35.15 ft, from rating curve extended above 90,000 ft<sup>3</sup>/s on basis of flood-routing study; minimum, 382 ft<sup>3</sup>/s, Aug. 24, 1954, gage height, 3.83 ft, minimum daily, 412 ft<sup>3</sup>/s, Aug. 23, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of October 10, 1903, reached a stage of 35.5 ft, from floodmark, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 114,000 ft<sup>3</sup>/s, Mar. 15, gage height, 23.28 ft; minimum, 1,150 ft<sup>3</sup>/s, Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9020	2300	13400	3100	5320	6050	8990	7000	3920	2600	6070	1700
2	7480	2380	16800	2500	4150	5040	8270	6100	3600	3100	5390	1660
3	6690	1890	17700	3000	4500	4990	7610	5860	3400	4410	5750	2100
4	6180	1830	13300	2830	5350	5800	6980	4970	3080	3730	4730	2020
5	6600	2790	11100	2190	5200	5580	6400	4300	2640	2410	4410	1990
6	13100	3400	10000	2100	5250	5500	5810	4500	9800	2210	3780	1980
7	9070	4160	8470	3100	5100	5260	6860	4640	18200	1930	3520	1990
8	6040	3370	7770	3200	4380	4420	6560	4360	14900	2830	5850	1600
9	4780	2930	7180	2800	3270	3000	5510	4040	13600	2840	4650	1930
10	4020	2440	6770	2100	3580	3350	4960	3770	11000	2820	3840	1790
11	3590	2410	6480	2900	4430	5180	4880	2500	9050	2640	3210	1810
12	3170	3640	8290	1800	3770	7380	4660	2370	11500	2730	4270	1790
13	2930	5470	9070	1800	3800	9070	4420	2760	19700	2800	3710	1840
14	2980	6270	7980	2700	3800	12700	4170	2210	15600	4320	2700	1960
15	3260	8800	6440	3000	3400	77200	3970	1950	12100	4600	2280	1610
16	3220	10100	5990	2700	2350	75900	4750	2050	10800	3870	3250	2020
17	3070	17600	5870	2600	2500	44700	10300	2110	10100	3570	2160	1880
18	2790	22400	5400	1700	4470	31600	12500	2940	9400	3230	3160	1950
19	2560	16600	4860	1800	6520	29400	9150	2990	8060	3400	3900	1850
20	2390	12800	4400	4000	8270	42800	7130	2680	7110	2610	3240	2010
21	2610	10700	3800	13500	9610	30900	6650	3120	5960	2640	2740	2110
22	2690	9250	3500	10600	11700	22600	7090	12000	5310	2830	2660	1820
23	2750	9080	3700	9160	11000	17700	8120	18700	4840	2590	2580	1860
24	2660	8430	4400	7500	9510	14700	8470	14500	4470	2100	1800	1910
25	3130	7440	3900	6500	8580	13300	12300	12100	3980	1870	1910	1780
26	3590	7210	3600	6630	7320	11700	12400	10300	3500	1830	2730	1710
27	3060	9920	4200	10000	6710	11700	10300	8940	3380	2080	2680	2000
28	2690	14500	3500	9200	6530	12000	9260	8100	3270	2590	2320	1800
29	2940	17900	3000	7560	---	11200	8720	6960	2320	2900	2170	1670
30	2770	14700	3100	6200	---	10300	7850	6060	2150	2920	2100	1980
31	2550	---	3400	6150	---	9690	---	5150	---	5890	1430	---
TOTAL	134380	242710	217370	144920	160370	550710	225040	180030	236740	92890	104990	56120
MEAN	4335	8090	7012	4675	5728	17760	7501	5807	7891	2996	3387	1871
MAX	13100	22400	17700	13500	11700	77200	12500	18700	19700	5890	6070	2110
MIN	2390	1830	3000	1700	2350	3000	3970	1950	2150	1830	1430	1600

CAL YR 1985 TOTAL 1427810 MEAN 3912 MAX 50700 MIN 1010  
WTR YR 1986 TOTAL 2346270 MEAN 6428 MAX 77200 MIN 1430

## DELAWARE RIVER BASIN

## RESERVOIRS IN DELAWARE RIVER BASIN

01416900 PEPACTON RESERVOIR.--Lat 42°04'38", long 74°58'04", Delaware County, Hydrologic Unit 02040102, near release chamber at Downsview Dam on East Branch Delaware River, and 1.6 mi east of Downsview, N.Y. DRAINAGE AREA, 371 mi<sup>2</sup>. PERIOD OF RECORD, September 1954 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Board of Water Supply, City of New York).

Reservoir is formed by an earthfill rockfaced dam. Storage began Sept. 15, 1954. Usable capacity 140,190 mil gal between minimum operating level, elevation, 1,152.0 ft and crest of spillway, elevation, 1,280.0 ft. Capacity: at crest of spillway 149,799 mil gal; at minimum operating level, 9,609 mil gal; at sill of diversion tunnel, elevation, 1,143.0 ft, 6,098 mil gal; in dead storage below release outlet, elevation, 1,126.50 ft, 1,898 mil gal. Figures given herein represent total contents. Reservoir impounds water for diversion through East Delaware Tunnel to Rondout Reservoir on Rondout Creek, in Hudson River basin (see elsewhere in this section), for water supply to City of New York; for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master; and for conservation release. No diversion prior to Jan. 6, 1955. Records provided by Bureau of Water Resources Development and Department of Environmental Protection, City of New York.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 154,027 mil gal Apr. 5, 1960, elevation, 1,282.27 ft; minimum observed (after first filling), 9,575 mil gal Dec. 26, 1964, elevation, 1,151.92 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 151,466 mil gal May 24, elevation, 1,280.90 ft; minimum, 64,418 mil gal Oct. 1, elevation, 1,222.18 ft.

01424997 CANNONVILLE RESERVOIR.--Lat 42°03'46", long 75°22'29", Delaware County, Hydrologic Unit 02040101, in emergency gate tower at Cannonville Dam on West Branch Delaware River, and 1.8 mi southeast of Stilesville, N.Y. DRAINAGE AREA, 454 mi<sup>2</sup>. PERIOD OF RECORD, October 1963 to current year. REVISED RECORDS, WDR NY-71-1: 1966. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Board of Water Supply, City of New York).

Reservoir is formed by an earthfill rockfaced dam. Storage began Sept. 30, 1963. Usable capacity 95,706 mil gal between minimum operating level, elevation, 1,040.0 ft and crest of spillway, elevation, 1,150.0 ft. Capacity, at crest of spillway, 98,618 mil gal; at minimum operating level, 2,912 mil gal; at mouth of inlet channel to diversion tunnel, elevation, 1,035.0 ft, 1,892 mil gal; in dead storage below release outlet elevation, 1,020.5 ft, 328 mil gal. Figures given herein represent total contents. Impounded water is diverted for New York City water supply via West Delaware Tunnel to Rondout Reservoir in Hudson River basin (see elsewhere in this section); is released in Delaware River for downstream low flow augmentation, as directed by the Delaware River Master; and is released for conservation flow in the Delaware River. No diversion prior to January 29, 1964. Records provided by Bureau of Water Resources Development, City of New York.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 109,617 mil gal Mar. 16, 1986, elevation, 1,156.73 ft; minimum observed (after first filling), 11,901 mil gal Nov. 7, 1968, elevation, 1,066.24 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 109,617 mil gal Mar. 16, elevation, 1,156.73 ft; minimum, 59,969 mil gal Nov. 11, elevation, 1,121.79 ft.

01433000 SWINGING BRIDGE RESERVOIR.--Lat 41°34'25", long 74°47'00", Sullivan County, Hydrologic Unit 02040104, at dam on Mongaup River, and 1.8 mi northwest of Fowlersville, N.Y. DRAINAGE AREA, 118 mi<sup>2</sup> excluding Cliff Lake, Lebanon Lake, and Toronto Reservoir. PERIOD OF RECORD, January 1930 to current year. REVISED RECORDS, WSP 1552: 1951-54. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,010 ft.

Reservoir is formed by an earthfill dam. Storage began Jan. 19, 1930. Usable capacity, 1,436.6 mil ft<sup>3</sup> between elevations 1,010.0 ft, minimum operating pool, and 1,071.2 ft, top of flashboards. Capacity below elevation 1,010.0 ft, minimum operating pool, about 212.7 mil ft<sup>3</sup>. Reservoir is used for storage of water for power. Figures given herein represent contents above 1,010.0 ft. Water is received from Cliff Lake, Lebanon Lake, and Toronto Reservoir. Records provided by Orange and Rockland Utilities, Inc.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,461.6 mil ft<sup>3</sup> Mar. 14, 1977, elevation, 1,071.8 ft; minimum (after first filling), -141.4 mil ft<sup>3</sup> Dec. 2, 1938, elevation, 987.5 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,363 mil ft<sup>3</sup> Dec. 4, June 18, elevation, 1,069.4 ft; minimum, 863.5 mil ft<sup>3</sup> Feb. 14, elevation, 1,055.6 ft.

REVISIONS.--Monthend elevation, contents, and change in contents have been revised as shown on the following page. They supersede figures published in WDR NY-85-1.

01433100 TORONTO RESERVOIR.--Lat 41°37'15", long 74°49'55", Sullivan County, Hydrologic Unit 02040104, at dam on Black Lake Creek, and 2.5 mi southeast of village of Black Lake, N.Y. DRAINAGE AREA, 23.2 mi<sup>2</sup>. PERIOD OF RECORD, January 1926 to current year. REVISED RECORDS, WSP 1552: 1951-54. WSP 1702: 1959 (M). WDR NY-85-1: 1984. GAGE, nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,165.0 ft.

Reservoir is formed by an earthfill dam completed July 24, 1926. Storage began Jan. 13, 1926. Usable capacity 1,098.2 mil ft<sup>3</sup> between elevations 1,165.0 ft, minimum operating pool, and 1,220.0 ft, top of permanent flashboards. Capacity below elevation 1,165.0 ft, minimum operating pool, about 26.8 mil ft<sup>3</sup>. Reservoir is used for storage of water for power. Figures given herein represent contents above 1,165.0 ft. Records provided by Orange and Rockland Utilities, Inc.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 1,171.2 mil ft<sup>3</sup> July 20, 1945, elevation, 1,222.0 ft; minimum observed (after first filling), -26.8 mil ft<sup>3</sup> Nov. 15, 1928, elevation, 1,144.5 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 1,149.0 mil ft<sup>3</sup> June 7, elevation, 1,221.4 ft; minimum observed, 472.9 mil ft<sup>3</sup> Nov. 15, elevation, 1,198.2 ft.

REVISIONS.--Monthend elevation, contents, and change in contents have been revised as shown on the following page. They supersede figures published in WDR NY-85-1.

01433200 CLIFF LAKE.--Lat 41°35'00", long 74°47'40", Sullivan County Hydrologic Unit 02040104, at dam on Black Lake Creek, and 2.5 mi northwest of Fowlersville, N.Y. DRAINAGE AREA, 6.46 mi<sup>2</sup>, excluding area above Toronto Reservoir. PERIOD OF RECORD, January 1939 to current year. REVISED RECORDS, WSP 1552: 1951-54. WDR NY-75-1: 1974(M). GAGE, nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Orange and Rockland Utilities, Inc.). All capacity figures given herein are based on zero storage at minimum operating pool level, 1,043.3 ft.

Reservoir is formed by a concrete gravity-type dam. Storage began Jan. 6, 1939. Usable capacity, 136.06 mil ft<sup>3</sup> between elevations 1,043.3 ft, minimum operating pool, and 1,072.0 ft, top of permanent flashboards. Capacity below elevation 1,043.3 ft, minimum operating pool, about 6.54 mil ft<sup>3</sup>. Reservoir is used for storage of water for power. Water is received from Toronto and Lebanon Lake reservoirs and is discharged through a tunnel into Swinging Bridge Reservoir. Figures given herein represent contents above 1,043.3 ft. Records provided by Orange and Rockland Utilities, Inc.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 145.44 mil ft<sup>3</sup> July 30, 31, 1945, elevation, 1,073.1 ft; minimum observed (after first filling), about -6.54 mil ft<sup>3</sup> Mar. 16, 1963, elevation, 1,038.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 136.06 mil ft<sup>3</sup> June 9, elevation, 1,072.0 ft; minimum observed, 34.9 mil ft<sup>3</sup> Feb. 14, elevation, 1,055.8 ft.

REVISIONS.--Monthend elevation, contents, and change in contents have been revised as shown on the following page. They supersede figures published in WDR NY-85-1.



## RESERVOIRS IN DELAWARE RIVER BASIN--Continued

01435900 NEVERSINK RESERVOIR.--Lat 41°49'40", long 74°38'21", Sullivan County, Hydrologic Unit 02040104, at a gatehouse at Neversink Dam on Neversink River, and 2 mi southwest of Neversink, N.Y. DRAINAGE AREA, 92.5 mi<sup>2</sup>. PERIOD OF RECORD, June 1953 to current year. REVISED RECORDS, WDR NY-85-1: Drainage area. GAGE, nonrecording gage read daily at 0900. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Board of Water Supply, City of New York).

Reservoir is formed by an earthfill rockfaced dam. Storage began June 2, 1953. Usable capacity 34,941 mil gal between minimum operating level, elevation, 1,319.0 ft and crest of spillway, elevation, 1,440.0 ft. Capacity at crest of spillway 37,146 mil gal; at minimum operating level, 2,205 mil gal; dead storage below diversion sill and outlet sill, elevation 1,314.0 ft, 1,680 mil gal. Figures given herein represent total contents. Reservoir impounds water for diversion through Neversink-Grahamsville Tunnel to Rondout Reservoir on Rondout Creek, in Hudson River basin, for water supply of City of New York (see elsewhere in this section); for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master; and for conservation release. No diversion prior to Dec. 3, 1953. Records provided by Bureau of Water Resources Development and Department of Environmental Protection, City of New York.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 37,978 mil gal Apr. 25, 1961, elevation, 1,441.67 ft; minimum observed (after first filling), 1,985 mil gal Nov. 25, 1964, elevation, 1,316.98 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 37,499 mil gal May 23, elevation, 1,440.71 ft; minimum observed, 23,534 mil gal Oct. 1, elevation, 1,408.72 ft.

## MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

Date	Elevation (feet) #	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet) #	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet) #	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)
01433000 Swinging Bridge Reservoir				01433100 Toronto Reservoir			01433200 Cliff Lake		
Sept. 30	1,063.1	1,121		1,196.8	440		1,064.6	81.1	
Oct. 31	1,062.8R	1,110R	- 4.1R	1,184.0	195	-91.6	1,063.8R	76.0R	- 1.9R
Nov. 30	1,063.5R	1,136R	+ 9.9R	1,181.3	153	-16.4	1,063.0R	71.1R	- 1.9R
Dec. 31	1,066.0	1,229	+35.0R	1,186.0	228	+28.2	1,065.9	89.6	+ 6.9R
CAL YR 1984	-	-	+ 2.5	-	-	- 4.4	-	-	+ 0.3
Jan. 31	1,061.3	1,056	-64.7	1,189.2	284	+20.9	1,061.5	62.2	-10.2
Feb. 28	1,062.6R	1,103R	+19.3R	1,191.2R	321R	+15.5R	1,062.2	66.3	+ 1.7
Mar. 31	1,062.8R	1,110R	+ 2.7R	1,198.5R	480R	+59.3R	1,063.4R	73.5R	+ 2.7R
Apr. 30	1,062.7	1,106	- 1.4R	1,201.2	546	+25.6R	1,062.5	68.1	- 2.1R
May 31	1,066.5	1,249	+53.2	1,203.4	603	+21.0	1,066.7	95.1	+10.1
June 30	1,066.2	1,237	- 4.5	1,204.8	639	+14.1	1,066.0	90.3	- 1.9
July 31	1,066.5R	1,249R	+ 4.3R	1,205.8R	666R	+ 9.9R	1,066.3R	92.3R	+ 0.8R
Aug. 31	1,062.0	1,081	-62.6R	1,202.3	574	-34.2R	1,063.1	71.7	- 7.7R
Sept. 30	1,067.8	1,299	+84.3	1,203.6R	608R	+13.0R	1,067.8	102.9	+12.1
WTR YR 1985	-	-	+ 5.7	-	-	+ 5.3R	-	-	+ 0.7

R Revised.

## MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet) ##	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet) ##	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet) #	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)
01416900 Pepacton Reservoir				01424997 Cannonsville Reservoir			01433000 Swinging Bridge Reservoir		
Sept. 30	1,222.18	64,418		1,125.20	64,143		1,067.8	1,299	
Oct. 31	1,229.33	72,687	+ 413	1,123.66	62,252	- 94.4	1,063.8	1,146	- 57.0
Nov. 30	1,244.84	92,774	+1,036	1,132.81	73,978	+605	1,068.1	1,311	+ 63.5
Dec. 31	1,252.02	103,136	+ 517	1,135.77	77,943	+198	1,058.5	959	-131
CAL YR 1985	-	-	+ 77.8	-	-	+128	-	-	- 8.6
Jan. 31	1,254.91	107,501	+ 218	1,140.52	84,537	+329	1,059.8	1,003	+ 16.6
Feb. 28	1,259.55	114,738	+ 400	1,150.96	100,163	+863	1,058.0	942	- 25.3
Mar. 31	1,280.40	150,540	+1,787	1,151.33	100,758	+ 29.7	1,066.7	1,256	+117
Apr. 30	1,279.89	149,597	- 48.6	1,150.33	99,149	- 83.0	1,064.8	1,184	- 28.0
May 31	1,280.02	149,836	+ 11.9	1,150.86	100,002	+ 42.6	1,065.3	1,203	+ 7.1
June 30	1,278.77	147,539	- 118	1,149.31	97,568	-126	1,066.9	1,264	+ 23.6
July 31	1,276.22	142,920	- 231	1,144.64	90,492	-353	1,063.4	1,132	- 49.4
Aug. 31	1,273.12	137,420	- 275	1,145.66	92,016	+ 76.1	1,064.8	1,184	+ 19.4
Sept. 30	1,265.66	124,670	- 658	1,135.26	77,238	-762	1,064.0	1,154	- 11.5
WTR YR 1986	-	-	+ 255	-	-	+ 55.5	-	-	- 4.6

# Elevation at 2400 hours.

## Elevation at 0900 hours on first day of following month.



DELAWARE RIVER BASIN  
RESERVOIRS IN DELAWARE RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet) #	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet) #	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet) **	Contents (million gallons)	Change in contents (equivalent in ft <sup>3</sup> /s)
	01433100	Toronto Reservoir		01433200	Cliff Lake		01435900	Neversink Reservoir	
Sept. 30	1,203.6	608		1,067.8	102.9		1,408.72	23,534	
Oct. 31	1,201.1	544	- 23.9	1,065.3	85.6	- 6.4	1,413.20	25,273	+ 86.8
Nov. 30	1,202.8	587	+ 16.7	1,068.2	105.9	+ 7.8	1,421.95	28,864	+185
Dec. 31	1,204.4	629	+ 15.5	1,064.2	78.5	-10.2	1,425.11	30,223	+ 67.8
CAL YR 1985	-	-	+ 12.7	-	-	- 0.4	-	-	+ 66.5
Jan. 31	1,200.1	519	- 41.0	1,062.1	65.7	- 4.8	1,423.77	29,643	- 28.9
Feb. 28	1,203.4	603	+ 34.6	1,058.0	44.2	- 8.9	1,422.88	29,261	- 21.1
Mar. 31	1,214.4	910	+115	1,067.3	99.3	+20.6	1,438.53	36,423	+357
Apr. 30	1,217.8	1,022	+ 42.9	1,065.0	83.7	- 6.0	1,436.30	35,344	- 55.6
May 31	1,220.3	1,109	+ 32.6	1,067.2	98.6	+ 5.6	1,436.26	35,325	- 0.95
June 30	1,220.3	1,109	0.0	1,066.0	90.3	- 3.2	1,436.41	35,397	+ 3.71
July 31	1,215.0	929	- 67.1	1,065.9	89.6	- 0.2	1,428.17	31,574	-191
Aug. 31	1,209.0	753	- 65.9	1,067.0	97.2	+ 2.8	1,420.31	28,172	-170
Sept. 30	1,199.0	492	-101	1,066.7	95.1	- 0.8	1,408.91	23,606	-235
WTR YR 1986	-	-	- 3.7	-	-	- 0.2	-	-	+ 0.30

# Elevation at 2400 hours.

\*\* Elevation at 0900 hours on first day of following month.

DIVERSIONS FROM DELAWARE RIVER BASIN

01415200 Diversion from Pepacton Reservoir (see preceding pages) on East Branch Delaware River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of City of New York. No diversion prior to Jan. 6, 1955. Records provided by Bureau of Water Resources Development and Department of Environmental Protection, City of New York.  
REVISED RECORDS, WDR NY-71-1: 1970. WDR NY-81-1: 1980.

014239000 Diversion from Cannonsville Reservoir (see preceding pages) on West Branch Delaware River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of City of New York. No diversion prior to Jan. 29, 1964. Records provided by Bureau of Water Resources Development, City of New York.  
REVISED RECORDS, WDR NY-81-1: 1980.

01435800 Diversion from Neversink Reservoir (see preceding pages) on Neversink River to Rondout Reservoir on Rondout Creek, in Hudson River basin, for municipal supply of City of New York. No diversion prior to Dec. 3, 1953. Records provided by Bureau of Water Resources Development and Department of Environmental Protection, City of New York.  
REVISED RECORDS, WDR NY-82-1: 1976, 1977.

DIVERSION, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Month	01415200 Pepacton Reservoir	01423900 Cannonsville Reservoir	01435800 Neversink Reservoir
October.....	182	742	107
November.....	129	744	187
December.....	245	730	183
CAL YR 1985	418	391	110
January.....	376	385	185
February.....	377	33.1	186
March.....	378	36.2	290
April.....	541	99.4	323
May.....	606	267	221
June.....	678	209	207
July.....	696	274	230
August.....	673	67.5	237
September.....	692	276	242
WTR YR 1986	465	324	217

## STREAMS TRIBUTARY TO LAKE ONTARIO

04250750 SANDY CREEK NEAR ADAMS, NY  
(National stream-quality accounting network station)

LOCATION.--Lat 43°48'48", long 76°04'30", Jefferson County, Hydrologic Unit 04140102, on left bank 250 ft upstream from highway bridge on Liberty Street, 0.2 mi downstream from tributary, 2.5 mi downstream from Adams, and 10.0 mi upstream from mouth. Water-quality sampling site at discharge station.

DRAINAGE AREA.--128 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1957 to current year.

REVISED RECORDS.--WDR NY-85-1: 1963-64(M), 1976-77(M), 1980(M), 1984(M).

GAGE.--Water-stage recorder. Datum of gage is 523.71 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 19 to Jan. 10, Jan. 12-16, Jan. 29 to Feb. 9, Feb. 13-17, Feb. 27 to Mar. 6, and Mar. 9. Records fair except those for estimated daily discharges, which are poor. Moderate diurnal fluctuation at low flow caused by mills above station.

AVERAGE DISCHARGE.--29 years, 276 ft<sup>3</sup>/s, 29.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,690 ft<sup>3</sup>/s Feb. 25, 1985, gage height, 11.05 ft, from rating curve extended above 5,500 ft<sup>3</sup>/s on basis of flow-over-dam measurement of peak flow; minimum discharge, 1.5 ft<sup>3</sup>/s Sept. 17, 18, 1963, Aug. 19, 1964; minimum daily, 2.2 ft<sup>3</sup>/s Sept. 7, 11, 1960, Sept. 17, 1963, Aug. 16, Sept. 22, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 19	2230	*5,910	*9.32	No other peak greater than base discharge.			

Minimum discharge, 22 ft<sup>3</sup>/s Oct. 5; minimum gage height, 1.31 ft Oct. 5, Sept. 10; minimum daily discharge, 25 ft<sup>3</sup>/s Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	64	272	120	240	190	1000	111	59	64	457	63
2	33	61	765	120	230	180	1040	127	234	88	293	55
3	29	58	478	120	210	170	712	110	115	121	184	49
4	25	75	318	120	200	160	580	100	78	91	130	45
5	35	365	273	120	190	150	530	103	64	77	99	42
6	183	1090	247	110	180	140	579	114	97	74	75	40
7	490	663	192	100	170	135	562	108	85	58	64	37
8	202	729	210	100	170	128	556	102	106	49	103	34
9	100	711	191	110	170	140	749	90	113	44	957	32
10	84	1790	169	110	160	163	646	79	70	38	675	31
11	225	1110	169	110	165	921	597	69	66	34	529	44
12	117	703	163	110	147	1060	546	61	159	163	315	425
13	260	848	159	100	140	937	524	57	461	375	191	285
14	306	1200	146	96	130	1240	474	53	314	578	136	140
15	214	1460	98	98	130	1740	402	49	165	239	134	97
16	248	816	117	100	130	1530	521	51	220	146	225	471
17	149	875	128	109	120	1110	635	139	739	99	159	291
18	106	673	123	129	125	992	437	103	260	80	115	182
19	384	520	130	349	180	3340	343	114	157	82	95	131
20	376	452	130	1630	374	3310	295	156	721	68	75	241
21	187	393	130	1860	680	1290	412	433	366	318	64	335
22	136	320	130	1390	642	886	359	428	200	145	62	202
23	111	315	130	1130	532	691	268	636	160	89	59	735
24	100	312	130	879	403	627	226	337	133	65	150	652
25	165	274	120	725	330	642	194	222	115	55	100	353
26	138	229	120	641	241	1670	171	155	94	91	72	233
27	106	217	120	484	220	1980	156	113	88	248	347	194
28	89	193	120	343	200	1300	142	89	151	100	229	149
29	79	188	120	320	---	1590	127	74	104	70	144	159
30	72	183	120	300	---	2000	116	62	78	79	104	337
31	69	---	120	270	---	1430	---	57	---	349	77	---
TOTAL	4855	16887	5838	12303	6809	31842	13899	4502	5772	4177	6419	6084
MEAN	157	563	188	397	243	1027	463	145	192	135	207	203
MAX	490	1790	765	1860	680	3340	1040	636	739	578	957	735
MIN	25	58	98	96	120	128	116	49	59	34	59	31
CFSM	1.23	4.40	1.47	3.10	1.90	8.02	3.62	1.13	1.50	1.05	1.62	1.59
IN.	1.41	4.91	1.70	3.58	1.98	9.25	4.04	1.31	1.68	1.21	1.87	1.77

CAL YR 1985	TOTAL	99217.7	MEAN	272	MAX	6440	MIN	7.7	CFSM	2.12	IN.	28.84
WTR YR 1986	TOTAL	119387	MEAN	327	MAX	3340	MIN	25	CFSM	2.55	IN.	34.70

## STREAMS TRIBUTARY TO LAKE ONTARIO

04250750 SANDY CREEK NEAR ADAMS, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965, 1978 to current year.

CHEMICAL DATA: 1965, 1978 (c); 1979-80 (d), 1981-86 (c).

MINOR ELEMENTS DATA: 1978-79 (b), 1980 (c), 1981-86 (b).

ORGANIC DATA: OC--1978 (c), 1979-80 (d), 1981 (c).

NUTRIENT DATA: 1978 (c), 1979-80 (d), 1981-86 (c).

BIOLOGICAL DATA:

Bacteria--1978 (c), 1979-80 (d), 1981-86 (c).

Phytoplankton--1978-80 (c), 1981 (b).

Periphyton--1978-80 (b).

SEDIMENT DATA: 1978 (c), 1979-80 (d), 1981-86 (c).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Once daily January 1978 to September 1980. Recorder July 1980 to September 1984.

WATER TEMPERATURES: Once daily January 1978 to September 1980. Recorder July 1980 to September 1984.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1978-84): Maximum recorded, 563 microsiemens Jan. 21, 1983; minimum recorded, 86 microsiemens Oct. 15, 1982.

WATER TEMPERATURES: Maximum (water years 1979-80, 1983-84), 33.0°C July 24, 1979; minimum (water years 1978-84), 0.0°C on many days during winter periods.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	COLI- FORM, FECAL, (PER- CENT UM-MF 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)
NOV 05...	1300	336	274	8.20	8.0	1.5	740	11.8	103	250	400	140
JAN 14...	1130	91	330	7.60	0.0	1.0	750	14.4	100	K50	27	160
MAR 24...	1030	617	256	7.66	2.0	3.0	775	12.4	88	5	49	120
APR 29...	1000	126	320	8.44	16.0	1.0	750	10.8	111	97	14	140
JUL 08...	1215	48	285	8.94	22.0	4.0	755	10.4	120	300	56	140
AUG 26...	1000	73	320	8.58	16.5	1.5	755	9.8	101	530	480	160

DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	BICAR- BONATE WH WAT TOTAL FIELD MG/L AS HCO3	CAR- BONATE WH WAT TOTAL FIELD MG/L AS CO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV 05...	22	48	4.0	6.3	1.7	114	140	--	17	9.6	<0.10
JAN 14...	18	56	4.2	7.5	1.7	139	170	--	14	11	<0.10
MAR 24...	17	42	2.8	4.4	1.2	100	120	--	12	8.2	0.10
APR 29...	10	49	3.6	6.7	1.5	127	82	36	13	9.7	<0.10
JUL 08...	9	51	4.1	8.5	1.9	135	120	24	14	12	0.10
AUG 26...	19	56	4.4	6.4	1.7	139	150	12	11	9.2	<0.10

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHOPHOSPHATE, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)
NOV 05...	2.2	175	160	0.390	0.030	0.010	0.50	0.080	0.060	0.070	10
JAN 14...	4.8	193	180	1.50	0.030	0.030	0.50	0.120	0.070	0.070	--
MAR 24...	3.6	141	130	1.80	0.030	0.050	0.40	0.020	0.010	0.020	10
APR 29...	1	167	200	0.740	0.040	0.020	0.60	0.020	0.010	<0.010	--
JUL 08...	1.8	179	200	0.420	0.030	0.040	0.50	0.080	0.060	0.050	--
AUG 26...	2.8	178	190	0.410	<0.010	<0.010	0.50	0.080	0.020	0.020	<10

K Results based on colony count outside the acceptable range (non-ideal colony count).

## STREAMS TRIBUTARY TO LAKE ONTARIO

171

04250750 SANDY CREEK NEAR ADAMS, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 05...	<1	26	<0.5	<1	<1	<3	5	5	5	5	5
JAN 14...	--	--	--	--	--	--	--	--	--	--	--
MAR 24...	<1	20	<0.5	<1	<1	<3	1	15	<1	4	3
APR 29...	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--
AUG 26...	<1	28	<0.5	1	<1	<3	2	14	<5	8	5

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 05...	0.5	<10	16	<1	<1	100	<6	8
JAN 14...	--	--	--	--	--	--	--	--
MAR 24...	<0.1	<10	1	<1	<1	78	<6	32
APR 29...	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--
AUG 26...	<0.1	<10	2	<1	<1	120	<6	14

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 05...	1300	336	9	8.2	96	APR 29...	1000	126	1	0.34	92
JAN 14...	1130	91	2	0.49	94	JUL 08...	1215	48	3	0.39	32
MAR 24...	1030	617	14	23	78	AUG 26...	1000	73	5	.99	89



## STREAMS TRIBUTARY TO LAKE ONTARIO

04252500 BLACK RIVER NEAR BOONVILLE, NY

LOCATION.--Lat 43°30'42", long 75°18'25", Oneida County, Hydrologic Unit 04150101, on left bank at downstream side of bridge on Moose River Road, 0.8 mi upstream from Sugar River, and 2 mi northeast of Boonville.

DRAINAGE AREA.--304 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1911 to current year.

REVISED RECORDS.--WSP 784: 1934. WSP 1084: 1912(M), 1913, 1917-1919(M), 1922(M), 1924(M), 1926(M), 1928(M), 1930(M), 1933(M). WSP 1307: 1914(M). WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 935.50 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 27, 1933, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 15 to Mar. 15. Records good except those for estimated daily discharges, which are poor. Occasional regulation by several headwater reservoirs. Forestport feeder diverts water from State Pond at Forestport 9 mi upstream. That portion of diverted water which does not pass Black River Canal (flowing south), returns to Black River downstream from station through Mill Creek sluiceway. Slight diurnal fluctuation at medium and low flow caused by mill upstream from station. Several measurements of water temperature were made during the year. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--75 years, 705 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,800 ft<sup>3</sup>/s Apr. 18, 1982, Dec. 30, 1984, gage heights, 11.31 ft and 11.41 ft, respectively; maximum gage height, 13.10 ft Feb. 21, 1981 (ice jam); minimum observed discharge, about 5 ft<sup>3</sup>/s Aug. 26, 1918, gage height, 2.40 ft; minimum daily, 7 ft<sup>3</sup>/s Aug. 26, 1918.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,900 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 21	1500	Ice jam	a*10.51	Mar. 31	1730	*5,180	9.12
Mar. 20	1815	4,090	8.58				

a Recorded in well; outside gage height was 8.92 ft, from crest-stage gage.

Minimum discharge, 249 ft<sup>3</sup>/s July 11, 12, gage height, 4.09 ft; minimum daily, 258 ft<sup>3</sup>/s July 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	793	521	619	440	640	440	4410	570	459	368	1470	421
2	764	497	1120	430	640	420	4150	534	801	434	1050	369
3	591	477	1340	410	640	400	3980	515	840	611	1040	341
4	575	455	945	390	560	410	3260	495	701	530	846	320
5	555	605	850	390	540	450	2980	508	570	554	589	316
6	643	1090	797	410	520	400	2630	569	544	552	455	372
7	614	998	723	430	500	380	2490	557	483	419	435	370
8	529	898	711	440	480	370	2310	521	567	346	792	335
9	461	860	688	420	470	370	2300	480	667	307	861	310
10	446	1190	654	400	450	370	2050	448	530	272	1060	291
11	460	1820	639	380	430	400	1680	422	461	258	1030	287
12	481	1560	649	370	410	520	1380	397	800	341	989	306
13	611	1520	623	360	400	700	1140	379	1530	846	765	334
14	1180	1840	603	350	390	1000	1010	360	1290	1170	599	380
15	1640	3040	540	350	380	2000	937	341	896	940	493	377
16	2640	2620	490	350	380	3510	1000	364	693	681	1210	770
17	1840	2020	450	350	380	3200	1240	955	1210	515	1020	922
18	1210	1730	420	360	400	2480	1200	1030	1420	442	685	635
19	1250	1390	410	450	450	2490	1110	983	946	391	539	474
20	1880	1270	400	900	600	3850	1020	1090	1330	337	430	527
21	1380	1160	400	2000	900	3170	1080	2290	1600	416	369	937
22	973	1010	410	1300	780	2440	1310	3380	1030	395	339	858
23	808	941	420	1100	700	1750	1140	2640	905	324	334	1220
24	714	899	430	900	660	1300	943	1630	964	282	565	2440
25	996	821	420	760	600	1050	834	1140	781	267	745	1810
26	1090	727	420	700	540	1200	747	898	613	276	566	1240
27	828	678	410	640	500	2270	651	706	515	727	830	999
28	706	701	420	580	460	2870	602	574	499	677	1130	743
29	641	666	440	560	---	2740	564	501	471	688	985	640
30	590	623	450	560	---	3430	597	448	407	743	793	1000
31	553	---	450	620	---	4840	---	427	---	1350	556	---
TOTAL	28542	34627	18341	18100	14800	51220	50745	26152	24523	16459	23570	20344
MEAN	921	1154	592	584	529	1652	1692	844	817	531	760	678
MAX	2640	3040	1340	2000	900	4840	4410	3380	1600	1350	1470	2440
MIN	446	455	400	350	380	370	564	341	407	258	334	287

CAL YR 1985 TOTAL 268472 MEAN 736 MAX 4390 MIN 112  
WTR YR 1986 TOTAL 327423 MEAN 897 MAX 4840 MIN 258

## STREAMS TRIBUTARY TO LAKE ONTARIO

173

04256000 INDEPENDENCE RIVER AT DONNATTSBURG, NY

LOCATION.--Lat 43°44'50", long 75°20'05", Lewis County, Hydrologic Unit 04150101, on right bank at downstream side of highway bridge on Donnattsburg Road at Donnattsburg, 1.2 mi downstream from Chase Lake Outlet, 4.2 mi northeast of Glenfield, and 5.0 mi upstream from mouth.

DRAINAGE AREA.--89.8 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1942 to current year.

REVISED RECORDS.--WDR NY-85-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 972.84 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 16, 1949, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 15 to Feb. 18, Feb. 22 to Mar. 10, and Mar. 12. Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--44 years, 194 ft<sup>3</sup>/s, 29.33 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,420 ft<sup>3</sup>/s Dec. 30, 1984, gage height, 13.34 ft, from rating curve extended above 4,600 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum observed discharge, 18 ft<sup>3</sup>/s Sept. 17, 1948, Aug. 4, 5, 1949, gage height, 2.85 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 11	0730	1,220	6.43	Mar. 28	1200	1,330	6.60
Nov. 15	1630	1,220	6.44	Mar. 31	1100	*2,030	*7.52
Mar. 20	1830	1,260	6.49				

Minimum discharge, 57 ft<sup>3</sup>/s Sept. 10, 11, gage height, 3.64 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	216	105	127	96	130	90	1180	112	97	91	292	82
2	187	95	305	94	120	86	1040	113	142	95	244	73
3	179	89	478	92	120	82	896	113	151	148	206	66
4	140	85	305	90	110	80	615	108	118	146	169	63
5	125	108	225	88	110	76	534	118	101	125	130	62
6	184	294	184	86	100	74	469	178	95	119	105	73
7	267	291	165	82	98	80	454	161	94	107	101	80
8	281	256	149	80	96	84	418	138	131	97	120	69
9	208	329	139	80	94	90	422	123	187	81	148	62
10	164	695	125	78	90	98	430	111	143	70	225	59
11	197	1120	122	78	88	103	382	100	128	63	231	61
12	191	652	121	76	86	130	320	93	214	78	201	139
13	246	430	120	74	84	201	276	87	340	354	148	150
14	581	523	118	72	82	262	247	82	270	406	119	111
15	425	1070	110	70	80	414	222	77	186	341	101	89
16	436	782	110	70	80	632	221	79	141	218	100	141
17	339	474	110	72	80	694	264	120	189	163	102	226
18	238	407	110	84	80	556	240	159	197	124	123	165
19	284	351	110	100	79	591	204	233	147	101	123	126
20	575	310	110	170	97	1100	180	322	246	86	99	118
21	397	262	110	390	141	1030	181	588	250	93	84	162
22	268	218	100	620	160	705	227	1010	163	115	75	151
23	203	199	100	440	140	440	204	743	136	93	71	249
24	171	183	98	350	120	323	174	484	141	77	119	654
25	190	161	96	290	110	258	156	327	127	68	158	394
26	198	150	96	240	110	337	145	232	109	65	127	224
27	168	152	96	200	100	860	138	181	98	97	123	168
28	145	144	96	180	96	1270	128	151	121	101	184	140
29	130	142	98	160	---	984	116	130	130	89	147	131
30	119	132	98	150	---	1290	116	114	107	163	115	178
31	109	---	98	140	---	1820	---	103	---	338	94	---
TOTAL	7561	10209	4429	4892	2881	14840	10599	6690	4699	4312	4384	4466
MEAN	244	340	143	158	103	479	353	216	157	139	141	149
MAX	581	1120	478	620	160	1820	1180	1010	340	406	292	654
MIN	109	85	96	70	79	74	116	77	94	63	71	59
CFSM	2.72	3.79	1.59	1.76	1.15	5.33	3.93	2.41	1.75	1.55	1.57	1.66
IN.	3.13	4.23	1.83	2.03	1.19	6.15	4.39	2.77	1.95	1.79	1.82	1.85

CAL YR 1985	TOTAL	73033	MEAN	200	MAX	1750	MIN	31	CFSM	2.23	IN.	30.25
WTR YR 1986	TOTAL	79962	MEAN	219	MAX	1820	MIN	59	CFSM	2.44	IN.	33.12

## STREAMS TRIBUTARY TO LAKE ONTARIO

04256460 CRANBERRY POND OUTLET NEAR BIG MOOSE, NY

LOCATION.--Lat 43°51'52", long 74°58'44", Herkimer County, Hydrologic Unit 04150101, on right bank at mouth of Cranberry Pond, 1.6 mi northwest of Woods Lake, and 4.5 mi northwest of Big Moose.

DRAINAGE AREA.--0.60 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1984 to September 1986 (discontinued).

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Elevation of gage is 1,940 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: May 23-28, Aug. 22-23, and Sept. 1-2. Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 70 ft<sup>3</sup>/s, Dec. 29, 1984, gage height, 2.98 ft (backwater from ice); maximum gage height unaffected by backwater, 1.87 ft, Sept. 27, 1985; minimum discharge, 0.002 ft<sup>3</sup>/s, Aug. 19, 20, 1985, gage height, 0.53 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15 ft<sup>3</sup>/s Mar. 30, gage height, 1.90 ft; minimum, 0.009 ft<sup>3</sup>/s Apr. 23, 24, gage height, 0.58 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	.61	.71	.47	.66	.51	5.7	.04	.20	.48	3.7	.51
2	1.4	.56	2.6	.45	.75	.49	5.9	.06	.36	.59	2.6	.14
3	1.2	.48	3.8	.43	.66	.45	5.3	.06	.32	.80	3.5	1.6
4	.92	.43	2.6	.40	.57	.42	4.5	.09	2.0	.89	2.3	1.0
5	.89	.73	1.9	.42	.65	.42	3.5	.25	1.8	.91	3.7	.74
6	1.2	2.0	1.5	.44	.59	.41	3.0	.14	1.1	1.7	4.7	.69
7	1.7	2.2	1.3	.42	.53	.51	3.0	2.3	.80	1.9	2.2	.52
8	1.7	2.5	1.1	.40	.51	.50	3.3	3.0	1.0	1.5	1.9	.42
9	1.5	2.9	.98	.37	.48	.52	3.5	1.8	1.1	1.3	1.9	.31
10	1.4	6.6	.82	.36	.45	.58	3.3	.39	.82	1.2	2.0	.26
11	1.8	6.3	.76	.36	.42	1.4	2.8	.22	1.4	.76	2.0	.42
12	1.6	4.8	.82	.37	.40	2.4	2.3	.07	3.0	1.6	1.6	.81
13	2.6	4.2	.79	.35	.40	2.2	1.9	.04	3.8	5.2	1.2	.79
14	4.1	5.0	.83	.32	.40	2.7	1.7	.03	2.8	5.1	.97	.51
15	3.7	6.6	.75	.31	.40	5.8	1.4	.04	1.9	4.3	.78	.37
16	3.9	4.8	.74	.29	.35	5.6	1.4	.10	1.5	3.0	.77	.89
17	2.8	3.6	.76	.30	.35	4.2	1.5	.22	2.0	2.1	.73	1.3
18	2.0	2.9	.75	.30	.35	2.7	1.4	.37	1.6	1.4	.69	1.2
19	3.4	2.5	.69	.39	.34	4.7	1.2	.82	1.3	.18	.55	1.1
20	4.3	2.2	.67	2.5	.48	7.4	.94	1.7	1.3	.14	.38	.92
21	3.0	1.9	.60	5.3	.71	4.8	.83	5.9	.99	2.3	.31	1.1
22	2.1	1.6	.58	4.7	.83	3.2	.76	7.4	.80	2.5	.28	.91
23	1.6	1.4	.58	2.9	.82	2.3	.08	4.7	.77	1.7	.22	2.0
24	1.2	1.2	.58	2.1	.82	1.9	.02	3.2	.67	.95	.71	4.9
25	1.4	1.1	.58	1.7	.74	1.6	.76	2.1	.60	.58	1.1	3.5
26	1.3	.91	.55	1.6	.63	2.3	.44	1.6	.53	.64	.97	2.3
27	1.1	.87	.53	1.6	.58	5.9	.09	1.1	.49	1.3	1.7	1.7
28	.95	.82	.52	1.3	.52	6.2	.11	.76	.58	.82	2.1	1.3
29	.83	.84	.51	.99	---	5.6	.12	.59	.57	.85	1.7	1.2
30	.74	.79	.51	.81	---	9.2	.05	.24	.56	1.3	1.2	1.8
31	.68	---	.50	.76	---	8.5	---	.19	---	1.7	.90	---
TOTAL	58.71	73.34	30.91	33.41	15.39	95.41	60.80	39.52	36.66	49.69	49.36	35.21
MEAN	1.89	2.44	1.00	1.08	.55	3.08	2.03	1.27	1.22	1.60	1.59	1.17
MAX	4.3	6.6	3.8	5.3	.83	9.2	5.9	7.4	3.8	5.2	4.7	4.9
MIN	.68	.43	.50	.29	.34	.41	.02	.03	.20	.14	.22	.14
CFSM	3.16	4.07	1.66	1.80	.92	5.13	3.38	2.12	2.04	2.67	2.65	1.96
IN.	3.64	4.55	1.92	2.07	.95	5.92	3.77	2.45	2.27	3.08	3.06	2.18

CAL YR 1985 TOTAL 477.14 MEAN 1.31 MAX 7.6 MIN .002 CFSM 2.18 IN. 29.58  
WTR YR 1986 TOTAL 578.40 MEAN 1.58 MAX 9.2 MIN .02 CFSM 2.64 IN. 35.86

## STREAMS TRIBUTARY TO LAKE ONTARIO

175

04256480 WOODS LAKE TRIBUTARY NEAR BIG MOOSE, NY

LOCATION.--Lat 43°52'17", long 74°57'17", Herkimer County, Hydrologic Unit 04150101, on right bank 65 ft upstream from mouth at Woods Lake, and 4.2 mi northwest of Big Moose.

DRAINAGE AREA.--0.12 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1979 to January 1982, July 1984 to September 1986 (discontinued). No winter records published. Records from October 1979 to January 1982 published in U.S. Geological Survey Open-File Report 85-80.

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 1,990 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Mar. 4-10, 16-18, 20-25 and Sept. 27-30. Records fair except those for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3.3 ft<sup>3</sup>/s, Mar. 30, 1986; minimum not determined, water level below intake to stilling well (gage height .04 ft) July 15-16, Aug. 27-30, Sept. 7-9, Sept. 12-13, 1980, Aug. 1, 2-5, 6, 1984, and Aug. 5, 6-16, 17, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum recorded daily discharge, 3.3 ft<sup>3</sup>/s Mar. 30; minimum recorded daily, 0.04 ft<sup>3</sup>/s Sept. 6-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	.10	.14	---	---	---	1.8	.13	.24	.07	.75	.22
2	.19	.09	1.1	---	---	---	2.0	.16	.24	.17	.42	.16
3	.13	.08	.64	---	---	---	1.1	.10	.12	.19	.91	.10
4	.10	.08	.37	---	---	.07	.85	.10	.10	.13	.34	.08
5	.17	.38	.26	---	---	.07	.69	.26	.08	.11	.17	.05
6	.25	.52	.21	---	---	.07	.73	.21	.08	.19	.14	.04
7	.35	.40	.18	---	---	.07	.77	.20	.09	.10	.15	.04
8	.26	.42	.17	---	---	.07	.91	.12	.39	.08	.18	.04
9	.18	.43	.16	---	---	.07	.82	.11	.19	.07	.25	.04
10	.23	2.7	.14	---	---	.07	.65	.09	.12	.06	.27	.04
11	.32	1.2	.13	---	---	*	.49	.08	.64	.05	.25	.04
12	.21	.60	---	---	---	*	.40	.08	1.00	.56	.19	.04
13	.69	.82	---	---	---	*	.35	.08	.73	1.0	.12	.05
14	.73	1.7	---	---	---	*	.33	.07	.39	.84	.10	.06
15	.57	1.7	---	---	---	2.5	.34	.07	.22	.44	.11	.05
16	.64	.67	---	---	---	2.0	.47	.10	.26	.29	.14	.14
17	.38	.53	---	---	---	.58	.44	.19	.45	.18	.13	.18
18	.26	.47	---	---	---	.35	.36	.11	.32	.15	.13	.12
19	.93	.44	---	---	---	2.2	.29	.19	.21	.10	.12	.10
20	.77	.40	---	---	---	2.1	.26	.37	.28	.20	.10	.09
21	.42	.32	---	---	---	.58	.36	1.3	.16	1.2	.10	.10
22	.27	.25	---	---	---	.29	.34	1.1	.10	.45	.09	.11
23	.20	.22	---	---	---	.20	.25	1.0	.17	.23	.09	.73
24	.19	.19	---	---	---	.15	.23	.52	.15	.14	.26	.78
25	.30	.17	---	---	---	1.3	.21	.34	.14	.11	.18	.25
26	.19	.17	---	---	---	1.4	.21	.22	.11	.36	.12	.15
27	.18	.15	---	---	---	2.2	.20	.18	.09	.33	.38	.13
28	.16	.14	---	---	---	1.5	.17	.14	.14	.19	.37	.10
29	.13	.13	---	---	---	1.7	.13	.10	.11	.25	.39	.22
30	.12	.12	---	---	---	3.3	.15	.09	.09	.28	.31	.34
31	.11	---	---	---	---	2.3	---	.08	---	.53	.27	---
TOTAL	9.78	15.59	---	---	---	---	16.30	7.89	7.41	9.05	7.53	4.59
MEAN	.32	.52	---	---	---	---	.54	.25	.25	.29	.24	.15
MAX	.93	2.7	---	---	---	---	2.0	1.3	1.00	1.2	.91	.78
MIN	.10	.08	---	---	---	---	.13	.07	.08	.05	.09	.04
CFSM	2.63	4.33	---	---	---	---	4.53	2.12	2.06	2.43	2.02	1.27
IN.	3.03	4.83	---	---	---	---	5.05	2.45	2.30	2.81	2.33	1.42

\* Stilling well frozen.



## STREAMS TRIBUTARY TO LAKE ONTARIO

04256485 WOODS LAKE OUTLET NEAR BIG MOOSE, NY

LOCATION.--Lat 43°51'57", long 74°57'20", Herkimer County, Hydrologic Unit 04150101, on right bank 45 ft downstream from dam on Woods Lake.

DRAINAGE AREA.--0.80 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1977 to December 1981, December 1983 to current year.

REVISED RECORDS.--WDR NY-81-1: 1980 (M).

