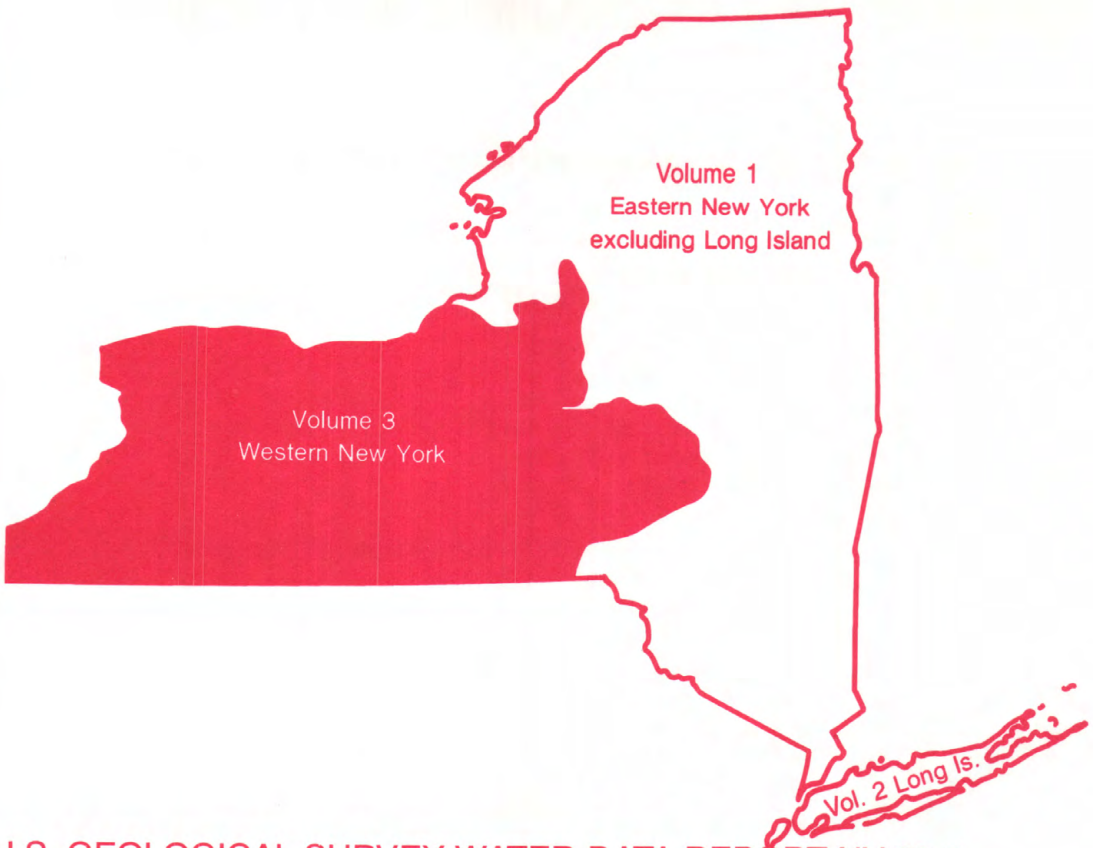
Water Resources Data New York Water Year 1992

Volume 3. Western New York



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NY-92-3
Prepared in cooperation with the State of New York
and with other agencies

CALENDAR FOR WATER YEAR 1992

1991

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1992

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Water Resources Data New York Water Year 1992

Volume 3. Western New York

by J.F. Hornlein, C.O. Szabo, H.J. Zajd, Jr., and D.D. Deloff

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NY-92-3
Prepared in cooperation with the State of New York
and with other agencies

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
U.S. Post Office and Courthouse
P.O. Box 1669
Albany, New York 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 quality of water 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

The data contained in these three volumes were collected, computed, and processed from three subdistrict offices and one area field office. The offices, and personnel in charge, are:

Volume 1. Albany, John R. Ritter, Subdistrict Chief
Potsdam, Howard G. Lent, Jr., Technician-in-charge
Volume 2. Syosset, Bronius Nemickas, Acting Subdistrict Chief
Volume 3. Ithaca, Robin G. Brown, Acting Subdistrict Chief

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:

W. F. Coon	W. H. Johnston	D. A. Sherwood	K. A. Voytko
R. L. Harris	R. L. Mulks	M. C. Van De Mark	M. J. Welsh

A. M. Weaver typed the text of the report.

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

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Volume 3. Western New York

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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 and contents of lakes and reservoirs; and water levels of ground-water wells. This volume contains records for water discharge at 80 gaging stations; stage only at 21 gaging stations; stage and contents at 6 gaging stations; water quality at 4 gaging stations and 9 partial-record stations; and water levels at 22 observation wells. Also included are data for 42 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. These data together with the data in Volumes 1 and 2 represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in New York.

