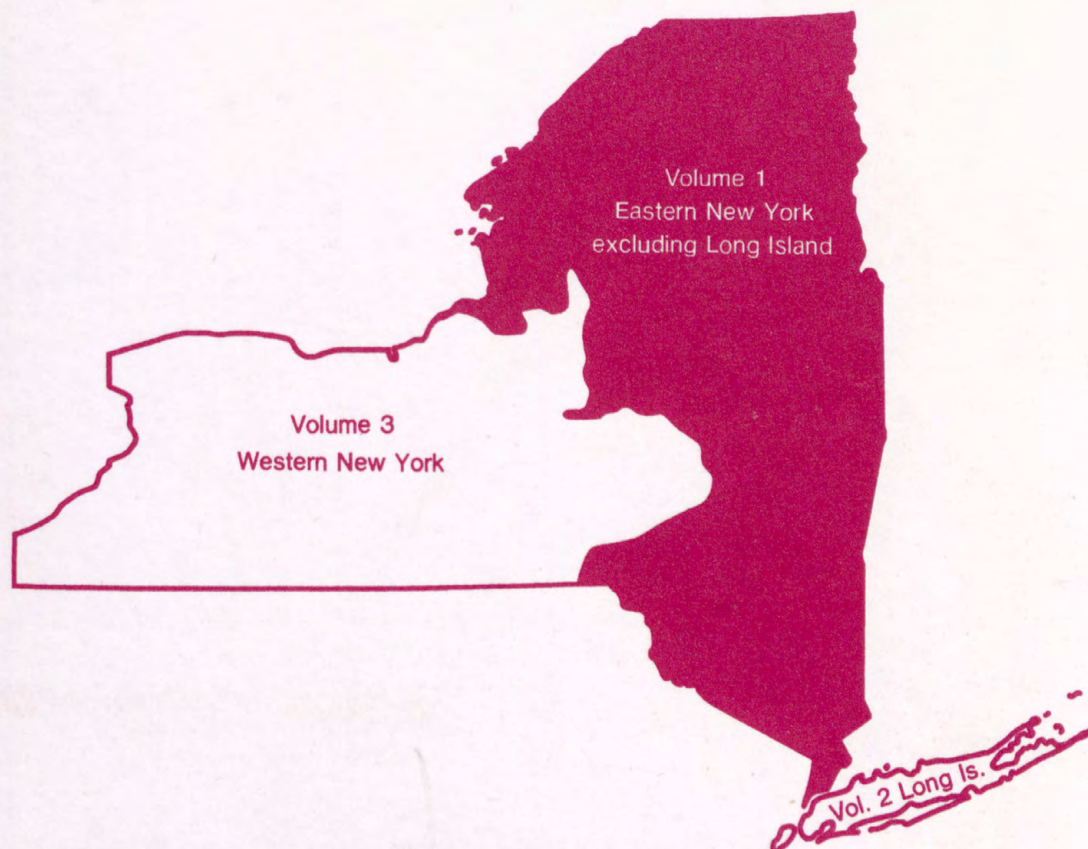


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Water Resources Data New York Water Year 1992

Volume 1. Eastern New York excluding Long Island



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NY-92-1

Prepared in cooperation with the State of New York
and with other agencies

CALENDAR FOR WATER YEAR 1992

1991

OCTOBER

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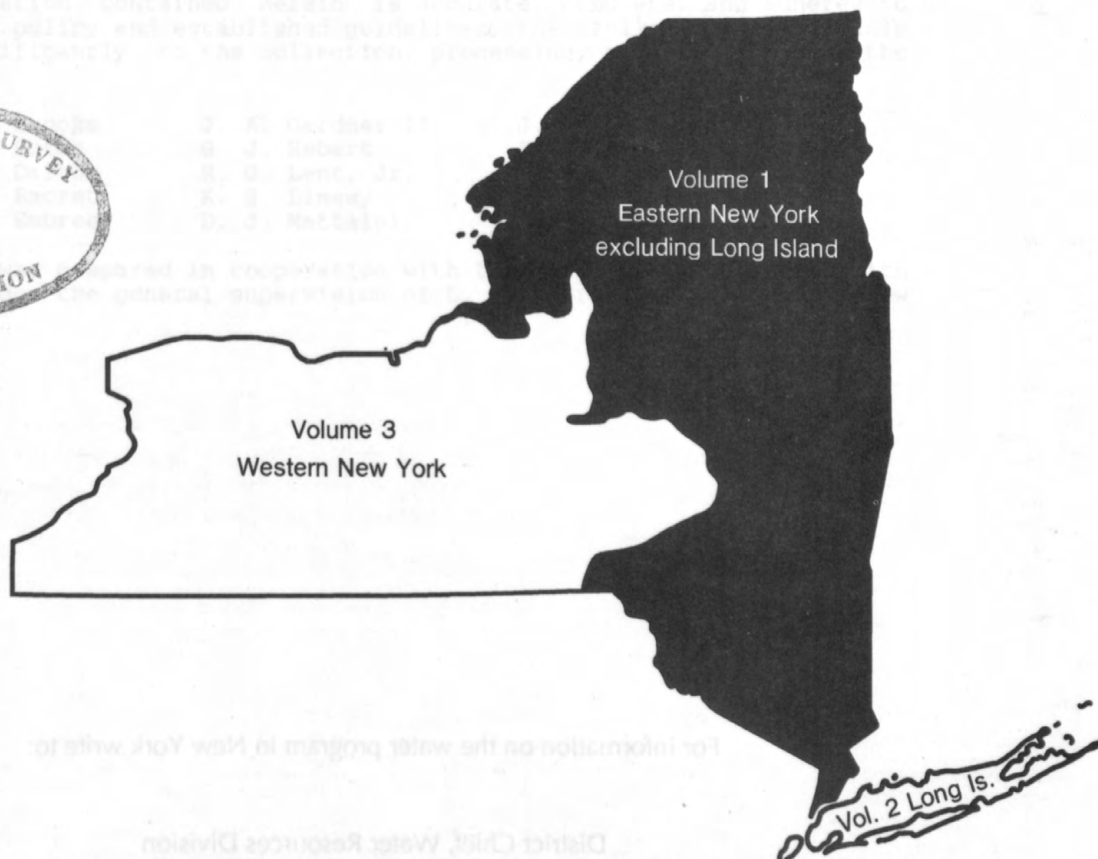
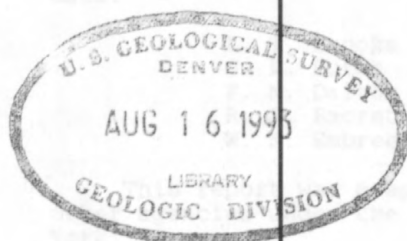
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New York



Water Resources Data New York Water Year 1992

Volume 1. Eastern New York excluding Long Island
by Gary D. Firda, Richard Lumia, and Patricia M. Murray



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NY-92-1
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and with other agencies

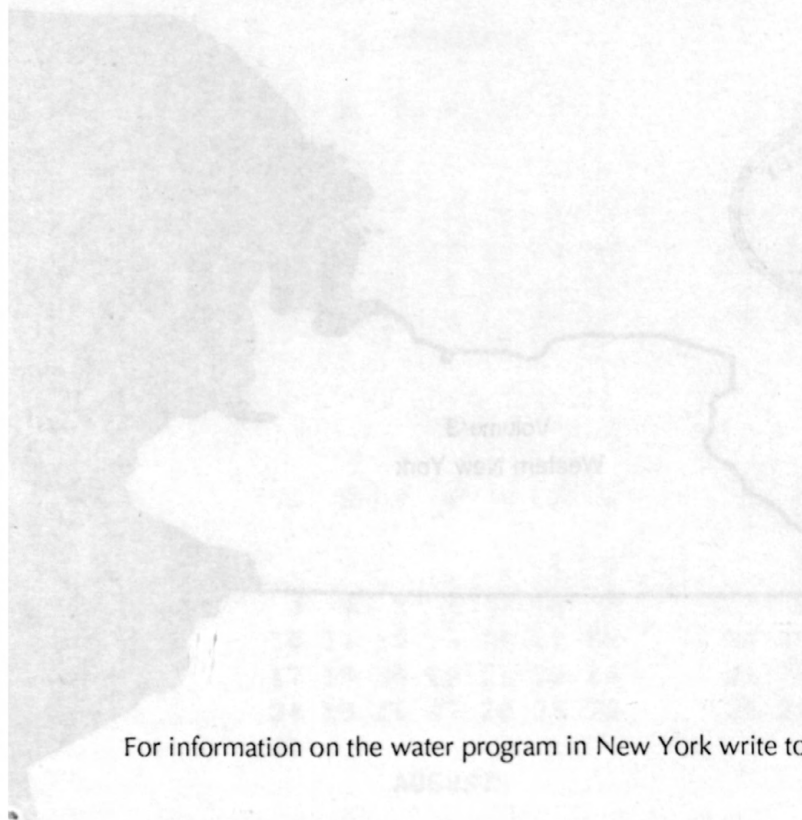
AUG 16 1993

U.S. DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, Secretary

U.S. 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
P.O. Box 1669
Albany, NY 12201

1993

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:

L. T. Brooks	J. A. Gardner II	J. A. Robideau
G. K. Butch	G. J. Hebert	E. G. Sperger
F. N. Dalton	H. G. Lent, Jr.	D. S. Strohman
R. J. Eacret	K. S. Linsey	E. D. Templeton
W. N. Embree	D. J. Mattaini	J. F. Weigel

This report was prepared in cooperation with the State of New York and with other agencies under the general supervision of L. G. Moore, District Chief, New York.

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15. Supplementary Notes Prepared in cooperation with the State of New York and other agencies.			
16. Abstract (Limit: 200 words) Water resources data for the 1992 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 111 gaging stations; stage only at 4 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 36 crest-stage partial-record stations. Locations of all these sites are shown on figures 8A and 8B. Additional water data were collected at various sites not in the systematic data-collection program and are published as miscellaneous measurements. These data, together with the data in volumes 2 and 3, represent that part of the National Water Data System collected by the U. S. Geological Survey and cooperating State and Federal agencies in New York.			
17. Document Analysis a. Descriptors *New York, *Hydrologic, *Surface Water, *Ground Water, *Water Quality, *Streamflow, Flow rates, Gaging stations, Lakes, Reservoirs, Chemical analysis, Sediments, Water analysis, Water temperatures, Water levels, Water wells, Data collection sites b. Identifiers/Open-Ended Terms c. COSATI Field/Group			
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[Letter after station name designates type of data: (d) discharge, (e) elevation, (g) gage height, (v) contents, (c) chemical, (b) biological, (s) sediment, (m) minor element, (n) nutrient, (o) organic, (r) radiochemical, (t) water temperature]

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* * * * *

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viii SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME
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DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

The following continuous-record surface-water discharge or stage-only stations (gaging stations) in eastern New York excluding Long Island have been discontinued. Daily streamflow or stage records were collected and published for the period of record, expressed in water years, shown for each station. Those stations with an asterisk (*) after the station number are currently operated as a crest-stage partial-record station.

[Letters after station name designate type of data collected:
(d) discharge, (e) elevation, (g) gage height]

Station name	Station number	Drainage area (mi ²)	Period of record
Housatonic River Basin			
Tenmile River near Wassaic, NY (d)	01199420	120	1959-60
Swamp River near Dover Plains, NY (d)	01199490	46.6	1961-68
Tenmile River at Dover Plains, NY (d)	01199500	189	1902-03
Blind Brook Basin			
Blind Brook at Rye, NY (d)	01300000	9.20	1944-89
Beaver Swamp Brook Basin			
Beaver Swamp Brook at Mamaroneck, NY (d)	01300500	4.59	1947-89
Mamaroneck River Basin			
Mamaroneck River at Mamaroneck, NY (d)	01301000	23.1	1944-53 1955-89
Hutchinson River Basin			
Hutchinson River at Pelham, NY (d)	01301500	5.76	1944-89
Bronx River Basin			
Bronx River at Bronxville, NY (d)	01302000	26.5	1944-89
Hudson River Basin			
Hudson River near Newcomb, NY (d)	01312000	192	1932-87
Cedar River below Chain Lakes near Indian Lake, NY (d)	01313500	160	1931-61
Hudson River at Gooley near Indian Lake, NY (d)	01314000	419	1917-68
Schroon River at Riverbank, NY (d)	01317000*	527	1926-70
East Branch Sacandaga River at Griffin, NY (d)	01319000	114	1960-78
Hudson River at Spier Falls, NY (d)	01326500	2,779	1913-23
Glens Falls Feeder at Glens Falls, NY (d)	01327000		1920 1928-63
Glens Falls Feeder at Dunham Basin, NY (d)	01327500		1946-79
Bond Creek at Dunham Basin, NY (d)	01328000	14.7	1948-82
Batten Kill at Battenville, NY (d)	01329500*	394	1923-68
Hudson River at Mechanicville, NY (d)	01335500	4,500	1912-56
Steele Creek at Ilion, NY (d)	01342730	26.2	1967-68
West Canada Creek at Nobleboro, NY (d)	01342800*	193	1967-68
West Canada Creek at Hinckley, NY (d)	01344000	375	1920-59
Ninemile Feeder near Holland Patent, NY (d)	01344500		1920-68
East Canada Creek at Dolgeville, NY (d)	01347500	258	1928-46
Otsquago Creek at Fort Plain, NY (d)	01349000	61.0	1950-89
Silver Lake Outlet at Hensonville, NY (d)	01349858	6.66	1977
West Kill at North Blenheim, NY (d)	01350200	44.6	1976-87
Schoharie Creek at Middleburg, NY (d)	01350500	532	1939
Fox Creek at West Berne, NY (d)	01351000	67.2	1963-68
Alplaus Kill near Charlton, NY (d)	01355000	23.7	1914-16
Mohawk River at Vischer Ferry Dam, NY (d)	01356000	3,380	1899-1910 1914-19
Poesten Kill near Troy, NY (d)	01358500	89.4	1924-68
Mill Creek near East Greenbush, NY (d)	01359150	9.74	1975-77
Hunger Kill at Guilderland, NY (d)	01359513	8.16	1968-77
Normans Kill near Westmere, NY (d)	01359519	131	1968-79
Normans Kill at Albany, NY (d)	01359528*	168	1980-83
Coeymans Creek near Selkirk, NY (d)	01359902	35.1	1968-77
Silver Creek at Dormansville, NY (d)	01359918	2.90	1979-81
Hannicriols Creek near New Baltimore, NY (d)	01359924	61.6	1968-77
Kinderhook Creek at Rossman, NY (d)	01361000*	329	1929-68
Claverack Creek at Claverack, NY (d)	01361200	60.6	1960-68
Catskill Creek at Oak Hill, NY (d)	01361500*	98.0	1911-77
Tenmile Creek at Oak Hill, NY (d)	01361570	35.3	1969-78
Roeliff Jansen Kill near Hillsdale, NY (d)	01362100*	27.5	1958-60
Esopus Creek near Olivebridge, NY (d)	01363500	239	1907-13

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS
(continued)

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Station name	Station number	Drainage area (mi ²)	Period of record
Hudson River Basin--continued			
Saw Kill at Red Hook, NY (d)	01364800	20.9	1960-65
Chestnut Creek at Grahamsville, NY (d)	01365500	20.9	1939-87
Rondout Creek near Lackawack, NY (d)	01366500	100	1932-66
Sandburg Creek at Ellenville, NY (d)	01366650	56.7	1958-77
Wallkill River near Unionville, NY (d)	01368000*	140	1950-81
Rutgers Creek at Gardnerville, NY (d)	01368500*	59.7	1949-68
Pochuck Creek near Pine Island, NY (d)	01369000	98.0	1938-77
Quaker Creek at Florida, NY (d)	01369500	9.69	1950-79
Wallkill River at Pellets Island, NY (d)	01370000*	380	1938-68
Wallkill River near Phillipsburg, NY (d)	01370500*	406	1938-59
Crystal Brook near Middletown, NY (d)	01370600	8.41	1965-68
Crum Elbow Creek at Hyde Park, NY (d)	01372040	17.3	1960-62
Casper Creek near Wappingers Falls, NY (d)	01372065	10.1	1969-75
East Branch Wappinger Creek near Clinton Corners, NY (d)	01372100	33.6	1959-63
Wappinger Creek near Clinton Corners, NY (d)	01372200	92.4	1956-76
Little Wappinger Creek at Salt Point, NY (d)	01372300	32.9	1959-75
Great Spring Creek at Pleasant Valley, NY (d)	01372400	15.5	1961-65
Fishkill Creek at Hopewell Junction, NY (d)	01372800*	57.3	1958-75
Whortlekill Creek at Hopewell Junction, NY (d)	01372850	7.37	1960-68
Fishkill Creek at Beacon, NY (d)	01373500	190	1945-68
Seely Brook near Chester, NY (d)	01373600	12.8	1965-68
Woodbury Creek near Highland Mills, NY (d)	01373690	11.2	1966-68
Lake Tiorati Brook at Cedar Flats, NY (d)	01374420	10.6	1960-63
Cedar Pond Brook at Stony Point, NY (d)	01374440	17.3	1960-62
Minisceongo Creek at Thiells, NY (d)	01374480	15.1	1960-63
Bird Brook near Croton, NY (d)	01375500	0.40	1934-38 1940-41
Sparkill Creek at Tappan, NY (d)	01376270	4.71	1960-63 1966
Sparkill Creek at Tappan Station, NY (d)	01376275	9.42	1966
Sparkill Creek at Sparkill, NY (d)	01376280	10.7	1960-63 1965-68 1975-79
Saw Mill River at Yonkers, NY (d)	01376500	25.6	1944-78 1981-89
Hackensack River Basin			
Hackensack River at Brookside Park, NY (d)	01376600	13.2	1960-63
Nauraushaun Brook at Nauraushaun, NY (d)	01376850	5.89	1960-63
Hackensack River at Nauraushaun, NY (d)	01376900	44.6	1960-62
Pascack Brook Tributary at Spring Valley, NY (d)	01377200	4.19	1960-62
Pascack Brook at Pearl River, NY (d)	01377300	9.83	1960-63
Passaic River Basin			
Ramapo River at Sloatsburg, NY (d)	01387250	60.1	1960-63
Stony Brook at Sloatsburg, NY (d)	01387300	18.2	1960-62
Mahwah River at Suffern, NY (d)	01387480	20.8	1960-62
Saddle River near Spring Valley, NY (d)	01390200	2.10	1961-63
Pine Brook near Spring Valley, NY (d)	01390300	2.28	1960-62
Delaware River Basin			
Platte Kill at Dunraven, NY (d)	01414000	35.0	1942-62
Terry Clove Kill near Pepacton, NY (d)	01415500	13.6	1941-62
Coles Clove Kill near Pepacton, NY (d)	01416500	28.0	1945-53
Beaver Kill near Turnwood, NY (d)	01418000	40.8	1949-59
Beaver Kill at Craigie Clair, NY (d)	01418500	81.9	1938-70
Willowemoc Creek at Debruce, NY (d)	01419000	41.2	1949-52
Willowemoc Creek near Livingston Manor, NY (d)	01419500	62.6	1938-70
Little Beaver Kill near Livingston Manor, NY (d)	01420000	20.1	1940-81
West Branch Delaware River at Delhi, NY (d)	01422000	142	1937-70
Little Delaware River near Delhi, NY (d)	01422500	49.7	1940-70
West Branch Delaware River near Hamden, NY (d)	01422700	256	1960-67
Dryden Creek near Granton, NY (d)	01423500	8.10	1953-67
Trout Creek near Rockroyal, NY (d)	01424000	20.0	1953-67
Trout Creek at Cannonsville, NY (d)	01424500	49.5	1941-63
Cold Spring Brook at China, NY (d)	01425500	1.49	1935-68
Butler Brook at Deposit, NY (d)	01425642	8.46	1976-77
Oquaga Creek near North Sanford, NY (d)	01425675	4.69	1970-81
Oquaga Creek at Deposit, NY (d)	01426000	67.6	1941-73
Delaware River near Callicoon, NY (d)	01427405	1,708	1968-75

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS
(continued)

Station name	Station number	Drainage area (mi ²)	Period of record
Delaware River Basin--continued			
Callicoon Creek at Callicoon, NY (d)	01427500*	110	1941-82
Tenmile River at Tusten, NY (d)	01428000	45.6	1947-73
Neversink River at Claryville, NY (d)	01434500	62.0	1950-51
Neversink River at Halls Mills near Curry, NY (d)	01435500	68.7	1938-49
Neversink River at Oakland Valley, NY (d)	01437000	223	1929-73
Streams tributary to Lake Ontario			
Beaverdam Brook at Altmar, NY (d)	04249910	16.9	1974-76
Forestport Feeder near Boonville, NY (d)	04251000		1916-33
Mill Creek Sluiceway at Boonville, NY (d)	04251500		1934-40
Black River Canal (flowing south) near Boonville, NY (d)	04252000		1916-80
Sugar River at Talcottville, NY (d)	04253000	43.1	1968
Panther Lake Outlet near Old Forge, NY (d)	04253275	0.46	1978-81
Middle Branch Moose River at Old Forge, NY (d)	04253500	55.0	1966-73
Middle Branch Moose River near McKeever, NY (d)	04254000	151	1926-68
Moose River at McKeever, NY (d)	04254500*	363	1923-70
Otter Creek near Glenfield, NY (d)	04255000	64.5	1925-33
Cranberry Pond Outlet near Big Moose, NY (d)	04256460	0.58	1984-86
Woods Lake Tributary near Big Moose, NY (d)	04256480	0.13	1980-81
			1985-86
Woods Lake near Big Moose, NY (g)	04256484	0.80	1979-81
Beaver River at Eagle Falls near Number Four, NY (d)	04257500	225	1922-25
Deer River at Copenhagen, NY (d)	04258500	86.6	1930-56
Deer River at Deer River, NY (d)	04258700*	94.8	1957-68
St. Lawrence River Basin			
Oswegatchie River at Cranberry Lake, NY (d)	04261000	140	1939-82
St. Lawrence River near Waddington, NY (e)	04264050	298,500	1976
			1978-86
Brandy Brook near Waddington, NY (d)	04264300	27.0	1959-63
North Branch Grass River near Clare, NY (d)	04264700	46.3	1959-63
Grass River at Pyrites, NY (d)	04265000	333	1925-77
Elm Creek near Hermon, NY (d)	04265100*	32.6	1959-68
Lost Brook near Raquette Lake, NY (d)	0426545290	17.0	1978-80
Sagamore Lake Outlet near Raquette Lake, NY (d)	0426545295	19.1	1978-81
Little Simon Pond Outlet near Tupper Lake, NY (d)	04265605	2.95	1984-88
Bog River at mouth near Tupper Lake, NY (d)	04266000	132	1910-12
Parkhurst Brook near Potsdam, NY (d)	04267700	16.8	1959-63
Trout Brook at Allen Corners, NY (d)	04267800	54.2	1959-63
Plum Brook near Grantville, NY (d)	04268200*	43.9	1959-63
Squeak Brook near Massena, NY (d)	04268300	39.1	1959
St. Regis River near Paul Smiths, NY (d)	04268390	22.0	1973-75
East Branch St. Regis River near Meacham Lake, NY (d)	04268600	52.2	1959-68
St. Regis River at St. Regis Falls, NY (d)	04268700	234	1959-68
Deer River at North Lawrence, NY (d)	04269043	78.0	1973-78
Deer River at Brasher Iron Works, NY (d)	04269500	182	1959-68
Chateaugay River near Chateaugay, NY (d)	04270500	112	1927-66
Trout River at Trout River, NY (d)	04270700*	107	1960-66
English River near Mooers Forks, NY (d)	04270800	40.8	1960-68
Saranac River at Saranac, NY (d)	04273000	521	1931-43
Lake Placid at Lake Placid, NY (e)	04273900	20.1	1960-82
West Branch Ausable River near Lake Placid, NY (d)	04274000*	116	1928-68
Black Brook at Black Brook, NY (d)	04274500	49.4	1937-61
West Brook at Lake George, NY (d)	04276895	8.38	1981-83
English Brook at Lake George, NY (d)	04276920	7.84	1981-83
La Chute at Ticonderoga, NY (d)	04279000	234	1943-79

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DISCONTINUED SURFACE-WATER-QUALITY STATIONS

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The following continuous-record surface-water-quality stations in eastern New York excluding Long Island have been discontinued. Daily records of suspended-sediment discharge, temperature, or specific conductance were collected and published for the period of record shown for each station. Those stations with an asterisk (*) after the station number are currently operated as a surface-water-quality station (intermittent record).

[Type of record: Temp. (temperature), S.C. (specific conductance),
S.S. (suspended-sediment discharge)]

Station name	Station number	Drainage area (mi ²)	Type of record	Period of record
Hudson River Basin				
Hudson River at Glens Falls, NY	01327600	2,807	S.S.	1977
Hudson River at Rogers Island at Fort Edward, NY	01327755*	2,817	S.S.	1978-79
Hudson River at Schuylerville, NY	01329650	3,440	S.S.	1977-79
Glowegee Creek near West Milton, NY	01329995	21.5	Temp.	1967-73
			S.C.	1967-73
Glowegee Creek at West Milton, NY	01330000	26.0	Temp.	1954-73
			S.C.	1965-73
Kayaderosseras Creek near West Milton, NY	01330500	90.0	Temp.	1953-78
Hudson River at Mechanicville, NY	01335500	4,500	Temp.	1960-61
Mohawk River below Delta Dam, near Rome, NY	01336000	152	Temp.	1967-72
				1974-78
Schoharie Creek at North Blenheim, NY	01350180	358	Temp.	1972-85
Schoharie Creek at Breakabeen, NY	01350355	444	Temp.	1976
Mohawk River at Cohoes, NY	01357500*	3,450	S.S.	1954-59
				1977-79
Mill Creek near East Greenbush, NY	01359150	9.74	S.S.	1975-76
Crystal Brook near Middletown, NY	01370600	8.41	Temp.	1966-68
Hudson River at Poughkeepsie, NY	01372055	1,732	Temp.	1967-69
			S.C.	1967-69
Hudson River near Beacon, NY	01372560		Temp.	1966-68
			S.C.	1966-68
Fishkill Creek at Hopewell Junction, NY	01372800	57.3	Temp.	1964-75
Whortlekill Creek at Hopewell Junction, NY	01372850	7.37	Temp.	1963-68
Seely Brook near Chester, NY	01373600	12.8	Temp.	1964-69
Hudson River at West Point, NY	01374020		Temp.	1969
			S.C.	1969
Hudson River at Peekskill, NY	01374310		Temp.	1968-69
			S.C.	1968-69
Delaware River Basin				
Oquaga Creek near North Sanford, NY	01425675	4.69	Temp.	1971-81
Delaware River near Callicoon, NY	01427405	1,708	Temp.	1968-75
Delaware River at Skinners Falls, NY	01427705	1,897	Temp.	1968-71
				1974-79
Delaware River at Port Jervis, NY	01434000*	3,070	S.C.	1973
			S.S.	1960
				1972-76
Streams tributary to Lake Ontario				
Sandy Creek near Adams, NY	04250750*	128	Temp.	1981-84
			S.C.	1981-84
Independence River at Donnattsburg, NY	04256000	88.7	Temp.	1960-61
				1964-78
St. Lawrence River Basin				
West Brook at Lake George, NY	04276895	8.38	S.S.	1981
English Brook at Lake George, NY	04276920	7.84	S.S.	1981

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WATER RESOURCES DATA FOR NEW YORK, 1992
Volume 1.--Eastern New York excluding Long Island

INTRODUCTION

Water resources data for the 1992 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 111 gaging stations; stage only at 4 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 36 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 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-92-1." 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. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc.

Additional information, including current prices for ordering specific reports, may be obtained from the District Office at the address given on the back of the title page or by telephone (518) 472-3107. A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

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 1992, 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
City of New York, Department of Environmental Protection
Village of Nyack
Board of Hudson River-Black River Regulating District
New York Power Authority
Essex County Planning Department
Orange County Water Authority
State University of New York

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 and the Environmental Protection Agency.

The following municipalities and organizations aided in collecting records:

Plattsburgh, Tarrytown, 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.

WATER RESOURCES DATA FOR NEW YORK, 1992

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

Streamflows over eastern New York during water year 1992 generally were near average throughout most of the region, except in extreme northern and southeastern parts of eastern New York, where they were slightly below average, and in areas adjacent to Lake Ontario, where they were slightly above average. The distribution of annual runoffs relative to average runoffs for 1960-89 is shown in figure 2.

Average month-end reservoir contents and month-end contents of the New York City reservoir system during 1992 are shown in figure 1A; 1992 month-end storage in Great Sacandaga Lake at Conklingville (in the upper Hudson River basin) is shown with the average month-end storage for the period of record (1931-91) in figure 1B. Storage in the New York City system (fig. 1A) remained well below normal through March 1992 and gradually increased to near normal by June and remained only slightly below normal for the remainder of the water year. Storage in Great Sacandaga Lake (fig. 1B) was from just below normal to slightly above normal throughout 1992. The very low storage within the New York City reservoir system during much of 1992 prompted the New York State Drought Management Task Force to declare drought warnings for the 5 boroughs of New York City and 11 counties in southeastern New York through May 18, at which time the warning was cancelled.

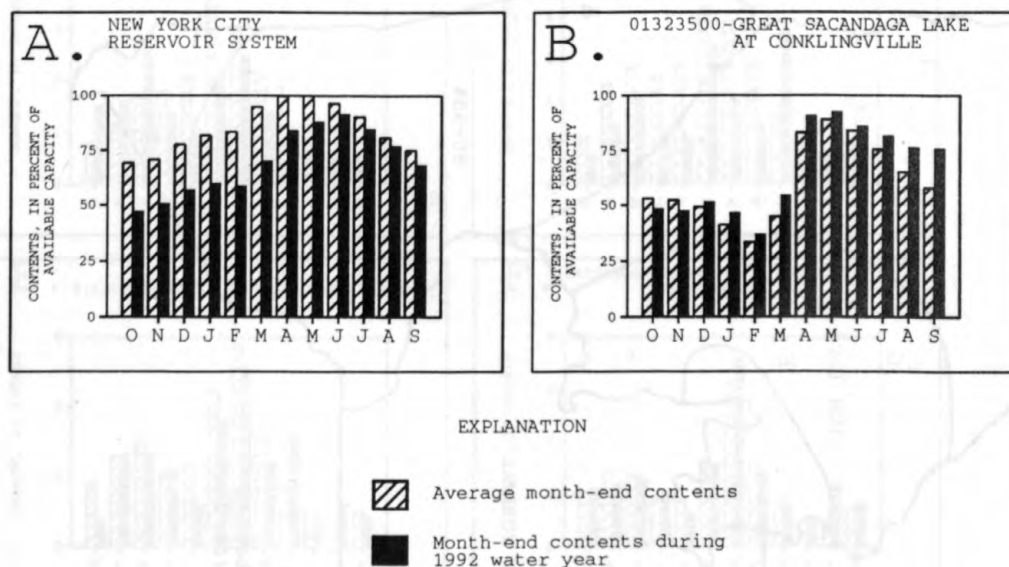


Figure 1.--Comparison of average month-end reservoir contents and month-end contents during 1992 water year for two selected reservoir systems in eastern New York.

The 1992 monthly runoff at selected stations in eastern New York is plotted with each site's 1960-89 average monthly runoff in figure 3. October 1991 was warm and dry, statewide (driest October since 1984). Streamflows ranged from well below average in the upper Delaware River basin and extreme northern New York to above average along the east side of the mid- to lower Hudson River Valley. Storage in the Delaware River basin reservoirs (part of the New York City Reservoir system) was at 34.7 percent of usable capacity by November 1 and was the lowest combined storage for November 1 since Cannonsville Reservoir was added to the system in 1967. The overall New York City reservoir system was at only 47.7 percent of usable capacity by the end of October. (Normal for the end of October is 69.2 percent.)

Above normal November precipitation in the mid- to lower Hudson River Valley and Catskill Mountain region in southeastern New York resulted in above average streamflows throughout most of these areas, and below-normal precipitation and runoff were recorded at sites north of the Mohawk River Valley. An exception was the Tug Hill area, just east of Lake Ontario, which received as much as 47.5 inches of lake-effect snowfall during November. Heavy rains (generally greater than 2 inches) during November 22-23 throughout southeastern New York resulted in annual peak discharges for several streams.

December was warm and dry, statewide, except in the lake-effect snow-belt areas east of Lake Ontario where as much as 62.6 inches of snow was recorded at Boonville, in Oneida County. Another anomaly was in areas east of the mid- to lower Hudson River, where above-average streamflows were recorded. Storage in the New York City Reservoir system remained below normal and, by the end of December, was at 57.1 percent of usable capacity. (Normal storage at this time of year is 77.6 percent.) Warm and generally dry conditions continued through February. Precipitation in January ranged from well below normal south of the Mohawk River to slightly above normal in extreme northern New York. Precipitation in the upper

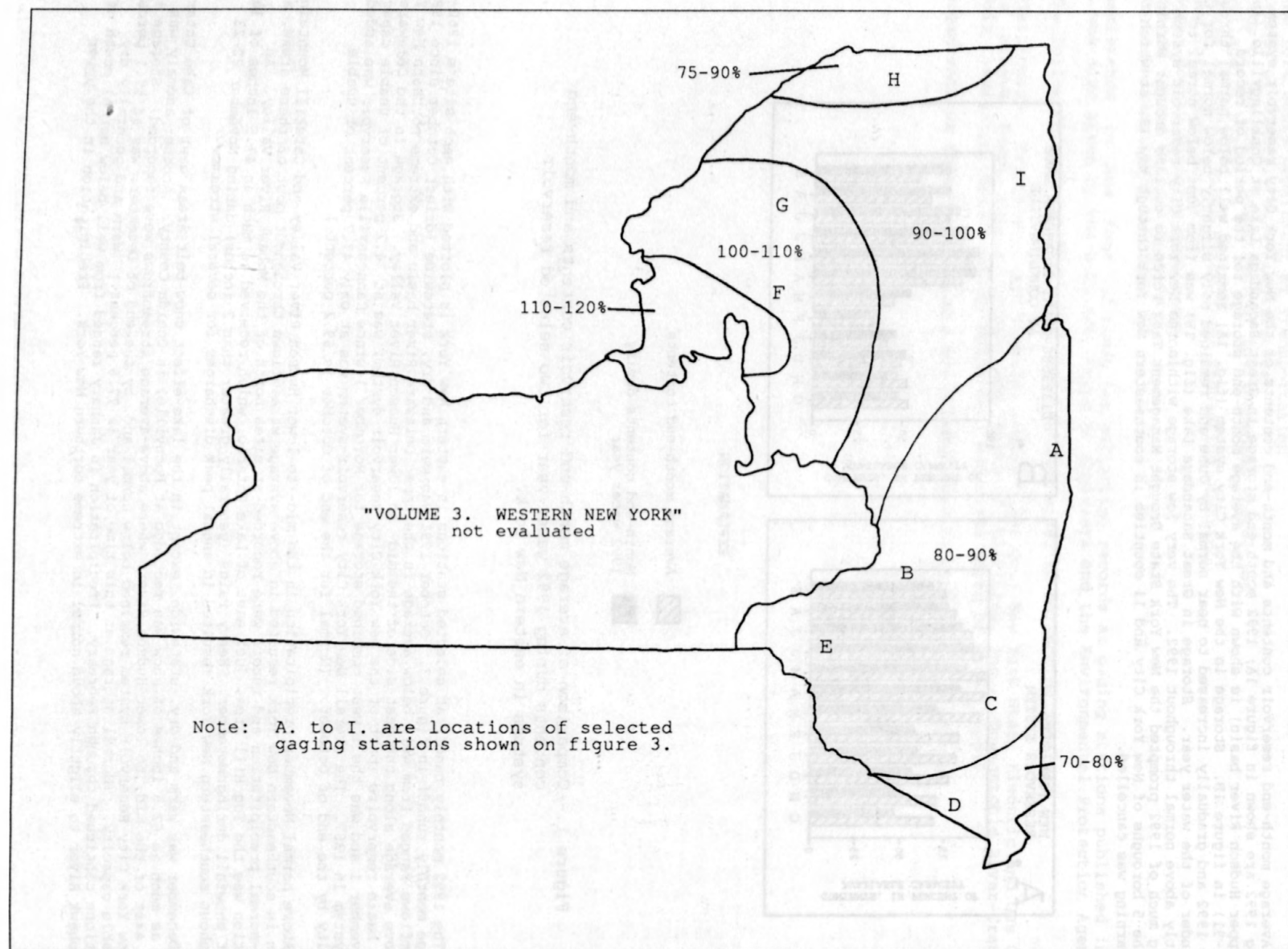


Figure 2.--1992 water year runoff as a percentage of the average annual runoff for 1960-89 for eastern New York excluding Long Island.

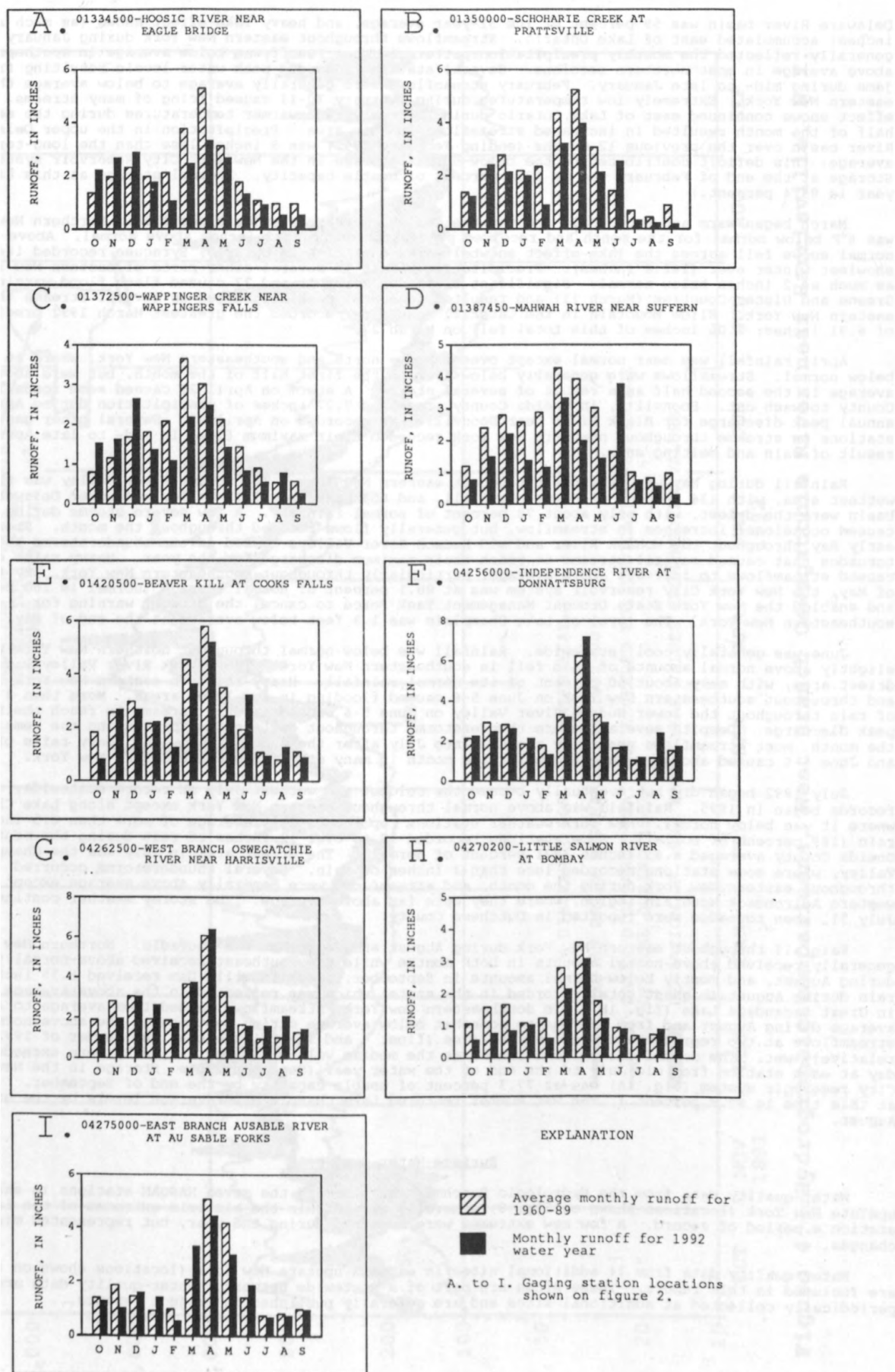


Figure 3.--Comparison of monthly runoff for 1992 water year and average monthly runoff for 1960-89 for selected gaging stations in eastern New York (site locations are shown on figure 2).

Delaware River basin was 59 percent of its 51-year average, and heavy lake-effect snows (as much as 62 inches) accumulated east of Lake Ontario. Streamflows throughout eastern New York during January generally reflected the monthly precipitation pattern in that runoff was below average in southern areas and above average in most northern sections. Several stations recorded peak water levels resulting from ice jams during mid- to late January. February streamflows were generally average to below average throughout eastern New York. Extremely low temperatures during February 10-13 caused icing of many streams. Lake-effect snows continued east of Lake Ontario during February, and warmer temperatures during the second half of the month resulted in increased streamflows in this area. Precipitation in the upper Delaware River basin over the previous 12 months (ending February 1992) was 9 inches less than the long-term average; this deficit contributed to the below-normal storage in the New York City Reservoir system. Storage at the end of February was at 58.6 percent of usable capacity. (Normal storage at this time of year is 83.4 percent.)

March began warm and ended cold and was the coolest March statewide since 1984. Northern New York was 6°F below normal for the month and received precipitation up to 2 inches above normal. Above-normal snows fell across the lake-effect snowbelt area east of Lake Ontario; Syracuse recorded its snowiest winter ever (162.8 inches). Precipitation totals in several other parts of eastern New York were as much as 2 inches below normal. Significant storms on March 11 and 27 caused flash flood warnings in Greene and Ulster Counties (March 11) and resulted in annual peak discharges on several streams throughout eastern New York. Slide Mountain in the Catskill Mountains recorded the greatest March 1992 precipitation of 6.91 inches; 3.06 inches of this total fell on March 27.

April rainfall was near normal except over extreme north and southeastern New York, where it was far below normal. Streamflows were generally below average the first half of the month, but were above average in the second half as a result of several storms. A storm on April 22 caused some roads in Warren County to wash out. Boonville, in Oneida County, received 7.27 inches of precipitation during April; the annual peak discharge for Black River near Boonville was recorded on April 23. Several other gaging stations on streams throughout northern New York recorded their maximum flows in mid- to late April as a result of rain and melting snow.

Rainfall during May was variable throughout eastern New York. The Mohawk River Valley was the wettest area, with 134 percent of normal rainfall, and the Lake Champlain Valley and upper Delaware River basin were the driest, with only about 78 percent of normal rainfall. A few severe storms during May caused occasional increases in streamflow, but generally flows receded throughout the month. Storms in early May throughout the Mohawk River and mid-Hudson River Valleys caused severe thunderstorms and tornados that caused several streams to reach their maximum discharge for the year. Heavy rains on May 31 caused streamflows to increase above average, particularly throughout southeastern New York. By the end of May, the New York City reservoir system was at 88.1 percent of normal storage (normal is 100 percent) and enabled the New York State Drought Management Task Force to cancel the drought warning for southeastern New York. The level of Lake Champlain was 1.3 feet below average at the end of May.

June was generally cool, statewide. Rainfall was below-normal throughout northern New York and slightly above normal amounts of rain fell in southeastern New York. The Mohawk River Valley was the driest area, with only about 50 percent of its normal rainfall. Heavy rains in eastern New York on June 1 and throughout southeastern New York on June 5-6 caused flooding in low-lying areas. More than 3 inches of rain throughout the lower Hudson River Valley on June 5-6 caused several streams to reach their annual peak discharge. Despite several severe thunderstorms throughout eastern New York during the remainder of the month, most streamflows generally receded into July after the June 6 rise. The heavy rains of June 1 and June 5-6 caused above-average flows for the month in many streams in southeastern New York.

July 1992 began dry but eventually became the coldest and wettest July on record statewide, since records began in 1895. Rainfall was above normal throughout eastern New York except along Lake Champlain, where it was below normal. New York weather stations reported a July average of more than 6.5 inches of rain (189 percent of normal). Some stations recorded 10 to over 12 inches of rain during the month; Oneida County averaged 8.85 inches (221 percent of normal). The driest area in July was the Champlain Valley, where some stations recorded less than 3 inches of rain. Several thunderstorms occurred throughout eastern New York during the month, and streamflows were generally above average except in the western Adirondack Mountain region, where they were far above average. The stormy weather continued to July 31, when tornados were reported in Dutchess County.

Rainfall throughout eastern New York during August and September was sporadic. Northern New York generally received above-normal amounts in both months while the southeast received above-normal totals during August, and mostly below-normal amounts in September. Conklingville Dam received 8.35 inches of rain during August (highest total recorded in the state) which was reflected in the above-average storage in Great Sacandaga Lake (fig. 1B). In southeastern New York, streamflows ranged from average to above average during August and from average to somewhat below average during September. The above-normal streamflows at two representative gaging stations (figs. 4 and 5) indicate that the summer of 1992 was relatively wet. The normal daily flows (shown as the median values in figs. 4 and 5) were exceeded every day at each station from mid-July to the end of the water year (September 30). Storage in the New York City reservoir system (fig. 1A) was at 77.3 percent of usable capacity by the end of September. (Normal at this time is 80.9 percent.) The wet summer restored Lake Champlain to average levels by the end of August.

Surface-Water Quality

Water-quality data from the Hydrologic Benchmark station and the seven NASQAN stations in eastern upstate New York (locations shown on fig. 8) generally were within the historic extremes of the individual station's period of record. A few new extremes were measured during the year, but represented minor changes.

Water-quality data from 14 additional sites in eastern upstate New York (locations shown on fig. 8) are included in this report. These sites are part of a statewide network. Water-quality data are periodically collected at additional sites and are generally published in project reports.

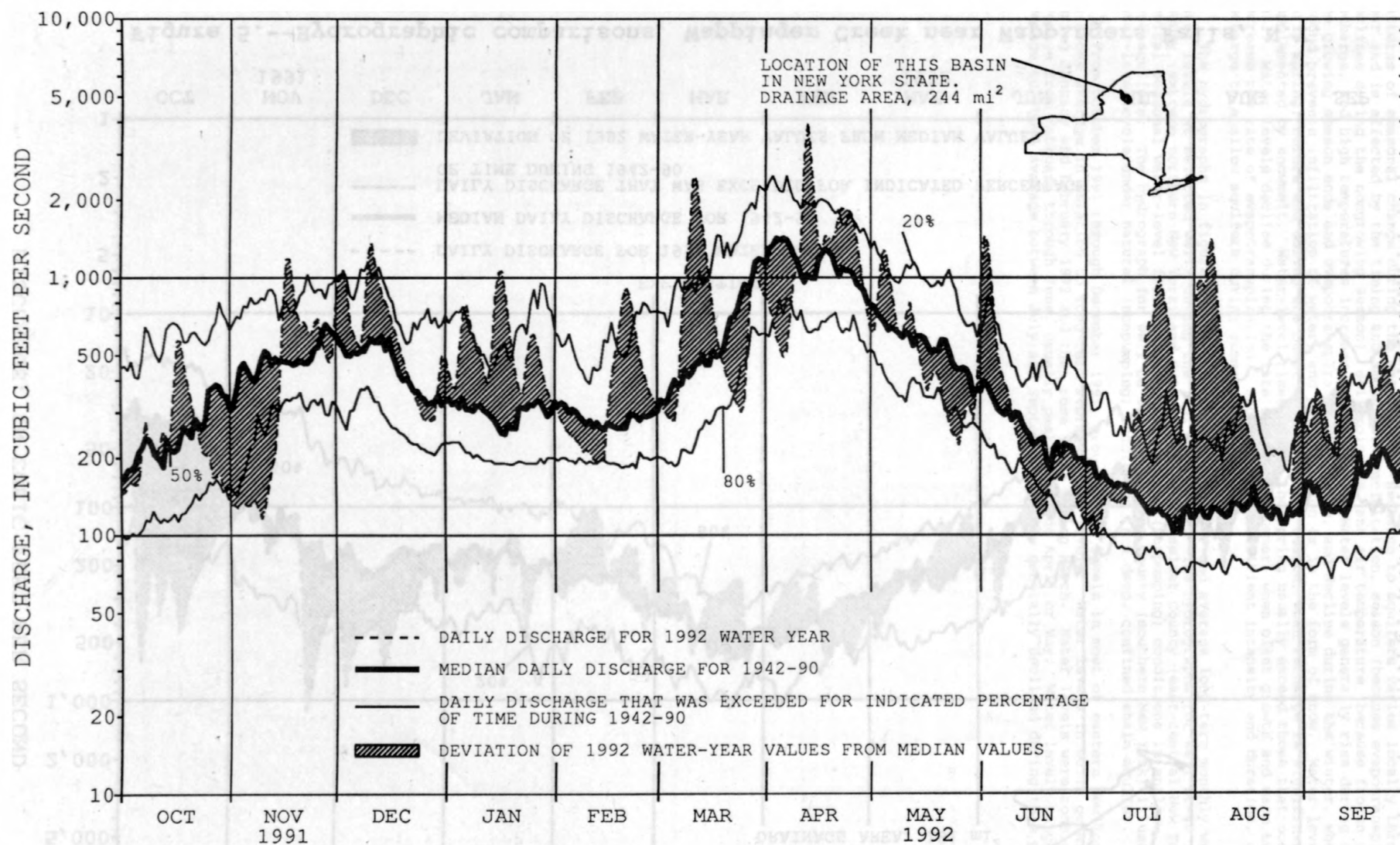


Figure 4.--Hydrographic comparisons, West Branch Oswegatchie River near Harrisville, N.Y.

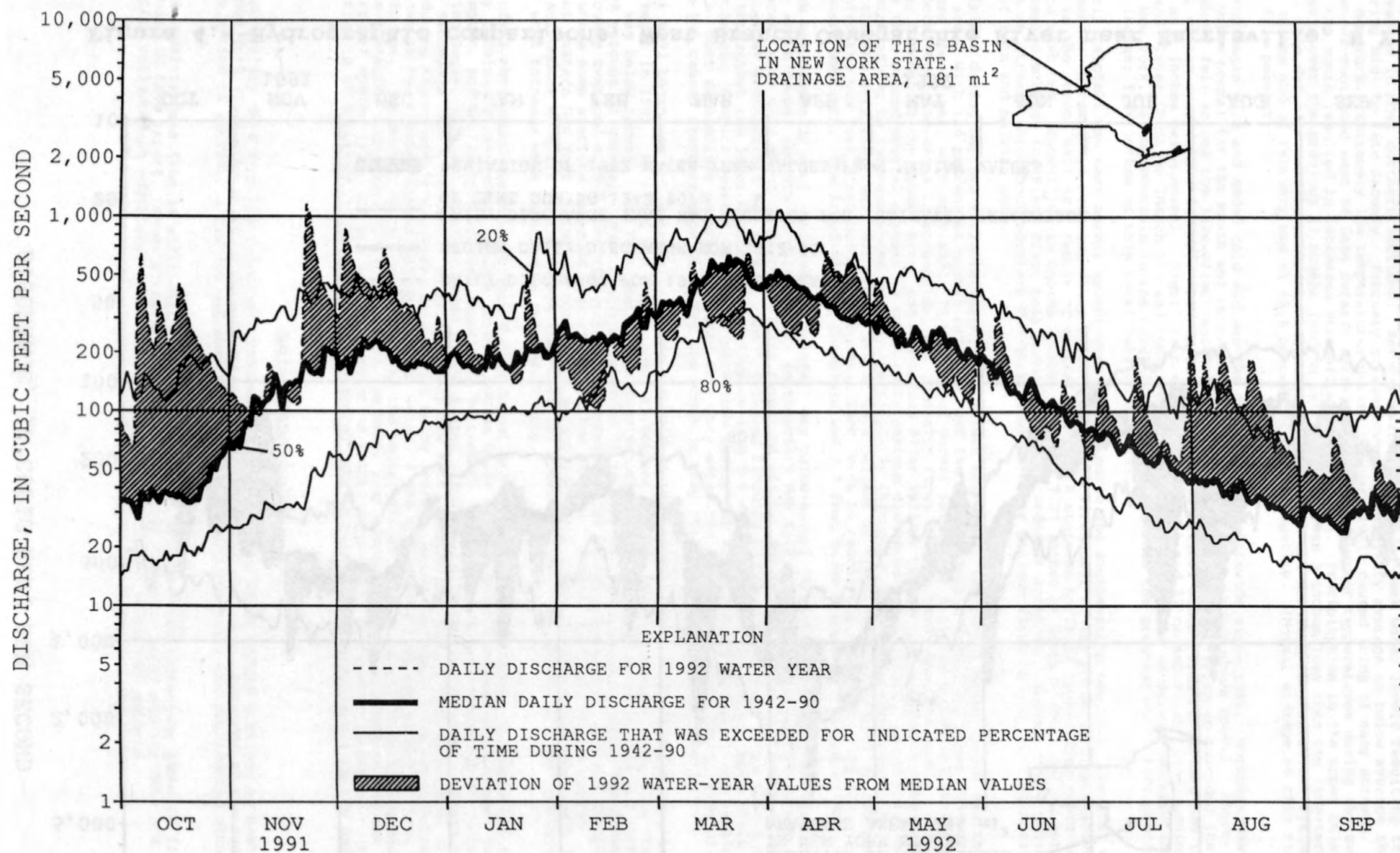
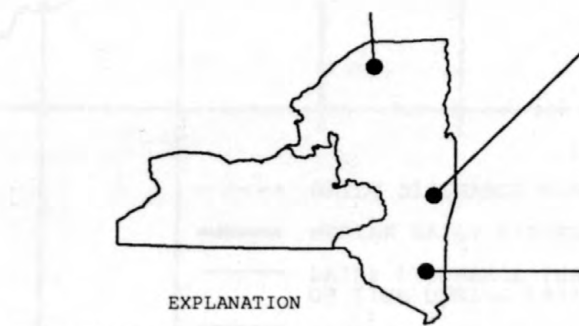
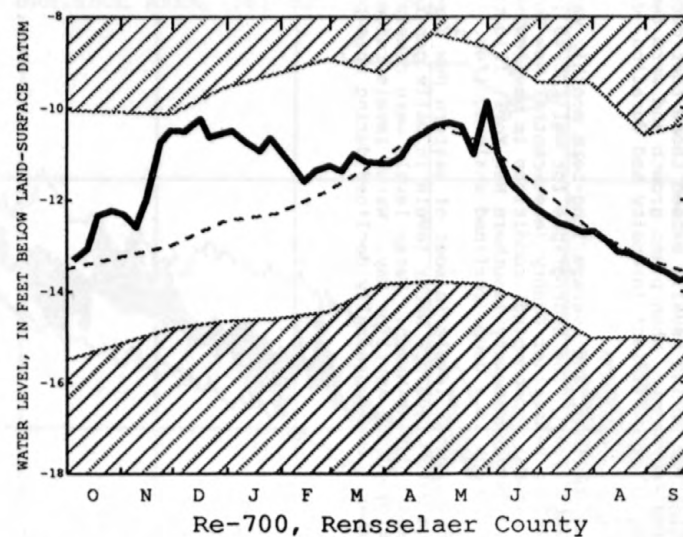
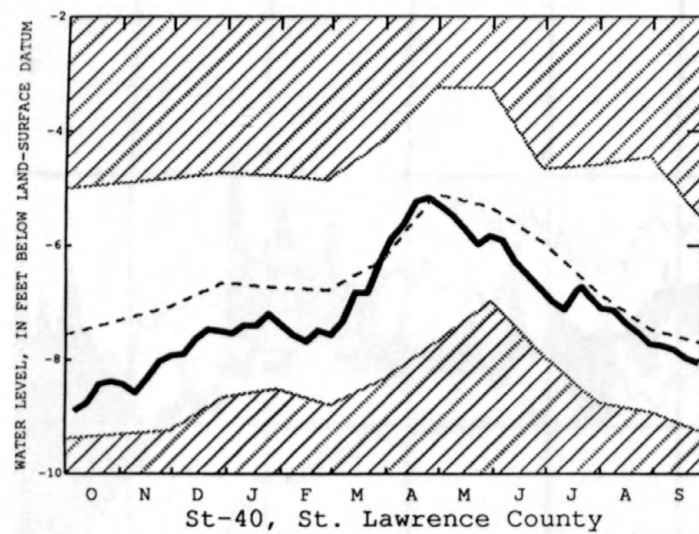


Figure 5.--Hydrographic comparisons, Wappinger Creek near Wappingers Falls, N.Y.

The hydrographs in figure 6 show the minimum, maximum, and average long-term monthly water levels and water levels at selected wells during the 1991 water-year. The hydrographs for well St-40 in St. Lawrence County (extreme northern New York) and well Re-700 in Rensselaer County (east-central New York) illustrate typical seasonal water-level fluctuations under natural (nonpumping) conditions in shallow, unconfined sand aquifers. The hydrograph for well Du-321 in Dutchess County (southern New York) illustrates the water-level cycle under natural (nonpumping) conditions in a deep, confined shale aquifer.

From October 1991 through December 1991, ground-water levels in most of eastern New York were average to above average in relation to long-term average water levels. Water levels in wells generally declined during January and February 1992 and then rose again during March. Water levels were consistently below average from February through June, usually peaking during April or May. Water levels ranged from below average to above average between July and September; levels generally declined during this period.



— 1992 water year
 ---- Mean water level for period
 of record through 1989

Unshaded areas of graphs show maximums
 and minimums through 1989

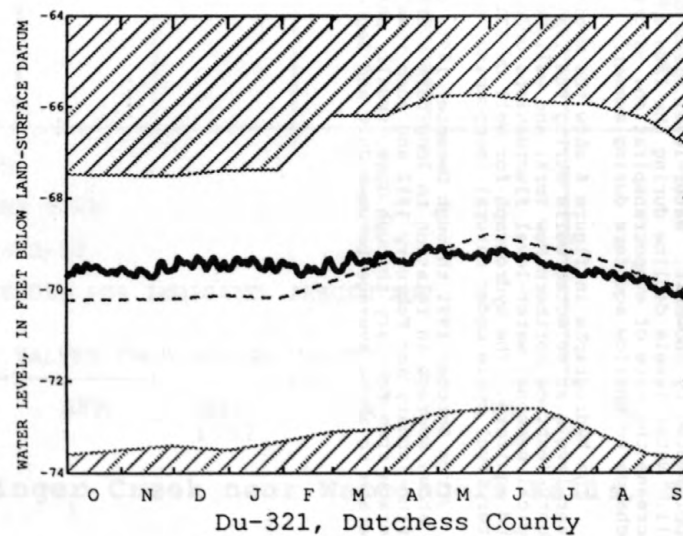


Figure 6.--Hydrographic comparisons, ground-water levels at selected observation wells.

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SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream-Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in national or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

National Water-Quality Assessment Program (NAWQA) of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, diverse, and geographically distributed part of the Nation's ground- and surface-water resources, and to identify, describe, and explain the major natural and human factors that affect these observed conditions and trends.

Assessment activities have begun in more than one-third of the study units and ultimately will be conducted in 60 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Radiochemical Programs 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 1992 water year that began October 1, 1991, and ended September 30, 1992. 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 8A 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.

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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 7 below.)

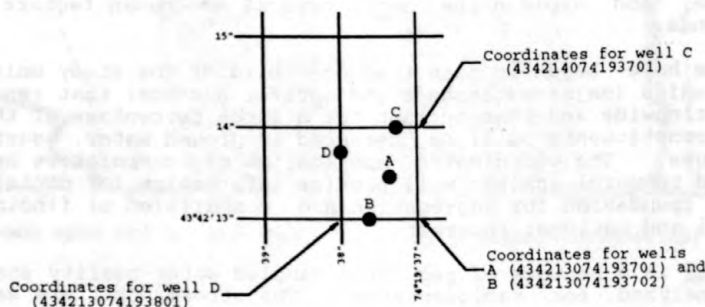


Figure 7. System for numbering wells (latitude and longitude)

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 8A and 8B.

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.

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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

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1992 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table. This change represents the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

The records published for each continuous-record surface-water discharge station (gaging station) now consist of four parts, the manuscript or station description; the data table of daily mean values of discharge for the current water year with summary data; a tabular statistical summary of monthly mean flow data for a designated period, by water year; and a summary statistics table that includes statistical data of annual and daily flows as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration.

Station manuscript

The manuscript provides, under various headings, descriptive information, such as station location; period of record; 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 gaging station 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.

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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.--Because of new information, published records 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 Definition of Terms), 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 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 paragraph 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, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; 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 U. S. 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 (address given on the back of the title page of this report) to determine if the published

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records were ever revised after the station was discontinued. Of course, if the data for a discontinued station 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.

Data table of daily mean values

The daily table for stream-gaging stations gives the mean discharge for each day of the water year. In the monthly summary for the table, the line headed "TOTAL" gives the sum of the daily figures for each month; the line headed "MEAN" gives the average flow in cubic feet per second for the month; and the lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for each month. Discharge for the month also is usually 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 or in acre-feet may be omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. At some stations monthly and/or yearly observed discharges are adjusted for reservoir storage or diversion, or diversion data or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Statistics of monthly mean data

A tabular summary of the mean (line headed "MEAN"), maximum (line headed "MAX"), and minimum (line headed "MIN") of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those figures. The designated period will be expressed as "FOR WATER YEARS _____, BY WATER YEAR (WY)," and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. It will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript.

Summary statistics

A table titled "SUMMARY STATISTICS" follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly and daily flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, "WATER YEARS _____," will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (see line headings below), except for the "ANNUAL 7-DAY MINIMUM" statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the manuscript or in footnotes. Because the designated period may not be the same as the station period of record published in the manuscript, occasionally the dates of occurrence listed for the daily extremes in the designated-period column may not be within the selected water years listed in the heading. When this occurs, it will be noted in the manuscript or in footnotes. Selected streamflow duration curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments to follow clarify information presented under the various line headings of the summary statistics table.

ANNUAL TOTAL.--The sum of the daily mean values of discharge for the year. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

ANNUAL MEAN.--The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

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HIGHEST ANNUAL MEAN.--The maximum annual mean discharge occurring for the designated period.

LOWEST ANNUAL MEAN.--The minimum annual mean discharge occurring for the designated period.

HIGHEST DAILY MEAN.--The maximum daily mean discharge for the year or for the designated period.

LOWEST DAILY MEAN.--The minimum daily mean discharge for the year or for the designated period.

ANNUAL 7-DAY MINIMUM.--The lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

ANNUAL RUNOFF.--Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

Acre-foot (AC-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 or 1,233 cubic meters.

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 the runoff is distributed uniformly in time and area.

Inches (INCHES) indicates the depth to which the drainage area would be covered if all of the runoff for a given time period were uniformly distributed on it.

10 PERCENT EXCEEDS.--The discharge that has been exceeded 10 percent of the time for the designated period.

50 PERCENT EXCEEDS.--The discharge that has been exceeded 50 percent of the time for the designated period.

90 PERCENT EXCEEDS.--The discharge that has been exceeded 90 percent of the time for the designated period.

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 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. 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 ft³/s; to tenths between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to 3 significant figures above 1,000 ft³/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.

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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.

Historical and current dissolved trace-element concentrations are reported herein for water that was collected, processed, and analyzed by using either ultraclean or other than ultraclean techniques. If ultraclean techniques were used, then those concentrations are reported in nanograms per liter. If other than ultraclean techniques were used, then those concentrations are reported in micrograms per liter and could reflect contamination introduced during some phase of the procedure.

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.

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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,

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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 year, 1977-81.

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.

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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 7.)

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.

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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.

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that for most sampling sites they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes only slowly; therefore, for most general purposes one annual sampling, or only a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate concentration. In the special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as part of a special study in a specific area. Consequently, a number of chemical analyses are presented for one county, but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality Statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the "U.S. Geological Survey Techniques of Water-Resources Investigations" manuals listed on a following page. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Data Presentation

The records of ground-water quality are published in a section titled QUALITY OF GROUND WATER immediately following the ground-water-level records. Data for quality of ground water are listed alphabetically by County, and are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. No descriptive statements are given for ground-water-quality records; however, the well number, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water. The REMARK codes listed for surface-water-quality records are also applicable to ground-water-quality records.

ACCESS TO WATSTORE DATA

The U.S. Geological Survey is the principal Federal water-data agency and, as such, collects and disseminates about 70 percent of the water data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. As part of the

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Geological Survey's program of releasing water data to the public, a large-scale computerized system has been developed for the storage and retrieval of water data collected through its activities. The National Water Data STorage and Retrieval System (WATSTORE) was established in 1972 to provide an effective and efficient means for the processing and maintenance of water data collected through the activities of the U.S. Geological Survey and to facilitate release of the data to the public. A variety of useful products, ranging from data tables to complex statistical analyses such as Log Pearson Type III, can be produced using WATSTORE. The system resides on the central computer facilities of the U.S. Geological Survey at its National Center in Reston, Virginia, and consists of related files and data bases.

- * Station Header File - Contains descriptive information on more than 440,000 sites throughout the United States and its territories where the U.S. Geological Survey collects or has collected data.
- * Daily Values File - Contains more than 220 million daily values of stream flows, stages, reservoir contents, water temperatures, specific conductances, sediment concentrations, sediment discharges, and ground-water levels.
- * Peak Flow File - Contains approximately 500,000 maximum (peak) streamflow and gage-height values at surface-water sites.
- * Water Quality File - Contains approximately 2 million analyses of water samples that describe the characteristics of both surface and ground water (biological, chemical, physical, and radio-chemical).
- * Ground-Water Site Inventory Data Base - Contains inventory data for more than 900,000 wells, springs, and other sources of ground water. The data includes site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the U. S. Geological Survey opened WATSTORE to the public for direct access. The signing of a Memorandum of Agreement with the Survey is required to obtain direct access to WATSTORE. The system can be accessed either synchronously or asynchronously. The requestor will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting:

U.S. Geological Survey
National Water Data Exchange
421 USGS National Center
Reston, Virginia 22092

In addition to providing direct access to WATSTORE, data can be provided in various machine-readable formats on magnetic tape or 5-1/4 inch floppy disk; and, as noted in the introduction, on CD-ROM discs. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division's District offices. (See address on the back of the title page.) A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

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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 (g/m³), and periphyton and benthic organisms in grams per square meter (g/m²).

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.

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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 (FT³/S, ft³/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.

Annual 7-day minimum is the lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1 - March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

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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 (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 (MG/L , 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 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.

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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 (m²), 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. 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:

Classification	Size (mm)	Method of analysis
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 (1×10^{12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{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.

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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.

Aroclor is the registered trade mark for a group of polychlorinated biphenyls which were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific four-digit reference numbers dependent upon molecular type and degree of substitution of the biphenyl ring hydrogen atoms by chlorine atoms. The first two digits of a numbered aroclor represent the molecular type and the last two digits represent the weight percent of the hydrogen substituted chlorine.

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.

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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 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:

Kingdom.....Animal
Phylum.....Arthropoda

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Class.....Insecta
 Order.....Ephemeroptera
 Family.....Ephemeridae
 Genus.....Hexagenia
 Species.....Hexagenia limbata

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.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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.

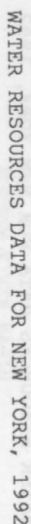
The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or 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."

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- 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.



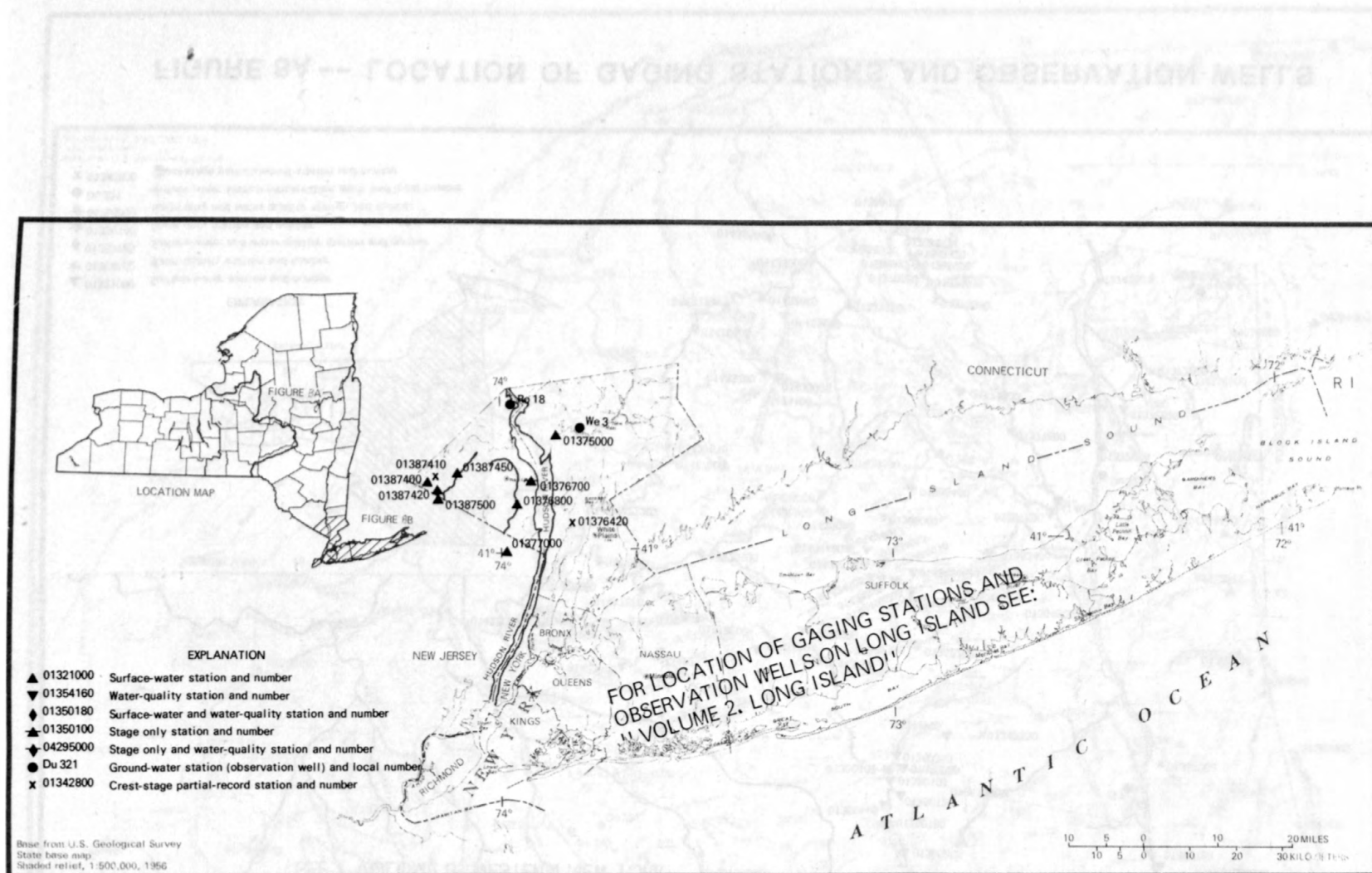


FIGURE 8B -- LOCATION OF GAGING STATIONS AND OBSERVATION WELLS

HUDSON RIVER BASIN

01311992 ARBUTUS POND OUTLET NEAR NEWCOMB, NY

LOCATION.--Lat 44°58'56", long 74°14'09", Essex County, Hydrologic Unit 02020001, on right bank at outlet of Arbutus Pond, 3.7 mi northwest of Newcomb, and 0.4 mi upstream from mouth at Fishing Brook.

DRAINAGE AREA.--1.22 mi².

PERIOD OF RECORD.--December 1990 to April 1992 (discontinued).

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Elevation of gage is about 1,680 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges and those for periods below 0.50 ft³/s, which are fair. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19 ft³/s, Apr. 24, 1992, gage height, 1.91 ft; minimum daily, no flow June 30, 1991, July 4-7, 1991, result of beaver dams upstream from gage.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period October 1991 to April 1992, 19 ft³/s, Apr. 24, gage height, 1.91 ft; minimum daily, 0.17 ft³/s, Oct. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	2.0	3.1	2.4	1.4	e.92	3.5	---	---	---	---	---
2	1.3	1.9	3.1	2.2	1.3	e.92	3.4	---	---	---	---	---
3	1.3	1.7	3.3	2.1	1.2	e.90	3.1	---	---	---	---	---
4	1.1	1.6	3.3	2.1	e1.1	.90	2.9	---	---	---	---	---
5	.44	1.4	2.9	2.3	e1.1	.86	2.7	---	---	---	---	---
6	.33	1.3	2.8	2.3	e1.0	.81	2.5	---	---	---	---	---
7	.26	1.3	2.7	2.3	e.96	.98	2.5	---	---	---	---	---
8	.21	1.2	2.6	2.2	e.90	1.2	2.8	---	---	---	---	---
9	.19	.92	3.1	2.0	e.84	1.4	3.5	---	---	---	---	---
10	.17	.85	3.6	2.0	e.80	1.6	4.8	---	---	---	---	---
11	.18	1.1	3.5	1.9	e.78	3.4	6.8	---	---	---	---	---
12	.18	1.5	3.3	1.8	e.74	5.9	9.2	---	---	---	---	---
13	.19	1.4	3.5	1.6	e.70	6.3	9.8	---	---	---	---	---
14	.19	1.4	3.9	2.1	.75	5.6	8.4	---	---	---	---	---
15	.20	1.6	4.3	3.2	.80	4.8	7.1	---	---	---	---	---
16	.53	1.9	4.2	3.3	1.0	4.2	6.4	---	---	---	---	---
17	.71	1.9	3.9	3.1	.98	3.6	6.7	---	---	---	---	---
18	.70	1.8	3.8	2.9	.93	3.3	5.9	---	---	---	---	---
19	.57	1.7	3.4	2.6	1.0	2.9	5.4	---	---	---	---	---
20	.48	1.6	3.1	2.4	1.1	2.6	6.6	---	---	---	---	---
21	.51	1.6	3.0	2.2	1.1	2.3	10	---	---	---	---	---
22	.46	1.4	2.8	2.0	1.1	2.1	15	---	---	---	---	---
23	.40	1.7	2.6	2.0	1.1	1.9	18	---	---	---	---	---
24	3.0	1.9	2.5	2.3	1.1	1.8	18	---	---	---	---	---
25	4.7	3.0	2.3	2.3	1.0	1.6	17	---	---	---	---	---
26	4.1	3.9	2.1	2.1	.97	1.5	14	---	---	---	---	---
27	3.6	3.4	1.9	1.9	.94	2.8	11	---	---	---	---	---
28	3.3	3.0	1.8	1.8	e.94	4.1	8.9	---	---	---	---	---
29	2.8	3.0	2.0	1.7	e.94	4.3	7.5	---	---	---	---	---
30	2.5	2.9	2.6	1.5	---	3.9	6.4	---	---	---	---	---
31	2.2	---	2.6	1.4	---	3.6	---	---	---	---	---	---
TOTAL	38.10	55.87	93.6	68.0	28.57	82.99	229.8	---	---	---	---	---
MEAN	1.23	1.86	3.02	2.19	.99	2.68	7.66	---	---	---	---	---
MAX	4.7	3.9	4.3	3.3	1.4	6.3	18	---	---	---	---	---
MIN	.17	.85	1.8	1.4	.70	.81	2.5	---	---	---	---	---
CFSM	1.01	1.53	2.47	1.80	.81	2.19	6.28	---	---	---	---	---
IN.	1.16	1.70	2.85	2.07	.87	2.53	7.01	---	---	---	---	---

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1992, BY WATER YEAR (WY)

	1991	1992	1991	1992	1991	1992	1991	1992	1991	1992	1991	1992
MEAN	1.23	1.86	3.66	2.92	1.37	3.46	6.73	1.62	.71	.73	.16	.31
MAX	1.23	1.86	4.31	3.65	1.76	4.25	7.66	1.62	.71	.73	.16	.31
(WY)	1992	1992	1991	1991	1991	1991	1992	1991	1991	1991	1991	1991
MIN	1.23	1.86	3.02	2.19	.99	2.68	5.81	1.62	.71	.73	.16	.31
(WY)	1992	1992	1992	1992	1992	1992	1991	1991	1991	1991	1991	1991

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

WATER YEARS 1991 - 1992

ANNUAL TOTAL	764.435											
ANNUAL MEAN	2.09											
HIGHEST DAILY MEAN	12	Apr 10						18	Apr 23 1992			
LOWEST DAILY MEAN	.000	Jun 30						.000	Jun 30 1991			
ANNUAL SEVEN-DAY MINIMUM	.013	Aug 28						.013	Aug 28 1991			
ANNUAL RUNOFF (CFSM)	1.72											
ANNUAL RUNOFF (INCHES)	23.31											
10 PERCENT EXCEEDS	4.4							5.8				
50 PERCENT EXCEEDS	1.7							1.9				
90 PERCENT EXCEEDS	.08							.15				

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 mi².

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 4.668 bil ft³ 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 ft³; minimum observed, 1,616.81 ft, estimated, Feb. 13, 1948, contents, 0.20 bil ft³.

EXTREMES FOR CURRENT YEAR.--Maximum elevation observed, 1,652.46 ft, May 4, contents, 4.900 bil ft³; minimum observed, 1,637.86 ft, Mar. 7, contents, 2.396 bil ft³.

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 (FEET NGVD), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY OBSERVATION AT 08:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1643.91	1641.51	1639.67	1639.31	1639.53	1638.21	1641.59	1651.96	1649.89	1649.38	1649.46	1646.71
2	1643.94	1641.41	1639.65	1639.25	1639.49	1638.17	1641.66	1651.91	1650.26	1649.33	1649.38	1646.56
3	1643.89	1641.31	1639.62	1639.26	1639.42	1638.11	1641.71	1652.16	1650.43	1649.26	1649.29	1646.43
4	1643.82	1641.21	1639.76	1639.21	1639.36	1638.07	1641.76	1652.46	1650.41	1649.34	1649.21	1646.55
5	1643.71	1641.11	1639.71	1639.26	1639.31	1638.01	1641.81	1652.44	1650.37	1649.26	1649.15	1646.55
6	1643.59	1641.01	1639.66	1639.29	1639.28	1637.96	1641.86	1652.29	1650.39	1649.31	1649.01	1646.49
7	1643.51	1640.84	1639.61	1639.24	1639.21	1637.86	1641.95	1652.11	1650.44	1649.24	1648.91	1646.44
8	1643.43	1640.71	1639.54	1639.19	1639.17	1637.92	1642.08	1651.96	1650.47	1649.21	1648.79	1646.31
9	1643.34	1640.56	1639.46	1639.21	1639.07	1638.01	1642.23	1651.86	1650.51	1649.22	1648.76	1646.21
10	1643.24	1640.56	1639.56	1639.19	1639.00	1638.12	1642.46	1651.75	1650.49	1649.23	1648.76	1646.13
11	1643.17	1640.31	1639.66	1639.18	1638.92	1638.51	1642.91	1651.59	1650.41	1649.19	1648.84	1646.13
12	1642.96	1640.29	1639.60	1639.15	1638.84	1639.41	1643.56	1651.53	1650.36	1649.15	1648.71	1646.07
13	1642.89	1640.20	1639.66	1639.08	1638.84	1639.91	1644.37	1651.34	1650.28	1649.19	1648.59	1646.05
14	1642.72	1640.19	1639.66	1639.01	1638.71	1640.41	1644.91	1651.24	1650.21	1649.16	1648.53	1645.96
15	1642.70	1640.18	1639.86	1639.21	1638.65	1640.56	1645.21	1651.11	1650.06	1649.26	1648.45	1645.89
16	1642.65	1640.12	1640.01	1639.56	1638.60	1640.61	1645.46	1650.91	1649.91	1649.36	1648.35	1645.76
17	1642.76	1640.05	1640.01	1639.61	1638.55	1640.71	1645.76	1650.76	1649.81	1649.43	1648.29	1645.61
18	1642.86	1640.06	1640.00	1639.61	1638.56	1640.75	1646.01	1650.51	1649.71	1649.51	1648.21	1645.59
19	1642.86	1640.01	1640.01	1639.66	1638.56	1640.76	1646.26	1650.31	1649.66	1649.58	1648.12	1645.56
20	1642.76	1639.95	1640.01	1639.66	1638.53	1640.78	1646.51	1650.11	1649.66	1649.63	1648.01	1645.51
21	1642.71	1639.89	1639.91	1639.71	1638.54	1640.71	1647.09	1649.86	1649.61	1649.76	1647.91	1645.46
22	1642.66	1639.85	1639.83	1639.74	1638.51	1640.68	1648.11	1649.61	1649.56	1649.93	1647.80	1645.44
23	1642.54	1639.85	1639.66	1639.61	1638.49	1640.65	1649.74	1649.51	1649.54	1650.01	1647.66	1645.65
24	1642.45	1639.87	1639.66	1639.76	1638.46	1640.61	1651.29	1649.31	1649.51	1650.06	1647.56	1645.86
25	1642.25	1639.85	1639.55	1639.67	1638.41	1640.59	1651.81	1649.31	1649.54	1650.04	1647.45	1645.96
26	1642.24	1639.83	1639.61	1639.68	1638.38	1640.54	1652.26	1649.23	1649.51	1649.97	1647.31	1645.96
27	1642.16	1639.82	1639.50	1639.66	1638.32	1640.56	1652.41	1649.26	1649.48	1649.91	1647.21	1645.96
28	1641.96	1639.71	1639.37	1639.61	1638.28	1640.91	1652.31	1649.40	1649.46	1649.80	1647.11	1645.96
29	1641.90	1639.71	1639.26	1639.64	1638.25	1641.18	1652.21	1649.46	1649.43	1649.71	1647.01	1646.06
30	1641.80	1639.71	1639.22	1639.59	---	1641.37	1652.08	1649.49	1649.40	1649.61	1646.91	1646.19
31	1641.61	---	1639.28	1639.56	---	1641.46	---	1649.56	---	1649.61	1646.81	---
MEAN	1642.87	1640.32	1639.66	1639.43	1638.80	1639.75	1645.98	1650.78	1649.96	1649.50	1648.24	1646.03
MAX	1643.94	1641.51	1640.01	1639.76	1639.53	1641.46	1652.41	1652.46	1650.51	1650.06	1649.46	1646.71
MIN	1641.61	1639.71	1639.22	1639.01	1638.25	1637.86	1641.59	1649.23	1649.40	1649.15	1646.81	1645.44
†	2.982	2.682	2.622	2.660	2.452	2.983	4.808	4.380	4.311	4.327	3.852	3.742
††	-148	-116	-22.4	+14.2	-83.0	+198	+704	-160	-26.6	+5.97	-177	-42.4
CAL YR 1991	MEAN 1644.26	MAX 1649.69	MIN 1638.65	† -35.6								
WTR YR 1992	MEAN 1644.29	MAX 1652.46	MIN 1637.86	†† +11.5								

† 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

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 mi².

PERIOD OF RECORD.--July 1912 to June 1914, June 1915 to September 1915 (monthly discharges only, published in WSP 1302), October 1915 to current year.

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).

AVERAGE DISCHARGE.--78 years (water years 1913, 1916-92), 296 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,460 ft³/s, Mar. 28, 1913, gage height, 7.8 ft; minimum, frequently less than 1 ft³/s, when entire flow of river is being stored in Indian Lake.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,040 ft³/s, May 4, gage height, 4.09 ft; minimum, 40 ft³/s, Oct. 17, gage height, 0.93 ft; minimum daily discharge, 46 ft³/s, May 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	197	301	291	185	181	171	185	728	106	114	354	337
2	253	300	291	183	181	171	185	720	176	114	353	336
3	319	300	291	182	180	170	139	908	339	114	353	342
4	317	298	291	182	178	169	84	1020	339	115	351	339
5	316	297	291	182	178	169	84	991	339	114	350	336
6	317	297	291	182	178	169	84	900	341	114	350	336
7	316	295	291	182	178	169	84	809	340	114	350	335
8	314	294	291	182	178	170	86	724	340	114	349	333
9	313	293	292	182	178	171	86	661	343	115	355	332
10	313	291	291	182	178	173	87	609	346	114	351	333
11	311	294	291	182	177	185	92	570	345	114	349	332
12	310	292	291	181	173	181	99	536	345	114	348	329
13	310	292	292	180	171	180	91	510	344	115	348	329
14	308	293	293	185	171	182	91	496	343	116	348	330
15	308	294	294	187	171	183	91	619	343	116	346	333
16	311	292	294	187	171	185	92	675	344	115	346	332
17	185	291	294	185	170	185	93	667	343	116	345	257
18	311	291	294	183	170	184	93	666	231	117	343	222
19	310	291	294	182	169	184	94	665	114	116	341	222
20	310	291	293	182	169	184	101	664	114	149	333	222
21	309	291	292	182	169	183	102	661	114	248	332	222
22	308	291	291	182	169	182	105	517	114	247	329	225
23	307	293	291	182	170	182	107	341	113	249	329	226
24	306	293	291	182	171	182	129	342	115	317	328	227
25	305	293	291	182	171	182	322	342	114	356	326	227
26	304	291	291	182	171	181	536	209	114	356	330	228
27	303	291	288	182	171	190	781	47	114	356	343	228
28	302	291	288	182	171	185	919	46	114	354	342	156
29	301	291	289	182	171	184	850	61	114	354	343	57
30	302	292	245	182	---	185	783	102	114	353	340	161
31	303	---	185	182	---	185	---	106	---	355	339	---
TOTAL	9299	8804	8883	5660	5034	5556	6675	16912	7015	5875	10644	8224
MEAN	300	293	287	183	174	179	222	546	234	190	343	274
MAX	319	301	294	187	181	190	919	1020	346	356	355	342
MIN	185	291	185	180	169	169	84	46	106	114	326	57

ADJUSTED FOR CHANGE IN CONTENTS OF INDIAN LAKE

	MEAN	152	177	265	197	91	377	926	386	207	196	166	232
CFSM	1.15	1.34	2.01	1.49	0.69	2.86	7.02	2.92	1.57	1.48	1.26	1.76	
IN	1.33	1.50	2.31	1.72	0.74	3.29	7.83	3.37	1.75	1.71	1.45	1.96	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1992, BY WATER YEAR (WY)

	MEAN	273	214	248	359	419	281	175	300	260	280	373	360
MAX	808	649	777	944	980	745	774	757	907	644	700	862	
(WY)	1978	1977	1973	1933	1932	1913	1913	1943	1947	1939	1930	1935	
MIN	2.31	1.20	.74	3.13	36.7	5.69	2.51	2.42	3.30	4.43	47.7	24.9	
(WY)	1919	1914	1931	1924	1945	1925	1927	1958	1958	1931	1975	1965	

HUDSON RIVER BASIN

01315000 INDIAN RIVER NEAR INDIAN LAKE, NY--Continued

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1912 - 1992

ANNUAL TOTAL	100484		98581						
ANNUAL MEAN	275		269				295		
ANNUAL MEAN (ADJUSTED)	239		280						
HIGHEST ANNUAL MEAN							457		1976
LOWEST ANNUAL MEAN							106		1931
HIGHEST DAILY MEAN	772	Jan 5	1020	May 4		3460			1913
LOWEST DAILY MEAN	36	Jun 24	46	May 28		.50			Sep 23 1913
ANNUAL SEVEN-DAY MINIMUM	36	Jun 24	85	Apr 4		.50			Oct 20 1913
ANNUAL RUNOFF (CFMSM, ADJUSTED)	1.81		24.58						
ANNUAL RUNOFF (INCHES, ADJUSTED)	2.12		28.87						
10 PERCENT EXCEEDS	441		353				642		
50 PERCENT EXCEEDS	291		291				259		
90 PERCENT EXCEEDS	51		114				7.2		

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 mi².

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.--Records good except those for estimated daily discharges, which are fair. Appreciable regulation by Indian Lake (see station 01314500) and other reservoirs upstream from station. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--85 years, 1,571 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,900 ft³/s, Dec. 31, 1948, gage height, 12.14 ft; minimum, 112 ft³/s, July 26, 1934, gage height, 1.96 ft; minimum daily, 114 ft³/s, July 26, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,000 ft³/s, Apr. 23, gage height, 8.90 ft; minimum, 330 ft³/s, July 3, gage height, 2.56 ft; minimum daily, 333 ft³/s, July 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	620	785	1640	e1300	766	e560	2250	3230	2900	372	1050	993
2	733	765	1850	e1200	e740	e580	2010	3620	3190	348	1210	854
3	1070	746	1760	1100	e700	e580	1790	7910	2790	333	1210	613
4	1110	721	1650	1060	e700	e560	1540	7380	1990	371	1090	2210
5	972	696	1400	1200	e660	e560	1340	5660	1740	407	1030	2960
6	999	674	1280	1300	e620	e560	1240	4420	1850	416	1090	2330
7	1210	662	1260	e1250	e600	580	1270	3370	2050	402	1020	1660
8	1110	668	1260	e1150	e620	696	1560	3080	1770	391	904	1290
9	951	642	1570	e1100	e560	913	2100	2760	1730	391	932	1150
10	1000	640	2540	e1000	e540	1310	2520	2480	1700	403	1330	1060
11	881	773	2520	e980	e520	4540	3210	2570	1120	435	1510	1430
12	897	1290	2150	850	e520	5980	5940	2410	1090	438	1340	1550
13	907	1310	1950	890	e540	5180	6040	2270	1040	472	1150	1300
14	874	1200	2340	1090	e580	4210	4480	2140	952	585	1060	1060
15	874	1200	2750	1780	e660	3200	3460	2060	921	782	1030	945
16	1760	1440	2490	2040	e640	2410	2980	2150	879	868	1030	868
17	2720	1750	1920	1840	e640	1840	2700	1980	790	806	937	860
18	2290	1620	1720	1540	e620	1540	2390	1860	740	852	1010	767
19	2010	1460	1470	e1200	619	1340	2290	1900	550	1030	763	756
20	1690	1350	e1400	e1100	666	1210	3360	1940	396	1100	764	700
21	1450	1320	e1350	e1000	e700	1100	6100	1680	403	1460	721	648
22	1270	1370	e1300	937	e720	974	9640	1580	420	1550	682	759
23	1240	1660	e1200	925	e700	932	12100	1260	424	1160	648	2280
24	1120	1920	e1100	1060	e700	877	10500	1200	417	1240	616	2460
25	1040	2080	e1000	e1000	e660	856	9250	1200	466	1220	605	1810
26	973	1910	e960	e1000	e600	841	6930	1190	504	1070	589	1450
27	927	1620	e900	e940	e600	2490	5390	1050	449	863	582	1240
28	913	1470	e900	e880	e580	3870	4800	1230	461	743	658	1180
29	894	1380	e960	e840	e560	3530	3970	1240	434	811	846	1050
30	854	1390	1330	e800	---	2990	3460	1170	397	735	1010	902
31	819	---	1480	765	---	2490	---	1490	---	755	941	---
TOTAL	36178	36512	49400	35117	18331	59299	126610	79480	34563	22809	29358	39135
MEAN	1167	1217	1594	1133	632	1913	4220	2564	1152	736	947	1304
MAX	2720	2080	2750	2040	766	5980	12100	7910	3190	1550	1510	2960
MIN	620	640	900	765	520	560	1240	1050	396	333	582	613

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1907 - 1992, BY WATER YEAR (WY)

MEAN	1164	1456	1316	1127	1102	1859	4191	2845	1269	835	794	903
MAX	3923	3089	3277	2801	3846	5643	6899	6671	4768	2252	1701	2455
(WY)	1978	1989	1984	1949	1981	1921	1952	1971	1947	1947	1986	1938
MIN	409	427	299	189	223	257	1774	772	353	161	257	365
(WY)	1964	1924	1931	1931	1940	1940	1946	1987	1988	1934	1985	1983

HUDSON RIVER BASIN

01315500 HUDSON RIVER AT NORTH CREEK, NY--Continued

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1907 - 1992

ANNUAL TOTAL	535702		566792		1571	
ANNUAL MEAN	1468		1549		2449	1976
HIGHEST ANNUAL MEAN					862	1965
LOWEST ANNUAL MEAN					23900	Mar 27 1913
HIGHEST DAILY MEAN	10000	Apr 10	12100	Apr 23	114	Jul 26 1934
LOWEST DAILY MEAN	226	Sep 10	333	Jul 3	120	Jul 20 1934
ANNUAL SEVEN-DAY MINIMUM	261	Sep 6	378	Jun 30	3310	
10 PERCENT EXCEEDS	2600		2820		990	
50 PERCENT EXCEEDS	1180		1100		462	
90 PERCENT EXCEEDS	376		580			

HUDSON RIVER BASIN

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 mi².

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.--Records good 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. Telephone gage-height telemeter and satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--71 years, 2,923 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,700 ft³/s, Jan. 1, 1949, gage height, 21.21 ft; minimum, 264 ft³/s, Sept. 11, 1991, gage height, 1.02 ft; minimum gage height, 0.94 ft, Sept. 3, 1934; minimum daily discharge, 282 ft³/s, Sept. 11, 1991.

EXTREMES OUTSIDE PERIOD OF RECORD.--Discharge for the flood of March 27, 1913, was about 49,000 ft³/s, based on peak runoff comparison with a station 12.7 mi upstream (drainage area 1,533 mi²).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 23	2015	*18,300	*11.24	No other peak greater than base discharge.			
Minimum discharge, 592 ft ³ /s, July 3, gage height, 1.86 ft; minimum daily, 602 ft ³ /s, July 3.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080	1300	2420	2150	1420	832	4990	6910	6470	697	1610	1260
2	979	1270	2740	2030	1230	828	4340	6750	6510	642	1910	1350
3	1170	1220	2800	2070	987	910	3940	12200	5900	602	1840	1070
4	1530	1170	2630	2100	1030	970	3540	13100	4610	640	1660	2060
5	1330	1100	2360	2240	954	932	3220	10800	4180	709	1500	3600
6	1340	1050	2130	2510	1060	944	2920	9040	4430	744	1460	3380
7	1610	1010	1910	2640	947	963	2820	7590	4720	721	1460	2500
8	1670	1000	2030	2170	883	1180	2960	6460	4510	677	1330	2050
9	1420	977	2290	2000	e860	1590	3500	6050	3890	674	1290	1760
10	1400	924	3250	e1900	808	2130	3950	5510	3930	654	1430	1600
11	1340	1070	3630	e1700	777	8000	4770	5110	3320	678	1900	1910
12	1240	1760	3380	1520	e760	10200	8710	4970	2800	691	1850	2200
13	1300	2070	3160	1560	736	8270	10100	4570	2600	740	1610	2040
14	1270	1940	3600	1960	765	7810	8330	4400	2350	818	1670	1730
15	1260	1880	4320	3000	899	6660	6580	4140	2140	1170	1610	1470
16	1890	2010	4100	3080	874	5690	5790	4020	2030	1430	1540	1350
17	3300	2340	e3300	2860	831	4950	6020	3970	1820	1290	1440	1260
18	3610	2390	e2900	e2600	998	4030	6100	3710	1670	1190	1350	1210
19	3290	2210	e2100	e2300	1050	3730	5950	3450	1530	1310	1390	1150
20	2890	2070	e2000	2100	1190	3370	6590	3490	1320	1520	1170	1100
21	2550	2000	2640	1950	1250	3200	8960	3190	1180	1780	1090	1030
22	2280	2000	2490	1790	1160	2770	12600	2930	1100	2270	1010	1020
23	2130	2480	e2300	1610	1110	2240	17200	2540	1040	1950	956	1950
24	2020	2940	e2000	2010	1150	2260	17000	2190	975	1760	906	3180
25	1910	3080	1810	2200	1070	2120	16600	2250	981	1850	865	2660
26	1770	2990	1620	1760	1040	1920	14000	2140	942	1670	897	2130
27	1660	2680	e1700	1640	1020	6380	11600	2120	866	1510	906	2000
28	1600	2400	e1600	1540	983	7560	10100	2130	859	1180	1160	1910
29	1540	2310	1720	1540	915	6520	8910	2270	831	1190	1280	1760
30	1450	2300	2150	1530	---	5920	7690	2120	763	1130	1460	1530
31	1370	---	2280	1520	---	5410	---	2810	---	1130	1390	---
TOTAL	55199	55941	79360	63580	28757	120289	229780	152930	80267	35017	42940	55220
MEAN	1781	1865	2560	2051	992	3880	7659	4933	2676	1130	1385	1841
MAX	3610	3080	4320	3080	1420	10200	17200	13100	6510	2270	1910	3600
MIN	979	924	1600	1520	736	828	2820	2120	763	602	865	1020

e Estimated

HUDSON RIVER BASIN

01318500 HUDSON RIVER AT HADLEY, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1992, BY WATER YEAR (WY)

MEAN	1933	2619	2542	2135	2009	3704	8327	5355	2424	1450	1205	1391
MAX	7087	5657	6925	6548	6948	11670	14030	11820	9497	4201	2717	4135
(WY)	1978	1960	1984	1949	1981	1936	1952	1972	1947	1935	1986	1938
MIN	575	681	551	397	384	451	3685	1576	737	392	396	646
(WY)	1965	1931	1931	1931	1940	1940	1946	1987	1988	1934	1985	1983

SUMMARY STATISTICS FOR 1991 CALENDAR YEAR FOR 1992 WATER YEAR WATER YEARS 1922 - 1992

ANNUAL TOTAL	936393	999280	
ANNUAL MEAN	2565	2730	
HIGHEST ANNUAL MEAN			2923
LOWEST ANNUAL MEAN			4574
HIGHEST DAILY MEAN	14200	17200	1408
LOWEST DAILY MEAN	282	602	38100
ANNUAL SEVEN-DAY MINIMUM	333	676	282
10 PERCENT EXCEEDS	5330	5970	299
50 PERCENT EXCEEDS	2040	1910	6480
90 PERCENT EXCEEDS	487	921	1790

Time	Discharge (cfs)	Gage height (ft)	Date	Time	Discharge (cfs)	Gage height (ft)
1992	1100	11.00	10/1	1991	1100	11.00
1991	1100	11.00	10/1	1990	1100	11.00
1990	1100	11.00	10/1	1989	1100	11.00
1989	1100	11.00	10/1	1988	1100	11.00
1988	1100	11.00	10/1	1987	1100	11.00
1987	1100	11.00	10/1	1986	1100	11.00
1986	1100	11.00	10/1	1985	1100	11.00
1985	1100	11.00	10/1	1984	1100	11.00
1984	1100	11.00	10/1	1983	1100	11.00
1983	1100	11.00	10/1	1982	1100	11.00
1982	1100	11.00	10/1	1981	1100	11.00
1981	1100	11.00	10/1	1980	1100	11.00
1980	1100	11.00	10/1	1979	1100	11.00
1979	1100	11.00	10/1	1978	1100	11.00
1978	1100	11.00	10/1	1977	1100	11.00
1977	1100	11.00	10/1	1976	1100	11.00
1976	1100	11.00	10/1	1975	1100	11.00
1975	1100	11.00	10/1	1974	1100	11.00
1974	1100	11.00	10/1	1973	1100	11.00
1973	1100	11.00	10/1	1972	1100	11.00

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 mi².

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.--Records good except those for estimated daily discharges, which are poor. Some seasonal regulation on West Branch Sacandaga River at Piseco Lake Outlet, about 17 mi upstream, and, since 1959, diurnal fluctuation caused by powerplant 4 mi upstream from station at Lake Algonquin. Minor fluctuations caused by mill upstream. Satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--81 years, 1,101 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,000 ft³/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 ft³/s, Sept. 30, 1913, gage height, 1.17 ft; minimum gage height, 1.15 ft, Aug. 7, 8, 11, 1964; minimum daily discharge, 18 ft³/s, Sept. 20, 1913.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 11	1515	9,120	6.53	May 3	0715	*9,740	*6.70
Apr. 23	0700	9,630	6.67				

Minimum discharge, 63 ft³/s, July 3, gage height, 1.39 ft; minimum daily, 107 ft³/s, July 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	306	284	1220	865	e470	e320	1940	1920	3760	157	1280	443
2	590	240	1090	e760	e450	e310	1590	2090	2790	138	878	269
3	532	273	1010	e720	e430	e300	1440	6390	2120	107	723	289
4	440	245	937	705	e420	e300	1240	4090	1650	185	620	1210
5	355	206	649	857	e400	e300	1140	3370	1340	253	572	839
6	497	228	665	855	e370	e320	1060	2790	2170	384	489	582
7	630	194	619	812	e360	e400	1220	2340	1990	277	320	573
8	486	210	674	721	e350	e800	1690	2000	1750	236	207	504
9	432	187	967	662	e340	e1500	2040	1730	1410	283	346	456
10	361	177	1430	605	e320	2170	2040	1360	1150	313	414	445
11	355	484	1170	543	e300	6470	2710	1380	931	318	372	1150
12	321	1000	1010	513	e300	4750	5800	1170	780	251	384	813
13	343	766	1210	583	e320	3070	3940	1050	648	597	242	689
14	314	656	2050	730	e350	2400	3100	956	570	679	526	565
15	349	624	2310	1620	e390	1790	2630	1020	486	1500	694	614
16	1990	719	1650	e1200	e360	1520	2310	952	425	1660	592	561
17	1470	676	1090	e1000	e350	1330	2620	932	392	1250	547	461
18	1390	607	1220	e860	e340	1140	2730	855	249	1220	529	452
19	1040	574	913	e800	e340	1010	2980	767	249	1030	575	500
20	1020	537	e900	e740	e400	848	3570	691	480	860	533	479
21	776	516	e860	e700	e400	751	4820	645	343	1710	405	427
22	661	494	810	e660	e420	631	6070	500	289	1230	392	629
23	573	920	747	e600	e400	604	7250	423	257	985	356	2400
24	507	1090	666	e720	e390	579	5590	402	208	1030	318	1730
25	454	1120	578	e660	e370	493	5090	440	277	812	292	1230
26	420	912	e520	e640	e350	544	3980	395	229	681	418	1070
27	388	769	e520	e600	e340	2870	3400	426	208	589	485	1070
28	356	682	508	e560	e330	3910	2810	604	204	518	435	1130
29	358	700	552	e540	e320	2580	2460	530	189	477	717	982
30	324	895	980	e500	---	2070	2140	460	170	413	537	802
31	291	---	1000	e480	---	1980	---	1740	---	442	437	---
TOTAL	18329	16985	30525	22811	10680	48060	91400	44418	27714	20585	15635	23364
MEAN	591	566	985	736	368	1550	3047	1433	924	664	504	779
MAX	1990	1120	2310	1620	470	6470	7250	6390	3760	1710	1280	2400
MIN	291	177	508	480	300	300	1060	395	170	107	207	269

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1992, BY WATER YEAR (WY)

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1911 - 1991	
ANNUAL TOTAL	306831		370506		1101	
ANNUAL MEAN	841		1012		1706	
HIGHEST ANNUAL MEAN					611	
LOWEST ANNUAL MEAN					23500	Mar 27 1911
HIGHEST DAILY MEAN	5830	Mar 4	7250	Apr 23	18	Sep 20 1911
LOWEST DAILY MEAN	38	Sep 14	107	Jul 3	26	Sep 10 1911
ANNUAL SEVEN-DAY MINIMUM	42	Sep 8	164	Jun 28	2680	
10 PERCENT EXCEEDS	1980		2170		560	
50 PERCENT EXCEEDS	562		629		136	
90 PERCENT EXCEEDS	76		298			

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 mi².

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 ft³ 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 ft³ is available exclusively for flood storage. Elevation of inverts of three Dow valves is 699.0 ft. Capacity of 4.600 bil ft³ 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 mi². Discharge over spillway May 1-10, 1983, May 18-25, 1990 (only spillage since dam completion in 1930). Satellite gage-height telemeter at station.

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 ft³; minimum since first filling, 729.55 ft, Mar. 30, 1940, contents, 2.100 bil ft³.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 769.81 ft, May 6, contents, 36.341 bil ft³; minimum, 746.61 ft, Mar. 8, contents, 12.979 bil ft³.

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 (FEET NGVD), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	752.51	752.42	752.19	753.91	751.69	747.67	755.05	768.04	768.94	766.35	765.00	763.10
2	752.49	752.37	752.25	753.88	751.53	747.53	755.35	768.16	769.42	766.17	765.03	762.95
3	752.46	752.30	752.39	753.80	751.33	747.35	755.60	769.09	769.53	766.00	764.95	762.83
4	752.40	752.19	752.60	753.75	751.17	747.19	755.79	769.54	769.46	765.93	764.92	762.99
5	752.37	752.08	752.56	753.75	751.01	747.04	755.98	769.72	769.26	765.83	764.94	763.06
6	752.37	751.97	752.56	753.74	750.79	746.89	756.14	769.62	769.09	765.81	764.85	763.05
7	752.40	751.86	752.61	753.73	750.58	746.84	756.32	769.52	768.97	765.70	764.75	763.01
8	752.32	751.72	752.59	753.68	750.40	746.84	756.55	769.23	768.76	765.55	764.64	762.98
9	752.32	751.59	752.65	753.61	750.24	746.89	756.86	769.07	768.51	765.52	764.57	762.98
10	752.38	751.41	752.79	753.55	750.00	747.12	757.15	768.89	768.33	765.38	764.52	762.96
11	752.33	751.35	753.01	753.47	749.82	747.99	757.51	768.72	768.15	765.25	764.50	762.97
12	752.30	751.47	753.15	753.34	749.65	749.40	758.33	768.52	768.08	765.12	764.35	762.97
13	752.25	751.53	753.29	753.25	749.46	750.09	759.05	768.34	768.00	765.00	764.25	762.96
14	752.12	751.51	753.63	753.21	749.27	750.54	759.54	768.19	767.97	764.95	764.28	762.94
15	752.06	751.49	754.16	753.35	749.11	750.86	759.90	768.11	767.77	765.02	764.29	762.91
16	752.15	751.48	754.40	753.43	748.95	751.09	760.22	768.11	767.73	765.22	764.26	762.85
17	752.27	751.45	754.52	753.49	748.79	751.28	760.68	768.09	767.67	765.25	764.23	762.83
18	752.52	751.41	754.56	753.47	748.68	751.44	761.18	768.07	767.62	765.27	764.22	762.75
19	752.63	751.40	754.55	753.41	748.63	751.58	761.70	768.02	767.57	765.23	764.25	762.75
20	752.72	751.40	754.49	753.29	748.61	751.75	762.26	768.03	767.58	765.20	764.18	762.65
21	752.77	751.39	754.49	753.17	748.59	751.86	762.88	768.02	767.56	765.19	764.08	762.60
22	752.78	751.36	754.45	753.02	748.51	751.97	763.64	767.98	767.51	765.20	763.95	762.57
23	752.78	751.57	754.39	752.89	748.42	752.05	764.53	767.97	767.42	765.20	763.82	762.63
24	752.79	751.79	754.34	752.82	748.33	752.04	765.25	767.88	767.28	765.21	763.70	762.57
25	752.73	752.01	754.23	752.71	748.24	752.02	765.94	767.90	767.21	765.22	763.58	762.60
26	752.70	751.75	754.14	752.59	748.15	752.07	766.54	767.89	767.09	765.17	763.53	762.65
27	752.66	751.83	754.04	752.45	748.05	752.54	767.00	767.89	766.92	765.15	763.40	762.76
28	752.60	751.94	753.95	752.30	747.92	753.46	767.39	767.92	766.74	765.07	763.38	762.86
29	752.57	751.95	753.85	752.16	747.82	754.03	767.72	767.91	766.58	765.02	763.42	762.95
30	752.53	752.05	753.89	752.03	---	754.40	767.94	767.90	766.44	764.90	763.32	762.93
31	752.45	---	753.90	751.87	---	754.73	---	768.11	---	764.85	763.30	---
MEAN	752.47	751.73	753.57	753.20	749.44	750.28	760.67	768.40	767.97	765.35	764.21	762.85
MAX	752.79	752.42	754.56	753.91	751.69	754.73	767.94	769.72	769.53	766.35	765.03	763.10
MIN	752.06	751.35	752.19	751.87	747.82	746.84	755.05	767.88	766.44	764.85	763.30	762.57
†	18.21	17.97	19.47	17.53	13.94	20.54	34.25	34.82	32.41	30.80	28.82	28.55
††	-26.1	-92.6	+560	-724	-1,433	+2,464	+5,289	+213	-930	-601	-739	-104
CAL YR 1991	MEAN	758.32	MAX	767.24	MIN	751.35	††	-286				
WTR YR 1992	MEAN	758.37	MAX	769.72	MIN	746.84	††	+325				

† 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 mi².

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 except for those below about 50 ft³/s, which are fair. Flow regulated by Great Sacandaga Lake since Mar. 27, 1930 (see station 01323500); discharge over spillway May 1-10, 1983, May 18-25, 1990 (only spillage since completion of Conklingville Dam in 1930). 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. Satellite gage-height telemeter at station.

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.--85 years, 2,148 ft³/s, 27.65 in/yr, adjusted for storage since 1930.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 35,500 ft³/s, Mar. 28, 1913, gage height, 12.36 ft, site and datum then in use; minimum, 4.2 ft³/s, May 4, 1985, Mar. 30, 31, Apr. 1-10, 11, 13, 14, 15, 1992; minimum daily, 4.2 ft³/s, Mar. 31, Apr. 1-10, 14, 1992. Maximum discharge since construction of Conklingville Dam in 1930, 13,300 ft³/s, May 4, 1983, gage height, 9.68 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,990 ft³/s, May 6, gage height, 7.47 ft; minimum, 4.2 ft³/s, Mar. 30, 31, Apr. 1-10, 11, 13, 14, 15; minimum daily, 4.2 ft³/s, Mar. 31, Apr. 1-10, 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1390	1450	1030	2030	2540	2040	4.2	1980	2080	2380	1570	2150
2	1350	1430	1080	2010	2520	2020	4.2	2040	3950	2260	1590	1710
3	1350	1330	1010	2030	2500	2170	4.2	2280	3920	2280	1540	2140
4	1430	1310	1020	2020	2510	2230	4.2	4430	4310	2310	1550	1620
5	1350	1400	1060	2100	2520	2110	4.2	4770	5800	2220	1550	2010
6	1370	1660	1010	2010	2550	2040	4.2	6180	6630	2240	1630	2020
7	1340	1760	960	2050	2600	2010	4.2	7610	6650	2330	1610	1530
8	1540	1810	1120	1960	2560	2040	4.2	6450	6640	2120	1600	1530
9	1930	1660	1010	1990	2520	1510	4.2	4760	5200	2220	1590	1210
10	1290	1670	508	2080	2540	1510	4.2	4910	4000	2200	1570	1680
11	1390	1650	22	1990	2240	60	4.6	4740	3930	2170	1550	1610
12	1240	1400	944	2010	2240	182	7.6	4770	2100	2220	1400	1580
13	1240	1320	1060	1980	2150	29	4.3	3760	2020	2240	1680	1530
14	1260	1370	1050	2010	2320	28	4.2	3990	1980	2240	1590	1590
15	1400	1350	517	1910	2350	301	13	2160	1500	2250	1640	1500
16	1370	1370	24	1140	2370	230	23	2050	1540	2220	1590	1600
17	940	1340	1870	2050	2370	28	29	2040	1040	2290	1580	1520
18	961	1430	1990	2000	2080	236	27	1920	1130	2210	1570	1570
19	997	1000	1970	1990	2040	28	27	2080	1020	2170	1600	1540
20	1020	1000	1960	2460	2010	28	25	712	1030	2240	1590	1540
21	1030	1070	2080	2540	2010	28	24	1610	993	1660	2140	1510
22	1100	1060	2040	2470	2020	27	26	997	1120	1680	2090	1550
23	1030	1020	2020	2500	2010	985	25	1020	1640	1500	2100	2570
24	1050	981	2030	2510	2010	999	24	1050	1910	1500	2160	2490
25	1030	974	2020	2510	1990	985	23	989	2170	1490	2090	990
26	972	511	2040	2530	2030	36	24	1000	1840	1520	2120	1030
27	966	24	2040	2490	2030	2180	24	998	2300	1540	2100	1030
28	993	1000	2040	2510	2000	639	24	989	2250	1490	2110	1060
29	1030	1010	2010	2510	2010	380	24	1030	2200	1560	2100	1010
30	808	1020	2050	1690	---	312	24	1000	2060	1540	2110	1370
31	1180	---	1970	3290	---	4.2	---	1020	---	1550	2090	---
TOTAL	37347	37380	43555	67370	65640	27405.2	448.7	85335	84953	61840	54800	47790
MEAN	1205	1246	1405	2173	2263	884	15.0	2753	2832	1995	1768	1593
MAX	1930	1810	2080	3290	2600	2230	29	7610	6650	2380	2160	2570
MIN	808	24	22	1140	1990	4.2	4.2	712	993	1490	1400	990

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

MEAN	1070	1264	1965	1446	831	3253	5346	3020	1902	1398	1029	1486
CFSM	1.01	1.20	1.86	1.37	0.79	3.08	5.07	2.86	1.80	1.33	0.98	1.41
IN.	1.17	1.34	2.15	1.58	0.85	3.55	5.65	3.30	2.01	1.53	1.12	1.57

HUDSON RIVER BASIN

01325000 SACANDAGA RIVER AT STEWARTS BRIDGE, NEAR HADLEY, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1992, BY WATER YEAR (WY)

MEAN	1987	2215	2480	2744	2704	1938	1181	2359	2061	1960	1915	1820
MAX	5149	5177	4935	5026	4910	3921	5691	7035	5203	4589	3013	2565
(WY)	1946	1976	1960	1978	1973	1972	1979	1983	1947	1935	1935	1976
MIN	744	1246	1117	1210	1144	89.0	5.85	40.5	711	927	953	963
(WY)	1960	1992	1965	1965	1931	1954	1985	1931	1987	1941	1941	1941

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1931 - 1992

ANNUAL TOTAL	718603	613863.9	
ANNUAL MEAN	1969	1677	2113
ANNUAL MEAN (ADJUSTED)*	1691	2002	2148
HIGHEST ANNUAL MEAN			3452
LOWEST ANNUAL MEAN			1122
HIGHEST DAILY MEAN	4170	Feb 5	7610
LOWEST DAILY MEAN	22	Dec 11	4.2
ANNUAL SEVEN-DAY MINIMUM	23	Apr 16	4.2
ANNUAL RUNOFF (CFSM) (ADJUSTED)*	1.60		1.90
ANNUAL RUNOFF (INCHES) (ADJUSTED)*	21.75		25.83
10 PERCENT EXCEEDS	4070		2510
50 PERCENT EXCEEDS	1820		1590
90 PERCENT EXCEEDS	961		28

* Water years 1908 to current, adjusted for storage since 1930.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
2	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
3	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
4	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
5	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
6	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
7	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
8	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
9	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
10	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
11	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
12	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
13	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
14	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
15	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
16	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
17	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
18	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
19	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
20	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
21	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
22	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
23	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
24	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
25	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
26	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
27	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
28	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
29	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
30	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
31	2450	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350
TOTAL	80170	80400	80170	80170	80170	80170	80170	80170	80170	80170	80170	80170
MEAN	2618	2618	2618	2618	2618	2618	2618	2618	2618	2618	2618	2618
MAX	4170	4170	4170	4170	4170	4170	4170	4170	4170	4170	4170	4170
MIN	1931	1931	1931	1931	1931	1931	1931	1931	1931	1931	1931	1931

a Estimated

HUDSON RIVER BASIN

01325420 HUDSON RIVER AT CORINTH, NY

LOCATION.--Lat 43°14'55", long 73°49'57", Saratoga County, Hydrologic Unit 0202003, at River Street bridge.

DRAINAGE AREA.--2,755 mi².

PERIOD OF RECORD.--Water years 1969-75, 1986 to October 1991 (discontinued).

CHEMICAL DATA: 1969 (c), 1970-74 (d), 1975 (c), 1986 (b), 1987 (e), 1988-89 (c), 1990-91 (b), 1992 (a).

MINOR ELEMENTS DATA: 1969 (c), 1970-74 (d), 1975 (c), 1986 (b), 1987 (e), 1988-89 (c), 1990-91 (b), 1992 (a).

PESTICIDE DATA: 1987-89 (c), 1990 (b).

NUTRIENT DATA: 1969 (c), 1970-74 (d), 1975 (c), 1987 (b), 1988-89 (c), 1990 (b).

SEDIMENT DATA: 1988 (b), 1989 (c), 1990-91 (b), 1992 (a).

REMARKS.--Water-quality samples were collected by personnel of the New York State Department of Environmental Conservation, and were analyzed in USGS laboratories. Water-discharge data based on records obtained for Hudson River at Hadley (station 01318500) and Sacandaga River at Stewarts Bridge, near Hadley (station 01325000).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	
OCT 29...	1000	1600	61	6.8	11.0	764	10.3	93	80
DATE		CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT 29...		<1	110	190	170	10	<0.10	<1	70

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 29...	1000	1600	2	8.6
1	1000	1600	2	8.6
2	1000	1600	2	8.6
3	1000	1600	2	8.6
4	1000	1600	2	8.6
5	1000	1600	2	8.6
6	1000	1600	2	8.6
7	1000	1600	2	8.6
8	1000	1600	2	8.6
9	1000	1600	2	8.6
10	1000	1600	2	8.6
11	1000	1600	2	8.6
12	1000	1600	2	8.6
13	1000	1600	2	8.6
14	1000	1600	2	8.6
15	1000	1600	2	8.6
16	1000	1600	2	8.6
17	1000	1600	2	8.6
18	1000	1600	2	8.6
19	1000	1600	2	8.6
20	1000	1600	2	8.6
21	1000	1600	2	8.6
22	1000	1600	2	8.6
23	1000	1600	2	8.6
24	1000	1600	2	8.6
25	1000	1600	2	8.6
26	1000	1600	2	8.6
27	1000	1600	2	8.6
28	1000	1600	2	8.6
29	1000	1600	2	8.6
30	1000	1600	2	8.6
31	1000	1600	2	8.6
1	1000	1600	2	8.6
2	1000	1600	2	8.6
3	1000	1600	2	8.6
4	1000	1600	2	8.6
5	1000	1600	2	8.6
6	1000	1600	2	8.6
7	1000	1600	2	8.6
8	1000	1600	2	8.6
9	1000	1600	2	8.6
10	1000	1600	2	8.6
11	1000	1600	2	8.6
12	1000	1600	2	8.6
13	1000	1600	2	8.6
14	1000	1600	2	8.6
15	1000	1600	2	8.6
16	1000	1600	2	8.6
17	1000	1600	2	8.6
18	1000	1600	2	8.6
19	1000	1600	2	8.6
20	1000	1600	2	8.6
21	1000	1600	2	8.6
22	1000	1600	2	8.6
23	1000	1600	2	8.6
24	1000	1600	2	8.6
25	1000	1600	2	8.6
26	1000	1600	2	8.6
27	1000	1600	2	8.6
28	1000	1600	2	8.6
29	1000	1600	2	8.6
30	1000	1600	2	8.6
31	1000	1600	2	8.6

HUDSON RIVER BASIN

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 mi².

PERIOD OF RECORD.--January 1899 to December 1908, December 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 100.00 ft above National Geodetic Vertical Datum of 1929. Prior to December 1976, nonrecording gage at different site and datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow regulated appreciably by Great Sacandaga Lake since March 1930 (see station 01323500) and Indian Lake since 1898 (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.--15 years (1978-92), 5,170 ft³/s.

EXTREMES FOR PERIOD OF RECORD (December 1976 to current year).--Maximum discharge, 35,200 ft³/s, May 3, 1983, gage height, 28.34 ft; maximum gage height, 28.71 ft, Jan. 11, 1978, ice jam; minimum discharge, 234 ft³/s, July 25, 1983; minimum gage height, 19.33 ft, Sept. 4, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 89,100 ft³/s, Mar. 28, 1913, at site about 14 mi upstream (drainage area, 2,779 mi²).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20,500 ft³/s, May 4, gage height, 25.22 ft; minimum, 808 ft³/s, June 23, gage height, 20.17 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2450	2360	3490	4180	3430	e2600	e4600	7110	6040	3010	2940	3260
2	2410	2580	3660	4090	e3300	e2700	e4100	7700	10100	3320	3080	2880
3	1930	2560	3570	3990	e3100	e2800	e3700	12000	9080	2530	3070	2860
4	3000	2160	3700	3930	e3000	e3200	e3300	18100	8340	2500	3090	3770
5	2550	2290	3450	4340	e3400	3350	e2900	15500	7960	2590	2940	3530
6	2720	2590	3060	4590	3780	3030	e2700	14000	9930	2800	2640	5190
7	2620	2790	2880	4110	3500	3100	e2600	14800	10000	2770	2720	4690
8	3020	2550	2860	e4200	3720	3280	e2900	12700	10100	2900	2670	3570
9	3340	2610	3270	4070	e3400	3390	e3400	10200	9300	2710	2620	3600
10	2650	2410	3860	3980	e3300	4090	e3800	9700	6570	2570	2770	3350
11	2670	2550	4220	e3600	e2900	5930	4180	9060	6670	2580	2970	3610
12	2270	3150	4210	e3300	e2800	11400	5650	8530	5250	2630	2910	3290
13	2360	3120	3360	e3500	e2700	8620	9920	8620	4370	2650	3050	3900
14	2440	3350	4120	3910	2930	7960	8210	6550	3980	2780	3010	3440
15	2320	3060	4630	5000	3540	6940	6360	6360	3640	3000	3200	2980
16	3180	3030	e4100	e4300	3430	5880	5670	5420	2470	3530	2850	2750
17	4040	3260	e4300	e4700	3240	5510	5640	5340	2610	3360	2850	2840
18	4110	3650	e4200	e4300	3790	4480	6210	5260	2620	3190	2650	2860
19	4110	3350	e3900	e4100	2780	4390	5240	4890	2430	3080	2780	2730
20	3700	2870	e3800	e4400	3580	e3500	5890	3800	2180	2280	2660	2340
21	3530	3050	4510	e4300	3470	e3000	7450	4300	1890	3030	2750	2490
22	3080	2800	4510	e4100	3360	e2700	10600	3950	1900	3280	2850	2240
23	3110	3700	4330	3910	3300	e2900	15800	3280	1990	3440	2820	3650
24	2830	4280	4320	4420	3270	e3000	17000	3140	2630	2960	2850	4230
25	2810	3430	e3400	e4500	3260	e2800	16600	3070	2770	2890	2830	4540
26	2820	3300	e3600	4200	3270	e2000	14200	2600	2700	2970	2810	3150
27	2370	3010	e3600	e4100	3240	e8000	11700	2750	2730	2880	2800	2720
28	2490	2980	e3500	4010	3210	e7800	9620	2800	2730	2420	2980	2600
29	2380	3290	3620	e3600	e2900	e6800	8510	2420	2760	2260	3300	2870
30	2440	3270	3940	e3100	---	e6000	7640	3040	3130	2330	3400	2840
31	2420	---	e3800	e4000	---	e5200	---	3060	---	2440	3340	---
TOTAL	88170	89400	117770	126830	94900	146350	216090	220050	148870	87680	90200	98770
MEAN	2844	2980	3799	4091	3272	4721	7203	7098	4962	2828	2910	3292
MAX	4110	4280	4630	5000	3790	11400	17000	18100	10100	3530	3400	5190
MIN	1930	2160	2860	3100	2700	2000	2600	2420	1890	2260	2620	2240

e Estimated

HUDSON RIVER BASIN

01327750 HUDSON RIVER AT FORT EDWARD, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1992, BY WATER YEAR (WY)

MEAN	4590	5646	5647	5004	5082	6201	9779	7414	4127	2773	2879	3234
MAX	9773	8572	9581	9907	8616	10950	15570	16670	6345	4237	4586	4478
(WY)	1978	1991	1984	1978	1984	1990	1979	1983	1983	1984	1986	1987
MIN	2707	2963	2957	2714	2697	3387	5330	2729	2073	2187	2241	2384
(WY)	1981	1979	1979	1989	1989	1989	1981	1987	1988	1988	1991	1991

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR			FOR 1992 WATER YEAR			WATER YEARS 1977 - 1992		
ANNUAL TOTAL	1628490			1525080					
ANNUAL MEAN	4462			4167			5169		
HIGHEST ANNUAL MEAN							6768		
LOWEST ANNUAL MEAN							3945		
HIGHEST DAILY MEAN	14300		Apr 10	18100		May 4	34100		May 3 1983
LOWEST DAILY MEAN	1220		Jun 9	1890		Jun 21	652		Sep 4 1978
ANNUAL SEVEN-DAY MINIMUM	1970		Jun 30	2230		Jun 17	1670		Aug 17 1988
10 PERCENT EXCEEDS	7740			7510			9200		
50 PERCENT EXCEEDS	3400			3300			4000		
90 PERCENT EXCEEDS	2120			2550			2390		

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 mi², 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), 1986-87 (e), 1988 (a).

MINOR ELEMENT DATA: 1975 (b), 1976-77 (a), 1978-79 (e), 1980 (d), 1986 (b), 1987 (e), 1988 (a).

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), 1987 (d), 1988-89 (e), 1991 (d).

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

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

SEDIMENT DATA: 1975 (b), 1980-84 (e), 1985 (d), 1986-89, 1991 (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 for PCB analysis are collected from both the navigation canal (east channel) and river (west channel). Composite samples are from both the river channel and the navigation canal, composited in proportion to discharge.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATA UNAVAILABLE AT PRESS TIME

HUDSON RIVER BASIN

01330000 GLOWEGEE CREEK AT WEST MILTON, NY

LOCATION.--Lat 43°01'50", long 73°55'40", Saratoga County, Hydrologic Unit 02020003, on left bank at upstream side of highway bridge, 1.5 mi upstream from mouth, 4.0 mi northwest of Ballston Spa, and 0.5 mi south of West Milton.

DRAINAGE AREA.--26.0 mi².

PERIOD OF RECORD.--April 1948 to June 1963, October 1990 to current year.

GAGE.--Water-stage recorder. Concrete control since June 20, 1952. Datum of gage is 407.22 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 27, 1948, nonrecording gage at highway bridge at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Since May 1955, an indeterminate diversion from Kayaderosseras Creek basin by the Knolls Atomic Power Laboratory, West Milton site, enters Glowegee Creek upstream from station.

AVERAGE DISCHARGE.--16 years (water years 1949-62, 1991-92), 35.7 ft³/s, 18.65 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,670 ft³/s, Dec. 31, 1948, gage height, 7.04 ft; minimum, 0.37 ft³/s, Aug. 10, 11, 1949, gage height, 0.67 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 27	0830	433	5.28	June 1	0300	485	5.42
May 3	0330	*637	*5.79				

Minimum discharge, 5.1 ft³/s, Nov. 6, 7, Mar. 22; minimum gage height, 2.96 ft, Mar. 22, result of freezeup.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	8.5	31	30	e9.0	e18	38	36	324	8.0	90	11
2	41	7.9	25	24	e9.0	e18	31	90	108	7.3	43	9.6
3	22	7.3	24	25	e8.4	18	30	388	55	6.9	23	9.4
4	18	6.9	e22	32	e8.0	e18	28	108	36	12	37	14
5	13	7.7	17	69	e7.6	e19	28	66	28	23	48	12
6	16	5.5	18	60	e7.0	28	25	55	109	60	28	8.8
7	16	5.8	17	46	e7.0	36	26	47	67	28	21	10
8	12	7.1	20	e33	e7.0	59	33	39	40	19	16	11
9	9.8	7.0	33	e25	e7.0	59	34	39	30	34	24	10
10	8.9	6.7	47	e20	e8.0	61	31	36	25	24	23	10
11	8.1	10	37	e14	9.2	177	52	31	21	16	19	21
12	9.5	15	31	16	8.6	e74	124	29	18	13	14	16
13	10	19	59	20	8.0	e40	61	26	15	17	12	9.6
14	9.2	21	96	62	8.4	e33	40	28	13	25	13	12
15	8.8	17	e90	e50	9.2	e26	34	26	11	86	15	9.4
16	17	15	e48	e27	29	e22	34	38	10	68	13	9.0
17	15	13	e27	e18	40	21	152	37	9.6	34	13	8.3
18	32	12	e26	e17	30	21	153	28	9.2	22	20	8.3
19	21	12	26	e16	89	21	126	23	8.9	17	24	10
20	14	11	26	e15	83	e19	92	19	9.1	14	18	12
21	12	11	27	e15	53	e17	77	19	8.6	12	14	7.1
22	11	18	31	e15	38	e16	78	17	8.0	11	12	13
23	9.6	154	30	e14	30	e15	67	14	8.5	14	10	34
24	7.6	68	e25	e14	29	e14	58	16	10	24	9.0	19
25	8.2	39	e20	e13	25	e14	76	23	24	16	8.6	16
26	11	27	e18	e12	28	19	100	17	16	13	10	12
27	7.8	22	e18	e10	e27	255	67	18	12	12	10	15
28	8.2	20	19	e10	e25	89	49	27	11	9.0	13	17
29	8.8	29	28	e10	e20	46	42	21	10	9.1	20	14
30	7.7	34	78	e10	---	40	37	16	9.5	9.1	17	12
31	7.8	---	46	e9.6	---	39	---	227	---	16	13	---
TOTAL	408.9	637.4	1060	751.6	667.4	1352	1823	1604	1064.4	679.4	650.6	380.5
MEAN	13.2	21.2	34.2	24.2	23.0	43.6	60.8	51.7	35.5	21.9	21.0	12.7
MAX	41	154	96	69	89	255	153	388	324	86	90	34
MIN	7.6	5.5	17	9.6	7.0	14	25	14	8.0	6.9	8.6	7.1

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1992, BY WATER YEAR (WY)

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
MEAN	20.3	32.4	35.7	33.2	38.0	76.3	96.0	44.2	18.8	10.8	9.01	10.7			
MAX	108	73.0	61.5	80.1	77.2	133	178	97.4	36.2	35.9	28.4	30.4			
(WY)	1956	1955	1949	1954	1951	1956	1953	1952	1951	1951	1951	1960			
MIN	4.29	8.83	10.5	8.49	7.68	35.6	38.6	20.4	7.85	2.13	3.04	2.02			
(WY)	1962	1962	1962	1961	1962	1960	1949	1949	1959	1959	1958	1948			

HUDSON RIVER BASIN

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 mi².

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.--Records poor. Slight occasional diurnal fluctuation at low flow caused by mills upstream from station.