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Elevation of gage is 1,980 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 6 to Dec. 10 and Jan. 23 to Feb. 5. Records fair except those for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 69 ft<sup>3</sup>/s, Oct. 30, 1978, from rating curve extended above 15 ft<sup>3</sup>/s; minimum daily discharge, 0.01 ft<sup>3</sup>/s several days during water years 1978 and 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 13 ft<sup>3</sup>/s Mar. 31, gage height, 2.87 ft; minimum, 0.39 ft<sup>3</sup>/s Feb. 20, gage height, 1.65 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	1.1	1.4	.74	1.6	.86	9.4	1.4	1.4	.65	3.2	1.3
2	3.5	1.0	2.7	.70	1.6	.80	9.6	1.0	1.6	.70	3.3	1.2
3	3.0	.94	3.5	.66	1.4	.77	8.0	.89	1.3	.80	3.8	1.0
4	2.5	.85	3.5	.63	1.2	.74	6.6	.84	1.1	.86	4.0	.88
5	2.3	1.2	3.1	.66	1.4	.73	6.0	.84	1.0	1.1	3.8	.80
6	2.3	1.9	2.6	.70	1.2	.74	5.7	.86	.96	1.2	3.3	.85
7	2.5	2.0	2.4	.66	1.1	.88	5.5	1.3	.88	1.2	2.9	.74
8	2.4	2.4	2.1	.63	.98	.89	5.1	2.2	1.2	1.1	2.8	.65
9	2.2	2.8	1.8	.61	.92	.96	5.1	1.9	1.3	.87	2.7	.57
10	2.0	4.4	1.5	.62	.89	1.0	4.9	1.7	1.2	.82	2.9	.50
11	2.2	5.6	1.5	.62	.82	1.4	4.6	1.5	1.7	.74	2.6	.58
12	2.0	5.2	1.5	.59	.77	1.9	4.3	1.2	2.7	1.1	2.3	.87
13	2.5	5.1	1.4	.59	.73	2.1	3.9	1.1	3.3	2.7	2.0	.92
14	3.2	5.4	1.4	.55	.72	2.5	3.4	.97	3.3	3.2	1.8	.75
15	3.4	7.2	1.3	.51	.70	4.1	3.2	.85	2.9	3.3	1.5	.66
16	3.6	6.3	1.3	.51	.66	5.2	3.1	.81	2.4	3.1	1.5	1.1
17	3.5	5.6	1.3	.50	.66	4.8	3.1	.97	2.6	2.8	1.4	1.2
18	3.2	5.1	1.2	.51	.64	4.4	2.9	1.1	2.6	2.3	1.3	1.3
19	3.5	4.9	1.2	.58	.64	4.6	2.6	1.2	2.2	2.0	1.1	1.2
20	3.9	4.5	1.1	1.3	.74	5.1	2.4	1.5	2.2	1.7	.94	1.2
21	3.7	3.6	.99	3.4	.88	3.0	2.3	2.8	2.0	2.9	.81	1.2
22	3.3	3.4	.95	3.8	1.0	4.1	2.3	3.9	1.8	2.9	.74	1.2
23	2.9	3.1	.96	3.8	1.0	4.6	2.2	4.3	1.7	2.9	.72	1.9
24	2.6	2.6	.96	3.3	1.0	4.1	1.8	4.4	1.6	2.5	1.1	3.0
25	2.6	2.4	.93	2.9	.99	3.7	1.6	4.1	1.4	2.1	1.2	3.1
26	2.3	2.0	.88	2.9	.94	3.4	1.6	3.7	1.2	2.0	1.1	2.9
27	2.0	1.8	.86	3.1	.87	4.7	1.2	3.2	1.1	2.4	1.5	2.5
28	1.8	1.6	.86	2.7	.85	5.7	1.1	2.7	1.2	2.4	1.8	2.2
29	1.6	1.6	.82	2.4	---	5.9	1.3	2.2	1.0	2.2	1.7	2.0
30	1.4	1.5	.80	2.0	---	8.2	1.7	1.8	.97	2.4	1.6	2.4
31	1.2	---	.77	1.9	---	12	---	1.6	---	2.6	1.5	---
TOTAL	83.2	97.09	47.58	45.07	26.90	103.87	116.5	58.83	51.81	59.54	62.91	40.67
MEAN	2.68	3.24	1.53	1.45	.96	3.35	3.88	1.90	1.73	1.92	2.03	1.36
MAX	4.1	7.2	3.5	3.8	1.6	12	9.6	4.4	3.3	3.3	4.0	3.1
MIN	1.2	.85	.77	.50	.64	.73	1.1	.81	.88	.65	.72	.50
CFSM	3.35	4.05	1.92	1.82	1.20	4.19	4.85	2.37	2.16	2.40	2.54	1.69
IN.	3.87	4.51	2.21	2.10	1.25	4.83	5.42	2.74	2.41	2.77	2.93	1.89
CAL YR 1985	TOTAL 712.86											
WTR YR 1986	TOTAL 793.96											
	MEAN 1.95		MAX 7.8		MIN .04		CFSM 2.44		IN. 33.1			
	MEAN 2.18		12		MIN .50		CFSM 2.72		IN. 36.9			

## STREAMS TRIBUTARY TO LAKE ONTARIO

177

## 04256500 STILLWATER RESERVOIR NEAR BEAVER RIVER, NY

LOCATION.--Lat 43°53'50", long 75°03'05", Herkimer County, Hydrologic Unit 04150101, in gatehouse at Stillwater Dam on Beaver River, 2.5 mi upstream from Moshier Creek, and 7.5 mi west of Beaver River Post Office.

DRAINAGE AREA.--171 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1908 to current year. Prior to February 1925, month-end contents only, published in WSP 1307. February 1925 to September 1937, published in WSP 824.

REVISED RECORDS.--WDR NY-85-1: Drainage area.

GAGE.--Nonrecording gage read once daily and prior to reservoir gate changes. Datum of gage is National Geodetic Vertical Datum, adjustment of 1912.

REMARKS.--Reservoir originally formed about 1885; enlarged at various times and in 1924 enlarged to a usable capacity of 4,623 mil ft<sup>3</sup> between elevations 1,650.3 ft and 1,679.3 ft (top of 24-inch flashboards in place throughout year). Elevation of gate sill of lowest outlet, 1,642.3 ft. Capacity below elevation 1,650.3 ft, 90 mil ft<sup>3</sup>, is included in records presented herein, but is not ordinarily available for release. Reservoir is used to regulate flow of Beaver and Black Rivers for flood control, power development, and general public welfare.

COOPERATION.--Records provided by Board of Hudson River-Black River Regulating District.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed elevation, 1,680.08 ft May 20, 1969, contents, 4,939 mil ft<sup>3</sup>; minimum observed since first filling, 1,644.80 ft Mar. 25-27, 1949, contents, 8 mil ft<sup>3</sup>.

EXTREMES FOR CURRENT YEAR.--Maximum observed elevation, 1,678.11 ft June 3, contents, 4,374 mil ft<sup>3</sup>; minimum observed, 1,660.89 ft Mar. 14, contents, 930 mil ft<sup>3</sup>.

Capacity table, current year (elevation, in feet, and contents, in millions of cubic feet)

1,658.0	604	1,670.0	2,431
1,660.0	821	1,675.0	3,556
1,665.0	1,518	1,680.0	4,916

ELEVATION, IN FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1670.70	1672.15	1674.35	1671.21	1667.93	1663.00	1668.85	1677.10	1678.01	1677.55	1677.58	1675.81
2	1670.86	1672.04	1674.28	1671.06	1667.84	1662.80	1670.71	1677.04	1678.10	1677.63	1677.82	1675.68
3	1670.97	1671.92	1674.34	1670.92	1667.73	1662.61	1671.53	1676.98	1678.11	1677.63	1677.98	1675.54
4	1671.04	1671.80	1674.28	1670.77	1667.62	1662.41	1672.12	1676.98	1678.03	1677.64	1677.93	1675.40
5	1671.12	1671.72	1674.21	1670.60	1667.51	1662.19	1672.65	1677.02	1677.95	1677.65	1677.86	1675.23
6	1671.21	1671.70	1674.10	1670.40	1667.35	1661.97	1673.10	1677.06	1677.88	1677.68	1677.78	1675.12
7	1671.36	1671.86	1673.97	1670.27	1667.16	1661.79	1673.50	1677.06	1677.79	1677.73	1677.73	1674.93
8	1671.46	1671.99	1673.87	1670.11	1667.00	1661.60	1673.87	1677.11	1677.76	1677.73	1677.72	1674.82
9	1671.52	1672.12	1673.75	1669.94	1666.81	1661.39	1674.28	1677.17	1677.73	1677.66	1677.68	1674.65
10	1671.49	1672.35	1673.60	1669.79	1666.64	1661.21	1674.65	1677.22	1677.66	1677.57	1677.66	1674.48
11	1671.47	1672.93	1673.46	1669.64	1666.45	1661.07	1674.95	1677.25	1677.65	1677.48	1677.58	1674.31
12	1671.40	1673.22	1673.35	1669.49	1666.27	1661.00	1675.19	1677.29	1677.75	1677.39	1677.55	1674.26
13	1671.34	1673.45	1673.23	1669.37	1666.08	1660.92	1675.40	1677.30	1677.87	1677.59	1677.46	1674.15
14	1671.44	1673.72	1673.10	1669.23	1665.89	1660.89	1675.62	1677.33	1677.92	1677.68	1677.35	1674.02
15	1671.49	1674.22	1673.01	1669.07	1665.70	1661.32	1675.83	1677.34	1677.92	1677.76	1677.24	1673.87
16	1671.67	1674.63	1672.94	1668.91	1665.51	1661.90	1675.97	1677.24	1677.86	1677.80	1677.16	1673.80
17	1671.87	1674.87	1672.86	1668.74	1665.29	1662.53	1676.08	1677.19	1677.94	1677.77	1677.07	1673.73
18	1671.96	1675.08	1672.78	1668.58	1665.08	1662.66	1676.24	1677.13	1677.94	1677.73	1676.99	1673.63
19	1672.13	1675.26	1672.68	1668.44	1664.88	1662.71	1676.37	1677.08	1677.89	1677.68	1676.88	1673.50
20	1672.38	1675.30	1672.58	1668.37	1664.69	1663.33	1676.49	1677.07	1677.91	1677.61	1676.75	1673.38
21	1672.54	1675.28	1672.46	1668.47	1664.52	1664.16	1676.61	1677.12	1677.85	1677.73	1676.58	1673.28
22	1672.66	1675.24	1672.35	1668.56	1664.38	1664.74	1676.77	1677.40	1677.79	1677.81	1676.48	1673.17
23	1672.73	1675.18	1672.26	1668.59	1664.21	1665.56	1676.89	1677.62	1677.78	1677.77	1676.34	1673.08
24	1672.71	1675.10	1672.15	1668.56	1664.03	1665.63	1676.99	1677.77	1677.74	1677.72	1676.30	1673.17
25	1672.75	1675.02	1672.05	1668.51	1663.85	1665.65	1677.03	1677.87	1677.67	1677.62	1676.28	1673.14
26	1672.71	1674.94	1671.91	1668.47	1663.60	1665.70	1677.07	1677.96	1677.60	1677.55	1676.22	1673.03
27	1672.61	1674.84	1671.80	1668.44	1663.39	1666.00	1677.11	1677.98	1677.54	1677.61	1676.15	1672.95
28	1672.54	1674.73	1671.69	1668.37	1663.19	1666.51	1677.13	1678.02	1677.56	1677.54	1676.20	1672.83
29	1672.45	1674.61	1671.53	1668.28	---	1666.89	1677.13	1678.04	1677.55	1677.46	1676.14	1672.76
30	1672.35	1674.49	1671.43	1668.17	---	1667.66	1677.13	1678.03	1677.56	1677.40	1676.04	1672.76
31	1672.25	---	1671.32	1668.07	---	1668.80	---	1678.02	---	1677.38	1675.92	---
MEAN	1671.84	1673.73	1672.96	1669.27	1665.74	1663.44	1675.11	1677.38	1677.81	1677.63	1677.05	1674.02
MAX	1672.75	1675.30	1674.35	1671.21	1667.93	1668.80	1677.13	1678.04	1678.11	1677.81	1677.98	1675.81
MIN	1670.70	1671.70	1671.32	1668.07	1663.19	1660.89	1668.85	1676.98	1677.54	1677.38	1675.92	1672.76
#	2895	3409	2692	2037	1222	2199	4100	4346	4220	4209	3770	3036
**	+124	+198	-268	-245	-337	+365	+733	+91.8	-48.6	-4.10	-164	-283
CAL YR 1985	MEAN	1673.72	MAX	1679.15	MIN	1667.32	**	-47.8				
WTR YR 1986	MEAN	1673.03	MAX	1678.11	MIN	1660.89	**	+15.0				

# Contents, in millions of cubic feet, at 2400 hours on last day of month by interpolation.

\*\* Change in contents, equivalent in cubic feet per second.

## STREAMS TRIBUTARY TO LAKE ONTARIO

04257000 BEAVER RIVER BELOW STILLWATER DAM, NEAR BEAVER RIVER, NY

LOCATION.--Lat 43°53'56", long 75°03'08", Herkimer County, Hydrologic Unit 04150101, in gatehouse at Stillwater Dam, 2.5 mi upstream from Moshier Creek, and 7.5 mi west of Beaver River Post Office.

DRAINAGE AREA.--171 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1908 to current year. Published as "at State dam, near Beaver River" prior to June 1924.

REVISED RECORDS.--WDR NY-73-1: 1971. WDR NY-82-1: Drainage area.

GAGE.--Nonrecording gage read once daily and after reservoir gate changes. Datum of gage is National Geodetic Vertical Datum, adjustment of 1912. Prior to June 1, 1924, nonrecording gage at present site and datum. June 1, 1924 to Nov. 14, 1929, nonrecording gage at site 1,000 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records poor. Flow regulated by Stillwater Reservoir (see station 04256500). Discharge determined from ratings for gates and spillway of Stillwater Dam applied to log of reservoir elevation and gate operation and adjusted based on discharge measurements made during the year. Several measurements of water temperature were made during the year.

COOPERATION.--Records provided by Board of Hudson River-Black River Regulating District.

AVERAGE DISCHARGE.--78 years, 384 ft<sup>3</sup>/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 3,700 ft<sup>3</sup>/s May 3, 1926; minimum, practically no flow at times when gates in dam were closed.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 824 ft<sup>3</sup>/s Aug. 8; minimum daily, 46 ft<sup>3</sup>/s Mar. 21-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	549	786	623	586	520	49	453	228	258	58	651
2	122	549	785	622	584	517	50	279	229	258	61	650
3	162	547	786	620	582	515	51	199	357	258	445	649
4	163	544	785	618	581	512	52	198	450	258	691	648
5	164	544	783	617	554	509	52	199	449	258	690	647
6	164	233	782	615	575	506	53	200	446	258	688	645
7	164	67	780	613	573	504	53	152	445	259	772	644
8	164	190	778	612	571	500	53	56	444	371	824	643
9	363	233	776	609	568	497	54	56	444	443	823	642
10	540	234	775	606	567	494	54	56	443	442	823	640
11	539	235	771	605	564	492	54	56	442	440	734	638
12	539	236	768	603	562	490	54	56	443	438	672	637
13	538	237	768	601	559	489	54	56	445	440	671	636
14	539	238	626	600	557	184	54	56	447	442	669	635
15	298	239	644	599	555	55	54	301	447	444	668	632
16	186	241	642	597	553	56	54	453	446	444	666	632
17	186	242	641	595	550	374	55	453	447	444	665	631
18	186	244	640	593	548	580	55	453	447	444	664	630
19	187	359	640	592	545	694	55	453	447	443	662	629
20	188	802	639	590	541	307	55	453	447	442	661	628
21	188	802	638	591	540	46	55	279	446	515	660	626
22	188	801	637	592	537	46	55	219	445	564	658	625
23	302	800	636	593	534	47	55	221	444	564	657	624
24	371	798	635	593	533	227	162	223	444	564	657	625
25	492	798	635	593	530	558	200	225	443	561	656	625
26	554	797	632	592	527	558	200	225	442	560	656	624
27	554	794	630	591	524	561	200	226	385	590	656	623
28	554	793	629	590	522	568	200	227	258	681	656	621
29	552	791	628	590	---	200	200	229	258	680	656	620
30	551	789	626	589	---	48	290	228	258	679	655	620
31	550	---	624	588	---	48	---	228	---	285	654	---
TOTAL	10299	14726	21545	18632	15522	11702	2682	7168	12216	13727	19828	19020
MEAN	332	491	695	601	554	377	89.4	231	407	443	640	634
MAX	554	802	786	623	586	694	290	453	450	681	824	651
MIN	51	67	624	588	522	46	49	56	228	258	58	620

## Adjusted for change in contents in Stillwater Reservoir

	MEAN	457	689	427	356	217	742	823	323	359	439	476	351
CFSM	2.67	4.03	2.50	2.08	1.27	4.34	4.81	1.89	2.10	2.57	2.78	2.05	
IN.	3.08	4.50	2.88	2.40	1.32	5.01	5.37	2.18	2.34	2.96	3.21	2.29	

## Observed

## Adjusted

CAL YR 1985	TOTAL	177239	MEAN	486	MAX	1050	MIN	50	MEAN	438	CFSM	2.56	IN.	34.76
WTR YR 1986	TOTAL	167067	MEAN	458	MAX	824	MIN	46	MEAN	473	CFSM	2.76	IN.	37.54

04258000 BEAVER RIVER AT CROGHAN, NY

LOCATION.--Lat 43°53'50", long 75°24'16", Lewis County, Hydrologic Unit 04150101, on left bank 1,200 ft upstream from Black Creek, and 0.5 mi west of Croghan.

DRAINAGE AREA.--291 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1930 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 806.20 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Stillwater Reservoir (see station 04256500). Between Stillwater Dam and this station, flow is further regulated by several powerplant ponds. Diurnal fluctuation at low and medium flow. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--56 years, 602 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,100 ft<sup>3</sup>/s May 21, 1969, gage height, 6.98 ft; minimum, 11 ft<sup>3</sup>/s Jan. 22, 29, Feb. 4, 1967, gage height, 0.63 ft; minimum daily, 22 ft<sup>3</sup>/s July 18, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,980 ft<sup>3</sup>/s Mar. 31, gage height, 4.61 ft; minimum, 207 ft<sup>3</sup>/s June 25, gage height, 1.93 ft; minimum daily, 244 ft<sup>3</sup>/s May 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	802	762	876	741	734	631	1580	300	350	564	1230	933
2	486	728	1030	592	632	569	1260	269	419	611	1030	775
3	291	748	987	710	684	576	1310	258	677	697	941	567
4	330	671	951	716	613	626	1210	260	656	584	873	555
5	327	732	949	700	611	615	939	260	566	486	831	559
6	377	800	1000	704	676	614	698	263	397	343	818	558
7	329	757	951	772	764	631	354	321	491	364	834	558
8	412	642	951	838	744	659	352	517	642	286	897	558
9	397	658	961	627	667	673	458	318	665	498	1130	584
10	541	802	962	591	570	639	872	285	518	448	1160	631
11	603	935	954	626	595	721	660	322	450	520	1030	576
12	694	683	926	599	591	714	377	329	547	701	840	949
13	738	708	925	565	493	747	331	301	762	588	715	981
14	741	1030	923	619	632	1040	333	248	830	641	561	1010
15	685	1340	733	628	713	1070	317	244	761	781	733	893
16	573	1190	794	714	680	940	303	246	774	947	887	800
17	738	1110	926	765	636	819	421	261	768	877	1170	622
18	1070	1070	660	759	684	702	289	270	690	591	977	614
19	1160	981	557	765	671	877	261	268	684	538	746	776
20	923	956	752	892	698	1400	257	304	890	443	739	936
21	401	799	752	1120	723	1230	262	479	812	439	536	955
22	418	602	667	1140	720	942	265	838	792	634	572	952
23	608	720	715	1090	702	817	334	882	722	632	653	1040
24	475	797	716	1040	696	772	341	801	543	637	1340	1110
25	610	755	754	920	655	761	368	391	484	636	942	1330
26	741	690	724	765	686	894	348	402	473	531	739	1190
27	814	766	658	645	650	1090	258	429	359	761	816	945
28	740	765	601	772	656	1170	253	408	618	756	890	930
29	785	765	645	714	---	1330	251	371	454	714	1330	923
30	762	765	598	614	---	1070	252	346	445	894	1350	903
31	770	---	595	614	---	1560	---	385	---	1360	1000	---
TOTAL	19341	24727	25193	23357	18576	26899	15514	11576	18239	19502	28310	24713
MEAN	624	824	813	753	663	868	517	373	608	629	913	824
MAX	1160	1340	1030	1140	764	1560	1580	882	890	1360	1350	1330
MIN	291	602	557	565	493	569	251	244	350	286	536	555
CAL YR 1985	TOTAL	268628	MEAN	736	MAX	1790	MIN	217				
WTR YR 1986	TOTAL	255947	MEAN	701	MAX	1580	MIN	244				



## STREAMS TRIBUTARY TO LAKE ONTARIO

04260500 BLACK RIVER AT WATERTOWN, NY  
(National stream-quality accounting network station)

LOCATION.--Lat 43°59'08", long 75°55'30", Jefferson County, Hydrologic Unit 04150101, on downstream side of right abutment of Vanduzee Street Bridge at Watertown, and 3.5 mi upstream from Philomel Creek. Water-quality sampling site at discharge station.

DRAINAGE AREA.--1,864 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1920 to current year.

REVISED RECORDS.--WDR NY-77-1: 1974. WDR NY-85-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 373.88 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 3, 1921, nonrecording gage, and from Sept. 3, 1921 to Mar. 15, 1977, recording gage at same site at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Dec. 17-22, Dec. 25 to Jan. 17, Feb. 3-20, and Feb. 26 to Mar. 4. Records good except those for estimated daily discharges, which are fair. Flow regulated by Stillwater Reservoir (see station 04256500), Fulton Chain of Lakes, and other reservoirs. Extensive diurnal fluctuation at low and medium flow caused by mills and powerplants in and above Watertown. During canal season, water is diverted out of basin through Forestport feeder and Black River Canal (flowing south). Several measurements of water temperature were made during the year. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--66 years, 4,046 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,900 ft<sup>3</sup>/s Dec. 31, 1984, gage height, 13.15 ft; minimum, 10 ft<sup>3</sup>/s Sept. 2, 1934, gage height, 0.81 ft present datum; minimum daily discharge, 137 ft<sup>3</sup>/s Sept. 4, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, about 39,700 ft<sup>3</sup>/s Apr. 23, 1869 (from New York State Museum Bulletin 85).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 17,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 20	1745	22,700	9.91	Apr. 2	1015	*23,200	*10.01

Minimum discharge, 417 ft<sup>3</sup>/s Sept. 9, gage height, 1.92 ft; minimum daily discharge, 1,550 ft<sup>3</sup>/s May 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9380	3210	4060	2300	3520	2600	21400	2410	2220	2290	6380	3260
2	7690	3110	5350	2400	3130	2500	22300	2440	2250	2280	6460	2560
3	5340	3010	7180	2400	3000	2400	20400	2270	2740	2340	6290	2220
4	3860	3140	7350	2500	2800	2400	18400	2260	3180	2820	5890	2030
5	3070	2880	6940	2400	2700	2480	16200	2170	2860	2830	5170	1770
6	3030	4770	6340	2300	2600	2420	14300	2220	2490	2410	4390	1720
7	4040	6580	5470	2400	2700	2440	12600	2380	2330	2300	3430	1900
8	4200	6560	4940	2400	2700	2230	11500	2680	2360	2050	3190	1820
9	3460	6540	4640	2300	2600	2410	11200	2550	2600	1850	3560	1830
10	3000	8040	4330	2200	2500	2320	10900	2230	3200	1820	5030	1730
11	3100	9750	4150	2200	2400	2730	10500	2060	2780	1860	5140	1720
12	3200	9860	3990	2100	2400	3420	9560	1980	2680	1680	4950	2140
13	3250	10300	3930	2000	2300	4500	8450	1750	3800	2630	4420	2900
14	4580	10800	3900	1800	2200	5200	7350	1640	5430	4510	3460	2980
15	5670	12200	3150	1800	2200	6950	6400	1610	5440	5430	3000	2830
16	5980	12600	2720	1900	2100	8620	5690	1550	4900	5210	2990	2720
17	6680	13300	2700	2000	2100	9980	5540	1620	4690	4560	4840	3980
18	7480	12900	2800	2230	2100	12500	5650	2140	5140	3580	4870	4460
19	7510	11700	2900	2420	2100	15400	5470	3200	5180	2970	3910	4090
20	7320	10400	3000	3760	2500	21800	5130	3550	5360	2620	3040	3400
21	7100	9160	3000	6930	3670	21000	4810	4730	5640	2390	2570	3730
22	6680	8030	3000	7680	4480	19900	4640	6350	5650	2330	2240	4410
23	6100	6990	3070	8400	4310	16500	4810	7950	5180	2380	1860	4510
24	4920	6330	2970	9140	4160	13300	4840	9380	4340	2210	2180	6720
25	4350	5790	2900	8650	3920	11200	4400	9470	3650	1960	3670	7370
26	4980	5200	2800	7650	3500	10600	3710	8210	3350	1890	3300	7830
27	5090	4660	2700	6400	3100	12100	3290	6640	2920	1990	3030	7540
28	4780	4340	2600	5400	2900	12500	2990	5050	2640	2350	3820	6520
29	4290	4250	2500	4740	---	14100	2760	3550	2750	2520	4620	5210
30	3820	4150	2400	4110	---	16700	2550	2750	2530	3010	4690	4780
31	3480	---	2300	3590	---	18700	---	2410	---	4510	4180	---
TOTAL	157430	220550	120080	118500	80690	281900	267740	111200	110280	85580	126570	110680
MEAN	5078	7352	3874	3823	2882	9094	8925	3587	3676	2761	4083	3689
MAX	9380	13300	7350	9140	4480	21800	22300	9470	5650	5430	6460	7830
MIN	3000	2880	2300	1800	2100	2230	2550	1550	2220	1680	1860	1720
CAL YR 1985	TOTAL	1653798	MEAN	4531	MAX	37900	MIN	755				
WTR YR 1986	TOTAL	1791200	MEAN	4907	MAX	22300	MIN	1550				

## STREAMS TRIBUTARY TO LAKE ONTARIO

181

04260500 BLACK RIVER AT WATERTOWN, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956-60, 1962 to current year.

CHEMICAL DATA: 1956 (e), 1959 (a), 1960 (b), 1965 (a), 1966-81 (d), 1982-86 (c).

MINOR ELEMENTS DATA: 1970-71 (a), 1974-79 (b), 1980 (c), 1981-86 (b).

PESTICIDE DATA: 1975-79 (b), 1980-82 (a).

ORGANIC DATA: OC--1973 (c), 1974 (a), 1975 (c), 1976-77 (b), 1978-81 (d).

PCB--1978-79 (b), 1980-82 (a).

NUTRIENT DATA: 1968 (b), 1969-81 (d), 1982-86 (c).

BIOLOGICAL DATA:

Bacteria--1973-81 (d), 1982-86 (c).

Phytoplankton--1975-77 (d), 1978-79 (c), 1980 (b), 1981 (c).

Periphyton--1975-80 (b).

SEDIMENT DATA: 1975-76 (d), 1977 (c), 1978-81 (d), 1982-86 (c).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1955 to September 1959, July 1962 to March 1969.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT DIS- SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 05...	1530	2700	79	7.20	7.0	2.0	745	11.6	98	960	200
JAN 14...	1315	1730	113	7.70	0.0	1.9	755	13.5	93	190	100
MAR 24...	1315	13000	69	6.96	1.0	3.6	770	15.9	111	73	K22
APR 29...	1315	2960	78	7.34	15.5	2.0	755	10.0	101	430	150
JUL 08...	1345	2120	75	6.35	24.0	3.0	755	8.8	106	360	88
AUG 26...	1345	3260	95	7.42	19.0	2.0	755	9.3	101	570	480

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	BICAR- BONATE WH WAT TOTAL FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV 05...	32	10	11	1.1	3.6	0.60	22	27	12	3.1	<0.10
JAN 14...	47	12	16	1.6	5.2	1.0	35	43	13	4.0	<0.10
MAR 24...	32	11	11	1.0	2.1	0.70	21	26	11	2.6	0.10
APR 29...	32	5	11	1.1	3.4	0.60	27	33	10	2.6	0.10
JUL 08...	35	22	12	1.2	5.2	0.70	13	16	11	2.6	0.10
AUG 26...	32	6	11	1.2	3.5	0.70	26	32	12	2.3	0.10

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)
NOV 05...	5.5	60	51	0.190	0.040	0.030	0.60	0.030	0.010	<0.010	110
JAN 14...	8.0	75	70	0.510	0.050	0.050	0.50	0.030	0.010	0.010	--
MAR 24...	5.0	57	47	0.820	0.040	0.070	0.40	0.020	0.010	0.020	160
APR 29...	4.9	62	50	0.350	0.020	0.030	0.70	0.030	0.010	<0.010	--
JUL 08...	5.3	60	46	0.310	0.030	0.040	0.40	0.030	0.020	0.010	--
AUG 26...	5.4	60	52	0.290	0.030	0.020	0.40	0.040	0.020	0.020	70

K Results based on colony count outside the acceptable range (non-ideal colony count).

## STREAMS TRIBUTARY TO LAKE ONTARIO

04260500 BLACK RIVER AT WATERTOWN, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 05...	<1	17	0.7	<1	<1	<3	2	170	6	<4	27
JAN 14...	--	--	--	--	--	--	--	--	--	--	--
MAR 24...	<1	15	<0.5	<1	<1	<3	2	100	<1	<4	26
APR 29...	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--
AUG 26...	<1	16	<0.5	1	<1	<3	2	300	<5	4	13

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 05...	0.1	<10	2	<1	<1	30	<6	10
JAN 14...	--	--	--	--	--	--	--	--
MAR 24...	<0.1	<10	1	<1	<1	26	<6	18
APR 29...	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--
AUG 26...	0.1	<10	1	<1	<1	31	<6	24

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 05...	1530	2700	2	15	95	APR 29...	1315	2960	3	24	81
JAN 14...	1315	1730	1	4.7	91	JUL 08...	1345	2120	4	23	24
MAR 24...	1315	13000	7	246	90	AUG 26...	1345	3260	6	53	81

## LAKES AND RESERVOIRS IN STREAMS TRIBUTARY TO LAKE ONTARIO

04253300 SIXTH LAKE.--Lat 43°44'43", long 74°46'58", Hamilton County, Hydrologic Unit 04150101, on dam at outlet of Sixth Lake at Inlet, and 11.2 mi upstream from dam at Old Forge. DRAINAGE AREA, 18.6 mi<sup>2</sup>. PERIOD OF RECORD, November 1911 to current year. GAGE, nonrecording gage read daily at 0800. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Hudson River-Black River Regulating District).

The Sixth and Seventh Lakes of Fulton Chain Lakes are partially formed and controlled by the concrete dam at Inlet, while the Eighth Lake is upstream and at approximately 5 ft higher elevation. Storage began around 1881. The present structure is a concrete dam with control gates which were installed in 1938. Usable capacity 296.6 mil ft<sup>3</sup> between minimum operating level, elevation 1,775.1 ft and crest of spillway, elevation 1,786.0 ft; no dead storage below minimum operating level. Figures given herein represent total contents. The dam is operated, records collected, provided, and stored by Board of Hudson River-Black River Regulating District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 332 mil ft<sup>3</sup> Oct. 3, 1945, elevation, 1,787.1 ft; minimum observed, less than 0.90 mil ft<sup>3</sup> Nov. 18, 1943, water level below elevation 1,775.6 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 301.4 mil ft<sup>3</sup> Aug. 1, elevation, 1,786.15 ft; minimum observed, 136.7 mil ft<sup>3</sup> Dec. 2, 26, elevation, 1,780.85 ft.

04253400 FIRST LAKE (formerly published as "Old Forge Reservoir").--Lat 43°42'44", long 74°58'12", Herkimer County, Hydrologic Unit 04150101, at dam on Middle Branch Moose River, and 100 ft downstream from bridge on State Highway 28 at Old Forge, 11.2 mi downstream from dam on Sixth Lake outlet at Inlet. DRAINAGE AREA, 53.6 mi<sup>2</sup>. PERIOD OF RECORD, November 1911 to current year. REVISED RECORDS, WDR NY-85-1: Drainage area. GAGE, nonrecording gage read daily at 0800. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Hudson River-Black River Regulating District).

The First through Fifth Lakes of Fulton Chain Lakes are partially formed and controlled by a concrete dam with 12-inch flashboards. Storage began around 1881 or 1882 with a wooden crib dam. This dam was replaced with a concrete dam in 1905 and gates were installed in 1927. Usable capacity with flashboards, 895.6 mil ft<sup>3</sup>, elevation, 1,707.0 ft. Usable capacity without flashboards, 764.3 mil ft<sup>3</sup>, elevation, 1,706.1 ft; no dead storage below minimum operating level. Figures given herein represent total contents. The dam is operated, records collected, provided, and stored by Board of Hudson River-Black River Regulating District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 1,019 mil ft<sup>3</sup> June 17, 1972, elevation, 1,707.9 ft; minimum observed, 6.50 mil ft<sup>3</sup> Nov. 3, 1939, elevation, 1,699.8 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 920.0 mil ft<sup>3</sup> Aug. 1, elevation, 1,707.22 ft; minimum observed, 288.2 mil ft<sup>3</sup> Dec. 23, elevation, 1,702.30 ft.

04256500 STILLWATER RESERVOIR NEAR BEAVER RIVER, NY (see station for daily elevation, skeleton capacity table, monthly contents, and change in contents).

## MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet) *	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet) *	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)
	04253300	Sixth Lake		04253400	First Lake	
Sept. 30	1,784.32	243.2		1,706.51	824.0	
Oct. 31	1,783.50	217.7	- 9.52	1,705.25	659.2	- 61.5
Nov. 30	**1,781.01	141.5	-29.4	1,704.05	504.2	- 59.8
Dec. 31	1,780.95	139.7	- 0.67	1,702.40	300.2	- 76.2
CAL YR 1985	-	-	- 5.31	-	-	- 17.5
Jan. 31	1,781.57	158.3	+ 6.94	1,703.06	380.5	+ 30.0
Feb. 28	1,781.10	144.2	- 5.83	1,702.83	352.8	- 11.4
Mar. 31	1,784.03	234.2	+33.6	1,704.99	625.4	+102
Apr. 30	1,785.20	271.0	+14.2	1,704.91	615.0	- 4.01
May 31	1,785.72	287.6	+ 6.20	1,706.49	821.4	+ 77.1
June 30	1,785.50	280.6	- 2.70	1,707.03	894.4	+ 28.2
July 31	1,786.12	300.4	+ 7.39	1,707.19	915.8	+ 7.99
Aug. 31	1,785.72	287.6	- 4.78	1,706.97	886.0	- 11.1
Sept. 30	1,785.57	282.8	- 1.85	1,706.95	883.2	- 1.08
WTR YR 1986	-	-	+ 1.26	-	-	+ 1.88

\* Elevation at 2400 hours, by interpolation.

\*\* No reading Dec. 1, record estimated by interpolation.



## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

## 04262500 WEST BRANCH OSWEGATCHIE RIVER NEAR HARRISVILLE, NY

LOCATION.--Lat 44°11'08", long 75°19'52", St. Lawrence County, Hydrologic Unit 04150302, on right bank just downstream from highway bridge, 0.5 mi northeast of Geers Corners, 1.5 mi downstream from Big Creek, and 4.0 mi downstream from Harrisville.

DRAINAGE AREA.--244 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1916 to current year.

REVISED RECORDS.--WSP 784: 1934. WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 738.51 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 30, 1933, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 13-28, Jan. 6-22, Jan. 27 to Feb. 25, Feb. 27 to Mar. 11, and July 29-31. Records good except those for estimated daily discharges, which are fair. Since June 1985, extensive diurnal fluctuation and slight regulation caused by powerplant upstream from station. Several measurements of water temperature were made during the year. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--70 years, 518 ft<sup>3</sup>/s, 28.83 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,080 ft<sup>3</sup>/s Mar. 15, 1977, gage height, 9.31 ft; maximum gage height, 9.6 ft Jan. 9, 1930; minimum discharge prior to regulation, 25 ft<sup>3</sup>/s Sept. 1, 1934, gage height, 0.86 ft; minimum discharge since regulation, 20 ft<sup>3</sup>/s Aug. 11, 1985, gage height, 0.83 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,300 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 20	2200	*3,730	a*6.70	No other peak greater than base discharge.			

a Recorded in well; outside gage height was 6.92 ft, from crest-stage gage.

Minimum discharge, 124 ft<sup>3</sup>/s May 16, gage height, 1.79 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1650	275	362	269	380	270	3260	294	239	271	1610	462
2	1000	259	559	263	350	250	2750	293	219	272	1470	367
3	725	246	912	258	330	240	2400	298	294	375	1360	307
4	554	241	978	254	320	230	2000	283	276	415	1090	267
5	471	244	821	251	300	230	1600	288	233	382	846	243
6	671	425	648	240	290	220	1340	334	198	393	634	238
7	833	685	590	230	280	220	1210	365	200	407	520	238
8	766	723	518	220	270	220	1190	350	205	313	634	223
9	622	737	462	220	260	220	1200	324	338	246	775	190
10	520	987	410	220	250	220	1400	298	352	209	921	185
11	500	1840	383	220	240	370	1480	267	338	189	1010	239
12	523	2050	366	210	240	649	1390	240	794	170	602	429
13	536	1690	340	200	230	806	1180	222	1370	338	714	708
14	717	1600	320	200	230	826	993	191	1680	537	545	668
15	852	2110	310	190	220	979	833	184	1360	510	482	501
16	855	2480	310	190	220	1290	732	175	964	524	820	580
17	847	1970	300	190	210	1510	696	258	1050	596	1080	853
18	725	1540	300	210	210	1460	668	309	1290	386	887	788
19	637	1230	300	250	210	1650	607	336	1170	322	618	596
20	754	989	300	450	260	3060	555	536	813	293	487	496
21	810	827	300	980	350	3300	530	711	618	589	400	473
22	707	699	290	1600	440	2340	540	968	506	1200	345	442
23	576	623	280	1680	500	1770	535	1160	404	995	330	478
24	494	575	280	1460	450	1370	482	1210	334	598	384	907
25	478	522	270	1220	410	1080	429	1060	320	392	565	1080
26	469	469	270	1020	375	1090	392	837	293	318	591	921
27	432	429	270	760	330	1850	368	629	271	380	628	691
28	384	405	270	600	300	2560	352	485	271	433	907	565
29	335	384	270	520	---	2410	327	374	305	368	1010	501
30	310	366	272	450	---	2590	309	298	327	565	798	918
31	289	---	273	410	---	3200	---	270	---	1140	582	---
TOTAL	20042	27620	12534	15435	8455	38480	31748	13847	17032	14126	23645	15554
MEAN	647	921	404	498	302	1241	1058	447	568	456	763	518
MAX	1650	2480	978	1680	500	3300	3260	1210	1680	1200	1610	1080
MIN	289	241	270	190	210	220	309	175	198	170	330	185
CFSM	2.65	3.77	1.66	2.04	1.24	5.09	4.34	1.83	2.33	1.87	3.13	2.12
IN.	3.06	4.21	1.91	2.35	1.29	5.87	4.84	2.11	2.60	2.15	3.60	2.37
CAL YR 1985	TOTAL	206179	MEAN	565	MAX	3700	MIN	21	CFSM	2.32	IN.	31.43
WTR YR 1986	TOTAL	238518	MEAN	653	MAX	3300	MIN	170	CFSM	2.68	IN.	36.36

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

185

04263000 OSWEGATCHIE RIVER NEAR HEUVELTON, NY  
(National stream-quality accounting network station)

LOCATION.--Lat 44°35'58", long 75°22'45", St. Lawrence County, Hydrologic Unit 04150302, on right bank 1.5 mi downstream from Beaver Creek, and 2.5 mi upstream from Heuvelton. Water-quality sampling site at discharge station.

DRAINAGE AREA.--965 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1916 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 288.85 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 16, 1916, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 9-11, 13-22, 25-27, Dec. 29 to Jan. 19, Feb. 1-20, and Feb. 26 to Mar. 2. Records good except those for estimated daily discharges, which are fair. Since 1867, seasonal flow regulated by Cranberry Lake; slight diurnal fluctuation at low flow and medium flow caused by powerplants. During high stages on Grass River, part of flow of that stream may pass through Upper Lake, Indian Creek and Lower Lake and enter Oswegatchie River at Rensselaer Falls, 4.5 mi upstream from station. In October 1973, a dike was installed on Indian Creek to prevent overflow of Grass River during high flows. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--70 years, 1,735 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,600 ft<sup>3</sup>/s Apr. 6, 1960, gage height, 10.36 ft; minimum recorded, 130 ft<sup>3</sup>/s Aug. 17, 1949, gage height, 0.47 ft, but may have been less during period of no gage-height record Sept. 7, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,960 ft<sup>3</sup>/s Mar. 22, gage height, 6.61 ft; minimum, 607 ft<sup>3</sup>/s May 16, gage height, 1.38 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5910	1110	1560	1000	1700	1100	6840	986	1100	935	2310	1930
2	4810	1100	1750	980	1500	1000	7000	1020	915	882	2790	1520
3	3460	996	2260	980	1300	970	6760	859	965	918	2810	1400
4	2590	780	2790	960	1200	914	6270	835	841	1180	2580	1460
5	2060	655	2810	940	1200	1030	5660	760	855	1300	2300	1230
6	1560	1050	2650	920	1100	1170	4870	702	832	1420	1990	1120
7	1400	1830	2110	880	1100	1080	4110	1020	783	1250	1680	1100
8	1670	2320	1890	860	1000	993	3510	1150	873	1300	1560	1060
9	1680	2240	1800	860	1000	895	3310	1130	808	1480	1660	1060
10	1450	2510	1600	860	980	850	3550	1080	732	1280	1950	1120
11	1280	3460	1500	840	940	1010	3870	968	967	1160	2100	1320
12	1380	4380	1270	820	900	2090	4120	748	1840	1170	2370	2230
13	1280	4890	1300	780	880	2730	3770	658	3260	1190	2610	3130
14	1450	4950	1200	780	840	2840	3350	738	5200	1140	2520	2800
15	1830	4970	1200	760	820	3060	3140	853	5630	1310	2240	2350
16	2400	5260	1100	740	800	3640	2860	666	4810	1390	2540	2170
17	2530	5440	1000	740	800	4230	2510	782	3750	1370	3160	2310
18	2360	5110	1100	840	780	4730	2220	727	3430	1410	3090	2470
19	2200	4350	1200	1200	840	5490	1940	678	3930	1360	2450	2390
20	2080	3630	1200	3630	1000	7100	1890	792	3490	1170	1470	2130
21	1800	3010	1200	5620	1290	8530	1570	1130	2890	1410	1070	1900
22	1810	2580	1300	6350	1560	8880	1310	1740	2090	1680	963	1780
23	2040	2330	1210	6410	1570	8300	1410	2270	1390	1880	848	1620
24	1880	2220	1210	5970	1470	7380	1460	2660	1180	1840	864	2020
25	1460	1760	1200	5110	1420	6160	1300	2860	1330	1340	865	2620
26	1550	1670	1100	4360	1300	5100	1270	2600	1380	937	1180	3060
27	1630	1850	1100	3720	1200	5110	1200	2340	1300	877	1450	2630
28	1350	1860	1030	3280	1200	5750	1090	2000	1020	928	1690	2230
29	1060	1600	1000	2810	---	6220	848	1720	936	1110	2550	1890
30	1140	1560	1000	2440	---	6400	854	1490	941	1170	2860	2670
31	1170	---	1000	2190	---	6590	---	1230	---	1420	2460	---
TOTAL	62270	81471	45640	68630	31690	121342	93862	39192	59468	39207	62980	58720
MEAN	2009	2716	1472	2214	1132	3914	3129	1264	1982	1265	2032	1957
MAX	5910	5440	2810	6410	1700	8880	7000	2860	5630	1880	3160	3130
MIN	1060	655	1000	740	780	850	848	658	732	877	848	1060
CAL YR 1985	TOTAL	715869	MEAN	1961	MAX	11300	MIN	212				
WTR YR 1986	TOTAL	764472	MEAN	2094	MAX	8880	MIN	655				

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04263000 OSWEGATCHIE RIVER NEAR HEUVELTON, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960, 1966-69, 1971-72, 1978 to 1986 (discontinued).

CHEMICAL DATA: 1960 (a), 1966 (b), 1968-69 (d), 1971-72 (a), 1978 (c), 1979-80 (d), 1981-82 (c), 1983-86 (b).

MINOR ELEMENTS DATA: 1978-79 (b), 1980 (c), 1981-86 (b).

ORGANIC DATA: OC--1978 (c), 1979-80 (d), 1981 (c).

NUTRIENT DATA: 1978 (c), 1979-80 (d), 1981-82 (c), 1983-86 (b).

BIOLOGICAL DATA:

Bacteria--1978 (c), 1979-80 (d), 1981-82 (c), 1983-86 (b).

Phytoplankton--1978-80 (c), 1981 (b).

Periphyton--1978-80 (b).

SEDIMENT DATA: 1978 (c), 1979-80 (d), 1981-85 (c), 1986 (b).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1978 to September 1981.

WATER TEMPERATURES: January 1978 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1978-81): Maximum daily, 155 microsiemens Jan. 31, 1981; minimum daily, 22 microsiemens sometime in February 1980.

WATER TEMPERATURES (water years 1978-81): Maximum daily, 28.0°C July 28, 1978 and July 23-28, 1979; minimum daily, 0.0°C on many days during winter periods.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 22...	1100	1780	97	7.30	9.5	1.5	765	9.9	86	--	--
MAR 06...	1000	1200	110	7.14	0.0	1.8	750	11.6	81	42	6
JUN 10...	1000	744	79	7.28	20.0	2.0	760	7.9	87	160	60
AUG 20...	0830	1530	100	7.29	21.5	2.8	765	7.1	80	51	K12

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	BICAR- BONATE WH WAT TOTAL FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT 22...	42	8	12	3.0	2.4	0.90	34	42	11	3.6	0.20
MAR 06...	52	15	14	4.0	3.2	1.2	37	45	14	4.7	0.10
JUN 10...	38	14	11	2.6	2.6	0.60	24	29	14	3.2	0.20
AUG 20...	39	12	11	2.8	2.4	1.0	27	33	11	3.1	0.10

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)
OCT 22...	5.9	68	60	<0.100	0.160	0.140	1.0	0.020	0.010	<0.010	70
MAR 06...	8.1	71	72	0.330	0.180	0.160	0.60	0.040	0.030	0.020	80
JUN 10...	4.6	67	53	0.280	0.030	0.040	0.40	0.020	0.010	0.010	--
AUG 20...	6.0	65	54	0.190	0.040	0.030	0.70	0.040	0.030	0.010	70

K Results based on colony count outside the acceptable range (non-ideal colony count).

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

187

04263000 OSWEGATCHIE RIVER NEAR HEUVELTON, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 22...	<1	22	<0.5	1	6	<3	5	290	1	<4	21
MAR 06...	<1	24	<0.5	<1	<1	<3	2	300	<1	4	41
JUN 10...	--	--	--	--	--	--	--	--	--	--	--
AUG 20...	<1	24	<0.5	<1	<1	<3	1	520	<5	<4	26

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 22...	0.1	<10	3	<1	<1	53	<6	19
MAR 06...	<0.1	<10	1	<1	<1	66	<6	64
JUN 10...	--	--	--	--	--	--	--	--
AUG 20...	0.1	<10	<1	<1	<1	52	<6	34

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 22...	1100	1780	2	9.6	84	JUN 10...	1000	744	1	2.0	64
MAR 06...	1000	1200	6	19	57	AUG 20...	0830	1530	4	17	86



## ST. LAWRENCE RIVER MAIN STEM

04264050 ST. LAWRENCE RIVER NEAR WADDINGTON, NY

LOCATION.--Lat 44°51'27", long 75°14'46", St. Lawrence County, Hydrologic Unit 04150301, on right bank at Leishman Point, 2.1 mi west of Waddington, 2.5 mi upstream from Sucker Brook, and 3.3 mi downstream from Iroquois Dam.

DRAINAGE AREA.--298,500 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1976 to November 1976, November 1977 to September 1986 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is International Great Lakes Datum.

REMARKS.--Flow regulated by international agreement administered by International St. Lawrence River Board of control under the International Joint Commission. Records do not include water diverted from Lake Michigan by Chicago Sanitary and Ship Canal, operation of which began in 1900. Records include water diverted into Lake Superior from Hudson Bay drainage by the Long Lake Project, operation of which began in July 1939, and by the Ogoki Project, operation of which began in July 1943. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily elevation, 244.80 ft Apr. 6, 1976; minimum daily, 236.30 ft Feb. 26, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 243.45 ft Dec. 28; minimum daily, 237.19 ft Feb. 8.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	239.98	238.75	239.25	242.05	238.73	238.00	242.14	241.55	241.81	241.87	---	240.85
2	240.07	238.98	240.20	241.85	238.40	237.92	242.20	241.83	241.62	241.76	---	240.66
3	239.65	239.13	240.33	241.15	238.23	237.84	241.99	241.56	241.70	241.78	---	240.23
4	239.37	238.96	239.75	240.94	237.87	237.84	241.70	241.50	241.87	241.87	---	240.18
5	239.56	238.92	239.45	241.35	237.74	237.89	241.59	241.62	241.73	241.94	---	240.44
6	240.07	239.13	239.18	241.69	237.71	237.85	241.79	241.42	241.46	241.75	---	240.48
7	239.91	239.54	239.46	241.39	237.36	238.22	242.21	241.44	241.43	241.78	---	240.35
8	239.97	239.88	239.79	240.79	237.19	237.94	242.58	241.39	241.77	241.83	---	240.22
9	240.06	239.57	239.44	240.57	237.54	237.67	242.62	241.07	241.93	241.78	---	240.39
10	239.74	239.09	239.27	240.40	238.07	237.51	242.51	241.10	241.88	241.55	---	240.34
11	239.40	238.83	239.18	240.34	238.15	237.89	242.51	241.12	241.74	241.45	---	240.47
12	239.31	239.19	239.29	240.55	238.11	238.01	242.44	240.74	241.49	241.32	---	240.85
13	239.36	239.71	239.49	240.56	238.02	237.69	242.55	240.74	241.82	241.28	---	241.30
14	239.37	239.49	239.57	240.44	237.78	237.86	242.38	240.92	242.04	241.58	---	241.26
15	239.30	239.47	240.01	240.34	237.64	238.24	241.97	241.02	242.03	241.67	---	241.12
16	239.74	239.26	240.26	240.18	237.74	238.57	241.79	241.06	242.06	241.59	---	240.93
17	239.71	239.72	240.01	240.03	237.55	238.59	241.57	241.33	242.17	241.53	---	240.86
18	239.54	239.81	240.08	239.97	237.45	238.95	241.59	241.44	242.17	241.45	---	240.86
19	239.66	239.67	239.84	239.78	237.59	239.42	241.65	241.25	242.21	241.38	---	240.90
20	239.46	240.09	240.56	239.86	237.75	239.89	241.72	240.97	241.99	241.35	---	240.93
21	239.28	240.30	241.30	240.35	237.85	240.05	241.78	241.35	241.90	241.28	---	240.93
22	239.19	239.60	241.76	240.49	237.72	240.20	241.70	241.54	241.86	241.22	---	241.07
23	239.17	239.46	242.38	240.55	237.64	240.58	241.44	241.65	242.01	241.29	---	241.10
24	239.27	239.69	242.66	240.43	237.84	240.91	241.38	241.76	242.04	241.25	---	241.13
25	239.66	239.70	242.48	240.06	237.95	241.17	241.36	241.94	241.95	241.28	---	240.91
26	239.83	239.27	242.59	240.20	237.88	241.47	241.31	241.90	241.98	---	241.10	240.53
27	239.95	239.35	242.96	240.12	237.85	241.46	241.28	241.99	241.98	---	241.30	239.98
28	239.53	239.24	243.45	239.89	237.92	241.51	241.32	242.03	242.01	---	241.27	239.90
29	239.22	239.42	243.23	239.34	---	241.72	241.43	242.05	242.02	---	241.31	240.16
30	239.14	239.34	242.75	239.09	---	241.82	241.60	242.07	241.94	---	241.36	240.59
31	238.88	---	242.35	239.04	---	242.04	---	241.86	---	---	241.16	---
MEAN	239.56	239.42	240.72	240.44	237.83	239.25	241.87	241.46	241.89	---	---	240.66
MAX	240.07	240.30	243.45	242.05	238.73	242.04	242.62	242.07	242.21	---	---	241.30
MIN	238.88	238.75	239.18	239.04	237.19	237.51	241.28	240.74	241.43	---	---	239.90
CAL YR 1985	MEAN	240.51	MAX	243.45	MIN	236.69						

04264331 ST. LAWRENCE RIVER AT CORNWALL, ONTARIO--NEAR MASSENA, NY  
(National stream-quality accounting network station)  
(National radiochemical network station)

LOCATION.--Lat 45°00'22", long 74°47'43", Stormont County, Ontario--St. Lawrence County, N.Y., Hydrologic Unit 04150301, at Robert Moses-Robert H. Saunders power dam on Lake St. Lawrence at the International Boundary at Cornwall, Ontario, 2.9 mi upstream from Grass River, 6.2 mi upstream from Raquette River, and 5.9 mi northeast of Massena, N.Y.. Water-quality samples collected at power dam from taps at generators 17 and 30.

DRAINAGE AREA.--298,800 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1860 to current year. Monthly discharges only for some periods, published in WSP 1307. Prior to October 1971 published as 04264000 "St. Lawrence River at Ogdensburg."

REVISED RECORDS.--WSP 1437: 1870, 1874, 1881, 1883, 1890.

GAGE.--There is no gage. Discharge is determined from summation of discharge through the Robert Moses-Robert H. Saunders power dam, the Long Sault Dam, the Massena Diversion, the Rasin River Diversion, the Cornwall and Massena municipal water supply, and the Cornwall and the Wiley-Dondero navigation canals. U.S.-Canada coordinated discharge figures supplied by Corps of Engineers. Prior to 1956, base gage at lock 25 at Iroquois Ont. with supplementary gages. August 1956 to June 1958, base gage at lock 24 between Iroquois and Morrisburg, Ont., and supplementary gages. Prior to Aug. 1956, these were gages of the Canadian Hydrographic Service and from August 1956 to June 1958, were gages of the Hydro-Electric Power Commission of Ontario. Discharge in the reach of river at Cornwall, Ont.--near Massena, N.Y. is considered to be the same as discharge at Ogdensburg, N.Y. when adjusted for storage in Lake St. Lawrence.