17. Document Analysis a. Descriptors
*New York, *Hydrologic data, *Surface water, *Ground water, *Water quality, Streamflow, Flow rates, Gaging stations, Lakes, Reservoirs, Chemical analysis, Sediments, Water analyses, Water temperature, Precipitation, Water levels, Water wells, Data collection, Sites.

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Department of Commerce

ILLUSTRATIONS

TABLE

SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

NOTE.--Data for partial-record stations and miscellaneous sites for both surface-water discharge and quality are published in separate sections of the data report. See reference at the end of this list for page numbers for these sections.

[Letters after station name designate type of data collected: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (t) water temperature, (s) sediment, (e) elevation, gage heights, or contents]

SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

(Continued)

SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

(Continued)

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GROUND-WATER WELLS, BY COUNTY OR INDEPENDENT CITY, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

GROUND-WATER LEVELS

GROUND-WATER LEVELS

(Continued)

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

The following continuous-record surface-water discharge or stage-only stations (gaging stations) in New York 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 crest-stage partial-record stations.

[Letters after station name designate type of data collected: (d) discharge, (e) elevation (stage only)]

Discontinued surface-water discharge or stage-only stations

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
SUSQUEHANNA RIVER BASIN			
Canadarago Lake at Schuyler Lake, NY (e)	01496450	65.0	1969-79
Cherry Valley Creek at Westville, NY (d)	01497000	81.4	1930-31, 1938-41
Susquehanna River at Colliersville, NY (d)	01497500	349	1907-09, 1924-68
Charlotte Creek at Davenport Center, NY (d)	01498000	164	1938-56
Charlotte Creek at West Davenport, NY (d)	01498500	167	1938-76
Otego Creek near Oneonta, NY (d)	01499000	108	1940-68
Flax Island Creek near Otego, NY (d)	01499050	4.22	1966-68
East Branch Handsome Brook at Franklin, NY (d)	01499470	9.12	1966-68
Unadilla River near New Berlin, NY (d)	01501000	199	1924-68
Mill Brook at New Berlin, NY (d)	01501015	4.64	1974-81‡
Sage Brook near South New Berlin, NY (d)	01501500	.70	1932-68
Canasawacta Creek near South Plymouth, NY (d)	01505500	57.9	1945-75
Chenango River at Greene, NY (d)	01507000*	593	1937-70
Red Brook at Smithville Flats, NY (d)	01507470	7.06	1966-68
Genegantslet Creek at Smithville Flats, NY (d)	01507500	82.3	1938–70
Muller Gulf Creek near Cuyler, NY (d)	01507975	2.67	1966-68
Shackham Brook near Truxton, NY (d)	01508000	2.95	1932-68
Albright Creek at East Homer, NY (d)	01508500	6.81	1938-68

‡ No winter record.