AVERAGE DISCHARGE.--65 years, 137 ft³/s, 20.67 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,710 ft³/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 ft³/s, Aug. 23, 1927, gage height, 0.86 ft; minimum daily discharge, 12 ft³/s, Aug. 5-9, Sept. 8, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 3	0515	1,230	5.22	June 1	0445	*1,280	*5.34

Minimum discharge, 31 ft³/s, Oct. 1, Nov. 7, 10; minimum daily, 32 ft³/s, Nov. 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	37	101	112	e42	e65	138	127	1080	56	295	60
2	102	36	84	83	e40	e60	115	202	510	51	158	52
3	66	35	79	79	e39	e42	106	919	239	49	102	55
4	61	34	77	86	e37	e43	98	432	158	75	125	83
5	49	34	e68	176	e36	e46	96	241	126	92	210	69
6	65	33	e64	164	e35	e62	92	197	355	196	118	56
7	77	32	e62	121	e34	70	94	172	268	113	91	53
8	58	34	58	e86	e33	128	105	149	169	86	76	52
9	52	34	76	e70	e33	139	109	141	133	127	100	54
10	48	33	111	e60	e36	146	102	135	111	105	96	52
11	45	75	93	e50	e40	615	145	118	95	82	85	112
12	49	117	77	e70	e38	e370	394	111	88	73	75	83
13	50	82	133	e86	e36	e180	250	102	84	89	71	60
14	45	64	265	e180	e42	e130	156	110	81	108	75	55
15	44	56	328	e200	e47	e110	129	99	74	239	85	47
16	76	55	164	e120	175	e130	119	121	69	215	77	47
17	73	49	e115	e86	249	e110	355	122	66	127	75	43
18	107	48	e105	e74	180	e100	416	103	65	101	95	40
19	82	46	e100	e68	392	e74	379	91	64	86	99	49
20	64	45	e105	e64	399	e82	321	82	66	77	82	52
21	56	44	e110	e62	305	e72	262	78	64	71	70	41
22	51	55	e120	e60	209	e74	282	73	60	63	62	45
23	49	408	e120	e62	142	e70	268	69	59	72	57	95
24	47	208	e100	e64	111	e70	218	71	64	93	54	63
25	45	123	e86	e56	93	e68	249	90	110	75	54	50
26	46	95	e72	e48	97	71	340	77	82	66	110	47
27	42	78	e64	e43	90	766	253	77	71	64	77	56
28	42	71	59	e41	e74	417	177	97	74	57	79	66
29	42	90	79	e43	e70	172	150	84	70	55	101	54
30	40	105	268	e44	---	148	132	72	62	65	87	46
31	37	---	175	e43	---	141	---	520	---	88	71	---
TOTAL	1746	2256	3518	2601	3154	4771	6050	5082	4617	2916	3012	1737
MEAN	56.3	75.2	113	83.9	109	154	202	164	154	94.1	97.2	57.9
MAX	107	408	328	200	399	766	416	919	1080	239	295	112
MIN	36	32	58	41	33	42	92	69	59	49	54	40
CFSM	.63	.84	1.26	.93	1.21	1.71	2.24	1.82	1.71	1.05	1.08	.64
IN.	.72	.93	1.45	1.08	1.30	1.97	2.50	2.10	1.91	1.21	1.24	.72

e Estimated

HUDSON RIVER BASIN

01330500 KAYADEROSSERAS CREEK NEAR WEST MILTON, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1992, BY WATER YEAR (WY)

MEAN	83.3	124	127	121	128	268	326	180	108	69.1	53.1	63.1
MAX	286	292	294	319	456	866	757	407	293	372	167	251
(WY)	1956	1973	1984	1937	1981	1936	1940	1983	1972	1935	1976	1987
MIN	18.2	25.4	44.6	32.8	34.0	75.6	139	48.6	29.7	18.7	20.5	15.0
(WY)	1965	1965	1965	1931	1980	1940	1946	1941	1964	1964	1964	1964

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1927 - 1992

ANNUAL TOTAL	39034	41460	
ANNUAL MEAN	107	113	137
HIGHEST ANNUAL MEAN			231
LOWEST ANNUAL MEAN			59.3
HIGHEST DAILY MEAN	679	Mar 4	1080
LOWEST DAILY MEAN	19	Aug 2	32
ANNUAL SEVEN-DAY MINIMUM	21	Jul 31	33
ANNUAL RUNOFF (CFSM)	1.19		1.26
ANNUAL RUNOFF (INCHES)	16.13		17.14
10 PERCENT EXCEEDS	221	216	300
50 PERCENT EXCEEDS	78	78	82
90 PERCENT EXCEEDS	27	43	31

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3080	3080	3080	3080	3080	3080	3080	3080
2	3100	3100	3100	3100	3100	3100	3100	3100
3	3120	3120	3120	3120	3120	3120	3120	3120
4	3140	3140	3140	3140	3140	3140	3140	3140
5	3160	3160	3160	3160	3160	3160	3160	3160
6	3180	3180	3180	3180	3180	3180	3180	3180
7	3200	3200	3200	3200	3200	3200	3200	3200
8	3220	3220	3220	3220	3220	3220	3220	3220
9	3240	3240	3240	3240	3240	3240	3240	3240
10	3260	3260	3260	3260	3260	3260	3260	3260
11	3280	3280	3280	3280	3280	3280	3280	3280
12	3300	3300	3300	3300	3300	3300	3300	3300
13	3320	3320	3320	3320	3320	3320	3320	3320
14	3340	3340	3340	3340	3340	3340	3340	3340
15	3360	3360	3360	3360	3360	3360	3360	3360
16	3380	3380	3380	3380	3380	3380	3380	3380
17	3400	3400	3400	3400	3400	3400	3400	3400
18	3420	3420	3420	3420	3420	3420	3420	3420
19	3440	3440	3440	3440	3440	3440	3440	3440
20	3460	3460	3460	3460	3460	3460	3460	3460
21	3480	3480	3480	3480	3480	3480	3480	3480
22	3500	3500	3500	3500	3500	3500	3500	3500
23	3520	3520	3520	3520	3520	3520	3520	3520
24	3540	3540	3540	3540	3540	3540	3540	3540
25	3560	3560	3560	3560	3560	3560	3560	3560
26	3580	3580	3580	3580	3580	3580	3580	3580
27	3600	3600	3600	3600	3600	3600	3600	3600
28	3620	3620	3620	3620	3620	3620	3620	3620
29	3640	3640	3640	3640	3640	3640	3640	3640
30	3660	3660	3660	3660	3660	3660	3660	3660
31	3680	3680	3680	3680	3680	3680	3680	3680
TOTAL	112800	112800	112800	112800	112800	112800	112800	112800
MEAN	3640	3640	3640	3640	3640	3640	3640	3640
MAX	3680	3680	3680	3680	3680	3680	3680	3680
MIN	3600	3600	3600	3600	3600	3600	3600	3600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1992, BY WATER YEAR (WY)

MEAN	83.3	124	127	121	128	268	326	180	108	69.1	53.1	63.1
MAX	286	292	294	319	456	866	757	407	293	372	167	251
(WY)	1956	1973	1984	1937	1981	1936	1940	1983	1972	1935	1976	1987
MIN	18.2	25.4	44.6	32.8	34.0	75.6	139	48.6	29.7	18.7	20.5	15.0
(WY)	1965	1965	1965	1931	1980	1940	1946	1941	1964	1964	1964	1964

HUDSON RIVER BASIN

01331095 HUDSON RIVER AT STILLWATER, NY

LOCATION.--Lat 42°56'08", long 73°39'08", Rensselaer County, Hydrologic Unit 02020003, on left bank at dam, 0.15 mi downstream from bridge on State Highway 67 in Stillwater, and 0.75 mi upstream from Hoosic River. Water-quality sampling site at bridge on State Highway 67, 0.15 mi upstream from discharge station.

DRAINAGE AREA.--3,773 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD (corrected).--March 1977 to current year. Daily discharge records prior to October 1981 are published with suspended-sediment data.

GAGE.--Water-stage recorder and crest-stage gage. 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.--Records fair except those for estimated daily discharges and those for periods below 3,000 ft³/s, which are poor. 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.

AVERAGE DISCHARGE.--15 years, 6,505 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,600 ft³/s, May 4, 1983, gage height, 8.69 ft; minimum daily, 900 ft³/s, July 25, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24,400 ft³/s, May 4, gage height, 7.51 ft; minimum daily, 2,600 ft³/s, June 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3080	3000	5440	5460	4630	3600	7340	9850	9140	3520	3670	3990
2	3100	3340	5450	5430	4460	3890	6550	10700	13400	4250	4270	3500
3	2840	3220	5660	5370	4340	3880	5400	16300	12700	3450	4270	3380
4	3430	2920	5370	5210	3720	3850	5180	22900	11500	3390	4380	4110
5	3860	2870	5220	5720	4290	4220	4700	20300	10400	3450	4220	4740
6	4150	3120	4680	6350	4230	3690	4370	17600	12900	4180	3700	5520
7	4980	3240	4510	5830	4000	3820	4190	18000	13400	4290	3800	5840
8	4830	3170	4210	5960	4160	4660	3400	16400	13200	3980	3590	4370
9	4960	3110	5130	5580	4230	4950	4710	13600	12500	4200	3680	4730
10	4100	3020	6240	4990	4180	5220	5150	12500	9540	3780	3670	3520
11	4030	3160	6410	5520	3960	7770	5920	11900	8540	3810	3630	4310
12	3520	3980	6160	4400	3540	14300	8440	11200	7780	3680	3990	4380
13	3830	4190	5720	4520	4090	11400	12700	11100	6200	3700	3520	4830
14	3790	4300	6380	5630	3500	9860	11300	9190	5670	3770	3820	4230
15	3390	3930	7560	7230	3770	8880	9450	8640	5120	4620	4090	3780
16	4450	3870	7240	6260	4990	7510	8130	7710	3920	5820	3580	3460
17	5800	4320	6450	5360	5450	6850	9460	7300	3170	5240	3570	3310
18	5950	4460	6810	6560	5250	5830	10300	7260	3500	4880	3460	3590
19	6010	4410	6340	5260	5120	5440	8810	6630	3280	4640	3570	3540
20	5370	3660	5230	5440	5360	4810	8930	5870	3040	4000	3740	3550
21	4690	3830	6100	5550	5020	3920	10600	5230	2600	4050	3530	3260
22	4440	3630	6300	5470	4650	3650	13400	5750	2720	4210	3690	2930
23	4310	8560	5910	4920	4410	3460	18500	4320	2640	4620	3600	4830
24	3990	8550	5810	5730	4290	4040	21000	4380	3270	3990	3460	e5400
25	3760	6980	4770	6430	4140	3870	20200	4080	3860	3770	3490	e5600
26	3750	6120	4850	5500	4230	3410	18800	3910	3980	3850	3490	e4000
27	3420	4820	4850	5280	4390	5230	15600	3600	3990	3730	3450	e3400
28	3110	4770	5130	5180	4320	12700	13300	4030	3860	3270	3440	e3300
29	3160	5380	4660	4760	3910	9300	11800	4000	3790	3070	3870	e3600
30	3330	5530	5600	5260	---	8370	10800	3940	4290	3030	4100	e3600
31	3160	---	5820	5130	---	7790	---	4600	---	3220	3990	---
TOTAL	126590	129460	176010	171290	126630	190170	298430	292790	203900	123460	116330	122600
MEAN	4084	4315	5678	5525	4367	6135	9948	9445	6797	3983	3753	4087
MAX	6010	8560	7560	7230	5450	14300	21000	22900	13400	5820	4380	5840
MIN	2840	2870	4210	4400	3500	3410	3400	3600	2600	3030	3440	2930

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1992, BY WATER YEAR (WY)

	MEAN	5714	7104	7082	6159	6498	8832	12320	9101	5214	3357	3451	3935
MAX	12060	11740	12570	11300	11760	14610	18690	19960	8385	5371	5915	6311	
(WY)	1978	1991	1984	1978	1981	1979	1979	1983	1984	1984	1986	1987	
MIN	2975	3640	3945	3041	2751	4735	6672	3205	2457	2365	2392	2603	
(WY)	1981	1981	1981	1981	1980	1989	1981	1987	1988	1978	1985	1980	

HUDSON RIVER BASIN

01331095 HUDSON RIVER AT STILLWATER, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1977 - 1992
ANNUAL TOTAL	2163020	2077660	6504
ANNUAL MEAN	5926	5677	8567
HIGHEST ANNUAL MEAN			4757
LOWEST ANNUAL MEAN			900
HIGHEST DAILY MEAN	18200	22900	44100
LOWEST DAILY MEAN	1970	2600	900
ANNUAL SEVEN-DAY MINIMUM	2230	2990	1970
10 PERCENT EXCEEDS	10400	9990	12100
50 PERCENT EXCEEDS	4770	4450	5110
90 PERCENT EXCEEDS	2500	3400	2790

DATE	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
1	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
2	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
3	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
4	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
5	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
6	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
7	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
8	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
9	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
10	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
11	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
12	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
13	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
14	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
15	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
16	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
17	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
18	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
19	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
20	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
21	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
22	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
23	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
24	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
25	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
26	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
27	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
28	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
29	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
30	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
31	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
TOTAL	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
MEAN	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250
MAX	962	962	962	962	962	962	962	962	962	962	962	962	962	962	962	962
MIN	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
75TH	2.05	2.35	2.55	1.68	1.96	2.67	1.20	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
10TH	2.15	2.66	2.94	1.74	1.54	2.10	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1992, BY WATER YEAR (CY)	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
MEAN	171	168	170	170	170	170	170	170	170	170	170	170	170	170	170	170
MAX	615	544	714	551	545	555	555	555	555	555	555	555	555	555	555	555
MIN	1975	1915	1974	1969	1961	1977	1973	1973	1973	1973	1973	1973	1973	1973	1973	1973
75TH	41.0	46.5	118	50.5	78.3	100	100	100	100	100	100	100	100	100	100	100
10TH	1965	1965	1962	1961	1960	1965	1965	1965	1965	1965	1965	1965	1965	1965	1965	1965

ANNUAL STATISTICS	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1977 - 1992
ANNUAL TOTAL	20716	20231	6504
ANNUAL MEAN	249	233	8567
HIGHEST ANNUAL MEAN			4757
LOWEST ANNUAL MEAN			900
HIGHEST DAILY MEAN	1700	2290	44100
LOWEST DAILY MEAN	1970	2600	900
ANNUAL SEVEN-DAY MINIMUM	2230	2990	1970
INSTANTANEOUS PEAK FLOW	54	54	12100
INSTANTANEOUS PEAK STAGE			5110
INSTANTANEOUS LOW FLOW			2790
ANNUAL RUNOFF (CYM)	1.57	1.57	1.57
ANNUAL RUNOFF (INCHES)	26.72	26.72	26.72
10 PERCENT EXCEEDS	4450	4450	5110
50 PERCENT EXCEEDS	312	312	2790

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), 1986-88 (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), 1986-88 (d), 1989 (e), 1991 (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), 1981-91 (e).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: March 1977 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD (Water years 1977-91).--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 202 mg/L, Dec. 14, 1983; minimum daily mean, <1 mg/L on several days during the 1991 water year.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 14,800 tons, Dec. 14, 1983, Apr. 1, 1987; minimum daily, 4.0 tons, Sept. 7, 1980.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1000	2000	5000	5000	4000	3000	7000	3000	5000	3000	3000	3000
2	1000	1000	4000	5000	4000	3000	6000	3000	5000	3000	3000	3000
3	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
4	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
5	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
6	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
7	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
8	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
9	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
10	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
11	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
12	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
13	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
14	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
15	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
16	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
17	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
18	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
19	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
20	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
21	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
22	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
23	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
24	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
25	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
26	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
27	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
28	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
29	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
30	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
31	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
32	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
33	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
34	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
35	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
36	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
37	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
38	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
39	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
40	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
41	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
42	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
43	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
44	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
45	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
46	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
47	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
48	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
49	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
50	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
51	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
52	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
53	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
54	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
55	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
56	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
57	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
58	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
59	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
60	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
61	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
62	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
63	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
64	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
65	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
66	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
67	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
68	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
69	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
70	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
71	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
72	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
73	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
74	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
75	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
76	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
77	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
78	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
79	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
80	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
81	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
82	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
83	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
84	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
85	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
86	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
87	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
88	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
89	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
90	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
91	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
92	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
93	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
94	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
95	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
96	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
97	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
98	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
99	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000
100	1000	1000	3000	5000	4000	3000	5000	3000	5000	3000	3000	3000

01332500 HOOSIC RIVER NEAR WILLIAMSTOWN, MA

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

DRAINAGE AREA.--126 mi².

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 sea level (U.S. Army Corps of Engineers benchmark). Prior to June 6, 1979, at site 1.2 mi downstream at different datum.

REMARKS.--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. Maximum gage heights shown in table below are for site and datum then is use.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	144	256	200	e140	111	287	281	530	68	154	57
2	170	120	233	194	e120	124	266	549	349	62	108	54
3	148	116	241	204	e110	120	241	1630	222	52	87	73
4	137	109	321	224	e100	129	218	710	181	111	140	122
5	111	99	218	298	e94	154	208	507	149	106	135	83
6	842	96	210	258	e90	177	215	390	679	143	94	68
7	611	95	195	211	e88	240	237	339	409	95	80	61
8	319	95	208	182	e87	320	292	300	272	81	72	56
9	236	95	406	165	e86	305	309	275	221	190	77	63
10	201	107	398	178	e85	330	324	259	183	122	103	61
11	237	307	301	154	e84	1700	388	239	160	97	89	163
12	820	366	264	126	e82	792	468	227	133	81	75	93
13	406	220	415	162	e81	430	409	212	119	100	70	71
14	287	221	962	358	e80	319	308	200	113	120	69	67
15	255	248	974	365	e80	266	279	179	101	397	71	62
16	334	311	527	224	e170	228	256	195	93	309	68	59
17	287	243	382	e175	176	210	390	179	88	162	83	52
18	286	199	359	e185	146	207	454	162	77	145	126	49
19	219	184	280	e160	159	191	569	154	77	133	122	59
20	193	173	272	e155	187	178	692	137	84	135	94	56
21	179	168	266	e150	162	173	820	131	83	112	84	50
22	167	716	254	e150	142	160	757	124	76	95	72	70
23	155	1700	246	e190	145	162	656	112	76	95	70	270
24	147	740	219	e560	139	154	534	114	86	111	66	113
25	143	531	187	264	120	152	661	135	104	92	62	85
26	143	401	192	226	168	164	601	116	86	74	59	73
27	155	336	186	193	136	1490	501	114	73	73	58	78
28	191	312	176	e180	126	597	369	126	69	72	56	91
29	170	299	207	e160	140	342	333	109	69	80	138	78
30	161	248	363	e160	---	279	302	98	68	102	89	73
31	155	---	233	e150	---	286	---	276	---	115	69	---
TOTAL	8002	8999	9951	6561	3523	10490	12344	8579	5030	3730	2740	2410
MEAN	258	300	321	212	121	338	411	277	168	120	88.4	80.3
MAX	842	1700	974	560	187	1700	820	1630	679	397	154	270
MIN	111	95	176	126	80	111	208	98	68	52	56	49
CFSM	2.05	2.38	2.55	1.68	.96	2.69	3.27	2.20	1.33	.95	.70	.64
IN.	2.36	2.66	2.94	1.94	1.04	3.10	3.64	2.53	1.49	1.10	.81	.77

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992. BY WATER YEAR (WY)

MEAN	173	258	270	236	247	450	671	377	218	135	118	124
MAX	618	544	714	591	765	1038	1178	872	636	393	416	454
(WY)	1978	1956	1974	1949	1981	1979	1969	1943	1972	1945	1976	1960
MIN	41.0	46.5	118	60.8	75.3	139	253	144	81.0	60.4	48.2	34.5
(WY)	1965	1965	1962	1981	1980	1965	1946	1987	1965	1962	1980	1980

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1940 - 1992
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ANNUAL TOTAL	90716		82359			
ANNUAL MEAN	249		225		273	
HIGHEST ANNUAL MEAN					368	1975
LOWEST ANNUAL MEAN					135	1965
HIGHEST DAILY MEAN	1700	Nov 23	1700	Nov 23	10400	Dec 31 1948
LOWEST DAILY MEAN	48	Jul 12	49	Sep 18	24	Sep 9 1980
ANNUAL SEVEN-DAY MINIMUM	54	Jul 29	55	Sep 15	25	Sep 9 1980
INSTANTANEOUS PEAK FLOW			2710	May 3	13000	Dec 31 1948
INSTANTANEOUS PEAK STAGE			8.43	May 3	14.85	Dec 31 1948
INSTANTANEOUS LOW FLOW			49	Jul 3	5.8	Aug 30 1940
ANNUAL RUNOFF (CFSM)	1.97		1.79		2.17	
ANNUAL RUNOFF (INCHES)	26.78		24.32		29.42	
10 PERCENT EXCEEDS	485		407		580	
50 PERCENT EXCEEDS	214		162		165	
90 PERCENT EXCEEDS	62		72		67	

e Estimated

01333000 GREEN RIVER AT WILLIAMSTOWN, MA

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 mi².

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 sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Slight diurnal fluctuation at times caused by mill upstream.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	45	97	66	50	e35	74	95	127	16	33	9.2
2	42	43	88	73	e48	e39	74	136	78	14	24	8.2
3	38	41	97	70	e42	e37	71	342	60	14	21	14
4	36	39	126	74	e38	e38	66	186	51	22	37	19
5	33	38	91	88	e34	e42	62	151	46	20	34	12
6	281	37	87	83	e31	44	60	130	114	31	27	10
7	174	36	81	75	e30	57	61	117	82	20	23	9.6
8	126	35	93	67	e29	72	64	108	67	16	21	9.3
9	97	33	190	64	e28	72	62	102	59	36	22	11
10	81	33	147	67	e28	82	65	92	52	23	23	11
11	99	78	125	58	e28	362	76	83	47	20	20	25
12	275	64	118	51	e27	172	103	75	43	17	17	13
13	155	58	139	62	e27	120	81	69	40	28	16	11
14	126	62	249	113	e27	102	74	64	36	26	16	9.9
15	111	65	262	80	e27	89	69	60	34	56	15	9.1
16	173	74	182	60	e65	76	68	64	31	47	15	8.8
17	132	70	150	e55	47	74	120	58	29	32	16	8.5
18	124	64	137	e50	40	68	122	55	27	31	25	7.8
19	107	61	107	e47	49	62	130	50	27	28	20	9.3
20	93	59	110	e45	46	58	153	46	28	27	17	7.9
21	84	61	107	e47	40	54	154	44	26	22	14	7.3
22	76	282	98	e48	37	49	154	41	25	20	13	18
23	69	546	91	e58	49	48	147	39	24	21	12	44
24	64	295	85	e160	43	47	136	39	25	22	11	18
25	60	210	68	72	40	44	159	42	27	18	11	14
26	57	158	72	75	56	49	151	38	23	16	10	13
27	54	131	67	71	43	173	132	37	21	16	9.9	14
28	56	118	62	75	41	94	120	36	22	14	9.0	14
29	50	111	79	64	57	75	111	33	19	21	23	12
30	47	105	96	58	---	69	102	31	17	28	12	11
31	46	---	68	55	---	77	---	71	---	32	11	---
TOTAL	3010	3052	3569	2131	1147	2480	3021	2534	1307	754	577.9	388.9
MEAN	97.1	102	115	68.7	39.6	80.0	101	81.7	43.6	24.3	18.6	13.0
MAX	281	546	262	160	65	362	159	342	127	56	37	44
MIN	33	33	62	45	27	35	60	31	17	14	9.0	7.3
CFSM	2.28	2.39	2.70	1.61	.93	1.88	2.36	1.92	1.02	.57	.44	.30
IN.	2.63	2.67	3.12	1.86	1.00	2.17	2.64	2.21	1.14	.66	.50	.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1992, BY WATER YEAR (WY)

	MEAN	46.5	77.6	92.4	76.7	83.7	144	204	112	63.2	31.2	27.5	29.2
MAX	222	171	259	219	239	376	390	251	256	112	147	158	
(WY)	1978	1956	1974	1979	1984	1979	1969	1984	1972	1975	1975	1960	
MIN	5.33	6.71	24.8	11.0	14.6	33.6	72.2	32.4	18.2	9.13	5.61	4.09	
(WY)	1965	1965	1965	1981	1980	1965	1985	1987	1965	1955	1964	1964	

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1949 - 1992

ANNUAL TOTAL	27409.1	23971.8	
ANNUAL MEAN	75.1	65.5	82.3
HIGHEST ANNUAL MEAN			126
LOWEST ANNUAL MEAN			31.7
HIGHEST DAILY MEAN	546	Nov 23	2200
LOWEST DAILY MEAN	5.7	Aug 8	3.2
ANNUAL SEVEN-DAY MINIMUM	6.7	Jul 28	3.4
INSTANTANEOUS PEAK FLOW			4060
INSTANTANEOUS PEAK STAGE			6.35
INSTANTANEOUS LOW FLOW			3.1
ANNUAL RUNOFF (CFSM)	1.76	1.54	1.93
ANNUAL RUNOFF (INCHES)	23.93	20.93	26.24
10 PERCENT EXCEEDS	146	130	183
50 PERCENT EXCEEDS	67	50	48
90 PERCENT EXCEEDS	12	14	11

e Estimated

HUDSON RIVER BASIN

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 mi².

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.--Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--41 years, 94.5 ft³/s, 22.88 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,000 ft³/s, June 30, 1973, gage height, 9.20 ft; minimum, 1.9 ft³/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 ft³/s, from contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,250 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 23	0100	*1,460	*5.73	No other peak greater than base discharge.			

Minimum discharge, 5.6 ft³/s, Sept. 22, gage height, 1.28 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	40	122	79	e32	e42	101	97	89	12	35	6.4
2	42	38	108	87	e29	e41	99	190	68	10	23	6.1
3	30	35	126	71	e26	40	95	430	54	10	18	6.8
4	27	33	163	80	e24	40	87	276	46	14	20	9.0
5	23	32	111	96	e22	44	82	231	41	14	21	7.1
6	200	30	102	89	e19	45	77	191	135	15	17	6.5
7	150	29	94	82	e17	58	77	158	95	12	14	6.3
8	104	28	110	73	e15	82	81	136	80	10	13	6.1
9	80	26	261	74	e13	81	77	125	71	21	13	6.1
10	66	25	216	77	e12	95	78	109	60	14	13	6.8
11	77	90	183	65	e11	330	92	96	54	14	12	14
12	253	79	164	59	e11	233	147	85	47	12	11	8.6
13	148	69	193	67	e12	168	109	77	41	22	9.9	7.2
14	119	84	245	102	e15	136	100	70	35	19	9.8	6.8
15	102	101	254	78	e23	111	92	63	31	50	9.6	6.4
16	177	108	e190	e64	e64	95	89	62	27	44	9.3	6.1
17	140	99	e150	e58	40	87	183	55	25	26	9.4	5.9
18	131	91	e130	e52	35	80	181	51	22	24	13	5.9
19	112	86	e110	e49	50	72	190	46	21	20	12	6.8
20	97	81	e120	e48	47	66	189	41	26	23	11	6.2
21	84	85	114	e50	39	59	186	37	22	17	9.5	5.9
22	75	379	101	e56	35	53	193	34	20	15	8.9	6.5
23	67	849	93	e70	46	51	196	31	18	14	8.4	31
24	60	474	84	e100	42	48	174	31	18	15	7.6	14
25	55	341	73	70	39	45	183	36	21	13	7.2	11
26	51	261	74	e66	62	58	179	29	17	11	7.1	10
27	48	210	66	e62	50	214	152	30	15	11	6.8	9.9
28	58	175	59	e54	e44	137	133	30	16	10	6.5	9.6
29	48	166	77	e47	e43	108	118	26	14	15	8.1	9.0
30	45	141	98	e41	---	96	106	23	13	27	7.2	8.5
31	42	---	72	e36	---	106	---	48	---	23	6.7	---
TOTAL	2740	4285	4063	2102	917	2921	3846	2944	1242	557	378.0	256.5
MEAN	88.4	143	131	67.8	31.6	94.2	128	95.0	41.4	18.0	12.2	8.55
MAX	253	849	261	102	64	330	196	430	135	50	35	31
MIN	23	25	59	36	11	40	77	23	13	10	6.5	5.9
CFSM	1.58	2.55	2.34	1.21	.56	1.68	2.29	1.69	.74	.32	.22	.15
IN.	1.82	2.84	2.69	1.39	.61	1.94	2.55	1.95	.82	.37	.25	.17

e Estimated

HUDSON RIVER BASIN

01333500 LITTLE HOOSIC RIVER AT PETERSBURG, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1992, BY WATER YEAR (WY)

MEAN	50.5	96.1	113	92.1	106	181	228	125	61.8	30.0	28.7	26.1
MAX	234	226	262	221	290	504	448	319	265	98.5	179	237
(WY)	1978	1987	1974	1979	1984	1977	1956	1984	1972	1973	1976	1960
MIN	3.87	4.43	19.1	12.0	17.3	45.1	92.1	29.2	13.1	5.86	3.81	2.85
(WY)	1965	1965	1965	1981	1980	1965	1985	1987	1964	1964	1964	1964

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1951 - 1992	
ANNUAL TOTAL	32302.7		26251.5		94.5	
ANNUAL MEAN	88.5		71.7		149	
HIGHEST ANNUAL MEAN					37.6	
LOWEST ANNUAL MEAN					3090	
HIGHEST DAILY MEAN	849	Nov 23	849	Nov 23	2.2	Mar 14 1977
LOWEST DAILY MEAN	6.0	Aug 1	5.9	Sep 17	2.3	Sep 11 1964
ANNUAL SEVEN-DAY MINIMUM	6.5	Jul 28	6.2	Sep 15	1.69	Sep 9 1964
ANNUAL RUNOFF (CFSM)	1.58		1.28		22.90	
ANNUAL RUNOFF (INCHES)	21.42		17.41		220	
10 PERCENT EXCEEDS	206		167		52	
50 PERCENT EXCEEDS	70		50		8.2	
90 PERCENT EXCEEDS	7.9		9.6			

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 mi².

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.--Records good except those for estimated daily discharges, which are fair. Occasional diurnal fluctuation at low flow caused by mills upstream; diurnal fluctuation greater prior to 1960. Diversion upstream for municipal supply of Bennington and North Bennington since 1961. Several observations of water temperature and specific conductance were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	135	e240	178	e115	e96	242	231	513	56	130	45
2	405	130	e210	166	e110	e95	222	399	300	52	95	42
3	232	124	e225	169	e105	e94	205	1520	209	50	73	44
4	174	118	288	174	e100	e93	189	594	166	117	68	65
5	144	113	212	201	e98	e92	178	423	143	111	81	55
6	800	110	208	191	e96	e98	173	353	303	90	73	47
7	578	107	194	172	e94	e110	192	310	236	74	62	44
8	326	105	201	153	e92	e150	257	276	179	66	53	44
9	247	100	357	e140	e90	e180	287	263	158	211	74	65
10	209	97	340	e135	e87	218	306	246	131	121	69	70
11	225	213	262	e125	e86	961	367	230	120	87	62	168
12	611	269	e230	e120	e84	598	431	211	109	76	54	82
13	355	193	e300	e115	e82	327	348	197	98	98	52	64
14	266	198	e570	235	e80	248	289	196	90	147	52	56
15	227	221	671	265	e78	209	275	177	83	456	55	51
16	454	276	397	e150	e130	e185	265	193	78	325	53	49
17	347	245	e280	e145	e150	e160	368	181	74	178	53	46
18	311	197	e260	e140	e125	e145	327	169	70	156	92	45
19	266	182	e235	e135	175	e140	378	157	76	136	92	82
20	242	177	e225	e130	197	e130	496	142	93	119	74	65
21	221	182	e215	e125	144	e120	620	130	84	102	62	54
22	201	440	e205	e120	124	e115	715	124	76	92	55	176
23	180	1240	e190	e120	e115	e110	631	115	77	91	50	449
24	163	556	e180	e160	e110	e105	466	115	84	94	46	168
25	156	412	e160	e270	e105	e105	413	127	144	81	43	117
26	152	328	e160	e150	e105	132	388	114	97	74	42	99
27	148	278	e155	e140	e100	745	345	131	79	73	43	100
28	198	255	e150	e135	e98	413	293	160	71	68	49	100
29	165	e250	e180	e130	e96	284	262	123	64	67	81	88
30	148	e245	287	e125	---	242	242	107	59	73	63	80
31	139	---	194	e125	---	248	---	281	---	80	51	---
TOTAL	8400	7496	7981	4789	3171	6948	10170	7995	4064	3621	2002	2660
MEAN	271	250	257	154	109	224	339	258	135	117	64.6	88.7
MAX	800	1240	671	265	197	961	715	1520	513	456	130	449
MIN	110	97	150	115	78	92	173	107	59	50	42	42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1992, BY WATER YEAR (WY)

MEAN	151	211	212	188	183	324	534	328	179	123	106	119
MAX	418	412	471	425	575	958	1008	742	414	311	481	585
(WY)	1976	1960	1974	1937	1981	1936	1969	1943	1972	1935	1976	1938
MIN	30.9	39.6	94.6	61.6	54.2	68.0	215	116	53.1	39.8	41.2	25.6
(WY)	1965	1965	1948	1965	1980	1965	1946	1987	1964	1964	1964	1964

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1931 - 1992
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ANNUAL TOTAL	76190		69297				
ANNUAL MEAN	209		189			221	
HIGHEST ANNUAL MEAN						362	1976
LOWEST ANNUAL MEAN						98.9	1965
HIGHEST DAILY MEAN	1350	Apr 9	1520	May 3		6350	Dec 31 1948
LOWEST DAILY MEAN	39	Aug 8	a 42	Aug 26		b 21	Sep 22 1964
ANNUAL SEVEN-DAY MINIMUM	45	Jul 16	47	Aug 22		22	Sep 20 1964
INSTANTANEOUS PEAK FLOW			2610	May 3		c 8450	Sep 21 1938
INSTANTANEOUS PEAK STAGE			6.38	May 3		12.04	Sep 21 1938
INSTANTANEOUS LOW FLOW			d 40	Sep 2		4.0	Sep 27 1932
10 PERCENT EXCEEDS	401		354			460	
50 PERCENT EXCEEDS	170		144			142	
90 PERCENT EXCEEDS	59		64			57	

a also occurred on Sept. 2

b also occurred on Sept. 23, 1964 and July 12, 1965

*c from rating curve extended above 2,800 ft³/s on basis of contracted-opening measurements

d also occurred on Sept. 3

e Estimated

HUDSON RIVER BASIN

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 mi².

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.--Records good except those for estimated daily discharges, which are poor. Diurnal fluctuation at medium and low flow caused by powerplants upstream from station. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--80 years (water years 1921-21, 1924-92), 948 ft³/s, 25.24 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,400 ft³/s, Dec. 31, 1948, gage height, 21.15 ft, from floodmark in gage house, from rating curve extended above 30,000 ft³/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 ft³/s, Sept. 14, 1913; minimum daily, 30 ft³/s, Sept. 14, 1913.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 23	0715	*10,600	*10.16	May 3	0700	9,480	9.69

Minimum discharge, 87 ft³/s, Aug. 26; minimum daily, 144 ft³/s, Sept. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	399	507	1150	792	e620	370	1200	1160	e2300	e220	468	162
2	780	477	1030	780	e500	e470	1130	1400	1350	e200	418	147
3	613	442	1080	769	e400	451	1070	6560	967	e190	282	144
4	481	419	1400	765	e360	424	977	3160	748	e270	261	235
5	418	400	1040	947	e320	464	922	2300	633	411	403	229
6	2000	385	953	933	e290	526	874	1890	1300	398	295	179
7	2530	374	883	813	e270	532	916	1630	1310	393	248	160
8	1310	380	906	730	e250	921	1010	1460	939	e280	214	156
9	955	344	1770	657	e230	898	1170	1370	798	480	228	175
10	786	349	1850	722	e230	943	1120	1260	671	499	257	185
11	730	694	1430	626	e230	3680	1380	1160	591	396	243	390
12	2380	1210	1270	470	e240	2980	1730	e1000	525	e280	213	300
13	1610	842	1490	632	e250	1690	1560	e960	470	e270	193	213
14	1160	813	2430	842	e300	1320	1290	e900	444	414	191	184
15	969	937	3470	e1200	e600	1140	1170	e840	e390	1000	195	173
16	1540	1050	2090	e680	e1100	972	1110	e800	e350	1290	189	161
17	1380	1010	1580	e560	e900	889	1740	e760	e320	661	188	157
18	1240	839	1480	e600	e740	859	1810	e720	e300	518	262	151
19	1050	767	1160	e540	e900	787	1930	e680	e330	467	332	180
20	923	729	1150	e500	e700	721	2160	e620	e380	469	263	188
21	828	707	1170	e500	563	683	2460	e580	e350	422	226	159
22	761	1660	1070	e540	493	616	2500	e540	e320	401	199	167
23	688	7740	973	e600	526	638	2410	e500	e300	376	185	1100
24	630	3580	915	e1900	543	563	1960	e500	e320	326	172	515
25	590	2510	723	e1200	471	555	1990	e560	452	294	162	325
26	566	1890	795	e1000	622	602	1980	e500	e320	256	161	268
27	556	1540	749	e900	574	2950	1750	e490	e290	240	154	256
28	678	1360	668	e800	493	2070	1500	e520	e270	234	161	260
29	614	1360	708	e720	e570	1350	1340	e450	e250	220	225	247
30	555	1250	1200	e680	---	1170	1230	e400	e230	288	265	222
31	528	---	835	e660	---	1170	---	e1000	---	270	188	---
TOTAL	30248	36565	39418	24058	14285	33404	45389	36670	18218	12433	7441	7388
MEAN	976	1219	1272	776	493	1078	1513	1183	607	401	240	246
MAX	2530	7740	3470	1900	1100	3680	2500	6560	2300	1290	468	1100
MIN	399	344	668	470	230	370	874	400	230	190	154	144
CFSM	1.91	2.39	2.49	1.52	.97	2.11	2.97	2.32	1.19	.79	.47	.48
IN.	2.21	2.67	2.88	1.75	1.04	2.44	3.31	2.67	1.33	.91	.54	.54

e Estimated

HUDSON RIVER BASIN

01334500 HOOSIC RIVER NEAR EAGLE BRIDGE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1992, BY WATER YEAR (WY)

MEAN	528	892	975	918	925	1685	2303	1286	692	435	351	395
MAX	2238	3394	2449	3002	2546	4595	4138	3094	2362	1349	1893	2668
(WY)	1978	1928	1974	1979	1984	1936	1969	1984	1972	1915	1976	1938
MIN	83.7	111	149	135	233	406	875	358	195	142	113	95.7
(WY)	1965	1965	1915	1931	1931	1965	1946	1987	1964	1962	1913	1964

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1910 - 1992

ANNUAL TOTAL	328327	305517	
ANNUAL MEAN	900	835	948
HIGHEST ANNUAL MEAN			1611
LOWEST ANNUAL MEAN			378
HIGHEST DAILY MEAN	7740	Nov 23	39000
LOWEST DAILY MEAN	130	Jul 22	30
ANNUAL SEVEN-DAY MINIMUM	155	Aug 3	77
ANNUAL RUNOFF (CFSM)	1.76	1.64	1.86
ANNUAL RUNOFF (INCHES)	23.95	22.28	25.26
10 PERCENT EXCEEDS	1780	1640	2110
50 PERCENT EXCEEDS	730	628	560
90 PERCENT EXCEEDS	185	220	175

DAY	OCT 1990	NOV 1990	DEC 1990	JAN 1991	FEB 1991	MAR 1991	APR 1991	MAY 1991	JUN 1991	JUL 1991	AUG 1991	SEP 1991	OCT 1991	NOV 1991	DEC 1991	JAN 1992	FEB 1992	MAR 1992	APR 1992	MAY 1992	JUN 1992	JUL 1992	AUG 1992	SEP 1992	OCT 1992	NOV 1992	DEC 1992	JAN 1993	FEB 1993	MAR 1993	APR 1993	MAY 1993	JUN 1993	JUL 1993	AUG 1993	SEP 1993	OCT 1993	NOV 1993	DEC 1993	JAN 1994	FEB 1994	MAR 1994	APR 1994	MAY 1994	JUN 1994	JUL 1994	AUG 1994	SEP 1994	OCT 1994	NOV 1994	DEC 1994	JAN 1995	FEB 1995	MAR 1995	APR 1995	MAY 1995	JUN 1995	JUL 1995	AUG 1995	SEP 1995	OCT 1995	NOV 1995	DEC 1995	JAN 1996	FEB 1996	MAR 1996	APR 1996	MAY 1996	JUN 1996	JUL 1996	AUG 1996	SEP 1996	OCT 1996	NOV 1996	DEC 1996	JAN 1997	FEB 1997	MAR 1997	APR 1997	MAY 1997	JUN 1997	JUL 1997	AUG 1997	SEP 1997	OCT 1997	NOV 1997	DEC 1997	JAN 1998	FEB 1998	MAR 1998	APR 1998	MAY 1998	JUN 1998	JUL 1998	AUG 1998	SEP 1998	OCT 1998	NOV 1998	DEC 1998	JAN 1999	FEB 1999	MAR 1999	APR 1999	MAY 1999	JUN 1999	JUL 1999	AUG 1999	SEP 1999	OCT 1999	NOV 1999	DEC 1999	JAN 2000	FEB 2000	MAR 2000	APR 2000	MAY 2000	JUN 2000	JUL 2000	AUG 2000	SEP 2000	OCT 2000	NOV 2000	DEC 2000	JAN 2001	FEB 2001	MAR 2001	APR 2001	MAY 2001	JUN 2001	JUL 2001	AUG 2001	SEP 2001	OCT 2001	NOV 2001	DEC 2001	JAN 2002	FEB 2002	MAR 2002	APR 2002	MAY 2002	JUN 2002	JUL 2002	AUG 2002	SEP 2002	OCT 2002	NOV 2002	DEC 2002	JAN 2003	FEB 2003	MAR 2003	APR 2003	MAY 2003	JUN 2003	JUL 2003	AUG 2003	SEP 2003	OCT 2003	NOV 2003	DEC 2003	JAN 2004	FEB 2004	MAR 2004	APR 2004	MAY 2004	JUN 2004	JUL 2004	AUG 2004	SEP 2004	OCT 2004	NOV 2004	DEC 2004	JAN 2005	FEB 2005	MAR 2005	APR 2005	MAY 2005	JUN 2005	JUL 2005	AUG 2005	SEP 2005	OCT 2005	NOV 2005	DEC 2005	JAN 2006	FEB 2006	MAR 2006	APR 2006	MAY 2006	JUN 2006	JUL 2006	AUG 2006	SEP 2006	OCT 2006	NOV 2006	DEC 2006	JAN 2007	FEB 2007	MAR 2007	APR 2007	MAY 2007	JUN 2007	JUL 2007	AUG 2007	SEP 2007	OCT 2007	NOV 2007	DEC 2007	JAN 2008	FEB 2008	MAR 2008	APR 2008	MAY 2008	JUN 2008	JUL 2008	AUG 2008	SEP 2008	OCT 2008	NOV 2008	DEC 2008	JAN 2009	FEB 2009	MAR 2009	APR 2009	MAY 2009	JUN 2009	JUL 2009	AUG 2009	SEP 2009	OCT 2009	NOV 2009	DEC 2009	JAN 2010	FEB 2010	MAR 2010	APR 2010	MAY 2010	JUN 2010	JUL 2010	AUG 2010	SEP 2010	OCT 2010	NOV 2010	DEC 2010	JAN 2011	FEB 2011	MAR 2011	APR 2011	MAY 2011	JUN 2011	JUL 2011	AUG 2011	SEP 2011	OCT 2011	NOV 2011	DEC 2011	JAN 2012	FEB 2012	MAR 2012	APR 2012	MAY 2012	JUN 2012	JUL 2012	AUG 2012	SEP 2012	OCT 2012	NOV 2012	DEC 2012	JAN 2013	FEB 2013	MAR 2013	APR 2013	MAY 2013	JUN 2013	JUL 2013	AUG 2013	SEP 2013	OCT 2013	NOV 2013	DEC 2013	JAN 2014	FEB 2014	MAR 2014	APR 2014	MAY 2014	JUN 2014	JUL 2014	AUG 2014	SEP 2014	OCT 2014	NOV 2014	DEC 2014	JAN 2015	FEB 2015	MAR 2015	APR 2015	MAY 2015	JUN 2015	JUL 2015	AUG 2015	SEP 2015	OCT 2015	NOV 2015	DEC 2015	JAN 2016	FEB 2016	MAR 2016	APR 2016	MAY 2016	JUN 2016	JUL 2016	AUG 2016	SEP 2016	OCT 2016	NOV 2016	DEC 2016	JAN 2017	FEB 2017	MAR 2017	APR 2017	MAY 2017	JUN 2017	JUL 2017	AUG 2017	SEP 2017	OCT 2017	NOV 2017	DEC 2017	JAN 2018	FEB 2018	MAR 2018	APR 2018	MAY 2018	JUN 2018	JUL 2018	AUG 2018	SEP 2018	OCT 2018	NOV 2018	DEC 2018	JAN 2019	FEB 2019	MAR 2019	APR 2019	MAY 2019	JUN 2019	JUL 2019	AUG 2019	SEP 2019	OCT 2019	NOV 2019	DEC 2019	JAN 2020	FEB 2020	MAR 2020	APR 2020	MAY 2020	JUN 2020	JUL 2020	AUG 2020	SEP 2020	OCT 2020	NOV 2020	DEC 2020	JAN 2021	FEB 2021	MAR 2021	APR 2021	MAY 2021	JUN 2021	JUL 2021	AUG 2021	SEP 2021	OCT 2021	NOV 2021	DEC 2021	JAN 2022	FEB 2022	MAR 2022	APR 2022	MAY 2022	JUN 2022	JUL 2022	AUG 2022	SEP 2022	OCT 2022	NOV 2022	DEC 2022	JAN 2023	FEB 2023	MAR 2023	APR 2023	MAY 2023	JUN 2023	JUL 2023	AUG 2023	SEP 2023	OCT 2023	NOV 2023	DEC 2023	JAN 2024	FEB 2024	MAR 2024	APR 2024	MAY 2024	JUN 2024	JUL 2024	AUG 2024	SEP 2024	OCT 2024	NOV 2024	DEC 2024	JAN 2025	FEB 2025	MAR 2025	APR 2025	MAY 2025	JUN 2025	JUL 2025	AUG 2025	SEP 2025	OCT 2025	NOV 2025	DEC 2025	JAN 2026	FEB 2026	MAR 2026	APR 2026	MAY 2026	JUN 2026	JUL 2026	AUG 2026	SEP 2026	OCT 2026	NOV 2026	DEC 2026	JAN 2027	FEB 2027	MAR 2027	APR 2027	MAY 2027	JUN 2027	JUL 2027	AUG 2027	SEP 2027	OCT 2027	NOV 2027	DEC 2027	JAN 2028	FEB 2028	MAR 2028	APR 2028	MAY 2028	JUN 2028	JUL 2028	AUG 2028	SEP 2028	OCT 2028	NOV 2028	DEC 2028	JAN 2029	FEB 2029	MAR 2029	APR 2029	MAY 2029	JUN 2029	JUL 2029	AUG 2029	SEP 2029	OCT 2029	NOV 2029	DEC 2029	JAN 2030	FEB 2030	MAR 2030	APR 2030	MAY 2030	JUN 2030	JUL 2030	AUG 2030	SEP 2030	OCT 2030	NOV 2030	DEC 2030	JAN 2031	FEB 2031	MAR 2031	APR 2031	MAY 2031	JUN 2031	JUL 2031	AUG 2031	SEP 2031	OCT 2031	NOV 2031	DEC 2031	JAN 2032	FEB 2032	MAR 2032	APR 2032	MAY 2032	JUN 2032	JUL 2032	AUG 2032	SEP 2032	OCT 2032	NOV 2032	DEC 2032	JAN 2033	FEB 2033	MAR 2033	APR 2033	MAY 2033	JUN 2033	JUL 2033	AUG 2033	SEP 2033	OCT 2033	NOV 2033	DEC 2033	JAN 2034	FEB 2034	MAR 2034	APR 2034	MAY 2034	JUN 2034	JUL 2034	AUG 2034	SEP 2034	OCT 2034	NOV 2034	DEC 2034	JAN 2035	FEB 2035	MAR 2035	APR 2035	MAY 2035	JUN 2035	JUL 2035	AUG 2035	SEP 2035	OCT 2035	NOV 2035	DEC 2035	JAN 2036	FEB 2036	MAR 2036	APR 2036	MAY 2036	JUN 2036	JUL 2036	AUG 2036	SEP 2036	OCT 2036	NOV 2036	DEC 2036	JAN 2037	FEB 2037	MAR 2037	APR 2037	MAY 2037	JUN 2037	JUL 2037	AUG 2037	SEP 2037	OCT 2037	NOV 2037	DEC 2037	JAN 2038	FEB 2038	MAR 2038	APR 2038	MAY 2038	JUN 2038	JUL 2038	AUG 2038	SEP 2038	OCT 2038	NOV 2038	DEC 2038	JAN 2039	FEB 2039	MAR 2039	APR 2039	MAY 2039	JUN 2039	JUL 2039	AUG 2039	SEP 2039	OCT 2039	NOV 2039	DEC 2039	JAN 2040	FEB 2040	MAR 2040	APR 2040	MAY 2040	JUN 2040	JUL 2040	AUG 2040	SEP 2040	OCT 2040	NOV 2040	DEC 2040	JAN 2041	FEB 2041	MAR 2041	APR 2041	MAY 2041	JUN 2041	JUL 2041	AUG 2041	SEP 2041	OCT 2041	NOV 2041	DEC 2041	JAN 2042	FEB 2042	MAR 2042	APR 2042	MAY 2042	JUN 2042	JUL 2042	AUG 2042	SEP 2042	OCT 2042	NOV 2042	DEC 2042	JAN 2043	FEB 2043	MAR 2043	APR 2043	MAY 2043	JUN 2043	JUL 2043	AUG 2043	SEP 2043	OCT 2043	NOV 2043	DEC 2043	JAN 2044	FEB 2044	MAR 2044	APR 2044	MAY 2044	JUN 2044	JUL 2044	AUG 2044	SEP 2044	OCT 2044	NOV 2044	DEC 2044	JAN 2045	FEB 2045	MAR 2045	APR 2045	MAY 2045	JUN 2045	JUL 2045	AUG 2045	SEP 2045	OCT 2045	NOV 2045	DEC 2045	JAN 2046	FEB 2046	MAR 2046	APR 2046	MAY 2046	JUN 2046	JUL 2046	AUG 2046	SEP 2046	OCT 2046	NOV 2046	DEC 2046	JAN 2047	FEB 2047	MAR 2047	APR 2047	MAY 2047	JUN 2047	JUL 2047	AUG 2047	SEP 2047	OCT 2047	NOV 2047	DEC 2047	JAN 2048	FEB 2048	MAR 2048	APR 2048	MAY 2048	JUN 2048	JUL 2048	AUG 2048	SEP 2048	OCT 2048	NOV 2048	DEC 2048	JAN 2049	FEB 2049	MAR 2049	APR 2049	MAY 2049	JUN 2049	JUL 2049	AUG 2049	SEP 2049	OCT 2049	NOV 2049	DEC 2049	JAN 2050	FEB 2050	MAR 2050	APR 2050	MAY 2050	JUN 2050	JUL 2050	AUG 2050	SEP 2050	OCT 2050	NOV 2050	DEC 2050	JAN 2051	FEB 2051	MAR 2051	APR 2051	MAY 2051	JUN 2051	JUL 2051	AUG 2051	SEP 2051	OCT 2051	NOV 2051	DEC 2051	JAN 2052	FEB 2052	MAR 2052	APR 2052	MAY 2052	JUN 2052	JUL 2052	AUG 2052	SEP 2052	OCT 2052	NOV 2052	DEC 2052	JAN 2053	FEB 2053	MAR 2053	APR 2053	MAY 2053	JUN 2053	JUL 2053	AUG 2053	SEP 2053	OCT 2053	NOV 2053	DEC 2053	JAN 2054	FEB 2054	MAR 2054	APR 2054	MAY 2054	JUN 2054	JUL 2054	AUG 2054	SEP 2054	OCT 2054	NOV 2054	DEC 2054	JAN 2055	FEB 2055	MAR 2055	APR 2055	MAY 2055	JUN 2055	JUL 2055	AUG 2055	SEP 2055	OCT 2055	NOV 2055	DEC 2055	JAN 2056	FEB 2056	MAR 2056	APR 2056	MAY 2056	JUN 2056	JUL 2056	AUG 2056	SEP 2056	OCT 2056	NOV 2056	DEC 2056	JAN 2057	FEB 2057	MAR 2057	APR 2057	MAY 2057	JUN 2057	JUL 2057	AUG 2057	SEP 2057	OCT 2057	NOV 2057	DEC 2057	JAN 2058	FEB 2058	MAR 2058	APR 2058	MAY 2058	JUN 2058	JUL 2058	AUG 2058	SEP 2058	OCT 2058	NOV 2058	DEC 2058	JAN 2059	FEB 2059	MAR 2059	APR 2059	MAY 2059	JUN 2059	JUL 2059	AUG 2059	SEP 2059	OCT 2059	NOV 2059	DEC 2059	JAN 2060	FEB 2060	MAR 2060	APR 2060	MAY 2060	JUN 2060	JUL 2060	AUG 2060	SEP 2060	OCT 2060	NOV 2060	DEC 2060	JAN 2061	FEB 2061	MAR 2061	APR 2061	MAY 2061	JUN 2061	JUL 2061	AUG 2061	SEP 2061	OCT 2061	NOV 2061	DEC 2061	JAN 2062	FEB 2062	MAR 2062	APR 2062	MAY 2062	JUN 2062	JUL 2062	AUG 2062	SEP 2062	OCT 2062	NOV 2062	DEC 2062	JAN 2063	FEB 2063	MAR 2063	APR 2063	MAY 2063	JUN 2063	JUL 2063	AUG 2063	SEP 2063	OCT 2063	NOV 2063	DEC 2063	JAN 2064	FEB 2064	MAR 2064	APR 2064	MAY 2064	JUN 2064	JUL 2064	AUG 2064	SEP 2064	OCT 2064	NOV 2064	DEC 2064	JAN 2065	FEB 2065	MAR 2065	APR 2065	MAY 2065	JUN 2065	JUL 2065	AUG 2065	SEP 2065	OCT 2065	NOV 2065	DEC 2065	JAN 2066	FEB 2066	MAR 2066	APR 2066	MAY 2066	JUN 2066	JUL 2066	AUG 2066	SEP 2066	OCT 2066	NOV 2066	DEC 2066	JAN 2067	FEB 2067	MAR 2067	APR 2067	MAY 2067	JUN 2067	JUL 2067	AUG 2067	SEP 2067	OCT 2067	NOV 2067	DEC 2067	JAN 2068	FEB 2068	MAR 2068	APR 2068	MAY 2068	JUN 2068	JUL 2068	AUG 2068	SEP 2068	OCT 2068	NOV 2068	DEC 2068	JAN 2069	FEB 2069	MAR 2069	APR 2069	MAY 2069	JUN 2069	JUL 2069	AUG 2069	SEP 2069	OCT 2069	NOV 2069	DEC 2069	JAN 2070	FEB 2070	MAR 2070	APR 2070	MAY 2070	JUN 2070	JUL 2070	AUG 2070	SEP 2070	OCT 2070	NOV 2070	DEC 2070	JAN 2071	FEB 2071	MAR 2071	APR 2071	MAY 2071	JUN 2071	JUL 2071	AUG 2071	SEP 2071	OCT 2071	NOV 2071	DEC 2071	JAN 2072	FEB 2072	MAR 2072	APR 2072	MAY 2072	JUN 2072	JUL 2072	AUG 2072	SEP 2072	OCT 2072	NOV 2072	DEC 2072	JAN 2073	FEB 2073	MAR 2073	APR 2073	MAY 2073	JUN 2073	JUL 2073	AUG 2073	SEP 2073	OCT 2073	NOV 2073	DEC 2073	JAN 2074	FEB 2074	MAR 2074	APR 2074	MAY 2074	JUN 2074	JUL 2074	AUG 2074	SEP 2074	OCT 2074	NOV 2074	DEC 2074	JAN 2075	FEB 2075	MAR 2075	APR 2075	MAY 2075	JUN 2075	JUL 2075	AUG 2075	SEP 2075	OCT 2075	NOV 2075	DEC 2075	JAN 2076	FEB 2076	MAR 2076	APR 2076	MAY 2076	JUN 2076	JUL 2076	AUG 2076	SEP 2076	OCT 2076	NOV 2076	DEC 2076	JAN 2077	FEB 2077	MAR 2077	APR 2077	MAY 2077	JUN 2077	JUL 2077	AUG 2077	SEP 2077	OCT 2077	NOV 2077	DEC 2077	JAN 2078	FEB 2078	MAR 2078	APR 2078	MAY 2078	JUN 2078	JUL 2078	AUG 2078	SEP 2078	OCT 2078	NOV 2078	DEC 2078	JAN 2079	FEB 2079	MAR 2079	APR 2079	MAY 2079	JUN 2079	JUL 2079	AUG 2079	SEP 2079	OCT 2079	NOV 2079	DEC 2079	JAN 2080	FEB 2080	MAR 2080	APR 2080	MAY 2080	JUN 2080	JUL 2080	AUG 2080	SEP 2080	OCT 2080	NOV 2080	DEC 2080	JAN 2081	FEB 2081	MAR 2081	APR 2081	MAY 2081	JUN 2081	JUL 2081	AUG 2081	SEP 2081	OCT 2081	NOV 2081	DEC 2081	JAN 2082	FEB 2082	MAR 2082	APR 2082	MAY 2082	JUN 2082	JUL 2082	AUG 2082	SEP 2082	OCT 2082	NOV 2082	DEC 2082	JAN 2083
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HUDSON RIVER BASIN

01334805 HOOSIC RIVER AT EAGLE BRIDGE, NY

LOCATION.--Lat 42°57'05", long 73°23'28", Rensselaer County, Hydrologic Unit 02020003, at Route 67 bridge in Eagle Bridge, 2 mi east of Buskirk.

DRAINAGE AREA.--571 mi².

PERIOD OF RECORD.--April 1987 to October 1991 (discontinued). Records prior to October 1988 are unpublished and available in files of the Geological Survey.

CHEMICAL DATA: 1987 (b), 1988-89 (c), 1990-91 (b), 1992 (a).

MINOR ELEMENTS DATA: 1987 (b), 1988-89 (c), 1990-91 (b), 1992 (a).

PESTICIDE DATA: 1987 (b), 1988-89 (c), 1990 (b).

NUTRIENT DATA: 1987 (b), 1988-89 (c), 1990 (b).

SEDIMENT DATA: 1988 (b), 1989 (c), 1990-91 (b), 1992 (a).

REMARKS.--Water-quality samples were collected by personnel of the New York State Department of Environmental Conservation, and were analyzed in USGS laboratories. Water-discharge data based on records obtained for Hoosic River near Eagle Bridge (station 01334500).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, SATUR- ATION	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)
OCT 29...	1200	615	216	8.5	9.0	768	14.3	123	100

DATE	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
OCT 29...	<1	100	150	4	<10	<0.10	1	60

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 29...	1200	615	3	5.0

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, 3.4 mi downstream from dam at Lock 2c Champlain (Barge) Canal, and 2.8 mi northeast of Waterford.

DRAINAGE AREA.--4,611 mi².

PERIOD OF RECORD.--October 1976 to current year. Daily discharge records prior to October 1981 are published with suspended-sediment data 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.--Records fair except those for estimated daily discharges, which are poor. 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.

AVERAGE DISCHARGE.--16 years, 8,100 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,800 ft³/s, Mar. 15, 1977; maximum gage height, 36.38 ft, May 30, 31, 1984; minimum daily discharge, 1,170 ft³/s, July 25, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30,200 ft³/s, May 4, gage height, 33.37 ft; minimum daily, 2,760 ft³/s, June 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3750	3770	6860	6980	e5650	4230	8790	12000	11700	3900	e4450	e4250
2	4080	4250	6790	6700	e5300	4280	7900	13000	16700	e4600	e4950	e3750
3	4030	4050	6960	6260	e5000	4510	6630	24600	15400	e3750	e4750	e3600
4	4140	3680	6720	6110	e4100	4210	6240	28600	14100	e3850	e4800	e4500
5	4840	3540	6680	6510	4390	4760	5710	25000	12600	e4100	e4900	e5100
6	5310	4010	5820	7480	e4700	4230	5280	21700	15100	e4850	e4200	e5800
7	8790	4090	5580	6990	e4450	4420	5060	21500	16100	e4950	e4200	e6100
8	6990	3870	5250	6870	4430	5630	e4500	19900	15700	e4450	e3950	e4650
9	6600	3590	6820	6400	e4600	6170	6230	16800	14900	e5000	e4050	e5000
10	5470	4080	9190	5860	e4550	6310	e7000	15400	11500	e4600	e4100	e3800
11	5310	3930	8520	6310	e4350	10700	e8200	14500	9560	e4450	e4050	e4950
12	6040	5750	8000	5020	e3950	23200	e11300	13500	8760	e4150	e4350	e4850
13	6550	5800	7570	5050	e4500	15500	e16000	13400	7090	e4150	e3850	e5200
14	5290	5730	8680	6490	3830	12200	e13400	11200	6480	e4450	e4150	e4550
15	4920	5490	12100	9200	4430	10600	e11400	10400	5670	e6250	e4400	e4050
16	6240	5500	10500	e7400	5970	8690	e9600	9420	4680	e7950	e3900	e3700
17	8030	6050	8400	e6300	7130	7680	e13000	8690	3600	e6300	e3900	e3550
18	8170	6100	8570	e7000	6160	6660	14400	8760	3980	e5750	e3900	e3850
19	7930	5880	8640	e6150	6070	6300	12600	7780	3840	e5400	e4100	e3850
20	7000	5090	6930	e6250	6440	5890	12700	7270	3520	e4750	e4150	e3850
21	5990	5420	7310	e6350	5920	4730	14500	6000	3110	e4750	e3900	e3500
22	6400	5290	7700	e6350	5410	4250	17400	6690	3250	e4850	e4000	e3200
23	5560	17900	7180	6040	5070	4100	22200	5010	2760	e5250	e3900	e5400
24	e5100	15600	6940	7080	4970	4560	24400	5120	3600	e4500	e3750	e6250
25	4650	12100	6510	9580	4720	4400	23500	4750	4360	e4250	e3750	e6150
26	4620	10100	6120	7450	4990	4050	22700	4740	4500	e4250	e3750	e4450
27	4290	7990	5620	e6750	5370	6950	19200	4370	4400	e4100	e3700	e3800
28	e4300	7540	6260	e6500	5000	19000	16300	4700	4220	e3650	e3700	e3750
29	4220	e7490	5470	e5950	4700	11700	14600	4880	4200	e3450	e4250	e4000
30	4340	7140	6630	e6400	---	10100	13200	4090	4750	e3500	e4550	e3950
31	4160	---	7970	e6200	---	9110	---	5480	---	e3650	e4300	---
TOTAL	173110	190820	228290	205980	146150	239120	373940	359250	240130	143850	128650	133400
MEAN	5584	6361	7364	6645	5040	7714	12460	11590	8004	4640	4150	4447
MAX	8790	17900	12100	9580	7130	23200	24400	28600	16700	7950	4950	6250
MIN	3750	3540	5250	5020	3830	4050	4500	4090	2760	3450	3700	3200

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1992, BY WATER YEAR (WY)

	7193	8824	8772	7505	8236	12040	15580	11060	6157	3782	3829	4309
MEAN	7193	8824	8772	7505	8236	12040	15580	11060	6157	3782	3829	4309
MAX	16560	14390	16250	15880	16250	20240	22680	24230	10290	6321	7282	7009
(WY)	1978	1991	1984	1978	1981	1979	1977	1983	1984	1984	1990	1987
MIN	3054	4188	4945	3157	3973	5845	8301	3698	2718	2525	2481	2654
(WY)	1981	1979	1983	1981	1980	1989	1981	1987	1988	1978	1985	1980

HUDSON RIVER BASIN

01335754 HUDSON RIVER ABOVE LOCK 1 NEAR WATERFORD, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1977 - 1992	
ANNUAL TOTAL	2738640		2562690			
ANNUAL MEAN	7503		7002		8100	
HIGHEST ANNUAL MEAN					10700 1990	
LOWEST ANNUAL MEAN					5675 1981	
HIGHEST DAILY MEAN	28000	Mar 5	28600	May 4	62000	Mar 15 1977
LOWEST DAILY MEAN	2100	Sep 13	2760	Jun 23	1170	Jul 25 1983
ANNUAL SEVEN-DAY MINIMUM	2550	Jul 31	3440	Jun 17	2070	Jul 11 1988
10 PERCENT EXCEEDS	13600		13100		15700	
50 PERCENT EXCEEDS	6260		5490		6090	
90 PERCENT EXCEEDS	2790		3850		2970	

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.--4,620 mi².

PERIOD OF RECORD.--Water years 1952, 1969 to current year.

CHEMICAL DATA: 1952 (a), 1969 (d), 1970-71 (e), 1972-76 (d), 1977 (c), 1978-79 (d), 1980-84 (e), 1985 (c), 1986-87 (e), 1988-89 (c), 1990-91 (b), 1992 (a).

MINOR ELEMENTS DATA: 1952 (a), 1969 (d), 1970-71 (e), 1972-76 (d), 1977-79 (e), 1980-81 (d), 1982 (a), 1983 (b), 1987-89(c), 1990-91 (b), 1992 (a).

PESTICIDE DATA: 1975 (b), 1976 (d), 1977-79 (e), 1980, 1982 (a), 1987-89 (c), 1990 (b).

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

PCB--1975 (b), 1976 (d), 1977-84 (e), 1985 (c), 1986-87 (e), 1988 (d), 1989 (e), 1991 (d).

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

NUTRIENT DATA: 1952 (a), 1969 (d), 1970-71 (e), 1972-76 (d), 1977-78 (e), 1979-81 (d), 1987-89 (c), 1990 (b).

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), 1981-91 (e), 1992 (a).

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. PCB samples were collected and analyzed by USGS; all other samples were collected by personnel of the New York State Department of Environmental Conservation and were analyzed in USGS laboratories.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean (water years 1977-91), 810 mg/L March 14, 1977; minimum daily mean, <1 mg/L, July 28, Aug. 2, 1991.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily (water years 1977-91), 119,000 tons March 14, 1977; minimum daily, 3.9 tons Sept. 7, 1981.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

		DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	
OCT									
29...	1300	4130	188	7.3	11.5	777	10.6	95 160	
		CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L T/DAY)
OCT 29...	1300	4130	56

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 mi².

PERIOD OF RECORD.--July 1921 to September 1927 (monthly discharges only, published in WSP 1302), October 1927 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 472.85 ft above National Geodetic Vertical Datum of 1929. 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 ft³). 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 (corrected).--65 years (water years 1928-92), 368 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,560 ft³/s, Oct. 2, 1945, gage height, 11.18 ft, from rating curve extended above 5,200 ft³/s on basis of flow-over-dam measurement of peak flow; minimum discharge, 18 ft³/s, July 21, 27, Oct. 24, 25, 1983, minimum gage height, 0.63 ft, Oct. 24, 25, 1983; minimum daily discharge, 45 ft³/s, Jan. 17, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,820 ft³/s, Apr. 12, gage height, 7.75 ft; minimum, 21 ft³/s, Oct. 22, 28, gage height, 0.69 ft; minimum daily, 161 ft³/s, May 29, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	194	208	220	225	224	225	684	387	1340	225	320	219
2	194	208	216	226	223	224	629	518	1060	224	334	219
3	194	207	218	223	223	224	507	2190	681	226	280	222
4	194	207	221	222	222	223	427	1350	444	228	287	226
5	199	208	216	242	221	228	405	825	315	238	300	219
6	212	207	215	232	221	236	385	601	271	233	260	219
7	212	206	216	229	221	276	436	472	251	226	235	219
8	212	206	222	224	221	274	657	385	341	224	228	217
9	210	206	262	224	221	401	836	328	351	230	233	228
10	209	206	234	226	221	775	791	288	263	225	228	251
11	211	232	225	224	219	1980	1040	317	247	224	229	256
12	211	219	230	221	221	1430	3200	282	245	226	226	244
13	210	216	235	221	219	895	1850	238	210	275	224	242
14	208	217	227	248	219	660	1090	203	182	267	224	242
15	184	220	224	240	219	516	782	177	177	293	224	242
16	269	232	223	232	233	401	657	198	170	247	224	242
17	204	217	225	228	234	471	1490	201	163	244	222	241
18	226	214	223	228	231	414	1650	242	163	279	225	240
19	224	213	222	227	257	345	1290	240	163	242	224	246
20	221	211	221	226	258	301	1050	207	163	290	221	242
21	219	211	222	225	237	270	949	199	163	403	221	255
22	185	212	222	225	229	235	1210	193	163	324	221	333
23	215	218	222	224	232	229	1160	177	163	345	221	279
24	189	227	221	230	229	219	955	181	186	418	221	253
25	190	222	220	230	226	214	880	164	225	353	221	250
26	210	215	242	227	226	263	768	162	224	290	221	248
27	209	213	228	225	224	1230	655	164	224	255	220	256
28	182	213	224	224	226	1560	506	162	224	240	220	256
29	211	228	221	223	230	1020	409	161	223	235	230	251
30	211	226	222	221	---	747	345	161	221	233	221	249
31	209	---	225	222	---	627	---	364	---	250	220	---
TOTAL	6428	6445	6964	7044	6587	17113	27693	11737	9216	8212	7385	7306
MEAN	207	215	225	227	227	552	923	379	307	265	238	244
MAX	269	232	262	248	258	1980	3200	2190	1340	418	334	333
MIN	182	206	215	221	219	214	345	161	163	224	220	217

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1992, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
308	352	408	471	391	434
1199	784	888	1152	917	1038
1946	1960	1984	1930	1932	1943
105	144	102	85.5	98.4	92.9
1935	1962	1961	1961	1961	1931
276	252	233	252	276	252
382	929	755	518	423	651
1972	1972	1935	1986	1945	1945
185	163	147	143	92.6	92.6
1950	1988	1941	1941	1934	1934

HUDSON RIVER BASIN

01342602 MOHAWK RIVER NEAR UTICA, NY

LOCATION.--Lat 43°05'26", long 75°09'27", Herkimer County, Hydrologic Unit 02020004, at bridge on Upper Dyke Road, 2.0 mi east of city line of Utica.

DRAINAGE AREA.--553 mi².

PERIOD OF RECORD.--Water years 1972-73, April 1988 to current year.

CHEMICAL DATA: 1988 (b), 1989 (c), 1990 (d), 1991 (c), 1992 (a).

MINOR ELEMENTS DATA: 1972-73, 1988 (b), 1989 (c), 1990 (d), 1991 (c), 1992 (a).

PESTICIDE DATA: 1988 (b), 1989 (c), 1990 (d).

NUTRIENT DATA: 1988 (b), 1989 (c), 1990 (d).

SEDIMENT DATA: 1989 (c), 1990 (d), 1991 (c), 1992 (a).

REMARKS.--Water-quality samples were collected by personnel of the New York State Department of Environmental Conservation, and were analyzed in USGS laboratories.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)
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OCT 28...	1300	418	412	7.4	14.0	763	8.6	83	310
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DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
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OCT 28...	<1	32	690	5	90	<0.10	2	20
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SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
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OCT 28...	1300	418	19	21
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HUDSON RIVER BASIN

01346000 WEST CANADA CREEK AT KAST BRIDGE, NY

LOCATION.--Lat 43°04'08", long 74°59'19", 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 mi².

PERIOD OF RECORD.--January 1907, April to December 1907, March 1908 to December 1909, April 1910 to December 1911 (monthly discharges only, published in WSP 1302), January 1912 to December 1913, April 1914 to June 1918 (monthly discharges only, published in WSP 1302), October 1920 to current year.

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.--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 ft³). 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.

AVERAGE DISCHARGE.--72 years (water years 1921-92), 1,320 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,300 ft³/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 ft³/s, Sept. 3, 1929, gage height, 0.90 ft; minimum daily, 59 ft³/s, Sept. 2, 1929.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,620 ft³/s, May 2, gage height, 5.36 ft; minimum, 193 ft³/s, July 2, gage height, 1.86 ft; minimum daily, 417 ft³/s, Oct. 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	505	735	1170	1220	1010	657	1980	2330	2110	584	1740	460
2	752	722	965	1220	1050	687	1830	3190	1640	480	1310	439
3	781	712	961	1220	1070	661	1740	5420	1520	503	1210	793
4	490	724	990	1280	985	660	1710	5010	1600	656	1200	932
5	417	682	850	1670	e1100	861	1720	3910	1580	820	1180	556
6	550	681	846	e1400	e1050	973	1710	3000	1670	878	1000	487
7	467	622	889	1370	1000	1430	1840	2690	1620	542	477	469
8	468	633	1030	1220	1040	1880	2050	2400	1670	497	469	473
9	472	683	2110	1200	755	1540	1940	2380	1630	977	743	1340
10	456	686	1460	1180	e800	1740	1890	2360	1590	665	620	2130
11	474	1270	1100	1130	e800	2770	2250	2170	1550	648	536	2200
12	490	1090	1050	1020	e900	1440	3200	1680	973	634	495	1660
13	524	876	1690	1080	e900	1350	2250	1650	721	1360	517	1580
14	493	930	1650	2110	e800	1240	2300	1640	739	2100	910	1430
15	504	965	1410	1590	669	1150	2240	1440	724	3170	624	1110
16	1050	1170	1160	1180	e1000	1070	2080	1320	712	2200	568	1110
17	758	906	1110	1100	1100	1090	3930	1250	672	1740	565	1110
18	828	840	1180	1120	887	1080	3380	1250	743	2240	631	1100
19	688	848	1090	1090	1570	1050	3030	1210	740	1780	561	1340
20	662	809	1270	e1000	1490	1280	2700	1180	735	1660	498	1160
21	660	855	1240	962	1040	1400	2620	943	598	2550	474	1130
22	622	894	1220	e1100	829	1400	3240	786	628	2450	456	2230
23	612	1330	1160	e1100	858	1400	3900	745	642	2680	442	2710
24	606	1320	1080	e1300	803	1400	5970	756	695	2920	435	2610
25	717	1200	1140	1170	690	1390	5380	772	739	2340	429	2520
26	711	935	1150	1110	726	1650	4600	752	641	2280	426	2430
27	713	894	1160	1090	706	3950	3660	722	621	2260	427	2500
28	718	904	1170	1050	663	2450	2940	703	598	2200	478	2360
29	713	1190	1350	1100	728	1930	2570	643	535	1880	802	1570
30	709	1340	1890	1140	---	1880	2340	613	597	1420	540	1230
31	728	---	1340	983	---	1920	---	1580	---	1510	503	---
TOTAL	19338	27446	37881	37505	27019	45379	82990	56495	31233	48624	21266	43169
MEAN	624	915	1222	1210	932	1464	2766	1822	1041	1569	686	1439
MAX	1050	1340	2110	2110	1570	3950	5970	5420	2110	3170	1740	2710
MIN	417	622	846	962	663	657	1710	613	535	480	426	439

e Estimated

01346000 WEST CANADA CREEK AT KAST BRIDGE. NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1992, BY WATER YEAR (WY)

MEAN	929	1310	1385	1302	1228	1900	2890	1886	978	744	591	700
MAX	3131	2984	2797	3044	2704	3725	4903	4667	3875	2075	1481	1831
(WY)	1946	1960	1928	1930	1981	1945	1977	1972	1972	1935	1986	1977
MIN	338	335	621	453	316	681	1521	594	359	283	227	284
(WY)	1965	1965	1931	1931	1931	1940	1946	1987	1941	1941	1934	1934

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1921 - 1992

ANNUAL TOTAL	432810		478345				
ANNUAL MEAN	1186		1307		1319		
HIGHEST ANNUAL MEAN					1872		1972
LOWEST ANNUAL MEAN					829		1965
HIGHEST DAILY MEAN	5950	Jan 1	5970	Apr 24	16100	Oct 2	1945
LOWEST DAILY MEAN	417	Oct 5	417	Oct 5	59	Sep 2	1929
ANNUAL SEVEN-DAY MINIMUM	429	Jul 24	441	Aug 21	211	Aug 16	1934
10 PERCENT EXCEEDS	2270		2360		2590		
50 PERCENT EXCEEDS	930		1100		1000		
90 PERCENT EXCEEDS	444		539		450		

01347000 MOHAWK RIVER NEAR LITTLE FALLS, NY

LOCATION.--Lat 43°00'53", long 74°46'47", Herkimer County, Hydrologic Unit 02020004, on left bank 1,800 ft downstream from Fivemile Dam, 2.0 mi upstream from East Canada Creek, and 4.5 mi southeast of city of Little Falls.

DRAINAGE AREA.--1,342 mi².

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.--Records good except those for estimated daily discharges, which are poor. Records of daily discharge include diversion at Fivemile Dam into Erie (Barge) Canal for lockages at lock 16, near St. Johnsville. 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 ft³) (see Reservoirs in Hudson River Basin). Telephone gage-height telemeter at station.

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

AVERAGE DISCHARGE.--65 years, 2,815 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (river channel only), 33,100 ft³/s, Mar. 14, 1977, gage height, 19.17 ft, from floodmark in gage house; minimum discharge (river channel only), 214 ft³/s, Aug. 18, 1949, gage height, 3.75 ft; minimum daily discharge, probably not less than 463 ft³/s, Sept. 2, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges (river channel only) greater than base discharge of 16,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 3	0215	*16,000	*13.45				

Minimum discharge (river channel only), 603 ft³/s, July 2, gage height, 4.66 ft; minimum daily, 947 ft³/s, July 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080	1240	3030	3060	1810	2020	4340	3620	5700	1050	4990	1220
2	1530	1230	2390	2510	e1700	1970	4020	4820	5760	1000	3440	1090
3	1610	1200	2220	2390	e1600	1830	3680	12900	5080	947	2330	1560
4	1210	1200	2350	2370	e1500	1810	3400	11000	3440	1470	2250	3010
5	1060	1170	3080	3210	e1500	2160	3250	9690	2840	1530	2170	1830
6	1280	1170	2330	3940	e1500	2850	3140	6120	2900	2160	1960	1320
7	1280	1180	2020	3540	e1500	3790	3180	5000	2800	1510	1330	1180
8	1110	1080	2460	2920	e1400	5800	3630	4120	2850	1190	1220	1100
9	1110	1150	5190	2490	e1300	5790	3800	3950	2900	2100	1560	1780
10	1100	1190	5540	2460	e1200	5410	3690	3780	2600	2210	1730	2830
11	1150	2090	3950	2440	e1200	7830	4310	3600	2340	1580	1360	5030
12	1240	3170	2920	2020	e1200	6440	7030	2900	1780	1350	1270	3170
13	1210	2410	3270	2060	e1100	5760	6700	2600	1310	2160	1190	2480
14	1090	2240	3610	3850	e1100	4530	6710	2730	1340	4330	2460	2180
15	1090	2140	3350	5420	1250	3480	5440	2320	1270	7950	1920	1780
16	2050	2640	2650	3620	1960	2800	4140	2210	1190	6990	1540	1710
17	2450	2570	2130	e3000	2850	2600	8140	2290	1190	4600	1570	1710
18	1990	2000	2080	e2700	2490	2580	9370	2140	1140	4460	1790	1650
19	1690	1760	2130	e1900	3300	2450	9230	2240	1190	3960	1590	2080
20	1520	1670	2050	e2000	5060	2480	7960	2070	1300	3150	1330	2050
21	1430	1700	2100	e2100	4280	2560	6390	1780	1220	3960	1220	1720
22	1350	1810	2220	e2100	3020	2440	6180	1450	1070	4130	1110	2690
23	1250	3710	2180	1980	2710	2400	7170	1390	1110	4980	1100	6940
24	1200	3480	2070	2530	2700	2340	9020	1390	1150	6350	996	4300
25	1240	4150	1980	2590	2380	2290	8900	1490	1340	4760	971	3660
26	1230	3240	1940	2150	2100	2570	7840	1390	1280	3810	1000	3280
27	1290	3070	1950	1980	2030	7860	5380	1450	1210	3450	974	3330
28	1270	2170	1900	1900	1880	7490	5110	1490	1150	3210	1180	3430
29	1260	3080	2120	1860	2190	6730	4280	1340	1010	2800	2200	2540
30	1220	3300	4460	1910	---	5950	3750	1230	1080	2240	1660	2000
31	1250	---	4090	1810	---	4870	---	3030	---	2800	1400	---
TOTAL	41840	64210	85760	80810	59810	121880	169180	107530	62540	98187	52811	74650
MEAN	1350	2140	2766	2607	2062	3932	5639	3469	2085	3167	1704	2488
MAX	2450	4150	5540	5420	5060	7860	9370	12900	5760	7950	4990	6940
MIN	1060	1080	1900	1810	1100	1810	3140	1230	1010	947	971	1090

e Estimated

HUDSON RIVER BASIN

01347000 MOHAWK RIVER NEAR LITTLE FALLS, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1992, BY WATER YEAR (WY)

MEAN	1898	2756	3112	3002	2936	4816	5972	3361	1891	1480	1171	1421
MAX	6529	5873	6254	6742	6759	9558	11990	7879	6306	3771	2912	4361
(WY)	1946	1960	1974	1930	1976	1945	1940	1943	1972	1935	1986	1977
MIN	719	750	1061	820	679	1693	2419	1363	903	685	642	684
(WY)	1965	1931	1931	1931	1931	1940	1946	1987	1941	1934	1934	1939

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1928 - 1992
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ANNUAL TOTAL	944603		1019208			
ANNUAL MEAN	2588		2785		2815	
HIGHEST ANNUAL MEAN					4208	1976
LOWEST ANNUAL MEAN					1684	1931
HIGHEST DAILY MEAN	13200	Jan 1	12900	May 3	29900	Mar 14 1977
LOWEST DAILY MEAN	757	Sep 9	947	Jul 3	463	Sep 2 1934
ANNUAL SEVEN-DAY MINIMUM	801	Jul 28	1050	Aug 22	529	Aug 29 1934
10 PERCENT EXCEEDS	5210		5390		5900	
50 PERCENT EXCEEDS	2050		2180		1940	
90 PERCENT EXCEEDS	858		1190		900	

HUDSON RIVER BASIN

01348000 EAST CANADA CREEK AT EAST CREEK, NY

LOCATION.--Lat 43°01'00", long 74°44'28", Herkimer County, Hydrologic Unit 02020004, 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 mi².

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.--No estimated daily discharges. Records good. Extensive diurnal fluctuation and slight regulation caused by powerplants upstream from station. City of Little Falls diverts about 5 ft³/s for municipal supply.

AVERAGE DISCHARGE.--46 years, 681 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft³/s, Dec. 29, 1984, gage height, 7.68 ft; minimum, 0.05 ft³/s, July 9, 1978, gage height, 0.47 ft; minimum gage height, 0.44 ft, July 29, 1977; minimum daily discharge, 0.22 ft³/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 ft³/s, from slope-area measurement of peak flow), result of dam failure.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 3	0800	*7,040	*6.04	No other peak greater than base discharge.			

Minimum discharge, 15 ft³/s, Oct. 28, 29, 30, 31, Nov. 1, gage height, 1.01 ft; minimum daily discharge, 17 ft³/s, May 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	185	43	812	666	267	227	890	935	3040	53	1150	226
2	455	108	1040	553	216	288	803	617	2370	126	769	368
3	251	50	860	392	79	258	880	4790	1730	350	426	439
4	198	148	680	395	299	265	382	2910	1170	236	361	1690
5	337	292	571	564	247	308	604	1810	869	697	581	1030
6	283	73	445	358	174	454	562	1800	871	676	435	659
7	300	94	413	450	230	479	628	1450	558	664	189	432
8	317	134	362	483	39	376	1110	1290	782	274	187	360
9	186	136	444	248	97	1070	1500	1140	827	793	390	510
10	358	136	935	435	193	1080	1560	967	297	846	2350	589
11	219	225	1090	227	81	1880	1940	909	363	675	1210	1740
12	164	410	835	286	87	1800	3110	610	92	763	299	1560
13	225	373	226	197	151	1450	2340	323	52	567	509	865
14	341	295	1260	503	279	1030	1670	410	58	1080	1260	756
15	147	390	2090	753	330	819	1360	338	225	2090	1330	405
16	88	515	1370	545	317	600	1100	674	163	2670	909	433
17	391	619	1000	603	234	535	2000	554	164	1880	761	442
18	753	417	543	386	503	465	2210	532	88	1160	818	285
19	752	414	563	325	555	497	2100	300	95	1100	863	292
20	417	511	427	383	742	471	2220	126	198	1030	719	314
21	536	472	446	311	627	408	2620	325	127	400	554	306
22	466	530	522	210	480	344	3520	314	267	628	405	478
23	377	1160	493	380	393	391	3900	153	148	559	372	2680
24	156	998	499	371	469	380	2520	170	163	867	333	2010
25	235	937	451	354	374	342	2120	231	394	614	82	1300
26	170	581	297	345	427	529	1730	711	129	477	155	885
27	166	588	266	320	382	772	1560	287	119	583	58	697
28	203	538	371	173	384	1530	1190	450	147	163	240	950
29	230	433	348	324	345	1510	939	17	90	86	647	727
30	272	753	354	324	---	889	804	336	139	92	811	480
31	162	---	785	259	---	969	---	1380	---	330	496	---
TOTAL	9340	12373	20798	12123	9001	22416	49872	26859	15735	22529	19669	23908
MEAN	301	412	671	391	310	723	1662	866	524	727	634	797
MAX	753	1160	2090	753	742	1880	3900	4790	3040	2670	2350	2680
MIN	88	43	226	173	39	227	382	17	52	53	58	226

HUDSON RIVER BASIN

01348000 EAST CANADA CREEK AT EAST CREEK, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1992, BY WATER YEAR (WY)

MEAN	488	713	687	518	540	1091	1983	895	448	265	211	342
MAX	1474	1661	1584	1611	1896	2392	3255	2063	1457	757	634	1446
(WY)	1977	1960	1974	1950	1981	1979	1982	1971	1972	1976	1992	1975
MIN	79.9	167	288	161	102	389	679	193	100	59.5	78.7	60.1
(WY)	1965	1965	1990	1961	1980	1960	1946	1987	1964	1963	1985	1969

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1946 - 1992
ANNUAL TOTAL	199062	244623	
ANNUAL MEAN	545	668	681
HIGHEST ANNUAL MEAN			962
LOWEST ANNUAL MEAN			455
HIGHEST DAILY MEAN	4540	4790	11800
LOWEST DAILY MEAN	37	17	.22
ANNUAL SEVEN-DAY MINIMUM	47	115	1.9
10 PERCENT EXCEEDS	1090	1520	1570
50 PERCENT EXCEEDS	371	448	393
90 PERCENT EXCEEDS	50	150	51

Time	Discharge (cfs)	Gage height (ft)	Date	Time	Discharge (cfs)	Gage height (ft)	Date
0000	0000	00.00		0000	0000	00.00	
0100	0000	00.00		0100	0000	00.00	
0200	0000	00.00		0200	0000	00.00	
0300	0000	00.00		0300	0000	00.00	
0400	0000	00.00		0400	0000	00.00	
0500	0000	00.00		0500	0000	00.00	
0600	0000	00.00		0600	0000	00.00	
0700	0000	00.00		0700	0000	00.00	
0800	0000	00.00		0800	0000	00.00	
0900	0000	00.00		0900	0000	00.00	
1000	0000	00.00		1000	0000	00.00	
1100	0000	00.00		1100	0000	00.00	
1200	0000	00.00		1200	0000	00.00	
1300	0000	00.00		1300	0000	00.00	
1400	0000	00.00		1400	0000	00.00	
1500	0000	00.00		1500	0000	00.00	
1600	0000	00.00		1600	0000	00.00	
1700	0000	00.00		1700	0000	00.00	
1800	0000	00.00		1800	0000	00.00	
1900	0000	00.00		1900	0000	00.00	
2000	0000	00.00		2000	0000	00.00	
2100	0000	00.00		2100	0000	00.00	
2200	0000	00.00		2200	0000	00.00	
2300	0000	00.00		2300	0000	00.00	
2400	0000	00.00		2400	0000	00.00	
2500	0000	00.00		2500	0000	00.00	
2600	0000	00.00		2600	0000	00.00	
2700	0000	00.00		2700	0000	00.00	
2800	0000	00.00		2800	0000	00.00	
2900	0000	00.00		2900	0000	00.00	
3000	0000	00.00		3000	0000	00.00	
3100	0000	00.00		3100	0000	00.00	
3200	0000	00.00		3200	0000	00.00	
3300	0000	00.00		3300	0000	00.00	
3400	0000	00.00		3400	0000	00.00	
3500	0000	00.00		3500	0000	00.00	
3600	0000	00.00		3600	0000	00.00	
3700	0000	00.00		3700	0000	00.00	
3800	0000	00.00		3800	0000	00.00	
3900	0000	00.00		3900	0000	00.00	
4000	0000	00.00		4000	0000	00.00	
4100	0000	00.00		4100	0000	00.00	
4200	0000	00.00		4200	0000	00.00	
4300	0000	00.00		4300	0000	00.00	
4400	0000	00.00		4400	0000	00.00	
4500	0000	00.00		4500	0000	00.00	
4600	0000	00.00		4600	0000	00.00	
4700	0000	00.00		4700	0000	00.00	
4800	0000	00.00		4800	0000	00.00	
4900	0000	00.00		4900	0000	00.00	
5000	0000	00.00		5000	0000	00.00	
5100	0000	00.00		5100	0000	00.00	
5200	0000	00.00		5200	0000	00.00	
5300	0000	00.00		5300	0000	00.00	
5400	0000	00.00		5400	0000	00.00	
5500	0000	00.00		5500	0000	00.00	
5600	0000	00.00		5600	0000	00.00	
5700	0000	00.00		5700	0000	00.00	
5800	0000	00.00		5800	0000	00.00	
5900	0000	00.00		5900	0000	00.00	
6000	0000	00.00		6000	0000	00.00	
6100	0000	00.00		6100	0000	00.00	
6200	0000	00.00		6200	0000	00.00	
6300	0000	00.00		6300	0000	00.00	
6400	0000	00.00		6400	0000	00.00	
6500	0000	00.00		6500	0000	00.00	
6600	0000	00.00		6600	0000	00.00	
6700	0000	00.00		6700	0000	00.00	
6800	0000	00.00		6800	0000	00.00	
6900	0000	00.00		6900	0000	00.00	
7000	0000	00.00		7000	0000	00.00	
7100	0000	00.00		7100	0000	00.00	
7200	0000	00.00		7200	0000	00.00	
7300	0000	00.00		7300	0000	00.00	
7400	0000	00.00		7400	0000	00.00	
7500	0000	00.00		7500	0000	00.00	
7600	0000	00.00		7600	0000	00.00	
7700	0000	00.00		7700	0000	00.00	
7800	0000	00.00		7800	0000	00.00	
7900	0000	00.00		7900	0000	00.00	
8000	0000	00.00		8000	0000	00.00	
8100	0000	00.00		8100	0000	00.00	
8200	0000	00.00		8200	0000	00.00	
8300	0000	00.00		8300	0000	00.00	
8400	0000	00.00		8400	0000	00.00	
8500	0000	00.00		8500	0000	00.00	
8600	0000	00.00		8600	0000	00.00	
8700	0000	00.00		8700	0000	00.00	
8800	0000	00.00		8800	0000	00.00	
8900	0000	00.00		8900	0000	00.00	
9000	0000	00.00		9000	0000	00.00	
9100	0000	00.00		9100	0000	00.00	
9200	0000	00.00		9200	0000	00.00	
9300	0000	00.00		9300	0000	00.00	
9400	0000	00.00		9400	0000	00.00	
9500	0000	00.00		9500	0000	00.00	
9600	0000	00.00		9600	0000	00.00	
9700	0000	00.00		9700	0000	00.00	
9800	0000	00.00		9800	0000	00.00	
9900	0000	00.00		9900	0000	00.00	
10000	0000	00.00		10000	0000	00.00	

HUDSON RIVER BASIN

01349530 MOHAWK RIVER AT FONDA, NY

LOCATION.--Lat 42°57'01", long 74°22'10", Montgomery County, Hydrologic Unit 02020004, at highway 30A bridge, at Fonda.

DRAINAGE AREA.--2,124 mi².

PERIOD OF RECORD.--May 1988 to October 1991 (discontinued).

CHEMICAL DATA: 1988 (a), 1989 (c), 1990-91 (d), 1992 (a).

MINOR ELEMENTS DATA: 1988 (a), 1989 (c), 1990-91 (d), 1992 (a).

PESTICIDE DATA: 1988 (a), 1989 (c), 1990 (d).

NUTRIENT DATA: 1988 (a), 1989 (c), 1990 (d).

SEDIMENT DATA: 1989 (c), 1990-91 (d), 1992 (a).

REVISED RECORDS.--WDR NY-90-1: Drainage area.

REMARKS.--Water-quality samples were collected by personnel of the New York State Department of Environmental Conservation, and were analyzed in USGS laboratories.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE		TIME	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, SATURATION (%)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)
OCT 28...		1100	305	7.5	11.5	766	10.6	96	230
DATE		CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY, TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SEDIMENT, SUSPENDED (MG/L)
OCT 28...	1100	14

HUDSON RIVER BASIN

01349900 BATAVIA KILL NEAR ASHLAND, NY

LOCATION.--Lat 42°17'36", long 74°18'22", Greene County, Hydrologic Unit 02020005, on right bank 40 ft upstream from bridge on County Route 17, 0.2 mi south of State Highway 23, and 1.6 mi southeast of Ashland.

DRAINAGE AREA.--51.2 mi².

PERIOD OF RECORD.--August 1991 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,440 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated to some extent at high flows by three flood-retardation reservoirs, combined drainage area of 19.2 mi².

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,470 ft³/s, Nov. 23, 1991, gage height, 9.62 ft, from rating curve extended above 450 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow; minimum discharge, 1.0 ft³/s, Sept. 14, 1991, gage height, 4.39 ft; minimum daily, 1.1 ft³/s, Sept. 14, 1991.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 12,700 ft³/s, Apr. 4, 1987, gage height, 14.82 ft, from floodmarks, from rating curve extended above 450 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,470 ft³/s, Nov. 23, gage height, 9.62 ft, from rating curve extended as explained above; minimum discharge, 2.7 ft³/s, Oct. 3, 5, gage height, 4.51 ft; minimum daily, 2.7 ft³/s, Oct. 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	14	89	e40	e40	e24	118	132	167	8.9	9.7	9.7
2	3.0	15	80	e40	e36	e25	102	142	163	7.7	7.8	8.5
3	2.8	14	93	e42	e33	e23	87	455	108	7.8	6.7	8.2
4	3.0	13	96	e110	e30	e24	76	243	81	11	8.8	8.1
5	2.7	8.3	73	211	e28	29	70	188	71	10	10	7.2
6	3.4	9.1	68	144	e27	36	64	164	530	9.9	7.9	6.6
7	3.4	11	64	110	e25	44	64	139	230	8.9	6.7	6.2
8	3.2	9.6	98	e82	e23	67	73	122	148	7.7	6.0	5.9
9	3.0	6.9	240	e72	e21	69	68	112	115	8.1	8.8	5.3
10	3.1	8.1	197	e62	e20	72	71	99	89	7.9	18	5.5
11	3.7	15	144	e56	e19	340	83	88	71	7.6	15	12
12	5.7	24	125	e50	e17	206	148	78	57	7.0	11	9.7
13	6.2	23	129	e52	e16	e120	109	70	46	6.9	9.1	7.8
14	5.9	23	185	169	e16	e90	90	65	38	7.2	8.3	7.0
15	7.1	27	161	e150	e17	e70	81	58	31	17	7.5	6.2
16	49	28	e120	e100	36	e52	79	69	27	42	7.1	5.5
17	48	24	e90	e70	e31	e42	229	62	24	25	6.9	5.0
18	73	24	e76	e58	e29	e43	336	54	22	30	7.8	4.9
19	48	24	e64	e52	44	e43	326	49	20	23	8.0	4.9
20	36	25	e58	e50	48	e38	229	41	20	18	7.3	4.8
21	29	26	e56	e45	e34	e35	201	36	20	14	6.5	4.6
22	24	187	e60	e50	e26	e33	201	32	18	12	5.9	5.8
23	22	1250	e64	e90	e27	e30	237	29	16	12	5.5	14
24	20	351	e52	213	e30	e32	187	35	15	14	5.1	9.9
25	18	229	e42	109	e28	e33	381	57	16	11	5.6	7.8
26	16	163	e38	e76	e28	e45	361	38	14	10	9.4	7.7
27	15	129	e37	e64	e27	849	288	34	15	9.4	10	8.0
28	16	117	e37	e56	e27	249	208	33	14	8.3	14	7.7
29	16	107	e42	59	e26	139	172	29	12	7.4	28	7.0
30	14	97	69	55	---	112	148	26	11	6.8	17	6.6
31	13	---	e50	e47	---	116	---	90	---	8.1	12	---
TOTAL	516.4	3002.0	2797	2584	809	3130	4887	2869	2209	384.6	297.4	218.1
MEAN	16.7	100	90.2	83.4	27.9	101	163	92.5	73.6	12.4	9.59	7.27
MAX	73	1250	240	213	48	849	381	455	530	42	28	14
MIN	2.7	6.9	37	40	16	23	64	26	11	6.8	5.1	4.6

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1992, BY WATER YEAR (WY)

[illegible]

HUDSON RIVER BASIN

01349900 BATAVIA KILL NEAR ASHLAND, NY--Continued

SUMMARY STATISTICS

FOR 1992 WATER YEAR

WATER YEARS 1991 - 1992

ANNUAL TOTAL	23703.5				
ANNUAL MEAN	64.8				
HIGHEST ANNUAL MEAN				64.8	1992
LOWEST ANNUAL MEAN				64.8	1992
HIGHEST DAILY MEAN	1250	Nov 23	1250	Nov 23	1991
LOWEST DAILY MEAN	2.7	Oct 5	1.1	Sep 14	1991
ANNUAL SEVEN-DAY MINIMUM	3.1	Oct 1	1.2	Sep 8	1991
10 PERCENT EXCEEDS	162		144		
50 PERCENT EXCEEDS	30		24		
90 PERCENT EXCEEDS	6.8		2.7		

Date	Time	Discharge (cfs)	Gage height (ft)
Nov. 23	0345	1250	8.12
Nov. 11	1130	7.13	8.12

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	100	382	430	430	410	402	402	3140	21	20	20
2	29	99	320	430	430	410	410	417	1080	21	23	43
3	27	98	409	430	430	410	418	418	899	22	44	41
4	25	88	422	430	430	410	420	420	1080	23	45	43
5	23	78	430	430	430	410	420	420	413	24	46	44
6	21	68	430	430	430	410	420	420	413	25	47	45
7	19	58	430	430	430	410	420	420	413	26	48	46
8	17	48	430	430	430	410	420	420	413	27	49	47
9	15	38	430	430	430	410	420	420	413	28	50	48
10	13	28	430	430	430	410	420	420	413	29	51	49
11	11	18	430	430	430	410	420	420	413	30	52	50
12	9	8	430	430	430	410	420	420	413	31	53	51
13	7	0	430	430	430	410	420	420	413	32	54	52
14	5	0	430	430	430	410	420	420	413	33	55	53
15	3	0	430	430	430	410	420	420	413	34	56	54
16	1	0	430	430	430	410	420	420	413	35	57	55
17	0	0	430	430	430	410	420	420	413	36	58	56
18	0	0	430	430	430	410	420	420	413	37	59	57
19	0	0	430	430	430	410	420	420	413	38	60	58
20	0	0	430	430	430	410	420	420	413	39	61	59
21	0	0	430	430	430	410	420	420	413	40	62	60
22	0	0	430	430	430	410	420	420	413	41	63	61
23	0	0	430	430	430	410	420	420	413	42	64	62
24	0	0	430	430	430	410	420	420	413	43	65	63
25	0	0	430	430	430	410	420	420	413	44	66	64
26	0	0	430	430	430	410	420	420	413	45	67	65
27	0	0	430	430	430	410	420	420	413	46	68	66
28	0	0	430	430	430	410	420	420	413	47	69	67
29	0	0	430	430	430	410	420	420	413	48	70	68
30	0	0	430	430	430	410	420	420	413	49	71	69
31	0	0	430	430	430	410	420	420	413	50	72	70
TOTAL	1010	12339	13214	13892	13892	13892	13892	13892	13892	13892	13892	13892
MEAN	32.6	398	426	448	448	448	448	448	448	448	448	448
MAX	100	382	430	430	430	430	430	430	430	430	430	430
MIN	0	0	0	0	0	0	0	0	0	0	0	0
STDEV	1.05	1.16	1.04	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
COEFF	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03

e Estimated

HUDSON RIVER BASIN

01350000 SCHOHARIE CREEK AT PRATTSVILLE, NY

LOCATION.--Lat 42°19'10", long 74°26'13", 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 Creek, and 1.6 mi downstream from Batavia Kill.

DRAINAGE AREA.--237 mi².

PERIOD OF RECORD.--November 1902 to current year.

REVISED RECORDS.--WSP 1432: 1937-38. WDR NY-87-1: 1956(M), 1972(M), 1974-76(M), 1978(P), 1979(M), 1980(P), 1981(M), 1984(M). WDR NY-90-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,131.57 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.--Records good except those for estimated daily discharges, which are poor. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--89 years, 460 ft³/s, 26.36 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,600 ft³/s, Oct. 16, 1955, gage height, 19.14 ft, from rating curve extended above 17,800 ft³/s on basis of contracted-opening measurements of peak flow at gage heights 18.37 ft and 19.14 ft; maximum gage height, 19.57 ft, Mar. 5, 1979 (ice jam); minimum daily discharge, 4.8 ft³/s, Sept. 22, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 23	0345	*10,200	*9.34	Mar. 27	0815	7,060	8.12
Mar. 11	1130	7,130	8.15	June 6	0430	8,210	8.59

Minimum discharge, 24 ft³/s, Oct. 5; minimum daily discharge, 25 ft³/s, Oct. 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	100	395	e240	e250	e140	609	662	2140	57	59	50
2	29	99	350	e220	e220	e130	530	647	1060	51	53	43
3	27	95	409	e230	e200	e130	448	1660	690	48	44	41
4	26	88	455	e400	e180	e140	390	1080	499	60	49	42
5	25	76	e330	e800	e170	e160	356	873	413	59	57	39
6	169	68	e280	589	e160	e190	318	781	4300	63	48	36
7	230	74	e260	464	e150	e239	309	661	1550	65	42	34
8	123	75	395	e380	e140	483	324	574	960	53	38	33
9	86	64	968	e360	e130	452	312	535	792	55	43	31
10	68	62	924	e350	e120	459	317	477	564	53	55	30
11	62	96	694	e290	e110	3920	351	423	436	48	57	64
12	99	191	594	e260	e110	1920	868	378	352	44	49	61
13	108	159	588	e270	e100	982	662	342	291	45	43	48
14	90	148	878	792	e96	e600	517	315	244	44	41	42
15	84	159	936	e840	e100	e400	452	283	205	76	39	39
16	1800	163	e640	e450	e320	e300	419	304	173	186	37	35
17	718	145	e480	e350	386	e250	1100	282	151	123	36	33
18	1170	130	e400	e300	310	e220	1770	261	133	135	41	30
19	616	138	e340	e290	e360	e220	1770	247	121	105	45	32
20	409	140	e310	e280	e450	e200	1260	209	121	80	41	28
21	307	149	e300	e290	e290	e190	1080	187	121	67	36	26
22	249	791	e310	e350	e160	e180	1150	170	109	58	33	31
23	208	5680	e320	e520	e170	e170	1320	154	97	58	30	65
24	179	2030	e300	e1000	e180	e170	1030	166	90	67	28	53
25	158	1330	e250	e450	e170	e180	1720	244	95	60	30	42
26	143	899	e220	e380	e180	e250	1660	183	88	53	68	42
27	132	678	e200	e340	e170	4130	1490	166	83	51	48	51
28	132	569	e200	e330	e160	1530	1090	162	85	46	48	55
29	120	502	e220	e320	e150	842	896	143	74	42	93	51
30	109	441	e280	e290	---	e620	760	128	65	41	90	46
31	103	---	e290	e270	---	611	---	847	---	43	62	---
TOTAL	7810	15339	13516	12695	5692	20408	25278	13544	16102	2036	1483	1253
MEAN	252	511	436	410	196	658	843	437	537	65.7	47.8	41.8
MAX	1800	5680	968	1000	450	4130	1770	1660	4300	186	93	65
MIN	25	62	200	220	96	130	309	128	65	41	28	26
CFSM	1.06	2.16	1.84	1.73	.83	2.78	3.56	1.84	2.26	.28	.20	.18
IN.	1.23	2.41	2.12	1.99	.89	3.20	3.97	2.13	2.53	.32	.23	.20

e Estimated

HUDSON RIVER BASIN

01350000 SCHOHARIE CREEK AT PRATTSVILLE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1992, BY WATER YEAR (WY)

MEAN	297	481	526	451	459	873	1088	594	292	156	125	174
MAX	2496	1526	1723	2210	1711	2804	3023	1738	1230	981	1190	1153
(WY)	1956	1928	1974	1978	1981	1936	1958	1989	1972	1935	1955	1960
MIN	8.50	17.7	72.5	49.2	39.0	247	264	84.2	37.9	11.1	10.6	6.15
(WY)	1965	1965	1923	1931	1931	1937	1946	1905	1964	1965	1964	1964

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1903 - 1992

ANNUAL TOTAL	123053.6	-135156	
ANNUAL MEAN	337	369	461
HIGHEST ANNUAL MEAN			873
LOWEST ANNUAL MEAN			202
HIGHEST DAILY MEAN	5680	Nov 23	26200
LOWEST DAILY MEAN	9.6	Sep 14	4.8
ANNUAL SEVEN-DAY MINIMUM	11	Sep 8	5.3
ANNUAL RUNOFF (CFSM)	1.42		1.95
ANNUAL RUNOFF (INCHES)	19.31		26.43
10 PERCENT EXCEEDS	710	874	1040
50 PERCENT EXCEEDS	210	180	220
90 PERCENT EXCEEDS	17	42	31

WY	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
1903	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1904	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1905	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1906	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1907	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1908	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1909	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1910	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1911	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1912	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1913	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1914	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1915	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1916	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1917	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1918	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1919	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1920	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1921	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1922	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1923	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1924	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1925	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1926	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1927	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1928	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1929	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1930	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1931	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1932	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1933	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1934	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1935	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1936	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1937	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1938	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1939	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1940	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1941	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1942	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1943	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1944	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1945	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1946	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1947	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1948	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1949	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1950	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1951	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1952	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1953	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1954	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1955	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1956	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1957	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1958	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1959	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1960	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1961	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1962	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1963	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1964	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1965	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1966	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1967	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1968	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1969	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1970	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1971	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1972	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1973	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1974	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1975	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1976	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1977	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1978	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1979	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1980	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1981	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1982	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1983	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1984	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1985	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1986	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1987	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1988	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1989	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1990	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1991	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1992	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1992, BY WATER YEAR (WY)

HUDSON RIVER BASIN

01350080 MANOR KILL AT WEST CONESVILLE NEAR GILBOA, NY

LOCATION.--Lat 42°22'37", long 74°24'48", Schoharie County, Hydrologic Unit 02020005, on right bank 50 ft south of County Highway 3, 0.5 mi east of West Conesville, 2.2 mi southeast of Gilboa, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--32.4 mi².

PERIOD OF RECORD.--July 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,255.95 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--6 years, 43.6 ft³/s, 18.27 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,680 ft³/s, Apr. 4, 1987, gage height, 9.76 ft in gage well, 10.9 ft from floodmarks, from rating curve extended above 970 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 1.2 ft³/s, Aug. 8, 9, 1991.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 23	0145	*1,480	*5.19	No other peak greater than base discharge.			
Minimum discharge, 2.3 ft ³ /s, Aug. 24, 25.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	7.4	52	e25	e20	e14	60	94	137	6.8	4.2	5.6
2	3.9	7.6	46	e24	e18	e13	53	120	104	6.2	3.6	4.8
3	3.7	6.9	55	e25	e16	e13	46	411	71	7.1	3.2	5.4
4	3.5	6.6	57	52	e15	e14	e4	206	56	9.1	4.6	13
5	3.3	6.3	44	73	e14	e19	e3	159	49	7.8	4.7	8.0
6	3.8	6.1	40	57	e13	25	36	137	143	7.3	3.7	6.3
7	3.7	6.1	38	47	e12	29	38	111	85	6.3	3.5	5.6
8	3.4	5.9	61	42	e11	39	43	94	65	5.6	3.5	5.2
9	3.2	5.7	150	e37	e10	39	40	83	57	6.8	4.7	4.7
10	3.0	5.6	112	e30	e9.4	41	44	72	46	5.9	5.1	5.0
11	3.7	10	85	e26	e9.0	102	59	63	39	5.6	4.1	14
12	6.5	14	76	e23	e8.4	e48	94	56	33	5.3	3.7	9.4
13	5.4	11	78	e27	e7.8	e42	64	51	29	5.7	3.7	7.2
14	4.7	12	123	77	e7.8	e35	55	50	24	5.3	3.9	6.1
15	4.6	14	113	e58	e8.0	e30	51	44	21	7.9	4.0	5.3
16	9.7	14	e78	e50	e35	e25	51	53	18	13	3.6	4.9
17	11	12	e60	e35	25	e22	129	45	16	8.2	3.6	4.6
18	27	11	e48	e28	18	e23	167	41	15	7.8	4.3	4.2
19	17	11	e40	e24	26	e23	173	36	14	6.7	4.3	5.1
20	13	12	e36	e23	26	e21	134	30	14	6.1	3.7	4.6
21	10	15	e34	e21	19	e19	120	27	13	5.7	3.3	4.0
22	9.3	143	e35	e22	e16	e18	124	24	12	5.0	3.0	4.3
23	8.5	585	e38	e33	e15	e17	160	22	11	6.5	2.9	8.5
24	7.8	204	e33	e96	e16	e17	128	28	10	6.5	2.7	6.1
25	7.4	135	e27	e58	e15	e18	242	38	12	5.1	3.3	5.1
26	7.0	99	e23	e40	e16	e30	225	27	10	4.7	6.7	5.5
27	6.8	78	e22	e31	e15	258	224	25	11	4.5	8.5	5.8
28	9.6	69	e22	e28	e15	89	160	25	9.7	4.0	14	5.3
29	8.7	64	e25	e26	e15	e58	127	21	8.4	4.0	14	4.7
30	7.7	58	e39	e24	---	54	108	18	7.5	4.1	9.7	4.5
31	7.2	---	e33	e23	---	59	---	126	---	4.2	6.9	---
TOTAL	228.2	1635.2	1723	1185	451.4	1254	3032	2337	1140.6	194.8	154.7	182.8
MEAN	7.36	54.5	55.6	38.2	15.6	40.5	101	75.4	38.0	6.28	4.99	6.09
MAX	27	585	150	96	35	258	242	411	143	13	14	14
MIN	3.0	5.6	22	21	7.8	13	36	18	7.5	4.0	2.7	4.0
CFSM	.23	1.68	1.72	1.18	.48	1.25	3.12	2.33	1.17	.19	.15	.19
IN.	.26	1.88	1.98	1.36	.52	1.44	3.48	2.68	1.31	.22	.18	.21

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1992, BY WATER YEAR (WY)

	1986	1987	1988	1989	1990	1991	1992
MEAN	32.2	52.5	39.6	28.0	44.2	76.7	116
MAX	100	79.0	57.0	38.2	116	140	283
(WY)	1988	1991	1991	1992	1990	1987	1989
MIN	3.77	36.9	14.3	16.0	15.6	38.4	57.2
(WY)	1989	1989	1990	1989	1992	1989	1988

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.--315 mi².

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

REVISED RECORDS.--WDR NY-86-1: 1956 (maximum elevation). WDR NY-90-1: Drainage area.

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.

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, 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, 1,130.65 ft, May 3, contents, 19,836 mil gal; minimum elevation, 1,078.34 ft, Feb. 15, contents, 4,600 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 (FEET NGVD), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080.78	1096.10	1120.76	1111.97	1097.22	1081.83	1123.26	1130.08	1117.51	1128.29	1115.09	1105.80
2	1080.58	1096.20	1120.25	1110.96	1096.00	1081.94	1123.29	1130.04	1120.46	1128.01	1114.75	1105.55
3	1080.36	1096.30	1119.83	1110.03	1094.70	1082.06	1123.11	1130.52	1121.30	1127.56	1114.39	1105.31
4	1080.16	1096.38	1119.54	1109.25	1093.43	1082.11	1122.76	1130.33	1121.45	1127.12	1114.07	1105.12
5	1079.92	1096.40	1119.11	1109.49	1092.19	1082.27	1122.30	1130.24	1121.30	1126.68	1113.88	1104.87
6	1079.78	1096.42	1118.45	1109.73	1090.86	1082.59	1121.77	1130.18	1125.83	1126.23	1113.67	1104.60
7	1080.20	1096.42	1117.73	1109.53	1089.50	1082.99	1121.18	1130.10	1130.34	1125.79	1113.44	1104.32
8	1080.42	1096.44	1117.15	1109.10	1088.13	1083.90	1120.62	1129.89	1130.53	1125.33	1113.19	1104.04
9	1080.43	1096.32	1117.54	1108.49	1086.70	1085.06	1120.07	1129.66	1130.49	1124.92	1112.97	1103.76
10	1080.36	1096.15	1118.69	1107.91	1085.12	1086.18	1119.51	1129.42	1130.40	1124.62	1112.78	1103.49
11	1080.27	1096.06	1119.21	1107.24	1083.56	1090.99	1118.98	1129.13	1130.33	1124.31	1112.58	1103.33
12	1080.24	1096.21	1119.40	1106.35	1082.01	1099.94	1119.09	1128.68	1130.26	1123.98	1112.35	1103.15
13	1080.28	1096.38	1119.48	1105.55	1080.32	1103.41	1119.69	1128.05	1130.19	1123.67	1112.10	1102.92
14	1080.30	1096.47	1119.94	1105.03	1078.79	1105.52	1119.73	1127.38	1130.16	1123.35	1111.78	1102.68
15	1080.27	1096.57	1120.95	1106.21	1078.42	1107.09	1119.54	1126.64	1130.13	1123.10	1111.00	1102.51
16	1082.44	1096.73	1121.51	1106.23	1078.51	1108.32	1119.24	1125.86	1130.07	1123.06	1110.15	1102.48
17	1085.47	1096.84	1121.59	1105.68	1078.95	1109.20	1119.50	1125.08	1130.02	1122.86	1109.38	1102.48
18	1088.02	1096.89	1121.57	1105.10	1079.17	1109.76	1122.01	1124.27	1129.94	1121.80	1109.05	1102.44
19	1090.27	1096.92	1121.21	1104.34	1079.34	1109.73	1124.69	1123.39	1129.87	1120.62	1108.79	1102.21
20	1091.59	1096.98	1120.69	1103.43	1080.01	1109.51	1126.60	1122.46	1129.80	1119.50	1108.50	1101.94
21	1092.53	1097.08	1120.33	1102.53	1080.45	1109.25	1127.75	1121.39	1129.73	1119.03	1108.21	1101.65
22	1093.24	1097.75	1119.91	1101.67	1080.54	1108.87	1128.70	1120.28	1129.65	1118.65	1107.91	1101.40
23	1093.74	1108.36	1119.39	1100.79	1080.63	1108.52	1130.02	1119.11	1129.56	1118.31	1107.61	1101.26
24	1094.17	1115.90	1118.83	1101.95	1080.72	1108.04	1130.27	1117.91	1129.42	1118.00	1107.29	1101.08
25	1094.53	1119.38	1118.09	1102.50	1080.79	1107.55	1130.43	1116.91	1129.29	1117.66	1106.99	1100.83
26	1094.85	1121.02	1117.20	1102.04	1080.96	1107.15	1130.47	1115.88	1129.14	1117.31	1106.85	1100.30
27	1095.11	1121.48	1116.31	1101.34	1081.19	1111.77	1130.42	1114.99	1128.99	1116.96	1106.67	1099.76
28	1095.33	1121.55	1115.38	1100.58	1081.34	1118.24	1130.31	1114.34	1128.87	1116.58	1106.45	1099.23
29	1095.62	1121.41	1114.44	1099.82	1081.74	1120.52	1130.21	1113.71	1128.70	1116.20	1106.28	1098.68
30	1095.80	1121.14	1113.77	1098.98	---	1122.02	1130.14	1113.27	1128.51	1115.83	1106.19	1098.12
31	1095.97	---	1112.98	1098.14	---	1123.01	---	1113.36	---	1115.44	1106.03	---
MEAN	1086.55	1102.47	1118.75	1105.22	1084.18	1100.95	1124.19	1123.95	1128.07	1121.96	1110.33	1102.51
MAX	1095.97	1121.55	1121.59	1111.97	1097.22	1123.01	1130.47	1130.52	1130.53	1128.29	1115.09	1105.80
MIN	1079.78	1096.06	1112.98	1098.14	1078.42	1081.83	1118.98	1113.27	1117.51	1115.44	1106.03	1098.12
†	8993	16424	13733	9452	5418	17171	19626	14445	19012	14557	11762	9488
††	+191	+383	-134	-214	-215	+587	+127	-259	+236	-221	-140	-117

CAL YR 1991 MEAN 1114.51 MAX 1131.09 MIN 1079.78 †† -25.6
WTR YR 1992 MEAN 1109.17 MAX 1130.53 MIN 1078.42 †† +18.2

† Contents, in million gallons, at 2400 hours on last day of month.
†† Change in contents, equivalent in cubic feet per second.

NOTE: Mean elevations for May 8-19, computed based on observations at 0800 hours.

HUDSON RIVER BASIN

01350120 PLATTER KILL AT GILBOA, NY

LOCATION.--Lat 42°24'22", long 74°26'51", Schoharie County, Hydrologic Unit 02020005, on right bank, 0.2 mi downstream from County Highway 17, and 0.6 mi northwest of Gilboa.

DRAINAGE AREA.--10.9 mi².

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

REVISED RECORDS.--WDR NY-90-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,080 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to October 1, 1990, at site 0.2 mi upstream at datum about 30 ft higher.

REMARKS.--Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--17 years, 14.4 ft³/s, 17.94 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,210 ft³/s, Apr. 4, 1987, gage height, 5.24 ft in gage well, about 6.2 ft, from floodmarks, site and datum then in use, 6.4 ft, from floodmarks, present site and datum, from rating curve extended above 280 ft³/s on basis of flow-through-culvert measurement of peak flow; minimum discharge, 0.32 ft³/s, Nov. 18, 1980 (result of freezeup).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 3	0230	*150	*3.19				

Minimum discharge, 1.2 ft³/s, Oct. 2, 3, 4, 5; minimum gage height, 1.79 ft on several days during October and September.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.9	15	e11	e7.0	e4.1	20	32	31	5.0	3.2	1.6
2	1.3	1.9	14	e10	e6.4	e4.0	19	41	24	4.5	2.6	1.5
3	1.2	2.0	e17	e9.8	e6.0	e4.3	15	105	24	5.7	2.4	3.3
4	1.3	2.1	e18	e11	e5.4	e4.7	13	65	20	5.4	3.0	3.1
5	1.3	2.0	13	16	e5.0	6.8	13	51	18	5.0	3.1	2.0
6	1.8	2.0	13	14	e4.8	8.4	13	41	30	4.6	2.5	1.8
7	1.5	2.2	12	e12	e4.5	8.9	13	31	24	4.4	2.2	1.8
8	1.4	2.3	e15	e11	e4.2	10	14	25	19	4.2	2.2	1.8
9	1.3	2.3	e21	e11	e3.8	10	14	24	17	5.3	3.0	1.7
10	1.4	2.2	26	12	e3.6	9.8	15	23	16	4.5	2.7	2.2
11	2.2	5.7	23	e11	e3.4	17	19	23	14	4.0	2.3	3.3
12	4.1	5.1	23	e10	e3.2	e15	31	23	13	3.7	2.1	2.0
13	2.0	4.6	22	e11	e2.9	e13	24	22	10	3.9	2.1	1.7
14	1.7	4.3	27	e17	e2.9	e12	22	23	8.9	4.0	2.2	1.7
15	1.9	4.1	27	e23	e3.2	e11	17	20	8.3	6.5	2.2	1.6
16	4.9	3.9	24	e15	e12	e10	18	23	8.1	6.6	2.1	1.6
17	3.7	3.6	28	e11	8.4	e10	43	20	7.7	5.3	2.1	1.6
18	5.5	3.3	22	e8.8	7.8	11	46	17	6.6	5.3	2.6	1.5
19	3.1	3.5	e21	e8.0	8.7	10	45	14	7.2	4.8	2.4	2.0
20	2.3	3.3	e20	e7.6	8.8	e9.8	40	14	7.5	4.5	2.0	1.5
21	2.1	5.4	18	e7.4	6.6	e9.6	37	11	7.2	4.2	1.9	1.5
22	1.7	26	17	e7.4	5.2	e9.4	37	9.4	6.4	4.0	1.9	2.4
23	1.7	85	16	e9.0	5.3	e9.2	43	8.2	5.1	4.8	1.7	3.1
24	1.6	44	16	e18	4.9	e9.0	38	12	5.0	4.3	1.7	1.8
25	1.6	27	e13	e14	4.8	e9.2	69	15	5.0	3.3	2.1	1.7
26	1.6	22	e12	e11	e4.6	12	67	9.7	5.5	3.2	2.0	2.0
27	2.2	21	e11	e9.0	e4.5	48	60	9.1	5.6	3.1	1.8	1.9
28	3.7	20	e9.8	e8.6	e4.4	26	44	8.4	5.3	2.8	2.2	1.8
29	2.3	20	e10	7.4	e4.3	20	36	7.7	5.5	2.8	2.1	1.8
30	2.0	19	13	7.5	---	17	34	7.0	5.1	2.9	1.7	1.8
31	1.9	---	e12	7.6	---	20	---	38	---	3.3	1.7	---
TOTAL	67.6	351.7	548.8	347.1	156.6	379.2	919	772.5	370.0	135.9	69.8	59.1
MEAN	2.18	11.7	17.7	11.2	5.40	12.2	30.6	24.9	12.3	4.38	2.25	1.97
MAX	5.5	85	28	23	12	48	69	105	31	6.6	3.2	3.3
MIN	1.2	1.9	9.8	7.4	2.9	4.0	13	7.0	5.0	2.8	1.7	1.5
CFSM	.20	1.08	1.62	1.03	.50	1.12	2.81	2.29	1.13	.40	.21	.18
IN.	.23	1.20	1.87	1.18	.53	1.29	3.14	2.64	1.26	.46	.24	.20

e Estimated

HUDSON RIVER BASIN

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.--16.2 mi².

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

REVISED RECORDS.--WDR NY-90-1: Drainage area.

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

REMARKS.--Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--17 years (water years 1976-92), 23.4 ft³/s, 19.62 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,670 ft³/s, recorded gage height, 3.80 ft (4.14 ft from crest-stage gage), Nov. 23, 1991; maximum recorded gage height, 3.81 ft, May 29, 1984; minimum discharge, 0.10 ft³/s, Aug. 27, 28, 29, 30, 1980, gage height, 0.49 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 550 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 23	0130	*1,670	a*3.80	May 2	2330	653	2.65
Mar. 27	Unknown	793	b2.85				

a Recorded; outside gage height was 4.14 ft, from crest-stage gage.

b From crest-stage gage.

Minimum discharge, 0.35 ft³/s, Sept. 10, 17, 18, 19, gage height, 0.55 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.70	2.4	19	10	e12	e11	e40	32	58	1.7	5.0	.59
2	.65	2.3	15	12	e10	e11	31	77	36	1.2	2.5	.51
3	.71	2.3	20	16	e9.0	e12	25	200	22	1.6	1.4	.76
4	.58	2.1	24	20	e8.2	e13	22	92	16	4.6	2.6	1.4
5	.48	2.0	16	24	e7.0	e16	20	75	14	3.6	2.2	.80
6	3.0	2.0	15	17	e6.0	e22	18	65	117	2.2	1.2	.63
7	2.8	2.3	14	14	e5.2	39	18	49	51	1.4	.92	.54
8	1.6	2.1	36	13	e4.6	42	24	41	37	1.2	.77	.50
9	1.2	1.6	81	e14	e4.1	37	19	37	30	3.3	1.2	.47
10	.88	1.7	52	16	3.6	39	21	30	25	2.1	2.2	.49
11	1.0	8.6	38	e13	3.3	83	43	25	21	1.4	1.4	2.1
12	7.7	9.9	32	e10	e2.9	e35	72	21	19	1.1	1.0	1.0
13	3.0	7.0	35	e13	2.5	e30	39	18	14	1.4	.73	.64
14	2.0	6.8	59	e45	2.6	e26	32	19	12	1.5	1.1	.51
15	1.7	7.5	54	e25	3.7	e22	28	14	10	8.2	1.1	.43
16	11	7.6	38	e20	e25	e18	27	22	7.4	12	.97	.40
17	6.0	6.3	e33	e16	e22	e17	110	17	6.0	4.1	.97	.37
18	13	5.3	e30	e14	e14	e17	87	13	5.6	5.8	1.3	.38
19	7.3	5.3	e25	e13	e18	e18	76	10	5.8	3.1	1.7	.61
20	5.2	4.8	23	e12	e20	e18	62	8.0	7.3	2.0	1.1	.78
21	4.4	16	23	e11	e15	e16	54	6.5	5.3	1.5	.81	.54
22	3.4	e117	20	e14	e12	e15	57	5.2	4.1	1.3	.64	.61
23	3.4	e280	18	e20	e13	13	58	4.2	4.5	2.1	.57	3.0
24	2.8	82	17	e70	e13	e13	51	8.8	3.1	3.6	.82	1.2
25	2.6	54	15	e45	e12	14	93	12	3.1	2.0	.90	.79
26	2.5	39	14	e26	e13	34	80	6.7	2.7	1.5	1.9	.84
27	2.8	31	13	e18	e12	e250	63	6.5	2.4	1.5	1.1	1.6
28	7.2	26	e13	e15	e11	e100	49	6.5	3.3	1.2	.76	1.3
29	4.4	25	14	e13	e11	e58	42	4.4	2.8	1.2	1.3	1.0
30	3.3	21	27	e12	---	e45	36	3.3	1.8	1.8	1.2	.83
31	2.9	---	22	e13	---	e50	---	82	---	2.9	.81	---
TOTAL	110.20	780.9	855	594	295.7	1134	1397	1011.1	547.2	84.1	42.17	25.62
MEAN	3.55	26.0	27.6	19.2	10.2	36.6	46.6	32.6	18.2	2.71	1.36	.85
MAX	13	280	81	70	25	250	110	200	117	12	5.0	3.0
MIN	.48	1.6	13	10	2.5	11	18	3.3	1.8	1.1	.57	.37
CFM	.22	1.61	1.70	1.18	.63	2.26	2.87	2.01	1.13	.17	.08	.05
IN.	.25	1.79	1.96	1.36	.68	2.60	3.21	2.32	1.26	.19	.10	.06

e Estimated

HUDSON RIVER BASIN

01350140 MINE KILL NEAR NORTH BLENHEIM, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1992, BY WATER YEAR (WY)

MEAN	15.9	21.3	25.0	21.0	32.0	54.9	51.2	32.3	14.0	4.28	3.17	6.85
MAX	67.3	48.6	59.7	74.3	86.5	126	104	76.9	36.0	14.4	10.8	42.3
(WY)	1978	1978	1978	1979	1981	1977	1983	1984	1986	1976	1977	1977
MIN	.36	3.62	5.79	1.77	1.25	20.8	21.8	8.14	.93	1.23	.43	.26
(WY)	1983	1983	1983	1981	1980	1989	1985	1985	1991	1991	1981	1982

SUMMARY STATISTICS FOR 1991 CALENDAR YEAR FOR 1992 WATER YEAR WATER YEARS 1975 - 1992

ANNUAL TOTAL	6127.04	6876.99	
ANNUAL MEAN	16.8	18.8	
HIGHEST ANNUAL MEAN			23.4
LOWEST ANNUAL MEAN			34.5
HIGHEST DAILY MEAN	280	Nov 23	12.7
LOWEST DAILY MEAN	.30	Sep 9	1985
ANNUAL SEVEN-DAY MINIMUM	.37	Sep 4	.10
ANNUAL RUNOFF (CFSM)	1.04		.11
ANNUAL RUNOFF (INCHES)	14.07		1.44
10 PERCENT EXCEEDS	39		19.59
50 PERCENT EXCEEDS	9.6		55
90 PERCENT EXCEEDS	.59		12

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
2	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
4	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
5	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
6	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
7	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
8	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
9	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
10	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
11	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
12	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
13	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
14	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
15	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
16	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
17	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
18	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
19	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
20	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
21	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
22	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
23	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
24	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
25	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
26	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
27	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
28	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
29	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
30	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
31	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
TOTAL	1297.1	1297.1	1297.1	1297.1	1297.1	1297.1	1297.1	1297.1	1297.1	1297.1	1297.1	1297.1
MEAN	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
MAX	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
MIN	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1992, BY WATER YEAR (WY)

WY	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
MEAN	15.9	21.3	25.0	21.0	32.0	54.9	51.2	32.3	14.0	4.28	3.17	6.85						
MAX	67.3	48.6	59.7	74.3	86.5	126	104	76.9	36.0	14.4	10.8	42.3						
(WY)	1978	1978	1978	1979	1981	1977	1983	1984	1986	1976	1977	1977						
MIN	.36	3.62	5.79	1.77	1.25	20.8	21.8	8.14	.93	1.23	.43	.26						
(WY)	1983	1983	1983	1981	1980	1989	1985	1985	1991	1991	1981	1982						

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.--358 mi².

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

REVISED RECORDS.--WDR NY-87-1: 1984 (M). WDR NY-90-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. 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.--No estimated daily discharges. Records good below 300 ft³/s and poor above. Regulation of flow by Blenheim-Gilboa Pumped Storage Project immediately upstream from gage. Entire flow, runoff from 315 mi², 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.

AVERAGE DISCHARGE.--22 years. 405 ft³/s.

EXTREMES FOR PERIOD OF RECORD (corrected).--Maximum discharge, 64,200 ft³/s, Apr. 4, 1987, gage height, 16.70 ft, from floodmarks, from rating curve extended above 12,000 ft³/s on basis of computation of peak flow through radial gates; minimum discharge, no flow, Oct. 12, 15, Oct. 16 to Nov. 1, Nov. 2, 1972. Sept. 12, 13, 14, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,330 ft³/s, May 3, gage height, 5.65 ft, minimum, 3.3 ft³/s, Sept. 29, gage height, 0.84 ft; minimum daily, 4.0 ft³/s, Sept. 29, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	4.7	35	15	34	29	81	152	145	9.1	8.2	7.4
2	4.3	4.9	46	14	20	51	82	190	100	9.1	7.4	7.5
3	4.4	4.5	66	26	9.5	34	32	1880	68	9.2	8.6	7.9
4	4.7	5.1	97	48	10	11	31	970	51	8.4	9.3	8.2
5	4.8	4.6	38	76	10	9.0	53	567	30	7.8	8.5	8.7
6	4.7	4.4	25	60	31	58	75	408	210	8.2	8.6	7.9
7	5.3	4.4	25	25	11	62	50	227	921	7.8	8.7	7.5
8	4.5	4.7	66	24	10	86	43	112	1250	7.8	8.8	7.6
9	4.5	4.9	195	37	9.3	67	43	78	1060	8.2	8.2	7.4
10	4.4	4.5	148	36	9.5	47	45	93	799	7.8	7.7	8.3
11	5.0	5.5	70	46	9.8	157	58	74	670	8.2	7.5	8.3
12	5.3	4.7	75	39	11	84	247	64	435	7.3	7.5	8.3
13	4.6	4.7	107	33	11	39	75	51	278	7.4	7.4	7.5
14	5.6	4.9	165	101	10	37	64	38	202	7.8	7.8	7.7
15	5.1	7.7	134	84	9.9	69	69	35	223	8.8	8.2	7.5
16	5.1	5.3	105	19	29	58	78	53	88	8.1	7.3	8.1
17	5.0	4.6	44	15	71	29	304	93	57	7.9	7.0	8.6
18	5.3	5.0	47	19	30	21	209	60	35	8.5	7.8	8.7
19	5.1	4.7	51	61	39	22	258	36	31	7.4	8.2	9.1
20	4.7	4.7	60	50	70	27	130	17	25	7.4	8.4	7.9
21	5.2	5.6	65	31	20	28	206	15	22	7.3	8.6	6.7
22	4.6	19	60	38	9.3	24	140	11	11	7.5	8.9	5.8
23	4.5	716	51	41	34	25	513	14	8.9	8.1	8.1	5.2
24	4.7	155	37	97	45	33	747	21	8.6	7.8	7.8	5.0
25	4.9	117	36	42	37	22	1490	60	7.8	8.1	8.6	5.0
26	5.0	105	34	35	28	43	1580	50	8.2	7.5	8.0	5.4
27	4.9	60	34	31	29	362	1340	22	8.9	15	8.2	4.7
28	5.8	34	39	19	30	110	814	20	7.5	8.2	8.2	4.9
29	4.4	67	35	26	43	54	516	10	24	21	8.4	4.0
30	4.5	98	65	31	---	26	344	12	8.9	13	7.7	4.0
31	4.6	---	47	45	---	66	---	267	---	8.8	8.0	---
TOTAL	149.7	1475.1	2102	1264	720.3	1790.0	9717	5700	6793.8	274.5	251.6	210.8
MEAN	4.83	49.2	67.8	40.8	24.8	57.7	324	184	226	8.85	8.12	7.03
MAX	5.8	716	195	101	71	362	1580	1880	1250	21	9.3	9.1
MIN	4.2	4.4	25	14	9.3	9.0	31	10	7.5	7.3	7.0	4.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1992, BY WATER YEAR (WY)

MEAN	170	254	393	341	384	898	1268	774	281	63.7	10.3	22.2
MAX	1474	1511	1522	1610	1468	2532	3685	1599	1561	452	29.1	140
(WY)	1978	1978	1973	1979	1976	1979	1987	1984	1972	1973	1978	1977
MIN	.15	4.56	4.88	6.17	15.5	47.6	42.9	17.7	8.37	6.83	1.53	.25
(WY)	1973	1983	1983	1983	1987	1989	1981	1985	1991	1977	1973	1973

HUDSON RIVER BASIN

01350180 SCHOHARIE CREEK AT NORTH BLENHEIM, NY--Continued

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1971 - 1992

ANNUAL TOTAL	93695.9
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30448.8

405

ANNUAL MEAN

83.2

834

1978

HIGHEST ANNUAL MEAN

21.