REMARKS.--Since July 1958, flow regulated by international agreement administered by International St. Lawrence River Board of Control under the International Joint Commission. Records do not include water diverted from Lake Michigan by Illinois and Michigan Canal during period of its operation prior to 1910 and by Chicago Sanitary and Ship Canal, which began operation in 1900. Records include water diverted into Lake Superior from Hudson Bay drainage by the Long Lake Project, which began operation in July 1939, and by the Ogoki project, which began operation in July 1943.

COOPERATION.--Records of daily discharge provided by Buffalo District, Corps of Engineers through International St. Lawrence River Board of Control.

AVERAGE DISCHARGE.--126 years (1861-1986), 244,400 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 352,000 ft<sup>3</sup>/s June 22, 1976; minimum daily, 139,000 ft<sup>3</sup>/s Feb. 7, 1936; maximum monthly discharge, 350,000 ft<sup>3</sup>/s July 1973; minimum monthly, 154,000 ft<sup>3</sup>/s Feb. 1936.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 341,000 ft<sup>3</sup>/s Apr. 25-26, May 2-4, 10, July 21, 27, Sept. 3, 7, 30; minimum daily, 213,000 ft<sup>3</sup>/s Dec. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	275000	276000	296000	240000	289000	297000	296000	340000	319000	330000	325000	334000
2	297000	269000	299000	240000	290000	298000	300000	341000	321000	329000	325000	337000
3	296000	280000	305000	240000	290000	298000	302000	341000	324000	330000	325000	341000
4	296000	281000	304000	230000	289000	298000	305000	341000	323000	330000	325000	340000
5	295000	274000	304000	220000	285000	298000	300000	340000	323000	335000	324000	340000
6	295000	275000	301000	220000	285000	298000	300000	340000	323000	335000	328000	339000
7	296000	284000	297000	221000	281000	298000	299000	340000	324000	335000	330000	341000
8	276000	284000	299000	230000	275000	298000	295000	339000	323000	335000	329000	340000
9	295000	289000	302000	230000	275000	298000	297000	340000	323000	335000	325000	340000
10	295000	288000	302000	230000	278000	293000	300000	341000	323000	335000	325000	340000
11	292000	281000	300000	230000	283000	293000	300000	340000	323000	330000	325000	340000
12	291000	274000	299000	230000	288000	295000	305000	340000	323000	330000	325000	332000
13	291000	283000	302000	230000	292000	294000	305000	340000	324000	330000	325000	315000
14	291000	288000	298000	236000	293000	290000	308000	339000	323000	330000	325000	315000
15	291000	288000	300000	240000	291000	292000	311000	340000	323000	332000	325000	315000
16	275000	292000	303000	242000	288000	296000	317000	340000	323000	334000	325000	315000
17	289000	292000	304000	248000	288000	298000	320000	326000	324000	336000	327000	316000
18	288000	292000	305000	253000	283000	299000	320000	325000	323000	335000	330000	315000
19	282000	292000	299000	255000	283000	301000	326000	325000	322000	340000	330000	310000
20	288000	292000	249000	255000	284000	302000	330000	325000	324000	340000	331000	300000
21	288000	292000	244000	255000	289000	304000	331000	325000	330000	341000	330000	300000
22	288000	292000	244000	257000	291000	305000	336000	325000	331000	340000	329000	303000
23	288000	296000	225000	262000	291000	307000	337000	325000	330000	340000	330000	308000
24	288000	296000	224000	268000	291000	307000	339000	319000	331000	340000	330000	316000
25	287000	296000	224000	270000	293000	308000	341000	319000	330000	339000	325000	321000
26	276000	293000	224000	273000	295000	310000	341000	319000	328000	340000	322000	331000
27	287000	288000	220000	275000	295000	312000	340000	319000	329000	341000	322000	335000
28	288000	286000	213000	275000	295000	315000	340000	319000	330000	338000	322000	335000
29	287000	285000	224000	278000	---	313000	340000	319000	330000	335000	323000	337000
30	287000	296000	231000	282000	---	307000	340000	319000	330000	330000	327000	341000
31	286000	---	240000	286000	---	299000	---	319000	---	325000	331000	---
TOTAL	8944000	8594000	8481000	7701000	8050000	9321000	9521000	10270000	9757000	10375000	10120000	9792000
MEAN	288500	286500	273600	248400	287500	300700	317400	331300	325200	334700	326500	326400
MAX	297000	296000	305000	286000	295000	315000	341000	341000	331000	341000	331000	341000
MIN	275000	269000	213000	220000	275000	290000	295000	319000	319000	325000	322000	300000
CAL YR 1985	TOTAL	103595000	MEAN	283800	MAX	312000	MIN	213000				
WTR YR 1986	TOTAL	110926000	MEAN	303900	MAX	341000	MIN	213000				

## ST. LAWRENCE RIVER MAIN STEM

04264331 ST. LAWRENCE RIVER AT CORNWALL, ONTARIO--NEAR MASSENA, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955, 1966 to current year. Prior to October 1970, published as "near Massena, NY."

CHEMICAL DATA: 1955 (a), 1974 (c), 1975-81 (d), 1982-86 (c).

MINOR ELEMENTS DATA: 1974-77 (b), 1978 (a), 1979 (b), 1980 (c), 1981-86 (b).

RADIOCHEMICAL DATA: 1974-86 (a).

ORGANIC DATA: OC--1974 (a), 1975 (b), 1977 (b), 1978-81 (d).

NUTRIENT DATA: 1974-75 (c), 1976-81 (d), 1982-86 (c).

BIOLOGICAL DATA:

Bacteria--1974 (c), 1975-81 (d), 1982-86 (c).

Phytoplankton--1974 (a), 1975-77 (d), 1978-81 (c).

Periphyton--1974 (a), 1975 (c), 1976-80 (b).

SEDIMENT DATA: 1975 (d), 1976-77 (c), 1978-81 (d), 1982-86 (c).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1975 to 1986 (discontinued).

WATER TEMPERATURES: October 1955 to October 1958, unpublished; January 1966 to 1986 (discontinued).

REMARKS.--Temperature observations made approximately 68 ft below normal forebay level. Temperature observations from October 1955 to October 1958 made at Aluminum Company of America Massena Canal power station.

COOPERATION.--Water-temperature record provided by the New York Power Authority.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 400 microsiemens Aug. 7, 1978, Mar. 29, 1979; minimum daily, 250 microsiemens Dec. 21, 1978.

WATER TEMPERATURES: Maximum daily, 24.5°C on several days in August and September 1973 and August 1975; minimum daily, 0.0°C on many days during winter periods except 1972-74, 1979, 1982-85.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 350 microsiemens June 13, 14, 16-24; minimum daily, 280 microsiemens Nov. 25.

WATER TEMPERATURES: Maximum daily, 22.5°C Aug. 19, 21, 23; minimum daily, 0.5°C on several days during January, February, and March.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 28...	1015	288000	310	8.00	12.5	0.80	770	10.1	94	K4	K1
JAN 29...	1000	278000	305	7.90	0.5	1.4	750	--	--	K2	K5
MAR 26...	0915	310000	285	8.13	1.5	1.9	760	13.8	99	K1	K3
MAY 27...	0915	319000	330	8.75	12.5	--	760	11.6	109	K1	<1
JUN 25...	0915	330000	330	8.20	15.5	2.0	760	9.8	99	K2	<1
AUG 28...	0800	322000	315	8.61	20.5	1.6	760	8.0	89	K7	<1

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	BICAR- BONATE WH WAT TOTAL FIELD MG/L AS HCO3	CAR- BONATE WH WAT TOTAL FIELD MG/L AS CO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT 28...	130	29	37	8.2	13	1.4	97	120	--	26	24
JAN 29...	130	34	38	8.2	12	1.5	95	120	--	18	22
MAR 26...	130	35	37	7.9	12	1.5	90	110	--	19	21
MAY 27...	76	0	22	5.0	6.0	0.70	92	88	12	9.8	10
JUN 25...	120	32	37	7.8	12	1.5	93	110	--	26	22
AUG 28...	120	25	34	7.9	17	1.4	92	110	4	26	19

K Results based on colony count outside the acceptable range (non-ideal colony count).

04264331 ST. LAWRENCE RIVER AT CORNWALL, ONTARIO--NEAR MASSENA, NY--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	FLUORIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
OCT 28...	0.20	0.3	174	170	0.140	0.020	<0.010	0.50	0.020	0.020	0.020
JAN 29...	0.20	0.6	170	160	0.340	0.020	0.020	0.50	0.020	<0.010	<0.010
MAR 26...	0.20	0.8	175	150	0.430	0.030	0.040	0.40	0.020	<0.010	0.020
MAY 27...	<0.10	18	127	140	0.300	<0.010	0.010	0.50	0.020	0.010	<0.010
JUN 25...	0.10	0.1	185	160	0.240	0.020	0.040	0.40	0.020	<0.010	<0.010
AUG 28...	0.10	0.7	162	170	0.170	0.040	<0.010	0.30	<0.010	0.060	<0.010

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC, DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM, DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM, DIS- SOLVED (UG/L AS LI)
OCT 28...	<10	1	25	0.6	<1	<1	<3	3	3	4	8
JAN 29...	--	--	--	--	--	--	--	--	--	--	--
MAR 26...	10	1	28	<0.5	<1	<1	<3	3	12	<1	5
MAY 27...	--	--	--	--	--	--	--	--	--	--	--
JUN 25...	10	<1	27	<0.5	<1	<1	<3	2	4	<5	7
AUG 28...	--	--	--	--	--	--	--	--	--	--	--

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY, DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 28...	<1	0.1	<10	1	<1	<1	180	<6	29
JAN 29...	--	--	--	--	--	--	--	--	--
MAR 26...	3	<0.1	<10	5	<1	<1	170	<6	17
MAY 27...	--	--	--	--	--	--	--	--	--
JUN 25...	1	<0.1	<10	5	<1	<1	180	<6	22
AUG 28...	--	--	--	--	--	--	--	--	--

## RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED (PCI/L RADON METHOD (PCI/L)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L)
MAR 26...	0915	<1.4	<0.4	3.2	2.6	0.6	<0.6	0.03	0.33

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 28...	1015	288000	2	1560	39	MAY 27...	0915	319000	4	3450	51
JAN 29...	1000	278000	4	3000	63	JUN 25...	0915	330000	11	9800	48
MAR 26...	0915	310000	2	1670	86	AUG 28...	0800	322000	5	4350	74



## ST. LAWRENCE RIVER MAIN STEM

04264331 ST. LAWRENCE RIVER AT CORNWALL ONTARIO--NEAR MASSENA, NY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	305	325	300	315	330	---	330	330	---
2	310	290	---	---	325	310	315	330	---	330	---	300
3	---	---	320	305	330	310	320	325	320	330	320	300
4	315	300	320	310	330	310	320	330	---	330	320	---
5	315	305	325	---	330	310	320	---	320	330	---	---
6	---	300	325	305	---	310	315	330	---	335	---	300
7	---	305	325	310	330	310	---	330	---	---	---	---
8	340	305	---	315	330	315	320	325	320	340	325	---
9	---	310	320	---	325	315	320	---	---	340	320	305
10	---	---	---	310	320	310	320	---	325	---	---	310
11	340	300	---	315	320	315	320	330	325	---	---	---
12	340	300	---	---	320	320	---	---	---	340	340	305
13	315	300	---	310	320	320	320	330	350	---	345	300
14	340	---	---	310	320	315	---	330	350	---	335	300
15	---	---	---	315	325	315	315	---	---	340	320	300
16	320	300	330	315	325	315	315	330	350	345	320	305
17	---	---	---	315	320	310	315	330	350	345	---	---
18	---	300	---	---	325	300	315	330	350	---	---	---
19	---	---	330	315	325	310	315	---	350	340	320	305
20	---	---	---	---	---	---	320	330	350	340	---	---
21	---	---	---	310	330	---	320	330	350	---	320	---
22	320	---	---	310	330	300	320	325	350	---	---	---
23	320	---	---	---	---	---	320	330	350	---	320	305
24	320	---	---	---	330	285	320	315	350	340	330	---
25	---	280	330	310	325	285	---	320	330	335	325	---
26	---	---	---	---	310	285	320	320	---	340	---	---
27	---	---	330	305	310	---	---	320	---	---	---	---
28	310	---	---	310	305	310	320	320	330	330	320	---
29	---	---	---	305	---	---	330	---	330	---	---	300
30	290	---	330	---	---	---	330	---	330	320	---	---
31	---	---	310	315	---	320	---	---	---	330	---	---
MEAN	320	300	325	310	325	310	320	325	340	335	325	305

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	1.0	3.0	8.5	---	17.0	20.0	---
2	18.0	12.0	6.0	.5	1.0	1.0	3.5	8.0	---	17.0	---	18.0
3	---	---	5.0	.5	1.0	1.0	4.0	7.5	13.0	17.0	20.0	19.0
4	17.0	12.0	5.0	.5	1.0	1.0	4.0	7.0	---	17.0	20.0	---
5	17.0	12.0	5.0	---	1.0	1.0	4.0	---	14.0	17.0	---	---
6	---	12.0	5.0	.5	---	1.0	4.0	7.5	---	17.0	---	19.0
7	---	12.0	5.0	.5	1.0	1.0	3.0	8.0	---	---	---	---
8	---	12.0	---	.5	1.0	1.0	3.5	8.0	14.0	18.0	20.0	---
9	---	11.0	5.0	---	1.0	.5	---	8.0	---	18.0	20.5	18.0
10	---	---	5.0	.5	1.0	.5	4.0	---	14.0	---	---	18.0
11	15.5	10.5	5.0	.5	1.0	.5	4.0	9.0	13.5	---	---	---
12	15.0	10.0	4.0	---	.5	.5	---	---	---	18.5	21.5	18.5
13	15.0	10.0	4.0	.5	1.0	.5	4.0	9.0	13.5	---	21.5	18.0
14	15.0	---	---	.5	1.0	.5	---	9.5	13.5	---	21.5	18.0
15	---	---	3.5	.5	.5	1.0	4.0	---	---	18.5	22.0	18.0
16	---	8.5	3.5	.5	.5	1.0	4.5	9.5	14.5	19.0	22.0	18.0
17	---	---	3.5	.5	---	1.0	5.0	10.0	14.5	19.0	---	---
18	---	8.0	3.0	---	.5	1.0	5.0	10.5	---	---	---	---
19	---	---	2.5	.5	.5	1.0	5.0	---	15.0	19.0	22.5	17.0
20	---	---	2.5	---	.5	---	6.0	12.0	15.5	20.0	---	---
21	---	---	---	.5	.5	---	6.0	11.0	16.0	---	22.5	---
22	14.5	---	---	.5	.5	1.0	6.0	11.0	16.0	---	---	---
23	14.5	---	1.5	---	---	---	6.0	11.5	17.0	---	22.5	17.0
24	14.5	---	---	---	.5	1.0	6.0	11.5	17.0	20.5	22.0	---
25	---	7.5	1.0	.5	.5	1.0	---	12.0	16.0	21.0	21.0	---
26	---	---	1.5	---	.5	1.0	6.5	12.0	---	21.5	---	---
27	---	6.5	2.0	.5	.5	---	---	12.5	---	---	---	---
28	13.5	---	---	---	.5	1.0	7.5	12.5	16.5	21.5	20.5	---
29	---	---	---	.5	---	---	8.0	---	17.0	21.0	---	16.5
30	13.0	---	1.0	---	---	---	8.0	---	17.0	21.0	19.0	---
31	---	---	---	1.0	---	3.0	---	---	---	21.0	---	---
MEAN	15.0	10.5	3.5	.5	.5	1.0	5.0	10.0	15.0	19.0	21.0	18.0

## 04265605 LITTLE SIMON POND OUTLET NEAR TUPPER LAKE, NY

LOCATION.--Lat 44°09'40", long 74°26'30", Franklin County, Hydrologic Unit 04150305, on left bank 15 ft upstream from dam on Little Simon Pond, and 3.0 mi south of Tupper Lake.

DRAINAGE AREA.--2.95 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1984 to current year.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Elevation of gage is about 1,790 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Mar. 21-25. Records fair except those for estimated daily discharges, which are poor. Flow affected by diversion by village of Tupper Lake for water supply. Several measurements of water temperature were made during the year.

COOPERATION.--Figures for diversion provided by village of Tupper Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 150 ft<sup>3</sup>/s Dec. 29, 1984, gage height, 3.78 ft; minimum daily, 0.003 ft<sup>3</sup>/s Aug. 24, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 65 ft<sup>3</sup>/s Mar. 31, gage height, 3.14 ft; minimum daily, 0.26 ft<sup>3</sup>/s Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	2.7	2.7	1.0	3.2	.93	43	2.9	3.4	1.9	6.7	1.3
2	8.5	2.5	3.2	.98	3.1	.89	46	2.7	3.1	2.1	11	.95
3	6.9	2.3	3.8	.97	2.8	.81	36	2.5	2.7	2.6	12	.75
4	5.8	2.1	3.8	.96	2.5	.78	26	2.3	2.3	2.9	10	.63
5	5.1	2.3	3.5	.95	2.6	.76	19	2.4	2.0	3.1	7.8	.45
6	4.8	5.0	3.3	.95	2.3	.77	16	2.8	1.8	4.5	5.5	.39
7	4.3	7.1	3.1	.93	2.1	.82	14	2.9	1.7	5.7	4.2	.33
8	3.8	7.4	3.0	.91	2.0	.78	15	2.9	2.1	4.2	4.2	.30
9	3.3	7.3	2.8	.91	1.9	.75	15	2.8	2.5	1.5	4.0	.28
10	3.1	12	2.7	.91	1.7	.86	14	2.7	2.4	1.1	3.5	.27
11	3.1	16	2.5	.91	1.5	.92	12	2.5	3.8	.84	4.0	.26
12	2.8	14	2.5	.77	1.5	1.0	10	2.3	7.8	.89	3.3	.29
13	3.7	15	2.4	.69	1.3	1.1	8.6	2.1	11	1.2	2.4	.42
14	6.1	19	2.4	.67	1.2	1.4	7.4	1.9	11	1.4	1.7	.55
15	7.8	31	2.2	.64	1.1	3.2	6.8	1.8	9.3	1.7	1.6	.44
16	9.6	22	2.1	.60	1.1	8.0	6.6	1.7	7.8	1.5	1.8	2.6
17	9.0	16	2.0	.55	1.0	9.3	6.6	1.8	8.7	1.2	1.5	5.1
18	7.7	12	1.9	.52	1.0	8.8	6.5	1.8	7.5	.98	1.2	4.6
19	9.1	10	1.8	.58	.96	13	6.2	2.0	6.2	.86	.82	3.3
20	10	9.2	1.7	1.6	.98	28	5.8	4.7	5.2	1.6	.63	3.0
21	9.2	8.1	1.6	7.6	1.1	24	6.0	9.5	4.3	5.8	.54	3.8
22	7.8	7.0	1.5	10	1.2	16	6.2	13	3.6	5.5	.50	3.8
23	6.6	6.3	1.5	9.7	1.2	11	5.7	20	3.4	3.7	.49	5.0
24	5.7	5.6	1.4	8.4	1.1	8.6	5.1	21	3.1	2.4	1.1	7.3
25	5.8	4.8	1.4	6.8	1.1	7.3	4.5	16	2.9	1.6	1.3	7.8
26	5.4	4.3	1.3	6.6	1.0	6.5	4.2	12	2.5	2.2	1.1	7.7
27	4.8	3.8	1.3	6.6	.98	13	4.0	9.4	2.3	4.1	2.7	7.2
28	4.3	3.5	1.3	5.5	.95	17	3.6	7.4	2.2	4.1	4.6	6.0
29	3.7	3.3	1.2	4.7	---	17	3.3	5.8	2.0	5.6	4.0	4.0
30	3.3	2.9	1.2	4.2	---	36	3.1	4.6	2.1	5.6	2.7	6.7
31	3.0	---	1.1	3.6	---	58	---	3.9	---	4.6	1.8	---
TOTAL	184.1	264.5	68.2	90.70	44.47	297.27	366.2	172.1	130.7	86.97	108.68	85.51
MEAN	5.94	8.82	2.20	2.93	1.59	9.59	12.2	5.55	4.36	2.81	3.51	2.85
MAX	10	31	3.8	10	3.2	58	46	21	11	5.8	12	7.8
MIN	2.8	2.1	1.1	.52	.95	.75	3.1	1.7	1.7	.84	.49	.26
#	1.1	1.1	1.0	1.0	1.0	1.0	1.2	1.0	1.1	1.1	1.0	1.2
CAL YR 1985	TOTAL	1890.94	MEAN	5.18	MAX	56	MIN	.003	#	1.0		
WTR YR 1986	TOTAL	1899.40	MEAN	5.20	MAX	58	MIN	.26	#	1.0		

# Indicated net diversion, in cubic feet per second, for diversion and return in downstream supply.

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

## 04266500 RAQUETTE RIVER AT PIERCEFIELD, NY

LOCATION.--Lat 44°14'05", long 74°34'20", St. Lawrence County, Hydrologic Unit 04150305, on left bank 0.5 mi downstream from powerplant at Piercefield, and 1.5 mi upstream from Dead Creek.

DRAINAGE AREA.--721 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1908 to current year.

REVISED RECORDS.--WSP 604: 1924. WSP 1387: 1910, 1913, 1914(M), 1916, 1921. WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,502.12 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 22, 1912, nonrecording gage at same site (datum of gage lowered 2 ft Jan. 1, 1911, to present datum).

REMARKS.--No estimated daily discharges. Records good. Seasonal distribution of flow modified by natural storage in lakes and ponds upstream from station and by regulation of Forked Lake, Round Lake, Lows Lake, and Raquette Pond (Tupper Lake) at Setting Pole Dam. Extensive diurnal fluctuation caused by powerplant at Piercefield. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--78 years, 1,306 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,360 ft<sup>3</sup>/s May 8, 1972, gage height, 12.25 ft; minimum daily, 4.1 ft<sup>3</sup>/s Oct. 12, 1947.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,930 ft<sup>3</sup>/s Apr. 6, gage height, 10.59 ft; minimum daily, 396 ft<sup>3</sup>/s Mar. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2020	1460	2160	987	1120	666	4350	1850	1900	1240	2250	1580
2	1980	1270	2100	954	1140	656	4910	1890	1820	1200	2440	1540
3	1940	1280	1990	940	985	623	5290	1730	1770	1300	2550	1490
4	1900	1350	1950	879	1010	580	5620	1610	1600	1030	2530	1460
5	1870	1140	1880	759	1130	396	5800	1550	1450	1470	2490	1320
6	1790	1360	1820	663	1240	657	5900	1540	1360	1600	2430	915
7	1700	1440	1760	617	1070	553	5800	1460	1080	1720	2380	870
8	1600	1610	1740	616	1040	555	5690	1330	1080	1730	2260	871
9	1570	1610	1700	614	1040	553	5520	1070	1130	1780	2370	932
10	1570	1820	1630	439	942	554	5350	1120	1250	1800	2220	919
11	1290	2050	1490	715	703	715	5180	1140	1250	1780	2150	940
12	1220	2170	1410	570	687	981	4970	1100	1440	1710	2070	889
13	1390	2370	1200	577	712	900	4750	1240	1650	1620	1940	1030
14	1640	2570	1210	722	758	888	4490	1000	1960	1600	1870	1160
15	1650	2800	1200	571	780	956	4230	1060	1950	1600	1790	1030
16	1660	3000	1180	571	776	1270	3980	953	1890	1600	1860	1050
17	1690	3100	1120	639	770	1230	3730	956	2020	1580	1800	1130
18	1730	3150	1050	521	788	1470	3500	928	1960	1440	1670	1150
19	1850	3180	1050	683	924	1790	3320	959	1990	1580	1500	1150
20	1990	3160	1040	857	748	2190	3150	1130	2000	1500	1470	1080
21	2000	3090	987	1090	796	2380	3060	1350	1930	1570	1450	1140
22	1980	3040	939	1380	744	2460	2930	1600	1800	1660	1440	1160
23	1950	2970	846	1400	816	2580	2760	1910	1670	1650	1390	1160
24	1920	2880	901	1410	705	2650	2710	2350	1580	1630	1340	1420
25	1820	2750	924	1450	647	2650	2650	2540	1490	1600	1340	1500
26	1780	2730	896	1490	717	2660	2480	2530	1310	1660	1320	1530
27	1750	2580	882	1490	813	2820	2440	2480	1140	1720	1340	1530
28	1660	2460	901	1470	783	2930	2300	2380	1240	1720	1410	1570
29	1540	2360	875	1440	---	3080	2200	2240	1210	1920	1560	1540
30	1500	2260	939	1420	---	3440	2050	2060	1280	2300	1630	1550
31	1470	---	1060	1180	---	3960	---	1980	---	2290	1620	---
TOTAL	53420	69010	40830	29114	24384	49793	121110	49036	47200	50600	57880	36606
MEAN	1723	2300	1317	939	871	1606	4037	1582	1573	1632	1867	1220
MAX	2020	3180	2160	1490	1240	3960	5900	2540	2020	2300	2550	1580
MIN	1220	1140	846	439	647	396	2050	928	1080	1030	1320	870
CAL YR 1985	TOTAL	577752	MEAN	1583	MAX	5530	MIN	24				
WTR YR 1986	TOTAL	628983	MEAN	1723	MAX	5900	MIN	396				

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

195

## 04267500 RAQUETTE RIVER AT SOUTH COLTON, NY

LOCATION.--Lat 44°30'42", long 74°53'00", St. Lawrence County, Hydrologic Unit 04150305, on left bank 300 ft upstream from bridge on State Highway 56 at South Colton, 500 ft downstream from Niagara Mohawk Power Corp. powerplant, and 0.8 mi upstream from Cold Brook.

DRAINAGE AREA.--937 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1953 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 882.05 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good for discharges greater than 200 ft<sup>3</sup>/s, and fair below. Flow regulated 16 mi upstream by Carry Falls Reservoir since 1953; considerable natural storage in large lakes above Piercefield. Large diurnal fluctuation caused by five powerplants upstream from gage. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--33 years, 1,793 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,720 ft<sup>3</sup>/s May 11, 1971, gage height, 9.80 ft; minimum, 1.3 ft<sup>3</sup>/s Feb. 1, 1962, Aug. 8, 1964, gage height, 1.53 ft; minimum daily, 4.6 ft<sup>3</sup>/s June 2, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,730 ft<sup>3</sup>/s Apr. 11, gage height, 7.60 ft; minimum, 11 ft<sup>3</sup>/s Oct. 2, Aug. 13, Sept. 10, gage height, 1.70 ft; minimum daily, 374 ft<sup>3</sup>/s Dec. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1060	2130	3830	1790	900	1660	3660	2140	2300	1610	2720	2140
2	472	2360	4400	1960	997	1540	4220	2770	2610	1600	3660	2500
3	816	2120	4310	1500	1050	1500	4110	2380	2530	1480	4020	2150
4	958	2010	4270	1370	882	1610	4080	1870	3110	1430	3880	2410
5	2780	2220	4070	1610	629	1450	4940	1720	1940	1780	3760	2090
6	1770	2720	3670	1930	1060	1650	5120	1920	1870	1370	3680	1650
7	1710	2890	3350	1780	815	1880	5020	1410	1520	2210	3700	1410
8	2250	2880	3480	1380	729	1590	5200	1580	1470	2050	3660	1600
9	1810	2910	3590	1850	879	1380	5140	1960	1360	2790	3420	1230
10	2180	3050	2180	1600	1310	1750	5200	1290	1880	2480	3380	810
11	2160	3150	458	1250	865	1610	5670	1510	1600	2180	3060	1140
12	2020	3100	2010	1360	1680	1280	5460	1430	1910	2920	3440	1480
13	2220	2960	2670	1840	1390	1540	4880	1660	2640	2380	2790	1870
14	2780	3490	2820	1450	1480	1610	4220	1470	3470	2130	3380	2070
15	2540	3570	2120	1240	1580	1600	4160	1400	3350	2690	3370	2000
16	3230	3420	2670	1110	1500	1450	4190	1840	3550	2150	3260	1430
17	2580	3630	2720	898	1470	1410	4200	1420	3230	1810	3220	2060
18	2890	3610	2580	1040	1440	1360	4130	1470	3000	2050	3300	1840
19	2630	3570	1770	820	1830	1680	3990	1220	3420	1870	3370	1920
20	2640	3670	1490	1290	1780	1270	3900	1800	3220	1980	3250	1680
21	2270	3810	1710	911	1290	1480	3800	1630	3210	1770	2700	2010
22	2270	3820	591	1730	1710	1940	3600	1780	3080	1920	2600	1660
23	1850	4070	374	1380	1570	1750	3590	2970	2780	1750	2640	2200
24	2100	4410	1670	1640	1600	2650	3200	3650	1980	2020	2480	1860
25	1980	4250	1500	1450	1430	2510	3150	4160	2020	2040	2650	1670
26	2210	4220	1630	1590	1520	2970	3200	3560	1930	1810	2370	1830
27	2100	4240	1530	1310	1810	2500	3400	3440	2050	2190	1710	2030
28	1920	3850	1560	833	1550	2840	2930	3150	1480	1850	1590	1660
29	1710	2890	1840	1070	---	3420	2850	2960	1390	2220	1900	1850
30	1970	2420	1440	1070	---	3610	2320	2390	1620	3010	1880	2220
31	1680	---	1460	694	---	3400	---	1770	---	3800	1850	---
TOTAL	63556	97440	73763	42746	36746	59890	123530	65720	71520	65340	92690	54470
MEAN	2050	3248	2379	1379	1312	1932	4118	2120	2384	2108	2990	1816
MAX	3230	4410	4400	1960	1830	3610	5670	4160	3550	3800	4020	2500
MIN	472	2010	374	694	629	1270	2320	1220	1360	1370	1590	810
CAL YR 1985	TOTAL	786045	MEAN	2154	MAX	6650	MIN	15				
WTR YR 1986	TOTAL	847411	MEAN	2322	MAX	5670	MIN	374				



## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04268000 RAQUETTE RIVER AT RAYMONDVILLE, NY  
(National stream-quality accounting network station)

LOCATION.--Lat 44°50'20", long 74°58'45", St. Lawrence County, Hydrologic Unit 04150305, on right bank 250 ft upstream from bridge on Grant Road at Raymondville, 0.3 mi downstream from Trout Brook, 0.4 mi downstream from Niagara Mohawk Power Corp. powerplant, and 18.0 mi upstream from mouth. Water-quality sampling site at discharge station.

DRAINAGE AREA.--1,125 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1943 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area. WDR NY-85-1: 1983-84.

GAGE.--Water-stage recorder. Datum of gage is 183.33 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 16 to Mar. 25. Records fair except those for estimated daily discharges, which are poor. Extensive diurnal fluctuation caused by power and industrial operations. Flow regulated since 1953 by Carry Falls Reservoir, about 46 mi upstream and by Niagara Mohawk Power Corp. powerplant, 0.4 mi upstream; considerable natural storage in large lakes above Pierceland. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--42 years (1945-86), 2,094 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft<sup>3</sup>/s Apr. 5, 1974, gage height, 8.40 ft; maximum gage height, 9.24 ft Feb. 22, 1954 (backwater from ice); minimum discharge, 2.2 ft<sup>3</sup>/s Sept. 18, 19, 1966; minimum gage height, 0.42 ft July 13, 1950; minimum daily discharge, 7.0 ft<sup>3</sup>/s Oct. 15, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,750 ft<sup>3</sup>/s Apr. 10, gage height, 5.59 ft; maximum gage height 5.92 ft Jan. 17 (ice jam); minimum discharge, 30 ft<sup>3</sup>/s Sept. 10, gage height, 0.69 ft; minimum daily, 565 ft<sup>3</sup>/s Dec. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1630	2190	4110	1900	1200	2000	4230	2760	2230	2030	3530	2200
2	1510	2310	4870	1900	1100	1900	4730	2850	3170	1970	3740	2840
3	929	2300	4980	1900	1200	1900	5170	2700	3450	2040	4130	2450
4	1110	2300	4960	2000	1100	2000	4780	2270	3170	2130	4380	2370
5	1400	2340	4800	2100	960	2000	4780	2230	2620	2150	4310	2460
6	1910	2810	4030	1900	1100	2100	5480	1970	2090	2370	4070	2220
7	1940	3340	3840	1800	1300	2200	5860	1620	1960	2450	4040	1540
8	2340	3610	3820	1900	1000	2100	5740	1950	1930	2940	4210	1850
9	2390	3600	3780	1900	900	1900	5990	2010	1910	2830	5370	1460
10	2310	3820	3810	2000	720	2000	6310	1950	1900	2760	4360	1040
11	2120	3870	1440	2000	1100	2000	6180	1900	1920	2720	3820	1320
12	2300	3770	565	1800	1700	1900	6630	1760	2430	2760	3770	2720
13	2460	4280	2950	1700	1900	1800	6340	1840	3850	2770	3690	2830
14	3020	4340	3020	1800	1700	1900	5070	1760	4310	2820	3080	2580
15	3230	4410	2960	1200	1900	1900	4470	1880	4010	2810	3700	2570
16	3550	4330	2200	660	1900	1800	4530	1720	3850	2770	3710	2220
17	3570	4290	2500	1100	1800	1700	4510	1870	4280	2210	3620	2510
18	3360	4240	1900	1300	1900	1700	4580	1740	4050	2150	3630	2330
19	2580	4200	2200	1200	2000	1800	4540	1790	3980	2180	3670	2230
20	2430	4130	2000	1600	2200	1600	4460	1710	3980	2200	3520	2170
21	2410	4020	2700	2000	1800	1500	4400	2100	3550	2210	2960	2160
22	2320	4190	2200	2000	2000	1800	3910	2430	3400	2210	2700	2120
23	2470	4660	1600	1900	2000	2100	3780	3340	3370	2180	2810	2220
24	2390	4610	1300	1900	2000	2400	3130	4190	2750	2160	3240	2280
25	2350	4680	1700	2100	1800	2900	3280	4790	2230	2150	3170	2360
26	2390	4660	1900	1600	1900	3730	3430	4050	2490	2650	2930	2200
27	2430	4700	2000	1100	2100	4420	3540	4160	2290	3070	2290	2150
28	2310	4630	1900	840	2000	4140	3540	3640	1640	2450	2230	2120
29	2210	4360	1900	640	---	4220	3360	3390	1880	2430	2210	2150
30	2220	2280	1900	1300	---	4840	2640	2600	2130	3170	2110	3180
31	2200	---	1900	1200	---	4930	---	2200	---	4000	2060	---
TOTAL	71789	113270	85735	50240	44180	75180	139390	77170	86820	77740	107060	66850
MEAN	2316	3776	2766	1621	1578	2425	4646	2489	2894	2508	3454	2228
MAX	3570	4700	4980	2100	2200	4930	6630	4790	4310	4000	5370	3180
MIN	929	2190	565	640	720	1500	2640	1620	1640	1970	2060	1040
CAL YR 1985	TOTAL	984225	MEAN	2697	MAX	10300	MIN	439				
WTR YR 1986	TOTAL	995424	MEAN	2727	MAX	6630	MIN	565				

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

197

04268000 RAQUETTE RIVER AT RAYMONDVILLE, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955, 1957, 1960-61, 1969-72, 1979 to current year.

CHEMICAL DATA: 1955, 57 (a), 1960-61 (e), 1969 (a), 1970 (d), 1971 (b), 1972 (a), 1979-80 (d), 1981-82 (c), 1983-86 (b).

MINOR ELEMENTS DATA: 1969 (a), 1970, 1979 (b), 1980 (d), 1981-86 (b).

PESTICIDE DATA: 1970 (a).

ORGANIC DATA: OC--1979-80 (d), 1981 (c).

NUTRIENT DATA: 1955, 57 (a), 1960-61 (e), 1969 (a), 1970 (d), 1971 (b), 1972 (a), 1979-80 (d), 1981-82 (c), 1983-86 (b).

BIOLOGICAL DATA:

Bacteria--1969-71 (a), 1979-80 (d), 1981-82 (c), 1983-86 (b).

Phytoplankton--1979-80 (c), 1981 (b).

Periphyton--1979-80 (b).

SEDIMENT DATA: 1979 (c), 1980 (d), 1981-82 (c), 1983-86 (b).

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MM SOLVED SATUR- ATION)	OXYGEN, DIS- SOLVED (PER- CENT UM-MF (COLS./ 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 23...	1145	2430	48	7.00	10.5	1.0	770	10.7	95	340	K11
MAR 10...	0845	2000	85	6.98	0.0	1.8	760	14.0	96	110	52
JUN 11...	0800	1910	37	7.22	20.0	1.5	755	8.5	94	77	50
AUG 19...	0830	3670	45	7.26	22.0	1.4	765	8.7	99	K35	32

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	BICAR- BONATE WH WAT TOTAL FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT 23...	20	9	5.7	1.5	1.9	0.40	11	14	6.8	3.3	0.10
MAR 10...	28	9	7.5	2.2	2.4	0.30	19	23	11	3.1	<0.10
JUN 11...	17	7	4.8	1.3	1.8	0.40	10	12	10	1.9	<0.10
AUG 19...	20	10	5.5	1.5	2.1	0.70	10	12	10	2.1	0.10

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)
OCT 23...	4.7	41	32	0.150	0.110	0.110	0.20	0.020	0.020	0.030	40
MAR 10...	7.6	49	46	0.310	0.090	0.100	<0.20	0.020	<0.010	<0.010	60
JUN 11...	4.5	36	31	0.250	0.010	0.030	0.30	0.010	<0.010	<0.010	--
AUG 19...	4.6	39	33	0.180	0.040	<0.010	0.50	0.010	0.010	<0.010	50

K Results based on colony count outside the acceptable range (non-ideal colony count).

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04268000 RAQUETTE RIVER AT RAYMONDVILLE, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 23...	<1	13	<0.5	<1	5	<3	3	200	2	<4	13
MAR 10...	<1	16	<0.5	<1	<1	<3	<1	170	<1	<4	12
JUN 11...	--	--	--	--	--	--	--	--	--	--	--
AUG 19...	<1	17	<0.5	<1	<1	<3	3	240	<5	<4	16

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 23...	<0.1	<10	<1	<1	<1	24	<6	14
MAR 10...	<0.1	<10	3	<1	<1	30	<6	27
JUN 11...	--	--	--	--	--	--	--	--
AUG 19...	0.2	<10	3	<1	<1	24	<6	24

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 23...	1145	2430	1	6.6	83	JUN 11...	0800	1910	2	10	13
MAR 10...	0845	2000	3	16	57	AUG 19...	0830	3670	3	30	70

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

199

04269000 ST. REGIS RIVER AT BRASHER CENTER, NY  
(National stream-quality accounting network station)

LOCATION.--Lat 44°51'49", long 74°46'45", St. Lawrence County, Hydrologic Unit 04150306, on left bank 600 ft upstream from highway bridge at Brasher Center, and 6.5 mi downstream from West Branch. Water-quality sampling site at discharge station.

DRAINAGE AREA.--612 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1910 to current year. Monthly discharge only for some periods, published in WSP 1307.

REVISED RECORDS.--WSP 1387: 1910-16, 1917(M), WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 217.23 ft above National Geodetic Vertical Datum of 1929. Prior to June 24, 1916, nonrecording gage at site 600 ft downstream at different datum. June 24, 1916 to Nov. 10, 1917, and Jan. 1, 1919 to Aug. 13, 1920, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Dec. 13 to Mar. 17 and Mar. 27. Records good except those for estimated daily discharges, which are poor. Slight diurnal fluctuation caused by powerplant operations upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--76 years, 1,049 ft<sup>3</sup>/s, 23.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,800 ft<sup>3</sup>/s Apr. 6, 1937, gage height, 12.82 ft; maximum gage height recorded, about 15.3 ft Apr. 6, 1937 (ice jam); minimum discharge observed, about 34 ft<sup>3</sup>/s Aug. 8, 1917, gage height, 5.25 ft; minimum daily, 37 ft<sup>3</sup>/s Aug. 8, 1917.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,600 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 31	1130	*6,120	*9.45	No other peak greater than base discharge.			

Minimum discharge, 393 ft<sup>3</sup>/s July 26, gage height, 6.14 ft; minimum daily, 486 ft<sup>3</sup>/s Nov. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1380	540	721	660	820	600	5410	580	740	1430	2100	1270
2	1070	522	1190	660	780	580	4670	519	1750	1060	1780	1060
3	846	512	1850	640	740	560	4360	608	1660	1300	1610	901
4	747	486	1540	640	700	540	3620	626	1290	1820	1280	800
5	716	498	1100	620	660	540	2860	598	969	1790	995	749
6	700	747	1030	600	640	520	2370	698	805	2370	811	689
7	796	1150	1070	600	620	520	2140	998	728	2010	838	676
8	758	1180	832	580	600	520	2070	1070	698	1520	1450	659
9	692	1070	745	580	580	520	2290	935	814	1190	3540	631
10	686	1300	747	560	560	540	2430	848	874	934	2870	571
11	923	1960	667	560	540	560	2310	706	942	775	2410	916
12	920	1780	582	560	540	860	2050	656	1620	670	2360	2900
13	1030	2300	560	540	520	1300	2030	566	2230	694	1810	2880
14	1420	2680	540	520	520	1500	1930	528	2350	910	1350	2250
15	1490	2450	540	520	520	1600	1850	501	1810	1160	1130	1830
16	1700	2060	520	520	520	1900	1680	506	1470	1120	1250	2120
17	1790	1880	500	520	520	2100	1500	579	2170	958	1320	2360
18	1480	1810	500	580	540	2280	1340	834	2300	816	1140	1950
19	1470	1620	520	660	540	2950	1210	842	1840	705	995	1660
20	1690	1440	520	760	560	4830	1110	867	2010	633	857	1410
21	1500	1290	540	1200	640	3640	1050	1340	1660	961	737	1290
22	1270	1170	540	2000	760	2830	1030	2420	1180	992	688	1210
23	1060	1060	540	1800	880	2410	996	2790	930	802	678	1270
24	909	1050	540	1600	860	2100	912	2970	817	634	1260	1780
25	835	976	520	1500	800	1800	858	2560	1010	551	1890	1670
26	845	970	520	1300	720	2100	784	1960	935	780	1690	1420
27	794	1340	560	1200	680	3900	707	1500	832	1300	1720	1210
28	728	937	600	1100	640	4000	717	1170	763	749	2380	1040
29	646	1610	640	960	---	3690	694	935	738	761	2200	1550
30	616	738	640	920	---	4900	653	764	1350	942	1840	3410
31	546	---	660	860	---	5850	---	645	---	1920	1510	---
TOTAL	32053	39126	22574	26320	18000	62540	57631	33119	39285	34257	48489	44132
MEAN	1034	1304	728	849	643	2017	1921	1068	1310	1105	1564	1471
MAX	1790	2680	1850	2000	880	5850	5410	2970	2350	2370	3540	3410
MIN	546	486	500	520	520	520	653	501	698	551	678	571
CFSM	1.69	2.13	1.19	1.39	1.05	3.30	3.14	1.75	2.14	1.81	2.56	2.40
IN.	1.95	2.38	1.37	1.60	1.09	3.80	3.50	2.01	2.39	2.08	2.95	2.68
CAL YR 1985	TOTAL	388807	MEAN	1065	MAX	6600	MIN	162	CFSM	1.74	IN.	23.63
WTR YR 1986	TOTAL	457526	MEAN	1253	MAX	5850	MIN	486	CFSM	2.05	IN.	27.81



## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04269000 ST. REGIS RIVER AT BRASHER CENTER, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955, 1960, 1970-72, 1974 to current year.

CHEMICAL DATA: 1955 (a), 1960 (b), 1970-72 (a), 1975-81 (d), 1982 (c), 1983-86 (b).

MINOR ELEMENTS DATA: 1975, 1977-79 (b), 1980 (c), 1981-86 (b).

ORGANIC DATA: OC--1974 (b), 1978-81 (d).

NUTRIENT DATA: 1970-71 (a), 1975-81 (d), 1982 (c), 1983-86 (b).

## BIOLOGICAL DATA:

Bacteria--1975-81 (d), 1982 (c), 1983-86 (b).

Phytoplankton--1975-77 (d), 1978-81 (c).

Periphyton--1975-80 (b).

SEDIMENT DATA: 1975 (d), 1976-77 (c), 1978-81 (d), 1982 (c), 1983-86 (b).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: September 1974 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES (water years 1975-81): Maximum daily, 29.0°C Aug. 4, 1975; minimum, 0.0°C on many days during winter periods.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 23...	0845	1090	56	7.10	8.0	1.5	770	11.1	93	46	32
MAR 11...	0830	543	82	7.14	0.0	1.5	745	13.6	95	K22	K14
JUN 09...	1015	804	56	7.74	20.0	1.2	760	8.5	94	97	35
AUG 18...	0945	1150	73	7.32	22.5	1.5	760	7.5	87	72	31

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	BICAR- BONATE WH WAT TOTAL FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT 23...	25	10	6.6	2.0	1.6	0.40	15	18	6.6	2.6	<0.10
MAR 11...	39	10	10	3.4	3.0	0.30	29	35	9.8	3.3	<0.10
JUN 09...	29	6	7.7	2.4	2.5	0.50	23	28	11	2.2	0.10
AUG 18...	30	10	7.9	2.5	1.8	0.70	20	25	13	2.7	<0.10

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)
OCT 23...	6.4	50	36	<0.100	0.160	0.130	0.30	0.020	0.010	0.060	80
MAR 11...	10	61	57	0.380	0.040	0.030	<0.20	0.010	<0.010	<0.010	30
JUN 09...	5.5	57	46	0.140	<0.010	0.020	0.60	0.020	0.020	0.010	--
AUG 18...	6.8	61	48	0.130	0.030	<0.010	0.60	0.020	0.010	<0.010	80

K Results based on colony count outside the acceptable range (non-ideal colony count).

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

201

04269000 ST. REGIS RIVER AT BRASHER CENTER, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 23...	<1	15	<0.5	<1	2	<3	5	240	1	<4	9
MAR 11...	<1	18	<0.5	<1	<1	<3	<1	210	<1	<4	4
JUN 09...	--	--	--	--	--	--	--	--	--	--	--
AUG 18...	<1	20	<0.5	<1	<1	<3	3	370	<5	<4	16

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 23...	0.3	<10	1	<1	<1	22	<6	13
MAR 11...	<0.1	<10	2	<1	<1	30	<6	47
JUN 09...	--	--	--	--	--	--	--	--
AUG 18...	0.1	<10	<1	<1	<1	27	<6	11

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 23...	0845	1090	1	2.9	91	JUN 09...	1015	804	3	6.5	14
MAR 11...	0830	543	2	2.9	65	AUG 18...	0945	1150	4	12	76

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

## 04270200 LITTLE SALMON RIVER AT BOMBAY, NY

LOCATION.--Lat 44°56'24", long 74°33'24", Franklin County, Hydrologic Unit 04150307, on right bank 50 ft downstream from bridge on road to Fort Covington Center, 0.5 mi east of village of Bombay, and 7.2 mi upstream from mouth.

DRAINAGE AREA.--92.2 mi<sup>2</sup>.

PERIOD OF RECORD.--August to November 1957, July 1958 to current year. Occasional low-flow measurements, water years 1954-55, 1957.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 173.91 ft above National Geodetic Vertical Datum of 1929. August to November 1957, at site 100 ft upstream at datum 0.72 ft higher.

REMARKS.--Estimated daily discharges: Dec. 8 to Mar. 18 and Mar. 21-29. Records fair except those for estimated discharges, which are poor. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--28 years (1959-86), 121 ft<sup>3</sup>/s, 17.82 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,250 ft<sup>3</sup>/s Apr. 4, 1974, gage height, 12.90 ft; minimum, 8.0 ft<sup>3</sup>/s Aug. 6, 7, 1965, gage height, 1.52 ft; minimum gage height, 0.85 ft Sept. 2, 1957, site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 21	--	a1,000	ice jam	July 30	0330	1,040	6.95
Mar. 20	0400	*3,170	*12.58	Aug. 8	0430	1,520	8.41
Mar. 27	--	a1,300	ice jam	Aug. 9	0400	2,000	9.85
July 5	2300	944	6.62				

a About.

Minimum discharge, 29 ft<sup>3</sup>/s July 25, gage height, 1.76 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	46	74	64	84	70	302	62	90	50	138	75
2	55	46	294	64	82	72	242	73	293	43	125	64
3	50	44	234	64	82	74	204	76	144	138	308	61
4	43	43	271	64	80	78	161	68	89	207	118	57
5	42	46	188	62	78	84	135	68	65	353	73	56
6	55	103	146	60	78	84	122	82	62	569	56	64
7	56	127	105	58	76	80	136	90	52	189	111	57
8	48	96	96	58	74	76	147	88	56	108	1090	52
9	48	83	88	56	74	74	220	83	71	72	1190	50
10	84	152	82	56	72	74	263	73	52	56	274	47
11	214	216	78	54	72	74	242	66	51	48	315	100
12	120	131	74	54	72	74	182	59	71	45	307	318
13	152	403	70	52	70	78	260	58	172	51	163	218
14	222	409	66	52	70	88	237	51	163	76	114	128
15	172	298	64	50	70	110	177	49	91	132	113	95
16	263	170	74	50	70	150	145	68	62	83	137	255
17	169	166	80	50	70	300	126	86	124	58	106	242
18	109	175	78	80	72	700	112	79	101	48	87	138
19	111	133	74	200	76	1480	102	67	65	44	75	110
20	120	118	72	500	84	2620	94	92	78	41	66	95
21	94	103	70	740	110	1300	96	236	70	50	60	91
22	77	87	68	500	150	600	93	403	51	45	61	84
23	71	85	66	300	140	350	86	297	44	37	58	89
24	64	90	66	220	120	250	79	227	63	34	244	149
25	64	90	76	160	100	200	77	145	211	34	264	125
26	62	88	72	130	88	250	75	106	116	89	146	99
27	58	111	70	110	78	300	75	77	77	165	288	84
28	54	85	68	100	72	250	74	67	86	77	241	74
29	52	96	66	94	---	230	69	59	64	113	132	79
30	47	80	64	90	---	530	65	50	55	579	101	511
31	47	---	64	86	---	455	---	45	---	204	85	---
TOTAL	2884	3920	3058	4278	2364	11155	4398	3150	2789	3838	6646	3667
MEAN	93.0	131	98.6	138	84.4	360	147	102	93.0	124	214	122
MAX	263	409	294	740	150	2620	302	403	293	579	1190	511
MIN	42	43	64	50	70	70	65	45	44	34	56	47
CFSM	1.01	1.42	1.07	1.50	.92	3.90	1.59	1.10	1.01	1.34	2.33	1.33
IN.	1.16	1.58	1.23	1.73	0.95	4.50	1.77	1.27	1.13	1.55	2.68	1.48

CAL YR 1985	TOTAL	52612	MEAN	144	MAX	2500	MIN	19	CFSM	1.56	IN.	21.2
WTR YR 1986	TOTAL	52147	MEAN	143	MAX	2620	MIN	34	CFSM	1.55	IN.	21.0

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

203

## 04270510 CHATEAUGAY RIVER BELOW CHATEAUGAY, NY

LOCATION.--Lat 44°57'49", long 74°07'53", Franklin County, Hydrologic Unit 04150307, on left bank 10 ft downstream from bridge on Sam Cook Road, 0.2 mi downstream from Marble River, 2.4 mi upstream from international boundary, and 4.1 mi northeast of Chateaugay.