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
SUSQUEHANNA RIVER BASIN--continued			
West Branch Tioughnioga River at Homer, NY (d)	01508803*	71.5	1967-68, 1973-86
Otter Creek at mouth at Cortland, NY (d)	01508962	14.3	1976-77
Gridley Creek above East Virgil, NY (d)	01509150	10.4	1974-81
Dudley Creek at Lisle, NY (d)	01509500	30.0	1938-40
Otselic River near Upper Lisle, NY (d)	01510500	217	1937-69
Tioughnioga River at Itaska, NY (d)	01511500*	730	1930-67
Susquehanna River at Vestal, NY (d)	01513500*	3,941	1937-67
East Branch Nanticoke Creek above Glen Aubrey, NY (d)	01513719	12.8	1976-78
East Branch Nanticoke Creek at Glen Aubrey, NY (d)	01513720	15.4	1976
Nanticoke Creek at Union Center, NY (d)	01513790	90.7	1975-78
Pumpelly Creek at Owego, NY (d)	01513840	8.59	1966-68
Owego Creek near Owego, NY (d)	01514000*	185	1930-79
Dean Creek at Spencer, NY (d)	01514500	8.03	1954-60
Cayuta Creek near Alpine, NY (d)	01515500	17.6	1930-31
Canisteo River at Hornell, NY (d)	01522000	93.7	1938-43
Karr Valley Creek at Almond, NY (d)	01522500	27.4	1937-68
Canacadea Creek at Hornell, NY (d)	01524000	58.5	1925-29
Bennett Creek at Canisteo, NY (d)	01525000	95.3	1938-47
Canisteo River at West Cameron, NY (d)	01525500*	340	1930-31, 1937-70
Tuscarora Creek Tributary near Woodhull, NY (d)	01525750	9.43	1966-68
Tuscarora Creek near South Addison, NY (d)	01526000	114	1937-70
Mulholland Creek near Erwins, NY (d)	01526495	5.06	1966-68
Kirkwood Creek near Atlanta, NY (d)	01526980	4.65	1966-68
Cohocton River at Cohocton, NY (d)	01527000*	52.2	1951-82
Switzer Creek near Cohocton, NY (d)	01527050	3.45	1979-81
Cohocton River at Avoca, NY (d)	01527500	157	1938-45
Mud Creek near Savona, NY (d)	01529000	76.6	1918-20, 1937-82
Newtown Creek at Breesport, NY (d)	01530380	20.6	1975-79‡
ALLEGHENY RIVER BASIN			
Olean Creek near Olean, NY (d)	03010800*	198	1958-68‡, 1976-81
Great Valley Creek near Salamanca, NY (d)	03011000*	137	1951-68
Quaker Run near Quaker Bridge, NY (d)	03011550	28.5	1963-64‡
Conewango Creek below South Dayton, NY (d)	03012834	63.3	1975-78‡
Ball Creek at Stow, NY (d)	03013800*	9.06	1974
Chautauqua Lake at Celeron, NY (e)	03013980	189	1973
Chautauqua Lake near Mayville, NY (e)	03013990	189	1950-77
STREAMS TRIBUTARY TO LAKE ERIE			
Cattaraugus Creek near Arcade, NY (d)	04213410	79.0	1963-68
Franks Creek near West Valley, NY (d)	04213440	.28	1976-80
Franks Creek Tributary No. 4 near West Valley, NY (d)	04213441	.12	1976
Franks Creek Tributary No. 2 to Tributary No. 4 near West Valley, NY (d)	04213442	.002	1976-77
Franks Creek Tributary No. 3 to Tributary No. 4 near West Valley, NY (d)	04213443	.004	1976-77

‡ No winter record.

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
STREAMS TRIBUTARY TO LAKE ERIE--continued			
Buttermilk Creek near Springville, NY (d)	04213450	30.0	1962-68
South Branch Cattaraugus Creek near Cattaraugus, NY (d)	04213492	70.4	1969, 1980-82
Cattaraugus Creek at Versailles, NY (d)	04214000	466	1915-23
Eighteenmile Creek at North Boston, NY (d)	04214200	37.2	1963-68
Buffalo Creek near Wales Hollow, NY (d)	04214400	76.9	1963-68
STREAMS TRIBUTARY TO NIAGARA RIVER			
Tonawanda Creek near Alabama, NY (d)	04217500	231	1956-89
Black Creek near Swormville, NY (d)	04218190	12.9	1978-80
Ellicott Creek at Milgrove, NY (d)	04218450	40.8	1963-68
Ellicott Creek at Williamsville, NY (d)	04218500	76.2	1956-73
Donner Brook near Lockport, NY (d)	04218592	3.84	1978-79‡
STREAMS TRIBUTARY TO LAKE ONTARIO			
Manning Muckland Creek near Barre Center, NY (d)	04219940	5.80	1974-79‡
Manning Muckland Creek tributary near Elba, NY (d)	04219940	21.9	1974-79‡
West Creek near Hilton, NY (d)	04220250	31.0	1957-64
Dyke Creek near Andover, NY (d)	04220470	38.0	1964-68
Dyke Creek at Wellsville, NY (d)	04220500	72.1	1955-60
Genesee River at Scio, NY (d)	04221500	308	1916-72
Van Campen Creek at Friendship, NY (d)	04221600	45.9	1964-68
Angelica Creek at Transit Bridge, NY (d)	04221720	86.7	1964-68
Genesee River at Belfast, NY (d)	04221820	644	1964-67
Caneadea Creek at Caneadea, NY (d)	04222000	62.0	1949-68
Lost Nation Brook near Centerville, NY (d)	04222500	1.21	1934-35
East Koy Creek at East Koy, NY (d)	04222900	46.5	1964-68
Genesee River at St. Helena, NY (d)	04223500	1,019	1947-50
Canaseraga Creek near Canaseraga, NY (d)	04224650	58.4	1964-68
Canaseraga Creek near Dansville, NY (d)	04225000	152	1919-68, 1970-77
Canaseraga Creek at Cumminsville, NY (d)	04225005	155	1910-13, 1915-17, 1918-19
Canaseraga Creek at Groveland, NY (d)	04225500	180	1915-20, 1956-64
Keshequa Creek at Craig Colony, Sonyea, NY (d)	04226000	68.3	1917-32, 1975-78
Keshequa Creek near Sonyea, NY (d)	04226500	68.4	1915-17
Keshequa Creek at mouth at Sonyea, NY (d)	0422660005	69.0	1911-14
Conesus Creek near Lakeville, NY (d)	04228000	72.0	1920-34
Springwater Creek at Springwater, NY (d)	04228900	10.1	1964-68
Genesee River below Erie Canal at Rochester, NY (d)	04231500	2,457	1904-05, 1905-18
Thomas Creek at Fairport, NY (d)	04232046	28.5	1980-90
Irondequoit Creek at Linden Avenue, East Rochester, NY (d)	04232047	101	1973-89
Irondequoit Creek at Wetland Narrows at Rochester, NY (d)	0423205023	144	1981-84
Catharine Creek at Montour Falls, NY (d)	04232200*	41.1	1975-78‡
Kendig Creek near MacDougall, NY (d)	04232630*	13.8	1965-68