1985

LOWEST ANNUAL MEAN

4820 Apr 22

1880 May 3

19900

Apr 4 1987

HIGHEST DAILY MEAN

3.7 Sep 23

4.0 Sep 29

•

Oct 15 1972

LOWEST DAILY MEAN

4.1 Sep 22

4.6 Oct 1

1010

Oct 15 1972

ANNUAL SEVEN-DAY MI

785

153

1120

10 PERCENT EXCEEDS

19

21

30

50 PERCENT EXCEEDS

4

4

4.

90 PERCENT EXCEEDS

HUDSON RIVER BASIN

01350355 SCHOHARIE CREEK AT BREAKABEEN, NY

LOCATION.--Lat 42°32'13", long 74°24'39", 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.--444 mi².

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

REVISED RECORDS.--WDR NY-81-1: 1980(M). WDR NY-90-1: Drainage area.

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

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Regulation of flow by Blenheim-Gilboa Pumped Storage Project. Entire flow, runoff from 315 mi², 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.

AVERAGE DISCHARGE.--17 years, 514 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 72,200 ft³/s, Apr. 5, 1987, gage height, about 19.5 ft, from reconstructed graph, 20.0 ft, from floodmarks, from rating curve extended above 20,000 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow; minimum discharge, 1.7 ft³/s, Oct. 14, 1980; minimum gage height, 0.25 ft, Sept. 26, 1985; minimum daily discharge, 5.8 ft³/s, Sept. 13, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,030 ft³/s, Nov. 23, gage height, 6.72 ft; minimum, 8.9 ft³/s, Oct. 3, 5, gage height, 0.79 ft; minimum daily discharge, 9.2 ft³/s, Oct. 3, 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	17	155	e76	e74	e56	232	377	579	24	71	23
2	9.5	17	131	e68	e56	e78	226	447	374	22	46	21
3	9.2	16	170	e82	e40	e68	166	3460	233	22	35	20
4	9.3	15	199	130	e38	e45	145	1810	188	30	34	23
5	9.2	15	141	184	e35	e70	151	1110	139	28	33	22
6	11	14	112	167	e60	e120	165	856	535	25	28	20
7	21	14	104	e110	e36	186	158	525	1280	24	25	18
8	17	14	163	e96	e32	242	156	360	1830	21	23	18
9	14	14	552	e100	e29	231	153	264	1480	24	25	17
10	12	13	485	e110	e28	206	153	247	1090	24	28	16
11	13	17	297	e110	e28	553	211	214	857	21	25	26
12	20	30	262	e100	e29	335	578	177	597	19	21	23
13	22	26	307	e100	e27	e180	295	157	381	19	20	19
14	18	25	482	250	e26	e160	239	167	277	23	21	17
15	17	27	454	280	e30	e190	225	133	263	38	24	16
16	23	31	e300	e120	e60	e170	229	164	154	66	22	15
17	28	27	e220	e82	e150	e110	707	190	109	39	20	15
18	39	23	e190	e74	99	e98	781	146	67	37	21	15
19	34	23	e170	e110	107	e96	805	121	67	33	23	17
20	27	23	e180	e94	163	e110	523	89	60	25	22	18
21	23	26	202	e78	e70	e100	554	78	58	23	20	16
22	21	206	178	e86	e42	e90	463	66	47	21	19	15
23	19	2250	160	e100	e64	e88	827	62	38	24	17	36
24	17	592	139	286	e72	e94	1110	64	35	37	16	26
25	17	378	122	e140	e64	e84	2180	121	34	30	66	20
26	16	300	e110	e120	e62	121	2460	107	31	26	120	18
27	16	219	e100	e100	e62	918	2090	75	32	27	47	19
28	20	163	e96	e78	e64	364	1230	75	35	23	35	19
29	21	180	e92	e70	e68	233	827	58	40	30	34	18
30	18	215	164	e80	---	171	598	50	28	64	32	16
31	17	---	e110	e92	---	211	---	586	---	49	26	---
TOTAL	568.2	4930	6547	3673	1715	5778	18637	12356	10938	918	999	582
MEAN	18.3	164	211	118	59.1	186	621	399	365	29.6	32.2	19.4
MAX	39	2250	552	286	163	918	2460	3460	1830	66	120	36
MIN	9.2	13	92	68	26	45	145	50	28	19	16	15

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1992, BY WATER YEAR (WY)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
MEAN	327	425	410	361	498	1231	1571	902	318	55.0	25.9	52.9						
MAX	1973	1909	1528	2009	1698	3354	4522	2068	1255	238	52.1	341						
(WY)	1978	1978	1978	1978	1976	1979	1987	1984	1982	1976	1978	1977						
MIN	10.8	20.9	31.7	18.8	59.1	164	141	75.2	18.6	14.2	9.83	9.69						
(WY)	1983	1983	1983	1981	1992	1989	1981	1985	1991	1991	1980	1982						

HUDSON RIVER BASIN

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.--886 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR NY-82-1: 1981(average discharge). WDR NY-90-1: Drainage area.

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

REMARKS.--Records good except those for estimated daily discharges, which are poor. Regulation of flow by Blenheim-Gilboa Pumped Storage Project. Entire flow, runoff from 315 mi², 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. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--53 years, 1,007 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 76,500 ft³/s, Oct. 16, 1955, gage height, 12.39 ft; minimum, 2.4 ft³/s, Sept. 24, 25, 1964, gage height, 0.30 ft.

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, 11,600 ft³/s, Nov. 23, gage height, 4.59 ft; minimum, 30 ft³/s, Oct. 1, gage height, 0.71 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	59	717	e470	444	e540	1080	1380	3220	100	824	96
2	104	56	565	e420	e360	e600	1030	1290	2170	80	527	81
3	138	56	593	e460	e310	e450	890	6420	1280	74	290	73
4	91	53	680	525	e210	e370	748	4190	915	91	212	72
5	62	51	589	1170	e240	e350	679	2770	704	111	206	72
6	72	48	e470	e1000	e290	e560	634	2450	1570	111	192	72
7	155	45	e410	e840	e250	787	641	1850	1990	115	156	65
8	113	44	e560	e670	e210	1010	727	1440	2630	101	131	60
9	91	42	2440	e590	e190	1090	799	1160	2290	94	123	59
10	72	41	2450	636	e180	1030	755	1050	1850	84	575	57
11	59	67	1560	627	e170	2910	1030	934	1310	83	378	64
12	56	168	1210	583	e170	2160	2500	821	1140	75	227	87
13	53	225	1110	e530	e165	1290	1770	719	854	79	174	83
14	53	222	1650	e900	e160	e900	1210	705	642	95	151	69
15	56	232	2330	2110	e200	e600	1050	622	508	141	208	58
16	59	239	1440	946	e460	e580	983	619	476	405	198	50
17	100	221	1020	718	1770	e500	2080	702	320	284	169	46
18	167	187	e820	e520	1410	e440	3740	605	261	189	164	42
19	206	157	e720	e620	1250	e380	3920	503	204	154	202	44
20	179	144	e680	e560	1780	e410	2890	406	231	133	178	41
21	149	140	e740	e500	1230	e400	2390	345	222	117	143	42
22	123	370	e700	e540	846	e370	2160	304	193	93	120	48
23	104	7770	e620	e600	865	e380	2130	255	169	304	102	105
24	91	3100	e550	e1200	934	328	2340	240	149	922	91	150
25	87	1780	e500	e1400	769	333	3260	314	149	398	82	112
26	76	1240	e460	e600	721	453	4500	349	157	236	164	87
27	69	939	e420	e400	656	4960	3780	322	149	186	235	80
28	59	767	e420	e430	e540	2960	2870	312	134	155	150	81
29	59	729	501	e360	e500	1430	2160	274	121	143	132	81
30	59	781	828	e380	---	1100	1710	219	107	174	137	70
31	59	---	673	433	---	1020	---	915	---	290	121	---
TOTAL	2872	19973	28426	21738	17280	30691	56456	34485	26115	5617	6762	2147
MEAN	92.6	666	917	701	596	990	1882	1112	870	181	218	71.6
MAX	206	7770	2450	2110	1780	4960	4500	6420	3220	922	824	150
MIN	51	41	410	360	160	328	634	219	107	74	82	41

e Estimated

HUDSON RIVER BASIN

01351500 SCHOHARIE CREEK AT BURTONSVILLE, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960, 1963-64, 1972, May 1988 to current year.

CHEMICAL DATA: 1960 (e), 1963-64, 1972 (a), 1988 (b), 1989 (c), 1990 (d), 1991 (c), 1992 (a).

MINOR ELEMENTS DATA: 1960 (e), 1963 (b), 1964, 1972 (a), 1988 (b), 1989 (c), 1990 (d), 1991 (c), 1992 (a).

PESTICIDE DATA: 1988 (b), 1989 (c), 1990 (d).

NUTRIENT DATA: 1960, 1963-64, 1972 (a), 1988 (b), 1989 (c), 1990 (d).

SEDIMENT DATA: 1989 (c), 1990 (d), 1991 (c), 1992 (a).

REMARKS.--Water-quality samples were collected by personnel of the New York State Department of Environmental Conservation, and were analyzed in USGS laboratories.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)
OCT 28...	1000	59	320	7.9	13.5	760	10.1	96 140

DATE	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
OCT 28...	<1	15	210	2	10	<0.10	2	10

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 28...	1000	59	5	0.80

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.--3,450 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1917 to current year. Prior to July 17, 1925, published as "at Crescent Dam".

REVISED RECORDS.--WSP 1302: 1919-23 (M). WDR NY-90-1: Drainage area.

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 except those below 1,000 ft³/s, which are fair. 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 1926 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 (water years 1919-25), 5,820 ft³/s, includes diversion at Lock 6; 67 years (water years 1926-92), 5,658 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 143,000 ft³/s, Mar. 6, 1964, result of release from ice jam, gage height, 23.15 ft, from rating curve extended above 110,000 ft³/s; minimum discharge, 6 ft³/s, Sept. 18, 1941, gage height, 3.40 ft; minimum daily, 23 ft³/s, Aug. 24, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--An extreme flood occurred sometime from 1860-65 with a depth of 12 ft on the Cohoes dam and a peak discharge estimated to be at least 200,000 ft³/s (from New York State Museum Bulletin 85).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 41,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 3	1245	*40,300	*16.96				

Minimum discharge not determined; minimum gage height, 4.73 ft, Nov. 6; minimum daily discharge, 606 ft³/s, July 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1350	1530	5290	5870	2670	4090	7200	5720	18500	1220	8940	1070
2	2880	1020	6740	4530	2340	3070	6780	3470	14300	1300	7310	1880
3	2560	1400	6410	4020	2070	2970	6060	28500	9670	606	2800	1480
4	2420	1750	6860	4020	2170	3390	5470	23700	6220	1510	2840	3600
5	651	1050	4880	4680	2140	3220	4800	16200	4810	1840	3320	3500
6	1890	1290	4400	6450	2150	3620	4730	13100	6520	4050	3140	2490
7	2250	1400	3930	6450	2100	4980	4510	8940	7170	2430	2690	797
8	1730	1380	3480	5460	2160	7080	4830	7960	5460	1140	1230	2000
9	2020	743	6100	4560	1900	9630	5860	6220	6130	2420	1480	1540
10	1680	1320	12900	3970	1780	9860	6430	6170	5270	3810	4350	2940
11	1530	2130	10200	3960	1690	13100	6620	5130	3930	3520	4520	6260
12	1940	4130	7220	3500	1680	16200	12400	4280	4130	2030	1150	5300
13	1290	4420	5800	2830	1560	10400	14500	4330	3540	2240	1950	3240
14	1450	2490	7350	3590	1580	8670	11100	3540	1420	4530	2450	2580
15	1650	2840	10900	7950	1740	6870	7170	4300	1610	9920	4980	3250
16	1340	3270	8730	6820	2360	5340	6840	2900	1890	13800	2590	1170
17	2890	3600	5790	4460	3480	4290	9920	4030	1710	7620	2670	2680
18	3470	4400	4230	3940	4860	3840	20100	3580	1660	5020	3510	1560
19	3190	2490	3430	2470	5270	3890	20000	3040	1600	5380	5800	2180
20	2780	2030	3150	2900	6800	3540	16900	2710	1610	4900	2370	2010
21	2040	2850	3760	2960	7930	3470	12100	1960	1480	3920	2380	2500
22	2050	3060	4090	2950	6330	3400	12100	1120	1680	4070	1430	2210
23	2270	19300	4140	2690	4810	3340	12900	1500	1140	5730	1470	7820
24	1760	14100	3810	3500	4960	3290	14400	1750	1450	9890	2140	6760
25	1530	8630	3220	3910	4530	3210	15700	1770	1660	6800	1300	4120
26	1020	8660	2730	4010	3900	3130	17500	2390	1740	4350	1370	5180
27	1530	7990	3330	3340	3660	11200	15100	1690	1330	4330	1190	3100
28	2060	6220	3230	2740	3580	18800	9440	2750	1370	3950	1100	4090
29	1380	4430	3220	2840	3720	12000	8550	2580	1800	3120	2230	4060
30	1350	5850	4020	2700	---	9880	7240	1460	956	2750	3250	2850
31	1640	---	6720	2780	---	8300	---	4060	---	2740	2850	---
TOTAL	59591	125773	170060	126850	95920	208070	307250	180850	121756	130936	90800	94217
MEAN	1922	4192	5486	4092	3308	6712	10240	5834	4059	4224	2929	3141
MAX	3470	19300	12900	7950	7930	18800	20100	28500	18500	13800	8940	7820
MIN	651	743	2730	2470	1560	2970	4510	1120	956	606	1100	797

01357500 MOHAWK RIVER AT COHOES, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1992, BY WATER YEAR (WY)

MEAN	3368	5387	6298	5528	5762	11210	13610	6905	3523	2337	1718	2335
MAX	13950	14090	14610	13460	15810	28580	31870	17320	14290	8779	4089	9345
(WY)	1978	1928	1928	1937	1976	1936	1940	1943	1972	1935	1986	1938
MIN	731	842	1841	1017	1314	3723	4116	1836	1121	671	605	749
(WY)	1965	1931	1931	1931	1931	1940	1946	1987	1941	1941	1941	1939

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1926 - 1992
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ANNUAL TOTAL	1664488		1712073				
ANNUAL MEAN	4560		4678			5658	
HIGHEST ANNUAL MEAN						8270	1972
LOWEST ANNUAL MEAN						3017	1965
HIGHEST DAILY MEAN	30600	Apr 23	28500	May 3	112000		Mar 19 1936
LOWEST DAILY MEAN	318	Jul 27	606	Jul 3	23		Aug 24 1941
ANNUAL SEVEN-DAY MINIMUM	696	Jun 26	1230	Jun 27	485		Aug 12 1941
10 PERCENT EXCEEDS	10700		9730		13000		
50 PERCENT EXCEEDS	3150		3490		3340		
90 PERCENT EXCEEDS	824		1450		1150		

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 1991 to September 1992

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	115	97	3	3	3	3	3	123	113	113	89
2	115	103	97	3	3	3	3	46	123	113	125	83
3	109	97	48	3	3	3	3	92	141	119	89	77
4	133	115	3	3	3	3	3	152	129	119	89	125
5	133	115	3	3	3	3	3	122	117	143	89	119
6	139	115	3	3	3	3	3	110	117	107	113	89
7	127	109	3	3	3	3	3	104	135	113	113	125
8	139	103	3	3	3	3	3	116	135	107	107	83
9	121	127	3	3	3	3	3	146	153	83	101	95
10	127	109	3	3	3	3	3	122	111	131	101	95
11	133	103	3	3	3	3	3	116	129	119	101	95
12	127	115	3	3	3	3	3	140	123	131	101	95
13	133	121	3	3	3	3	3	122	129	101	113	89
14	145	97	3	3	3	3	3	116	123	83	77	107
15	115	115	3	3	3	3	3	140	129	65	95	83
16	121	103	3	3	3	3	3	146	123	83	131	101
17	133	103	3	3	3	3	3	146	135	95	95	107
18	121	103	3	3	3	3	3	146	123	113	95	95
19	133	121	3	3	3	3	3	146	123	101	89	113
20	133	103	3	3	3	3	3	122	141	89	83	101
21	121	103	3	3	3	3	3	116	129	89	101	89
22	127	97	3	3	3	3	3	152	135	101	113	77
23	139	103	3	3	3	3	3	152	111	83	107	95
24	127	97	3	3	3	3	3	140	111	95	101	95
25	115	115	3	3	3	3	3	146	129	107	107	95
26	115	103	3	3	3	3	3	141	107	95	101	83
27	103	103	3	3	3	3	3	123	113	89	119	95
28	109	97	3	3	3	3	3	123	107	101	125	83
29	133	97	3	3	3	3	3	135	119	107	101	77
30	109	97	3	3	---	3	3	159	95	119	95	101
31	121	---	3	3	---	3	---	129	---	95	77	---
TOTAL	3877	3204	326	93	87	93	90	3869	3718	3209	3167	2856
MEAN	125	107	10.5	3.00	3.00	3.00	3.00	125	124	104	102	95.2
MAX	145	127	97	3.0	3.0	3.0	3.0	159	153	143	131	125
MIN	103	97	3.0	3.0	3.0	3.0	3.0	3.0	95	65	77	77

CAL YR 1991 TOTAL 29420.0 MEAN 80.6 MAX 174 MIN 3.0
WTR YR 1992 TOTAL 24589 MEAN 67.2 MAX 159 MIN 3.0

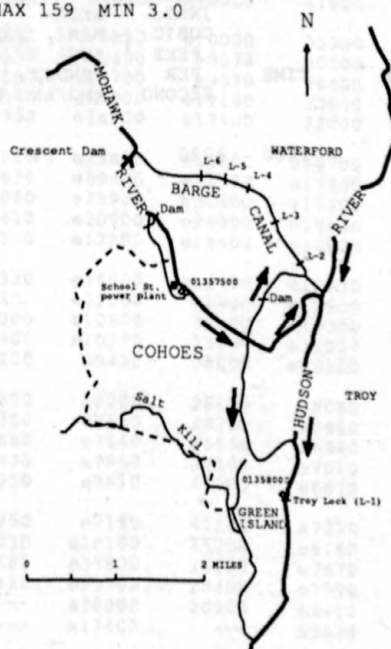
01357500 MOHAWK RIVER AT COHOES, NY

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 9.--Gaging stations and diversions near mouth of Mohawk River.

HUDSON RIVER BASIN

01357500 MOHAWK RIVER AT COHOES, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951-52, 1955, 1955-59, 1963-64, 1970, 1976-79, June 1988 to current year.

CHEMICAL DATA: 1951-52 (a), 1958-59 (b), 1963-64, 1970, 1976 (a), 1977 (c), 1979 (d), 1988 (a), 1989 (c), 1990-91 (d), 1992 (a).

MINOR ELEMENTS DATA: 1952, 1955 (a), 1958-59 (b), 1963-64, 1970, 1976 (a), 1977 (c), 1979 (d), 1988 (a), 1989 (c), 1990 (d), 1991 (c), 1992 (a).

ORGANIC DATA: 1976 (a), 1977 (c), 1979 (d).

PESTICIDE DATA: 1988 (a), 1989 (c), 1990 (d).

NUTRIENT DATA: 1951-52, 1955 (a), 1958-59 (b), 1963-64, 1970, 1976 (a), 1977 (c), 1979 (d), 1988 (a), 1989 (c), 1990 (d).

BIOLOGICAL DATA: 1979 (d).

SEDIMENT DATA: 1976-77 (e), 1978 (a), 1979 (e), 1988 (a), 1989 (c), 1990 (d), 1991 (c), 1992 (a).

REMARKS.--Water-quality samples were collected by personnel of the New York State Department of Environmental Conservation, and were analyzed in USGS laboratories.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)
OCT 29...	1400 1720		356	8.1	12.0	776	11.8	107	330

DATE	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
OCT 29...	<1	120	490	6	90	<0.10	2	60

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 29...	1400 1720		14	65

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 02020006, 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 mi², 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.--Records fair. Records include flow over spillway, estimates of flow through lock, and flow through powerplant. An inflatable rubber dam was installed on the spillway during August 1991. Powerplant, located on the 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.--46 years, 13,700 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 181,000 ft³/s, Dec. 31, 1948, gage height, 27.05 ft, from high-water mark in gage well; maximum daily discharge, 152,000 ft³/s, Mar. 14, 1977; minimum daily, 882 ft³/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 ft³/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, 68,900 ft³/s, May 3, gage height, 20.91 ft; minimum daily, about 4,010 ft³/s, June 23; minimum gage height, 14.15 ft, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e5220	e5410	e12200	e12800	e8320	e8320	e16000	e17700	e30300	e5230	e13500	e5410
2	e7070	e5370	e13600	e11200	e7640	e7350	e14700	e16500	e31100	e6010	e12400	e5710
3	e6700	e5550	e13400	e10300	e7070	e7480	e12700	54600	e25200	e4470	e7640	e5160
4	e6690	e5540	e13600	e10100	e6270	e7600	e11700	54200	e20400	e5480	e7730	e8220
5	e5620	e4700	e11600	e11200	e6530	e7980	e10500	41900	e17500	e6080	e8310	e8720
6	e7340	e5410	e10200	e13900	e6850	e7850	e10000	35300	e21700	e9010	e7450	e8380
7	e11200	e5600	e9510	e13400	e6550	e9400	e9570	30500	e23400	e7490	e7000	e7020
8	e8860	e5350	e8730	e12300	e6590	e12700	e9330	28400	e21300	e5700	e5290	e6730
9	e8740	e4460	e12900	e11000	e6500	e15800	e12100	23600	e21200	e7500	e5630	e6630
10	e7280	e5510	e22100	e9830	e6330	e16200	e13400	22000	e16900	e8540	e8550	e6830
11	e6970	e6160	e18700	e10300	e6040	e23800	e14800	e19700	e13600	e8090	e8670	e11300
12	e8110	e9990	e15200	e8520	e5630	e39400	e23700	e17900	e13000	e6310	e5600	e10200
13	e7970	e10300	e13400	e7880	e6060	e25900	e30500	e17800	e10800	e6490	e5910	e8530
14	e6880	e8320	e16000	e10100	e5410	e20900	e24500	e14900	e8020	e9060	e6680	e7240
15	e6680	e8440	e23000	e17100	e6170	e17500	e18600	e14800	e7410	e16200	e9470	e7380
16	e7700	e8870	e19200	e14200	e8330	e14000	e16400	e12500	e6690	e21800	e6620	e4970
17	e11000	e9750	e14200	e10800	e10600	e12000	21800	e12900	e5440	e14000	e6660	e6340
18	e11800	e10600	e12800	e10900	e11000	e10500	35000	e12500	e5760	e10900	e7500	e5500
19	e11200	e8490	e12100	e8620	e11300	e10200	33100	e11000	e5560	e10900	e9990	e6140
20	e9910	e7220	e10100	e9150	e13200	e9430	30000	e10100	e5270	e9740	e6600	e5960
21	e8150	e8370	e11100	e9310	e13800	e8200	26800	e8080	e4720	e8760	e6380	e6090
22	e8580	e8450	e11800	e9300	e11700	e7650	29700	e7960	e5060	e9020	e5540	e5490
23	e7970	e37300	e11300	e8730	e9880	e7440	35600	e6660	e4010	e11100	e5480	e13300
24	e6990	e29800	e10700	e10600	e9930	e7850	39600	e7010	e5160	e14500	e5990	e13100
25	e6290	e20800	e9730	e13500	e9250	e7610	40000	e6670	e6150	e11200	e5160	e10400
26	e5750	e18900	e8850	e11500	e8890	e7180	41100	e7270	e6350	e8690	e5220	e9710
27	e5920	e16100	e8950	e10100	e9030	e18100	35200	e6180	e5840	e8520	e5010	e6990
28	e6470	e13900	e9490	e9240	e8580	e37800	26600	e7570	e5700	e7700	e4920	e7920
29	e5730	e12000	e8690	e8790	e8420	e23700	23400	e7590	e6120	e6680	e6580	e8140
30	e5800	e13100	e10600	e9100	---	e20000	20900	e5710	e5800	e6370	e7890	e6900
31	e5920	---	e14700	e8980	---	e17400	---	e9670	---	e6480	e7230	---
TOTAL	236510	319760	398450	332750	241870	447240	687300	549170	365460	278020	222600	230410
MEAN	7629	10660	12850	10730	8340	14430	22910	17720	12180	8968	7181	7680
MAX	11800	37300	23000	17100	13800	39400	41100	54600	31100	21800	13500	13300
MIN	5220	4460	8690	7880	5410	7180	9330	5710	4010	4470	4920	4970

e Estimated

HUDSON RIVER BASIN

01358000 HUDSON RIVER AT GREEN ISLAND, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1992, BY WATER YEAR (WY)

MEAN	8998	12690	14750	13120	14180	22450	30130	18990	10290	6688	5826	6577
MAX	30140	26150	28220	33970	31260	44240	51670	40520	29630	18380	14630	17030
(WY)	1978	1973	1984	1949	1976	1979	1960	1972	1972	1972	1976	1975
MIN	2967	3270	6096	4187	4527	9123	10640	5505	3573	3082	2912	2875
(WY)	1965	1965	1965	1961	1980	1965	1946	1987	1965	1965	1965	1964

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1946 - 1992
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ANNUAL TOTAL	4412610		4309540			
ANNUAL MEAN	12090		11770		13720	
HIGHEST ANNUAL MEAN					22100	1976
LOWEST ANNUAL MEAN					6386	1965
HIGHEST DAILY MEAN	54100	Mar 5	54600	May 3	152000	Mar 14 1977
LOWEST DAILY MEAN	2920	Sep 15	4010	Jun 23	882	Sep 2 1968
ANNUAL SEVEN-DAY MINIMUM	3550	Aug 29	5080	Jun 18	2200	Jul 28 1965
10 PERCENT EXCEEDS	23400		21900		28700	
50 PERCENT EXCEEDS	9390		9010		9350	
90 PERCENT EXCEEDS	3850		5630		4260	

HUDSON RIVER BASIN

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), 1987 (a), 1988-92 (b).

MINOR ELEMENTS DATA: 1970-71 (a); 1972-73, 1975-79 (b), 1980-85 (b), 1986-87 (a), 1988-92 (b).

RADIOCHEMICAL DATA: 1968-71 (c), 1973-75 (a), 1976 (d), 1977 (a), 1978 (b), 1979-80 (a), 1981 (b), 1982-85, 1988-92 (a).

PESTICIDE DATA: 1976-77 (b), 1978 (a), 1979 (c), 1980, 1982 (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), 1987 (a), 1988-92 (b).

BIOLOGICAL DATA:

Bacteria--1971 (a), 1973-74 (d), 1975 (a), 1976-78 (c), 1979-81 (d), 1983-86, 1988, 1990-92 (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, 1988-92 (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 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (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, FECA, UM-MF (COLS./100 ML)	STREP-TOCOCCI, FECA, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CaCO3)
NOV 14...	0745	E8320	246	7.8	6.0	3.6	766	11.9	95	120	200	89
MAR 11...	0930	E23800	297	8.0	2.5	12	745	13.8	104	K2500	270	92
MAY 12...	0845	E17900	202	7.7	14.5	2.6	772	9.9	96	98	16	52
AUG 05...	0800	E8310	208	8.0	21.5	3.6	768	9.5	107	670	120	77

DATE	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 WAT DIS TOT IT FIELD (MG/L AS CaCO3)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3)	CAR-BONATE WATER DIS IT 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)	SILICA, DIS-SOLVED (MG/L AS SiO2)
NOV 14...	27	5.1	11	1.2	66	81	0	21	18	<0.10	3.1
MAR 11...	28	5.3	13	1.7	67	82	0	19	24	<0.10	4.4
MAY 12...	16	2.8	6.2	0.80	36	44	0	11	10	<0.10	4.9
AUG 05...	24	4.0	8.8	1.0	61	75	0	16	14	<0.10	4.2

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 14...	131	129	0.500	0.520	0.050	0.060	0.50	0.050	0.020	0.010	10
MAR 11...	151	140	0.730	0.740	0.200	0.220	0.60	0.080	0.020	0.020	20
MAY 12...	82	75	--	0.370	0.070	0.070	<0.20	0.010	<0.010	0.010	50
AUG 05...	105	111	0.400	0.410	0.090	0.090	0.40	0.060	<0.010	0.020	30

E Estimated daily discharge.

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 1991 TO SEPTEMBER 1992

DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	COBALT, DIS- SOLVED (UG/L AS CO)	IRON, DIS- SOLVED (UG/L AS FE)	LITHIUM, DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	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)
NOV 14...	18	<3	47	<4	14	<10	<1	<1	<1.0	160	<6
MAR 11...	19	<3	47	<4	26	<10	<1	<1	<1.0	180	<6
MAY 12...	13	<3	48	<4	27	<10	<1	<1	<1.0	71	<6
AUG 05...	19	<3	51	<4	13	<10	2	<1	<1.0	140	<6

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	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, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
MAR 11...	0930	E23800	<0.6	0.8	2.7	2.0	1.0	1.0	0.03	0.15
AUG 05...	0800	E8310	0.6	0.8	2.1	1.7	<0.6	<0.6	0.03	0.11

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, SUS- PENDED (MG/L)	SED. SUSP. SIEVE DIAM. & FINER THAN .062 MM
NOV 14...	0745	E8320	5	97
MAR 11...	0930	E23800	19	99
MAY 12...	0845	E17900	10	99
AUG 05...	0800	E8310	8	97

E Estimated daily discharge.

HUDSON RIVER BASIN

01359139 HUDSON RIVER AT ALBANY, NY

LOCATION.--Lat 42°38'53", long 73°44'50", Albany County, Hydrologic Unit 02020006, on right bank 0.3 mi upstream from bridge on U.S. Highways 9 and 20 in Albany, and 0.5 mi downstream from the Conrail railroad bridge.

DRAINAGE AREA.--8,288 mi².

PERIOD OF RECORD.--October 1972 to September 1976, April 1981 to current year.

REVISED RECORDS.--WDR NY-90-1: Drainage area.

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 OUTSIDE PERIOD OF RECORD.--Flood of Mar. 28, 1913, reached a stage of 21.45 ft, discharge, 240,000 ft³/s (estimated, tide affected) from information provided by Board of Hudson River-Black River Regulating District.

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 1991 TO SEPTEMBER 1992

	OCT	NOV*	DEC*	JAN**	FEB	MAR	APR	MAY	JUN	JUL	AUG*	SEP
<u>Maximum high tide</u>												
Elevation	6.60	--	--	5.14	4.85	6.55	6.12	6.94	6.26	5.46	--	5.46
Date	31	--	--	24	19	27	19	4	2	16	--	26
<u>Minimum low tide</u>												
Elevation	-3.00	--	--	-2.80	-3.36	-2.87	-2.07	-2.52	-2.00	-2.16	--	-2.37
Date	28	--	--	15	29	2	6	24	22	2	--	1
Mean high tide	4.46	--	--	3.73	3.77	4.34	4.94	4.95	4.98	4.81	--	4.42
Mean water level	1.61	--	--	1.28	1.43	1.66	2.31	2.11	2.00	1.84	--	1.57
Mean low tide	-1.42	--	--	-1.36	-0.88	-1.24	-0.47	-0.87	-1.09	-1.40	--	-1.44

* Incomplete month, less than fifteen days of record, not used.

** Incomplete month, missing record Jan. 1-10, 1992.

12	58	48	52	55	58	55	52	50	48	45	42	40
13	61	51	55	58	60	58	55	52	50	48	45	42
14	63	53	57	60	62	60	57	54	52	50	47	44
15	65	55	59	62	64	62	59	56	54	52	49	46
16	67	57	61	64	66	64	61	58	56	54	51	48
17	69	59	63	66	68	66	63	60	58	56	53	50
18	71	61	65	68	70	68	65	62	60	58	55	52
19	73	63	67	70	72	70	67	64	62	60	57	54
20	75	65	69	72	74	72	69	66	64	62	59	56
21	77	67	71	74	76	74	71	68	66	64	61	58
22	79	69	73	76	78	76	73	70	68	66	63	60
23	81	71	75	78	80	78	75	72	70	68	65	62
24	83	73	77	80	82	80	77	74	72	70	67	64
25	85	75	79	82	84	82	79	76	74	72	69	66
26	87	77	81	84	86	84	81	78	76	74	71	68
27	89	79	83	86	88	86	83	80	78	76	73	70
28	91	81	85	88	90	88	85	82	80	78	75	72
29	93	83	87	90	92	90	87	84	82	80	77	74
30	95	85	89	92	94	92	89	86	84	82	79	76
31	97	87	91	94	96	94	91	88	86	84	81	78
TOTAL	1198.0	727.6	1043.0	1102.0	1087.0	1102.0	1087.0	1102.0	1087.0	1102.0	1087.0	1102.0
MEAN	38.3	23.2	33.7	35.5	35.4	35.5	34.1	35.4	35.4	34.1	33.7	33.7
MAX	179	923	101	100	60	100	100	100	100	100	100	100
MIN	6.7	12	23	17	18	18	18	18	18	18	18	18
CFM	1.18	1.28	1.65	1.69	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59
LD	1.36	1.34	1.90	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86

* Estimated

HUDSON RIVER BASIN

01359560 HUDSON RIVER AT GLENMONT, NY

LOCATION.--Lat 42°35'43", long 73°45'43", Albany County, Hydrologic Unit 02020006, at Niagara Mohawk Glenmont Power Station (intake), 0.2 mi downstream from lower mouth of Normans Kill, and 0.8 mi southeast of Glenmont.

DRAINAGE AREA.--8,476 mi².

PERIOD OF RECORD.--Water years 1969-79, May 1988 to November 1991 (discontinued).

CHEMICAL DATA: 1969 (d), 1970-74 (e), 1975 (d), 1976-77 (c), 1978-79 (d), 1988-90 (b), 1991 (c), 1992 (a).

MINOR ELEMENTS DATA: 1969 (d), 1970-74 (e), 1975 (d), 1976-77 (c), 1978-79 (d), 1988-90 (b), 1991 (c), 1992 (a).

PESTICIDE DATA: 1988-90 (b).

NUTRIENT DATA: 1969 (d), 1970-74 (e), 1975 (d), 1976-77 (c), 1978-79 (d), 1988-90 (b).

BIOLOGICAL DATA:

Bacteria--1977 (c), 1978-79 (d).

Phytoplankton--1974 (a), 1975 (b), 1976-77 (c), 1978-79 (d).

SEDIMENT DATA: 1988-90 (b), 1991 (c), 1992 (a).

REVISED RECORDS.--WDR NY-90-1: Drainage area.

REMARKS.--Water-quality samples were collected by personnel of the New York State Department of Environmental Conservation, and were analyzed in USGS laboratories.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)
			WATER WHOLE FIELD (STAND- ARD UNITS)					
OCT 01...	1200	236	6.9	16.0	767	8.7	87	400
NOV 20...	1200	272	7.6	7.5	763	12.1	101	120
DATE	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
OCT 01...	<1	10	510	5	60	<0.10	1	10
NOV 20...	<1	8	310	2	50	<0.10	2	20

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SEDIMENT, SUSPENDED (MG/L)
OCT 01...	1200	17
NOV 20...	1200	6

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 mi².

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.--Records good except those for estimated daily discharges, which are poor. Slight diurnal fluctuation of low flow by mills upstream.

AVERAGE DISCHARGE.--35 years, 38.3 ft³/s, 15.95 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,850 ft³/s, Mar. 15, 1986, gage height, 4.25 ft; minimum, 0.30 ft³/s, Aug. 9, 10, 1964, gage height, 0.25 ft; minimum daily, 1.0 ft³/s, Sept. 6, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 23	0900	*862	a*3.07	No other peak greater than base discharge.			

a Recorded in well; outside gage height was 3.49 ft, from crest-stage gage.

Minimum discharge, 3.0 ft³/s, Sept. 1, 9, 10, 17, 18, gage height, 0.62 ft; minimum gage height, 0.61 ft³/s, Feb. 12; minimum daily discharge, 3.2 ft³/s, Sept. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	16	56	e43	e16	e35	42	45	65	7.0	19	3.6
2	6.8	18	48	e35	e15	e25	37	51	42	6.5	16	3.5
3	6.7	15	55	28	e14	19	34	180	28	7.0	10	3.9
4	6.8	14	72	28	e13	18	32	104	21	10	11	4.1
5	7.3	13	54	47	e12	18	30	74	18	11	20	3.9
6	72	13	44	44	e14	21	29	62	43	11	12	3.8
7	84	13	40	38	e12	24	30	53	33	9.2	8.9	3.6
8	34	12	49	e31	e10	34	34	46	24	7.7	7.2	4.7
9	21	12	141	e30	e8.0	38	35	46	20	15	7.2	3.2
10	15	12	125	e28	e7.0	43	36	42	16	12	6.9	3.7
11	15	28	89	e27	e6.0	159	45	37	14	9.1	6.3	6.3
12	50	60	72	e26	e5.0	e90	64	33	12	7.8	5.6	5.3
13	41	57	68	29	e6.0	e56	51	31	11	7.7	5.2	4.4
14	25	52	80	e42	e9.0	e41	41	28	11	7.8	5.4	5.3
15	21	49	e76	e48	e20	e35	36	25	10	10	5.3	3.5
16	178	48	e56	e35	e60	e30	36	27	10	15	5.3	3.4
17	125	37	e50	e30	35	e28	87	27	8.7	11	5.5	3.3
18	91	32	e47	e25	24	e25	129	23	8.0	10	7.4	3.3
19	65	30	e43	e23	26	e24	112	23	8.6	13	8.0	3.9
20	49	28	e45	e21	30	e23	89	20	8.9	17	7.3	3.7
21	38	29	e39	e25	23	e22	74	18	9.3	11	6.0	3.5
22	34	164	e36	e32	19	e21	71	16	8.8	8.4	5.2	4.4
23	30	623	e34	e54	20	e20	75	15	7.7	8.4	4.9	8.1
24	27	262	e33	e100	20	e19	63	15	7.8	8.7	4.7	6.3
25	25	170	e32	e70	18	e18	100	18	8.8	7.1	4.7	4.9
26	23	119	e40	e45	29	24	102	15	8.9	6.5	4.3	4.5
27	22	91	e25	e35	32	57	78	16	8.6	6.0	4.1	5.2
28	20	75	e23	e27	e26	53	62	19	11	5.5	4.0	4.4
29	20	70	e24	e22	e28	35	54	16	8.8	6.9	4.5	4.3
30	18	64	e30	e18	---	32	49	14	7.7	14	5.0	4.1
31	17	---	e39	e17	---	39	---	30	---	13	4.9	---
TOTAL	1195.0	2226	1665	1103	557.0	1126	1757	1169	499.6	300.3	231.8	130.1
MEAN	38.5	74.2	53.7	35.6	19.2	36.3	58.6	37.7	16.7	9.69	7.48	4.34
MAX	178	623	141	100	60	159	129	180	65	17	20	8.1
MIN	6.7	12	23	17	5.0	18	29	14	7.7	5.5	4.0	3.2
CFSM	1.18	2.28	1.65	1.09	.59	1.11	1.80	1.16	.51	.30	.23	.13
IN.	1.36	2.54	1.90	1.26	.64	1.28	2.00	1.33	.57	.34	.26	.15

e Estimated

HUDSON RIVER BASIN

01359750 MOORDENER KILL AT CASTLETON-ON-HUDSON, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1992, BY WATER YEAR (WY)

MEAN	21.0	33.7	42.4	41.0	50.7	87.6	75.1	46.8	23.8	13.4	12.3	12.2
MAX	99.8	83.0	123	182	144	194	171	133	76.5	46.1	57.0	105
(WY)	1976	1973	1984	1979	1981	1977	1983	1984	1972	1972	1976	1960
MIN	3.21	3.39	4.20	3.76	6.39	10.2	26.4	10.5	3.58	2.70	2.12	1.81
(WY)	1964	1965	1965	1981	1980	1965	1966	1965	1965	1965	1964	1964

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1958 - 1992

ANNUAL TOTAL	14288.9	11959.8	
ANNUAL MEAN	39.1	32.7	38.3
HIGHEST ANNUAL MEAN			60.0
LOWEST ANNUAL MEAN			8.41
HIGHEST DAILY MEAN	623	Nov 23	1230
LOWEST DAILY MEAN	4.0	Aug 1	1.0
ANNUAL SEVEN-DAY MINIMUM	4.4	Jul 27	1.4
ANNUAL RUNOFF (CFSM)	1.20		1.17
ANNUAL RUNOFF (INCHES)	16.31		15.95
10 PERCENT EXCEEDS	80		87
50 PERCENT EXCEEDS	26		20
90 PERCENT EXCEEDS	5.5		5.0

HUDSON RIVER BASIN

01360640 VALATIE KILL NEAR NASSAU, NY

LOCATION.--Lat 42°33'07", long 73°35'31", Rensselaer County, Hydrologic Unit 02020006, on left bank about 200 ft upstream from bridge on Hoags Corners Road, and 2.7 mi northeast of Nassau.

DRAINAGE AREA.--9.48 mi².

PERIOD OF RECORD.--October 1990 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 450 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 455 ft³/s, Nov. 23, 1991, gage height, 4.72 ft, from rating curve extended above 90 ft³/s; minimum discharge, 0.09 ft³/s, Aug. 1, 2, 3, 1991, gage height, 0.80 ft; minimum daily, 0.10 ft³/s, Aug. 2, 1991.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 130 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 16	0615	144	3.26	Nov. 23	0230	*455	*4.72

Minimum discharge, 0.23 ft³/s, Sept. 8, 9, gage height, 0.85 ft; minimum daily, 0.25 ft³/s, Sept. 8, 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	3.8	17	5.8	5.0	e4.7	16	13	16	1.1	9.8	.54
2	1.9	3.5	16	4.9	e3.9	4.5	14	17	14	.71	5.9	.45
3	1.4	3.3	16	5.6	e3.2	3.7	12	68	8.3	.63	3.4	.44
4	1.4	3.1	25	6.7	e3.0	3.9	13	35	5.4	1.7	3.5	.50
5	1.1	2.7	e19	12	e2.7	4.7	14	24	4.0	1.9	5.6	.43
6	72	2.6	16	13	2.3	5.4	13	19	8.9	2.3	3.5	.29
7	43	2.6	14	12	2.2	6.8	13	16	7.2	2.3	2.5	.28
8	23	2.6	15	e11	e1.8	11	15	14	4.9	1.5	2.0	.25
9	14	2.4	44	9.3	e1.5	13	15	13	3.9	6.1	1.8	.31
10	9.7	2.2	42	e8.3	e1.2	15	15	12	3.1	4.0	1.9	.57
11	8.8	12	32	e6.0	e1.1	65	16	10	2.5	2.4	1.7	2.9
12	30	19	26	e6.3	e1.0	46	23	9.0	2.3	1.8	1.4	1.3
13	20	19	25	6.5	.93	e28	19	7.1	1.9	1.8	1.1	.69
14	14	18	32	16	.97	e18	15	6.9	1.7	2.1	1.2	.47
15	11	17	35	e13	1.1	12	12	5.8	1.6	2.7	1.1	.42
16	78	17	e25	e6.3	e4.7	9.9	11	6.1	1.3	4.7	.96	.37
17	39	14	e19	e5.1	5.3	8.2	31	6.1	.98	3.1	.86	.30
18	31	11	16	e5.1	4.2	7.6	43	5.3	.83	3.0	1.6	.25
19	21	10	11	e4.4	5.4	6.8	40	4.6	.75	3.7	2.4	.56
20	16	9.6	11	e3.6	6.2	e6.0	29	4.0	1.5	5.5	2.1	.51
21	13	9.2	11	3.3	4.6	e5.6	25	3.7	1.5	3.0	1.4	.44
22	11	73	11	3.2	4.8	e5.4	23	3.1	1.0	2.1	1.1	.50
23	8.8	279	10	11	4.6	4.5	23	2.9	.88	1.9	.83	2.2
24	7.7	90	9.8	e37	4.7	4.3	20	2.9	.93	2.0	.69	1.3
25	7.1	49	8.1	e11	4.1	e4.5	34	3.9	1.7	1.6	.64	.80
26	6.2	32	6.4	e7.8	7.1	7.1	35	3.2	1.5	1.2	.66	.64
27	5.3	25	6.5	6.0	7.2	31	26	3.1	3.4	1.1	.54	.64
28	5.2	21	5.6	5.7	e7.3	21	20	4.0	4.1	.85	.54	.64
29	4.8	20	6.6	4.9	e8.1	13	17	3.2	2.2	2.5	.63	.52
30	4.2	20	11	4.8	---	12	15	2.6	1.4	6.5	.56	.43
31	4.0	---	10	4.9	---	16	---	8.0	---	5.8	.59	---
TOTAL	515.8	793.6	552.0	260.5	110.20	404.6	617	336.5	109.67	81.59	62.50	19.94
MEAN	16.6	26.5	17.8	8.40	3.80	13.1	20.6	10.9	3.66	2.63	2.02	.66
MAX	78	279	44	37	8.1	65	43	68	16	6.5	9.8	2.9
MIN	1.1	2.2	5.6	3.2	.93	3.7	11	2.6	.75	.63	.54	.25
CFSM	1.76	2.79	1.88	.89	.40	1.38	2.17	1.15	.39	.28	.21	.07
IN.	2.02	3.11	2.17	1.02	.43	1.59	2.42	1.32	.43	.32	.25	.08

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1992, BY WATER YEAR (WY)

	1991	1992	1991	1992	1991	1992	1991	1992	1991	1992	1991	1992
MEAN	14.6	24.0	20.5	8.55	8.19	18.1	18.6	12.0	2.57	1.47	2.04	1.64
MAX	16.6	26.5	23.3	8.70	12.7	23.2	20.6	13.2	3.66	2.63	2.06	2.61
(WY)	1992	1991	1991	1992	1991	1992	1991	1992	1992	1991	1991	1991
MIN	12.6	21.6	17.8	8.40	3.80	13.1	16.7	10.9	1.49	.32	2.02	.66
(WY)	1991	1991	1992	1992	1992	1992	1991	1992	1991	1991	1992	1992

HUDSON RIVER BASIN

01360640 VALATIE KILL NEAR NASSAU, NY--Continued

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1991 - 1992

ANNUAL TOTAL	4315.37		3863.90			
ANNUAL MEAN	11.8		10.6		11.1	
HIGHEST ANNUAL MEAN					11.5	1991
LOWEST ANNUAL MEAN					10.6	1992
HIGHEST DAILY MEAN	279	Nov 23	279	Nov 23	279	Nov 23 1991
LOWEST DAILY MEAN	.10	Aug 2	.25	Sep 8	.10	Aug 2 1991
ANNUAL SEVEN-DAY MINIMUM	.14	Jul 20	.36	Sep 3	.14	Jul 20 1991
ANNUAL RUNOFF (CFSM)	1.25		1.11		1.17	
ANNUAL RUNOFF (INCHES)	16.93		15.16		15.84	
10 PERCENT EXCEEDS	26		24		25	
50 PERCENT EXCEEDS	7.2		5.3		6.4	
90 PERCENT EXCEEDS	.24		.78		.47	

HUDSON RIVER BASIN

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 Bushnellville Creek, 0.5 mi upstream from Fox Hollow Creek, and 5.2 mi northwest of Phoenicia.

DRAINAGE AREA.--59.5 mi².

PERIOD OF RECORD.--Water years 1963 to August 1992 (discontinued). Published as Esopus Creek at Allaben, October 1988 to September 1989.

CHEMICAL DATA: 1963-65 (a), 1966-67 (b), 1968-82 (d), 1983-84 (b), 1985 (c), 1986 (b), 1987 (a), 1988-92 (b).

MINOR ELEMENT DATA: 1964-65, 1967-73, 1975-76 (a), 1977 (b), 1978-87 (a), 1988-92 (b).

RADIOCHEMICAL DATA: 1967-77, 1979-85, 1988-92 (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), 1986-87 (a), 1988-92 (b).

BIOLOGICAL DATA:

Bacteria--1968-69 (d), 1970-72 (c), 1973-82 (d), 1983-85 (b), 1986-88 (a), 1990-92 (b).

SEDIMENT DATA: 1969-71 (c), 1972-75, 1977-82 (d), 1983-86, 1988-92 (b).

REMARKS.--Water discharge data based on records obtained at Allaben (station 01362200).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (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 (MG/L)	COLI- FORM, FECAL, (PER- CENT SATUR- ATION)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 13...	1245	34	42	7.5	5.0	1.0	737	11.8	96	K3	K9
MAR 10...	1315	137	53	7.4	5.0	1.0	732	12.6	103	K4	K1
MAY 11...	1345	146	37	7.4	13.0	0.70	746	10.2	99	K19	<1
AUG 04...	1230	78	60	7.7	20.0	1.6	736	9.3	106	45	53

DATE	HARD- NESS TOTAL (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 WAT DIS TOT IT FIELD (MG/L AS CACO3)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3)	CAR- BONATE WATER DIS IT 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 13...	21	6.1	1.4	3.3	0.40	15	18	0	7.6	5.1	0.10
MAR 10...	19	5.7	1.2	4.0	0.30	8	10	0	7.0	8.7	0.10
MAY 11...	15	4.4	0.99	2.6	0.40	8	10	0	6.8	3.2	<0.10
AUG 04...	21	6.4	1.3	4.0	0.40	17	20	0	6.7	5.8	<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 ORTHOPHOS- PHATE, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)
NOV 13...	1.6	32	34	--	--	--	--	--	--	--	<10
MAR 10...	2.3	39	36	0.420	0.010	<0.010	<0.20	<0.010	<0.010	<0.010	<10
MAY 11...	2.7	39	26	0.074	0.030	0.020	<0.20	<0.010	<0.010	<0.010	<10
AUG 04...	2.9	29	38	0.074	0.030	0.040	<0.20	0.010	<0.010	<0.010	30

K Results based on colony count outside the acceptable range (non-ideal colony count).

HUDSON RIVER BASIN

01362198 ESOPUS CREEK AT SHANDAKEN, NY--Continued
(Hydrologic bench-mark station)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	COBALT, DIS- SOLVED (UG/L AS CO)	IRON, DIS- SOLVED (UG/L AS FE)	LITHIUM, DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	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)
NOV 13...	12	<3	5	<4	3	<10	<1	<1	<1.0	20	<6
MAR 10...	12	<3	5	<4	3	<10	<1	<1	<1.0	20	<6
MAY 11...	9	<3	5	<4	2	<10	<1	<1	<1.0	15	<6
AUG 04...	11	<3	10	<4	4	<10	2	<1	<1.0	21	<6

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	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, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
MAR 10...	1315	137	<0.6	1.6	0.7	<0.6	<0.6	<0.6	<0.02	<0.01

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, DIS- SOLVED, SUS- PENDED (MG/L)	SEDIMENT, DIS- SOLVED, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 13...	1245	34	1	0.09	93
MAR 10...	1315	137	3	1.1	75
MAY 11...	1345	146	2	0.79	90
AUG 04...	1230	78	4	0.84	98

HUDSON RIVER BASIN

01362200 ESOPUS CREEK AT ALLABEN, NY
(Hydrologic bench-mark station)

LOCATION.--Lat 42°07'01", long 74°22'50", Ulster County, Hydrologic Unit 02020006, on right bank, 20 ft downstream from bridge on Fox Hollow Road, 0.5 mi west of Allaben, 200 ft downstream from Fox Hollow Creek, and 600 ft upstream from Peck Hollow Creek. Water-quality sampling site at discharge station.

DRAINAGE AREA.--63.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year. Prior to October 1988, published as Esopus Creek at Shandaken.

GAGE.--Water-stage recorder. Datum of gage is 998.04 ft above National Geodetic Vertical Datum of 1929. Prior to November 22, 1988, at site 0.5 mi upstream at datum 19.23 ft higher.

REMARKS.--Records poor. Occasional slight regulation when filling or draining swimming pools or small ponds upstream from station. Satellite gage-height and temperature telemeter at station.

AVERAGE DISCHARGE.--29 years, 136 ft³/s, 28.99 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,100 ft³/s, Apr. 4, 1987, gage height, 13.70 ft, from floodmarks, site and datum then in use, from rating curve extended above 3,000 ft³/s, on basis of slope-area measurement at gage height 13.70 ft, at site 0.5 mi upstream, not adjusted for undetermined amount of flow bypassing gage; minimum discharge, 2.1 ft³/s, Sept. 16, 1983 (result of slight regulation upstream from station).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 30, 1951 reached a stage of about 15.1 ft, at previous site and datum, from information supplied by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 23	0130	*1,490	*6.80	Mar. 27	0530	1,450	6.75
Mar. 11	1315	1,400	6.69	June 6	0315	1,480	6.79

Minimum discharge, 9.6 ft³/s, Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	39	116	e68	e94	e46	236	236	303	64	55	78
2	10	37	104	e64	e88	e50	207	219	261	56	38	64
3	10	36	114	66	e80	53	182	280	222	59	30	69
4	10	34	108	109	e70	53	163	251	191	74	61	69
5	11	33	91	145	e66	55	146	240	237	61	60	52
6	15	32	85	149	e60	58	132	225	1020	68	43	41
7	16	31	80	153	e54	73	126	206	582	49	34	37
8	15	31	89	145	e50	100	120	191	494	41	29	34
9	14	30	130	140	e45	118	115	179	439	50	81	30
10	14	29	146	136	e42	143	114	162	340	38	83	32
11	17	35	157	122	e40	1000	122	147	263	31	65	77
12	25	37	158	111	e40	754	251	135	210	28	53	47
13	24	34	166	105	e40	489	228	127	173	33	46	38
14	23	33	224	191	e45	353	224	119	145	35	45	35
15	32	34	246	193	e58	275	211	109	124	71	40	30
16	166	34	226	e160	78	222	202	107	106	99	36	25
17	136	34	209	e150	54	191	315	97	92	70	34	22
18	238	34	188	e130	48	161	457	92	82	75	43	20
19	151	34	157	e120	58	145	548	85	77	52	36	21
20	112	34	139	e110	58	129	494	78	79	51	28	17
21	91	37	131	e110	52	115	438	73	68	44	22	16
22	79	133	119	e105	50	105	429	68	62	37	19	24
23	69	1010	111	163	51	97	420	65	56	43	17	63
24	62	556	101	239	52	88	393	69	56	45	15	31
25	57	379	89	e170	52	83	481	68	55	35	18	23
26	53	279	81	e160	56	117	467	62	49	32	29	39
27	50	216	74	e140	54	975	422	60	46	32	35	46
28	47	178	69	e130	e50	529	366	56	45	24	100	37
29	44	150	76	e120	e48	385	313	53	51	22	142	32
30	42	130	83	e110	---	308	271	50	64	20	118	31
31	41	---	e70	e100	---	269	---	189	---	45	93	---
TOTAL	1685	3743	3937	4114	1633	7539	8593	4098	5992	1484	1548	1180
MEAN	54.4	125	127	133	56.3	243	286	132	200	47.9	49.9	39.3
MAX	238	1010	246	239	94	1000	548	280	1020	99	142	78
MIN	10	29	69	64	40	46	114	50	45	20	15	16
CFSM	.85	1.96	1.99	2.08	.88	3.82	4.50	2.08	3.14	.75	.78	.62
IN.	.98	2.19	2.30	2.40	.95	4.40	5.02	2.39	3.50	.87	.90	.69

e Estimated

HUDSON RIVER BASIN

01362200 ESOPUS CREEK AT ALLABEN, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

MEAN	78.4	135	161	125	146	250	313	204	103	53.9	30.4	40.9
MAX	370	346	496	358	385	553	683	511	363	208	86.3	213
(WY)	1978	1973	1974	1978	1981	1977	1987	1989	1973	1972	1969	1987
MIN	4.16	5.58	49.4	19.4	29.6	69.9	127	67.3	19.4	8.94	6.30	4.23
(WY)	1965	1965	1965	1981	1987	1970	1985	1987	1965	1965	1964	1964

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1964 - 1992

ANNUAL TOTAL	38172.1	45546	
ANNUAL MEAN	105	124	137
HIGHEST ANNUAL MEAN			218
LOWEST ANNUAL MEAN			59.8
HIGHEST DAILY MEAN	1160	Mar 4	5000
LOWEST DAILY MEAN	5.2	Sep 14	3.3
ANNUAL SEVEN-DAY MINIMUM	5.6	Sep 8	3.5
ANNUAL RUNOFF (CFSM)	1.64		2.14
ANNUAL RUNOFF (INCHES)	22.29		29.12
10 PERCENT EXCEEDS	228	262	300
50 PERCENT EXCEEDS	72	73	76
90 PERCENT EXCEEDS	9.4	30	13

HUDSON RIVER BASIN

01362200 ESOPUS CREEK AT ALLABEN, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: July 1963 to July 1968, January 1970 to current year. Prior to October 1988, published as Esopus Creek at Shandaken.

INSTRUMENTATION.--Water-temperature satellite telemeter since June 1989, provides 15-minute-interval readings. Prior to June 1989, water-temperature digital recorder provided one-hour-interval punches, and prior to November 1981, water-temperature recorder provided continuous recordings.

REMARKS.--Interruptions of record were due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1963-76, 1978-80, 1982, 1985-86, 1989-92), 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, 23.5°C, July 20; minimum, 0.0°C on many days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	14.5	8.5	11.5	12.0	9.0	10.5	9.0	7.0	8.0	1.0	0.0	0.5
2	16.5	13.0	14.5	11.5	10.0	10.5	7.0	4.5	6.5	2.0	0.0	---
3	16.5	13.5	15.0	10.0	7.0	8.5	5.0	1.0	3.5	4.0	2.0	3.0
4	17.0	13.5	15.5	7.0	5.0	6.5	5.0	1.5	4.0	4.0	3.0	3.5
5	17.0	15.0	16.0	5.5	3.0	4.5	2.5	1.0	2.0	4.5	3.5	4.0
6	16.0	12.5	14.5	6.0	3.0	4.5	3.0	1.5	2.5	3.5	2.5	3.5
7	12.5	9.5	11.0	6.0	4.0	5.0	4.5	2.0	3.0	3.5	2.5	3.0
8	11.5	8.0	9.5	6.0	4.0	5.0	6.0	4.5	5.0	2.5	1.0	2.0
9	12.0	8.0	10.0	4.5	2.5	3.5	7.0	5.5	6.0	3.0	1.5	2.0
10	13.5	9.5	11.5	5.5	2.5	4.0	5.5	4.0	5.0	3.5	2.0	3.0
11	12.5	10.5	11.5	6.0	5.0	5.5	5.5	3.0	4.5	2.0	1.0	1.5
12	12.0	9.5	10.5	5.5	4.5	5.0	5.5	3.5	4.5	2.5	0.5	1.5
13	11.0	8.0	9.5	6.0	5.0	5.5	8.0	5.5	7.0	4.5	2.0	3.0
14	10.5	8.0	9.0	6.5	5.0	5.5	7.5	5.0	7.0	5.5	2.0	4.0
15	11.0	8.5	9.5	7.5	4.5	5.5	5.0	3.0	3.5	---	---	---
16	11.5	9.0	10.5	8.0	5.0	7.0	3.0	1.5	2.5	0.0	0.0	0.0
17	10.0	8.5	9.0	5.0	2.5	3.5	2.0	1.0	1.5	0.0	0.0	0.0
18	12.0	9.0	10.0	4.5	1.5	3.0	2.5	0.5	2.0	0.0	0.0	0.0
19	10.5	9.0	9.5	8.0	4.5	6.0	---	0.0	---	---	0.0	---
20	9.5	7.0	8.0	10.5	7.5	9.0	2.5	0.5	1.5	---	0.0	---
21	9.0	6.0	7.5	10.5	9.5	10.0	3.5	2.5	3.0	---	0.0	---
22	10.5	7.0	8.5	9.5	8.5	9.0	3.5	2.5	3.0	1.5	0.0	1.0
23	11.0	7.0	9.0	9.0	8.0	8.5	4.0	2.0	3.0	2.0	0.5	1.0
24	11.5	8.0	10.0	8.5	6.0	8.0	3.5	0.5	2.0	2.5	---	---
25	12.5	9.0	11.0	6.0	5.0	5.5	2.0	0.5	1.5	---	---	---
26	13.0	9.5	11.0	5.5	4.0	5.0	1.5	0.0	---	---	0.0	---
27	13.5	10.0	12.0	5.0	3.5	4.0	2.5	1.0	2.0	1.5	0.0	---
28	12.5	8.5	11.0	6.5	4.0	5.0	2.0	0.0	---	2.5	0.5	1.5
29	8.5	6.5	7.5	7.5	6.0	7.0	3.5	2.0	3.0	3.0	0.5	2.0
30	8.5	5.0	7.0	9.0	6.0	7.5	3.5	0.5	2.5	3.0	0.5	2.0
31	9.5	7.0	8.5	---	---	---	1.0	0.0	0.5	3.0	2.0	2.5

MONTH	17.0	5.0	10.5	12.0	1.5	6.5	---	0.0	---	---	---	---
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HUDSON RIVER BASIN

01362200 ESOPUS CREEK AT ALLABEN, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	2.0	---	---	---	---	---	5.0	2.0	3.5	11.0	6.5	8.0
2	0.0	0.0	0.0	1.0	0.5	1.0	5.0	2.5	3.5	13.5	7.0	10.0
3	0.0	0.0	0.0	3.0	1.0	1.5	5.0	2.0	3.0	12.5	8.0	9.5
4	0.5	0.0	---	4.5	0.0	---	6.0	2.0	3.5	10.5	6.5	8.0
5	---	0.0	---	6.5	1.0	3.5	6.5	1.5	3.5	7.5	5.5	6.5
6	---	---	---	5.0	3.0	4.0	8.0	2.0	4.5	7.5	5.5	6.5
7	0.5	---	---	4.0	2.5	3.5	8.0	3.0	5.0	11.0	4.5	7.5
8	1.5	0.5	1.0	5.5	4.0	4.5	8.0	4.5	6.0	9.5	6.5	8.0
9	0.0	0.0	0.0	6.0	4.0	5.0	6.0	2.5	4.5	13.0	8.0	10.0
10	0.0	0.0	0.0	6.0	3.5	5.0	10.5	4.5	7.0	13.5	8.0	10.5
11	0.0	0.0	0.0	5.5	1.0	3.5	7.0	4.5	5.5	15.5	9.0	11.5
12	---	0.0	---	3.0	1.0	1.5	6.5	3.0	4.5	16.0	8.5	12.0
13	---	---	---	2.5	0.5	1.5	7.0	1.5	4.0	16.5	9.5	12.5
14	---	0.0	---	2.5	0.5	1.0	8.5	2.5	5.0	14.0	10.5	12.0
15	---	0.0	---	3.0	---	---	8.5	2.5	5.0	14.0	9.5	11.5
16	0.5	0.0	---	3.0	0.5	---	4.5	2.0	3.0	11.5	10.0	10.5
17	2.0	0.0	1.0	3.5	0.5	---	4.0	2.5	3.5	---	---	---
18	2.5	---	---	4.5	0.5	2.0	6.0	3.5	4.5	14.5	10.5	12.0
19	5.0	2.0	---	2.5	1.5	2.0	7.0	4.0	5.0	16.0	8.5	12.0
20	3.5	2.0	3.0	5.0	0.5	---	10.5	5.0	7.0	16.5	8.0	12.0
21	3.0	1.5	2.0	3.5	0.5	---	9.5	6.5	8.0	17.5	9.0	13.0
22	2.5	0.5	1.5	---	---	---	9.0	7.5	8.0	17.5	10.0	13.5
23	4.5	1.5	3.0	3.0	0.5	---	11.0	7.0	8.0	18.5	10.5	14.5
24	3.0	1.0	2.0	3.0	0.5	---	9.0	6.5	7.5	14.5	9.5	12.0
25	1.5	1.0	1.5	4.5	0.5	---	7.5	5.5	6.5	13.5	8.5	10.5
26	3.0	1.5	2.0	4.0	2.5	3.0	7.0	5.0	6.0	11.5	9.0	10.5
27	3.5	1.0	2.0	3.5	2.0	3.0	9.5	5.0	7.0	11.0	9.0	10.0
28	3.0	0.5	2.0	3.0	2.0	2.5	8.5	4.5	6.5	14.0	8.5	11.0
29	---	---	---	5.5	1.5	3.0	11.0	5.0	7.5	16.5	8.0	12.0
30	---	---	---	4.5	2.5	3.5	8.0	5.0	6.5	13.0	9.0	11.5
31	---	---	---	6.5	3.0	4.0	---	---	---	11.5	10.0	11.0
MONTH	---	---	---	---	---	---	11.0	1.5	5.5	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	10.0	9.5	10.0	21.5	14.5	17.5	20.5	15.5	17.5	17.0	13.5	15.5
2	13.5	9.0	11.0	20.5	14.0	17.0	22.0	14.5	18.0	18.0	12.0	15.0
3	14.5	8.5	11.0	16.0	13.5	14.5	22.5	16.0	19.0	16.0	15.0	15.5
4	14.5	9.0	11.5	17.0	13.0	14.5	20.0	17.0	18.5	20.5	15.5	17.5
5	12.0	10.5	11.0	16.0	12.5	14.5	20.5	15.5	18.0	19.5	14.5	17.5
6	11.0	9.5	10.0	20.0	13.5	16.5	22.0	14.0	18.0	17.5	16.0	16.5
7	12.0	9.5	10.5	19.5	13.0	16.5	20.5	14.5	18.0	17.5	15.5	16.5
8	12.0	10.0	11.0	19.5	13.5	16.5	20.5	15.0	17.5	20.0	16.5	18.0
9	---	10.0	---	21.5	15.5	18.0	20.0	17.0	18.5	21.0	17.0	19.0
10	13.0	8.5	10.5	21.5	16.0	18.5	21.0	16.5	18.5	21.5	18.0	19.5
11	13.5	9.0	11.0	20.5	17.0	18.5	20.5	16.5	18.5	19.5	16.0	17.5
12	15.0	9.0	11.5	19.0	15.5	17.0	21.0	15.5	18.0	17.5	13.5	15.5
13	15.5	10.0	12.5	21.5	17.0	18.5	17.0	14.5	15.5	17.5	12.0	14.5
14	16.5	10.5	13.0	21.0	16.0	18.5	16.5	15.0	16.0	17.5	12.5	15.0
15	17.0	11.5	13.5	19.0	16.5	18.0	17.5	15.5	16.5	18.0	13.0	15.5
16	16.5	10.0	13.0	21.0	15.5	18.0	16.5	15.0	15.5	19.5	15.0	17.0
17	17.5	10.0	13.5	18.0	16.5	17.0	17.0	15.0	16.0	20.0	15.5	17.5
18	15.0	11.5	13.5	22.0	16.5	18.5	18.5	15.5	17.0	20.0	16.0	18.0
19	14.0	12.5	13.5	22.0	16.5	19.0	18.0	15.5	16.5	19.0	15.0	17.5
20	14.5	12.5	13.0	23.5	16.5	19.5	17.5	13.5	15.5	17.0	12.0	14.5
21	14.5	11.5	13.0	20.0	17.0	19.0	20.0	12.0	16.0	15.0	12.5	14.0
22	15.0	10.5	12.0	21.5	14.5	18.0	21.0	13.5	17.0	17.0	15.0	16.0
23	17.0	9.5	13.0	18.0	15.0	16.0	22.0	15.0	18.5	16.0	12.5	14.5
24	14.0	11.0	12.5	20.0	14.5	17.0	22.5	15.5	---	13.5	9.5	11.5
25	15.0	11.5	13.0	21.5	15.0	18.0	20.5	---	---	13.0	8.5	11.0
26	16.0	10.5	13.5	18.0	15.5	17.0	23.0	17.0	19.5	14.0	12.0	13.0
27	16.5	12.0	14.5	23.0	16.0	19.0	22.5	18.0	20.0	14.5	13.0	14.0
28	19.5	12.0	15.5	19.5	16.0	17.5	21.0	17.5	19.0	15.5	12.5	14.0
29	20.5	12.5	16.5	22.0	15.0	18.0	19.5	15.5	17.5	13.5	11.0	12.5
30	20.5	14.0	17.0	22.5	16.5	19.0	19.5	13.5	16.5	11.5	9.5	10.5
31	---	---	---	18.0	16.0	17.0	19.5	15.5	17.0	---	---	---
MONTH	---	8.5	---	23.5	12.5	17.5	23.0	---	---	21.5	8.5	15.5

HUDSON RIVER BASIN

01362500 ESOPUS CREEK AT COLD BROOK, 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 mi².

PERIOD OF RECORD.--January 1914 to September 1925 (monthly discharge only, furnished by State engineer and surveyor of New York, published in WSP 1302), October 1925 to September 1931 (monthly discharge only, furnished by Board of Water Supply, City of New York, published in WSP 1302), October 1931 to current year.

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.--Records good except those for estimated daily discharges, which are fair. 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. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 65,300 ft³/s, Mar. 21, 1980, gage height 21.94 ft, from rating curve extended above 13,000 ft³/s, on basis of slope-area measurements at gage heights 12.39 ft, 15.15 ft, and 20.70 ft; minimum daily (corrected), 9.3 ft³/s, Aug. 27, 1949.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,470 ft³/s, Mar. 11, gage height, 10.58 ft; minimum, 95 ft³/s, Sept. 18, gage height, 3.67 ft; minimum daily, 99 ft³/s, Sept. 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	186	1170	1040	1130	412	1460	1570	2820	304	324	238
2	134	203	1130	1040	1070	423	1380	1530	1610	314	302	228
3	133	197	1200	1040	e1050	409	1310	1760	1620	429	293	240
4	133	191	1200	1120	e1010	404	1260	1630	1410	467	299	249
5	145	185	1120	1210	e1000	409	1210	1590	1780	437	241	236
6	203	182	1100	1200	e980	411	1170	1540	4690	440	225	229
7	191	178	1070	1190	e950	507	1160	1480	2000	417	219	226
8	177	174	1120	1170	e930	638	1140	1440	1570	407	217	226
9	168	228	1280	1160	e910	664	1120	1420	1310	399	270	222
10	162	228	1310	1150	e890	732	1120	1370	990	315	263	222
11	168	297	1290	1120	e880	5170	1140	1330	775	306	249	255
12	193	296	1270	1100	e870	2510	1530	1290	683	302	237	228
13	184	275	1280	1090	e850	1500	1410	1260	646	306	232	221
14	177	265	1390	1490	754	1090	1380	1230	565	303	302	214
15	489	264	1440	1450	374	851	1340	1210	506	331	512	172
16	1480	263	1390	e1320	460	692	1340	1210	476	408	508	108
17	778	258	1350	e1280	438	681	1750	1180	451	503	444	99
18	1130	256	1310	e1200	423	814	2140	1170	441	890	260	112
19	695	256	1230	e1160	549	963	2390	1140	427	874	248	195
20	512	257	1220	e1150	526	909	2170	1120	443	716	238	194
21	412	268	1200	e1130	484	864	2050	1100	407	360	231	192
22	356	674	1170	e1100	466	824	2090	1080	382	338	225	195
23	328	3370	1140	1390	465	803	2100	1060	367	331	223	218
24	291	1860	1120	1730	468	776	1990	1070	381	332	219	198
25	270	1450	1090	1370	456	772	2330	1060	378	319	225	215
26	251	1430	1060	1320	461	1000	2230	998	355	316	220	375
27	235	1460	1040	1280	455	3780	2120	858	354	315	212	383
28	223	1350	1030	1250	437	1760	1920	730	349	303	243	368
29	209	1280	1090	1220	e420	1270	1780	671	326	299	326	357
30	198	1220	1120	1190	---	1070	1670	539	315	296	273	350
31	191	---	1070	1170	---	1210	---	2400	---	317	251	---
TOTAL	10353	19001	37000	37830	20156	34318	49200	39036	28827	12394	8531	6965
MEAN	334	633	1194	1220	695	1107	1640	1259	961	400	275	232
MAX	1480	3370	1440	1730	1130	5170	2390	2400	4690	890	512	383
MIN	133	174	1030	1040	374	404	1120	539	315	296	212	99

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1992, BY WATER YEAR (WY)

	462	783	881	783	786	1193	1386	903	606	500	397	390
MEAN	462	783	881	783	786	1193	1386	903	606	500	397	390
MAX	2509	1699	2083	1897	2756	2810	3309	2320	1216	1364	1460	1194
(WY)	1956	1943	1974	1937	1981	1936	1940	1989	1972	1945	1933	1937
MIN	22.3	43.6	178	145	137	406	552	429	233	52.0	44.9	27.3
(WY)	1942	1965	1965	1981	1980	1960	1985	1985	1933	1965	1962	1962

HUDSON RIVER BASIN

01362500 ESOPUS CREEK AT COLDBROOK, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR			FOR 1992 WATER YEAR			WATER YEARS 1932 - 1992		
ANNUAL TOTAL	203721			303611			755		
ANNUAL MEAN	558			830			1035		
HIGHEST ANNUAL MEAN							419		
LOWEST ANNUAL MEAN							24400		
HIGHEST DAILY MEAN	4540	Mar 4		5170	Mar 11		1470	Aug 24	1933
LOWEST DAILY MEAN	133	Oct 3		99	Sep 17		16	Aug 27	1949
ANNUAL SEVEN-DAY MINIMUM	138	Sep 29		153	Sep 15		544	Sep 24	1943
10 PERCENT EXCEEDS	1180			1510			159		
50 PERCENT EXCEEDS	425			682					
90 PERCENT EXCEEDS	193			215					

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 mi².

PERIOD OF RECORD (corrected).--April 1907 to December 1913, January 1914 to March 1918 (monthly discharges only, published in WSP 1302), March 1970 to current year. 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 April 1907 to March 1918, and at present datum June 9, 1966 to Aug. 12, 1970).

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow from 256 mi² 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 mi², together with spillage during high stages from the upstream reservoirs.

AVERAGE DISCHARGE.--22 years (water years 1971-92), 468 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 28,000 ft³/s, Apr. 26, 1910, gage height, 25.10 ft, datum then in use; maximum discharge since March 1970, 22,500 ft³/s, Apr. 5, 1987, gage height, 24.78 ft; minimum discharge, 9.7 ft³/s, Sept. 16, 17, 1980, gage height, 11.79 ft; minimum gage height, 11.77 ft, July 12, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,700 ft³/s, June 1, gage height, 19.21 ft; minimum, 20 ft³/s, Sept. 21, gage height, 11.99 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	78	265	e160	e200	e290	450	327	4370	78	93	27
2	43	74	236	e170	e180	e300	384	310	1800	68	90	25
3	38	71	305	e180	e165	e240	338	450	917	64	70	34
4	35	66	464	e200	159	e200	304	394	579	85	61	44
5	34	63	417	268	153	e190	274	343	453	92	62	37
6	170	61	357	254	133	e200	250	317	2750	100	52	33
7	219	58	315	232	129	e230	234	287	1540	90	44	31
8	140	56	295	213	128	e310	222	260	935	77	39	31
9	107	55	366	199	e110	e310	209	254	845	77	89	30
10	88	53	496	194	e96	e300	202	241	549	71	113	29
11	80	63	480	186	e94	e980	193	221	403	60	93	45
12	115	94	419	165	e92	e1000	325	201	322	55	73	39
13	112	97	397	160	e90	e710	325	187	266	54	57	33
14	100	93	445	376	e90	e540	274	173	224	51	50	29
15	94	88	497	662	e94	e400	249	155	192	61	46	27
16	688	85	418	e350	e140	e330	242	157	167	109	44	27
17	517	81	346	e270	e180	e300	507	165	149	91	62	26
18	615	77	311	e210	e140	e280	852	157	133	83	74	25
19	441	75	252	e180	e170	e260	1050	147	126	72	74	23
20	318	74	233	e170	e220	235	847	131	130	61	63	22
21	246	75	237	e180	e190	221	656	119	121	53	54	21
22	204	260	229	e190	e160	198	587	109	106	48	47	24
23	173	2940	214	242	e140	196	571	101	96	51	41	57
24	150	1610	e190	843	e140	179	475	94	104	68	37	44
25	134	1040	e175	e520	e150	173	626	115	137	58	34	37
26	120	684	156	e390	e260	200	686	105	124	50	33	35
27	110	501	e140	e310	e380	1510	601	97	121	51	32	37
28	98	406	e130	e270	e330	1230	502	91	139	46	31	35
29	91	344	e140	e250	e330	761	423	85	105	42	33	33
30	83	299	e230	e230	---	563	366	78	89	41	32	32
31	80	---	e200	e220	---	507	---	868	---	57	30	---
TOTAL	5490	9621	9355	8444	4843	13343	13224	6739	17992	2064	1753	972
MEAN	177	321	302	272	167	430	441	217	600	66.6	56.5	32.4
MAX	688	2940	497	843	380	1510	1050	868	4370	109	113	57
MIN	34	53	130	160	90	173	193	78	89	41	30	21

e Estimated

HUDSON RIVER BASIN

01364500 ESOPUS CREEK AT MOUNT MARION, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1992, BY WATER YEAR (WY)

MEAN	239	448	482	477	507	795	1240	752	383	166	94.5	130
MAX	837	1978	1498	1887	1745	2049	3306	1664	1773	747	426	609
(WY)	1914	1914	1976	1978	1976	1977	1987	1978	1972	1973	1990	1987
MIN	21.0	28.3	88.4	31.6	59.4	167	136	101	37.5	16.4	22.3	13.6
(WY)	1981	1985	1981	1981	1980	1981	1985	1985	1991	1991	1980	1980

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1914 - 1992
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ANNUAL TOTAL	94641	93840			
ANNUAL MEAN	259	256	468		
HIGHEST ANNUAL MEAN			908		1978
LOWEST ANNUAL MEAN			98.5		1985
HIGHEST DAILY MEAN	4060		17800		Apr 5 1987
LOWEST DAILY MEAN	10	21	10		Aug 20 1970
ANNUAL SEVEN-DAY MINIMUM	13	24	11		Sep 11 1980
10 PERCENT EXCEEDS	500	518	1210		
50 PERCENT EXCEEDS	143	158	172		
90 PERCENT EXCEEDS	16	39	33		

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 1.5 mi southwest of Sundown.

DRAINAGE AREA.--38.3 mi².

PERIOD OF RECORD.--February 1937 to current year.

REVISED RECORDS.--WSP 1702: 1952. WDR NY-90-1: Drainage area.

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.--Records poor.

AVERAGE DISCHARGE.--55 years, 97.7 ft³/s, 34.64 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 7,600 ft³/s, July 22, 1938, from rating curve extended above 2,600 ft³/s; maximum gage height, 10.6 ft, Apr. 4, 1987, from floodmarks; minimum discharge, 3.3 ft³/s, Sept. 16, 17, Oct. 17, 18, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 6	0145	*2,220	*6.48	No other peak greater than base discharge.			
Minimum discharge, 8.8 ft ³ /s, Oct. 3.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	35	85	68	e70	55	155	137	450	36	38	36
2	9.3	34	79	66	e62	54	139	137	260	33	30	34
3	9.2	32	110	67	e62	52	126	184	189	36	27	48
4	9.9	31	124	77	e58	53	116	141	149	59	38	49
5	9.7	30	90	82	e52	58	107	137	324	43	32	39
6	18	29	85	75	e51	62	101	135	1190	41	28	37
7	18	28	80	72	e50	71	96	124	451	34	26	38
8	14	27	86	69	51	89	94	118	321	31	25	41
9	13	26	123	68	e39	85	91	119	241	46	71	38
10	12	26	118	69	e37	97	92	111	181	34	46	37
11	15	46	106	66	e36	658	91	104	146	30	37	50
12	26	43	101	62	e35	364	147	98	124	28	33	38
13	20	35	132	62	e33	e240	113	94	108	30	32	35
14	17	32	170	118	42	e160	106	88	95	30	33	33
15	83	33	158	99	41	e130	102	84	84	44	33	32
16	232	33	136	e74	75	e115	104	90	75	75	31	31
17	133	30	e115	e70	53	e110	182	83	68	44	33	30
18	161	30	e105	e64	48	e105	252	79	63	41	42	29
19	108	30	e94	e62	66	e100	282	73	63	35	34	29
20	87	30	e90	e61	61	e92	238	69	80	32	30	27
21	75	33	e88	e60	53	e86	213	64	60	30	27	27
22	67	186	86	e66	49	e78	221	61	54	29	26	32
23	59	505	83	110	50	e74	222	58	50	35	24	44
24	54	271	78	158	50	e71	209	64	62	37	23	29
25	51	199	71	e85	49	e70	283	65	54	30	38	27
26	47	151	66	e84	70	108	248	57	47	31	68	33
27	45	126	63	86	64	595	221	57	54	35	49	40
28	42	113	60	84	e50	287	189	54	50	28	39	37
29	39	102	88	82	e52	212	166	50	42	29	62	31
30	37	92	92	80	---	177	150	48	38	36	44	28
31	36	---	e70	78	---	170	---	432	---	39	39	---
TOTAL	1556.4	2418	3032	2424	1509	4678	4856	3215	5173	1141	1138	1059
MEAN	50.2	80.6	97.8	78.2	52.0	151	162	104	172	36.8	36.7	35.3
MAX	232	505	170	158	75	658	283	432	1190	75	71	50
MIN	9.2	26	60	60	33	52	91	48	38	28	23	27
CFSM	1.31	2.10	2.55	2.04	1.36	3.94	4.23	2.71	4.50	.96	.96	.92
IN.	1.51	2.35	2.94	2.35	1.47	4.54	4.72	3.12	5.02	1.11	1.11	1.03

e Estimated

HUDSON RIVER BASIN

01365000 RONDOUT CREEK NEAR LOWES CORNERS, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1992, BY WATER YEAR (WY)

MEAN	64.0	98.4	115	88.5	95.5	162	217	139	73.1	47.4	34.4	37.7
MAX	403	295	338	239	299	379	447	382	299	264	226	185
(WY)	1956	1973	1974	1979	1981	1977	1940	1989	1972	1938	1938	1987
MIN	4.92	5.88	29.8	18.2	21.0	60.5	64.8	41.3	18.7	9.18	7.19	5.95
(WY)	1965	1965	1947	1981	1980	1970	1946	1941	1962	1962	1962	1964

SUMMARY STATISTICS FOR 1991 CALENDAR YEAR FOR 1992 WATER YEAR WATER YEARS 1937 - 1992

ANNUAL TOTAL	25229.1	32199.4	
ANNUAL MEAN	69.1	88.0	97.7
HIGHEST ANNUAL MEAN			144
LOWEST ANNUAL MEAN			49.1
HIGHEST DAILY MEAN	512	Mar 4	3500
LOWEST DAILY MEAN	5.9	Sep 14	3.6
ANNUAL SEVEN-DAY MINIMUM	6.3	Sep 8	4.1
ANNUAL RUNOFF (CFSM)	1.80		2.55
ANNUAL RUNOFF (INCHES)	24.50		34.65
10 PERCENT EXCEEDS	138		211
50 PERCENT EXCEEDS	58		58
90 PERCENT EXCEEDS	8.2		14

Time	Discharge (cfs)	Stage height (ft)	Date	Time	Discharge (cfs)	Stage height (ft)	Date
0745	12.10	48.46		0745	12.10	48.46	
No other peak greater than base discharge.							
min discharge, 8.8 cfs, Oct. 3.							
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992							
DAILY MEAN VALUES							
OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
8.7	12	22	32	22	22	128	127
9.3	14	24	34	24	24	129	127
9.8	15	25	35	25	25	130	128
9.9	16	26	36	26	26	131	129
9.7	15	25	35	25	25	132	130
10	16	26	36	26	26	133	131
10.1	17	27	37	27	27	134	132
10.2	18	28	38	28	28	135	133
10.3	19	29	39	29	29	136	134
10.4	20	30	40	30	30	137	135
10.5	21	31	41	31	31	138	136
10.6	22	32	42	32	32	139	137
10.7	23	33	43	33	33	140	138
10.8	24	34	44	34	34	141	139
10.9	25	35	45	35	35	142	140
11	26	36	46	36	36	143	141
11.1	27	37	47	37	37	144	142
11.2	28	38	48	38	38	145	143
11.3	29	39	49	39	39	146	144
11.4	30	40	50	40	40	147	145
11.5	31	41	51	41	41	148	146
11.6	32	42	52	42	42	149	147
11.7	33	43	53	43	43	150	148
11.8	34	44	54	44	44	151	149
11.9	35	45	55	45	45	152	150
12	36	46	56	46	46	153	151
12.1	37	47	57	47	47	154	152
12.2	38	48	58	48	48	155	153
12.3	39	49	59	49	49	156	154
12.4	40	50	60	50	50	157	155
12.5	41	51	61	51	51	158	156
12.6	42	52	62	52	52	159	157
12.7	43	53	63	53	53	160	158
12.8	44	54	64	54	54	161	159
12.9	45	55	65	55	55	162	160
13	46	56	66	56	56	163	161
13.1	47	57	67	57	57	164	162
13.2	48	58	68	58	58	165	163
13.3	49	59	69	59	59	166	164
13.4	50	60	70	60	60	167	165
13.5	51	61	71	61	61	168	166
13.6	52	62	72	62	62	169	167
13.7	53	63	73	63	63	170	168
13.8	54	64	74	64	64	171	169
13.9	55	65	75	65	65	172	170
14	56	66	76	66	66	173	171
14.1	57	67	77	67	67	174	172
14.2	58	68	78	68	68	175	173
14.3	59	69	79	69	69	176	174
14.4	60	70	80	70	70	177	175
14.5	61	71	81	71	71	178	176
14.6	62	72	82	72	72	179	177
14.7	63	73	83	73	73	180	178
14.8	64	74	84	74	74	181	179
14.9	65	75	85	75	75	182	180
15	66	76	86	76	76	183	181
15.1	67	77	87	77	77	184	182
15.2	68	78	88	78	78	185	183
15.3	69	79	89	79	79	186	184
15.4	70	80	90	80	80	187	185
15.5	71	81	91	81	81	188	186
15.6	72	82	92	82	82	189	187
15.7	73	83	93	83	83	190	188
15.8	74	84	94	84	84	191	189
15.9	75	85	95	85	85	192	190
16	76	86	96	86	86	193	191
16.1	77	87	97	87	87	194	192
16.2	78	88	98	88	88	195	193
16.3	79	89	99	89	89	196	194
16.4	80	90	100	90	90	197	195
16.5	81	91	101	91	91	198	196
16.6	82	92	102	92	92	199	197
16.7	83	93	103	93	93	200	198
16.8	84	94	104	94	94	201	199
16.9	85	95	105	95	95	202	200
17	86	96	106	96	96	203	201
17.1	87	97	107	97	97	204	202
17.2	88	98	108	98	98	205	203
17.3	89	99	109	99	99	206	204
17.4	90	100	110	100	100	207	205
17.5	91	101	111	101	101	208	206
17.6	92	102	112	102	102	209	207
17.7	93	103	113	103	103	210	208
17.8	94	104	114	104	104	211	209
17.9	95	105	115	105	105	212	210
18	96	106	116	106	106	213	211
18.1	97	107	117	107	107	214	212
18.2	98	108	118	108	108	215	213
18.3	99	109	119	109	109	216	214
18.4	100	110	120	110	110	217	215
18.5	101	111	121	111	111	218	216
18.6	102	112	122	112	112	219	217
18.7	103	113	123	113	113	220	218
18.8	104	114	124	114	114	221	219
18.9	105	115	125	115	115	222	220
19	106	116	126	116	116	223	221
19.1	107	117	127	117	117	224	222
19.2	108	118	128	118	118	225	223
19.3	109	119	129	119	119	226	224
19.4	110	120	130	120	120	227	225
19.5	111	121	131	121	121	228	226
19.6	112	122	132	122	122	229	227
19.7	113	123	133	123	123	230	228
19.8	114	124	134	124	124	231	229
19.9	115	125	135	125	125	232	230
20	116	126	136	126	126	233	231
20.1	117	127	137	127	127	234	232
20.2	118	128	138	128	128	235	233
20.3	119	129	139	129	129	236	234
20.4	120	130	140	130	130	237	235
20.5	121	131	141	131	131	238	236
20.6	122	132	142	132	132	239	237
20.7	123	133	143	133	133	240	238
20.8	124	134	144	134	134	241	239
20.9	125	135	145	135	135	242	240
21	126	136	146	136	136	243	241
21.1	127	137	147	137	137	244	242
21.2	128	138	148	138	138	245	243
21.3	129	139	149	139	139	246	244
21.4	130	140	150	140	140	247	245
21.5	131	141	151	141	141	248	246
21.6	132	142	152	142	142	249	247
21.7	133	143	153	143	143	250	248
21.8	134	144	154	144	144	251	249
21.9	135	145	155	145	145	252	250
22	136	146	156	146	146	253	251
22.1	137	147	157	147	147	254	252
22.2	138	148	158	148	148	255	253
22.3	139	149	159	149	149	256	254
22.4	140	150	160	150	150	257	255
22.5	141	151	161	151	151	258	256
22.6	142	152	162	152	152	259	257
22.7	143	153	163	153	153	260	258
22.8	144	154	164	154	154	261	259
22.9	145	155	165	155	155	262	260
23	146	156	166	156	156	263	261
23.1	147	157	167	157	157	264	262
23.2	148	158	168	158	158	265	263
23.3	149	159	169	159	159	266	264
23.4	150	160	170	160	160	267	265
23.5	151	161	171	161	161	268	266
23.6	152	162	172	162	162	269	267
23.7	153	163	173	163	163	270	268
23.8	154	164	174	164	164	271	269
23.9	155	165	175	165	165	272	270
24	156	166	176	166	166	273	271
24.1	157	167	177	167	167	274	272
24.2	158	168	178	168	168	275	273
24.3	159	169	179	169	169	276	274
24.4	160	170	180	170	170	277	275
24.5	161	171	181	171	171	278	276
24.6	162	172	182	172	172	279	277
24.7	163	173	183	173	173	280	278
24.8	164	174	184	174	174	281	279
24.9	165	175	185	175	175	282	280
25	166	176	186	176	176	283	281
25.1	167	177	187	177	177	284	282
25.2	168	178	188	178	178	285	283
25.3	169	179	189	179	179	286	284
25.4	170	180	190	180	180	287	285
25.5	171	181	191	181	181	288	286
25.6	172	182	192	182	182	289	287
25.7	173	183	193	183	183	290	288
25.8	174	184	194	184	184	291	289
25.9	175	185	195	185	185	292	290
26	176	186	196	186	186	293	291
26.1	177	187	197	187	187	294	292
26.2	178	188	198	188	188	295	293
26.3	179	189	199	189	189	296	294
26.4	180	190	200	190	190	297	295
26.5	181	191	201	191	191	298	296
26.6	182	192	202	192	192	299	297
26.7	183	193	203	193	193	300	298
26.8	184	194	204	194	194	301	299
26.9	185	195	205	195	195	302	300
27	186	196	206	196	196	303	301
27.1	187	197	207	197	197	304	302
27.2	188	198	208	198	198	305	303
27.3	189	199	209	19			

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.--383 mi².

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--July 1901 to November 1903, October 1905 to December 1906 (monthly discharges only, published in WSP 1302), January 1907 to December 1913, January 1914 to January 1919 (monthly discharges only, published in WSP 1302), August 1926 to current year.

REVISED RECORDS.--WSP 756: 1933. WDR NY-90-1: Drainage Area.

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.--Records good except those for estimated daily discharges, which are poor. Occasional regulation from hydroelectric plant upstream from station. Diversion upstream from station during navigation season for Delaware and Hudson Canal, 1901-19. Diversion from Rondout Creek through the emergency connection to the Delaware Aqueduct at Lackawack for New York City water supply during 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 288 mi², together with spillage during high flow from Rondout Reservoir. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,800 ft³/s, Oct. 16, 1955, gage height, 36.8 ft, present datum, from floodmarks, from rating curve extended above 17,500 ft³/s, on basis of contracted-opening measurement at gage height 33.93 ft, present datum; minimum discharge, 2.2 ft³/s, July 16, 1965; minimum daily, 3.0 ft³/s, July 16, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,100 ft³/s, June 6, gage height, 17.61 ft; minimum, 82 ft³/s, Oct. 5, gage height, 8.94 ft; minimum daily, 86 ft³/s, Oct. 5.

REVISIONS.--Revised daily discharges, in cubic feet per second, for periods in January and February 1903 are given below. These figures supersede those published in the report for 1903.

Jan. 8... 700	Jan. 16... 380	Feb. 1... 2000	Feb. 20... 800
9... 600	17... 440	2... 1300	21... 700
10... 550	18... 360	3... 1800	22... 600
11... 500	25... 440	4... 2500	23... 550
12... 550	26... 420	5... 3000	24... 500
13... 480	27... 400	18... 1000	25... 440
14... 420	31... 3200	19... 900	26... 400
15... 400			
	TOTAL	MEAN	MAX
January 1903	26372	851	3200
February 1903	39934	1426	3710
WTR YEAR 1903	412203	1129	9590
			MIN
			293
			362
			45

HUDSON RIVER BASIN

01367500 RONDOUT CREEK AT ROSENDALE, NY--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	119	361	e300	e400	555	943	600	6550	194	2490	136
2	96	115	330	e280	e380	582	807	572	2590	177	775	124
3	90	110	803	288	e350	435	693	925	1540	171	450	124
4	88	102	1560	350	e310	353	606	730	918	235	354	145
5	86	97	950	573	e280	346	547	687	740	294	469	139
6	108	94	704	523	e260	376	497	697	9400	558	313	124
7	238	92	600	455	e230	441	461	549	3980	380	247	122
8	171	92	688	336	e220	653	452	487	2120	297	208	125
9	123	91	746	306	e190	613	426	576	1590	247	221	123
10	98	89	675	307	e180	605	439	601	1040	278	358	125
11	102	109	584	305	e170	2500	438	465	725	195	320	278
12	219	236	522	264	e160	2130	897	380	570	165	232	218
13	211	220	652	260	e165	1330	808	348	471	173	198	154
14	160	186	1250	747	e170	954	670	326	392	180	174	133
15	154	164	1460	1040	e190	e700	573	304	334	193	158	121
16	1030	162	1010	e600	368	e520	532	378	291	382	155	114
17	762	151	710	e520	395	490	1110	423	263	302	190	110
18	837	138	e600	e470	279	459	1900	372	244	250	253	105
19	525	131	e500	e450	363	450	2390	303	241	231	269	100
20	363	126	e450	e470	496	417	1740	261	250	202	239	93
21	285	131	e410	e490	400	405	1360	244	236	169	205	89
22	258	861	e370	e500	325	360	1190	225	207	153	162	94
23	232	5480	e350	e540	289	371	1100	206	190	141	144	150
24	222	2250	e330	e1800	293	317	807	200	258	198	135	154
25	239	1480	e300	1100	289	330	1250	283	467	190	131	117
26	185	1010	e270	734	591	429	1310	258	276	162	219	120
27	162	774	e250	587	805	4210	1220	238	332	194	224	196
28	159	523	e240	502	609	2830	983	231	373	230	194	220
29	157	452	e260	e450	622	1730	818	220	338	173	186	178
30	140	397	485	e420	---	1290	660	192	227	180	191	133
31	123	---	378	e410	---	1190	---	2350	---	567	155	---
TOTAL	7727	15982	18798	16377	9779	28371	27627	14631	37153	7461	10019	4164
MEAN	249	533	606	528	337	915	921	472	1238	241	323	139
MAX	1030	5480	1560	1800	805	4210	2390	2350	9400	567	2490	278
MIN	86	89	240	260	160	317	426	192	190	141	131	89

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1992, BY WATER YEAR (WY)

	336	545	679	603	729	1150	1164	750	437	208	190	216
MEAN	336	545	679	603	729	1150	1164	750	437	208	190	216
MAX	2473	1456	2101	2043	2057	2379	2524	2302	2180	661	1220	1175
(WY)	1956	1973	1974	1979	1981	1977	1983	1989	1972	1984	1955	1987
MIN	22.0	34.8	147	75.0	126	316	313	201	68.0	29.0	24.1	16.8
(WY)	1965	1965	1965	1981	1980	1981	1985	1965	1965	1965	1964	1964

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1952 - 1992

ANNUAL TOTAL	160559	198089	
ANNUAL MEAN	440	541	
HIGHEST ANNUAL MEAN			584
LOWEST ANNUAL MEAN			892
HIGHEST DAILY MEAN	5480	9400	23500
LOWEST DAILY MEAN	38	86	3.0
ANNUAL SEVEN-DAY MINIMUM	43	94	15
10 PERCENT EXCEEDS	958	1040	1350
50 PERCENT EXCEEDS	285	322	300
90 PERCENT EXCEEDS	59	125	63

HUDSON RIVER BASIN

01367500 RONDOUT CREEK AT ROSENDALE, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-64, 1971-72, June 1988 to November 1991 (discontinued).

CHEMICAL DATA: 1963 (c), 1964, 1971-72, 1988 (a), 1989-90 (b), 1991 (c), 1992 (b).

MINOR ELEMENTS DATA: 1963 (c), 1964, 1988 (a), 1989-90 (b), 1991 (c), 1992 (b).

PESTICIDE DATA: 1988 (a), 1989-90 (b).

NUTRIENT DATA: 1963 (c), 1964, 1971-72, 1988 (a), 1989-90 (b).

SEDIMENT DATA: 1989-90 (b), 1991 (c), 1992 (b).

REMARKS.--Water-quality samples were collected by personnel of the New York State Department of Environmental Conservation, and were analyzed in USGS laboratories.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)
OCT								
03...	1100	91	128	7.6	15.5	761	9.8	99
22...	1200	257	110	7.1	10.0	767	11.2	99
NOV								
21...	1000	127	156	7.8	8.5	762	11.7	100

DATE	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
OCT								
03...	<1	5	60	4	20	<0.10	1	<10
22...	<1	4	110	2	20	<0.10	2	<10
NOV								
21...	<1	4	120	3	20	<0.10	1	<10

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- SOLVED CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- SOLVED CHARGE, SUS- PENDED (T/DAY)
OCT				
03...	1100	91	1	0.25
22...	1200	257	2	1.4
NOV				
21...	1000	127	2	0.69

HUDSON RIVER BASIN

01371000 SHAWANGUNK KILL AT PINE BUSH, NY

LOCATION.--Lat 41°37'05", long 74°17'40", Ulster County, Hydrologic Unit 02020007, on left bank, 50 ft downstream from Hardenburg Bridge, 0.5 mi northeast of Pine Bush, 2.3 mi downstream from Pakanasink Creek, and 11.0 mi upstream from mouth at Ganahgote.

DRAINAGE AREA.--102 mi².

PERIOD OF RECORD.--September 1924 to September 1932, June 1957 to September 1971, December 1988 to December 1992 (discontinued).

REVISED RECORDS.--WSP 1502: Drainage area, 1925-26(M), 1927-29, 1930-31(M).

GAGE.--Water-stage recorder. Datum of gage is 302.06 ft above National Geodetic Vertical Datum of 1929. Prior to July 1, 1957, nonrecording gage at same site and datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Slight regulation at low flow by dam upstream from station. Some diversions upstream for city of Middletown water supply.

AVERAGE DISCHARGE.--25 years (water years 1925-32, 1958-71, 1990-92), 142 ft³/s, 18.91 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,350 ft³/s, Sept. 1, 1927, gage height, 10.5 ft, from graph based on gage readings, from rating curve extended above 2,300 ft³/s on basis of slope-area measurement at gage height 8.07 ft, and estimated discharges for floods in 1952 and 1955 as mentioned below; minimum discharge, 1.3 ft³/s, Sept. 9, 1991; minimum gage height, 0.37 ft, Aug. 5, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Aug. 19 and Oct. 16, 1955 reached a stage of about 12.5 ft, from floodmarks (discharge, 9,700 ft³/s, based on indirect measurements at Ganahgote for each flood). Flood of June 1, 1952 reached a stage of about 11.0 ft, from floodmarks (discharge, 7,200 ft³/s, based on indirect measurements at Winterton and Ganahgote).

EXTREMES FOR CURRENT PERIOD.--Water year 1992: Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 23	0245	3,210	6.74	May 31	2230	3,660	7.15
Mar. 27	0700	2,070	5.54	June 6	0500	*5,250	*8.59

Minimum discharge, 11 ft³/s, Oct. 1, gage height, 0.72 ft.

October to December 1992: Maximum discharge during period, 1,080 ft³/s, Nov. 23, gage height, 4.21 ft; minimum, 16 ft³/s, Oct. 6, 7, 8, gage height, 0.79 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	31	97	e92	e94	162	241	126	1730	51	335	19
2	20	32	92	e84	e84	142	198	127	597	42	114	19
3	20	31	602	86	e78	121	168	247	303	39	72	20
4	27	30	685	116	e74	113	147	168	194	98	61	22
5	20	30	331	166	e71	116	129	149	399	91	71	22
6	38	29	221	133	e68	125	114	179	3770	323	52	20
7	59	30	183	107	e66	156	106	141	1360	125	43	22
8	42	30	170	92	e64	247	105	120	728	72	36	27
9	31	30	169	83	e70	204	98	180	486	80	119	24
10	27	30	175	84	e80	177	126	156	272	70	121	22
11	30	44	152	85	e70	831	136	125	183	48	63	88
12	97	85	128	e74	e62	510	184	107	141	41	49	43
13	67	69	205	e72	e58	270	160	98	113	46	39	29
14	47	55	361	268	e64	e180	119	91	94	42	37	24
15	44	50	289	311	72	e140	104	82	81	43	36	21
16	247	50	186	e120	164	e125	101	128	70	245	36	20
17	149	46	138	e94	223	e120	313	161	62	132	44	19
18	206	42	e120	e90	138	122	486	117	57	96	73	18
19	122	39	e96	e88	e160	129	507	97	57	56	65	17
20	78	37	e120	e90	e150	129	313	81	63	53	49	15
21	60	40	104	e93	e115	133	240	70	56	45	39	14
22	52	529	103	e110	e96	123	237	62	50	41	32	17
23	47	1750	e105	e140	97	120	307	62	46	44	29	71
24	43	548	e98	845	107	111	211	60	87	66	26	34
25	40	303	e92	e320	105	115	281	106	161	52	28	23
26	38	199	e80	e180	402	184	262	80	78	46	42	30
27	38	151	e82	e120	445	1470	227	70	133	153	29	47
28	36	129	e84	e110	279	676	179	66	135	72	25	44
29	34	116	e86	e105	253	341	151	58	73	49	28	33
30	32	105	e130	e105	---	249	134	54	58	75	26	24
31	30	---	e110	e100	---	280	---	1160	---	273	22	---
TOTAL	1838	4690	5594	4563	3809	7921	6084	4528	11637	2709	1841	848
MEAN	59.3	156	180	147	131	256	203	146	388	87.4	59.4	28.3
MAX	247	1750	685	845	445	1470	507	1160	3770	323	335	88
MIN	17	29	80	72	58	111	98	54	46	39	22	14
CFSM	.58	1.53	1.77	1.44	1.29	2.51	1.99	1.43	3.80	.86	.58	.28
IN.	.67	1.71	2.04	1.66	1.39	2.89	2.22	1.65	4.24	.99	.67	.31

e Estimated

HUDSON RIVER BASIN

01371000 SHAWANGUNK KILL AT PINE BUSH, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1992, BY WATER YEAR (WY)

MEAN	77.5	133	144	137	200	327	239	161	102	53.4	71.9	62.9
MAX	299	587	477	283	471	617	471	605	388	306	390	455
(WY)	1928	1928	1928	1990	1961	1963	1929	1989	1992	1928	1928	1927
MIN	8.45	11.9	40.8	12.0	65.9	140	73.8	42.0	11.6	4.58	3.93	5.65
(WY)	1965	1965	1965	1925	1962	1965	1966	1965	1965	1965	1966	1964

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1925 - 1992
ANNUAL TOTAL	46484.9	56062	
ANNUAL MEAN	127	153	142
HIGHEST ANNUAL MEAN			307
LOWEST ANNUAL MEAN			57.9
HIGHEST DAILY MEAN	1800	3770	6090
LOWEST DAILY MEAN	4.3	14	2.6
ANNUAL SEVEN-DAY MINIMUM	7.9	17	3.4
ANNUAL RUNOFF (CFSM)	1.25	1.50	1.39
ANNUAL RUNOFF (INCHES)	16.95	20.45	18.88
10 PERCENT EXCEEDS	275	280	324
50 PERCENT EXCEEDS	82	92	67
90 PERCENT EXCEEDS	13	29	13

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	26	90	---	---	---	---	---	---	---	---	---
2	21	25	85	---	---	---	---	---	---	---	---	---
3	20	260	103	---	---	---	---	---	---	---	---	---
4	19	182	86	---	---	---	---	---	---	---	---	---
5	17	95	80	---	---	---	---	---	---	---	---	---
6	16	88	e72	---	---	---	---	---	---	---	---	---
7	16	73	e66	---	---	---	---	---	---	---	---	---
8	17	57	e60	---	---	---	---	---	---	---	---	---
9	23	48	e56	---	---	---	---	---	---	---	---	---
10	103	44	e58	---	---	---	---	---	---	---	---	---
11	57	48	e110	---	---	---	---	---	---	---	---	---
12	42	70	e260	---	---	---	---	---	---	---	---	---
13	33	262	271	---	---	---	---	---	---	---	---	---
14	29	161	e210	---	---	---	---	---	---	---	---	---
15	27	98	e140	---	---	---	---	---	---	---	---	---
16	26	75	122	---	---	---	---	---	---	---	---	---
17	24	64	404	---	---	---	---	---	---	---	---	---
18	25	61	663	---	---	---	---	---	---	---	---	---
19	25	55	362	---	---	---	---	---	---	---	---	---
20	25	52	315	---	---	---	---	---	---	---	---	---
21	24	52	318	---	---	---	---	---	---	---	---	---
22	24	117	212	---	---	---	---	---	---	---	---	---
23	24	669	177	---	---	---	---	---	---	---	---	---
24	24	332	e135	---	---	---	---	---	---	---	---	---
25	30	263	e92	---	---	---	---	---	---	---	---	---
26	29	236	e88	---	---	---	---	---	---	---	---	---
27	26	221	e86	---	---	---	---	---	---	---	---	---
28	24	152	e88	---	---	---	---	---	---	---	---	---
29	24	120	109	---	---	---	---	---	---	---	---	---
30	25	103	240	---	---	---	---	---	---	---	---	---
31	26	---	787	---	---	---	---	---	---	---	---	---
TOTAL	867	4109	5945	---	---	---	---	---	---	---	---	---
MEAN	28.0	137	192	---	---	---	---	---	---	---	---	---
MAX	103	669	787	---	---	---	---	---	---	---	---	---
MIN	16	25	56	---	---	---	---	---	---	---	---	---
CFSM	.27	1.34	1.88	---	---	---	---	---	---	---	---	---
IN.	.32	1.50	2.17	---	---	---	---	---	---	---	---	---

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1993, BY WATER YEAR (WY)

MEAN	75.6	133	145	137	200	327	239	161	102	53.4	71.9	62.9
MAX	299	587	477	283	471	617	471	605	388	306	390	455
(WY)	1928	1928	1928	1990	1961	1963	1929	1989	1992	1928	1928	1927
MIN	8.45	11.9	40.8	12.0	65.9	140	73.8	42.0	11.6	4.58	3.93	5.65
(WY)	1965	1965	1965	1925	1962	1965	1966	1965	1965	1965	1966	1964

HUDSON RIVER BASIN

01371000 SHAWANGUNK KILL AT PINE BUSH, NY--Continued

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

WATER YEARS 1925 - 1993

ANNUAL TOTAL	54861								
ANNUAL MEAN	150						142		
HIGHEST ANNUAL MEAN							307		1928
LOWEST ANNUAL MEAN							57.9		1965
HIGHEST DAILY MEAN	3770		Jun 6				6090		Sep 1 1927
LOWEST DAILY MEAN	14		Sep 21				2.6		Jul 21 1957
ANNUAL SEVEN-DAY MINIMUM	17		Sep 16				3.4		Aug 11 1966
ANNUAL RUNOFF (CFSM)	1.47						1.39		
ANNUAL RUNOFF (INCHES)	20.01						18.88		
10 PERCENT EXCEEDS	279						323		
50 PERCENT EXCEEDS	90						67		
90 PERCENT EXCEEDS	24						13		

HUDSON RIVER BASIN

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.--695 mi².

PERIOD OF RECORD.--September 1924 to current year.

REVISED RECORDS.--WSP 756: Drainage area. WDR NY-90-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 185.70 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Regulation at low flows by dams upstream and some diversions for municipalities and irrigational purposes. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--68 years, 1,062 ft³/s, 20.75 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,800 ft³/s, Oct. 16, 1955, gage height, 19.81 ft; minimum, 9.5 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 23	0845	7,300	7.94	June 1	0345	8,540	8.70
Mar. 27	1245	6,470	7.41	June 6	1315	*11,000	*10.10

Minimum discharge, 91 ft³/s, Nov. 9, gage height, 2.10 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	152	170	604	629	e680	1360	2180	944	7080	431	1380	175
2	184	170	588	495	594	1120	1860	948	4150	362	763	156
3	108	157	2140	561	551	991	1610	1360	2360	335	503	140
4	138	163	4000	659	604	915	1380	1180	1530	413	391	155
5	126	159	2800	1220	553	883	1200	997	1250	524	326	125
6	227	142	2060	1230	444	911	1070	1080	9070	1140	321	136
7	209	154	1630	986	466	1020	910	1000	7820	701	233	164
8	247	137	1360	817	e430	1460	901	845	5770	459	217	188
9	179	137	1210	676	e420	1520	852	984	4390	389	470	231
10	159	147	1200	652	e400	1330	879	1140	3220	398	767	263
11	179	182	1230	693	e420	3280	948	929	2540	362	600	355
12	583	329	1070	572	e380	3140	1230	836	1910	309	1560	372
13	445	363	1150	599	e360	2300	1170	733	1370	265	1200	297
14	378	328	1750	987	e340	1730	924	694	1040	264	598	250
15	276	283	1590	1620	386	1340	806	602	871	289	495	243
16	476	280	1140	1120	628	1080	740	699	694	1550	367	215
17	553	243	867	629	1070	915	1450	1020	600	1030	389	161
18	867	220	668	e450	940	875	2620	880	522	758	647	168
19	849	219	532	e420	835	887	2710	756	416	521	1040	190
20	627	182	603	e400	970	905	2220	565	529	418	769	162
21	420	231	603	e500	851	964	1790	522	620	333	565	186
22	350	1540	595	e1200	750	925	1620	452	506	279	341	192
23	312	6040	599	e2500	680	865	1750	385	414	256	348	340
24	276	3510	581	e3500	697	810	1560	372	449	328	288	323
25	236	2320	531	2410	741	831	1950	544	912	376	278	271
26	216	1560	502	1730	1940	1140	2110	538	737	362	315	289
27	221	1110	424	1250	3120	5510	1790	449	667	527	249	267
28	214	863	426	1000	2320	4620	1470	434	1050	572	234	373
29	213	738	450	912	1890	3210	1250	419	802	466	219	341
30	166	664	732	830	---	2520	1100	363	572	492	197	269
31	169	---	841	e760	---	2320	---	1920	---	656	188	---
TOTAL	9755	22741	34476	32007	24460	51677	44050	24590	63861	15565	16258	6997
MEAN	315	758	1112	1032	843	1667	1468	793	2129	502	524	233
MAX	867	6040	4000	3500	3120	5510	2710	1920	9070	1550	1560	373
MIN	108	137	424	400	340	810	740	363	414	256	188	125
CFSM	.45	1.09	1.60	1.49	1.21	2.40	2.11	1.14	3.06	.72	.75	.34
IN.	.52	1.22	1.85	1.71	1.31	2.77	2.36	1.32	3.42	.83	.87	.37

e Estimated

HUDSON RIVER BASIN

01372043 HUDSON RIVER NEAR POUGHKEEPSIE, NY

LOCATION.--Lat 41°43'18", long 73°56'28", Dutchess County, Hydrologic Unit 02020008, at city pumping station on east bank, adjacent (north) to Marist College, 0.5 mi north of Poughkeepsie, and 1.3 mi upstream from Mid-Hudson Bridge.

DRAINAGE AREA.--11,700 mi².

PERIOD OF RECORD.--Water years 1969-75, 1981, June 1988 to current year.

CHEMICAL DATA: 1969 (c), 1970-71 (d), 1972 (b), 1973-75 (e), 1988 (a), 1989-90 (b), 1991 (c), 1992 (a).

MINOR ELEMENTS DATA: 1969 (c), 1970-71 (d), 1972 (b), 1973-75 (d), 1988 (a), 1989-90 (b), 1991 (c), 1992 (a).

RADIOCHEMICAL DATA: 1974 (a), 1975 (d).

PESTICIDE DATA: 1988 (a), 1989-90 (b).

ORGANIC DATA: 1975 (a), 1981 (b).

NUTRIENT DATA: 1969 (c), 1970-71 (d), 1972 (b), 1973-75 (d), 1988 (a), 1989-90 (b).

BIOLOGICAL DATA: 1973-75 (d).

SEDIMENT DATA: 1973 (a), 1974 (b), 1975, 1988 (a), 1989-90 (b), 1991 (c), 1992 (a).

REMARKS.--Water-quality samples were collected by personnel of the New York State Department of Environmental Conservation, and were analyzed in USGS laboratories.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH WATER FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, SATURATION (%)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)
OCT 02...	1200	255	7.3	20.0	765	7.3	80	470
NOV 19...	1300	244	7.7	9.5	767	11.1	97	380

DATE	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 02...	<1	18	590	4	60	<0.10	2	<10
NOV 19...	<1	17	630	28	50	<0.10	12	20

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SEDIMENT, SUSPENDED (MG/L)
OCT 02...	1200	16
NOV 19...	1300	18

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 mi².

PERIOD OF RECORD.--May 1903 to June 1905 (monthly discharges and daily gage heights only, published in WSP 97, 125, 166, and 202), 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.--Records fair except those for estimated daily discharges, which are poor. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--64 years (water years 1929-92), 254 ft³/s, 19.06 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,600 ft³/s, Aug. 19, 1955, gage height, 19.60 ft, from floodmarks in gage shelter, from rating curve extended above 6,000 ft³/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 ft³/s, Sept. 20, 21, 1964, gage height, 2.05 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 23	1500	*1,400	*5.80				

Minimum discharge, 28 ft³/s, Sept. 22, gage height, 2.60 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88	123	325	e190	e190	e265	446	363	287	66	262	49
2	80	122	300	e195	171	266	413	351	248	57	173	46
3	73	116	485	203	162	248	376	487	185	57	121	48
4	67	109	893	224	169	235	341	432	148	78	110	52
5	67	106	717	262	156	234	313	372	129	102	196	49
6	367	102	590	259	e135	231	294	340	305	151	143	47
7	649	98	525	235	e130	246	275	310	301	137	116	48
8	427	97	486	215	e130	321	268	288	229	102	95	48
9	292	96	478	196	e120	314	254	289	197	95	138	46
10	223	93	466	195	e105	304	254	270	168	90	213	46
11	201	118	425	192	e110	527	247	252	140	75	184	74
12	365	176	386	e160	e105	588	309	229	124	66	148	71
13	320	169	418	172	e100	468	305	213	113	70	121	56
14	252	147	569	205	e110	392	264	201	101	65	111	49
15	214	135	683	292	113	352	251	186	90	68	106	46
16	259	131	573	e200	219	306	244	204	81	196	105	41
17	301	124	484	e180	239	294	397	211	77	155	118	39
18	454	115	444	e170	192	286	552	193	73	126	185	37
19	404	111	e350	e155	184	286	670	184	73	103	188	35
20	327	107	e330	e140	194	277	600	162	85	88	149	32
21	275	111	337	e140	176	279	533	149	82	79	124	30
22	246	287	331	e145	163	258	526	136	72	71	109	29
23	229	1150	316	173	156	254	502	124	65	65	98	53
24	209	1020	316	503	161	238	e500	121	84	72	87	56
25	194	751	e280	382	166	234	e580	159	146	68	79	44
26	188	597	e230	295	315	260	e600	146	121	60	74	44
27	168	492	235	e230	464	661	e540	129	119	59	69	44
28	151	432	216	e220	384	638	475	119	119	55	63	42
29	140	389	232	e210	349	512	431	111	92	56	65	40
30	133	354	316	e200	---	440	391	109	76	79	60	36
31	128	---	e230	e200	---	475	---	149	---	97	54	---
TOTAL	7491	7978	12966	6738	5368	10689	12151	6989	4130	2708	3864	1377
MEAN	242	266	418	217	185	345	405	225	138	87.4	125	45.9
MAX	649	1150	893	503	464	661	670	487	305	196	262	74
MIN	67	93	216	140	100	231	244	109	65	55	54	29
CFSM	1.34	1.47	2.31	1.20	1.02	1.91	2.24	1.25	.76	.48	.69	.25
IN.	1.54	1.64	2.66	1.38	1.10	2.20	2.50	1.44	.85	.56	.79	.28

e Estimated

HUDSON RIVER BASIN

01372500 WAPPINGER CREEK NEAR WAPPINGERS FALLS, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1992, BY WATER YEAR (WY)

MEAN	118	193	258	292	338	564	495	310	195	117	85.4	97.1
MAX	882	696	730	932	786	1195	1112	1204	813	884	845	890
(WY)	1956	1956	1973	1979	1976	1936	1983	1989	1972	1975	1955	1938
MIN	7.42	10.5	23.5	24.0	72.2	168	140	82.2	30.7	10.8	7.82	4.29
(WY)	1965	1965	1965	1981	1940	1965	1985	1941	1965	1965	1966	1964

SUMMARY STATISTICS FOR 1991 CALENDAR YEAR FOR 1992 WATER YEAR WATER YEARS 1928 - 1992

ANNUAL TOTAL	87245	82449	
ANNUAL MEAN	239	225	
HIGHEST ANNUAL MEAN			254
LOWEST ANNUAL MEAN			438
HIGHEST DAILY MEAN	1150	Nov 23	10500
LOWEST DAILY MEAN	11	Jul 22	1.2
ANNUAL SEVEN-DAY MINIMUM	13	Jul 16	2.4
ANNUAL RUNOFF (CFSM)	1.32		1.41
ANNUAL RUNOFF (INCHES)	17.93		19.10
10 PERCENT EXCEEDS	492		603
50 PERCENT EXCEEDS	217		148
90 PERCENT EXCEEDS	19		23

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	9.4	111	301	334	181	404	184	50	71	184	177
2	58	11	126	171	286	125	313	173	18	10	180	182
3	58	13	452	146	275	124	318	218	19	18	188	178
4	58	13	471	189	239	146	328	238	19	19	182	178
5	46	12	469	163	188	136	235	213	22	22	208	171
6	140	12	449	181	188	145	300	121	101	58	303	314
7	140	10	191	148	98	103	149	138	48	18	149	188
8	118	11	348	140	93	345	235	143	188	17	143	303
9	58	9.2	243	157	158	218	244	194	200	17	171	303
10	48	11	434	187	88	243	251	188	234	17	171	303
11	58	8.3	388	170	88	484	158	170	204	17	171	303
12	243	8.0	329	113	113	445	158	158	151	17	171	303
13	188	7.2	343	143	122	303	288	152	98	17	171	303
14	173	7.8	388	181	17	388	233	152	78	18	178	303
15	188	9.2	343	208	229	288	270	204	23	18	178	303
16	188	10	194	145	148	188	444	144	17	17	171	303
17	188	11	283	183	188	171	374	103	18	18	171	303
18	173	13	329	173	173	173	488	133	17	17	171	303
19	188	14	329	188	173	173	488	133	17	17	171	303
20	118	12	173	188	188	173	488	133	17	17	171	303
21	118	12	173	188	188	173	488	133	17	17	171	303
22	118	12	173	188	188	173	488	133	17	17	171	303
23	118	12	173	188	188	173	488	133	17	17	171	303
24	118	12	173	188	188	173	488	133	17	17	171	303
25	118	12	173	188	188	173	488	133	17	17	171	303
26	118	12	173	188	188	173	488	133	17	17	171	303
27	118	12	173	188	188	173	488	133	17	17	171	303
28	118	12	173	188	188	173	488	133	17	17	171	303
29	118	12	173	188	188	173	488	133	17	17	171	303
30	118	12	173	188	188	173	488	133	17	17	171	303
31	118	12	173	188	188	173	488	133	17	17	171	303
TOTAL	1008.1	1008.1	1008.1	1008.1	1008.1	1008.1	1008.1	1008.1	1008.1	1008.1	1008.1	1008.1
MEAN	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2
MAX	1008.1	1008.1	1008.1	1008.1	1008.1	1008.1	1008.1	1008.1	1008.1	1008.1	1008.1	1008.1
MIN	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1992, BY WATER YEAR (WY)

MEAN	118	193	258	292	338	564	495	310	195	117	85.4	97.1
MAX	882	696	730	932	786	1195	1112	1204	813	884	845	890
(WY)	1956	1956	1973	1979	1976	1936	1983	1989	1972	1975	1955	1938
MIN	7.42	10.5	23.5	24.0	72.2	168	140	82.2	30.7	10.8	7.82	4.29
(WY)	1965	1965	1965	1981	1940	1965	1985	1941	1965	1965	1966	1964

HUDSON RIVER BASIN

01375000 CROTON RIVER AT NEW CROTON DAM, NEAR CROTON-ON-HUDSON, NY

LOCATION.--Lat 41°13'30", long 73°51'35", 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 mi².

PERIOD OF RECORD (corrected).--July 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 300 ft³/s and poor 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,400 ft³/s, Oct. 16, 1955, gage height, 18.44 ft, from floodmarks, from rating curve extended above 9,700 ft³/s, on basis of slope-area measurements of peak flow; minimum daily discharge, 0.1 ft³/s, Mar. 14, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,290 ft³/s, Mar. 27, gage height, 3.66 ft; minimum daily, 7.5 ft³/s Nov. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	9.4	131	201	334	181	404	184	20	21	154	177
2	58	11	126	171	286	165	373	173	19	20	160	185
3	48	13	452	166	272	154	318	215	19	18	188	276
4	36	13	971	189	239	146	270	338	19	107	412	626
5	44	12	665	163	156	136	235	213	33	62	398	431
6	186	12	480	161	106	145	200	156	391	38	303	314
7	179	10	391	148	98	202	189	138	494	19	249	286
8	118	11	348	140	127	345	225	147	359	17	173	267
9	74	9.5	343	157	128	314	244	194	500	17	251	256
10	48	11	434	185	89	249	321	189	324	17	356	243
11	86	8.3	388	170	85	464	356	170	203	17	222	336
12	245	8.0	329	154	113	445	337	138	124	17	229	281
13	196	7.5	323	143	125	332	323	125	69	17	174	239
14	132	7.9	365	167	177	258	327	122	38	18	138	226
15	122	9.5	342	206	223	222	370	104	33	18	103	215
16	164	10	294	164	446	188	444	144	17	227	59	211
17	160	11	253	119	392	171	574	157	17	464	49	208
18	177	13	230	113	320	172	599	135	17	345	433	206
19	159	14	202	108	375	234	650	68	17	276	515	205
20	115	12	175	104	460	202	571	25	18	215	330	194
21	57	12	176	95	439	184	511	20	17	165	216	189
22	33	16	186	124	323	176	460	20	18	104	151	205
23	22	460	188	250	281	184	321	20	17	109	62	309
24	13	732	186	661	271	156	297	21	21	185	23	236
25	11	484	175	534	231	152	374	19	50	100	18	204
26	12	341	161	419	368	228	339	19	36	42	31	234
27	11	258	155	354	391	1080	297	19	150	82	114	242
28	27	207	150	370	327	858	315	19	142	100	205	270
29	8.4	174	215	444	246	584	240	19	60	51	186	239
30	11	139	345	450	---	454	197	19	26	64	184	206
31	7.9	---	264	431	---	475	---	21	---	112	174	---
TOTAL	2638.3	3036.1	9443	7261	7428	9256	10681	3351	3268	3064	6260	7716
MEAN	85.1	101	305	234	256	299	356	108	109	98.8	202	257
MAX	245	732	971	661	460	1080	650	338	500	464	515	626
MIN	7.9	7.5	126	95	85	136	189	19	17	17	18	177

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1992, BY WATER YEAR (WY)

MEAN	152	174	264	283	391	616	675	423	218	87.2	98.9	89.3
MAX	3160	1815	1372	1123	1608	1599	2469	1667	1832	921	1179	1177
(WY)	1956	1956	1973	1978	1970	1953	1983	1989	1972	1984	1990	1975
MIN	.30	.40	.52	.59	.90	.38	.91	.75	.85	.71	.36	.48
(WY)	1966	1966	1966	1966	1967	1965	1965	1963	1965	1965	1981	1981

HUDSON RIVER BASIN

01375000 CROTON RIVER AT NEW CROTON DAM, NEAR CROTON-ON-HUDSON, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1933 - 1992	
ANNUAL TOTAL	102282.4		73402.4			
ANNUAL MEAN	280		201		289	1956
HIGHEST ANNUAL MEAN					849	1965
LOWEST ANNUAL MEAN					.90	Oct 16 1955
HIGHEST DAILY MEAN	1740	Mar 4	1080	Mar 27	33000	Mar 14 1965
LOWEST DAILY MEAN	7.5	Nov 13	7.5	Nov 13	.10	Mar 12 1965
ANNUAL SEVEN-DAY MINIMUM	8.8	Nov 9	8.8	Nov 9	.20	
10 PERCENT EXCEEDS	702		431		898	
50 PERCENT EXCEEDS	171		176		8.5	
90 PERCENT EXCEEDS	19		17		.94	

HUDSON RIVER BASIN

RESERVOIRS IN HUDSON RIVER BASIN

- 01335900 DELTA RESERVOIR.--Lat 43°16'29", long 75°25'43", Oneida County, Hydrologic Unit 02020004, on superstructure of gatehouse at Delta Dam on Mohawk River, and 4 mi upstream from Rome. DRAINAGE AREA, 148 mi². 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 ft³ 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 (1951-92).--Maximum contents observed, 3,136 mil ft³, June 22, 1972, elevation, 552.8 ft; minimum observed, 2.0 mil ft³, 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, 3,100 mil ft³, Apr. 12, elevation, 552.5 ft; minimum observed, 1,450 mil ft³, Nov. 11-12, elevation, 536.5 ft.
- 01343900 HINCKLEY RESERVOIR.--Lat 43°18'41", long 75°06'30", 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 mi². 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 ft³ 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 mi². 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 ft³, Oct. 2, 1945, elevation, 1,230.2 ft; minimum observed (after initial filling), not determined.
EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 3,571 mil ft³, Apr. 24, elevation, 1,226.9 ft; minimum observed, 672 mil ft³, Feb. 16, elevation, 1,192.9 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 mi². 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 0800. 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, 51,260 mil gal, June 6, elevation, 591.74 ft, in East basin, 79,202 mil gal, June 12, elevation, 586.22 ft; minimum observed, in West basin, 25,278 mil gal, Nov. 13, elevation, 561.90 ft, in East basin, 23,887 mil gal, Dec. 9, elevation, 544.50 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 mi². 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 New York City Department of Environmental Protection.
EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 53,458 mil gal, Apr. 5, 1987, elevation, 841.49 ft; minimum observed (after initial filling), 8,335 mil gal, Oct. 15, 1957, elevation, 748.75 ft.
EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 52,115 mil gal, June 7, elevation, 839.53 ft; minimum observed, 16,801 mil gal, Dec. 16, elevation, 773.79 ft.

HUDSON RIVER BASIN

RESERVOIRS IN HUDSON RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation (feet) ‡	Contents (million ft ³)	Change in contents (equivalent in ft ³ /s)	Elevation (feet) ‡	Contents (million ft ³)	Change in contents (equivalent in ft ³ /s)
01335900 Delta Reservoir				01343900 Hinckley Reservoir		
Sept. 30	537.1	1,498		1,200.4	1,123	
Oct. 31	537.8	1,554	+ 20.9	1,203.2	1,312	+ 70.5
Nov. 30	538.5	1,615	+ 23.5	1,203.3	1,319	+ 2.70
Dec. 31	543.1	2,050	+162	1,208.8	1,734	+155
CAL YR 1991	-	-	- 31.0	-	-	- 58.2
Jan. 31	545.5	2,295	+ 91.5	1,201.2	1,176	-208
Feb. 29	548.4	2,614	+127	1,196.1	851	-130
Mar. 31	550.9	2,908	+110	1,207.8	1,654	+300
Apr. 30	550.5	2,860	- 18.5	1,224.5	3,260	+620
May 31	550.8	2,896	- 13.4	1,221.5	2,915	-129
June 30	548.7	2,647	- 96.1	1,218.3	2,580	-129
July 31	550.0	2,800	+ 57.1	1,218.3	2,580	0.0
Aug. 31	548.0	2,570	- 85.9	1,223.0	3,085	+189
Sept. 30	549.4e	2,728e	+ 61.0e	1,222.4e	3,016e	- 26.6e
WTR YR 1992	-	-	+ 38.9e	-	-	+ 59.9e

Date	Elevation (feet) ‡	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)	Elevation (feet) ‡	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)	Elevation (feet) ‡	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)
01363398 Ashokan Reservoir West Basin				01363399 Ashokan Reservoir East Basin			01366400 Rondout Reservoir		
Sept. 30	570.55	31,789		563.75	45,852		804.33	30,909	
Oct. 31	564.50	27,137	-232	559.57	40,548	-265	787.63	22,792	-405
Nov. 30	576.67	36,895	+503	548.62	28,084	-643	776.00	17,709	-262
Dec. 31	569.65	31,069	-291	561.20	42,595	+724	782.90	20,666	+148
CAL YR 1991	-	-	- 62.2	-	-	-132	-	-	-117
Jan. 31	573.46	34,176	+155	564.86	47,269	+233	784.37	21,318	+ 32.5
Feb. 29	567.87	29,701	-239	566.58	49,574	+123	785.85	21,982	+ 35.4
Mar. 31	588.20	47,625	+895	559.45	40,404	-458	808.20	32,950	+547
Apr. 30	590.24	49,672	+106	571.13	55,803	+794	829.23	45,339	+639
May 31	581.84	41,507	-408	581.87	72,103	+814	837.17	50,521	+259
June 30	590.30	49,736	+424	583.12	74,121	+104	833.67	48,204	-120
July 31	590.29	49,725	- 0.55	576.72	64,028	-504	836.96	50,380	+109
Aug. 31	577.97	38,029	-584	576.25	63,303	- 36.2	835.02	49,091	- 64.3
Sept. 30	573.48	34,192	-198	569.90	54,041	-478	827.72	44,385	-243
WTR YR 1992	-	-	+ 10.2	-	-	+ 34.6	-	-	+ 57.0

‡ Elevation at 2400 hours by interpolation.

e Estimate.

‡‡ Elevation at 0800 hours on last day of month.

‡‡‡ Elevation at 0800 hours on first day of following month.