DRAINAGE AREA.--151 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 411.33 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 15 to Mar. 14. Records good except those for estimated daily discharges, which are poor. Flow regulated at Forge Dam on Upper and Lower Chateaugay Lakes. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--20 years (1967-86), 249 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,200 ft<sup>3</sup>/s Apr. 4, 1974, gage height, 7.33 ft, from rating curve extended above 1,600 ft<sup>3</sup>/s; maximum gage height, 10.99 ft Feb. 11, 1966 (ice jam); minimum discharge, 14 ft<sup>3</sup>/s Sept. 5, 6, 1982, Nov. 3, 1985; minimum gage height, 2.32 ft, Sept. 5, 6, 1982; minimum daily discharge, 37 ft<sup>3</sup>/s Aug. 23, 26, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,510 ft<sup>3</sup>/s Mar. 19, gage height, 5.39 ft; maximum gage height, 5.99 ft Mar. 11 (ice jam); minimum discharge, 14 ft<sup>3</sup>/s Nov. 3, gage height, 2.33 ft; minimum daily discharge, 69 ft<sup>3</sup>/s July 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	173	126	148	110	220	140	986	169	303	69	240	274
2	203	126	253	110	210	130	946	259	293	89	233	239
3	198	88	218	110	200	130	895	212	209	140	212	183
4	195	90	295	110	180	130	804	212	165	143	181	166
5	210	103	297	110	160	130	635	232	167	216	147	172
6	219	155	195	110	150	130	525	278	163	230	130	159
7	212	132	179	110	150	130	492	282	162	222	148	117
8	192	136	161	120	150	130	387	295	187	230	189	88
9	171	130	157	140	150	130	350	265	169	205	214	87
10	192	148	154	140	140	160	333	214	150	144	201	89
11	184	141	155	130	140	300	292	199	170	152	237	168
12	172	136	156	120	140	240	245	182	202	154	216	283
13	192	247	155	110	140	200	248	181	270	184	139	318
14	184	265	158	94	140	250	209	148	226	211	185	281
15	207	302	140	82	140	328	180	144	189	162	196	258
16	216	252	130	76	140	306	178	150	192	151	180	346
17	210	255	120	80	140	302	173	121	256	159	155	333
18	211	250	110	90	160	328	165	115	180	158	161	313
19	231	247	100	110	180	871	126	133	130	134	146	350
20	225	251	110	230	200	601	136	235	125	138	111	344
21	207	244	110	380	220	407	141	271	125	134	85	330
22	184	227	100	460	200	482	147	285	125	104	82	295
23	182	223	100	440	180	527	131	456	152	88	82	311
24	180	186	110	390	170	519	123	423	187	81	215	310
25	178	185	120	350	160	504	120	450	182	81	303	300
26	174	141	120	310	150	673	121	444	133	104	374	294
27	174	147	120	290	140	722	117	446	146	108	572	267
28	171	146	110	270	140	563	116	373	165	101	471	238
29	120	159	110	250	---	729	118	282	128	153	477	249
30	126	146	110	240	---	943	120	271	111	209	386	357
31	126	---	110	230	---	943	---	237	---	246	315	---
TOTAL	5819	5384	4611	5902	4590	12078	9559	7964	5362	4700	7035	7519
MEAN	188	179	149	190	164	390	319	257	179	152	227	251
MAX	231	302	297	460	220	943	986	456	303	246	572	357
MIN	120	88	100	76	140	130	116	115	111	69	82	87
CAL YR 1985	TOTAL	88445	MEAN	242	MAX	1010	MIN	68				
WTR YR 1986	TOTAL	80523	MEAN	221	MAX	986	MIN	69				



## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

## 04273500 SARANAC RIVER AT PLATTSBURGH, NY

LOCATION.--Lat 44°40'54", long 73°28'18", Clinton County, Hydrologic Unit 02010006, on right bank at Plattsburgh, 600 ft downstream from Imperial Paper and Color Corp. dam, 3.0 mi upstream from mouth, and 5.5 mi downstream from Mead Brook.

DRAINAGE AREA.--608 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1903 to September 1930, October 1943 to current year. Published as "near Plattsburgh," 1903-30.

REVISED RECORDS.--WSP 345: Drainage area. WSP 384: 1909-10 (monthly discharge only). WSP 1387: 1907-8. WSP 1437: 1908 (minimum daily only).

GAGE.--Water-stage recorder. Datum of gage is 155.74 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 12, 1919, nonrecording gage, and Nov. 12, 1919 to Sept. 30, 1930, water-stage recorder, at site 1.5 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 19-25, 28-31, Feb. 1-16, and Mar. 8-9, 11-13. Records good except those for estimated daily discharges, which are fair. Considerable diurnal fluctuation caused by power and industrial operations. Slight regulation by storage in Upper and Lower Saranac Lakes and elsewhere. During year, city of Plattsburgh diverted an average of 7.63 ft<sup>3</sup>/s from Saranac River and Mead and West Brooks, tributaries upstream from station, for municipal supply. About 1 ft<sup>3</sup>/s diverted from Great Chazy River basin into Saranac River for water supply of State Institutions at Dannemora. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--70 years, 839 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft<sup>3</sup>/s Apr. 8, 1928, from computation of flow over dam and through waste gates and powerplant; minimum daily discharge, 3.6 ft<sup>3</sup>/s June 26, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,890 ft<sup>3</sup>/s Mar. 31, gage height, 7.94 ft; minimum, 233 ft<sup>3</sup>/s Oct. 10, gage height, 2.77 ft; minimum daily, 313 ft<sup>3</sup>/s Jan. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1280	642	883	489	450	613	3870	924	754	583	1020	923
2	894	744	1010	454	470	620	3640	914	1070	425	1120	838
3	973	652	1080	487	480	551	3220	848	1070	625	1050	796
4	915	624	809	461	430	481	2780	760	962	704	924	730
5	855	583	952	474	500	478	2430	741	856	792	797	653
6	815	780	1010	526	580	478	2160	812	848	1090	765	702
7	783	1000	944	582	660	513	2080	847	757	1060	892	623
8	723	955	889	589	660	520	2030	756	751	928	1110	558
9	656	852	871	697	640	540	1930	753	983	845	1680	510
10	563	958	780	763	640	556	1810	740	874	757	1460	546
11	522	1360	710	631	620	580	1740	713	856	707	1260	774
12	555	1280	746	593	600	620	1540	675	1040	660	1200	1260
13	671	1630	814	536	600	600	1310	645	1370	796	1030	1040
14	903	1730	746	485	600	685	1330	624	1420	827	903	876
15	884	1740	617	386	600	960	1360	603	1210	1010	852	734
16	1230	1580	649	313	620	1330	1340	626	1080	907	936	978
17	1080	1520	608	429	594	1420	1270	643	1360	815	945	1210
18	969	1520	522	533	624	1570	1250	642	1320	764	900	967
19	943	1450	440	587	622	1830	1190	648	1170	700	849	850
20	957	1390	480	859	645	2540	1210	761	1090	665	781	837
21	978	1340	470	1620	646	2140	1210	931	1000	634	735	848
22	897	1210	460	1530	623	1910	1180	1000	925	699	816	796
23	789	1200	460	1270	617	1690	1100	1530	796	636	778	761
24	841	1180	500	1080	599	1520	934	1640	756	589	851	1020
25	759	1130	580	903	594	1400	775	1550	824	561	1250	947
26	857	988	513	929	596	1750	846	1270	751	584	1080	979
27	743	1000	487	879	575	3010	918	1090	713	898	1160	923
28	831	1010	520	839	597	2790	942	941	703	904	1720	859
29	776	959	500	832	---	2610	934	850	662	1090	1320	890
30	665	935	500	845	---	3970	925	772	724	1380	1160	1590
31	640	---	500	834	---	5020	---	722	---	1170	1060	---
TOTAL	25947	33942	21050	22435	16482	45295	49254	26971	28695	24805	32404	26018
MEAN	837	1131	679	724	589	1461	1642	870	957	800	1045	867
MAX	1280	1740	1080	1620	660	5020	3870	1640	1420	1380	1720	1590
MIN	522	583	440	313	430	478	775	603	662	425	735	510
CAL YR 1985	TOTAL	336090	MEAN	921	MAX	3410	MIN	127				
WTR YR 1986	TOTAL	353298	MEAN	968	MAX	5020	MIN	313				

STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

205

04275000 EAST BRANCH AUSABLE RIVER AT AU SABLE FORKS, NY

LOCATION.--Lat 44°26'20", long 73°40'55", Essex County, Hydrologic Unit 02010004, on left bank 700 ft upstream from bridge on Burt Street in Au Sable Forks, and 0.5 mi upstream from confluence with West Branch.

DRAINAGE AREA.--198 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1924 to current year.

REVISED RECORDS.--WSP 759: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 545.37 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 21, 1938, nonrecording gage at lower highway bridge in Au Sable Forks, 400 ft upstream from confluence with West Branch at datum 3.54 ft lower.

REMARKS.--Estimated daily discharges: Dec. 11-14, Dec. 20 to Jan. 20, Jan. 26 to Mar. 15, and Mar. 17-19. Records good except those for estimated daily discharges, which are poor. Occasional regulation of storage in Upper and Lower Ausable Lakes and occasional small diurnal fluctuation, cause unknown. Several measurements of water temperature were made during the year. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--62 years, 313 ft<sup>3</sup>/s, 21.47 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,100 ft<sup>3</sup>/s Sept. 22, 1938, gage height, 12.91 ft, from rating curve extended above 5,800 ft<sup>3</sup>/s on basis of velocity-area studies; minimum observed, 20 ft<sup>3</sup>/s Aug. 11, 14, 28, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,700 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 15	Unknown	ice jam	*8.21	Mar. 30	2400	3,790	5.94
Mar. 19	2300	*4,720	6.56				

Minimum discharge, 82 ft<sup>3</sup>/s Aug. 21, gage height, 1.28 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	275	142	192	150	170	160	1530	400	228	128	471	157
2	250	135	762	140	160	160	1740	376	430	152	542	131
3	239	130	620	130	150	160	1200	290	288	233	463	113
4	198	126	366	130	140	160	803	244	229	243	324	102
5	191	154	315	120	160	160	589	236	189	247	212	97
6	451	1910	279	120	160	150	495	387	173	447	163	123
7	335	944	255	120	160	140	499	384	163	328	147	124
8	256	567	231	130	160	140	696	366	234	219	265	106
9	206	441	213	130	150	140	703	356	347	162	244	95
10	180	920	190	140	150	150	550	302	234	130	205	87
11	171	1270	170	130	150	180	446	253	459	112	197	93
12	161	760	160	130	150	280	388	228	714	107	203	382
13	267	1070	160	130	150	350	353	207	1100	156	152	340
14	511	1150	150	130	140	330	325	189	662	185	128	232
15	640	1940	152	120	140	800	333	176	410	268	115	168
16	1110	915	198	140	140	1540	376	172	303	214	118	215
17	577	690	176	160	140	720	450	194	517	165	115	270
18	380	576	149	170	140	660	533	226	353	136	105	242
19	379	498	165	190	150	1800	575	266	267	122	98	197
20	417	637	170	350	170	2500	596	482	224	105	87	169
21	329	560	160	1120	180	897	826	1230	197	158	83	234
22	271	434	150	537	180	638	1070	1470	166	169	99	216
23	230	374	150	346	170	509	593	1330	154	135	95	191
24	203	323	170	209	170	430	415	1400	155	110	296	539
25	248	284	160	167	160	345	342	791	146	96	548	376
26	268	242	140	160	160	597	465	521	134	97	340	261
27	225	240	140	160	150	1670	661	377	124	186	713	204
28	194	220	140	160	160	1120	615	294	127	139	893	171
29	170	209	150	160	---	1210	568	237	120	211	475	222
30	158	201	150	170	---	2520	508	199	147	407	288	644
31	149	---	150	170	---	2620	---	177	---	277	202	---
TOTAL	9639	18062	6733	6319	4360	23236	19243	13760	8994	5844	8336	6501
MEAN	311	602	217	204	156	750	641	444	300	189	271	217
MAX	1110	1940	762	1120	180	2620	1740	1470	1100	447	893	644
MIN	149	126	140	120	140	140	325	172	120	96	83	87
CFSM	1.57	3.04	1.10	1.03	.79	3.79	3.24	2.24	1.52	.95	1.37	1.10
IN.	1.81	3.39	1.26	1.19	0.82	4.37	3.62	2.59	1.69	1.10	1.58	1.22

CAL YR 1985	TOTAL	120603	MEAN	330	MAX	2350	MIN	39	CFSM	1.67	IN.	22.66
WTR YR 1986	TOTAL	131077	MEAN	359	MAX	2620	MIN	83	CFSM	1.81	IN.	24.63

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04278000 LAKE GEORGE AT ROGERS ROCK, NY

LOCATION.--Lat 43°48'28", long 73°27'30", Essex County, Hydrologic Unit 02010001, on west shore about 500 ft north of Hooper's dock at Rogers Rock, and 0.4 mi west of Baldwin.

DRAINAGE AREA.--233 mi<sup>2</sup> at outlet at Ticonderoga.

PERIOD OF RECORD.--July 1913 to current year.

GAGE.--Water-stage recorder. Datum of gage is 315.93 ft above National Geodetic Vertical Datum, adjustment of 1912. Prior to Nov. 4, 1929, nonrecording gages at several sites within a half mile of present site at same datum. Nov. 4, 1929 to Sept. 26, 1936, nonrecording gage at present site and datum.

REMARKS.--Elevation of lake regulated by floodgates at Ticonderoga. Prior to October 1974, lake was regulated by powerplant wheel gate and floodgates. Lake George has been controlled by a dam at its outlet for more than 100 years. Area of water surface is 44 mi<sup>2</sup>.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 5.09 ft Apr. 9, 1936; minimum, 0.64 ft Dec. 20, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 4.19 ft Apr. 8, June 16; minimum, 2.57 ft Mar. 6.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.61	3.43	3.68	3.46	3.61	2.72	4.03	3.78	3.77	3.68	3.93	3.41
2	3.63	3.44	3.80	3.46	3.59	2.68	4.04	3.80	3.67	3.71	3.94	3.37
3	3.62	3.44	3.82	3.37	3.54	2.65	4.03	3.76	3.69	3.74	3.89	3.35
4	3.62	3.43	3.79	3.40	3.50	2.64	4.04	3.77	3.73	3.78	3.85	3.37
5	3.68	3.42	3.78	3.45	3.51	2.62	4.03	3.79	3.68	3.76	3.80	3.40
6	3.74	3.52	3.77	3.48	3.46	2.61	4.06	3.78	3.69	3.77	3.73	3.38
7	3.72	3.59	3.78	3.44	3.42	2.66	4.08	3.81	3.72	3.81	3.73	3.37
8	3.73	3.59	3.77	3.44	3.39	2.64	4.11	3.79	3.78	3.80	3.81	3.36
9	3.73	3.58	3.72	3.46	3.35	2.63	4.09	3.80	3.76	3.78	3.83	3.36
10	3.71	3.59	3.72	3.43	3.31	2.64	4.06	3.81	3.78	3.75	3.85	3.34
11	3.66	3.55	3.69	3.41	3.26	2.66	4.03	3.80	3.80	3.73	3.86	3.36
12	3.67	3.65	3.70	3.43	3.22	2.63	4.00	3.78	3.88	3.75	3.83	3.38
13	3.73	3.68	3.71	3.36	3.19	2.65	3.97	3.81	4.02	3.85	3.82	3.34
14	3.73	3.68	3.73	3.36	3.14	2.70	3.91	3.84	4.01	3.90	3.82	3.29
15	3.85	3.79	3.74	3.38	3.10	2.85	3.86	3.85	3.97	3.89	3.82	3.28
16	3.95	3.85	3.71	3.36	3.06	2.99	3.82	3.85	3.96	3.90	3.81	3.31
17	3.93	3.95	3.67	3.35	3.02	3.04	3.75	3.89	3.97	3.91	3.78	3.32
18	3.92	3.99	3.64	3.34	2.99	3.10	3.73	3.90	3.94	3.90	3.77	3.34
19	3.87	3.99	3.58	3.33	2.97	3.22	3.71	3.86	3.90	3.88	3.72	3.31
20	3.81	3.99	3.56	3.37	2.94	3.42	3.69	3.90	3.83	3.90	3.74	3.30
21	3.79	3.93	3.54	3.45	2.93	3.48	3.69	3.97	3.84	3.82	3.74	3.31
22	3.76	3.87	3.57	3.49	2.92	3.51	3.63	4.00	3.82	3.84	3.63	3.34
23	3.72	3.88	3.56	3.47	2.91	3.50	3.56	4.04	3.78	3.82	3.67	3.41
24	3.70	3.84	3.54	3.48	2.87	3.49	3.60	4.07	3.76	3.83	3.69	3.43
25	3.70	3.76	3.53	3.50	2.84	3.48	3.63	4.07	3.66	3.85	3.61	3.42
26	3.65	3.70	3.55	3.64	2.81	3.48	3.65	4.06	3.67	3.82	3.58	3.43
27	3.64	3.68	3.56	3.73	2.78	3.58	3.67	4.04	3.66	3.80	3.61	3.37
28	3.55	3.64	3.53	3.75	2.75	3.70	3.70	3.97	3.68	3.83	3.53	3.42
29	3.49	3.70	3.52	3.75	---	3.76	3.72	3.95	3.67	3.92	3.50	3.45
30	3.49	3.68	3.50	3.71	---	3.86	3.75	3.86	3.67	3.93	3.47	3.46
31	3.45	---	3.51	3.67	---	3.95	---	3.78	---	3.93	3.43	---
MEAN	3.70	3.69	3.65	3.47	3.16	3.08	3.85	3.88	3.79	3.83	3.74	3.37
MAX	3.95	3.99	3.82	3.75	3.61	3.95	4.11	4.07	4.02	3.93	3.94	3.46
MIN	3.45	3.42	3.50	3.33	2.75	2.61	3.56	3.76	3.66	3.68	3.43	3.28
CAL YR 1985	MEAN	3.62	MAX	3.99	MIN	3.05						
WTR YR 1986	MEAN	3.60	MAX	4.11	MIN	2.61						

## 04278300 NORTHWEST BAY BROOK NEAR BOLTON LANDING, NY

LOCATION.--Lat 43°39'48", long 73°36'14", Warren County, Hydrologic Unit 02010001, on left bank 10 ft downstream from county bridge on Padanarum Road, 7.7 mi north of Bolton Landing.

DRAINAGE AREA.--23.4 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1965 to September 1968, October 1971 to current year. Annual maximum, water years 1969-71.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 423.60 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1973, at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Oct. 1-7, Dec. 12 to Jan. 2, Jan. 7-18, Feb. 2-9, 15, Feb. 26 to Mar. 1 and Mar. 7-9, 15-16, and 21-23. Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--18 years (1966-68, 1972-86), 37.0 ft<sup>3</sup>/s, 21.47 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,770 ft<sup>3</sup>/s Feb. 11, 1981, gage height, 6.35 ft from rating curve extended above 590 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 5.53 ft; maximum gage height, 7.14 ft Feb. 11, 1981 (ice jam); minimum discharge, 0.28 ft<sup>3</sup>/s Sept. 27, 28, 29, 1968, gage height, 0.18 ft present datum.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 15	1730	*539	3.78	Mar. 27	0745	405	3.36
Mar. 15	1445	a450	b*5.14	Mar. 30	1845	505	3.68
Mar. 19	2015	525	3.74				

a About.  
b Ice jam.

Minimum discharge, 4.4 ft<sup>3</sup>/s Sept. 15, gage height, 0.88 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	23	33	13	54	14	226	22	19	12	58	9.6
2	14	22	109	12	46	14	191	21	27	22	133	8.5
3	13	20	82	12	39	14	135	19	19	23	68	7.8
4	11	20	66	12	36	14	110	17	16	18	43	7.5
5	50	41	50	12	32	14	92	17	17	18	32	9.5
6	74	70	45	12	29	14	86	17	19	24	25	11
7	43	64	40	12	25	14	122	16	16	19	42	8.8
8	30	50	38	12	23	14	132	15	18	14	105	7.5
9	25	48	34	11	21	14	103	14	15	11	66	6.2
10	22	55	31	11	20	15	83	13	12	9.2	45	5.8
11	18	70	30	11	18	17	69	12	36	7.7	37	5.7
12	15	59	28	10	18	18	60	11	102	30	27	6.0
13	38	58	27	10	16	18	53	10	171	67	23	6.0
14	49	111	26	10	15	27	47	9.3	88	63	20	5.1
15	199	204	25	10	14	200	42	8.8	55	39	18	4.6
16	178	106	23	10	15	220	38	8.7	44	27	25	21
17	93	107	21	11	14	117	36	14	100	21	22	13
18	67	108	19	12	15	118	33	10	56	18	20	9.4
19	74	107	19	14	17	293	30	12	41	15	17	8.2
20	68	85	18	104	17	291	29	23	72	15	14	8.2
21	54	68	18	195	17	130	32	88	54	17	13	9.8
22	45	60	17	107	17	100	38	105	40	13	13	8.2
23	39	56	17	73	18	86	31	111	35	11	12	31
24	37	51	16	56	17	73	28	162	30	9.7	23	36
25	48	46	15	59	16	67	26	89	23	8.9	16	22
26	40	41	15	73	16	139	25	58	20	9.9	12	16
27	35	39	15	124	15	355	25	43	18	14	23	14
28	31	38	14	126	15	234	24	33	17	11	18	12
29	27	36	14	99	---	259	22	26	15	41	14	19
30	26	33	13	71	---	381	24	23	15	59	12	21
31	25	---	13	63	---	337	---	19	---	54	11	---
TOTAL	1498	1896	931	1367	615	3621	1992	1046.8	1210	721.4	1011	358.4
MEAN	48.3	63.2	30.0	44.1	22.0	117	66.4	33.8	40.3	23.3	32.6	11.3
MAX	199	204	109	195	54	381	226	162	171	67	133	36
MIN	10	20	13	10	14	14	22	8.7	12	7.7	11	4.6
CFSM	2.07	2.70	1.28	1.88	.94	4.99	2.84	1.44	1.72	.99	1.39	.51
IN.	2.38	3.01	1.48	2.17	.98	5.76	3.17	1.66	1.92	1.15	1.61	0.57

CAL YR 1985	TOTAL	10685.5	MEAN	29.3	MAX	211	MIN	.48	CFSM	1.25	IN.	17.0
WTR YR 1986	TOTAL	16267.6	MEAN	44.6	MAX	381	MIN	4.6	CFSM	1.90	IN.	25.9



## ST. LAWRENCE RIVER BASIN

04280000 POULTNEY RIVER BELOW FAIR HAVEN, VT.

LOCATION.--Lat 43°37'40", long 73°18'50", Rutland County, Hydrologic Unit 02010001, on right bank 0.3 mi downstream from Carver Falls, 1.9 mi upstream from Hubbardton River, and 3.2 mi northwest of Fair Haven.

DRAINAGE AREA.--187 mi<sup>2</sup>.

PERIOD OF RECORD.--Discharge: October 1928 to current year.  
Water-quality records: Water year 1954.

REVISED RECORDS.--WSP 1114: 1929(M), 1932-35.

GAGE.--Water-stage recorder. Elevation of gage is 105 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 19 to Jan. 20, Jan. 29 to Feb. 20, Mar. 21-26, and Mar 28 to Apr. 2. Records fair except for estimated daily discharges, which are poor. Flow regulated by powerplant upstream and Lake Bomoseen. Several observations of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--58 years, 256 ft<sup>3</sup>/s, 18.59 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,800 ft<sup>3</sup>/s July 20, 1945, gage height, 24.36 ft, from high-water mark in well, from rating curve extended above 2,600 ft<sup>3</sup>/s on basis of computations of flow over dam at gage heights 16.10 ft, 21.40 ft, and 24.36 ft; minimum daily, 2.1 ft<sup>3</sup>/s Aug. 8, 1965, Sept. 13, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,600 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 20	0215	*8,620	*19.51	Mar. 31	--	6,000	--

Minimum daily discharge, 11 ft<sup>3</sup>/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	186	319	90	820	281	2500	137	147	79	248	70
2	68	183	659	78	800	233	1500	131	184	101	404	61
3	81	166	696	98	760	231	800	124	130	178	295	27
4	85	133	368	100	690	157	650	116	132	147	226	65
5	101	130	314	92	640	145	612	96	130	133	187	55
6	233	185	291	90	580	131	547	114	136	138	143	44
7	155	200	273	70	520	120	667	104	129	125	136	44
8	114	200	255	60	370	112	613	101	126	117	288	98
9	106	186	234	92	390	136	544	96	108	70	245	36
10	107	184	230	90	420	118	506	83	86	100	253	11
11	83	196	241	300	380	142	481	76	178	72	256	27
12	83	207	320	280	360	208	449	77	470	77	272	60
13	107	209	304	265	350	205	400	66	773	284	170	34
14	200	308	302	230	350	246	365	86	487	295	155	43
15	345	1020	272	135	330	1250	333	73	333	267	93	47
16	546	759	270	47	350	2170	305	75	277	168	142	60
17	348	704	272	25	320	1720	264	101	474	145	127	86
18	290	747	251	60	340	1770	197	111	334	116	114	45
19	353	627	170	78	370	2750	202	92	266	113	130	76
20	524	549	120	300	400	6110	162	101	299	91	111	69
21	369	482	125	1440	670	1900	175	125	363	125	89	73
22	319	429	115	1240	701	1700	250	374	281	198	89	58
23	289	421	120	989	659	1650	210	789	168	161	55	120
24	265	413	100	897	622	1550	176	928	145	52	128	227
25	285	370	105	880	522	1400	146	915	186	77	120	185
26	274	343	92	917	475	1600	165	647	135	55	99	115
27	245	338	105	1250	395	3000	158	607	116	221	102	97
28	227	350	100	1330	285	4200	153	577	118	98	86	96
29	211	330	100	1000	---	4700	145	428	100	424	77	114
30	199	318	105	960	---	5000	139	206	87	353	75	108
31	189	---	115	890	---	5500	---	157	---	261	72	---
TOTAL	6870	10873	7343	14373	13869	50435	13814	7713	6898	4841	4987	2251
MEAN	222	362	237	464	495	1627	460	249	230	156	161	75.0
MAX	546	1020	696	1440	820	6110	2500	928	773	424	404	227
MIN	68	130	92	25	285	112	139	66	86	52	55	11
CFSM	1.19	1.94	1.27	2.48	2.65	8.70	2.46	1.33	1.23	.83	.86	.40
IN.	1.37	2.16	1.46	2.86	2.76	10.03	2.75	1.53	1.37	.96	.99	.45

CAL YR 1985 TOTAL 79074.3 MEAN 217 MAX 1930 MIN 8.5 CFSM 1.16 IN. 15.73  
WTR YR 1986 TOTAL 144267 MEAN 395 MAX 6110 MIN 11 CFSM 2.11 IN. 28.70

## ST. LAWRENCE RIVER BASIN

209

04294500 LAKE CHAMPLAIN AT BURLINGTON, VT.

LOCATION.--Lat 44°28'52", long 73°13'27", Chittenden County, Hydrologic Unit 02010003, 50 ft south of Gulf Oil Co. dock at Burlington, 0.1 mi north of Burlington Water Department pumping station, and 0.5 mi north of railroad station.

PERIOD OF RECORD.--Gage heights: May 1907 to current year.  
Water-quality records: Water year 1971.

REVISED RECORDS.--WSP 684: 1912-29 (datum correction). WSP 1207: 1938 (datum correction).

GAGE.--Water-stage recorder. Datum of gage is 92.86 ft above National Geodetic Vertical Datum of 1929. Prior to July 20, 1937, nonrecording gage at site 0.7 mi south, and July 20, 1937, to Sept. 7, 1939, nonrecording gage at site 0.1 mi south, both at present datum.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 8.80 ft Apr. 4, 1976; minimum observed, -0.25 ft Dec. 4, 1908.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 7.43 ft Apr. 5, affected by seiche; minimum, 1.94 ft Oct. 5, affected by seiche.

GAGE HEIGHT (FEET) WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.00	2.31	3.21	2.49	2.94	2.67	7.00	5.38	4.30	3.53	3.12	3.43
2	2.07	2.27	3.24	2.45	2.97	2.64	7.20	5.26	4.29	3.47	3.18	3.41
3	2.08	2.23	3.29	2.45	2.98	2.63	7.34	5.18	4.26	3.42	3.20	3.38
4	2.08	2.18	3.33	2.43	2.97	2.61	7.39	5.08	4.19	3.37	3.24	3.28
5	2.06	2.22	3.31	2.39	2.98	2.60	7.39	4.94	4.15	3.38	3.25	3.20
6	2.11	2.31	3.31	2.38	2.98	2.59	7.27	4.91	4.10	3.39	3.23	3.23
7	2.13	2.33	3.27	2.35	2.97	2.57	7.24	4.83	4.02	3.38	3.26	3.22
8	2.10	2.36	3.25	2.34	2.95	2.55	7.24	4.79	3.97	3.36	3.32	3.18
9	2.07	2.42	3.23	2.30	2.94	2.54	7.23	4.73	3.95	3.34	3.38	3.11
10	2.12	2.50	3.20	2.31	2.92	2.52	7.21	4.65	3.90	3.28	3.44	3.06
11	2.11	2.59	3.18	2.27	2.90	2.51	7.15	4.60	3.90	3.24	3.46	3.03
12	2.12	2.58	3.17	2.21	2.89	2.52	7.10	4.55	3.90	3.20	3.48	3.05
13	2.08	2.68	3.11	2.23	2.86	2.54	7.03	4.45	3.87	3.16	3.46	3.09
14	2.14	2.81	3.12	2.21	2.83	2.59	7.00	4.34	3.93	3.15	3.43	3.12
15	2.20	3.00	3.06	2.20	2.82	2.73	6.91	4.23	3.92	3.20	3.38	3.10
16	2.30	3.08	3.02	2.16	2.80	2.92	6.86	4.15	3.91	3.21	3.36	3.13
17	2.39	3.13	2.99	2.13	2.79	3.14	6.77	4.11	3.94	3.20	3.37	3.13
18	2.37	3.24	2.96	2.11	2.78	3.33	6.67	4.04	3.97	3.17	3.37	3.10
19	2.42	3.25	2.92	2.11	2.76	3.58	6.57	4.02	3.98	3.15	3.36	3.08
20	2.47	3.30	2.91	2.15	2.73	4.18	6.44	3.99	3.96	3.08	3.34	3.09
21	2.50	3.37	2.87	2.27	2.75	4.68	6.31	3.97	3.93	3.06	3.28	3.08
22	2.49	3.40	2.80	2.39	2.77	4.95	6.27	4.04	3.87	3.04	3.29	3.04
23	2.49	3.42	2.76	2.52	2.76	5.08	6.20	4.22	3.82	3.02	3.26	3.01
24	2.42	3.42	2.73	2.58	2.75	5.18	6.09	4.38	3.80	2.97	3.22	3.04
25	2.45	3.40	2.74	2.56	2.74	5.23	6.00	4.46	3.75	2.89	3.25	3.07
26	2.46	3.39	2.70	2.68	2.72	5.27	5.90	4.48	3.71	2.90	3.31	3.08
27	2.42	3.37	2.62	2.79	2.71	5.56	5.81	4.47	3.65	2.99	3.35	3.07
28	2.41	3.37	2.63	2.82	2.69	5.91	5.70	4.45	3.63	3.01	3.43	3.03
29	2.38	3.34	2.57	2.87	---	6.15	5.60	4.40	3.58	3.00	3.48	2.98
30	2.34	3.31	2.56	2.91	---	6.40	5.50	4.38	3.56	3.05	3.45	3.06
31	2.33	---	2.47	2.93	---	6.74	---	4.34	---	3.10	3.44	---
MEAN	2.26	2.89	2.98	2.42	2.84	3.78	6.68	4.51	3.92	3.18	3.34	3.13
MAX	2.50	3.42	3.33	2.93	2.98	6.74	7.39	5.38	4.30	3.53	3.48	3.43
MIN	2.00	2.18	2.47	2.11	2.69	2.51	5.50	3.97	3.56	2.89	3.12	2.98
CAL YR 1985	MEAN 3.16		MAX 5.24	MIN 1.76								
WTR YR 1986	MEAN 3.49		MAX 7.39	MIN 2.00								

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY  
(National stream-quality accounting network station)

LOCATION.--Lat 44°59'46", long 73°21'37", Clinton County, Hydrologic Unit 02010006, on left bank at outlet of Lake Champlain in Rouses Point, and 1.0 mi south of Fort Montgomery ruins. Water-quality sampling site at stage station.

DRAINAGE AREA.--8,277 mi<sup>2</sup>.

## WATER-STAGE RECORDS

PERIOD OF RECORD.--March 1871 to current year. Maximum and minimum monthly gage heights at St. Johns, Quebec, October 1863 to December 1870, published in WSP 97. Prior to October 1970, daily gage heights published in WSP 894. Discharge records for January 1875 to September 1916 at "Chambly, Quebec," published in WSP 65, 82, 97, 129, 170, 206, 424, and 1307 have been found to be unreliable and should not be used. Daily discharge record for "Richelieu River at Fryers Rapids, Quebec," published in Water Supply of Canada annual reports. Gage heights prior to October 1, 1925, published as "Richelieu River at Fort Montgomery, Rouses Point."

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. March 1871 to May 1923, nonrecording gage located in Fort Montgomery and May 1923 to October 1938, nonrecording gage at present site. Prior to October 1970, at datum 93.00 ft higher.

REMARKS.--Area of lake surface about 490 mi<sup>2</sup>. Total volume below 92.5 ft elevation, reported by Lake Champlain Studies Center, 902.2 bil ft<sup>3</sup>. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 101.80 ft Mar. 30, 1903; minimum observed, 92.17 ft Oct. 23, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known since at least 1827, 102.1 ft May 4, 1869, from marks at railroad bridge near present gage, according to data published on p. 428 of the Report of the Board of Engineers on Deep Waterways, 1900: U.S. 56th Cong., 2d sess. H. Doc. 149.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 100.61 ft Apr. 6; minimum, 94.77 ft Oct. 1.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94.93	95.10	96.33	95.31	95.78	95.52	99.95	98.31	97.10	96.35	95.94	96.30
2	94.92	95.11	96.18	95.31	95.80	95.49	99.98	98.05	97.02	96.35	96.08	96.24
3	94.92	95.15	96.00	95.21	95.80	95.47	100.13	97.91	97.10	96.25	96.11	96.23
4	95.00	95.14	96.14	95.24	95.81	95.45	100.17	97.90	97.13	96.28	96.13	96.44
5	95.06	94.95	96.16	95.25	95.82	95.43	100.15	97.90	96.96	96.25	96.14	96.33
6	95.01	95.04	96.10	95.21	95.79	95.42	100.44	97.73	96.90	96.25	96.15	96.10
7	94.99	95.22	96.14	95.18	95.79	95.44	100.20	97.67	96.92	96.25	96.16	96.03
8	95.20	95.25	96.08	95.19	95.79	95.40	100.14	97.59	96.91	96.20	96.19	96.01
9	95.03	95.25	96.04	95.23	95.78	95.38	100.04	97.52	96.74	96.13	96.25	96.04
10	94.93	95.25	96.03	95.14	95.76	95.42	100.02	97.50	96.79	96.06	96.35	96.01
11	94.90	95.27	95.97	95.15	95.74	95.36	99.98	97.37	96.73	96.04	96.36	96.09
12	94.96	95.66	95.96	95.15	95.72	95.35	99.93	97.28	96.80	96.05	96.33	96.05
13	95.19	95.46	96.05	95.01	95.71	95.38	99.89	97.26	96.92	96.14	96.34	95.99
14	94.98	95.59	95.91	95.03	95.69	95.43	99.78	97.23	96.79	96.08	96.32	95.92
15	95.08	95.73	96.04	95.04	95.67	95.56	99.70	97.21	96.80	96.06	96.40	95.92
16	95.13	96.10	95.89	95.04	95.64	95.77	99.61	97.10	96.89	96.08	96.32	95.90
17	95.21	96.17	95.84	95.06	95.63	95.98	99.50	96.97	96.71	96.06	96.23	95.93
18	95.49	96.09	95.79	94.98	95.61	96.19	99.44	96.94	96.78	96.04	96.14	96.05
19	95.31	96.31	95.77	94.96	95.59	96.49	99.38	96.78	96.79	96.01	96.08	95.95
20	95.26	96.29	95.70	94.98	95.59	96.95	99.31	96.83	96.73	96.11	96.11	95.88
21	95.33	96.17	95.68	95.11	95.58	97.52	99.29	96.82	96.76	95.90	96.23	95.86
22	95.38	96.18	95.74	95.29	95.59	97.81	98.99	96.84	96.79	95.90	96.11	95.91
23	95.38	96.22	95.69	95.33	95.59	97.95	98.91	97.01	96.75	95.87	96.30	95.94
24	95.59	96.24	95.62	95.40	95.58	97.97	98.85	97.17	96.68	95.91	96.11	95.92
25	95.30	96.19	95.52	95.54	95.57	98.08	98.77	97.28	96.57	95.94	96.00	95.90
26	95.30	96.20	95.57	95.51	95.56	98.15	98.66	97.33	96.56	95.82	96.19	95.91
27	95.34	96.16	95.64	95.59	95.54	98.35	98.60	97.33	96.59	95.80	96.30	95.84
28	95.13	96.11	95.51	95.64	95.53	98.73	98.52	97.25	96.48	95.80	96.26	95.91
29	95.17	96.14	95.51	95.71	---	99.01	98.43	97.28	96.43	95.84	96.31	95.97
30	95.20	96.13	95.40	95.74	---	99.27	98.33	97.20	96.36	95.88	96.38	96.00
31	95.14	---	95.48	95.76	---	99.55	---	97.13	---	95.91	96.32	---
MEAN	95.15	95.73	95.85	95.27	95.68	96.62	99.50	97.34	96.78	96.05	96.21	96.02
MAX	95.59	96.31	96.33	95.76	95.82	99.55	100.44	98.31	97.13	96.35	96.40	96.44
MIN	94.90	94.95	95.40	94.96	95.53	95.35	98.33	96.78	96.36	95.80	95.94	95.84
CAL YR 1985	MEAN	96.01	MAX	98.11	MIN	94.57						
WTR YR 1986	MEAN	96.35	MAX	100.44	MIN	94.90						

## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

211

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966-67, 1969-72, 1974 to current year.  
 CHEMICAL DATA: 1966-67 (a), 1969 (b), 1970 (c), 1971-72 (b), 1974-82 (c), 1983-86 (b).  
 MINOR ELEMENTS DATA: 1974-86 (b).  
 PESTICIDE DATA: 1976-79 (b), 1980 (a), 1982 (b).  
 ORGANIC DATA: OC--1974 (a), 1975-77 (b), 1978 (a), 1979-81 (c).  
 PCB--1978-79 (b), 1980 (a), 1982 (b).  
 NUTRIENT DATA: 1970 (c), 1971-72 (b), 1974 (b), 1975-82 (c), 1983-86 (b).  
 BIOLOGICAL DATA:  
 Bacteria--1974 (a), 1975-82 (c), 1983-86 (b).  
 Phytoplankton--1974 (a), 1975-78 (c), 1979 (b), 1980-81 (c).  
 Periphyton--1975 (c), 1976-80 (b).  
 SEDIMENT DATA: 1975-82 (c), 1983-86 (b).

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT 16...	1100	145	7.40	12.5	1.0	760	9.8	92	28	K1	63
APR 23...	1000	143	7.62	6.0	1.6	765	12.4	99	<1	<1	55
MAY 21...	1000	149	8.02	13.0	1.5	760	11.4	108	K3	<1	52
AUG 07...	1130	126	8.42	22.5	2.5	760	8.6	100	K130	47	53

DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	BICAR- BONATE WH WAT TOTAL FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
OCT 16...	13	18	4.3	6.8	1.3	50	61	13	9.3	<0.10	0.4
APR 23...	9	16	3.7	6.0	1.2	46	56	12	8.9	<0.10	1.4
MAY 21...	9	15	3.6	7.9	1.2	43	52	14	9.1	0.10	0.3
AUG 07...	3	15	3.7	6.0	1.1	50	56	13	8.6	<0.10	1.1

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)
OCT 16...	87	83	<0.100	<0.010	<0.010	0.40	0.010	<0.010	<0.010	<10	<1
APR 23...	83	77	0.260	0.020	0.020	0.40	0.030	0.020	<0.010	10	<1
MAY 21...	82	77	0.140	0.020	0.020	0.40	0.010	0.010	<0.010	--	--
AUG 07...	83	76	<0.100	<0.010	<0.010	0.40	0.020	0.010	<0.010	<10	<1

K Results based on colony count outside the acceptable range (non-ideal colony count).



## STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 16...	12	1	<1	3	<3	2	7	<1	<4	2
APR 23...	12	<0.5	1	<1	<3	4	14	<1	<4	<1
MAY 21...	--	--	--	--	--	--	--	--	--	--
AUG 07...	11	<0.5	<1	<1	<3	2	7	<5	<4	6

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 16...	<0.1	<10	<1	<1	<1	84	<6	13
APR 23...	<0.1	<10	1	<1	1	77	<6	16
MAY 21...	--	--	--	--	--	--	--	--
AUG 07...	<0.1	<10	<1	<1	<1	73	<6	23

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SEDI- MENT, SUS- PEN- DED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	DATE	TIME	SEDI- MENT, SUS- PEN- DED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 16...	1100	1	75	MAY 21...	1000	1	38
APR 23...	1000	1	85	AUG 07...	1130	6	89

## LAKES AND RESERVOIRS IN STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04260990 CRANBERRY LAKE AT CRANBERRY LAKE, NY--Lat 44°13'14", long 74°50'55", St. Lawrence County, Hydrologic Unit 04150302, on right wall at outlet structure, at village of Cranberry Lake. DRAINAGE AREA, 140 mi<sup>2</sup>. PERIOD OF RECORD, April 1923 to current year. GAGE, nonrecording gage read daily at 1200 hours. Datum of gage is 1,469.75 ft above National Geodetic Vertical Datum of 1929.

Dam completed in 1867 and controlled storage for which records are available began in 1923. Usable capacity above elevation 1,475.25 ft is 2,530 mil ft<sup>3</sup>. Crest at spillway is at elevation, 1,486.43 ft. Length of spillway is 110 ft. Area of water surface at crest elevation is 10.9 mi<sup>2</sup>. Records provided by Oswegatchie River-Cranberry Reservoir Commission.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 2,985 mil ft<sup>3</sup> May 13-15, 1971, gage height, 18.5 ft; minimum observed, 70 mil ft<sup>3</sup> Apr. 1-4, 1956, gage height, 6.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 2,590 mil ft<sup>3</sup> May 24-25, gage height, 17.2 ft; minimum observed, 1,164 mil ft<sup>3</sup> Oct. 4-6, Mar. 3-8, gage height, 11.7 ft.

04266700 CARRY FALLS RESERVOIR NEAR SOUTH COLTON, NY--Lat 44°26'07", long 74°44'50", St. Lawrence County, Hydrologic Unit 04150305, near center of upstream wall of dam between Carry Falls and Stark Falls Reservoirs, 2.0 mi southeast of Stark, and 8.8 mi southeast of South Colton. DRAINAGE AREA, 872 mi<sup>2</sup>, revised. PERIOD OF RECORD, October 1954 to current year. GAGE, nonrecording gage read daily at 0800 hours. Datum of gage is National Geodetic Vertical Datum of 1929.

Dam completed January 1953 and controlled storage for which records are available began in October 1954. Usable capacity above elevation 1,332.0 ft is 5,114.9 mil ft<sup>3</sup>. Crest at spillway is at elevation 1,386.0 ft. Length of spillway is 830 ft. Area of water surface at crest elevation is 5.16 mi<sup>2</sup> (3,300 acres). The pond has a length of 6 mi and a perimeter of 25 mi. Below crest elevation, capacity controlled by a taintor gate, 27 ft x 15 ft, and 2 sluice gates, 10 ft x 10 ft. Records provided by Niagara Mohawk Power Corporation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 5,146 mil ft<sup>3</sup> June 1, 5, 6, 1955, elevation, 1,386.1 ft; minimum observed, 8.64 mil ft<sup>3</sup> Mar. 27-30, 1963, Apr. 4-11, 1964, elevation, 1,331.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 4,994 mil ft<sup>3</sup> Apr. 20, 22, 24, 26, May 8, 11, 26, June 14, elevation, 1,385.0 ft; minimum observed, 1,080 mil ft<sup>3</sup> Mar. 14-16, elevation, 1,350.0 ft.

04278000 LAKE GEORGE AT ROGERS ROCK, NY (see station for daily mean gage heights).

04294500 LAKE CHAMPLAIN AT BURLINGTON, VT (see station for daily mean gage heights).

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY (see station for daily mean elevations).

## MONTHEND GAGE HEIGHT, ELEVATION, AND CONTENTS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Gage height (feet)*	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)	Elevation (feet) *	Contents (million ft <sup>3</sup> )	Change in contents (equivalent in ft <sup>3</sup> /s)
04260990 Cranberry Lake				04266700 Carry Falls Reservoir		
Sept. 30	12.2	1,274		1,379.2	4,199.0	
Oct. 31	13.0	1,460	+ 69.5	1,383.0	4,717.4	+194
Nov. 30	15.4	2,074	+237	1,376.7	3,875.4	-325
Dec. 31	15.5	2,100	+ 9.71	1,362.6	2,256.8	-604
CAL YR 1985	-	-	- 19.3	-	-	- 69.7
Jan. 31	12.8	1,412	-257	1,361.1	2,101.2	- 58.1
Feb. 28	11.8	1,186	- 93.4	1,357.5	1,749.6	-145
Mar. 31	14.8	1,918	+273	1,368.1	2,836.5	+406
Apr. 30	16.5	2,380	+178	1,384.6	4,938.6	+811
May 31	16.8	2,470	+ 33.6	1,384.4	4,911.0	- 10.3
June 30	16.4	2,352	- 45.5	1,382.8	4,689.8	- 85.3
July 31	16.5	2,380	+ 10.5	1,384.0	4,855.7	+ 61.9
Aug. 31	16.2	2,296	- 31.4	1,375.6	3,732.5	-419
Sept. 30	15.3	2,048	- 95.7	1,375.9	3,771.4	+ 15.0
WTR YR 1986	-	-	+ 24.5	-	-	- 13.6

\* Gage heights or elevations at 2400 hours, by interpolation.

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are usually presented in two tables. The first is usually a table of discharge measurements at low-flow partial-record stations and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table. No discharge measurements were made at low-flow partial-record stations for the 1986 water year.

#### Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain, but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

#### Annual maximum discharge at crest-stage partial-record stations during water year 1986

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (ft <sup>3</sup> /s)
Housatonic River basin							
01199477	Stony Brook near Dover Plains, NY	Lat 41°42'38", long 73°37'18", Dutchess County, Hydrologic Unit 01100005, on town road, 100 ft upstream from mouth, and 2.9 mi southwest of Dover Plains.	1.93	1976-86	3-15-86	1.90	148
Mamaroneck River basin							
01300800	Mamaroneck River at Winfield Avenue at Mamaroneck, NY	Lat 40°58'07", long 73°44'15", Westchester County, Hydrologic Unit 02030102, at bridge on Winfield Avenue, 0.1 mi downstream from Mamaroneck Reservoir, and 1.6 mi upstream from gaging station at Mamaroneck (01301000).	14.5	1972, 1983-86	1-26-86	5.80	656
Hudson River basin							
01329154	Steele Brook at Shushan, NY	Lat 43°05'35", long 73°19'38", Washington County, Hydrologic Unit 02020003, at bridge on county road, 1.1 mi upstream from mouth, and 0.8 mi east of Shushan.	2.85	1979-86	3-19-86	4.88	95
01329780	Sessions Brook at Porters Corners, NY	Lat 43°09'21", long 73°52'45", Saratoga County, Hydrologic Unit 02020003, at culvert on County Highway 17, 0.7 mi northeast of Porters Corners, and 0.9 mi upstream from mouth.	1.04	1968-71, 1973, 1975-76, 1978-86	3-15-86	10.21	20
01329900	Glowegee Creek tributary at Mosherville, NY	Lat 43°03'24", long 74°00'58", Saratoga County, Hydrologic Unit 02020003, at culvert on Parkis Mill Road, 0.4 mi south of Mosherville.	1.42	1968-75, 1977, 1979-86	8- 8-86	13.08	134
01330880	Saratoga Lake tributary near Bemis Heights, NY	Lat 42°59'43", long 73°43'06", Saratoga County, Hydrologic Unit 02020003, at culvert on State Highway 423, 1.4 mi upstream from mouth, and 4.6 mi northwest of Bemis Heights.	2.98	1968, 1970-71, 1973, 1975-86	8- 7-86	19.94	448
01333367	Little Hoosic River at Cherry Plain, NY	Lat 42°37'57", long 73°21'23", Rensselaer County, Hydrologic Unit 02020003, at bridge on town road, just upstream from Kronk Brook, in Cherry Plain, 4.2 mi south of Berlin.	2.22	1976-86	3-15-86	2.21	96
01346820	Mohawk River tributary at Indian Castle, NY	Lat 43°00'34", long 74°47'47", Herkimer County, Hydrologic Unit 02020004, at culvert on State Highway 5S, 0.35 mi west of Indian Castle, and 0.4 mi upstream from mouth.	1.36	1974-86	3-19-86	2.68	98

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

215

Annual maximum discharge at crest-stage partial-record stations during water year 1986--Continued

					Annual maximum		
Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Date	Gage height (feet)	Dis-charge (ft <sup>3</sup> /s)
Hudson River basin--Continued							
01347460	Spruce Lake tributary near Salisbury Center, NY	Lat 43°10'51", long 74°48'44", Herkimer County, Hydrologic Unit 02020004, at culvert on town road (Jerseyfield Road), 1.3 mi upstream from mouth, and 2.9 mi north of Salisbury Center.	0.54	1975-86	6-20-86	3.78	49
01348420	North Creek near Ephratah, NY	Lat 43°00'28", long 74°33'54", Fulton County, Hydrologic Unit 02020004, at culvert on town road, 0.4 mi upstream from mouth, and 1.2 mi northwest of Ephratah.	6.52	1975-86	8-16-86	6.38	259
01349360	Van Wie Creek tributary near Randall, NY	Lat 42°54'11", long 74°25'55", Montgomery County, Hydrologic Unit 02020004, at culvert on Brumley Road, 0.3 mi south of intersection with Argisinger Road, and 0.9 mi southwest of Randall.	1.00	1974-86	3-15-86	3.68	62
01349850	Batavia Kill at Hensonville, NY	Lat 42°22'17", long 74°12'55", Greene County, Hydrologic Unit 02020005, on County Highway 40, at Hensonville, 0.7 mi upstream from Silver Lake Outlet, and 1.8 mi upstream from Nauvo Stream.	13.5	1955, 1960-66, 1972, 1974, 1976, 1978-86	3-14-86	2.83	420
01350900	Beaverdam Creek near Knox, NY	Lat 42°38'55", long 74°07'56", Albany County, Hydrologic Unit 02020005, 250 ft downstream from bridge, 1.2 mi south of Knox, and 1.7 mi upstream from mouth.	6.91	1963-86	3-27-63 3- 5-64 - -65 3-25-66 3-18-68 3-25-69 11- 8-69 4- 4-71 6-22-72 4- 4-73 7- 3-74 4- 3-75 2-22-76 3-30-77 4- 1-78 1- 2-79 3-22-80 2-21-81 6- 6-82 4-25-83 4- 5-84 3- 5-85 3-15-86	7.60 5.96 <5.00 5.17 5.13 5.24 5.46 4.76 5.51 6.27 R6.52 5.15 5.81 6.78 6.50 5.45 6.52 5.44 4.77 5.48 6.16 5.07 5.69	R1,400 R513 <190 R236 R225 R256 R326 R133 R343 R648 R770 230 R452 R905 R759 R323 R769 R319 R135 R333 R599 R208 407
01354300	Plotter Kill at Rynex Corners, NY	Lat 42°49'16", long 74°04'20", Schenectady County, Hydrologic Unit 02020004, at bridge on State Highway 159, in hamlet of Rynex Corners.	3.70	1958, 1960-68, 1970-74, 1976-86	3-15-86	5.42	291
01361245	Tributary to Taghkanic Creek tributary near Craryville, NY	Lat 42°09'54", long 73°34'15", Columbia County, Hydrologic Unit 02020006, at culvert on County Highway 7, 300 ft upstream from mouth, 0.1 mi northwest of intersection of Routes 7 and 7A, 1.1 mi upstream from Taghkanic Creek, and 1.4 mi southeast of Craryville.	.39	1982-86	3-19-86	2.39	39
01361453	Catskill Creek tributary at Franklinton, NY	Lat 42°31'35", long 74°18'33", Schoharie County, Hydrologic Unit 02020006, at culvert on town road, 0.15 mi upstream from mouth, and 0.5 mi northwest of Franklinton.	3.61	1968-72, 1974-86	3-15-86	6.73	283
01361900	Shingle Kill at Cairo, NY	Lat 42°18'22", long 74°00'13", Greene County, Hydrologic Unit 02020006, at bridge on town road at Cairo, southeast of State Highway 32, about 400 ft south of State Highway 23, and 0.8 mi upstream from mouth.	13.9	1953, 1960, 1965-74, 1976-86	3-14-86	4.59	560

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## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1986--Continued

					Annual maximum		
Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Date	Gage height (feet)	Dis-charge (ft <sup>3</sup> /s)
Hudson River basin--Continued							
01362100	Roeliff Jansen Kill near Hillsdale, NY	Lat 42°09'14", long 73°31'14", Columbia County, Hydrologic Unit 02020006, at bridge on county highway off State Highway 22, 1.8 mi south of Hillsdale.	27.5	1958-60*, 1963-64, 1968-86	3-15-86	4.79	921
01362197	Bushnellsville Creek at Shandaken, NY	Lat 42°07'25", long 74°24'02", Ulster County, Hydrologic Unit 02020006, along State Highway 42, 0.4 mi upstream from Esopus Creek, and 0.6 mi northwest of Shandaken.	11.4	1951, 1956, 1972, 1976-86	3-15-86	8.60	412
01363388	Dry Brook at West Shokan, NY	Lat 41°58'22", long 74°17'50", Ulster County, Hydrologic Unit 02020006, at bridge on town road, 0.6 mi northwest of West Shokan, and 1.2 mi upstream from mouth.	1.67	1976, 1978-86	3-15-86	1.80	-
01374130	Canopus Creek at Oscawana Corners, NY	Lat 41°22'43", long 73°52'23", Putnam County, Hydrologic Unit 02030101, at bridge on Hortun Hollow Road, 0.4 mi downstream from West Branch, and 0.8 mi west of Oscawana Corners.	8.30	1975-86	3-15-86	2.94	124
01374250	Peekskill Hollow Creek at Tompkins Corners, NY	Lat 41°23'18", long 73°48'47", Putnam County, Hydrologic Unit 02030101, at bridge on Bryant Pond Road, 0.9 mi southwest of Tompkins Corners, and 1.1 mi downstream from Wiccopee Brook.	14.9	1975-86	3-15-86	2.39	186
01376420	Saw Mill River at Elmsford, NY	Lat 41°03'19", long 73°49'16", Westchester County, Hydrologic Unit 02030101, at bridge on State Highway 119, 0.6 mi upstream from Rum Brook, and 0.8 mi downstream from Mine Brook at Elmsford.	15.4	1979-86	8- 7-86	9.58	595
Passaic River basin							
01387410	Torne Brook at Ramapo, NY	Lat 41°08'34", long 74°09'44", Rockland County, Hydrologic Unit 02030103, 0.2 mi upstream from mouth, and 0.5 mi east of Ramapo.	2.60	1960, 1962-86	8- 3-86	6.84	758
Delaware River basin							
01417185	Campbell Brook tributary near Downsville, NY	Lat 42°02'41", long 74°58'37", Delaware County, Hydrologic Unit 02040102, at culvert on Campbell Brook Road, 200 ft upstream from mouth, 2.0 mi southwest of Downsville Dam, and 2.7 mi southeast of Downsville.	.41	1975-86	3-15-86	3.02	39
01434010	East Branch Neversink River at Denning, NY	Lat 41°57'30", long 74°46'16", Ulster County, Hydrologic Unit 02040104, on downstream side of bridge on private road at Strauss Estate, 0.9 mi upstream from Erts Brook, 0.4 mi downstream from Riley Brook, and 1.0 mi northeast of Denning.	13.3	1984-86	3-15-86	-	e1,800
Streams tributary to Lake Ontario							
042490673	North Branch Grindstone Creek near Altmar, NY	Lat 43°29'31", long 76°05'41", Oswego County, Hydrologic Unit 04140102, at culvert on Hong Kong Road, 4.1 mi upstream from confluence with South Branch Grindstone Creek, and 4.1 mi southwest of Altmar.	11.2	1976-86	3-31-86	11.94	385

\* Operated as a continuous-record gaging station.

e Estimated.