‡ No winter record.

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
STREAMS TRIBUTARY TO LAKE ONTARIO--continued			
Seneca River at Lock 4, Waterloo, NY (d)	04232650	742	1931-67, 1969-79
Dryden Lake Inlet near Harford, NY (d)	04233678	2.73	1973-75
Virgil Creek at Freeville, NY (d)	04233700	40.3	1973-76
Salmon Creek at Ludlowville, NY (d)	04234018	81.7	1965-68
Canoga Creek at Canoga, NY (d)	04234055	3.20	1965-68
Mud Creek at East Victor, NY (d)	04234200*	64.2	1958-68
Red Creek near Walworth, NY (d)	04234270	23.8	1965-69
Flint Creek at Potter, NY (d)	04235150	31.0	1964-68 1971-79
Clyde River at Lock 26 Clyde, NY (d)	04235271	845	1935-67
Owasco Inlet at Moravia, NY (d)	04235300	106	1960-68
Skaneateles Creek at Willow Glen, NY (d)	04236500	75.8	1895-1908
Onondaga Creek at Syracuse, NY (d)	04239500	95.0	1940-49
Onondaga Creek at Temple Street Syracuse, NY (d)	04240000	104	1949-51
Spafford Creek at Bromley Road near Spafford, NY (d)	04240145	3.14	1982-84
Spafford Creek at Sawmill Road near Spafford, NY (d)	04240150	8.06	1982-83, 1986
Rice Brook at Rice Grove, NY (d)	0424015305	2.64	1982-83
Willow Brook at Lader Point, NY (d)	0424016205	3.73	1982-83
Amber Brook at Amber, NY (d)	0424016825	3.75	1982-83
Van Benthuysen Brook near Amber, NY (d)	0424016975	5.84	1982-83
West Branch Fish Creek at Blossvale, NY (d)	04241200	204	1966-68
East Branch Fish Creek at Fish Creek near Constableville, NY (d)	04241500	74.3	1924-32
Chittenango Creek near Chittenango, NY (d)	04244000	66.3	1950-68
Limestone Creek at Fayetteville, NY (d)	04245000*	85.5	1940-86
Butternut Creek below Dewitt, NY (d)	04245250	58.6	1964-66
Scriba Creek near Constantia, NY (d)	04245840*	38.4	1966-68

‡ No winter record.

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

The following stations were discontinued as continuous-record surface-water-quality stations. Daily records of temperature, specific conductance, or sediment were collected and published for the record shown for each station.