26	18	22	21	19	21	21	21	21	21
27	18	22	21	19	21	21	21	21	21
28	18	22	21	19	21	21	21	21	21
29	18	22	21	19	21	21	21	21	21
30	18	22	21	19	21	21	21	21	21
31	18	22	21	19	21	21	21	21	21
32	18	22	21	19	21	21	21	21	21
33	18	22	21	19	21	21	21	21	21
34	18	22	21	19	21	21	21	21	21
35	18	22	21	19	21	21	21	21	21
36	18	22	21	19	21	21	21	21	21
37	18	22	21	19	21	21	21	21	21
38	18	22	21	19	21	21	21	21	21
39	18	22	21	19	21	21	21	21	21
40	18	22	21	19	21	21	21	21	21
41	18	22	21	19	21	21	21	21	21
42	18	22	21	19	21	21	21	21	21
43	18	22	21	19	21	21	21	21	21
44	18	22	21	19	21	21	21	21	21
45	18	22	21	19	21	21	21	21	21
46	18	22	21	19	21	21	21	21	21
47	18	22	21	19	21	21	21	21	21
48	18	22	21	19	21	21	21	21	21
49	18	22	21	19	21	21	21	21	21
50	18	22	21	19	21	21	21	21	21
51	18	22	21	19	21	21	21	21	21
52	18	22	21	19	21	21	21	21	21
53	18	22	21	19	21	21	21	21	21
54	18	22	21	19	21	21	21	21	21
55	18	22	21	19	21	21	21	21	21
56	18	22	21	19	21	21	21	21	21
57	18	22	21	19	21	21	21	21	21
58	18	22	21	19	21	21	21	21	21
59	18	22	21	19	21	21	21	21	21
60	18	22	21	19	21	21	21	21	21
61	18	22	21	19	21	21	21	21	21
62	18	22	21	19	21	21	21	21	21
63	18	22	21	19	21	21	21	21	21
64	18	22	21	19	21	21	21	21	21
65	18	22	21	19	21	21	21	21	21
66	18	22	21	19	21	21	21	21	21
67	18	22	21	19	21	21	21	21	21
68	18	22	21	19	21	21	21	21	21
69	18	22	21	19	21	21	21	21	21
70	18	22	21	19	21	21	21	21	21
71	18	22	21	19	21	21	21	21	21
72	18	22	21	19	21	21	21	21	21
73	18	22	21	19	21	21	21	21	21
74	18	22	21	19	21	21	21	21	21
75	18	22	21	19	21	21	21	21	21
76	18	22	21	19	21	21	21	21	21
77	18	22	21	19	21	21	21	21	21
78	18	22	21	19	21	21	21	21	21
79	18	22	21	19	21	21	21	21	21
80	18	22	21	19	21	21	21	21	21
81	18	22	21	19	21	21	21	21	21
82	18	22	21	19	21	21	21	21	21
83	18	22	21	19	21	21	21	21	21
84	18	22	21	19	21	21	21	21	21
85	18	22	21	19	21	21	21	21	21
86	18	22	21	19	21	21	21	21	21
87	18	22	21	19	21	21	21	21	21
88	18	22	21	19	21	21	21	21	21
89	18	22	21	19	21	21	21	21	21
90	18	22	21	19	21	21	21	21	21
91	18	22	21	19	21	21	21	21	21
92	18	22	21	19	21	21	21	21	21
93	18	22	21	19	21	21	21	21	21
94	18	22	21	19	21	21	21	21	21
95	18	22	21	19	21	21	21	21	21
96	18	22	21	19	21	21	21	21	21
97	18	22	21	19	21	21	21	21	21
98	18	22	21	19	21	21	21	21	21
99	18	22	21	19	21	21	21	21	21
100	18	22	21	19	21	21	21	21	21

HUDSON RIVER BASIN

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 1991 TO SEPTEMBER 1992

Month	01343899 Hinckley Reservoir	01362230 Schoharie Reservoir	01363401 Ashokan Reservoir	01366399 Rondout Reservoir
October.....	33.0	69.1	893	1,380
November.....	32.0	271	894	1,256
December.....	32.0	854	869	951
CAL YR 1991	32.8	260	784	1,318
January.....	31.8	853	910	922
February.....	34.4	524	885	1,039
March.....	34.2	319	896	828
April.....	33.5	876	901	759
May.....	32.4	862	853	1,140
June.....	33.9	235	837	1,048
July.....	33.6	372	906	1,228
August.....	32.4	247	894	1,281
September.....	32.4	205	891	1,376
WTR YR 1992	33.0	475	886	1,101

HACKENSACK RIVER BASIN

01376800 HACKENSACK RIVER AT WEST NYACK, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1959 - 1992	
ANNUAL TOTAL	14880		7803			
ANNUAL MEAN	40.8		21.3		43.9	
HIGHEST ANNUAL MEAN					74.1	
LOWEST ANNUAL MEAN					13.4	
HIGHEST DAILY MEAN	500	Mar 4	66	May 31	1320	Feb 3 1973
LOWEST DAILY MEAN	14	Oct 23	12	Feb 12	2.6	Jun 12 1965
ANNUAL SEVEN-DAY MINIMUM	15	Oct 18	13	Aug 19	3.4	Sep 24 1966
10 PERCENT EXCEEDS	69		38		87	
50 PERCENT EXCEEDS	30		19		24	
90 PERCENT EXCEEDS	18		15		12	

HACKENSACK RIVER BASIN

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 mi².

PERIOD OF RECORD.--October 1941 to current year.

REVISED RECORDS.--WDR-NJ-80-1: 1968-79(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 22.51 ft above sea level.

REMARKS.--No estimated daily discharges. Records good except those above 500 ft³/s, which are fair. Flow regulated by De Forest Lake (since Feb. 1956) and Lake Tappan (since 1965), 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 were made during the year. Hackensack Water Company gage-height telemeter at station.

COOPERATION.--Gage-height record collected in cooperation with Hackensack Water Company.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	37	33	34	128	36	37	34	368	35	76	167
2	34	37	33	33	127	36	37	34	118	33	43	167
3	33	37	96	33	125	35	36	37	74	32	37	180
4	33	38	63	37	123	42	36	35	53	37	46	92
5	42	39	38	36	100	39	36	35	80	34	40	38
6	49	39	36	34	82	39	34	35	195	34	35	37
7	36	39	36	34	82	45	34	35	118	32	31	36
8	35	39	35	33	82	43	33	36	83	31	30	36
9	35	39	36	34	82	40	33	46	77	52	96	36
10	34	39	45	35	68	41	34	39	56	37	81	36
11	37	48	36	33	48	79	39	40	44	34	69	44
12	41	40	35	60	48	44	33	37	38	31	63	36
13	35	35	37	99	48	41	32	36	34	34	44	36
14	35	34	37	109	68	41	32	36	31	33	47	36
15	37	34	34	101	118	40	31	35	31	37	41	35
16	38	46	35	99	111	40	32	42	30	67	40	34
17	54	70	34	99	38	41	37	39	30	45	43	34
18	41	77	34	97	37	41	39	37	30	41	110	34
19	36	88	34	98	38	42	38	37	39	37	76	38
20	36	88	34	99	37	42	34	33	34	34	54	37
21	35	89	35	98	36	42	33	33	34	32	43	56
22	35	106	35	103	36	41	34	31	33	31	38	76
23	35	86	35	113	36	43	33	31	31	49	35	104
24	34	40	34	120	41	40	33	38	37	52	32	92
25	35	36	34	106	69	35	65	49	34	41	31	83
26	34	34	33	74	83	44	37	38	32	37	31	43
27	36	34	33	36	45	90	36	38	66	51	31	42
28	36	33	33	36	37	41	34	37	57	41	31	41
29	36	33	42	61	37	37	34	34	43	35	42	67
30	37	32	39	93	---	36	34	33	37	34	83	136
31	37	---	35	128	---	41	---	161	---	43	137	---
TOTAL	1145	1466	1189	2205	2010	1337	1070	1261	1967	1196	1636	1929
MEAN	36.9	48.9	38.4	71.1	69.3	43.1	35.7	40.7	65.6	38.6	52.8	64.3
MAX	54	106	96	128	128	90	65	161	368	67	137	180
MIN	33	32	33	33	36	35	31	31	30	31	30	34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1992, BY WATER YEAR (WY)

	MEAN	73.8	80.7	89.5	93.9	135	139	104	74.3	77.4	71.1	63.7
MAX	312	240	202	251	221	379	438	310	319	339	197	177
(WY)	1956	1956	1973	1949	1951	1953	1983	1989	1972	1945	1955	1975
MIN	12.1	17.7	12.6	22.6	23.0	11.2	14.5	20.4	13.4	11.6	11.3	7.87
(WY)	1942	1950	1981	1982	1967	1981	1981	1981	1957	1954	1944	1953

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1942 - 1992
ANNUAL TOTAL	29284	18411	
ANNUAL MEAN	80.2	50.3	88.4
HIGHEST ANNUAL MEAN			156
LOWEST ANNUAL MEAN			30.9
HIGHEST DAILY MEAN	863	Mar 4	2190
LOWEST DAILY MEAN	24	Jul 28	5.8
ANNUAL SEVEN-DAY MINIMUM	27	Aug 12	6.3
INSTANTANEOUS PEAK FLOW			2530
INSTANTANEOUS PEAK STAGE			8.08
INSTANTANEOUS LOW FLOW			.00
10 PERCENT EXCEEDS	135	94	171
50 PERCENT EXCEEDS	71	37	60
90 PERCENT EXCEEDS	29	33	21

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, 0.8 mi north of West Nyack, NY. DRAINAGE AREA, 27.5 mi². PERIOD OF RECORD, February 1956 to current year. REVISED RECORDS.--WDR NJ-84-1: Drainage area. GAGE, water-stage recorder. Datum of gage is sea level. REMARKS.--Reservoir is formed by earthfill dam with sheet piling cutoff and concrete spillway; dam completed and storage began in February 1956. Crest of dam topped by two 50 ft Bascule gates, 5 ft high. Capacity 5,670,000,000 gal, elevation, 85.00 ft, top of Bascule gates. 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.

01376950 LAKE TAPPAN.--Lat 41°01'05", long 74°00'05", Bergen County, Hydrologic Unit 02030103, at dam on Hackensack River, 0.5 mi north of Old Tappan. DRAINAGE AREA, about 49.0 mi². PERIOD OF RECORD, October 1966 to current year. REVISED RECORDS, WDR NJ-89-1: Capacity. GAGE, water-stage recorder. Datum of gage is sea level. REMARKS.--Reservoir is formed by earthfill dam, completed in 1966. Capacity, 3,853,000,000 gal, elevation, 55.00 ft at top of Bascule gates. Flow regulated by four Bascule gates and one sluice gate. Water is released for diversion at New Milford (diversion discontinued May 1990) and Haworth 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, 0.7 mi north of Hillsdale. DRAINAGE AREA, 19.4 mi². PERIOD OF RECORD, December 1929 to current year. Monthend contents only, prior to September 1953, published in WSP 1302, 1722. REVISED RECORDS, WDR NJ-89-1: Capacity. GAGE, water-stage recorder. Datum of gage is sea level. REMARKS.--Reservoir is formed by earthfill dam, completed about 1905. The dam was modified in 1984, which increased capacity, 871,000,000 gal, elevation, 95.00 ft at top of Bascule gates. Flow is regulated by two Bascule gates 85 ft long and 6 ft high each and one 24-inch Ball valve. Water is released for diversion at New Milford (diversion discontinued May 1990) and Haworth 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 mi². PERIOD OF RECORD, December 1922 to current year. Monthend contents only, prior to September 1953, published in WSP 1302, 1722. REVISED RECORDS.--WDR NJ-84-1: Spillway elevation, WDR NJ-89-1: Capacity. GAGE, water-stage recorder. Datum of gage is sea level. REMARKS.--Reservoir is formed by hollow concrete dam, completed in 1922. Capacity at spillway level, 3,507,000,000 gal, elevation, 23.16 ft. Flow regulated by seven sluice gates (7 by 9 ft). Prior to May 1990, water was released for diversion by Hackensack Water Co., 1 mi downstream from dam for municipal supply. Water is diverted from reservoir at Haworth by Hackensack Water Co., for municipal supply. COOPERATION.--Records provided by Hackensack Water Company.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)
01376700 DE FOREST LAKE				01376950 LAKE TAPPAN		
Sept. 30.....	77.42	3,362	-	52.12	2,864	-
Oct. 31.....	77.41	3,359	-0.1	52.40	2,955	+4.5
Nov. 30.....	78.28	3,611	+13.0	52.77	3,077	+6.3
Dec. 31.....	79.84	4,070	+22.9	54.09	3,529	+22.6
CAL YR 1991			-7.3			-2.0
Jan. 31.....	80.14	4,160	+4.5	52.26	2,909	-30.9
Feb. 29.....	80.57	4,289	+7.1	51.32	2,608	-16.6
Mar. 31.....	81.91	4,695	+20.3	54.23	3,574	+48.2
Apr. 30.....	83.00	5,036	+17.6	55.00	3,851	+14.3
May 31.....	82.68	4,632	-20.2	55.46	4,019	+8.4
June 30.....	84.61	5,544	+47.0	55.05	3,870	-7.7
July 31.....	84.20	5,409	-6.7	55.14	3,899	+1.5
Aug. 31.....	83.82	5,289	-6.0	54.52	3,687	-10.6
Sept. 30.....	83.03	5,041	-12.8	53.51	3,332	-18.3
WTR YR 1992	-	-	+7.1	-	-	+2.0

Date	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)	Elevation (feet)†	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)
01377450 WOODCLIFF LAKE				01378480 ORADELL RESERVOIR		
Sept. 30.....	94.03	816	-	21.28	3,014	-
Oct. 31.....	90.27	614	-10.1	20.19	2,746	-13.4
Nov. 30.....	90.86	645	+1.6	20.39	2,794	+2.5
Dec. 31.....	90.85	644	-0.05	19.84	2,662	-6.6
CAL YR 1991			-1.1			-2.3
Jan. 31.....	89.23	562	-4.1	18.63	2,380	-14.1
Feb. 29.....	88.74	537	-1.4	18.10	2,260	-6.6
Mar. 31.....	91.17	661	+6.2	22.88	3,431	+58.4
Apr. 30.....	90.90	648	-7.7	22.50	3,329	-5.3
May 31.....	94.75	846	+9.9	23.03	3,472	+7.1
June 30.....	95.13	879	+1.7	22.06	3,253	-11.3
July 31.....	95.49	899	+1.0	21.30	3,019	-11.7
Aug. 31.....	93.01	761	-6.9	19.56	2,597	-21.1
Sept. 30.....	91.03	654	-5.5	19.67	2,622	+1.3
WTR YR 1992	-	-	-7.7	-	-	-1.7

† Elevation at 2400 of the last day of each month.

HACKENSACK RIVER BASIN

DIVERSIONS INTO AND FROM HACKENSACK RIVER BASIN

01376272 Hackensack Water Co., diverts water from Sparkill Creek (Hudson River basin) 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 from 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, measured flow includes diversions) 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 (station 01378478) 2.0 mi upstream from gaging station on Hackensack River at New Milford and prior to May 1990 from Hackensack River, at New Milford pumping station about 50 ft above gaging station on Hackensack River at New Milford, NJ (station 01378500). Diversion from the New Milford pumping station was discontinued in May 1990. Records provided by Hackensack Water Co.

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.

01388981 Hackensack Water Co., diverts water from the Wanaque South pumping station on the Pompton River at Two Bridges, 750 ft upstream from the Passaic River, to Oradell Reservoir. Water can also be diverted from Wanaque Reservoir to Oradell Reservoir in the Hackensack River basin. Figures given herein include diversion from both sources. Formerly diversion was from the Ramapo River (see station 01387991). Records provided by Hackensack Water Company.

01391210 Hackensack Water Co., diverts water from Saddle River (Passaic River basin) 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 1991 TO SEPTEMBER 1992

MONTH	01376699 SPRING VALLEY WATER CO.	01376810 WEST NYACK, NY	01378490 HACKENSACK WATER CO.
October.....	8.69	2.50	151
November.....	7.74	2.33	143
December.....	7.60	2.30	143
CAL YR 1991.....	8.95	2.55	161
January.....	5.55	2.41	151
February.....	0	2.54	154
March.....	0	2.44	142
April.....	2.07	2.44	143
May.....	10.1	2.64	156
June.....	15.3	2.65	167
July.....	14.9	2.64	164
August.....	14.2	2.61	159
September.....	15.0	2.48	156
WTR YR 1992.....	8.43	2.50	152

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 HIRSHELD BROOK (HACKENSACK RIVER BASIN)	01388981 POMPTON RIVER (PASSAIC RIVER BASIN)	01391210 SADDLE RIVER (PASSAIC RIVER BASIN)	WELLS TO SURFACE SUPPLY
October.....	0.03	1.66	15.5	10.6	0.43
November.....	0	1.46	15.1	13.7	.46
December.....	0	.28	1.38	6.88	.24
CAL YR 1991	.10	.97	21.0	4.21	.45
January.....	0	.19	0	5.24	.15
February.....	0	1.70	0	8.53	.23
March.....	.47	2.33	41.8	13.2	1.19
April.....	0	0	30.6	0	.30
May.....	0	1.01	60.6	2.23	.81
June.....	0	1.63	28.8	10.8	.52
July.....	0	2.22	43.1	16.3	.59
August.....	0	0	12.0	0	.51
September.....	0	0	0	0	.55
WTR YR 1992	.04	1.04	20.7	7.29	.50

PASSAIC RIVER BASIN

01387400 RAMAPO RIVER AT RAMAPO, NY

LOCATION.--Lat 41°08'25", long 74°10'08", 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 0.3 mi upstream from Torne Brook.

DRAINAGE AREA.--86.9 mi².

PERIOD OF RECORD.--June 1979 to current year.

REVISED RECORDS.--WDR NY-81-1: 1980(m). WDR NY-90-1: Drainage area.

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.--Records fair. Occasional regulation by Lake Sebago.

AVERAGE DISCHARGE.--13 years, 164 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft³/s, Apr. 5, 1984, gage height, 13.82 ft, from rating curve extended above 3,600 ft³/s on basis of runoff comparison with station 1.5 mi downstream; minimum discharge, 5.3 ft³/s, Aug. 7, 1983, gage height, 1.27 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 6,100 ft³/s, Mar. 12, 1936, by computation of flow over dam.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,050 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 27	1815	*1,560	*5.37	June 6	1215	1,270	4.96

Minimum discharge, 16 ft³/s, Sept. 3, gage height, 1.58 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	49	147	91	139	157	306	119	725	56	46	20
2	49	45	137	84	120	146	260	114	427	48	33	18
3	42	42	338	81	110	136	233	135	254	40	28	40
4	36	41	680	120	101	129	208	126	183	46	43	61
5	31	38	517	213	97	122	188	111	249	47	41	38
6	145	36	349	181	88	117	168	105	1160	55	31	29
7	207	35	281	147	85	134	152	93	789	49	27	26
8	131	34	247	128	83	216	143	89	490	38	23	26
9	99	33	234	116	e78	199	130	140	381	49	78	25
10	83	33	266	126	e70	176	134	131	257	49	107	23
11	78	41	243	122	e66	427	154	115	192	38	72	37
12	115	64	214	109	e60	460	156	100	149	31	62	35
13	108	73	200	102	e56	309	134	91	123	31	45	26
14	88	66	197	141	57	245	118	86	102	34	39	23
15	89	58	187	214	66	211	109	79	87	37	38	26
16	171	52	159	162	167	180	102	87	74	78	33	46
17	197	49	141	139	151	163	155	104	64	62	51	53
18	256	44	137	e120	119	153	208	92	56	49	76	51
19	207	40	121	e110	110	161	233	81	67	41	77	46
20	156	39	110	e105	109	164	216	69	96	34	60	31
21	126	43	107	94	107	147	195	65	77	29	46	29
22	112	241	106	91	98	131	187	58	61	26	37	51
23	103	878	104	130	93	130	191	52	51	33	32	71
24	93	607	104	515	91	120	169	51	56	56	29	66
25	90	368	96	349	102	113	190	84	76	42	25	67
26	81	265	87	241	206	150	195	70	58	35	23	27
27	73	223	82	200	247	1260	172	63	118	54	22	29
28	68	203	78	181	207	1020	153	58	120	46	26	31
29	62	184	88	168	188	540	139	52	83	34	29	26
30	55	162	127	156	---	366	128	45	62	29	28	22
31	52	---	113	148	---	353	---	310	---	28	23	---
TOTAL	3262	4086	5997	4884	3271	8335	5226	2975	6687	1324	1330	1099
MEAN	105	136	193	158	113	269	174	96.0	223	42.7	42.9	36.6
MAX	256	878	680	515	247	1260	306	310	1160	78	107	71
MIN	31	33	78	81	56	113	102	45	51	26	22	18

e Estimated

PASSAIC RIVER BASIN

01387400 RAMAPO RIVER AT RAMAPO, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1992, BY WATER YEAR (WY)

MEAN	102	164	194	143	207	289	346	230	123	58.7	56.8	62.2
MAX	352	281	642	255	424	774	802	704	267	212	270	206
(WY)	1990	1986	1984	1982	1981	1983	1984	1989	1982	1984	1990	1987
MIN	14.5	19.8	39.9	16.8	46.8	122	84.9	96.0	27.1	24.7	10.7	10.8
(WY)	1985	1985	1981	1981	1980	1981	1985	1992	1987	1979	1981	1981

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1979 - 1992

ANNUAL TOTAL	46830	48476	164
ANNUAL MEAN	128	132	284
HIGHEST ANNUAL MEAN			80.4
LOWEST ANNUAL MEAN			6300
HIGHEST DAILY MEAN	1230	Mar 4	Apr 5 1984
LOWEST DAILY MEAN	12	Jul 20	7.9
ANNUAL SEVEN-DAY MINIMUM	13	Jul 17	8.1
10 PERCENT EXCEEDS	257	244	345
50 PERCENT EXCEEDS	99	96	89
90 PERCENT EXCEEDS	16	32	18

PASSAIC RIVER BASIN

01387420 RAMAPO RIVER AT SUFFERN, NY

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 mi².

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.--Records fair. Flow affected by diversion from Spring Valley Water Company well field upstream from station and by occasional regulation by Lake Sebago.

AVERAGE DISCHARGE.--13 years, 169 ft³/s, unadjusted.

COOPERATION.--Figures of pumpage from well field provided by Spring Valley Water Company.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,300 ft³/s, Apr. 5, 1984, gage height, 15.38 ft, from rating curve extended above 5,400 ft³/s; minimum discharge, 2.6 ft³/s, Sept. 30, 1981, gage height, 1.23 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 6,600 ft³/s, Mar. 12, 1936, by computation of flow over dam at site 0.65 mi upstream, drainage area, 90.6 mi².

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft³/s and maximum(*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 27	1730	*1,620	*6.83	June 6	1200	1,400	6.39

Minimum discharge, 11 ft³/s, Sept. 2, gage height, 1.43 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	44	134	92	129	147	322	114	766	57	43	13
2	47	41	126	83	113	138	278	112	445	48	29	12
3	39	39	346	83	109	130	245	136	280	40	22	36
4	33	39	706	114	95	122	210	122	204	47	38	66
5	30	37	528	199	93	117	184	108	298	45	39	39
6	140	34	350	164	87	111	158	103	1300	53	27	26
7	197	e31	283	135	82	137	139	94	843	47	21	21
8	119	e29	248	120	82	221	130	92	522	35	16	20
9	91	29	232	113	80	194	121	156	399	50	79	18
10	76	29	273	122	e66	172	127	135	280	47	107	16
11	72	39	242	115	e62	453	147	117	215	35	68	37
12	105	61	204	104	e54	434	143	104	169	27	57	33
13	96	71	186	98	e56	303	125	95	137	27	42	22
14	78	63	189	135	62	246	113	90	115	31	37	18
15	81	55	172	204	72	207	106	80	99	32	35	18
16	156	50	144	149	168	172	101	95	85	77	30	41
17	182	48	138	e135	140	153	160	112	73	59	50	49
18	247	44	130	e120	113	141	219	96	62	45	78	48
19	192	40	122	e110	108	156	254	85	81	37	75	44
20	140	38	117	e105	110	152	227	72	108	28	57	27
21	114	42	105	104	103	134	199	69	83	22	43	22
22	103	220	104	104	94	120	190	60	65	20	34	47
23	94	890	102	127	91	122	197	53	53	33	27	67
24	86	616	102	502	91	112	165	54	60	54	23	61
25	84	366	95	340	103	108	200	92	81	41	18	67
26	72	264	87	232	218	155	196	77	60	33	16	26
27	65	214	82	191	248	1320	166	70	130	54	14	27
28	59	191	79	162	204	1030	143	64	128	43	20	29
29	55	169	88	152	181	547	130	55	87	29	25	21
30	50	147	122	142	---	379	123	49	64	25	22	16
31	46	---	108	136	---	373	---	365	---	23	16	---
TOTAL	3004	3980	5944	4692	3214	8306	5218	3126	7292	1244	1208	987
MEAN	96.9	133	192	151	111	268	174	101	243	40.1	39.0	32.9
MAX	247	890	706	502	248	1320	322	365	1300	77	107	67
MIN	30	29	79	83	54	108	101	49	53	20	14	12
†	14	14	14	14	15	14	14	14	14	14	14	12

e Estimated

† Diversion, in cubic feet per second, by pumpage from well field upstream of station.

PASSAIC RIVER BASIN

01387420 RAMAPO RIVER AT SUFFERN, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1992, BY WATER YEAR (WY)

MEAN	104	175	199	148	217	296	358	243	121	56.8	58.2	64.7
MAX	389	323	693	290	475	816	862	777	269	234	305	219
(WY)	1990	1989	1984	1982	1981	1983	1984	1989	1982	1984	1990	1987
MIN	11.0	17.1	29.6	6.84	49.7	128	77.1	98.5	22.8	19.6	10.1	12.3
(WY)	1985	1985	1981	1981	1980	1981	1985	1987	1991	1983	1981	1981

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1979 - 1992

ANNUAL TOTAL	46283.1	48215	
ANNUAL MEAN	127	132	169
ANNUAL MEAN (+)	12	14	
HIGHEST ANNUAL MEAN			295
LOWEST ANNUAL MEAN			78.2
HIGHEST DAILY MEAN	1230	Mar 4	1320
LOWEST DAILY MEAN	5.9	Sep 13	12
ANNUAL SEVEN-DAY MINIMUM	6.6	Sep 11	17
10 PERCENT EXCEEDS	270		246
50 PERCENT EXCEEDS	96		95
90 PERCENT EXCEEDS	9.6		29

* Diversion, in cubic feet per second, by pumpage from well field upstream of station.

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.

PERIOD OF RECORD.--August 1958 to current year.

REVISED RECORDS.--WDR NY-79-1: 1977(P). WDR NY-87-1: 1986.

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.--No estimated daily discharges. Records good. Occasional regulation from unknown source. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--34 years, 24.4 ft³/s, 26.94 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,840 ft³/s, Nov. 8, 1977, gage height, 9.91 ft, from rating curve extended above 850 ft³/s on basis of contracted-opening measurement at gage height 9.91 ft; minimum discharge, 0.05 ft³/s, Oct. 20, 21, 1970, result of temporary pumping from gage pool.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 6	0145	*301	*4.18	No other peak greater than base discharge.			

Minimum discharge, 0.87 ft³/s, Sept. 24, gage height, 1.39 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	3.8	16	9.7	13	16	39	16	115	10	7.3	2.0
2	4.0	3.7	15	9.1	12	16	37	16	59	8.7	4.2	2.0
3	3.6	3.3	72	9.0	11	15	32	17	38	7.7	3.7	3.3
4	3.3	3.1	95	15	10	15	29	16	29	10	5.0	9.7
5	5.8	3.1	55	18	9.9	14	26	15	54	9.7	5.7	4.5
6	22	3.0	41	15	9.1	13	23	15	208	8.5	4.5	3.8
7	14	2.9	34	13	8.8	21	22	13	108	7.3	3.8	3.3
8	11	2.7	30	11	8.5	30	20	13	108	6.4	3.4	3.2
9	8.6	2.7	28	11	8.3	23	19	22	86	13	25	2.9
10	7.6	2.7	35	13	7.0	21	18	17	53	7.7	16	2.8
11	7.1	4.7	28	12	6.8	82	20	15	39	6.2	9.9	7.4
12	10	5.7	24	11	6.6	58	18	14	32	5.4	7.8	3.9
13	7.1	4.8	22	11	6.1	43	17	13	27	5.7	5.5	3.2
14	6.5	4.1	22	21	6.2	35	15	12	23	6.7	5.8	2.8
15	8.2	3.6	20	21	7.9	29	14	11	19	5.9	4.8	2.5
16	14	3.3	19	16	36	25	14	14	16	13	4.6	2.4
17	16	3.1	16	13	18	23	17	15	14	7.4	6.4	2.2
18	17	2.7	15	12	15	21	22	13	13	6.6	11	2.0
19	12	2.9	13	10	14	22	26	11	20	5.8	7.7	2.2
20	10	2.8	11	9.7	14	21	22	10	23	5.0	6.2	2.0
21	8.7	4.0	12	9.4	13	20	20	9.5	19	4.3	4.9	1.9
22	7.7	56	12	9.9	12	18	20	8.6	15	3.8	4.1	2.0
23	7.1	142	11	19	11	17	24	7.9	12	18	4.3	2.9
24	6.4	67	12	43	11	16	22	8.4	13	11	3.4	2.5
25	6.0	43	10	24	13	16	27	13	12	7.2	3.0	1.7
26	5.8	31	9.6	19	30	26	24	10	10	6.5	2.9	2.7
27	6.0	25	8.9	16	26	192	22	10	30	14	2.6	4.0
28	5.3	22	8.6	15	23	98	20	11	24	7.6	2.5	4.8
29	4.4	20	12	15	20	62	18	8.6	16	5.6	2.8	3.1
30	4.3	18	16	14	---	48	17	7.8	12	4.6	2.5	2.6
31	4.3	---	12	14	---	46	---	92	---	4.7	2.3	---
TOTAL	258.5	496.7	735.1	458.8	387.2	1102	664	474.8	1247	244.0	183.6	96.3
MEAN	8.34	16.6	23.7	14.8	13.4	35.5	22.1	15.3	41.6	7.87	5.92	3.21
MAX	22	142	95	43	36	192	39	92	208	18	25	9.7
MIN	3.3	2.7	8.6	9.0	6.1	13	14	7.8	10	3.8	2.3	1.7
CFSM	.68	1.35	1.93	1.20	1.09	2.89	1.80	1.25	3.38	.64	.48	.26
IN.	.78	1.50	2.22	1.39	1.17	3.33	2.01	1.44	3.77	.74	.56	.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1992, BY WATER YEAR (WY)

MEAN	14.1	26.1	29.2	26.8	32.6	44.2	41.3	31.3	18.1	10.4	9.09	9.93
MAX	43.4	100	88.8	104	76.2	113	115	105	82.7	45.4	37.9	57.3
(WY)	1990	1978	1984	1979	1970	1983	1983	1989	1972	1984	1990	1971
MIN	1.94	2.31	5.72	2.02	7.68	15.0	8.14	12.5	3.92	1.31	1.16	.68
(WY)	1981	1965	1981	1981	1980	1985	1985	1965	1991	1977	1981	1988

PASSAIC RIVER BASIN

01387450 MAHWAH RIVER NEAR SUFFERN, NY--Continued

SUMMARY STATISTICS FOR 1991 CALENDAR YEAR FOR 1992 WATER YEAR WATER YEARS 1958 - 1992

ANNUAL TOTAL	6113.83	6348.0	
ANNUAL MEAN	16.8	17.3	24.4
HIGHEST ANNUAL MEAN			41.4
LOWEST ANNUAL MEAN			11.2
HIGHEST DAILY MEAN	301	208	1040
LOWEST DAILY MEAN	.56	1.7	.12
ANNUAL SEVEN-DAY MINIMUM	.81	2.1	.48
ANNUAL RUNOFF (CFSM)	1.36	1.41	1.98
ANNUAL RUNOFF (INCHES)	18.49	19.20	26.95
10 PERCENT EXCEEDS	34	31	52
50 PERCENT EXCEEDS	12	12	15
90 PERCENT EXCEEDS	1.2	3.1	2.4

REMARKS:--No estimated daily discharges. Records later. Flow affected by diversion from Spring Valley (NY) Water Company well field upstream from station (see station 01387450). Occasional regulation from Mahwah Dam, 4.5 miles upstream from the station. Several measurements of water temperature in the river below the dam. Estimated at station.

REMARKS:--No estimated daily discharges. Records later. Flow affected by diversion from Spring Valley (NY) Water Company well field upstream from station (see station 01387450). Occasional regulation from Mahwah Dam, 4.5 miles upstream from the station. Several measurements of water temperature in the river below the dam. Estimated at station.

REMARKS:--No estimated daily discharges. Records later. Flow affected by diversion from Spring Valley (NY) Water Company well field upstream from station (see station 01387450). Occasional regulation from Mahwah Dam, 4.5 miles upstream from the station. Several measurements of water temperature in the river below the dam. Estimated at station.

REMARKS:--No estimated daily discharges. Records later. Flow affected by diversion from Spring Valley (NY) Water Company well field upstream from station (see station 01387450). Occasional regulation from Mahwah Dam, 4.5 miles upstream from the station. Several measurements of water temperature in the river below the dam. Estimated at station.

REMARKS:--No estimated daily discharges. Records later. Flow affected by diversion from Spring Valley (NY) Water Company well field upstream from station (see station 01387450). Occasional regulation from Mahwah Dam, 4.5 miles upstream from the station. Several measurements of water temperature in the river below the dam. Estimated at station.

PASSAIC RIVER BASIN

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 mi².

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. WDR-NJ-87-1: 1986.

GAGE.--Water-stage recorder. Datum of gage is 253.10 ft above sea level. 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 were made during the year. Satellite telemeter at station.

PEAK DISCHARGES ABOVE BASE FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 27	1830	*1,850	*6.97	June 6	1130	1,660	6.73

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	56	187	109	171	204	439	169	1040	83	74	29
2	70	54	184	107	146	189	388	167	577	71	46	27
3	55	50	527	103	132	176	344	199	382	64	39	76
4	50	49	864	165	120	166	302	177	286	82	53	98
5	48	47	631	261	115	157	274	157	452	72	53	51
6	191	46	446	217	103	151	247	147	1550	76	42	41
7	250	46	375	177	98	203	224	131	1040	67	37	38
8	156	51	330	153	97	298	210	141	655	54	33	36
9	113	45	313	145	96	263	196	244	560	101	169	34
10	90	45	375	160	79	246	204	200	399	71	165	34
11	89	58	323	147	79	604	237	171	310	54	101	69
12	136	79	277	131	72	583	224	147	256	47	81	47
13	118	85	261	130	64	414	194	133	215	47	58	37
14	93	75	267	196	71	341	172	122	179	55	58	32
15	113	67	245	266	108	292	158	108	150	73	51	31
16	209	61	210	198	273	254	152	146	126	128	51	48
17	246	58	188	167	203	231	232	164	107	84	71	54
18	307	53	177	142	156	224	295	136	92	66	116	54
19	239	50	152	136	145	238	340	116	141	54	100	62
20	183	48	138	110	145	231	299	97	177	46	74	39
21	147	68	136	109	134	206	267	90	133	41	57	33
22	130	363	135	108	123	191	264	78	99	38	47	54
23	116	1070	133	183	116	192	277	69	82	112	42	84
24	104	722	131	584	126	173	244	84	103	102	39	65
25	101	454	119	412	145	174	287	134	120	61	35	78
26	88	341	106	295	289	245	274	103	86	72	37	47
27	81	280	99	243	325	1550	243	92	233	109	34	45
28	73	252	100	219	269	1250	216	84	203	66	36	42
29	67	228	127	205	243	700	197	71	132	48	44	33
30	66	204	172	192	---	504	182	62	93	43	36	27
31	59	---	139	183	---	498	---	570	---	65	32	---
TOTAL	3859	5105	7867	5953	4243	11148	7582	4509	9978	2152	1911	1445
MEAN	124	170	254	192	146	360	253	145	333	69.4	61.6	48.2
MAX	307	1070	864	584	325	1550	439	570	1550	128	169	98
MIN	48	45	99	103	64	151	152	62	82	38	32	27
CFSM	1.04	1.42	2.11	1.60	1.22	3.00	2.11	1.21	2.77	.58	.51	.40
IN.	1.20	1.58	2.44	1.85	1.32	3.46	2.35	1.40	3.09	.67	.59	.45

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1992, BY WATER YEAR (WY)

	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914
MEAN	145	223	272	260	281	441	402	262	155	99.5	104	111
MAX	954	736	873	877	701	1151	1055	994	735	602	755	478
(WY)	1904	1978	1984	1979	1970	1936	1984	1989	1972	1945	1955	1927
MIN	13.8	24.4	43.4	16.5	70.8	144	88.4	79.5	36.5	21.9	13.5	11.1
(WY)	1942	1965	1981	1981	1980	1985	1965	1905	1991	1957	1981	1964

PASSAIC RIVER BASIN

01387500 RAMAPO RIVER NEAR MAHWAH, NJ--Continued

SUMMARY STATISTICS FOR 1991 CALENDAR YEAR FOR 1992 WATER YEAR WATER YEARS 1903 - 1992

ANNUAL TOTAL	64074	65752	229	
ANNUAL MEAN	176	180	461	1903
HIGHEST ANNUAL MEAN			99.5	1985
LOWEST ANNUAL MEAN			8920	Oct 9 1903
HIGHEST DAILY MEAN	1790	Mar 4	1550	Mar 27
LOWEST DAILY MEAN	15	Sep 18	27	Sep 2
ANNUAL SEVEN-DAY MINIMUM	16	Sep 12	34	Aug 27
INSTANTANEOUS PEAK FLOW			1850	Mar 27
INSTANTANEOUS PEAK STAGE			6.97	Mar 27
INSTANTANEOUS LOW FLOW			25	Sep 30
ANNUAL RUNOFF (CFSM)	1.46	1.50	1.91	
ANNUAL RUNOFF (INCHES)	19.86	20.38	25.97	
10 PERCENT EXCEEDS	363	333	507	
50 PERCENT EXCEEDS	136	131	139	
90 PERCENT EXCEEDS	20	46	28	

a Possible regulation.

b From rating curve extended above 6,500 ft³/s.

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 mi².

PERIOD OF RECORD.--February 1937 to current year.

REVISED RECORDS.--WDR NY-87-1: 1948(M), 1951(P), 1953(M), 1955-56(M), 1974-75(M), 1977(M), 1978(P), 1980-81(M), 1986(M).

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.--Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--55 years, 304 ft³/s, 25.33 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,600 ft³/s, Nov. 25, 1950, gage height, 13.84 ft, from rating curve extended above 8,700 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow at gage height 12.88 ft and does not include undetermined amount of flow bypassing gaging station; minimum discharge, 5.0 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 23	0315	*4,580	*8.35	No other peak greater than base discharge.			

Minimum discharge, 27 ft³/s, Oct. 4, 5; minimum gage height, 1.86 ft, Oct. 5, Aug. 24, 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	71	330	191	e210	192	454	515	681	64	64	55
2	31	68	296	185	e190	205	418	488	543	58	52	50
3	29	65	381	200	e180	187	378	785	453	59	44	50
4	29	63	418	288	e170	192	348	596	388	75	55	55
5	28	60	321	356	e160	218	318	556	354	68	63	48
6	34	58	298	315	e150	227	289	543	1310	74	50	44
7	39	56	280	302	e160	253	280	482	798	62	43	42
8	35	54	338	287	e130	327	280	441	680	56	40	40
9	35	53	601	279	e125	348	265	412	577	65	57	38
10	34	51	558	288	e120	378	272	375	446	60	63	39
11	37	74	513	261	e115	1160	295	339	363	54	52	103
12	76	96	474	237	111	871	633	307	303	50	46	67
13	66	81	485	234	e110	668	484	284	260	56	43	56
14	57	79	735	486	120	569	456	265	227	59	43	49
15	55	84	723	468	116	464	423	242	199	79	42	44
16	180	86	617	369	239	406	413	255	176	149	40	41
17	148	81	545	e350	207	371	1030	227	160	86	39	39
18	219	80	496	e320	167	324	1250	212	145	115	45	37
19	162	81	408	e300	210	301	1240	193	136	86	46	39
20	138	82	385	e290	226	273	1000	175	136	68	41	38
21	122	91	363	e270	183	246	855	162	125	60	37	35
22	112	553	334	e260	171	220	850	151	116	54	34	47
23	103	3010	309	e290	186	213	922	142	107	56	32	120
24	95	1480	289	608	197	196	789	152	104	64	30	70
25	90	969	252	359	185	193	1070	174	111	55	48	58
26	86	699	222	e320	213	262	1010	146	96	51	106	58
27	82	552	213	e300	201	1070	897	140	89	52	70	60
28	86	471	192	e280	192	648	761	136	83	46	75	57
29	81	416	215	e260	266	530	661	125	74	44	88	53
30	75	367	269	e240	---	478	580	117	68	44	74	50
31	72	---	207	e230	---	478	---	634	---	52	62	---
TOTAL	2468	10031	12067	9423	5010	12468	18921	9771	9308	2021	1624	1582
MEAN	79.6	334	389	304	173	402	631	315	310	65.2	52.4	52.7
MAX	219	3010	735	608	266	1160	1250	785	1310	149	106	120
MIN	28	51	192	185	110	187	265	117	68	44	30	35
CFSM	.49	2.05	2.39	1.86	1.06	2.47	3.87	1.93	1.90	.40	.32	.32
IN.	.56	2.29	2.75	2.15	1.14	2.85	4.32	2.23	2.12	.46	.37	.36

e Estimated

DELAWARE RIVER BASIN

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 mi².

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.--Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--55 years, 54.6 ft³/s, 29.42 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft³/s, Sept. 21, 1938, from rating curve extended above 960 ft³/s on basis of velocity-area study; maximum gage height, 9.92 ft, Nov. 25, 1950; minimum discharge observed, 1.2 ft³/s, Sept. 25, 26, 1939.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 740 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 22	2330	*1,350	*7.78	No other peak greater than base discharge.			

Minimum discharge, 5.2 ft³/s, Oct. 2, 3, 4, 5, 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	15	39	e28	42	28	66	83	144	11	13	21
2	5.5	13	34	e25	e25	29	61	81	102	10	11	18
3	5.2	13	59	29	e35	25	56	107	82	10	9.4	19
4	5.2	12	62	37	35	23	53	92	66	12	14	20
5	5.2	12	48	42	29	25	48	87	62	11	12	17
6	7.2	11	45	40	26	27	45	83	338	12	10	15
7	6.5	10	42	39	e22	36	45	76	146	9.6	9.5	15
8	6.6	10	45	37	e20	54	45	71	104	9.0	8.9	14
9	6.4	9.4	53	37	e17	60	44	67	89	11	14	14
10	6.3	9.4	51	39	e21	67	51	60	75	9.5	14	15
11	9.5	20	48	35	e23	315	59	55	62	8.8	12	38
12	25	21	45	31	e19	186	142	50	53	8.2	11	25
13	18	19	49	31	e18	127	110	46	44	8.5	10	22
14	15	18	80	104	e16	e93	97	43	39	9.5	10	20
15	19	21	82	e90	e16	e76	85	40	35	14	9.9	19
16	70	23	72	e71	e60	70	78	40	31	19	9.6	17
17	51	24	65	e60	40	64	130	36	29	13	9.2	16
18	54	25	60	e52	26	57	170	35	27	16	11	15
19	45	25	e47	e47	38	53	175	32	24	13	10	15
20	40	25	48	e46	34	47	146	30	23	12	8.9	13
21	37	28	45	e44	27	42	127	28	20	11	8.5	13
22	34	217	41	e43	24	37	149	27	18	9.9	7.8	27
23	30	484	39	77	27	36	171	25	17	10	7.9	42
24	27	174	37	104	27	e33	151	27	17	11	7.8	27
25	24	110	31	66	26	e32	191	27	18	9.7	16	23
26	22	79	25	60	35	49	175	23	15	9.6	29	24
27	21	64	24	56	29	140	150	23	15	9.8	31	24
28	21	56	22	55	28	94	123	21	14	8.6	32	22
29	18	49	31	50	38	78	107	19	12	8.6	40	20
30	17	43	40	47	---	69	94	18	11	8.5	29	19
31	16	---	31	46	---	69	---	145	---	11	25	---
TOTAL	673.3	1639.8	1440	1568	823	2141	3144	1597	1732	334.8	451.4	609
MEAN	21.7	54.7	46.5	50.6	28.4	69.1	105	51.5	57.7	10.8	14.6	20.3
MAX	70	484	82	104	60	315	191	145	338	19	40	42
MIN	5.2	9.4	22	25	16	23	44	18	11	8.2	7.8	13
CFSM	.86	2.17	1.84	2.01	1.13	2.74	4.16	2.04	2.29	.43	.58	.81
IN.	.99	2.42	2.13	2.31	1.21	3.16	4.64	2.36	2.56	.49	.67	.90

e Estimated

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 mi².

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.--Records fair, except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--55 years, 58.6 ft³/s, 23.97 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,250 ft³/s, Sept. 21, 1938, gage height, 7.12 ft, from rating curve extended above 1,500 ft³/s; maximum gage height, 7.92 ft, Jan. 26, 1976 (ice jam); minimum discharge, 0.5 ft³/s, Sept. 17, 21, 22, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 23	0200	*1,420	*5.23	No other peak greater than base discharge.			

Minimum discharge, 1.9 ft³/s, May 20, gage height, 2.24 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e14	15	61	e33	39	e50	83	93	102	6.9	14	12
2	e13	15	53	e31	e36	52	78	93	85	6.4	10	e11
3	e12	14	142	e37	e33	48	72	149	68	7.5	8.3	e11
4	e11	13	131	46	e30	53	68	117	60	10	22	e12
5	e10	12	100	51	e27	58	62	120	51	8.4	21	e11
6	e15	12	94	47	e24	62	55	113	97	7.9	17	e9.8
7	e20	11	83	45	e21	83	54	101	58	6.7	16	e9.0
8	18	10	92	43	e18	98	57	92	45	6.3	14	e8.6
9	14	9.8	108	42	e15	102	52	84	40	11	37	8.1
10	11	10	100	44	e13	104	55	68	42	7.9	25	9.3
11	15	25	94	40	e12	174	63	61	35	7.0	16	20
12	45	26	86	37	e11	e130	127	50	30	6.3	12	11
13	27	22	88	37	e10	e110	102	41	26	8.2	11	8.8
14	22	23	135	91	e13	e96	98	33	23	9.1	15	8.0
15	25	24	116	79	e15	e84	90	28	20	30	13	7.4
16	91	25	103	e70	e70	e76	94	39	17	46	11	7.0
17	61	24	89	e62	51	e70	219	26	15	19	11	6.9
18	71	23	e80	e58	37	e58	253	21	14	51	15	6.5
19	54	24	e70	e54	60	55	249	13	14	24	14	9.2
20	46	24	e64	e52	56	e48	203	6.1	15	17	11	7.8
21	40	31	e58	e50	45	e45	165	6.8	13	14	9.5	7.1
22	35	216	e54	e54	43	e40	177	8.5	12	12	8.7	11
23	30	691	e49	e70	51	e37	147	7.1	12	14	7.9	26
24	26	324	e41	e94	50	e36	136	10	12	15	7.5	13
25	24	211	e35	e70	49	e36	182	10	14	11	13	9.8
26	22	145	e33	e62	54	52	172	7.2	11	11	30	11
27	21	110	e32	e56	50	140	158	7.7	9.5	11	15	11
28	23	92	e33	e52	52	96	133	7.5	8.8	9.0	12	10
29	19	79	e35	48	e52	82	114	6.8	8.0	8.4	28	9.5
30	18	69	e45	45	---	78	99	4.8	7.4	8.0	18	9.0
31	16	---	e35	44	---	85	---	96	---	12	14	---
TOTAL	869	2329.8	2339	1644	1037	2338	3617	1520.5	964.7	422.0	476.9	311.8
MEAN	28.0	77.7	75.5	53.0	35.8	75.4	121	49.0	32.2	13.6	15.4	10.4
MAX	91	691	142	94	70	174	253	149	102	51	37	26
MIN	10	9.8	32	31	10	36	52	4.8	7.4	6.3	7.5	6.5
CFSM	.84	2.34	2.27	1.60	1.08	2.27	3.63	1.48	.97	.41	.46	.31
IN.	.97	2.61	2.62	1.84	1.16	2.62	4.05	1.70	1.08	.47	.53	.35

e Estimated

LOCATION.--Lat 42°04'30", long 74°58'36", Delaware County, Hydrologic Unit 02040102, on left bank 0.5 mi downstream from Downsville Dam, at downstream end of outlet channel of Pepacton Reservoir, and 1.0 mi east of Downsville.

DRAINAGE AREA.--372 mi².

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 ft³/s, Nov. 26, 1950, gage height, 14.52 ft, site and datum then in use, from rating curve extended above 12,000 ft³/s; minimum discharge, 0.3 ft³/s, Oct. 11, 1954; minimum daily, 0.6 ft³/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 site and datum).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 692 ft³/s, Oct. 3, 4, 5, gage height, 3.88 ft; minimum, 6.2 ft³/s, Feb. 15, gage height, 1.99 ft; minimum daily, 6.4 ft³/s, Feb. 12-14.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	324	236	7.6	7.1	6.6	6.7	7.3	20	46	76	67	67
2	322	274	7.6	7.1	6.6	6.7	7.3	20	38	65	67	67
3	494	312	8.4	7.2	6.6	6.7	7.3	20	38	76	67	68
4	680	493	7.8	7.3	6.6	6.7	7.3	20	38	77	67	80
5	490	660	7.6	7.2	6.6	6.8	7.3	20	38	66	67	91
6	184	656	7.6	7.2	6.6	6.8	7.1	19	35	65	67	80
7	64	655	7.5	7.1	6.6	6.9	10	18	20	66	79	81
8	65	632	7.5	6.9	6.6	6.8	18	18	20	66	92	93
9	235	577	7.4	6.9	6.6	6.8	18	18	35	71	92	81
10	173	461	7.3	6.9	6.6	6.9	18	18	52	83	93	68
11	65	466	7.3	6.9	6.5	7.5	18	18	52	89	84	68
12	79	395	7.3	6.8	6.4	7.1	19	18	59	78	67	68
13	238	265	7.4	6.8	6.4	7.1	18	18	64	66	67	68
14	210	260	7.6	7.3	6.4	7.1	18	18	64	66	67	68
15	19	247	7.5	7.1	6.5	7.1	18	18	59	66	67	68
16	19	260	7.4	7.1	6.8	7.0	19	19	55	66	68	69
17	19	168	7.4	7.1	6.6	7.0	19	18	61	66	68	83
18	19	99	7.4	7.1	6.6	7.0	19	18	64	66	68	95
19	19	88	7.3	7.1	6.8	6.9	19	18	65	66	69	82
20	19	69	7.3	7.1	6.7	6.9	19	18	66	82	67	68
21	19	38	7.4	7.1	6.7	6.9	19	36	66	92	78	68
22	66	8.4	7.4	7.1	6.7	6.9	19	57	65	77	90	69
23	166	8.5	7.3	7.5	6.6	6.8	19	63	66	67	90	68
24	410	8.0	7.3	7.4	6.7	6.8	20	62	66	74	90	68
25	469	7.9	7.3	7.3	6.7	6.8	20	58	66	75	102	68
26	149	7.8	7.2	7.3	6.7	7.2	20	53	66	66	114	69
27	127	7.8	7.2	7.3	6.7	7.5	20	53	66	66	91	69
28	138	7.8	7.1	7.3	6.7	7.1	20	55	66	66	66	69
29	171	7.8	7.3	6.9	6.8	7.1	20	56	65	67	67	69
30	159	7.9	7.4	6.6	---	7.1	20	53	78	67	67	70
31	161	---	7.1	6.6	---	7.3	---	54	---	67	68	---
TOTAL	5772	7382.9	230.2	219.7	192.0	216.0	490.6	972	1639	2206	2373	2200
MEAN	186	246	7.43	7.09	6.62	6.97	16.4	31.4	54.6	71.2	76.5	73.3
MAX	680	660	8.4	7.5	6.8	7.5	20	63	78	92	114	95
MIN	19	7.8	7.1	6.6	6.4	6.7	7.1	18	20	65	66	65

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1992, BY WATER YEAR (WY)

MEAN	182	133	53.8	91.6	92.4	131	478	375	185	173	180	190
MAX	714	492	787	1258	1208	621	1493	1379	763	739	739	668
(WY)	1962	1978	1978	1978	1976	1975	1960	1984	1972	1962	1956	1964
MIN	4.39	6.86	6.13	6.33	6.62	6.54	13.6	18.6	18.0	18.0	17.9	18.1
(WY)	1955	1966	1984	1964	1992	1981	1965	1966	1974	1974	1974	1974

DELAWARE RIVER BASIN

01417000 EAST BRANCH DELAWARE RIVER AT DOWNSVILLE, NY--Continued

SUMMARY STATISTICS FOR 1991 CALENDAR YEAR FOR 1992 WATER YEAR WATER YEARS 1955 - 1992

ANNUAL TOTAL	47605.1	23893.4	189	1956
ANNUAL MEAN	130	65.3	507	1992
HIGHEST ANNUAL MEAN			65.3	1992
LOWEST ANNUAL MEAN			9340	May 30 1984
HIGHEST DAILY MEAN	721	680	6.4	Oct 10 1954
LOWEST DAILY MEAN	7.1	6.4	Feb 12	Oct 6 1954
ANNUAL SEVEN-DAY MINIMUM	7.2	6.5	Feb 9	
10 PERCENT EXCEEDS	328	118	1.5	
50 PERCENT EXCEEDS	67	20	53	
90 PERCENT EXCEEDS	8.0	6.8	7.2	

REMARKS:--Records good except those for estimated daily discharges, which are poor. Subsequent to September 1954, gaging flow from 17 mi. of drainage area controlled by Pepacton Reservoir (see Reservoirs in Delaware River Basin) Part of flow diverted for New York City municipal supply. Remains of flow except for conservation releases and still impounded for release during periods of low flow in the lower Delaware River Basin, as directed by the Delaware River Harbor. Satellite data-height and temperature released at station.

EXTREMES FOR PERIOD OF RECORD:--Maximum discharge, 31,400 cfs, Sept. 12, 1950, gage height, 16.93 ft, site and datum from in use. Low water extended above 10,000 cfs, on basis of slope-area measurement at gage height. 15.38 ft minimum discharge, 7.1 cfs, Oct. 12, 1954, gage height, 1.43 ft, site and datum then in use; minimum daily discharge, 7.1 cfs, Oct. 12, 1954.

EXTREMES FOR CURRENT YEAR:--Maximum discharge, 5,100 cfs, Nov. 13, gage height, 6.83 ft, minimum, 46 cfs, Feb. 13, result of forecast, gage height, 1.78 ft, minimum daily, about 11 cfs, Feb. 18-19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	107	107	107	107	107	107	107	107	107	107	107
2	107	107	107	107	107	107	107	107	107	107	107	107
3	107	107	107	107	107	107	107	107	107	107	107	107
4	107	107	107	107	107	107	107	107	107	107	107	107
5	107	107	107	107	107	107	107	107	107	107	107	107
6	107	107	107	107	107	107	107	107	107	107	107	107
7	107	107	107	107	107	107	107	107	107	107	107	107
8	107	107	107	107	107	107	107	107	107	107	107	107
9	107	107	107	107	107	107	107	107	107	107	107	107
10	107	107	107	107	107	107	107	107	107	107	107	107
11	107	107	107	107	107	107	107	107	107	107	107	107
12	107	107	107	107	107	107	107	107	107	107	107	107
13	107	107	107	107	107	107	107	107	107	107	107	107
14	107	107	107	107	107	107	107	107	107	107	107	107
15	107	107	107	107	107	107	107	107	107	107	107	107
16	107	107	107	107	107	107	107	107	107	107	107	107
17	107	107	107	107	107	107	107	107	107	107	107	107
18	107	107	107	107	107	107	107	107	107	107	107	107
19	107	107	107	107	107	107	107	107	107	107	107	107
20	107	107	107	107	107	107	107	107	107	107	107	107
21	107	107	107	107	107	107	107	107	107	107	107	107
22	107	107	107	107	107	107	107	107	107	107	107	107
23	107	107	107	107	107	107	107	107	107	107	107	107
24	107	107	107	107	107	107	107	107	107	107	107	107
25	107	107	107	107	107	107	107	107	107	107	107	107
26	107	107	107	107	107	107	107	107	107	107	107	107
27	107	107	107	107	107	107	107	107	107	107	107	107
28	107	107	107	107	107	107	107	107	107	107	107	107
29	107	107	107	107	107	107	107	107	107	107	107	107
30	107	107	107	107	107	107	107	107	107	107	107	107
31	107	107	107	107	107	107	107	107	107	107	107	107
32	107	107	107	107	107	107	107	107	107	107	107	107
33	107	107	107	107	107	107	107	107	107	107	107	107
34	107	107	107	107	107	107	107	107	107	107	107	107
35	107	107	107	107	107	107	107	107	107	107	107	107
36	107	107	107	107	107	107	107	107	107	107	107	107
37	107	107	107	107	107	107	107	107	107	107	107	107
38	107	107	107	107	107	107	107	107	107	107	107	107
39	107	107	107	107	107	107	107	107	107	107	107	107
40	107	107	107	107	107	107	107	107	107	107	107	107
41	107	107	107	107	107	107	107	107	107	107	107	107
42	107	107	107	107	107	107	107	107	107	107	107	107
43	107	107	107	107	107	107	107	107	107	107	107	107
44	107	107	107	107	107	107	107	107	107	107	107	107
45	107	107	107	107	107	107	107	107	107	107	107	107
46	107	107	107	107	107	107	107	107	107	107	107	107
47	107	107	107	107	107	107	107	107	107	107	107	107
48	107	107	107	107	107	107	107	107	107	107	107	107
49	107	107	107	107	107	107	107	107	107	107	107	107
50	107	107	107	107	107	107	107	107	107	107	107	107
51	107	107	107	107	107	107	107	107	107	107	107	107
52	107	107	107	107	107	107	107	107	107	107	107	107
53	107	107	107	107	107	107	107	107	107	107	107	107
54	107	107	107	107	107	107	107	107	107	107	107	107
55	107	107	107	107	107	107	107	107	107	107	107	107
56	107	107	107	107	107	107	107	107	107	107	107	107
57	107	107	107	107	107	107	107	107	107	107	107	107
58	107	107	107	107	107	107	107	107	107	107	107	107
59	107	107	107	107	107	107	107	107	107	107	107	107
60	107	107	107	107	107	107	107	107	107	107	107	107
61	107	107	107	107	107	107	107	107	107	107	107	107
62	107	107	107	107	107	107	107	107	107	107	107	107
63	107	107	107	107	107	107	107	107	107	107	107	107
64	107	107	107	107	107	107	107	107	107	107	107	107
65	107	107	107	107	107	107	107	107	107	107	107	107
66	107	107	107	107	107	107	107	107	107	107	107	107
67	107	107	107	107	107	107	107	107	107	107	107	107
68	107	107	107	107	107	107	107	107	107	107	107	107
69	107	107	107	107	107	107	107	107	107	107	107	107
70	107	107	107	107	107	107	107	107	107	107	107	107
71	107	107	107	107	107	107	107	107	107	107	107	107
72	107	107	107	107	107	107	107	107	107	107	107	107
73	107	107	107	107	107	107	107	107	107	107	107	107
74	107	107	107	107	107	107	107	107	107	107	107	107
75	107	107	107	107	107	107	107	107	107	107	107	107
76	107	107	107	107	107	107	107	107	107	107	107	107
77	107	107	107	107	107	107	107	107	107	107	107	107
78	107	107	107	107	107	107	107	107	107	107	107	107
79	107	107	107	107	107	107	107	107	107	107	107	107
80	107	107	107	107	107	107	107	107	107	107	107	107
81	107	107	107	107	107	107	107	107	107	107	107	107
82	107	107	107	107	107	107	107	107	107	107	107	107
83	107	107	107	107	107	107	107	107	107	107	107	107
84	107	107	107	107	107	107	107	107	107	107	107	107
85	107	107	107	107	107	107	107	107	107	107	107	107
86	107	107	107	107	107	107	107	107	107	107	107	107
87	107	107	107	107	107	107	107	107	107	107	107	107
88	107	107	107	107	107	107	107	107	107	107	107	107
89	107	107	107	107	107	107	107	107	107	107	107	107
90	107	107	107	107	107	107	107	107	107	107	107	107
91	107	107	107	107	107	107	107	107	107	107	107	107
92	107	107	107	107	107	107	107	107	107	107	107	107
93	107	107	107	107	107	107	107	107	107	107	107	107
94	107	107	107	107	107	107	107	107	107	107	107	107
95	107	107	107	107	107	107	107	107	107	107	107	107
96	107	107	107	107	107	107	107	107	107	107	107	107
97	107	107	107	107	107	107	107	107	107	107	107	107
98	107	107	107	107	107	107	107	107	107	107	107	107
99	107	107	107	107	107	107	107	107	107	107	107	107
100	107	107	107	107	107	107	107	107	107	107	107	107

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1992, BY WATER YEAR (NYL)

WATER YEAR	1955	1956	19
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DELAWARE RIVER BASIN

01417500 EAST BRANCH DELAWARE RIVER AT HARVARD, NY

LOCATION.--Lat 42°01'29", long 75°07'13", 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 mi².

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 and crest-stage gage. 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 200 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Subsequent to September 1954, entire flow from 371 mi² 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 ft³/s, Sept. 22, 1938, gage height, 16.93 ft, site and datum then in use, from rating curve extended above 10,000 ft³/s, on basis of slope-area measurement at gage height 15.58 ft; minimum discharge, 7.2 ft³/s, Oct. 13, 1954, gage height, 1.63 ft, site and datum then in use; minimum daily discharge, 7.6 ft³/s, Oct. 13, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,200 ft³/s, Nov. 23, gage height, 6.62 ft; minimum, 46 ft³/s, Feb. 12, result of freezeup, gage height, 1.79 ft; minimum daily, about 47 ft³/s, Feb. 10-13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	336	237	148	e86	e96	e110	223	238	439	112	124	84
2	352	280	131	e88	e86	e115	214	219	383	97	114	83
3	380	312	260	e98	e80	129	195	306	319	95	107	84
4	668	399	336	115	e74	125	183	270	260	122	112	91
5	617	650	272	148	e66	136	170	260	222	104	112	101
6	340	653	245	146	e60	146	157	257	246	98	104	103
7	121	654	215	145	e54	171	149	230	197	93	99	89
8	97	647	199	140	e52	244	152	210	161	91	116	100
9	150	602	232	135	e48	275	151	200	144	111	163	103
10	272	525	234	135	e47	290	160	181	149	108	150	89
11	105	432	222	126	e47	698	168	164	144	114	138	101
12	116	538	210	114	e47	713	353	148	134	114	116	88
13	151	263	203	108	e47	529	372	137	139	101	105	83
14	368	323	292	155	e48	e360	346	129	134	96	110	81
15	90	245	308	208	e52	e270	301	119	127	118	110	80
16	161	301	e260	163	86	e200	272	125	112	143	104	80
17	139	252	e220	130	103	e180	440	116	105	115	101	79
18	133	142	e180	e115	88	e170	606	108	111	160	103	96
19	114	136	e150	e105	105	e155	764	101	113	132	103	109
20	101	115	e140	e100	143	e135	636	93	116	117	99	87
21	90	108	e135	e98	126	e120	507	87	112	134	94	80
22	82	208	e130	e105	e120	e105	500	108	109	127	108	84
23	155	1930	e120	e120	e120	e100	535	121	106	111	110	107
24	310	863	e110	226	e115	e97	475	132	107	110	109	91
25	615	544	e96	166	e110	e90	554	142	111	115	108	85
26	247	371	e86	143	e110	111	539	121	105	109	131	88
27	170	274	e80	e130	e110	257	474	118	103	116	130	86
28	163	220	e74	e120	e115	272	399	116	99	106	97	86
29	187	189	e84	e110	e110	236	330	115	97	103	93	83
30	212	165	119	118	---	224	278	108	95	105	89	81
31	153	---	e94	e100	---	220	---	230	---	117	86	---
TOTAL	7195	12578	5585	3996	2465	6983	10603	5009	4799	3494	3445	2682
MEAN	232	419	180	129	85.0	225	353	162	160	113	111	89.4
MAX	668	1930	336	226	143	713	764	306	439	160	163	109
MIN	82	108	74	86	47	90	149	87	95	91	86	79

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1992, BY WATER YEAR (WY)

	309	332	242	222	213	341	669	473	267	237	282	296
MEAN	745	681	1095	1558	725	761	1934	1670	675	767	770	653
(WY)	1962	1978	1978	1978	1981	1986	1960	1984	1984	1962	1956	1964
MIN	13.7	106	74.5	68.6	70.7	111	180	79.0	47.7	37.5	43.6	76.5
(WY)	1955	1961	1961	1963	1963	1981	1985	1955	1964	1966	1965	1965

DELAWARE RIVER BASIN

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. Also, water-temperature satellite telemeter since May 1985, provides one-hour-interval readings.

REMARKS.--Interruptions of record were due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1978, 1981-82, 1984-92), 28.0°C, June 30, 1981; minimum (water years 1979-87, 1989-92), 0.0°C on many days during winter periods, except 1989.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 24.0°C, July 1; minimum, 0.0°C on many days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	10.0	7.5	8.5	9.5	7.5	8.5	8.5	8.0	8.5	---	---	---
2	11.5	9.0	10.0	9.0	8.0	9.0	8.0	6.5	7.5	---	---	---
3	10.5	9.0	10.0	8.0	6.0	7.0	6.5	3.5	4.5	---	---	---
4	10.0	7.0	8.5	6.0	5.0	5.5	4.5	2.5	4.0	---	---	---
5	10.5	8.0	9.0	6.0	4.5	5.0	2.5	1.0	1.5	---	---	---
6	11.0	9.0	10.0	6.5	4.5	5.5	2.5	1.0	1.5	---	---	---
7	9.0	7.5	8.5	6.5	5.0	6.0	3.0	1.5	2.5	---	---	---
8	10.5	7.0	8.5	6.5	5.5	6.5	5.0	3.0	4.0	---	---	---
9	11.5	7.5	9.0	6.0	4.5	5.5	6.5	5.0	5.5	---	---	---
10	10.5	8.0	9.5	6.5	5.0	6.0	6.0	4.5	5.5	---	---	---
11	10.0	9.5	9.5	6.5	6.0	6.5	4.5	3.0	4.0	---	---	---
12	10.5	8.5	9.5	6.0	5.5	6.0	5.0	3.5	4.0	---	---	---
13	9.5	8.0	9.0	6.0	6.0	6.0	6.5	5.0	6.0	---	---	---
14	8.5	6.0	7.0	7.0	5.5	6.0	8.0	6.0	7.0	---	---	---
15	9.5	7.0	8.0	7.0	6.0	6.5	6.0	3.0	4.0	---	---	---
16	11.5	9.5	10.0	7.5	6.0	7.0	3.0	1.0	2.0	---	---	---
17	10.0	8.5	9.0	6.0	4.0	5.0	1.0	0.5	1.0	---	---	---
18	12.5	9.0	10.5	5.0	3.0	4.0	1.0	0.5	1.0	---	---	---
19	11.0	9.0	10.0	7.5	4.5	6.0	1.0	0.5	0.5	---	---	---
20	9.5	7.5	8.5	10.5	7.5	8.5	1.0	0.5	1.0	---	---	---
21	9.0	6.0	7.5	10.5	10.0	10.5	1.0	1.0	1.0	---	---	---
22	10.0	6.5	8.0	10.5	9.5	10.0	1.5	1.0	1.0	---	---	---
23	11.0	7.5	9.0	9.5	9.0	9.5	1.0	0.5	1.0	---	---	---
24	10.0	8.0	9.0	9.5	7.5	9.0	1.0	0.5	1.0	---	---	---
25	9.5	7.5	8.5	7.5	5.0	6.0	1.0	0.5	0.5	---	---	---
26	11.0	8.5	9.5	5.0	4.0	4.5	1.0	0.5	0.5	---	---	---
27	13.0	10.0	11.5	4.0	3.0	3.5	1.0	0.5	0.5	---	---	---
28	12.0	9.5	11.0	5.0	3.5	4.0	1.0	0.5	0.5	---	---	---
29	9.5	6.5	7.5	6.5	5.0	6.0	1.0	0.5	1.0	---	---	---
30	7.0	5.0	6.0	8.5	6.0	7.0	---	---	---	---	---	---
31	8.5	5.5	7.0	---	---	---	---	---	---	---	---	---
MONTH	13.0	5.0	9.0	10.5	3.0	6.5	---	---	---	---	---	---

DELAWARE RIVER BASIN

01417500 EAST BRANCH DELAWARE RIVER AT HARVARD, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	0.0	0.0	0.0	5.0	3.0	4.0	11.5	8.5	9.5
2	---	---	---	0.5	0.0	0.5	4.0	2.5	3.0	15.0	9.0	12.0
3	---	---	---	2.0	0.5	1.0	4.0	2.0	3.0	14.5	11.5	13.0
4	---	---	---	4.5	0.5	2.5	5.5	1.5	3.5	12.5	10.0	11.0
5	---	---	---	6.0	2.5	4.0	6.0	2.0	4.0	10.0	8.0	8.5
6	---	---	---	5.0	4.0	4.5	8.0	3.0	5.5	9.0	7.0	8.0
7	---	---	---	4.0	3.5	4.0	8.0	4.0	6.0	12.5	6.5	9.5
8	---	---	---	5.0	4.0	4.5	7.5	5.5	6.5	11.5	9.0	10.5
9	---	---	---	5.5	4.5	5.0	6.5	4.0	5.0	14.0	10.5	12.0
10	---	0.0	---	6.0	4.0	5.0	11.0	5.5	8.0	14.5	10.5	12.5
11	0.5	0.0	0.0	6.0	1.5	4.5	9.5	6.5	8.0	17.5	11.5	14.5
12	0.5	0.0	0.0	2.0	0.5	1.5	6.5	4.0	6.0	19.0	12.5	15.5
13	0.5	0.0	0.0	2.0	0.5	1.0	7.0	2.5	5.0	19.5	14.5	17.0
14	0.0	0.0	0.0	1.0	0.0	0.5	8.5	4.0	6.0	18.0	15.0	16.0
15	0.0	0.0	0.0	1.5	0.5	1.0	9.0	4.0	6.5	16.5	13.0	14.5
16	0.0	0.0	0.0	1.5	0.0	1.0	7.0	4.5	5.5	15.0	13.5	14.0
17	1.0	0.0	0.5	1.0	0.0	0.5	5.0	4.0	4.5	14.5	12.0	13.0
18	0.5	0.0	0.5	2.5	0.0	1.5	6.0	4.5	5.5	16.5	13.5	14.5
19	1.5	0.5	1.0	2.5	1.5	2.0	6.5	5.0	6.0	19.0	12.0	15.5
20	1.0	0.5	0.5	4.0	0.5	2.0	9.5	6.0	7.5	19.5	13.0	16.5
21	1.5	0.5	0.5	3.0	1.0	2.0	11.0	8.5	9.5	20.5	14.0	17.0
22	0.5	0.5	0.5	1.0	0.0	0.5	10.5	9.5	10.5	22.0	15.0	18.5
23	2.0	0.5	1.0	1.0	0.0	0.5	12.5	8.5	10.5	22.0	16.0	19.0
24	2.0	1.0	1.5	1.5	0.0	1.0	10.5	9.0	9.5	20.5	13.0	16.0
25	1.5	1.0	1.5	3.0	0.0	1.5	9.5	7.5	8.5	15.0	10.0	12.5
26	2.0	1.5	1.5	4.0	2.5	3.5	8.5	6.5	7.5	14.0	11.5	12.0
27	2.0	1.0	1.5	4.0	3.0	4.0	11.0	6.5	8.5	11.5	10.5	11.0
28	2.5	0.5	1.5	3.0	1.5	2.0	9.5	7.0	8.5	15.0	10.0	12.0
29	2.0	0.0	1.0	5.5	0.5	3.0	12.0	6.5	9.0	17.5	11.0	14.0
30	---	---	---	4.0	2.5	3.5	10.0	8.0	9.0	16.0	13.0	14.5
31	---	---	---	7.0	2.5	4.5	---	---	---	14.0	12.0	13.0
MONTH	---	---	---	7.0	0.0	2.5	12.5	1.5	6.5	22.0	6.5	13.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	12.5	11.5	12.0	24.0	19.0	21.5	18.5	15.0	16.5	17.0	14.5	15.5
2	15.5	11.0	13.0	22.0	17.5	20.0	20.5	15.0	17.5	18.0	13.5	15.5
3	17.0	11.5	14.0	20.5	15.5	17.5	21.0	16.5	19.0	16.5	15.5	15.5
4	17.5	12.5	15.0	17.5	14.5	15.5	20.0	17.5	18.5	20.0	15.0	17.0
5	16.0	14.0	15.0	16.5	14.0	15.5	19.0	15.5	17.0	19.0	15.5	17.5
6	16.5	13.5	14.5	21.0	15.0	17.5	20.0	15.0	17.5	18.0	15.5	16.5
7	19.0	14.5	16.5	20.0	16.5	18.0	21.0	16.0	18.5	15.5	14.5	15.0
8	19.0	16.0	17.5	20.5	16.5	18.5	19.5	17.0	18.5	17.0	14.5	15.5
9	20.0	15.0	17.5	22.0	17.5	19.5	18.0	16.0	17.0	19.0	15.5	17.0
10	20.0	15.0	17.5	22.5	18.0	20.5	19.5	15.0	17.0	19.0	16.5	17.5
11	20.0	14.5	17.0	21.0	19.0	20.0	19.0	16.0	17.5	19.0	16.0	17.5
12	20.5	14.5	17.5	20.0	17.0	18.0	19.0	15.0	17.0	17.5	14.0	16.0
13	21.5	15.5	18.5	20.5	16.5	18.0	17.5	14.5	15.5	17.0	13.5	15.0
14	21.5	16.5	19.0	21.5	17.0	19.0	15.0	14.5	15.0	17.5	13.5	15.5
15	21.5	17.0	19.5	21.0	18.0	19.0	15.5	13.5	14.5	18.0	14.5	16.0
16	21.0	15.5	18.5	18.5	16.5	17.5	14.5	13.5	14.0	19.5	15.5	17.5
17	21.5	16.5	19.0	18.0	16.5	17.0	15.5	14.0	14.5	20.0	16.5	18.0
18	20.0	17.5	19.0	20.5	16.5	18.0	17.5	14.0	15.5	18.5	16.5	17.5
19	19.0	17.0	17.5	22.5	17.0	20.0	17.0	15.0	16.0	17.0	14.5	16.0
20	17.0	15.5	16.5	23.0	18.5	21.0	17.0	14.0	15.5	16.5	12.5	14.5
21	15.5	13.5	14.5	21.5	18.0	19.5	19.0	13.5	16.0	14.0	13.0	13.5
22	14.0	12.0	12.5	20.5	15.0	17.5	20.0	15.0	17.5	15.5	14.0	15.0
23	18.0	10.0	13.5	18.5	15.0	16.0	20.5	15.5	18.0	15.0	12.5	14.0
24	16.5	14.5	15.5	17.0	14.5	15.5	20.5	16.0	18.0	14.0	10.0	12.0
25	17.0	14.5	15.5	20.0	14.5	17.0	19.5	16.5	18.5	14.0	10.5	12.0
26	18.5	14.0	16.5	19.0	16.0	17.0	19.5	16.5	18.0	13.0	12.0	12.5
27	20.0	15.5	18.0	20.5	15.0	17.5	19.5	15.5	17.5	13.5	13.0	13.0
28	22.0	16.0	19.0	19.0	16.0	17.0	19.0	16.0	17.5	15.5	12.0	13.5
29	23.0	17.0	20.0	20.0	15.0	17.5	18.5	16.0	17.5	13.5	10.5	12.5
30	23.5	18.5	21.0	21.0	16.5	18.5	19.0	14.5	16.5	10.5	9.0	10.0
31	---	---	---	19.5	16.0	17.0	18.0	15.5	17.0	---	---	---
MONTH	23.5	10.0	16.5	24.0	14.0	18.0	21.0	13.5	17.0	20.0	9.0	15.0

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 125 ft downstream from highway bridge in Cooks Falls, and 5.5 mi downstream from Willowemoc Creek.

DRAINAGE AREA.--241 mi².

WATER-DISCHARGE RECORDS

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.--Records good except those for estimated daily discharges, which are poor. Telephone gage-height telemeter and satellite gage-height, temperature, and rain-gage telemeter at station.

AVERAGE DISCHARGE.--78 years (water years 1915-92), 553 ft³/s, 31.16 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,600 ft³/s, Mar. 31, 1951, gage height, 16.02 ft, from rating curve extended above 13,000 ft³/s on basis of slope-area measurement at gage height 15.52 ft; maximum gage height, 17.8 ft, Aug. 24, 1930, from floodmark at site then in use; minimum discharge, 16 ft³/s, Nov. 22, 23, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 23	0300	*10,500	*10.30	June 6	0845	7,120	8.84
May 31	2015	6,300	8.42				

Minimum discharge, 53 ft³/s, Oct. 5, 6, gage height, 0.87 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	129	468	e340	e365	e300	763	785	3090	135	473	161
2	64	126	422	e300	e290	346	690	746	1530	126	323	150
3	59	121	643	e350	e280	307	624	1080	1020	125	249	156
4	57	115	799	399	e270	e300	561	867	764	209	345	188
5	54	110	601	470	e260	e330	515	768	652	190	363	166
6	70	108	532	426	e240	441	476	727	3600	177	288	149
7	78	107	484	390	e210	537	464	646	1750	154	239	146
8	70	104	486	360	e180	882	483	606	1150	131	214	149
9	63	98	687	348	e170	885	470	571	946	176	491	147
10	59	95	822	348	e160	855	488	516	730	159	536	141
11	65	149	680	327	e155	2840	510	485	609	129	368	408
12	138	214	601	e300	e150	2150	1150	451	509	114	302	279
13	134	176	645	306	e145	e1300	946	425	443	126	268	214
14	106	163	1040	884	e170	e900	788	396	394	141	259	192
15	111	166	1090	1090	e215	e700	696	363	352	188	245	180
16	648	189	842	e670	361	e580	661	382	313	472	228	171
17	454	177	e680	e490	369	e500	1200	359	285	291	218	166
18	410	164	e580	e440	300	e480	2200	334	275	336	245	160
19	328	160	e500	e380	398	e460	2460	307	259	285	241	163
20	276	159	e500	e350	495	e430	1730	284	270	221	213	154
21	248	162	e500	e340	383	e370	1420	264	245	191	190	141
22	221	1050	460	e350	330	e330	1620	247	222	174	172	161
23	205	5970	425	e440	321	e310	1860	232	209	175	158	413
24	193	2280	404	e1200	338	e300	1520	231	214	205	149	253
25	182	1490	e340	e680	324	e300	2510	273	227	178	141	202
26	172	1050	e300	e500	340	413	2070	234	197	168	289	195
27	166	799	e275	e440	327	2210	1630	223	189	231	221	224
28	159	660	e270	e400	314	1480	1280	215	177	186	189	230
29	149	589	e370	e390	e280	e900	1070	198	157	168	249	204
30	142	519	574	e390	---	782	902	186	144	253	216	183
31	135	---	e400	e390	---	752	---	2540	---	311	183	---
TOTAL	5278	17399	17420	14488	8140	23670	33757	15941	20922	6125	8265	5846
MEAN	170	580	562	467	281	764	1125	514	697	198	267	195
MAX	648	5970	1090	1200	495	2840	2510	2540	3600	472	536	413
MIN	54	95	270	300	145	300	464	186	144	114	141	141
CFSM	.71	2.41	2.33	1.94	1.16	3.17	4.67	2.13	2.89	.82	1.11	.81
IN.	.81	2.69	2.69	2.24	1.26	3.65	5.21	2.46	3.23	.95	1.28	.90

e Estimated

DELAWARE RIVER BASIN

01420500 BEAVER KILL AT COOKS FALLS, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1987 to current year.

INSTRUMENTATION.--Water-temperature satellite and telephone telemeter since June 1986, provides 15-minute-interval readings.

REMARKS.--Interruptions of record were due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Minimum, 0.0°C on many days during winter period.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 24.5°C, July 1; minimum, 0.0°C on many days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.5	10.0	12.0	11.0	8.0	9.5	7.5	7.5	7.5	0.0	0.0	0.0
2	18.0	13.0	15.0	11.0	9.5	11.0	7.0	5.5	6.5	0.0	0.0	0.0
3	18.0	15.0	16.0	9.5	7.0	8.5	5.5	3.0	4.0	2.5	0.0	1.5
4	19.5	15.0	17.0	7.0	4.5	6.0	4.0	1.5	3.5	4.0	2.5	3.0
5	18.5	16.5	17.5	4.5	2.5	3.5	1.5	0.0	0.5	4.0	3.0	3.5
6	17.5	13.5	16.0	4.5	2.0	3.0	1.5	0.5	1.0	3.0	2.0	2.5
7	13.5	10.5	11.5	4.5	3.0	4.0	2.5	1.0	1.5	2.0	1.5	2.0
8	12.5	8.5	10.5	5.0	3.5	4.0	4.5	2.5	3.5	1.5	0.0	0.5
9	13.0	8.5	10.5	3.5	1.5	2.5	5.5	4.5	5.0	1.0	0.0	0.5
10	14.0	10.0	12.0	4.5	2.0	3.0	5.0	3.5	4.5	2.0	1.0	1.5
11	13.0	11.0	12.0	5.5	4.5	4.5	3.5	2.0	3.0	1.0	0.0	0.5
12	11.5	9.5	10.5	4.5	3.5	4.0	4.5	2.5	3.5	1.0	0.0	0.5
13	11.0	9.0	10.0	5.0	4.0	4.5	6.0	4.5	5.0	2.5	1.0	1.5
14	10.5	7.0	9.0	6.5	4.5	5.5	7.0	5.5	6.5	4.0	2.0	3.0
15	10.5	8.5	9.5	6.0	4.5	5.0	5.5	2.0	3.0	2.0	0.0	0.0
16	11.0	9.5	10.5	7.0	5.0	6.5	2.0	0.0	1.0	0.0	0.0	0.0
17	9.5	8.0	9.0	5.0	2.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0
18	12.0	9.0	10.0	3.5	1.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
19	11.0	8.5	10.0	6.5	3.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
20	9.0	7.0	8.0	9.5	6.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0
21	8.0	5.5	7.0	9.5	9.0	9.5	1.0	0.0	0.5	0.0	0.0	0.0
22	9.5	6.0	8.0	9.5	9.0	9.5	2.0	1.0	1.0	0.0	0.0	0.0
23	10.5	7.0	9.0	9.0	9.0	9.0	2.0	0.5	1.0	0.5	0.0	0.0
24	11.0	8.5	10.0	9.0	6.5	8.0	2.0	0.0	1.0	0.5	0.0	0.0
25	13.5	10.5	11.5	6.5	4.5	5.5	0.5	0.0	0.0	0.0	0.0	0.0
26	14.0	12.0	12.5	4.5	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
27	15.0	12.5	13.5	3.0	2.0	2.5	0.5	0.0	0.0	0.0	0.0	0.0
28	14.0	10.0	12.5	5.0	3.0	4.0	0.0	0.0	0.0	0.5	0.0	0.0
29	10.0	7.0	8.5	6.5	5.0	5.5	1.5	0.0	0.5	0.5	0.0	0.0
30	8.0	5.0	6.5	7.5	5.5	6.5	2.5	0.5	1.5	1.0	0.0	0.5
31	9.0	6.0	7.5	---	---	---	0.5	0.0	0.0	1.5	0.5	1.0
MONTH	19.5	5.0	11.0	11.0	1.0	5.5	7.5	0.0	2.0	4.0	0.0	0.5

DELAWARE RIVER BASIN

01420500 BEAVER KILL AT COOKS FALLS, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	1.0	0.0	0.5	0.0	0.0	0.0	4.0	2.5	3.0	---	7.5	---
2	0.0	0.0	0.0	1.0	0.0	0.5	3.5	2.0	2.5	14.5	9.0	11.5
3	0.0	0.0	0.0	2.0	0.5	1.5	4.0	1.5	2.5	13.5	11.0	12.5
4	0.0	0.0	0.0	4.5	0.5	2.5	5.0	1.0	3.0	---	9.0	---
5	0.0	0.0	0.0	5.5	1.5	3.5	5.0	1.5	3.5	10.0	7.5	8.5
6	0.5	0.0	0.0	4.5	3.0	3.5	7.0	2.0	4.5	8.5	6.5	---
7	0.5	0.0	0.0	3.5	2.5	3.0	7.0	3.5	5.0	11.5	6.0	8.5
8	0.0	0.0	0.0	4.0	3.0	3.5	7.0	5.5	6.0	11.0	8.5	10.0
9	0.0	0.0	0.0	4.5	3.5	4.0	5.5	3.5	4.5	14.0	10.0	11.5
10	0.5	0.0	0.0	5.0	3.5	4.0	10.0	4.5	7.0	14.0	10.5	12.5
11	0.0	0.0	0.0	5.0	0.5	3.5	9.0	5.5	7.0	16.5	11.5	14.0
12	0.0	0.0	0.0	1.5	0.0	0.5	5.5	4.0	5.0	17.0	11.5	14.5
13	0.0	0.0	0.0	1.5	0.0	0.5	6.0	1.5	3.5	18.0	13.5	15.5
14	0.0	0.0	0.0	1.5	0.0	0.5	7.5	3.0	5.0	16.5	14.0	15.0
15	0.0	0.0	---	1.5	0.0	0.5	8.0	3.5	6.0	15.0	12.0	13.5
16	0.0	0.0	---	1.5	0.0	0.5	7.0	3.5	5.0	14.0	12.5	13.0
17	0.5	0.0	0.0	0.5	0.0	0.0	4.0	3.0	3.5	---	---	---
18	0.5	0.0	0.0	3.0	0.0	1.5	5.0	3.5	4.5	15.5	12.0	13.5
19	1.0	0.0	0.5	2.0	0.5	1.5	6.0	4.0	5.0	17.5	11.0	14.5
20	1.0	0.5	0.5	3.5	0.0	1.5	8.5	5.0	6.5	18.0	11.5	14.5
21	2.0	0.5	1.0	2.0	0.0	1.0	10.0	7.5	8.5	18.5	12.0	15.5
22	1.0	0.0	0.5	1.0	0.0	0.0	10.0	9.0	9.5	19.5	13.0	16.5
23	3.0	1.0	2.0	2.0	0.0	0.5	11.5	8.0	9.5	20.5	14.0	17.5
24	3.0	1.0	2.0	1.5	0.0	0.5	10.5	8.0	9.5	18.5	12.0	15.0
25	1.5	1.0	1.0	3.0	0.0	1.0	9.5	7.0	8.0	14.5	10.0	12.0
26	1.5	1.0	1.5	3.0	1.5	2.5	8.0	6.0	7.0	13.0	11.0	11.5
27	3.0	1.0	1.5	3.0	1.5	2.0	10.0	6.5	8.0	11.5	10.0	10.5
28	2.5	0.5	1.5	2.0	1.0	1.5	9.0	6.5	8.0	14.0	9.5	12.0
29	2.0	0.0	0.5	4.5	0.0	2.0	11.0	6.0	8.5	17.0	10.0	13.5
30	---	---	---	3.5	2.0	2.5	9.5	7.0	8.5	15.0	12.0	13.5
31	---	---	---	6.0	2.5	4.0	---	---	---	13.0	11.0	12.0
MONTH	3.0	0.0	---	6.0	0.0	1.5	11.5	1.0	6.0	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	12.0	10.5	11.0	24.5	19.0	21.5	18.5	15.5	17.0	17.5	14.5	16.0
2	15.0	10.5	12.5	23.0	18.0	20.0	20.0	15.5	---	18.0	13.5	16.0
3	16.0	11.0	13.5	19.5	16.0	17.5	21.0	---	---	17.0	16.0	16.5
4	16.5	12.0	14.5	19.0	15.0	16.5	19.5	17.0	---	20.0	15.5	18.0
5	15.0	13.5	14.0	17.5	15.5	16.5	19.0	15.0	17.0	20.0	16.5	18.0
6	14.0	12.0	13.0	21.0	16.0	18.0	20.0	---	---	18.5	16.5	17.5
7	16.0	13.0	14.5	21.0	16.0	18.5	20.5	15.5	18.0	17.5	16.0	16.5
8	16.0	14.0	15.0	21.0	---	---	19.0	16.0	17.5	20.0	16.5	18.0
9	17.5	13.5	15.5	23.0	18.0	20.5	18.5	17.0	---	22.0	18.0	20.0
10	17.0	12.5	15.0	23.0	18.5	21.0	---	---	---	22.0	19.0	20.5
11	17.5	12.5	15.0	23.0	19.5	21.0	---	---	---	20.0	16.5	18.0
12	18.0	12.5	15.5	20.5	18.0	19.5	---	15.5	---	17.5	14.0	15.5
13	19.0	14.0	---	22.0	19.0	---	---	---	---	17.5	13.0	15.0
14	20.0	15.0	---	23.0	---	---	---	---	---	17.5	13.5	15.5
15	20.5	16.0	---	21.5	19.5	20.5	---	---	---	18.0	14.0	16.0
16	19.5	14.0	17.0	19.5	---	---	---	---	---	20.0	15.5	17.5
17	20.0	14.5	17.0	18.0	---	---	---	---	---	20.5	17.0	18.5
18	18.0	15.5	16.5	21.5	17.0	19.0	---	---	---	20.0	17.5	18.5
19	16.5	15.0	16.0	---	18.0	---	17.5	---	---	19.0	16.0	18.0
20	18.0	15.0	16.5	---	---	---	17.5	15.0	16.0	17.5	14.0	15.5
21	16.5	14.0	15.0	---	---	---	19.5	14.0	16.5	15.5	13.5	14.5
22	---	12.0	---	22.0	---	---	20.5	15.0	17.5	17.0	15.5	16.0
23	17.5	10.5	14.0	19.5	---	---	22.0	16.5	19.0	16.5	13.0	14.5
24	16.5	14.5	15.0	18.5	---	---	22.5	17.0	---	14.0	10.0	12.0
25	16.5	14.0	15.0	22.0	16.0	---	23.0	17.5	---	13.0	10.0	11.5
26	18.5	13.5	16.0	20.0	---	---	22.0	18.5	20.5	14.0	12.5	13.0
27	20.0	15.5	17.5	22.0	16.5	---	23.0	19.0	21.0	14.5	13.5	14.0
28	21.5	15.5	18.5	---	---	---	22.0	19.5	20.5	15.5	13.0	14.0
29	22.5	---	---	20.5	15.5	---	20.5	16.5	18.5	14.0	11.0	12.5
30	23.5	18.0	20.5	21.5	17.5	19.0	19.0	14.5	16.5	11.0	9.0	10.0
31	---	---	---	---	---	---	19.5	16.0	17.5	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	22.0	9.0	16.0

DELAWARE RIVER BASIN

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 mi².

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.--Records fair except those for estimated daily discharges, which are poor. Subsequent to September 1954, entire flow from 371 mi² 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. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53,300 ft³/s, Aug. 24, 1933, gage height, 20.60 ft, at former site and datum, from rating curve extended above 22,000 ft³/s; minimum discharge, 52 ft³/s, July 23, 1964, gage height, 1.16 ft, at former site and datum; minimum daily discharge, 68 ft³/s, Aug. 28, 1949 (corrected).

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 ft³/s, from rating curve extended above 22,000 ft³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,800 ft³/s, Nov. 23, gage height, 9.66 ft; maximum gage height, 9.91 ft, Jan. 21 (ice jam); minimum discharge, 174 ft³/s, Oct. 9, gage height, 2.38 ft; minimum daily, 194 ft³/s, Oct. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	425	389	740	e480	e520	e480	1270	1340	4600	259	786	269
2	437	437	653	e440	e430	e540	1180	1250	2640	242	586	253
3	417	463	1110	e500	e400	e520	1080	1720	1820	232	460	257
4	707	507	1460	e580	e380	e510	980	1460	1380	328	567	288
5	700	752	1160	e720	e350	e560	897	1320	1160	340	660	290
6	510	761	1010	e700	e320	e700	820	1290	3820	295	520	272
7	269	758	900	e660	e290	e820	790	1160	2450	273	439	253
8	198	751	847	e620	e260	1380	808	1080	1580	242	408	261
9	194	707	1070	e600	e240	1480	795	1030	1320	312	709	270
10	374	647	1300	e580	e230	1470	821	939	1080	303	891	255
11	216	570	1140	e540	e225	4070	864	855	939	264	652	504
12	259	803	1020	e500	e220	3880	1800	783	797	246	533	446
13	308	499	1010	e490	e215	e2500	1740	728	708	245	459	341
14	508	533	1550	961	e240	e1600	1500	676	639	259	454	303
15	263	457	1790	e1500	e290	e1200	1320	614	579	333	432	282
16	802	532	1440	e980	e480	e940	1220	645	508	702	401	273
17	747	492	1140	e740	e540	e800	1940	614	454	502	381	265
18	637	366	e900	e620	e450	e760	3470	568	439	594	402	271
19	539	340	e760	e560	e560	e720	4190	513	423	525	412	295
20	454	319	e720	e500	e720	e660	3180	467	433	404	369	268
21	403	309	e700	e490	e600	e580	2620	433	413	376	331	239
22	359	975	e660	e520	e540	e520	2710	423	373	344	315	250
23	393	9320	e620	e620	e530	e470	3070	419	353	324	305	567
24	501	4250	e560	e1500	e540	e460	2600	431	345	357	291	413
25	807	2740	e490	e1000	e510	e440	3670	495	392	333	280	323
26	518	1860	e420	e780	e520	e580	3340	433	341	317	414	309
27	381	1380	e400	e660	e510	2600	2770	414	321	404	407	331
28	364	1120	e380	e600	e500	2280	2250	447	305	349	329	345
29	374	966	e480	e560	e470	1540	1860	370	278	313	360	317
30	392	840	e720	e580	---	1310	1550	344	260	399	351	286
31	331	---	e560	e540	---	1230	---	2130	---	506	296	---
TOTAL	13787	34843	27710	21121	12080	37600	57105	25391	31150	10922	14200	9296
MEAN	445	1161	894	681	417	1213	1903	819	1038	352	458	310
MAX	807	9320	1790	1500	720	4070	4190	2130	4600	702	891	567
MIN	194	309	380	440	215	440	790	344	260	232	280	239

e Estimated

DELAWARE RIVER BASIN

01421000 EAST BRANCH DELAWARE RIVER AT FISHS EDDY, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1992, BY WATER YEAR (WY)

MEAN	815	1080	1117	862	1020	1641	2468	1481	808	494	480	551
MAX	2531	2316	3043	2931	3297	4239	4951	3465	2426	1219	1707	1838
(WY)	1956	1960	1974	1978	1976	1977	1956	1984	1973	1973	1955	1960
MIN	163	458	404	277	213	578	808	432	229	157	136	139
(WY)	1974	1961	1961	1981	1980	1970	1985	1987	1977	1966	1965	1972

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1955 - 1992

ANNUAL TOTAL	277094	295205	1067
ANNUAL MEAN	759	807	1586
HIGHEST ANNUAL MEAN			1973
LOWEST ANNUAL MEAN			1965
HIGHEST DAILY MEAN	9320	Nov 23	21500
LOWEST DAILY MEAN	115	Aug 8	72
ANNUAL SEVEN-DAY MINIMUM	136	Jul 27	84
10 PERCENT EXCEEDS	1420		2310
50 PERCENT EXCEEDS	580		647
90 PERCENT EXCEEDS	168		230

WY	MEAN	MIN	MAX	MEAN	MIN	MAX	MEAN	MIN	MAX	MEAN	MIN	MAX
1955	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1956	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1957	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1958	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1959	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1960	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1961	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1962	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1963	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1964	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1965	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1966	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1967	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1968	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1969	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1970	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1971	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1972	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1973	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1974	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1975	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1976	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1977	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1978	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1979	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1980	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1981	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1982	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1983	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1984	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1985	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1986	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1987	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1988	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1989	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1990	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1991	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931
1992	815	163	2531	1080	458	2316	1117	404	3043	862	277	2931

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, 1986-92), 31.5°C, Aug. 2, 1975; minimum (water years 1968-76, 1978-79, 1981-92), 0.0°C on many days during winter periods, except 1978.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 26.5°C, July 1; minimum, 0.0°C on many days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	12.5	8.5	10.0	11.0	8.0	9.5	7.5	7.0	7.5	0.0	0.0	0.0
2	15.0	10.5	12.5	10.0	9.0	10.0	7.0	5.5	6.5	0.0	0.0	0.0
3	14.0	11.5	12.5	9.0	6.5	8.0	5.5	3.5	4.0	1.0	0.0	0.5
4	12.5	10.0	11.0	6.5	4.5	5.5	3.5	1.5	3.5	2.5	1.0	2.0
5	12.0	10.5	11.0	5.0	4.0	4.5	1.5	0.5	0.5	3.0	2.5	3.0
6	14.0	11.0	12.5	5.0	4.0	4.5	1.0	0.5	1.0	3.0	2.0	2.5
7	11.0	9.5	10.0	5.0	5.0	5.0	2.0	1.0	1.5	2.0	1.5	2.0
8	12.5	8.0	10.0	5.5	5.0	5.5	4.0	2.0	3.0	1.5	0.5	1.0
9	13.0	8.5	11.0	5.0	4.0	4.5	5.5	4.0	5.0	1.0	1.0	1.0
10	13.5	10.0	11.5	5.0	4.0	4.5	5.0	4.0	4.5	2.0	1.0	1.5
11	12.0	10.5	11.0	5.5	5.0	5.5	4.0	2.5	3.0	1.5	0.5	1.0
12	11.5	9.5	10.5	5.0	4.5	4.5	4.0	3.0	3.5	1.5	0.5	1.0
13	10.5	9.5	10.0	5.0	4.5	4.5	6.0	4.0	5.0	2.5	1.0	1.5
14	9.5	7.5	8.5	6.5	5.0	5.5	7.0	5.5	6.5	4.5	2.5	3.5
15	10.5	7.5	9.0	6.0	5.0	5.5	5.5	2.5	3.5	2.5	0.0	0.5
16	11.5	10.0	10.5	7.0	5.5	6.5	2.5	0.5	1.5	0.0	0.0	0.0
17	10.0	8.5	9.0	5.5	3.0	4.0	0.5	0.0	0.0	0.0	0.0	0.0
18	12.0	9.0	10.5	4.0	1.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0
19	11.0	9.0	10.0	6.0	3.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0
20	9.5	7.5	8.0	9.5	6.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0
21	8.5	6.0	7.5	9.5	9.5	9.5	0.5	0.0	0.0	0.0	0.0	0.0
22	10.0	6.5	8.0	9.5	9.0	9.5	1.5	0.5	1.0	0.0	0.0	0.0
23	11.0	7.5	9.5	9.0	9.0	9.0	1.0	0.5	0.5	0.0	0.0	0.0
24	11.0	9.0	10.0	9.0	7.0	8.5	1.0	0.0	1.0	0.0	0.0	0.0
25	11.0	9.0	10.0	7.0	4.5	5.5	0.5	0.0	0.0	0.0	0.0	0.0
26	13.0	10.0	11.5	4.5	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
27	14.5	11.5	13.0	3.0	2.0	2.5	0.5	0.0	0.0	0.0	0.0	0.0
28	14.0	10.5	12.5	4.5	2.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0
29	10.5	7.5	9.0	6.0	4.5	5.0	0.5	0.0	0.5	0.0	0.0	0.0
30	8.0	5.5	7.0	7.5	5.5	6.0	2.0	0.5	1.0	0.0	0.0	0.0
31	9.0	6.0	7.5	---	---	---	0.5	0.0	0.0	0.0	0.0	0.0
MONTH	15.0	5.5	10.0	11.0	1.5	6.0	7.5	0.0	2.0	4.5	0.0	0.5

DELAWARE RIVER BASIN

01421000 EAST BRANCH DELAWARE RIVER AT FISHS EDDY, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	0.0	0.0	0.0	0.0	0.0	0.0	4.5	3.0	3.5	11.0	8.5	9.5
2	0.0	0.0	0.0	0.0	0.0	0.0	3.5	2.5	3.0	14.5	9.5	12.0
3	0.0	0.0	0.0	1.5	0.0	0.5	3.0	2.0	2.5	13.5	11.5	12.5
4	0.0	0.0	0.0	3.0	0.5	2.0	4.5	1.5	3.0	12.0	10.0	11.0
5	0.0	0.0	0.0	5.0	2.0	3.5	5.5	2.0	4.0	10.5	7.5	8.5
6	0.0	0.0	0.0	4.5	3.5	4.0	7.5	2.5	5.0	9.0	7.0	8.0
7	0.0	0.0	0.0	4.0	3.0	3.5	7.5	4.0	5.5	11.5	6.5	9.0
8	0.0	0.0	0.0	4.5	3.5	4.0	7.5	5.5	6.5	11.0	9.0	10.5
9	0.0	0.0	0.0	4.5	4.0	4.5	5.5	4.0	5.0	13.5	10.5	12.0
10	0.0	0.0	0.0	5.5	4.0	4.5	10.5	5.0	7.5	14.5	11.0	12.5
11	0.0	0.0	0.0	5.5	1.5	4.0	9.0	6.0	7.5	17.5	12.0	14.5
12	0.0	0.0	0.0	1.5	0.5	1.0	6.0	4.0	5.5	18.5	13.0	15.5
13	0.0	0.0	0.0	1.0	0.0	0.5	6.0	2.5	4.5	19.5	14.5	16.5
14	0.0	0.0	0.0	1.0	0.0	0.5	8.0	3.5	6.0	17.5	15.0	16.0
15	0.0	0.0	0.0	1.0	0.0	0.5	8.5	4.0	6.5	16.5	13.0	14.5
16	0.0	0.0	0.0	1.5	0.0	0.5	7.0	4.5	5.5	15.0	13.0	14.0
17	0.0	0.0	0.0	0.5	0.0	0.0	4.5	4.0	4.0	13.5	12.0	13.0
18	0.0	0.0	0.0	2.5	0.0	1.5	5.0	4.5	4.5	16.5	13.0	14.5
19	0.0	0.0	0.0	2.0	1.0	1.5	5.5	4.5	5.0	18.5	11.5	15.0
20	0.0	0.0	0.0	3.5	0.5	2.0	8.5	5.5	7.0	19.0	12.5	16.0
21	0.0	0.0	0.0	2.5	0.5	1.5	10.0	8.0	9.0	20.0	13.5	17.0
22	0.0	0.0	0.0	0.5	0.0	0.5	10.0	9.5	10.0	21.5	15.0	18.0
23	0.0	0.0	0.0	1.5	0.0	0.5	12.0	8.5	10.0	22.0	16.0	19.5
24	0.0	0.0	0.0	1.0	0.0	0.5	10.5	9.0	9.5	21.0	13.0	16.5
25	0.0	0.0	0.0	3.5	0.0	1.5	10.0	7.5	8.5	16.0	11.0	13.5
26	0.0	0.0	0.0	3.5	2.5	3.0	8.0	6.5	7.5	14.5	12.0	12.5
27	0.5	0.0	0.0	3.5	2.5	3.0	10.0	6.5	8.5	12.0	11.0	11.5
28	1.0	0.5	1.0	2.5	1.0	1.5	9.5	7.0	8.5	16.0	10.5	13.0
29	1.0	0.0	0.5	4.5	0.5	2.5	11.0	6.5	9.0	18.5	11.5	14.5
30	---	---	---	3.0	2.5	3.0	9.5	8.0	9.0	16.5	13.5	15.0
31	---	---	---	6.5	2.5	4.5	---	---	---	14.5	12.0	13.0
MONTH	1.0	0.0	0.0	6.5	0.0	2.0	12.0	1.5	6.5	22.0	6.5	13.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	12.5	11.0	12.0	26.5	21.0	23.5	19.0	16.0	17.5	19.0	15.5	17.0
2	15.5	11.5	13.0	25.0	20.0	22.5	21.0	15.5	18.5	20.0	14.5	17.0
3	16.5	12.5	14.5	22.0	17.0	19.5	22.0	17.0	19.5	18.0	17.0	17.5
4	17.5	13.0	15.5	20.5	16.0	18.0	20.5	18.0	19.5	22.0	16.5	19.0
5	16.0	14.5	15.5	19.0	17.0	18.0	19.5	16.0	17.5	21.5	18.0	19.5
6	14.5	13.0	14.0	23.0	17.0	20.0	21.0	15.5	18.5	20.0	17.5	18.5
7	17.0	14.0	15.5	22.0	17.5	20.0	22.0	16.5	19.5	18.0	17.0	17.5
8	17.5	15.5	16.5	22.5	17.5	20.5	21.0	17.5	19.0	20.5	17.0	18.5
9	19.0	14.5	17.0	24.5	19.0	21.5	20.5	17.5	19.0	22.5	18.5	20.5
10	18.5	14.5	16.5	24.0	20.0	22.0	20.5	17.5	18.5	23.0	19.5	21.0
11	19.5	14.5	17.0	24.0	21.0	22.5	20.5	18.0	19.0	20.5	17.5	19.5
12	20.0	14.5	17.5	22.0	20.0	21.0	20.5	16.5	19.0	19.5	15.0	17.0
13	21.5	16.0	18.5	23.5	20.0	21.5	18.5	16.0	17.0	19.0	14.5	16.5
14	22.5	17.0	20.0	24.5	19.5	22.0	16.5	15.5	16.0	19.5	14.5	17.0
15	22.5	18.0	20.0	23.0	19.5	21.5	18.0	15.5	16.5	20.0	15.5	17.5
16	22.0	16.5	19.0	20.5	18.5	20.0	16.5	15.5	16.0	21.0	17.0	19.0
17	22.0	16.5	19.5	19.5	18.5	19.0	17.5	15.5	16.5	22.5	18.5	20.0
18	20.5	18.0	19.5	22.5	18.0	20.0	20.0	16.5	18.0	21.5	19.0	20.0
19	19.5	17.5	18.0	24.0	19.0	21.5	19.0	16.5	18.0	20.5	17.0	19.0
20	18.0	16.5	17.5	24.5	20.0	22.5	19.0	15.5	17.5	19.0	15.0	17.0
21	17.0	15.0	16.0	23.0	19.5	21.5	21.0	15.0	17.5	17.0	15.0	15.5
22	15.0	12.5	13.5	23.5	17.5	20.5	22.0	16.5	19.0	17.5	16.0	16.5
23	19.0	11.0	15.0	21.0	17.5	18.5	23.0	17.5	20.5	16.5	13.5	15.0
24	17.5	15.5	16.5	19.5	16.5	18.0	23.5	18.5	21.0	15.5	11.0	13.5
25	18.5	15.0	16.5	22.0	17.0	19.5	24.0	19.5	21.5	15.0	11.0	13.0
26	21.0	15.0	18.0	20.5	18.0	19.0	24.0	20.0	22.0	14.0	13.0	13.5
27	21.5	17.0	19.5	22.5	17.0	19.5	24.5	20.0	22.5	14.5	14.0	14.0
28	23.5	17.5	20.5	20.5	17.5	19.0	23.5	20.5	22.0	17.0	13.5	15.0
29	24.5	18.5	21.5	21.0	16.5	19.0	21.5	17.5	19.5	15.5	12.0	13.5
30	25.5	20.0	23.0	22.5	18.0	20.0	20.0	15.5	18.0	12.0	10.0	11.0
31	---	---	---	20.5	17.5	18.5	20.0	17.0	18.5	---	---	---
MONTH	25.5	11.0	17.0	26.5	16.0	20.5	24.5	15.0	19.0	23.0	10.0	17.0

01423000 WEST BRANCH DELAWARE RIVER AT WALTON, NY

LOCATION.--Lat 42°09'58", long 75°08'25", 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 mi².

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--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.--Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--42 years, 576 ft³/s, 23.56 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,500 ft³/s, Mar. 15, 1986, gage height, 14.84 ft, from floodmark in gage well; minimum discharge, 12 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 23	1030	*8,380	*10.84	No other peak greater than base discharge.			

Minimum discharge, 42 ft³/s. Sept. 18, 19, 22, gage height, 2.61 ft; minimum gage height, 2.52 ft, Oct. 5, 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	155	725	e330	390	508	850	830	769	69	187	61
2	57	150	638	e350	e290	538	807	803	526	64	145	56
3	52	144	1120	411	e280	486	737	1480	448	e61	108	54
4	48	135	1380	485	e275	475	695	1090	399	74	95	69
5	45	128	982	565	e270	567	651	1020	366	81	94	83
6	119	122	899	525	e260	627	580	1090	565	74	88	65
7	220	120	831	484	e250	707	553	954	525	65	76	59
8	135	114	862	452	e245	918	589	844	400	e59	69	55
9	106	108	1120	433	e190	907	550	790	368	77	118	51
10	92	104	993	474	e170	928	545	705	316	78	106	54
11	96	139	898	435	e160	2500	608	618	274	66	85	93
12	234	276	841	376	e150	1930	1020	546	244	e55	73	96
13	203	212	842	390	e145	1510	879	490	221	65	68	70
14	156	202	1260	739	e140	1210	817	451	198	68	98	60
15	150	216	1240	967	e180	1030	770	403	178	141	96	54
16	563	232	1030	e620	e500	839	752	403	161	271	82	49
17	436	221	923	e540	e670	768	1550	396	146	156	76	46
18	492	211	e800	e500	463	681	1940	344	137	243	85	44
19	393	214	700	e480	584	632	2050	310	128	175	99	47
20	342	214	707	e470	678	558	1660	273	135	123	92	46
21	301	238	659	e465	530	498	1420	242	140	103	77	46
22	270	1210	607	e460	489	416	1400	217	128	88	68	53
23	243	7080	560	523	567	426	1490	194	126	99	e61	96
24	219	3430	528	1020	600	354	1230	199	115	118	e54	92
25	201	2220	455	e520	545	354	1560	264	114	100	e54	68
26	188	1580	394	e480	570	513	1610	219	107	91	e77	62
27	178	1240	e350	e450	540	1440	1430	203	99	93	97	62
28	209	1040	e310	e430	505	1120	1190	199	94	80	73	61
29	206	930	385	e410	745	876	1040	182	91	74	85	56
30	177	820	577	438	---	835	916	160	79	71	81	51
31	164	---	e380	426	---	829	---	376	---	130	67	---
TOTAL	6355	23205	23996	15648	11381	25980	31889	16295	7597	3112	2734	1859
MEAN	205	773	774	505	392	838	1063	526	253	100	88.2	62.0
MAX	563	7080	1380	1020	745	2500	2050	1480	769	271	187	96
MIN	45	104	310	330	140	354	545	160	79	55	54	44
CFSM	.62	2.33	2.33	1.52	1.18	2.52	3.20	1.58	.76	.30	.27	.19
IN.	.71	2.60	2.69	1.75	1.28	2.91	3.57	1.83	.85	.35	.31	.21

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1992, BY WATER YEAR (WY)

MEAN	353	617	732	585	695	1108	1256	686	351	185	146	210
MAX	2013	1456	2002	1702	2052	2935	2953	1564	1111	666	942	1332
(WY)	1978	1960	1974	1979	1981	1977	1958	1984	1968	1976	1955	1977
MIN	15.4	17.3	163	94.6	147	371	452	190	70.6	38.9	24.2	15.8
(WY)	1965	1965	1965	1961	1980	1965	1986	1987	1964	1965	1964	1964

DELAWARE RIVER BASIN

01423000 WEST BRANCH DELAWARE RIVER AT WALTON, NY--Continued

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1951 - 1992

ANNUAL TOTAL	171340		170051		
ANNUAL MEAN	469		465		576
HIGHEST ANNUAL MEAN					833
LOWEST ANNUAL MEAN					263
HIGHEST DAILY MEAN	7080	Nov 23	7080	Nov 23	16000
LOWEST DAILY MEAN	21	Sep 9	44	Sep 18	13
ANNUAL SEVEN-DAY MINIMUM	23	Sep 4	47	Sep 16	13
ANNUAL RUNOFF (CFSM)	1.41		1.40		1.73
ANNUAL RUNOFF (INCHES)	19.20		19.05		23.56
10 PERCENT EXCEEDS	1040		1020		1310
50 PERCENT EXCEEDS	301		295		310
90 PERCENT EXCEEDS	41		66		58

EXTREMES FOR PERIOD OF RECORD--Maximum discharge, 17,800 cfs, Mar. 16, 1986, gage height, 13.07 ft; minimum daily, 0.1 cfs, Feb. 8, 1955.

EXTREMES FOR CURRENT YEAR--Maximum discharge, 1,350 cfs, Oct. 11, 1992, gage height, 8.83 ft; minimum daily, 0.1 cfs, Feb. 1, 1992.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	175	15	15	10	11	14	21	45	120	235	260
2	37	180	15	15	10	11	14	21	45	120	235	260
3	37	180	15	15	10	11	14	21	45	120	235	260
4	37	180	15	15	10	11	14	21	45	120	235	260
5	37	180	15	15	10	11	14	21	45	120	235	260
6	37	180	15	15	10	11	14	21	45	120	235	260
7	37	180	15	15	10	11	14	21	45	120	235	260
8	37	180	15	15	10	11	14	21	45	120	235	260
9	37	180	15	15	10	11	14	21	45	120	235	260
10	37	180	15	15	10	11	14	21	45	120	235	260
11	37	180	15	15	10	11	14	21	45	120	235	260
12	37	180	15	15	10	11	14	21	45	120	235	260
13	37	180	15	15	10	11	14	21	45	120	235	260
14	37	180	15	15	10	11	14	21	45	120	235	260
15	37	180	15	15	10	11	14	21	45	120	235	260
16	37	180	15	15	10	11	14	21	45	120	235	260
17	37	180	15	15	10	11	14	21	45	120	235	260
18	37	180	15	15	10	11	14	21	45	120	235	260
19	37	180	15	15	10	11	14	21	45	120	235	260
20	37	180	15	15	10	11	14	21	45	120	235	260
21	37	180	15	15	10	11	14	21	45	120	235	260
22	37	180	15	15	10	11	14	21	45	120	235	260
23	37	180	15	15	10	11	14	21	45	120	235	260
24	37	180	15	15	10	11	14	21	45	120	235	260
25	37	180	15	15	10	11	14	21	45	120	235	260
26	37	180	15	15	10	11	14	21	45	120	235	260
27	37	180	15	15	10	11	14	21	45	120	235	260
28	37	180	15	15	10	11	14	21	45	120	235	260
29	37	180	15	15	10	11	14	21	45	120	235	260
30	37	180	15	15	10	11	14	21	45	120	235	260
31	37	180	15	15	10	11	14	21	45	120	235	260
32	37	180	15	15	10	11	14	21	45	120	235	260
33	37	180	15	15	10	11	14	21	45	120	235	260
34	37	180	15	15	10	11	14	21	45	120	235	260
35	37	180	15	15	10	11	14	21	45	120	235	260
36	37	180	15	15	10	11	14	21	45	120	235	260
37	37	180	15	15	10	11	14	21	45	120	235	260
38	37	180	15	15	10	11	14	21	45	120	235	260
39	37	180	15	15	10	11	14	21	45	120	235	260
40	37	180	15	15	10	11	14	21	45	120	235	260
41	37	180	15	15	10	11	14	21	45	120	235	260
42	37	180	15	15	10	11	14	21	45	120	235	260
43	37	180	15	15	10	11	14	21	45	120	235	260
44	37	180	15	15	10	11	14	21	45	120	235	260
45	37	180	15	15	10	11	14	21	45	120	235	260
46	37	180	15	15	10	11	14	21	45	120	235	260
47	37	180	15	15	10	11	14	21	45	120	235	260
48	37	180	15	15	10	11	14	21	45	120	235	260
49	37	180	15	15	10	11	14	21	45	120	235	260
50	37	180	15	15	10	11	14	21	45	120	235	260
51	37	180	15	15	10	11	14	21	45	120	235	260
52	37	180	15	15	10	11	14	21	45	120	235	260
53	37	180	15	15	10	11	14	21	45	120	235	260
54	37	180	15	15	10	11	14	21	45	120	235	260
55	37	180	15	15	10	11	14	21	45	120	235	260
56	37	180	15	15	10	11	14	21	45	120	235	260
57	37	180	15	15	10	11	14	21	45	120	235	260
58	37	180	15	15	10	11	14	21	45	120	235	260
59	37	180	15	15	10	11	14	21	45	120	235	260
60	37	180	15	15	10	11	14	21	45	120	235	260
61	37	180	15	15	10	11	14	21	45	120	235	260
62	37	180	15	15	10	11	14	21	45	120	235	260
63	37	180	15	15	10	11	14	21	45	120	235	260
64	37	180	15	15	10	11	14	21	45	120	235	260
65	37	180	15	15	10	11	14	21	45	120	235	260
66	37	180	15	15	10	11	14	21	45	120	235	260
67	37	180	15	15	10	11	14	21	45	120	235	260
68	37	180	15	15	10	11	14	21	45	120	235	260
69	37	180	15	15	10	11	14	21	45	120	235	260
70	37	180	15	15	10	11	14	21	45	120	235	260
71	37	180	15	15	10	11	14	21	45	120	235	260
72	37	180	15	15	10	11	14	21	45	120	235	260
73	37	180	15	15	10	11	14	21	45	120	235	260
74	37	180	15	15	10	11	14	21	45	120	235	260
75	37	180	15	15	10	11	14	21	45	120	235	260
76	37	180	15	15	10	11	14	21	45	120	235	260
77	37	180	15	15	10	11	14	21	45	120	235	260
78	37	180	15	15	10	11	14	21	45	120	235	260
79	37	180	15	15	10	11	14	21	45	120	235	260
80	37	180	15	15	10	11	14	21	45	120	235	260
81	37	180	15	15	10	11	14	21	45	120	235	260
82	37	180	15	15	10	11	14	21	45	120	235	260
83	37	180	15	15	10	11	14	21	45	120	235	260
84	37	180	15	15	10	11	14	21	45	120	235	260
85	37	180	15	15	10	11	14	21	45	120	235	260
86	37	180	15	15	10	11	14	21	45	120	235	260
87	37	180	15	15	10	11	14	21	45	120	235	260
88	37	180	15	15	10	11	14	21	45	120	235	260
89	37	180	15	15	10	11	14	21	45	120	235	260
90	37	180	15	15	10	11	14	21	45	120	235	260
91	37	180	15	15	10	11	14	21	45	120	235	260
92	37	180	15	15	10	11	14	21	45	120	235	260
93	37	180	15	15	10	11	14	21	45	120	235	260
94	37	180	15	15	10	11	14	21	45	120	235	260
95	37	180	15	15	10	11	14	21	45	120	235	260
96	37	180	15	15	10	11	14	21	45	120	235	260
97	37	180	15	15	10	11	14	21	45	120	235	260
98	37	180	15	15	10	11	14	21	45	120	235	260
99	37	180	15	15	10	11	14	21	45	120	235	260
100	37	180	15	15	10	11	14	21	45	120	235	260

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1992, BY WATER YEAR (MT)

1951	1957	1963	1969	1975	1981	1987	1993	1999	2005	2011	2017	2023	2029	2035	2041	2047	2053	2059	2065	2071	2077	2083	2089	2095	2101	2107	2113	2119	2125	2131	2137	2143	2149	2155	2161	2167	2173	2179	2185	2191	2197	2203	2209	2215	2221	2227	2233	2239	2245	2251	2257	2263	2269	2275	2281	2287	2293	2299	2305	2311	2317	2323	2329	2335	2341	2347	2353	2359	2365	2371	2377	2383	2389	2395	2401	2407	2413	2419	2425	2431	2437	2443	2449	2455	2461	2467	2473	2479	2485	2491	2497	2503	2509	2515	2521	2527	2533	2539	2545	2551	2557	2563	2569	2575	2581	2587	2593	2599	2605	2611	2617	2623	2629	2635	2641	2647	2653	2659	2665	2671	2677	2683	2689	2695	2701	2707	2713	2719	2725	2731	2737	2743	2749	2755	2761	2767	2773	2779	2785	2791	2797	2803	2809	2815	2821	2827	2833	2839	2845	2851	2857	2863	2869	2875	2881	2887	2893	2899	2905	2911	2917	2923	2929	2935	2941	2947	2953	2959	2965	2971	2977	2983	2989	2995	3001	3007	3013	3019	3025	3031	3037	3043	3049	3055	3061	3067	3073	3079	3085	3091	3097	3103	3109	3115	3121	3127	3133	3139	3145	3151	3157	3163	3169	3175	3181	3187	3193	3199	3205	3211	3217	3223	3229	3235	3241	3247	3253	3259	3265	3271	3277	3283	3289	3295	3301	3307	3313	3319	3325	3331	3337	3343	3349	3355	3361	3367	3373	3379	3385	3391	3397	3403	3409	3415	3421	3427	3433	3439	3445	3451	3457	3463	3469	3475	3481	3487	3493	3499	3505	3511	3517	3523	3529	3535	3541	3547	3553	3559	3565	3571	3577	3583	3589	3595	3601	3607	3613	3619	3625	3631	3637	3643	3649	3655	3661	3667	3673	3679	3685	3691	3697	3703	3709	3715	3721	3727	3733	3739	3745	3751	3757	3763	3769	3775	3781	3787	3793	3799	3805	3811	3817	3823	3829	3835	3841	3847	3853	3859	3865	3871	3877	3883	3889	3895	3901	3907	3913	3919	3925	3931	3937	3943	3949	3955	3961	3967	3973	3979	3985	3991	3997	4003	4009	4015	4021	4027	4033	4039	4045	4051	4057	4063	4069	4075	4081	4087	4093	4099	4105	4111	4117	4123	4129	4135	4141	4147	4153	4159	4165	4171	4177	4183	4189	4195	4201	4207	4213	4219	4225	4231	4237	4243	4249	4255	4261	4267	4273	4279	4285	4291	4297	4303	4309	4315	4321	4327	4333	4339	4345	4351	4357	4363	4369	4375	4381	4387	4393	4399	4405	4411	4417	4423	4429	4435	4441	4447	4453	4459	4465	4471	4477	4483	4489	4495	4501	4507	4513	4519	4525	4531	4537	4543	4549	4555	4561	4567	4573	4579	4585	4591	4597	4603	4609	4615	4621	4627	4633	4639	4645	4651	4657	4663	4669	4675	4681	4687	4693	4699	4705	4711	4717	4723	4729	4735	4741	4747	4753	4759	4765	4771	4777	4783	4789	4795	4801	4807	4813	4819	4825	4831	4837	4843	4849	4855	4861	4867	4873	4879	4885	4891	4897	4903	4909	4915	4921	4927	4933	4939	4945	4951	4957	4963	4969	4975	4981	4987	4993	4999	5005	5011	5017	5023	5029	5035	5041	5047	5053	5059	5065	5071	5077	5083	5089	5095	5101	5107	5113	5119	5125	5131	5137	5143	5149	5155	5161	5167	5173	5179	5185	5191	5197	5203	5209	5215	5221	5227	5233	5239	5245	5251	5257	5263	5269	5275	5281	5287	5293	5299	5305	5311	5317	5323	5329	5335	5341	5347	5353	5359	5365	5371	5377	5383	5389	5395	5401	5407	5413	5419	5425	5431	5437	5443	5449	5455	5461	5467	5473	5479	5485	5491	5497	5503	5509	5515	5521	5527	5533	5539	5545	5551	5557	5563	5569	5575	5581	5587	5593	5599	5605	5611	5617	5623	5629	5635	5641	5647	5653	5659	5665	5671	5677	5683	5689	5695	5701	5707	5713	5719	5725	5731	5737	5743	5749	5755	5761	5767	5773	5779	5785	5791	5797	5803	5809	5815	5821	5827	5833	5839	5845	5851	5857	5863	5869	5875	5881	5887	5893	5899	5905	5911	5917	5923	5929	5935	5941	5947	5953	5959	5965	5971	5977	5983	5989	5995	6001	6007	6013	6019	6025	6031	6037	6043	6049	6055	6061	6067	6073	6079	6085	6091	6097	6103	6109	6115	6121	6127	6133	6139	6145	6151	6157	6163	6169	6175	6181	6187	6193	6199	6205	6211	6217	6223	6229	6235	6241	6247	6253	6259	6265	6271	6277	6283	6289	6295	6301	6307	6313	6319	6325	6331	6337	6343	6349	6355	6361	6367	6373	6379	6385	6391	6397	6403	6409	6415	6421	6427	6433	6439	6445	6451	6457	6463	6469	6475	6481	6487	6493	6499	6505	6511	6517	6523	6529	6535	6541	6547	6553	6559	6565	6571	6577	6583	6589	6595	6601	6607	6613	6619	6625	6631	6637	6643	6649	6655	6661	6667	6673	6679	6685	6691	6697	6703	6709	6715	6721	6727	6733	6739	6745	6751	6757	6763	6769	6775	6781	6787	6793	6799	6805	6811	6817	6823	6829	6835	6841	6847	6853	6859	6865	6871	6877	6883	6889	6895	6901	6907	6913	6919	6925	6931	6937	6943	6949	6955	6961	6967	6973	6979	6985	6991	6997	7003	7009	7015	7021	7027	7033	7039	7045	7051	7057	7063	7069	7075	7081	7087	7093	7099	7105	7111	7117	7123	7129	7135	7141	7147	7153	7159	7165	7171	7177	7183	7189	7195	7201	7207	7213	7219	7225	7231	7237	7243	7249	7255	7261	7267	7273	7279	7285	7291	7297	7303	7309	7315	7321	7327	7333	7339	7345	7351	7357	7363	7369	7375	7381	7387	7393	7399	7405	7411	7417	7423	7429	7435	7441	7447	7453	7459	7465	7471	7477	7483	7489	7495	7501	7507	7513	7519	7525	7531	7537	7543	7549	7555	7561	7567	7573	7579	7585	7591	7597	7603	7609	7615	7621	7627	7633	7639	7645	7651	7657	7663	7669	7675	7681	7687	7693	7699	7705	7711	7717	7723	7729	7735	7741	7747	7753	7759	7765	7771	7777	7783	7789	7795	7801	7807	7813	7819	7825	7831	7837	7843	7849	7855	7861	7867	7873	7879	7885	7891	7897	7903	7909	7915	7921	7927	7933	7939	7945	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DELAWARE RIVER BASIN

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 mi².