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

217

Annual maximum discharge at crest-stage partial-record stations during water year 1986--Continued

					Annual maximum		
Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Date	Gage height (feet)	Dis- charge (ft <sup>3</sup> /s)
Streams tributary to Lake Ontario--Continued							
04256040	Mill Creek tributary near Lowville, NY	Lat 43°45'43", long 75°31'13", Lewis County, Hydrologic Unit 04150101, at culvert on West Road, 2.0 mi southwest of Lowville, and 2.2 mi upstream from mouth.	1.66	1976-86	3-30-86	10.65	113
04258700	Deer River at Deer River, NY	Lat 43°55'49", long 75°35'27", Lewis County, Hydrologic Unit 04150101, on left bank, 350 ft upstream from bridge on State Highway 26 at Deer River, and 2 mi upstream from mouth.	94.8	1957-68*, 1969, 1971-74, 1977-86	3-30-86	5.31	5,510
04260575	Horse Creek tributary near Dexter, NY	Lat 44°04'47", long 76°03'28", Jefferson County, Hydrologic Unit 04150102, at bridge on Weaver Road, 0.3 mi upstream from mouth, 1.0 mi southwest of Reynolds Corners, and 5.1 mi north of Dexter.	4.59	1976-86	1-20-86 3-19-86	b11.85 11.12	- 215
Streams tributary to St. Lawrence River							
04263445	Birch Creek at Pierces Corners, NY	Lat 44°25'42", long 75°32'15", St. Lawrence County, Hydrologic Unit 04150303, at culvert on Old State Road at Pierces Corners, 4.4 mi southeast of Pope Mills, and 11.1 mi upstream from mouth.	1.56	1976-86	3-19-86	4.10	75
04264300	Brandy Brook near Waddington, NY	Lat 44°49'42", long 75°09'32", St. Lawrence County, Hydrologic Unit 04150301, at bridge on Halfway House Road, 3.2 mi southeast of Waddington, and 4.4 mi upstream from mouth.	27.0	1959-63*, 1964-86	11-15-85 3-20-86	5.92 b7.36	199 -
04265100	Elm Creek near Hermon, NY	Lat 44°26'15", long 75°12'49", St. Lawrence County, Hydrologic Unit 04150304, on left bank, 100 ft downstream from highway bridge, 2.3 mi south of Hermon, and 6.8 mi upstream from confluence with Tanner Creek.	32.6	1959-68*, 1969-86	3-30-86	6.07	408
04267800	Trout Brook at Allen Corners, NY	Lat 44°47'34", long 75°02'01", St. Lawrence County, Hydrologic Unit 04150305, at abandoned bridge off State Highway 56A, at Allen Corners, and 2 mi southwest of Norfolk.	54.2	1959-63*, 1964-65, 1967-74, 1976-86	3-20-86 3-31-86	b11.11 8.10	- 910
04268200	Plum Brook near Grantville, NY	Lat 44°52'46", long 74°54'54", St. Lawrence County, Hydrologic Unit 04150305, at bridge on Grant Road, 0.7 mi downstream from unnamed tributary, 1.1 mi upstream from mouth, 1.4 mi north of Grantville, and 2.3 mi southwest of Massena city limits.	43.9	1959-63*, 1964-68, 1971-86	3-20-86 5-22-86	b5.72 5.16	- 602
04268720	Hopkinton Brook at Hopkinton, NY	Lat 44°40'59", long 74°41'58", St. Lawrence County, Hydrologic Unit 04150306, at bridge on town road, 0.4 mi upstream from unnamed tributary, 0.6 mi south of Hopkinton, and 2.0 mi upstream from mouth.	20.0	1961-69, 1971-86	3-20-86	3.85	750
04268800	West Branch St. Regis River near Parishville, NY	Lat 44°35'55", long 74°44'15", St. Lawrence County, Hydrologic Unit 04150306, at highway bridge, 4.1 mi downstream from Mud Pond Outlet, 4.2 mi southeast of Parishville, and 4.8 mi upstream from Niagara Mohawk Power Corp. dam.	171	1959-68*, 1969-86	3-31-86	4.77	2,600

\* Operated as a continuous-record gaging station.

b Ice jam.

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1986--Continued

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis- charge (ft <sup>3</sup> /s)
Streams tributary to St. Lawrence River--Continued							
04269050	Allen Brook near Brasher Falls, NY	Lat 44°48'07", long 74°43'41", St. Lawrence County, Hydrologic Unit 04150306, at bridge on U.S. Highway 11, 0.8 mi upstream from mouth, and 2.2 mi east of Brasher Falls.	16.0	1961-66*, 1967-74, 1976-86	8- 8-86	4.91	949
04269100	Lawrence Brook near Moira, NY	Lat 44°50'20", long 74°35'46", Franklin County, Hydrologic Unit 04150306, at highway bridge, 2.4 mi northwest of Moira, and 5.4 mi upstream from mouth.	25.7	1959-60*, 1961-86	7-16-85 8- 8-86	6.48 6.73	Re1,450 e1,940
04270100	West Branch Deer Creek at Fort Covington Center, NY	Lat 44°56'49", long 74°28'51", Franklin County, Hydrologic Unit 04150307, at highway bridge, 0.8 mi west of Fort Covington Center, 2.1 mi upstream from East Branch, and 3.1 mi south of Fort Covington.	32.4	1962-74, 1976-86	3-20-86	6.68	1,170
04270150	East Branch Deer Creek at Fort Covington Center, NY	Lat 44°56'53", long 74°27'50", Franklin County, Hydrologic Unit 04150307, at highway bridge, at Fort Covington Center, 1.9 mi upstream from West Branch, and 3.2 mi south of Fort Covington.	23.9	1962*, 1963-74, 1976-86	3-20-86	6.25	1,030
04270162	East Branch Little Salmon River near Skerry, NY	Lat 44°47'13", long 74°22'12", Franklin County, Hydrologic Unit 04150307, at culvert on Adams Road, 100 ft downstream from Limekiln Brook, 1.1 mi northeast of Skerry, and 5.7 mi upstream from mouth.	7.11	1978-86	3-20-86	3.51	102
04270700	Trout River at Trout River, NY	Lat 44°59'23", long 74°17'56", Franklin County, Hydrologic Unit 04150307, at bridge on county highway, 0.2 mi east of State Highway 30, at Trout River, 0.5 mi upstream from international boundary, 1.5 mi downstream from unnamed tributary, and 3.3 mi downstream from Little Trout River.	107	1960-66*, 1967-86	3-20-86	6.57	3,300
04273700	Salmon River at South Plattsburgh, NY	Lat 44°38'24", long 73°29'43", Clinton County, Hydrologic Unit 02010004, on left bank, at bridge on Salmon River Road, at South Plattsburgh, 0.4 mi west of State Highway 22, and 3.9 mi upstream from mouth.	61.9	1960-68*, 1969-86	3-19-86 3-19-86	3.74 b5.95	796 -
04274000	West Branch Ausable River near Lake Placid, NY	Lat 44°18'40", long 73°55'00", Essex County, Hydrologic Unit 02010004, on right bank, 4 mi northeast of Lake Placid, 4 mi downstream from Lake Placid outlet, and 150 ft upstream from Monument Falls.	116	1917, 1920-27, 1928-68*, 1983-86	3-31-86	6.76	2,370

\* Operated as a continuous-record gaging station.

R Revised.

e Estimated.

b Ice jam.

Discharge measurements made at miscellaneous sites during water year 1986

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
Hudson River basin						
01330888 Sucker Brook	Fish Creek	Lat 43°05'03", long 73°40'07", Saratoga County, Hydrologic Unit 02020003, at culvert on Burgoyne Road, 0.5 mi southwest of Quaker Springs.	5.35		8- 7-86	p1,500
01330975 Kroma Kill	Hudson River	Lat 43°01'49", long 73°38'35", Saratoga County, Hydrologic Unit 02020003, at culvert on State Highway 32, 0.7 mi south of Quaker Springs.	2.63		8- 7-86	p1,640
01331098 Schuyler Creek	Hudson River	Lat 42°56'58", long 73°40'46", Saratoga County, Hydrologic Unit 02020003, at culvert on Flicke Road, 1.5 mi northeast of Stillwater.	5.90		8- 7-86	p915
01335200 Tomhannock Reservoir	Hoosic River	Lat 42°52'03", long 73°35'09", Rensselaer County, Hydrologic Unit 02020003, at dam at mouth of lake, 2.1 mi west of Tomhannock.		1985	3-18-86	690
01342743 Fulmer Creek	Mohawk River	Lat 42°58'55", long 74°59'12", Herkimer County, Hydrologic Unit 02040004, at bridge on State Highway 168, 1.0 mi downstream from Flat Creek, and 2.4 mi southeast of Mohawk.	21.6		8-15-86	p1,540
01354270 Moccasin Kill	Mohawk River	Lat 42°51'00", long 74°01'48", Schenectady County, Hydrologic Unit 02020004, 0.15 mi upstream from New York State Thruway, and 1.5 mi southeast of Rotterdam Junction.	1.35		8- 2-86	p2,300
01354450 Poentic Kill	Mohawk River	Lat 42°48'22", long 74°01'17", Schenectady County, Hydrologic Unit 02020004, at culvert on Putnam Road, 1.0 mi southwest of West Hill, and about 2.0 mi west of Schenectady.	2.80		7-29-86	p1,560
01359185 Bonny Brook	Normans Kill	Lat 42°46'43", long 74°04'09", Schenectady County, Hydrologic Unit 02020006, at culvert on State Highway 7 at Kelleys, and about 7.0 mi west of Schenectady.	3.47		7-29-86	p4,130
0135932050 Bozen Kill Tributary	Bozen Kill	Lat 42°42'24", long 74°01'26", Albany County, Hydrologic Unit 02020006, at culvert on town road, 0.2 mi upstream from sewage treatment plant, and 0.5 mi northeast of Altamont.	1.17		8- 1-86	p767
0135932100 Bozen Kill Tributary	Bozen Kill	Lat 42°42'19", long 74°01'02", Albany County, Hydrologic Unit 02020006, at culvert on State Highway 146, 0.9 mi northeast of Altamont.	1.79		8- 1-86	p570
01362342 Hollow Tree Brook	Stoney Clove Creek	Lat 42°08'32", long 74°15'55", Greene County, Hydrologic Unit 02020006, at bridge on Diamond Notch Road, 0.9 mi north of Lanesville, and approximately 4.8 mi northeast of Phoenecia.	1.95	1985	1-21-86 3-14-86 3-15-86 4- 8-86 5-20-86	10.7 *6.97 54.8 10.5 *2.65
01364959 Rondout Creek	Wallkill River	Lat 41°56'13", long 74°22'30", Ulster County, Hydrologic Unit 02020007, 500 ft upstream from mouth of Red Brook, 0.8 mi upstream from outlet of Peekamoose Lake, and 0.8 mi north of Peekamoose.	5.36	1984-85	12- 3-85 1-21-86 2-27-86 3-14-86 5-14-86	35.2 18.8 *14.7 47.3 *7.67
Delaware River basin						
01417820 Beaver Kill	East Branch Delaware River	Lat 42°00'40", long 74°36'15", Ulster County, Hydrologic Unit 02040102, 900 ft upstream from Black Brook, and 5.5 mi southeast of Turnwood.	8.08	1984-85	11- 4-85 12- 3-85 2-18-86 3-14-86 5- 2-86 5-14-86	*12.5 47.8 *9.74 137 22.8 *13.5

p Peak discharge.

\* Base flow.



## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1986--Continued

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Date	Measurements Discharge (ft <sup>3</sup> /s)
Delaware River basin--Continued						
01421200 Cadosia Creek	East Branch Delaware River	Lat 41°58'03", long 75°15'51", Delaware County, Hydrologic Unit 02040102, at bridge on State Highway 236, 0.3 mi upstream from mouth, at Cadosia.	17.9	1949-50, 1955, 1957-71, 1973-85	10- 3-85 5-20-86 6- 4-86 7- 9-86 9- 9-86	27.1 42.9 16.1 *5.58 *2.43
01426000 Oquaga Creek	West Branch Delaware River	Lat 42°03'31", long 75°25'42", Broome County, Hydrologic Unit 02040101, on left bank, 150 ft downstream from Bone Creek, 400 ft upstream from Mill Street Bridge in Deposit, and 0.3 mi upstream from mouth.	67.6	1941-73*, 1975-76, 1979-85	10-16-85 5-20-86 6- 4-86 7- 9-86 9- 9-86	36.1 113 45.4 14.4 15.2
01427500 Callicoon Creek	Delaware River	Lat 41°45'39", long 75°02'55", Sullivan County, Hydrologic Unit 02040101, on right bank, 0.7 mi southeast of Callicoon, 0.9 mi upstream from mouth, and 1.0 mi west of Hortonville.	110	1941-82*, 1983-85	10-16-85 5-16-86 6-18-86 9- 5-86	144 *53.3 168 *24.8
01428000 Tenmile River	Delaware River	Lat 41°33'51", long 75°00'56", Sullivan County, Hydrologic Unit 02040101, on left bank 0.5 mi downstream from East Branch Tenmile River, 0.8 mi upstream from mouth, and 0.6 mi northeast of Tusten.	45.6	1946-73*, 1978-85	10-16-85 5-15-86 6-18-86 7- 9-86 9- 5-86 9-25-86	62.5 *28.7 96.0 16.4 *11.0 *8.70
0143400690 East Branch Neversink River	Neversink River	Lat 41°57'51", long 74°27'02", Ulster County, Hydrologic Unit 02040104, 500 ft upstream from Tray Mill Brook, and 2.2 mi northeast of Denning.	9.15	1984-85	10-10-85 12- 4-85 1-21-86 2-27-86 5- 1-86 5-16-86	*26.4 45.7 39.2 *19.8 39.8 *16.6
0143402705 Pigeon Brook	Biscuit Brook	Lat 41°59'13", long 74°30'11", Ulster County, Hydrologic Unit 02040104, 0.4 mi north of West Branch Road, at bridge, 250 ft upstream from mouth, at Frost Valley.	2.67	1983-85	1-21-86 4- 8-86	*10.5 *8.60
0143410505 High Falls Brook	West Branch Neversink River	Lat 41°58'33", long 74°31'19", Ulster County, Hydrologic Unit 02040104, at bridge on West Branch Road, 0.1 mi upstream from mouth, and 1.0 mi southwest of Frost Valley.	2.76	1983-85	12- 4-85 1-21-86 2-28-86 4- 8-86 3-15-86 5-15-86	16.3 *8.24 *4.80 10.8 91.3 *5.23
01438000 Neversink River	Delaware River	Lat 41°21'40", long 74°41'07", Orange County, Hydrologic Unit 02040104, at Tristates Bridge on East Main Street (U.S. Highway 6), in Port Jervis, 450 ft upstream from Clove Brook, and 0.6 mi upstream from mouth.	336	1902-03, 1943, 1945, 1960-62, 1965-85	10- 4-85 12-23-85 5-14-86 8-14-86 8-26-86 9- 8-86 9-16-86 9-30-86	618 431 282 252 196 168 137 164
Stream tributary to Lake Ontario						
04250740 Sandy Creek	Lake Ontario	Lat 43°48'25", long 76°01'19", Jefferson County, Hydrologic Unit 04140102, at dam at Adams, 0.3 mi upstream from U.S. Highway 11.	110		12-30-84	p6,530
04255001 Otter Creek	Lake Ontario	Lat 43°43'02", long 75°22'01", Lewis County, Hydrologic Unit 04150101, at bridge on Glenfield- Donnattsburg Road, at Otter Creek, 1.8 mi north of Glenfield.	64.9	1957-61, 1967	12-30-84	p3,820
04258022 Black River	Lake Ontario	Lat 43°53'38", long 75°30'18", Lewis County, Hydrologic Unit 04150101, at bridge on State Highway 410, at Castorland.	1,612	1984-85	11-13-85 3-25-86 4- 1-86 7- 3-86 8-27-86	8,540 8,650 17,900 2,380 2,830

\* Base flow.

# Operated as a continuous-record gaging station.

p Peak discharge.

Water-quality partial-record stations are particular sites where chemical-quality, biological and/or sediment data are collected systematically over a period of years for use in hydrologic analyses. These data are collected usually less than quarterly. Samples collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin are referred to as miscellaneous sites.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
HUDSON RIVER BASIN										
01349542 - ROARING KILL NEAR TANNERSVILLE, NY (LAT 42 09 05N LONG 074 07 57W)										
DEC 1985										
03...	1230	--	30	6.40	11	9	3.4	0.56	1.0	0.20
MAR 1986										
14...	0945	--	32	6.40	10	9	3.2	0.60	0.70	0.20
MAY										
20...	1200	--	--	--	11	--	3.5	0.55	0.80	0.21
22...	0800	--	--	--	10	--	2.9	0.56	0.60	0.24
01349655 - HALSEY BROOK AT EAST JEWETT, NY (LAT 42 14 05N LONG 074 08 12W)										
DEC 1985										
03...	1000	--	30	6.55	10	8	3.2	0.51	1.0	0.20
MAR 1986										
14...	0915	--	30	6.46	10	8	3.1	0.64	0.80	0.20
MAY										
20...	1300	--	--	--	11	--	3.2	0.64	0.90	--
01349749 - WEST KILL BELOW HUNTER BROOK NEAR SPRUCETON, NY (LAT 42 11 06N LONG 074 16 38W)										
DEC 1985										
03...	1300	--	32	6.64	13	10	4.0	0.64	1.0	0.20
MAR 1986										
14...	1200	--	32	6.79	11	9	3.4	0.70	0.50	0.20
MAY										
20...	1515	--	--	--	14	--	4.2	0.84	0.70	--
01349759 - WEST KILL NEAR SPRUCETON, NY (LAT 42 11 52N LONG 074 20 30W)										
DEC 1985										
03...	1320	--	33	6.77	13	9	4.0	0.77	1.0	0.30
MAR 1986										
14...	1215	--	33	6.71	12	8	3.7	0.74	0.80	0.30
MAY										
20...	1500	--	--	--	15	--	4.5	0.80	0.90	--
22...	1540	--	--	--	12	--	3.6	0.70	0.60	--
01349828 - LITTLE WEST KILL NEAR PRATTSVILLE, NY (LAT 42 16 48N LONG 074 26 41W)										
DEC 1985										
03...	1400	--	33	6.77	13	8	4.2	0.71	1.1	0.40
MAR 1986										
14...	1130	--	--	--	--	--	--	0.70	1.4	0.50
MAY										
20...	1615	--	--	--	16	--	4.9	0.92	1.6	--
01349845 - BATAVIA KILL NEAR HENSONVILLE, NY (LAT 42 17 28N LONG 074 09 42W)										
DEC 1985										
03...	0920	--	30	6.60	11	8	3.2	0.66	1.0	0.20
MAR 1986										
14...	0850	--	31	6.62	10	7	2.9	0.63	1.1	0.20
MAY										
20...	1330	--	--	--	12	--	3.5	0.71	1.2	0.23
22...	0730	--	--	--	11	--	3.1	0.69	1.0	--
01349897 - BATAVIA KILL TRIBUTARY (N SETTLEMENT C) NR ASHLAND, NY (LAT 42 17 57N LONG 074 17 49W)										
DEC 1985										
03...	1500	--	48	6.80	16	11	4.3	1.3	2.3	0.60
MAR 1986										
14...	1040	--	50	6.76	14	9	3.6	1.1	2.7	0.80
MAY										
20...	1400	--	--	--	17	--	4.8	1.3	3.0	--
01350000 - SCHOHARIE C AT PRATTSVILLE, NY (LAT 42 19 15N LONG 074 26 10W)										
DEC 1985										
03...	1420	1490	52	7.00	16	10	5.0	0.91	3.0	0.40
MAR 1986										
14...	1100	2120	65	6.99	18	11	5.4	1.1	4.4	0.60
MAY										
20...	1645	241	71	7.56	22	9	6.7	1.3	4.2	--

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
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## HUDSON RIVER BASIN--Continued

## 01349542 - ROARING KILL NEAR TANNERSVILLE, NY (LAT 42 09 05N LONG 074 07 57W)

DEC 1985										
03...	2	--	--	2.2	--	--	--	14	4	--
MAR 1986										
14...	1	--	--	1.8	--	--	50	<3	5	--
MAY										
20...	--	--	--	2.4	--	--	--	48	1	--
22...	--	--	--	2.0	--	--	--	19	9	--

## 01349655 - HALSEY BROOK AT EAST JEWETT, NY (LAT 42 14 05N LONG 074 08 12W)

DEC 1985										
03...	2	--	--	3.0	--	--	--	6	3	--
MAR 1986										
14...	2	--	--	2.5	--	--	40	12	2	--
MAY										
20...	--	--	--	--	--	--	--	4	<1	--

## 01349749 - WEST KILL BELOW HUNTER BROOK, NEAR SPRUCETON, NY (LAT 42 11 06N LONG 074 16 38W)

DEC 1985										
03...	3	--	--	3.0	--	--	--	4	1	--
MAR 1986										
14...	3	--	--	2.1	--	--	20	<3	<1	--
MAY										
20...	--	--	--	--	--	--	--	5	1	--

## 01349759 - WEST KILL NEAR SPRUCETON, NY (LAT 42 11 52N LONG 074 20 30W)

DEC 1985										
03...	4	--	--	3.0	--	--	--	9	2	--
MAR 1986										
14...	4	--	--	2.4	--	--	30	46	3	--
MAY										
20...	--	--	--	--	--	--	20	14	<1	--
22...	--	--	--	--	--	--	50	18	2	--

## 01349828 - LITTLE WEST KILL NEAR PRATTSVILLE, NY (LAT 42 16 48N LONG 074 26 41W)

DEC 1985										
03...	5	--	--	4.0	--	--	--	14	2	--
MAR 1986										
14...	--	--	--	3.3	--	--	20	<3	<1	--
MAY										
20...	--	--	--	--	--	--	--	28	6	--

## 01349845 - BATAVIA KILL NEAR HENSONVILLE, NY (LAT 42 17 28N LONG 074 09 42W)

DEC 1985										
03...	3	--	--	3.4	--	--	--	21	3	--
MAR 1986										
14...	2	--	--	2.9	--	--	30	11	2	--
MAY										
20...	--	--	--	3.2	--	--	--	65	2	--
22...	--	--	--	--	--	--	--	20	4	--

## 01349897 - BATAVIA KILL TRIBUTARY (N SETTLEMENT C) NR ASHLAND, NY (LAT 42 17 57N LONG 074 17 49W)

DEC 1985										
03...	5	--	--	5.0	--	--	--	33	5	--
MAR 1986										
14...	4	--	--	3.2	--	--	40	35	4	--
MAY										
20...	--	--	--	--	--	--	--	17	2	--

## 01350000 - SCHOHARIE C AT PRATTSVILLE, NY (LAT 42 19 15N LONG 074 26 10W)

DEC 1985										
03...	6	8.0	4.3	3.3	30	0.294	--	35	7	--
MAR 1986										
14...	7	7.5	8.5	3.1	37	0.369	30	33	5	--
MAY										
20...	13	7.9	4.8	--	--	0.00	--	19	7	--

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO <sub>3</sub> )	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO <sub>3</sub>	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
HUDSON RIVER BASIN--Continued										
01362193 - ESOPUS CREEK TRIBUTARY AT OLIVERA, NY (LAT 42 03 55N LONG 074 27 47W)										
DEC 1985										
04...	1030	--	--	--	12	8	3.5	0.80	0.40	0.20
MAR 1986										
14...	1500	--	36	6.74	13	9	3.7	0.85	0.60	0.30
MAY										
19...	1230	--	36	7.00	13	8	3.8	0.93	0.60	--
0136219518 - BIRCH CREEK NEAR PINE HILL, NY (LAT 42 09 14N LONG 074 27 30W)										
DEC 1985										
03...	1200	--	33	6.36	12	8	3.3	0.85	1.0	0.30
MAR 1986										
14...	1115	--	36	6.83	12	9	3.3	0.90	1.2	0.30
MAY										
19...	1200	--	39	7.02	13	7	3.8	0.97	1.1	0.32
22...	1440	--	33	6.87	12	8	3.3	0.81	0.90	--
01362210 - ESOPUS CREEK TRIB #2 NR SHANDAKEN, NY (LAT 42 07 53N LONG 074 22 29W)										
DEC 1985										
03...	1140	--	34	6.87	13	9	4.0	0.77	1.0	0.30
MAR 1986										
14...	1430	--	34	6.87	13	8	3.7	0.80	0.60	0.30
14...	1435	--	34	6.87	13	8	3.7	0.80	0.60	0.30
MAY										
19...	1030	--	41	7.25	16	7	4.6	1.0	0.90	0.32
01362284 - WOODLAND CREEK NEAR WOODLAND, NY (LAT 42 02 06N LONG 074 22 02W)										
NOV 1985										
27...	1000	--	26	6.30	9	--	2.3	0.84	0.40	0.30
MAR 1986										
14...	1400	--	26	6.10	8	7	2.0	0.78	0.40	0.30
MAY										
19...	0945	--	26	6.45	10	8	2.5	0.86	0.50	--
01362471 - BEAVER KILL NEAR LAKE HILL, NY (LAT 42 04 10N LONG 074 11 44W)										
NOV 1985										
27...	0830	--	39	6.90	14	9	4.3	0.73	1.1	0.20
MAR 1986										
14...	1320	--	41	6.76	14	10	4.2	0.81	1.4	0.30
MAY										
19...	0845	--	50	7.17	16	7	5.1	0.81	1.6	0.26
01362500 - ESOPUS CREEK AT COLDBROOK, NY (LAT 42 00 51N LONG 074 16 16W)										
NOV 1985										
27...	0845 1450	--	--	--	21	--	6.3	1.2	3.5	0.50
MAR 1986										
14...	0830 1310	--	72	7.05	21	12	6.1	1.3	4.8	0.60
MAY										
19...	0915 632	--	64	7.27	20	9	6.0	1.2	3.4	0.52
0136336710 - BUSH KILL NEAR WEST SHOKAN, NY (LAT 41 56 08N LONG 074 19 39W)										
NOV 1985										
05...	1800	--	44	7.10	18	9	5.0	1.4	2.1	0.30
MAR 1986										
14...	1100	--	38	6.89	12	8	3.0	1.1	1.5	0.20
01364969 - BEAR HOLE BROOK NEAR SUNDOWN, NY (LAT 41 54 56N LONG 074 26 02W)										
NOV 1985										
05...	1635	--	25	6.41	11	10	3.0	0.89	1.0	0.40
MAR 1986										
14...	1440	--	28	6.04	10	9	2.4	0.91	0.50	0.30
MAY										
20...	1210	--	30	6.51	10	9	2.5	0.90	0.60	--
22...	1000	--	26	6.14	8	8	2.1	0.79	0.50	--



## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ALKALINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLORIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITROGEN, NITRATE DIS- SOLVED (MG/L AS N)	ALUMINUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGANESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
HUDSON RIVER BASIN--Continued										
01362193 - ESOPUS CREEK TRIBUTARY AT OLIVERA, NY (LAT 42 03 55N LONG 074 27 47W)										
DEC 1985 04...	4	--	--	1.8	--	--	--	<3	<1	--
MAR 1986 14...	3	--	--	2.1	--	--	20	48	2	--
MAY 19...	5	--	--	--	--	--	--	19	1	--
0136219518 - BIRCH CREEK NEAR PINE HILL, NY (LAT 42 09 14N LONG 074 27 30W)										
DEC 1985 03...	4	--	--	3.0	--	--	--	13	1	--
MAR 1986 14...	3	--	--	2.5	--	--	20	<3	<1	--
MAY 19...	6	--	--	3.1	--	--	--	5	1	--
22...	4	--	--	--	--	--	--	16	2	--
01362210 - ESOPUS CREEK TRIB #2 NR SHANDAKEN, NY (LAT 42 07 53N LONG 074 22 29W)										
DEC 1985 03...	4	--	--	3.0	--	--	--	6	1	--
MAR 1986 14...	4	--	--	2.2	--	--	20	<3	<1	--
14...	4	--	--	2.2	--	--	20	<3	<1	--
MAY 19...	8	--	--	3.1	--	--	--	12	<1	--
01362284 - WOODLAND CREEK NEAR WOODLAND, NY (LAT 42 02 06N LONG 074 22 02W)										
NOV 1985 27...	--	--	--	2.2	--	--	20	13	3	--
MAR 1986 14...	1	--	--	1.5	--	--	30	25	10	--
MAY 19...	2	--	--	--	--	--	--	64	2	--
01362471 - BEAVER KILL NEAR LAKE HILL, NY (LAT 42 04 10N LONG 074 11 44W)										
NOV 1985 27...	5	--	--	3.3	--	--	--	13	6	--
MAR 1986 14...	4	--	--	2.7	--	--	20	550	21	--
MAY 19...	9	--	--	3.0	--	--	--	8	1	--
01362500 - ESOPUS CREEK AT COLDBROOK, NY (LAT 42 00 51N LONG 074 16 16W)										
NOV 1985 27...	--	--	--	3.4	--	--	--	26	11	--
MAR 1986 14...	9	7.4	8.8	2.8	39	0.435	20	14	10	--
MAY 19...	11	7.4	4.3	2.6	33	0.239	--	28	9	--
0136336710 - BUSH KILL NEAR WEST SHOKAN, NY (LAT 41 56 08N LONG 074 19 39W)										
NOV 1985 05...	9	--	--	4.0	--	--	20	10	<1	--
MAR 1986 14...	4	--	--	3.2	--	--	20	39	4	--
01364969 - BEAR HOLE BROOK NEAR SUNDOWN, NY (LAT 41 54 56N LONG 074 26 02W)										
NOV 1985 05...	1	--	--	3.0	--	--	40	<6	<2	--
MAR 1986 14...	1	--	--	2.1	--	--	50	16	4	--
MAY 20...	1	--	--	--	--	--	--	8	2	--
22...	0	--	--	--	--	--	--	15	7	--

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARR WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
HUDSON RIVER BASIN--Continued										
01364970 - RONDOUT CREEK NEAR SUNDOWN, NY (LAT 41 54 28N LONG 074 26 10W)										
NOV 1985										
05...	1630	--	24	6.25	9	8	2.5	0.68	1.0	0.50
MAR 1986										
14...	1445	--	32	5.92	9	9	2.4	0.83	1.0	0.40
MAY										
20...	1200	--	32	6.52	10	9	2.7	0.83	0.90	0.41
22...	1015	--	26	5.72	8	8	2.0	0.73	0.60	0.42
01364979 - SUNDOWN CREEK TRIBUTARY AT SUNDOWN, NY (LAT 41 53 10N LONG 074 26 05W)										
NOV 1985										
05...	--	--	25	6.00	--	--	--	--	--	--
05...	1605	--	25	6.04	10	10	3.0	0.69	1.0	0.50
MAR 1986										
14...	--	--	35	6.03	10	10	2.6	0.80	1.8	0.50
MAY										
20...	1140	--	33	6.31	10	9	2.8	0.80	1.4	--
01365000 - RONDOUT CREEK NEAR LOWES CORNERS, NY (LAT 41 52 00N LONG 074 29 12W)										
NOV 1985										
05...	1545	119	30	6.57	11	9	3.0	0.91	1.2	0.50
MAR 1986										
14...	1525	202	39	6.28	--	--	--	0.90	1.9	0.50
MAY										
20...	1120	38	42	6.78	13	10	3.5	1.0	2.0	
21...	1546	202	36	6.47	11	8	2.8	0.87	1.4	0.50
DELAWARE RIVER BASIN										
01413085 - E BR DELAWARE TRIBUTARY (MONTGOMERY HOLL) NR ROXBURY, NY (LAT 42 17 59N LONG 074 33 00W)										
DEC 1985										
03...	1400	--	47	6.92	16	10	5.2	0.76	2.0	0.40
MAR 1986										
14...	0830	--	44	6.68	14	9	4.4	0.80	1.7	0.50
MAY										
19...	1630	--	53	7.33	18	8	5.6	0.97	1.9	--
01413093 - E BR DELAWARE TRIB #2 (MEEKER HOLLOW) NR ROXBURY, NY (LAT 42 15 37N LONG 074 36 43W)										
DEC 1985										
03...	1330	--	43	6.96	15	8	4.3	0.92	1.1	0.40
MAR 1986										
14...	0900	--	--	--	--	--	--	--	1.4	1.0
MAY										
19...	1700	--	52	7.43	20	7	5.9	1.2	1.5	--
22...	1250	--	43	7.07	16	7	4.8	0.93	1.2	--
01413097 - BATAVIA KILL AT VEGA, NY (LAT 42 15 32N LONG 074 31 22W)										
DEC 1985										
03...	1445	--	41	6.79	14	10	4.3	0.89	1.0	0.40
MAR 1986										
14...	0930	--	38	6.67	13	8	3.7	0.80	1.0	0.70
MAY										
19...	1600	--	44	6.89	16	7	4.9	0.98	1.3	--
01413265 - DRY BROOK NEAR SEAGER, NY (LAT 42 03 31N LONG 074 32 25W)										
DEC 1985										
04...	0900	--	36	6.79	14	10	4.4	0.63	0.30	0.20
MAR 1986										
14...	1215	--	--	6.54	--	--	--	--	0.30	0.40
MAY										
19...	1500	--	39	7.21	15	9	4.9	0.79	0.50	--
01413270 - DRY BROOK AT MAPLEDALE NEAR ARKVILLE, NY (LAT 42 06 27N LONG 074 33 41W)										
DEC 1985										
04...	0930	--	--	--	15	11	4.4	0.90	0.60	0.30
MAR 1986										
14...	1200	--	--	6.55	--	--	--	--	0.80	0.40
MAY										
19...	1530	--	41	7.14	15	8	4.6	0.89	0.90	--
22...	1320	--	33	6.75	12	9	3.8	0.70	0.70	--

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
HUDSON RIVER BASIN--Continued										
01364970 - RONDOUT CREEK NEAR SUNDOWN, NY (LAT 41 54 28N LONG 074 26 10W)										
NOV 1985										
05...	1	--	--	2.4	--	--	80	10	19	--
MAR 1986										
14...	0	--	--	1.9	--	--	70	36	25	--
MAY										
20...	1	--	--	2.4	--	--	30	11	2	--
22...	0	--	--	1.9	--	--	170	14	38	--
01364979 - SUNDOWN CREEK TRIBUTARY AT SUNDOWN, NY (LAT 41 53 10N LONG 074 26 05W)										
NOV 1985										
05...	--	--	--	--	--	--	120	20	30	--
05...	1	--	--	3.0	--	--	--	10	22	--
MAR 1986										
14...	0	--	--	2.1	--	--	70	<3	30	--
MAY										
20...	1	--	--	--	--	--	--	85	7	--
01365000 - RONDOUT CREEK NEAR LOWES CORNERS, NY (LAT 41 52 00N LONG 074 29 12W)										
NOV 1985										
05...	3	--	--	3.1	--	--	40	7	<3	--
MAR 1986										
14...	1	6.7	--	2.1	--	0.456	30	<3	9	--
MAY										
20...	3	7.4	3.9	--	--	0.225	--	5	2	--
21...	2	7.3	2.2	2.7	20	0.176	50	15	5	--
DELAWARE RIVER BASIN--Continued										
01413085 - E BR DELAWARE TRIBUTARY (MONTGOMERY HOLL) NR ROXBURY, NY (LAT 42 17 59N LONG 074 33 00W)										
DEC 1985										
03...	6	--	--	5.0	--	--	--	6	<1	--
MAR 1986										
14...	5	--	--	3.7	--	--	30	5	2	--
MAY										
19...	10	--	--	--	--	--	--	20	2	--
01413093 - E BR DELAWARE TRIB #2 (MEEKER HOLLOW) NR ROXBURY, NY (LAT 42 15 37N LONG 074 36 43W)										
DEC 1985										
03...	6	--	--	4.0	--	--	--	27	11	--
MAR 1986										
14...	--	--	--	2.8	--	--	30	11	20	--
MAY										
19...	13	--	--	--	--	--	--	68	5	--
22...	9	--	--	--	--	--	--	61	21	--
01413097 - BATAVIA KILL AT VEGA, NY (LAT 42 15 32N LONG 074 31 22W)										
DEC 1985										
03...	5	--	--	4.0	--	--	--	12	6	--
MAR 1986										
14...	4	--	--	2.7	--	--	30	<3	10	--
MAY										
19...	9	--	--	--	--	--	--	47	22	--
01413265 - DRY BROOK NEAR SEAGER, NY (LAT 42 03 31N LONG 074 32 25W)										
DEC 1985										
04...	4	--	--	2.0	--	--	--	5	1	--
MAR 1986										
14...	2	--	--	1.6	--	--	50	<3	5	--
MAY										
19...	6	--	--	--	--	--	--	24	2	--
01413270 - DRY BROOK AT MAPLEDALE NEAR ARKVILLE, NY (LAT 42 06 27N LONG 074 33 41W)										
DEC 1985										
04...	4	--	--	2.2	--	--	--	6	2	--
MAR 1986										
14...	3	--	--	1.8	--	--	40	<3	5	--
MAY										
19...	7	--	--	--	--	--	30	18	2	--
22...	3	--	--	--	--	--	60	16	4	--

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
DELAWARE RIVER BASIN--Continued										
01413308 - ELK CREEK NEAR HALCOTT CENTER, NY (LAT 42 11 04N LONG 074 27 42W)										
DEC 1985 04...	1000	--	34	6.74	13	9	4.0	0.85	1.0	0.30
MAR 1986 14...	1040	--	35	6.59	13	9	3.7	0.90	0.80	0.40
MAY 19...	1115	--	38	6.98	13	7	3.9	0.87	0.90	0.34
01413500 - EAST BR DELAWARE R AT MARGARETVILLE, NY (LAT 42 08 41N LONG 074 39 14W)										
DEC 1985 03...	1530	927	58	7.00	18	10	5.4	1.1	2.3	0.50
MAR 1986 14...	1000	1550	62	6.83	18	11	5.4	1.1	3.3	0.80
MAY 19...	1715	158	67	7.51	22	10	6.7	1.3	3.0	--
22...	1415	2710	50	7.02	16	7	4.9	0.87	2.1	0.80
01414285 - MILL BROOK NEAR BELLE AYR, NY (LAT 42 03 56N LONG 074 35 18W)										
DEC 1985 04...	0845	--	30	6.80	17	12	5.2	1.0	0.30	0.30
MAR 1986 14...	1245	--	40	6.78	--	--	--	--	0.60	0.30
MAY 19...	1445	--	41	7.20	17	10	5.7	0.68	0.40	0.33
22...	1340	--	34	6.73	12	9	4.1	0.44	0.40	0.29
01414290 - MILL BROOK TRIBUTARY NEAR ARENA, NY (LAT 42 04 43N LONG 074 37 31W)										
DEC 1985 04...	0815	--	45	7.05	19	13	6.0	0.91	0.40	0.40
MAR 1986 14...	1300	--	40	6.74	--	--	--	--	0.70	0.50
MAY 19...	1430	--	49	7.42	20	10	6.3	1.0	0.50	--
01421624 - LAKE BROOK TRIBUTARY NEAR HOBART, NY (LAT 42 23 22N LONG 074 41 11W)										
DEC 1985 03...	0745	--	67	7.10	23	12	7.0	1.3	2.3	1.2
MAR 1986 14...	0900	--	56	6.97	18	8	5.3	1.1	1.8	1.5
MAY 19...	0900	--	81	7.54	32	6	9.7	1.8	2.7	--
01421655 - ROSE BROOK NEAR SOUTH KORTRIGHT, NY (LAT 42 19 00N LONG 074 38 46W)										
DEC 1985 03...	1300	--	51	6.86	16	10	5.1	0.90	2.0	0.50
MAR 1986 14...	1055	--	40	6.64	13	9	3.9	0.78	1.3	0.70
MAY 19...	0920	--	53	7.29	19	8	6.1	0.90	1.9	--
22...	1220	--	41	7.01	15	7	4.6	0.74	1.2	0.41
01421856 - WRIGHT BROOK TRIBUTARY NEAR BLOOMVILLE, NY (LAT 42 20 50N LONG 074 48 30W)										
DEC 1985 03...	0815	--	62	7.70	20	12	6.2	1.2	2.5	1.2
MAR 1986 14...	1125	--	43	6.82	17	10	4.5	1.3	1.0	1.0
14...	1520	--	63	6.94	17	10	5.1	1.1	3.2	1.8
MAY 19...	1000	--	68	7.60	24	8	7.5	1.4	2.6	--
01422290 - MOUNTAIN BROOK NEAR BOVINA CENTER, NY (LAT 42 15 53N LONG 074 43 31W)										
DEC 1985 03...	1215	--	49	7.00	18	10	5.0	1.3	1.2	0.50
MAY 1986 19...	1345	--	56	7.49	22	7	6.3	1.6	1.6	--



DATE	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
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01413308 - ELK CREEK NEAR HALCOTT CENTER, NY (LAT 42 11 04N LONG 074 27 42W)

01413500 - EAST BR DELAWARE R AT MARGARETVILLE, NY (LAT 42 08 41N LONG 074 39 14W)

01414285 - MILL BROOK NEAR BELLE AYR, NY (LAT 42 03 56N LONG 074 35 18W)

01414290 - MILL BROOK TRIBUTARY NEAR ARENA, NY (LAT 42 04 43N LONG 074 37 31W)01421624 - LAKE BROOK TRIBUTARY NEAR HOBART, NY (LAT 42 23 22N LONG 074 41 11W)01421655 - ROSE BROOK NEAR SOUTH KORTRIGHT, NY (LAT 42 19 00N LONG 074 38 46W)01421856 - WRIGHT BROOK TRIBUTARY NEAR BLOOMVILLE, NY (LAT 42 20 50N LONG 074 48 30W)

01422290 - MOUNTAIN BROOK NEAR BOVINA CENTER, NY (LAT 42 15 53N LONG 074 43 31W)

[illegible]

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
DELAWARE RIVER BASIN--Continued										
01422488 - LITTLE DELAWARE TRIBUTARY (GLEN BURNIE) NR DELHI, NY (LAT 42 15 49N LONG 074 51 35W)										
DEC 1985										
03...	1145	--	44	7.10	16	--	4.1	1.3	1.5	0.40
MAR 1986										
14...	1155	--	38	6.91	13	8	3.4	1.1	1.2	0.50
MAY										
19...	1245	--	54	7.63	21	7	5.5	1.8	1.9	0.60
01422702 - MALLORY BROOK NEAR HAMDEN, NY (LAT 42 09 50N LONG 075 00 19W)										
DEC 1985										
03...	1045	1690	76	7.10	17	6	4.4	1.4	1.0	0.70
MAR 1986										
14...	1300	--	48	6.82	16	9	4.2	1.3	1.1	1.5
MAY										
19...	1100	--	54	7.48	20	7	5.5	1.6	1.3	0.80
22...	1020	--	46	7.17	17	7	4.6	1.3	1.0	1.4
01422737 - EAST BROOK NEAR TREADWELL, NY (LAT 42 16 15N LONG 075 03 02W)										
DEC 1985										
03...	0945	--	--	--	16	11	4.1	1.3	1.1	0.50
MAR 1986										
14...	1410	--	39	6.54	13	10	3.5	1.1	0.90	0.40
MAY										
19...	1200	--	48	7.26	17	7	4.5	1.5	1.5	--
22...	1110	--	37	6.90	13	8	3.5	1.1	0.90	--
01423000 - WEST BRANCH DELAWARE RIVER AT WALTON, NY (LAT 42 09 58N LONG 075 08 26W)										
DEC 1985										
03...	1000	1710	76	7.10	25	14	7.1	1.7	3.0	1.2
MAR 1986										
14...	1330	3410	68	6.94	21	11	5.8	1.5	2.8	1.3
MAY										
19...	1130	183	98	7.66	31	11	8.8	2.2	4.6	
22...	1040	1560	71	7.16	22	9	6.5	1.5	2.9	1.4
0143400350 - E BR NEVERSINK R AB DEER SHANTY BK NR DENNING, NY (LAT 41 58 35N LONG 074 25 39W)										
OCT 1985										
21...	1345	--	24	4.93	6	--	1.3	0.69	0.40	0.30
MAR 1986										
15...	1020	--	30	4.56	--	--	--	0.44	0.30	0.30
MAY										
20...	0830	--	25	4.98	6	--	1.3	0.63	0.40	0.28
0143400505 - DEER SHANTY BROOK AT MOUTH, NEAR DENNING, NY (LAT 41 58 35N LONG 074 25 39W)										
OCT 1985										
21...	1400	--	24	5.26	8	--	2.0	0.71	0.40	0.30
MAR 1986										
15...	1010	--	32	5.50	--	--	--	0.46	0.30	0.40
15...	1020	--	--	--	--	--	--	--	--	--
MAY										
20...	0840	--	25	5.25	7	--	1.7	0.67	0.40	0.27
0143400620 - E BR NEVERSINK R BL DEER SHANTY BK NR DENNING, NY (LAT 41 58 19N LONG 074 26 20W)										
OCT 1985										
21...	1415	--	24	4.94	6	--	1.3	0.65	0.40	0.30
MAR 1986										
15...	1100	--	31	4.52	--	--	--	0.47	0.30	0.40
MAY										
20...	0900	--	24	4.94	6	--	1.3	0.64	0.40	0.26
0143400650 - E BR NEVERSINK R TRIBUTARY NEAR DENNING, NY (LAT 41 58 16N LONG 074 26 38W)										
OCT 1985										
21...	1430	--	31	4.50	--	--	--	--	--	--
21...	1430	--	31	4.52	6	--	1.4	0.60	0.40	0.20
MAR 1986										
15...	1110	--	34	4.45	--	--	--	0.39	0.30	0.40
MAY										
20...	0915	--	28	4.51	5	--	1.2	0.50	0.40	--

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
------	---	---	---	---	--	---	---	--	--	--

## DELAWARE RIVER BASIN--Continued

01422488 - LITTLE DELAWARE TRIBUTARY (GLEN BURNIE) NR DELHI, NY (LAT 42 15 49N LONG 074 51 35W)

DEC 1985										
03...	--	--	--	5.0	--	--	--	19	1	--
MAR 1986										
14...	5	--	--	3.4	--	--	30	27	3	--
MAY										
19...	15	--	--	4.5	--	--	--	390	35	--

01422702 - MALLORY BROOK NEAR HAMDEN, NY (LAT 42 09 50N LONG 075 00 19W)

DEC 1985										
03...	11	--	--	4.0	--	--	--	13	6	--
MAR 1986										
14...	6	--	--	2.8	--	--	30	31	2	--
MAY										
19...	13	--	--	3.4	--	--	--	22	4	--
22...	10	--	--	2.9	--	--	--	76	16	--

01422737 - EAST BROOK NEAR TREADWELL, NY (LAT 42 16 15N LONG 075 03 02W)

DEC 1985										
03...	5	--	--	3.7	--	--	--	57	31	--
MAR 1986										
14...	3	--	--	2.6	--	--	30	51	16	--
MAY										
19...	11	--	--	--	--	--	--	170	67	--
22...	5	--	--	--	--	--	--	160	26	--

01423000 - WEST BRANCH DELAWARE RIVER AT WALTON, NY (LAT 42 09 58N LONG 075 08 26W)

DEC 1985										
03...	11	--	--	4.1	--	--	--	30	8	--
MAR 1986										
14...	10	8.3	4.7	3.2	38	0.993	30	9	4	--
MAY										
19...	21	10	4.8	--	--	0.665	--	64	13	--
22...	14	7.4	4.2	3.1	38	0.645	--	82	7	--

0143400350 - E BR NEVERSINK R AB DEER SHANTY BK NR DENNING, NY (LAT 41 58 35N LONG 074 25 39W)

OCT 1985										
21...	--	--	--	2.4	--	--	--	9	67	--
MAR 1986										
15...	--	--	--	1.1	--	--	390	42	120	3.8
MAY										
20...	--	--	--	1.9	--	--	210	10	49	--

0143400505 - DEER SHANTY BROOK AT MOUTH, NEAR DENNING, NY (LAT 41 58 35N LONG 074 25 39W)

OCT 1985										
21...	--	--	--	3.0	--	--	140	14	52	--
MAR 1986										
15...	--	--	--	1.2	--	--	330	49	130	--
15...	--	--	--	--	--	--	--	--	--	4.6
MAY										
20...	--	--	--	2.0	--	--	130	27	40	--

0143400620 - E BR NEVERSINK R BL DEER SHANTY BK NR DENNING, NY (LAT 41 58 18N LONG 074 26 20W)

OCT 1985										
21...	--	--	--	2.4	--	--	210	9	64	--
MAR 1986										
15...	--	--	--	1.2	--	--	390	39	130	--
MAY										
20...	--	--	--	1.9	--	--	200	8	48	--

0143400650 - E BR NEVERSINK R TRIBUTARY NEAR DENNING, NY (LAT 41 58 16N LONG 074 26 38W)

OCT 1985										
21...	<0	--	--	--	--	--	290	20	120	--
21...	--	--	--	2.4	--	--	--	21	110	--
MAR 1986										
15...	--	--	--	1.2	--	--	370	34	150	3.8
MAY										
20...	--	--	--	--	--	--	290	20	79	--