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

Discontinued continuous-record surface-water-quality stations

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
Unadilla River at Rockdale, NY	01502500	520	Temp.	1957
Susquehanna River at Conklin, NY	01503000	2,232	Temp.	1955
Chenango River at Greene, NY	01507000	593	Temp.	1957
Susquehanna River at Vestal, NY	01513500	3,941	Temp.	1961-62, 1966, 1968
Tioga River at Lindley, NY	01520500	771	Temp. Sed., S.C.	1975-81, 1975-77
Canisteo River at West Cameron, NY	01525500	340	Temp.	1957

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
Cohocton River at Cohocton, NY	01527000	52.2	Sed.	1980
Switzer Creek near Cohocton, NY	01527050	3.46	Sed.	1979-80
Allegheny River at Red House, NY	03011500	1,690	Temp.	1954-56
Buffalo Creek at Gardenville, NY	04214500	142	Temp.	1962
Tonawanda Creek at Batavia, NY	04217000	171	Temp., S.C	1978-81
Erie (barge) Canal at Lock 35 at Lockport, NY	04218600	--	Temp.	1962
Erie (barge) Canal (west of Genesee River) at Rochester, NY	04218700	--	Temp.	1962
Niagara River at Niagara Falls, NY	04219350	--	Temp.	1959
Genesee River at Wellsville, NY	04221000	288	Sed.	1975-77
Genesee River at Scio, NY	04221500	308	Temp.	1955
Van Campen Creek at Friendship, NY	04221600	45.9	Temp.	1964-67
Genesee River at Portageville, NY	04223000	984	Sed.	1975-77
Canaseraga Creek at Canaseraga, NY	04224650	58.4	Temp.	1964-67
Canaseraga Creek at Groveland, NY	04225500	180	Temp.	1961
Canaseraga Creek at Shakers Crossing, NY	04227000	335	Sed.	1975-77
Genesee River at Mount Morris, NY	04227500	1,424	Temp., Sed.	1955-56, 1975-77
Genesee River at Avon, NY	04228500	1,673	Sed.	1975-77
Oatka Creek at Garbutt, NY	04230500	200	Temp., Sed.	1960-61, 1975-77
Black Creek at Churchville, NY	04231000	130	Temp.	1962
Genesee River at Rochester, NY	04232000	2,467	Temp., Sed.	1955-71, 1975-77
Cayuga Lake Trib. No. 6 at Interlaken, NY	04234035	--	Temp.	1965
Canoga Creek at Canoga, NY	04234055	3.20	Temp.	1965
Seneca River at Baldwinsville, NY	04237500	3,138	Temp.	1958-75
Spafford Creek at Bromley Road near Spafford, NY	04240145	3.14	Sed.	1981-83
Spafford Creek at Sawmill Road near Spafford, NY	04240150	8.06	Sed.	1981-83
Rice Brook at Rice Grove, NY	0424015305	2.44	Sed.	1981-83
Willow Brook at Lader Point, NY	0424016205	3.73	Sed.	1981-83
Amber Brook at Amber, NY	0424016825	3.69	Sed.	1981-83
Van Benthuysen Brook near Amber, NY	0424016975	5.84	Sed.	1981-83
East Branch Fish Creek at Taberg, NY	04242500	188	Temp., S.C.	1966-67
Butternut Creek near Jamesville, NY	04245200	32.2	Temp., S.C.	1966-67
Chittenango Creek at Bridgeport, NY	04245500	--	Temp.	1967-69
Scriba Creek near Constantia, NY	04245840	38.4	Temp., S.C.	1966-67
Oneida River at Caughdenoy, NY	04246500	1,382	Temp.	1958

WATER RESOURCES DATA - NEW YORK, 1992
Volume 3.--Western New York

INTRODUCTION

Water resources data for the 1992 water year for New York consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and water levels of ground-water wells. This volume contains records for water discharge at 78 gaging stations; stage only at 21 gaging stations; stage and contents at 7 gaging stations; water quality at 4 gaging stations and 9 partial-record stations; and water levels at 22 observation wells. Also included are data for 43 crest-stage partial-record stations. Locations of these sites are shown on figure 1. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as measurements made at miscellaneous sites. These data together with the data in Volumes 1 and 2 represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in New York.

Records of discharge and stage of streams, and contents or 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 in the United States or may be purchased from the Distribution Branch, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304.