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.--Records good except those below 100 ft³/s and those for estimated daily discharges, which are fair. Subsequent to October 1963, entire flow from 454 mi² 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 ft³/s, Mar. 16, 1986, gage height, 13.07 ft; minimum daily, 7.2 ft³/s, Feb. 8, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,290 ft³/s, Oct. 11, Sept. 25, gage height, 8.62 ft; minimum daily, 10 ft³/s, Feb. 1, 3-15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	275	15	16	10	11	14	31	65	326	326	360
2	37	259	14	16	11	11	13	31	41	750	325	512
3	37	260	26	16	10	34	13	33	39	773	322	599
4	630	261	20	18	10	13	12	32	32	354	322	831
5	629	311	18	17	10	12	12	34	32	327	322	895
6	112	338	18	17	10	12	12	34	32	326	322	778
7	281	335	17	17	10	14	12	33	31	326	321	246
8	293	267	17	17	10	14	12	33	31	328	321	408
9	221	259	17	17	10	14	12	33	36	330	323	548
10	83	259	16	17	10	14	13	32	50	330	318	666
11	967	260	16	16	10	34	13	32	51	330	317	508
12	548	259	16	16	10	23	18	31	138	330	317	151
13	73	259	17	17	10	17	15	31	283	330	318	134
14	e36	259	18	19	10	14	14	31	215	331	318	130
15	e27	259	18	17	10	14	13	31	168	336	317	256
16	e27	90	17	17	12	13	29	31	146	331	101	210
17	e27	37	17	17	11	13	38	31	286	332	50	329
18	e27	207	17	16	11	15	39	31	327	334	95	767
19	e27	259	17	18	12	12	41	30	328	331	212	783
20	e27	257	17	17	11	12	37	30	327	330	99	475
21	e27	90	16	17	11	12	35	66	326	330	407	393
22	e27	36	16	17	11	12	35	252	326	329	315	302
23	e35	47	16	17	11	12	34	331	326	331	309	213
24	e40	34	16	17	11	11	34	251	328	375	309	56
25	232	32	16	17	11	11	34	155	327	333	408	458
26	104	31	16	16	11	13	34	154	419	329	444	435
27	50	31	16	16	11	20	33	71	326	326	323	177
28	35	31	16	16	11	15	32	56	326	326	310	54
29	35	32	17	15	13	17	31	56	326	327	495	107
30	34	32	17	16	---	14	31	131	326	326	194	499
31	203	---	16	11	---	14	---	77	---	332	254	---
TOTAL	4968	5366	526	513	309	467	715	2235	6014	11149	9134	12280
MEAN	160	179	17.0	16.5	10.7	15.1	23.8	72.1	200	360	295	409
MAX	967	338	26	19	13	34	41	331	419	773	495	895
MIN	27	31	14	11	10	11	12	30	31	326	50	54

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

MEAN	561	255	306	340	453	792	1101	711	526	621	587	564
MAX	1593	1155	1757	1910	2309	2879	3133	1806	1593	1646	1675	1606
(WY)	1970	1978	1978	1978	1976	1986	1970	1983	1968	1971	1968	1972
MIN	26.2	21.5	9.10	10.3	9.89	11.1	19.7	25.2	72.7	63.9	92.3	34.0
(WY)	1964	1966	1966	1967	1967	1989	1985	1966	1965	1965	1985	1964

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. Interruptions of record were due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1963-78, 1980-82, 1984-86, 1988, 1990-92), 30.5°C July 2, 1963; minimum, 0.0°C on many days during winter periods, except 1969, 1973, 1986-87, 1990-91.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 18.0°C, May 13, but may have been higher during period of instrument malfunction; minimum, 0.0°C on many days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	14.0	12.0	12.5	9.0	8.0	8.5	2.5	0.5	1.0
2	---	---	---	12.5	11.5	12.0	8.0	5.5	6.5	2.0	0.5	1.0
3	---	---	---	12.5	11.0	11.5	5.5	3.0	4.0	4.5	2.0	3.0
4	---	---	---	12.5	10.5	11.5	4.5	0.5	3.0	4.0	2.5	3.0
5	---	---	---	12.0	10.5	11.0	3.0	0.5	1.5	3.5	2.5	3.0
6	---	---	---	11.5	10.5	11.0	3.5	1.5	2.5	2.5	2.0	2.5
7	---	---	---	11.5	10.5	11.0	4.0	2.0	3.0	2.5	1.0	2.0
8	---	---	---	11.0	10.0	10.5	6.5	4.0	5.5	4.0	0.5	2.0
9	---	---	---	11.0	9.5	10.0	7.5	6.0	7.0	2.5	1.0	2.0
10	---	---	---	11.0	9.5	10.0	7.0	3.0	5.5	4.0	1.5	3.0
11	---	---	---	10.0	9.5	10.0	5.5	2.0	3.5	1.5	0.5	1.0
12	---	---	---	9.5	9.5	9.5	6.0	3.5	5.0	4.5	0.5	2.5
13	---	---	---	9.5	9.0	9.5	7.5	6.0	6.5	5.0	2.0	3.5
14	---	---	---	10.0	8.5	9.0	9.0	4.0	7.0	6.0	0.5	4.0
15	---	---	---	9.0	8.5	8.5	4.0	1.0	2.0	1.0	0.0	0.5
16	15.5	12.5	13.5	8.5	6.0	8.0	2.0	0.5	1.0	1.0	0.0	0.5
17	12.5	10.0	11.5	7.5	4.0	5.5	1.0	0.5	1.0	0.5	0.0	0.5
18	17.0	12.0	14.0	8.5	4.0	7.0	1.5	0.5	1.0	0.5	0.0	0.5
19	14.5	10.5	12.0	9.5	7.5	8.5	1.5	0.5	1.0	0.5	0.0	0.0
20	13.5	8.5	11.0	9.5	8.0	8.5	2.0	0.5	1.5	0.5	0.0	0.0
21	12.0	8.5	10.5	9.5	8.5	9.0	2.0	1.5	1.5	0.5	0.0	0.0
22	---	---	---	9.5	9.0	9.0	5.0	1.5	2.5	1.0	0.0	0.5
23	---	---	---	10.0	9.0	9.5	3.0	1.0	2.0	1.0	0.0	0.5
24	---	---	---	9.5	6.0	8.5	3.0	0.5	2.0	2.0	0.0	1.0
25	---	---	---	6.0	4.0	5.0	3.0	0.5	1.5	1.0	0.0	0.5
26	---	---	---	6.0	3.5	4.5	3.0	0.5	1.5	1.0	0.0	0.5
27	---	---	---	6.0	3.0	4.5	3.5	1.0	2.0	1.0	0.0	0.5
28	---	---	---	7.0	4.5	5.5	4.0	0.5	2.0	1.0	0.0	0.5
29	---	---	---	7.5	6.5	7.0	3.5	2.0	3.0	3.5	0.5	1.5
30	12.0	6.5	9.5	9.0	6.5	7.5	4.5	0.5	2.5	3.5	0.0	1.5
31	13.5	9.0	11.5	---	---	---	3.0	0.5	1.0	2.0	0.5	1.5
MONTH	---	---	---	14.0	3.0	9.0	9.0	0.5	3.0	6.0	0.0	1.5

DELAWARE RIVER BASIN

01425000 WEST BRANCH DELAWARE RIVER AT STILESVILLE, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	1.0	0.0	0.5	0.5	0.0	0.5	5.5	3.0	4.0	11.5	6.5	8.5
2	1.5	0.0	0.5	2.5	0.5	1.5	6.5	2.0	4.0	15.0	7.0	10.5
3	3.0	0.0	1.0	2.5	0.0	1.5	5.5	1.0	3.0	14.0	7.5	10.5
4	0.5	0.0	0.5	9.5	0.0	3.5	8.5	1.0	4.5	12.0	6.5	9.0
5	1.5	0.0	0.5	10.5	2.5	5.5	10.0	1.0	5.0	8.0	5.5	7.0
6	2.0	0.0	0.5	6.0	3.0	4.5	12.5	1.5	6.5	10.5	6.0	7.5
7	2.0	0.0	0.5	4.5	2.5	3.5	12.0	4.0	7.5	14.5	5.5	9.5
8	2.0	0.0	1.0	6.0	4.0	5.0	9.5	4.5	7.5	10.0	7.0	8.5
9	1.0	0.0	0.5	6.5	3.5	5.0	8.5	2.5	5.5	13.5	8.0	10.0
10	1.5	0.0	0.5	8.0	3.5	6.0	15.5	5.5	10.0	13.0	6.5	10.0
11	0.5	0.0	0.0	7.0	0.0	3.5	10.0	5.5	7.5	17.0	7.5	11.5
12	1.0	0.0	0.5	3.0	0.0	1.0	8.5	3.0	6.0	17.5	7.5	12.0
13	0.0	0.0	0.0	3.0	0.0	1.5	12.0	1.0	6.0	18.0	8.5	12.5
14	0.0	0.0	0.0	3.0	0.5	1.5	14.5	3.5	8.5	13.0	8.5	10.5
15	0.5	0.0	0.0	4.0	0.0	1.5	14.5	3.0	8.5	13.0	8.0	10.0
16	1.0	0.0	0.5	5.0	0.0	2.0	8.5	4.0	5.5	11.0	8.5	9.5
17	5.0	0.5	2.0	2.0	0.5	1.0	5.5	3.5	4.5	11.0	8.0	9.5
18	2.5	1.0	2.0	6.5	0.0	2.5	6.5	4.5	5.5	13.5	9.0	11.0
19	7.0	2.0	4.0	4.5	1.5	2.5	8.0	5.0	6.5	17.0	6.5	11.0
20	3.0	1.5	2.5	8.0	0.5	3.5	13.5	5.5	8.5	17.5	7.0	11.5
21	4.0	0.5	2.0	6.5	0.5	3.0	13.0	8.0	10.0	13.0	7.0	9.0
22	2.0	0.5	1.5	3.5	0.5	1.5	12.5	8.5	10.0	8.5	5.0	7.0
23	4.5	2.0	3.0	6.0	0.5	2.5	15.0	7.0	10.5	8.0	4.5	6.0
24	3.0	1.0	2.0	5.0	0.5	2.5	10.5	7.0	8.5	6.5	5.0	5.5
25	2.5	1.0	1.5	8.5	0.5	4.0	8.5	6.5	7.5	10.5	4.5	7.5
26	2.5	1.0	2.0	7.0	3.5	5.0	10.0	5.5	7.5	10.0	5.0	6.5
27	4.5	1.0	2.5	5.5	3.5	4.5	13.5	5.0	9.0	8.0	6.5	7.0
28	4.0	0.0	2.5	3.5	0.5	1.5	11.5	5.5	8.5	11.0	6.5	8.5
29	3.0	0.0	1.0	9.0	0.0	4.0	15.5	4.0	9.0	13.0	6.5	9.0
30	---	---	---	5.0	2.0	3.5	9.5	6.0	8.0	9.5	5.0	7.0
31	---	---	---	12.0	3.0	6.5	---	---	---	9.5	7.5	8.5
MONTH	7.0	0.0	1.5	12.0	0.0	3.0	15.5	1.0	7.0	18.0	4.5	9.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	10.0	8.0	8.5	8.5	6.0	7.0	9.5	7.0	7.5	9.0	6.5	7.5
2	14.5	8.5	11.0	8.5	5.5	7.0	10.0	6.5	7.5	9.0	7.0	7.5
3	16.0	8.5	11.0	7.0	6.0	6.0	9.5	6.5	7.5	8.0	7.0	7.5
4	17.0	8.5	12.0	7.5	6.0	6.5	8.5	6.5	7.0	8.5	7.0	7.5
5	13.0	10.5	11.0	7.5	5.5	6.5	9.0	6.5	7.5	9.0	7.0	8.0
6	13.5	9.5	11.0	9.0	6.0	7.0	9.5	6.5	7.5	8.0	7.0	7.5
7	15.0	10.0	12.0	8.0	6.0	7.0	10.0	6.5	8.0	9.5	6.5	8.0
8	13.5	10.0	11.5	9.0	6.0	7.0	9.0	6.5	7.0	9.5	7.5	8.0
9	14.5	9.0	11.5	9.0	6.5	7.5	8.5	7.0	7.5	9.0	7.5	8.0
10	13.0	8.0	10.0	8.5	6.0	7.0	9.0	7.0	7.5	9.0	7.0	8.0
11	13.5	7.5	10.0	8.5	6.0	7.0	8.5	7.0	7.5	9.0	7.5	8.0
12	12.5	5.5	8.5	8.5	6.0	7.0	8.5	6.5	7.5	11.5	7.0	9.0
13	12.5	5.5	7.5	8.5	6.5	7.0	8.0	6.5	7.0	11.0	7.0	9.0
14	11.5	5.5	7.5	9.0	6.5	7.5	7.5	6.5	7.0	11.0	7.0	9.0
15	12.0	5.5	9.0	8.0	6.5	7.0	8.0	6.5	7.0	10.5	7.5	8.0
16	11.5	5.5	8.5	8.5	6.5	7.0	10.0	6.5	8.5	11.0	7.0	8.5
17	11.0	5.5	7.0	8.5	7.0	7.0	10.0	9.0	9.5	11.0	7.5	8.5
18	8.5	5.5	6.5	8.5	6.5	7.5	11.5	7.0	9.5	9.0	7.5	8.0
19	7.5	5.5	6.5	9.0	6.5	7.5	11.0	7.0	8.0	8.5	7.5	8.0
20	6.5	5.5	6.0	9.5	6.5	7.5	11.5	6.5	9.5	9.5	7.0	8.0
21	6.5	5.5	6.0	7.5	6.5	7.0	9.0	6.5	7.5	8.5	7.0	7.5
22	6.0	5.5	6.0	9.5	6.0	7.5	9.5	6.5	7.5	8.5	7.5	8.0
23	8.5	5.0	6.5	7.0	6.5	7.0	10.0	6.5	8.0	11.0	7.0	8.5
24	7.5	5.5	6.0	8.0	6.5	7.0	9.5	6.5	7.5	12.0	7.0	9.0
25	7.5	5.5	6.5	9.0	6.5	7.5	8.5	7.0	7.5	11.0	7.0	9.0
26	8.0	5.5	6.5	7.0	6.5	7.0	9.0	7.0	7.5	10.5	7.5	8.5
27	7.5	5.5	6.5	9.5	6.5	7.5	10.0	7.0	8.0	10.0	7.5	8.5
28	8.5	5.5	6.5	8.0	6.5	7.0	9.5	7.0	8.0	13.0	9.0	10.0
29	9.5	5.5	7.0	9.0	6.5	7.5	8.5	7.0	7.5	10.5	7.0	8.5
30	9.0	5.5	7.0	9.0	6.5	7.5	13.5	6.5	9.5	8.0	7.0	7.5
31	---	---	---	8.5	6.5	7.5	11.5	6.5	8.0	---	---	---
MONTH	17.0	5.0	8.5	9.5	5.5	7.0	13.5	6.5	8.0	13.0	6.5	8.5

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 mi².

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.--Records good except those for estimated daily discharges, which are poor. Subsequent to October 1963, entire flow from 454 mi² 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 ft³/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 ft³/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 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,640 ft³/s, Mar. 11, gage height, 6.37 ft; minimum not determined, occurred during period of backwater from ice.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	307	178	e160	e120	e150	456	277	1520	350	868	367
2	60	297	149	e185	e110	e160	419	275	894	675	654	607
3	65	294	604	e230	e100	e200	355	520	535	789	558	629
4	461	293	586	352	e98	e190	313	412	379	429	507	881
5	657	329	399	363	e94	e210	273	456	299	352	483	992
6	197	383	332	295	e90	e250	240	547	319	348	443	854
7	195	373	285	268	e86	357	226	470	262	345	420	384
8	311	318	275	241	e80	452	231	421	225	345	409	359
9	243	287	308	e210	e74	459	217	484	200	376	571	619
10	92	287	287	e195	e66	442	228	379	178	354	467	679
11	738	311	262	e180	e58	2240	235	324	158	347	435	831
12	738	330	243	e165	e45	1360	618	284	220	344	411	258
13	149	321	239	173	e48	793	466	253	316	348	404	202
14	75	317	383	411	e50	545	402	229	341	361	418	188
15	65	320	339	e400	e65	400	338	202	230	538	418	265
16	88	208	290	e250	e210	310	334	211	201	658	238	312
17	93	101	274	e210	e180	270	860	191	285	456	132	288
18	107	197	e240	e190	e175	240	1120	180	379	884	133	833
19	96	315	e220	e180	e185	210	1220	160	378	567	342	856
20	83	314	e200	e170	e200	185	856	141	374	480	146	556
21	76	197	e180	e165	e165	165	644	143	372	447	447	440
22	71	456	e170	e170	e150	140	643	282	369	417	407	387
23	70	2040	e180	e190	e170	160	515	403	365	447	377	490
24	72	867	e170	e210	e180	140	448	371	366	487	369	172
25	183	561	e160	e270	e160	130	610	248	375	445	447	529
26	172	398	e150	e190	e170	219	568	223	449	466	472	454
27	82	308	e145	e170	e165	1060	502	157	364	579	422	423
28	70	261	e140	e160	e160	790	417	133	358	471	368	201
29	67	232	e170	e150	e155	568	358	119	354	460	664	161
30	65	207	e220	e170	---	473	309	174	353	488	384	564
31	171	---	e175	e140	---	462	---	595	---	912	282	---
TOTAL	5674	11429	7953	6813	3609	13730	14421	9264	11418	14965	13096	14781
MEAN	183	381	257	220	124	443	481	299	381	483	422	493
MAX	738	2040	604	411	210	2240	1220	595	1520	912	868	992
MIN	60	101	140	140	45	130	217	119	158	344	132	161

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1964	706	2123	1976	33.2	1964
1965	516	1641	1978	41.8	1965
1966	598	2350	1978	172	1982
1967	559	2494	1978	127	1970
1968	742	3107	1976	94.2	1989
1969	1247	3617	1986	158	1981
1970	1554	3799	1970	194	1985
1971	984	2244	1984	122	1985
1972	660	1899	1968	132	1965
1973	685	1456	1971	76.2	1965
1974	638	1698	1968	107	1985
1975	644	1604	1972	45.4	1964

DELAWARE RIVER BASIN

01426500 WEST BRANCH DELAWARE RIVER AT HALE EDDY, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1964 - 1992	
ANNUAL TOTAL	295461		127153		794	
ANNUAL MEAN	809		347		1411	1978
HIGHEST ANNUAL MEAN					204	1965
LOWEST ANNUAL MEAN					15900	Mar 16 1986
HIGHEST DAILY MEAN	3360	Mar 5	2240	Mar 11	18	Oct 20 1963
LOWEST DAILY MEAN	60	Oct 2	45	Feb 12	26	Oct 15 1963
ANNUAL SEVEN-DAY MINIMUM	82	Oct 18	58	Feb 9		
10 PERCENT EXCEEDS	1610		612		1750	
50 PERCENT EXCEEDS	691		303		488	
90 PERCENT EXCEEDS	172		127		119	

DELAWARE RIVER BASIN

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 October 1976, provides one-hour-interval punches. Also, water-temperature satellite telemeter since May 1985, provides one-hour-interval readings. Prior to October 1976, 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 1968-77, 1979-83, 1985, 1988-92), 30.5°C, July 22, 23, 1972, June 16, 1981; minimum (water years 1968, 1978-92), 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 22.5°C, May 21; minimum, 0.0°C on many days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	17.0	12.0	14.0	14.5	11.0	12.5	8.5	8.0	8.0	0.5	0.5	0.5
2	20.0	14.5	17.0	13.5	11.0	12.0	8.0	5.5	7.0	0.5	0.5	0.5
3	19.5	15.5	17.5	11.5	9.0	10.5	5.5	3.0	4.0	0.5	0.5	0.5
4	18.5	16.0	17.5	10.0	7.5	9.0	4.5	2.0	4.0	0.5	0.5	0.5
5	18.5	16.5	17.0	9.5	6.0	8.0	2.0	0.5	1.0	1.5	0.5	1.0
6	18.0	14.0	16.5	9.0	7.0	8.5	1.5	0.5	1.0	1.5	1.5	1.5
7	14.0	11.5	12.5	9.5	8.0	9.0	2.5	1.0	1.5	1.5	1.5	1.5
8	15.5	12.0	13.5	9.5	7.5	8.5	5.0	2.5	4.0	1.5	0.5	1.0
9	16.0	12.0	14.0	8.0	5.5	7.0	7.0	5.0	6.0	1.0	0.5	0.5
10	18.0	13.5	15.5	9.0	6.5	7.5	6.0	4.0	5.0	2.5	1.0	1.5
11	15.5	14.0	15.0	9.0	8.0	8.5	4.0	2.0	3.0	1.5	0.5	0.5
12	16.0	14.0	15.0	8.0	6.5	7.0	4.5	2.5	3.5	1.5	0.5	1.0
13	16.0	11.0	13.0	8.0	7.5	7.5	6.5	4.5	5.5	3.5	1.5	2.5
14	14.0	9.0	11.5	9.5	7.5	8.0	8.0	5.5	7.0	5.0	2.0	3.5
15	11.5	9.5	10.5	8.5	7.0	8.0	5.5	2.0	3.0	2.0	0.0	0.5
16	14.0	10.5	12.0	8.5	6.0	8.0	2.0	0.5	1.0	0.0	0.0	0.0
17	10.5	8.5	10.0	6.5	3.5	5.0	0.5	0.5	0.5	0.0	0.0	0.0
18	14.5	9.5	12.0	6.5	2.0	4.0	0.5	0.5	0.5	0.0	0.0	0.0
19	12.0	8.5	10.5	9.5	6.5	8.0	0.5	0.5	0.5	0.0	0.0	0.0
20	11.5	7.0	9.0	11.0	8.5	10.0	1.0	0.5	0.5	0.0	0.0	0.0
21	12.5	6.0	8.5	11.0	9.5	10.0	1.0	0.5	0.5	0.0	0.0	0.0
22	12.5	6.5	9.5	9.5	9.0	9.5	0.5	0.5	0.5	0.0	0.0	0.0
23	14.0	8.0	11.0	9.5	9.0	9.0	0.5	0.5	0.5	0.0	0.0	0.0
24	14.0	10.0	12.0	9.0	7.0	8.5	0.5	0.5	0.5	0.0	0.0	0.0
25	15.5	11.5	13.5	7.0	4.5	5.5	1.0	0.5	0.5	0.0	0.0	0.0
26	16.5	13.0	14.5	4.5	3.5	4.0	0.5	0.5	0.5	0.0	0.0	0.0
27	18.0	14.0	16.0	3.5	2.0	2.5	0.5	0.5	0.5	0.0	0.0	0.0
28	16.5	11.5	14.5	5.0	2.5	3.5	0.5	0.5	0.5	0.0	0.0	0.0
29	13.0	8.0	10.5	6.5	5.0	5.5	0.5	0.5	0.5	0.0	0.0	0.0
30	12.5	5.5	8.5	8.5	6.0	7.0	0.5	0.5	0.5	0.0	0.0	0.0
31	11.5	6.5	9.0	---	---	---	0.5	0.5	0.5	0.0	0.0	0.0
MONTH	20.0	5.5	13.0	14.5	2.0	7.5	8.5	0.5	2.5	5.0	0.0	0.5

DELAWARE RIVER BASIN

01426500 WEST BRANCH DELAWARE RIVER AT HALE EDDY, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	0.0	0.0	0.0	0.0	0.0	0.0	5.0	2.5	3.5	12.5	9.0	11.0
2	0.0	0.0	0.0	0.5	0.0	0.5	4.0	1.5	2.5	17.5	10.5	13.5
3	0.0	0.0	0.0	2.0	0.0	1.0	3.5	1.0	2.5	16.0	12.0	14.0
4	0.0	0.0	0.0	6.0	0.0	3.0	5.5	1.0	3.0	13.5	10.0	12.0
5	0.0	0.0	0.0	7.5	2.0	4.5	7.5	1.5	4.0	11.0	8.0	9.0
6	0.0	0.0	0.0	5.0	3.0	4.0	9.5	2.0	5.5	10.5	7.5	8.5
7	0.0	0.0	0.0	3.5	2.0	3.0	10.0	4.0	6.5	14.0	7.0	10.0
8	0.0	0.0	0.0	5.0	3.0	4.0	8.5	5.5	7.0	12.0	9.5	10.5
9	0.0	0.0	0.0	4.5	4.0	4.0	7.0	3.5	5.5	14.0	10.0	12.0
10	0.0	0.0	0.0	6.5	3.5	5.0	12.5	5.5	8.5	15.0	10.0	12.5
11	0.0	0.0	0.0	6.5	0.0	3.0	10.5	6.5	8.0	17.5	11.0	14.5
12	0.0	0.0	0.0	2.5	0.0	1.0	7.0	4.5	6.0	19.5	12.5	16.0
13	0.0	0.0	0.0	1.5	0.0	0.5	8.5	2.0	5.0	21.5	14.5	17.5
14	0.0	0.0	0.0	2.0	0.0	0.5	10.5	4.0	7.0	18.5	14.5	16.0
15	0.0	0.0	0.0	1.5	0.0	0.5	10.5	4.0	7.5	17.0	12.5	14.5
16	0.0	0.0	0.0	3.0	0.0	1.0	8.5	4.0	6.0	14.5	13.0	13.5
17	0.0	0.0	0.0	0.5	0.0	0.0	5.0	3.5	4.5	14.5	12.0	13.0
18	0.0	0.0	0.0	4.0	0.0	1.5	5.5	4.5	5.0	18.0	13.5	15.5
19	0.0	0.0	0.0	2.5	0.5	1.5	6.5	5.0	5.5	20.5	11.5	16.0
20	0.0	0.0	0.0	4.5	0.0	2.0	11.0	6.0	8.0	22.0	12.5	17.0
21	0.5	0.0	0.0	3.5	0.0	1.5	12.5	9.5	11.0	22.5	13.5	18.0
22	0.0	0.0	0.0	1.0	0.0	0.5	13.5	11.0	12.0	19.0	13.5	16.5
23	0.5	0.0	0.0	3.0	0.0	1.0	15.5	10.0	12.5	16.5	7.5	12.0
24	1.0	0.5	0.5	2.5	0.0	1.0	13.0	10.5	11.5	13.0	7.5	8.5
25	0.5	0.0	0.5	5.0	0.0	2.5	11.5	8.5	10.0	14.0	6.5	10.0
26	1.0	0.5	1.0	4.5	3.0	3.5	10.5	7.5	9.0	12.5	8.5	10.0
27	3.5	0.5	2.0	4.0	2.0	2.5	13.5	7.0	10.0	11.5	8.5	10.0
28	2.5	0.0	2.0	2.0	0.5	1.0	12.0	8.0	10.0	16.0	9.5	12.5
29	2.5	0.0	0.5	5.5	0.0	2.5	14.5	6.5	10.5	20.5	11.0	15.5
30	---	---	---	3.5	1.5	2.5	12.0	9.0	10.5	16.5	11.5	13.5
31	---	---	---	8.0	2.0	4.5	---	---	---	13.5	11.0	12.0
MONTH	3.5	0.0	0.0	8.0	0.0	2.0	15.5	1.0	7.5	22.5	6.5	13.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	13.5	12.0	12.5	17.0	8.5	12.5	16.5	12.5	14.0	13.5	9.0	11.0
2	18.0	11.5	14.0	13.5	6.5	9.5	16.5	10.5	13.5	13.0	7.0	10.0
3	19.0	12.5	15.5	8.5	6.0	7.5	16.5	10.5	13.0	10.5	8.5	9.0
4	20.5	13.5	17.0	13.5	7.0	9.5	14.0	10.5	12.0	12.0	8.5	9.5
5	18.0	15.0	16.5	11.5	7.5	9.5	15.0	9.0	11.5	12.5	7.5	9.5
6	18.5	14.0	16.0	16.0	8.0	12.0	15.5	8.5	12.0	9.5	8.5	9.0
7	21.0	16.0	18.5	14.5	8.0	11.5	15.5	9.0	12.5	11.5	8.5	10.0
8	20.5	17.5	19.0	13.5	8.0	11.0	13.5	9.0	11.5	15.0	10.5	13.0
9	22.0	16.0	19.0	17.5	9.5	13.0	15.0	10.5	12.5	13.5	8.5	10.5
10	21.0	15.0	18.0	15.0	9.0	12.5	15.5	10.0	12.5	13.0	9.0	10.5
11	22.0	14.5	18.0	15.0	9.5	12.0	14.5	10.5	12.5	13.0	9.5	11.0
12	19.0	15.5	17.0	12.5	8.5	10.5	14.5	9.0	12.0	15.5	10.0	12.0
13	17.5	14.0	16.0	15.5	9.5	12.5	12.0	8.5	10.0	16.0	11.0	13.5
14	16.5	8.5	13.0	16.5	9.0	12.5	10.0	9.0	9.5	16.0	12.5	14.0
15	18.0	14.0	16.0	14.5	10.5	12.0	12.5	9.0	10.5	15.5	13.0	14.0
16	17.5	13.0	15.0	14.5	12.0	13.5	13.5	9.5	11.0	15.0	10.0	12.5
17	16.5	13.5	15.0	13.5	11.0	12.5	16.0	13.5	14.5	16.0	12.5	15.0
18	14.5	9.0	12.0	17.5	13.0	15.0	20.0	15.5	17.5	12.5	8.5	10.0
19	12.0	9.5	10.5	17.5	11.5	14.5	18.5	10.5	13.5	11.5	8.5	10.0
20	10.0	8.5	9.0	17.0	10.5	14.0	18.5	12.5	15.0	13.0	7.5	10.0
21	10.0	7.0	8.5	14.5	10.5	12.0	15.0	9.0	12.5	11.0	8.0	9.5
22	8.5	6.5	8.0	16.5	8.5	12.0	16.0	8.5	12.0	13.0	10.0	11.5
23	15.0	5.5	10.0	13.5	9.5	10.5	16.5	9.0	12.5	13.5	10.5	11.5
24	12.0	8.0	10.0	13.5	9.5	11.0	16.0	9.5	12.5	15.5	8.5	12.0
25	12.5	8.0	10.0	15.0	8.5	11.5	13.5	9.0	11.5	12.0	8.0	10.5
26	12.5	7.0	10.0	12.5	9.5	10.5	15.0	9.0	11.5	12.5	9.0	11.0
27	14.0	7.5	10.5	17.0	10.5	13.5	16.0	9.0	12.0	12.0	9.0	10.5
28	16.0	7.5	11.5	14.0	9.5	11.5	16.0	10.5	13.0	17.0	11.5	14.0
29	16.5	7.5	12.0	15.5	9.0	12.0	15.5	9.0	12.0	14.5	11.0	12.5
30	16.5	8.5	12.5	15.5	10.0	12.5	15.5	8.0	11.5	11.0	7.5	9.0
31	---	---	---	15.0	10.0	12.5	15.0	12.0	14.5	---	---	---
MONTH	22.0	5.5	13.5	17.5	6.0	12.0	20.0	8.0	12.5	17.0	7.0	11.0

DELAWARE RIVER BASIN

01427207 DELAWARE RIVER AT LORDVILLE, NY

LOCATION.--Lat 41°52'02", long 75°12'51", Wayne County, Pa., Hydrologic Unit 02040101, on right bank at site of former Lordville-Equinunk Interstate Bridge at Lordville, 9.7 mi southeast of Hancock.

DRAINAGE AREA.--1,590 mi².

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 satellite telemeter since June 1989, provides 15-minute-interval readings. From June 1987 to June 1989, water-temperature satellite telemeter provided one-hour-interval readings. From June 1973 to November 1989, water-temperature digital recorder provided one-hour-interval readings. Prior to August 1971, water-temperature recorder provided continuous recordings.

REMARKS.--Interruptions of record were due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-70, 1973, 1975-86, 1989, 1991-92) 30.5°C, June 16, 1976, July 10, 1981; minimum (water years 1968-71, 1974, 1977-78, 1980-92), 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 24.0°C, July 1; minimum, 0.0°C on many days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.0	10.0	11.5	11.0	8.5	9.5	7.5	6.5	7.0	0.0	0.0	0.0
2	16.0	12.5	14.0	11.5	10.5	11.5	7.5	6.0	7.0	0.0	0.0	0.0
3	17.0	15.0	16.0	10.5	8.5	9.5	6.0	4.0	4.5	0.0	0.0	0.0
4	18.0	16.0	16.5	8.5	6.0	7.0	4.0	2.0	3.5	0.0	0.0	0.0
5	17.0	16.0	16.5	6.0	4.0	4.5	2.0	0.0	1.0	0.5	0.0	0.5
6	16.5	14.0	15.5	5.0	3.5	4.0	1.0	0.0	0.5	1.0	0.5	1.0
7	14.0	10.5	12.0	5.0	4.0	4.5	1.5	0.5	1.0	1.5	1.0	1.0
8	12.5	9.5	10.5	5.5	4.5	5.0	3.5	1.5	2.5	1.0	0.0	0.5
9	13.5	10.0	11.5	4.5	3.5	4.0	5.0	3.5	4.5	0.5	0.0	0.0
10	15.5	11.5	13.0	5.0	3.0	4.0	5.0	4.0	5.0	1.5	0.5	1.0
11	14.0	12.0	13.0	5.5	5.0	5.0	4.0	3.0	3.0	1.0	0.0	0.5
12	13.5	12.0	12.5	5.0	4.5	4.5	4.0	2.5	3.0	0.5	0.0	0.5
13	12.5	10.5	12.0	5.0	4.5	5.0	5.5	4.0	4.5	2.0	0.5	1.0
14	11.5	9.0	10.0	6.5	5.0	5.5	7.0	5.5	6.0	3.5	2.0	2.5
15	10.0	9.5	9.5	6.5	5.5	6.0	6.0	2.5	4.0	2.5	0.0	0.5
16	12.0	9.5	10.5	7.0	6.0	---	2.0	0.0	1.0	0.0	0.0	0.0
17	10.5	9.5	9.5	---	3.5	---	0.0	0.0	0.0	0.0	0.0	0.0
18	12.0	9.0	10.5	3.5	2.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0
19	11.5	9.5	10.5	5.5	3.5	4.0	0.0	0.0	0.0	0.0	0.0	0.0
20	9.5	7.5	8.5	9.0	5.5	7.5	0.0	0.0	0.0	0.0	0.0	0.0
21	8.5	7.0	7.5	10.0	9.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0
22	9.5	6.5	8.0	10.0	9.5	10.0	0.0	0.0	0.0	0.0	0.0	0.0
23	11.0	8.0	9.5	9.5	9.0	9.5	0.0	0.0	0.0	0.0	0.0	0.0
24	12.0	9.5	10.5	9.0	7.5	9.0	0.0	0.0	0.0	0.0	0.0	0.0
25	13.0	11.0	12.0	7.5	4.5	6.0	0.0	0.0	0.0	0.0	0.0	0.0
26	13.5	12.0	12.5	4.5	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
27	15.0	13.0	14.0	3.0	2.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
28	15.0	12.0	14.0	4.0	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
29	12.0	9.5	10.5	5.5	4.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
30	9.5	7.5	8.5	6.5	5.5	6.0	0.0	0.0	0.0	0.0	0.0	0.0
31	9.0	7.0	8.0	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
MONTH	18.0	6.5	11.5	---	2.0	---	7.5	0.0	2.0	3.5	0.0	0.5

DELAWARE RIVER BASIN

01427207 DELAWARE RIVER AT LORDVILLE, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	0.0	0.0	0.0	0.0	0.0	0.0	5.5	3.5	4.5	11.5	9.5	10.5
2	0.0	0.0	0.0	0.0	0.0	0.0	4.5	2.5	3.5	15.5	10.5	13.0
3	0.0	0.0	0.0	0.0	0.0	0.0	4.0	2.5	3.0	15.0	13.5	14.5
4	0.0	0.0	0.0	0.5	0.0	0.0	4.5	2.0	3.0	14.0	12.0	13.0
5	0.0	0.0	0.0	1.5	0.0	0.5	5.5	2.5	4.0	12.5	9.5	10.5
6	0.0	0.0	0.0	1.5	1.0	1.0	7.5	3.5	5.5	---	8.5	---
7	0.0	0.0	0.0	2.0	1.0	1.5	8.0	5.5	6.5	12.0	8.0	10.0
8	0.0	0.0	0.0	4.0	2.0	3.0	8.5	7.0	7.5	12.0	11.0	11.5
9	0.0	0.0	0.0	5.0	4.0	4.5	7.0	5.5	6.0	14.0	11.5	12.5
10	0.0	0.0	0.0	6.0	4.0	4.5	10.0	6.0	8.0	15.0	12.5	14.0
11	0.0	0.0	0.0	6.0	1.5	4.0	10.0	7.5	8.5	17.5	14.0	15.5
12	0.0	0.0	0.0	1.5	0.5	1.0	7.5	5.5	6.5	19.5	15.0	17.0
13	0.0	0.0	0.0	1.0	0.0	0.5	6.5	3.5	5.0	20.5	17.0	18.5
14	0.0	0.0	0.0	0.5	0.0	0.0	8.5	5.0	6.5	20.0	17.0	18.5
15	0.0	0.0	0.0	0.5	0.0	0.0	9.0	5.5	7.5	17.5	15.5	16.5
16	0.0	0.0	0.0	1.0	0.0	0.5	8.5	5.5	7.0	16.5	14.5	15.5
17	0.0	0.0	0.0	0.0	0.0	0.0	5.5	4.5	5.0	---	---	---
18	0.0	0.0	0.0	2.0	0.0	1.0	5.5	5.0	5.0	17.0	14.5	15.5
19	0.0	0.0	0.0	2.0	1.0	1.5	6.0	5.0	5.5	19.0	14.0	16.5
20	0.0	0.0	0.0	3.0	0.5	1.5	9.0	6.0	7.0	20.0	15.5	17.5
21	0.0	0.0	0.0	3.0	1.0	2.0	11.5	9.0	10.0	21.0	16.0	19.0
22	0.0	0.0	0.0	1.5	0.0	0.5	12.0	11.0	11.5	22.5	17.5	20.0
23	0.0	0.0	0.0	1.5	0.0	0.5	13.0	10.5	11.5	22.5	19.0	21.0
24	0.0	0.0	0.0	1.5	0.0	0.5	12.5	11.0	11.5	21.0	14.5	18.0
25	0.0	0.0	0.0	2.5	0.0	1.5	11.0	9.0	10.0	16.0	12.0	14.0
26	0.0	0.0	0.0	3.5	2.5	3.0	9.5	7.5	8.5	15.0	13.0	14.0
27	0.0	0.0	0.0	3.5	2.5	3.0	11.0	7.5	9.5	13.0	12.0	12.5
28	0.0	0.0	0.0	2.5	1.0	2.0	11.0	9.0	10.0	15.5	11.5	13.5
29	0.0	0.0	0.0	4.0	0.5	2.0	12.0	8.0	10.0	18.0	13.5	15.5
30	---	---	---	3.5	3.0	3.0	11.5	10.0	10.5	17.0	15.5	16.5
31	---	---	---	6.0	3.0	4.5	---	---	---	15.0	14.0	14.5
MONTH	0.0	0.0	0.0	6.0	0.0	1.5	13.0	2.0	7.5	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	14.0	12.5	13.0	24.0	21.0	22.5	19.0	17.0	17.5	18.5	17.0	18.0
2	16.0	12.0	14.0	22.5	20.0	21.5	20.5	17.0	18.5	18.0	15.5	16.5
3	17.5	14.0	15.5	20.5	13.5	16.0	21.0	18.0	19.5	17.0	15.5	16.0
4	19.0	15.5	17.0	16.5	13.0	14.5	20.5	19.0	19.5	18.0	14.5	16.0
5	18.5	16.5	17.0	18.5	16.0	17.5	19.0	17.0	18.0	17.0	15.0	15.5
6	16.5	15.0	15.5	20.5	17.0	18.5	20.5	16.5	18.5	16.0	---	---
7	18.0	15.0	16.5	21.0	18.5	19.5	21.5	18.0	19.5	14.5	13.5	---
8	19.5	17.0	18.0	21.0	18.5	19.5	20.5	18.5	19.5	18.5	14.5	16.5
9	20.0	17.0	18.5	22.0	19.0	20.5	20.0	18.5	19.0	20.0	18.5	19.5
10	20.5	17.0	18.5	23.0	20.0	21.5	21.0	19.0	19.5	20.5	17.5	19.0
11	21.0	16.5	18.5	22.5	20.5	21.5	20.5	19.0	20.0	19.0	16.0	17.0
12	21.5	17.0	19.5	21.5	20.0	20.5	20.5	17.5	19.5	18.0	15.0	16.5
13	22.5	18.5	20.5	21.5	19.5	20.5	19.5	17.0	17.5	18.5	15.5	17.0
14	23.0	19.5	21.0	23.5	19.5	21.5	17.0	16.0	16.5	19.5	16.5	18.0
15	23.0	19.5	21.5	22.5	21.0	21.5	16.5	15.5	16.0	20.0	17.0	18.5
16	22.0	19.0	20.5	21.0	17.5	19.0	16.5	16.0	16.5	21.0	18.5	19.5
17	23.0	19.5	21.0	20.5	19.0	19.5	17.5	16.0	17.0	21.5	19.0	20.0
18	21.5	19.5	20.0	21.0	18.5	19.5	20.5	17.5	19.0	20.5	17.0	19.5
19	19.5	18.0	18.5	23.0	20.0	21.5	20.5	19.0	19.5	17.5	15.0	16.0
20	18.5	17.0	18.0	23.5	20.5	22.0	20.0	17.5	19.0	16.0	13.0	14.5
21	17.0	15.0	16.0	23.0	20.0	21.5	21.0	17.0	19.0	15.0	14.0	14.5
22	15.0	12.5	13.5	22.0	18.0	20.0	20.5	17.0	19.0	16.5	15.0	15.5
23	16.5	11.5	14.0	21.0	17.5	19.0	22.0	18.5	20.0	16.0	14.0	15.0
24	17.5	15.5	16.5	17.5	16.0	17.0	22.5	19.5	---	15.0	12.0	13.5
25	17.5	15.5	16.5	20.0	17.0	18.0	22.5	21.0	---	15.5	12.5	13.5
26	19.0	15.5	17.0	19.5	18.0	18.5	22.5	20.5	21.5	14.0	12.5	13.0
27	20.0	16.5	18.0	20.5	16.5	18.5	22.5	21.0	21.5	14.0	13.0	13.5
28	21.5	17.5	19.5	20.0	18.0	19.0	22.5	20.5	21.5	16.0	13.0	14.5
29	23.0	19.0	21.0	20.0	16.5	18.0	22.0	17.5	20.0	15.5	13.0	14.5
30	23.5	20.5	22.0	21.0	18.0	19.5	18.0	15.5	17.0	13.0	10.5	11.5
31	---	---	---	20.0	17.0	18.5	20.5	17.0	18.0	---	---	---
MONTH	23.5	11.5	18.0	24.0	13.0	19.5	22.5	15.5	---	21.5	---	---

DELAWARE RIVER BASIN

01427510 DELAWARE RIVER AT CALLICOON, NY

LOCATION.--Lat 41°45'24", long 75°03'28", 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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD (corrected).--June 1975 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area. WDR NY-86-1: 1975-84 (M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 734.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Subsequent to September 1954, entire flow from 371 mi² of drainage area controlled by Pepacton Reservoir (see Reservoirs in Delaware River Basin), and subsequent to October 1963, entire flow from 454 mi² 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 ft³/s, Mar. 15, 1986, gage-height, 13.42 ft; maximum gage height, 14.83 ft, Jan. 9, 1979 (ice jam); minimum discharge, 307 ft³/s, Aug. 23, 1985; minimum gage height, 2.20 ft, Sept. 13, 1977, Aug. 23, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,600 ft³/s, Nov. 23, gage height, 7.63 ft; minimum, 417 ft³/s, Oct. 10, gage height, 2.45 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	663	545	e1500	e1200	e1200	e1600	2940	2580	e10000	735	3060	698
2	528	736	e1400	e980	e940	e1400	2780	2400	e6000	722	2140	768
3	525	766	2900	e1100	e700	e1420	2430	3130	e4100	1060	1620	898
4	541	784	4300	e1400	e880	e1350	2170	3120	2980	1140	1560	987
5	1300	865	3220	e1900	e840	e1600	1950	2710	2300	882	1670	1250
6	1320	1110	2500	e2100	e810	1880	1760	2830	3580	897	1430	1220
7	724	1140	2170	e1750	e780	2140	1590	2600	4470	797	1230	1090
8	507	1150	2020	e1550	e740	2980	1570	2290	2650	749	1110	695
9	531	1060	2190	e1450	e690	3260	1530	2340	2130	819	1560	762
10	463	1000	2520	e1350	e450	3150	1570	2150	1740	876	1990	914
11	521	1020	2320	e1250	e600	8370	1620	1900	1480	780	1610	1310
12	1190	1080	2090	e1200	e580	9630	3100	1710	1300	714	1350	1230
13	865	1150	2000	e1150	e560	6070	3740	1550	1210	702	1170	778
14	529	888	2610	1770	e540	e4000	3060	1470	1240	708	1120	632
15	638	913	3330	3680	e580	e3000	2650	1330	1100	849	1120	578
16	614	873	2800	e2300	e800	e2400	2370	1370	960	1550	1060	630
17	1140	789	e2200	e1450	e1000	e2000	3940	1400	864	1470	817	638
18	967	659	e1750	e1500	e1200	e1800	7320	1270	910	1610	765	713
19	871	649	e1400	e1300	e1300	1810	9750	1170	961	1620	820	1130
20	720	725	e1200	e900	e1500	1570	7300	1060	961	1250	905	1090
21	622	709	e1500	e980	e1700	1430	5720	973	960	1080	696	828
22	558	1370	e1600	e1200	e1500	1240	5260	930	934	996	924	775
23	506	14600	1470	e1500	e1320	e1150	5690	1110	911	937	839	1000
24	521	8410	e1300	e2100	e1310	e1100	4780	1130	911	1020	798	1060
25	666	e5400	e1100	e2400	1360	e1050	6220	1130	932	1020	774	668
26	1030	e3700	e980	e1600	1360	1300	6370	1040	936	957	864	926
27	686	e2700	e880	e1200	e1300	5130	5280	978	999	1490	1020	976
28	526	e2200	e890	e1250	e1250	5970	4300	877	868	1290	880	816
29	486	e1900	e940	e1300	e1300	3960	3570	800	804	1090	944	666
30	484	e1700	e1400	e1300	---	3200	2970	733	757	1470	1150	593
31	500	---	e1550	e1250	---	2930	---	2480	---	1760	771	---
TOTAL	21742	60591	60030	47360	29090	89890	115300	52561	59948	33040	37767	26319
MEAN	701	2020	1936	1528	1003	2900	3843	1696	1998	1066	1218	877
MAX	1320	14600	4300	3680	1700	9630	9750	3130	10000	1760	3060	1310
MIN	463	545	880	900	450	1050	1530	733	757	702	696	578

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1992, BY WATER YEAR (WY)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
MEAN	2302	2547	2470	2164	2904	4668	5041	3537	1714	1238	1236	1515						
MAX	6545	4508	6065	7594	7993	11080	9019	7866	3228	2406	2182	3716						
(WY)	1978	1987	1978	1978	1976	1977	1983	1984	1984	1976	1976	1977						
MIN	701	1130	1127	587	611	1177	1496	935	734	777	560	877						
(WY)	1992	1979	1990	1977	1980	1981	1985	1985	1985	1981	1985	1992						

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 satellite telemeter since May 1989, provides 15-minute-interval readings. Prior to May 1989, water-temperature digital recorder provided one-hour-interval punches.

REMARKS.--Interruptions of record were due to malfunctions of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, (water years 1976-92), 30.5°C, July 12, 1987; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 26.5°C, July 20, but may have been higher during period of instrument malfunction; minimum, 0.0°C on many days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	11.0	---	---	---	---	---	---	0.5	0.0	0.0	
2	---	---	---	---	---	---	---	---	0.0	0.0	0.0	
3	---	---	---	---	---	---	---	---	0.5	0.0	0.0	
4	19.0	16.0	---	---	---	---	---	---	0.5	0.0	0.5	
5	18.5	17.0	18.0	6.5	4.5	5.5	---	---	0.5	0.5	0.5	
6	18.0	14.5	16.5	5.0	3.5	4.5	---	---	0.5	0.0	0.5	
7	14.5	12.0	13.0	5.0	3.5	4.0	---	---	0.5	0.0	0.5	
8	13.0	10.5	12.0	5.5	4.0	4.5	---	---	0.0	0.0	0.0	
9	13.5	10.5	12.0	4.5	3.0	3.5	---	---	0.0	0.0	0.0	
10	14.5	11.5	13.0	5.0	3.0	---	---	---	1.0	0.0	0.5	
11	14.5	12.5	13.5	---	---	---	4.5	---	---	0.0	---	
12	13.5	11.0	12.0	---	4.0	---	4.0	2.5	3.5	0.0	---	
13	13.0	11.0	12.0	5.0	4.5	4.5	5.0	4.0	4.5	2.0	0.0	1.0
14	12.5	9.5	11.0	6.5	4.5	5.5	6.5	5.0	6.0	3.5	1.5	2.0
15	11.5	10.0	10.5	6.0	4.5	5.5	5.0	3.0	4.0	1.5	0.0	0.5
16	12.5	10.5	11.5	7.5	5.0	6.5	3.0	0.0	1.5	0.0	0.0	0.0
17	11.0	9.0	10.0	5.0	3.5	4.0	0.0	0.0	0.0	0.0	0.0	0.0
18	13.0	9.5	11.0	4.5	2.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0
19	12.0	10.0	11.0	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
20	10.0	8.0	9.0	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
21	9.5	7.0	8.5	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
22	10.0	7.0	8.5	10.0	---	---	0.0	0.0	0.0	0.0	0.0	0.0
23	11.5	8.0	9.5	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
24	12.0	9.5	11.0	9.5	8.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0
25	14.0	11.0	12.5	8.0	5.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0
26	14.0	12.5	13.0	5.0	3.0	4.5	0.5	0.0	0.0	0.0	0.0	0.0
27	15.5	13.0	14.5	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
28	15.0	12.0	14.0	---	---	---	0.5	0.0	0.0	0.0	0.0	0.0
29	12.0	10.0	11.0	5.0	---	---	0.0	0.0	0.0	0.0	0.0	0.0
30	---	8.0	---	---	---	---	0.5	0.0	0.0	0.0	0.0	0.0
31	---	---	---	---	---	---	0.5	0.0	0.0	0.0	0.0	0.0
MONTH	---	---	---	---	---	---	---	---	---	0.0	---	---

DELAWARE RIVER BASIN

01427510 DELAWARE RIVER AT CALLICOON, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	0.0	0.0	0.0	0.0	0.0	0.0	5.0	3.5	4.5	13.0	10.0	11.0
2	0.5	0.0	0.0	0.0	0.0	0.0	4.5	3.0	3.5	16.0	11.0	13.5
3	0.5	0.0	0.0	0.5	0.0	0.0	4.0	2.5	3.0	16.5	13.5	15.0
4	0.0	0.0	0.0	1.5	0.0	0.5	5.0	2.0	3.5	14.5	12.5	13.5
5	0.0	0.0	0.0	2.5	0.0	1.0	6.0	2.0	4.0	12.5	10.0	11.5
6	0.5	0.0	0.0	1.5	0.5	1.0	8.0	3.0	5.5	10.5	9.0	9.5
7	0.0	0.0	0.0	1.0	0.5	1.0	8.5	4.5	6.0	12.5	8.5	10.5
8	0.0	0.0	0.0	3.0	1.0	2.0	8.5	6.5	7.5	12.5	10.5	11.5
9	0.0	0.0	0.0	5.0	3.0	4.0	7.5	5.5	6.5	15.0	11.5	13.0
10	0.0	0.0	0.0	5.5	4.0	4.5	11.0	6.0	8.5	15.5	12.5	14.0
11	0.0	0.0	0.0	6.0	2.0	4.5	9.5	7.5	8.5	19.0	14.0	16.0
12	0.0	0.0	0.0	2.0	0.5	1.0	7.5	5.5	7.0	20.5	14.5	17.5
13	0.0	0.0	0.0	1.0	0.0	0.5	7.0	4.5	5.5	21.5	17.0	19.0
14	0.0	0.0	0.0	0.5	0.0	0.0	8.5	5.0	6.5	20.0	17.5	19.0
15	0.0	0.0	0.0	0.5	0.0	0.0	10.0	6.0	7.5	19.5	16.0	17.5
16	0.0	0.0	0.0	0.5	0.0	0.0	8.0	5.5	7.0	17.5	15.0	16.0
17	0.5	0.0	0.0	0.0	0.0	0.0	5.5	5.0	5.0	---	---	---
18	0.0	0.0	0.0	2.0	0.0	0.5	5.5	5.0	5.0	18.0	14.5	16.0
19	0.0	0.0	---	---	---	---	5.5	5.0	5.5	20.0	14.0	17.0
20	---	---	---	3.0	0.0	1.5	8.0	5.5	6.5	21.5	14.5	18.0
21	---	---	---	3.0	0.0	1.5	11.0	8.0	9.5	22.5	15.5	19.0
22	---	---	---	1.5	0.0	0.5	12.5	11.0	11.5	23.5	17.0	20.5
23	---	---	---	1.5	0.0	0.5	13.0	11.0	12.0	24.5	18.5	21.5
24	---	0.0	0.0	2.5	0.0	1.0	13.0	11.5	12.0	22.5	16.5	19.0
25	0.0	0.0	0.0	4.0	0.0	1.5	11.5	9.5	10.5	18.0	14.5	16.0
26	0.0	0.0	0.0	3.5	2.0	2.5	9.5	8.5	9.0	16.0	13.5	14.0
27	0.5	0.0	0.0	3.0	2.0	3.0	11.0	8.0	9.5	14.5	13.0	13.5
28	0.5	0.0	0.0	3.0	1.0	2.0	11.0	9.0	10.0	17.0	12.0	14.5
29	0.0	0.0	0.0	3.5	0.5	2.0	12.5	9.0	10.5	19.5	13.0	16.0
30	---	---	---	3.5	2.0	3.0	11.5	10.0	10.5	18.5	15.5	16.5
31	---	---	---	6.0	3.0	4.0	---	---	---	16.0	13.5	14.5
MONTH	---	---	---	---	---	---	13.0	2.0	7.5	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	14.0	13.0	13.5	26.0	22.0	24.5	19.5	17.5	18.5	20.0	17.0	18.5
2	15.5	12.5	14.0	25.5	21.0	23.5	22.0	17.5	19.5	21.0	16.5	19.0
3	18.0	14.5	16.0	24.0	19.0	21.0	23.0	18.5	21.0	20.0	18.0	19.0
4	20.0	16.0	17.5	20.0	17.0	18.5	21.5	19.5	21.0	21.5	17.5	19.5
5	18.0	16.5	17.5	19.0	17.0	18.0	21.5	18.0	19.5	20.0	17.5	19.0
6	18.5	16.0	17.0	22.5	17.5	20.0	22.5	17.5	20.0	18.5	17.0	17.5
7	18.0	15.5	17.0	23.0	18.5	21.0	23.5	18.5	21.0	17.5	16.5	17.0
8	20.0	17.5	18.5	23.5	19.0	21.5	23.0	19.5	21.0	19.5	16.5	18.0
9	21.5	17.5	19.5	24.5	20.5	22.5	22.0	20.0	21.0	22.0	18.5	20.0
10	22.0	17.0	19.5	25.0	21.0	23.0	22.5	19.0	21.0	23.5	20.0	21.5
11	22.5	17.0	20.0	24.5	22.0	23.5	22.5	20.0	21.0	21.5	18.5	20.0
12	23.5	17.5	20.5	23.5	21.5	22.5	22.5	19.0	21.0	19.0	16.0	17.5
13	24.5	18.5	21.5	24.0	21.5	23.0	20.5	18.0	19.0	19.5	15.0	17.5
14	25.5	20.0	22.5	25.5	21.0	23.0	19.0	17.5	18.5	20.0	16.0	18.0
15	25.0	21.0	23.0	25.0	23.0	24.0	18.0	17.0	17.5	20.5	17.0	19.0
16	24.5	19.0	22.0	23.0	21.0	22.0	17.5	16.5	17.0	22.5	18.5	20.5
17	24.5	19.5	22.0	21.0	19.5	20.0	18.5	17.0	17.5	23.0	19.5	21.5
18	23.0	20.0	21.5	23.5	19.5	21.5	20.5	17.5	19.0	22.5	20.0	21.5
19	21.0	19.5	20.5	25.0	20.5	22.5	20.5	18.5	19.5	22.0	18.0	20.5
20	21.0	19.0	20.0	26.5	21.5	24.0	21.5	18.0	19.5	19.0	15.5	17.0
21	19.0	17.0	18.0	24.5	22.0	23.0	22.5	17.0	---	17.0	15.0	16.0
22	17.0	14.5	15.5	24.5	20.0	22.5	23.5	18.0	---	18.0	16.5	17.0
23	19.0	12.5	16.0	23.0	19.5	20.5	24.0	19.0	---	17.5	15.0	16.0
24	19.0	16.0	17.5	20.0	18.5	19.5	24.5	20.0	---	16.0	12.5	14.5
25	20.5	16.5	18.5	22.5	18.0	20.0	25.5	---	---	15.5	12.0	14.0
26	21.5	16.5	19.0	21.5	19.5	20.0	---	22.0	---	15.0	14.0	14.5
27	22.5	18.0	20.5	23.0	18.5	20.5	---	22.5	---	15.0	14.5	15.0
28	24.0	18.5	21.5	20.5	18.5	19.5	24.5	22.5	23.5	16.5	14.0	15.5
29	25.0	19.5	22.5	22.5	18.0	20.5	23.0	20.0	21.5	15.5	13.0	14.5
30	26.0	21.5	23.5	22.5	19.0	20.5	21.5	18.0	20.0	13.0	11.5	12.0
31	---	---	---	21.0	19.0	20.0	20.0	18.0	19.5	---	---	---
MONTH	26.0	12.5	19.0	26.5	17.0	21.5	---	---	---	23.5	11.5	17.5

LOCATION.--Lat 41°30'32", long 74°59'10", 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 mi².

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.--Records good except those for estimated daily discharges, which are poor. Subsequent to September 1954, entire flow from 371 mi² of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi² 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 station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 130,000 ft³/s, Aug. 19, 1955, gage height, 26.40 ft, from floodmarks in gage house, from rating curve extended above 55,000 ft³/s, on basis of slope-area measurement at gage height 23.19 ft; minimum discharge, 122 ft³/s, Sept. 5, 1953, gage height, 1.11 ft; minimum daily, 126 ft³/s, Sept. 4, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,400 ft³/s, Nov. 23, gage height, 9.70 ft; minimum daily discharge, about 500 ft³/s, Feb. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	765	560	1700	e1400	e1400	1900	3430	3000	11600	850	3250	764
2	675	699	1530	e1100	e1200	1730	3270	2760	8100	817	2580	821
3	587	836	3050	1370	e800	1850	2920	3150	5040	989	1960	1020
4	583	851	5180	1740	e1100	1700	2620	3550	3610	1280	1730	1050
5	934	876	3970	2240	e1050	1970	2380	3030	2840	1120	1850	1260
6	1530	1080	3030	2480	e990	2260	2160	3090	3100	1080	1720	1400
7	1060	1220	2600	e2100	e940	2420	1970	2930	5620	978	1460	1290
8	676	1220	2360	e1750	e1000	3190	1930	2610	3330	882	1300	1000
9	611	1180	2410	e1600	e900	3600	1900	2600	2630	913	1420	713
10	560	1110	2680	e1500	e500	3480	1890	2540	2200	1000	2100	1080
11	587	1130	2630	e1450	e800	6850	1970	2230	1850	943	1900	1270
12	916	1150	2360	e1400	e690	11600	3000	2010	1620	855	1570	1550
13	1240	1310	2270	1430	e660	6870	4220	1830	1490	834	1360	1060
14	775	1070	2710	1700	e650	4720	3490	1720	1420	836	1260	795
15	650	1010	3640	3760	e640	3710	3070	1580	1410	903	1260	705
16	820	993	3220	2880	e700	2900	2740	1560	1180	1450	1220	661
17	1020	956	2590	e1700	e1000	2480	3890	1670	1060	1790	1080	794
18	1280	810	e2100	1850	e1300	2230	7890	1520	1000	1490	950	663
19	1050	702	e1700	e1500	e1400	2190	11600	1390	1130	1930	963	1120
20	934	799	e1400	e1000	e1550	1930	8710	1260	1200	1490	1080	1260
21	782	813	1890	e1100	e2000	1740	6520	1150	1150	1240	906	1050
22	688	1140	1930	e1500	e1850	1570	5670	1070	1100	1130	925	877
23	625	14100	1730	e1700	e1600	1450	6140	1080	1040	1080	1010	1010
24	576	10600	e1550	2520	e1400	1420	5260	1270	1100	1130	934	1290
25	647	6020	e1400	3100	e1500	1310	6590	1370	1100	1180	892	935
26	941	4080	e1150	2250	e1480	1420	7200	1240	1090	1140	932	997
27	998	3050	e1000	e1400	e1450	5030	5910	1140	1120	1530	1040	897
28	666	2460	e1050	e1500	e1450	7390	4810	1050	1050	1590	1110	1140
29	576	2120	e1100	e1600	e1450	4710	3990	954	947	1300	990	844
30	544	1890	1670	e1600	---	3760	3410	872	892	1530	1230	719
31	554	---	1820	e1500	---	3440	---	2080	---	1670	1120	---
TOTAL	24850	65835	69420	55720	33450	102820	130550	59306	72019	36950	43102	30035
MEAN	802	2194	2239	1797	1153	3317	4352	1913	2401	1192	1390	1001
MAX	1530	14100	5180	3760	2000	11600	11600	3550	11600	1930	3250	1550
MIN	544	560	1000	1000	500	1310	1890	872	892	817	892	661

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

MEAN	2129	2636	2992	2521	3107	5118	6049	4094	2325	1560	1346	1545
MAX	7404	6481	7375	8335	9389	12050	12650	8615	6701	3911	2329	4186
(WY)	1978	1973	1974	1978	1976	1977	1970	1984	1972	1973	1976	1987
MIN	527	610	1181	687	712	1399	1878	1161	673	328	465	448
(WY)	1964	1965	1989	1977	1980	1981	1985	1965	1965	1965	1965	1965

DELAWARE RIVER BASIN

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.--Interruption of record was due to malfunction of recording instrument due to vandalism.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-75, 1980-81, 1983, 1985-92), 32.0°C, Aug. 2, 3, 1975, July 10, 1981, July 12, 1987; minimum (water years 1968, 1977-92), 0.0°C, on many days during winter periods, each year except water years 1980-82.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 29.0°C, July 14, but may have been higher during period of instrument malfunction; minimum, 0.0°C on many days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	16.5	12.5	14.0	12.5	10.5	11.5	6.5	6.0	6.5	0.5	0.0	0.0
2	18.5	14.0	16.0	12.5	11.0	12.0	7.0	6.5	6.5	0.0	0.0	0.0
3	18.5	15.5	17.0	13.0	9.5	11.0	6.5	5.0	6.0	1.0	0.0	0.5
4	20.0	17.0	18.0	10.5	7.5	9.0	5.0	3.0	4.5	0.5	0.5	0.5
5	20.5	17.5	18.5	9.5	5.5	7.5	3.0	1.5	2.5	0.5	0.5	0.5
6	19.0	16.0	18.0	7.5	5.0	6.0	1.5	1.0	1.5	0.5	0.5	0.5
7	16.0	13.0	15.0	6.0	5.0	5.5	1.5	1.0	1.5	0.5	0.0	0.5
8	16.0	12.0	13.5	6.0	4.5	5.0	3.0	1.5	2.0	0.5	0.0	0.0
9	15.0	12.0	13.5	5.0	3.5	4.5	4.0	3.0	3.5	0.0	0.0	0.0
10	16.0	12.5	14.5	5.5	4.0	4.5	5.0	4.0	4.5	1.0	0.0	0.5
11	14.5	13.0	14.0	5.0	4.5	5.0	5.0	4.0	4.5	0.0	0.0	0.0
12	15.0	12.0	13.0	5.5	4.5	5.0	4.5	3.5	4.0	1.0	0.0	0.5
13	14.0	11.5	12.5	5.5	5.0	5.0	4.5	4.0	4.5	2.5	0.0	1.0
14	14.5	10.0	12.0	8.0	5.0	6.0	6.0	4.5	5.5	2.5	1.0	1.5
15	12.0	11.0	11.5	6.5	5.0	6.0	5.5	4.0	4.5	1.0	0.0	0.5
16	15.0	11.0	12.5	8.0	5.5	6.5	3.5	1.5	2.5	0.0	0.0	0.0
17	11.0	10.5	11.0	7.0	4.0	5.0	1.0	0.0	0.5	0.0	0.0	0.0
18	14.5	10.5	12.0	6.0	3.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
19	13.5	10.5	12.0	7.5	4.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0
20	13.5	9.0	11.0	9.5	6.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0
21	12.0	8.5	10.0	9.0	8.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0
22	13.0	8.5	10.0	9.5	9.0	9.5	0.5	0.0	0.5	0.0	0.0	0.0
23	12.5	9.5	11.0	10.0	9.5	10.0	0.0	0.0	0.0	0.0	0.0	0.0
24	13.0	10.5	11.5	10.0	9.0	9.5	0.5	0.0	0.5	0.0	0.0	0.0
25	14.5	11.5	13.0	9.0	6.5	7.5	0.5	0.0	0.0	0.0	0.0	0.0
26	16.0	13.0	14.5	6.5	4.5	5.5	0.0	0.0	0.0	0.0	0.0	0.0
27	17.5	14.0	15.5	4.5	3.0	3.5	0.5	0.0	0.5	0.0	0.0	0.0
28	16.5	13.0	15.0	3.5	3.0	3.5	0.5	0.0	0.5	0.0	0.0	0.0
29	14.0	11.0	12.5	5.0	3.5	4.0	0.5	0.0	0.5	0.0	0.0	0.0
30	13.0	9.0	11.0	6.0	4.5	5.5	1.0	0.0	0.5	0.0	0.0	0.0
31	11.5	9.0	10.5	---	---	---	0.5	0.0	0.0	0.0	0.0	0.0
MONTH	20.5	8.5	13.5	13.0	3.0	6.5	7.0	0.0	2.0	2.5	0.0	0.0

DELAWARE RIVER BASIN

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	0.0	0.0	0.0	0.5	0.0	0.5	5.0	4.5	4.5	12.5	11.0	11.5
2	0.0	0.0	0.0	1.0	0.5	0.5	4.5	3.5	4.0	15.0	11.5	13.5
3	0.0	0.0	0.0	1.0	0.5	0.5	4.0	3.0	3.5	16.5	14.5	15.0
4	0.0	0.0	0.0	3.5	0.5	1.5	5.0	3.0	4.0	15.0	13.5	14.5
5	0.5	0.0	0.0	3.0	0.5	1.5	6.0	3.0	4.5	13.0	11.0	12.5
6	0.5	0.0	0.0	1.5	0.5	1.0	7.5	4.0	5.5	11.0	10.0	10.5
7	0.5	0.0	0.0	1.0	0.5	1.0	8.5	5.0	6.5	11.5	9.5	10.5
8	0.0	0.0	0.0	2.5	1.0	2.0	9.0	6.5	7.5	12.0	11.0	11.5
9	0.0	0.0	0.0	4.0	2.5	3.0	8.0	6.5	7.5	14.5	11.5	13.0
10	0.5	0.0	0.5	5.5	4.0	4.5	10.5	7.0	8.5	15.5	13.0	14.0
11	0.5	0.0	0.5	6.0	3.5	5.5	9.0	8.5	9.0	18.0	14.5	16.0
12	0.5	0.5	0.5	3.5	1.5	2.0	8.0	6.5	8.0	20.0	15.5	17.5
13	0.5	0.5	0.5	1.0	0.5	0.5	7.0	5.5	6.5	21.0	17.0	19.0
14	0.5	0.5	0.5	1.0	0.0	0.5	8.0	6.0	7.0	21.0	18.0	19.5
15	0.5	0.5	0.5	1.0	0.0	0.5	9.5	7.0	8.0	20.0	18.0	19.0
16	0.5	0.5	0.5	1.5	0.0	0.5	8.5	7.0	8.0	18.5	16.5	17.5
17	0.5	0.0	0.5	0.5	0.0	0.5	7.0	5.5	6.5	16.5	15.5	16.0
18	0.0	0.0	0.0	2.0	0.0	1.0	5.5	5.0	5.5	18.0	15.5	16.5
19	0.5	0.0	0.5	0.5	0.0	0.5	5.5	5.0	5.5	20.5	15.0	17.5
20	0.5	0.0	0.0	3.0	0.0	1.5	8.0	5.5	6.5	21.0	15.5	18.5
21	0.5	0.0	0.5	3.5	0.5	2.0	10.5	8.0	9.0	22.5	16.5	19.5
22	0.5	0.0	0.5	2.0	0.5	1.0	12.0	10.5	11.5	24.5	18.0	21.0
23	1.5	0.5	1.0	3.0	0.0	1.0	13.5	11.5	12.5	25.0	19.5	22.0
24	0.5	0.5	0.5	3.0	0.0	1.5	13.0	12.0	12.5	22.0	17.5	20.0
25	0.5	0.5	0.5	5.0	0.0	2.5	12.5	10.0	11.5	18.5	16.0	17.0
26	0.5	0.5	0.5	4.0	2.5	3.5	10.0	9.0	9.5	16.0	15.0	15.5
27	1.5	0.5	1.0	4.0	3.0	3.5	10.5	8.5	9.5	15.5	14.0	14.5
28	1.5	0.5	1.0	3.0	2.0	2.5	10.5	9.5	10.5	18.5	12.5	15.5
29	1.0	0.5	0.5	3.0	1.5	2.5	12.5	10.0	11.0	19.5	13.5	16.5
30	---	---	---	3.5	2.5	3.0	11.5	11.0	11.0	17.5	15.5	16.5
31	---	---	---	5.5	3.5	4.5	---	---	---	16.5	15.0	16.0
MONTH	1.5	0.0	0.5	6.0	0.0	2.0	13.5	3.0	8.0	25.0	9.5	16.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	14.5	13.5	14.0	28.5	23.5	25.5	21.5	19.5	20.5	21.5	18.5	20.5
2	15.5	13.0	14.0	27.0	22.5	24.5	21.5	19.0	20.0	22.5	18.0	20.0
3	17.5	14.5	16.0	24.0	21.0	22.5	23.0	20.0	21.5	20.5	19.5	20.0
4	19.0	17.0	18.0	24.0	20.5	21.5	23.5	21.0	22.0	24.5	19.5	21.5
5	18.5	17.5	18.5	22.5	19.5	21.0	22.5	20.0	21.5	21.5	19.5	20.5
6	19.0	17.5	18.0	23.5	19.0	21.0	23.5	19.5	21.5	20.0	19.0	19.5
7	18.5	17.5	18.0	24.5	19.5	22.0	24.0	20.0	22.0	19.5	18.5	19.0
8	20.0	18.0	19.0	24.5	20.5	22.5	24.0	20.5	22.0	21.5	18.0	20.0
9	21.5	18.5	20.0	27.0	22.0	24.0	24.5	21.5	23.0	23.0	19.5	21.0
10	22.0	19.0	20.5	26.0	22.5	24.5	24.0	21.5	22.5	24.5	21.0	22.5
11	22.5	18.5	20.5	26.0	23.5	24.5	23.5	21.5	22.5	23.5	20.5	22.0
12	23.5	19.0	21.5	24.0	22.5	23.5	24.0	20.5	22.0	21.5	19.0	20.0
13	24.5	20.0	22.0	27.5	22.5	24.5	21.5	20.0	20.5	21.5	17.0	19.0
14	25.5	20.5	23.0	29.0	23.0	25.5	20.5	19.5	20.0	21.5	17.0	19.0
15	26.0	22.0	24.0	27.5	25.0	26.0	19.5	19.0	19.5	21.5	18.0	19.5
16	25.5	21.0	23.0	25.0	23.5	24.0	19.0	18.0	18.5	23.0	19.0	21.0
17	25.5	21.0	23.5	23.5	21.5	22.0	19.0	18.0	18.5	24.0	20.5	22.0
18	22.5	21.0	22.0	23.5	20.5	22.0	21.5	18.0	19.5	23.5	20.5	22.0
19	22.0	20.5	21.0	25.5	22.0	23.5	22.0	19.0	20.0	22.5	20.0	21.5
20	22.5	20.5	21.5	27.0	22.5	24.5	22.0	18.5	20.0	22.0	18.0	20.0
21	21.5	18.5	20.0	25.0	23.5	24.5	24.5	18.0	21.0	19.5	17.0	18.5
22	18.5	15.5	17.5	26.0	21.5	23.5	24.0	19.0	21.5	20.0	18.0	19.0
23	21.0	14.5	17.5	24.5	21.5	22.5	25.5	20.0	22.5	20.0	16.0	17.5
24	20.0	16.5	18.0	22.0	20.5	21.0	27.0	21.5	24.0	17.5	14.0	15.5
25	22.0	17.5	19.5	---	19.5	---	26.5	22.5	24.5	16.5	13.0	14.5
26	22.5	18.0	20.0	---	---	---	28.0	23.5	25.5	15.0	14.5	15.0
27	23.5	19.5	21.0	---	---	---	28.5	24.0	26.0	16.5	15.0	15.5
28	25.5	19.5	22.0	22.0	---	---	27.0	24.5	25.5	18.5	15.0	16.5
29	26.0	21.0	23.5	23.5	19.0	21.5	24.5	21.5	23.5	18.0	14.0	15.5
30	27.0	22.5	24.5	23.0	20.5	22.0	24.0	20.0	21.5	15.0	12.5	13.5
31	---	---	---	22.5	20.5	21.5	24.5	20.0	22.0	---	---	---
MONTH	27.0	13.0	20.0	---	---	---	28.5	18.0	22.0	24.5	12.5	19.0

DELAWARE RIVER BASIN

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 Creek.

DRAINAGE AREA.--2,659 mi².

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.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1968-73, 1976-78, 1980-82, 1986-88, 1990-92), 32.0°C, July 20, 21, 1980; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 27.0°C, Aug. 26, 27; minimum, 0.0°C on many days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	17.5	13.5	15.5	14.0	10.0	12.0	7.0	6.5	6.5	0.0	0.0	0.0
2	20.5	16.0	17.5	13.0	10.5	12.0	7.0	6.5	7.0	0.0	0.0	0.0
3	20.5	16.5	18.0	11.0	9.0	10.0	6.5	5.0	5.5	1.0	0.0	0.5
4	21.5	17.0	18.5	9.5	7.0	8.5	5.0	3.0	4.5	1.0	0.5	0.5
5	20.5	17.5	19.0	7.5	5.5	6.5	3.0	1.5	2.0	1.5	1.0	1.0
6	19.5	17.0	18.5	6.5	5.0	5.5	1.5	1.0	1.5	1.5	1.0	1.0
7	17.0	14.5	15.5	6.0	5.0	5.5	2.0	1.0	1.5	1.5	1.0	1.0
8	16.0	13.5	15.0	5.5	5.0	5.0	3.0	1.5	2.5	1.5	0.0	0.5
9	17.5	12.5	15.0	5.0	4.0	4.5	4.5	3.0	4.0	0.5	0.0	0.5
10	18.5	13.5	15.5	5.0	4.0	4.5	5.0	4.5	4.5	1.0	0.5	1.0
11	16.0	14.5	15.0	5.5	4.5	5.0	4.5	3.5	4.0	1.0	0.0	0.5
12	16.5	13.0	14.5	5.0	4.5	4.5	4.0	3.5	4.0	1.0	0.0	0.5
13	13.5	11.5	12.5	5.5	5.0	5.0	5.0	4.0	4.5	2.5	0.5	1.5
14	14.0	10.5	12.0	6.0	5.0	5.5	6.0	5.0	5.5	3.0	2.0	2.5
15	13.0	11.0	12.0	6.5	5.0	6.0	5.5	3.5	4.5	3.0	0.0	0.5
16	13.5	11.5	12.5	7.5	5.5	6.5	3.5	1.0	2.5	0.0	0.0	0.0
17	12.0	11.0	11.5	5.5	3.5	4.5	1.0	0.0	0.0	0.0	0.0	0.0
18	14.0	12.0	12.5	5.0	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
19	13.5	12.5	13.0	7.0	3.5	5.5	0.0	0.0	0.0	0.0	0.0	0.0
20	12.5	11.0	11.5	9.0	5.5	7.0	0.0	0.0	0.0	0.0	0.0	0.0
21	12.0	9.5	10.5	9.5	8.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0
22	13.0	8.5	10.0	9.5	9.0	9.5	0.5	0.0	0.0	0.0	0.0	0.0
23	14.0	8.5	11.0	10.0	9.5	10.0	0.0	0.0	0.0	0.0	0.0	0.0
24	14.5	10.0	12.0	10.0	9.0	9.5	0.0	0.0	0.0	0.0	0.0	0.0
25	16.5	11.5	13.5	9.0	6.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0
26	15.5	13.0	14.0	6.0	4.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
27	16.5	14.5	15.0	4.0	3.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0
28	15.5	11.5	14.0	3.5	2.5	3.0	0.5	0.0	0.0	0.0	0.0	0.0
29	13.5	9.0	11.0	5.0	3.5	4.5	0.5	0.0	0.0	0.5	0.0	0.0
30	11.5	7.0	9.5	6.5	4.5	5.5	0.5	0.0	0.5	0.5	0.0	0.0
31	12.5	8.0	10.0	---	---	---	0.0	0.0	0.0	0.5	0.0	0.5
MONTH	21.5	7.0	13.5	14.0	2.5	6.5	7.0	0.0	2.0	3.0	0.0	0.5

DELAWARE RIVER BASIN

01432160 DELAWARE RIVER AT BARRYVILLE, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	0.5	0.0	0.0	0.5	0.0	0.5	5.0	4.0	4.5	13.0	11.0	12.0
2	1.0	0.0	0.5	1.5	0.5	1.0	4.5	3.5	4.0	16.0	12.0	14.0
3	0.5	0.0	0.0	2.5	1.0	1.5	3.5	3.0	3.5	17.0	14.5	16.0
4	0.5	0.0	0.0	3.5	1.0	2.0	5.0	2.5	4.0	16.0	13.0	14.5
5	0.5	0.0	0.0	4.5	1.5	3.0	5.5	3.0	4.5	13.0	11.5	12.5
6	1.0	0.0	0.5	3.5	2.0	3.0	6.5	4.0	5.5	11.5	10.5	11.0
7	0.5	0.0	0.5	2.5	2.0	2.0	7.0	5.5	6.0	12.0	9.5	11.0
8	1.0	0.0	0.5	4.0	2.5	3.0	8.5	7.0	7.5	12.0	11.0	11.5
9	0.5	0.0	0.5	5.0	3.5	4.0	7.5	6.5	7.0	14.5	11.0	12.5
10	1.0	0.0	0.5	5.5	4.0	4.5	9.5	7.0	8.0	15.5	13.5	14.5
11	0.5	0.0	0.5	6.0	3.5	5.5	9.5	8.5	9.0	17.5	14.0	15.5
12	1.0	0.0	0.5	3.5	1.5	2.5	8.5	7.0	8.0	19.5	15.5	17.5
13	0.5	0.0	0.5	2.0	0.5	1.0	7.0	5.5	6.5	20.5	17.5	19.0
14	0.5	0.0	0.5	1.0	0.0	0.5	8.0	6.0	7.0	20.5	18.5	19.5
15	1.0	0.5	0.5	1.0	0.0	0.5	9.0	7.0	8.0	19.5	18.0	18.5
16	1.5	0.5	1.0	1.5	0.0	0.5	9.0	6.5	8.0	18.0	16.5	17.0
17	1.5	0.5	1.0	1.0	0.0	0.5	6.5	6.0	6.5	16.5	15.5	16.0
18	1.5	1.0	1.0	3.0	0.0	1.5	6.0	6.0	6.0	17.0	15.5	16.5
19	2.5	1.0	2.0	2.0	0.0	1.0	6.0	5.5	6.0	19.0	15.5	17.0
20	2.0	1.0	1.5	2.5	0.0	1.5	8.5	6.0	7.0	19.5	16.5	18.0
21	2.0	1.0	1.5	2.5	0.5	1.5	11.0	8.5	9.5	21.0	17.0	19.0
22	1.5	0.5	1.0	2.0	0.5	1.0	12.0	11.0	11.5	21.5	18.5	20.5
23	2.0	1.0	1.5	1.5	0.0	1.0	13.5	12.0	12.5	23.5	19.0	21.5
24	2.0	1.5	1.5	2.0	0.0	1.0	13.0	12.5	13.0	22.5	18.0	20.5
25	1.5	1.0	1.0	3.5	1.0	2.0	13.0	10.5	12.0	18.0	16.5	17.0
26	1.5	1.0	1.5	4.0	3.5	3.5	10.5	9.5	10.0	16.5	13.0	15.0
27	2.0	1.0	1.5	4.0	2.5	3.5	11.0	9.5	10.0	15.0	13.0	13.5
28	2.5	1.0	2.0	2.5	2.0	2.5	11.5	10.0	10.5	16.0	12.0	14.0
29	2.5	0.0	1.0	3.5	1.0	2.5	12.5	10.0	11.5	17.0	12.5	15.0
30	---	---	---	3.5	3.0	3.0	12.0	11.0	11.5	16.5	13.5	15.0
31	---	---	---	5.5	3.5	4.5	---	---	---	15.5	13.5	14.5
MONTH	2.5	0.0	1.0	6.0	0.0	2.0	13.5	2.5	8.0	23.5	9.5	16.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	14.0	13.5	13.5	26.5	20.5	23.0	21.5	19.5	20.5	21.5	18.0	20.0
2	15.0	13.5	14.5	25.0	19.0	21.5	21.5	19.0	20.0	22.5	17.0	19.5
3	18.0	15.0	16.0	21.0	19.0	20.5	22.5	19.5	21.0	20.5	19.0	19.5
4	17.5	15.5	16.5	23.0	20.0	21.5	22.5	21.0	21.5	22.5	19.0	21.0
5	17.0	15.5	16.5	22.5	20.5	21.0	22.0	20.0	21.0	21.5	20.0	20.5
6	16.5	14.5	15.5	22.5	19.5	21.0	21.5	19.0	20.5	20.0	19.0	19.5
7	18.0	16.0	17.0	22.5	18.0	20.5	22.5	20.0	21.5	19.5	18.5	19.0
8	18.0	16.5	17.0	24.5	18.5	21.0	22.5	20.5	21.5	21.5	18.5	20.0
9	19.0	16.5	18.0	25.0	19.0	22.0	23.5	21.5	22.5	24.0	19.5	21.5
10	19.5	16.0	17.5	24.0	19.5	22.0	23.5	22.0	22.5	23.5	20.5	22.0
11	19.5	16.0	18.0	24.5	20.0	22.0	23.0	21.0	22.0	22.5	21.0	21.5
12	21.0	17.5	19.5	22.5	19.5	21.0	22.5	20.5	21.5	21.0	19.0	20.0
13	23.0	19.5	21.0	25.5	21.5	23.0	21.5	19.5	20.5	20.0	17.5	19.0
14	24.5	21.0	22.5	26.5	20.0	22.5	20.5	19.0	19.5	22.0	17.0	19.0
15	24.5	21.0	23.0	26.5	21.0	23.0	19.0	18.5	19.0	22.0	17.0	19.5
16	23.0	20.0	21.0	23.5	20.5	22.0	18.5	18.0	18.5	23.5	18.0	20.5
17	23.5	20.0	21.5	21.5	19.5	21.0	18.5	17.5	18.0	23.5	19.5	21.0
18	21.0	18.5	20.0	23.0	19.5	21.5	20.0	17.5	18.5	24.0	19.5	21.5
19	21.0	18.5	19.5	25.0	21.5	23.5	20.5	18.5	19.5	21.5	19.5	20.5
20	22.0	18.5	20.5	25.0	22.5	23.5	21.0	18.5	19.5	20.0	18.5	19.5
21	21.5	19.0	20.0	24.0	20.5	22.5	22.0	17.5	19.5	19.5	18.0	18.5
22	19.0	14.5	17.0	24.0	20.0	22.0	23.5	18.0	20.5	20.5	18.5	19.5
23	18.5	14.0	16.5	21.5	19.0	21.0	24.5	20.5	22.0	19.5	17.0	18.0
24	18.5	16.5	17.0	21.0	18.5	19.5	25.5	21.0	22.5	17.0	15.0	15.5
25	20.5	16.5	18.5	22.5	18.0	20.5	26.0	21.5	23.0	16.0	14.0	15.0
26	20.5	17.0	18.5	21.5	20.5	21.5	27.0	22.5	24.0	15.5	15.0	15.5
27	22.0	18.0	20.0	22.5	20.0	21.5	27.0	22.5	24.5	16.0	15.0	15.5
28	23.5	19.5	21.5	22.0	20.0	20.5	26.0	24.0	24.5	17.0	15.0	16.0
29	25.0	21.0	22.5	21.5	19.0	20.5	24.0	21.0	23.0	16.5	15.0	15.5
30	25.0	20.5	22.5	22.0	21.0	21.5	22.5	20.0	21.5	15.0	12.5	13.5
31	---	---	---	21.5	20.5	21.5	22.0	20.5	21.5	---	---	---
MONTH	25.0	13.5	19.0	26.5	18.0	21.5	27.0	17.5	21.0	24.0	12.5	19.0

DELAWARE RIVER BASIN

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 mi².

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1973 to current year.

INSTRUMENTATION.--Water-temperature digital recorder since October 1973, provides one-hour-interval punches.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1976, 1978, 1980-81, 1983-84, 1986, 1989-90, 1992) 31.0°C, July 21, 1980; minimum (water years 1974, 1977-78, 1980, 1983-92), 0.0°C on many days during winter periods, except 1978, 1980, and 1985.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 26.5°C, Aug. 26, 27; minimum, 0.0°C on many days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	15.5	13.0	14.0	12.5	10.0	11.0	7.0	6.0	6.5	0.5	0.0	0.0
2	19.0	15.0	16.5	12.5	11.0	11.5	7.0	6.5	7.0	0.0	0.0	0.0
3	20.0	17.0	18.0	11.0	10.0	10.5	6.5	5.5	6.0	0.5	0.0	0.0
4	20.0	17.5	18.5	10.0	8.0	9.0	5.5	3.5	4.5	0.5	0.0	0.5
5	20.0	18.0	19.0	8.0	6.5	7.0	3.5	2.0	2.5	1.5	0.5	1.0
6	19.0	17.5	18.5	6.5	5.0	6.0	2.0	1.5	1.5	1.0	1.0	1.0
7	17.5	14.5	16.0	6.0	5.0	5.5	2.0	1.0	1.5	1.0	1.0	1.0
8	16.0	13.5	14.5	5.5	4.5	5.0	3.0	2.0	2.5	1.0	0.0	0.5
9	16.5	13.5	14.5	4.5	4.0	4.0	4.5	3.0	4.0	0.5	0.0	0.5
10	17.0	14.0	15.0	4.5	3.5	4.0	5.0	4.5	4.5	1.0	0.5	1.0
11	15.5	14.0	15.0	5.0	4.5	4.5	4.5	4.0	4.0	0.5	0.0	0.5
12	14.5	13.5	14.0	5.0	4.5	4.5	4.5	3.5	4.0	1.0	0.0	0.5
13	14.0	12.5	13.0	5.0	4.5	5.0	5.0	4.5	4.5	2.0	0.5	1.0
14	13.0	11.0	12.0	6.0	4.5	5.5	6.0	5.0	5.5	3.0	1.5	2.5
15	12.5	11.0	11.5	6.0	5.0	5.5	5.5	4.0	4.5	2.0	0.0	1.0
16	13.0	11.5	12.0	7.0	6.0	6.5	4.0	1.5	2.5	0.0	0.0	0.0
17	12.0	10.5	11.5	6.0	4.5	5.0	1.5	0.0	0.5	0.0	0.0	0.0
18	13.0	10.5	12.0	4.5	3.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
19	13.0	11.5	12.5	5.5	4.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
20	12.0	10.0	11.0	8.0	5.0	6.5	0.5	0.0	0.0	0.0	0.0	0.0
21	11.5	10.0	10.5	9.0	7.5	8.0	0.5	0.0	0.0	0.0	0.0	0.0
22	11.5	9.0	10.0	9.5	9.0	9.0	0.5	0.0	0.0	0.5	0.0	0.0
23	12.0	9.0	10.5	10.0	9.5	10.0	0.0	0.0	0.0	0.0	0.0	0.0
24	13.0	10.0	11.5	10.0	9.0	9.5	0.5	0.0	0.0	0.5	0.0	0.0
25	14.5	11.5	12.5	9.0	6.5	7.5	0.5	0.0	0.0	0.0	0.0	0.0
26	15.0	12.5	14.0	6.5	4.5	5.5	0.5	0.0	0.0	0.0	0.0	0.0
27	16.0	14.0	14.5	4.5	3.5	3.5	0.5	0.0	0.0	0.0	0.0	0.0
28	15.5	13.5	14.5	3.5	3.0	3.5	0.5	0.0	0.0	0.0	0.0	0.0
29	13.5	11.0	12.0	5.0	3.5	4.5	0.0	0.0	0.0	0.5	0.0	0.0
30	11.5	8.5	10.0	6.0	5.0	5.0	0.5	0.0	0.5	0.5	0.0	0.0
31	11.0	9.0	10.0	---	---	---	0.5	0.0	0.0	0.5	0.0	0.0
MONTH	20.0	8.5	13.5	12.5	3.0	6.5	7.0	0.0	2.0	3.0	0.0	0.5

DELAWARE RIVER BASIN

01432805 DELAWARE RIVER AT POND EDDY, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	0.5	0.0	0.0	1.0	0.0	0.5	5.0	4.0	4.5	13.0	11.0	12.0
2	0.5	0.0	0.0	1.0	0.5	1.0	5.0	3.5	4.0	15.5	12.0	13.5
3	0.5	0.0	0.0	1.5	1.0	1.5	4.0	3.0	3.5	16.5	14.5	15.5
4	0.5	0.0	0.0	2.5	1.0	2.0	5.0	2.5	4.0	16.0	13.5	14.5
5	0.5	0.0	0.0	3.5	2.5	3.0	5.5	3.0	4.5	13.5	12.0	12.5
6	0.5	0.0	0.0	3.5	2.5	3.0	6.5	4.0	5.5	12.0	10.5	11.0
7	0.5	0.0	0.0	3.0	2.0	2.5	7.0	5.5	6.5	12.0	9.5	11.0
8	0.5	0.0	0.0	3.5	2.0	3.0	9.0	6.5	8.0	12.0	11.0	11.5
9	0.5	0.0	0.0	4.5	3.5	4.0	8.0	7.0	7.5	14.0	11.0	12.5
10	0.5	0.0	0.5	5.5	4.0	4.5	9.5	7.0	8.5	15.0	13.5	14.0
11	0.5	0.0	0.5	6.0	4.0	5.5	9.5	8.5	9.0	17.0	14.5	16.0
12	0.5	0.0	0.0	4.0	1.5	2.5	8.5	7.5	8.0	18.5	15.5	17.0
13	0.5	0.0	0.0	1.5	0.5	1.0	7.5	5.5	6.5	19.5	18.0	19.0
14	0.5	0.0	0.0	1.0	0.0	0.5	8.5	6.0	7.0	20.5	19.0	19.5
15	0.5	0.0	0.0	1.0	0.0	0.5	9.0	6.5	8.0	19.5	18.0	19.0
16	0.5	0.0	0.5	1.0	0.0	0.5	9.0	7.0	8.0	18.0	16.5	17.0
17	0.5	0.0	0.0	1.0	0.0	0.5	7.0	6.5	6.5	16.5	16.0	16.0
18	0.0	0.0	0.0	2.0	0.5	1.0	6.5	5.5	6.0	17.0	15.5	16.5
19	1.0	0.0	0.5	2.0	0.5	1.0	6.0	5.5	5.5	19.0	15.5	17.0
20	1.5	1.0	1.5	2.5	0.5	1.5	8.0	6.0	6.5	20.5	16.5	18.0
21	2.0	1.0	1.5	2.5	1.5	2.0	10.5	8.0	9.0	21.5	17.0	19.0
22	1.0	1.0	1.0	1.5	0.5	1.0	12.0	10.5	11.5	23.0	18.5	20.5
23	2.5	1.0	1.5	1.5	0.5	1.0	13.5	11.5	12.5	24.0	19.0	21.5
24	2.0	1.0	1.5	2.5	0.5	1.5	13.5	12.5	13.0	22.0	19.0	21.0
25	1.0	0.5	1.0	4.0	1.0	2.5	13.0	10.5	12.0	19.0	16.5	17.5
26	1.5	1.0	1.0	4.5	3.0	4.0	10.5	10.0	10.0	16.5	14.5	16.0
27	2.0	1.0	1.5	4.0	3.0	4.0	11.0	9.5	10.0	14.5	13.0	14.0
28	2.0	1.5	2.0	3.0	2.0	2.5	11.0	9.5	10.5	16.0	12.5	14.5
29	2.5	0.0	1.0	3.5	1.5	2.5	12.5	10.0	11.0	17.5	14.0	15.5
30	---	---	---	3.5	2.5	3.0	12.0	11.0	11.5	16.5	15.0	15.5
31	---	---	---	5.5	3.5	4.5	---	---	---	15.5	14.0	15.0
MONTH	2.5	0.0	0.5	6.0	0.0	2.0	13.5	2.5	8.0	24.0	9.5	16.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	14.5	14.0	14.0	26.0	22.0	23.5	21.5	20.5	21.0	22.5	19.5	21.0
2	15.5	13.5	14.5	24.5	21.0	22.5	21.5	19.5	20.5	22.0	18.5	20.0
3	17.5	15.0	16.0	23.0	19.0	20.5	22.0	20.5	21.0	20.0	19.5	20.0
4	18.0	16.0	17.0	23.5	19.5	21.0	23.0	21.5	22.0	24.0	19.5	21.0
5	18.0	16.5	17.0	23.0	21.0	22.0	22.5	20.5	21.5	21.5	20.5	21.0
6	17.0	15.5	16.0	24.0	20.5	22.0	22.5	20.0	21.5	20.5	19.5	20.0
7	18.5	16.5	17.5	22.5	19.0	21.0	23.5	20.5	21.5	19.5	19.0	19.5
8	19.0	17.0	18.0	22.0	19.5	21.0	23.0	20.5	22.0	22.0	19.0	20.0
9	19.5	17.5	18.5	24.5	20.5	22.5	24.0	21.5	22.5	23.5	20.5	21.5
10	19.5	16.5	18.5	23.5	21.0	22.5	24.0	22.5	23.0	24.5	21.5	22.5
11	19.5	17.0	18.5	23.5	21.0	22.5	23.5	22.0	23.0	23.0	21.0	22.0
12	21.0	17.5	19.5	23.5	20.5	21.0	23.5	21.0	22.5	21.0	19.5	20.0
13	22.0	19.0	20.5	25.5	20.5	23.0	22.0	20.5	21.0	21.0	18.5	19.5
14	24.0	21.0	22.5	25.0	21.5	23.5	20.5	19.5	20.0	21.5	17.5	19.0
15	25.0	22.5	23.5	24.5	22.0	23.5	19.5	19.0	19.0	22.0	18.0	19.5
16	23.5	19.5	21.5	24.0	21.0	22.0	19.0	18.5	18.5	23.0	19.0	20.5
17	24.0	19.5	21.5	22.5	20.5	21.0	18.5	18.0	18.5	23.5	20.0	21.5
18	22.0	19.5	20.5	23.5	20.0	21.5	20.5	18.0	19.0	23.0	21.0	22.0
19	20.0	18.5	19.5	24.5	22.0	23.0	20.5	19.0	19.5	22.0	20.0	21.0
20	21.5	19.0	20.0	25.5	23.5	24.5	22.0	18.5	20.0	21.5	18.5	19.5
21	21.0	19.0	20.0	24.5	22.5	23.5	23.0	18.5	20.5	20.5	18.0	19.0
22	19.5	16.5	18.0	24.0	20.0	22.0	23.5	18.5	20.5	20.5	18.5	19.5
23	19.0	14.5	16.5	23.0	20.5	21.5	25.0	20.0	22.0	20.0	17.5	18.5
24	19.0	17.0	18.0	20.5	19.0	19.5	26.0	21.0	23.0	17.5	15.5	16.5
25	20.5	17.0	18.5	22.5	18.5	20.5	25.5	22.5	24.0	16.5	14.5	15.5
26	20.5	17.5	19.0	22.0	21.0	21.5	26.5	23.0	24.5	15.5	14.5	15.0
27	22.0	18.5	20.0	23.5	21.0	22.0	26.5	23.5	25.0	16.0	15.0	15.5
28	24.0	19.5	21.5	22.5	20.5	21.5	26.0	24.5	25.0	17.0	15.0	16.0
29	25.5	21.0	23.0	22.5	19.5	21.0	25.0	22.0	23.5	16.5	15.0	16.0
30	24.0	21.0	23.0	23.0	21.0	21.5	23.5	20.5	22.0	15.0	13.0	14.0
31	---	---	---	22.0	21.0	21.5	23.0	21.0	22.0	---	---	---
MONTH	25.5	13.5	19.0	26.0	18.5	22.0	26.5	18.0	21.5	24.5	13.0	19.0

DELAWARE RIVER BASIN

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 mi².

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 good. Entire flow regulated by Rio Hydroelectric plant except for runoff from about 7 mi² of drainage area downstream from Rio Dam of Orange and Rockland Utilities, Inc., and during periods of spill from Rio Reservoir. Flow also regulated by storage in Cliff Lake, Swinging Bridge, and Toronto Reservoirs (see Reservoirs in Delaware River Basin) and small reservoirs upstream from station.

AVERAGE DISCHARGE.--53 years, 341 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,100 ft³/s, Aug. 19, 1955, gage height, 15.22 ft, present datum; minimum daily, 6 ft³/s, Oct. 1, 1939.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,030 ft³/s, June 6, gage height, 4.41 ft; minimum daily, 21 ft³/s, Nov. 2-3, 5-8, 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	251	35	194	199	30	346	536	582	443	48	54
2	33	21	601	488	29	370	348	718	720	31	95	36
3	33	21	858	616	364	257	357	720	742	31	507	342
4	34	34	802	685	429	153	511	558	738	33	508	392
5	33	21	490	69	257	30	527	674	466	32	363	33
6	32	21	632	350	181	31	376	422	911	39	324	91
7	30	21	217	409	336	34	478	441	981	42	368	33
8	36	21	146	439	28	36	500	489	964	342	33	338
9	30	46	407	250	27	413	445	43	947	321	39	348
10	30	21	486	340	318	370	418	67	887	327	476	316
11	31	74	350	29	226	702	412	498	489	32	440	155
12	32	23	383	28	71	484	388	525	498	31	376	48
13	43	112	558	351	31	549	495	409	457	264	370	34
14	30	27	481	496	29	394	407	32	199	370	300	286
15	56	32	408	424	28	331	470	373	517	252	37	183
16	114	28	443	550	31	377	428	35	432	45	95	249
17	224	27	660	548	31	517	485	33	329	36	42	348
18	44	91	610	61	177	489	548	248	219	98	54	246
19	42	28	678	101	31	416	702	336	292	36	187	93
20	36	27	444	459	34	416	698	339	36	469	38	31
21	122	29	404	469	29	335	698	29	34	423	39	31
22	68	49	397	389	211	33	702	347	382	35	38	446
23	338	294	247	386	29	496	710	29	188	38	38	96
24	128	421	211	580	444	380	702	30	341	41	190	44
25	32	439	52	32	500	288	692	31	295	38	354	196
26	31	409	448	31	269	339	702	352	363	40	460	31
27	31	485	471	455	345	374	712	339	38	390	443	32
28	234	37	29	433	355	360	760	367	35	401	398	45
29	355	322	29	416	32	354	711	319	422	245	97	45
30	222	37	251	360	---	353	726	28	381	348	33	185
31	235	---	496	227	---	356	---	186	---	257	174	---
TOTAL	2793	3469	12724	10665	5071	10067	16454	9553	13885	5530	6964	4807
MEAN	90.1	116	410	344	175	325	548	308	463	178	225	160
MAX	355	485	858	685	500	702	760	720	981	469	508	446
MIN	30	21	29	28	27	30	346	28	34	31	33	31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1992, BY WATER YEAR (WY)

MEAN	219	273	385	343	381	488	604	433	329	239	218	187
MAX	1177	751	1046	853	756	1152	1439	969	1018	917	976	600
(WY)	1956	1973	1974	1979	1990	1977	1983	1989	1972	1945	1955	1960
MIN	36.6	41.6	83.8	103	64.2	175	236	147	45.1	43.3	70.9	15.9
(WY)	1981	1983	1942	1989	1980	1969	1988	1957	1962	1978	1962	1958

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 mi².

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. WDR NY-86-1: 1979-80.

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.--Records good. 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 mi² of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi² 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 ft³/s, Aug. 19, 1955, gage height, 23.91 ft, from floodmarks in gage house, from rating curve extended above 89,000 ft³/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 ft³/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 ft³/s, Oct. 10, 1903, gage height, 23.1 ft, from rating curve extended above 70,000 ft³/s, by velocity-area studies; maximum gage height, 25.5 ft, Mar. 8, 1904 (ice jam).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 26,400 ft³/s, Nov. 23, gage height, 8.08 ft; minimum, 692 ft³/s, Nov. 2, gage height, 1.57 ft; minimum daily, 785 ft³/s, Nov. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1600	985	2600	2490	e2900	3290	6010	5130	17600	2130	3650	1440
2	1540	785	2810	2420	e2300	3510	5720	4820	14500	1860	3700	1040
3	1520	945	4760	3010	e2600	3440	5230	5040	9210	1680	3300	1840
4	1560	995	9370	3260	3280	3180	4700	5710	8100	1570	2960	1820
5	1510	1010	7210	3000	2970	3240	4360	5070	6570	1600	2820	1740
6	1570	1080	5690	3940	2960	3620	4090	4710	8970	1660	3060	1720
7	1660	1380	4450	3880	2930	3630	3800	4620	11600	2060	2520	1610
8	1820	1480	3910	3530	2290	4500	3720	4600	8710	2140	1870	1690
9	1520	1450	4050	3220	1600	5720	3620	4400	7140	2170	1780	1660
10	1610	1290	4490	3150	1830	5550	3620	4100	6180	2440	3040	1690
11	1570	1340	4360	2880	2800	7960	3550	4130	5130	2140	3220	2200
12	1660	1410	3900	2320	2370	16200	4380	3710	3890	1890	2780	2370
13	1510	1550	3950	2430	2210	10500	6640	3370	3090	1440	2370	1760
14	1220	1480	4180	3080	2330	7110	5650	2770	2410	2230	2220	1530
15	1180	1230	5460	5510	2140	5700	5070	2990	2840	2500	1750	1520
16	1460	1240	5190	e5200	1310	4890	4730	2610	2730	2850	1690	1530
17	1750	1170	4550	e4000	2180	4360	5370	2800	2550	3270	1710	1790
18	3140	1140	4070	e3400	3160	4010	11200	2980	2210	2590	1720	1740
19	2520	946	3550	e2900	3110	4210	15400	2720	2400	2340	1870	1590
20	2150	962	2800	e2700	3150	3730	13300	2490	2090	2600	1610	1520
21	1960	1060	3110	e3000	3680	3180	10200	2040	1740	2750	1800	1560
22	1180	1580	3250	3270	3370	2610	8800	2240	2090	2190	1350	2000
23	1190	15000	2930	3380	2490	2970	9320	1820	2180	2140	1400	2010
24	981	15700	2650	4520	2980	2870	8450	1900	2470	2220	1510	2030
25	920	9140	2360	5180	3530	2690	9130	2200	2570	2110	1650	1900
26	955	6410	2510	3850	3560	2820	10500	2620	2460	1610	1880	1590
27	1340	4940	2150	3460	3670	8080	9350	3060	2030	2510	2030	1400
28	1220	3780	1850	3920	3650	12500	7800	2960	1700	3030	2110	1640
29	1070	3400	1880	3800	3470	8300	6620	2780	1920	2380	1650	1750
30	959	2950	2470	3640	---	6630	5860	2230	2180	2410	1390	1690
31	914	---	3210	3420	---	6120	---	3180	---	2730	1680	---
TOTAL	46759	87828	119720	107760	80820	167120	206190	105800	149260	69240	68090	51370
MEAN	1508	2928	3862	3476	2787	5391	6873	3413	4975	2234	2196	1712
MAX	3140	15700	9370	5510	3680	16200	15400	5710	17600	3270	3700	2370
MIN	914	785	1850	2320	1310	2610	3550	1820	1700	1440	1350	1040

e Estimated

DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

MEAN	3104	3953	4981	4443	5291	7996	8892	6225	3979	2644	2217	2492
MAX	10440	10310	12320	12750	13730	17520	17930	12670	12650	6680	4513	7928
(WY)	1978	1973	1974	1978	1976	1977	1970	1984	1972	1973	1969	1987
MIN	1001	884	1866	1216	1601	2583	2954	1946	993	699	963	1144
(WY)	1965	1965	1965	1981	1980	1981	1985	1965	1965	1965	1965	1965

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1964 - 1992

ANNUAL TOTAL	1313595	1259957										
ANNUAL MEAN	3599	3443										
HIGHEST ANNUAL MEAN										4679		
LOWEST ANNUAL MEAN										2028		1973
HIGHEST DAILY MEAN	18600	Mar 5	17600	Jun 1	78300	Jun 30	1973					
LOWEST DAILY MEAN	785	Nov 2	785	Nov 2	385	Jul 6	1965					
ANNUAL SEVEN-DAY MINIMUM	942	Oct 30	942	Oct 30	432	Jul 1	1965					
10 PERCENT EXCEEDS	7320		6250		9980							
50 PERCENT EXCEEDS	2100		2730		2820							
90 PERCENT EXCEEDS	1340		1440		1480							

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), 1987 (b), 1988-89 (c), 1990-91 (b), 1992 (a).

MINOR ELEMENTS DATA: 1970 (a), 1972-73 (a), 1974-76 (c), 1987 (b), 1988-89 (c), 1990-91 (b), 1992 (a).

PESTICIDE DATA: 1974 (a), 1987 (b), 1988-89 (c), 1990 (b).

ORGANIC DATA: OC--1974 (b), 1975 (d).

NUTRIENT DATA: 1968 (a), 1969-76 (d), 1987 (b), 1988-89 (c), 1990 (b).

BIOLOGICAL DATA:

Bacteria--1973-76 (d).

Phytoplankton--1974 (b), 1975-76 (c).

Periphyton--1976 (a).

SEDIMENT DATA: 1959 (c), 1976 (c), 1988 (b), 1989 (c), 1990-91 (b), 1992 (a).

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.--Water-quality samples were collected by personnel of the New York State Department of Environmental Conservation, and were analyzed by USGS laboratories. Interruptions of temperature record were due to malfunctions of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1957-59, 1973-81, 1983-84, 1988-92), 30.0°C, July 13, 1981; minimum (water years 1958-60, 1973, 1975-92), 0.0°C, on many days during winter periods, except 1984.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 26.0°C, Aug. 27, but may have been higher during period of missing record; minimum, 0.0°C on many days during winter period.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)
OCT 30...	1200	771	92	7.1	10.5	755	10.9	99	60

DATE	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
OCT 30...	<1	110	50	4	<10	<0.10	2	40

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 30...	1200	771	1	2.1

DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	14.0	13.0	13.5	12.0	10.5	11.5	7.0	6.0	6.5	0.0	0.0	0.0
2	17.0	14.0	15.5	12.5	11.5	12.0	7.0	7.0	7.0	0.5	0.0	0.5
3	18.0	17.0	17.5	11.5	10.0	10.5	7.0	6.0	6.0	1.5	0.5	1.0
4	19.0	17.5	18.5	10.0	8.0	9.0	6.0	4.0	5.0	1.5	1.5	1.5
5	19.0	18.0	18.5	8.0	6.5	7.0	4.0	2.5	3.0	1.5	1.5	1.5
6	19.0	17.0	18.5	6.5	5.5	6.0	2.5	2.5	2.5	1.5	1.5	1.5
7	17.0	14.5	15.5	6.0	5.5	5.5	2.5	1.5	2.0	1.5	1.0	1.5
8	14.5	13.0	14.0	5.5	5.0	5.0	3.0	2.0	2.5	1.0	0.5	0.5
9	14.5	13.0	14.0	5.0	4.0	4.5	4.5	3.0	4.0	0.5	0.5	0.5
10	15.0	13.5	14.5	4.5	4.0	4.0	5.0	4.5	4.5	1.0	0.5	0.5
11	15.5	14.0	14.5	5.0	4.5	4.5	4.5	4.0	4.5	1.0	0.5	0.5
12	14.0	13.0	13.5	5.0	4.5	5.0	4.5	4.0	4.5	0.5	0.0	0.5
13	13.5	12.5	13.0	5.0	4.5	5.0	5.0	4.5	5.0	2.0	0.5	1.0
14	12.5	11.0	12.0	6.0	5.0	5.5	6.0	5.0	5.5	3.0	2.0	2.5
15	12.0	11.0	11.5	6.0	5.5	5.5	5.5	4.0	4.5	2.5	0.0	1.0
16	12.5	11.5	12.0	7.0	6.0	6.5	4.0	2.0	3.0	0.0	0.0	0.0
17	12.5	11.0	11.5	6.0	4.5	5.0	2.0	1.0	1.5	0.0	0.0	0.0
18	13.0	10.5	12.0	4.5	3.5	4.5	1.0	0.0	0.5	0.0	0.0	0.0
19	13.5	11.5	12.5	5.5	4.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
20	12.0	10.5	11.0	7.5	5.5	6.5	0.0	0.0	0.0	0.0	0.0	0.0
21	11.0	9.5	10.5	9.0	7.5	8.5	0.5	0.0	0.5	0.0	0.0	0.0
22	11.0	9.5	10.5	9.5	9.0	9.0	1.0	0.5	0.5	0.0	0.0	0.0
23	12.0	9.5	10.5	10.0	9.5	10.0	0.5	0.0	0.5	0.0	0.0	0.0
24	12.5	11.0	11.5	10.0	9.0	10.0	0.5	0.0	0.5	0.0	0.0	0.0
25	13.5	11.5	12.5	9.0	7.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0
26	14.5	13.0	14.0	7.0	5.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
27	15.0	14.0	14.5	5.0	4.0	4.0	0.5	0.0	0.5	0.0	0.0	0.0
28	15.0	13.5	14.5	4.0	3.5	3.5	0.5	0.5	0.5	0.0	0.0	0.0
29	13.5	11.5	12.0	5.0	3.5	4.5	0.5	0.5	0.5	0.0	0.0	0.0
30	12.0	10.0	10.5	6.0	5.0	5.5	1.0	0.5	0.5	0.5	0.0	0.0
31	11.0	10.5	10.5	---	---	---	0.5	0.0	0.0	0.5	0.5	0.5
MONTH	19.0	9.5	13.5	12.5	3.5	6.5	7.0	0.0	2.5	3.0	0.0	0.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	0.5	0.0	0.0	1.0	0.5	0.5	5.0	4.5	5.0	13.0	11.0	12.0
2	0.5	0.0	0.0	1.0	1.0	1.0	5.5	4.0	4.5	15.0	12.0	13.5
3	0.5	0.0	0.0	2.0	1.0	1.5	4.5	3.5	4.0	16.0	14.5	15.0
4	0.0	0.0	0.0	3.5	1.5	2.5	5.5	3.5	4.0	15.0	13.5	14.5
5	0.0	0.0	0.0	4.5	2.5	3.5	5.5	4.0	4.5	13.5	11.5	12.5
6	0.5	0.0	0.0	4.0	3.0	3.5	7.0	4.5	5.5	12.5	11.0	11.5
7	0.5	0.5	0.5	3.0	2.5	2.5	7.0	5.5	6.5	12.0	10.0	11.0
8	0.5	0.5	0.5	3.5	2.5	3.0	9.5	6.0	8.0	12.0	11.0	11.5
9	0.5	0.5	0.5	4.5	3.5	4.0	8.0	7.0	7.5	13.5	11.5	12.5
10	0.5	0.0	0.5	5.5	4.0	4.5	10.0	7.0	8.5	14.5	13.0	14.0
11	0.0	0.0	0.0	6.0	4.5	5.5	9.0	8.0	8.5	16.5	14.0	15.5
12	0.5	0.0	0.5	4.5	2.0	3.0	9.0	7.5	8.0	18.0	15.0	16.5
13	0.5	0.5	0.5	2.0	1.0	1.5	7.5	6.0	7.0	19.5	16.5	18.0
14	0.5	0.5	0.5	1.0	0.5	1.0	8.5	6.0	7.0	21.0	17.5	19.0
15	0.5	0.5	0.5	1.0	0.5	1.0	9.0	7.0	8.0	19.5	17.0	18.5
16	---	---	---	1.0	0.5	1.0	8.5	7.5	8.0	17.0	16.0	16.5
17	---	---	---	1.0	0.5	1.0	7.5	6.5	7.0	16.5	15.5	16.0
18	---	---	---	2.5	0.5	1.5	6.5	6.0	6.0	17.5	15.5	16.5
19	---	---	---	2.0	1.0	1.5	6.0	6.0	6.0	18.5	15.0	16.5
20	2.0	1.0	1.5	3.0	1.0	2.0	8.0	6.0	6.5	19.5	15.0	17.5
21	2.5	1.0	1.5	3.0	1.5	2.0	10.0	8.0	9.0	20.5	16.0	18.5
22	1.5	1.0	1.5	2.0	1.0	1.5	12.0	10.0	11.0	21.5	18.5	20.0
23	3.0	1.5	2.0	2.5	0.5	1.5	13.5	11.5	12.5	22.5	18.0	20.5
24	3.0	1.5	2.0	3.0	0.5	2.0	13.5	12.5	13.0	22.0	18.5	20.5
25	1.5	1.5	1.5	4.0	1.0	3.0	13.0	11.0	12.0	18.5	16.5	17.5
26	2.0	1.5	1.5	4.5	3.0	4.0	11.0	10.0	10.5	16.5	15.0	16.0
27	2.5	1.5	2.0	4.5	3.5	4.0	11.0	9.5	10.5	15.0	13.5	14.0
28	2.5	1.5	2.0	3.5	2.5	3.0	11.0	9.5	10.5	16.0	13.0	14.5
29	2.0	0.5	1.5	3.5	2.0	2.5	12.5	10.0	11.0	17.5	14.0	15.5
30	---	---	---	3.5	3.0	3.5	12.0	11.0	11.5	16.0	15.0	15.5
31	---	---	---	5.0	3.5	4.5	---	---	---	15.0	14.5	15.0
MONTH	---	---	---	6.0	0.5	2.5	13.5	3.5	8.0	22.5	10.0	15.5

DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	14.5	14.0	14.0	---	---	---	---	---	---	21.5	19.5	20.5
2	15.5	13.5	14.5	---	---	---	---	---	---	21.0	19.0	20.0
3	17.0	14.5	16.0	---	---	---	---	---	---	20.5	19.5	20.0
4	18.0	16.5	17.5	---	---	---	---	---	---	22.5	19.5	21.0
5	17.5	16.5	17.0	---	---	---	---	---	---	21.0	20.0	20.5
6	16.5	15.5	16.0	---	---	---	---	---	---	21.0	19.5	20.0
7	18.5	16.5	17.5	---	---	---	---	---	---	19.5	19.5	19.5
8	18.5	17.5	18.0	---	---	---	---	---	---	21.0	19.5	20.5
9	19.0	17.5	18.5	---	---	---	---	---	---	22.0	20.0	21.0
10	19.0	17.5	18.5	---	---	---	---	---	---	23.0	20.5	22.0
11	19.5	17.5	18.5	---	---	---	---	---	---	23.0	21.0	22.0
12	20.5	17.5	19.0	---	---	---	---	---	---	21.0	19.5	20.5
13	21.0	19.0	20.0	---	---	---	---	---	---	20.0	18.0	19.5
14	23.5	19.0	21.5	---	---	---	20.5	19.5	20.0	20.0	18.0	19.0
15	23.5	21.0	22.5	---	---	---	20.0	18.5	19.0	20.0	18.0	19.0
16	22.5	20.5	21.5	---	---	---	18.5	18.0	18.5	21.5	19.0	20.0
17	22.5	20.0	21.0	---	---	---	18.5	18.5	18.5	22.5	20.0	21.0
18	21.5	20.0	21.0	---	---	---	20.0	18.5	19.0	22.5	20.5	21.5
19	20.0	19.0	19.5	---	---	---	20.0	19.0	19.5	21.5	20.0	21.0
20	21.0	19.0	20.0	---	---	---	21.0	18.5	20.0	20.5	18.5	19.5
21	20.5	19.0	20.0	---	---	---	21.5	18.5	20.0	19.5	18.5	19.0
22	19.5	16.5	18.0	---	---	---	21.5	19.5	21.0	20.0	19.0	19.5
23	18.5	15.5	17.0	---	---	---	23.0	20.5	22.0	19.0	17.5	18.0
24	18.5	17.0	18.0	---	---	---	23.5	21.5	23.0	17.5	15.5	16.5
25	19.5	17.5	18.5	---	---	---	24.5	22.0	23.5	16.0	14.0	15.0
26	---	---	---	---	---	---	25.5	22.5	23.5	15.5	14.5	15.0
27	---	---	---	---	---	---	26.0	23.0	24.5	16.0	15.0	15.5
28	---	---	---	---	---	---	25.0	22.5	23.5	17.0	15.5	16.0
29	---	---	---	---	---	---	24.5	22.0	23.5	16.5	15.0	16.0
30	---	---	---	---	---	---	23.0	20.5	22.0	15.0	13.5	14.0
31	---	---	---	---	---	---	22.5	21.5	22.0	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	23.0	13.5	19.0

DELAWARE RIVER BASIN

0143400680 EAST BRANCH NEVERSINK RIVER NORTHEAST OF DENNING, NY--Continued

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1991 - 1992

ANNUAL TOTAL	7526.6			9713.9			
ANNUAL MEAN	20.6			26.5		26.3	
HIGHEST ANNUAL MEAN						26.5	1992
LOWEST ANNUAL MEAN						26.1	1991
HIGHEST DAILY MEAN							
LOWEST DAILY MEAN	342	Mar	4	349	Mar 11	349	Mar 11 1992
ANNUAL SEVEN-DAY MINIMUM	2.1	Aug	8	4.8	Oct 1	2.1	Aug 8 1991
ANNUAL RUNOFF (CFSM)	2.5	Aug	2	7.2	Oct 1	2.5	Aug 2 1991
ANNUAL RUNOFF (INCHES)	2.31			2.97		2.95	
10 PERCENT EXCEEDS	31.35			40.47		40.02	
50 PERCENT EXCEEDS	37			47		48	
90 PERCENT EXCEEDS	16			18		18	
	3.6			9.9		4.8	

DELAWARE RIVER BASIN

01434013 EAST BRANCH NEVERSINK RIVER, EAST OF LADLETON, NY

LOCATION.--Lat 41°56'18", long 74°30'20", Ulster County, Hydrologic Unit 02040104, on right bank 150 ft downstream from bridge on New Hill Road, at intersection with Ladleton-Denning Road, and 4.0 mi northeast of Claryville.

DRAINAGE AREA.--18.6 mi².

PERIOD OF RECORD.--May 1991 to current year.

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.--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, 1,320 ft³/s, June 6, 1992, gage height, 6.07 ft, from rating curve extended above 240 ft³/s on basis of runoff comparisons with nearby stations; minimum discharge, 4.8 ft³/s, Aug. 2, 1991, gage height, 2.41 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 11	0700	1,080	5.74	June 6	0015	*1,320	*6.07

Minimum discharge, 8.6 ft³/s, Oct. 1, 2, 3, gage height, 2.55 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	21	37	34	e30	e21	58	61	261	21	35	31
2	8.7	22	35	32	e28	e20	53	63	123	20	24	29
3	8.9	20	47	31	e26	20	47	102	86	22	21	40
4	9.1	20	51	54	e25	20	44	71	68	42	49	46
5	9.3	19	37	61	e25	25	41	65	191	29	38	34
6	22	18	35	46	e24	28	39	64	549	28	29	32
7	18	17	32	40	e23	43	39	57	163	23	25	31
8	13	16	33	36	e22	66	41	54	111	21	24	32
9	12	17	56	35	e21	58	39	54	86	32	83	31
10	11	16	53	35	e20	76	44	51	70	23	50	31
11	14	27	43	33	e19	585	47	46	60	20	37	48
12	24	25	39	32	e19	e150	133	44	52	19	30	32
13	19	19	73	33	e19	e100	64	44	47	24	29	28
14	15	19	136	110	e19	e80	54	41	44	22	29	27
15	109	20	103	e58	e30	e70	48	39	40	37	29	26
16	263	19	70	e47	e33	e60	47	41	37	73	27	25
17	132	18	56	e42	e28	e52	134	40	35	37	27	25
18	153	16	e52	e38	e30	e44	166	40	34	35	35	23
19	81	16	e50	e35	e37	e40	150	38	35	28	28	24
20	58	16	47	e33	e36	e38	107	35	43	23	25	22
21	49	20	44	e30	27	e35	104	33	33	22	23	21
22	42	144	40	e28	23	e34	134	32	31	21	21	30
23	37	344	37	e66	23	e33	117	30	29	23	21	45
24	34	132	35	e120	23	e34	102	33	37	24	20	26
25	31	90	31	e52	22	e35	158	35	38	21	44	23
26	30	65	e30	e43	25	e40	116	32	29	20	77	29
27	29	52	29	e40	22	e340	95	32	31	22	41	45
28	26	48	29	e38	21	e120	80	30	29	18	35	38
29	25	43	57	e35	26	e78	70	28	24	24	76	30
30	24	41	56	e33	---	e62	65	27	23	27	44	27
31	22	---	e37	e32	---	61	---	373	---	38	36	---
TOTAL	1337.6	1360	1510	1382	726	2468	2436	1735	2439	839	1112	931
MEAN	43.1	45.3	48.7	44.6	25.0	79.6	81.2	56.0	81.3	27.1	35.9	31.0
MAX	263	344	136	120	37	585	166	373	549	73	83	48
MIN	8.6	16	29	28	19	20	39	27	23	18	20	21
CFSM	2.32	2.44	2.62	2.40	1.35	4.28	4.37	3.01	4.37	1.46	1.93	1.67
IN.	2.68	2.72	3.02	2.76	1.45	4.94	4.87	3.47	4.88	1.68	2.22	1.86

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1992, BY WATER YEAR (WY)

	1991	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992
MEAN	43.1	45.3	48.7	44.6	25.0	79.6	81.2	50.4	47.4	17.7	25.5	20.5
MAX	43.1	45.3	48.7	44.6	25.0	79.6	81.2	56.0	81.3	27.1	35.9	31.0
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992
MIN	43.1	45.3	48.7	44.6	25.0	79.6	81.2	44.7	13.4	8.28	15.0	10.0
(WY)	1992	1992	1992	1992	1992	1992	1992	1991	1991	1991	1991	1991

DELAWARE RIVER BASIN

01434013 EAST BRANCH NEVERSINK RIVER, EAST OF LADLETON, NY--Continued

SUMMARY STATISTICS

FOR 1992 WATER YEAR

WATER YEARS 1991 - 1992

ANNUAL TOTAL	18275.6				
ANNUAL MEAN	49.9			49.9	1992
HIGHEST ANNUAL MEAN				49.9	1992
LOWEST ANNUAL MEAN				49.9	1992
HIGHEST DAILY MEAN	585	Mar 11		585	Mar 11 1992
LOWEST DAILY MEAN	8.6	Oct 1		5.1	Aug 2 1991
ANNUAL SEVEN-DAY MINIMUM	12	Oct 1		5.4	Aug 2 1991
ANNUAL RUNOFF (CFSM)	2.68			2.68	
ANNUAL RUNOFF (INCHES)	36.55			36.48	
10 PERCENT EXCEEDS	91			73	
50 PERCENT EXCEEDS	35			30	
90 PERCENT EXCEEDS	20			8.6	

Time	Discharge (cfs)	Gage height (ft)	Date	Time	Discharge (cfs)	Gage height (ft)
0700	1080	5.74	June 8 2012	0700	1080	5.74
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992						
DAILY MEAN VALUES						
OCT	8.6	5.1				
NOV	19	5.4				
DEC	30	5.4				
JAN	41	5.4				
FEB	41	5.4				
MAR	41	5.4				
APR	41	5.4				
MAY	41	5.4				
JUN	41	5.4				
JUL	41	5.4				
AUG	41	5.4				
SEP	41	5.4				
OCT	41	5.4				
NOV	41	5.4				
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JAN	41	5.4</				

DELAWARE RIVER BASIN

01434017 EAST BRANCH NEVERSINK RIVER NEAR CLARYVILLE, NY

LOCATION.--Lat 41°55'31", long 74°32'26", Ulster County, Hydrologic Unit 02040104, on left bank at downstream side of bridge on Denning Road, 1.6 mi southwest of Ladleton, and 1.9 mi northeast of the village of Claryville.

DRAINAGE AREA.--22.9 mi².

PERIOD OF RECORD.--July 1991 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,740 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good 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, 1,670 ft³/s, June 6, 1992, gage height, 9.41 ft; minimum, 5.8 ft³/s, Aug. 9, 1991, gage height, 5.33 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 11	0745	1,310	8.99	June 6	0100	*1,670	*9.41

Minimum discharge, 9.8 ft³/s, Oct. 3, gage height, 5.46 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	25	49	e48	e39	e27	70	74	319	24	42	37
2	10	25	45	e47	e36	e27	62	76	147	23	29	34
3	10	24	62	42	e34	e26	56	123	99	25	25	46
4	11	23	67	64	e33	e27	52	86	78	49	57	53
5	10	22	49	72	e32	33	49	80	197	33	45	39
6	24	22	45	56	e31	36	46	76	720	32	32	36
7	22	21	42	50	e30	52	47	69	208	25	28	37
8	16	21	45	46	e29	78	48	64	140	22	26	39
9	14	20	74	45	e27	70	47	65	108	35	101	36
10	13	20	69	44	e26	82	51	60	87	25	59	36
11	16	30	57	41	e25	666	55	55	75	21	44	56
12	30	28	53	e40	e24	206	152	52	65	20	38	36
13	22	23	92	39	e25	e120	77	51	57	26	35	32
14	18	21	162	123	e26	e88	63	49	52	24	35	31
15	109	22	126	e70	e35	e74	57	47	47	38	33	29
16	300	22	90	e56	e40	e66	57	50	43	85	32	29
17	139	21	e70	e50	e33	e62	153	47	40	41	33	28
18	172	20	e58	e46	e30	e56	203	45	39	38	42	27
19	91	20	e52	e43	e43	53	190	42	40	30	34	27
20	68	19	e54	e40	e37	e47	133	39	50	26	30	25
21	55	22	e52	e36	e31	e44	126	37	38	24	28	25
22	47	157	e50	e34	30	e42	158	35	35	23	26	34
23	42	411	e47	e80	29	e41	141	34	32	27	25	55
24	38	165	e45	e140	30	e41	123	38	40	28	24	30
25	35	115	e42	e62	28	e40	195	40	41	23	42	26
26	33	84	e39	e56	33	61	142	35	33	24	97	34
27	31	69	e38	e52	29	e390	117	35	34	27	51	50
28	29	62	e38	e50	e28	145	99	33	33	22	41	42
29	27	57	70	e46	e27	91	87	30	28	27	89	33
30	26	52	72	e43	---	75	80	29	26	32	53	29
31	25	---	e50	e41	---	e72	---	464	---	44	42	---
TOTAL	1493	1643	1904	1702	900	2938	2936	2060	2951	943	1318	1071
MEAN	48.2	54.8	61.4	54.9	31.0	94.8	97.9	66.5	98.4	30.4	42.5	35.7
MAX	300	411	162	140	43	666	203	464	720	85	101	56
MIN	10	19	38	34	24	26	46	29	26	20	24	25
CFSM	2.10	2.39	2.68	2.40	1.36	4.14	4.27	2.90	4.30	1.33	1.86	1.56
IN.	2.43	2.67	3.09	2.76	1.46	4.77	4.77	3.35	4.79	1.53	2.14	1.74

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1992, BY WATER YEAR (WY)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	48.2	54.8	61.4	54.9	31.0	94.8	97.9	66.5	98.4	20.1	29.5	23.6
MAX	48.2	54.8	61.4	54.9	31.0	94.8	97.9	66.5	98.4	30.4	42.5	35.7
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992
MIN	48.2	54.8	61.4	54.9	31.0	94.8	97.9	66.5	98.4	9.71	16.4	11.4
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1992	1991	1991	1991

DELAWARE RIVER BASIN

01434017 EAST BRANCH NEVERSINK RIVER NEAR CLARYVILLE, NY--Continued

SUMMARY STATISTICS

FOR 1992 WATER YEAR

WATER YEARS 1991 - 1992

ANNUAL TOTAL	21859								
ANNUAL MEAN	59.7							59.7	
HIGHEST ANNUAL MEAN								59.7	1992
LOWEST ANNUAL MEAN								59.7	1992
HIGHEST DAILY MEAN	720	Jun	6					720	Jun 6 1992
LOWEST DAILY MEAN	10	Oct	1					6.0	Aug 8 1991
ANNUAL SEVEN-DAY MINIMUM	14	Oct	1					6.6	Aug 2 1991
ANNUAL RUNOFF (CFSM)	2.61							2.61	
ANNUAL RUNOFF (INCHES)	35.51							35.44	
10 PERCENT EXCEEDS	111							90	
50 PERCENT EXCEEDS	41							35	
90 PERCENT EXCEEDS	24							9.5	

01434021 WEST BRANCH NEVERSINK RIVER AT WINNISOOK LAKE NEAR FROST VALLEY, NY--Continued

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1991 - 1992

ANNUAL TOTAL	616.74		812.00			
ANNUAL MEAN	1.69		2.22		2.22	
HIGHEST ANNUAL MEAN					2.22	1992
LOWEST ANNUAL MEAN					2.22	1992
HIGHEST DAILY MEAN	28	Mar 4	46	Mar 27	46	Mar 27 1992
LOWEST DAILY MEAN	.07	Jul 29	.25	Feb 10	.07	Jul 29 1991
ANNUAL SEVEN-DAY MINIMUM	.08	Aug 2	.29	Feb 27	.08	Aug 2 1991
ANNUAL RUNOFF (CFSM)	2.19		2.88		2.88	
ANNUAL RUNOFF (INCHES)	29.80		39.23		39.15	
10 PERCENT EXCEEDS	3.5		4.0		3.8	
50 PERCENT EXCEEDS	.96		1.2		1.1	
90 PERCENT EXCEEDS	.17		.51		.23	

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.

DRAINAGE AREA.--3.72 mi².

PERIOD OF RECORD.--June 1983 to current year. February to May 1983 (occasional discharge measurements).

REVISED RECORDS.--WDR NY-91-1: Drainage area.

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. Prior to Sept. 11, 1987, at datum 1.00 ft higher.

REMARKS.--Records fair below 400 ft³/s and poor above. Several measurements of water temperature were made during the year. Satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--9 years, 10.06 ft³/s, 36.72 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,560 ft³/s, Apr. 4, 1987, gage height, 4.37 ft, present datum; minimum, 0.24 ft³/s, Sept. 2, 3, 1991, gage height, 0.75 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 22	2300	*217	*3.12	No other peak greater than base discharge.			
Minimum discharge, 1.1 ft ³ /s, Oct. 1, 3, 5, gage height, 0.94 ft.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	3.8	6.9	e6.4	e6.8	e4.2	11	12	38	2.7	6.9	4.6
2	1.3	3.7	6.6	e6.2	e6.2	e4.1	9.8	14	18	2.5	5.0	4.2
3	1.2	3.6	e8.8	6.9	e6.0	e4.1	9.2	20	13	3.5	4.5	8.2
4	1.3	3.4	e9.4	15	e5.8	4.3	8.5	14	11	6.0	6.5	9.1
5	1.3	3.2	e7.0	14	4.9	6.4	8.2	13	17	3.6	5.0	5.7
6	4.6	3.1	e6.4	11	e4.5	7.2	7.8	12	54	4.1	4.3	5.3
7	2.7	3.1	6.1	9.5	e4.3	16	8.1	12	24	3.0	4.0	5.4
8	2.0	2.9	8.2	9.0	e4.0	22	8.6	11	21	2.7	3.7	6.1
9	1.8	2.6	15	8.3	e3.8	19	8.2	11	17	5.5	13	5.4
10	1.6	2.8	12	8.1	e3.6	21	9.7	9.8	13	3.2	7.0	6.1
11	3.4	4.9	10	7.4	e3.5	115	11	9.2	11	2.8	5.5	8.8
12	5.8	3.6	9.3	e7.0	e3.4	e25	32	8.7	9.3	2.7	4.8	5.7
13	3.1	3.1	15	7.0	e3.3	e18	16	8.2	8.3	4.2	4.6	4.9
14	2.4	3.4	30	31	e3.5	e14	13	7.3	7.3	3.7	4.6	4.5
15	23	4.1	22	e17	4.2	e12	11	6.6	6.5	5.7	4.6	4.4
16	45	3.8	15	e14	19	e11	11	7.3	5.6	8.0	4.5	4.3
17	21	3.3	e12	e12	5.1	e9.0	28	6.7	5.3	4.4	4.6	4.2
18	22	3.3	e11	e11	4.5	e7.8	34	6.8	4.9	7.8	5.4	3.9
19	13	3.3	e9.6	e10	10	e7.8	30	6.0	5.1	7.0	4.5	4.0
20	9.7	3.2	e9.0	e9.2	8.0	e7.0	21	5.1	5.5	11	3.9	3.5
21	8.0	4.6	e8.4	e8.6	5.7	e6.6	20	4.7	4.5	6.4	3.5	3.6
22	6.9	38	8.2	e8.0	5.0	e6.4	23	4.5	4.4	5.3	3.3	7.2
23	6.1	78	7.8	e28	e4.8	e5.6	21	4.2	4.1	6.8	3.1	7.3
24	5.6	26	7.2	32	e4.7	e4.8	22	5.4	6.0	6.8	2.9	4.2
25	5.5	17	6.5	e15	e4.5	e5.2	32	5.1	5.2	5.2	6.1	3.7
26	5.1	13	e6.2	e11	e4.4	e9.0	23	4.5	4.2	5.4	6.3	4.8
27	4.8	e10	5.6	e9.4	e4.3	54	19	4.6	4.7	5.7	4.4	5.8
28	4.3	8.7	5.6	e8.4	e4.3	18	16	4.1	3.8	4.6	6.3	5.0
29	3.9	8.1	12	e7.8	e4.2	13	14	3.8	3.3	5.0	13	4.2
30	3.9	7.6	11	e7.4	---	11	13	3.4	3.0	4.8	6.6	3.9
31	3.9	---	e7.4	e7.0	---	12	---	57	---	8.0	5.2	---
TOTAL	225.4	279.2	315.2	362.6	156.3	480.5	499.1	302.0	338.0	158.1	167.6	158.0
MEAN	7.27	9.31	10.2	11.7	5.39	15.5	16.6	9.74	11.3	5.10	5.41	5.27
MAX	45	78	30	32	19	115	34	57	54	11	13	9.1
MIN	1.2	2.6	5.6	6.2	3.3	4.1	7.8	3.4	3.0	2.5	2.9	3.5
CFSM	1.95	2.50	2.73	3.14	1.45	4.17	4.47	2.62	3.03	1.37	1.45	1.42
IN.	2.25	2.79	3.15	3.63	1.56	4.80	4.99	3.02	3.38	1.58	1.68	1.58

e Estimated

01434025 BISCUIT BROOK ABOVE PIGEON BROOK AT FROST VALLEY, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1992, BY WATER YEAR (WY)

MEAN	8.03	12.2	11.7	6.94	10.3	17.6	18.4	15.5	5.94	3.93	4.01	5.44
MAX	15.2	20.7	23.8	11.7	28.3	30.3	37.3	33.1	11.3	7.12	9.31	17.4
(WY)	1988	1987	1991	1992	1984	1986	1987	1989	1992	1985	1990	1987
MIN	1.00	3.24	4.43	2.65	2.26	9.49	10.9	5.88	1.82	.74	.92	.86
(WY)	1985	1985	1990	1989	1987	1984	1985	1987	1991	1991	1991	1983

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1983 - 1992
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ANNUAL TOTAL	2765.18			3442.0				
ANNUAL MEAN	7.58			9.40			10.1	
HIGHEST ANNUAL MEAN							12.3	1984
LOWEST ANNUAL MEAN							6.76	1985
HIGHEST DAILY MEAN	110	Mar	4	115	Mar	11	431	Apr 4 1987
LOWEST DAILY MEAN	.27	Sep	3	1.2	Oct	1	.27	Sep 3 1991
ANNUAL SEVEN-DAY MINIMUM	.31	Sep	7	1.9	Oct	1	.31	Sep 7 1991
ANNUAL RUNOFF (CFSM)	2.04			2.53			2.71	
ANNUAL RUNOFF (INCHES)	27.65			34.42			36.80	
10 PERCENT EXCEEDS	15			19			19	
50 PERCENT EXCEEDS	5.6			6.4			5.9	
90 PERCENT EXCEEDS	.46			3.4			1.6	

DELAWARE RIVER BASIN

01434105 HIGH FALLS BROOK AT FROST VALLEY, NY--Continued

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1991 - 1992

ANNUAL TOTAL	2000.41	2478.90					
ANNUAL MEAN	5.48	6.77				6.89	
HIGHEST ANNUAL MEAN						7.01	1991
LOWEST ANNUAL MEAN						6.77	1992
HIGHEST DAILY MEAN	55	Mar 4	42	Jun 6	55	Mar 4	1991
LOWEST DAILY MEAN	.41	Aug 30	.90	Oct 1	.41	Aug 30	1991
ANNUAL SEVEN-DAY MINIMUM	.42	Aug 28	1.4	Oct 1	.42	Aug 28	1991
ANNUAL RUNOFF (CFSM)	2.00		2.47		2.52		
ANNUAL RUNOFF (INCHES)	27.16		33.66		34.18		
10 PERCENT EXCEEDS	10		13		13		
50 PERCENT EXCEEDS	5.1		5.4		5.8		
90 PERCENT EXCEEDS	.52		2.7		.88		

DELAWARE RIVER BASIN

01434176 WEST BRANCH NEVERSINK RIVER NEAR CLARYVILLE, NY

LOCATION.--Lat 41°57'20", long 74°32'40", Ulster County, Hydrologic Unit 02040104, on right bank 0.1 mi downstream from confluence with Flat Brook, and 2.8 mi northeast of Claryville.

DRAINAGE AREA.--25.3 mi².