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

211

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
DELAWARE RIVER BASIN--Continued										
01434008 - EAST BR NEVERSINK R BL TRAY MILL BK NR DENNING, NY (LAT 41 57 48N LONG 074 27 19W)										
OCT 1985										
21...	1500	--	24	4.97	6	--	1.4	0.68	0.40	0.30
JAN 1986										
21...	1615	--	27	5.10	--	--	--	--	--	--
FEB										
27...	1800	--	25	5.16	--	--	--	--	--	--
MAR										
15...	1140	--	31	4.52	--	--	--	0.44	0.30	0.30
MAY										
01...	1745	--	24	4.99	7	--	1.7	0.65	0.40	0.30
20...	0940	--	24	5.00	6	--	1.3	0.58	0.40	0.28
01434009 - FLAT BROOK AT MOUTH, NEAR DENNING, NY (LAT 41 57 50N LONG 074 27 35W)										
OCT 1985										
21...	1515	--	25	6.06	8	7	2.0	0.80	0.50	0.30
MAR 1986										
15...	1150	--	32	4.71	--	--	--	0.62	0.40	0.50
MAY										
20...	0955	--	27	6.07	8	7	2.1	0.68	0.50	0.31
0143401110 - E BR NEVERSINK R TRIBUTARY #2 AT DENNING, NY (LAT 41 57 32N LONG 074 28 26W)										
OCT 1985										
21...	1545	--	26	5.10	8	8	2.0	0.82	0.40	0.20
014340145 - E BR NEVERSINK R TRIB #3 AT LADLETON, NY (LAT 41 56 28N LONG 074 31 12W)										
OCT 1985										
21...	1600	--	25	5.30	9	9	2.0	1.0	0.50	0.30
MAR 1986										
15...	1245	--	29	4.65	--	--	--	0.46	0.30	0.40
MAY										
20...	1030	--	26	5.16	7	--	1.9	0.60	0.50	--
014340150 - EAST BRANCH NEVERSINK R AT LADLETON, NY (LAT 41 56 06N LONG 074 31 48W)										
OCT 1985										
21...	1630	--	23	5.80	56	56	19	2.0	1.0	0.30
MAR 1986										
15...	1300	--	29	4.70	--	--	--	0.48	0.50	0.40
MAY										
20...	1040	--	27	5.94	7	7	1.9	0.66	0.80	--
01434020 - EAST BRANCH NEVERSINK AT CLARYVILLE, NY (LAT 41 55 06N LONG 074 34 23W)										
OCT 1985										
21...	1715	--	27	6.13	8	7	2.0	0.74	1.1	0.30
MAR 1986										
15...	1225	--	29	4.82	6	--	1.6	0.51	0.60	0.40
MAY										
01...	1815	--	29	5.73	8	7	2.0	0.72	1.2	0.40
20...	1050	--	29	6.05	8	8	2.0	0.70	1.3	
22...	1145	--	25	5.15	7	--	1.7	0.57	0.70	0.37
01434021 - W BR NEVERSINK R AT WINNISOOK L AT FROST VALLEY, NY (LAT 42 00 40N LONG 074 24 50W)										
OCT 1985										
22...	1130	--	27	4.72	5	--	1.2	0.53	0.40	0.30
MAR 1986										
14...	1530	--	33	4.47	--	--	--	0.36	0.30	0.30
15...	0955	--	32	4.47	--	--	--	0.29	<0.20	0.30
18...	1631	--	29	4.61	4	--	0.94	0.46	0.20	0.30
MAY										
19...	1300	--	27	4.70	5	--	1.1	0.46	0.30	0.25
22...	1645	--	31	4.14	3	--	0.72	0.27	0.30	0.26



## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
DELAWARE RIVER BASIN--Continued										
01434008 - EAST BR NEVERSINK R BL TRAY MILL BK NR DENNING, NY (LAT 41 57 48N LONG 074 27 19W)										
OCT 1985										
21...	--	--	--	2.5	--	--	200	12	61	--
JAN 1986										
21...	0	--	--	1.9	--	--	340	26	89	--
FEB										
27...	0	--	--	2.4	--	--	210	16	46	1.7
MAR										
15...	--	--	--	1.2	--	--	390	41	120	3.8
MAY										
01...	--	--	--	1.8	--	--	60	59	47	--
20...	--	--	--	1.9	--	--	190	9	46	--
01434009 - FLAT BROOK AT MOUTH, NEAR DENNING, NY (LAT 41 57 50N LONG 074 27 35W)										
OCT 1985										
21...	1	--	--	3.0	--	--	70	7	10	--
MAR 1986										
15...	--	--	--	1.4	--	--	280	63	140	--
MAY										
20...	1	--	--	2.3	--	--	--	10	6	--
0143401110 - E BR NEVERSINK R TRIBUTARY #2 AT DENNING, NY (LAT 41 57 32N LONG 074 28 26W)										
OCT 1985										
21...	0	--	--	3.0	--	--	130	9	48	--
014340145 - E BR NEVERSINK R TRIB #3 AT LADLETON, NY (LAT 41 56 28N LONG 074 31 12W)										
OCT 1985										
21...	0	--	--	3.0	--	--	150	<8	36	--
MAR 1986										
15...	0	--	--	1.6	--	--	260	31	78	--
MAY										
20...	--	--	--	--	--	--	160	24	29	--
014340150 - EAST BRANCH NEVERSINK R AT LADLETON, NY (LAT 41 56 06N LONG 074 31 48W)										
OCT 1985										
21...	0	--	--	1.0	--	--	110	<3	26	--
MAR 1986										
15...	--	--	--	1.4	--	--	300	39	120	--
MAY										
20...	0	--	--	--	--	--	110	27	22	--
01434020 - EAST BRANCH NEVERSINK AT CLARYVILLE, NY (LAT 41 55 06N LONG 074 34 23W)										
OCT 1985										
21...	1	--	--	3.0	--	--	70	<10	15	--
MAR 1986										
15...	--	--	--	1.3	--	--	260	33	110	--
MAY										
01...	1	--	--	1.9	--	--	90	8	19	--
20...	0	--	--	--	--	--	70	13	9	--
22...	--	--	--	1.7	--	--	250	37	58	--
01434021 - W BR NEVERSINK R AT WINNISOOK L AT FROST VALLEY, NY (LAT 42 00 40N LONG 074 24 50W)										
OCT 1985										
22...	--	--	--	2.3	--	--	370	12	90	--
MAR 1986										
14...	--	--	--	1.2	--	--	710	62	130	--
15...	--	--	--	1	--	--	610	47	120	3.8
18...	--	--	--	1.7	--	--	450	4	95	--
MAY										
19...	--	--	--	1.9	--	--	300	12	61	--
22...	--	--	--	1.4	--	--	630	41	94	--

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
DELAWARE RIVER BASIN--Continued										
0143402130 - W BR NEVERSINK R NR WINNISOOK L NR FROST VALLEY, NY (LAT 42 00 06N LONG 074 26 18W)										
OCT 1985										
22...	1115	--	28	6.46	10	8	3.0	0.67	1.1	0.40
MAR 1986										
15...	1005	--	33	4.87	--	--	--	0.41	1.3	0.30
MAY										
19...	1315	--	40	6.09	9	8	2.6	0.50	2.8	--
0143402190 - W BR NEVERSINK R TRIBUTARY NEAR FROST VALLEY, NY (LAT 41 59 58N LONG 074 27 28W)										
OCT 1985										
22...	1100	--	23	5.98	8	8	2.1	0.71	0.40	0.30
MAR 1986										
15...	1025	--	27	4.98	7	--	1.8	0.52	0.20	0.30
MAY										
19...	1330	--	24	5.97	7	7	1.9	0.49	0.40	0.23
0143402270 - WEST BRANCH NEVERSINK RIVER NR FROST VALLEY, NY (LAT 41 58 45N LONG 074 29 10W)										
OCT 1985										
22...	1045	--	27	6.28	8	8	2.2	0.66	1.0	0.30
MAR 1986										
15...	1040	--	28	5.15	--	--	--	0.56	0.80	0.40
MAY										
19...	1345	--	31	6.41	9	8	2.5	0.70	1.6	--
01434106 - W. BR NEVERSINK R BL HIGH FALLS BK NR FROST VALLEY, NY (LAT 41 58 27N LONG 074 31 32W)										
OCT 1985										
22...	0945	--	31	6.60	11	8	3.4	0.67	1.0	0.30
MAR 1986										
15...	1100	--	26	5.46	8	8	2.6	0.46	0.40	0.40
MAY										
19...	1530	--	33	6.82	11	8	3.1	0.70	1.1	--
01434200 - FALL BROOK NEAR CLARYVILLE, NY (LAT 41 56 21N LONG 074 34 06W)										
OCT 1985										
22...	0930	--	34	6.99	13	8	4.3	0.67	0.40	0.30
MAR 1986										
15...	1115	--	27	5.44	8	8	2.6	0.42	0.20	0.40
MAY										
19...	1515	--	31	6.88	12	8	3.9	0.61	0.40	0.28
01434220 - W BR NEVERSINK R TRIBUTARY #2 NEAR CLARYVILLE, NY (LAT 41 56 10N LONG 074 34 22W)										
OCT 1985										
22...	0915	--	40	7.17	17	9	5.0	0.98	1.0	0.40
MAR 1986										
15...	1130	--	27	5.38	9	9	2.7	0.44	0.40	0.50
01434498 - WEST BRANCH NEVERSINK R AT CLARYVILLE, NY (LAT 41 55 14N LONG 074 33 51W)										
OCT 1985										
22...	0900	--	32	6.85	12	8	3.5	0.77	1.0	0.30
MAR 1986										
15...	0900	--	28	5.40	8	8	2.3	0.49	0.60	0.50
15...	1230	--	28	5.40	8	8	2.4	0.49	0.70	0.40
MAY										
19...	1500	--	35	6.92	12	8	3.5	0.70	1.1	--
22...	1155	--	24	5.98	8	7	2.3	0.51	0.60	--
01435000 - NEVERSINK RIVER NEAR CLARYVILLE, NY (LAT 41 53 24N LONG 074 35 25W)										
OCT 1985										
21...	1700	142	30	6.65	11	8	3.0	0.81	1.1	0.30
NOV										
21...	1530	309	--	--	--	--	--	--	--	--
MAR 1986										
15...	1200	2580	29	5.18	7	7	2.1	0.52	0.70	0.40
MAY										
19...	1430	102	35	6.89	10	6	2.8	0.74	1.3	
21...	1520	1290	26	5.77	8	8	2.2	0.62	0.80	0.50

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
DELAWARE RIVER BASIN--Continued										
0143402130 - W BR NEVERSINK R NR WINNISOOK L NR FROST VALLEY, NY (LAT 42 00 06N LONG 074 26 18W)										
OCT 1985										
22...	2	--	--	2.2	--	--	70	9	14	--
MAR 1986										
15...	0	--	--	1.1	--	--	420	29	110	3.3
MAY										
19...	1	--	--	--	--	--	--	8	2	--
0143402190 - W BR NEVERSINK R TRIBUTARY NEAR FROST VALLEY, NY (LAT 41 59 58N LONG 074 27 28W)										
OCT 1985										
22...	0	--	--	2.2	--	--	60	4	<5	--
MAR 1986										
15...	--	--	--	1.3	--	--	210	10	76	--
MAY										
19...	0	--	--	1.9	--	--	60	<3	2	--
0143402270 - WEST BRANCH NEVERSINK RIVER NR FROST VALLEY, NY (LAT 41 58 45N LONG 074 29 10W)										
OCT 1985										
22...	1	--	--	2.2	--	--	50	8	<6	--
MAR 1986										
15...	--	--	--	1.3	--	--	190	21	79	--
MAY										
19...	1	--	--	--	--	--	--	83	3	--
01434106 - W BR NEVERSINK R BL HIGH FALLS BK NR FROST VALLEY, NY (LAT 41 58 27N LONG 074 31 32W)										
OCT 1985										
22...	4	--	--	2.4	--	--	40	12	<6	--
MAR 1986										
15...	0	--	--	1.2	--	--	160	27	71	--
MAY										
19...	3	--	--	--	--	--	--	12	6	--
01434200 - FALL BROOK NEAR CLARYVILLE, NY (LAT 41 56 21N LONG 074 34 06W)										
OCT 1985										
22...	5	--	--	2.5	--	--	30	6	<1	--
MAR 1986										
15...	0	--	--	1.4	--	--	160	16	75	--
MAY										
19...	5	--	--	2.1	--	--	--	4	<1	--
01434220 - W BR NEVERSINK R TRIBUTARY #2 NEAR CLARYVILLE, NY (LAT 41 56 10N LONG 074 34 22W)										
OCT 1985										
22...	8	--	--	3.0	--	--	60	10	<1	--
MAR 1986										
15...	0	--	--	1.3	--	--	190	49	100	--
01434498 - WEST BRANCH NEVERSINK R AT CLARYVILLE, NY (LAT 41 55 14N LONG 074 33 51W)										
OCT 1985										
22...	4	--	--	2.3	--	--	30	19	<2	--
MAR 1986										
15...	0	--	--	1.3	--	--	160	24	85	--
15...	0	--	--	1.3	--	--	140	19	72	--
MAY										
19...	4	--	--	--	--	--	40	8	3	--
22...	1	--	--	--	--	--	150	24	29	--
01435000 - NEVERSINK RIVER NEAR CLARYVILLE, NY (LAT 41 53 24N LONG 074 35 25W)										
OCT 1985										
21...	2	--	--	3.0	--	--	50	<10	<6	--
NOV										
21...	--	--	--	--	--	--	--	--	--	--
MAR 1986										
15...	0	5.4	1.4	1.4	--	0.636	180	20	92	3.1
MAY										
19...	4	6.7	2.0	--	--	0.154	--	5	4	--
21...	1	5.6	1.1	1.8	14	0.285	180	21	36	4.1

## ALBANY COUNTY

424114073495402. Local number, A 636.

LOCATION.--Lat 42°41'14", long 73°49'54", Hydrologic Unit 02020006, Fuller Road, Albany.

Owner: State University of New York at Albany.

AQUIFER.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 24 ft, cased to 22 ft, 2-in. jet point (60-gauze screen 22 ft to 24 ft). Well gravel packed from original depth of 26 ft.

INSTRUMENTATION.--Water-stage recorder--hourly punch.

DATUM.--Elevation of land-surface datum is 260 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.40 ft above land-surface datum.

REMARKS.--Well was drilled May 1974 as a replacement for 424114073495401 (local number A 635), located 35 ft north, which has a period of record from November 1965 to May 1974 (unpublished).

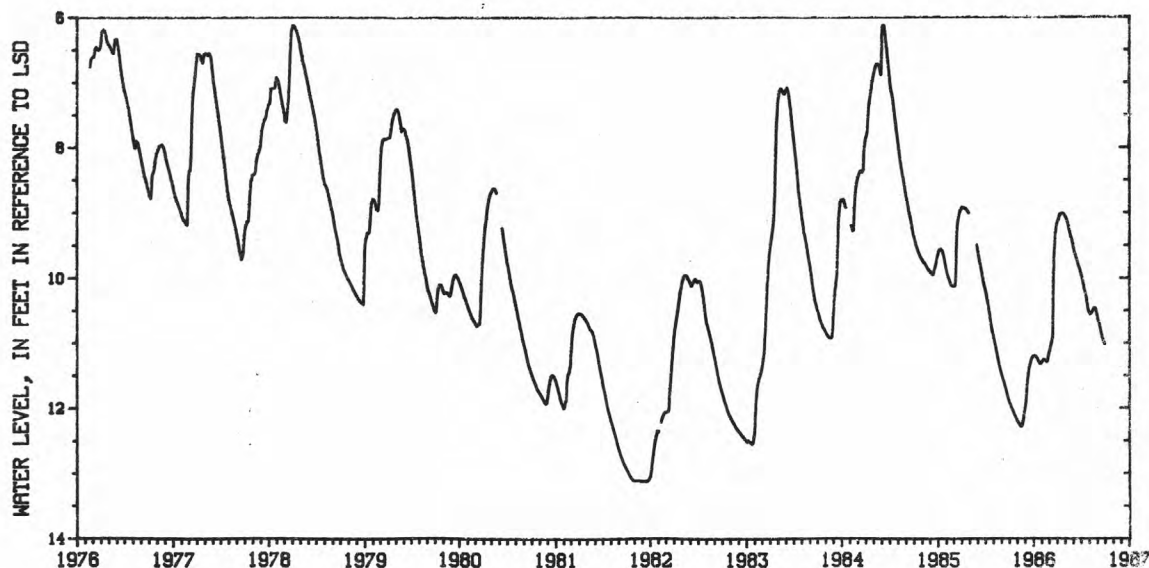
PERIOD OF RECORD.--May 1974 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.12 ft below land-surface datum, Apr. 12, 13, 1978, June 5, 6-7, 8, 1984; lowest, 13.13 ft below land-surface datum, Oct. 29, Nov. 25, 26-Dec. 17, 18, 20, 21-22, 23, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.91	12.19	12.02	11.20	11.30	11.12	9.14	9.05	9.52	9.95	10.53	10.59
2	11.92	12.20	11.99	11.19	11.28	11.11	9.13	9.05	9.54	9.97	10.54	10.61
3	11.93	12.21	11.96	11.19	11.28	11.09	9.12	9.06	9.56	9.97	10.54	10.63
4	11.94	12.21	11.93	11.19	11.27	11.08	9.11	9.08	9.58	9.99	10.55	10.64
5	11.95	12.22	11.89	11.19	11.26	11.07	9.10	9.08	9.60	10.00	10.56	10.66
6	11.95	12.23	11.83	11.19	11.26	11.05	9.09	9.09	9.62	10.02	10.56	10.67
7	11.96	12.23	11.76	11.19	11.26	11.03	9.07	9.10	9.63	10.04	10.56	10.68
8	11.98	12.24	11.70	11.20	11.25	11.02	9.05	9.11	9.63	10.06	10.55	10.70
9	11.99	12.25	11.64	11.20	11.25	11.01	9.04	9.13	9.64	10.08	10.54	10.71
10	12.00	12.25	11.59	11.20	11.25	10.99	9.03	9.14	9.66	10.11	10.54	10.73
11	12.01	12.26	11.55	11.21	11.25	10.97	9.02	9.15	9.68	10.13	10.52	10.75
12	12.02	12.27	11.51	11.21	11.25	10.96	9.02	9.17	9.69	10.16	10.52	10.76
13	12.03	12.27	11.47	11.22	11.26	10.93	9.02	9.19	9.70	10.17	10.51	10.78
14	12.04	12.28	11.44	11.22	11.26	10.89	9.02	9.21	9.71	10.18	10.51	10.80
15	12.04	12.28	11.41	11.23	11.26	10.69	9.02	9.23	9.72	10.20	10.50	10.82
16	12.05	12.29	11.39	11.24	11.27	10.33	9.01	9.25	9.74	10.22	10.49	10.84
17	12.06	12.29	11.37	11.25	11.27	10.06	9.01	9.26	9.75	10.23	10.49	10.86
18	12.07	12.29	11.35	11.26	11.28	9.86	9.01	9.28	9.77	10.25	10.49	10.87
19	12.08	12.28	11.33	11.27	11.28	9.69	9.01	9.30	9.79	10.27	10.46	10.89
20	12.09	12.27	11.32	11.28	11.29	9.60	9.01	9.32	9.80	10.29	10.46	10.91
21	12.10	12.26	11.30	11.28	11.29	9.53	9.01	9.34	9.82	10.31	10.46	10.92
22	12.11	12.24	11.29	11.29	11.28	9.45	9.01	9.36	9.83	10.33	10.46	10.94
23	12.12	12.22	11.27	11.30	11.26	9.38	9.01	9.37	9.83	10.36	10.46	10.95
24	12.13	12.20	11.26	11.31	11.24	9.33	9.02	9.38	9.84	10.38	10.46	10.95
25	12.13	12.17	11.24	11.32	11.21	9.30	9.02	9.39	9.85	10.41	10.47	10.97
26	12.14	12.15	11.23	11.32	11.18	9.27	9.02	9.41	9.87	10.43	10.48	10.98
27	12.15	12.12	11.23	11.32	11.16	9.24	9.03	9.42	9.88	10.46	10.49	10.99
28	12.16	12.10	11.22	11.32	11.14	9.22	9.03	9.44	9.89	10.48	10.51	11.00
29	12.17	12.07	11.21	11.32	---	9.19	9.04	9.46	9.91	10.50	10.52	11.01
30	12.18	12.05	11.21	11.31	---	9.17	9.05	9.47	9.93	10.51	10.55	11.02
31	12.18	---	11.20	11.30	---	9.16	---	9.49	---	10.52	10.57	---

WTR YEAR 1986 HIGHEST 9.00 Apr. 21, 1986 LOWEST 12.29 Nov. 16, 17, 18, 1985





## GROUND-WATER LEVELS

## ALBANY COUNTY

424044073535101. Local number, A 637.

LOCATION.--Lat 42°40'44", long 73°53'51", Hydrologic Unit 02020006, Dr. Shaw Road, Guilderland.

Owner: Mill Hill Missionaries.

AQUIFER.--Confined aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 198 ft, cased to 193 ft, 30-slot plastic screen 193 ft to 198 ft.

INSTRUMENTATION.--Water-stage recorder--hourly punch.

DATUM.--Elevation of land-surface datum is 220 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.50 ft above land-surface datum.

REMARKS.--Water level affected by pumping from distant municipal well field.

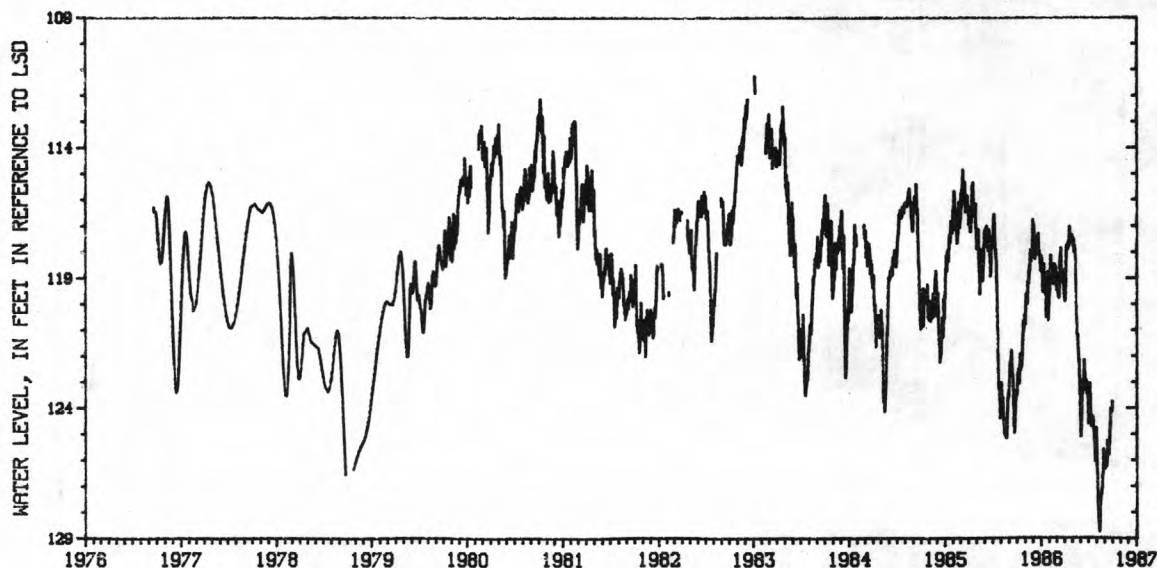
PERIOD OF RECORD.--September 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 111.11 ft below land-surface datum, Jan. 7, 1983; lowest measured, 128.86 ft below land-surface datum, Aug. 13, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123.36	120.43	117.55	118.57	120.00	119.11	119.36	117.40	124.23	124.62	125.19	126.19
2	123.53	120.45	116.76	118.74	119.72	119.32	119.62	117.50	124.84	124.38	125.52	126.04
3	123.44	120.78	117.46	118.13	119.66	119.34	119.78	117.69	125.12	124.17	126.17	126.34
4	123.09	120.75	117.60	118.38	119.48	119.47	119.89	117.74	124.84	124.02	126.53	126.13
5	122.64	120.06	117.25	118.23	118.75	119.21	119.75	117.49	124.44	123.59	127.01	125.93
6	122.66	119.68	116.92	118.49	119.07	119.04	119.30	117.54	124.16	123.33	127.53	125.77
7	122.70	119.63	117.21	118.78	118.69	118.84	118.64	117.53	123.69	123.06	127.95	126.05
8	122.92	119.88	117.61	119.54	118.27	119.69	118.19	117.75	123.25	123.53	127.90	126.06
9	122.53	119.85	118.18	119.14	118.11	119.39	117.97	118.00	123.30	123.47	128.21	126.24
10	122.50	119.56	118.25	118.68	118.70	119.39	117.78	117.89	123.42	124.14	128.30	125.97
11	122.53	120.00	118.04	119.21	118.59	119.00	117.72	117.76	122.90	124.34	128.42	125.65
12	123.06	119.94	117.70	118.61	118.48	119.77	117.79	117.87	122.93	124.72	128.65	125.27
13	122.58	119.30	117.50	118.45	119.12	119.46	117.88	117.99	123.03	124.64	128.75	125.61
14	122.35	119.10	117.40	119.19	118.98	118.93	117.88	118.17	122.92	124.46	128.33	125.66
15	121.92	119.22	117.95	119.36	118.97	118.44	117.73	119.01	122.60	124.30	127.79	125.81
16	122.28	119.19	118.07	119.31	119.04	118.21	117.64	119.95	122.16	124.42	127.64	125.63
17	122.55	118.71	118.10	119.58	119.22	118.10	117.59	120.06	122.60	124.53	127.44	125.80
18	122.40	119.08	117.94	119.51	118.85	118.54	117.77	120.53	122.64	124.37	127.37	125.48
19	121.90	118.77	118.00	119.60	118.55	117.84	117.71	120.61	122.90	124.67	127.24	125.34
20	122.32	118.51	117.91	119.06	118.87	118.55	117.34	121.17	123.17	124.48	127.34	125.11
21	122.43	118.71	117.48	120.27	118.47	118.74	117.03	121.18	123.21	124.82	127.11	124.89
22	122.12	118.31	117.63	120.40	118.79	119.10	117.22	121.26	123.33	124.92	127.11	124.61
23	122.02	118.01	117.29	120.50	118.47	118.78	117.39	121.20	122.95	125.24	126.70	124.20
24	121.59	117.90	117.59	120.34	118.78	118.75	117.42	121.71	123.05	125.07	126.55	124.03
25	121.29	118.37	117.90	119.82	118.55	119.01	117.34	121.75	123.13	125.19	126.55	124.19
26	121.10	118.11	117.91	118.76	118.73	118.69	117.35	122.23	123.46	125.72	126.28	124.06
27	120.67	117.92	117.93	118.82	118.57	118.88	117.40	122.12	123.08	126.07	125.65	124.17
28	120.77	117.89	118.10	119.89	119.09	118.94	117.36	122.59	123.04	125.79	125.59	124.10
29	121.02	118.12	118.18	120.62	---	119.22	117.33	122.80	123.27	125.35	125.96	124.09
30	120.76	117.97	118.44	120.51	---	119.04	117.53	123.33	123.87	125.01	126.27	123.76
31	120.71	---	118.32	120.16	---	119.60	---	124.12	---	124.78	126.08	---

WTR YEAR 1986      HIGHEST    116.52 Dec. 2, 1985      LOWEST    128.86 Aug. 13, 1986



## DELAWARE COUNTY

420748075043101. Local number, D 492.

LOCATION.--Lat 42°07'48", long 75°04'31", Hydrologic Unit 02040102, near Walton.

Owner: New York State Department of Environmental Conservation.

AQUIFER.--Water-table aquifer in shale and sandstone of Devonian age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 199 ft, cased to 30 ft, open hole.

INSTRUMENTATION.--Weekly tape measurement by observer.

DATUM.--Elevation of land-surface datum is 2,180 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.75 ft above land-surface datum.

REMARKS.--Water levels subject to rapid response from heavy rains or snowmelt. Pump installed in well in spring 1986 for summer campground use. Water levels may be affected by recent pumping.

PERIOD OF RECORD.--September 1977 to August 1983, October 1984 to current year. Records prior to water year 1982 are unpublished and unreliable, and should not be used.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.18 ft below land-surface datum, Mar. 31, 1986; lowest measured, 179.64 ft below land-surface datum, Aug. 20, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 14, 1981	74.65	APR 12, 1982	74.55	JUL 07, 1982	74.70	SEP 30, 1982	148.15
MAR 04, 1982	123.00	MAY 25	74.88	AUG 17	141.37		

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 22, 1982	127.53	JAN 26, 1983	101.00	JUL 12, 1983	132.50	AUG 22, 1983	144.27
DEC 15	75.00	JUN 03	74.50				

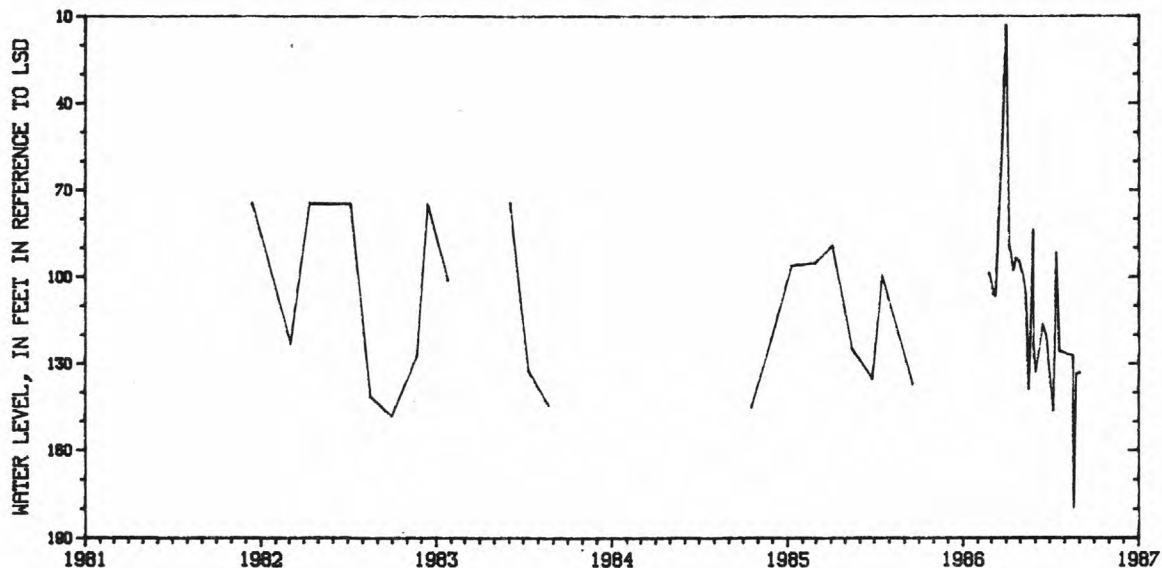
## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 1984	145.22	FEB 28, 1985	95.15	MAY 16, 1985	124.93	JUL 17, 1985	99.50
NOV 29	121.73	APR 04	89.30	JUN 28	135.30	SEP 19	137.03
JAN 10, 1985	96.12						

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 24, 1986	98.60	APR 07, 1986	89.22	MAY 27, 1986	83.85	JUL 14, 1986	91.60
MAR 03	103.77	16	97.66 Z	28	123.08 Z	21	125.68
05	105.80 Z	21	93.60	JUN 02	132.85	AUG 18	127.33
10	106.43	28	94.52	16	116.52	20	179.64 Z
17	76.60	MAY 05	98.60	23	119.77	25	133.52
24	51.10	12	105.93	JUL 09	146.28 Z	SEP 02	133.10
31	13.18	19	138.93				

Z Measured by USGS personnel.



## GROUND-WATER LEVELS

## DUTCHESS COUNTY

414737073563301. Local number, Du 321.

LOCATION.--Lat 41°47'37", long 73°56'33", Hydrologic Unit 02020008, near Hyde Park.

Owner: U.S. National Park Service.

AQUIFER.--Confined aquifer in shale of Ordovician age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in., depth 128 ft, cased to unknown depth, open hole.

INSTRUMENTATION.--Water-stage recorder--hourly punch.

DATUM.--Elevation of land-surface datum is 170 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of extended casing, 3.10 ft above land-surface datum.

REMARKS.--Water level responds to semidiurnal earth tides (approximately 0.05 ft).

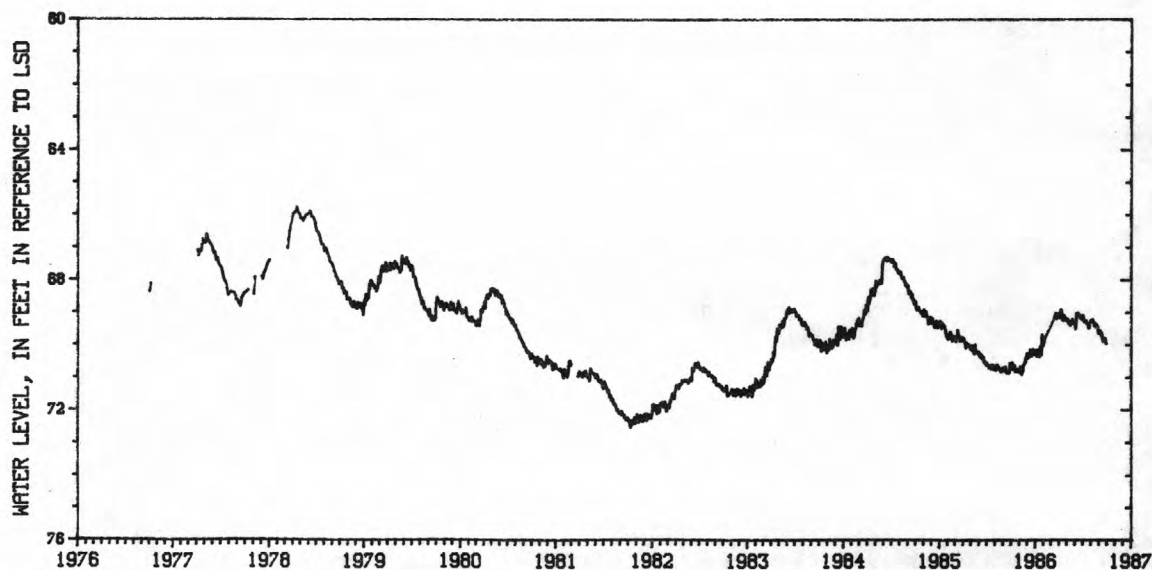
PERIOD OF RECORD.--September 1948 to April 1950, April 1953 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 65.62 ft below land-surface datum, June 22, 1953; lowest, 73.85 ft below land-surface datum, Sept. 13, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70.72	70.84	70.41	70.26	70.03	---	69.07	69.22	69.30	69.21	69.27	69.64
2	70.73	70.83	70.27	70.31	69.97	---	69.06	69.19	69.32	69.18	69.28	69.63
3	70.74	70.85	70.26	70.28	69.93	---	69.09	69.22	69.43	69.10	69.23	69.63
4	70.70	70.86	70.36	70.26	69.92	---	69.14	69.27	69.50	69.17	69.24	69.64
5	70.62	70.76	70.41	70.20	69.81	---	69.16	69.27	69.48	69.23	69.29	69.60
6	70.55	70.68	70.38	70.17	69.81	---	69.16	69.24	69.34	69.27	69.30	69.57
7	70.60	70.68	70.37	70.24	---	---	69.09	69.23	69.14	69.29	69.29	69.58
8	70.71	70.74	70.34	70.34	---	---	68.99	69.23	69.02	69.29	69.25	69.62
9	70.76	70.83	70.34	70.35	---	---	68.93	69.30	69.02	69.26	69.22	69.68
10	70.72	70.86	70.37	70.28	---	---	68.91	69.35	69.10	69.25	69.25	69.72
11	70.68	70.90	70.36	70.26	---	---	68.94	69.34	69.11	69.29	69.26	69.70
12	70.71	70.93	70.27	70.22	---	---	69.00	69.33	69.07	69.29	69.32	69.65
13	70.71	70.85	70.23	70.16	---	---	69.10	69.33	69.01	69.27	69.38	69.67
14	70.68	70.80	70.15	70.18	---	---	69.19	69.35	69.04	69.25	69.41	69.75
15	70.64	70.78	70.20	70.27	---	---	69.23	69.39	69.07	69.27	69.40	69.81
16	70.66	70.82	70.23	70.36	---	---	69.21	69.38	69.08	69.32	69.36	69.82
17	70.76	70.67	70.23	70.38	---	---	69.18	69.32	69.05	69.35	69.34	69.87
18	70.83	70.63	70.24	70.34	---	---	69.19	69.29	69.07	69.35	69.33	69.90
19	70.81	70.63	70.30	70.27	---	69.10	69.24	69.28	69.10	69.34	69.35	69.89
20	70.79	70.60	70.34	70.10	---	69.02	69.23	69.29	69.10	69.33	69.40	69.88
21	70.81	70.59	70.30	70.06	---	69.10	69.15	69.29	69.15	69.33	69.45	69.88
22	70.82	70.59	70.26	70.12	---	69.17	69.10	69.27	69.17	69.39	69.45	69.90
23	70.83	70.54	70.19	70.20	---	69.18	69.13	69.21	69.13	69.45	69.45	69.86
24	70.81	70.52	70.14	70.29	---	69.15	69.17	69.23	69.10	69.48	69.38	69.80
25	70.76	70.55	70.13	70.32	---	69.19	69.20	69.27	69.11	69.49	69.39	69.82
26	70.76	70.54	70.17	70.09	---	69.17	69.21	69.32	69.18	69.45	69.44	69.86
27	70.76	70.44	70.21	69.78	---	69.09	69.23	69.35	69.21	69.35	69.43	69.89
28	70.78	70.40	70.23	69.70	---	69.05	69.24	69.34	69.18	69.32	69.44	69.94
29	70.83	70.38	70.25	69.80	---	69.04	69.23	69.33	69.14	69.29	69.51	69.97
30	70.84	70.42	70.26	69.90	---	69.03	69.23	69.31	69.15	69.27	69.59	69.96
31	70.85	---	70.26	69.97	---	69.03	---	69.30	---	69.26	69.64	---

WTR YEAR 1986      HIGHEST    68.88 Apr. 10, 1986      LOWEST    71.02 Nov. 12, 1985



## DUTCHESS COUNTY

414128073475201. Local number, Du 1009.

LOCATION.--Lat 41°41'28", long 73°47'52", Hydrologic Unit 02020008, James Baird State Park, near Pleasant Valley.

Owner: New York State Department of Environmental Conservation.

AQUIFER.--Water-table aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Bored observation well, diameter 2.5 in., depth 26.4 ft, filled in from original depth of 28 ft, cased to 25 ft, 1.25-in. well point (60-gauze screen 25 ft to 27 ft, damaged during well installation).

INSTRUMENTATION.--Weekly tape measurement by observer.

DATUM.--Elevation of land-surface datum is 330 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.10 ft above land-surface datum.

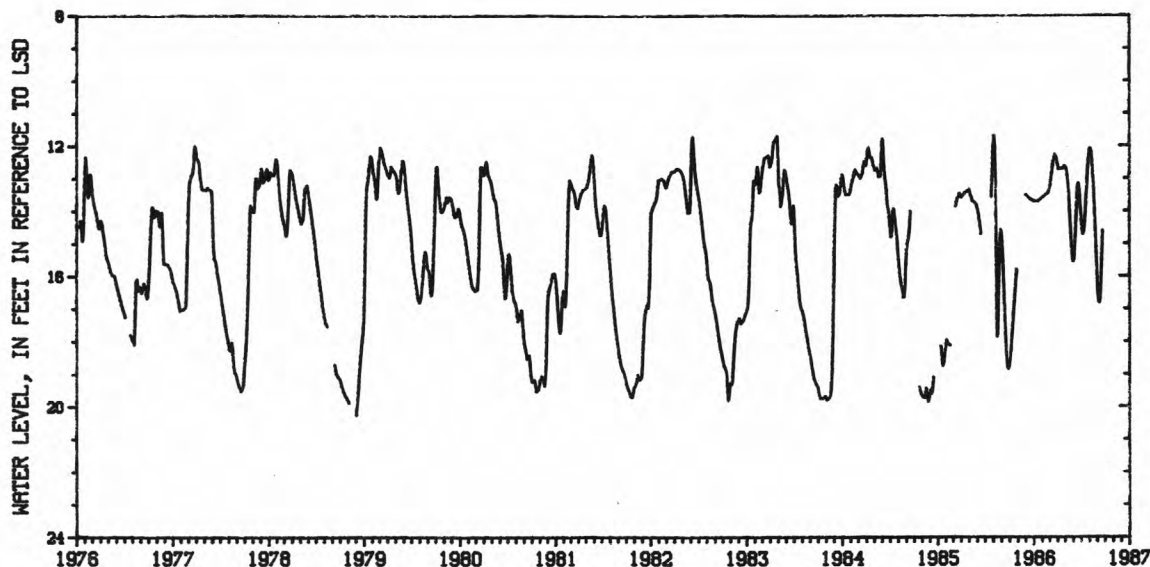
PERIOD OF RECORD.--October 1965 to April 1969, June 1971 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.70 ft below land-surface datum, May 2, 1983; lowest measured, 20.60 ft below land-surface datum, Nov. 24, 1965.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1985	17.40	MAR 06, 1986	13.24	MAY 16, 1986	13.44	AUG 01, 1986	12.25
31	15.80	24	12.28	JUN 05	15.48	23	14.00
DEC 03	13.50	APR 07	12.72	20	13.20	SEP 13	16.65
JAN 22, 1986	13.70	24	12.70	JUL 08	14.70	22	14.61 Z
FEB 19	13.50						

Z Measured by USGS personnel.





## GROUND-WATER LEVELS

## GREENE COUNTY

422319073482001. Local number, G 1.

LOCATION.--Lat 42°23'19", long 73°48'20", Hydrologic Unit 02020006, near West Coxsackie.

Owner: Harry Andrews.

AQUIFER.--Water-table aquifer in till of Pleistocene age.

WELL CHARACTERISTICS.--Dug domestic well, diameter 36 in., depth 17.6, filled in from original depth of 19 ft, tile-lined to 2 ft, stone-lined to 19 ft.

INSTRUMENTATION.--Weekly tape measurement by observer.

DATUM.--Elevation of land-surface datum is 130 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Chiseled square on top of inner step on curb, 0.18 ft below land-surface datum.

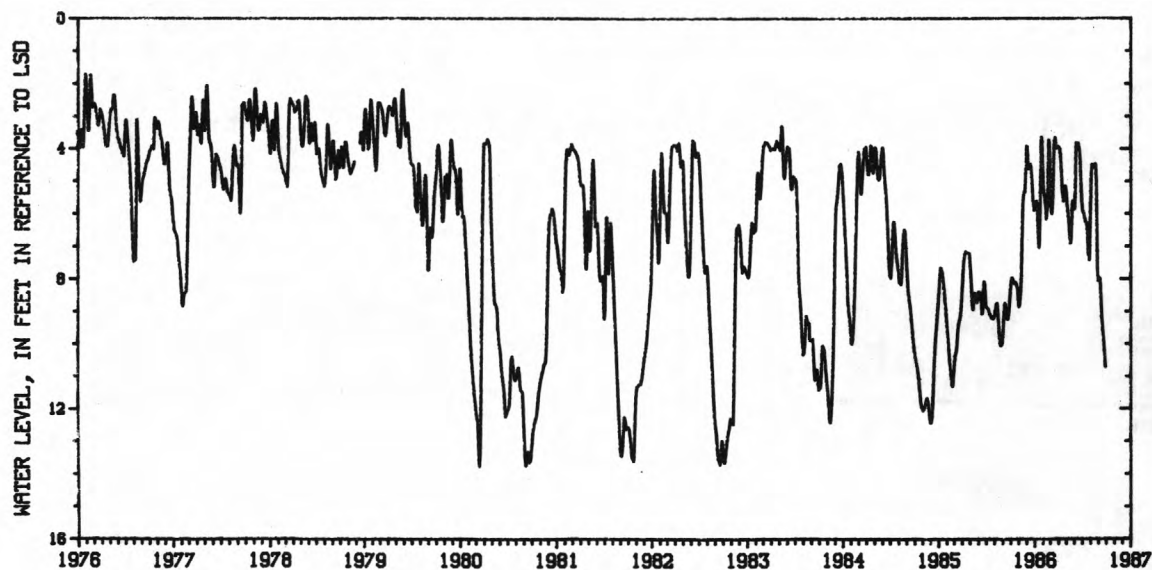
PERIOD OF RECORD.--December 1945 to current year.

EXTREMES FOR PERIOD OR RECORD.--Highest water level measured, 1.07 ft below land-surface datum, Mar. 15, 1962; lowest measured, 15.56 ft below land-surface datum, Feb. 27, 1963.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1985	7.97	JAN 06, 1986	5.66	APR 14, 1986	4.84	JUL 22, 1986	6.62
16	8.14	13	6.08	22	5.63	25	7.24 Z
21	8.11	20	6.85	28	5.16	29	7.42
28	8.27	27	3.74	MAY 05	5.75	AUG 04	4.99
NOV 04	8.86	FEB 03	5.04	12	6.29	11	4.59
08	8.58 Z	10	5.59	19	6.91	19	4.50
13	7.61	19	5.83	27	5.62	25	5.38
18	5.63	24	3.84	JUN 03	5.85	29	7.72 Z
25	5.34	MAR 03	5.22	09	3.82	SEP 02	7.95
DEC 02	3.93	10	5.82	16	3.82	08	8.00
09	4.62	17	3.74	23	4.24	15	9.14
16	4.49	24	3.99	30	5.63	22	9.89
27	5.71	31	3.93	JUL 07	6.00	29	10.72
31	5.92	APR 07	4.00	14	6.25		

Z Measured by USGS personnel.



## HAMILTON COUNTY

432832074122201. Local number, H 3.

LOCATION.--Lat 43°28'32", long 74°12'22", Hydrologic Unit 02020002, near Griffin.

Owner: F. B. Girard.

AQUIFER.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Bored observation well, diameter 2.5 in., depth 16.0 ft in July 1986, filled in from original depth of 19 ft, cased to 16 ft, 1.25-in. well point (60-gauze screen 16 ft to 19 ft, damaged during well installation).

INSTRUMENTATION.--Tape measurement by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,290 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.55 ft above land-surface datum as of October 1984.

REMARKS.--Well casing believed to have settled about 0.75 ft shortly after installation. All published records prior to 1985 water year should be adjusted accordingly.

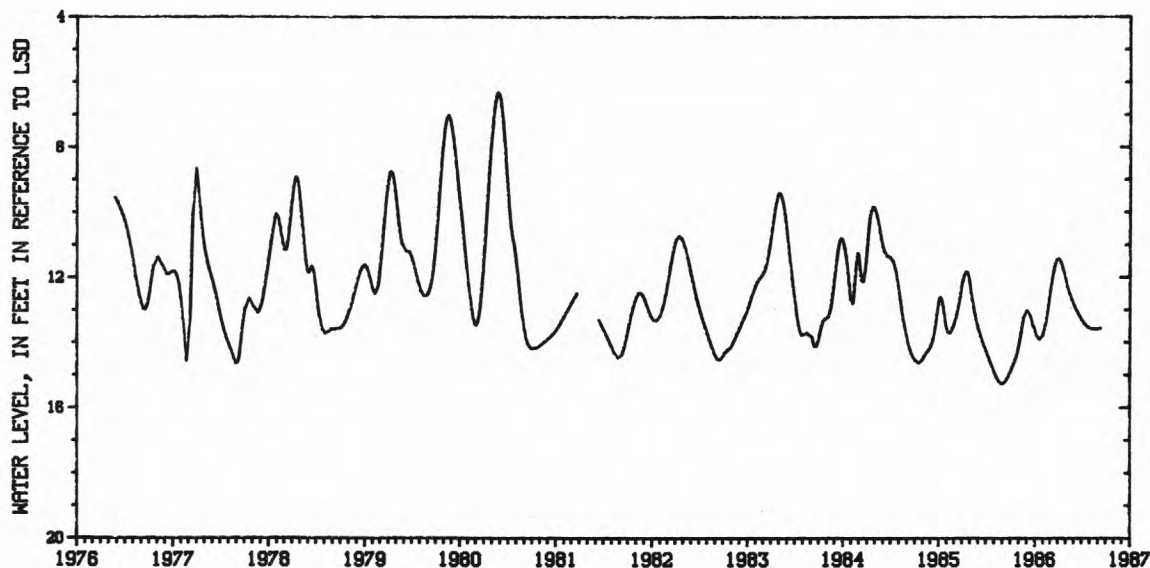
PERIOD OF RECORD.--November 1965 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.38 ft below land-surface datum, June 6, 1980; lowest measured, 16.19 ft below land-surface datum, Oct. 21, 1969.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 09, 1985	14.77	JAN 08, 1986	13.79	MAY 07, 1986	12.27	JUL 23, 1986	13.52
NOV 07	13.92 S	FEB 12	13.44	JUN 10	12.98	SEP 12	13.57
20	13.25	MAR 26	11.47				

S Measured by Board of Hudson River-Black River Regulating District personnel.



## GROUND-WATER LEVELS

## MONTGOMERY COUNTY

430141074423501. Local number, Mt 1.

LOCATION.--Lat 43°01'41", long 74°42'35", Hydrologic Unit 02020004, near St. Johnsville.

Owner: Keith Handy.

AQUIFER.--Water-table aquifer in till of Pleistocene age.

WELL CHARACTERISTICS.--Dug unused well, diameter 24 in., depth 12 ft, stone-lined.

INSTRUMENTATION.--Tape gage read weekly by observer.

DATUM.--Elevation of land-surface datum is 710 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top edge of limestone slab at northeast corner of well opening, at land-surface datum.

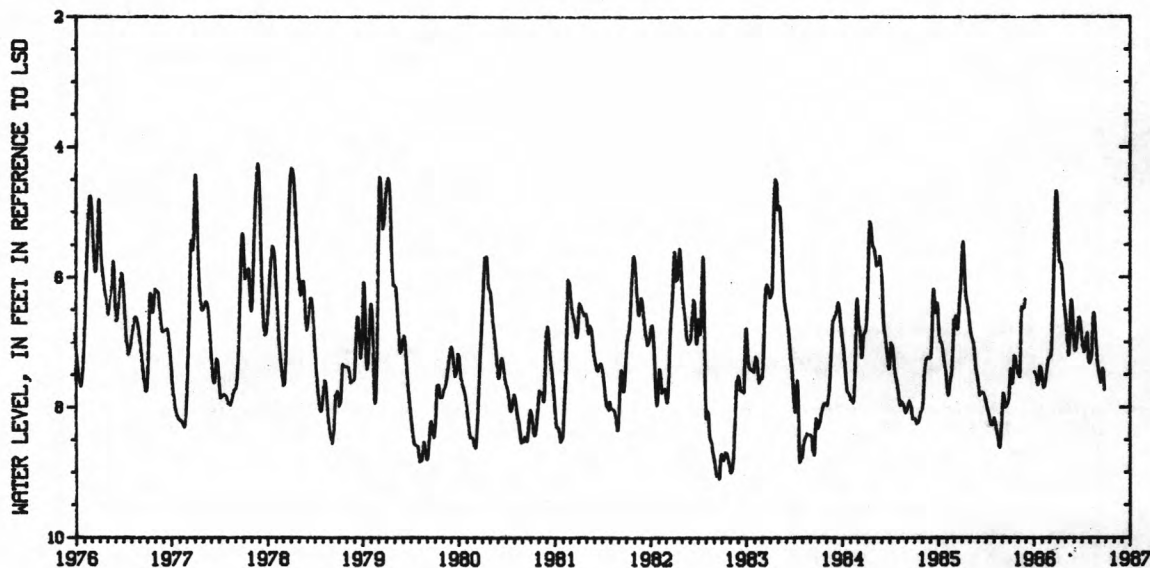
PERIOD OF RECORD.--October 1942 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.74 ft below land-surface datum, Apr. 10, 1971; lowest measured, 9.99 ft below land-surface datum, Aug. 28, 1949.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1985	7.41	JAN 18, 1986	7.66	APR 20, 1986	5.95	JUL 24, 1986	6.86 Z
09	7.57 Z	25	7.38	27	6.42	26	7.08
12	7.63	FEB 01	7.50	MAY 03	6.62	AUG 02	7.32
19	7.21	08	7.70	17	7.08	09	7.23
26	7.34	22	7.37	24	6.36	16	6.57
NOV 02	7.48	MAR 01	7.24	31	6.75	23	6.81
09	7.53	08	7.21	JUN 07	7.13	SEP 06	7.47
16	6.46	15	6.46	14	6.98	11	7.57 Z
23	6.48	22	5.38	21	6.63	13	7.62
30	6.34	29	4.68	JUL 05	7.05	20	7.41
JAN 04, 1986	7.46	APR 06	5.58	19	6.93	27	7.73
11	7.51	13	5.77				

Z Measured by USGS personnel.