For water years 1961 through 1970, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

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–92–3." These 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 Chief 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 3, water year 1992, through cooperative agreement with the Survey are:

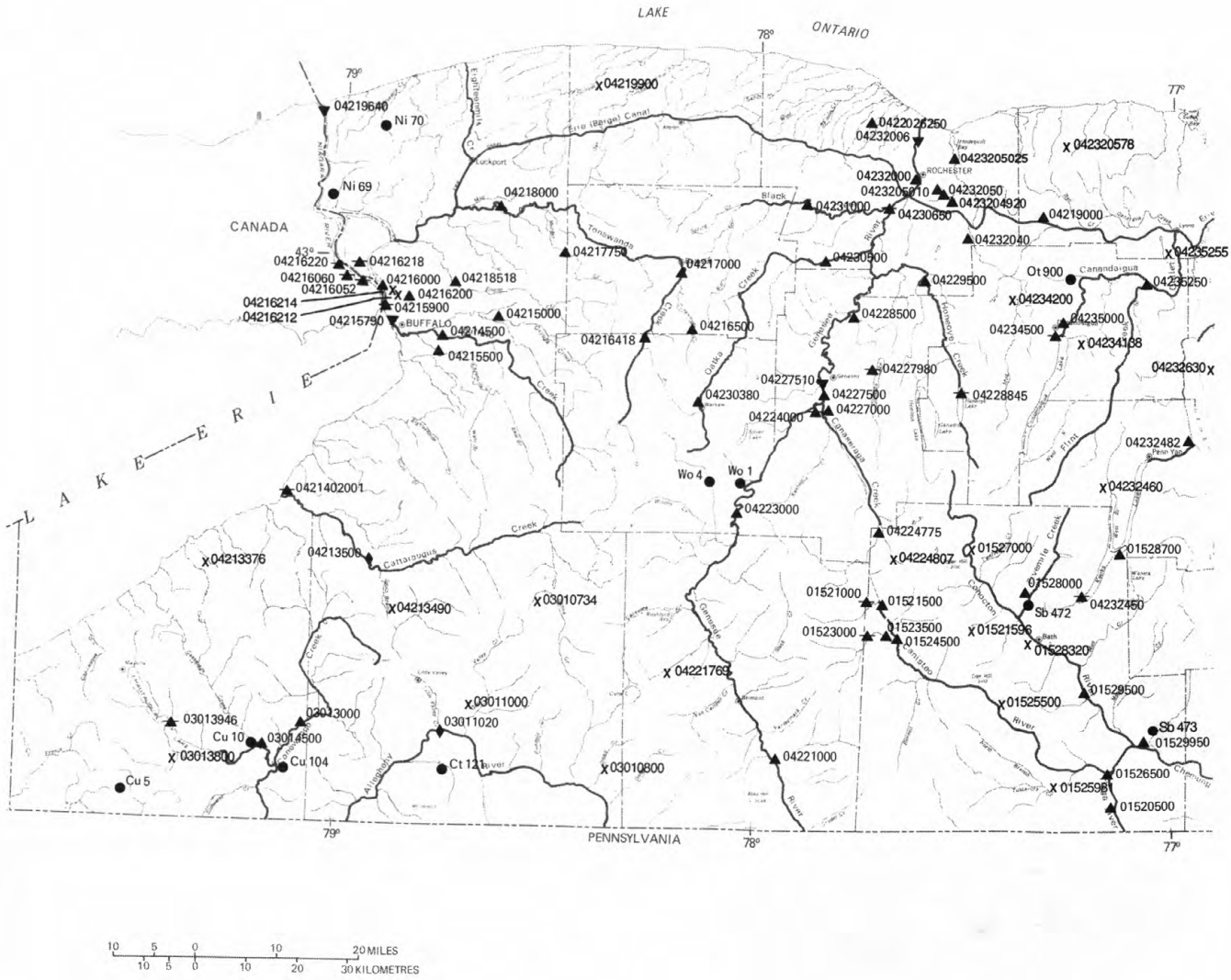
New York State Department of Environmental Conservation
New York State Department of Transportation
County of Chautauqua, Planning Department
County of Cortland, Planning Department
County of Monroe, Department of Health
County of Monroe, Division of Engineering
County of Monroe, Water Authority
County of Onondaga, Department of Drainage and Sanitation
County of Onondaga, Water Authority Commission
City of Auburn
Town of Amherst, Erie County
Town of Cheektowaga, Erie County
Irondequoit Bay Pure Waters District

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, Onondaga Lake Management Conference, and U.S. Environmental Protection Agency.

The following organizations aided in collecting records:

Municipalities of Batavia, Canandaigua, Cortland, Jamestown, Lancaster, Oneida, Rochester, Syracuse; Cornell University; New York State Electric and Gas Corporation; Niagara Mohawk Power Corporation; Rochester Gas and Electric Corporation.