PERIOD OF RECORD.--July 1991 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,810 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diversion upstream from station to maintain lake volume at Frost Valley YMCA camp. Excess lake water is diverted back into the river upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 784 ft³/s, Nov. 23, 1991, gage height, 5.20 ft, from rating curve extended above 290 ft³/s on basis of runoff comparisons with nearby stations; minimum discharge, 5.1 ft³/s on several days during August and September 1991, gage height, 2.00 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 23	0015	*784	*5.20	May 31	1645	543	4.49
Mar. 11	unknown	770	5.16	June 6	0330	668	4.87

Minimum discharge, 9.6 ft³/s, Oct. 2, 3, 5, gage height, 2.08 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	29	58	e47	e43	e28	80	83	254	24	45	32
2	10	28	54	e45	e34	e29	72	83	138	22	31	30
3	9.7	27	69	47	e36	e29	66	126	102	25	27	46
4	11	26	71	79	e35	e30	60	95	84	44	45	55
5	10	24	54	87	e34	e36	56	91	112	29	40	38
6	20	24	52	70	e32	e44	53	88	419	32	31	35
7	19	22	49	61	e30	e64	54	80	182	24	27	36
8	15	17	52	55	e28	e100	55	75	141	21	26	38
9	14	14	86	54	e27	e94	54	73	116	35	99	35
10	13	14	80	52	e26	e96	56	68	95	24	62	36
11	17	24	67	47	e25	e500	61	63	83	20	49	60
12	32	22	62	45	e24	e240	156	60	73	19	45	39
13	22	21	92	45	e23	e140	96	58	64	28	39	35
14	19	24	155	134	e24	e100	79	52	58	25	36	32
15	91	27	137	102	e25	e80	70	50	53	36	37	31
16	273	27	104	68	e60	e68	70	54	47	68	36	30
17	154	25	e84	e58	38	e60	154	49	41	38	37	29
18	168	24	e72	e54	33	e52	201	48	41	47	42	27
19	99	24	e62	e49	e58	e49	192	44	43	34	35	28
20	75	23	e64	e47	e52	e47	144	41	46	43	32	26
21	63	27	e60	e46	e41	e45	130	39	39	31	29	26
22	56	156	e56	e45	e35	e43	150	36	36	28	28	36
23	48	396	e52	e90	e36	e42	143	34	33	32	27	54
24	44	177	e49	155	e37	e41	131	41	42	35	24	31
25	41	128	e45	e74	e34	e40	185	41	40	28	29	28
26	38	98	e41	e64	e38	e60	152	36	32	28	53	33
27	36	82	e39	e60	e35	328	128	36	34	30	40	39
28	34	74	e37	e58	e33	141	111	34	33	24	36	37
29	32	68	e64	e54	e32	97	98	30	28	28	70	31
30	30	62	76	e52	---	84	90	29	25	29	44	29
31	30	---	54	e50	---	e82	---	298	---	42	36	---
TOTAL	1533.7	1734	2097	1994	1008	2889	3147	2035	2534	973	1237	1062
MEAN	49.5	57.8	67.6	64.3	34.8	93.2	105	65.6	84.5	31.4	39.9	35.4
MAX	273	396	155	155	60	500	201	298	419	68	99	60
MIN	9.7	14	37	45	23	28	53	29	25	19	24	26
CFSM	1.96	2.28	2.67	2.54	1.37	3.68	4.15	2.59	3.34	1.24	1.58	1.40
IN.	2.26	2.55	3.08	2.93	1.48	4.25	4.63	2.99	3.73	1.43	1.82	1.56

e Estimated

DELAWARE RIVER BASIN

01434498 WEST BRANCH NEVERSINK RIVER AT CLARYVILLE, NY

LOCATION.--Lat 41°55'13", long 74°34'30", Sullivan County, Hydrologic Unit 02040104, on left bank about 100 ft downstream from bridge on County Highway 157 in Claryville.

DRAINAGE AREA.--33.8 mi².

PERIOD OF RECORD.--July 1991 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,620 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diversion upstream from station to maintain lake volume at Frost Valley YMCA camp. Excess lake water is diverted back into the river upstream from station. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,870 ft³/s, Nov. 23, 1991, gage height, 8.40 ft, from rating curve extended above 130 ft³/s on basis of runoff comparisons with nearby stations; minimum discharge, 6.7 ft³/s, Sept. 14, 15, 1991, gage height, 4.22 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 23	0100	*1,870	*8.40	May 31	1715	963	7.35
Mar. 11	0800	1,580	8.10	June 6	0400	1,820	8.35
Mar. 27	0545	717	6.95				

Minimum discharge, 13 ft³/s, Oct. 3, gage height, 4.41 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	38	79	67	e62	e40	111	118	376	31	61	43
2	14	37	73	64	e50	e41	100	119	185	29	42	40
3	14	35	95	64	e52	e41	92	176	133	31	36	57
4	15	33	101	100	e50	e42	86	134	107	57	56	71
5	14	32	76	116	e48	55	80	128	131	39	51	50
6	24	31	71	93	e47	65	76	122	832	41	41	45
7	25	30	66	81	e46	95	77	109	273	32	37	46
8	20	25	70	74	e44	142	79	100	195	29	35	49
9	18	21	116	71	e37	130	77	97	159	46	124	45
10	17	20	113	69	e34	134	80	90	130	32	86	45
11	20	33	93	64	e33	945	85	84	111	27	67	78
12	41	32	86	60	e32	331	214	79	96	25	60	51
13	29	28	127	60	e31	194	133	76	86	36	54	45
14	25	32	219	170	e32	e140	110	70	77	33	50	42
15	93	35	195	131	e33	e115	98	66	70	44	51	40
16	359	36	147	87	e78	e96	98	71	63	87	49	39
17	182	32	e120	76	55	e92	219	65	55	48	51	37
18	211	31	e100	e72	46	e88	291	63	55	58	58	36
19	125	30	e86	e66	e74	e82	280	58	56	43	50	37
20	94	30	e90	e64	73	e75	204	54	60	50	45	34
21	78	34	e86	e62	55	e68	182	51	51	39	42	33
22	70	223	e78	e60	48	e62	209	48	47	35	40	42
23	61	749	e72	e90	49	e60	198	44	44	40	38	70
24	56	258	e68	212	51	e58	183	51	53	44	35	41
25	52	180	e62	104	47	e56	272	55	53	36	42	36
26	50	138	e56	90	54	86	218	46	43	35	92	43
27	47	114	e54	82	48	476	181	46	42	40	69	50
28	45	102	e50	e80	46	202	157	43	43	32	50	47
29	42	93	e90	e74	e47	137	141	39	36	38	89	40
30	40	85	108	e70	---	118	129	37	33	42	58	38
31	39	---	74	73	---	116	---	462	---	54	49	---
TOTAL	1934	2597	2921	2646	1402	4382	4460	2801	3695	1253	1708	1370
MEAN	62.4	86.6	94.2	85.4	48.3	141	149	90.4	123	40.4	55.1	45.7
MAX	359	749	219	212	78	945	291	462	832	87	124	78
MIN	14	20	50	60	31	40	76	37	33	25	35	33
CFSM	1.85	2.56	2.79	2.53	1.43	4.18	4.40	2.67	3.64	1.20	1.63	1.35
IN.	2.13	2.86	3.21	2.91	1.54	4.82	4.91	3.08	4.07	1.38	1.88	1.51

e Estimated

DELAWARE RIVER BASIN

01434498 WEST BRANCH NEVERSINK RIVER AT CLARYVILLE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1992, BY WATER YEAR (WY)

MEAN	62.4	86.6	94.2	85.4	48.3	141	149	90.4	123	25.8	34.3	30.5
MAX	62.4	86.6	94.2	85.4	48.3	141	149	90.4	123	40.4	55.1	45.7
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992
MIN	62.4	86.6	94.2	85.4	48.3	141	149	90.4	123	11.1	13.6	15.3
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1992	1991	1991	1991

SUMMARY STATISTICS

FOR 1992 WATER YEAR

WATER YEARS 1991 - 1992

ANNUAL TOTAL	31169		
ANNUAL MEAN	85.2		85.2
HIGHEST ANNUAL MEAN			85.2 1992
LOWEST ANNUAL MEAN			85.2 1992
HIGHEST DAILY MEAN	945	Mar 11	945 Mar 11 1992
LOWEST DAILY MEAN	14	Oct 1	6.8 Sep 14 1991
ANNUAL SEVEN-DAY MINIMUM	17	Oct 1	7.3 Sep 8 1991
ANNUAL RUNOFF (CFSM)	2.52		2.52
ANNUAL RUNOFF (INCHES)	34.30		34.23
10 PERCENT EXCEEDS	158		133
50 PERCENT EXCEEDS	59		49
90 PERCENT EXCEEDS	32		9.9

DELAWARE RIVER BASIN

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 mi².

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.--Records good below 2,000 ft³/s and fair above, except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 186 ft³/s, 37.93 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,300 ft³/s, Apr. 4, 1987, gage height, 13.26 ft; maximum gage height, 13.83 ft, present datum, July 10, 1952; minimum discharge, 6.8 ft³/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 ft³/s, by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 23	0115	3,260	9.57	June 6	0330	*3,990	*9.90
Mar. 11	0845	3,200	9.54				

Minimum discharge, 21 ft³/s, Oct. 3, gage height, 6.07 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	67	145	e130	e120	e84	207	214	991	65	122	87
2	22	65	135	e120	e110	e80	185	216	418	62	84	80
3	21	62	174	125	e110	e78	170	342	276	63	73	106
4	23	59	197	168	e100	84	158	249	216	116	121	135
5	22	56	148	197	e100	100	148	232	346	79	114	97
6	38	54	138	160	e94	121	140	225	2100	80	85	88
7	44	52	129	143	e92	159	141	201	661	66	73	88
8	34	47	132	131	e88	241	145	189	422	59	70	95
9	29	42	205	133	e82	218	141	186	318	85	248	88
10	28	40	208	128	e78	222	148	174	245	64	166	84
11	32	67	172	121	e76	1980	156	163	205	55	126	147
12	65	71	159	e110	e74	716	407	154	178	52	108	97
13	49	56	231	117	e72	376	237	148	158	63	98	85
14	40	57	419	334	e74	281	196	140	140	64	92	78
15	170	61	369	262	e76	242	179	132	128	81	92	74
16	913	63	261	e170	e120	e190	175	141	117	194	86	71
17	340	58	e210	e150	109	e170	432	132	103	106	89	68
18	453	54	e180	e140	89	e150	624	127	100	112	110	65
19	232	53	e160	e130	e130	e140	606	120	104	86	93	67
20	175	52	e160	e120	142	e130	409	110	123	86	82	61
21	146	58	e160	e110	104	e120	363	104	98	75	74	59
22	131	381	e150	e100	89	e120	427	97	89	73	69	73
23	116	1580	143	e240	89	e120	403	90	84	77	66	139
24	104	537	136	470	95	e120	348	99	101	84	61	79
25	97	355	126	e190	88	e130	564	111	105	73	68	66
26	91	256	e110	e170	101	156	436	93	84	71	188	80
27	87	208	e110	e160	92	1240	353	92	82	79	134	108
28	81	185	e100	e150	87	e400	297	87	85	69	98	100
29	75	170	171	e140	e86	e230	259	78	71	73	181	80
30	71	156	199	e130	---	e210	235	73	67	91	124	72
31	68	---	e140	e130	---	e210	---	1160	---	110	100	---
TOTAL	3819	5022	5477	5079	2767	8818	8689	5679	8215	2513	3295	2617
MEAN	123	167	177	164	95.4	284	290	183	274	81.1	106	87.2
MAX	913	1580	419	470	142	1980	624	1160	2100	194	248	147
MIN	21	40	100	100	72	78	140	73	67	52	61	59
CFSM	1.85	2.51	2.65	2.46	1.43	4.27	4.35	2.75	4.11	1.22	1.60	1.31
IN.	2.13	2.81	3.06	2.84	1.55	4.93	4.85	3.17	4.59	1.40	1.84	1.46

e Estimated

DELAWARE RIVER BASIN

01435000 NEVERSINK RIVER NEAR CLARYVILLE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1992, BY WATER YEAR (WY)

MEAN	147	201	212	155	174	278	426	258	143	82.1	72.2	87.7
MAX	613	409	565	430	747	681	780	608	483	290	430	336
(WY)	1956	1973	1974	1979	1981	1977	1958	1989	1972	1952	1955	1979
MIN	12.4	18.4	71.9	41.8	48.4	85.8	160	110	37.3	19.3	16.8	10.6
(WY)	1965	1965	1981	1961	1980	1958	1981	1987	1991	1991	1953	1964

SUMMARY STATISTICS FOR 1991 CALENDAR YEAR FOR 1992 WATER YEAR WATER YEARS 1951 - 1992

ANNUAL TOTAL	47988	61990	
ANNUAL MEAN	131	169	186
HIGHEST ANNUAL MEAN			280
LOWEST ANNUAL MEAN			100
HIGHEST DAILY MEAN	1790	Mar 4	2100
LOWEST DAILY MEAN	12	Aug 7	21
ANNUAL SEVEN-DAY MINIMUM	13	Sep 8	27
ANNUAL RUNOFF (CFSM)	1.97		2.54
ANNUAL RUNOFF (INCHES)	26.80		34.63
10 PERCENT EXCEEDS	250		323
50 PERCENT EXCEEDS	104		116
90 PERCENT EXCEEDS	17		63

Time	Discharge (cfs)	Date	Time	Discharge (cfs)	Date
11	2,300	08-15	11	2,300	08-15
12	2,180	08-15	12	2,180	08-15

Minimum discharge, 51 cfs, Oct. 5, 1991, 5.07 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DEC	NOV	OCT	SEP	AUG	JUL	JUN	MAY	APR	MAR	FEB	JAN
25	28	28	148	148	148	148	148	148	148	148	148
25	28	28	148	148	148	148	148	148	148	148	148
25	28	28	148	148	148	148	148	148	148	148	148
25	28	28	148	148	148	148	148	148	148	148	148
25	28	28	148	148	148	148	148	148	148	148	148
25	28	28	148	148	148	148	148	148	148	148	148
25	28	28	148	148	148	148	148	148	148	148	148
25	28	28	148	148	148	148	148	148	148	148	148
25	28	28	148	148	148	148	148	148	148	148	148
25	28	28	148	148	148	148	148	148	148	148	148
25	28	28	148	148	148	148	148	148	148	148	148
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25</											

WATER YEARS 1954 - 1992

ANNUAL TOTAL	13772.1		9366.5			
ANNUAL MEAN	37.7		25.6		48.0	
HIGHEST ANNUAL MEAN					158	1956
LOWEST ANNUAL MEAN					11.4	1971
HIGHEST DAILY MEAN	87	Jun 28	99	Aug 26	3700	Jun 23 1972
LOWEST DAILY MEAN	5.8	Nov 30	5.8	Nov 30	.00	Oct 27 1954
ANNUAL SEVEN-DAY MINIMUM	5.8	Dec 20	5.8	Dec 20	.23	Dec 12 1958
10 PERCENT EXCEEDS	68		46		82	
50 PERCENT EXCEEDS	42		16		18	
90 PERCENT EXCEEDS	6.2		6.0		5.0	

DELAWARE RIVER BASIN

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 mi².

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.--Records good except those for estimated daily discharges, which are poor. Subsequent to June 1953, entire flow from 92.5 mi² 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. Satellite gage-height and temperature telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,000 ft³/s, Nov. 26, 1950, gage height, 11.19 ft, from rating curve extended above 15,000 ft³/s; maximum gage height, 11.2 ft, July 22, 1938, from floodmarks; minimum discharge, 6.7 ft³/s, June 27, 1953; minimum gage height, 0.80 ft, Aug. 25, 27, 28, 1949; minimum daily discharge, 8.2 ft³/s, June 25, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,330 ft³/s, June 6, gage height, 4.27 ft; minimum, 18 ft³/s, Dec. 28, gage height, 1.16 ft, result of freezeup; minimum daily discharge, about 21 ft³/s, Feb. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	48	33	e35	e40	e29	71	60	189	73	67	50
2	46	31	31	e31	e37	e28	63	62	93	55	56	50
3	45	29	73	28	e34	27	55	101	69	63	53	55
4	46	29	90	31	e32	e29	50	67	61	98	62	54
5	45	28	52	33	e30	e34	46	63	108	83	56	57
6	47	28	45	30	e29	39	44	62	671	71	53	72
7	46	28	40	27	e27	49	43	55	182	59	57	71
8	45	27	43	e27	e26	62	52	52	129	55	75	58
9	45	27	58	e26	e25	54	51	53	104	63	97	73
10	45	27	57	25	e24	49	55	49	88	57	90	70
11	51	39	46	e24	e23	158	55	46	78	70	78	59
12	55	36	40	e23	e22	e78	137	43	75	73	55	52
13	48	31	64	23	e22	e60	78	42	81	54	53	50
14	46	29	97	60	e21	e50	65	47	74	55	53	49
15	61	30	78	e40	e28	e45	61	46	69	58	52	49
16	67	30	57	e34	93	e41	67	47	53	75	52	52
17	39	29	e54	e31	78	e38	146	43	55	62	53	71
18	50	28	e48	e29	58	e35	200	40	63	61	60	71
19	33	28	e40	e28	64	e32	211	37	65	56	56	68
20	28	28	42	e27	54	e31	127	41	67	62	53	48
21	26	30	40	e26	41	30	104	41	62	77	51	48
22	25	149	e37	e25	35	e29	104	46	61	69	54	51
23	25	287	e35	60	31	e29	96	56	59	58	73	59
24	50	100	e33	159	28	e29	85	63	75	62	73	50
25	50	71	e30	76	26	e29	135	69	68	58	80	49
26	50	55	e28	60	40	45	104	49	64	75	110	53
27	50	47	e26	e50	36	386	91	48	70	83	99	55
28	49	42	27	e45	31	131	75	48	63	57	53	53
29	50	38	40	e43	e30	e70	69	45	59	56	56	51
30	48	35	47	e44	---	71	63	53	66	59	52	49
31	49	---	e40	e47	---	76	---	232	---	63	51	---
TOTAL	1406	1464	1471	1247	1065	1893	2603	1806	3021	2020	1983	1697
MEAN	45.4	48.8	47.5	40.2	36.7	61.1	86.8	58.3	101	65.2	64.0	56.6
MAX	67	287	97	159	93	386	211	232	671	98	110	73
MIN	25	27	26	23	21	27	43	37	53	54	51	48

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1992, BY WATER YEAR (WY)

MEAN	86.2	66.6	57.6	50.1	63.2	81.2	162	133	96.5	88.7	98.8	87.5
MAX	485	322	101	182	237	159	492	388	458	308	316	248
(WY)	1956	1956	1978	1979	1981	1979	1987	1956	1972	1962	1956	1964
MIN	21.7	19.0	18.7	17.6	24.2	28.3	37.6	31.2	22.5	18.3	20.3	17.8
(WY)	1973	1966	1961	1965	1963	1981	1985	1964	1964	1971	1968	1972

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1954 - 1992

ANNUAL TOTAL	23651	21676			
ANNUAL MEAN	64.8	59.2		89.3	
HIGHEST ANNUAL MEAN				222	1956
LOWEST ANNUAL MEAN				45.6	1985
HIGHEST DAILY MEAN	315	Mar 4	671	Jun 6	4030 Jun 30 1973
LOWEST DAILY MEAN	25	Oct 22	21	Feb 14	10 Jan 23 1961
ANNUAL SEVEN-DAY MINIMUM	28	Nov 4	23	Feb 8	12 Jan 26 1965
10 PERCENT EXCEEDS	90		86		185
50 PERCENT EXCEEDS	61		52		54
90 PERCENT EXCEEDS	39		28		23

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. Also, water-temperature satellite telemeter from May 1985 to September 1992 provided one-hour-interval readings.

REMARKS.--Interruptions of record were due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (water years 1979-83, 1985, 1988, 1990-92), 26.5°C, June 16, 1981; minimum (water years 1980-92), 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 20.5°C, May 21, but may have been higher during period of instrument malfunction; minimum, 0.0°C on many days during winter period.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	13.5	10.5	11.5	12.0	9.5	11.0	8.0	7.5	7.5	0.5	0.0	0.0
2	16.5	12.0	14.0	11.5	9.5	11.0	7.5	5.5	6.5	0.5	0.0	0.0
3	16.0	13.5	14.5	11.0	7.0	8.5	5.5	3.0	3.5	2.0	0.0	1.0
4	16.5	13.0	14.5	8.0	5.0	6.5	---	---	---	3.0	2.0	2.5
5	16.0	14.5	15.0	7.0	3.5	4.5	---	---	---	4.0	2.5	3.0
6	15.5	12.0	14.5	6.5	3.0	4.5	---	---	---	4.0	2.5	3.0
7	12.0	9.5	10.5	6.0	4.5	5.0	---	---	---	3.0	1.5	2.0
8	13.0	8.5	10.5	7.0	4.5	5.0	---	---	---	2.5	0.0	1.0
9	13.5	9.0	11.0	4.5	3.0	4.0	---	---	---	0.5	0.0	0.5
10	14.0	10.0	12.0	5.0	3.0	4.0	---	---	---	2.5	0.5	1.5
11	13.0	10.5	12.0	6.0	5.0	5.5	---	---	---	1.0	0.0	0.5
12	12.0	9.0	10.5	5.5	4.5	5.0	---	---	---	1.0	0.0	0.5
13	11.0	8.5	10.0	5.5	5.0	5.5	---	---	---	3.0	0.0	1.5
14	11.5	7.5	9.5	8.5	5.0	6.0	---	---	---	4.5	1.5	3.0
15	10.5	9.0	9.5	7.0	5.0	6.0	---	---	---	1.5	0.0	0.5
16	12.5	10.0	11.0	9.0	5.0	7.0	---	---	---	0.0	0.0	0.0
17	10.0	8.5	9.0	5.5	2.5	3.5	---	---	---	0.0	0.0	0.0
18	13.5	9.0	11.0	5.0	1.5	3.0	---	---	---	0.0	0.0	0.0
19	12.5	9.5	10.5	8.5	4.0	6.0	---	---	---	0.0	0.0	0.0
20	11.5	7.5	9.0	11.0	7.0	8.5	---	---	---	0.0	0.0	0.0
21	10.0	6.0	7.5	9.5	9.0	9.5	---	---	---	0.0	0.0	0.0
22	12.0	6.5	8.5	9.0	8.5	8.5	---	---	---	0.0	0.0	0.0
23	13.0	7.5	9.5	9.5	8.5	9.0	---	---	---	0.0	0.0	0.0
24	12.0	9.0	10.5	9.0	6.5	8.5	---	---	---	0.0	0.0	0.0
25	14.0	10.5	12.0	6.5	3.5	5.0	---	---	---	0.5	0.0	0.0
26	13.0	11.5	12.0	3.5	2.5	3.0	---	---	---	0.0	0.0	0.0
27	14.0	11.5	12.5	3.0	1.0	2.0	0.5	0.0	---	0.0	0.0	0.0
28	13.5	9.5	12.0	4.5	2.0	3.0	0.5	0.0	0.0	0.0	0.0	0.0
29	10.0	7.0	8.5	7.5	4.0	5.5	0.5	0.0	0.5	0.0	0.0	0.0
30	9.5	6.0	8.0	7.5	5.5	6.5	2.5	0.5	1.0	0.5	0.0	0.0
31	10.0	8.0	9.0	---	---	---	1.0	0.0	0.0	0.0	0.0	0.0
MONTH	16.5	6.0	11.0	12.0	1.0	6.0	---	---	---	4.5	0.0	0.5

DELAWARE RIVER BASIN

01436500 NEVERSINK RIVER AT WOODBOURNE, NY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	0.5	0.0	0.0	0.5	0.5	0.5	4.0	2.0	3.0	13.5	8.0	10.5
2	0.5	0.0	0.0	1.0	0.5	0.5	4.5	1.0	3.0	16.5	9.5	13.0
3	0.5	0.0	0.0	2.0	0.5	1.0	5.0	1.0	3.0	16.0	11.5	14.0
4	0.0	0.0	0.0	5.5	0.5	2.5	5.5	1.0	3.5	13.0	9.5	11.0
5	0.5	0.0	0.0	7.5	1.5	4.0	7.5	1.5	4.0	10.0	7.5	8.0
6	0.5	0.0	0.0	4.5	3.0	3.5	9.5	2.0	5.5	10.5	7.0	8.5
7	0.5	0.0	0.0	3.5	2.5	3.0	8.5	4.5	6.0	13.0	6.0	9.5
8	0.0	0.0	0.0	5.0	2.5	3.5	10.5	5.5	7.5	11.0	9.0	10.0
9	0.0	0.0	0.0	6.5	3.5	5.0	7.5	4.0	5.5	16.0	10.0	12.5
10	0.5	0.0	0.0	4.5	3.5	4.0	12.0	5.0	8.0	15.5	11.0	13.0
11	0.0	0.0	0.0	4.5	0.0	3.5	10.0	5.5	7.0	19.0	11.5	15.0
12	0.0	0.0	0.0	2.0	0.0	0.5	6.5	3.5	5.0	19.5	12.0	16.0
13	0.0	0.0	0.0	2.0	0.0	1.0	8.5	1.5	4.5	20.0	14.5	17.0
14	0.0	0.0	0.0	2.0	0.5	0.5	10.0	3.0	6.5	19.0	14.5	17.0
15	0.0	0.0	0.0	2.5	0.5	1.0	10.5	4.0	7.0	17.0	13.0	15.0
16	0.5	0.0	0.0	2.5	0.5	1.0	8.5	3.5	5.5	15.0	12.0	13.0
17	0.5	0.0	0.5	1.0	0.0	0.5	4.0	3.0	3.5	13.0	11.5	12.0
18	0.0	0.0	0.0	3.5	0.0	1.5	4.5	3.5	4.0	17.0	12.0	14.0
19	0.5	0.0	0.5	2.0	0.5	1.0	5.0	3.5	4.0	19.5	11.0	15.0
20	0.5	0.0	0.0	4.0	0.5	1.5	8.0	4.5	6.0	19.5	11.5	15.5
21	0.5	0.0	0.5	4.0	0.5	1.5	10.0	7.0	8.5	20.5	12.0	16.0
22	0.5	0.0	0.5	1.0	0.5	0.5	11.0	9.0	10.0	20.0	13.0	16.5
23	1.5	0.0	0.5	2.5	0.0	1.0	14.0	8.0	10.5	19.0	12.5	16.0
24	1.5	0.5	1.0	3.0	0.5	1.0	13.0	8.5	11.0	16.5	10.0	13.0
25	0.5	0.5	0.5	4.5	0.5	2.0	11.0	7.0	8.5	13.5	9.0	10.5
26	2.0	0.5	1.5	3.5	2.0	2.5	9.0	6.0	7.5	12.0	10.0	11.0
27	3.5	0.5	1.5	2.5	1.0	1.5	13.0	6.5	9.5	11.0	9.0	10.0
28	2.5	0.5	1.5	3.0	0.5	1.5	10.5	6.5	9.0	15.0	8.0	11.0
29	2.5	0.0	1.0	5.5	0.0	2.5	13.5	6.5	10.0	17.5	9.5	13.0
30	---	---	---	4.0	1.5	3.0	11.0	7.5	9.0	14.5	10.5	12.0
31	---	---	---	8.0	2.0	4.5	---	---	---	11.5	10.5	11.0
MONTH	3.5	0.0	0.5	8.0	0.0	2.0	14.0	1.0	6.5	20.5	6.0	13.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	12.0	11.0	11.5	18.0	11.0	14.5	18.0	12.5	14.5	---	---	---
2	17.0	10.5	13.5	18.0	12.5	15.0	17.0	12.0	15.0	---	---	---
3	19.0	11.5	15.0	15.5	11.0	12.5	17.5	13.0	15.0	---	---	---
4	19.0	13.0	16.0	14.0	10.0	11.5	16.5	13.5	15.0	---	---	---
5	16.5	13.0	14.0	13.0	10.5	11.5	16.0	12.0	14.0	15.0	12.5	14.0
6	14.5	12.5	13.5	17.5	11.5	14.5	18.0	11.5	14.5	13.5	11.0	12.0
7	17.5	13.0	15.0	18.0	12.0	15.0	17.5	12.0	14.5	11.5	10.5	11.0
8	17.5	14.0	15.5	16.5	12.0	14.5	15.0	10.5	13.0	15.0	11.5	13.0
9	19.0	13.5	16.0	20.0	13.5	16.5	14.5	11.0	13.0	14.0	11.5	13.0
10	18.5	12.5	15.5	18.5	14.5	17.0	16.5	11.5	14.0	15.5	11.5	13.5
11	19.0	12.0	15.0	17.5	13.0	15.5	14.5	11.5	13.5	17.0	13.5	14.5
12	19.0	12.0	15.5	15.5	11.0	12.5	17.5	12.0	14.0	16.0	11.0	13.0
13	18.0	12.0	15.0	19.5	12.0	15.0	14.5	11.5	12.5	15.5	10.0	12.5
14	19.0	13.0	15.5	18.5	13.5	16.0	12.5	11.0	11.5	15.5	10.5	13.0
15	19.0	13.5	16.0	17.0	14.5	16.0	12.5	11.0	12.0	15.0	11.0	13.0
16	19.0	12.5	15.5	17.0	13.5	15.5	12.0	11.0	11.5	16.5	12.0	14.0
17	19.5	13.0	16.0	16.0	13.0	14.0	11.5	11.0	11.5	15.0	11.5	13.5
18	16.5	12.5	13.0	17.5	12.5	14.5	15.5	11.0	12.5	14.5	11.5	13.0
19	12.5	11.0	12.0	19.0	13.5	16.0	14.5	12.0	13.0	14.5	12.0	13.0
20	16.0	11.5	13.5	18.5	14.0	16.0	15.0	10.5	12.5	15.0	10.0	12.0
21	15.0	11.5	13.5	16.0	12.0	13.0	17.0	10.0	13.0	13.0	11.0	12.0
22	13.0	10.0	11.0	16.0	9.5	12.5	17.0	11.0	14.0	13.5	12.0	12.5
23	16.5	8.5	12.0	14.5	11.5	12.5	16.0	10.5	13.5	15.0	11.0	12.5
24	14.5	11.5	12.5	15.0	11.0	13.0	16.0	10.5	13.5	12.5	8.0	10.0
25	15.5	11.0	13.0	18.5	12.0	14.5	---	---	---	11.5	7.5	9.5
26	16.0	10.5	13.0	16.0	11.5	12.5	---	---	---	11.0	10.5	11.0
27	16.5	12.5	14.0	17.0	11.0	13.5	---	---	---	11.5	11.0	11.0
28	18.5	11.5	14.5	16.0	12.5	14.5	---	---	---	13.5	9.5	11.5
29	18.5	12.5	15.5	17.0	11.5	14.5	---	---	---	13.0	9.5	11.0
30	18.0	13.5	15.5	17.5	13.5	15.0	---	---	---	10.0	8.0	9.0
31	---	---	---	15.0	13.0	13.5	---	---	---	---	---	---
MONTH	19.5	8.5	14.0	20.0	9.5	14.5	---	---	---	---	---	---

DELAWARE RIVER BASIN

01437500 NEVERSINK RIVER AT GODEFFROY, NY

LOCATION.--Lat 41°26'28", long 74°36'08", 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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1937 to current year. Gage heights and discharge measurements, August to October 1903 and August 1909 to April 1914, and twice-daily figures of discharge for January 1911 to December 1912 (which do not represent daily mean discharges because of diurnal fluctuation) are published in WSP 97, 261, 321, 351, and 381. August to October 1903, published as "Navesink River at Godeffroy, NY."

REVISED RECORDS.--WSP 1502: 1951(M). WDR NY-82-1: Drainage area. WDR NY-87-1: 1986.

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.--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 mi² 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft³/s, Aug. 19, 1955, gage height, 12.49 ft, from rating curve extended above 11,000 ft³/s, on basis of slope-area measurement of peak flow; minimum discharge observed, no flow July 21, 22, 28, 1911, result of regulation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,160 ft³/s, June 6, gage height, 7.87 ft; minimum, 78 ft³/s, Nov. 9, 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	124	398	e290	e280	e310	716	425	1680	243	1140	189
2	101	121	373	e280	e240	e295	632	422	1070	226	469	179
3	e96	102	615	e270	e220	e285	559	546	851	210	363	176
4	93	94	816	e310	e200	e280	499	478	709	299	361	191
5	e93	91	667	364	e190	e300	459	437	769	313	377	178
6	e131	88	582	342	e180	e330	420	429	4780	540	306	179
7	e146	86	531	322	e175	350	394	395	2820	341	267	208
8	e128	82	506	304	e170	431	383	373	1920	271	253	203
9	e122	80	556	296	e165	428	371	393	1480	284	309	182
10	e117	79	561	e285	e160	416	397	370	1140	272	366	202
11	e137	93	503	e280	e155	924	398	328	925	244	295	291
12	e204	138	462	277	e150	864	524	299	745	233	258	211
13	e176	128	520	280	e145	668	488	286	614	239	219	174
14	e152	117	734	338	e170	e500	417	274	520	229	215	158
15	192	111	762	e490	179	e430	386	261	455	232	210	148
16	610	116	612	e290	220	e385	376	293	392	409	205	144
17	356	111	e490	e240	288	e360	576	291	347	316	243	146
18	451	103	e470	e220	259	e340	951	273	322	325	292	157
19	e332	99	e440	e210	267	e325	1080	259	318	284	276	154
20	275	97	e420	e205	297	e310	828	241	321	253	240	139
21	234	103	411	e200	273	e300	715	229	306	239	223	119
22	203	449	398	e195	253	e290	693	217	277	233	210	e119
23	172	1740	381	e300	249	e285	748	211	259	228	205	e208
24	151	1070	373	e600	253	e280	635	220	353	275	208	e172
25	164	861	e315	e440	252	294	835	287	447	244	198	e146
26	160	702	e290	e350	328	323	765	258	336	232	531	e162
27	151	595	e280	e300	374	1740	672	235	339	414	350	234
28	145	520	e270	e290	e330	1260	583	232	310	317	272	e204
29	135	470	316	e280	e320	926	517	214	270	259	260	e186
30	132	431	379	e275	---	792	467	203	248	286	232	e165
31	130	---	e310	e305	---	756	---	847	---	345	206	---
TOTAL	5793	9001	14741	9428	6742	15777	17484	10226	25323	8835	9559	5324
MEAN	187	300	476	304	232	509	583	330	844	285	308	177
MAX	610	1740	816	600	374	1740	1080	847	4780	540	1140	291
MIN	93	79	270	195	145	280	371	203	248	210	198	119

e Estimated

DELAWARE RIVER BASIN

01437500 NEVERSINK RIVER AT GODEFFROY, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1992, BY WATER YEAR (WY)

MEAN	300	368	431	343	415	681	817	550	382	234	232	217
MAX	2033	1094	1227	1053	981	1370	1818	1392	1722	652	1327	705
(WY)	1956	1956	1974	1979	1976	1977	1983	1989	1972	1972	1955	1960
MIN	94.9	86.3	119	72.6	118	297	248	180	111	54.2	76.0	71.1
(WY)	1985	1966	1981	1981	1980	1981	1985	1962	1957	1966	1968	1972

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1954 - 1992
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ANNUAL TOTAL	115591		138233			
ANNUAL MEAN	317		378		414	
HIGHEST ANNUAL MEAN					704	1956
LOWEST ANNUAL MEAN					215	1965
HIGHEST DAILY MEAN	1750	Mar 4	4780	Jun 6	15900	Aug 19 1955
LOWEST DAILY MEAN	61	Sep 13	79	Nov 10	32	Aug 17 1965
ANNUAL SEVEN-DAY MINIMUM	68	Sep 12	86	Nov 5	38	Aug 11 1965
10 PERCENT EXCEEDS	600		696		868	
50 PERCENT EXCEEDS	274		290		270	
90 PERCENT EXCEEDS	90		139		106	

DELAWARE RIVER BASIN

01437500 NEVERSINK RIVER AT GODEFFROY, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1987 to October 1991 (discontinued). Records prior to water year 1989 are unpublished and available in files of the Geological Survey.

CHEMICAL DATA: 1987 (b), 1988-89 (c), 1990-91 (b), 1992 (a).

MINOR ELEMENTS DATA: 1987 (b), 1988-89 (c), 1990-91 (b), 1992 (a).

PESTICIDE DATA: 1988 (b), 1989 (c), 1990 (b).

NUTRIENT DATA: 1988 (b), 1989 (c), 1990 (b).

SEDIMENT DATA: 1988 (b), 1989 (c), 1990-91 (b), 1992 (a).

REMARKS.--Water-quality samples were collected by personnel of the New York State Department of Environmental Conservation, and were analyzed in USGS laboratories.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)
OCT 30...	1100	134	106	7.3	8.0	756	12.2	103

DATE	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
OCT 30...	<1	110	100	3	<10	<0.10	<1	30

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)
OCT 30...	1100	134	0.36

DELAWARE RIVER BASIN

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 mi².

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 sea level. 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.--Records good except for periods of ice effect, Dec. 19-21 and Jan. 17 to Feb. 20, and periods of shifting control, Oct. 1-15, and July 28 to Sept. 30, which are fair. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, Cliff Lake, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, 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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of October 10, 1903, reached a stage of 35.5 ft, from floodmark, present datum.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1740	1040	2940	2830	e3100	3700	7140	5860	17100	2460	4680	1630
2	1680	982	2990	2720	e2400	3790	6740	5520	16200	2280	4500	1080
3	1650	1010	4840	3180	e2500	3800	6170	5710	10600	2020	3640	1720
4	1670	1070	10300	3390	e3500	3490	5480	6400	9230	1800	3370	1880
5	1620	1090	8410	3180	e3000	3490	5060	5730	7720	2020	3370	1880
6	1530	1120	6640	4200	e3100	3910	4630	5250	13700	2110	3340	1710
7	1780	1410	5220	4140	e2900	4020	4410	5180	14900	2570	2820	1720
8	2010	1590	4490	3770	e2600	4880	4210	4980	11400	2420	2390	1690
9	1730	1510	4620	3440	e1600	6200	4110	5120	9420	2540	2110	1760
10	1730	1390	5100	3310	e1500	6140	4110	4600	7960	2780	3120	1690
11	1700	1390	5000	3120	e2900	8170	4090	4500	6640	2620	3650	2540
12	1860	1580	4380	2480	e2400	16600	4750	4120	5120	2330	3210	2560
13	1590	1610	4460	2470	e2200	11800	7350	3700	4280	1530	2680	2050
14	1430	1730	4870	3250	e2300	8630	6350	3160	3340	2530	2490	1590
15	1420	1350	6310	5670	e2400	6970	5670	3110	3370	2810	2160	1700
16	1960	1350	6010	6100	e1400	5950	5170	3100	3360	3430	1890	1580
17	2170	1270	5200	e4400	e2000	5330	5950	3130	3140	3750	1850	1770
18	3770	1270	4570	e4000	e3200	4870	11400	3180	2690	3340	2050	1960
19	3160	1060	e3950	e3400	e3300	4970	15700	3020	2790	2760	2200	1730
20	2630	1030	e3500	e3000	e3400	4630	14400	2710	2810	2820	1990	1590
21	2400	1160	e3400	e3500	3810	4050	11300	2320	2220	3160	1970	1570
22	1540	1910	3570	e3400	3760	3450	9860	2200	2260	2670	1660	2010
23	1310	13400	3330	e3500	2660	3420	10300	2140	2640	2460	1520	2340
24	1290	17400	2880	e4800	2860	3530	9550	1970	2850	2570	1500	2120
25	1130	10500	2580	e5800	3720	3300	9860	2340	3250	2640	1810	2160
26	1090	7630	2630	e4400	3880	3300	11400	2580	2920	1980	2280	1960
27	1490	5830	2400	e3700	4150	8420	10300	3240	2790	2780	2490	1590
28	1380	4480	2070	e4000	4090	13700	8810	3120	2190	3560	2360	1640
29	1180	3830	2030	e4100	4060	10000	7540	2920	2080	2870	1950	2040
30	1110	3450	2520	e3900	---	8000	6690	2590	2540	2690	1490	1860
31	1030	---	3390	e3700	---	7310	---	3230	---	3280	1720	---
TOTAL	53780	95442	134600	116850	84690	189820	228500	116730	181510	81580	78260	55120
MEAN	1735	3181	4342	3769	2920	6123	7617	3765	6050	2632	2525	1837
MAX	3770	17400	10300	6100	4150	16600	15700	6400	17100	3750	4680	2560
MIN	1030	982	2030	2470	1400	3300	4090	1970	2080	1530	1490	1080

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

	MEAN	MAX	MIN
1940	3371	15690	807
1941	5059	11760	995
1942	6100	14050	1968
1943	5648	15050	1318
1944	6050	15120	1748
1945	10040	24480	3191
1946	11720	31560	3322
1947	7512	16090	2215
1948	4477	15200	1214
1949	3036	11220	864
1950	2597	14230	715
1951	2679	9167	892
1952	1837	1960	1941

e Estimated

DELAWARE RIVER BASIN

01438500 DELAWARE RIVER AT MONTAGUE, NJ--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1940 - 1992	
ANNUAL TOTAL	1483342		1416882			
ANNUAL MEAN	4064		3871		5685	Unadjusted
HIGHEST ANNUAL MEAN					8621	1952
LOWEST ANNUAL MEAN					2309	1965
HIGHEST DAILY MEAN	21200	Mar 5	17400	Nov 24	187000	Aug 19 1955
LOWEST DAILY MEAN	982	Nov 2	982	Nov 2	412	Aug 23 1954
ANNUAL SEVEN-DAY MINIMUM	1050	Oct 30	1050	Oct 30	565	Jul 1 1965
INSTANTANEOUS PEAK FLOW			25100	Nov 23	250000a	Aug 19 1955
INSTANTANEOUS PEAK STAGE			11.66	Nov 23	35.15	Aug 19 1955
INSTANTANEOUS LOW FLOW			827	Oct 31	382	Aug 24 1954
10 PERCENT EXCEEDS	8390		7410		12000	
50 PERCENT EXCEEDS	2400		3100		3420	
90 PERCENT EXCEEDS	1500		1540		1560	

a From rating curve extended above 90,000 ft³/s on basis of flood-routing study.

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. DRAINAGE AREA, 372 mi², revised. 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 New York City Department of Environmental Protection. 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 observed, 133,485 mil gal, June 15, elevation, 1,270.86 ft; minimum observed, 60,628 mil gal, Nov. 22, elevation, 1,218.75 ft.
- 01424997 CANNONSVILLE 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. DRAINAGE AREA, 454 mi². 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 New York City Department of Environmental Protection. EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 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 observed, 92,183 mil gal, June 16-17, elevation, 1,145.77 ft; minimum observed, 25,419 mil gal, Oct. 13, elevation, 1,087.58 ft.
- 01433000 SWINGING BRIDGE RESERVOIR.--Lat 41°34'21", long 74°47'00", Sullivan County, Hydrologic Unit 02040104, at dam on Mongaup River, and 1.8 mi northwest of Fowlersville. DRAINAGE AREA, 116 mi², excluding Cliff Lake, Lebanon Lake, and Toronto Reservoir. PERIOD OF RECORD, January 1930 to current year. REVISED RECORDS, WSP 1552: 1951-54. WDR NY-86-1: 1985. WDR NY-90-1: Drainage area. 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 ft³ 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 ft³. 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 observed, 1,461.6 mil ft³, Mar. 14, 1977, elevation, 1,071.8 ft; minimum observed (after first filling), -141.4 mil ft³, Dec. 2, 1938, elevation, 987.5 ft. EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 1,383.3 mil ft³, Apr. 3, elevation, 1,069.9 ft; minimum observed, 1,000.0 mil ft³, Oct. 2, 4-5, elevation, 1,059.7 ft.
- 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. DRAINAGE AREA, 22.9 mi². PERIOD OF RECORD, January 1926 to current year. REVISED RECORDS, WSP 1552: 1951-54. WSP 1702: 1959 (M). WDR NY-85-1: 1984. WDR NY-86-1: 1985. WDR NY-90-1: Drainage area. 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 ft³ 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 ft³. 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 ft³, July 20, 1945, elevation, 1,222.0 ft; minimum observed (after first filling), -26.8 mil ft³, Nov. 15, 1928, elevation, 1,144.5 ft. EXTREMES OF CURRENT YEAR.--Maximum contents observed, 719.8 mil ft³, Aug. 19, 21, elevation, 1,207.8 ft; minimum observed, 191.9 mil ft³, Nov. 20, elevation, 1,183.8 ft.
- 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. DRAINAGE AREA, 6.46 mi², 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). WDR NY-86-1: 1985. 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 ft³ 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 ft³. 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 ft³, July 30, 31, 1945, elevation, 1,073.1 ft; minimum observed (after first filling), about -6.54 mil ft³, Mar. 16, 1963, elevation, 1,038.0 ft. EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 118.88 mil ft³, Apr. 3, elevation, 1,069.9 ft; minimum observed, 51.92 mil ft³, Oct. 15, elevation, 1,059.6 ft.

DELAWARE RIVER BASIN

RESERVOIRS IN DELAWARE RIVER BASIN--Continued

01435900 NEVERSINK RESERVOIR.--Lat 41°49'27", long 74°38'20", Sullivan County, Hydrologic Unit 02040104, at a gatehouse at Neversink Dam on Neversink River, and 2 mi southwest of Neversink. DRAINAGE AREA, 92.5 mi². 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 New York City Department of Environmental Protection.

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, 35,603 mil gal, June 12, elevation, 1,436.84 ft; minimum observed, 6,856 mil gal, Nov. 22, elevation, 1,349.77 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation (feet) ‡	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)	Elevation (feet) ‡	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)	Elevation (feet) ‡	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)
<u>01416900 Pepacton Reservoir</u>				<u>01424997 Cannonsville Reservoir</u>			<u>01433000 Swinging Bridge Reservoir</u>		
Sept. 30	1,238.02	83,549		1,090.27	27,521		1,059.8	1,003.4	
Oct. 31	1,228.54	71,745	- 589	1,091.41	28,491	+ 48.4	1,061.8	1,073.8	+26.3
Nov. 30	1,227.47	70,482	- 65.1	1,107.11	43,352	+766	1,066.9	1,264.0	+73.4
Dec. 31	1,231.82	75,702	+ 261	1,122.13	60,384	+850	1,066.0	1,229.3	-13.0
CAL YR 1991	-	-	- 232	-	-	-174	-	-	- 1.8
Jan. 31	1,239.46	85,446	+ 486	1,123.24	61,739	+ 67.6	1,061.4	1,059.5	-63.4
Feb. 29	1,242.03	88,900	+ 184	1,120.08	57,881	-206	1,062.1	1,084.5	+10.0
Mar. 31	1,250.29	100,576	+ 583	1,127.62	67,225	+466	1,065.6	1,214.1	+48.4
Apr. 30	1,264.14	122,156	+1,113	1,140.46	84,451	+888	1,067.3	1,279.7	+25.3
May 31	1,266.51	126,087	+ 196	1,143.07	88,223	+188	1,064.7	1,180.1	-37.2
June 30	1,268.27	129,053	+ 153	1,144.69	90,564	+121	1,065.0	1,191.3	+ 4.3
July 31	1,261.94	118,568	- 523	1,135.72	77,873	-633	1,065.0	1,191.3	0.0
Aug. 31	1,256.78	110,385	- 408	1,126.20	65,417	-622	1,063.4	1,131.8	-22.2
Sept. 30	1,249.20	98,983	- 588	1,117.48	54,843	-545	1,064.3	1,165.1	+12.8
WTR YR 1992	-	-	+ 65.2	-	-	+116	-	-	+ 5.1
Date	Elevation (feet) ‡	Contents (million ft ³)	Change in contents (equivalent in ft ³ /s)	Elevation (feet) ‡	Contents (million ft ³)	Change in contents (equivalent in ft ³ /s)	Elevation (feet) ‡	Contents (million gallons)	Change in contents (equivalent in ft ³ /s)
<u>01433100 Toronto Reservoir</u>				<u>01433200 Cliff Lake</u>			<u>01435900 Neversink Reservoir</u>		
Sept. 30	1,186.2	231.4		1,060.0	53.96		1,366.78	10,576	
Oct. 31	1,185.0	211.4	- 7.5	1,061.9	64.49	+ 3.9	1,357.81	8,517	-103
Nov. 30	1,185.6	221.4	+ 3.9	1,066.9	96.47	+12.3	1,362.04	9,459	+ 48.6
Dec. 31	1,190.0	298.5	+28.8	1,066.0	90.26	- 2.3	1,371.50	11,751	+114
CAL YR 1991	-	-	- 8.2	-	-	- 0.3	-	-	-104
Jan. 31	1,191.8	333.1	+12.9	1,061.6	62.78	-10.3	1,386.35	15,882	+206
Feb. 29	1,192.3	343.1	+ 4.0	1,062.3	66.86	+ 1.6	1,393.38	18,098	+118
Mar. 31	1,196.2	426.7	+31.2	1,065.5	86.96	+ 7.5	1,413.05	25,213	+355
Apr. 30	1,202.3	574.2	+56.9	1,068.5	108.11	+ 8.2	1,426.38	30,779	+287
May 31	1,203.9	615.6	+15.5	1,064.8	82.38	- 9.6	1,428.29	31,628	+ 42.4
June 30	1,206.6	687.2	+27.6	1,064.7	81.74	- 0.2	1,432.80	33,690	+106
July 31	1,207.0	698.0	+ 4.0	1,065.0	83.66	+ 0.7	1,425.16	30,245	-172
Aug. 31	1,207.6	714.3	+ 6.1	1,063.4	73.54	- 3.8	1,418.05	27,232	-150
Sept. 30	1,199.9	513.9	-77.3	1,064.2	78.54	+ 1.9	1,409.34	23,770	-179
WTR YR 1992	-	-	+ 8.9	-	-	+ 0.8	-	-	+ 55.8

‡ Elevation at 0800 hours on first day of following month.

‡ Elevation at 2400 hours.

DELAWARE RIVER BASIN

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 1991 TO SEPTEMBER 1992

Month	01415200 Pepacton Reservoir	01423900 Cannonsville Reservoir	01435800 Neversink Reservoir
October.....	672	39.2	204
November.....	701	0.0	149
December.....	624	155	118
CAL YR 1991	662	182	240
January.....	158	620	0.0
February.....	204	736	0.0
March.....	311	743	0.0
April.....	345	606	89.8
May.....	469	518	187
June.....	371	34.4	205
July.....	609	428	236
August.....	476	459	224
September.....	660	230	230
WTR YR 1992	467	381	137

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 mi².

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.--Records fair except those for estimated daily discharges, which are poor. Moderate diurnal fluctuation at low flow caused by mills upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--35 years, 275 ft³/s, 29.18 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,690 ft³/s, Feb. 25, 1985, gage height, 11.05 ft, from rating curve extended above 5,500 ft³/s on basis of flow-over-dam measurement of peak flow; minimum discharge, 1.5 ft³/s, Sept. 17, 18, 1963, Aug. 19, 1964; minimum daily, 2.2 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 12	0345	5,170	8.57	July 18	0300	*6,720	*10.14
May 10	0245	4,550	8.06				

Minimum discharge, 20 ft³/s, Oct. 5, gage height, 1.18 ft; minimum daily discharge, 27 ft³/s, Oct. 5.

REVISIONS.--Daily, monthly, and yearly discharges have been revised as shown in the following tables. They supersede figures published in WDR NY Vol. 1, 1963, 1976-77, 1984. Peak discharges were revised in WDR NY-85-1.

Revised daily discharges, in cubic feet per second, for 1963, 1976-77, and 1984 water years, are given herewith:

Water year	Date	Discharge	Water year	Date	Discharge
1963	Apr. 4	6,190	1977	Mar. 13	6,420
1976	May 20	5,970	1984	Feb. 15	6,260

Revised monthly and yearly discharges, in cubic feet per second, for 1963, 1976-77, and 1984 water years, are given herewith:

	TOTAL	MEAN	MAX	MIN	CFSM	IN.
APR 1963	35090	1170	6190	249	9.14	10.20
CAL YR 1962	75772.7	208	2480	5.4	1.62	22.02
WTR YR 1963	90380.5	248	6190	2.2	1.93	26.27
MAY 1976	22323	720	5970	226	5.63	6.49
CAL YR 1975	106137.3	291	4130	7.4	2.27	30.85
WTR YR 1976	155508	425	5970	42	3.32	45.19
MAR 1977	48694	1571	6420	310	12.3	14.15
CAL YR 1976	163518	447	5970	42	3.49	47.52
WTR YR 1977	137963.2	378	6420	6.8	2.95	40.10
FEB 1984	23883	824	6260	140	6.43	6.94
CAL YR 1983	92586.2	254	1900	9.2	1.98	26.91
WTR YR 1984	107580.7	294	6260	9.3	2.30	31.27

STREAMS TRIBUTARY TO LAKE ONTARIO

04250750 SANDY CREEK NEAR ADAMS, NY--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	50	820	e210	e155	e165	668	224	1090	38	883	173
2	39	49	467	e170	e145	e160	496	379	590	36	388	134
3	40	50	e370	171	e135	e160	396	1300	315	33	215	165
4	31	56	e270	356	e130	e160	359	602	210	41	925	276
5	27	67	e210	873	e120	e170	357	389	158	43	729	166
6	91	71	e200	506	e115	223	307	326	150	40	363	120
7	123	75	e260	e320	e110	1210	370	282	145	36	244	99
8	101	76	543	e190	e105	1970	699	240	137	32	174	87
9	70	75	1310	e220	e94	1270	642	273	123	33	173	84
10	61	63	800	e200	e96	e1930	595	2140	101	34	149	76
11	155	85	479	e170	e105	e1810	1590	803	87	42	282	97
12	92	111	377	e160	e96	e660	3350	460	76	38	182	82
13	68	115	490	e220	e90	e400	1140	339	67	65	135	68
14	53	253	455	923	e86	e350	705	275	58	77	134	64
15	60	871	408	e740	e90	e300	514	227	52	83	116	56
16	1050	1580	e250	e330	e500	e260	519	193	47	65	100	56
17	347	583	e160	e230	e900	e230	1700	169	44	365	90	52
18	187	338	e200	e180	e500	e210	971	358	40	3190	124	49
19	133	293	e160	e150	e800	e190	716	288	45	760	110	102
20	132	277	e200	e130	e1200	e180	698	204	140	418	90	79
21	103	508	207	e140	e800	e170	628	154	104	705	77	67
22	87	353	211	e160	e420	e160	565	130	107	349	69	451
23	76	305	e180	e180	e330	e150	443	111	96	306	64	428
24	68	428	e160	e800	e270	e145	660	104	77	328	57	183
25	61	547	e150	e560	e230	e140	604	106	92	213	52	129
26	57	389	e140	e400	e200	351	547	96	86	164	50	106
27	55	310	e135	e310	e180	2000	394	192	66	140	46	138
28	71	288	e130	e250	e170	1330	314	196	54	119	61	200
29	67	337	e160	e220	e165	776	266	129	48	109	879	124
30	57	826	e380	e190	---	597	236	101	42	97	373	109
31	52	---	e290	e170	---	632	---	275	---	128	268	---
TOTAL	3643	9429	10572	9829	8337	18459	21449	11065	4447	8127	7602	4020
MEAN	118	314	341	317	287	595	715	357	148	262	245	134
MAX	1050	1580	1310	923	1200	2000	3350	2140	1090	3190	925	451
MIN	27	49	130	130	86	140	236	96	40	32	46	49
CFSM	.92	2.46	2.66	2.48	2.25	4.65	5.59	2.79	1.16	2.05	1.92	1.05
IN.	1.06	2.74	3.07	2.86	2.42	5.36	6.23	3.22	1.29	2.36	2.21	1.17

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1992, BY WATER YEAR (WY)

MEAN	183	356	383	269	322	598	658	237	104	62.8	53.5	83.8
MAX	568	682	793	684	1166	1571	1236	720	349	455	248	367
(WY)	1977	1989	1974	1990	1981	1977	1978	1976	1972	1972	1981	1958
MIN	5.56	95.6	82.7	76.8	60.4	144	311	63.0	21.9	6.41	7.11	3.96
(WY)	1964	1961	1961	1961	1980	1967	1968	1987	1962	1966	1978	1960

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1957 - 1992

ANNUAL TOTAL	89360.9	116979	
ANNUAL MEAN	245	320	275
HIGHEST ANNUAL MEAN			425
LOWEST ANNUAL MEAN			173
HIGHEST DAILY MEAN	2600	3350	6440
LOWEST DAILY MEAN	5.1	27	2.2
ANNUAL SEVEN-DAY MINIMUM	6.8	36	3.3
ANNUAL RUNOFF (CFSM)	1.91	2.50	2.15
ANNUAL RUNOFF (INCHES)	25.97	34.00	29.23
10 PERCENT EXCEEDS	600	746	660
50 PERCENT EXCEEDS	135	172	135
90 PERCENT EXCEEDS	13	56	14

STREAMS TRIBUTARY TO LAKE ONTARIO

04250750 SANDY CREEK NEAR ADAMS, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965, 1978 to August 1992 (discontinued).

CHEMICAL DATA: 1965, 1978 (c), 1979-80 (d), 1981-91 (c), 1992 (b).

MINOR ELEMENTS DATA: 1978-79 (b), 1980 (c), 1981-92 (b).

ORGANIC DATA: OC--1978 (c), 1979-80 (d), 1981 (c).

NUTRIENT DATA: 1978 (c), 1979-80 (d), 1981-91 (c), 1992 (b).

BIOLOGICAL DATA:

Bacteria--1978 (c), 1979-80 (d), 1981-91 (c), 1992 (b).

Phytoplankton--1978-80 (c), 1981 (b).

Periphyton--1978-80 (b).

SEDIMENT DATA: 1978 (c), 1979-80 (d), 1981-88 (c), 1989 (b), 1990-91 (c), 1992 (b).

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 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (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 SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)
OCT												
22...	1015	94	271	8.1	7.5	2.0	756	11.5	97	150	80	130
JAN												
22...	1315	E160	331	8.2	0.5	1.6	757	12.4	87	K3	K3	150
MAY												
19...	1100	280	259	8.5	13.5	1.0	764	10.8	103	230	44	130
JUL												
07...	1100	37	376	8.3	17.0	1.5	755	10.2	107	210	66	160
AUG												
12...	0815	189	247	8.1	17.5	1.7	755	8.9	94	530	160	140

DATE	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 WAT DIS TOT IT MG/L AS CACO3	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR- BONATE WATER DIS IT 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)	SILICA, DIS- SOLVED (MG/L AS SIO2)
OCT											
22...	45	3.8	7.4	1.6	104	127	0	26	10	<0.10	3.6
JAN											
22...	53	3.4	6.3	1.2	128	156	0	18	12	0.10	4.1
MAY											
19...	45	3.1	5.6	1.2	112	132	2	8.7	8.3	0.10	1.7
JUL											
07...	57	4.4	14	1.8	147	--	--	18	16	<0.10	2.2
AUG											
12...	51	3.8	6.4	1.3	126	--	--	9.2	8.9	0.20	3.0

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)
OCT											
22...	172	161	--	0.260	0.020	0.030	0.20	0.010	0.020	0.010	10
JAN											
22...	180	181	--	1.30	<0.010	0.010	0.20	<0.010	<0.010	<0.010	<10
MAY											
19...	162	142	--	0.320	<0.010	0.020	0.30	0.010	0.020	<0.010	<10
JUL											
07...	215	211	1.06	1.20	0.020	0.020	0.30	0.050	0.010	0.020	<10
AUG											
12...	165	166	0.290	0.320	0.030	0.010	0.20	<0.010	<0.010	0.010	--

E Estimated daily discharge.

K Results based on colony count outside the acceptable range (non-ideal colony count).

STREAMS TRIBUTARY TO LAKE ONTARIO

04250750 SANDY CREEK NEAR ADAMS, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	COBALT, DIS- SOLVED (UG/L AS CO)	IRON, DIS- SOLVED (UG/L AS FE)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	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)
OCT 22...	22	<3	27	4	7	<10	3	<1	<1.0	97	<6
JAN 22...	18	<3	13	6	5	<10	<1	<1	<1.0	96	<6
MAY 19...	17	<3	28	<4	4	<10	<1	<1	<1.0	89	<6
JUL 07...	25	<3	8	<4	5	<10	1	<1	<1.0	120	<6
AUG 12...	--	--	--	--	--	--	--	--	--	--	--

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 22...	1015	94	2	0.51	93
JAN 22...	1315	E160	3	--	83
MAY 19...	1100	280	3	2.3	84
JUL 07...	1100	37	2	0.20	100
AUG 12...	0815	189	3	1.5	81

E Estimated daily discharge.

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 mi².

PERIOD OF RECORD.--January to February 1911 (monthly discharges only, published in WSP 1307), March 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.--Records fair 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 and satellite gage-height telemeter at station.

AVERAGE DISCHARGE.--81 years, 711 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,800 ft³/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 ft³/s, Aug. 26, 1918, gage height, 2.40 ft; minimum daily, 7 ft³/s, Aug. 26, 1918.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 9	1930	ice jam	*9.42	Apr. 23	1745	*4,990	9.04
Apr. 12	2145	4,870	8.99				

Minimum discharge, 207 ft³/s, Aug. 24, gage height, 3.94 ft; minimum daily, 220 ft³/s, Feb. 15, July 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	391	329	1370	1060	e400	e520	1150	1030	2600	266	1040	571
2	799	322	1370	896	e360	e500	1050	1130	1960	220	1020	474
3	891	311	1070	833	e350	e450	888	3050	1330	240	792	570
4	772	301	e880	760	e330	e430	781	2850	958	393	782	1220
5	756	287	e700	888	e310	e410	766	1780	923	579	577	1090
6	714	261	e640	870	e300	e450	697	1540	696	430	410	734
7	719	322	e640	777	e280	e640	766	1390	656	302	393	643
8	823	324	780	680	e270	e1100	989	1210	849	288	325	530
9	778	290	1010	650	e260	e2000	1300	1060	983	343	517	463
10	646	277	1330	e540	e250	e2600	1340	911	697	470	759	418
11	710	645	1200	e470	e250	2850	1880	858	550	455	1030	1050
12	543	1500	995	e400	e240	2890	4180	736	411	443	975	881
13	600	1180	1020	e500	e230	2230	3760	683	426	602	628	578
14	723	823	e940	e540	e230	1780	2490	607	389	905	493	488
15	627	885	e860	e1100	e220	1380	1890	604	312	1270	516	407
16	1070	921	e800	e1300	e400	1010	1660	638	336	1410	494	371
17	1280	868	e780	e1100	e640	e880	2310	709	379	977	472	365
18	1070	802	e740	e940	e840	e740	2660	709	301	1210	435	365
19	921	634	e740	e820	e1000	e660	2410	753	343	1230	374	478
20	787	589	e680	e720	e1300	e580	2500	621	427	944	344	663
21	781	599	e640	e620	e1200	e540	2950	503	424	1380	316	538
22	544	600	e600	e500	e1000	e470	3760	378	394	1690	288	1180
23	485	737	e540	e600	e880	e460	4690	416	374	1350	273	2890
24	425	982	e500	e700	e760	e450	3880	480	354	1240	231	2420
25	333	1160	e470	e940	e680	441	3170	597	411	924	267	1340
26	344	1080	e450	e800	e640	685	2500	516	440	702	267	867
27	375	885	e450	e680	e600	1640	2000	538	381	551	256	746
28	544	762	e450	e580	e560	2120	1500	649	338	406	454	805
29	308	744	e470	e540	e540	1680	1240	610	322	399	787	721
30	343	969	e700	e470	---	1320	1110	457	277	376	861	614
31	350	---	e1100	e430	---	1130	---	1090	---	540	617	---
TOTAL	20452	20389	24915	22704	15320	35036	62267	29103	19241	22535	16993	24480
MEAN	660	680	804	732	528	1130	2076	939	641	727	548	816
MAX	1280	1500	1370	1300	1300	2890	4690	3050	2600	1690	1040	2890
MIN	308	261	450	400	220	410	697	378	277	220	231	365

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO

04252500 BLACK RIVER NEAR BOONVILLE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1992, BY WATER YEAR (WY)

MEAN	518	726	728	625	568	1025	1876	987	496	345	278	379
MAX	1695	1480	1759	1837	1410	2394	3012	2402	1707	980	760	1157
(WY)	1946	1960	1974	1913	1981	1921	1982	1972	1917	1947	1986	1975
MIN	55.0	149	260	158	167	302	742	328	55.0	55.4	41.5	49.4
(WY)	1915	1931	1961	1931	1931	1931	1946	1941	1920	1913	1913	1913

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1911 - 1992

ANNUAL TOTAL	261607	313435	
ANNUAL MEAN	717	856	712
HIGHEST ANNUAL MEAN			1119
LOWEST ANNUAL MEAN			448
HIGHEST DAILY MEAN	4030	4690	11100
LOWEST DAILY MEAN	135	220	7.0
ANNUAL SEVEN-DAY MINIMUM	161	240	19
10 PERCENT EXCEEDS	1300	1500	1540
50 PERCENT EXCEEDS	580	680	462
90 PERCENT EXCEEDS	201	323	164

RECORD PERIOD OF RECORD--Maximum discharge, 11,800 cfs, Apr. 15, 1984, gage height, 11.31 ft.
 Minimum discharge, 7.0 cfs, Aug. 22, 1918, gage height, 11.41 ft. respectively.
 REASON FOR PERIOD OF RECORD--Maximum discharge, 11,800 cfs, Apr. 15, 1984, gage height, 11.31 ft.
 Minimum discharge, 7.0 cfs, Aug. 22, 1918, gage height, 11.41 ft. respectively.

REASON FOR PERIOD OF RECORD--Maximum discharge, 11,800 cfs, Apr. 15, 1984, gage height, 11.31 ft.
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 Minimum discharge, 7.0 cfs, Aug. 22, 1918, gage height, 11.41 ft. respectively.

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 Minimum discharge, 7.0 cfs, Aug. 22, 1918, gage height, 11.41 ft. respectively.

REASON FOR PERIOD OF RECORD--Maximum discharge, 11,800 cfs, Apr. 15, 1984, gage height, 11.31 ft.
 Minimum discharge, 7.0 cfs, Aug. 22, 1918, gage height, 11.41 ft. respectively.

STREAMS TRIBUTARY TO LAKE ONTARIO

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.--88.7 mi².

PERIOD OF RECORD.--July 1942 to current year.

REVISED RECORDS.--WDR NY-87-1: 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.--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite gage-height and rain-gage telemeter at station.

AVERAGE DISCHARGE.--50 years, 195 ft³/s, 29.85 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,420 ft³/s, Dec. 30, 1984, gage height, 13.34 ft, from rating curve extended above 4,600 ft³/s on basis of slope-area measurement of peak flow; minimum observed discharge, 18 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 12	1330	*3,170	*8.75	May 3	2030	1,300	6.43

Minimum discharge, 40 ft³/s, July 2, 3, gage height, 3.53 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	78	394	e125	e130	e88	227	189	796	44	658	93
2	116	75	350	e140	e120	e92	204	216	656	41	639	74
3	181	74	259	168	e110	e78	171	942	326	41	307	73
4	166	71	235	148	e110	e66	147	925	206	54	445	236
5	153	69	e160	217	e100	75	137	485	152	76	733	196
6	175	66	e140	258	e98	81	126	344	135	73	389	122
7	238	65	148	210	e94	107	136	268	142	61	212	92
8	226	65	159	e170	e92	e190	239	221	149	52	142	77
9	183	60	320	e140	e88	e300	412	195	134	52	158	71
10	149	77	645	e130	e86	e450	491	213	110	58	180	84
11	240	86	407	e125	e84	e900	743	215	94	57	182	352
12	288	191	265	e120	e80	895	2510	169	83	54	172	296
13	227	171	244	e120	e76	616	1480	147	73	61	127	171
14	165	152	316	e130	e74	441	731	151	66	93	108	121
15	136	270	300	e330	e76	284	494	134	62	114	99	94
16	322	728	e200	e250	e82	e190	403	125	59	105	93	85
17	487	655	e170	e190	e92	e160	700	129	55	81	89	127
18	299	342	e150	e140	e110	e140	959	179	51	102	81	130
19	214	239	e130	e120	e150	e130	731	236	51	119	75	117
20	173	199	e120	e110	e220	e130	762	180	58	145	70	115
21	147	199	e130	e100	e200	e120	867	140	63	246	65	104
22	126	205	e140	e110	e160	e110	860	116	64	211	60	134
23	112	221	e120	e140	e130	e110	711	102	64	144	56	262
24	100	267	e110	e260	e115	e100	594	97	63	157	52	212
25	93	308	e105	e230	106	e98	726	104	66	124	49	145
26	89	255	e100	e200	99	95	538	100	72	92	47	115
27	84	187	e97	e170	95	263	385	107	63	75	46	101
28	95	163	e94	e150	e92	468	288	117	54	64	56	114
29	100	157	e90	e140	e90	386	237	105	49	59	98	114
30	91	198	e95	e130	---	258	204	90	46	57	136	102
31	83	---	e110	e140	---	210	---	233	---	82	112	---
TOTAL	5353	5893	6303	5111	3159	7631	17213	6974	4062	2794	5736	4129
MEAN	173	196	203	165	109	246	574	225	135	90.1	185	138
MAX	487	728	645	330	220	900	2510	942	796	246	733	352
MIN	83	60	90	100	74	66	126	90	46	41	46	71
CFSM	1.95	2.21	2.29	1.86	1.23	2.78	6.47	2.54	1.53	1.02	2.09	1.55
IN.	2.25	2.47	2.64	2.14	1.32	3.20	7.22	2.92	1.70	1.17	2.41	1.73

e Estimated

STREAMS TRIBUTARY TO LAKE ONTARIO

04256000 INDEPENDENCE RIVER AT DONNATTSBURG, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1992, BY WATER YEAR (WY)

MEAN	158	224	208	156	150	285	507	260	128	83.4	76.5	109
MAX	509	427	524	319	391	707	794	712	325	257	208	309
(WY)	1946	1989	1985	1949	1981	1945	1947	1971	1972	1947	1981	1981
MIN	26.4	74.8	59.3	45.1	44.1	95.5	205	77.3	40.1	26.3	25.4	23.1
(WY)	1964	1967	1961	1961	1963	1970	1946	1987	1949	1966	1944	1964

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1942 - 1992

ANNUAL TOTAL	68649		74358				
ANNUAL MEAN	188		203		195		
HIGHEST ANNUAL MEAN					292		1947
LOWEST ANNUAL MEAN					132		1961
HIGHEST DAILY MEAN	1570	Mar 5	2510	Apr 12	5410	Dec 30	1984
LOWEST DAILY MEAN	24	Aug 1	41	Jul 2	18	Aug 4	1949
ANNUAL SEVEN-DAY MINIMUM	26	Jul 29	47	Jun 28	20	Aug 4	1949
ANNUAL RUNOFF (CFSM)	2.12		2.29		2.20		
ANNUAL RUNOFF (INCHES)	28.79		31.19		29.91		
10 PERCENT EXCEEDS	373		408		418		
50 PERCENT EXCEEDS	140		130		120		
90 PERCENT EXCEEDS	36		65		41		

STREAMS TRIBUTARY TO LAKE ONTARIO

04256485 WOODS LAKE OUTLET NEAR BIG MOOSE, NY

LOCATION.--Lat 43°51'56", long 74°57'19", Herkimer County, Hydrologic Unit 04150101, on right bank 45 ft downstream from dam on Woods Lake.

DRAINAGE AREA.--0.80 mi².

PERIOD OF RECORD.--October 1977 to December 1981, December 1983 to September 1989, October 1990 to September 1992 (discontinued).

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

GAGE.--Water-stage recorder, V-notch sharp-crested weir, and crest-stage gage. Elevation of gage is 1,980 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records poor. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years (water years 1978-81, 1985-89, 1991-92), 1.88 ft³/s, 31.91 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 69 ft³/s, Oct. 30, 1978, from rating curve extended above 15 ft³/s; minimum daily discharge, 0.00 ft³/s Aug. 22-23, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18 ft³/s, Apr. 12, gage height, 3.04 ft; minimum, 0.49 ft³/s, Nov. 9, 10, 11, gage height, 1.69 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.54	.67	3.8	1.4	1.2	1.3	1.8	2.7	3.2	1.5	1.2	1.6
2	.55	.67	3.2	1.3	1.0	1.3	2.5	2.9	3.6	1.4	1.5	1.5
3	.56	.64	3.1	1.2	.99	1.2	2.9	6.8	3.4	1.4	1.6	1.4
4	.56	.59	2.8	1.2	.92	1.2	2.4	6.3	3.1	1.3	1.8	1.5
5	.56	.56	2.4	1.4	.92	1.1	2.1	4.5	2.5	1.4	2.1	1.5
6	.63	.54	2.2	1.5	.86	1.1	1.8	3.7	2.4	1.4	2.1	1.5
7	.70	.54	2.0	1.6	.79	1.1	1.6	3.4	2.4	1.4	2.1	1.4
8	.70	.52	2.0	1.5	.76	1.3	1.9	3.1	2.3	1.4	2.0	1.4
9	.65	.49	3.2	1.4	.73	1.7	2.6	2.8	2.3	1.4	2.0	1.4
10	.62	.49	4.2	1.4	.68	2.5	3.2	2.4	2.1	1.3	2.0	1.4
11	.71	.61	3.8	1.3	.67	6.2	5.7	2.1	2.0	1.3	2.1	1.8
12	.95	.70	3.3	1.2	.64	6.5	15	1.8	2.0	1.2	2.1	1.8
13	1.2	.65	3.3	1.1	.62	4.7	9.2	1.7	2.0	.99	1.9	1.8
14	1.2	.67	3.4	1.9	.61	3.6	6.1	1.7	2.0	.56	1.8	1.8
15	1.2	1.9	3.4	4.0	.62	3.0	5.1	1.6	2.0	.58	1.8	1.8
16	1.8	5.0	3.1	3.7	.79	2.6	4.5	1.6	1.9	.60	1.7	1.8
17	2.5	4.9	2.8	3.1	.85	2.3	5.3	1.7	1.8	.61	1.7	1.8
18	e2.6	4.1	2.6	2.8	1.3	2.1	5.7	1.8	1.8	.70	1.6	1.9
19	e2.3	3.5	2.2	2.3	1.5	1.9	5.8	1.8	1.8	.70	1.6	1.8
20	e1.3	2.9	2.0	2.0	1.6	1.7	7.5	1.8	1.8	.77	1.5	1.8
21	e.96	2.7	1.9	1.8	1.8	1.5	9.2	1.7	1.7	.79	1.5	1.7
22	e.80	2.4	1.8	1.6	1.8	1.4	9.2	1.7	1.7	.78	1.5	1.8
23	e.70	1.7	1.6	1.6	1.7	1.4	7.3	1.7	1.6	.76	1.4	1.9
24	e.66	1.5	1.4	2.0	1.6	1.3	6.4	1.6	1.6	.81	1.3	1.9
25	e.62	1.4	1.3	2.1	1.5	1.2	6.3	1.5	1.6	.83	1.2	1.9
26	e.60	1.4	1.2	1.9	1.4	1.2	5.3	1.5	1.6	.80	1.2	1.9
27	e.58	1.3	1.1	1.7	1.4	1.5	4.5	1.5	1.6	.85	1.2	1.7
28	e.66	1.2	.99	1.6	1.3	1.8	3.8	1.6	1.5	.80	1.3	1.6
29	e.80	2.6	1.0	1.4	1.3	1.9	3.3	1.6	1.5	.78	1.5	1.5
30	e.74	3.5	1.4	1.3	---	1.9	3.0	1.6	1.6	.79	1.6	1.5
31	.68	---	1.4	1.2	---	1.8	---	1.8	---	.84	1.6	---
TOTAL	29.63	50.34	73.89	55.5	31.85	65.3	151.0	74.0	62.4	30.74	51.5	50.1
MEAN	.96	1.68	2.38	1.79	1.10	2.11	5.03	2.39	2.08	.99	1.66	1.67
MAX	2.6	5.0	4.2	4.0	1.8	6.5	15	6.8	3.6	1.5	2.1	1.9
MIN	.54	.49	.99	1.1	.61	1.1	1.6	1.5	1.5	.56	1.2	1.4
CFSM	1.19	2.10	2.98	2.24	1.37	2.63	6.29	2.98	2.60	1.24	2.08	2.09
IN.	1.38	2.34	3.44	2.58	1.48	3.04	7.02	3.44	2.90	1.43	2.39	2.33

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1992, BY WATER YEAR (WY)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
MEAN	2.11	2.40	2.37	1.50	1.54	2.42	4.27	1.73	1.20	.69	.83	1.38			
MAX	3.79	4.51	4.12	2.75	5.58	4.12	5.21	2.81	2.58	1.92	2.51	2.33			
(WY)	1982	1989	1985	1991	1981	1991	1978	1989	1987	1986	1981	1979			
MIN	.92	.82	.87	.40	.28	1.23	3.21	.67	.35	.024	.023	.52			
(WY)	1985	1979	1982	1981	1980	1984	1981	1980	1979	1979	1978	1978			

STREAMS TRIBUTARY TO LAKE ONTARIO

04256485 WOODS LAKE OUTLET NEAR BIG MOOSE, NY--Continued

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1978 - 1992

ANNUAL TOTAL	678.25		726.25				
ANNUAL MEAN	1.86		1.98		1.88		
HIGHEST ANNUAL MEAN					2.26		1991
LOWEST ANNUAL MEAN					1.45		1980
HIGHEST DAILY MEAN	11	Jan 1	15	Apr 12	31	Dec 29	1984
LOWEST DAILY MEAN	.27	Aug 7	.49	Nov 9	.00	Aug 22	1988
ANNUAL SEVEN-DAY MINIMUM	.28	Aug 6	.53	Nov 4	.01	Jul 9	1979
ANNUAL RUNOFF (CFSM)	2.32		2.48		2.36		
ANNUAL RUNOFF (INCHES)	31.54		33.77		32.01		
10 PERCENT EXCEEDS	4.2		3.5		4.2		
50 PERCENT EXCEEDS	1.2		1.6		1.3		
90 PERCENT EXCEEDS	.38		.68		.28		

STREAMS TRIBUTARY TO LAKE ONTARIO

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 mi².

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 ft³ 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 ft³, 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. Satellite gage-height and rain-gage telemeter at station.

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 ft³; minimum observed since first filling, 1,644.80 ft, Mar. 25-27, 1949, contents, 8 mil ft³.

EXTREMES FOR CURRENT YEAR.--Maximum observed elevation, 1,678.64 ft, Apr. 26, contents, 4,523 mil ft³; minimum observed, 1,670.00 ft, Nov. 11, contents, 2,431 mil ft³.

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 (FEET NGVD), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY OBSERVATION AT 08:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1670.30	1670.56	1671.65	1673.17	1671.63	1670.78	1673.44	1678.07	1677.87	1676.80	1675.64	1675.25
2	1670.30	1670.49	1671.78	1673.11	1671.56	1670.77	1673.57	1677.97	1678.19	1676.71	1676.02	1675.13
3	1670.33	1670.44	1671.90	1673.03	1671.47	1670.72	1673.67	1678.03	1678.37	1676.63	1676.22	1675.03
4	1670.44	1670.39	1671.97	1672.94	1671.37	1670.69	1673.75	1678.35	1678.49	1676.56	1676.38	1674.99
5	1670.46	1670.35	1672.04	1672.87	1671.32	1670.63	1673.82	1678.40	1678.49	1676.49	1676.59	1674.95
6	1670.47	1670.30	1672.07	1672.83	1671.26	1670.59	1673.90	1678.37	1678.45	1676.43	1676.73	1674.87
7	1670.49	1670.22	1672.10	1672.76	1671.23	1670.56	1673.83	1678.30	1678.40	1676.33	1676.77	1674.78
8	1670.52	1670.18	1672.14	1672.72	1671.19	1670.58	1673.72	1678.20	1678.36	1676.25	1676.78	1674.68
9	1670.53	1670.13	1672.18	1672.64	1671.16	1670.70	1673.68	1678.15	1678.30	1676.18	1676.80	1674.55
10	1670.50	1670.06	1672.47	1672.57	1671.11	1670.91	1673.67	1678.16	1678.21	1676.10	1676.82	1674.39
11	1670.51	1670.00	1672.70	1672.47	1671.08	1671.21	1673.70	1678.12	1678.13	1676.04	1676.84	1674.40
12	1670.54	1670.06	1672.84	1672.35	1671.04	1671.80	1674.15	1678.07	1678.02	1675.95	1676.86	1674.35
13	1670.57	1670.04	1672.94	1672.21	1671.00	1672.18	1675.08	1678.05	1677.89	1675.88	1676.84	1674.23
14	1670.56	1670.02	1673.08	1672.12	1670.95	1672.43	1675.56	1678.01	1677.78	1675.87	1676.81	1674.10
15	1670.54	1670.03	1673.22	1672.25	1670.92	1672.61	1675.86	1677.97	1677.65	1675.90	1676.75	1673.95
16	1670.59	1670.19	1673.41	1672.23	1670.91	1672.76	1676.13	1677.92	1677.53	1675.96	1676.69	1673.79
17	1670.71	1670.55	1673.50	1672.35	1670.90	1672.86	1676.46	1677.92	1677.46	1675.92	1676.60	1673.68
18	1670.82	1670.78	1673.61	1672.33	1670.88	1672.89	1676.73	1677.93	1677.41	1675.90	1676.54	1673.54
19	1670.86	1670.92	1673.65	1672.27	1670.86	1672.81	1676.85	1678.00	1677.31	1675.89	1676.45	1673.42
20	1670.88	1670.98	1673.62	1672.20	1670.86	1672.77	1677.08	1677.99	1677.30	1675.89	1676.36	1673.30
21	1670.88	1671.05	1673.61	1672.12	1670.88	1672.68	1677.38	1677.97	1677.33	1675.89	1676.27	1673.14
22	1670.87	1671.10	1673.60	1672.03	1670.93	1672.58	1677.79	1677.94	1677.36	1675.91	1676.15	1673.00
23	1670.86	1671.18	1673.58	1671.93	1670.93	1672.48	1678.12	1677.90	1677.36	1675.85	1676.03	1672.94
24	1670.83	1671.27	1673.55	1671.91	1670.91	1672.50	1678.30	1677.86	1677.28	1675.86	1675.90	1672.88
25	1670.80	1671.32	1673.49	1671.94	1670.88	1672.58	1678.53	1677.83	1677.23	1675.83	1675.78	1672.77
26	1670.77	1671.43	1673.44	1671.92	1670.86	1672.64	1678.64	1677.77	1677.18	1675.77	1675.68	1672.63
27	1670.75	1671.49	1673.37	1671.90	1670.82	1672.77	1678.59	1677.74	1677.12	1675.70	1675.57	1672.48
28	1670.74	1671.50	1673.30	1671.85	1670.80	1672.96	1678.43	1677.72	1677.06	1675.63	1675.52	1672.34
29	1670.70	1671.54	1673.23	1671.81	1670.80	1673.12	1678.28	1677.68	1676.98	1675.56	1675.44	1672.17
30	1670.65	1671.60	1673.25	1671.74	---	1673.25	1678.15	1677.63	1676.88	1675.48	1675.38	1672.05
31	1670.62	---	1673.24	1671.68	---	1673.35	---	1677.61	---	1675.41	1675.31	---
MEAN	1670.63	1670.67	1672.92	1672.33	1671.05	1672.00	1675.90	1677.99	1677.71	1676.02	1676.27	1673.79
MAX	1670.88	1671.60	1673.65	1673.17	1671.63	1673.35	1678.64	1678.40	1678.49	1676.80	1676.86	1675.25
MIN	1670.30	1670.00	1671.65	1671.68	1670.80	1670.56	1673.44	1677.61	1676.88	1675.41	1675.31	1672.05
#	2550	2774	3124	2778	2594	3174	4371	4282	4025	3696	3624	2837
##	+21.6	+86.4	+131	-129	-73.4	+217	+462	-33.2	-99.2	-123	-26.9	-304
CAL YR 1991	MEAN 1673.88	MAX 1678.37	MIN 1668.70	## -28.9								
WTR YR 1992	MEAN 1673.95	MAX 1678.64	MIN 1670.00	## +10.9								

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

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 mi².

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 fair. 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.--62 years, 609 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,100 ft³/s, May 21, 1969, gage height, 6.98 ft; minimum, 11 ft³/s, Jan. 22, 29, Feb. 4, 1967, gage height, 0.63 ft; minimum daily, 22 ft³/s, July 18, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,370 ft³/s, Apr. 12, gage height, 4.97 ft; minimum, 220 ft³/s, Nov. 5, gage height, 2.07 ft; minimum gage height, 2.06 ft, July 3; minimum daily discharge, 236 ft³/s, Nov. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	393	256	650	751	485	293	370	1370	1040	521	528	680
2	337	236	683	753	467	286	331	1320	1090	337	949	763
3	289	245	909	677	489	276	458	1630	783	345	456	581
4	292	299	850	671	593	306	501	1990	489	409	664	719
5	278	275	603	810	470	293	325	1510	491	411	1030	655
6	338	244	462	871	297	314	484	1130	608	446	859	803
7	601	291	423	846	323	393	580	1280	703	528	897	674
8	602	277	388	766	343	609	707	1040	790	427	888	676
9	457	254	552	735	360	542	683	1130	827	467	690	693
10	445	247	889	624	363	798	750	1670	810	490	631	655
11	484	352	917	648	386	1050	1120	1420	840	501	859	734
12	444	310	932	712	451	1000	2270	1140	742	477	792	719
13	394	388	637	635	439	1040	1720	1060	587	481	692	757
14	521	458	527	865	433	521	1100	1000	632	461	603	908
15	576	553	499	1080	313	353	892	778	584	389	598	915
16	705	921	559	995	357	525	693	566	553	367	603	822
17	791	924	706	1050	439	393	1140	623	417	535	605	836
18	684	769	534	1040	388	307	1120	641	378	601	595	720
19	436	436	550	1280	793	480	1280	588	541	579	623	723
20	418	504	584	955	677	709	1310	534	870	684	641	753
21	295	500	783	905	585	679	1410	640	703	934	620	745
22	318	843	801	924	567	350	1440	665	875	964	643	785
23	340	600	812	722	565	324	1510	603	588	650	595	876
24	334	537	645	702	530	367	1940	590	346	595	593	870
25	401	492	528	994	537	372	2030	371	435	546	459	855
26	421	514	502	832	514	377	1960	393	489	593	418	819
27	364	487	546	960	442	817	1940	512	503	580	464	837
28	327	490	443	714	400	794	1970	441	499	630	559	888
29	482	539	486	711	334	612	1810	490	489	569	609	875
30	363	640	614	666	---	432	1530	464	435	464	557	824
31	341	---	657	566	---	372	---	557	---	452	655	---
TOTAL	13471	13881	19671	25460	13340	15984	35374	28146	19137	16433	20375	23160
MEAN	435	463	635	821	460	516	1179	908	638	530	657	772
MAX	791	924	932	1280	793	1050	2270	1990	1090	964	1030	915
MIN	278	236	388	566	297	276	325	371	346	337	418	581

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1992, BY WATER YEAR (WY)

MEAN	513	567	645	672	694	700	804	701	511	484	516	504
MAX	944	1144	1190	1486	1519	1490	1528	1977	1184	863	913	824
(WY)	1946	1989	1978	1978	1973	1976	1954	1943	1947	1972	1986	1986
MIN	263	159	175	315	292	321	366	199	244	174	363	327
(WY)	1961	1940	1940	1961	1956	1967	1957	1941	1941	1965	1967	1972

STREAMS TRIBUTARY TO LAKE ONTARIO

04258000 BEAVER RIVER AT CROGHAN, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1930 - 1992
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ANNUAL TOTAL	241709			244432			
ANNUAL MEAN	662			668		609	
HIGHEST ANNUAL MEAN						916	1976
LOWEST ANNUAL MEAN						361	1931
HIGHEST DAILY MEAN	2260	Mar	5	2270	Apr	4700	May 21 1969
LOWEST DAILY MEAN	236	Nov	2	236	Nov	22	Jul 18 1965
ANNUAL SEVEN-DAY MINIMUM	264	Nov	1	264	Nov	37	Jul 12 1965
10 PERCENT EXCEEDS	1070			1040		966	
50 PERCENT EXCEEDS	550			595		573	
90 PERCENT EXCEEDS	329			341		278	

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 right bank 200 ft downstream from Vanduzee Street Bridge at Watertown, and 3.5 mi upstream from Philomel Creek. Water-quality sampling site at discharge station. Prior to June 13, 1992, at site 200 ft upstream.

DRAINAGE AREA.--1,864 mi².

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. Prior to June 13, 1992, at site 200 ft upstream at same datum.

REMARKS.--Records good except those for June 17 to September 30, which are poor as a result of Vanduzee Street bridge reconstruction. 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 and satellite gage-height telemeters at station.

AVERAGE DISCHARGE.--72 years, 4,078 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,900 ft³/s, Dec. 31, 1984, gage height, 13.15 ft; minimum, 10 ft³/s, Sept. 2, 1934, gage height, 0.81 ft, present datum; minimum daily discharge, 137 ft³/s, Sept. 4, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, about 39,700 ft³/s, Apr. 23, 1869 (from New York State Museum Bulletin 85).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 17,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 14	0515	*22,100	*9.81	Apr. 25	0530	19,300	9.23

Minimum discharge, 254 ft³/s, Aug. 27, gage height, 1.38 ft; minimum daily discharge, 1,510 ft³/s, Nov. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2360	1930	5950	4320	2820	2390	8730	8240	6810	2030	4370	3370
2	2160	1780	6180	4020	2640	2300	8220	7190	8370	2160	6620	3020
3	2330	1610	6390	3540	2830	2190	6190	8390	8490	1940	6340	2750
4	3180	1740	6000	3380	2180	2140	4860	9620	7930	1880	5520	2490
5	2750	1740	5160	4290	2300	2160	4280	11200	6520	2080	6950	5290
6	2720	1710	3910	5190	2360	2140	3890	11300	4960	2400	6720	5780
7	3030	1630	2870	5110	1700	2700	3960	9970	3870	2570	5570	5260
8	3740	1690	3510	4690	1860	5820	4960	8570	3710	2570	4530	3610
9	3980	1670	6230	4020	2090	6570	6620	7450	3600	2380	3840	2790
10	3400	1530	7740	3750	1810	7670	7230	8150	3660	2330	3880	2570
11	2980	1510	7550	3750	1870	10100	8410	7270	3340	2440	4130	3140
12	3160	2080	7280	3380	1660	10000	13900	5880	2760	2610	4860	4870
13	3190	3610	6750	2890	1780	10600	18600	4780	2330	2590	4480	4950
14	2980	3930	6480	3290	1960	10900	20900	4090	2160	2970	3650	3900
15	3110	3870	6340	5530	1790	9740	17100	3820	1870	3650	3260	3230
16	3840	5660	6260	6460	1900	8300	13400	3070	1770	4540	3230	3080
17	5400	6400	4590	6350	2520	6920	12500	2900	1820	5030	3090	2450
18	5400	6100	3350	6090	3570	5640	12900	3380	1730	5850	3120	2590
19	4870	5290	3290	5730	4100	4800	13100	3910	1680	5670	3010	2410
20	4090	4340	3790	4650	6240	4280	13300	3530	1970	5150	2710	2340
21	3360	3950	3980	3830	6010	3830	13300	3120	3030	5420	2690	2490
22	2940	3970	4140	3510	5290	3290	13700	2980	2820	6500	2530	2840
23	2800	4020	4320	3310	4560	2570	15000	2860	3230	6650	2290	4810
24	2480	4150	4190	3830	3860	2500	17400	2160	2490	6420	2240	6390
25	2380	4900	4160	4820	3270	2490	19000	2270	2240	5930	2240	7030
26	2200	5120	3690	5360	3050	2460	17800	2140	2660	5110	2110	6750
27	2230	4850	3160	4920	2820	4810	15600	2310	2840	3860	1680	5410
28	2030	4180	2960	4280	2590	8160	13200	2520	2760	3520	1830	4370
29	2220	3680	2760	3730	2500	8230	11300	2590	2630	3080	2420	4070
30	2340	4280	3150	3220	---	8550	9700	2660	2280	2890	3480	3560
31	2000	---	4210	2950	---	8510	---	2720	---	2760	3670	---
TOTAL	95650	102920	150340	134190	83930	172760	349050	161040	106330	114980	117060	117610
MEAN	3085	3431	4850	4329	2894	5573	11630	5195	3544	3709	3776	3920
MAX	5400	6400	7740	6460	6240	10900	20900	11300	8490	6650	6950	7030
MIN	2000	1510	2760	2890	1660	2140	3890	2140	1680	1880	1680	2340

STREAMS TRIBUTARY TO LAKE ONTARIO

04260500 BLACK RIVER AT WATERTOWN, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1992, BY WATER YEAR (WY)

MEAN	3037	4228	4392	3897	3578	6123	9794	5340	2688	1971	1737	2169
MAX	9058	8440	9129	8658	9416	13590	15020	12790	8235	5266	4083	5011
(WY)	1946	1989	1928	1937	1981	1921	1960	1943	1947	1972	1986	1975
MIN	1149	1116	1403	1173	1289	1776	3946	1600	991	925	730	919
(WY)	1964	1931	1923	1961	1931	1940	1946	1941	1941	1965	1923	1923

SUMMARY STATISTICS FOR 1991 CALENDAR YEAR FOR 1992 WATER YEAR WATER YEARS 1920 - 1992

ANNUAL TOTAL	1494944	1705860	
ANNUAL MEAN	4096	4661	4078
HIGHEST ANNUAL MEAN			6405
LOWEST ANNUAL MEAN			2579
HIGHEST DAILY MEAN	22600	20900	39200
LOWEST DAILY MEAN	831	1510	137
ANNUAL SEVEN-DAY MINIMUM	962	1640	637
10 PERCENT EXCEEDS	7630	8320	8660
50 PERCENT EXCEEDS	3240	3720	2770
90 PERCENT EXCEEDS	1160	2100	1250

STREAMS TRIBUTARY TO LAKE ONTARIO

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), 1982-87 (c), 1988-91 (d), 1992 (c).

MINOR ELEMENTS DATA: 1970-71 (a), 1974-79 (b), 1980 (c), 1981-87 (b), 1988-90 (c), 1991 (d), 1992 (c).

PESTICIDE DATA: 1975-79 (b), 1980-82 (a), 1988-90 (b).

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), 1982-87 (c), 1988-91 (d), 1992 (b).

BIOLOGICAL DATA:

Bacteria--1973-81 (d), 1982-86 (c), 1987-88 (b), 1989-91 (c), 1992 (b).

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), 1982-89 (c), 1990-91 (d), 1992 (b).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1955 to September 1959, July 1962 to March 1969.

REMARKS.--Water-quality samples without turbidity analyses were collected by personnel of the New York State Department of Environmental Conservation.

WATER-QUALITY DATA. WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	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										
08...	1400	2910	--	7.7	14.0	--	--	10.8	--	--
22...	1445	2850	89	8.6	9.5	4.5	760	11.7	103	73 K23
NOV										
06...	1200	1710	--	--	--	--	--	--	--	--
JAN										
23...	0715	3280	81	7.7	1.0	2.9	750	14.7	105	24 K3
MAY										
20...	0645	3650	106	8.1	18.0	1.8	767	9.3	98	200 72
JUL										
08...	0700	2760	110	8.1	20.5	2.0	760	8.8	98	100 64
AUG										
11...	1115	3900	110	7.5	22.5	2.0	755	9.8	114	120 56

DATE	HARD- NESS TOTAL (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 WAT DIS TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR- BONATE WATER DIS IT 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)
OCT 08...	--	--	--	--	--	--	--	--	--	--	--
22...	40	14	1.2	3.7	0.80	29	31	2	11	3.0	0.20
NOV 06...	--	--	--	--	--	--	--	--	--	--	--
JAN 23...	37	13	1.2	3.8	0.70	25	31	0	9.0	4.0	0.20
MAY 20...	43	15	1.3	4.0	0.80	36	44	0	9.3	3.3	<0.10
JUL 08...	38	13	1.3	6.6	0.80	34	--	--	14	3.5	0.10
AUG 11...	43	15	1.4	4.4	0.60	32	--	--	9.1	3.1	<0.10

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 1991 TO SEPTEMBER 1992

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C 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)
OCT 08...	--	--	--	--	--	--	--	--	--	--	--
22...	6.5	73	59	--	0.190	0.060	0.050	0.30	0.030	0.010	0.010
NOV 06...	--	--	--	--	--	--	--	--	--	--	--
JAN 23...	6.6	50	57	--	0.540	0.050	0.050	0.30	0.020	<0.010	<0.010
MAY 20...	4.5	83	61	--	0.290	0.050	0.040	0.30	0.030	0.020	0.010
JUL 08...	6.1	72	67	0.330	0.340	0.030	0.030	<0.20	0.050	0.020	0.020
AUG 11...	5.1	82	62	--	0.270	0.050	0.040	0.30	0.020	0.020	0.020

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- SUS- PENDE (MG/L)	SED- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 08...	1400	2910	5	39	--
22...	1445	2850	5	38	98
NOV 06...	1200	1710	3	14	--
JAN 23...	0715	3280	5	44	92
MAY 20...	0645	3650	6	59	90
JUL 08...	0700	2760	2	15	93
AUG 11...	1115	3900	4	42	95

Estimated

SECTION OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1992, BY WATER YEAR (YR)

1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
340	374	380	330	327	398	400	385	418	388	310	433
483	448	447	488	470	481	477	459	421	530	437	449
1948	1988	1998	1997	1941	1995	1977	1983	1947	1997	1997	1982
194	177	138	340	337	260	280	319	176	117	122	152
1942	1940	1935	1931	1911	1931	1946	1911	1908	1931	1991	1990

STREAMS TRIBUTARY TO LAKE ONTARIO

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 mi². 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 ft³ 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 ft³, Oct. 3, 1945, elevation, 1,787.1 ft; minimum observed, less than 0.90 mil ft³, Nov. 18, 1943, water level below elevation 1,775.6 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 296.6 mil ft³, May 31 to June 1, July 21, elevation, 1,786.00 ft; minimum observed, 147.2 mil ft³, Mar. 6-8, elevation, 1,781.20 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, 100 ft downstream from bridge on State Highway 28 at Old Forge, and 11.2 mi downstream from dam on Sixth Lake outlet at Inlet. DRAINAGE AREA, 53.6 mi². 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 ft³, elevation, 1,707.0 ft. Usable capacity without flashboards, 764.3 mil ft³, 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 ft³, June 17, 1972, elevation, 1,707.9 ft; minimum observed, 6.50 mil ft³, Nov. 3, 1939, elevation, 1,699.8 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 901.1 mil ft³, June 1, elevation, 1,707.08 ft; minimum observed, 320.4 mil ft³, Mar. 6-8, elevation, 1,702.56 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 1991 TO SEPTEMBER 1992

Date	Elevation (feet) ‡	Contents (million ft ³)	Change in contents (equivalent in ft ³ /s)	Elevation (feet) ‡	Contents (million ft ³)	Change in contents (equivalent in ft ³ /s)
	04253300	Sixth Lake		04253400	First Lake	
Sept. 30	1,785.40	277.4		1,706.87	872.8	
Oct. 31	1,783.30	211.5	-24.6	1,705.41	680.0	-72.0
Nov. 30	1,782.75	194.4	-6.60	1,704.09	509.4	-65.8
Dec. 31	1,781.67	161.3	-12.4	1,702.95	367.2	-53.1
CAL YR 1991	-	-	- 3.75	-	-	-13.1
Jan. 31	1,781.65	160.7	- 0.22	1,702.98	370.8	+ 1.35
Feb. 29	1,781.52	156.8	- 1.56	1,702.78	346.8	- 9.59
Mar. 31	1,783.03	203.1	+17.3	1,704.07	506.8	+59.7
Apr. 30	1,783.97	232.3	+11.3	1,705.11	641.0	+51.8
May 31	1,786.00	296.6	+24.0	1,707.00	890.2	+93.0
June 30	1,785.70	287.0	- 3.70	1,706.96	884.6	- 2.16
July 31	1,785.75	288.6	+ 0.60	1,706.94	881.9	- 1.01
Aug. 31	1,785.80	290.2	+ 0.60	1,706.85	870.2	- 4.35
Sept. 30	1,785.71	287.3	- 1.12	1,706.76	857.6	- 4.87
WTR YR 1992	-	-	+ 0.31	-	-	- 0.48

‡ Elevation at 2400 hours, by interpolation.

ST. LAWRENCE RIVER BASIN

04262000 OSWEGATCHIE RIVER NEAR OSWEGATCHIE, NY

LOCATION.--Lat 44°13'21", long 75°04'29", St. Lawrence County, Hydrologic Unit 04150302, on left bank, 300 ft downstream from Niagara Mohawk Power Corporation Flat Rock powerplant, and 2.75 mi north of Oswegatchie.

DRAINAGE AREA.--259 mi².

PERIOD OF RECORD.--October 1924 to September 1968, July 1987 to current year. Prior to October 1958, published as East Branch Oswegatchie River near Oswegatchie.

REVISED RECORDS.--WDR NY-88-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,016.52 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Extensive diurnal fluctuation at low and medium flow caused by powerplant. Since 1867, flow regulated by Cranberry Lake. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--49 years (water years 1925-68, 1988-92), 515 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,090 ft³/s, Apr. 12, 1947; maximum gage height, 7.3 ft, Apr. 26, 1926; minimum daily discharge, 1 ft³/s, July 25, 1926.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,220 ft³/s, Apr. 12, gage height, 5.48 ft; minimum, 54 ft³/s, May 20, gage height, 1.45 ft; minimum daily, 71 ft³/s, July 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	459	185	608	e300	451	359	385	558	919	163	495	225
2	486	163	668	e400	315	306	534	397	1090	137	435	235
3	469	165	676	e250	365	417	606	539	1070	141	353	267
4	399	173	695	e280	433	362	626	697	860	71	408	311
5	357	123	693	e400	269	361	608	386	711	90	408	293
6	434	101	598	e500	193	372	598	403	794	149	455	246
7	500	108	341	e680	189	232	456	376	737	206	e450	221
8	527	97	543	e740	166	499	675	354	719	168	e400	264
9	392	140	820	e640	169	539	963	317	601	169	e350	239
10	507	167	996	475	272	898	762	302	586	167	e310	267
11	523	154	963	442	213	1220	1060	391	252	180	e290	445
12	484	207	834	457	211	1150	1940	684	196	181	e380	359
13	481	254	645	501	225	1180	1920	631	180	207	e350	392
14	396	231	663	576	215	812	1530	568	229	218	e310	314
15	249	223	751	549	232	952	1310	716	190	257	e230	364
16	588	662	835	615	427	754	1260	690	217	232	e130	500
17	764	392	e900	549	259	606	1490	484	207	207	e240	429
18	638	356	e600	468	264	728	1530	449	161	525	e200	491
19	642	367	e450	500	388	634	1490	557	106	431	e180	400
20	437	471	e240	515	431	704	1710	451	244	643	e170	360
21	419	605	e170	425	530	573	1890	414	243	882	e180	407
22	443	631	e220	580	528	405	1970	416	174	773	e130	423
23	550	744	e300	564	452	322	1850	425	160	734	e140	464
24	605	576	e440	544	265	185	1690	254	160	711	e160	326
25	623	572	e450	517	189	201	1660	173	181	490	e150	267
26	380	722	e220	522	324	229	1550	220	243	332	e130	248
27	516	693	e200	524	303	388	1390	327	160	310	e170	268
28	475	485	e150	431	235	771	1160	281	159	452	191	275
29	591	321	e230	396	313	436	1120	236	165	291	226	195
30	426	289	e370	400	---	522	689	230	173	323	281	219
31	213	---	e310	452	---	416	---	536	---	488	189	---
TOTAL	14973	10377	16579	15192	8826	17533	36422	13462	11887	10328	8491	9714
MEAN	483	346	535	490	304	566	1214	434	396	333	274	324
MAX	764	744	996	740	530	1220	1970	716	1090	882	495	500
MIN	213	97	150	250	166	185	385	173	106	71	130	195

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1992, BY WATER YEAR (WY)

	MEAN	389	474	502	530	527	698	1000	685	415	325	310	333
MAX	685	1048	1097	1094	970	1161	1787	1659	1218	590	632	719	
(WY)	1946	1989	1928	1937	1947	1990	1947	1943	1947	1947	1989	1957	
MIN	189	177	239	230	225	288	460	219	170	131	152	152	
(WY)	1942	1940	1935	1931	1931	1931	1946	1941	1988	1991	1991	1990	

ST. LAWRENCE RIVER BASIN

04262000 OSWEGATCHIE RIVER NEAR OSWEGATCHIE, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1925 - 1992	
ANNUAL TOTAL	172704		173784			
ANNUAL MEAN	473		475		515	
HIGHEST ANNUAL MEAN					884	1947
LOWEST ANNUAL MEAN					311	1931
HIGHEST DAILY MEAN	1770	Mar 5	1970	Apr 22	3790	Apr 12 1947
LOWEST DAILY MEAN	70	Jul 24	71	Jul 4	1.0	Jul 25 1926
ANNUAL SEVEN-DAY MINIMUM	71	Jul 24	127	Nov 5	71	Jul 24 1991
10 PERCENT EXCEEDS	920		814		943	
50 PERCENT EXCEEDS	382		404		421	
90 PERCENT EXCEEDS	160		170		199	

ST. LAWRENCE RIVER BASIN

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 mi².

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.--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.--76 years, 521 ft³/s, 29.00 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,080 ft³/s, Mar. 15, 1977, gage height, 9.31 ft; maximum gage height, 9.6 ft, Jan. 9, 1930; minimum discharge prior to regulation, 25 ft³/s, Sept. 1, 1934, gage height, 0.86 ft; minimum discharge since regulation, 20 ft³/s, Aug. 11, 1985, gage height, 0.83 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 13	0330	*4,450	a*7.38	No other peak greater than base discharge.			

a Recorded in well; outside gage height was 7.63 ft, from crest-stage gage.

Minimum discharge, 95 ft³/s, July 3, gage height, 1.60 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	144	131	846	497	320	321	846	619	987	109	575	301
2	147	131	1070	435	298	314	784	608	1460	106	938	267
3	154	128	1030	383	278	304	679	826	1350	98	990	246
4	159	128	931	370	260	290	586	1210	991	102	910	303
5	157	132	e660	527	251	279	536	1290	676	113	1240	371
6	158	130	e600	744	240	276	489	1100	490	130	1420	348
7	219	131	566	781	235	357	513	879	423	141	1060	315
8	279	137	525	673	228	740	708	701	389	137	733	265
9	233	126	727	579	210	1050	983	589	356	135	547	218
10	204	116	1200	558	215	1390	1130	601	305	133	466	202
11	198	130	1380	522	208	2380	1310	714	258	132	452	397
12	226	154	1140	432	198	2460	3010	800	226	131	453	526
13	256	183	974	389	193	1850	4000	684	182	153	400	443
14	238	208	e860	478	190	1530	2870	560	156	217	345	356
15	238	320	e800	851	193	1220	1940	471	145	308	309	283
16	367	696	e740	1050	e300	959	1370	405	136	298	269	225
17	570	1180	e660	1060	e400	736	1280	363	124	274	239	193
18	567	1180	e600	865	e500	606	1450	396	116	580	227	171
19	455	921	e540	661	603	508	1450	438	120	672	213	187
20	387	732	e480	504	809	459	1380	417	130	651	185	195
21	331	656	433	419	921	412	1520	368	163	888	159	191
22	280	673	402	366	855	375	1770	317	166	1010	155	254
23	242	634	e350	352	740	344	1890	280	164	881	141	453
24	211	596	e330	483	598	320	1820	249	161	746	129	559
25	205	673	e300	590	505	300	1810	242	175	625	119	476
26	203	691	e280	603	431	323	1720	224	177	463	114	399
27	167	575	e280	548	391	599	1410	266	155	355	114	355
28	168	506	278	469	353	994	1130	306	139	284	119	365
29	173	469	283	401	341	1100	899	318	126	242	155	353
30	156	496	391	362	---	973	722	278	117	220	277	300
31	145	---	497	338	---	866	---	373	---	219	302	---
TOTAL	7637	12963	20153	17290	11264	24635	42005	16892	10563	10553	13755	9517
MEAN	246	432	650	558	388	795	1400	545	352	340	444	317
MAX	570	1180	1380	1060	921	2460	4000	1290	1460	1010	1420	559
MIN	144	116	278	338	190	276	489	224	116	98	114	171
CFSM	1.01	1.77	2.66	2.29	1.59	3.26	5.74	2.23	1.44	1.40	1.82	1.30
IN.	1.16	1.98	3.07	2.64	1.72	3.76	6.40	2.58	1.61	1.61	2.10	1.45

e Estimated

ST. LAWRENCE RIVER BASIN

04262500 WEST BRANCH OSWEGATCHIE RIVER NEAR HARRISVILLE, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1992, BY WATER YEAR (WY)

MEAN	378	566	581	474	425	853	1339	685	348	211	173	217
MAX	1047	1324	1474	1434	1488	1949	2263	1772	1135	601	763	670
(WY)	1946	1928	1984	1930	1954	1921	1947	1971	1947	1947	1986	1981
MIN	64.4	165	145	105	130	160	495	236	94.1	61.8	36.9	49.0
(WY)	1964	1931	1923	1918	1920	1941	1927	1941	1941	1949	1934	1939

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1916 - 1992

ANNUAL TOTAL	179548		197227			
ANNUAL MEAN	492		539		521	
HIGHEST ANNUAL MEAN					833	1947
LOWEST ANNUAL MEAN					333	1941
HIGHEST DAILY MEAN	4140	Mar 5	4000	Apr 13	6820	Mar 15 1977
LOWEST DAILY MEAN	47	Aug 3	98	Jul 3	21	Aug 11 1985
ANNUAL SEVEN-DAY MINIMUM	52	Jul 29	110	Jun 29	34	Aug 28 1934
ANNUAL RUNOFF (CFSM)	2.02		2.21		2.13	
ANNUAL RUNOFF (INCHES)	27.37		30.07		29.00	
10 PERCENT EXCEEDS	1090		1110		1180	
50 PERCENT EXCEEDS	336		388		320	
90 PERCENT EXCEEDS	78		141		97	

ST. LAWRENCE RIVER BASIN

04262895 OSWEGATCHIE RIVER AT RENSSELAER FALLS, NY

LOCATION.--Lat 44°35'21", long 75°19'17", St. Lawrence County, Hydrologic Unit 04150302, at State Highway 186 bridge at Rensselaer Falls.

DRAINAGE AREA.--950 mi².

PERIOD OF RECORD.--August 1989 to November 1991 (discontinued).

CHEMICAL DATA: 1989 (a), 1990 (b), 1991 (c), 1992 (a).

MINOR ELEMENTS DATA: 1989 (a), 1990 (b), 1991 (c), 1992 (a).

PESTICIDE DATA: 1989 (a), 1990 (b).

NUTRIENT DATA: 1989 (a), 1990 (b).

SEDIMENT DATA: 1989 (a), 1990 (b), 1991 (c), 1992 (a).

REMARKS.--Water-quality samples were collected by personnel of the New York State Department of Environmental Conservation, and were analyzed in USGS laboratories. Water-discharge data based on records obtained for Oswegatchie River near Heuvelton (station 04263000).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED CENT SATUR- ATION)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)
OCT 01...	1000	911	106	8.0	12.5	765	10.0	94	10
NOV 19...	0800	2070	112	7.4	3.0	760	13.6	101	270

DATE	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
OCT 01...	<1	5	60	2	20	0.10	<1	<10
NOV 19...	<1	--	600	1	90	<0.10	2	40

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDIMENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 01...	1000	911	2	4.9
NOV 19...	0800	2070	9	50

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.

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.--Records good except those for estimated daily discharges, which are poor. 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.--76 years, 1,737 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,600 ft³/s, Apr. 6, 1960, gage height, 10.36 ft; minimum, 99 ft³/s, Aug. 4, 1991, gage height, 0.49 ft; minimum gage height, 0.47 ft, Aug. 17, 1949, but may have been less during period of no gage-height record Sept. 7, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,510 ft³/s, Apr. 14, gage height, 6.38 ft; minimum, 190 ft³/s, July 8, gage height, 0.77 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1992, BY WATER YEAR (WY)

MEAN	1130	1746	1911	1757	1630	3159	4212	2141	1119	719	617	716
MAX	3563	4284	4522	5369	4800	6327	7951	5243	4481	2096	2196	2420
(WY)	1978	1928	1928	1930	1954	1977	1960	1976	1947	1947	1981	1981
MIN	327	552	582	507	538	972	1402	620	391	319	278	278
(WY)	1964	1957	1923	1961	1934	1940	1927	1941	1941	1965	1934	1990

ST. LAWRENCE RIVER MAIN STEM

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, NY, 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, NY. Water-quality samples collected at power dam from taps at generators 17 and 30.

DRAINAGE AREA.--298,800 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1860 to September 1935 (monthly discharges only, published in WSP 1307), October 1935 to current year. Prior to October 1970 published as 04264000 "St. Lawrence River at Ogdensburg."

REVISED RECORDS.--WSP 1437: 1870, 1875, 1881, 1883, 1884, 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, NY is considered to be the same as discharge at Ogdensburg, NY 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.--132 years (water years 1861-1992), 245,300 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 361,000 ft³/s, Jan. 3, 7, 1987; minimum daily, 139,000 ft³/s, Feb. 7, 1936; maximum monthly discharge, 350,000 ft³/s, July 1973; minimum monthly, 153,800 ft³/s, Feb. 1936.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 297,000 ft³/s, Sept. 19-24; minimum daily, 193,000 ft³/s, Jan. 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	246000	237000	221000	220000	230000	228000	236000	260000	282000	262000	268000	279000
2	245000	231000	221000	220000	230000	228000	235000	260000	282000	262000	268000	279000
3	244000	231000	221000	220000	229000	228000	235000	260000	282000	261000	268000	279000
4	246000	231000	221000	220000	235000	228000	244000	260000	282000	257000	268000	279000
5	245000	231000	221000	220000	235000	228000	243000	260000	281000	257000	268000	288000
6	235000	231000	221000	220000	235000	228000	244000	260000	271000	257000	268000	287000
7	240000	231000	221000	220000	235000	228000	244000	260000	271000	257000	269000	287000
8	240000	231000	221000	220000	233000	228000	244000	261000	270000	257000	273000	287000
9	240000	219000	221000	220000	223000	228000	244000	276000	271000	257000	273000	288000
10	240000	219000	221000	220000	223000	228000	244000	276000	271000	257000	273000	287000
11	240000	219000	221000	213000	223000	228000	245000	276000	271000	256000	273000	287000
12	239000	219000	221000	193000	223000	228000	244000	276000	271000	256000	273000	280000
13	239000	219000	221000	217000	223000	228000	244000	276000	277000	256000	273000	281000
14	239000	219000	225000	217000	223000	236000	244000	276000	277000	256000	274000	295000
15	239000	219000	225000	205000	200000	236000	244000	276000	277000	256000	279000	295000
16	239000	220000	225000	205000	198000	236000	244000	278000	277000	256000	279000	295000
17	240000	220000	225000	205000	227000	236000	245000	278000	277000	257000	279000	295000
18	240000	220000	225000	210000	227000	236000	250000	278000	277000	260000	279000	295000
19	237000	222000	225000	210000	227000	236000	250000	278000	277000	259000	279000	297000
20	237000	222000	225000	224000	227000	236000	250000	278000	269000	260000	279000	297000
21	237000	222000	218000	225000	227000	235000	250000	279000	269000	260000	279000	297000
22	237000	222000	209000	224000	204000	235000	250000	278000	269000	259000	279000	297000
23	237000	222000	220000	223000	204000	235000	250000	276000	269000	260000	279000	297000
24	237000	222000	220000	224000	232000	235000	251000	276000	269000	260000	279000	297000
25	237000	222000	220000	201000	232000	235000	240000	276000	270000	267000	279000	296000
26	237000	222000	220000	200000	232000	235000	240000	276000	268000	267000	279000	270000
27	237000	222000	220000	230000	232000	235000	241000	276000	262000	267000	279000	270000
28	237000	222000	220000	230000	232000	236000	250000	276000	262000	267000	279000	270000
29	237000	222000	220000	220000	228000	236000	250000	277000	262000	267000	274000	270000
30	237000	221000	220000	220000	---	236000	250000	282000	262000	267000	273000	273000
31	237000	---	220000	230000	---	236000	---	282000	---	267000	279000	---
TOTAL	7417000	6710000	6855000	6726000	6529000	7205000	7345000	8457000	8175000	8064000	8521000	8594000
MEAN	239300	223700	221100	217000	225100	232400	244800	272800	272500	260100	274900	286500
MAX	246000	237000	225000	230000	235000	236000	251000	282000	282000	267000	279000	297000
MIN	235000	219000	209000	193000	198000	228000	235000	260000	262000	256000	268000	270000

ST. LAWRENCE RIVER MAIN STEM

04264331 ST. LAWRENCE RIVER AT CORNWALL, ONTARIO--NEAR MASSENA, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 1992, BY WATER YEAR (WY)

MEAN	248600	244500	239200	226600	232300	243600	256500	265700	269900	267100	261700	256600
MAX	323800	338100	327000	298700	287500	314400	325100	336700	349800	350000	330300	326400
(WY)	1987	1987	1987	1987	1986	1987	1973	1973	1973	1973	1974	1986
MIN	182600	176100	174700	168700	153800	179800	179200	176500	188600	200600	200000	194900
(WY)	1936	1936	1936	1936	1936	1965	1964	1965	1965	1964	1936	1936

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1936 - 1992

ANNUAL TOTAL	96227000	90598000	
ANNUAL MEAN	263600	247500	
HIGHEST ANNUAL MEAN			251100
LOWEST ANNUAL MEAN			309300
HIGHEST DAILY MEAN	325000	297000	361000
LOWEST DAILY MEAN	209000	193000	139000
ANNUAL SEVEN-DAY MINIMUM	218000	207000	148000
10 PERCENT EXCEEDS	308000	279000	300000
50 PERCENT EXCEEDS	260000	240000	251000
90 PERCENT EXCEEDS	221000	220000	206000

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), 1987 (b), 1988-89 (c), 1990 (b), 1991 (d), 1992 (b).

MINOR ELEMENTS DATA: 1974-77 (b), 1978 (a), 1979 (b), 1980 (c), 1981-87 (b), 1988-90 (c), 1991 (d), 1992 (b).

RADIOCHEMICAL DATA: 1974-92 (a).

PESTICIDE DATA: 1988-90 (b).

ORGANIC DATA: OC--1974 (a), 1975 (b), 1977 (b), 1978-81 (d).

NUTRIENT DATA: 1974-75 (c), 1976-81 (d), 1982-86 (c), 1987 (b), 1988-91 (c), 1992 (b).

BIOLOGICAL DATA:

Bacteria--1974 (c), 1975-81 (d), 1982-86 (c), 1987-92 (b).

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), 1987-90 (b), 1991 (d), 1992 (b).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1975 to September 1986.

WATER TEMPERATURES: October 1955 to October 1958, unpublished; January 1966 to September 1986.

REMARKS.--Temperature observations from October 1955 to October 1958 made at Aluminum Company of America Massena Canal power station and those from January 1966 to September 1986 made approximately 68 ft below normal forebay level. Water-quality samples without turbidity analyses were collected by personnel of the New York State Department of Environmental Conservation.

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.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	*DIS-CHARGE, IN CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (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 SATUR-ATION	COLI-FORM, FECA, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCHI, FECA, KF AGAR (COLS. PER 100 ML)
OCT 16...	0900	239000	310	8.1	13.5	1.0	762	10.1	97	7	3
NOV 19...	1000	222000	310	8.1	7.5	--	760	10.8	90	--	--
FEB 18...	0930	227000	298	8.2	0.5	0.50	765	11.6	80	K1	K2
MAY 04...	0915	260000	313	8.6	6.5	1.0	760	13.2	108	K1	K0
JUL 20...	0945	260000	343	8.1	20.0	1.1	762	9.6	106	44	48

DATE	HARD-NESS TOTAL (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 WAT DIS TOT IT FIELD (MG/L AS CACO3)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3)	CAR-BONATE WATER DIS IT 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)
OCT 16...	120	36	8.2	12	1.4	89	109	0	31	25	0.20
NOV 19...	--	--	--	--	--	--	--	--	--	--	--
FEB 18...	130	38	8.0	11	1.4	94	115	0	28	24	<0.10
MAY 04...	130	38	7.7	11	1.5	92	112	0	24	21	<0.10
JUL 20...	120	36	8.0	11	1.5	92	113	0	27	22	<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, 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)
OCT 16...	0.44	165	169	--	0.170	0.020	<0.010	<0.20	0.050	0.020	0.010
NOV 19...	--	--	--	--	--	--	--	--	--	--	--
FEB 18...	0.17	175	169	--	0.330	0.020	0.010	0.30	<0.010	<0.010	<0.010
MAY 04...	0.21	170	160	--	0.290	<0.010	<0.010	<0.20	<0.010	<0.010	<0.010
JUL 20...	0.31	196	163	0.210	0.220	0.010	<0.010	<0.20	<0.010	<0.010	<0.010

* Daily discharge.

K Results based on colony count outside the acceptable range (non-ideal colony count).

ST. LAWRENCE RIVER MAIN STEM

04264331 ST. LAWRENCE RIVER AT CORNWALL, ONTARIO--NEAR MASSENA, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	COBALT, DIS- SOLVED (UG/L AS CO)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)
OCT 16...	--	<10	22	--	<3	--	4	--	6	--
NOV 19...	80	--	--	<1	--	60	--	4	--	<10
FEB 18...	--	<10	19	--	<3	--	5	--	7	--
MAY 04...	--	<10	22	--	<3	--	6	--	<4	--
JUL 20...	--	<10	21	--	<3	--	4	--	<4	--

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	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, TOTAL RECOV- ERABLE (UG/L AS ZN)
OCT 16...	<1	--	<10	--	<1	<1	<1.0	170	<6	--
NOV 19...	--	0.20	--	1	--	--	--	--	--	50
FEB 18...	1	--	<10	--	1	<1	<1.0	170	<6	--
MAY 04...	<1	--	<10	--	2	<1	<1.0	170	<6	--
JUL 20...	<1	--	<10	--	2	<1	<1.0	180	<6	--

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	*DIS- CHARGE, IN CUBIC FEET PER SECOND	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 YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
FEB 18...	0930	227000	<0.6	<0.6	3.1	2.4	<0.6	<0.6	0.03	0.34
JUL 20...	0945	260000	<0.6	<0.6	2.6	2.0	0.7	0.6	0.05	0.31

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	*DIS- CHARGE, IN CUBIC FEET PER SECOND	SEDI- MENT, DIS- SOLVED (MG/L)	SEDI- MENT, SUS- PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 16...	0900	239000	2	1290	86
NOV 19...	1000	222000	1	599	--
FEB 18...	0930	227000	1	613	78
MAY 04...	0915	260000	5	3510	56
JUL 20...	0945	260000	4	2810	56

* Daily discharge.

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.

WATER DISCHARGE RECORDS

GAGE.--Water-stage recorder. Datum of gage is 1,502.12 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 1, 1911, nonrecording gage at present site at datum 2.00 ft higher and Jan. 1, 1911 to Oct. 21, 1912, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--84 years, 1,314 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,360 ft³/s, May 8, 1972, gage height, 12.25 ft; minimum daily, 4.1 ft³/s, Oct. 12, 1947.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, about 7,000 ft³/s, May 1, 1900 (from New York State Museum Bulletin 85).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,330 ft³/s, Apr. 27, 28, gage height, 10.88 ft; minimum daily, 154 ft³/s, July 3.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	845	734	1520	1410	1000	598	1510	5440	1500	327	395	638
2	840	729	1510	1400	956	655	1550	5200	1520	285	626	571
3	852	686	1560	1330	873	586	1510	5010	1530	154	702	564
4	821	584	1540	1290	677	552	1480	4900	1540	257	853	687
5	800	412	1490	1300	535	625	1460	4820	1520	287	1230	763
6	754	414	1420	1320	522	629	1430	4720	1510	269	1250	868
7	796	403	1410	1310	517	614	1420	4580	1500	286	1160	993
8	852	434	1410	1200	574	672	1450	4390	1480	313	1220	859
9	839	430	1430	1120	572	817	1490	4160	1430	300	1330	830
10	766	433	1540	1120	547	912	1510	3910	1400	297	1390	870
11	850	561	1630	1030	619	1260	1640	3700	1410	479	1490	838
12	797	532	1670	1050	617	1420	1890	3480	1200	474	1530	853
13	815	654	1730	946	544	1420	2230	3280	1110	741	1490	857
14	872	821	1730	982	615	1450	2630	3050	1000	728	1460	967
15	830	821	1880	1010	612	1490	2800	2910	942	763	1400	840
16	814	814	1880	1090	612	1510	2820	2770	598	644	1390	875
17	1140	856	1870	999	541	1530	2870	2620	504	613	1140	917
18	1200	897	1820	1090	586	1530	2870	2490	556	714	1030	875
19	967	1070	1780	1090	620	1810	2900	2270	549	726	896	851
20	1050	876	1770	1090	620	1720	3030	2110	569	695	798	802
21	803	1260	1780	1090	628	1680	3310	2050	495	714	623	892
22	1170	1400	1790	1110	631	1630	3730	1990	561	668	515	865
23	966	1520	1880	1120	631	1580	4320	1790	577	712	391	862
24	1030	1620	2000	1210	678	1530	4950	1600	486	688	524	934
25	889	1660	1870	1260	620	1470	5520	1570	592	684	497	892
26	879	1670	1710	1200	569	1420	5820	1570	470	570	540	898
27	896	1660	1550	1150	665	1450	6060	1540	548	672	491	904
28	844	1600	1440	1150	591	1460	6260	1540	528	542	528	879
29	838	1580	1420	1060	680	1330	6030	1510	370	585	540	917
30	792	1540	1420	1050	---	1550	5730	1470	336	355	542	884
31	765	---	1420	1040	---	1490	---	1510	---	376	544	---
TOTAL	27372	28671	50870	35617	18452	38390	92220	93950	28331	15918	28515	25245
MEAN	883	956	1641	1149	636	1238	3074	3031	944	513	920	841
MAX	1200	1670	2000	1410	1000	1810	6260	5440	1540	763	1530	993
MIN	754	403	1410	946	517	552	1420	1470	336	154	391	566

MEAN	861	1129	1242	1056	919	1292	3099	2925	1307	727	587	614
MAX	3292	2676	3439	2934	2148	3577	5254	6094	3982	2461	1867	1614
(WY)	1946	1989	1984	1985	1916	1921	1922	1943	1947	1972	1986	1938
MIN	54.7	133	348	343	319	325	1432	878	396	327	182	112
(WY)	1948	1909	1931	1918	1961	1940	1965	1987	1941	1979	1934	1913

ST. LAWRENCE RIVER BASIN

04266500 RAQUETTE RIVER AT PIERCEFIELD, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955, 1970-72, April 1988 to November 1991 (discontinued).

CHEMICAL DATA: 1955, 1970-72 (a), 1988-91 (b), 1992 (a).

MINOR ELEMENTS DATA: 1955, 1970-72 (a), 1988-91 (b), 1992 (a).

PESTICIDE DATA: 1988-90 (b).

NUTRIENT DATA: 1970-72 (a), 1988-90 (b).

SEDIMENT DATA: 1988-89 (a), 1990-91 (b), 1992 (a).

REMARKS.--Water-quality samples were collected by personnel of the New York State Department of Environmental Conservation, and were analyzed in USGS laboratories.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
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NOV 20...	0900	616	26	8.0	4.0	765	13.0
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DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
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NOV 20...	110	<1	220	11	50	0.10	3	40
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SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
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NOV 20...	0900	616	1	1.7
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ST. LAWRENCE RIVER BASIN

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 Corporation powerplant, and 0.8 mi upstream from Cold Brook.

DRAINAGE AREA.--937 mi².

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. Flow regulated 16 mi upstream by Carry Falls Reservoir since 1953; considerable natural storage in large lakes upstream from Piercefield. Large diurnal fluctuation caused by five powerplants upstream from gage. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--39 years, 1,799 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,720 ft³/s, May 11, 1971, gage height, 9.80 ft; minimum, 1.3 ft³/s, Feb. 1, 1962, Aug. 8, 1964; minimum gage height, 1.52 ft, Aug. 6, 1991; minimum daily discharge, 4.6 ft³/s, June 2, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,820 ft³/s, May 2, gage height, 7.65 ft; minimum, 7.3 ft³/s, July 6, gage height, 1.64 ft; minimum daily, 355 ft³/s, Nov. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	601	1640	1230	1730	1900	1650	1880	5390	2500	1360	738	1790
2	1480	1230	1310	1960	2070	1690	1910	5240	2800	1670	891	1940
3	1470	1300	1260	1980	2070	1690	1820	5410	2760	434	1010	1870
4	1710	1130	1440	2040	1870	1700	2690	5190	2600	409	888	1720
5	1300	1230	1610	1920	1880	1650	2310	4780	2050	476	1080	1400
6	1530	1460	1740	1860	1510	1610	2380	4660	1920	716	1290	1370
7	1620	525	1520	1740	1800	1600	2320	4400	1600	1480	1370	1540
8	1740	472	1500	1620	1560	1410	2610	4380	1570	959	1190	1330
9	708	507	1570	1860	1560	1320	2290	4330	1620	920	1360	1510
10	1020	474	1550	2250	1740	1060	2260	4100	1530	742	1440	1210
11	2050	468	1330	2010	1620	1230	2400	3900	1650	503	1450	1370
12	561	1020	1570	1720	1570	1330	2380	3500	1580	536	1400	1280
13	1250	1060	1700	1830	1520	1670	2310	3000	1400	765	1550	1550
14	1790	1510	1440	2140	1690	1480	2810	2600	1660	801	1290	1290
15	1580	1010	1840	1830	1800	1460	2610	3410	1660	872	1610	1230
16	1480	450	1350	2120	1690	1650	2610	3590	1520	799	1040	1170
17	1340	414	1360	1900	1650	1470	2650	3210	1630	1090	818	1100
18	1470	962	1280	1930	1640	1660	2700	2940	1520	363	1380	1180
19	1590	1170	1310	1880	1440	1690	2790	2710	1480	479	1260	1560
20	853	1410	1400	1910	1620	1470	2900	3070	1010	746	1950	1800
21	1300	1400	1630	1960	1640	1580	2840	2460	1020	901	1970	2240
22	1420	971	1520	2030	1580	1770	3400	2690	1310	873	1800	2230
23	1460	355	1670	1540	1500	1460	3500	2110	1300	952	1310	1880
24	1700	357	1640	1760	1630	1560	4030	1660	1380	751	1540	1800
25	1550	1130	1640	2150	1680	1660	4110	1560	1240	927	1860	1660
26	1590	1370	1540	1840	1540	1740	4080	1930	1350	890	1920	1670
27	1570	1250	1750	1570	1690	1670	4570	2190	1160	952	1920	1460
28	1500	1220	1560	2340	1690	1840	4330	2330	1380	926	1670	1430
29	1690	1320	1600	2160	2010	1780	4590	2300	1260	865	1740	1630
30	1600	1230	1910	1550	---	1960	5580	1990	1390	952	1430	1330
31	1590	---	2060	2100	---	1850	---	1990	---	916	1420	---
TOTAL	44113	30045	47830	59230	49160	49360	89660	103020	48850	26025	43585	46540
MEAN	1423	1001	1543	1911	1695	1592	2989	3323	1628	840	1406	1551
MAX	2050	1640	2060	2340	2070	1960	5580	5410	2800	1670	1970	2240
MIN	561	355	1230	1540	1440	1060	1820	1560	1010	363	738	1100

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1992, BY WATER YEAR (WY)

MEAN	1435	1567	1732	1629	1591	2061	3157	3112	1758	1239	1144	1119
MAX	3849	3248	4208	4138	3005	3985	5568	6260	3496	3356	2990	1816
(WY)	1978	1986	1984	1985	1978	1990	1954	1971	1972	1972	1986	1986
MIN	625	386	435	673	595	657	1151	1041	656	462	535	682
(WY)	1965	1965	1965	1956	1961	1956	1965	1987	1962	1988	1985	1987

ST. LAWRENCE RIVER BASIN

04267500 RAQUETTE RIVER AT SOUTH COLTON, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1953 - 1992	
ANNUAL TOTAL	638525		637418		1799	
ANNUAL MEAN	1749		1742		2661	1976
HIGHEST ANNUAL MEAN					984	1965
LOWEST ANNUAL MEAN					9060	May 14 1971
HIGHEST DAILY MEAN	4920	Jan 8	5580	Apr 30	4.6	Jun 2 1954
LOWEST DAILY MEAN	80	Sep 7	355	Nov 23		Nov 1 1964
ANNUAL SEVEN-DAY MINIMUM	390	Sep 7	647	Nov 7		
10 PERCENT EXCEEDS	3490		2690		3430	
50 PERCENT EXCEEDS	1480		1590		1530	
90 PERCENT EXCEEDS	504		911		594	

ST. LAWRENCE RIVER BASIN

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 Corporation powerplant, and 18.0 mi upstream from mouth. Water-quality sampling site at discharge station.