## GROUND-WATER LEVELS

243

## ONEIDA COUNTY

433112075091501. Local number, Oe 151.

LOCATION.--Lat 43°31'12", long 75°09'15", Hydrologic Unit 04150101, at Woodgate.

Owner: Henry Rubyor.

AQUIFER.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Dug domestic well, diameter 36 in., depth 31.1 ft in July 1984, stone-lined.

INSTRUMENTATION.--Tape gage read weekly by observer.

DATUM.--Elevation of land-surface datum is 1,484.94 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of 2-ft square concrete well cover at midpoint of south side of rectangular opening, 1.00 ft above land-surface datum.

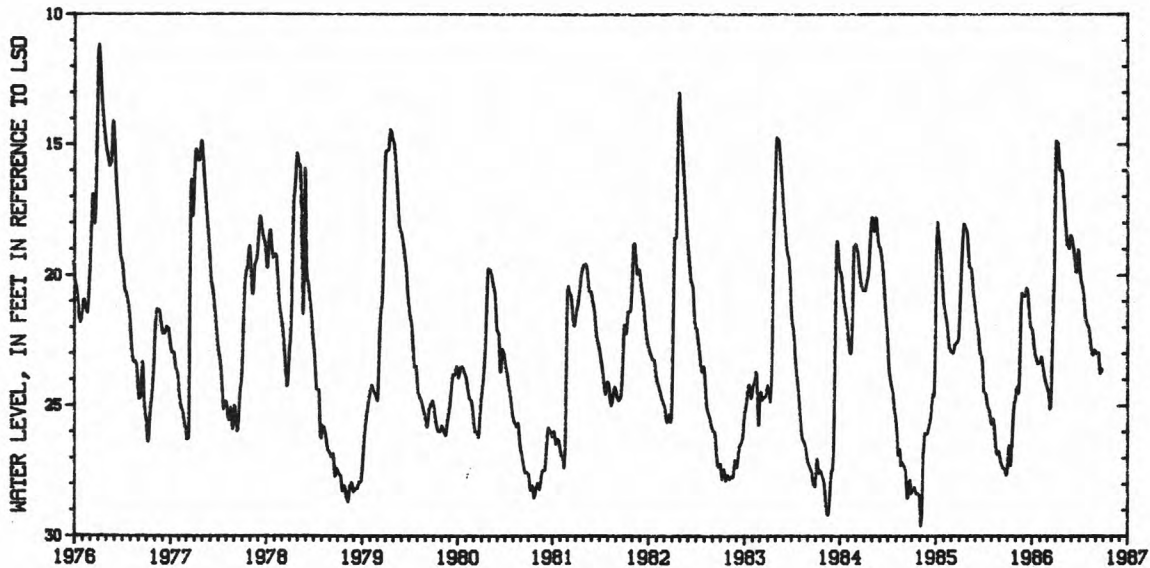
PERIOD OF RECORD.--July 1926 to August 1945, October 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.43 ft below land-surface datum, Apr. 3, 1976; lowest measured, 30.31 ft below land-surface datum, Feb. 25, 1961.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1985	27.09	DEC 14, 1985	20.51	MAR 22, 1986	22.29	JUN 28, 1986	19.05
12	26.71	21	20.99	29	19.47	JUL 05	19.92
16	27.14	28	21.96	APR 05	14.89	12	20.35
17	26.64	JAN 04, 1986	22.10	12	14.92	19	20.88
18	26.62	11	22.82	19	15.98	26	21.70
19	26.56	18	23.15	26	16.02	AUG 02	21.90
26	25.16	25	23.40	MAY 03	16.77	09	22.14
NOV 02	24.71	FEB 01	23.35	10	17.95	16	22.80
09	24.28	08	23.15	17	18.85	23	23.07
12	24.53 Z	15	23.65	24	18.98	30	22.88
16	23.81	22	24.02	31	18.50	SEP 06	23.00
23	21.11	MAR 01	24.29	JUN 07	18.85	13	22.98
30	20.79	08	24.65	14	19.36	20	23.76
DEC 07	20.80	15	25.09	21	19.90	27	23.62

Z Measured by USGS personnel.





## GROUND-WATER LEVELS

## ONEIDA COUNTY

433012075134202. Local number, Oe 766.

LOCATION.--Lat 43°30'12", long 75°13'42", Hydrologic Unit 04150101, near Hawkinsville.

Owner: New York State Department of Environmental Conservation.

AQUIFER.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Driven-washed observation well, diameter 6 in., depth 30.7 ft in December 1983, filled in from original depth of 33 ft, cased to 33 ft, open end.

INSTRUMENTATION.--Water-stage recorder--hourly punch.

DATUM.--Elevation of land-surface datum is 1,190.22 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of extended casing, 2.63 ft above land-surface datum.

REMARKS.--Well was driven-washed November 1968 as a replacement for 433012075134201 (local number Oe 765), located 15 ft east, which has a period of record from November 1965 to November 1968 (unpublished).

PERIOD OF RECORD.--November 1968 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.87 ft below land-surface datum, May 21, 1972; lowest recorded, 23.58 ft below land-surface datum, Feb. 20, 21, 22, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.51	22.75	22.14	21.10	21.43	---	21.85	18.32	19.22	19.92	20.46	21.01
2	22.53	22.75	22.08	21.10	21.43	---	21.79	18.34	19.26	19.92	20.48	21.03
3	22.54	22.75	22.04	21.08	21.44	---	21.69	18.36	19.31	19.94	20.50	21.04
4	22.55	22.74	21.98	21.07	---	---	21.55	18.38	19.33	19.97	20.52	21.04
5	22.55	22.72	21.92	21.06	---	---	21.36	18.37	19.35	19.99	20.54	21.05
6	22.56	22.71	21.87	21.06	---	21.95	21.10	18.40	19.38	20.02	20.56	21.06
7	22.57	22.71	21.83	21.06	---	21.97	20.80	18.43	19.40	20.03	20.57	21.07
8	22.58	22.70	21.78	21.06	---	21.99	20.52	18.48	19.41	20.04	20.58	21.08
9	22.59	22.69	21.73	21.06	---	22.00	20.25	18.54	19.45	20.05	20.60	21.09
10	22.60	22.67	21.68	21.05	---	22.00	20.00	18.56	19.48	20.07	20.63	21.10
11	22.61	22.67	21.63	21.05	---	22.02	19.78	18.59	19.48	20.09	20.64	21.10
12	22.63	22.64	21.58	21.05	---	22.04	19.59	18.62	19.51	20.11	20.66	21.11
13	22.63	22.61	21.53	21.05	---	22.05	19.42	18.64	19.54	20.12	20.68	21.13
14	22.64	22.60	21.49	21.06	---	22.06	19.26	18.68	19.57	20.14	20.70	21.15
15	22.65	22.59	21.46	21.08	---	22.07	19.12	18.70	19.59	20.17	20.71	21.15
16	22.67	22.58	21.43	21.10	---	22.08	19.00	18.73	19.60	20.19	20.73	21.16
17	22.68	22.56	21.39	21.11	---	22.10	18.89	18.75	19.63	20.20	20.75	21.18
18	22.68	22.55	21.36	21.12	---	22.12	18.80	18.76	19.66	20.21	20.78	21.18
19	22.69	22.54	21.34	21.12	---	22.11	18.72	18.77	19.67	20.23	20.80	21.19
20	22.70	22.53	21.31	21.12	---	22.13	18.64	18.81	19.69	20.24	20.82	21.20
21	22.71	22.51	21.29	21.16	---	22.14	18.58	18.85	19.73	20.26	20.84	21.22
22	22.72	22.48	21.26	21.19	---	22.14	18.53	18.89	19.74	20.28	20.85	---
23	22.72	22.46	21.24	21.23	---	22.14	18.49	18.93	19.75	20.30	20.86	---
24	22.73	22.43	21.23	21.25	---	22.15	18.46	18.98	19.77	20.32	20.87	---
25	22.73	22.40	21.22	21.26	---	22.13	18.42	19.02	19.81	20.33	20.89	---
26	22.74	22.36	21.22	21.26	---	22.10	18.39	19.06	19.83	20.35	20.91	---
27	22.74	22.33	21.20	21.26	---	22.08	18.37	19.10	19.84	20.36	20.92	---
28	22.75	22.28	21.16	21.29	---	22.05	18.35	19.13	19.85	20.38	20.95	---
29	22.75	22.24	21.14	21.33	---	22.01	18.33	19.16	19.87	20.40	20.97	---
30	22.75	22.19	21.13	21.37	---	21.96	18.33	19.18	19.89	20.42	20.99	---
31	22.75	---	21.11	21.40	---	21.91	---	19.20	---	20.44	21.00	---

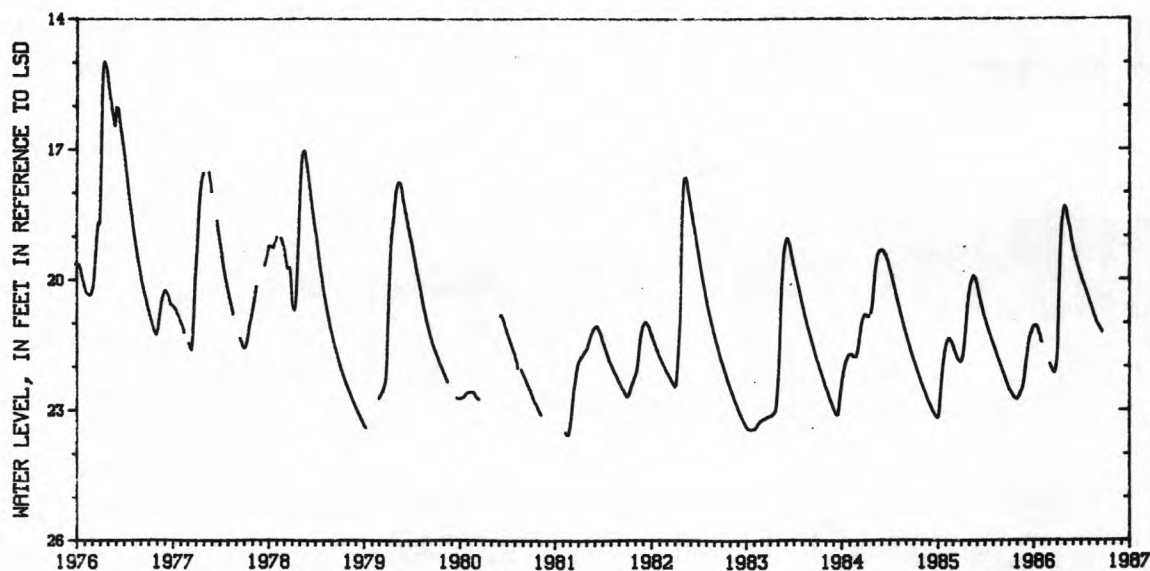
WTR YEAR 1986

HIGHEST

18.31 May 1, 1986

LOWEST

22.75 Oct. 28, 29-31, Nov. 1-2, 3, 1985



## GROUND-WATER LEVELS

245

## PUTNAM COUNTY

412450073413101. Local number, P 609.

LOCATION.--Lat 41°24'50", long 73°41'31", Hydrologic Unit 02030101, near Carmel.

Owner: New York City Board of Water Supply.

AQUIFER.--Water-table aquifer in till of Pleistocene age.

WELL CHARACTERISTICS.--Dug unused well, diameter 36 in., depth 16 ft in June 1984, stone-lined.

INSTRUMENTATION.--Weekly tape measurement by observer.

DATUM.--Elevation of land-surface datum is 540 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top (north side) of 3-in. coupling set in concrete well cover, at land-surface datum.

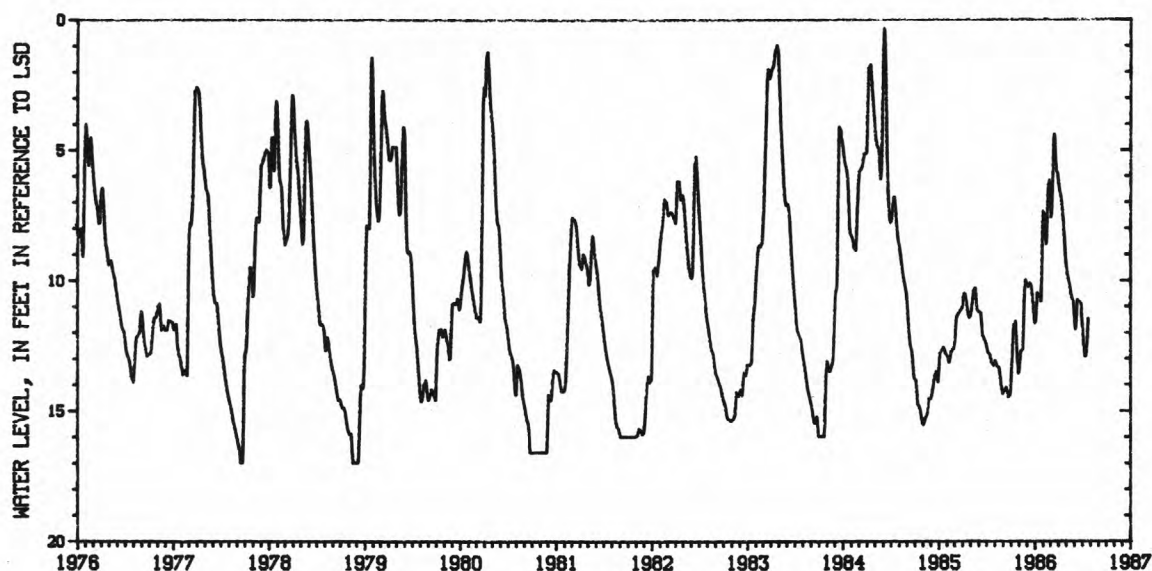
REMARKS.--Original depth measured at 17 ft. Depth measured at 16.6 ft October 1979, filled in to 16 ft September 1981.

PERIOD OF RECORD.--January 1935 to September 1945, September 1950 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.84 ft below land-surface datum, June 2, 1984; lowest measured, dry, Nov. 1, 30, 1935, Jan. 7, 1936, Sept. 1, 1939, several days in 1953, 1957, 1964, 1966, 1978, Sept. 25, 1980, several days in 1981, 1982, 1984.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1985	13.20	DEC 14, 1985	10.12	MAR 01, 1986	6.77	MAY 10, 1986	9.95
12	11.71	21	10.48	08	7.35	17	10.28
19	11.58	JAN 04, 1986	11.54	15	4.52	24	10.70
27	13.25	11	10.50	22	5.50	31	10.90
NOV 02	13.50	18	10.60	29	5.90	JUN 07	11.88
09	12.72	25	10.80	APR 05	6.48	14	10.75
16	12.64	FEB 01	7.36	12	6.80	28	10.90
23	10.38	08	7.48	19	7.50	JUL 19	12.75
30	10.10	15	8.54	26	8.47	26	11.48
DEC 07	10.24	22	6.36	MAY 03	9.48		



## GROUND-WATER LEVELS

## RENSSELAER COUNTY

423834073391001. Local number, Re 700.

LOCATION.--Lat 42°38'34", long 73°39'10", Hydrologic Unit 02020006, near Defreestville.

Owner: William P. Hofmann.

AQUIFER.--Water-table aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Dug domestic well, diameter 4 ft, depth 15.8 ft in November 1985, stone-lined.

INSTRUMENTATION.--Weekly tape measurement by observer.

DATUM.--Elevation of land-surface datum is 405 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top edge of concrete curbing at midpoint of north side of rectangular opening, 2.00 ft above land-surface datum.

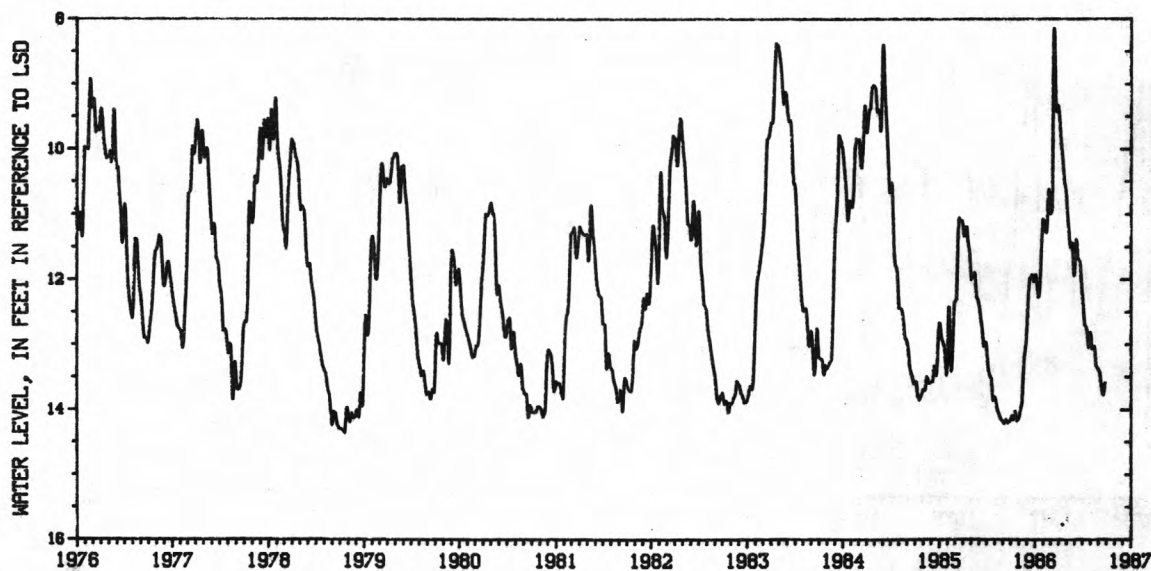
PERIOD OF RECORD.--September 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.23 ft below land-surface datum, Mar. 15, 1986; lowest measured, 15.49 ft below land-surface datum, Oct. 3, 1964.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1985	14.10	JAN 04, 1986	11.93	APR 13, 1986	9.93	JUL 05, 1986	12.37
12	14.16	11	12.15	19	10.22	12	12.70
19	14.03	18	12.25	25	10.53	19	12.77
26	14.18	25	11.64	30	10.66	26	13.05
NOV 02	14.13	FEB 01	11.08	MAY 05	10.95	AUG 02	12.82
09	13.97	08	11.10	11	11.26	09	13.07
15	13.77 Z	15	11.28	17	11.51	18	13.04
16	13.67	22	10.65	24	11.45	24	13.33
24	13.15	MAR 01	11.00	31	11.94	30	13.37
DEC 01	12.86	08	10.94	JUN 08	11.39	SEP 06	13.42
08	12.20	15	8.23	14	11.67	13	13.64
14	11.97	22	9.19	23	11.73	21	13.78
21	11.93	29	9.35	28	12.03	27	13.60
28	12.03						

Z Measured by USGS personnel.



## GROUND-WATER LEVELS

247

## RENSSELAER COUNTY

423534073423401. Local number, Re 703.

LOCATION.--Lat 42°35'34", long 73°42'34", Hydrologic Unit 02020006, in East Greenbush.

Owner: Town of East Greenbush.

AQUIFER.--Confined aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 80 ft, cased to 78 ft, 50-slot plastic screen 78 ft to 80 ft.

INSTRUMENTATION.--Water-stage recorder--hourly punch.

DATUM.--Elevation of land-surface datum is 275 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of flange, 2.9 ft above land-surface datum.

REMARKS.--The wrong measuring point value was used from November 1982 through the 1985 water year.

A -.20 correction should be applied to all published record prior to the 1985 water year. Well was drilled October 1982 as a replacement for 423532073423701 (local number Re 701), located about 300 ft southwest and 15.8 ft lower in land-surface datum, which has a period of record from March 1961 to May 1980. Hydrograph shows water levels plotted for Re 701 (through 1980) adjusted to elevation of water levels plotted for Re 703. Water level may be affected by nearby pumping.

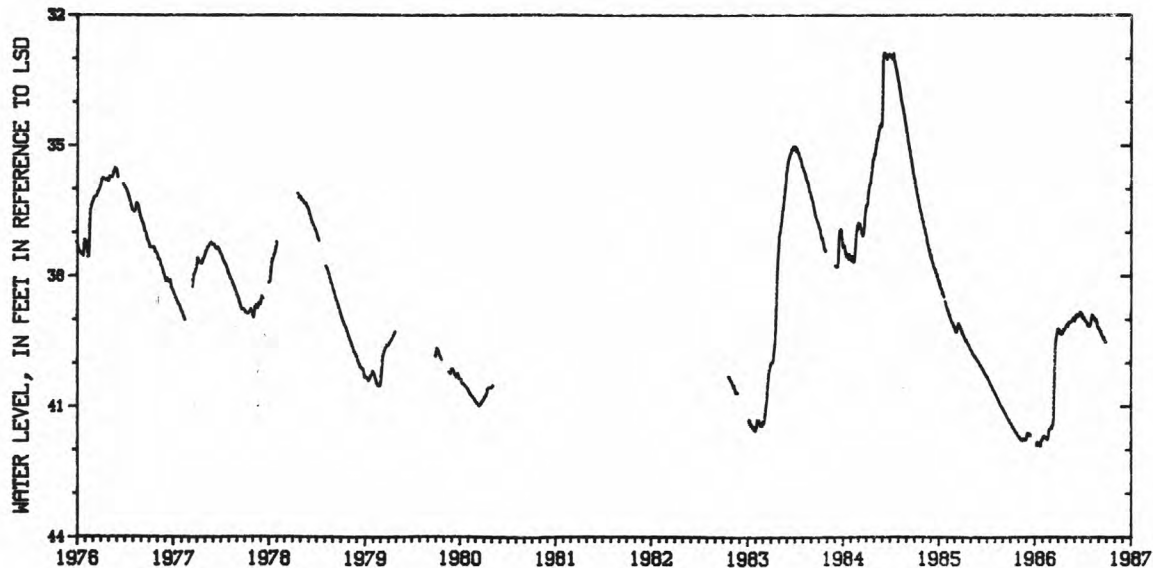
PERIOD OF RECORD.--October 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 32.86 ft below land-surface datum, June 4, 5, 6, 7, 8, 9, July 11, 1984; lowest recorded, 41.93 ft below land-surface datum, Jan. 23, 24, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41.38	41.69	41.73	---	41.75	41.52	39.20	39.14	38.95	38.93	39.12	39.18
2	41.40	41.70	41.65	---	41.70	41.50	39.21	39.15	38.99	38.88	39.09	39.19
3	41.41	41.72	41.70	---	41.71	41.52	39.26	39.16	39.03	38.91	39.06	39.21
4	41.41	41.72	41.68	---	41.71	41.51	39.28	39.15	38.98	38.96	39.04	39.22
5	41.40	41.70	41.64	---	41.67	41.49	39.31	39.11	38.96	38.95	39.00	39.20
6	41.43	41.72	41.61	---	41.72	41.46	39.30	39.11	38.97	38.97	38.95	39.22
7	41.45	41.73	41.62	---	41.70	41.45	39.26	39.11	38.94	38.97	38.92	39.25
8	41.47	41.75	41.61	41.91	41.70	41.51	39.24	39.13	38.90	38.97	38.89	39.27
9	41.46	41.76	41.64	41.86	41.70	41.46	39.25	39.15	38.95	38.95	38.89	39.29
10	41.46	41.76	41.66	41.84	41.70	41.43	39.26	39.09	38.94	38.99	38.91	39.29
11	41.49	41.79	41.64	41.86	41.69	41.42	39.27	39.06	38.89	39.01	38.90	39.27
12	41.51	41.78	41.63	41.82	41.70	41.44	39.30	39.07	38.91	39.02	38.96	39.26
13	41.50	41.75	41.64	41.84	41.72	41.38	39.33	39.07	38.91	39.03	38.96	39.33
14	41.52	41.77	41.63	41.88	41.72	41.31	39.33	39.08	38.92	39.02	38.95	39.36
15	41.51	41.79	41.65	41.90	41.71	41.05	39.31	39.08	38.91	39.04	38.94	39.37
16	41.54	41.79	41.65	41.91	41.75	40.67	39.29	39.05	38.88	39.05	38.94	39.37
17	41.57	41.75	41.66	41.89	41.74	40.34	39.28	39.04	38.91	39.05	38.96	39.41
18	41.56	41.77	41.67	41.89	41.73	40.08	39.31	39.04	38.92	39.05	38.96	39.41
19	41.55	41.75	---	41.87	41.73	39.84	39.29	39.04	38.92	39.06	38.99	39.41
20	41.59	41.73	---	41.84	41.76	39.74	39.24	39.05	38.91	39.06	39.02	39.43
21	41.59	41.77	---	41.90	41.73	39.64	39.21	39.04	38.91	39.08	39.02	39.45
22	41.60	41.75	---	41.89	41.69	39.54	39.24	39.03	38.86	39.12	39.03	39.45
23	41.61	41.75	---	41.92	41.64	39.46	39.25	39.02	38.83	39.13	39.01	39.41
24	41.60	41.75	---	41.93	41.61	39.43	39.23	39.01	38.83	39.14	38.99	39.43
25	41.61	41.78	---	41.89	41.57	39.39	39.21	39.01	38.88	39.14	39.05	39.47
26	41.63	41.76	---	41.81	41.54	39.33	39.20	39.01	38.90	39.14	39.08	39.48
27	41.63	41.75	---	41.77	41.52	39.30	39.20	38.98	38.86	39.15	39.05	39.50
28	41.66	41.77	---	41.78	41.53	39.28	39.19	38.96	38.84	39.15	39.10	39.52
29	41.67	41.78	---	41.79	---	39.24	39.17	38.96	38.86	39.14	39.15	39.52
30	41.67	41.77	---	41.77	---	39.21	39.17	38.95	38.90	39.15	39.17	39.51
31	41.68	---	---	41.75	---	39.23	---	38.95	---	39.14	39.18	---

WTR YEAR 1986      HIGHEST      38.82 June 24, 1986      LOWEST RECORDED      41.93 Jan. 23, 24, 1986





## GROUND-WATER LEVELS

## ROCKLAND COUNTY

411802073593001. Local number, Ro 18.

LOCATION.--Lat 41°18'02", long 73°59'30", Hydrologic Unit 02030101, in Bear Mountain State Park near Lemon Road and Seven Lakes Drive.

Owner: Palisades Interstate Park Commission.

AQUIFER.--Confined aquifer in Storm King Granite of Precambrian age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in., depth 60 ft, cased to 53 ft, open hole.

INSTRUMENTATION.--Tape gage read weekly by observer.

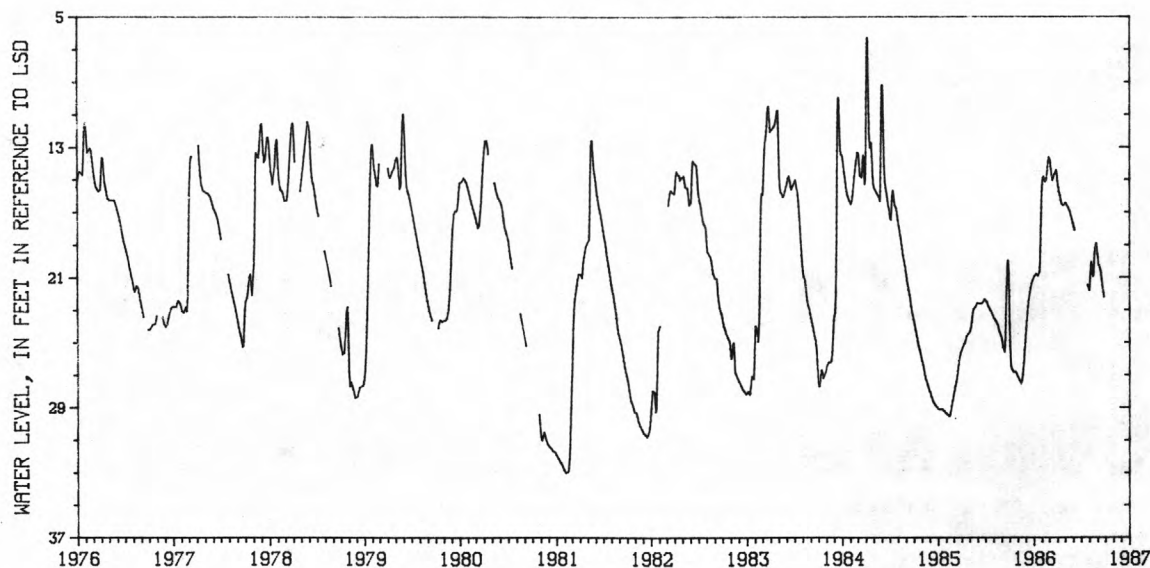
DATUM.--Elevation of land-surface datum is 390 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of extended casing, 3.65 ft above land-surface datum.

PERIOD OF RECORD.--July 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.32 ft below land-surface datum, Apr. 6, 1984; lowest measured, 33.02 ft below land-surface datum, Feb. 6, 1981.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 1985	25.22	JAN 10, 1986	20.78	APR 04, 1986	15.41	JUL 25, 1986	21.50
11	26.67	17	20.89	11	15.99	AUG 01	21.82
18	26.84	24	20.65	18	16.51	08	20.09
25	26.82	31	16.39	25	16.61	15	20.95
NOV 01	27.10	FEB 07	14.85	MAY 02	16.45	22	19.20
08	27.34	14	15.13	09	16.64	SEP 05	20.22
15	27.54	21	14.63	17	16.89	12	20.53
DEC 06	23.69	28	13.66	23	17.23	19	21.49
20	21.66	MAR 14	15.06	30	17.68	26	22.21
27	21.20	28	14.43	JUN 06	18.11		



## ST. LAWRENCE COUNTY

444904074455201. Local number, St 40.

LOCATION.--Lat 44°49'04", long 74°45'52", Hydrologic Unit 04150306, near Brasher Falls.

Owner: New York State Department of Environmental Conservation.

AQUIFER.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Dug unused well, diameter 36 in., depth 11.3 ft in October 1985, filled in from original depth of 12 ft, concrete cased to 12 ft, open end.

INSTRUMENTATION.--Tape gage read weekly by observer.

DATUM.--Elevation of land-surface datum is 300 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Chisled mark on top edge of 6-in. by 8-in. opening of concrete well cover, 0.65 ft above land-surface datum.

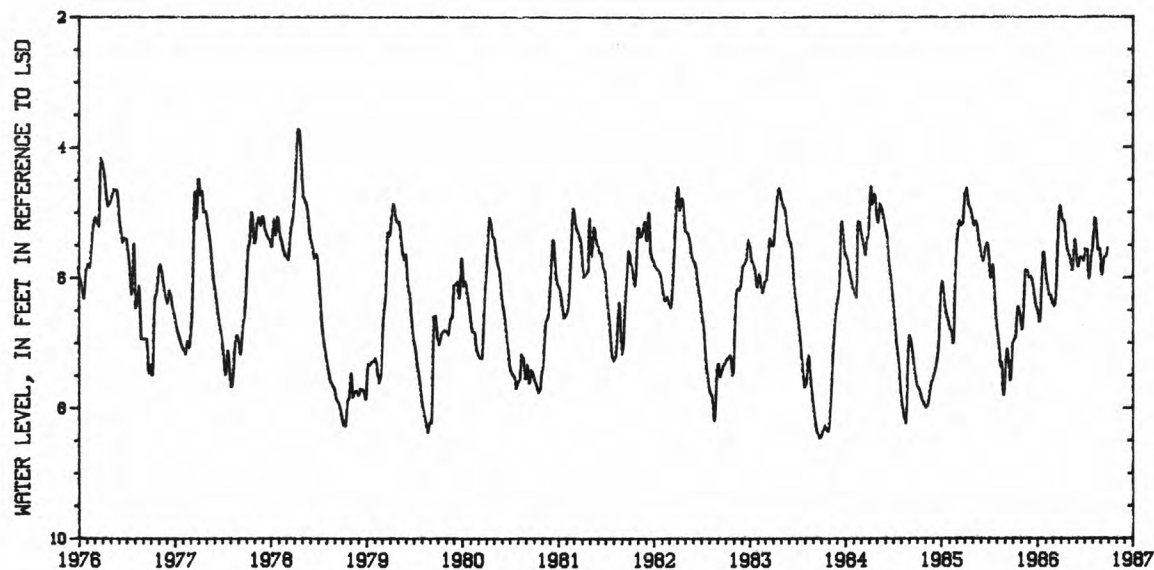
PERIOD OF RECORD.--May 1953 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.24 ft below land-surface datum, Apr. 21, 1971; lowest measured, 9.38 ft below land-surface datum, Oct. 24, 1964.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1985	6.95	JAN 05, 1986	6.55	APR 06, 1986	5.09	JUL 05, 1986	5.56
11	6.91 Z	12	6.67	13	5.12	13	5.57
13	6.76	19	6.00	20	5.28	20	6.01
20	6.45	26	5.61	27	5.56	27	5.67
27	6.54	FEB 02	5.92	MAY 04	5.65	AUG 03	5.53
NOV 03	6.79	09	6.09	11	5.77	10	5.09
10	6.53	16	6.26	18	5.88	17	5.27
17	5.88	23	6.28	25	5.43	24	5.57
24	5.89	MAR 02	6.39	JUN 01	5.63	31	5.56
DEC 01	5.99	09	6.44	08	5.83	SEP 07	5.95
08	5.98	16	6.19	15	5.68	14	5.70
15	6.10	23	5.40	22	5.70	21	5.68
22	6.30	30	4.90	29	5.74	28	5.55
29	6.45						

Z Measured by USGS personnel.



## GROUND-WATER LEVELS

## ST. LAWRENCE COUNTY

445216074593001. Local number, St 404.

LOCATION.--Lat 44°52'16", long 74°59'30", Hydrologic Unit 04150305, near Raymondville.

Owner: New York Power Authority.

AQUIFER.--Confined aquifer in Beekmantown dolomite of Cambrian age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 179.6 ft, cased to 54 ft, open hole.

INSTRUMENTATION.--Monthly tape measurement by observer.

DATUM.--Elevation of land-surface datum is 247.7 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 3.90 ft above land-surface datum.

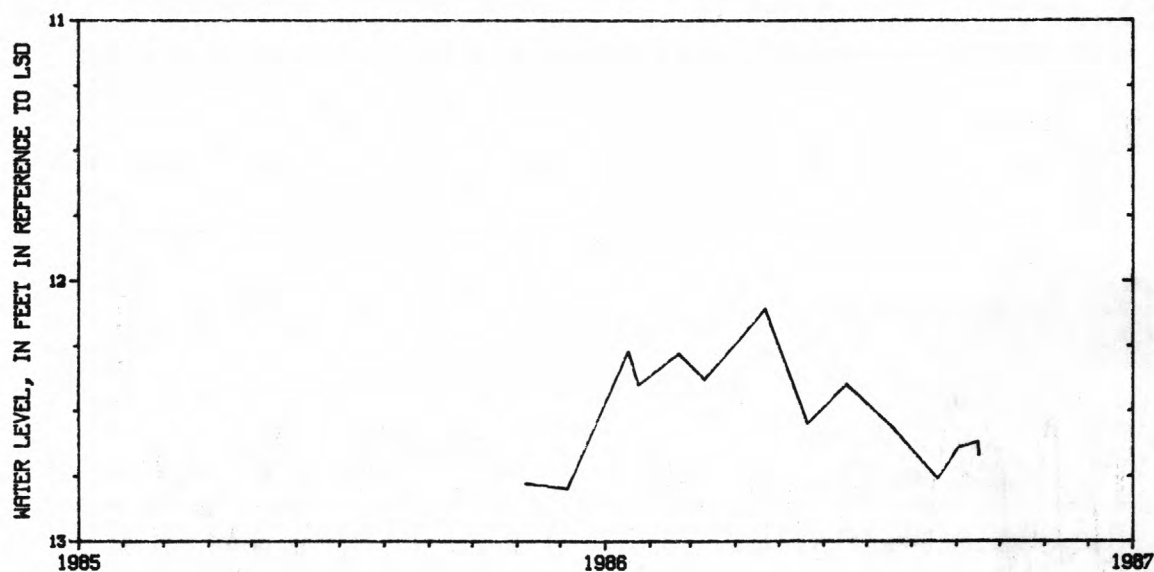
PERIOD OF RECORD.--June 1958 to November 1964, November 1985 to current year. Records prior to November 1985 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 11.86 ft below land-surface datum, Apr. 22, 1964; lowest recorded, 16.33 ft below land-surface datum, Oct. 13, 1960.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 07, 1985	12.78 Z	FEB 21, 1986	12.28	JUN 17, 1986	12.40	SEP 03, 1986	12.64 Z
DEC 06	12.80	MAR 11	12.38	JUL 18	12.56	16	12.62
JAN 17, 1986	12.27	APR 22	12.11	AUG 19	12.76	17	12.67 Z
24	12.40 Z	MAY 21	12.55				

Z Measured by USGS personnel.



## GROUND-WATER LEVELS

251

## SARATOGA COUNTY

430327073475401. Local number, Sa 529.

LOCATION.--Lat 43°03'27", long 73°47'54", Hydrologic Unit 02020003, at Saratoga Springs.

Owner: Saratoga Springs Authority, New York State.

AQUIFER.--Confined aquifer in dolomite of Ordovician age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in., depth 304 ft, cased to 189 ft, open hole.

INSTRUMENTATION.--Water-stage recorder--15-minute punch.

DATUM.--Elevation of land-surface datum is 305 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.38 ft above land-surface datum.

REMARKS.--Water level affected by earthquakes and distant pumping.

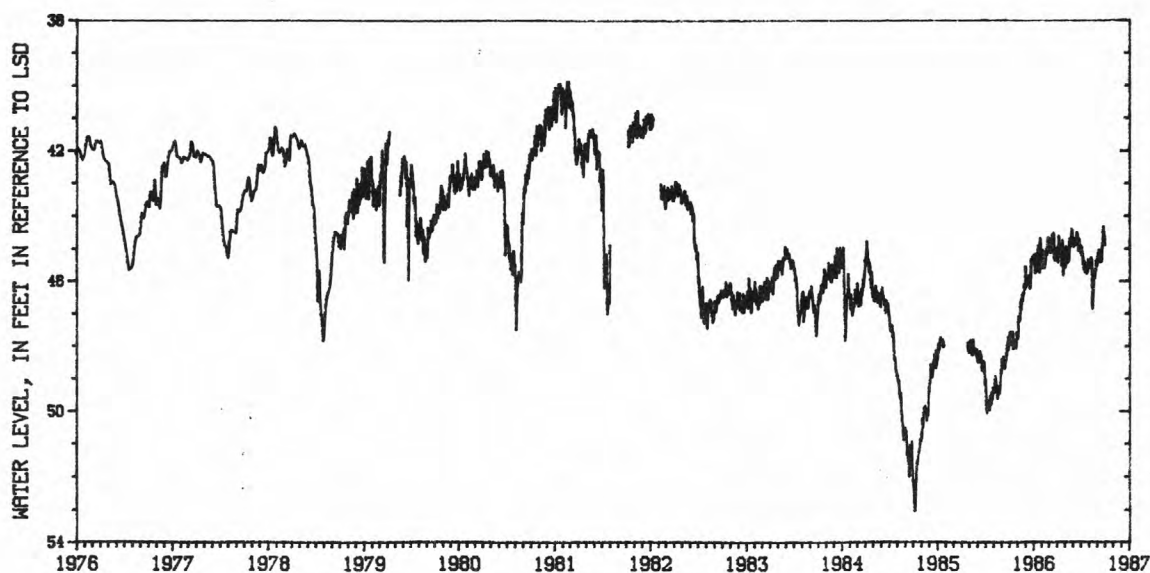
PERIOD OF RECORD.--May 1949 to November 1961, August 1964 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 39.70 ft below land-surface datum, Jan. 7, 1981; lowest, 56.20 ft below land-surface datum, July 29, 1949.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47.79	47.65	46.06	45.32	45.60	44.93	45.02	45.41	44.70	45.14	45.47	45.45
2	47.85	47.68	45.55	45.44	45.25	44.87	45.12	45.56	44.81	44.94	45.45	45.30
3	47.88	47.77	45.95	45.28	45.34	44.92	45.36	45.45	44.93	44.96	45.47	45.24
4	47.80	47.69	46.17	45.48	45.31	44.82	45.41	45.22	44.79	45.21	45.58	45.14
5	47.57	47.26	46.13	45.18	45.06	44.82	45.28	44.95	44.81	45.08	45.60	45.16
6	47.62	47.10	46.04	45.19	45.39	44.74	44.99	45.11	44.90	45.14	45.56	45.15
7	47.80	47.12	46.08	45.48	45.36	44.73	44.62	45.22	44.82	45.17	45.53	45.05
8	47.95	47.16	45.97	45.74	45.32	45.12	44.65	45.30	44.69	45.26	45.29	45.15
9	47.84	47.22	46.05	45.50	45.30	44.99	44.76	45.43	44.85	45.35	45.28	45.23
10	47.72	47.09	46.11	45.36	45.21	44.84	44.85	45.25	44.88	45.54	45.39	45.38
11	47.84	47.19	45.96	45.47	45.41	44.68	44.99	45.04	44.70	45.62	45.34	45.40
12	47.98	47.01	45.91	45.19	45.59	45.10	45.00	45.02	44.76	45.58	46.14	45.38
13	47.80	46.67	45.97	45.16	45.52	45.07	45.02	45.15	44.72	45.53	46.77	45.38
14	47.74	46.70	45.84	45.27	45.51	44.84	45.09	45.34	44.73	45.40	46.85	45.28
15	47.56	46.86	45.94	45.51	45.31	44.58	45.12	45.38	44.72	45.49	46.70	45.17
16	47.76	46.88	45.91	45.68	45.37	44.64	45.17	45.21	44.52	45.64	46.32	45.20
17	48.09	46.57	45.86	45.57	45.21	44.69	45.27	44.97	44.52	45.72	46.14	45.39
18	48.03	46.68	45.92	45.47	45.07	44.68	45.50	44.82	44.63	45.72	45.91	45.22
19	47.86	46.53	46.22	45.28	45.04	44.53	45.38	44.71	44.84	45.70	45.86	45.01
20	48.01	46.42	46.20	44.91	45.19	44.96	45.02	44.83	44.91	45.63	45.87	44.88
21	48.05	46.61	45.97	45.22	45.08	45.27	44.76	44.89	45.06	45.68	45.89	44.84
22	48.01	46.49	45.86	45.23	45.15	45.31	45.06	44.89	45.00	45.76	45.91	44.71
23	48.01	46.39	45.55	45.55	44.98	45.18	45.38	44.92	44.78	45.75	45.78	44.34
24	47.92	46.35	45.36	45.73	44.87	45.24	45.81	44.88	44.71	45.72	45.60	44.33
25	47.83	46.39	45.32	45.59	44.74	45.36	45.74	44.70	44.92	45.69	45.65	44.49
26	47.94	46.20	45.42	45.07	44.69	45.24	45.43	44.57	45.07	45.56	45.63	44.53
27	47.95	46.10	45.36	44.69	44.67	45.15	45.30	44.40	44.95	45.44	45.37	44.60
28	48.06	46.14	45.41	44.82	44.86	45.19	45.15	44.51	44.90	45.39	45.45	44.63
29	47.80	46.18	45.36	45.11	---	45.10	45.24	44.67	44.95	45.34	45.53	44.74
30	47.59	46.24	45.40	45.36	---	44.99	45.42	44.68	45.05	45.36	45.50	44.89
31	47.67	---	45.24	45.47	---	45.06	---	44.71	---	45.43	45.48	---

WTR YEAR 1986      HIGHEST    44.21 Sept. 23, 1986      LOWEST    48.16 Oct. 17, 18, 1985





## GROUND-WATER LEVELS

## SARATOGA COUNTY

430013073370401. Local number, Sa 1072.

LOCATION.--Lat 43°00'13", long 73°37'04", Hydrologic Unit 02020003, Saratoga National Historical Park near Stillwater.

Owner: U.S. National Park Service.

AQUIFER.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 24 ft, cased to 21 ft, 2-in. well point (30-gauze screen 21 ft to 24 ft).

INSTRUMENTATION.--Monthly tape measurement by observer.

DATUM.--Elevation of land-surface datum is 223.8 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.31 ft above land-surface datum.

REMARKS.--Water level affected by adjacent wells pumping.

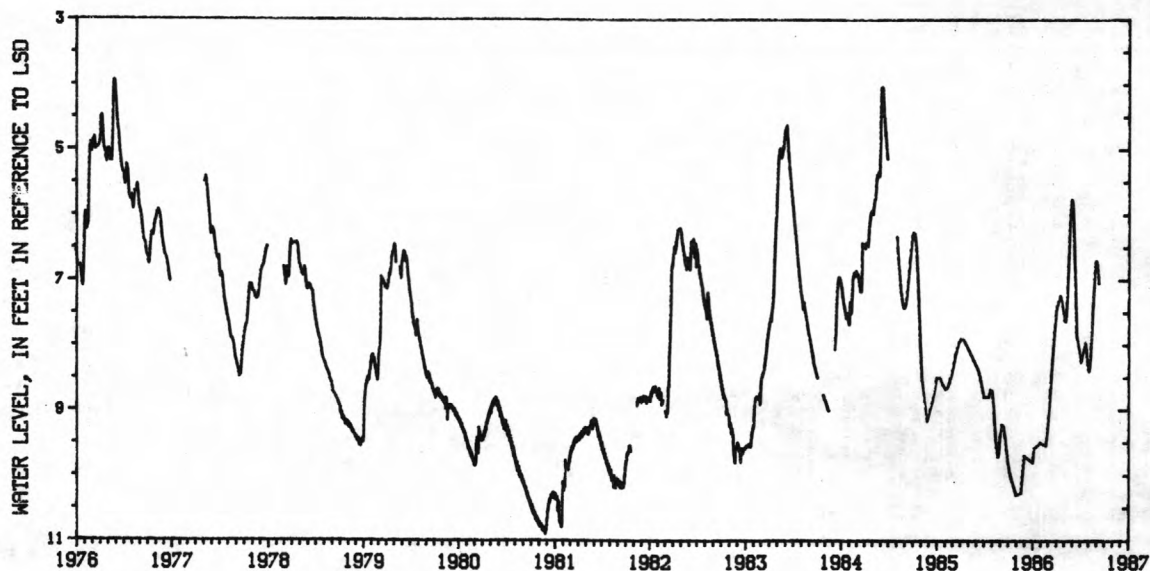
PERIOD OF RECORD.--July 1959 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.94 ft below land-surface datum, May 25, 1976; lowest, 11.91 ft below land-surface datum, Oct. 8, 1965.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1985	9.80	JAN 02, 1986	9.80	APR 30, 1986	7.50	JUL 21, 1986	7.96 Z
11	10.01 Z	08	9.58 Z	MAY 07	7.63 Z	AUG 04	8.40
NOV 01	10.30	FEB 21	9.54 Z	JUN 02	5.80	SEP 02	6.70
19	10.27 Z	APR 04	7.40	19	7.88 Z	10	7.04 Z
DEC 02	9.70						

Z Measured by USGS personnel.



## GROUND-WATER LEVELS

253

## SARATOGA COUNTY

425242073473201. Local number, Sa 1100.

LOCATION.--Lat 42°52'42", long 73°47'32", Hydrologic Unit 02020004, near Clifton Park.

Owner: Country Knolls Water Works.

AQUIFER.--Confined aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in., depth 179 ft, cased to 179 ft, open end.

INSTRUMENTATION.--Water-stage recorder--hourly punch.

DATUM.--Elevation of land-surface datum is 248 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--Water level affected by pumping from nearby public-supply well.

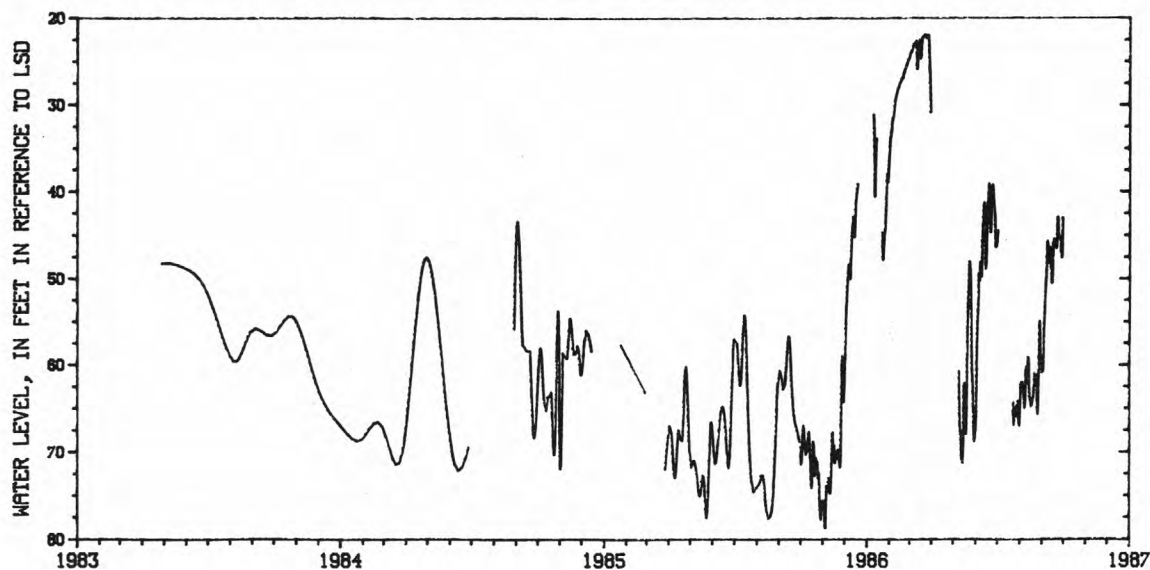
PERIOD OF RECORD.--April 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 21.84 ft below land-surface datum, Mar. 23, 24, 1986; lowest recorded, 80.19 ft below land-surface datum, Aug. 21, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69.47	75.70	62.60	---	35.91	24.45	---	---	67.77	45.84	67.00	60.87
2	71.45	75.64	59.51	---	34.30	24.07	---	---	65.97	44.50	64.70	60.47
3	71.23	75.83	55.24	---	33.57	23.92	---	---	59.81	---	62.29	60.75
4	68.96	77.30	52.96	---	32.81	23.78	---	---	54.89	---	62.04	56.78
5	67.00	78.76	50.89	---	31.78	23.62	---	---	53.00	---	62.00	54.08
6	67.27	75.51	49.14	---	31.48	23.25	---	---	49.39	---	62.33	51.59
7	68.90	73.95	48.36	---	30.80	22.99	---	---	50.22	---	63.08	50.35
8	69.87	74.58	48.84	---	30.12	23.21	---	---	48.11	---	65.00	47.51
9	70.28	74.31	49.98	---	29.56	22.95	---	60.76	49.64	---	64.64	45.73
10	68.88	73.05	47.58	31.11	29.10	22.80	---	65.55	48.78	---	60.68	46.38
11	69.95	74.11	45.63	34.83	28.72	22.69	---	67.55	45.19	---	60.21	48.23
12	68.68	74.75	44.13	40.56	28.38	25.86	---	68.51	42.92	---	62.10	47.29
13	67.71	72.95	42.90	36.11	28.11	24.65	---	70.84	41.32	---	59.14	46.43
14	69.04	69.67	44.07	33.91	27.96	23.42	---	70.94	43.19	---	59.74	48.62
15	70.17	67.78	45.18	---	27.51	22.73	---	70.16	48.86	---	63.66	50.49
16	72.09	69.67	42.05	---	27.41	22.55	---	62.50	48.47	---	64.02	49.50
17	74.18	69.28	40.69	---	27.23	24.62	---	62.15	44.38	---	64.78	46.00
18	72.74	71.28	39.77	---	27.03	23.58	---	66.74	41.87	---	64.67	45.48
19	68.82	70.66	39.13	---	26.89	22.33	---	67.90	40.28	---	64.20	45.73
20	69.31	70.05	---	---	26.83	22.20	---	64.31	39.12	---	63.85	46.21
21	72.76	70.28	---	---	26.41	22.14	---	56.80	40.71	---	63.18	46.47
22	71.75	70.78	---	44.74	26.22	22.04	---	52.96	44.59	---	61.05	45.67
23	70.74	69.83	---	47.79	25.80	21.90	---	50.21	43.04	64.35	61.51	42.92
24	71.70	70.19	---	46.93	25.62	22.08	---	48.04	40.40	66.96	62.37	44.82
25	71.15	71.52	---	44.92	25.39	22.23	---	48.95	39.23	64.97	61.18	45.40
26	73.02	70.39	---	44.48	25.11	22.10	---	52.72	40.40	65.04	65.44	45.40
27	72.37	62.65	---	42.71	24.84	22.01	---	58.96	41.83	65.40	64.27	45.22
28	74.58	59.00	---	39.62	24.71	22.03	---	61.26	42.70	65.93	59.25	46.92
29	77.32	61.24	---	37.99	---	24.54	---	64.60	46.33	64.74	54.99	47.55
30	77.77	64.33	---	38.87	---	26.91	---	67.62	46.33	64.25	58.30	43.05
31	76.03	---	---	37.52	---	30.83	---	68.78	---	66.57	59.05	---

WTR YEAR 1986 HIGHEST 21.84 Mar. 23, 24, 1986 LOWEST 79.43 Nov. 5, 1985



## GROUND-WATER LEVELS

## SCHENECTADY COUNTY

424910073591401. Local number, Sn 363.

LOCATION.--Lat 42°49'10", long 73°59'14", Hydrologic Unit 02020004, in Schenectady.