Organizations that supplied data are acknowledged in station descriptions.



Base from U.S. Geological Survey
State base map
Shaded relief, 1:500,000, 1956

FIGURE 1.-- LOCATION OF GAGING STATIONS AND

OBSERVATION WELLS IN WESTERN NEW YORK

SUMMARY OF HYDROLOGIC CONDITIONS[1]

Surface Water

Streamflow throughout western New York during the 1992 water year was generally deficient (lower 25 percent of the record) during October and November, normal in most areas through the winter and spring, and excessive (upper 25 percent of the record) during the last 3 months of the year. Mean discharges for the water year, however, were generally below average throughout western New York (table 1). Departures from median discharges at two index stations—Susquehanna River at Conklin and Allegheny River at Salamanca—are shown in figures 2 and 3.

Table 1.-- Comparison of annual mean discharges of the 1992 water year with average discharges for the period of record for selected streams
[Locations are shown in fig. 1. Discharges are in cubic feet per second.]

Station		Period of record	Average discharge for period of record	1992 Water year mean discharge	Percent difference
01503000	Susquehanna River at Conklin	1914–91	3,586	2,986	- 16.7
01531000	Chemung River at Chemung	1906–13, 1915–91	2,528	2,470	- 2.3
03011020	Allegheny River at Salamanca	1904–91	2,780	2,419	- 13.0
04213500	Cattaraugus Creek at Gowanda	1941–91	744	656	- 11.8
04217000	Tonawanda Creek at Batavia	1945–91	212	212	0.0
04221000	Genesee River at Wellsville	1956-58, 1973-91	388	310	- 20.1
04234000	Fall Creek near Ithaca	1926–91	185	168	- 9.2
04242500	East Branch Fish Creek at Taberg	1924-91	540	556	+ 3.0

The deficient streamflow conditions at the end of the 1991 water year continued into the 1992 water year throughout most of western New York (table 2). Below-average precipitation continued through October and November. Mean discharges for most of the western part of the State for November were deficient for the sixth consecutive month.

Table 2.-- Monthly mean discharges as a percentage of period-of-record median monthly discharges of selected streams for the below-average streamflow period from October through December 1991.
[Locations are shown in fig. 1.]

Station		Period of record used	Monthly discharge as a percentage of period-of-record median monthly-mean discharge		
			Oct.	Nov.	Dec.
01503000	Susquehanna River at Conklin	1914–91	62	77	121
01531000	Chemung River at Chemung	1915–91	41	41	83
03011020	Allegheny River at Salamanca	1904–91	24	16	77
04213500	Cattaraugus Creek at Gowanda	1941–91	42	25	59
04217000	Tonawanda Creek at Batavia	1945–91	29	14	33
04221000	Genesee River at Wellsville	1956-58, 1973-91	29	23	70
04234000	Fall Creek near Ithaca	1930–91	50	49	71
04242500	East Branch Fish Creek at Taberg	1924–91	124	58	113

December brought near-average precipitation to most of New York and above-average precipitation on the Western Plateau. Streamflow returned to the normal range throughout most of western New York. Lake-effect snowstorms resulted in above-average snowfall accumulations in parts of the Lake Erie and Lake Ontario snowbelt.

The new year began with above-average temperatures and below-average precipitation. The first 14 days of January were abnormally warm, but not enough to cause any substantial increase in streamflow due to snowmelt. A cold airmass covered most of the State during the latter half of the month and caused near or above-average snowfall in some of the lake-effect snowbelt areas. Syracuse received 50.5 inches of snow, 80 percent above the average monthly amount. Snowfall in most other places was well below average for the month, however. Streamflow at most sites remained in the normal range. February temperatures continued to be above average throughout western New York. Snowfall was generally above average in areas usually prone to lake-effect snow, but was below average nearly everywhere else.

[1] Climatological data used in this summary are from monthly weather summaries published by the Northeast Regional Climate Center, Cornell University, Ithaca, N.Y.

March started with unseasonably warm weather, but temperatures dropped to several degrees below average during the last two weeks of the month. As a result of this weather pattern, streamflow declined into the deficient range for the first time since the previous November. Mean discharges dropped below average despite record snowfall throughout the western part of the State. Syracuse exceeded its snowiest winter on record with a total of 162.8 inches by month's end. Above-average and average amounts of precipitation in April and May, respectively, brought streamflow back to the normal range and sustained these flows for the remainder of the spring.