DRAINAGE AREA.--1,125 mi².

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.--Records good 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 Corporation powerplant, 0.4 mi upstream; considerable natural storage in large lakes upstream from Piercefield. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--48 years (water years 1945-92), 2,104 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft³/s, Apr. 5, 1974, gage height, 8.40 ft; maximum gage height, 9.24 ft, Feb. 22, 1954 (ice jam); minimum discharge, 2.2 ft³/s, Sept. 18, 19, 1966; minimum gage height, 0.42 ft, July 13, 1950; minimum daily discharge, 7.0 ft³/s, Oct. 15, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,950 ft³/s, May 4, gage height, 5.29 ft; maximum gage height, 7.06 ft, Jan. 23 (ice jam); minimum discharge, 20 ft³/s, Aug. 31, gage height, 0.57 ft; minimum daily, 474 ft³/s, Nov. 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1190	1800	1450	2330	e2200	e2300	3000	5700	2830	1450	1280	2150
2	769	1760	1430	e2100	e2300	e1800	2830	5610	3280	1800	1110	2140
3	1750	1390	1540	e2100	e2200	e1800	3030	5630	3320	748	1060	2140
4	1830	1380	1800	e2200	e2100	e1800	3260	5840	3170	504	1270	2190
5	1830	1500	e1700	e2100	e2100	e1700	3150	5470	2350	648	1490	2030
6	1650	1450	e1900	e2000	e1900	e1700	3050	4960	2460	904	1520	1690
7	1830	754	e2000	e1900	e1900	e1700	3210	5220	1800	1410	1610	1560
8	1840	474	1900	e1800	e1800	e1600	3520	4510	1840	1050	1550	1680
9	1240	581	1980	e2000	e1900	e1500	3590	4570	1830	1000	1600	1540
10	1010	523	2150	e2200	e2000	e1800	3370	4580	1830	958	1580	1640
11	1820	503	2070	e2200	e1900	e2500	3280	4360	1840	718	1600	1690
12	1360	928	2000	e2000	e1800	e2000	3470	4080	1590	569	1720	1560
13	981	1480	2030	e2000	e1800	e1800	4010	3690	1770	846	1610	1550
14	1590	1560	2070	e2200	e1900	e1700	4330	2800	1650	1130	1700	1560
15	1880	1500	2030	e2400	e2000	e1600	3180	2940	1750	1140	1640	1490
16	2000	1090	2050	e2300	e2100	e1700	3070	3660	1820	1060	1700	1650
17	1920	642	e1600	e2100	e2100	e1600	3290	3820	1800	1060	708	1710
18	1840	1160	e1500	e2000	e2000	e1700	3710	3330	1790	943	1370	2120
19	1810	1710	e1500	e1900	e2000	e1800	4090	3360	1490	804	2030	1730
20	1740	1600	e1600	e2000	e1900	e1600	3730	2940	1890	835	1620	1620
21	645	1590	e1700	e2500	e1800	e1700	3820	2960	1100	1190	2160	1390
22	1750	1590	e1700	e2400	e1700	e1800	3890	2730	1180	1170	2180	1780
23	1750	792	e1800	e2100	e1700	e1700	4320	2340	1460	1120	1950	2470
24	1770	577	e1800	e2000	e1800	e1700	4900	2220	1450	831	1030	2650
25	1780	971	e1800	e2300	e1900	e1800	4990	1930	1560	1100	2050	2490
26	1760	1450	e1800	e2200	e1800	e2000	4700	1830	1450	1150	2020	2060
27	1760	1510	1890	e1900	e1800	e2600	4690	2280	1420	1120	1730	2320
28	1790	1530	1870	e2400	e1900	4250	4890	2830	1450	1050	1740	2200
29	1770	1450	1830	e2300	e2000	3340	5110	2630	1410	954	1810	1950
30	1760	1460	1850	e2100	---	2870	5440	2430	1570	1020	1910	2090
31	1770	---	2250	e1800	---	2990	---	2320	---	1160	662	---
TOTAL	50185	36705	56590	65830	56300	62450	114920	113570	56150	31442	49010	56840
MEAN	1619	1223	1825	2124	1941	2015	3831	3664	1872	1014	1581	1895
MAX	2000	1800	2250	2500	2300	4250	5440	5840	3320	1800	2180	2650
MIN	645	474	1430	1800	1700	1500	2830	1830	1100	504	662	1390

e * Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1992, BY WATER YEAR (WY)

	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
MEAN	1660	1900	2065	1897	1913	2638	3871	3493	2002	1379	1282	1298
MAX	4545	3776	5409	5021	3575	4723	6344	6768	3602	3623	3454	2244
(WY)	1978	1986	1984	1985	1978	1990	1954	1971	1972	1972	1986	1981
MIN	756	500	684	699	672	866	1556	1209	807	518	639	733
(WY)	1965	1965	1965	1956	1956	1956	1957	1987	1962	1988	1985	1987

ST. LAWRENCE RIVER BASIN

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, 1957 (a), 1960-61 (e), 1969 (a), 1970 (d), 1971 (b), 1972 (a), 1979-80 (d), 1981-82 (c), 1983-92 (b).

MINOR ELEMENTS DATA: 1969 (a), 1970, 1979 (b), 1980 (d), 1981-92 (b).

PESTICIDE DATA: 1970 (a).

ORGANIC DATA: OC--1979-80 (d), 1981 (c).

NUTRIENT DATA: 1955, 1957 (a), 1960-61 (e), 1969 (a), 1970 (d), 1971 (b), 1972 (a), 1979-80 (d), 1981-82 (c), 1983-92 (b).

BIOLOGICAL DATA:

Bacteria--1969-71 (a), 1979-80 (d), 1981-82 (c), 1983-92 (b).

Phytoplankton--1979-80 (c), 1981 (b).

Periphyton--1979-80 (b).

SEDIMENT DATA: 1979 (c), 1980 (d), 1981-82 (c), 1983-92 (b).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (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- TOCOC- CI, FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)
OCT 15...	1045	1900	46	7.6	10.5	1.9	757	9.9	89	86	30	19
FEB 20...	0945	E1900	126	7.1	0.0	1.2	760	14.6	101	58	K18	22
MAY 06...	0930	4920	61	6.8	9.0	1.1	770	11.5	98	K27	K20	13
JUL 22...	0845	47	56	7.9	21.5	0.70	767	9.1	102	140	K5	36

DATE	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 WAT DIS TOT IT FIELD (MG/L AS CaCO3)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3)	CAR- BONATE WATER DIS IT 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)	SILICA, DIS- SOLVED (MG/L AS SiO2)
OCT 15...	5.3	1.4	2.5	0.40	12	15	0	5.8	3.3	0.20	3.7
FEB 20...	6.0	1.6	4.1	0.60	12	15	0	6.5	5.4	0.20	6.5
MAY 06...	3.6	0.88	1.9	0.50	6	8	0	5.8	1.7	<0.10	4.7
JUL 22...	9.3	3.1	2.9	0.50	33	40	0	6.1	4.4	<0.10	3.0

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 DIS- 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 15...	40	31	--	0.180	0.030	<0.010	0.20	0.030	0.020	<0.010	30
FEB 20...	44	40	--	0.310	0.100	0.100	0.30	0.020	<0.010	<0.010	60
MAY 06...	35	25	--	0.290	0.030	0.020	<0.20	<0.010	<0.010	<0.010	70
JUL 22...	59	50	0.170	0.180	0.020	<0.010	0.20	<0.010	<0.010	<0.010	20

E Estimated daily discharge.

K Results based on colony count outside the acceptable range (non-ideal colony count).

ST. LAWRENCE RIVER BASIN

04268000 RAQUETTE RIVER AT RAYMONDVILLE, NY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	COBALT, DIS- SOLVED (UG/L AS CO)	IRON, DIS- SOLVED (UG/L AS FE)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	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)
OCT 15...	10	<3	270	<4	13	<10	<1	<1	<1.0	22	<6
FEB 20...	9	<3	130	<4	12	<10	<1	<1	<1.0	24	<6
MAY 06...	9	<3	71	<4	14	<10	<1	<1	<1.0	16	<6
JUL 22...	12	<3	130	<4	11	<10	<1	<1	<1.0	36	<6

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER 0.062 MM
OCT 15...	1045	1900	2	10	89
FEB 20...	0945	E1900	1	--	94
MAY 06...	0930	4920	3	40	91
JUL 22...	0845	47	2	0.25	84

E Estimated daily discharge.

ST. LAWRENCE RIVER BASIN

04268800 WEST BRANCH ST. REGIS RIVER NEAR PARISHVILLE, NY

LOCATION.--Lat 44°35'55", long 74°44'15", St. Lawrence County, Hydrologic Unit 04150306, on right bank 25 ft upstream from highway bridge, 4.1 mi downstream from Mud Pond Outlet, 4.8 mi upstream from Niagara Mohawk Power Corp. dam, and 4.2 mi southeast of Parishville.

DRAINAGE AREA.--171 mi².

PERIOD OF RECORD.--October 1958 to September 1968, June 1991 to current year. Annual maximum, water years 1969-91.

GAGE.--Water-stage recorder. Datum of gage is 971.64 ft above National Geodetic Vertical Datum of 1929. October 1968 to May 1991, crest-stage gage at present site and datum.

REMARKS.--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 at station.

AVERAGE DISCHARGE.--11 years (water years 1959-68, 1992), 287 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,960 ft³/s, Dec. 29, 1984, gage height, 7.37 ft; maximum gage height, 7.51 ft, Feb. 25, 1985 (ice jam); minimum recorded discharge, 50 ft³/s, Aug. 1, 2, 1965, gage height, 0.92 ft; minimum daily discharge, about 46 ft³/s, Feb. 1, 1961.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 23	0900	*3,090	*5.22	No other peak greater than base discharge.			

Minimum discharge, 75 ft³/s, Nov. 10, gage height, 1.06 ft; minimum daily, about 79 ft³/s, Nov. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	97	248	e150	e190	e220	486	636	881	91	301	e200
2	177	96	259	e170	e180	e210	426	694	824	89	407	e160
3	171	95	202	e190	e170	e200	362	789	645	85	310	e230
4	150	92	e170	e200	e160	e190	317	802	445	85	295	e500
5	144	90	e150	e220	e160	e190	278	702	307	89	906	344
6	139	89	178	e240	e160	e200	258	578	259	91	871	228
7	141	89	189	e250	e150	e230	273	490	258	93	631	171
8	133	e83	276	e220	e150	e300	416	424	252	88	413	145
9	118	e81	519	e200	e140	e600	600	391	234	95	e250	150
10	116	e79	700	e190	e140	e900	742	378	202	106	e330	229
11	137	e85	553	e170	e130	e1100	743	350	174	107	e490	614
12	141	93	448	e160	e130	e1000	981	320	155	112	e490	430
13	129	101	e400	e180	e120	e860	1010	293	138	128	e350	288
14	120	113	e360	e220	e120	e780	940	276	126	144	e250	208
15	111	184	e300	e300	e120	e700	897	259	116	163	e210	165
16	253	580	e270	e350	e120	e620	839	242	109	155	e180	142
17	292	538	e240	e350	e120	e540	730	229	e110	128	e160	127
18	228	358	e230	e330	e130	e450	656	278	e150	280	e140	124
19	187	333	e230	e310	e150	e350	729	331	e200	342	e140	145
20	176	322	e220	e290	e220	e300	1160	289	e220	419	e130	151
21	162	494	e210	e270	e420	e260	1900	235	e190	580	e120	138
22	145	492	e200	e260	e400	e240	2690	204	e160	428	e110	208
23	131	397	e190	e260	e360	e220	2980	185	e140	265	e110	417
24	122	313	e180	e320	332	e210	2480	205	e140	198	e98	329
25	116	290	139	e370	267	e210	1960	217	e160	162	e92	239
26	110	260	181	e330	234	e220	1480	204	164	135	e90	184
27	111	197	165	e270	228	e260	1170	254	136	123	e100	168
28	116	223	151	e240	e240	e740	963	313	113	112	e120	206
29	113	196	e150	e220	e230	e640	826	274	101	102	e230	191
30	105	193	e150	e210	---	e560	722	221	95	93	e270	165
31	101	---	e140	e200	---	508	---	432	---	99	e270	---
TOTAL	4536	6653	7998	7640	5671	14008	30014	11495	7204	5187	8864	6996
MEAN	146	222	258	246	196	452	1000	371	240	167	286	233
MAX	292	580	700	370	420	1100	2980	802	881	580	906	614
MIN	101	79	139	150	120	190	258	185	95	85	90	124
CFSM	.86	1.30	1.51	1.44	1.14	2.64	5.85	2.17	1.40	.98	1.67	1.36
IN.	.99	1.45	1.74	1.66	1.23	3.05	6.53	2.50	1.57	1.13	1.93	1.52

e Estimated

ST. LAWRENCE RIVER BASIN

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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1910 to October 1917, November 1917 to December 1918 (monthly discharges only, published in WSP 1307), January 1919 to current year.

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.--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.--82 years (water years 1911-92), 1,049 ft³/s, 23.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,800 ft³/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 ft³/s, Aug. 8, 1917, gage height, 5.25 ft; minimum daily, 37 ft³/s, Aug. 8, 1917.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,600 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 23	2030	*7,470	*9.92	No other peak greater than base discharge.			

Minimum discharge, 180 ft³/s, Nov. 10, gage height, 5.83 ft; minimum daily, 255 ft³/s, July 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	517	363	640	e480	e680	e740	e1500	2040	2220	289	541	702
2	577	343	760	e520	e660	e700	e1400	2130	2450	272	1130	581
3	531	324	495	e540	e600	e680	e1300	2390	2020	255	1040	541
4	589	317	e440	e620	e580	e660	e1200	2470	1590	272	874	867
5	537	316	e390	e700	e560	e640	e1200	2300	1230	269	2250	1160
6	496	311	333	e800	e540	e640	e1100	1880	1030	306	2550	907
7	476	299	514	e820	e520	e700	e1100	1690	980	285	1850	675
8	471	298	722	e780	e500	e800	e1400	1520	901	271	1400	552
9	449	261	1260	e700	e480	e1600	e1800	1380	824	295	1070	475
10	425	271	2090	e640	e460	e2500	e2200	1290	706	364	939	453
11	478	282	1950	e580	e450	e3700	2690	1220	605	405	1010	1070
12	498	310	1610	e540	e430	e3100	3260	1130	542	384	1120	1250
13	450	374	1530	e580	e420	e2800	3420	1030	497	416	1070	998
14	421	449	e1300	e660	e410	e2500	3000	966	450	424	908	795
15	408	517	e1200	e900	e400	e2100	2610	908	400	452	753	560
16	643	1370	e1000	e1100	e400	e1800	2370	852	374	448	599	494
17	862	1750	e900	e1100	e420	e1500	2460	769	344	428	533	433
18	815	1340	e860	e1100	e450	e1300	2340	778	319	767	450	395
19	680	1140	e820	e1000	e520	e1100	2250	833	318	1030	433	405
20	613	1050	e800	e960	e760	e1000	3170	904	690	1130	443	394
21	595	1270	e760	e920	e1400	e900	4890	826	726	1310	411	406
22	536	1520	e720	e880	e1400	e840	6260	677	545	1300	386	409
23	493	1310	e700	e840	e1300	e780	7260	620	490	971	343	795
24	452	1140	e660	e900	e1200	e740	6840	673	436	721	327	993
25	428	1010	e640	e1200	e1100	e700	5770	691	453	579	293	844
26	411	908	e600	e1100	e960	e700	4690	725	471	494	266	668
27	387	829	e580	e1000	e860	e800	3740	748	440	428	276	558
28	414	648	e560	e900	e840	e2300	3090	1010	388	384	286	536
29	385	771	e540	e840	e800	e1900	2640	1020	342	287	344	561
30	391	669	e500	e760	---	e1700	2290	890	309	283	492	506
31	416	---	e470	e720	---	e1600	---	1010	---	287	677	---
TOTAL	15844	21760	26344	25180	20100	43520	89240	37370	23090	15806	25064	19983
MEAN	511	725	850	812	693	1404	2975	1205	770	510	809	666
MAX	862	1750	2090	1200	1400	3700	7260	2470	2450	1310	2550	1250
MIN	385	261	333	480	400	640	1100	620	309	255	266	394
CFSM	.84	1.19	1.39	1.33	1.13	2.29	4.86	1.97	1.26	.83	1.32	1.09
IN.	.96	1.32	1.60	1.53	1.22	2.65	5.42	2.27	1.40	.96	1.52	1.21

e Estimated

ST. LAWRENCE RIVER BASIN

04269000 ST. REGIS RIVER AT BRASHER CENTER, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1992, BY WATER YEAR (WY)

MEAN	747	982	983	857	761	1523	2786	1555	825	528	470	525
MAX	2203	2467	2674	2678	2268	3434	4550	4512	2848	1364	1564	1541
(WY)	1978	1928	1984	1913	1981	1913	1912	1971	1947	1947	1986	1981
MIN	296	374	367	273	304	337	1167	495	247	225	129	155
(WY)	1965	1931	1961	1931	1931	1941	1946	1941	1941	1941	1934	1934

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR			FOR 1992 WATER YEAR			WATER YEARS 1910 - 1992		
ANNUAL TOTAL	351977			363301			1045		
ANNUAL MEAN	964			993			1884		
HIGHEST ANNUAL MEAN							581		
LOWEST ANNUAL MEAN							13000		
HIGHEST DAILY MEAN	6830			7260			Apr 2 1916		
LOWEST DAILY MEAN	148			255			Jul 3 1917		
ANNUAL SEVEN-DAY MINIMUM	170			276			Jul 2 1917		
ANNUAL RUNOFF (CFSM)	1.58			1.62			1.71		
ANNUAL RUNOFF (INCHES)	21.39			22.08			23.19		
10 PERCENT EXCEEDS	2040			2090			2220		
50 PERCENT EXCEEDS	700			704			680		
90 PERCENT EXCEEDS	244			357			285		

ST. LAWRENCE RIVER BASIN

04269000 ST. REGIS RIVER AT BRASHER CENTER, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955, 1960, 1970-72, 1974 to July 1992 (discontinued).

CHEMICAL DATA: 1955 (a), 1960 (b), 1970-72 (a), 1975-81 (d), 1982 (c), 1983-90 (b), 1991 (c), 1992 (b).

MINOR ELEMENTS DATA: 1975, 1977-79 (b), 1980 (c), 1981-90 (b), 1991 (c), 1992 (b).

ORGANIC DATA: OC--1974 (b), 1978-81 (d).

NUTRIENT DATA: 1970-71 (a), 1975-81 (d), 1982 (c), 1983-92 (b).

BIOLOGICAL DATA:

Bacteria--1975-81 (d), 1982 (c), 1983-92 (b).

Phytoplankton--1975-77 (d), 1978-81 (c).

Periphyton--1975-80 (b).

SEDIMENT DATA: 1975 (d), 1976-77 (c), 1978-81 (d), 1982 (c), 1983-90 (b), 1991 (c), 1992 (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 1991 TO SEPTEMBER 1992

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (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 17...	1000	807	99	7.5	9.0	2.5	764	11.1	96	380	100
FEB 19...	0845	E520	85	7.3	0.0	1.7	766	12.5	85	100	21
MAY 05...	1000	2540	42	7.2	9.0	1.2	762	10.2	88	K20	K13
JUL 21...	1215	1270	71	7.2	22.5	1.5	764	9.0	104	200	26

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DI- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3)	CAR- BONATE WATER DIS IT 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)
OCT 17...	47	12	4.2	3.1	0.70	34	41	0	11	5.2	0.20
FEB 19...	37	9.8	3.1	3.7	0.50	25	31	0	7.7	4.9	0.20
MAY 05...	19	5.1	1.6	1.7	0.50	11	14	0	5.5	2.1	<0.10
JUL 21...	30	8.0	2.4	2.2	0.40	23	28	0	4.5	2.8	<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 17...	6.6	81	64	0.130	0.020	<0.010	0.30	0.040	0.020	<0.010	30
FEB 19...	9.7	58	57	0.410	0.050	0.050	0.40	0.030	<0.010	<0.010	20
MAY 05...	4.9	43	29	0.130	<0.010	0.020	0.30	<0.010	<0.010	<0.010	90
JUL 21...	5.6	62	42	0.290	0.030	0.060	0.30	<0.010	<0.010	<0.010	50

Estimated daily discharge.

Results based on colony count outside the acceptable range (non-ideal colony count).

04269000 ST. REGIS RIVER AT BRASHER CENTER, NY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	COBALT, DIS- SOLVED (UG/L AS CO)	IRON, DIS- SOLVED (UG/L AS FE)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	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)
OCT 17...	17	<3	290	<4	10	<10	<1	<1	<1.0	37	<6
FEB 19...	12	<3	210	<4	4	<10	1	<1	<1.0	29	<6
MAY 05...	11	<3	160	<4	10	<10	<1	<1	<1.0	18	<6
JUL 21...	13	<3	440	<4	24	<10	<1	<1	<1.0	27	<6

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						
17...	1000	807	6	13	56	
FEB						
19...	0845	E520	2	--	74	
MAY						
05...	1000	2540	2	14	97	
JUL						
21...	1215	1270	7	24	81	

E Estimated daily discharge.

ST. LAWRENCE RIVER BASIN

04270200 LITTLE SALMON RIVER AT BOMBAY, NY

LOCATION.--Lat 44°56'24", long 74°33'26", 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 mi².

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 and crest-stage gage. 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.--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--34 years (water years 1959-92), 119 ft³/s, 17.53 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,250 ft³/s, Apr. 4, 1974, gage height, 12.90 ft; minimum, 8.0 ft³/s, Aug. 6, 7, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 11	0530	*a1,000	*b12.51	No other peak greater than base discharge.			

a Estimate.

b Ice jam.

Minimum discharge, 18 ft³/s, Nov. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	33	58	e40	e56	e48	e140	117	336	31	52	63
2	47	32	53	e39	e52	e50	e130	192	211	29	97	53
3	43	33	e50	e38	e48	e50	e120	241	137	27	70	51
4	35	32	e47	e56	e45	e46	e100	213	101	32	58	93
5	34	31	e45	e74	e43	e50	e86	171	76	37	387	83
6	34	31	e44	e100	e37	e54	e82	136	71	52	203	59
7	38	31	e50	e130	e32	e96	e140	116	102	44	103	48
8	35	32	e64	e98	e32	e150	e280	102	92	35	70	45
9	32	30	e100	e64	e31	e240	362	96	72	37	63	41
10	33	28	e250	e68	e30	e420	322	102	56	49	96	37
11	59	34	e150	e58	e31	e700	268	93	49	42	106	81
12	54	37	e80	e56	e32	e470	394	83	44	38	82	84
13	46	46	e88	e66	e32	e340	460	74	38	44	58	58
14	41	50	e96	e110	e31	e230	292	71	36	55	49	46
15	38	82	e88	e150	e31	e190	233	67	33	47	46	40
16	77	201	e70	e130	e32	e180	203	61	30	42	43	42
17	98	150	e60	e120	e36	e150	315	58	29	36	41	34
18	68	91	e58	e110	e43	e130	329	68	28	110	40	32
19	55	83	e56	e96	e54	e100	268	72	29	124	38	32
20	59	75	e56	e84	e100	e86	318	60	120	86	55	36
21	59	109	e58	e70	e130	e74	421	53	94	66	66	30
22	50	112	e56	e60	e110	e66	444	47	65	68	49	32
23	45	89	e54	e76	e96	e62	456	43	57	51	39	60
24	40	76	e52	e94	e74	e56	348	60	49	45	34	62
25	37	77	e48	e110	e64	e54	299	87	53	40	31	47
26	36	73	e47	e100	e58	e90	230	69	58	35	30	39
27	35	62	e46	e92	e54	e250	181	86	47	33	29	36
28	38	63	e46	e80	e52	e300	151	128	40	35	41	35
29	38	58	e45	e72	e50	e220	132	94	34	37	43	36
30	37	58	e44	e64	---	e170	119	67	30	25	55	33
31	33	---	e43	e58	---	e150	---	112	---	28	54	---
TOTAL	1407	1939	2102	2563	1516	5272	7623	3039	2217	1460	2228	1468
MEAN	45.4	64.6	67.8	82.7	52.3	170	254	98.0	73.9	47.1	71.9	48.9
MAX	98	201	250	150	130	700	460	241	336	124	387	93
MIN	32	28	43	38	30	46	82	43	28	25	29	30
CFSM	.49	.70	.74	.90	.57	1.84	2.76	1.06	.80	.51	.78	.53
IN.	.57	.78	.85	1.03	.61	2.13	3.08	1.23	.89	.59	.90	.59

e Estimated

ST. LAWRENCE RIVER BASIN

04270200 LITTLE SALMON RIVER AT BOMBAY, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1992, BY WATER YEAR (WY)

MEAN	82.8	125	130	88.0	107	220	296	136	75.2	52.4	54.3	51.0
MAX	297	273	309	189	315	386	657	315	244	174	218	233
(WY)	1978	1989	1984	1973	1984	1985	1978	1971	1973	1972	1981	1981
MIN	19.5	38.2	36.8	31.2	28.7	92.4	137	61.3	25.9	15.8	14.5	19.9
(WY)	1958	1979	1961	1961	1964	1960	1987	1980	1965	1965	1960	1960

SUMMARY STATISTICS FOR 1991 CALENDAR YEAR FOR 1992 WATER YEAR WATER YEARS 1957 - 1992

ANNUAL TOTAL	39084		32834			
ANNUAL MEAN	107		89.7		119	
HIGHEST ANNUAL MEAN					178	1973
LOWEST ANNUAL MEAN					75.9	1965
HIGHEST DAILY MEAN	1640	Apr 10	700	Mar 11	2620	Mar 20 1986
LOWEST DAILY MEAN	12	Aug 4	25	Jul 30	9.0	Aug 6 1965
ANNUAL SEVEN-DAY MINIMUM	13	Jul 29	31	Nov 4	9.6	Aug 1 1965
ANNUAL RUNOFF (CFSM)	1.16		.97		1.29	
ANNUAL RUNOFF (INCHES)	15.77		13.25		17.49	
10 PERCENT EXCEEDS	230		195		250	
50 PERCENT EXCEEDS	58		58		67	
90 PERCENT EXCEEDS	20		32		25	

ST. LAWRENCE RIVER BASIN

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 northwest of Chateaugay.

DRAINAGE AREA.--151 mi².

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.--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.--26 years, 247 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,200 ft³/s, Apr. 4, 1974, gage height, 7.33 ft, from rating curve extended above 1,600 ft³/s; maximum gage height, 10.99 ft, Feb. 11, 1966 (ice jam); minimum discharge, 14 ft³/s, Sept. 5, 6, 1982, Nov. 3, 1985, Aug. 28, 1987; minimum gage height, 2.32 ft, Sept. 5, 6, 1982, Aug. 28, 1987; minimum daily discharge, 37 ft³/s, Aug. 23, 26, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,190 ft³/s, Apr. 23, gage height, 4.99 ft; minimum, 43 ft³/s, Nov. 18, gage height, 2.60 ft; minimum daily, 72 ft³/s, Nov. 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	79	201	e180	e140	e140	305	594	232	112	136	111
2	150	79	195	e170	e130	e130	282	595	233	105	125	108
3	150	79	152	e170	e130	e130	261	577	230	104	119	123
4	149	78	157	e160	e130	e130	251	583	224	115	150	130
5	148	78	189	e160	e120	e130	240	533	223	122	325	127
6	173	78	398	e160	e120	e120	224	491	235	127	183	133
7	202	79	565	e160	e120	e130	252	451	236	102	175	122
8	217	78	652	e160	e120	e140	331	414	227	106	170	126
9	224	77	540	e160	e110	e250	343	384	215	124	166	129
10	226	79	400	e170	e110	e580	358	350	200	116	159	134
11	223	80	387	e150	e110	e450	351	333	196	120	156	152
12	215	82	379	e140	e120	e340	438	320	188	117	144	127
13	214	93	390	e150	e110	e320	405	296	180	134	138	128
14	207	88	e360	e170	e110	e310	396	265	175	129	137	133
15	161	93	e340	e210	e110	e290	380	259	155	125	133	123
16	184	102	e320	e200	e110	e280	371	251	150	121	131	120
17	172	89	e290	e190	e120	e270	406	245	149	121	127	118
18	168	72	e310	e190	e130	e260	387	233	152	146	124	116
19	159	90	e270	e180	e150	e250	408	213	147	129	123	113
20	161	93	e240	e180	e180	e240	493	214	146	134	120	107
21	158	105	e230	e170	e160	e230	636	203	135	135	113	107
22	155	105	e230	e180	e150	e220	888	194	129	130	110	122
23	154	178	e220	e190	e150	e220	1150	186	125	129	108	110
24	153	203	e200	e200	e140	e210	1080	196	125	127	106	110
25	153	222	e220	e210	e130	e200	1050	182	127	125	103	112
26	149	218	e200	e200	e130	e190	980	182	129	120	101	111
27	89	217	e210	e190	e120	e300	912	183	123	118	100	110
28	82	217	e200	e170	e120	345	837	187	119	109	99	106
29	79	197	e200	e160	e130	295	758	178	116	106	117	102
30	75	200	e200	e150	---	304	665	175	114	102	110	94
31	79	---	e190	e150	---	314	---	226	---	113	113	---
TOTAL	4985	3528	9035	5380	3710	7718	15838	9693	5135	3723	4221	3564
MEAN	161	118	291	174	128	249	528	313	171	120	136	119
MAX	226	222	652	210	180	580	1150	595	236	146	325	152
MIN	75	72	152	140	110	120	224	175	114	102	99	94

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1992, BY WATER YEAR (WY)

	198	231	244	208	205	345	568	347	187	137	136	157
MEAN	198	231	244	208	205	345	568	347	187	137	136	157
MAX	658	542	544	350	412	729	1014	1010	455	352	339	347
(WY)	1978	1989	1984	1985	1984	1976	1969	1971	1973	1972	1981	1979
MIN	90.8	99.0	107	99.2	103	120	312	133	116	58.5	52.3	70.9
(WY)	1985	1972	1979	1976	1968	1970	1981	1980	1968	1979	1979	1968

ST. LAWRENCE RIVER BASIN

04270510 CHATEAUGAY RIVER BELOW CHATEAUGAY, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1966 - 1992	
ANNUAL TOTAL	90358		76530			
ANNUAL MEAN	248		209		247	
HIGHEST ANNUAL MEAN					348	1978
LOWEST ANNUAL MEAN					181	1988
HIGHEST DAILY MEAN	1900	Apr 22	1150	Apr 23	3080	Apr 19 1975
LOWEST DAILY MEAN	68	Aug 4	72	Nov 18	37	Aug 23 1979
ANNUAL SEVEN-DAY MINIMUM	72	Aug 11	78	Oct 30	39	Aug 17 1979
10 PERCENT EXCEEDS	468		379		473	
50 PERCENT EXCEEDS	200		159		180	
90 PERCENT EXCEEDS	82		105		92	

ST. LAWRENCE RIVER BASIN

04271500 GREAT CHAZY RIVER AT PERRY MILLS, NY

LOCATION.--Lat 45°00'00", long 73°30'05", Clinton County, Hydrologic Unit 02010006, on left bank 500 ft upstream from highway bridge at Perry Mills, and 7.5 mi upstream from Corbeau Creek.

DRAINAGE AREA.--247 mi².

PERIOD OF RECORD.--September 1928 to September 1968, October 1986 to September 1989 (annual maximum only), March 1990 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 164.93 ft above National Geodetic Vertical Datum of 1929. April 1987 to February 1990, crest-stage gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Records prior to October 1968 affected by diurnal fluctuation at low and medium flow by sawmill immediately upstream. Occasional regulation by Chazy Lake (usable capacity, about 765 mil ft³) from which the Clinton Correctional Facility at Dannemora (Saranac River basin) obtains its water supply (about 1 ft³/s). Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--42 years (water years 1928-68, 1991-92), 261 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,000 ft³/s, Apr. 7, 1937, gage height, 9.74 ft, from rating curve extended above 3,200 ft³/s; maximum gage height, 11.5 ft, Mar. 9, 1946, from floodmark (ice jam); minimum discharge, 0.8 ft³/s (estimated), Sept. 18, 1932; minimum gage height, 1.31 ft, Aug. 31, 1966; minimum daily discharge, 8.7 ft³/s, July 30, 1991.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 26	1745	ice jam	*7.17	Apr. 22	2100	*2,530	6.51

Minimum discharge, 23 ft³/s, July 31, gage height, 1.59 ft; minimum daily, 27 ft³/s, July 30-31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	42	65	e270	e120	e110	e620	e540	433	40	73	63
2	36	42	71	e240	e110	e110	e560	e640	472	38	100	68
3	39	40	64	e210	e94	e110	e520	e640	332	38	76	83
4	40	37	61	e200	e86	e110	e500	e560	221	48	67	263
5	37	35	e66	e230	e82	e100	e500	e420	166	69	432	344
6	44	35	e72	e250	e82	e110	e520	e290	175	121	345	318
7	51	37	e80	e210	e80	e150	e620	e260	399	87	169	302
8	49	36	e94	e190	e80	e210	e840	e230	404	62	102	298
9	40	29	e130	e180	e78	e280	e840	e230	273	63	76	289
10	33	28	e210	e170	e78	e500	e800	e220	192	78	107	294
11	31	43	e250	e160	e78	e1800	e640	e200	154	77	105	361
12	35	54	e200	e150	e78	e1200	e860	e190	129	69	81	334
13	43	46	e180	e160	e80	e620	e880	e200	111	73	65	297
14	45	47	e230	e200	e82	e500	750	e190	100	107	61	283
15	39	60	e200	e360	e84	e400	e620	e180	91	89	64	179
16	50	98	e180	e400	e86	e330	e600	e160	77	72	60	64
17	85	147	e160	e360	e82	e280	e640	e150	70	56	55	44
18	71	91	e140	e300	e86	e250	e660	e160	64	65	52	43
19	53	79	e120	e290	e92	e240	e800	e150	62	84	53	43
20	54	73	e100	e260	e98	e230	e1300	e140	90	73	50	42
21	63	90	e90	e230	e110	e220	e1800	e120	97	63	55	41
22	67	96	e76	e190	e110	e210	e2200	e110	81	54	47	46
23	63	79	e68	e170	e120	e200	e1900	e100	75	46	44	60
24	55	69	e60	e180	e130	e190	e1500	e110	62	41	40	67
25	51	75	e52	e200	e130	e200	e1200	e120	59	39	38	53
26	48	79	e47	e210	e130	e1000	e880	e120	64	35	37	46
27	45	58	e50	e200	e120	e1700	e740	111	61	34	37	44
28	46	61	e52	e190	e120	e1300	e600	176	51	33	42	49
29	47	65	e54	e170	e120	e1100	e560	159	46	29	60	46
30	45	62	e80	e150	---	e1000	e510	117	41	27	81	42
31	43	---	e180	e130	---	e800	---	151	---	27	64	---
TOTAL	1480	1833	3482	6810	2826	15560	25960	7144	4652	1837	2738	4506
MEAN	47.7	61.1	112	220	97.4	502	865	230	155	59.3	88.3	150
MAX	85	147	250	400	130	1800	2200	640	472	121	432	361
MIN	31	28	47	130	78	100	500	100	41	27	37	41

e Estimated

ST. LAWRENCE RIVER BASIN

04271500 GREAT CHAZY RIVER AT PERRY MILLS, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1992, BY WATER YEAR (WY)

MEAN	132	183	193	231	204	490	884	371	180	107	85.8	84.0
MAX	589	544	550	775	553	1217	1653	969	852	823	274	368
(WY)	1955	1955	1991	1930	1930	1936	1960	1947	1947	1947	1962	1954
MIN	22.3	35.8	41.1	51.7	46.5	70.5	304	97.2	43.5	23.1	26.2	20.2
(WY)	1967	1931	1967	1956	1956	1956	1957	1941	1941	1965	1966	1966

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1928 - 1992

ANNUAL TOTAL	109147.8			78828			261			1947		
ANNUAL MEAN	299			215			514			1965		
HIGHEST ANNUAL MEAN							97.2			1929		
LOWEST ANNUAL MEAN							5590			Mar 16		
HIGHEST DAILY MEAN	3980			Apr 22			2200			Apr 22		
LOWEST DAILY MEAN	8.7			Jul 30			27			Jul 30		
ANNUAL SEVEN-DAY MINIMUM	11			Jul 26			32			Jul 25		
10 PERCENT EXCEEDS	708						560			595		
50 PERCENT EXCEEDS	800						99			131		
90 PERCENT EXCEEDS	22						42			44		

ST. LAWRENCE RIVER BASIN

04271815 LITTLE CHAZY RIVER NEAR CHAZY, NY

LOCATION.--Lat 44°54'08", long 73°24'56", Clinton County, Hydrologic Unit 02010006, on right bank at downstream side of bridge on Stetson Road, 0.2 mi upstream from abandoned dam, 1.4 mi northeast of Chazy, and 2.2 mi upstream from mouth.

DRAINAGE AREA.--52.8 mi².

PERIOD OF RECORD.--March 1990 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 115 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Some regulation at low flow by dams and reservoirs upstream from station. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 766 ft³/s, Mar. 17, 1990, gage height, 9.20 ft; minimum discharge, 0.42 ft³/s, Sept. 7, 8, 1991, gage height, 1.36 ft; minimum gage height, 1.36 ft, several days during August and September, 1991.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 650 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 23	2045	*413	a*6.37				

a Recorded; outside gage height was 6.63 ft, from crest-stage gage.

Minimum discharge, 1.6 ft³/s, Oct. 2, gage height, 1.54 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	4.8	8.6	e6.2	e7.8	e8.4	110	75	28	4.5	5.0	5.8
2	1.8	4.8	8.0	e6.6	e7.4	e8.0	111	79	34	4.2	6.8	5.0
3	2.8	4.8	7.4	7.1	e7.0	e7.8	108	86	32	4.1	7.0	6.8
4	3.6	4.8	7.3	7.4	e6.6	e7.4	97	82	27	5.2	7.1	7.7
5	3.5	4.8	7.0	12	e6.4	e7.4	89	71	22	6.7	23	12
6	3.6	4.8	6.6	23	e6.2	e7.6	79	63	22	8.3	24	8.9
7	4.6	4.8	6.6	23	e6.0	e8.0	79	54	30	8.8	16	6.7
8	5.1	4.8	6.8	17	e6.0	e9.4	93	47	42	8.4	10	5.2
9	4.8	4.8	8.7	15	e6.0	e35	105	42	38	7.6	7.8	4.9
10	3.9	4.8	12	e12	e5.8	241	104	45	29	7.8	6.7	4.1
11	6.3	5.2	15	e11	e5.8	354	95	36	23	7.9	6.0	4.4
12	4.8	6.7	14	e9.4	e5.8	311	99	33	20	7.4	5.5	5.4
13	4.0	8.4	21	e14	e5.6	191	121	30	17	7.4	5.0	5.6
14	3.7	8.9	21	e11	e5.4	96	129	37	15	8.9	4.7	5.2
15	3.5	10	21	e10	e5.4	62	118	34	13	10	4.3	4.5
16	4.4	13	20	23	e5.8	60	105	31	10	9.4	4.0	4.1
17	6.5	13	17	21	e6.0	36	113	30	9.9	8.0	4.1	3.5
18	11	12	15	12	e6.4	33	132	28	8.7	7.6	4.1	3.3
19	11	11	12	16	e7.0	28	151	26	7.9	7.6	4.0	3.2
20	10	10	11	10	e7.6	25	178	24	7.1	7.9	3.8	2.9
21	9.2	8.8	10	9.3	e8.6	20	220	23	7.0	7.2	3.4	3.4
22	9.2	8.3	10	9.2	e9.4	19	221	20	6.5	6.1	3.3	2.8
23	9.2	8.3	10	11	e10	16	365	18	6.9	5.5	5.0	2.5
24	7.9	8.0	e8.0	27	e11	15	345	17	7.0	5.1	4.0	2.5
25	6.6	8.6	e7.0	22	e12	14	224	17	6.0	4.8	5.0	2.5
26	6.5	9.3	e6.4	13	e11	31	169	17	6.9	4.9	4.8	2.5
27	6.5	9.5	e6.0	10	e10	214	132	16	7.9	5.1	4.7	2.5
28	6.2	8.6	e6.0	9.2	e9.2	265	109	17	7.2	4.5	6.2	2.5
29	5.5	8.6	e5.8	e8.8	e8.8	167	95	16	5.7	3.9	5.9	2.0
30	5.3	8.7	e5.8	e8.6	---	130	83	15	5.0	3.8	5.8	2.0
31	4.9	---	e5.8	e8.0	---	123	---	17	---	3.8	5.9	---
TOTAL	177.9	232.9	326.8	402.8	216.0	2550.0	4179	1146	501.7	202.4	212.9	134.4
MEAN	5.74	7.76	10.5	13.0	7.45	82.3	139	37.0	16.7	6.53	6.87	4.48
MAX	11	13	21	27	12	354	365	86	42	10	24	12
MIN	1.8	4.8	5.8	6.2	5.4	7.4	79	15	5.0	3.8	3.3	2.0
CFSM	.11	.15	.20	.25	.14	1.56	2.64	.70	.32	.12	.13	.08
IN.	.13	.16	.23	.28	.15	1.80	2.94	.81	.35	.14	.15	.09

e Estimated

ST. LAWRENCE RIVER BASIN

04271815 LITTLE CHAZY RIVER NEAR CHAZY, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1992, BY WATER YEAR (WY)

MEAN	43.8	48.6	54.8	41.8	40.9	143	167	56.9	29.2	18.9	17.1	5.74
MAX	81.9	89.5	99.0	70.5	75.6	196	190	76.0	57.8	46.2	43.2	11.3
(WY)	1991	1991	1991	1991	1991	1990	1991	1990	1990	1990	1990	1990
MIN	5.74	7.76	10.5	13.0	7.45	82.3	139	37.0	12.9	3.87	1.15	1.42
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1991	1991	1991	1991

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1990 - 1992

ANNUAL TOTAL	17764.88	10282.8	
ANNUAL MEAN	48.7	28.1	48.7
HIGHEST ANNUAL MEAN			69.4
LOWEST ANNUAL MEAN			28.1
HIGHEST DAILY MEAN	611	Apr 23	685
LOWEST DAILY MEAN	.43	Sep 7	1.8
ANNUAL SEVEN-DAY MINIMUM	.45	Sep 2	2.4
ANNUAL RUNOFF (CFSM)	.92		.53
ANNUAL RUNOFF (INCHES)	12.52		7.24
10 PERCENT EXCEEDS	130		90
50 PERCENT EXCEEDS	10		8.6
90 PERCENT EXCEEDS	1.3		4.1

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
1.0	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	1.0
1.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	1.8
2.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	2.8
3.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	3.8
4.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	4.8
5.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	5.8
6.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	6.8
7.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	7.8
8.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	8.8
9.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	9.8
10.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	10.8
11.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	11.8
12.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	12.8
13.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	13.8
14.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	14.8
15.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	15.8
16.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	16.8
17.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	17.8
18.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	18.8
19.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	19.8
20.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	20.8
21.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	21.8
22.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	22.8
23.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	23.8
24.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	24.8
25.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	25.8
26.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	26.8
27.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	27.8
28.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	28.8
29.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	29.8
30.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	30.8
31.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	31.8
32.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	32.8
33.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	33.8
34.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	34.8
35.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	35.8
36.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	36.8
37.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	37.8
38.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	38.8
39.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	39.8
40.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	40.8
41.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	41.8
42.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	42.8
43.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	43.8
44.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	44.8
45.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	45.8
46.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	46.8
47.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	47.8
48.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	48.8
49.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	49.8
50.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	50.8
51.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	51.8
52.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	52.8
53.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	53.8
54.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	54.8
55.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	55.8
56.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	56.8
57.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	57.8
58.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	58.8
59.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	59.8
60.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	60.8
61.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	61.8
62.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	62.8
63.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	63.8
64.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	64.8
65.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	65.8
66.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	66.8
67.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	67.8
68.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	68.8
69.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	69.8
70.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	70.8
71.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	71.8
72.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	72.8
73.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	73.8
74.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	74.8
75.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	75.8
76.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	76.8
77.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	77.8
78.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	78.8
79.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	79.8
80.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	80.8
81.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	81.8
82.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	82.8
83.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	83.8
84.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	84.8
85.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	85.8
86.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	86.8
87.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	87.8
88.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	88.8
89.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	89.8
90.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	90.8
91.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	91.8
92.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	92.8
93.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	93.8
94.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	94.8
95.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	95.8
96.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	96.8
97.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	97.8
98.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	98.8
99.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	99.8
100.8	4.8	8.8	68.5	67.8	68.4	110	78	38	4.8	4.8	4.8	100.8

ST. LAWRENCE RIVER BASIN

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 mi².

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.--Records good except those for estimated daily discharges, which are poor. Considerable diurnal fluctuation caused by power and industrial operations. Slight regulation by storage in Upper and Lower Saranac Lakes. During the year, the city of Plattsburgh diverted an average of 6.19 ft³/s from Saranac River and Mead and West Brooks, tributaries upstream from station, for municipal supply. About 1 ft³/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. Telephone gage-height telemeter at station.

AVERAGE DISCHARGE.--76 years (water years 1904-30, 1944-92), 840 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft³/s, Apr. 8, 1928, from computation of flow over dam and through waste gates and powerplant; minimum daily discharge, 3.6 ft³/s, June 26, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,640 ft³/s, Apr. 23, gage height, 7.73 ft; minimum, 48 ft³/s, July 3, gage height, 1.93 ft; minimum daily, 184 ft³/s, July 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	613	246	825	e600	e500	e390	1210	2120	1370	321	542	406
2	789	451	836	565	e460	e440	954	2290	1410	232	472	300
3	736	410	701	628	e430	e500	933	2530	1240	220	446	312
4	752	450	672	829	e400	e520	989	2310	1070	184	509	510
5	692	431	296	997	e410	e550	1010	2110	908	201	925	493
6	744	459	584	923	e380	e560	959	1950	650	200	934	362
7	741	465	562	771	e390	e600	1010	1670	1010	248	921	303
8	667	475	594	769	e400	e620	1060	1720	1110	296	558	332
9	596	428	642	656	e390	e650	1250	1600	876	350	509	506
10	587	414	1180	681	e390	807	1540	1350	688	454	508	509
11	662	386	1300	506	e400	1300	1540	1500	573	369	528	469
12	686	374	978	e450	e390	1770	1770	1550	431	350	498	371
13	792	378	996	561	e380	e1650	1860	1410	426	356	468	347
14	591	388	1160	701	e400	e1450	1710	1240	348	395	461	354
15	504	479	1020	e900	e370	e1200	1580	1190	331	415	421	321
16	601	655	846	e600	e410	e1100	1580	1110	319	422	366	330
17	722	905	1010	e520	e450	e1000	1480	1090	307	384	307	311
18	762	1050	762	e800	e430	e900	1380	1110	336	534	354	376
19	772	995	e600	e660	e440	e700	1400	1120	344	446	377	507
20	746	754	e630	e600	e560	e800	1840	939	344	496	398	310
21	703	991	e690	e650	e580	e740	3280	878	362	540	379	300
22	505	883	e750	e750	e570	e620	4470	693	337	517	330	333
23	570	877	808	e600	e520	e580	5260	562	332	341	330	436
24	655	830	e900	679	e480	e560	4650	546	352	440	324	339
25	705	841	e700	e600	e460	e540	4600	504	338	432	313	321
26	783	586	e560	e520	e450	574	3910	460	390	406	300	308
27	662	788	e650	e560	e440	928	3310	476	357	413	301	329
28	490	847	e700	e600	e430	1810	2850	626	340	373	299	393
29	416	819	616	659	e410	1500	2520	975	311	362	373	342
30	382	766	726	584	---	1360	2260	895	459	321	343	341
31	485	---	648	527	---	1400	---	801	---	322	412	---
TOTAL	20111	18821	23942	20446	12720	28119	64165	39325	17669	11340	14206	11171
MEAN	649	627	772	660	439	907	2139	1269	589	366	458	372
MAX	792	1050	1300	997	580	1810	5260	2530	1410	540	934	510
MIN	382	246	296	450	370	390	933	460	307	184	299	300

e Estimated

ST. LAWRENCE RIVER BASIN

04273700 SALMON RIVER AT SOUTH PLATTSBURGH, NY

LOCATION.--Lat 44°38'24", long 73°29'43", Clinton County, Hydrologic Unit 02010004, on left bank 32 ft upstream from bridge on Salmon River Road, 0.4 mi west of State Highway 22, and 3.9 mi upstream from mouth, at South Plattsburgh.

DRAINAGE AREA.--61.9 mi².

PERIOD OF RECORD.--May 1959 to September 1968 (no winter records prior to October 1965), March 1990 to current year. Occasional low-flow measurements, water years 1954, 1957-58. Annual maximum, water years 1968-86.

GAGE.--Water-stage recorder. Datum of gage is 220.53 ft above National Geodetic Vertical Datum of 1929. October 1968 to September 1986, crest-stage gage at present site and datum.

REMARKS.--Records good 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, 2,220 ft³/s (result of ice jam release), Mar. 27, 1992, gage height, 5.66 ft; maximum gage height, 7.31 ft, Apr. 3, 1960 (ice jam); minimum discharge, 3.0 ft³/s, Sept. 17, 1967; minimum daily, 3.6 ft³/s, Sept. 17, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 27	1545	ice jam	a*6.03	Mar. 27	2000	b*2,220	5.66

a Ice jam.

b Result of ice jam release.

Minimum discharge, 7.8 ft³/s, July 30; minimum daily, 8.4 ft³/s, July 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	20	27	e40	e22	e15	496	84	88	11	34	11
2	25	21	26	e44	e20	e14	411	127	81	11	20	9.8
3	22	21	e24	e47	e19	e14	351	140	56	11	14	12
4	23	20	e22	e60	e17	e15	289	116	39	13	39	23
5	22	19	e23	e70	e16	e15	248	96	32	13	71	16
6	29	19	e27	e54	e15	e17	124	82	50	17	29	13
7	30	17	e30	e47	e14	e23	89	71	57	13	19	12
8	23	14	e35	e44	e14	e40	123	65	44	11	16	13
9	23	16	e40	e40	e13	e80	132	62	34	18	17	11
10	22	21	e50	e37	e13	e250	126	59	28	18	16	12
11	23	17	e45	e35	e12	e600	116	54	24	15	15	15
12	27	19	e39	e35	e12	e400	147	50	22	14	12	12
13	26	19	e50	e40	e12	e150	158	46	19	18	11	11
14	23	19	e60	e70	e13	e100	133	46	17	17	12	11
15	22	20	e56	e140	e13	e70	117	41	15	18	12	9.5
16	35	23	e50	e100	e14	e50	108	37	15	15	12	9.2
17	35	20	e47	e78	e15	e40	105	35	14	12	11	10
18	28	19	e42	e66	e16	e39	112	43	14	20	11	10
19	26	16	e39	e58	e20	e39	137	41	14	25	11	10
20	28	25	e36	e54	e25	e38	226	33	14	23	11	10
21	26	26	e33	e50	e40	e37	313	31	16	18	10	9.5
22	25	25	e30	e45	e35	e37	316	28	16	14	9.7	10
23	24	28	e28	e47	e31	e37	322	26	14	12	9.3	12
24	22	31	e27	e54	e29	e39	270	24	13	13	9.6	11
25	21	36	e25	e68	e26	e44	253	25	15	11	9.3	10
26	21	31	e24	e40	e20	e100	180	25	16	11	9.0	10
27	21	28	e23	e33	e18	e500	141	28	14	11	8.7	12
28	21	28	e24	e29	e17	e1280	118	32	13	9.1	8.7	14
29	20	28	e26	e27	e16	600	101	29	12	8.6	18	12
30	20	28	e28	e25	---	588	89	24	11	8.4	17	10
31	21	---	e33	e24	---	577	---	45	---	10	13	---
TOTAL	777	674	1069	1601	547	5848	5851	1645	817	439.1	515.3	351.0
MEAN	25.1	22.5	34.5	51.6	18.9	189	195	53.1	27.2	14.2	16.6	11.7
MAX	43	36	60	140	40	1280	496	140	88	25	71	23
MIN	20	14	22	24	12	14	89	24	11	8.4	8.7	9.2
CFSM	.40	.36	.56	.83	.30	3.05	3.15	.86	.44	.23	.27	.19
IN.	.47	.41	.64	.96	.33	3.51	3.52	.99	.49	.26	.31	.21

e Estimated

ST. LAWRENCE RIVER BASIN

04273700 SALMON RIVER AT SOUTH PLATTSBURGH, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1992, BY WATER YEAR (WY)

MEAN	33.8	38.4	43.9	40.8	34.4	122	129	63.5	33.0	16.3	19.6	15.3
MAX	69.5	72.9	89.2	69.6	55.3	189	195	97.1	52.0	31.4	44.0	24.8
(WY)	1991	1991	1991	1991	1966	1992	1992	1990	1990	1990	1990	1991
MIN	11.7	14.3	14.0	21.5	15.2	22.1	77.3	51.4	23.4	7.16	7.82	10.1
(WY)	1967	1967	1967	1967	1967	1967	1966	1968	1991	1966	1966	1966

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1966 - 1992

ANNUAL TOTAL	20393.4	20134.4	
ANNUAL MEAN	55.9	55.0	46.7
HIGHEST ANNUAL MEAN			68.4
LOWEST ANNUAL MEAN			28.0
HIGHEST DAILY MEAN	775	1280	1280
LOWEST DAILY MEAN	9.6	8.4	3.6
ANNUAL SEVEN-DAY MINIMUM	11	9.2	4.5
ANNUAL RUNOFF (CFSM)	.90	.89	.75
ANNUAL RUNOFF (INCHES)	12.26	12.10	10.24
10 PERCENT EXCEEDS	106	116	100
50 PERCENT EXCEEDS	33	24	28
90 PERCENT EXCEEDS	13	11	11

ST. LAWRENCE RIVER BASIN

04273800 LITTLE AUSABLE RIVER NEAR VALCOUR, NY

LOCATION.--Lat 44°35'39", long 73°29'48", Clinton County, Hydrologic Unit 02010004, on left bank at upstream side of bridge on Fuller Road, 2.8 mi southwest of Valcour, and 2.9 mi upstream from mouth.

DRAINAGE AREA.--67.8 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1956-1961, 1966, 1973-1974. October 1991 to September 1992.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 260 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--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, 669 ft³/s, Mar. 27, 1992, gage height, 3.05 ft; maximum gage height, 5.42 ft, Mar. 11, 1992 (ice jam); minimum discharge, 2.8 ft³/s, July 31, 1992, gage height, 1.02 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 11	unknown	ice jam	*5.42	Mar. 27	1500	*669	3.05

Minimum discharge, 2.8 ft³/s, July 31, gage height, 1.02 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	21	25	e37	e26	16	76	71	55	5.7	11	8.0
2	32	20	25	e40	e21	e14	72	84	65	5.2	12	6.2
3	27	19	19	e47	e17	e14	63	102	68	5.4	10	6.0
4	19	18	e18	e54	e14	e14	59	104	52	5.9	13	9.8
5	19	17	e18	e64	e12	e16	53	90	33	7.8	21	9.9
6	28	17	e18	e80	e12	e16	50	74	33	6.7	14	8.3
7	33	17	e20	e40	e11	e20	55	63	45	6.8	11	7.5
8	29	17	e25	e37	e10	e35	71	55	46	7.1	8.1	6.7
9	24	17	e40	e22	e9.6	e60	81	51	39	8.3	7.9	6.3
10	22	18	e48	e24	e10	e82	80	48	27	10	7.9	6.4
11	19	16	e45	e26	e9.8	e370	76	46	20	10	7.6	9.2
12	21	21	e42	e31	e9.4	e230	98	43	17	9.8	6.4	10
13	24	25	44	e36	e9.0	e160	132	41	14	9.0	5.5	9.1
14	24	e26	49	e60	e8.6	e96	140	41	13	9.7	5.5	7.6
15	21	e27	50	e110	e8.0	e70	122	41	9.8	9.9	5.7	6.7
16	27	e29	e80	e76	e8.2	e48	95	41	9.2	10	5.6	5.8
17	33	e30	e68	e60	e9.0	e36	91	37	7.9	8.7	5.5	6.0
18	29	e28	e60	e54	e11	e34	96	37	7.9	10	5.6	5.7
19	28	e26	e54	e54	e13	e33	105	37	7.9	13	5.8	5.4
20	24	24	e50	e48	e19	e32	178	34	7.9	13	5.3	5.0
21	23	21	e45	e43	e27	e30	262	30	7.9	13	4.9	5.2
22	22	20	e40	e42	e23	e30	280	28	7.6	12	4.7	4.7
23	21	23	e35	e41	e24	e28	311	24	7.5	9.7	4.3	4.8
24	18	29	e32	e62	e23	e27	326	20	7.2	9.2	3.8	5.1
25	18	e34	e27	e46	e22	e27	358	20	7.2	8.9	3.8	5.1
26	e17	e31	e24	e41	e20	e84	229	20	7.5	7.9	3.6	4.5
27	e17	26	e23	e37	19	e470	155	21	7.4	e6.0	3.5	5.1
28	e16	24	e23	e33	17	326	116	28	7.1	4.5	5.2	5.8
29	e16	24	e24	e29	16	103	92	34	7.0	3.6	9.0	5.9
30	e17	24	e26	e26	---	81	79	27	5.7	3.6	10	5.5
31	18	---	e32	e24	---	78	---	31	---	4.1	10	---
TOTAL	702	689	1129	1424	438.6	2680	4001	1423	649.7	254.5	237.2	197.3
MEAN	22.6	23.0	36.4	45.9	15.1	86.5	133	45.9	21.7	8.21	7.65	6.58
MAX	33	34	80	110	27	470	358	104	68	13	21	10
MIN	16	16	18	22	8.0	14	50	20	5.7	3.6	3.5	4.5
CFSM	.33	.34	.54	.68	.22	1.28	1.97	.68	.32	.12	.11	.10
IN.	.39	.38	.62	.78	.24	1.47	2.20	.78	.36	.14	.13	.11

WTR YR 1992 TOTAL 13825.3 MEAN 37.8 MAX 470 MIN 3.5 CFSM .56 IN. 7.59

e Estimated

ST. LAWRENCE RIVER BASIN

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 mi².

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.--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.--68 years, 315 ft³/s, 21.61 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,100 ft³/s, Sept. 22, 1938, gage height, 12.91 ft, from rating curve extended above 5,800 ft³/s, on basis of velocity-area studies; maximum gage height, 13.96 ft, Feb. 23, 1990 (ice jam); minimum discharge observed, 20 ft³/s, Aug. 11, 14, 28, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,700 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 11	0845	ice jam	*10.50	Mar. 27	0715	5,630	7.11
Mar. 11	1715	a*9,510	9.03				

a Result of ice jam release.

Minimum discharge, 48 ft³/s, Aug. 27, gage height, 1.03 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	107	327	e290	e115	e100	310	532	1430	66	254	87
2	156	104	300	e280	e105	e100	266	1180	1210	63	285	73
3	151	103	209	e260	e98	e100	226	1880	659	59	201	77
4	130	96	e160	e270	e88	e100	189	1110	428	66	173	525
5	118	92	e130	e300	e80	e100	184	712	326	76	355	348
6	182	88	158	e340	e78	e110	164	524	1280	84	232	211
7	355	88	213	e260	e74	e200	180	425	1020	78	154	148
8	232	87	320	e210	e70	e350	262	404	615	71	117	116
9	178	80	559	e180	e68	e660	317	567	431	78	147	101
10	149	90	634	e160	e66	e840	321	679	325	110	205	93
11	146	95	419	e150	e64	e4000	379	663	259	104	166	211
12	162	96	309	e140	e64	1630	1130	622	217	112	132	203
13	162	95	332	e190	e64	656	806	588	179	121	105	152
14	141	95	574	e300	e66	444	492	663	153	156	97	119
15	127	110	467	e500	e72	318	393	508	131	191	100	97
16	858	227	308	e400	e80	e230	346	419	117	157	104	83
17	631	239	e150	e320	e90	e200	314	406	109	121	95	79
18	421	174	e170	e250	e110	e170	302	455	100	212	89	77
19	357	167	e200	e210	e140	e150	376	451	93	266	85	76
20	321	238	e220	e180	e220	e140	1380	351	90	213	78	81
21	256	337	262	e160	e200	e130	2570	294	96	192	70	73
22	215	295	243	e150	e160	e120	3250	256	105	176	64	75
23	184	383	218	e230	e140	e120	2590	229	94	144	59	657
24	166	399	e200	e400	e120	e120	2080	226	85	147	56	377
25	152	405	e180	e330	e115	e120	1570	227	86	124	53	236
26	141	296	e170	e250	e110	120	966	203	88	104	50	164
27	134	220	e160	e210	e110	3730	731	215	81	92	50	138
28	131	199	e170	e180	e105	1270	605	345	78	82	51	161
29	122	182	e200	e160	e100	554	511	289	73	72	88	146
30	114	172	e240	e150	---	415	517	229	69	67	113	123
31	109	---	e320	e130	---	357	---	392	---	70	101	---
TOTAL	6824	5359	8522	7540	2972	17654	23727	16044	10027	3674	3929	5107
MEAN	220	179	275	243	102	569	791	518	334	119	127	170
MAX	858	405	634	500	220	4000	3250	1880	1430	266	355	657
MIN	109	80	130	130	64	100	164	203	69	59	50	73
CFSM	1.11	.90	1.39	1.23	.52	2.88	3.99	2.61	1.69	.60	.64	.86
IN.	1.28	1.01	1.60	1.42	.56	3.32	4.46	3.01	1.88	.69	.74	.96

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1992, BY WATER YEAR (WY)

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	WATER YEARS 1924 - 1992
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ST. LAWRENCE RIVER BASIN

04275500 AUSABLE RIVER NEAR AU SABLE FORKS, NY

LOCATION.--Lat 44°27'05", long 73°38'35", Clinton County, Hydrologic Unit 02010004, on left bank 1.8 mi downstream from confluence of East and West Branches, and 1.8 mi east of Au Sable Forks.

DRAINAGE AREA.--448 mi².

PERIOD OF RECORD.--August 1910 to September 1968, March 1990 to current year. Prior to October 1924, published as "at Au Sable Forks". Monthly discharge only for winter periods during 1911 and 1913 water years, published in WSP 1307.

REVISED RECORDS.--WSP 1307: 1911-19 (M), 1922-24 (M).

GAGE.--Water-stage recorder. Datum of gage is 505.65 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1924, chain gage at site 1.5 mi upstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Occasional regulation by Fern Lake and Taylor Pond in Black Brook basin and Upper and Lower Ausable Lakes. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--60 years (water years 1911-68, 1991-92), 664 ft³/s, 20.13 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,200 ft³/s, Sept. 22, 1938, gage height, 11.65 ft, from rating curve extended above 9,100 ft³/s on basis of slope-area measurement at gage height 11.39 ft; maximum gage height, at least 14.5 ft, 200 ft upstream from gage, Mar. 13, 1990 (ice jam); practically no flow July 21, 1912, result of unusual regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 23, 1990 (ice jam), reached a stage of 14.5 ft, from floodmark 200 ft upstream from gage.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 11	1815	a*9,920	*7.77	Apr. 22	1415	6,580	6.41

a Result of ice jam release.

Minimum discharge, 139 ft³/s, occurred during period of intermittent gage height record, Aug. 24-28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	313	276	703	e680	e330	e250	e880	1170	2340	166	535	e220
2	408	260	692	e640	e310	e240	e740	2200	2080	155	668	e180
3	409	249	486	e600	e290	e230	e640	3590	1290	150	e500	e450
4	352	237	e400	e640	e270	e230	e540	2300	891	160	e430	e1200
5	325	233	e320	e700	e260	e240	e510	1580	712	174	e800	e840
6	414	226	e360	e760	e240	e300	490	1210	1670	195	e560	e600
7	797	225	502	e620	e230	e560	547	1000	1650	198	e400	e420
8	552	224	581	e500	e210	e900	740	943	1060	176	e300	e300
9	432	210	1040	e470	e200	e1300	916	1210	770	197	e400	e230
10	359	220	1430	e460	e195	e2000	938	1480	605	244	e480	e220
11	362	241	928	e440	e190	e5400	1010	1390	503	235	e420	e500
12	402	241	687	e420	e180	3980	2280	1280	432	253	e340	e470
13	401	238	703	e400	e175	1680	2020	1210	372	278	e270	e350
14	363	239	1220	e600	e170	1070	1360	1330	326	346	e240	e280
15	327	266	1010	e1500	e180	761	1070	1050	290	406	e260	e230
16	1570	514	688	e1100	e200	591	949	883	264	355	e270	e200
17	1320	587	e420	e800	e230	e480	871	875	248	277	e250	e190
18	842	420	e440	e620	e280	e430	847	998	231	366	e240	e180
19	692	411	e490	e500	e340	e390	984	1060	219	503	e230	e180
20	623	514	e580	e430	e470	e350	2470	758	215	418	e210	e190
21	521	821	e680	e380	e540	e320	4800	668	219	407	e190	e220
22	509	747	e600	e350	e440	e290	6140	589	228	380	e180	e240
23	405	853	526	e560	e370	e280	5360	533	217	313	e160	e1400
24	362	908	e470	e1000	e310	e280	4110	521	208	310	e150	e680
25	336	855	e440	e800	e270	e280	3540	526	208	276	e145	e500
26	322	660	e400	e640	e240	303	2380	485	215	237	e140	e390
27	304	502	e380	e520	e260	4150	1860	511	210	214	e140	e320
28	306	469	e410	e480	e260	3280	1540	778	203	195	e150	e370
29	292	433	e460	e440	e260	e1600	1210	730	186	184	e200	e340
30	273	412	e600	e390	---	e1200	1170	584	172	172	e290	e300
31	268	---	e720	e350	---	e1000	---	770	---	185	e250	---
TOTAL	15161	12691	19366	18790	7900	34365	52912	34212	18234	8125	9798	12190
MEAN	489	423	625	606	272	1109	1764	1104	608	262	316	406
MAX	1570	908	1430	1500	540	5400	6140	3590	2340	503	800	1400
MIN	268	210	320	350	170	230	490	485	172	150	140	180
CFSM	1.09	.94	1.39	1.35	.61	2.47	3.94	2.46	1.36	.59	.71	.91
IN.	1.26	1.05	1.61	1.56	.66	2.85	4.39	2.84	1.51	.67	.81	1.01

e Estimated

ST. LAWRENCE RIVER BASIN

04276069 HIGHLANDS FORGE LAKE OUTLET NEAR WILLSBORO, NY

LOCATION.--Lat 44°25'29", long 73°25'35", Essex County, Hydrologic Unit 02010001, on left bank 5.0 ft downstream from bridge on Highlands Road, 0.8 mi upstream from mouth, and 4.9 mi northwest of Willsboro.

DRAINAGE AREA.--10.9 mi².

PERIOD OF RECORD.--March 1990 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 280 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Occasional regulation from Long Pond, Highland Forge Lake, and Hadley Pond upstream from station. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 149 ft³/s, Apr. 4, 1990, gage height, 6.21 ft; maximum gage height, 6.23 ft, Jan. 9, 1991 (ice jam); minimum discharge not determined, occurred during period of no gage height record, July 16 to October 6, 1991; minimum daily discharge, about 0.25 ft³/s, Sept. 9, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 130 ft³/s, Mar. 11; maximum gage height, 6.18 ft, Jan. 16 (ice jam); minimum discharge not determined, occurred during period of no gage height record, Oct. 1-6; minimum daily discharge, about 0.32 ft³/s, Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.35	2.9	e5.0	e5.4	e4.6	e3.4	e17	27	22	1.2	5.5	.80
2	e.33	2.9	e4.8	e5.2	e4.3	e3.4	e16	25	19	1.0	4.4	.53
3	e.32	2.8	e4.5	4.9	e4.0	e3.4	e15	29	11	1.0	3.9	.93
4	e.34	2.7	e4.2	5.5	e4.7	e3.5	e14	31	8.5	1.6	3.8	1.1
5	e.38	3.0	e4.1	8.0	e4.0	e3.7	e14	28	5.5	1.5	4.0	1.2
6	e1.8	3.0	e4.5	8.2	e3.5	e4.0	e13	25	18	1.7	3.0	1.1
7	.75	2.9	e5.0	7.9	e3.0	e4.5	14	14	20	1.6	2.6	.99
8	.56	2.8	e6.0	7.4	e2.8	e5.6	15	11	11	1.7	2.3	.96
9	.46	2.6	e7.4	6.9	e2.7	e8.0	15	18	11	3.0	2.3	.98
10	.61	2.5	e9.0	6.7	e2.6	e30	14	22	9.4	3.3	2.1	1.2
11	3.1	2.8	e8.0	6.3	e2.5	e100	17	26	7.9	3.2	2.0	1.8
12	3.8	3.7	e7.6	e5.8	e2.5	e50	26	16	3.6	2.6	1.7	1.5
13	3.2	3.5	8.3	e5.6	e2.5	e35	24	14	7.4	2.5	1.5	1.2
14	2.9	3.5	9.7	e10	e2.6	e30	22	15	8.6	3.0	1.5	1.1
15	3.0	4.0	9.8	e27	e2.7	e24	22	14	7.3	3.4	1.5	1.1
16	11	4.5	8.7	e20	e2.8	e19	21	15	4.2	2.9	1.2	1.0
17	12	4.7	e8.6	e15	e3.0	e16	23	13	1.4	2.4	1.1	1.1
18	6.3	4.5	e8.0	e12	e3.5	e12	23	13	1.7	3.1	1.3	1.0
19	2.2	4.1	e7.2	e11	e4.0	e9.0	28	8.9	1.9	13	1.2	1.2
20	2.5	4.3	e6.4	e10	e6.0	e7.6	43	7.0	2.1	15	.83	.98
21	4.2	4.1	e6.0	e9.6	e5.4	e6.6	42	7.4	5.4	8.0	2.7	.86
22	4.8	3.9	e5.6	e9.0	e5.0	e5.8	40	7.9	8.2	3.5	1.3	1.2
23	4.3	e5.2	e5.4	e9.8	e4.6	e5.4	40	8.0	3.6	3.3	1.0	2.0
24	4.0	e6.4	e5.2	e12	e4.4	e5.0	52	7.6	.92	3.0	1.1	.60
25	3.8	e7.4	e4.8	e10	e4.2	e5.0	51	7.2	1.1	2.8	1.2	.59
26	3.7	e6.0	e4.5	e8.0	e3.9	e35	43	6.8	1.2	2.5	1.1	.57
27	3.7	e5.4	e4.5	e6.2	e3.7	e60	37	7.2	1.3	2.3	1.2	.64
28	4.0	e5.2	e4.4	e5.8	e3.6	e45	28	8.2	1.2	1.9	1.2	.65
29	3.6	e5.2	e4.5	e5.2	e3.5	e35	24	7.6	1.3	1.7	1.4	.59
30	3.2	e5.0	e5.2	e4.9	---	e25	29	7.0	1.3	1.4	1.3	.50
31	3.0	---	e6.0	e4.8	---	e19	---	16	---	2.2	1.7	---
TOTAL	98.20	121.5	192.9	274.1	106.6	618.9	782	462.8	207.02	101.3	62.93	29.97
MEAN	3.17	4.05	6.22	8.84	3.68	20.0	26.1	14.9	6.90	3.27	2.03	1.00
MAX	12	7.4	9.8	27	6.0	100	52	31	22	15	5.5	2.0
MIN	.32	2.5	4.1	4.8	2.5	3.4	13	6.8	.92	1.0	.83	.50

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1992, BY WATER YEAR (WY)

	1990	1991	1992	1990	1991	1992	1990	1991	1992	1990	1991	1992
MEAN	6.27	12.8	12.3	11.0	6.97	25.3	31.2	17.0	7.21	3.62	3.98	1.52
MAX	9.36	21.5	18.3	13.2	10.4	36.7	35.3	19.7	11.3	7.11	9.45	3.12
(WY)	1991	1991	1991	1991	1991	1990	1990	1990	1990	1990	1990	1990
MIN	3.17	4.05	6.22	8.84	3.68	19.2	26.1	14.9	3.40	.49	.47	.44
(WY)	1992	1992	1992	1992	1992	1991	1992	1992	1991	1991	1991	1991

ST. LAWRENCE RIVER BASIN

04276069 HIGHLANDS FORGE LAKE OUTLET NEAR WILLSBORO, NY--Continued

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1990 - 1992

ANNUAL TOTAL	3327.61		3058.22						
ANNUAL MEAN	9.12		8.36					10.2	
HIGHEST ANNUAL MEAN								12.1	1991
LOWEST ANNUAL MEAN								8.36	1992
HIGHEST DAILY MEAN	69	Apr 22	100	Mar 11		115			Apr 4 1990
LOWEST DAILY MEAN	.25	Sep 9	.32	Oct 3		.25			Sep 9 1991
ANNUAL SEVEN-DAY MINIMUM	.29	Sep 4	.59	Sep 24		.29			Sep 4 1991
10 PERCENT EXCEEDS	23		22			28			
50 PERCENT EXCEEDS	5.2		4.5			8.1			
90 PERCENT EXCEEDS	.36		1.1			.65			

ST. LAWRENCE RIVER BASIN

04276500 BOUQUET RIVER AT WILLSBORO, NY

LOCATION.--Lat 44°21'30", long 73°23'50", Essex County, Hydrologic Unit 02010004, on right bank 0.5 mi upstream from bridge on State Highway 22, 2.5 mi downstream from North Branch Bouquet River, and 3.0 mi upstream from mouth, at Willsboro.

DRAINAGE AREA.--275 mi².

PERIOD OF RECORD.--August to September 1904 and August to November 1908 (gage heights and discharge measurements only), July 1923 to September 1968, October 1986 to September 1989 (annual maximum only), March 1990 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 150.88 ft above National Geodetic Vertical Datum of 1929. Prior to November 1908, staff gages at site 0.75 mi downstream at various datums. July 23 to Aug. 28, 1923, staff gage at site 600 ft downstream at present datum. May 1987 to February 1990, crest-stage gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Occasional diurnal fluctuation at low flow caused by powerplant at Wadhams. Slight regulation by Lincoln Pond on Black River. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--47 years (water years 1923-68, 1991-92), 291 ft³/s, 14.38 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,800 ft³/s, Oct. 1, 1924, gage height, 10.85 ft, from rating curve extended above 4,600 ft³/s; minimum discharge, 8.8 ft³/s, Sept. 20, 1957, gage height, 1.84 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 11	1000	ice jam	*10.26	Mar. 28	0215	4,130	6.76
Mar. 11	2300	a*9,740	9.82				

a Result of ice jam release.

Minimum discharge, 48 ft³/s, Aug. 24, gage height, 2.20 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	147	222	e250	e140	e110	538	552	991	95	165	84
2	142	141	266	e270	e130	e100	468	829	1460	85	204	78
3	145	132	e210	e330	e120	e100	385	1250	777	87	152	74
4	139	144	e190	e480	e120	e96	343	934	516	89	132	203
5	132	132	e170	e420	e120	e100	325	683	398	106	139	231
6	242	125	e180	e350	e120	e110	298	570	847	108	134	149
7	480	122	e220	e340	e100	e130	324	501	1490	106	103	110
8	285	127	e260	e300	e94	e150	384	456	745	94	82	88
9	200	128	e320	e270	e88	e300	489	449	532	105	88	86
10	167	117	e400	e250	e80	e700	446	487	404	111	96	84
11	148	119	e330	e240	e74	e1800	466	455	332	109	96	146
12	153	150	e300	e230	e68	4430	1010	418	303	104	86	152
13	158	150	e320	e220	e70	899	1220	393	252	104	79	132
14	152	137	495	e250	e72	487	691	482	212	111	69	104
15	134	146	459	e740	e76	359	554	460	190	153	77	101
16	551	171	304	e660	e80	294	491	383	164	142	77	102
17	733	204	172	e540	e88	261	513	366	159	113	86	101
18	494	185	e160	e420	e98	234	574	342	146	114	68	93
19	476	168	e160	e330	e120	232	623	327	135	224	71	86
20	390	167	e150	e250	e170	226	1060	298	127	200	71	88
21	311	199	e150	e200	e160	215	1960	274	137	175	66	88
22	271	199	e140	e200	e150	190	2320	236	160	138	59	99
23	227	271	e140	e240	e150	178	2350	207	157	134	57	201
24	203	364	e140	e470	e140	188	1780	197	137	131	57	229
25	188	440	e140	e260	e140	174	1970	197	129	116	57	142
26	176	341	e130	e240	e140	205	1170	200	127	111	80	130
27	168	259	e140	e200	e130	1930	880	182	128	99	80	118
28	162	224	e150	e180	e130	2580	713	243	116	84	138	123
29	160	218	e180	e170	e120	797	621	275	112	79	117	134
30	152	216	e210	e150	---	628	568	215	109	77	111	120
31	148	---	e240	e150	---	625	---	246	---	74	113	---
TOTAL	7623	5643	7048	9600	3288	18828	25534	13107	11492	3578	3010	3676
MEAN	246	188	227	310	113	607	851	423	383	115	97.1	123
MAX	733	440	495	740	170	4430	2350	1250	1490	224	204	231
MIN	132	117	130	150	68	96	298	182	109	74	57	74
CFSM	.89	.68	.83	1.13	.41	2.21	3.10	1.54	1.39	.42	.35	.45
IN.	1.03	.76	.95	1.30	.44	2.55	3.45	1.77	1.55	.48	.41	.50

e Estimated

ST. LAWRENCE RIVER BASIN

04276645 HOISINGTON BROOK AT WESTPORT, NY

LOCATION.--Lat 44°11'15", long 73°27'19", Essex County, Hydrologic Unit 02010001, on right bank 30 ft downstream from Ledge Hill Road, 500 ft west of State Route 9N, and 0.1 mi west of Westport.

DRAINAGE AREA.--6.47 mi².

PERIOD OF RECORD.--March 1990 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 246 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records poor. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 444 ft³/s, Aug. 13, 1990, gage height, 5.90 ft, from rating curve extended above 50 ft³/s; maximum gage height, 6.39 ft, Mar. 11, 1992 (ice jam); minimum discharge, 0.26 ft³/s, July 25, 1991, gage height, 3.78 ft; minimum gage height, 3.77 ft, Sept. 9, 1991.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 11	a0445	b*400	c*6.39	No other peak greater than base discharge.			

a Time of peak gage height. Time of peak discharge is unknown.

b About.

c Ice jam.

Minimum discharge, 0.56 ft³/s, Aug. 24, gage height, 3.80 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	2.2	3.5	e3.5	e2.0	e1.6	e10	12	56	1.7	3.5	1.2
2	1.6	2.3	2.9	e2.5	e1.9	e1.5	e9.0	29	24	1.5	1.5	1.1
3	1.7	2.1	e2.8	e2.3	e1.8	e1.5	e7.8	27	12	1.6	1.2	3.1
4	2.4	2.1	e2.7	e3.0	e1.7	e1.5	e7.0	17	8.0	2.4	1.3	5.2
5	1.8	2.0	e2.4	e15	e1.6	e1.6	e6.0	13	6.4	2.0	1.7	1.7
6	12	2.0	2.7	e10	e1.4	e1.7	e6.4	11	31	2.2	1.0	1.4
7	4.6	2.0	2.8	e6.0	e1.4	e1.9	e7.2	10	16	1.7	1.0	1.3
8	2.6	2.0	2.8	e4.5	e1.3	e3.0	e9.0	9.1	10	1.5	.95	1.2
9	2.2	1.7	9.6	e3.2	e1.3	e15	e8.4	8.8	7.7	1.7	1.4	1.1
10	2.0	1.7	6.5	e2.6	e1.3	e30	e7.8	8.2	6.3	1.5	1.3	1.2
11	2.0	2.6	4.5	e2.3	e1.3	e170	e7.6	7.5	5.5	2.1	1.0	2.0
12	2.8	2.7	e4.0	e2.2	e1.2	e25	44	6.8	4.9	1.6	.92	1.3
13	2.3	2.6	e6.0	e2.5	e1.3	e30	15	7.8	4.3	1.8	.91	1.1
14	2.1	2.4	e7.6	e25	e1.3	e25	7.7	14	3.8	2.1	1.3	1.1
15	2.1	2.7	e6.8	e12	e1.3	e20	5.9	8.7	3.4	2.4	1.4	1.0
16	17	2.9	e6.2	e9.0	e1.4	e16	4.8	7.4	3.1	1.6	1.1	1.1
17	5.2	2.4	e5.6	e7.6	e1.5	e13	13	6.5	2.9	1.3	1.1	1.4
18	14	2.2	3.6	e6.4	e1.6	e11	17	6.0	2.7	2.8	.95	1.0
19	7.4	2.2	e3.5	e5.4	e1.9	e9.6	19	5.5	2.5	2.2	1.1	1.2
20	6.2	2.3	e3.1	e4.5	e3.6	e8.2	25	4.9	2.5	2.3	.92	1.0
21	4.3	2.2	e3.0	e3.6	e2.8	e7.2	24	4.5	2.6	2.0	.85	1.0
22	3.6	2.2	e2.9	e3.9	e2.2	e6.6	27	4.0	2.6	1.4	.87	3.4
23	3.1	7.8	e2.8	e4.5	e2.1	e6.2	37	3.8	2.2	1.8	.93	2.9
24	2.8	7.8	e2.6	e12	e2.0	e6.0	47	4.1	2.4	1.8	.82	1.3
25	2.8	8.5	e2.5	e6.0	e1.9	e6.0	33	4.0	3.1	1.4	.84	1.1
26	2.7	4.6	e2.4	e4.5	e1.9	e10	22	3.5	2.5	1.3	.97	1.1
27	2.5	3.5	e2.3	e3.3	e1.8	e100	17	4.0	2.2	1.3	5.9	1.9
28	2.5	3.4	e2.4	e2.9	e1.7	e17	14	5.8	2.0	1.1	5.0	1.1
29	2.3	3.7	e2.5	e2.6	e1.7	e11	13	4.7	1.8	1.1	2.8	1.1
30	2.3	3.8	e3.0	e2.4	---	e12	12	3.5	1.7	1.0	1.6	1.0
31	2.3	---	e6.0	e2.2	---	e11	---	13	---	2.2	1.4	---
TOTAL	124.5	92.6	122.0	177.4	50.2	580.1	483.6	275.1	236.1	54.4	47.53	46.6
MEAN	4.02	3.09	3.94	5.72	1.73	18.7	16.1	8.87	7.87	1.75	1.53	1.55
MAX	17	8.5	9.6	25	3.6	170	47	29	56	2.8	5.9	5.2
MIN	1.3	1.7	2.3	2.2	1.2	1.5	4.8	3.5	1.7	1.0	.82	1.0
CFSM	.62	.48	.61	.88	.27	2.89	2.49	1.37	1.22	.27	.24	.24
IN.	.72	.53	.70	1.02	.29	3.34	2.78	1.58	1.36	.31	.27	.27

e Estimated

ST. LAWRENCE RIVER BASIN

04276770 MILL BROOK AT PORT HENRY, NY

LOCATION.--Lat 44°03'09", long 73°28'47", Essex County, Hydrologic Unit 02010001, on left bank 30 ft downstream from bridge on Forge Hollow Road, and 2.0 mi upstream from mouth at Port Henry.

DRAINAGE AREA.--27.0 mi².

PERIOD OF RECORD.--March 1990 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 150 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--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, 1,010 ft³/s, Mar. 11, 1992, gage height, 4.44 ft; minimum, 2.1 ft³/s, Aug. 3, Sept. 8, 9, 10, 1991, gage height, 0.66 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 11	1015	*1,010	*4.44	Mar. 27	0545	810	4.01

Minimum discharge, 4.6 ft³/s, Sept. 3, gage height, 0.73 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	12	24	e19	e13	e8.0	64	64	214	11	37	5.8
2	6.2	13	21	e21	e12	e7.4	53	114	143	11	15	5.2
3	6.0	13	18	e26	e12	e7.0	45	138	98	11	10	18
4	5.9	11	e18	e45	e12	e6.8	42	102	77	14	10	30
5	5.6	11	e17	141	e11	e6.8	37	86	63	13	9.8	12
6	23	11	e17	54	e10	e7.4	39	74	149	15	7.9	8.4
7	18	10	e17	41	e9.0	e8.0	44	65	114	13	7.0	8.1
8	12	11	18	32	e8.6	e11	56	58	85	12	6.4	8.1
9	9.5	11	32	29	e8.0	e19	51	56	67	13	13	8.4
10	8.4	13	33	29	e7.4	e45	50	52	53	12	11	9.2
11	8.3	13	27	26	e6.6	e300	46	48	44	13	8.7	15
12	9.4	15	24	e30	e6.0	150	184	44	36	12	7.1	9.2
13	11	14	37	e40	e6.4	123	111	41	30	12	6.1	7.3
14	11	15	53	e60	e6.6	e110	76	51	26	13	9.5	8.3
15	11	17	51	e74	e7.0	e90	65	42	22	15	10	6.1
16	46	16	34	e54	e7.2	e80	57	39	20	12	8.7	5.9
17	29	15	e29	e40	e7.6	e66	56	38	18	10	7.7	6.5
18	49	14	e27	e30	e8.2	e52	63	35	17	20	7.5	6.2
19	44	13	e26	e24	e9.4	e44	113	31	16	24	8.3	6.3
20	37	14	e24	e19	e13	e38	173	29	16	24	6.7	5.7
21	31	12	e23	e17	e11	e33	187	27	15	22	6.3	5.4
22	27	12	e21	e16	e10	e28	207	25	20	14	5.8	12
23	25	28	e19	e18	e9.8	e25	279	23	14	14	5.6	20
24	23	28	e17	e48	e9.6	e24	243	23	14	15	5.4	8.2
25	20	34	e16	e28	e9.0	25	195	25	19	12	5.5	6.5
26	17	25	e16	e20	e8.8	33	140	22	15	11	6.1	5.9
27	15	21	e15	e17	e8.2	397	109	25	14	9.9	6.2	7.3
28	14	20	e15	e16	e8.0	103	90	37	13	8.5	9.5	8.3
29	13	20	e16	e15	e7.8	72	76	28	13	7.8	12	6.4
30	14	22	e17	e14	---	77	67	23	12	6.9	8.2	5.4
31	13	---	e18	e13	---	74	---	83	---	15	7.2	---
TOTAL	567.5	484	740	1056	263.2	2070.4	3018	1548	1457	416.1	285.2	275.1
MEAN	18.3	16.1	23.9	34.1	9.08	66.8	101	49.9	48.6	13.4	9.20	9.17
MAX	49	34	53	141	13	397	279	138	214	24	37	30
MIN	5.2	10	15	13	6.0	6.8	37	22	12	6.9	5.4	5.2
CFSM	.68	.60	.88	1.26	.34	2.47	3.73	1.85	1.80	.50	.34	.34
IN.	.78	.67	1.02	1.45	.36	2.85	4.16	2.13	2.01	.57	.39	.33

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1992, BY WATER YEAR (WY)

MEAN	36.7	39.3	45.1	32.3	18.4	78.6	94.9	60.0	29.0	12.0	16.9	9.42
MAX	55.1	62.5	66.4	34.1	28.1	98.2	113	95.0	48.6	16.3	36.0	10.2
(WY)	1991	1991	1991	1992	1991	1990	1990	1990	1992	1990	1990	1990
MIN	18.3	16.1	23.9	30.5	9.08	66.8	71.0	35.2	10.8	6.42	5.65	8.88
(WY)	1992	1992	1992	1991	1992	1992	1991	1991	1991	1991	1991	1991

ST. LAWRENCE RIVER BASIN

04276770 MILL BROOK AT PORT HENRY, NY--Continued

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1990 - 1992

ANNUAL TOTAL	9902.1	12180.5	
ANNUAL MEAN	27.1	33.3	35.5
HIGHEST ANNUAL MEAN			37.7
LOWEST ANNUAL MEAN			33.3
HIGHEST DAILY MEAN	189	397	662
LOWEST DAILY MEAN	2.1	5.2	2.1
ANNUAL SEVEN-DAY MINIMUM	2.5	5.8	2.5
ANNUAL RUNOFF (CFSM)	1.00	1.23	1.31
ANNUAL RUNOFF (INCHES)	13.64	16.78	17.85
10 PERCENT EXCEEDS	60	75	90
50 PERCENT EXCEEDS	18	17	23
90 PERCENT EXCEEDS	4.5	7.0	6.2

DATE	TIME	DISCHARGE (CFS)	GAUGE HEIGHT (FT)
SEP 1	12	10	1.0
SEP 2	12	10	1.0
SEP 3	12	10	1.0
SEP 4	12	10	1.0
SEP 5	12	10	1.0
SEP 6	12	10	1.0
SEP 7	12	10	1.0
SEP 8	12	10	1.0
SEP 9	12	10	1.0
SEP 10	12	10	1.0
SEP 11	12	10	1.0
SEP 12	12	10	1.0
SEP 13	12	10	1.0
SEP 14	12	10	1.0
SEP 15	12	10	1.0
SEP 16	12	10	1.0
SEP 17	12	10	1.0
SEP 18	12	10	1.0
SEP 19	12	10	1.0
SEP 20	12	10	1.0
SEP 21	12	10	1.0
SEP 22	12	10	1.0
SEP 23	12	10	1.0
SEP 24	12	10	1.0
SEP 25	12	10	1.0
SEP 26	12	10	1.0
SEP 27	12	10	1.0
SEP 28	12	10	1.0
SEP 29	12	10	1.0
SEP 30	12	10	1.0
OCT 1	12	10	1.0
OCT 2	12	10	1.0
OCT 3	12	10	1.0
OCT 4	12	10	1.0
OCT 5	12	10	1.0
OCT 6	12	10	1.0
OCT 7	12	10	1.0
OCT 8	12	10	1.0
OCT 9	12	10	1.0
OCT 10	12	10	1.0
OCT 11	12	10	1.0
OCT 12	12	10	1.0
OCT 13	12	10	1.0
OCT 14	12	10	1.0
OCT 15	12	10	1.0
OCT 16	12	10	1.0
OCT 17	12	10	1.0
OCT 18	12	10	1.0
OCT 19	12	10	1.0
OCT 20	12	10	1.0
OCT 21	12	10	1.0
OCT 22	12	10	1.0
OCT 23	12	10	1.0
OCT 24	12	10	1.0
OCT 25	12	10	1.0
OCT 26	12	10	1.0
OCT 27	12	10	1.0
OCT 28	12	10	1.0
OCT 29	12	10	1.0
OCT 30	12	10	1.0
OCT 31	12	10	1.0
NOV 1	12	10	1.0
NOV 2	12	10	1.0
NOV 3	12	10	1.0
NOV 4	12	10	1.0
NOV 5	12	10	1.0
NOV 6	12	10	1.0
NOV 7	12	10	1.0
NOV 8	12	10	1.0
NOV 9	12	10	1.0
NOV 10	12	10	1.0
NOV 11	12	10	1.0
NOV 12	12	10	1.0
NOV 13	12	10	1.0
NOV 14	12	10	1.0
NOV 15	12	10	1.0
NOV 16	12	10	1.0
NOV 17	12	10	1.0
NOV 18	12	10	1.0
NOV 19	12	10	1.0
NOV 20	12	10	1.0
NOV 21	12	10	1.0
NOV 22	12	10	1.0
NOV 23	12	10	1.0
NOV 24	12	10	1.0
NOV 25	12	10	1.0
NOV 26	12	10	1.0
NOV 27	12	10	1.0
NOV 28	12	10	1.0
NOV 29	12	10	1.0
NOV 30	12	10	1.0
DEC 1	12	10	1.0
DEC 2	12	10	1.0
DEC 3	12	10	1.0
DEC 4	12	10	1.0
DEC 5	12	10	1.0
DEC 6	12	10	1.0
DEC 7	12	10	1.0
DEC 8	12	10	1.0
DEC 9	12	10	1.0
DEC 10	12	10	1.0
DEC 11	12	10	1.0
DEC 12	12	10	1.0
DEC 13	12	10	1.0
DEC 14	12	10	1.0
DEC 15	12	10	1.0
DEC 16	12	10	1.0
DEC 17	12	10	1.0
DEC 18	12	10	1.0
DEC 19	12	10	1.0
DEC 20	12	10	1.0
DEC 21	12	10	1.0
DEC 22	12	10	1.0
DEC 23	12	10	1.0
DEC 24	12	10	1.0
DEC 25	12	10	1.0
DEC 26	12	10	1.0
DEC 27	12	10	1.0
DEC 28	12	10	1.0
DEC 29	12	10	1.0
DEC 30	12	10	1.0
DEC 31	12	10	1.0

ST. LAWRENCE RIVER BASIN

04276842 PUTNAM CREEK EAST OF CROWN POINT CENTER, NY--Continued

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1990 - 1992

ANNUAL TOTAL	22866.7			24617.0			
ANNUAL MEAN	62.6			67.3		80.3	
HIGHEST ANNUAL MEAN						93.3	1991
LOWEST ANNUAL MEAN						67.3	1992
HIGHEST DAILY MEAN	402	Mar	5	640	Mar	1470	Apr 4 1990
LOWEST DAILY MEAN	2.4	Aug	3	5.4	Sep	2.4	Aug 3 1991
ANNUAL SEVEN-DAY MINIMUM	2.7	Jul	28	7.3	Aug	2.7	Jul 28 1991
ANNUAL RUNOFF (CFSM)	1.21			1.30		1.56	
ANNUAL RUNOFF (INCHES)	16.49			17.75		21.13	
10 PERCENT EXCEEDS	141			178		221	
50 PERCENT EXCEEDS	45			32		46	
90 PERCENT EXCEEDS	4.4			13		8.4	

ST. LAWRENCE RIVER BASIN

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.--22.0 mi².

PERIOD OF RECORD.--October 1965 to September 1968, October 1968 to September 1971 (annual maximum only), October 1971 to current year.

REVISED RECORDS.--WDR NY-90-1: Drainage area.

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.--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--24 years (water years 1966-68, 1972-92), 36.4 ft³/s, 22.47 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,770 ft³/s, Feb. 11, 1981, gage height, 6.35 ft, from rating curve extended above 590 ft³/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 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 11	0045	ice jam	*4.97	Apr. 22	2330	617	4.00
Mar. 11	0715	908	4.71	May 3	0145	482	3.61
Mar. 27	0500	*953	4.81				

Minimum discharge, 1.9 ft³/s, Sept. 2, 3, gage height, 0.68 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	14	35	26	e14	e6.4	37	50	172	5.4	18	2.5
2	9.1	13	30	25	e13	e6.2	32	98	92	4.5	10	2.2
3	7.4	12	30	24	e12	e6.0	28	281	55	4.4	7.4	6.1
4	7.3	12	28	25	e11	e6.0	26	126	38	9.1	6.7	14
5	6.0	11	31	39	e10	e6.0	23	91	29	7.7	6.6	7.7
6	70	11	26	32	e9.0	e6.0	24	74	87	6.4	4.7	5.4
7	36	11	23	25	e8.4	e7.0	25	62	64	5.2	4.0	4.7
8	21	11	22	e20	e8.0	e15	31	54	45	4.4	3.5	4.3
9	15	9.9	40	e19	e7.4	e25	29	50	35	6.2	6.2	3.9
10	12	9.3	46	e18	e7.0	e160	31	44	27	4.8	5.2	5.2
11	12	18	35	e18	e7.0	e640	50	39	22	4.5	4.3	12
12	13	22	30	e18	e6.4	239	251	36	20	3.9	3.5	7.8
13	12	20	47	e20	e6.0	155	115	35	17	6.2	3.1	5.5
14	10	20	70	e60	e6.0	99	71	37	14	8.6	14	4.5
15	11	28	69	e70	e9.0	67	54	31	12	13	12	3.9
16	56	34	45	e45	16	43	45	33	11	9.5	9.1	3.7
17	40	28	e40	e30	17	29	144	30	12	6.7	7.5	3.6
18	63	23	e37	e25	14	e23	128	27	11	7.2	7.1	3.4
19	43	22	e35	e21	23	e21	138	23	9.8	7.7	7.1	4.5
20	32	21	e33	e19	30	e19	125	20	11	10	5.8	3.7
21	25	19	e30	e19	20	e16	111	18	9.9	24	4.7	3.1
22	22	19	e27	e19	13	e15	178	16	8.9	12	4.0	5.3
23	19	64	e23	e30	11	e14	280	15	7.8	9.4	3.6	13
24	18	61	e21	e60	e10	e13	187	14	7.6	8.8	3.2	8.1
25	16	59	e20	e40	e9.0	e13	152	14	7.8	7.0	3.0	6.0
26	15	42	e20	e30	e8.0	e18	111	12	6.6	6.1	2.8	4.9
27	15	34	e19	e23	e7.6	476	87	13	7.2	5.3	2.8	6.6
28	19	31	19	e20	e7.2	104	72	16	12	4.3	4.4	7.0
29	16	34	25	e18	e6.8	50	63	13	7.6	3.8	4.5	5.5
30	15	36	41	e16	---	45	55	11	6.2	3.5	3.5	4.6
31	14	---	29	e15	---	43	---	65	---	7.6	2.9	---
TOTAL	672.7	749.2	1026	869	326.8	2385.6	2703	1448	865.4	227.2	185.2	172.7
MEAN	21.7	25.0	33.1	28.0	11.3	77.0	90.1	46.7	28.8	7.33	5.97	5.76
MAX	70	64	70	70	30	640	280	281	172	24	18	14
MIN	2.9	9.3	19	15	6.0	6.0	23	11	6.2	3.5	2.8	2.2
CFSM	.99	1.14	1.50	1.27	.51	3.50	4.10	2.12	1.31	.33	.27	.26
IN.	1.14	1.27	1.73	1.47	.55	4.03	4.57	2.45	1.46	.38	.31	.29

e Estimated

ST. LAWRENCE RIVER BASIN

04278300 NORTHWEST BAY BROOK NEAR BOLTON LANDING, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1992, BY WATER YEAR (WY)

MEAN	25.7	40.3	42.1	31.5	32.2	77.9	85.6	48.6	20.4	10.1	11.0	11.2
MAX	83.6	93.9	131	90.7	168	187	140	95.0	43.4	32.1	62.4	45.5
(WY)	1978	1973	1974	1978	1981	1979	1978	1983	1968	1972	1990	1975
MIN	1.65	6.22	15.3	5.08	5.81	23.5	37.3	11.1	3.38	1.71	.93	.89
(WY)	1983	1983	1989	1981	1977	1967	1981	1987	1988	1977	1985	1982

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1966 - 1992

ANNUAL TOTAL	9506.77	11630.8	
ANNUAL MEAN	26.0	31.8	36.4
HIGHEST ANNUAL MEAN			50.8
LOWEST ANNUAL MEAN			24.1
HIGHEST DAILY MEAN	232	Mar 4	1300
LOWEST DAILY MEAN	.70	Aug 30	.42
ANNUAL SEVEN-DAY MINIMUM	.80	Sep 8	.56
ANNUAL RUNOFF (CFSM)	1.18		1.65
ANNUAL RUNOFF (INCHES)	16.08		22.47
10 PERCENT EXCEEDS	58		84
50 PERCENT EXCEEDS	19		18
90 PERCENT EXCEEDS	1.1		2.8

ST. LAWRENCE RIVER BASIN

04279040 MILL BROOK AT PUTNAM, NY

LOCATION.--Lat 43°44'01", long 73°23'20", Washington County, Hydrologic Unit 02010001, on right bank 50 ft downstream from bridge on County Highway 3 and 1.0 mi southeast of Putnam.

DRAINAGE AREA.--10.3 mi².

PERIOD OF RECORD.--March 1990 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 120 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--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, 454 ft³/s, Oct. 24, 1990, gage height, 3.67 ft; maximum gage height, 3.71 ft, Jan. 23, 1992 (ice jam); minimum discharge, 0.05 ft³/s, Aug. 2, 3, 4, 1991; minimum gage height, 0.04 ft, Aug. 4, 1991.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 23	2345	ice jam	*3.71	Mar. 11	1115	*187	2.84

Minimum discharge, 0.52 ft³/s, Aug. 27, Sept. 3, gage height, 0.31 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.59	4.7	11	7.6	6.2	2.4	15	19	69	1.8	11	.73
2	3.9	4.8	9.5	6.5	e5.0	2.3	14	28	31	1.6	5.5	.60
3	5.2	4.6	10	7.2	e4.0	4.0	12	65	19	1.4	2.7	1.1
4	3.6	4.1	9.7	9.4	e3.5	e4.5	11	34	15	2.9	2.0	6.9
5	2.1	3.6	7.8	e18	e3.2	e7.0	10	25	12	3.1	1.6	3.8
6	47	3.5	7.5	e15	e3.0	e6.0	9.6	22	55	2.5	1.4	2.1
7	20	3.5	7.8	e12	e2.7	9.4	11	20	30	2.2	1.1	1.6
8	8.8	3.5	8.3	11	e2.5	20	12	18	21	1.7	.91	1.4
9	5.6	3.3	19	10	e2.2	21	13	18	17	1.7	.83	1.2
10	3.6	3.3	19	9.4	2.0	36	11	16	14	1.8	.89	1.4
11	2.8	5.0	14	e9.0	1.6	119	18	14	12	1.7	1.2	8.1
12	4.0	7.1	12	e9.0	1.4	e35	74	13	10	1.4	.96	3.7
13	3.8	6.5	17	7.2	.90	e25	38	13	8.8	1.4	.66	2.1
14	3.1	5.6	21	e45	1.4	e19	23	12	7.8	2.4	3.9	1.6
15	2.9	5.7	20	e35	1.6	e13	19	11	7.0	4.4	5.4	1.5
16	40	6.6	14	e25	e3.0	e10	18	12	6.0	3.8	3.0	1.4
17	20	5.9	10	e16	e3.5	8.2	70	12	4.9	2.4	2.3	1.1
18	26	5.0	10	e12	e4.0	7.6	51	10	4.2	2.1	5.2	1.1
19	18	5.0	11	e10	e11	7.2	43	9.2	3.8	1.8	4.7	.92
20	15	4.7	9.0	e7.6	e17	7.2	39	8.4	4.1	3.3	3.1	.86
21	12	4.3	e9.0	e7.0	e10	6.7	37	7.8	3.8	6.9	2.0	.77
22	9.6	4.2	e8.4	e7.0	e7.0	6.3	36	7.2	3.6	4.0	1.6	1.0
23	8.3	25	e8.0	e13	4.6	5.4	33	6.9	3.8	2.6	1.2	9.7
24	7.3	18	e7.4	e30	4.2	4.9	44	6.7	3.3	2.5	.92	4.8
25	6.6	18	6.6	13	3.8	5.2	45	6.8	3.9	2.1	.80	2.5
26	6.8	13	5.8	7.9	4.3	16	33	5.8	3.6	1.7	.73	1.9
27	5.6	9.7	6.4	5.9	5.4	48	30	6.1	3.2	1.4	.63	1.9
28	7.2	9.5	5.7	5.7	4.1	23	28	7.7	2.9	1.2	.79	2.0
29	6.5	13	9.4	5.8	4.3	20	21	6.1	2.6	.94	.87	1.9
30	5.3	13	19	6.3	---	18	20	4.8	2.0	.69	.98	1.5
31	4.8	---	9.9	6.5	---	17	---	24	---	1.3	.89	---
TOTAL	315.99	223.7	343.2	390.0	127.40	534.3	838.6	469.5	384.3	70.73	69.76	71.18
MEAN	10.2	7.46	11.1	12.6	4.39	17.2	28.0	15.1	12.8	2.28	2.25	2.37
MAX	47	25	21	45	17	119	74	65	69	6.9	11	9.7
MIN	.59	3.3	5.7	5.7	.90	2.3	9.6	4.8	2.0	.69	.63	.60
CFSM	.99	.72	1.07	1.22	.43	1.67	2.71	1.47	1.24	.22	.22	.23
IN.	1.14	.81	1.24	1.41	.46	1.93	3.03	1.70	1.39	.26	.25	.22

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1992, BY WATER YEAR (WY)

MEAN	14.8	17.7	24.2	13.6	8.86	31.3	31.6	22.3	7.60	1.51	3.70	1.57
MAX	19.4	28.0	37.4	14.6	13.5	46.6	47.1	40.6	12.8	2.28	8.57	2.37
(WY)	1991	1991	1991	1991	1991	1990	1990	1990	1992	1992	1990	1992
MIN	10.2	7.46	11.1	12.6	4.39	17.2	19.8	11.1	1.91	.30	.29	1.14
(WY)	1992	1992	1992	1992	1992	1992	1991	1991	1991	1991	1991	1999

ST. LAWRENCE RIVER BASIN

04279040 MILL BROOK AT PUTNAM, NY--Continued

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1990 - 1992

ANNUAL TOTAL	3691.80		3838.66			
ANNUAL MEAN	10.1		10.5		12.7	
HIGHEST ANNUAL MEAN					14.8	1991
LOWEST ANNUAL MEAN					10.5	1992
HIGHEST DAILY MEAN	92	Mar 4	119	Mar 11	286	Apr 4 1990
LOWEST DAILY MEAN	.05	Aug 3	.59	Oct 1	.05	Aug 3 1991
ANNUAL SEVEN-DAY MINIMUM	.06	Jul 30	.78	Aug 27	.06	Jul 30 1991
ANNUAL RUNOFF (CFSM)	.98		1.02		1.23	
ANNUAL RUNOFF (INCHES)	13.33		13.86		16.69	
10 PERCENT EXCEEDS	22		23		35	
50 PERCENT EXCEEDS	7.0		6.5		7.8	
90 PERCENT EXCEEDS	.14		1.4		.67	

ST. LAWRENCE RIVER BASIN

04279125 MOUNT HOPE BROOK AT SOUTH BAY NEAR WHITEHALL, NY

LOCATION.--Lat 43°31'19", long 73°30'27", Washington County, Hydrologic Unit 02010001, on right bank 10 ft downstream from bridge on County Highway 16, 400 ft upstream from confluence with Spectacle Brook, and 5.6 mi southwest of Whitehall at South Bay.

DRAINAGE AREA.--11.6 mi².

PERIOD OF RECORD.--March 1990 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 110 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 485 ft³/s, Oct. 24, 1990, gage height, 6.35 ft; minimum daily, 0.04 ft³/s, Aug. 3, Sept. 8-9, 1991.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 11	1030	*371	*6.01	No other peak greater than base discharge.			

Minimum daily discharge, 1.7 ft³/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	6.3	22	e16	e9.0	e6.4	19	26	103	2.4	14	2.5
2	9.3	6.1	19	e13	e8.0	e6.0	17	47	52	2.0	7.3	2.2
3	7.5	5.8	20	11	e7.4	e6.0	15	130	30	1.8	5.1	8.2
4	8.2	5.3	18	12	e7.0	e6.0	14	65	20	4.9	4.4	21
5	5.9	4.9	20	16	e6.6	e6.4	13	44	17	4.5	4.0	11
6	57	4.6	25	16	e6.2	7.0	13	35	69	4.5	3.0	8.3
7	29	4.5	21	15	e6.0	9.3	15	29	46	3.5	2.6	7.1
8	17	4.3	13	13	e5.6	16	18	26	31	2.9	2.3	6.5
9	12	4.4	24	12	e5.0	19	16	24	23	4.0	5.0	5.6
10	9.0	4.1	27	11	e4.5	48	17	21	18	3.2	4.4	28
11	8.6	11	22	9.1	e4.0	226	28	20	15	3.2	3.4	57
12	11	17	19	e15	e3.5	58	103	18	14	2.7	2.6	24
13	9.2	14	29	e23	e3.5	28	50	16	11	6.8	2.1	16
14	8.1	17	46	e50	e6.0	e25	33	16	9.7	7.9	7.4	12
15	8.4	24	46	e35	5.4	e21	26	14	7.1	14	6.7	10
16	43	28	33	e23	8.9	e18	22	16	5.4	11	5.6	8.6
17	31	22	e30	e15	8.6	e16	77	15	5.1	7.0	4.6	7.7
18	39	18	e27	e13	7.5	e14	70	13	4.8	6.3	8.7	6.9
19	31	16	e25	e12	14	e13	78	11	4.5	5.6	13	13
20	23	15	e23	e11	17	e12	68	10	4.6	5.4	8.4	9.5
21	18	14	e21	e11	13	11	58	9.4	4.3	6.0	6.2	8.0
22	15	14	19	e12	e10	12	64	8.3	3.9	4.8	5.1	15
23	13	53	14	e14	e8.0	8.5	55	7.5	3.6	4.5	4.3	37
24	11	40	12	e25	e7.0	9.4	58	7.6	3.4	4.7	3.6	20
25	10	34	e11	e15	e6.0	7.9	56	7.8	3.9	4.4	3.1	15
26	9.3	26	e11	e13	e7.0	19	55	7.1	3.4	3.7	2.9	13
27	9.1	22	e11	e11	e7.0	79	44	7.2	3.0	3.4	3.1	16
28	8.8	19	e12	e10	e6.8	35	35	7.9	4.6	2.7	5.1	14
29	7.4	22	e13	e11	e6.6	23	31	6.7	3.3	2.3	4.7	12
30	6.8	23	21	e11	---	20	28	5.5	2.8	2.0	3.8	9.9
31	6.5	---	e18	e10	---	20	---	38	---	5.7	3.2	---
TOTAL	483.8	499.3	672	484.1	215.1	805.9	1196	709.0	526.4	147.8	159.7	425.0
MEAN	15.6	16.6	21.7	15.6	7.42	26.0	39.9	22.9	17.5	4.77	5.15	14.2
MAX	57	53	46	50	17	226	103	130	103	14	14	57
MIN	1.7	4.1	11	9.1	3.5	6.0	13	5.5	2.8	1.8	2.1	2.2
CFSM	1.35	1.43	1.87	1.35	.64	2.24	3.44	1.97	1.51	.41	.44	1.22
IN.	1.55	1.60	2.16	1.55	.69	2.58	3.84	2.27	1.69	.47	.51	1.36

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1992, BY WATER YEAR (WY)

	1990	1991	1992	1990	1991	1992	1990	1991	1992	1990	1991	1992
MEAN	22.2	25.7	31.5	16.2	11.2	38.4	39.5	28.3	9.73	3.36	11.1	6.71
MAX	28.9	34.7	41.3	16.9	15.1	48.9	49.0	46.3	17.5	5.13	27.9	14.2
(WY)	1991	1991	1991	1991	1991	1990	1990	1990	1990	1990	1990	1992
MIN	15.6	16.6	21.7	15.6	7.42	26.0	29.5	15.7	1.32	.19	.31	1.86
(WY)	1992	1992	1992	1992	1992	1992	1991	1991	1991	1991	1991	1991

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.

PERIOD OF RECORD.--Discharge: October 1928 to current year. Water-quality records: Water year 1954.

PERIOD OF RECORD.--Discharge: October 1928 to
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. 17-29, Jan. 16-23, Jan. 25 to Feb. 16, Feb. 17 to Mar. 30, Apr. 21 to May 6. Shifting control, Apr. 18 to Sept. 30. Records good except for periods of estimated daily discharges Dec. 17-29, Jan. 16-23, Jan. 25 to Feb. 16, and period of shifting control, Apr. 18 to Sept. 30, which are fair. Periods of no gage-height record, Feb. 17 to Mar. 30, Apr. 21 to May 6, 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.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	116	358	323	e140	e78	467	e400	841	39	67	18
2	101	108	328	294	e130	e76	471	e600	819	32	58	12
3	130	104	312	205	e125	e82	436	e1100	488	28	67	39
4	85	98	297	198	e115	e90	448	e680	399	29	62	65
5	71	106	260	236	e110	e96	299	e580	308	63	89	69
6	206	76	253	272	e100	e110	280	e550	253	85	67	30
7	334	107	241	270	e98	e130	287	483	244	72	70	52
8	258	79	211	246	e96	e190	306	403	200	68	50	32
9	225	79	300	202	e92	e160	314	368	205	48	56	13
10	204	77	408	181	e89	e90	295	340	213	49	78	46
11	199	104	298	162	e82	e450	345	346	187	62	44	70
12	235	118	276	164	e80	e1900	805	310	172	44	51	71
13	239	109	310	158	e77	e1100	699	252	105	49	42	38
14	147	117	396	367	e75	e540	538	210	82	97	42	57
15	130	149	587	586	e74	e330	517	195	90	115	41	48
16	293	178	436	e350	e72	e250	480	198	62	175	42	42
17	310	176	e310	e300	e72	e210	879	192	63	90	42	39
18	308	159	e280	e260	e74	e190	980	179	57	79	39	34
19	267	158	e260	e230	e80	e180	902	167	48	81	65	27
20	245	158	e240	e215	e90	e175	e900	123	55	72	51	39
21	213	144	e230	e205	e135	e175	e890	111	52	72	43	147
22	188	187	e205	e200	e120	e170	e1050	111	49	44	36	142
23	169	789	e185	e280	e110	e165	e1250	101	46	55	36	298
24	152	546	e180	692	e100	e160	e1600	103	42	65	36	182
25	133	465	e160	e440	e93	e145	e1400	91	43	48	36	166
26	136	417	e155	e320	e90	e300	e920	91	44	46	34	73
27	116	383	e145	e260	e86	e1000	e740	78	42	44	25	49
28	139	359	e140	e230	e83	e800	e600	93	42	44	21	55
29	133	421	e135	e190	e80	e600	e520	102	40	47	23	63
30	130	414	262	e175	---	e500	e440	69	39	36	24	48
31	112	---	291	e155	---	e450	---	170	---	27	55	---
TOTAL	5639	6501	8449	8366	2768	10892	20058	8796	5330	1905	1492	2064
MEAN	182	217	273	270	95.4	351	669	284	178	61.5	48.1	68.8
MAX	334	789	587	692	140	1900	1600	1100	841	175	89	298
MIN	31	76	135	155	72	76	280	69	39	27	21	12
CFSM	.97	1.16	1.46	1.44	.51	1.88	3.58	1.52	.95	.33	.26	.37
IN.	1.12	1.29	1.68	1.66	.55	2.17	3.99	1.75	1.06	.38	.30	.41

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1992, BY WATER YEAR (WY)

CHARACTERISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1932, BY WATER YEAR (WY)												
MEAN	145	223	259	245	259	529	665	321	165	101	74.7	94.5
MAX	721	760	1018	766	800	1627	1441	902	776	639	629	666
(WY)	1978	1973	1984	1973	1984	1986	1977	1983	1947	1976	1976	1938
MIN	18.2	21.4	38.4	42.0	26.8	113	231	71.5	19.4	7.08	3.94	11.3
(WY)	1974	1965	1965	1931	1980	1940	1966	1941	1965	1965	1965	1982

SUMMARY STATISTICS

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1929 - 1992	
ANNUAL TOTAL	77904.9		82260			
ANNUAL MEAN	213		225		257	
HIGHEST ANNUAL MEAN					527	
LOWEST ANNUAL MEAN					66.9	
HIGHEST DAILY MEAN	1560	Mar 5	1900	Mar 12	6880	Sep 22 1938
LOWEST DAILY MEAN	5.8	Jul 24	12	Sep 2	2.1	Aug 8 1965
ANNUAL SEVEN-DAY MINIMUM	7.6	Jul 30	25	Aug 27	3.0	Aug 13 1965
INSTANTANEOUS PEAK FLOW			a 2500	Apr 24	b 14800	Jul 20 1945
INSTANTANEOUS PEAK STAGE					c 24.36	Jul 20 1945
ANNUAL RUNOFF (CFSM)	1.14		1.20		1.37	
ANNUAL RUNOFF (INCHES)	15.50		16.36		18.64	
10 PERCENT EXCEEDS	448		492		610	
50 PERCENT EXCEEDS	160		144		133	
90 PERCENT EXCEEDS	9.2		42		28	

a about

b from rating curve extended above 2,600 ft³/s on basis of computations of flow over dam at gage heights 16.10 ft, 21.40 ft, and 24.36 ft

c from high-water mark in well

e From High
e Estimated

ST. LAWRENCE RIVER BASIN

04280450 METTAWEE RIVER NEAR MIDDLE GRANVILLE. NY

LOCATION.--Lat 43°27'50", long 73°17'05", Washington County, Hydrologic Unit 02010001, on right bank 110 ft downstream from bridge on County Highway 21 and 2.2 mi north of Middle Granville.

DRAINAGE AREA.--167 mi².

PERIOD OF RECORD.--March 1990 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 320 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,400 ft³/s, Nov. 11, 1990, gage height, 7.59 ft; minimum, 14 ft³/s, Sept. 10, 1991, gage height, 2.94 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 31, 1984, reached a discharge of 5,380 ft³/s, on basis of slope-area measurement of peak flow 2.8 mi upstream at Middle Granville (drainage area 156 mi²).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 23	0645	*1,980	6.43	Jan. 24	0115	ice jam	*6.56

Minimum discharge, 24 ft³/s, Aug. 27, Sept. 2, 3, gage height, 3.04 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	97	377	307	e130	e100	267	321	721	47	108	29
2	95	93	334	287	e130	e100	266	353	453	42	82	25
3	83	91	325	225	e120	e100	243	1050	329	40	67	32
4	71	83	357	207	e120	e100	225	673	268	67	71	92
5	64	80	299	246	e120	e110	213	547	227	74	98	58
6	189	79	286	247	e110	e120	201	478	266	592	75	44
7	259	77	258	239	e110	e140	204	427	237	209	64	39
8	171	74	254	219	e110	e170	221	381	227	141	57	35
9	135	72	413	240	e100	e210	225	361	221	141	65	35
10	114	74	428	201	e90	259	230	333	181	119	62	40
11	110	93	363	197	e86	860	284	318	166	108	55	116
12	164	118	333	207	e84	566	769	282	144	93	49	75
13	163	104	348	206	e82	405	560	257	124	131	43	56
14	134	108	392	354	e82	334	452	253	110	156	44	48
15	120	124	441	409	e90	297	393	227	102	280	54	43
16	200	163	e330	e280	e100	261	356	224	91	288	48	39
17	201	150	e290	e240	e120	236	729	209	85	197	45	37
18	196	132	e270	e220	e140	212	656	194	76	168	50	34
19	174	130	e250	e210	e170	192	667	178	71	148	51	65
20	172	125	e240	e200	e170	179	633	160	72	149	45	58
21	155	137	e230	e190	e150	170	603	147	73	135	41	44
22	142	158	e220	e180	e130	155	613	134	68	118	37	46
23	131	1270	e210	e200	e110	150	577	123	67	108	34	113
24	121	733	e200	e350	e110	140	566	121	65	110	32	78
25	115	604	e200	e280	e120	132	581	129	108	95	30	61
26	111	473	e190	e240	e120	204	535	114	78	84	29	53
27	106	392	e190	e220	e120	448	471	119	66	82	28	51
28	123	348	e190	e200	e120	337	414	155	62	73	43	51
29	112	420	e220	e180	e110	286	374	121	54	68	42	48
30	105	405	358	e150	---	275	344	105	51	64	39	43
31	102	---	325	e140	---	274	---	275	---	78	31	---
TOTAL	4188	7007	9121	7271	3354	7522	12872	8769	4863	4205	1619	1588
MEAN	135	234	294	235	116	243	429	283	162	136	52.2	52.9
MAX	259	1270	441	409	170	860	769	1050	721	592	108	116
MIN	50	72	190	140	82	100	201	105	51	40	28	25
CFSM	.81	1.40	1.76	1.40	.69	1.45	2.57	1.69	.97	.81	.31	.32
IN.	.93	1.56	2.03	1.62	.75	1.68	2.87	1.95	1.08	.94	.36	.33

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1992, BY WATER YEAR (WY)

MEAN	222	344	399	280	199	469	452	386	134	79.3	91.9	54.2
MAX	308	455	505	326	285	667	529	655	175	136	188	69.8
(WY)	1991	1991	1991	1991	1991	1990	1990	1990	1990	1992	1990	1990
MIN	135	234	294	235	116	243	398	220	66.4	36.9	35.3	39.9
(WY)	1992	1992	1992	1992	1992	1992	1991	1991	1991	1991	1991	1991

ST. LAWRENCE RIVER BASIN

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, 6.09 ft, Apr. 28, May 2, affected by seiche; minimum, 1.37 ft, Oct. 1, 15, affected by seiche.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.50	2.30	2.14	2.34	2.42	2.07	3.71	5.99	4.07	2.86	2.43	2.08
2	1.55	2.25	2.16	2.32	2.37	2.07	3.74	5.96	4.11	2.82	2.42	2.06
3	1.57	2.24	2.19	2.32	2.34	2.04	3.76	5.95	4.10	2.77	2.41	2.01
4	1.62	2.19	2.20	2.31	2.33	2.02	3.76	5.99	4.11	2.72	2.45	2.03
5	1.60	2.15	2.18	2.36	2.33	2.01	3.76	5.98	4.06	2.71	2.52	2.06
6	1.73	2.07	2.19	2.37	2.30	1.99	3.75	5.93	4.08	2.71	2.56	2.04
7	1.84	2.07	2.13	2.40	2.25	1.96	3.72	5.85	4.09	2.69	2.57	2.00
8	1.93	2.05	2.14	2.40	2.24	2.00	3.74	5.79	4.10	2.67	2.55	1.99
9	1.90	2.01	2.13	2.36	2.24	2.01	3.77	5.73	4.08	2.67	2.52	2.01
10	1.93	1.98	2.21	2.38	2.23	2.06	3.81	5.68	4.04	2.65	2.52	2.00
11	2.00	2.03	2.24	2.37	2.18	2.43	3.90	5.60	3.98	2.65	2.51	2.05
12	2.04	2.00	2.26	2.33	2.14	2.85	4.02	5.49	3.91	2.65	2.48	2.08
13	2.06	1.95	2.26	2.30	2.11	3.11	4.16	5.42	3.86	2.65	2.46	2.07
14	2.09	1.93	2.36	2.35	2.09	3.24	4.21	5.39	3.81	2.62	2.44	2.03
15	2.04	1.90	2.40	2.45	2.08	3.31	4.25	5.31	3.73	2.63	2.41	1.99
16	2.18	1.93	2.47	2.52	2.10	3.33	4.25	5.20	3.64	2.64	2.39	1.99
17	2.30	1.95	2.47	2.53	2.08	3.32	4.32	5.06	3.59	2.59	2.35	1.98
18	2.38	1.93	2.49	2.56	2.07	3.33	4.36	5.01	3.48	2.61	2.34	1.96
19	2.45	1.91	2.47	2.54	2.07	3.33	4.38	4.96	3.40	2.63	2.33	1.94
20	2.47	1.92	2.45	2.54	2.11	3.30	4.42	4.87	3.37	2.62	2.30	1.92
21	2.45	1.95	2.45	2.52	2.13	3.28	4.58	4.78	3.32	2.62	2.29	1.85
22	2.45	1.96	2.44	2.51	2.15	3.24	4.84	4.69	3.25	2.60	2.26	1.83
23	2.44	2.01	2.45	2.44	2.18	3.21	5.22	4.59	3.21	2.59	2.23	1.89
24	2.40	2.05	2.45	2.51	2.16	3.16	5.57	4.53	3.17	2.56	2.21	1.94
25	2.38	2.10	2.43	2.52	2.14	3.10	5.86	4.44	3.14	2.53	2.19	1.92
26	2.39	2.14	2.40	2.51	2.13	3.06	6.01	4.33	3.08	2.51	2.17	1.89
27	2.38	2.13	2.38	2.50	2.11	3.15	6.06	4.25	3.04	2.48	2.17	1.87
28	2.40	2.09	2.34	2.49	2.10	3.37	6.07	4.17	2.99	2.45	2.17	1.87
29	2.38	2.16	2.36	2.46	2.11	3.53	6.03	4.09	2.95	2.41	2.16	1.86
30	2.36	2.10	2.37	2.44	---	3.61	6.00	4.02	2.92	2.38	2.08	1.84
31	2.34	---	2.34	2.43	---	3.67	---	4.00	---	2.38	2.08	---
MEAN	2.11	2.05	2.32	2.43	2.18	2.84	4.53	5.13	3.62	2.62	2.35	1.97
MAX	2.47	2.30	2.49	2.56	2.42	3.67	6.07	5.99	4.11	2.86	2.57	2.08
MIN	1.50	1.90	2.13	2.30	2.07	1.96	3.71	4.00	2.92	2.38	2.08	1.83

CAL YR 1991 MEAN 3.25 MAX 6.18 MIN 1.11
WTR YR 1992 MEAN 2.85 MAX 6.07 MIN 1.50

ST. LAWRENCE RIVER BASIN

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 mi².

WATER-STAGE RECORDS

PERIOD OF RECORD.--October 1863 to December 1870 (maximum and minimum monthly gage heights at St. Johns, Quebec, published in WSP 97) and March 1871 to current year (daily gage heights prior to October 1970, elevations thereafter: those for 1871-1907 published in WSP 894). Gage heights prior to October 1, 1925, published as "Richelieu River at Fort Montgomery, Rouses Point". 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 Survey of Canada annual reports.

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 mi². Total volume below 92.5 ft elevation, reported by Lake Champlain Studies Center, 902.2 bil ft³. 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, 98.98 ft, Apr. 29; minimum, 94.20 ft, Oct. 3.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94.61	95.08	95.00	95.17	95.19	94.92	96.54	98.77	96.89	95.66	95.25	94.88
2	94.46	95.13	94.89	95.15	95.20	94.89	96.56	98.79	96.96	95.62	95.33	94.84
3	94.46	95.06	95.16	95.14	95.18	94.87	96.57	98.80	96.98	95.63	95.30	95.05
4	94.43	95.01	94.94	95.14	95.16	94.86	96.59	98.78	96.91	95.72	95.28	94.92
5	94.63	95.00	94.97	95.18	95.14	94.84	96.57	98.79	96.96	95.63	95.35	94.92
6	94.54	95.15	94.96	95.21	95.12	94.82	96.57	98.75	96.94	95.57	95.40	95.07
7	94.67	94.83	95.16	95.21	95.13	94.85	96.59	98.73	96.95	95.55	95.44	95.01
8	94.79	94.85	94.99	95.21	95.07	94.82	96.55	98.65	96.95	95.54	95.48	95.05
9	95.06	94.83	95.02	95.30	95.04	94.86	96.62	98.56	96.88	95.60	95.50	94.85
10	94.84	94.76	95.03	95.17	95.06	95.00	96.62	98.46	96.82	95.51	95.43	95.02
11	94.79	94.54	95.17	95.16	95.01	95.23	96.77	98.45	96.82	95.48	95.34	94.88
12	94.83	94.77	95.25	95.23	94.96	95.69	96.87	98.45	96.79	95.47	95.27	94.89
13	94.88	94.79	95.32	95.18	94.98	95.95	96.96	98.31	96.74	95.41	95.27	94.92
14	94.93	94.76	95.17	95.18	94.92	96.07	97.05	98.16	96.59	95.47	95.26	94.97
15	95.16	94.87	95.22	95.24	94.92	96.13	97.06	98.14	96.50	95.48	95.26	94.96
16	94.99	94.67	95.23	95.32	94.92	96.16	97.13	98.15	96.50	95.44	95.26	94.89
17	95.11	94.73	95.33	95.40	94.92	96.19	97.15	98.19	96.47	95.63	95.26	94.88
18	95.21	94.84	95.27	95.37	94.91	96.16	97.20	97.80	96.61	95.48	95.21	94.97
19	95.19	94.85	95.31	95.39	94.92	96.14	97.25	97.81	96.39	95.47	95.21	94.78
20	95.28	94.81	95.37	95.36	94.92	96.13	97.38	97.74	96.21	95.58	95.15	94.81
21	95.40	94.75	95.36	95.35	94.97	96.09	97.48	97.64	96.16	95.42	95.13	94.95
22	95.33	94.77	95.35	95.32	95.01	96.07	97.71	97.55	96.08	95.46	95.12	94.90
23	95.36	94.82	95.30	95.36	94.99	96.03	98.02	97.44	96.02	95.45	95.11	94.64
24	95.41	94.92	95.20	95.33	94.98	96.00	98.36	97.21	96.00	95.43	95.09	94.71
25	95.39	95.00	95.25	95.32	95.01	95.98	98.59	97.21	95.96	95.42	95.07	94.77
26	95.27	94.96	95.30	95.33	94.97	95.93	98.75	97.19	95.96	95.43	95.04	94.81
27	95.24	95.16	95.19	95.33	94.96	95.98	98.84	97.11	95.91	95.38	94.99	94.88
28	95.02	95.11	95.22	95.32	94.93	96.18	98.88	97.04	95.85	95.29	95.04	94.74
29	95.11	94.98	95.13	95.30	94.91	96.34	98.89	96.98	95.81	95.31	95.10	94.66
30	95.03	95.29	95.10	95.29	---	96.44	98.83	96.91	95.74	95.23	95.11	94.59
31	95.07	---	95.18	95.23	---	96.50	---	96.92	---	95.22	94.99	---
MEAN	94.98	94.90	95.17	95.26	95.01	95.68	97.36	97.98	96.48	95.48	95.23	94.87
MAX	95.41	95.29	95.37	95.40	95.20	96.50	98.89	98.80	96.98	95.72	95.50	95.07
MIN	94.43	94.54	94.89	95.14	94.91	94.82	96.54	96.91	95.74	95.22	94.99	94.59

CAL YR 1991 MEAN 96.09 MAX 99.17 MIN 93.93

WTR YR 1992 MEAN 95.70 MAX 98.89 MIN 94.43

ST. LAWRENCE RIVER BASIN

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), 1987 (c), 1988 (d), 1989 (c), 1990-92 (b).

MINOR ELEMENTS DATA: 1974-86 (b), 1987 (c), 1988 (d), 1989 (c), 1990-92 (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), 1987-89 (c), 1990-92 (b).

BIOLOGICAL DATA:

Bacteria--1974 (a), 1975-82 (c), 1983-89 (b), 1990-92 (b).

Phytoplankton--1974 (a), 1975-78 (c), 1979 (b), 1980-81 (c).

Periphyton--1975 (c), 1976-80 (b).

SEDIMENT DATA: 1975-82 (c), 1983-92 (b).

REMARKS.--Water-quality samples without turbidity analyses were collected by personnel of the New York State Department of Environmental Conservation.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (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 SATUR- ATION	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)
OCT											
21...	0930	162	7.8	10.5	4.5	770	10.1	90	26	5	65
21...	1000	162	8.2	10.5	--	770	10.1	89	--	--	--
APR											
27...	0930	158	7.7	5.0	1.2	764	13.7	107	<1	<1	59
MAY											
21...	0930	150	8.2	14.0	0.80	773	11.2	107	<1	K1	61
JUL											
23...	0930	175	8.2	20.5	0.50	769	10.0	110	<1	<1	59

DATE	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 WAT DIS TOT IT FIELD CACO3	BICAR- BONATE WATER DIS IT FIELD HCO3	CAR- BONATE WATER DIS IT FIELD CO3	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											
21...	19	4.3	7.0	1.3	50	61	0	12	11	0.20	0.84
21...	--	--	--	--	--	--	--	--	--	--	--
APR											
27...	17	4.0	7.3	1.3	45	55	0	11	11	0.20	1.3
MAY											
21...	18	3.9	7.2	1.3	47	58	0	11	11	<0.10	0.64
JUL											
23...	17	4.0	7.2	1.2	50	61	0	11	11	<0.10	0.59

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, TOTAL RECOV- ERABLE (UG/L AS AL)
OCT											
21...	92	86	--	0.088	0.020	0.030	2.1	0.020	<0.010	<0.010	--
21...	--	--	--	--	--	--	--	--	--	--	170
APR											
27...	87	81	--	0.220	0.010	0.020	0.30	<0.010	<0.010	<0.010	--
MAY											
21...	118	82	--	0.170	<0.010	0.020	0.30	0.020	0.020	<0.010	--
JUL											
23...	95	82	0.061	0.071	0.020	<0.010	<0.20	0.020	<0.010	<0.010	--

K Results based on colony count outside the acceptable range (non-ideal colony count).