Owner: City of Schenectady.

AQUIFER.--Water-table aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 54.5 ft in April 1980, filled in from original depth of 57 ft, cased to 57 ft, open end.

INSTRUMENTATION.--Water-stage recorder--hourly punch.

DATUM.--Elevation of land-surface datum is 228.50 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 2.47 ft above land-surface datum.

REMARKS.--Water level affected by stage of Mohawk River, and by pumping (average 15.62 Mgal/d in 1986) from adjacent municipal well field. Well was drilled June 1960 as a replacement for 424926073592201 (local number Sn 128), located 1,540 ft northwest, which has a period of record from April 1946 to March 1961.

PERIOD OF RECORD.--June 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.62 ft below land-surface datum, Dec. 27, 1973; lowest, 31.27 ft below land-surface datum, Feb. 10, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.60	20.41	20.09	22.30	17.49	18.59	16.81	22.84	20.27	20.63	18.32	19.15
2	18.95	19.95	19.93	21.95	17.93	18.50	17.44	22.51	19.76	20.21	17.93	19.79
3	19.47	19.97	19.09	22.23	18.24	19.01	17.18	21.95	19.34	19.02	17.52	19.45
4	19.90	19.98	18.83	22.30	18.12	19.40	17.23	21.61	20.04	18.87	17.87	19.83
5	20.21	20.41	19.43	22.00	18.30	19.65	17.75	21.30	20.20	19.04	18.44	19.58
6	20.14	20.05	19.98	22.38	18.36	19.73	18.17	22.16	20.36	19.69	18.55	19.52
7	20.37	19.70	20.08	22.54	18.22	19.47	18.16	21.85	18.99	20.40	18.67	19.46
8	20.27	19.77	20.41	22.36	18.52	19.81	17.70	21.65	18.67	20.95	18.53	19.33
9	20.13	19.57	20.83	22.63	18.52	20.22	18.20	20.51	18.91	21.16	18.45	20.06
10	20.18	19.96	21.20	22.76	19.03	20.51	18.53	20.95	19.32	21.08	17.98	19.48
11	20.30	19.45	21.18	22.78	19.33	20.48	18.83	22.22	19.66	20.95	18.57	20.03
12	19.93	19.09	21.47	22.35	19.51	19.87	19.35	22.30	19.15	20.69	18.34	19.81
13	19.98	19.00	21.55	22.54	19.60	18.66	19.49	22.85	18.15	20.09	19.05	19.70
14	20.03	18.98	21.10	22.71	19.59	17.71	20.50	23.16	17.81	18.89	19.08	19.65
15	19.92	17.74	21.23	22.58	19.97	13.22	20.63	23.18	18.21	18.74	19.66	19.66
16	19.52	17.09	21.12	22.82	20.02	7.77	21.03	22.68	18.60	18.96	18.75	19.80
17	19.14	16.71	21.49	23.02	20.23	10.72	21.21	22.42	18.17	19.75	18.08	19.29
18	19.11	16.85	21.74	23.10	20.51	12.74	21.28	21.73	18.28	20.23	18.10	19.67
19	19.33	16.65	21.89	22.90	20.28	13.29	21.32	21.75	18.68	20.57	18.29	19.52
20	19.22	17.27	22.01	23.04	20.15	9.55	21.53	21.09	17.24	20.17	18.75	19.47
21	19.11	17.66	21.67	20.28	19.94	12.29	21.51	19.43	17.00	18.68	18.89	19.08
22	19.47	18.00	21.98	14.44	18.89	14.83	21.30	17.74	17.90	19.02	19.48	18.95
23	19.71	17.81	22.03	13.51	17.41	16.24	21.40	16.61	17.88	19.00	19.15	18.80
24	19.56	17.71	22.02	14.08	17.17	17.09	21.50	16.63	18.39	19.75	18.96	18.17
25	19.61	18.35	21.64	14.81	17.32	17.72	21.96	17.24	17.99	20.38	19.30	18.02
26	19.12	19.45	21.82	16.04	17.66	17.93	22.31	17.94	18.26	20.53	19.58	18.33
27	18.98	20.07	21.80	16.29	18.03	16.96	22.00	18.96	19.05	19.79	19.94	18.19
28	19.37	19.86	22.01	16.80	18.15	15.76	22.76	19.72	19.18	19.19	19.10	18.53
29	19.62	19.89	21.99	17.35	---	16.12	23.12	20.05	19.95	18.96	19.29	18.56
30	19.66	19.38	22.11	17.52	---	16.62	23.13	20.33	20.13	18.59	19.25	18.62
31	20.09	---	22.03	17.79	---	16.73	---	20.68	---	18.37	19.37	---

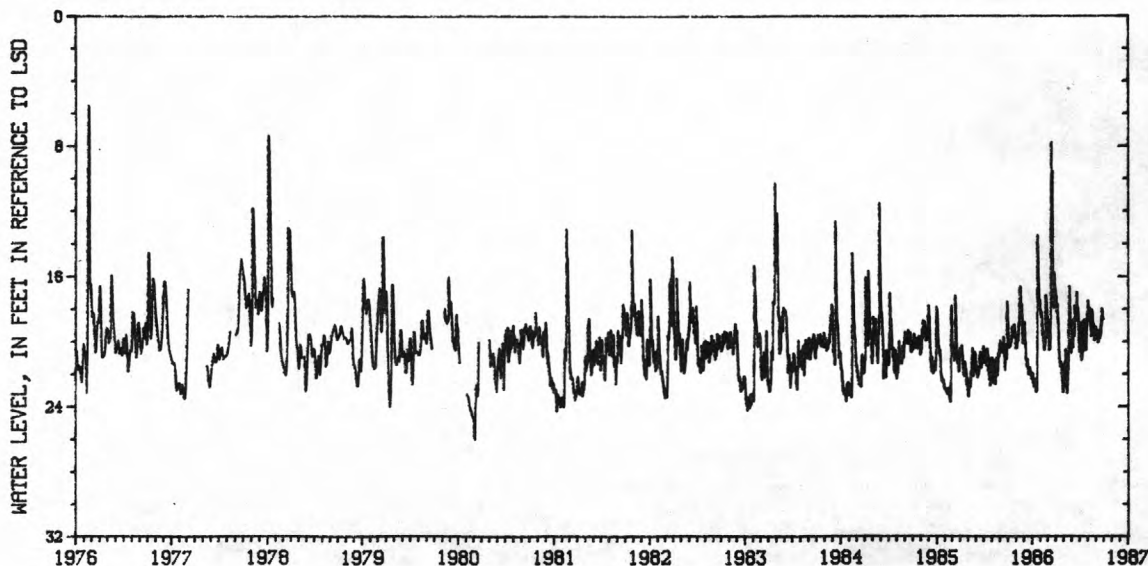
WTR YEAR 1986

HIGHEST

6.80 Mar. 16, 1986

LOWEST

23.36 Apr. 30, 1986



## ULSTER COUNTY

414425074213601. Local number, U 204.

LOCATION.--Lat 41°44'25", long 74°21'36", Hydrologic Unit 02020007, near Napanoch.

Owner: New York State Department of Correction.

AQUIFER.--Water-table aquifer in deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 8 in., depth 46 ft, cased to unknown depth, filled in from original depth of 67 ft.

INSTRUMENTATION.--Tape gage read weekly by observer.

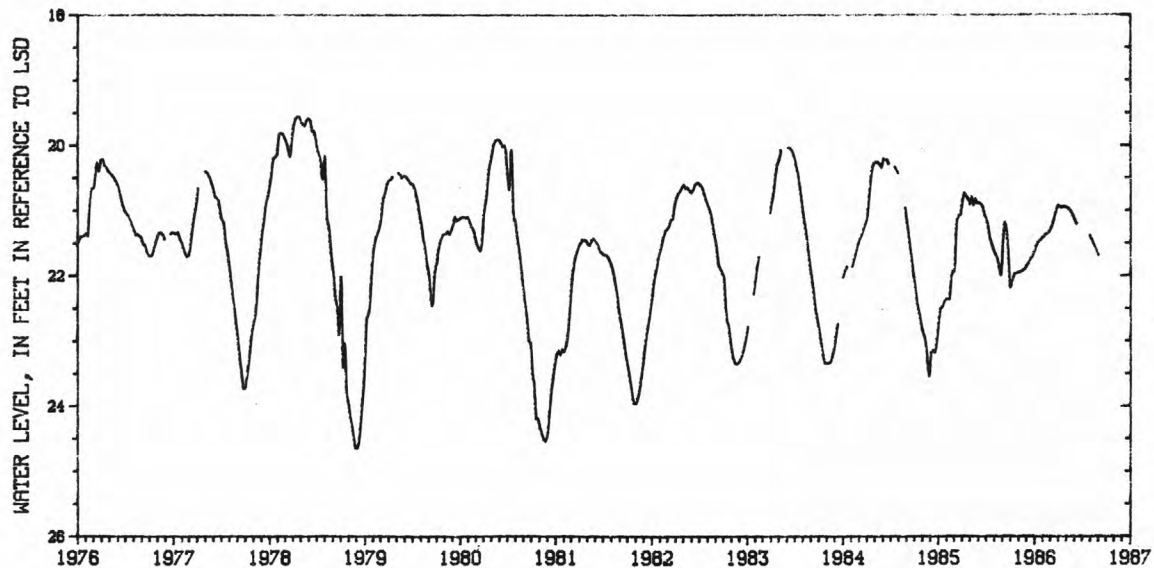
DATUM.--Elevation of land-surface datum is 300 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1954 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.84 ft below land-surface datum, Mar. 24, 1955; lowest measured, 26.90 ft below land-surface datum, Dec. 29, 1964.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1985	22.19	DEC 03, 1985	21.85	FEB 11, 1986	21.37	MAY 06, 1986	20.96
03	22.17	10	21.81	18	21.36	13	20.98
08	22.09	17	21.74	MAR 21	21.05	20	21.02
16	21.98	24	21.71	25	20.98	27	21.08
22	21.97	31	21.64	APR 01	20.93	JUN 03	21.14
29	21.96	JAN 07, 1986	21.55	08	20.94	10	21.21
NOV 05	21.95	14	21.49	15	20.96	JUL 30	21.39
12	21.94	21	21.46	22	20.94	AUG 05	21.43
19	21.92	28	21.43	29	20.95	SEP 02	21.69
26	21.90	FEB 04	21.41				





## GROUND-WATER LEVELS

## ULSTER COUNTY

414948074035101. Local number, U 405.

LOCATION.--Lat 41°49'48", long 74°03'51", Hydrologic Unit 02020007, Grist Mill Road, Tillson.

Owner: City School District of Kingston.

AQUIFER.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Bored observation well, diameter 2.5 in., depth 36 ft, cased to 34 ft, 2-in. well point (60-gauge screen 34 ft to 36 ft).

INSTRUMENTATION.--Weekly tape measurement by observer.

DATUM.--Elevation of land-surface datum is 240 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.47 ft above land-surface datum.

REMARKS.--Originally a dug well, diameter 36 in., depth 21 ft, stone-lined. Well deepened by power auger, October 1965.

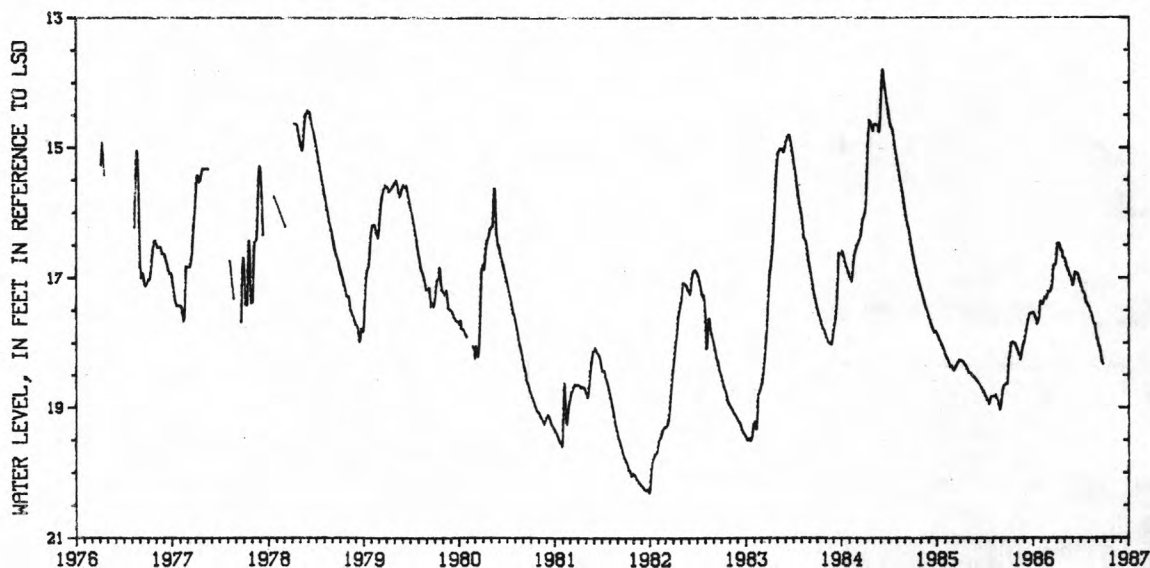
PERIOD OF RECORD.--October 1964 to July 1965, March 1966 to December 1974, April 1976 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.80 ft below land-surface datum, June 9, 1984; lowest measured, 20.71 ft below land-surface datum, Jan. 24, 1967.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1985	18.35 Z	JAN 04, 1986	17.53	APR 12, 1986	16.47	JUL 12, 1986	17.20
05	18.21	11	17.60	19	16.57	19	17.25
12	18.00	18	17.70	24	16.59 Z	24	17.36 Z
19	17.98	25	17.62	26	16.68	26	17.38
26	18.00	30	17.37 Z	MAY 03	16.70	AUG 02	17.43
NOV 02	18.08	FEB 01	17.36	10	16.81	09	17.51
07	18.14 Z	08	17.40	17	16.88	16	17.59
09	18.17	15	17.30	23	16.96	23	17.70
16	18.25	22	17.32	31	17.03	28	17.71 Z
23	18.08	MAR 01	17.21	JUN 04	17.11 Z	30	17.83
30	17.98	08	17.21	07	17.05	SEP 06	17.94
DEC 07	17.81	13	17.17 Z	14	16.92	11	18.06 Z
14	17.65	15	17.13	21	16.93	13	18.05
19	17.57 Z	22	16.81	28	17.01	20	18.22
21	17.55	29	16.79	JUL 05	17.12	27	18.33
28	17.54	APR 05	16.48				

Z Measured by USGS personnel.



## WASHINGTON COUNTY

431030073192101. Local number, W 533.

LOCATION.--Lat 43°10'30", long 73°19'21", Hydrologic Unit 02020003, in Salem.

Owner: Salem Central High School.

AQUIFER.--Water-table aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 15 ft, cased to 16 ft, open end.

Well backfilled 1.6 ft with coarse gravel.

INSTRUMENTATION.--Water-stage recorder--hourly punch.

DATUM.--Elevation of land-surface datum is 489.5 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.10 ft above land-surface datum.

REMARKS.--Well was drilled March 1974 as a replacement for 431032073192401 (local number W 532), located 350 ft northwest, which has a period of record from October 1965 to June 1973 (unpublished).

PERIOD OF RECORD.--March 1974 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 3.82 ft. below land-surface datum, Mar. 25, 1986; lowest recorded, 7.75 ft below land-surface datum, Aug. 26, 27-29, 30, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.36	7.09	6.33	6.75	5.80	6.45	4.76	6.32	6.61	6.68	6.93	7.09
2	7.36	7.09	6.18	6.77	5.81	6.47	4.89	6.34	6.57	6.68	6.95	7.10
3	7.36	7.10	5.94	6.78	5.85	6.49	5.02	6.36	6.57	6.65	6.92	7.12
4	7.36	7.11	5.87	6.79	5.89	6.50	5.14	6.38	6.60	6.67	6.91	7.14
5	7.36	7.11	5.85	6.79	5.92	6.50	5.25	6.40	6.63	6.69	6.92	7.15
6	7.33	7.09	5.86	6.80	5.98	6.50	5.34	6.42	6.65	6.70	6.94	7.17
7	7.32	7.07	5.90	6.83	6.03	6.52	5.39	6.44	6.67	6.72	6.94	7.18
8	7.32	7.06	5.93	6.85	6.08	6.55	5.42	6.46	6.69	6.74	6.83	7.19
9	7.32	7.05	5.98	6.87	6.12	6.57	5.48	6.48	6.72	6.77	6.79	7.21
10	7.33	7.05	6.03	6.87	6.16	6.59	5.53	6.51	6.74	6.79	6.78	7.22
11	7.33	7.02	6.07	6.88	6.21	6.53	5.57	6.53	6.77	6.82	6.77	7.24
12	7.34	6.97	6.11	6.89	6.25	6.38	5.62	6.56	6.76	6.84	6.78	7.25
13	7.33	6.90	6.15	6.90	6.30	6.30	5.67	6.59	6.73	6.82	6.79	7.27
14	7.33	6.83	6.18	6.92	6.34	6.07	5.72	6.62	6.74	6.80	6.81	7.29
15	7.32	6.71	6.23	6.94	6.37	5.06	5.77	6.65	6.76	6.81	6.83	7.30
16	7.29	6.59	6.28	6.96	6.41	4.41	5.81	6.68	6.77	6.83	6.85	7.30
17	7.28	6.50	6.31	6.98	6.44	4.13	5.86	6.69	6.68	6.85	6.86	7.29
18	7.27	6.40	6.35	6.99	6.47	---	5.91	6.71	6.61	6.86	6.89	7.30
19	7.25	6.33	6.40	6.98	6.49	---	5.96	6.73	6.58	6.88	6.89	7.31
20	7.20	6.29	6.44	6.90	6.51	---	6.01	6.75	6.54	6.89	6.90	7.31
21	7.16	6.28	6.47	6.72	6.46	---	6.05	6.76	6.51	6.91	6.92	7.29
22	7.13	6.28	6.50	6.61	6.31	---	6.07	6.68	6.51	6.93	6.94	7.27
23	7.12	6.28	6.53	6.53	6.29	---	6.09	6.63	6.51	6.96	6.96	7.25
24	7.10	6.29	6.55	6.50	6.31	---	6.13	6.57	6.51	6.98	6.97	7.18
25	7.09	6.32	6.58	6.49	6.34	---	6.16	6.52	6.51	7.00	6.99	7.15
26	7.08	6.34	6.61	6.42	6.37	3.99	6.19	6.51	6.53	7.02	7.00	7.14
27	7.07	6.35	6.64	6.00	6.40	4.10	6.22	6.50	6.55	6.98	7.02	7.14
28	7.07	6.33	6.67	5.76	6.43	4.21	6.26	6.51	6.59	6.96	7.03	7.14
29	7.07	6.33	6.69	5.74	---	4.35	6.29	6.53	6.62	6.98	7.04	7.15
30	7.07	6.33	6.71	5.75	---	4.49	6.31	6.55	6.65	6.95	7.05	7.15
31	7.08	---	6.73	5.76	---	4.63	---	6.58	---	6.93	7.07	---

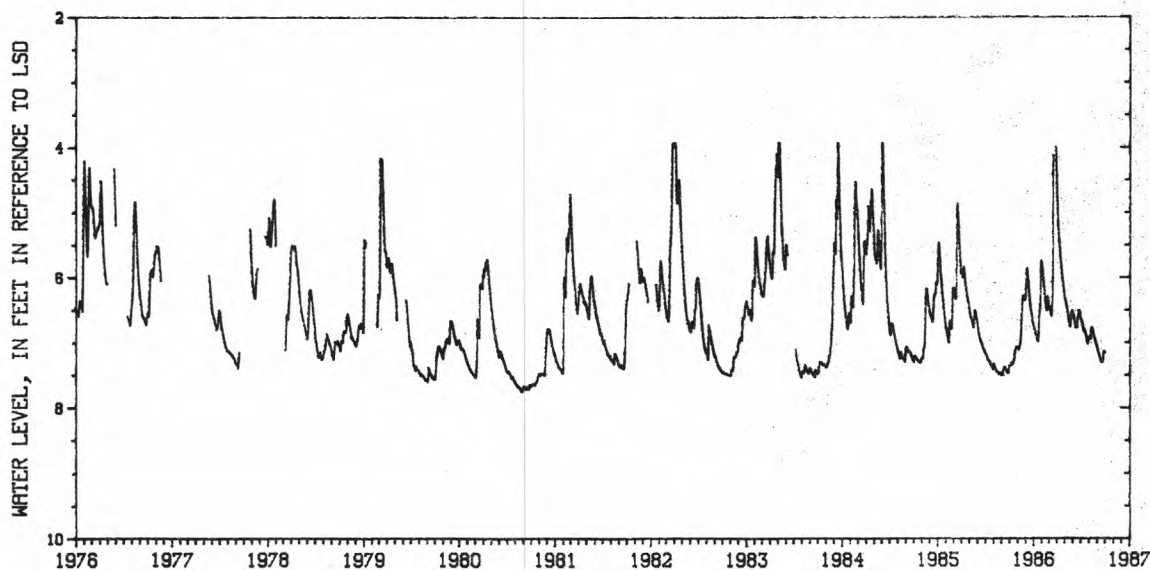
WTR YEAR 1986

HIGHEST RECORDED

3.82 Mar. 25, 1986

LOWEST

7.37 Oct. 4, 5, 1985



## GROUND-WATER LEVELS

## WESTCHESTER COUNTY

411421073481201. Local number, We 3.

LOCATION.--Lat 41°14'21", long 73°48'12", Hydrologic Unit 02030101, near Yorktown Heights.

Owner: New York City Board of Water Supply.

AQUIFER.--Water-table aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Dug unused well, diameter 36 in., depth 17.2 ft in July 1986, original depth reported to be 18.2 ft, filled in to 17.1 ft as of November 1956, to 16.3 ft as of June 1971, to 15.5 ft as of October 1977, to 15.3 ft as of November 1978, cleaned out to 16.1 ft September 23, 1981, and 17.6 ft November 9, 1981, stone lined.

INSTRUMENTATION.--Tape measurement by USGS personnel.

DATUM.--Elevation of land-surface datum is 252.5 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top edge of hole in wooden well cover, 1.13 ft above land-surface datum.

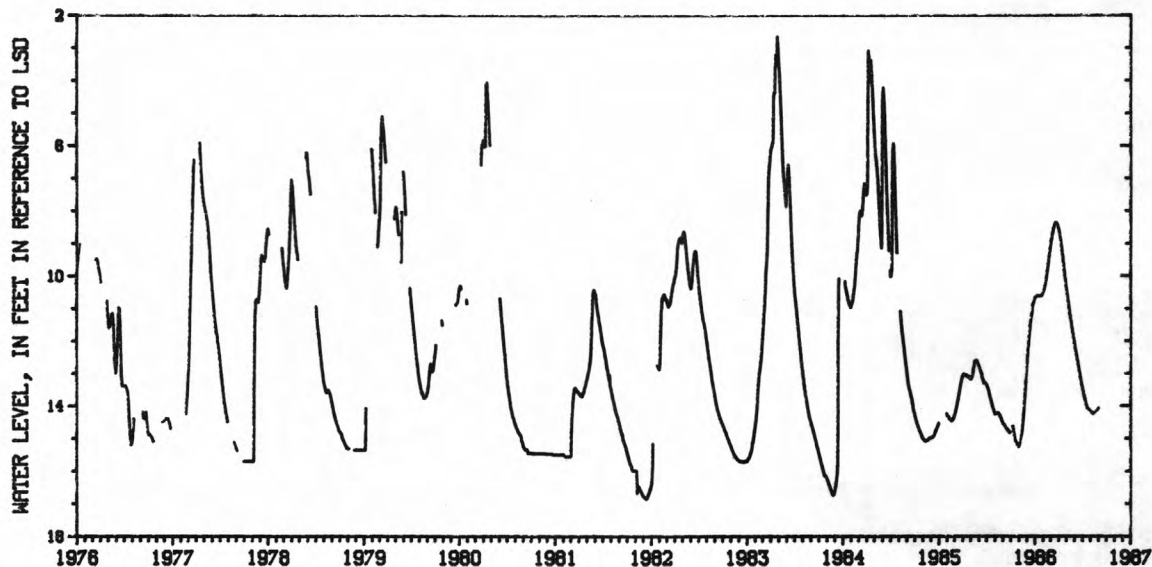
PERIOD OF RECORD.--April 1934 to September 1937, April 1938 to September 1945, March 1951 to current year.

Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.58 ft below land-surface datum, Apr. 26, 1983; lowest measured, dry Nov. 30, 1935, Jan. 7, 1936, Feb. 1, 1936, Jan. 6 to Feb. 4, 1965, Nov. 12, 1970, Sept. 10 to Nov. 9, 1977, Oct. 30 to Nov. 7, 1978, Nov. 28, 1978 to Jan. 8, 1979, Sept. 6 to 30, 1980, Oct. 1, 1980 to Mar. 3, 1981, Oct. 25 to Nov. 8, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1985	14.61	FEB 06, 1986	10.42	MAY 01, 1986	10.33	JUL 21, 1986	14.07
NOV 12	14.88	MAR 20	8.37	JUN 16	12.74	SEP 02	14.10
DEC 16	11.39						



	Page		Page
Accuracy of the records, (stage and water-discharge).....	14	Cranberry Pond Outlet near Big Moose.....	174
Acre-foot, definition of.....	19	Crescent Dam, Mohawk River at.....	81
Adams, Sandy Creek near.....	169-171	Crest-stage partial-record stations, Annual maximum discharge at.....	214-218
Albany, Hudson River at.....	85	Croghan, Beaver River at.....	179
Albany County, ground-water levels in.....	235-236	Croton-on-Hudson, Croton River at New Croton Dam near.....	101
Algae, definition of.....	19	Croton River at New Croton Dam near Croton-on-Hudson.....	101
Algal growth potential, definition of.....	19	Cubic feet per second per square mile, definition of.....	20
Andes, Tremper Kill near.....	116	Cubic foot per second, definition of.....	20
Aquifer, definition of.....	19	Data collection and computation, Ground-water levels.....	17
Arrangement of records (water quality).....	14	Stage and water discharge.....	11-12
Artesian, definition of.....	19	Data presentation Ground-water levels.....	17-18
Artificial substrate, definition of.....	24	Stage and water discharge.....	12-13
Ash mass, definition of.....	19	Surface-water quality.....	16
Ashokan Reservoir.....	103-105	Definition of terms.....	19-25
Au Sable Forks, East Branch Ausable River at.....	205	De Forest Lake.....	108
Ausable River, East Branch, at Au Sable Forks..	205	Delaware County, ground-water levels in.....	237
Bacteria, definition of.....	19	Delaware River, above Lackawaxen River near Barryville.....	138-140
Barryville, Delaware River above Lackawaxen River near.....	138-140	at Barryville.....	141-142
Delaware River at.....	141-142	at Callicoon.....	135-137
Beaver Kill, above Black Brook near Turnwood... at Cooks Falls.....	121 122	at Lordville.....	133-134
Beaver River, at Croghan.....	179	at Montague, NJ.....	165
below Stillwater Dam, near Beaver River.....	178	at Pond Eddy.....	143-144
Stillwater Reservoir near.....	177	at Port Jervis.....	146-149
Beaver Swamp Brook at Mamaroneck.....	37	East Branch, at Downsville.....	117
Beaver Swamp Brook basin, gaging-station records in.....	37	at Fishs Eddy.....	123-125
Big Moose, Cranberry Pond Outlet near.....	174	at Harvard.....	118-120
Woods Lake Outlet near.....	176	at Margaretville.....	114
Woods Lake Tributary near.....	175	West Branch, at Hale Eddy.....	130-132
Biochemical oxygen demand, definition of.....	19	at Stilesville.....	127-129
Biomass, definition of.....	19	at Walton.....	126
Biomass pigment ratio, definition of.....	19	Delaware River basin, crest-stage partial-record stations in.....	216
Biscuit Brook above Pigeon Brook at Frost Valley.....	152-156	discharge at miscellaneous sites in.....	219-220
Black River, at Watertown.....	180-182	discontinued gaging stations in, list of... diversions from.....	27-28 168
near Boonville.....	172	gaging-station records in.....	114-165
Blind Brook at Rye.....	36	reservoirs in.....	166-168
Blind Brook basin, gaging-station records in... Blue-green algae, definition of.....	36 22	water-quality, miscellaneous sites in.....	225-234
Bolton Landing, Northwest Bay Brook near.....	207	Delta Reservoir.....	103-104
Bombay, Little Salmon River at.....	202	Denning, East Branch Neversink River above Tray Mill Brook near.....	150
Boonville, Black River near.....	172	East Branch Neversink River at.....	151
Bottom material, definition of.....	20	Diatoms, definition of.....	22
Brasher Center, St. Regis River at.....	199-201	Discharge, definition of.....	20
Breakabeen, Schoharie Creek at.....	78	Discontinued gaging stations, list of.....	25-29
Bronx River at Bronxville.....	40	Dissolved, definition of.....	20
Bronx River basin, gaging-station records in... Bronxville, Bronx River at.....	40 40	Diversions: Delaware River basin.....	168
Burlington, VT, Lake Champlain at.....	209	Hackensack River basin.....	109
Burtonsville, Schoharie Creek at.....	79	Hudson River basin.....	105
Byram River basin, discontinued gaging stations in, list of.....	26	Mohawk River at Crescent Dam.....	81
Calendar (1986 water year).....	front cover	Diversity index, definition of.....	21
Callicoon, Delaware River at.....	135-137	Donnattsburg, Independence River at.....	173
Cannonsville Reservoir.....	166-168	Downstream order system.....	10
Carry Falls Reservoir.....	213	Downsville, East Branch Delaware River at.....	117
Castleton-on-Hudson, Moordener Kill at.....	86	Drainage area, definition of.....	21
Categories of water-quality data.....	16-17	Drainage basin, definition of.....	21
Cells/volume, definition of.....	20	Dry mass, definition of.....	19
Cfs-day, definition of.....	20	Dunraven, Mill Brook near.....	115
Champlain, Lake (see Lake Champlain)		Dutchess County, ground-water levels in.....	238-239
Chateaugay, Chateaugay River below.....	203	Eagle Bridge, Hoosic River near.....	61
Chateaugay River below Chateaugay.....	203	East Canada Creek at East Creek.....	69
Chemical oxygen demand, definition of.....	20	East Creek, East Canada Creek at.....	69
Chestnut Creek at Grahamsville.....	97	Esopus Creek, at Coldbrook.....	93
Chlorophyll, definition of.....	20	at Mount Marion.....	94
Claryville, Neversink River near.....	159	at Shandaken.....	87-91
Classification of records (water quality).....	14	Euglenoids, definition of.....	22
Cliff Lake.....	166-168	Fair Haven, VT, Poultney River below.....	208
Cohoes, Mohawk River at.....	80-81	Fecal coliform bacteria, definition of.....	19
Coldbrook, Esopus Creek at.....	93	Fecal streptococcal bacteria, definition of... Fire algae, definition of.....	19 23
Colloid, definition of.....	20	First Lake (in Fulton Chain of Lakes).....	183
Color unit, definition of.....	20	Fishs Eddy, East Branch Delaware River at.....	123-125
Conklingville, Great Sacandaga Lake at.....	47	Fort Edward, Hudson River at.....	49
Cooks Falls, Beaver Kill at.....	122	Hudson River at Rogers Island at.....	50
Cooperation.....	2	Fort Miller, Hudson River near.....	51
Confined aquifer, definition of.....	20	Fort Plain, Otisquago Creek at.....	70
Contents, definition of.....	20		
Control, definition of.....	20		
Control structure, definition of.....	20		
Cranberry Lake.....	213		



	Page		Page
Frequency-of-sampling notation (water quality).....	17	Hudson River basin, crest-stage	
Frost Valley, Biscuit Brook above Pigeon		partial-record stations in.....	214-216
Brook at.....	152-156	discharge at miscellaneous sites in.....	219
High Falls Brook at.....	158	discontinued gaging stations in, list of....	26-27
Pigeon Brook at mouth at.....	157	diversions in.....	105
Fulton Chain of Lakes.....	183	gaging-station records in.....	41-102
Gage height, definition of.....	21	reservoirs in.....	103-104
Gaging station, definition of.....	21	water-quality, miscellaneous sites in.....	221-226
Gaging station records.....	35-213	Hutchinson River at Pelham.....	39
Gaging stations, List of, in downstream order..	vi-viii	Hutchinson River basin, gaging-station	
Gardiner, Wallkill River at.....	99	records in.....	39
Gaylordsville, CT, Tenmile River near.....	35	Hydrographic comparisons.....	7-8
George, Lake (see Lake George)		Hydrologic bench-mark station.....	87-91
Gilboa, Platter Kill at.....	74	definition of.....	10
Schoharie Creek at.....	73	Hydrologic unit, definition of.....	21
Godeffroy, Neversink River at.....	164	Identifying estimated daily discharge.....	13
Grahamsville, Chestnut Creek at.....	97	Inch-pound units to	
Grand Gorge, Schoharie Reservoir near.....	72	International System units (SI),	inside of
Great Sacandaga Lake at Conklingville.....	47	Factors for converting.....	back cover
Green algae, definition of.....	23	Independence River at Donnattsburg.....	173
Green Island, Hudson River at.....	82-84	Indian Lake, Indian River near.....	43
Green River at Williamstown, MA.....	58	Indian Lake near Indian Lake.....	42
Greene County, ground-water levels in.....	240	Indian River near Indian Lake.....	43
Ground-water level records, by counties:		Instantaneous discharge, definition of.....	20
Albany.....	235-236	Introduction.....	1
Delaware.....	237	Kast Bridge, West Canada Creek at.....	67
Dutchess.....	238-239	Kayaderosseras Creek near West Milton.....	53
Greene.....	240	Laboratory measurements (water quality).....	16
Hamilton.....	241	Lake Champlain, at Burlington, VT.....	209
Montgomery.....	242	Richelieu River at Rouses Point.....	210-212
Oneida.....	243-244	Lake George at Rogers Rock.....	206
Putnam.....	245	Lake Ontario, Streams tributary to,	
Rensselaer.....	246-247	crest-stage partial-record stations in.....	216-217
Rockland.....	248	discharge at miscellaneous sites in.....	220
St. Lawrence.....	249-250	discontinued gaging stations in, list of....	28
Saratoga.....	251-253	gaging-station records in.....	169-182
Schenectady.....	254	lakes and reservoirs in.....	183
Ulster.....	255-256	Lake Tappan.....	108
Washington.....	257	Lakes and reservoirs:	
Westchester.....	258	Ashokan Reservoir.....	103-105
Explanation of.....	17-18	Cannonsville Reservoir.....	166-168
Ground-water wells, List of, by county.....	ix	Carry Falls Reservoir.....	213
Hackensack River, at Rivervale, NJ.....	107	Champlain, Lake, at Burlington, VT.....	209
at West Nyack.....	106	Richelieu River at Rouses Point.....	210-212
Hackensack River basin, discontinued gaging		Cliff Lake.....	166-168
stations in, list of.....	27	Cranberry Lake.....	213
diversions from.....	109	De Forest Lake.....	108
gaging-station records in.....	106-107	Delaware River basin, reservoirs in.....	166-168
reservoirs in.....	108	Delta Reservoir.....	103-104
Hadley, Hudson River at.....	45	First Lake (in Fulton Chain of Lakes).....	183
Sacandaga River, at Stewarts Bridge near....	48	Fulton Chain of Lakes.....	183
Hale Eddy, West Branch Delaware River at.....	130-132	George, Lake, at Rogers Rock.....	206
Hamilton County, ground-water levels in.....	241	Great Sacandaga Lake at Conklingville.....	47
Hardness, definition of.....	21	Hackensack River basin, reservoirs in.....	108
Harrisville, West Branch Oswegatchie		Hinckley Reservoir.....	103-105
River near.....	184	Hudson River basin, reservoirs in.....	103-104
Harvard, East Branch Delaware River at.....	118-120	Indian Lake near Indian Lake.....	42
Heuvelton, Oswegatchie River near.....	185-187	Neversink Reservoir.....	167-168
High Falls Brook at Frost Valley.....	158	Ontario, Lake, Streams tributary to,	
High tide, definition of.....	21	lakes and reservoirs in.....	183
Hinckley Reservoir.....	103-105	Oradell Reservoir.....	108
Hollow Tree Brook at Lanesville.....	92	Pepacton Reservoir.....	166-168
Hoosic River, near Eagle Bridge.....	61	Rondout Reservoir.....	103-105
near Williamstown, MA.....	57	St. Lawrence River, Streams tributary to,	
Hope, Sacandaga River near.....	46	lakes and reservoirs in.....	213
Housatonic River basin, crest-stage		Schoharie Reservoir near Grand Gorge.....	72
partial-record stations in.....	214	Sixth Lake (in Fulton Chain of Lakes).....	183
discontinued gaging stations in, list of....	25	Stillwater Reservoir near Beaver River.....	177
gaging-station records in.....	35	Swinging Bridge Reservoir.....	166-167
Hudson River, above Lock 1 near Waterford.....	62	Tappan, Lake.....	108
at Albany.....	85	Toronto Reservoir.....	166-168
at Fort Edward.....	49	Woodcliff Lake.....	108
at Green Island.....	82-84	Land-surface datum, definition of.....	21
at Hadley.....	45	Lanesville, Hollow Tree Brook at.....	92
at North Creek.....	44	Latitude-longitude system.....	10-11
at Rogers Island at Fort Edward.....	50	Little Falls, Mohawk River near.....	68
at Schuylerville.....	52	Little Hoosic River at Petersburg.....	59
at Stillwater.....	54-56	Little Salmon River at Bombay.....	202
at Waterford.....	64-65	Little Simon Pond Outlet near Tupper Lake.....	193
at Waterford Treatment Plant at Waterford...	63	Location of gaging stations and observation	
near Fort Miller.....	51	wells (maps).....	32-34
near Newcomb.....	41		

	Page		Page
Lordville, Delaware River at.....	133-134	Partial-record stations and miscellaneous sites, Discharge at.....	214-220
Low tide, definition of.....	21	Particle size, definition of.....	22
Lows Corners, Rondout Creek near.....	96	Particle-size classification, definition of.....	22
Mahwah, NJ, Ramapo River near.....	113	Passaic River basin, crest-stage partial-record stations in.....	216
Mahwah River near Suffern.....	112	discontinued gaging stations in, list of.....	27
Mamaroneck, Beaver Swamp Brook at.....	37	gaging-station records in.....	110-113
Mamaroneck River at.....	38	Peekamoose, Rondout Creek above Red Brook at.....	95
Mamaroneck River at Mamaroneck.....	38	Pelham, Hutchinson River at.....	39
Mamaroneck River basin, crest-stage partial-record stations in.....	214	Pepacton Reservoir.....	166-168
gaging-station records in.....	38	Percent composition, definition of.....	22
Margaretville, East Branch Delaware River at.....	114	Periphyton, definition of.....	22
Massena, St. Lawrence River, at Cornwall, Ontario--near.....	189-192	Pesticides, definition of.....	22
Mean concentration (sediment), definition of.....	23	Petersburg, Little Hoosic River at.....	59
Mean discharge, definition of.....	20	Phytoplankton, definition of.....	22
Mean high or low tide, definition of.....	21	Picocurie, definition of.....	22
Measuring point, definition of.....	21	Piercefield, Raquette River at.....	194
Methylene blue active substance, definition of.....	21	Pigeon Brook at mouth at Frost Valley.....	157
Mianus River basin, discontinued gaging stations in, list of.....	25	Plankton, definition of.....	22
Micrograms per gram, definition of.....	21	Platter Kill at Gilboa.....	74
Micrograms per liter, definition of.....	21	Plattsburgh, Saranac River at.....	204
Mill Brook (tributary to Delaware River) near Dunraven.....	115	Polychlorinated biphenyls (PCBs), definition of.....	23
Milligrams per liter, definition of.....	21	Polychlorinated naphthalenes (PCNs), definition of.....	23
Mine Kill near North Blenheim.....	75	Pond Eddy, Delaware River at.....	143-144
Miscellaneous sites, Analyses of samples collected at.....	221-234	Port Jervis, Delaware River at.....	146-149
Discharge at.....	219-220	Poultney River below Fair Haven, VT.....	208
Mohawk River, at Cohoes.....	80-81	Prattville, Schoharie Creek at.....	71
at Crescent Dam.....	81	Primary productivity, definition of.....	23
below Delta Dam, near Rome.....	66	Publications on techniques of water-resources investigations.....	30-31
near Little Falls.....	68	Putnam County, ground-water levels in.....	245
Mongaup, Mongaup River near.....	145	Radiochemical program, definition of.....	10
Mongaup River near Mongaup.....	145	Ramapo, Ramapo River at.....	110
Montague, NJ, Delaware River at.....	165	Ramapo River at Ramapo.....	110
Montgomery County, ground-water levels in.....	242	at Suffern.....	111
Moordener Kill at Castleton-on-Hudson.....	86	near Mahwah, NJ.....	113
Mount Marion, Esopus Creek at.....	94	Raquette River, at Piercefield.....	194
National Geodetic Vertical Datum of 1929 (NGVD), definition of.....	21	at Raymondville.....	196-198
National radiochemical network station...82-84, 189-192	21	at South Colton.....	195
radiochemical program, definition of.....	10	Raymondville, Raquette River at.....	196-198
National stream-quality accounting network (NASQAN) station.....	82-84, 169-171, 180-182, 185-187, 189-192, 196-201, 210-212	Records, Explanation of.....	10-18
definition of.....	10	Ground-water level.....	17-18
Natural substrates, definition of.....	24	Stage and water discharge.....	11-14
Neversink, Neversink River at.....	160	Surface-water quality.....	14-17
Neversink Reservoir.....	167-168	Recoverable from bottom material, definition of.....	20
Neversink River, at Godeffroy.....	164	Rensselaer County, ground-water levels in.....	246-247
at Neversink.....	160	Reservoirs (see Lakes and reservoirs)	
at Woodbourne.....	161-163	Richelieu River (see Lake Champlain)	
near Claryville.....	159	Rivervale, NJ, Hackensack River at.....	107
East Branch, above Tray Mill Brook near Denning.....	150	Rockland County, ground-water levels in.....	248
at Denning.....	151	Rogers Rock, Lake George at.....	206
Newcomb, Hudson River near.....	41	Rome, Mohawk River below Delta Dam near.....	66
North Atlantic slope basins, gaging-station records in.....	35-168	Rondout Creek, above Red Brook at Peekamoose... at Rosendale.....	95
North Bennington, VT, Walloomsac River near.....	60	near Lows Corners.....	96
North Blenheim, Mine Kill near.....	75	Rondout Reservoir.....	103-105
Schoharie Creek at.....	76	Rosendale, Rondout Creek at.....	98
West Kill at.....	77	Rouses Point, Richelieu River (Lake Champlain) at.....	210-212
North Creek, Hudson River at.....	44	Runoff in inches, definition of.....	23
Northwest Bay Brook near Bolton Landing.....	207	Rye, Blind Brook at.....	36
On-site measurements and sample collection (water quality).....	15	Sacandaga River, at Stewarts Bridge near Hadley.....	48
Oneida County, ground-water levels in.....	243-244	near Hope.....	46
Ontario, Lake (see Lake Ontario)		St. Lawrence County, ground-water levels in....	249-250
Oradell Reservoir.....	108	St. Lawrence River, at Cornwall, Ontario--near Massena, NY.....	189-192
Organic carbon (OC), definition of.....	22	near Waddington.....	188
Organic mass, definition of.....	19	St. Lawrence River, Streams tributary to, crest-stage partial-record stations in.....	217-218
Organism, definition of.....	22	discontinued gaging stations in, list of.....	28-29
Organism count/area, definition of.....	22	gaging-station records in.....	184-187, 193-212
Organism count/volume, definition of.....	22	lakes and reservoirs in.....	213
Oswegatchie River, near Heuvelton.....	185-187	St. Lawrence River basin, gaging-station records in.....	169-212
West Branch, near Harrisville.....	184	St. Lawrence River main stem, gaging-station records in.....	188-192
Other records available (stage and water discharge).....	14	St. Regis River at Brasher Center.....	199-201
Otsquago Creek at Fort Plain.....	70	Sandy Creek near Adams.....	169-171
Parameter code, definition of.....	22	Saranac River at Plattsburgh.....	204
Partial-record station, definition of.....	22	Saratoga County, ground-water levels in.....	251-253
		Saw Mill River at Yonkers.....	102

	Page		Page
Schenectady County, ground-water levels in.....	254	Total coliform bacteria, definition of.....	19
Schoharie Creek, at Breakabeen.....	78	Total in bottom material, definition of.....	20
at Burtonsville.....	79	Total load, definition of.....	25
at Gilboa.....	73	Total organism count, definition of.....	22
at North Blenheim.....	76	Total, recoverable, definition of.....	25
at Prattsville.....	71	Total sediment discharge, definition of.....	23
Schoharie Reservoir near Grand Gorge.....	72	Tremper Kill near Andes.....	116
diversions from.....	105	Tupper Lake, Little Simon Pond Outlet near.....	193
Schuylerville, Hudson River at.....	52	Turnwood, Beaver Kill above Black Brook near....	121
Sediment.....	15		
Sediment, definition of.....	23	Ulster County, ground-water levels in.....	255-256
Shandaken, Esopus Creek at.....	87-91		
Sixth Lake (in Fulton Chain of Lakes).....	183	Waddington, St. Lawrence River near.....	188
Solute, definition of.....	23	Wallkill River at Gardiner.....	99
South Colton, Carry Falls Reservoir near.....	213	Walloomsac River near North Bennington, VT.....	60
Raquette River at.....	195	Walton, West Branch Delaware River at.....	126
Special networks and programs.....	10	Wappinger Creek near Wappingers Falls.....	100
Specific conductance, definition of.....	23	Wappingers Falls, Wappinger Creek near.....	100
Stage and water-discharge records,		Washington County, ground-water levels in.....	257
Explanation of.....	11-14	Water-discharge records, Explanation of,	
Stage-discharge relation, definition of.....	24	(see Stage and water-discharge records)	
Station Identification Numbers.....	10-11	Water-quality records, Explanation of.....	14-17
Stilesville, West Branch Delaware River at.....	127-129	Water table, definition of.....	25
Stillwater, Hudson River at.....	54-56	Water-table aquifer, definition of.....	25
Stillwater Reservoir near Beaver River.....	177	Water temperature.....	15
Streamflow, definition of.....	24	Water year, definition of.....	25
Substrate, definition of.....	24	Waterford, Hudson River above Lock 1 near.....	62
Suffern, Mahwah River near.....	112	Hudson River at.....	64-65
Ramapo River at.....	111	Hudson River at Water Treatment Plant at....	63
Summary of Hydrologic Conditions.....	3-9	Watertown, Black River at.....	180-182
Surface area, definition of.....	24	WATSTORE data, access to.....	18
Surficial bed material, definition of.....	24	WDR, definition of.....	25
Suspended, definition of.....	24	Weighted average, definition of.....	25
Suspended, recoverable, definition of.....	24	West Canada Creek at Kast Bridge.....	67
Suspended sediment, definition of.....	23	West Kill at North Blenheim.....	77
Suspended-sediment concentration,		West Milton, Kayaderosseras Creek near.....	53
definition of.....	23	West Nyack, Hackensack River at.....	106
Suspended-sediment discharge, definition of....	23	Westchester County, ground-water levels in.....	258
Suspended, total, definition of.....	24	Wet mass, definition of.....	19
Swinging Bridge Reservoir.....	166-167	Williamstown, MA, Green River at.....	58
		Hoosic River near.....	57
Tappan, Lake (see Lake Tappan)		Woodbourne, Neversink River at.....	161-163
Taxonomy, definition of.....	24	Woodcliff Lake.....	108
Tenmile River near Gaylordsville, CT.....	35	Woods Lake Outlet near Big Moose.....	176
Time-weighted average, definition of.....	24	Woods Lake Tributary near Big Moose.....	175
Tons per acre-foot, definition of.....	25	WSP, definition of.....	25
Tons per day, definition of.....	25		
Toronto Reservoir.....	166-168	Yonkers, Saw Mill River at.....	102
Total, definition of.....	25	Zooplankton, definition of.....	23
(as used in tables of chemical analyses)			



## FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
<i>Length</i>		
inches (in)	$2.54 \times 10^1$	millimeters (mm)
	$2.54 \times 10^{-2}$	meters (m)
feet (ft)	$3.048 \times 10^{-1}$	meters (m)
miles (mi)	$1.609 \times 10^0$	kilometers (km)
<i>Area</i>		
acres	$4.047 \times 10^3$	square meters (m <sup>2</sup> )
	$4.047 \times 10^{-1}$	square hectometers (hm <sup>2</sup> )
	$4.047 \times 10^{-3}$	square kilometers (km <sup>2</sup> )
square miles (mi <sup>2</sup> )	$2.590 \times 10^0$	square kilometers (km <sup>2</sup> )
<i>Volume</i>		
gallons (gal)	$3.785 \times 10^0$	liters (L)
	$3.785 \times 10^0$	cubic decimeters (dm <sup>3</sup> )
	$3.785 \times 10^{-3}$	cubic meters (m <sup>3</sup> )
million gallons	$3.785 \times 10^3$	cubic meters (m <sup>3</sup> )
	$3.785 \times 10^{-3}$	cubic hectometers (hm <sup>3</sup> )
cubic feet (ft <sup>3</sup> )	$2.832 \times 10^1$	cubic decimeters (dm <sup>3</sup> )
	$2.832 \times 10^{-2}$	cubic meters (m <sup>3</sup> )
cfs-days	$2.447 \times 10^3$	cubic meters (m <sup>3</sup> )
	$2.447 \times 10^{-3}$	cubic hectometers (hm <sup>3</sup> )
acre-feet (acre-ft)	$1.233 \times 10^3$	cubic meters (m <sup>3</sup> )
	$1.233 \times 10^{-3}$	cubic hectometers (hm <sup>3</sup> )
	$1.233 \times 10^{-6}$	cubic kilometers (km <sup>3</sup> )
<i>Flow</i>		
cubic feet per second (ft <sup>3</sup> /s)	$2.832 \times 10^1$	liters per second (L/s)
	$2.832 \times 10^1$	cubic decimeters per second (dm <sup>3</sup> /s)
	$2.832 \times 10^{-2}$	cubic meters per second (m <sup>3</sup> /s)
gallons per minute (gal/min)	$6.309 \times 10^{-2}$	liters per second (L/s)
	$6.309 \times 10^{-2}$	cubic decimeters per second (dm <sup>3</sup> /s)
	$6.309 \times 10^{-5}$	cubic meters per second (m <sup>3</sup> /s)
million gallons per day	$4.381 \times 10^1$	cubic decimeters per second (dm <sup>3</sup> /s)
	$4.381 \times 10^{-2}$	cubic meters per second (m <sup>3</sup> /s)
<i>Mass</i>		
tons (short)	$9.072 \times 10^{-1}$	megagrams (Mg) or metric tons



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