ST. LAWRENCE RIVER BASIN

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)
OCT 21...	<10	8	--	<3	--	--	5	--	<4	--
21...	--	--	<1	--	7	250	--	4	--	30
APR 27...	<10	8	--	<3	--	--	12	--	<4	--
MAY 21...	<10	6	--	<3	--	--	5	--	<4	--
JUL 23...	<10	7	--	<3	--	--	11	--	<4	--
DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	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, TOTAL RECOV- ERABLE (UG/L AS ZN)
OCT 21...	2	--	<10	--	<1	<1	<1.0	83	<6	--
21...	--	0.10	--	1	--	--	--	--	--	<10
APR 27...	4	--	<10	--	1	<1	<1.0	84	<6	--
MAY 21...	<1	--	<10	--	<1	<1	<1.0	84	<6	--
JUL 23...	1	--	<10	--	<1	<1	<1.0	83	<6	--

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SEDI- MENT, SUS- PENDED (MG/L)	SED. SUSP. SIEVE DIAM. & FINER THAN .062 MM
OCT 21...	0930	65	68
21...	1000	65	--
APR 27...	0930	3	93
MAY 21...	0930	2	85
JUL 23...	0930	11	89

STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

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 mi². 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 ft³. 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 mi². Records provided by Oswegatchie River-Cranberry Reservoir Commission.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 2,985 mil ft³, May 13-15, 1971, gage height, 18.5 ft; minimum observed, 70 mil ft³, Apr. 1-4, 1956, gage height, 6.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 2,470 mil ft³, May 10-13, June 3-9, gage height, 16.8 ft; minimum observed, 1,364 mil ft³, Oct. 31 to Nov. 5, Nov. 8-11, gage height, 12.6 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 mi². PERIOD OF RECORD, October 1954 to current year. REVISED RECORDS, WDR NY-86-1: Drainage area. 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 ft³. 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 mi² (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 ft³, June 1, 5, 6, 1955, elevation, 1,386.1 ft; minimum observed, 8.64 mil ft³, Mar. 27-30, 1963, Apr. 4-11, 1964, elevation, 1,331.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 5,008 mil ft³, May 29, elevation, 1,385.1 ft; minimum observed, 623.8 mil ft³, Mar. 10, elevation, 1,343.9 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 ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Gage height (feet) *	Contents (million ft ³)	Change in contents (equivalent in ft ³ /s)	Elevation (feet) *	Contents (million ft ³)	Change in contents (equivalent in ft ³ /s)
	04260990	Cranberry Lake		04266700	Carry Falls Reservoir	
Sept. 30	14.8	1,918		1,364.9	2,495	
Oct. 31	12.6	1,364	-207	1,355.9	1,598	- 335
Nov. 30	13.2	1,508	+ 55.6	1,363.1	2,309	+ 274
Dec. 31	13.4	1,556	+ 17.9	1,376.2	3,810	+ 560
CAL YR 1991	-	-	- 9.83	-	-	- 8.62
Jan. 31	13.3	1,532	- 8.97	1,367.7	2,792	- 380
Feb. 29	13.4	1,556	+ 9.59	1,348.5	963.4	- 730
Mar. 31	13.8	1,658	+ 38.1	1,351.9	1,244	+ 105
Apr. 30	15.8	2,184	+203	1,378.9	4,160	+1,125
May 31	16.7	2,440	+ 95.6	1,384.7	4,952	+ 296
June 30	16.2	2,296	- 55.6	1,378.1	4,056	- 346
July 31	16.2	2,296	0.0	1,375.9	3,771	- 106
Aug. 31	15.9	2,212	- 31.4	1,373.1	3,416	- 133
Sept. 30	15.8	2,184	- 10.8	1,364.0	2,402	- 391
WTR YR 1992	-	-	+ 8.41	-	-	- 2.94

* 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 1992 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.

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1992 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis-charge (ft ³ /s)	Date	Gage height (ft)	Dis-charge (ft ³ /s)
Housatonic River basin								
Stony Brook near Dover Plains, NY (01199477)	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. Drainage area is 1.93 mi ² .	1976-92	3-27-92	1.27	58	4- 4-87	6.40	532
Hudson River basin								
Schroon River at Riverbank, NY (01317000)	Lat 43°36'34", long 73°44'17", Warren County, Hydrologic Unit 02020001, on right bank 11.8 mi downstream from Schroon Lake, and 30 ft upstream from highway bridge at Riverbank. Drainage area is 527 mi ² .	1908-25, 1926-70†, 1987-92	4-23-92	8.49	5,770	3-21-36	f12.18	12,100
Steele Brook at Shushan, NY (01329154)	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. Drainage area is 2.85 mi ² .	1979-92	8-19-91 11-23-91 6- 1-92	c5.83 c6.11 5.60	- - 115	1-26-90 11-23-91	5.62 c6.11	118 -
Batten Kill at Battenville, NY (01329500)	Lat 43°06'05", long 73°25'55", Washington County, Hydrologic Unit 02020003, on left bank 1.2 mi upstream from Trout Brook, and 1.0 mi southwest of Battenville. Drainage area is 394 mi ² .	1923-68†, 1987-92	1-16-92 6- 1-92	b6.70 5.78	- 2,860	11- 4-27	f17.70	21,300
Saratoga Lake tributary near Bemis Heights, NY (01330880)	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. Drainage area is 2.98 mi ² .	1968-92	6- 1-92	12.00	73	8- 7-86	19.94	448
West Canada Creek at Nobleboro, NY (01342800)	Lat 43°23'47", long 74°51'35", Herkimer County, Hydrologic Unit 02020004, at bridge on State Highway 8, 2.9 mi northeast of Wilmurt, in village of Nobleboro. Drainage area is 193 mi ² .	1958-66, 1967-68†, 1969-76, 1987-92	4-23-92	9.01	8,690	12-31-57 12-29-84	9.99 f13.93	11,000 q20,000

f From floodmark.

† Operated as a continuous-record gaging station.

c Result of culvert obstruction.

b Ice jam.

q Peak outside period of record.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1992 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
Hudson River basin--Continued								
North Creek near Ephratah, NY (01348420)	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. Drainage area is 6.52 mi ² .	1975-92	4-23-92	4.86	160	6-29-82	8.95	540
Batavia Kill at Hensonville, NY (01349850)	Lat 42°22'17", long 74°12'55", Greene County, Hydrologic Unit 02020005, on right bank at downstream side of bridge on County Highway 40, 0.7 mi upstream from Silver Lake Outlet, and 1.8 mi upstream from Nauvo Stream, at Hensonville. Drainage area is 13.5 mi ² .	1972-92	11-23-91	3.15	579	8-13-55 9-12-60 6-22-72	f7.80 f8.70 6.87	q5,000 q5,000 3,190
Normans Kill at Albany, NY (01359528)	Lat 42°38'00", long 73°48'22", Albany County, Hydrologic Unit 02020006, on left bank 0.35 mi upstream from bridge on Normans Kill Road at Normansville, and 0.40 mi upstream from Delaware Avenue bridge in Albany. Drainage area is 168 mi ² .	1980-83†, 1992	11-23-91	e6.86	e2,300	3-22-80	13.41	11,600
Kinderhook Creek at Rossman, NY (01361000)	Lat 42°19'50", long 73°44'40", Columbia County, Hydrologic Unit 02020006, on right bank 1.0 mi upstream from Claverack Creek, 2.25 mi downstream from Stuyvesant Falls, at Rossman. Drainage area is 329 mi ² .	1906-14, 1929-68†, 1988-92	11-23-91	7.26	5,630	12-31-48	f19.80	29,800
Catskill Creek at Oak Hill, NY (01361500)	Lat 42°24'16", long 74°09'07", Greene County, Hydrologic Unit 02020006, on right bank 100 ft downstream from small tributary, and downstream from highway bridge in southernmost part of Oak Hill. Drainage area is 98.0 mi ² .	1911-77†, 1987-92	11-23-91	9.95	5,500	4- 4-87	f16.6	15,400
Roeliff Jansen Kill near Hillsdale, NY (01362100)	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. Drainage area is 27.5 mi ² .	1958-60†, 1961-92	11-23-91	3.72	557	6-30-73	9.78	3,280
Wallkill River near Unionville, NY (01368000)	Lat 41°15'36", long 74°32'58", Sussex County, New Jersey, Hydrologic Unit 02020007, on right bank on downstream side of bridge on Quarryville- Milton Road, 2.0 mi south of New York-New Jersey State line, and 3.0 mi south of Unionville. Drainage area is 140 mi ² .	1938-49, 1950-81†, 1989-92	8-12-92	387.38*	1,420	8-19-55	392.63*	6,880
Wallkill River near Pine Island, NY (01368100)	Lat 41°18'54", long 74°29'26", Orange County, Hydrologic Unit 02020007, on left bank 15 ft downstream from bridge on County Highway 1, 0.4 mi upstream from Rutgers Creek, and 2.0 mi northwest of Pine Island. Drainage area is 162 mi ² .	1989-92	6- 6-92	380.79*	-	10-20-89	382.45*	-

f From floodmark.

q Peak outside period of record.

† Operated as a continuous-record gaging station.

e Estimated.

* Elevation, in feet, above National Geodetic Vertical Datum of 1929.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1992 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
Hudson River basin--Continued								
Wallkill River 0.9 mi above Pellets Island, near Middletown, NY (01369810)	Lat 41°22'10", long 74°25'10", Orange County, Hydrologic Unit 02020007, on right bank 0.9 mi upstream from bridge on County Highway 37 at Pellets Island, and 5.2 mi south of Middletown Post Office. Drainage area is 373 mi ² .	1991-92	6- 6-92	373.14*	-	6- 6-92	373.14*	-
Wallkill River 0.8 mi above Pellets Island, near Middletown, NY (01369820)	Lat 41°22'14", long 74°25'05", Orange County, Hydrologic Unit 02020007, on right bank 0.8 mi upstream from bridge on County Highway 37 at Pellets Island, and 5.1 mi south of Middletown Post Office. Drainage area is 373 mi ² .	1990-92	6- 6-92	372.68*	-	10-20-89	373.55*	-
Wallkill River 0.45 mi above Pellets Island, near Middletown, NY (01369992)	Lat 41°22'30", long 74°24'59", Orange County, Hydrologic Unit 02020007, on right bank 0.45 mi upstream from bridge on County Highway 37 at Pellets Island, and 4.7 mi south of Middletown Post Office. Drainage area is 373 mi ² .	1989-92	6- 6-92	372.65*	-	10-20-89	373.43*	-
Wallkill River 0.35 mi above Pellets Island, near Middletown, NY (01369995)	Lat 41°22'35", long 74°24'56", Orange County, Hydrologic Unit 02020007, on right bank 0.35 mi upstream from bridge on County Highway 37 at Pellets Island, and 4.6 mi south of Middletown Post Office. Drainage area is 374 mi ² .	1989-92	6- 6-92	372.55*	-	10-20-89	373.00*	-
Wallkill River at Pellets Island, NY (01370000)	Lat 41°22'50", long 74°24'50", Orange County, Hydrologic Unit 02020007, on right bank 10 ft downstream from bridge on County Highway 37 at Pellets Island, and 4.3 mi south of Middletown Post Office. Drainage area is 380 mi ² .	1920-37, 1938-68†, 1989-92	6- 6-92	371.05*	4,340	3-16-20 3-14-36	383.13* 382.43*	8,350 12,400
Wallkill River at Denton, NY (01370030)	Lat 41°24'07", long 74°23'24", Orange County, Hydrologic Unit 02020007, on right bank 50 ft downstream from bridge on U.S. Highway 6 (State Highway 17M), and 0.7 mi southwest of Denton. Drainage area is 385 mi ² .	1989-92	6- 6-92	365.38*	-	10-20-89	365.71*	-
Wallkill River near Phillipsburg, NY (01370500)	Lat 41°25'57", long 74°22'29", Orange County, Hydrologic Unit 02020007, on left bank 0.3 mi upstream from Masonic Creek, 0.9 mi upstream from bridge on State Highway 17, 1.9 mi northeast of New Hampton, and 1.0 mi south- west of Phillipsburg. Drainage area is 406 mi ² .	1937, 1938-59†, 1989-92	6- 6-92	361.87*	5,770	8-21-55	363.94*	9,200
Fishkill Creek at Hopewell Junction, NY (01372800)	Lat 41°34'22", long 73°48'25", Dutchess County, Hydrologic Unit 02020008, on right bank 400 ft upstream from bridge on State Highway 376, 500 ft upstream from small tributary, 0.6 mi south of State Highway 82, at Hopewell Junction. Drainage area is 57.3 mi ² .	1956-57, 1958-75†, 1984, 1987-92	10-24-90 3-27-92	5.32 4.86	485 375	12-21-73 4- 5-87	9.19 19.62	2,770 2,710

* Elevation, in feet, above National Geodetic Vertical Datum of 1929.

† Operated as a continuous-record gaging station.

‡ From floodmark.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1992 maximum		Period of record maximum			
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
Hudson River basin--Continued								
Peekskill Hollow Creek at Tompkins Corners, NY (01374250)	Lat 41°23'18", long 73°48'47", Putnam County, Hydrologic Unit 02030101, at bridge on Bryant Pond Road, 1.1 mi downstream from Wiccopee Brook, and 0.9 mi southwest of Tompkins Corners. Drainage area is 14.9 mi ² .	1975-92	6- 6-92	2.50	202	8- 7-90	4.77	1,050
Saw Mill River at Elmsford, NY (01376420)	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. Drainage area is 15.4 mi ² .	1979-92	9- 3-92	8.63	455	10-15-55 4- 5-84	- 11.57	aq1,060 950
Passaic River basin								
Torne Brook at Ramapo, NY (01387410)	Lat 41°08'34", long 74°09'44", Rockland County, Hydrologic Unit 02030103, 0.2 mi up- stream from mouth, and 0.5 mi east of Ramapo. Drainage area is 2.60 mi ² .	1960-92	3-27-92	5.57	196	11- 8-77	11.02	1,520
Delaware River basin								
Callicoon Creek at Callicoon, NY (01427500)	Lat 41°45'39", long 75°02'55", Sullivan County, Hydrologic Unit 02040101, on right bank 0.9 mi upstream from mouth, 1.0 mi southwest of Hortonville, and 0.7 mi southeast of Callicoon. Drainage area is 110 mi ² .	1941-82+, 1983-92	11-22-91	5.17	3,190	8-17-47	9.68	16,000
East Branch Neversink River at Denning, NY (01434010)	Lat 41°57'30", long 74°28'26", 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 is 13.3 mi ² .	1984-92	1-23-92 6- 5-92	b4.16 3.96	- 1,580	4- 4-87	f6.39	4,460
Streams tributary to Lake Ontario								
North Branch Grindstone Creek near Altmar, NY (042490673)	Lat 43°29'31", long 76°05'41", Oswego County, Hydrologic Unit 04140102, at culvert on Hong Kong Road, 4.1 mi up- stream from confluence with South Branch Grindstone Creek, and 4.1 mi southwest of Altmar. Drainage area is 11.2 mi ² .	1976-92	4-12-92	12.49	405	3-13-77	15.03	482
North Branch Salmon River at Redfield, NY (04249200)	Lat 43°32'32", long 75°48'51", Oswego County, Hydrologic Unit 04140102, at bridge on Harvester Mill Road, 0.7 mi northeast of Redfield. Drainage area is 82.5 mi ² .	1962-64, 1987-92	4-12-92	15.72	4,700	12-29-84 4-12-92	e19.15 15.72	q13,600 4,700
Moose River at McKeever, NY (04254500)	Lat 43°36'36", long 75°06'35", Herkimer County, Hydrologic Unit 04150101, on left bank 1.9 mi downstream from con- fluence of Middle and South Branches, and 1.0 mi west of McKeever. Drainage area is 363 mi ² .	1901-22, 1923-70+, 1987-92	4-23-92	10.35	8,090	6- 3-47	f17.45	d18,700

- a Estimated, from U.S. Army Corps of Engineers.
q Peak outside of period of record.
+ Operated as a continuous-record gaging station.
b Ice jam.
f From floodmark.
e Estimated.
d Dam failure.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1992 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
Streams tributary to Lake Ontario--Continued								
Deer River at Deer River, NY (04258700)	Lat 43°55'49", long 75°35'27", Lewis County, Hydrologic Unit 04150101, on left bank 2.0 mi upstream from mouth, and 350 ft upstream from bridge on State Highway 26 at Deer River. Drainage area is 94.8 mi ² .	1957-68†, 1969-92	4-12-92	5.59	6,000	3- 6-79 12-29-84	b11.10 f10.63	- 12,400
St. Lawrence River basin								
Elm Creek near Hermon, NY (04265100)	Lat 44°26'15", long 75°12'49", St. Lawrence County, Hydrologic Unit 04150304, at bridge, 6.8 mi upstream from confluence with Tanner Creek, and 2.7 mi southeast of Hermon. Drainage area is 32.6 mi ² .	1959-68†, 1969-92	3-11-92 4-13-92	b7.96 7.31	- 723	4- 6-74	9.07	e1,270
Plum Brook near Grantville, NY (04268200)	Lat 44°52'46", long 74°54'54", St. Lawrence County, Hydrologic Unit 04150305, on right bank 430 ft up- stream from bridge at junc- tion of Brouse and Grant Roads, 0.7 mi downstream from unnamed tributary, 1.1 mi upstream from mouth, 2.3 mi southwest of Massena city limits, and 1.4 mi north of Grantville. Drainage area is 43.9 mi ² .	1959-63†, 1964-92	3-11-92 4-13-92	b7.86 5.31	- 657	3-30-63 3-11-92	6.94 b7.86	1,920 -
East Branch Little Salmon River near Skerry, NY (04270162)	Lat 44°47'13", long 74°22'12", Franklin County, Hydrologic Unit 04150307, at culvert on Adams Road, 5.7 mi upstream from mouth, 100 ft downstream from Limekiln Brook, and 1.1 mi northeast of Skerry. Drainage area is 7.11 mi ² .	1978-92	3-10-92	b3.45	-	6-20-78	6.80	240
Trout River at Trout River, NY (04270700)	Lat 44°59'23", long 74°17'56", Franklin County, Hydrologic Unit 04150307, on left bank at downstream side of bridge on county highway, 0.5 mi upstream from international boundary, 1.5 mi downstream from unnamed tributary, 3.3 mi downstream from Little Trout River, and 0.2 mi east of State High- way 30, at Trout River. Drainage area is 107 mi ² .	1960-66†, 1967-92	3-10-92 8- 5-92	b10.43 5.57	- 2,340	4- 5-74 3-10-92	9.10 b10.43	6,490 -
West Branch Ausable River near Lake Placid, NY (04274000)	Lat 44°18'40", long 73°55'00", Essex County, Hydrologic Unit 02010004, on right bank 4 mi downstream from Lake Placid outlet, 150 ft up- stream from Monument Falls, and 4 mi northeast of Lake Placid. Drainage area is 116 mi ² .	1917, 1920-27, 1928-68†, 1983-92	3-11-92	b8.42	e3,500	9-22-38	12.20	10,800

† Operated as a continuous-record gaging station.

b Ice jam.

f From floodmark.

e Estimated.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1992

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Date	Measurements Discharge (ft ³ /s)
Hudson River basin						
01342602 Mohawk River	Hudson River	Lat 43°05'26", long 75°09'27", Oneida County, Hydrologic Unit 02020004, at bridge on Upper Dyke Road, 2.0 mi east of Utica, and 0.5 mi southwest of West Schuyler.	553	1988-91	5-15-92 8-20-92	*640 *578
01346040 West Canada Creek	Mohawk River	Lat 43°02'58", long 74°59'06", Herkimer County, Hydrologic Unit 02020004, at bridge on Shellbush Road, 1.6 mi north of Herkimer.	563		5- 5-92	2,930
01359525 Normans Kill	Hudson River	Lat 42°38'52", long 73°50'46", Albany County, Hydrologic Unit 02020006, at bridge on New Scotland Road in Karlsfeld, 0.1 mi downstream from Krum Kill.	163	1991	5-21-92 8-21-92	254 *26.2
01359993 Kinderhook Creek	Stockport Creek	Lat 42°32'24", long 73°23'39", Rensselaer County, Hydrologic Unit 02020006, at bridge on Presbyterian Hill Road in Garfield, 0.5 mi upstream from Black River, and 1.0 mi southwest of Stephentown.	34.6	1991	5-14-92 8-19-92	56.5 *17.7
01362182 Roeliff-Jansen Kill	Hudson River	Lat 42°09'11", long 73°50'42", Columbia County, Hydrologic Unit 02020006, at bridge 1.3 mi south of Linlithgo, 2.2 mi upstream from mouth.		1991	5-14-92 8-19-92	280 155
Delaware River basin						
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, 1973-91	5-14-92 6-16-92 7- 2-92 9- 9-92	*27.0 *8.67 *3.08 *2.71
01424997 Cannonsville Reservoir	Delaware River	Lat 42°03'46", long 75°22'29", Delaware County, Hydrologic Unit 02040101, at outlet of Cannonsville Dam, on West Branch Delaware River, 1.8 mi southeast of Stilesville.	454		1-29-92 1-29-92	12.7 2.41
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, 0.3 mi upstream from mouth, 0.1 mi upstream from Mill Street bridge, in Deposit.	67.6	1941-73†, 1975-76, 1979-91	5-14-92 6-16-92 7- 2-92 9- 9-92	*94.3 *20.4 *8.34 *14.6
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†, 1978-91	11-18-91 5-15-92 5-28-92 6-17-92 6-18-92 9-10-92	*6.01 *34.3 22.9 *19.0 *16.8 *6.32
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), 0.1 mi upstream from Clove Brook, and 0.6 mi upstream from mouth, in Port Jervis.	336	1902-03, 1943, 1945, 1960-62, 1965-91	10 -1-91 10-15-91 11-18-91 12-12-91 1- 2-92 5-28-92 6-17-92 7- 8-92 9- 2-92	115 139 147 465 274 262 385 299 173
Streams tributary to Lake Ontario						
04257000 Beaver River	Black River	Lat 43°53'56", long 75°03'08", Herkimer County, Hydrologic Unit 04150101, at logging bridge about 0.2 mi downstream from Stillwater Dam, 7.5 mi west of Beaver River Post Office, and 2.5 mi upstream from Moshier Creek.	171	1909-91	10-22-91 11-21-91 2-11-92 3- 2-92 4- 6-92 5-19-92 6-30-92 8-19-92 9-23-92	285 294 252 284 570 286 453 463 560

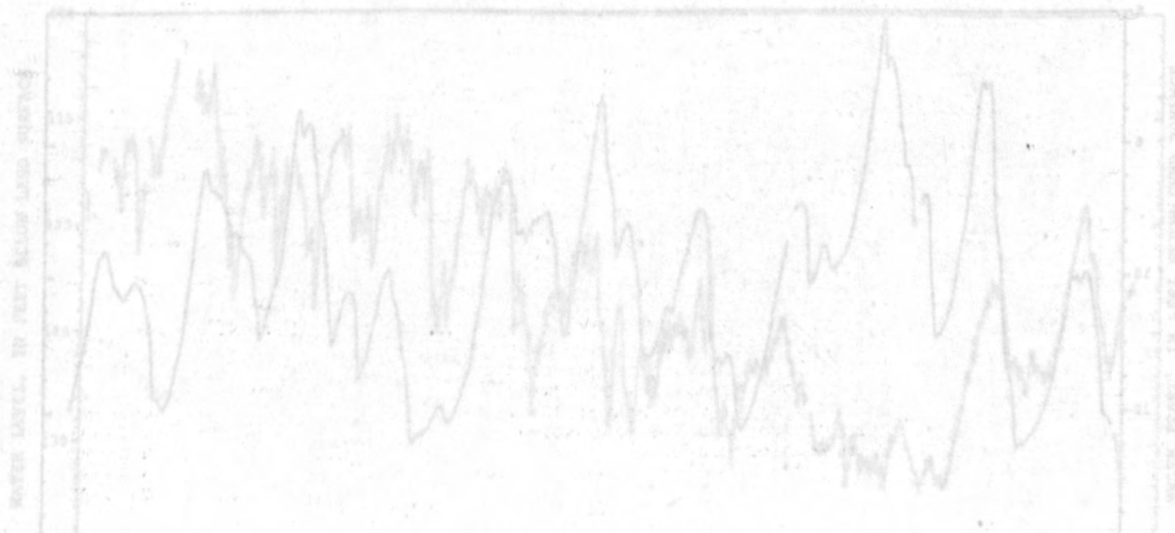
* Base flow.

† Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1992--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Date	Discharge (ft ³ /s)
St. Lawrence River basin						
04268230	St. Lawrence	Lat 44°55'00", long 74°53'19",	1,196	1905-16,	11-18-91	733
Raquette	River	St. Lawrence County, Hydrologic		1967-68,	3-30-92	3,040
River		Unit 04150305, at bridge on State		1991	5-10-92	4,460
		Highway 420 in Massena Springs,			8-24-92	1,280
		0.3 mi downstream from Hutchins			9-14-92	1,450
		Creek, and 16.2 mi upstream from				
		mouth.				
04265440	St. Lawrence	Lat 44°56'00", long 74°53'26",	629	1955,	10- 3-91	*297
Grass	River	St. Lawrence County, Hydrologic		1960,	4-20-92	2,640
River		Unit 04150304, 225 ft upstream		1967-68,	8-25-92	*208
		from dam, 0.1 mi downstream from		1991	9-15-92	492
		bridge on State Highway 37B, and				
		1.0 mi upstream from Massena Power				
		Canal.				
* Base flow.						



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 21.0 ft in August 1989, filled in from original depth of 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).

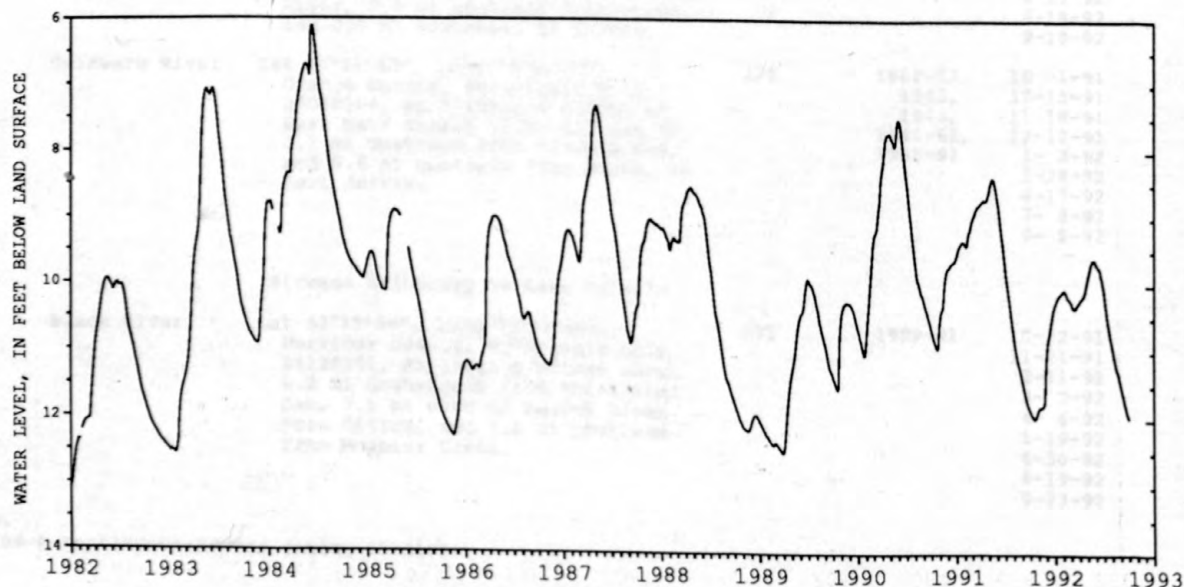
PERIOD OF RECORD.--May 1974 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

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.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.86	11.85	11.06	10.27	10.06	10.26	10.23	9.87	9.68	10.15	10.94	11.49
2	11.87	11.84	11.00	10.26	10.07	10.27	10.22	9.85	9.68	10.19	10.96	11.51
3	11.88	11.83	10.95	10.25	10.07	10.28	10.21	9.83	9.69	10.23	10.98	11.53
4	11.89	11.82	10.90	10.24	10.07	10.30	10.20	9.81	9.69	10.26	11.00	11.54
5	11.90	11.82	10.87	10.23	10.07	10.31	10.20	9.79	9.70	10.29	11.02	11.56
6	11.91	11.81	10.84	10.22	10.08	10.32	10.20	9.77	9.71	10.32	11.05	11.58
7	11.92	11.81	10.82	10.21	10.08	10.33	10.19	9.76	9.72	10.35	11.07	11.60
8	11.92	11.81	10.79	10.20	10.09	10.33	10.19	9.74	9.72	10.38	11.09	11.61
9	11.93	11.81	10.77	10.19	10.10	10.34	10.18	9.72	9.72	10.41	11.11	11.63
10	11.94	11.81	10.75	10.18	10.11	10.34	10.18	9.70	9.73	10.44	11.13	11.65
11	11.95	11.81	10.73	10.17	10.12	10.34	10.17	9.69	9.74	10.47	11.15	11.67
12	11.95	11.81	10.71	10.17	10.14	10.34	10.16	9.67	9.74	10.50	11.17	11.69
13	11.96	11.81	10.68	10.16	10.15	10.34	10.16	9.66	9.75	10.53	11.19	11.71
14	11.96	11.81	10.65	10.15	10.16	10.34	10.15	9.64	9.77	10.56	11.21	11.73
15	11.97	11.80	10.63	10.15	10.18	10.34	10.15	9.64	9.78	10.58	11.22	11.75
16	11.98	11.80	10.60	10.14	10.18	10.34	10.14	9.63	9.80	10.60	11.24	11.76
17	11.98	11.80	10.57	10.14	10.19	10.33	10.13	9.62	9.83	10.62	11.25	11.78
18	11.98	11.79	10.54	10.13	10.19	10.32	10.11	9.61	9.85	10.64	11.26	11.79
19	11.98	11.79	10.52	10.13	10.19	10.31	10.10	9.61	9.87	10.67	11.27	11.81
20	11.98	11.78	10.49	10.12	10.19	10.30	10.09	9.61	9.88	10.69	11.28	11.83
21	11.97	11.77	10.46	10.12	10.20	10.30	10.07	9.61	9.90	10.71	11.29	11.85
22	11.97	11.76	10.44	10.12	10.20	10.29	10.05	9.61	9.92	10.74	11.31	11.86
23	11.96	11.75	10.41	10.11	10.21	10.28	10.03	9.61	9.94	10.76	11.32	11.88
24	11.95	11.72	10.39	10.10	10.22	10.27	10.01	9.61	9.97	10.78	11.34	11.89
25	11.94	11.66	10.37	10.10	10.23	10.27	9.99	9.62	9.99	10.80	11.36	11.91
26	11.92	11.55	10.35	10.09	10.23	10.27	9.96	9.63	10.01	10.82	11.38	11.92
27	11.91	11.43	10.34	10.09	10.23	10.26	9.94	9.63	10.03	10.84	11.40	11.93
28	11.90	11.31	10.32	10.08	10.24	10.25	9.92	9.64	10.06	10.86	11.41	11.94
29	11.88	11.21	10.30	10.08	10.25	10.24	9.91	9.65	10.09	10.88	11.43	11.95
30	11.87	11.13	10.29	10.07	---	10.24	9.89	9.66	10.12	10.90	11.45	11.97
31	11.86	---	10.28	10.07	---	10.23	---	9.68	---	10.92	11.47	---

WTR YEAR 1992 HIGHEST 9.61 May 18, 19-23, 24, 1992 LOWEST 11.98 Oct. 16, 17-20, 21, 1991



ALBANY COUNTY

424044073535101. Local number, A 637.

LOCATION.--Lat 42°40'44", long 73°53'51", Hydrologic Unit 02020006, Dr. Shaw Road, Guilderland.

Owner: Whitfield Development Corporation.

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 municipal well field 0.5 mi north-northwest.

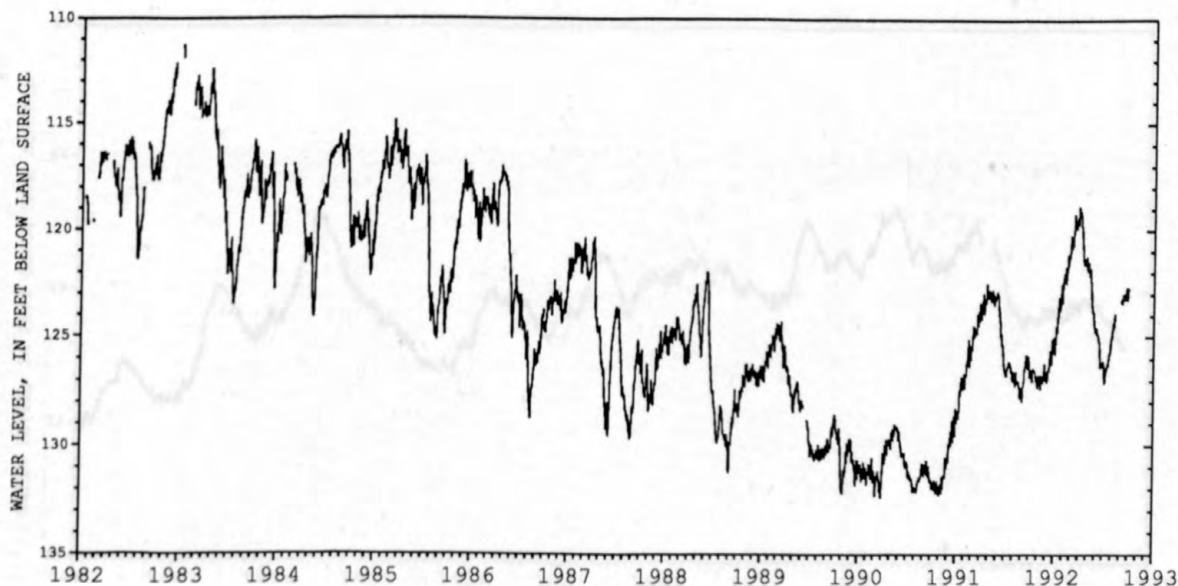
PERIOD OF RECORD.--September 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 111.11 ft below land-surface datum, Jan. 7, 1983;
lowest recorded, 132.44 ft below land-surface datum, Mar. 29, 1990.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126.55	126.76	126.89	125.68	122.33	120.51	119.09	121.93	124.56	126.43	124.66	---
2	126.47	126.68	127.06	125.50	122.38	120.84	119.06	121.52	124.57	126.83	124.69	123.35
3	126.45	126.91	126.65	125.32	122.40	120.72	119.13	121.49	124.57	127.08	124.51	123.19
4	126.64	127.06	126.48	124.96	122.00	120.72	119.30	121.69	124.70	126.97	124.33	123.22
5	126.66	127.14	126.98	124.62	122.02	120.60	119.55	121.88	124.91	126.76	124.43	123.41
6	126.57	127.02	126.70	124.49	122.08	120.72	119.80	122.08	124.82	126.61	124.50	123.39
7	126.69	127.05	126.49	124.54	121.81	120.26	119.76	122.12	124.90	126.70	124.52	123.19
8	126.96	127.22	126.48	124.79	121.70	119.96	119.89	121.88	124.87	126.69	124.39	123.00
9	127.02	127.34	126.32	124.36	122.11	120.12	120.28	121.76	124.94	126.35	124.09	123.06
10	126.78	127.08	126.52	124.02	122.47	119.76	120.51	121.92	125.03	126.42	124.02	122.97
11	126.48	126.70	126.50	124.16	122.00	119.19	120.73	122.28	125.17	126.42	123.89	123.12
12	126.38	126.91	126.49	124.30	122.30	119.43	120.95	122.42	125.21	126.42	---	123.24
13	126.54	126.88	125.98	123.87	121.88	119.64	121.41	122.41	125.17	126.22	---	123.20
14	126.57	126.96	125.58	123.11	121.63	119.64	121.35	122.76	125.28	126.21	---	123.18
15	126.44	126.80	125.71	123.68	121.55	119.74	121.52	123.21	125.77	126.15	---	123.15
16	126.46	126.71	125.87	123.63	121.15	119.91	121.60	123.52	126.22	126.28	---	123.06
17	126.55	127.08	125.78	123.45	121.72	119.61	121.29	123.56	126.35	126.22	---	123.00
18	126.51	127.01	125.70	123.58	121.55	119.90	121.57	123.52	126.32	126.03	---	122.92
19	126.58	126.80	126.23	123.76	121.04	119.52	121.62	123.82	126.14	125.95	---	123.00
20	126.78	126.55	126.12	123.44	121.18	119.48	121.48	123.75	126.11	125.77	---	123.18
21	126.79	126.50	125.49	123.35	121.31	119.61	121.40	123.79	126.24	125.71	---	123.02
22	126.75	126.49	125.39	123.63	121.36	119.48	121.41	123.85	126.32	125.81	---	122.65
23	126.94	126.39	125.06	122.93	121.18	119.35	121.48	123.89	126.33	125.67	---	122.97
24	127.01	126.16	125.20	122.50	121.23	119.63	121.21	124.25	126.16	125.64	---	123.27
25	126.93	126.28	125.53	123.22	121.00	119.70	121.24	124.51	126.12	125.54	---	123.27
26	126.86	126.73	125.66	123.33	120.37	119.44	121.45	124.54	126.14	125.25	---	123.08
27	126.73	126.97	125.65	123.39	120.24	118.85	121.59	124.50	126.05	125.04	---	122.76
28	127.07	126.77	125.55	123.21	120.22	119.05	121.79	124.60	126.13	125.08	---	122.71
29	127.29	126.81	124.97	122.90	120.42	119.13	121.84	124.73	126.20	125.04	---	122.70
30	126.99	126.74	125.27	122.50	---	119.17	121.84	124.78	126.23	125.07	---	122.82
31	126.83	---	125.76	122.17	---	119.10	---	124.65	---	124.86	---	---

WTR YEAR 1992 HIGHEST 118.65 Mar. 27, 1992

LOWEST 127.41 Nov. 9, 1991



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.

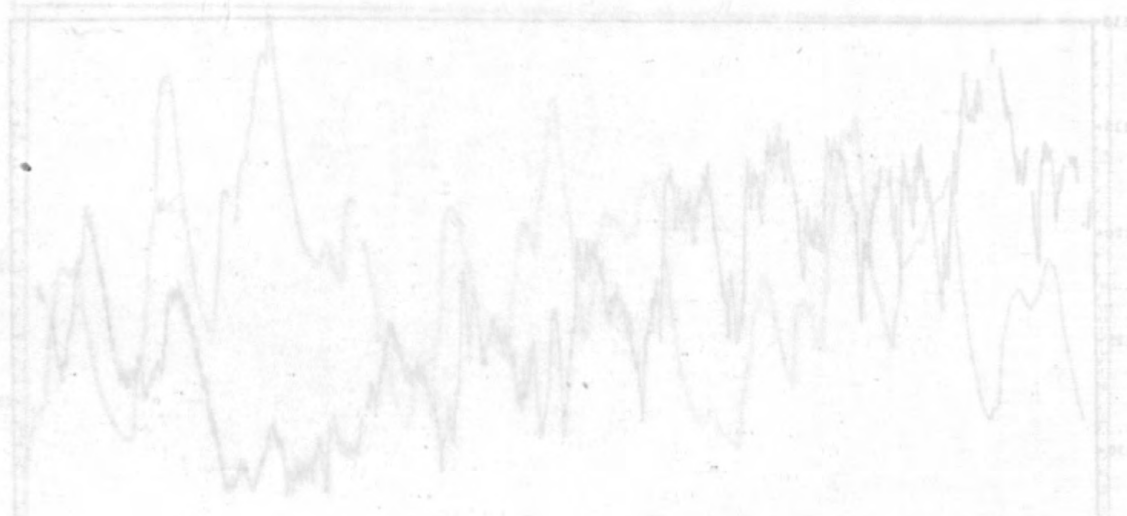
REMARKS.--Water levels subject to rapid response from heavy rains or snowmelt. Pump installed in well in spring 1986 for summer campground use. Water levels may be affected by recent pumping.

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, 13.2 ft below land-surface datum, Mar. 31, 1986; lowest measured, 180 ft below land-surface datum, Aug. 20, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1991	154	DEC 02, 1991	137	JUN 15, 1992	146	AUG 10, 1992	139
14	147	APR 27, 1992	149	22	148	17	139
21	148	MAY 04	149	29	142	24	129
28	147	11	154	JUL 06	144	31	144
NOV 04	145	18	142	13	139	SEP 07	144
11	145	25	144	20	137	14	139
18	144	JUN 01	147	27	138	21	139
25	140	08	147	AUG 03	137	28	137



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 127 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.

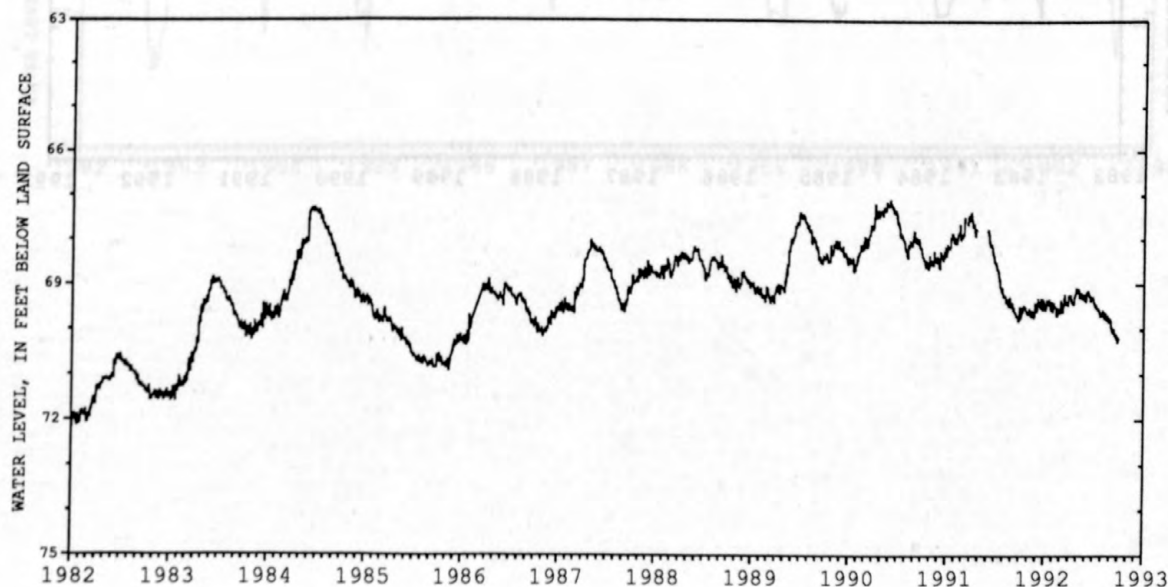
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 65.62 ft below land-surface datum, June 22, 1953; lowest, 73.85 ft below land-surface datum, Sept. 13, 1966.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69.74	69.55	69.55	69.55	69.38	69.42	69.25	69.16	69.19	69.41	69.56	69.88
2	69.69	69.52	69.55	69.56	69.41	69.50	69.22	69.13	69.15	69.44	69.58	69.95
3	69.65	69.55	69.46	69.53	69.45	69.56	69.21	69.07	69.18	69.48	69.61	69.97
4	69.64	69.59	69.30	69.46	69.47	69.59	69.22	69.07	69.20	69.48	69.61	69.97
5	69.66	69.63	69.34	69.36	69.45	69.60	69.26	69.12	69.22	69.46	69.62	70.01
6	69.55	69.65	69.39	69.32	69.48	69.60	69.33	69.20	69.15	69.43	69.68	70.05
7	69.48	69.64	69.42	69.32	69.48	69.58	69.37	69.27	69.12	69.46	69.73	70.06
8	69.53	69.66	69.42	69.39	69.47	69.47	69.36	69.29	69.14	69.51	69.75	70.03
9	69.60	69.70	69.40	69.43	69.50	69.44	69.39	69.23	69.14	69.49	69.70	70.01
10	69.60	69.70	69.42	69.38	69.63	69.42	69.39	69.20	69.17	69.49	69.65	70.00
11	69.54	69.60	69.46	69.38	69.67	69.28	69.39	69.21	69.20	69.50	69.62	69.97
12	69.44	69.55	69.51	69.44	69.69	69.20	69.37	69.22	69.24	69.55	69.64	70.02
13	69.45	69.56	69.47	69.45	69.68	69.24	69.41	69.19	69.24	69.54	69.71	70.07
14	69.51	69.58	69.36	69.35	69.62	69.30	69.43	69.16	69.23	69.55	69.74	70.10
15	69.54	69.62	69.29	69.31	69.60	69.35	69.42	69.21	69.25	69.55	69.77	70.12
16	69.51	69.62	69.33	69.35	69.50	69.41	69.42	69.27	69.31	69.51	69.78	70.13
17	69.51	69.68	69.39	69.40	69.54	69.42	69.33	69.30	69.35	69.55	69.77	70.12
18	69.48	69.72	69.39	69.44	69.59	69.43	69.27	69.27	69.36	69.56	69.72	70.10
19	69.49	69.73	69.48	69.52	69.55	69.40	69.24	69.28	69.32	69.59	69.68	70.08
20	69.53	69.71	69.56	69.54	69.52	69.36	69.23	69.31	69.26	69.61	69.69	70.14
21	69.58	69.68	69.50	69.53	69.56	69.37	69.21	69.32	69.25	69.62	69.72	70.17
22	69.58	69.62	69.42	69.57	69.62	69.39	69.18	69.30	69.28	69.67	69.76	70.14
23	69.61	69.45	69.34	69.55	69.61	69.35	69.17	69.26	69.31	69.69	69.80	70.12
24	69.64	69.39	69.30	69.35	69.62	69.39	69.14	69.22	69.29	69.69	69.83	70.21
25	69.64	69.39	69.35	69.36	69.61	69.45	69.08	69.20	69.25	69.70	69.82	70.28
26	69.62	69.47	69.45	69.46	69.48	69.45	69.06	69.23	69.28	69.68	69.81	70.27
27	69.59	69.57	69.51	69.56	69.37	69.29	69.08	69.24	69.30	69.62	69.79	70.20
28	69.59	69.60	69.55	69.59	69.34	69.22	69.12	69.27	69.33	69.60	69.76	70.18
29	69.64	69.59	69.47	69.57	69.33	69.24	69.15	69.33	69.38	69.63	69.74	70.18
30	69.65	69.58	69.40	69.51	---	69.28	69.16	69.38	69.40	69.67	69.78	70.21
31	69.58	---	69.49	69.42	---	69.27	---	69.34	---	69.68	69.82	---

WTR YEAR 1992 HIGHEST 69.02 May 4, 1992

LOWEST 70.33 Sept. 26, 1992



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 24.2 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.--Bi-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.

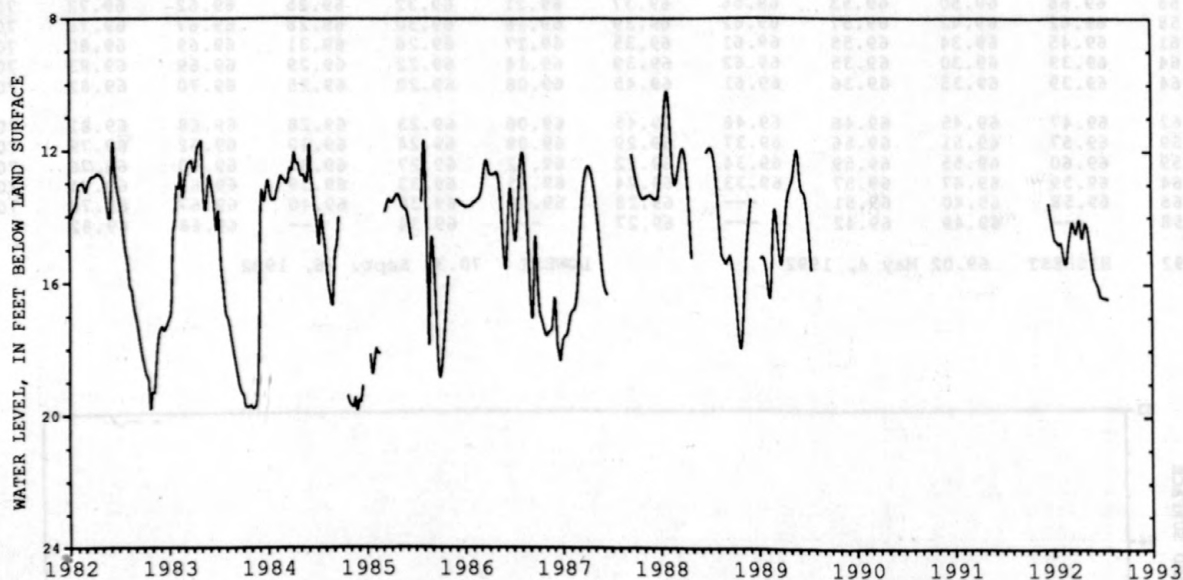
PERIOD OF RECORD.--October 1965 to April 1969, June 1971 to July 1989, December 1991 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.48 ft below land-surface datum, Feb. 3, 1988; lowest measured, 20.60 ft below land-surface datum, Nov. 24, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 17, 1991	13.59 Z	JAN 24, 1992	14.82	MAR 05, 1992	14.47	APR 27, 1992	14.25
26	14.08	30	14.74	13	14.14	JUN 01	15.79
JAN 02, 1992	14.41	FEB 07	15.08	27	14.48	15	16.05
08	14.67	20	15.35	APR 09	14.07	26	16.38
17	14.73	29	14.73	17	14.60	JUL 21	16.43

Z Measured by USGS personnel.



GROUND-WATER LEVELS

339

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 17.3 ft, 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.

REMARKS.--The wrong measuring point value was used for water years 1984 to 1989. A +.24 ft correction should be applied to all published record from 1984 through 1989 water years.

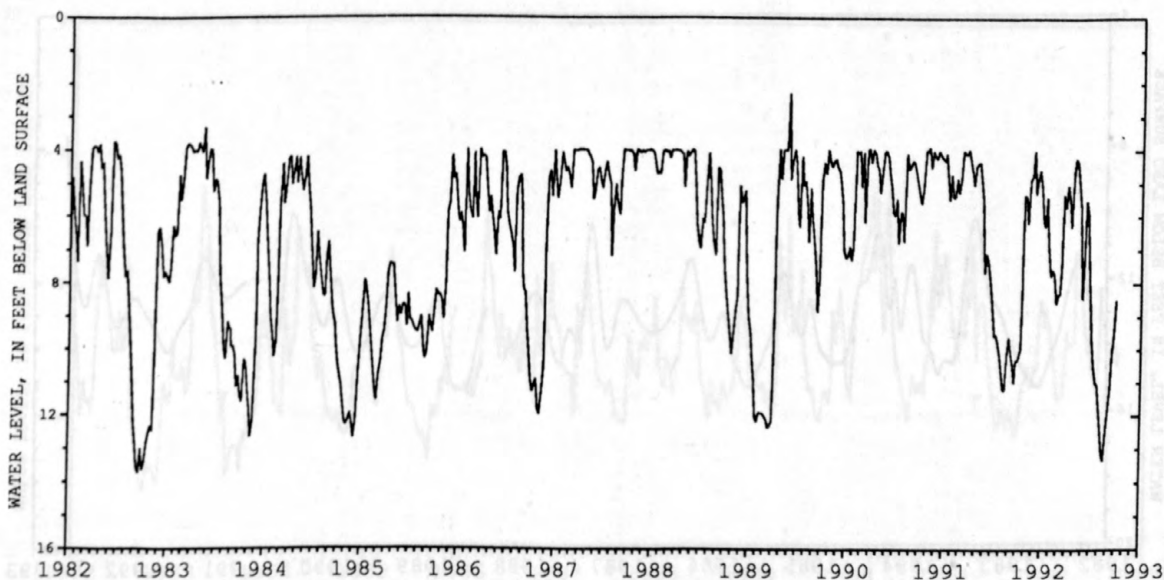
PERIOD OF RECORD.--December 1945 to current year.

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 1991 TO SEPTEMBER 1992

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1991	10.26	JAN 08, 1992	6.27	APR 15, 1992	6.28	JUL 23, 1992	11.06
11	9.95	15	5.38	23	4.61	29	11.68
16	8.39	22	6.88	29	4.22	AUG 05	12.33
23	5.31	29	7.73	MAY 06	4.33	12	13.09
30	5.35	FEB 06	7.56	13	4.98	19	13.33
NOV 06	6.17	12	7.69	20	5.67	27	12.42
13	4.86	19	8.58	27	8.43	SEP 02	11.83
21	4.73	27	8.29	JUN 03	7.33	03	11.73 Z
27	3.98	MAR 04	8.28	10	5.50	09	11.18
DEC 04	5.28	11	7.39	17	5.88	16	9.94 Z
11	4.81	18	5.30	24	8.01	17	10.06
18	4.56	25	5.68	JUL 01	9.68	24	9.33
26	5.09	APR 01	5.02	08	10.49	30	8.48
JAN 02, 1992	6.10	08	5.41	16	10.99		

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 16.2 ft in July 1991, 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 every six weeks.

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.

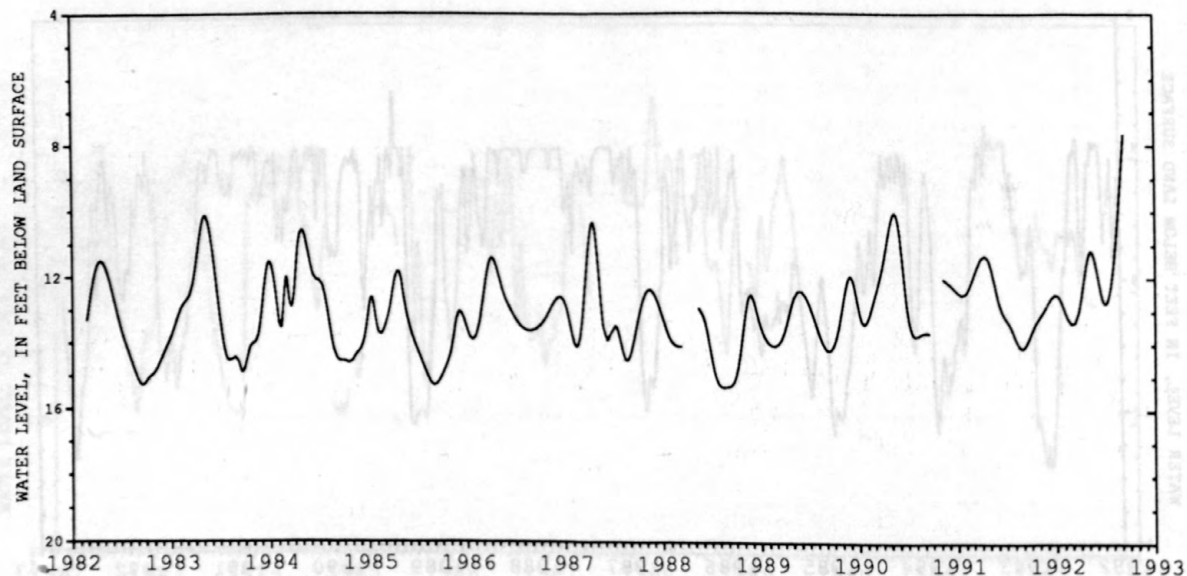
REMARKS.--Well casing believed to have settled about 0.75 ft shortly after installation. All published records prior to 1985 water year should be adjusted accordingly.

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 1991 TO SEPTEMBER 1992

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08, 1991	13.48	FEB 11, 1992	13.16	JUN 24, 1992	12.68	SEP 02, 1992	8.42
NOV 19	12.90	MAR 25	12.95	JUL 28	11.83	09	7.65
JAN 07, 1992	12.49	MAY 06	11.16				



GROUND-WATER LEVELS

341

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 12.0 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.

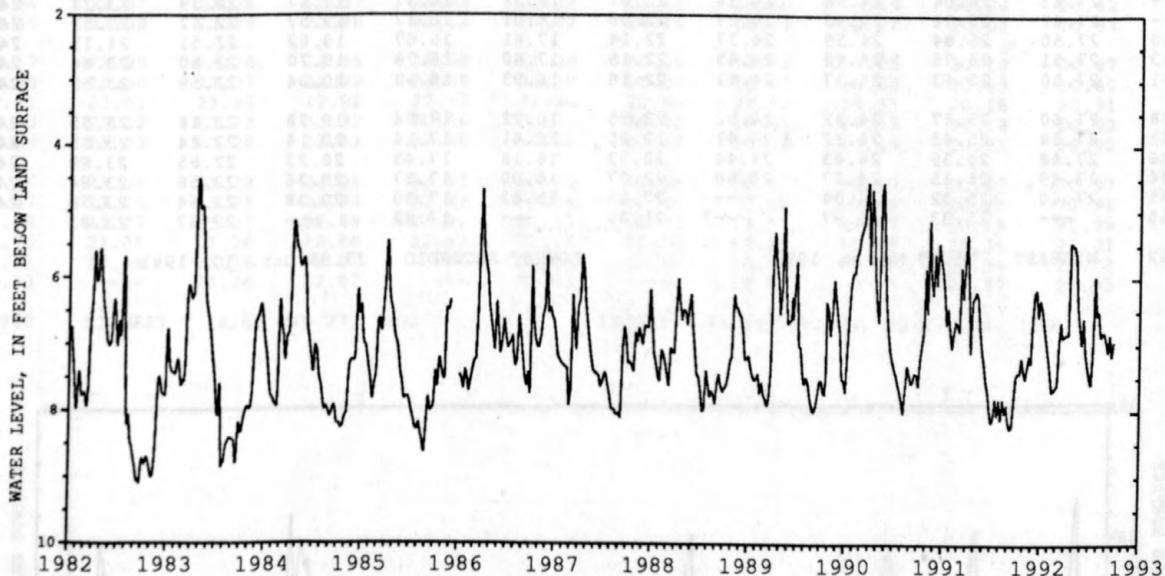
PERIOD OF RECORD.--October 1942 to current year.

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 1991 TO SEPTEMBER 1992

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1991	7.40	JAN 11, 1992	6.67	APR 11, 1992	6.82	JUL 11, 1992	7.08
12	7.41	18	6.90	18	5.44	18	5.96
19	7.18	25	7.13	25	5.47	25	6.54
26	7.37	FEB 01	7.36	MAY 02	5.49	AUG 01	6.48
NOV 02	7.49	08	7.68	09	5.64	08	6.86
09	7.32	15	7.66	16	6.42	10	6.86 Z
16	7.14	22	7.62	23	6.72	15	6.81
23	7.26	29	7.58	30	6.98	22	6.80
30	6.58	MAR 07	6.94	JUN 06	6.58	29	6.93
DEC 07	6.20	14	6.64	13	7.10	SEP 05	7.09
14	6.15	19	6.87	20	7.32	12	6.84
21	6.56	26	6.85	27	7.49	19	7.16
28	6.30	APR 04	6.82	JUL 04	7.58	26	6.95
JAN 04, 1992	6.42						

Z Measured by USGS personnel.



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.--Water-stage recorder--hourly punch. Tape gage read weekly by observer through September 7, 1991.

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.

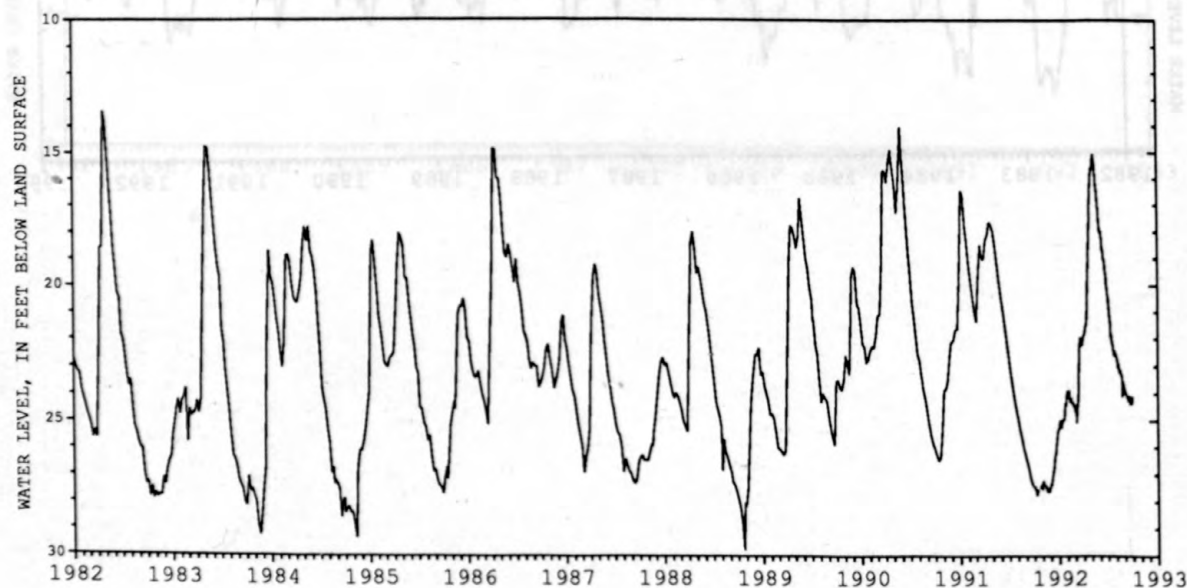
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.43 ft below land-surface datum, Apr. 3, 1976; lowest measured, 30.31 ft below land-surface datum, Feb. 25, 1961.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.42	27.42	27.34	25.30	23.97	24.61	21.91	15.75	18.03	20.46	22.68	23.87
2	27.46	27.28	27.34	25.23	23.89	24.64	21.84	15.57	18.03	20.64	22.68	23.90
3	27.48	27.20	27.38	25.15	23.99	24.64	21.83	15.62	18.00	20.76	22.69	23.87
4	27.53	27.31	27.36	25.07	24.05	24.63	21.85	15.70	18.02	20.82	22.75	23.96
5	27.46	27.34	27.24	24.99	23.95	24.60	21.81	15.60	17.96	20.96	22.87	24.02
6	27.51	27.35	27.16	24.98	23.99	24.68	21.72	15.45	18.06	21.11	23.04	24.00
7	27.56	27.36	27.12	25.04	23.88	25.07	21.64	15.37	18.25	21.18	22.97	24.01
8	27.55	27.35	27.04	25.05	23.89	24.77	21.57	15.21	18.22	21.31	22.94	24.00
9	27.72	27.39	26.99	25.04	23.98	24.70	21.52	15.07	18.40	21.36	22.90	24.09
10	27.75	27.35	26.92	25.11	24.05	24.53	21.52	15.08	18.66	21.56	23.03	24.14
11	27.69	27.38	26.84	25.26	24.26	24.36	21.45	15.13	18.64	21.81	23.05	24.08
12	27.70	27.44	26.71	25.15	24.32	24.48	21.32	15.25	18.69	22.01	23.15	24.18
13	27.67	27.43	26.72	25.06	24.21	24.21	21.25	15.26	18.77	21.87	23.23	24.19
14	27.57	27.45	26.78	24.94	24.18	23.82	20.84	15.36	19.03	21.93	23.19	24.28
15	27.55	27.57	26.47	25.00	24.17	23.24	20.50	15.53	18.99	21.99	23.22	24.24
16	---	27.61	26.38	24.98	24.16	22.84	19.93	15.74	18.97	22.11	23.23	24.18
17	---	27.53	26.30	24.98	24.35	22.40	19.49	15.84	19.04	22.20	23.13	24.15
18	---	27.50	26.26	24.98	24.33	22.19	19.32	15.99	19.10	22.20	23.29	24.12
19	---	27.58	26.21	24.98	24.31	22.10	19.06	16.17	19.22	22.23	23.29	24.07
20	---	27.64	26.19	24.98	24.39	21.95	18.70	16.29	19.43	22.39	23.33	24.40
21	---	27.63	26.04	24.98	24.36	22.01	18.38	16.37	19.47	22.39	23.28	24.19
22	---	27.62	25.91	24.90	24.29	22.08	18.01	16.47	19.57	22.42	23.51	24.31
23	27.50	27.50	25.84	24.59	24.37	22.14	17.81	16.67	19.62	22.51	24.11	24.34
24	27.43	27.51	25.75	24.42	24.45	22.15	17.40	16.78	19.70	22.60	23.66	24.22
25	27.41	27.50	25.63	24.37	24.41	22.16	16.93	16.90	20.04	22.59	23.53	24.19
26	27.38	27.60	25.57	24.32	24.52	22.25	16.72	17.04	19.98	22.48	23.55	24.38
27	27.41	27.58	25.45	24.32	24.41	22.20	16.41	17.14	20.14	22.44	23.55	24.19
28	27.36	27.48	25.35	24.43	24.44	22.23	16.18	17.43	20.23	22.55	23.69	24.10
29	27.34	27.49	25.35	24.37	24.60	22.07	16.00	17.57	20.36	22.58	23.64	24.14
30	27.35	27.40	25.32	24.04	---	22.05	15.82	17.80	20.38	22.64	23.78	24.29
31	27.55	---	25.33	23.97	---	21.89	---	17.82	---	22.57	23.83	---

WTR YEAR 1992 HIGHEST 15.00 May 9, 1992

LOWEST RECORDED 27.98 Oct. 10, 1991



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 30.9 ft in May 1992, 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.

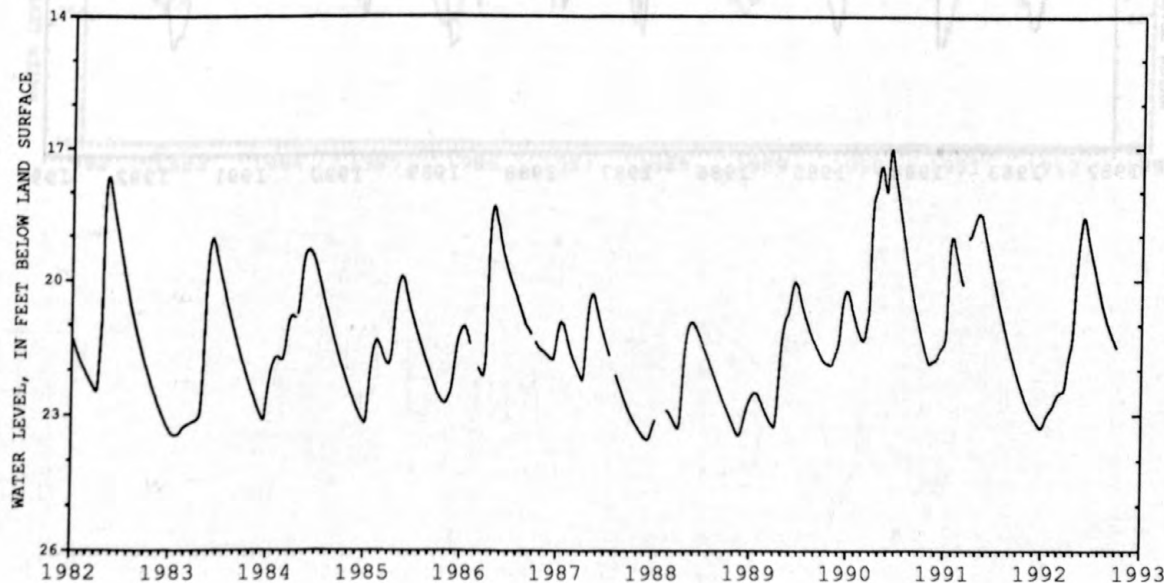
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.87 ft below land-surface datum, May 21, 1972; lowest recorded, 23.58 ft below land-surface datum, Feb. 20, 21, 22, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.22	22.74	23.10	23.24	22.86	22.51	21.90	20.03	18.59	19.53	20.39	21.07
2	22.24	22.76	23.11	23.22	22.85	22.51	21.85	19.91	18.62	19.56	20.43	21.09
3	22.26	22.77	23.11	23.21	22.84	22.50	21.81	19.81	18.65	19.59	20.45	21.10
4	22.28	22.79	23.12	23.19	22.82	22.50	21.77	19.73	18.68	19.62	20.48	21.12
5	22.29	22.80	23.14	23.17	22.82	22.49	21.73	19.64	18.71	19.64	20.51	21.14
6	22.31	22.81	23.14	23.16	22.81	22.49	21.70	19.56	18.73	19.67	20.54	21.16
7	22.33	22.83	23.15	23.14	22.79	22.48	21.67	19.49	18.78	19.71	20.56	21.17
8	22.35	22.84	23.16	23.13	22.78	22.48	21.64	19.41	18.82	19.74	20.58	21.18
9	22.36	22.86	23.17	23.11	22.77	22.48	21.61	19.32	18.86	19.75	20.60	21.19
10	22.38	22.86	23.18	23.09	22.76	22.48	21.59	19.27	18.90	19.78	20.62	21.20
11	22.39	22.87	23.19	23.08	22.74	22.47	21.56	19.22	18.95	19.81	20.64	21.23
12	22.41	22.89	23.20	23.06	22.73	22.48	21.53	19.16	18.98	19.84	20.67	21.25
13	22.43	22.90	23.20	23.04	22.70	22.48	21.51	19.09	19.01	19.86	20.70	21.27
14	22.45	22.92	23.21	23.02	22.69	22.48	21.47	19.04	19.03	19.89	20.72	21.28
15	22.47	22.92	23.22	23.02	22.67	22.47	21.44	18.99	19.08	19.92	20.75	21.30
16	22.49	22.94	23.24	23.01	22.66	22.47	21.41	18.95	19.12	19.95	20.77	21.31
17	22.50	22.95	23.24	22.99	22.65	22.46	21.36	18.89	19.15	19.98	20.79	21.31
18	22.52	22.96	23.25	22.98	22.63	22.46	21.32	18.83	19.17	20.01	20.80	21.33
19	22.54	22.97	23.26	22.97	22.62	22.44	21.26	18.80	19.19	20.04	20.82	21.34
20	22.56	22.98	23.26	22.96	22.61	22.42	21.18	18.75	19.22	20.07	20.84	21.36
21	22.57	22.99	23.26	22.95	22.60	22.40	21.09	18.71	19.25	20.10	20.87	21.37
22	22.59	23.00	23.27	22.95	22.58	22.37	21.00	18.67	19.29	20.13	20.89	21.38
23	22.61	23.01	23.27	22.92	22.57	22.34	20.90	18.63	19.31	20.16	20.91	21.40
24	22.63	23.02	23.28	22.92	22.56	22.30	20.80	18.61	19.33	20.18	20.93	21.43
25	22.64	23.03	23.28	22.92	22.55	22.26	20.69	18.59	19.36	20.21	20.95	21.44
26	22.66	23.05	23.28	22.91	22.53	22.20	20.58	18.57	19.40	20.23	20.97	21.45
27	22.67	23.06	23.28	22.90	22.53	22.15	20.48	18.56	19.43	20.25	20.98	21.46
28	22.69	23.07	23.27	22.89	22.52	22.11	20.37	18.57	19.47	20.28	20.99	21.47
29	22.70	23.08	23.26	22.88	22.52	22.05	20.26	18.59	19.49	20.31	21.01	21.48
30	22.71	23.08	23.26	22.87	---	22.00	20.14	18.59	19.52	20.34	21.03	21.50
31	22.73	---	23.26	22.87	---	21.95	---	18.58	---	20.37	21.05	---

WTR YEAR 1992 HIGHEST 18.55 May 27, 1992

LOWEST 23.28 Dec. 24, 25-27, 28, 1991



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 16.2 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.

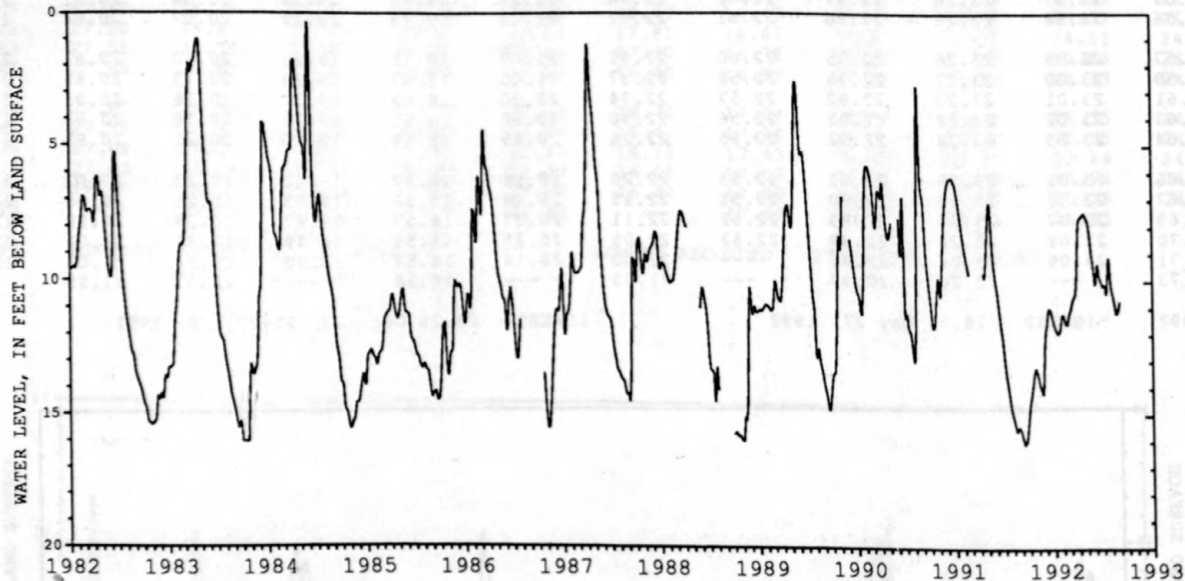
PERIOD OF RECORD.--January 1935 to September 1945, September 1950 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

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 1991 TO SEPTEMBER 1992

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 1991	14.56	DEC 20, 1991	11.00	MAR 26, 1992	9.66	JUL 02, 1992	10.16
11	14.10	26	11.26	APR 01	8.06	08	10.06
25	13.20	JAN 02, 1992	11.56	08	7.61	15	10.41
NOV 01	13.36	17	11.91	MAY 08	7.76	22	9.11
07	13.70 Z	24	11.81	13	8.16	29	9.81
08	13.76	31	11.22	21	8.96	AUG 06	10.41
15	14.00	FEB 13	11.51	28	9.56	13	10.76
22	14.16	20	11.56	JUN 04	10.06	20	11.16
29	12.20	27	11.16	11	9.31	25	11.11
DEC 06	11.56	MAR 05	10.96	18	9.81	SEP 02	10.71
12	10.96	12	10.60	25	9.96		

Z Measured by USGS personnel.



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 15.9 ft in June 1988, stone-lined.

INSTRUMENTATION.--Weekly tape measurement by observer.

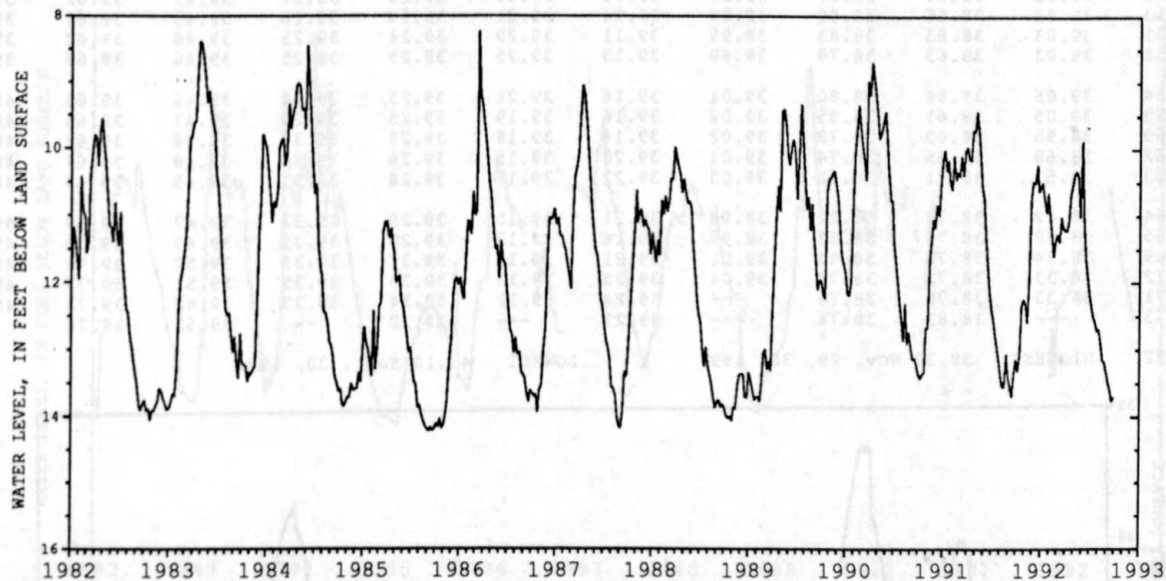
DATUM.--Elevation of land-surface datum is 405 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top edge of concrete curbing at midpoint of north side of rectangular opening, 2.00 ft above land-surface datum.

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 1991 TO SEPTEMBER 1992

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1991	13.31	JAN 04, 1992	10.49	APR 05, 1992	11.21	JUL 05, 1992	12.33
13	13.06	12	10.74	12	11.06	12	12.50
19	12.34	20	10.94	18	10.70	19	12.58
27	12.23	26	10.65	26	10.52	26	12.71
NOV 03	12.31	FEB 02	10.98	MAY 02	10.38	AUG 02	12.69
10	12.59	08	11.25	10	10.32	09	12.89
16	12.00	15	11.60	17	10.40	16	13.14
24	10.74	22	11.36	24	11.01	23	13.18
30	10.48	MAR 01	11.26	JUN 01	9.87	30	13.32
DEC 08	10.50	08	11.38	07	10.99	SEP 06	13.48
17	10.23	15	11.01	14	11.63	13	13.59
22	10.63	22	11.17	21	11.89	20	13.76
30	10.54	29	11.20	28	12.16	27	13.70



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 ft 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. Water level may be affected by nearby pumping.

PERIOD OF RECORD.--October 1982 to current year.

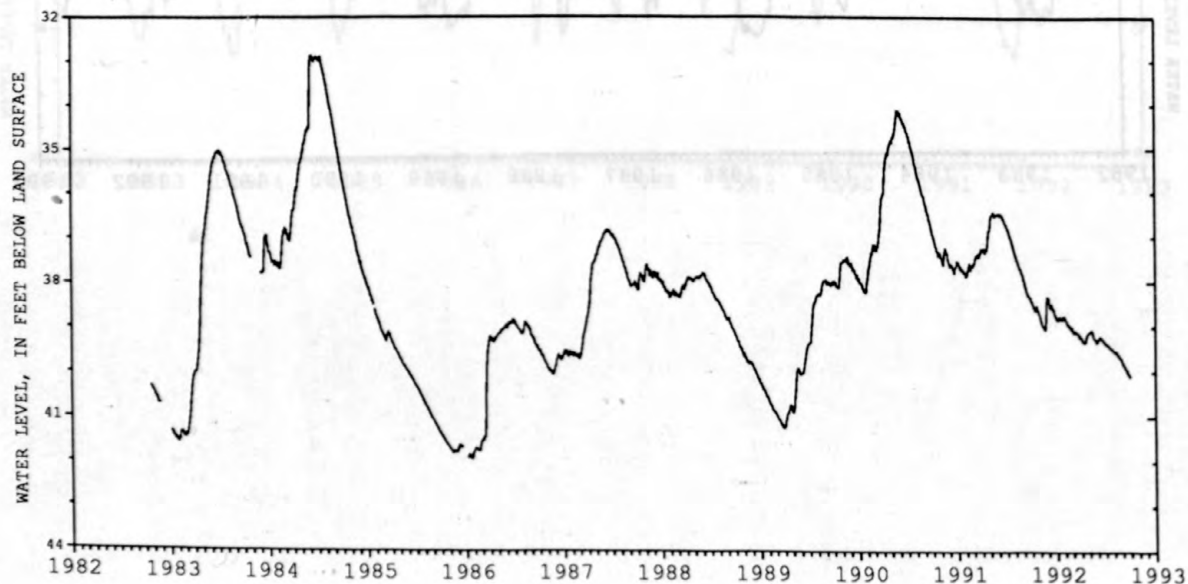
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 32.86 ft below land-surface datum, June 4, 5, 6, 7, 8, 9, July 11, 1984; lowest recorded, 41.93 ft below land-surface datum, Jan. 23, 24, 1986.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38.41	38.75	38.35	38.83	38.78	39.06	39.22	39.13	39.29	39.34	39.52	39.76
2	38.43	38.77	38.38	38.82	38.81	39.09	39.22	39.11	39.28	39.36	39.53	39.78
3	38.44	38.80	38.35	38.81	38.83	39.09	39.24	39.11	39.27	39.38	39.53	39.79
4	38.47	38.83	38.38	38.79	38.80	39.10	39.25	39.10	39.26	39.38	39.53	39.80
5	38.48	38.86	38.48	38.77	38.83	39.11	39.27	39.09	39.27	39.37	39.54	39.82
6	38.50	38.87	38.48	38.78	38.86	39.13	39.29	39.09	39.25	39.38	39.55	39.83
7	38.51	38.89	38.51	38.80	38.85	39.09	39.28	39.09	39.24	39.40	39.55	39.84
8	38.54	38.92	38.55	38.84	38.86	39.08	39.29	39.08	39.22	39.40	39.55	39.84
9	38.56	38.95	38.56	38.79	38.91	39.13	39.31	39.06	39.21	39.37	39.53	39.86
10	38.56	38.95	38.58	38.76	38.94	39.11	39.32	39.07	39.21	39.40	39.53	39.86
11	38.56	38.95	38.56	38.80	38.91	39.06	39.32	39.11	39.22	39.41	39.54	39.88
12	38.58	38.98	38.55	38.83	38.96	39.10	39.32	39.10	39.22	39.42	39.57	39.89
13	38.61	38.98	38.49	38.79	38.94	39.12	39.34	39.08	39.21	39.40	39.59	39.91
14	38.63	38.99	38.47	38.74	38.94	39.11	39.32	39.11	39.21	39.42	39.59	39.92
15	38.63	38.98	38.52	38.82	38.95	39.12	39.33	39.17	39.24	39.44	39.60	39.93
16	38.64	38.99	38.54	38.80	38.93	39.13	39.34	39.20	39.27	39.45	39.61	39.93
17	38.59	39.02	38.54	38.77	39.00	39.10	39.30	39.20	39.27	39.45	39.62	39.94
18	38.53	39.02	38.55	38.80	38.99	39.14	39.31	39.19	39.26	39.45	39.61	39.95
19	38.51	39.03	38.63	38.83	38.95	39.11	39.29	39.24	39.25	39.46	39.62	39.97
20	38.53	39.03	38.63	38.79	38.99	39.13	39.25	39.25	39.25	39.46	39.63	39.99
21	38.54	39.05	38.58	38.80	39.01	39.16	39.21	39.25	39.28	39.46	39.65	40.00
22	38.55	39.05	38.61	38.85	39.02	39.16	39.19	39.25	39.29	39.47	39.66	40.00
23	38.60	38.95	38.60	38.78	39.02	39.16	39.18	39.25	39.30	39.48	39.67	40.02
24	38.62	38.69	38.65	38.74	39.04	39.20	39.15	39.26	39.29	39.48	39.68	40.04
25	38.63	38.51	38.71	38.82	39.03	39.22	39.15	39.28	39.31	39.49	39.68	40.05
26	38.64	38.42	38.74	38.82	38.98	39.21	39.15	39.29	39.33	39.47	39.69	40.05
27	38.65	38.38	38.76	38.82	38.99	39.16	39.13	39.29	39.33	39.47	39.70	40.05
28	38.69	38.34	38.76	38.80	39.01	39.21	39.13	39.31	39.35	39.50	39.70	40.07
29	38.72	38.33	38.72	38.78	39.04	39.23	39.13	39.33	39.35	39.51	39.71	40.08
30	38.71	38.33	38.78	38.76	---	39.24	39.12	39.34	39.33	39.52	39.73	40.10
31	38.73	---	38.83	38.74	---	39.23	---	39.32	---	39.52	39.74	---

WTR YEAR 1992 HIGHEST 38.32 Nov. 29, 30, 1991

LOWEST 40.10 Sept. 30, 1992



GROUND-WATER LEVELS

347

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.

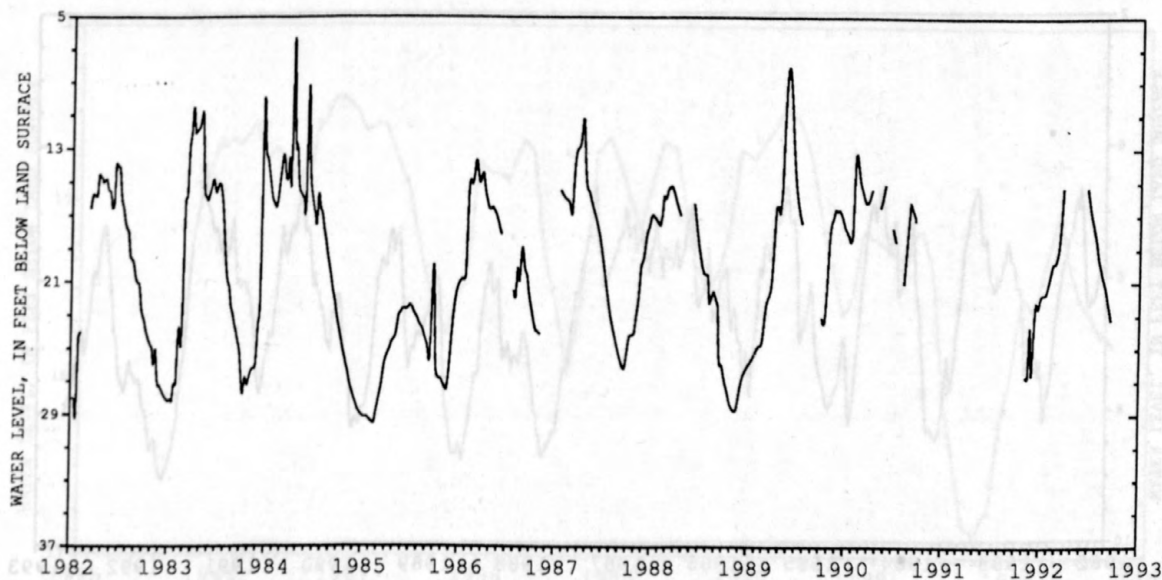
PERIOD OF RECORD.--July 1949 to September 1990, November 1991 to current year.

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 1991 TO SEPTEMBER 1992

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 05, 1991	26.60	DEC 31, 1991	21.70	MAR 06, 1992	18.78	JUL 24, 1992	18.56
12	26.71	JAN 08, 1992	21.65	13	17.31	31	19.45
13	26.74 Z	16	21.65	20	15.25	AUG 07	19.95
22	23.66	24	21.23	JUN 18	15.23	14	20.49
27	26.24	30	20.81	26	16.14	28	21.38
DEC 06	23.80	FEB 07	20.21	JUL 03	16.85	SEP 04	22.08
13	22.10	14	19.75	10	17.34	11	22.64
19	22.49	21	19.75	17	17.94	17	23.20
27	21.96	28	19.44				

Z Measured by USGS personnel.



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: Chiseled mark on top edge of 6-in. by 8-in. opening of concrete well cover, 0.65 ft above land-surface datum.

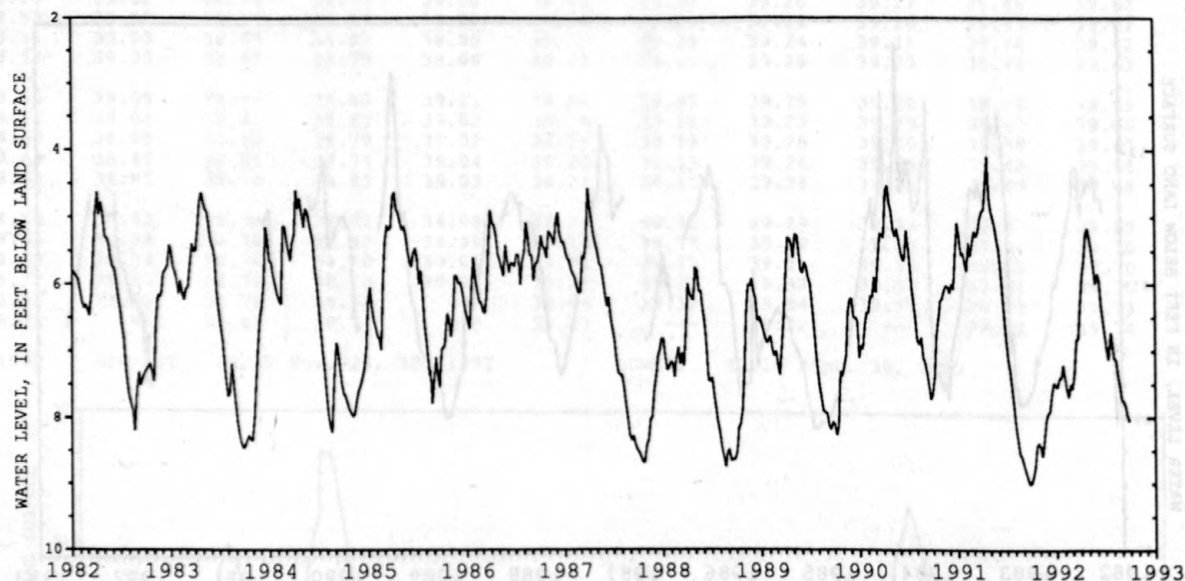
PERIOD OF RECORD.--May 1953 to current year.

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 1991 TO SEPTEMBER 1992

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1991	8.90	JAN 05, 1992	7.54	APR 12, 1992	5.62	JUL 12, 1992	7.12
13	8.76	12	7.40	19	5.23	19	6.79
18	8.54 Z	19	7.40	26	5.16	22	6.72 Z
20	8.43	26	7.20	MAY 03	5.31	26	6.88
27	8.38	FEB 02	7.39	10	5.48	AUG 02	7.10
NOV 03	8.43	09	7.57	17	5.72	09	7.13
10	8.58	16	7.68	24	5.98	16	7.35
17	8.33	23	7.49	31	5.83	23	7.51
24	8.03	MAR 01	7.56	JUN 07	5.91	30	7.72
DEC 01	7.93	08	7.33	14	6.28	SEP 06	7.75
08	7.90	15	6.82	21	6.51	13	7.82
15	7.64	22	6.82	28	6.74	20	7.97
22	7.47	29	6.29	JUL 05	6.97	27	8.05
29	7.50	APR 05	5.87				

Z Measured by USGS personnel.



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.

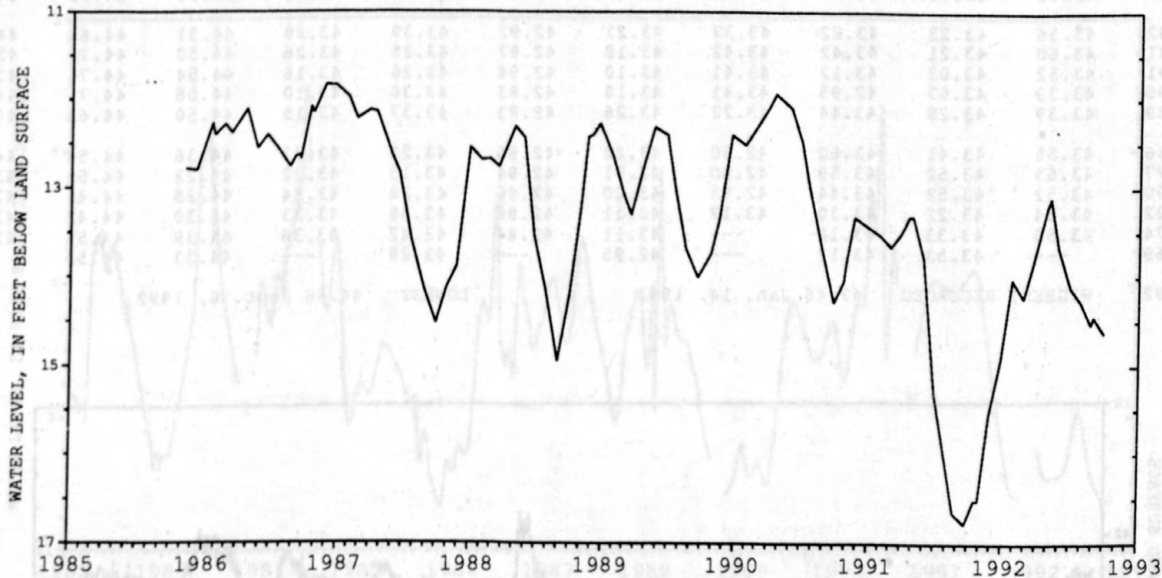
PERIOD OF RECORD.--June 1958 to November 1964, November 1985 to current year. Records prior to November 1985 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.83 ft below land-surface datum, Nov. 24, 1986; lowest measured, 16.77 ft below land-surface datum, Sept. 24, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 1991	16.51 Z	JAN 24, 1992	14.01	MAY 06, 1992	13.10 Z	AUG 24, 1992	14.52
29	16.51	FEB 24	14.22	27	13.64	31	14.43 Z
NOV 25	15.54	MAR 23	13.78	JUN 29	14.10	SEP 29	14.62
DEC 26	14.90	APR 27	13.19	JUL 27	14.26		

Z Measured by USGS personnel.



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 288 ft as of March 1989, filled in from original depth of 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.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44.02	43.68	43.55	43.41	43.29	43.25	42.90	42.93	43.00	43.42	44.29	44.54
2	43.92	43.63	43.55	43.25	43.40	43.39	42.90	42.79	42.90	43.57	44.42	44.58
3	43.92	43.75	43.19	43.23	43.38	43.24	42.94	42.74	---	43.66	44.37	44.46
4	44.02	43.74	43.14	43.17	43.11	43.28	43.01	42.81	---	43.69	44.36	44.55
5	44.01	43.67	43.55	43.10	43.18	43.29	43.15	42.84	---	43.73	44.47	44.68
6	43.92	43.59	43.47	43.04	43.34	43.41	43.23	42.98	---	43.75	44.62	44.75
7	43.89	43.66	43.38	43.05	43.26	43.21	43.08	43.05	---	43.92	44.65	44.59
8	43.93	43.79	43.43	43.28	43.28	43.09	43.09	43.00	---	43.98	44.62	44.28
9	43.94	43.90	43.29	43.15	43.64	43.16	43.23	42.98	---	43.84	44.52	44.21
10	43.84	43.78	43.37	43.06	43.78	42.91	43.25	43.01	42.85	43.93	44.40	44.14
11	43.75	43.48	43.42	43.26	43.37	42.64	43.22	43.15	42.99	43.97	44.31	44.24
12	43.74	43.45	43.52	43.42	43.58	42.84	43.21	43.11	43.01	44.07	44.44	44.38
13	43.96	43.42	43.32	43.17	43.44	43.02	43.36	43.00	43.00	43.95	44.55	44.40
14	43.98	43.56	43.19	42.71	43.38	43.08	43.13	43.09	43.04	43.98	44.54	44.29
15	43.80	43.56	43.30	43.07	43.45	43.19	43.16	43.25	43.11	44.01	44.57	44.12
16	43.75	43.60	43.38	43.14	43.29	43.25	43.20	43.31	43.11	44.12	44.59	44.01
17	43.81	43.85	43.31	43.13	43.56	43.00	42.99	43.24	43.14	44.17	44.50	43.93
18	43.76	43.75	43.31	43.30	43.38	43.17	43.08	43.21	43.15	44.19	44.37	43.89
19	43.82	43.57	43.65	43.49	43.14	43.05	43.10	43.38	43.08	44.31	44.41	43.94
20	43.96	43.48	43.60	43.31	43.30	43.07	43.05	43.36	43.12	44.30	44.51	44.11
21	43.92	43.56	43.23	43.22	43.37	43.21	42.92	43.39	43.28	44.31	44.66	44.08
22	43.81	43.60	43.21	43.42	43.42	43.18	42.87	43.35	43.26	44.50	44.75	43.80
23	43.91	43.52	43.03	43.12	43.41	43.10	42.94	43.26	43.16	44.54	44.78	43.97
24	43.95	43.39	43.07	42.95	43.41	43.18	42.83	43.36	43.10	44.56	44.71	44.20
25	43.89	43.39	43.28	43.44	43.22	43.26	42.83	43.37	43.15	44.50	44.63	44.19
26	43.86	43.55	43.41	43.60	42.90	43.22	42.86	43.21	43.23	44.36	44.58	44.08
27	43.77	43.65	43.52	43.59	42.90	42.91	42.84	43.15	43.22	44.22	44.50	43.97
28	43.90	43.52	43.52	43.44	42.95	43.00	42.86	43.28	43.34	44.25	44.40	43.94
29	43.92	43.54	43.22	43.30	43.12	43.11	42.86	43.38	43.33	44.30	44.42	43.83
30	43.74	43.50	43.33	43.18	---	43.11	42.84	43.42	43.36	44.39	44.53	43.90
31	43.69	---	43.53	43.12	---	42.95	---	43.28	---	44.33	44.53	---

WTR YEAR 1992 HIGHEST RECORDED 42.48 Jan. 14, 1992

LOWEST 44.86 Sept. 6, 1992



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 19.8 ft, filled in from original depth of 24 ft, cased to 21 ft, 2-in. well point (30-gauze screen 21 ft to 24 ft).

INSTRUMENTATION.--Monthly tape measurement by observer and tape measurement by USGS personnel every six weeks.

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 pumping from adjacent wells.

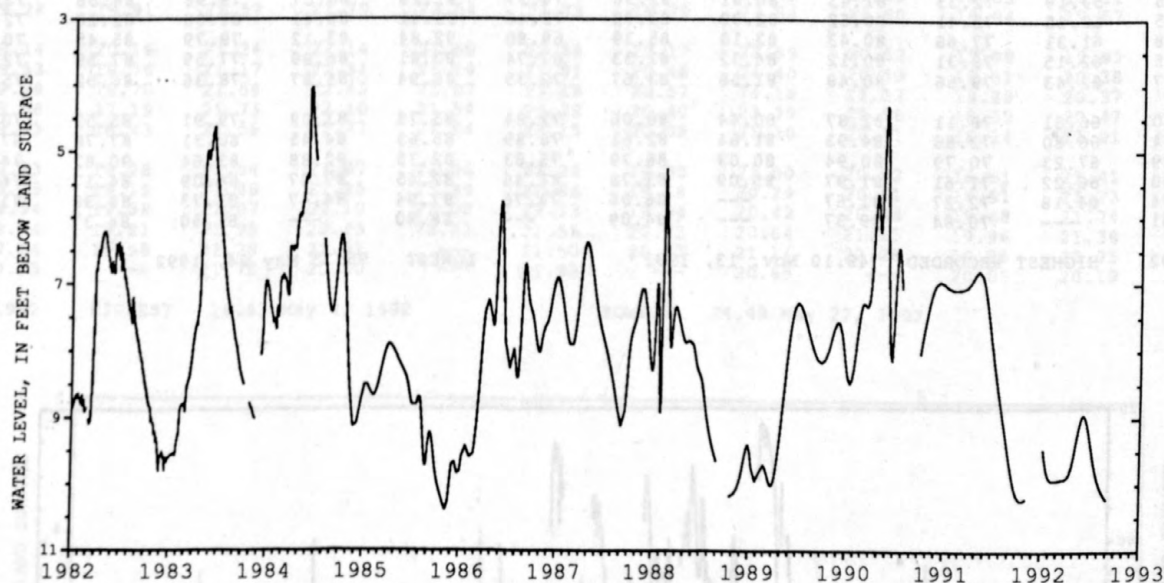
PERIOD OF RECORD.--July 1959 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

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 1991 TO SEPTEMBER 1992

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1991	10.14 Z	JAN 13, 1992	9.60	APR 23, 1992	9.70 Z	JUL 13, 1992	9.65 Z
NOV 06	10.19 Z	FEB 12	9.92 Z	JUN 04	8.93 Z	SEP 01	10.21 Z
JAN 08, 1992	9.44 Z	MAR 17	9.90 Z				

Z Measured by USGS personnel.



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 180 ft, cased to 180 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, 96.56 ft below land-surface datum, June 26, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64.59	53.40	63.05	68.10	80.60	84.79	81.27	83.09	82.45	88.00	79.85	80.88
2	61.55	51.38	64.56	64.18	81.34	86.08	80.38	80.77	83.54	87.78	81.21	78.29
3	61.22	52.89	64.08	61.63	78.76	85.14	85.51	86.53	82.54	89.70	83.42	80.28
4	60.98	51.91	65.00	64.12	79.56	85.11	83.05	80.76	87.24	83.52	81.89	76.14
5	58.03	51.21	66.66	69.03	81.34	84.37	85.33	78.70	83.57	80.12	80.70	77.04
6	54.91	51.53	66.55	72.64	79.58	83.56	86.88	80.35	81.67	77.78	81.14	79.12
7	57.93	52.60	67.45	70.13	79.88	85.04	82.49	83.32	82.23	79.71	85.05	76.11
8	60.11	54.30	67.58	73.09	79.05	85.10	87.16	80.56	85.89	84.57	84.92	79.89
9	61.50	55.64	67.06	72.78	82.42	86.79	82.75	76.65	81.13	81.79	81.52	79.75
10	61.49	56.79	66.76	75.13	83.65	81.61	86.35	85.45	82.53	87.20	80.43	76.87
11	58.25	53.86	68.34	73.91	80.42	83.29	83.87	83.07	85.71	85.32	81.54	73.69
12	58.97	52.07	70.02	76.48	79.98	83.34	87.61	87.46	85.89	85.11	81.17	71.85
13	65.56	49.85	70.21	78.67	79.46	83.72	90.44	87.88	88.56	84.29	80.14	72.78
14	62.53	---	67.75	74.99	76.42	82.99	82.88	86.13	90.24	81.89	83.15	79.63
15	59.42	---	73.95	76.53	79.00	83.43	79.24	83.83	91.71	80.60	82.30	74.02
16	56.58	53.31	72.44	77.21	79.37	85.64	76.80	84.74	88.18	77.90	86.82	71.86
17	56.54	56.17	73.91	75.99	80.68	81.49	77.59	82.40	88.53	80.71	89.17	79.43
18	56.34	58.08	71.34	78.20	82.36	84.63	74.95	85.38	86.67	78.49	88.66	75.34
19	54.39	59.30	73.50	77.76	81.47	81.78	76.14	84.88	83.80	79.58	84.74	76.33
20	54.44	57.29	74.26	80.30	80.55	84.72	72.32	86.55	80.66	81.13	83.51	74.40
21	58.75	59.19	72.33	81.43	80.81	82.56	74.37	91.28	80.07	79.98	84.56	77.54
22	58.95	60.65	75.41	80.62	82.09	83.79	72.46	93.41	86.41	81.88	82.28	72.13
23	56.08	61.31	77.66	80.43	83.10	85.39	69.80	92.84	83.12	79.79	85.45	70.95
24	56.75	62.15	78.31	80.12	84.32	81.33	67.74	90.81	86.99	77.59	87.59	72.78
25	57.17	62.43	79.56	80.48	81.58	83.67	72.35	88.94	85.87	78.36	86.52	75.00
26	59.20	66.61	78.11	82.87	80.44	86.06	72.84	85.78	83.08	79.91	85.51	70.12
27	57.74	66.80	72.86	84.93	81.64	82.61	78.89	85.65	84.45	80.31	87.78	67.77
28	58.29	67.23	70.79	80.94	80.03	86.79	75.83	82.75	82.88	83.64	90.81	74.46
29	60.40	66.22	71.61	81.97	85.09	83.78	81.46	82.45	87.07	84.09	84.17	76.23
30	59.44	64.18	72.27	81.67	---	86.06	78.76	87.94	84.47	81.73	80.38	71.01
31	56.61	---	70.84	79.37	---	84.09	---	88.90	---	81.50	84.37	---

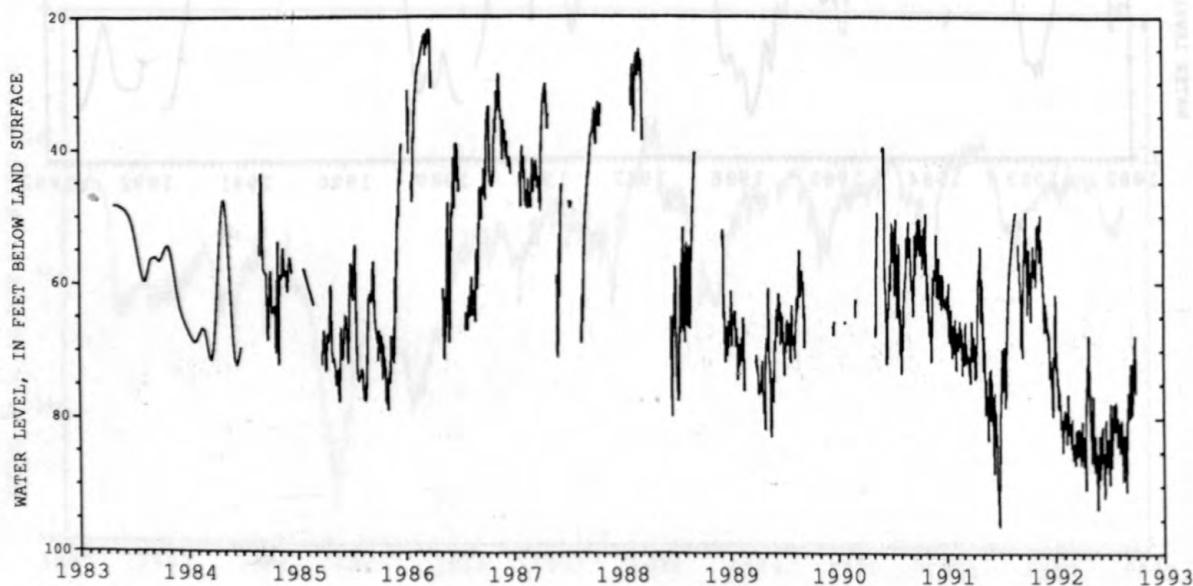
WTR YEAR 1992

HIGHEST RECORDED

49.10 Nov. 13, 1991

LOWEST

95.35 May 24, 1992



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 17.436 Mgal/d in 1992) 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.

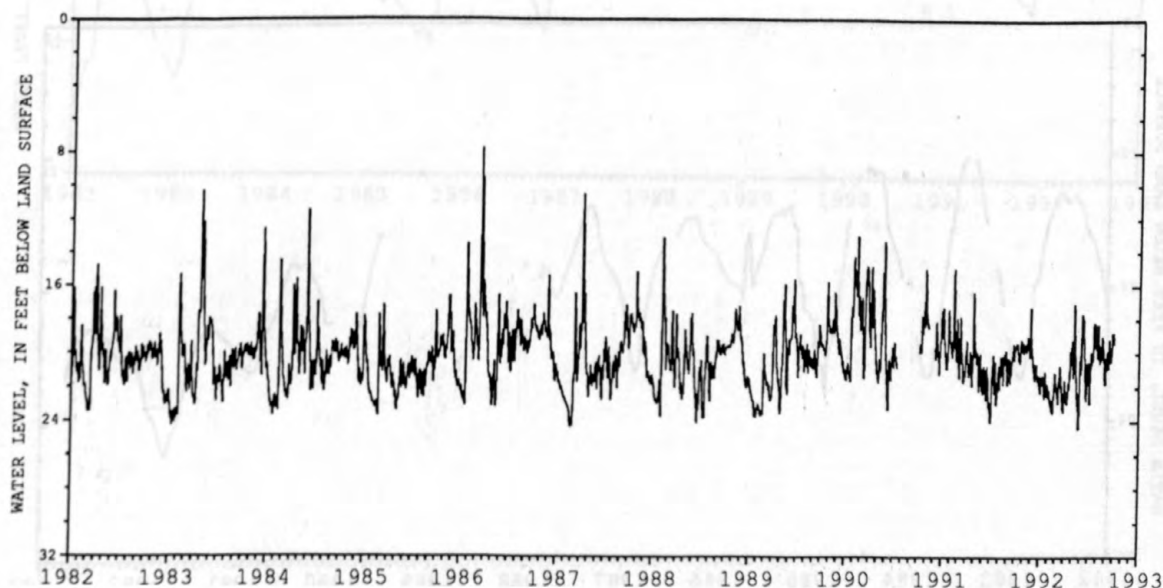
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.62 ft below land-surface datum, Dec. 27, 1973; lowest, 31.27 ft below land-surface datum, Feb. 10, 1966.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.42	19.61	20.15	21.24	22.09	21.88	22.16	20.98	18.29	22.69	19.12	20.53
2	19.48	19.75	20.39	21.55	22.13	22.42	22.06	21.35	17.66	22.92	18.27	20.70
3	19.55	19.40	20.71	21.50	22.63	22.48	22.28	19.73	17.64	22.81	19.33	20.93
4	19.33	19.69	20.50	21.74	22.75	22.51	22.15	17.02	18.31	20.86	19.63	20.33
5	19.56	19.74	20.94	21.58	22.56	22.85	22.57	17.50	18.81	19.92	19.42	19.80
6	19.54	19.56	20.96	21.79	22.88	22.87	22.82	18.04	17.93	19.86	19.84	20.24
7	19.33	19.84	21.06	21.60	23.07	22.43	22.91	18.84	17.84	20.04	20.36	20.00
8	19.75	19.56	21.25	21.22	22.69	21.85	22.73	19.36	18.38	20.77	20.55	20.42
9	19.94	19.38	21.52	21.55	22.63	21.39	22.84	19.90	18.99	20.37	20.11	20.84
10	19.96	19.43	21.19	21.52	23.06	21.29	22.80	20.35	19.08	20.31	19.82	20.53
11	20.36	19.79	20.56	21.70	23.26	21.31	22.38	20.86	19.76	20.21	19.51	19.91
12	20.09	19.30	20.90	22.06	23.32	20.67	21.87	21.42	20.22	20.17	20.40	19.15
13	20.04	18.94	20.93	22.25	23.06	20.93	21.65	21.72	20.24	20.43	20.30	19.32
14	20.09	19.54	21.00	22.57	23.37	20.79	21.61	22.11	21.05	20.03	20.19	19.77
15	20.50	19.37	20.54	21.94	23.45	21.20	21.81	22.58	21.53	19.15	19.30	19.82
16	20.23	19.13	20.60	21.23	23.14	21.22	22.07	23.00	21.73	18.30	18.97	20.51
17	20.35	19.01	21.16	20.99	23.13	21.46	21.74	22.49	22.34	18.33	19.52	20.04
18	19.52	19.06	21.37	21.23	22.41	22.05	21.31	22.47	22.70	18.14	19.26	20.15
19	19.32	19.60	21.19	21.75	22.31	22.42	20.55	22.68	22.49	18.53	19.11	20.47
20	19.28	19.91	21.57	21.79	22.04	22.73	19.79	23.54	21.60	18.94	19.57	20.09
21	19.14	20.16	21.24	22.14	21.60	22.59	20.17	23.99	20.52	19.58	19.65	20.07
22	19.53	19.76	21.17	22.31	21.19	22.81	20.46	24.40	20.53	19.61	20.38	20.09
23	19.29	18.70	21.58	22.43	21.07	23.18	20.57	24.16	21.17	19.38	20.37	19.50
24	19.56	17.19	21.73	22.10	21.54	23.28	20.40	23.39	21.26	18.55	20.47	18.77
25	19.83	18.43	21.55	21.77	21.64	23.15	20.08	21.30	20.51	18.24	21.01	18.93
26	19.53	19.28	21.94	21.67	22.06	23.38	19.30	21.00	20.92	18.61	21.41	18.78
27	19.25	19.19	21.86	21.85	21.99	22.86	19.18	20.29	20.61	18.91	21.73	18.83
28	19.54	19.58	22.07	22.19	22.08	22.13	19.84	20.42	20.48	19.68	21.74	18.98
29	19.94	19.81	21.95	22.23	22.23	21.55	20.43	20.04	21.15	19.86	21.36	19.16
30	19.64	19.98	22.26	22.51	---	21.50	20.65	21.16	22.28	20.25	20.25	19.43
31	19.83	---	21.78	22.50	---	21.93	---	20.85	---	20.05	20.19	---

WTR YEAR 1992 HIGHEST 16.83 May 4, 1992

LOWEST 24.48 May 22, 1992



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 45.6 ft, cased to unknown depth, filled in from original depth of 67 ft.

INSTRUMENTATION.--Water-stage recorder--hourly punch.

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.

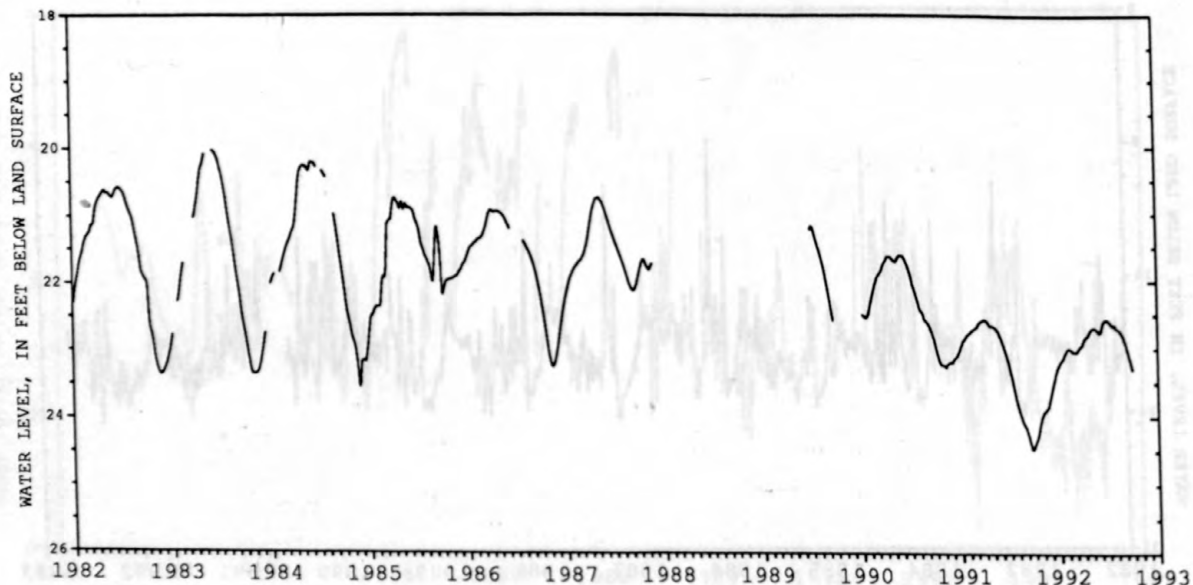
PERIOD OF RECORD.--October 1954 to September 1987, January 1990 to current year. Records prior to October 1976 and intermittent records for 1988 and 1989 water years are unpublished and available in files of the Geological Survey.

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.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.40	23.96	23.69	23.24	23.00	23.04	22.89	22.71	22.76	22.57	22.69	22.88
2	24.39	23.95	23.68	23.23	23.00	23.04	22.88	22.70	22.76	22.57	22.69	22.89
3	24.38	23.94	23.66	23.22	23.00	23.04	22.87	22.70	22.75	22.58	22.69	22.90
4	24.37	23.93	23.64	23.21	22.99	23.04	22.86	22.70	22.75	22.58	22.70	22.91
5	24.36	23.93	23.62	23.21	22.99	23.04	22.86	22.69	22.74	22.58	22.70	22.92
6	24.35	23.92	23.60	23.20	22.99	23.04	22.85	22.69	22.74	22.59	22.70	22.94
7	24.34	23.91	23.58	23.19	22.99	23.04	22.84	22.69	22.72	22.59	22.70	22.95
8	24.33	23.91	23.57	23.18	22.99	23.04	22.84	22.69	22.70	22.60	22.70	22.97
9	24.32	23.90	23.55	23.17	22.99	23.04	22.83	22.69	22.68	22.60	22.70	22.98
10	24.31	23.90	23.54	23.17	22.99	23.03	22.83	22.69	22.66	22.60	22.71	23.00
11	24.30	23.90	23.52	23.17	22.99	23.03	22.83	22.69	22.65	22.61	22.71	23.01
12	24.29	23.89	23.51	23.16	22.99	23.02	22.82	22.69	22.63	22.61	22.71	23.03
13	24.27	23.89	23.49	23.16	23.00	23.01	22.82	22.69	22.62	22.62	22.72	23.04
14	24.26	23.88	23.48	23.15	23.00	23.01	22.81	22.69	22.61	22.63	22.72	23.05
15	24.25	23.87	23.46	23.15	23.00	23.00	22.81	22.69	22.60	22.64	22.73	23.07
16	24.23	23.87	23.44	23.14	23.01	22.99	22.81	22.69	22.59	22.64	22.74	23.09
17	24.21	23.87	23.42	23.14	23.01	22.98	22.80	22.70	22.59	22.65	22.74	23.11
18	24.19	23.86	23.41	23.13	23.02	22.98	22.80	22.70	22.58	22.65	22.75	23.12
19	24.16	23.86	23.39	23.12	23.02	22.97	22.79	22.70	22.58	22.65	22.75	23.13
20	24.14	23.85	23.37	23.11	23.02	22.97	22.79	22.71	22.57	22.64	22.76	23.14
21	24.12	23.85	23.36	23.10	23.03	22.96	22.77	22.71	22.57	22.65	22.77	23.15
22	24.10	23.85	23.34	23.09	23.03	22.96	22.77	22.71	22.57	22.65	22.78	23.17
23	24.08	23.84	23.33	23.08	23.03	22.96	22.76	22.72	22.57	22.65	22.78	23.19
24	24.07	23.82	23.31	23.07	23.04	22.96	22.75	22.72	22.57	22.66	22.79	23.22
25	24.05	23.80	23.30	23.06	23.04	22.95	22.74	22.73	22.56	22.64	22.80	23.23
26	24.04	23.77	23.29	23.05	23.04	22.95	22.74	22.73	22.56	22.64	22.81	23.24
27	24.02	23.76	23.28	23.04	23.04	22.95	22.73	22.74	22.57	22.65	22.82	23.25
28	24.00	23.74	23.27	23.04	23.04	22.94	22.72	22.74	22.57	22.65	22.83	23.27
29	23.99	23.73	23.26	23.03	23.04	22.93	22.72	22.75	22.57	22.66	22.84	23.29
30	23.98	23.71	23.25	23.02	---	22.91	22.71	22.76	22.57	22.68	22.86	23.30
31	23.97	---	23.24	23.01	---	22.90	---	22.76	---	22.68	22.87	---

WTR YEAR 1992 HIGHEST 22.56 June 24, 25-26, 27, 1992 LOWEST 24.41 Oct. 1, 1991



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 33.4 ft in October 1990, cased to 34 ft, 2-in. well point (60-gauze screen 34 ft to 36 ft).

INSTRUMENTATION.--Bi-weekly tape measurement by observer through March 1992, and tape measurement by USGS personnel every six weeks.

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.

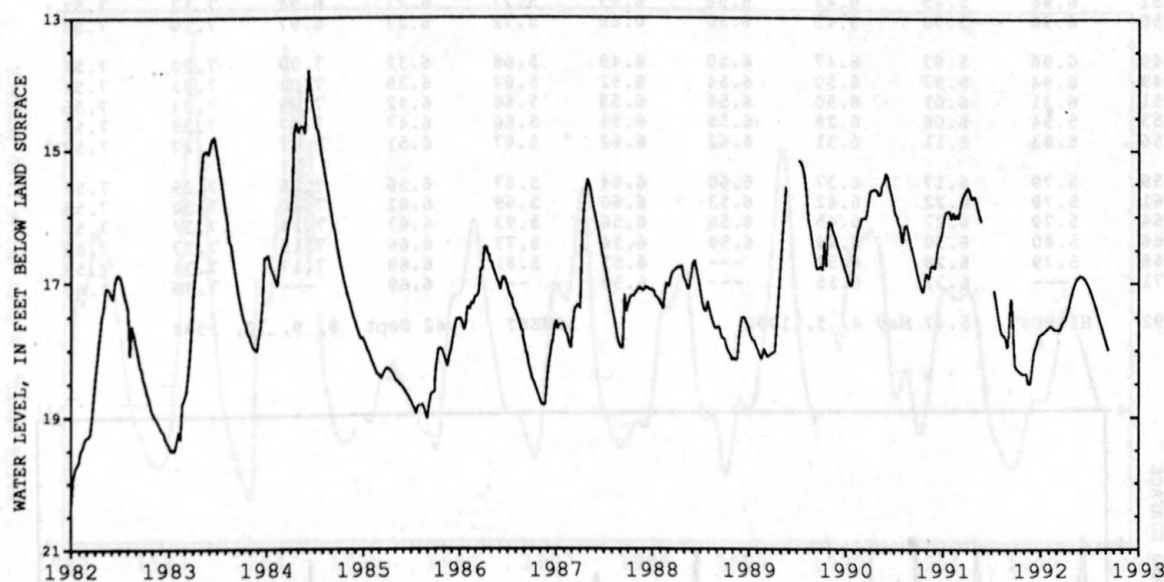
PERIOD OF RECORD.--October 1964 to July 1965, March 1966 to December 1974, April 1976 to current year. Records prior to October 1976 are unpublished and available in files of the Geological Survey.

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 1991 TO SEPTEMBER 1992

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08, 1991	18.29 Z	DEC 06, 1991	18.04	FEB 04, 1992	17.63 Z	MAR 27, 1992	17.56
11	18.30	18	17.88 Z	07	17.63	APR 30	17.09
25	18.35	20	17.84	21	17.68	JUN 04	16.89
NOV 08	18.34	27	17.77	MAR 06	17.69	JUL 22	17.32
14	18.48 Z	JAN 10, 1992	17.73	19	17.62 Z	SEP 09	17.99
22	18.50	24	17.68	20	17.60		

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 15.2 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.

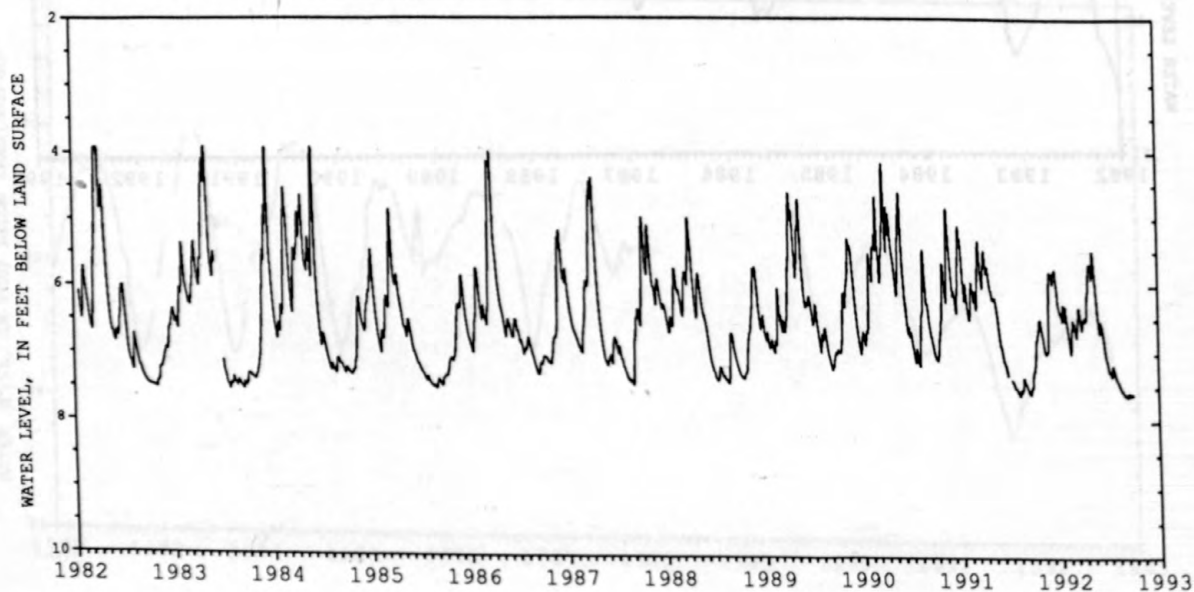
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 3.82 ft below land-surface datum, Mar. 25, 1986; lowest recorded, 7.75 ft below land-surface datum, Aug. 26, 27-29, 30, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.26	6.73	5.81	6.34	6.58	6.63	6.48	5.85	6.58	7.19	7.36	7.60
2	7.22	6.75	5.82	6.37	6.62	6.67	6.47	5.88	6.53	7.22	7.36	7.61
3	7.20	6.78	5.83	6.39	6.66	6.69	6.46	5.63	6.52	7.24	7.37	7.61
4	7.17	6.81	5.83	6.40	6.68	6.71	6.46	5.49	6.54	7.26	7.39	7.59
5	7.14	6.83	5.86	6.38	6.72	6.73	6.47	5.47	6.56	7.26	7.40	7.58
6	7.09	6.86	5.89	6.37	6.74	6.74	6.48	5.49	6.57	7.25	7.41	7.59
7	6.95	6.88	5.93	6.38	6.77	6.73	6.50	5.54	6.58	7.25	7.42	7.60
8	6.84	6.91	5.96	6.41	6.80	6.63	6.50	5.58	6.60	7.27	7.43	7.61
9	6.80	6.94	5.93	6.43	6.82	6.58	6.50	5.63	6.63	7.26	7.44	7.62
10	6.78	6.96	5.82	6.44	6.85	6.55	6.49	5.69	6.66	7.27	7.45	7.62
11	6.78	6.98	5.78	6.46	6.88	6.48	6.48	5.75	6.69	7.29	7.46	7.58
12	6.75	6.97	5.78	6.49	6.91	6.36	6.33	5.81	6.72	7.30	7.47	7.56
13	6.72	6.98	5.78	6.51	6.94	6.32	6.18	5.86	6.75	7.32	7.48	7.56
14	6.70	6.99	5.78	6.41	6.97	6.31	6.11	5.93	6.78	7.32	7.49	7.56
15	6.69	6.99	5.76	6.26	6.99	6.32	6.08	5.99	6.81	7.26	7.50	7.57
16	6.66	6.98	5.74	6.30	6.80	6.35	6.08	6.05	6.84	7.18	7.51	7.58
17	6.60	6.97	5.76	6.35	6.66	6.37	6.01	6.10	6.87	7.16	7.51	7.59
18	6.54	6.96	5.79	6.39	6.64	6.40	5.85	6.14	6.91	7.16	7.52	7.61
19	6.51	6.96	5.85	6.42	6.56	6.43	5.77	6.21	6.94	7.17	7.52	7.60
20	6.50	6.96	5.90	6.45	6.50	6.46	5.72	6.27	6.97	7.19	7.53	7.60
21	6.49	6.96	5.93	6.47	6.50	6.49	5.68	6.32	7.00	7.20	7.54	7.60
22	6.49	6.94	5.97	6.50	6.54	6.52	5.67	6.38	7.02	7.22	7.54	7.61
23	6.51	6.31	6.01	6.50	6.58	6.55	5.66	6.42	7.05	7.24	7.55	7.58
24	6.53	5.94	6.06	6.28	6.59	6.59	5.66	6.47	7.07	7.25	7.56	7.57
25	6.56	5.83	6.11	6.31	6.62	6.62	5.67	6.51	7.07	7.27	7.57	7.57
26	6.59	5.79	6.17	6.37	6.60	6.64	5.67	6.56	7.08	7.29	7.57	7.58
27	6.61	5.79	6.22	6.42	6.53	6.60	5.69	6.61	7.10	7.30	7.58	7.58
28	6.64	5.79	6.27	6.45	6.56	6.56	5.73	6.63	7.13	7.32	7.58	7.59
29	6.66	5.80	6.30	6.49	6.59	6.54	5.77	6.66	7.15	7.33	7.59	7.60
30	6.68	5.79	6.28	6.52	---	6.51	5.81	6.69	7.17	7.35	7.59	7.60
31	6.71	---	6.31	6.55	---	6.50	---	6.69	---	7.36	7.60	---

WTR YEAR 1992 HIGHEST 5.47 May 4, 5, 1992

LOWEST 7.62 Sept. 8, 9, 10, 1992



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 17.1 ft, 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 every six weeks.

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.

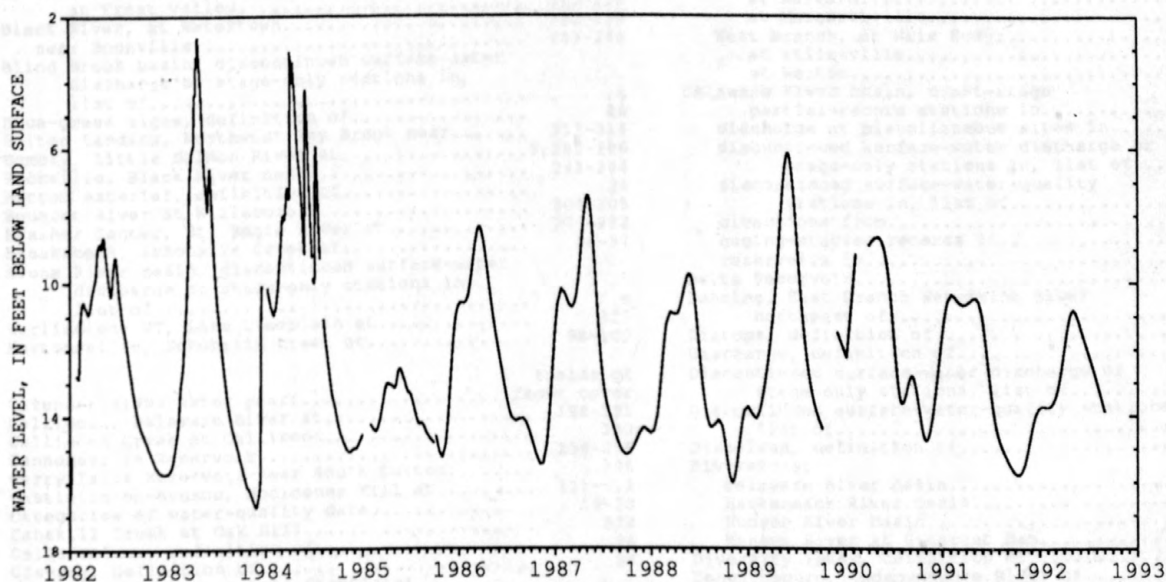
PERIOD OF RECORD.--April 1934 to September 1937, April 1938 to September 1945, March 1951 to current year.

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 1991 TO SEPTEMBER 1992

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1991	15.74	FEB 03, 1992	13.74	APR 28, 1992	10.87	JUL 15, 1992	12.49
NOV 07	15.47	MAR 17	12.86	JUN 01	11.34	AUG 31	13.87
DEC 16	14.00						



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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).

Multiply inch-pound units	By	To obtain SI units
<i>Length</i>		
inches (in)	2.54×10^1	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^0	kilometers (km)
<i>Area</i>		
acres	4.047×10^3	square meters (m ²)
	4.047×10^{-1}	square hectometers (hm ²)
	4.047×10^{-3}	square kilometers (km ²)
square miles (mi ²)	2.590×10^0	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785×10^0	liters (L)
	3.785×10^0	cubic decimeters (dm ³)
	3.785×10^{-3}	cubic meters (m ³)
million gallons	3.785×10^3	cubic meters (m ³)
	3.785×10^{-3}	cubic hectometers (hm ³)
cubic feet (ft ³)	2.832×10^1	cubic decimeters (dm ³)
	2.832×10^{-2}	cubic meters (m ³)
cfs-days	2.447×10^3	cubic meters (m ³)
	2.447×10^{-3}	cubic hectometers (hm ³)
acre-feet (acre-ft)	1.233×10^3	cubic meters (m ³)
	1.233×10^{-3}	cubic hectometers (hm ³)
	1.233×10^{-6}	cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	2.832×10^1	liters per second (L/s)
	2.832×10^1	cubic decimeters per second (dm ³ /s)
	2.832×10^{-2}	cubic meters per second (m ³ /s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm ³ /s)
	6.309×10^{-5}	cubic meters per second (m ³ /s)
million gallons per day	4.381×10^1	cubic decimeters per second (dm ³ /s)
	4.381×10^{-2}	cubic meters per second (m ³ /s)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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