Cool and dry conditions prevailed throughout most of western New York during June, which was the fourth consecutive month with below-average monthly temperatures. After 3 months of near-average precipitation, June brought below-average totals throughout most of the State. Streamflow throughout western New York ranged from normal to deficient.

July was both the coldest and the wettest July throughout most of western New York since record collection began in 1895. It was New York's fifth consecutive month with colder-than-normal temperatures. Weather stations reported an average of more than 6.5 inches of rain during July, which was close to twice the monthly average. Some areas in western New York received from 10 to more than 12 inches of rain; this caused streamflow to rise into the excessive range. Cold temperatures persisted into and through most of August. Preliminary figures from the National Climatic Data Center rank the Summer of 1992 (June through August) as the third coldest on record. Above-average precipitation during August produced above-average flows at all streamflow-monitoring sites in western New York. The most extreme result was at Tonawanda Creek at Batavia, which recorded a monthly-mean discharge nearly 1,400 percent of the period-of-record median monthly-mean discharge (table 3). Average to above-average precipitation fell over western New York in September; the heaviest rain occurred on the 22d, and caused local flooding in western counties. Many streamflow-measuring sites in these areas recorded their respective maximum discharges for the 1992 water year at this time. Tonawanda Creek at Batavia again recorded a monthly-mean discharge nearly 1,400 percent of the period-of-record median monthly-mean discharge. Streamflow throughout the State remained in the excessuve range for the remainder of the year.

Table 3.-- Monthly mean discharges as a percentage of period-of-record median monthly discharges of selected streams for the below-average streamflow period from July through September 1992.
[Locations are shown in fig. 1.]

	Station	Period of record used	Monthly discharge as a percentage of period-of-record median monthly-mean discharge		
			July	Aug.	Sept.
01503000	Susquehanna River at Conklin	1914–91	152	311	178
01531000	Chemung River at Chemung	1915–91	278	717	670
03011020	Allegheny River at Salamanca	1904–91	345	409	661
04213500	Cattaraugus Creek at Gowanda	1941–91	378	330	448
04217000	Tonawanda Creek at Batavia	1945–91	722	1,380	1,390
04221000	Genesee River at Wellsville	1956-58, 1973-91	169	367	442
04234000	Fall Creek near Ithaca	1930–91	320	485	466
04242500	East Branch Fish Creek at Taberg	1924–91	286	295	208

Surface-Water Quality

Analyses of stream-water samples and associated discharge data from the four National Stream Quality Accounting Network (NASQAN) stations in western New York indicated no significant changes in chemical or biological quality from previous years. Nearly all values of the constituents analyzed were within the historical extremes for each site.

Water-quality data from 12 sites in central and western New York that are part of a statewide cooperative program with the New York State Department of Environmental Conservation (NYSDEC) are included in this report. Water samples were collected at these sites by NYSDEC and analyzed by the USGS National Water Quality Laboratory at Arvada, Colo., and the U.S. Geological Survey Pennsylvania District sediment laboratory at LeMoyne, Pa. Three of these NYSDEC sites—Niagara River at Fort Niagara, Genesee River at Charlotte Docks at Rochester, and Cattaraugus Creek at Gowanda—also are NASQAN sites.

Ground Water

Ground-water levels, which were at a minimum at most observation wells in western New York at the end of the 1991 water year, remained below normal through October and November as a result of continued below-average precipitation. The lowest water levels for the 1992 water year were recorded at most observation wells at this time. The decline of evapotranspiration at the end of the growing season, and near-average precipitation in December, brought ground-water levels from below-normal to average. Water levels during the dry winter months of January and February showed minimal response to snowmelt, and those in most observation wells remained relatively constant after receding from the December recharge period. Unseasonably warm weather at the beginning of March caused ground-water levels to rise in response to snowmelt, but then gradually declined as temperatures dropped and precipitation turned to snow. Heavy precipitation and snowmelt at the beginning of April caused ground-water levels to rise once again; they remained above normal in most parts of western New York throughout April and May. The highest water levels for the 1992 water year were recorded at 14 out of 23 observation wells at this time. Below-average precipitation and increased evapotranspiration in June caused ground-water levels to decline. Western New York had its wettest and coldest July on record and ground-water levels at all observation wells rose sharply. Above-average precipitation throughout the summer caused ground-water levels to rise and remain above normal for the rest of the water year.

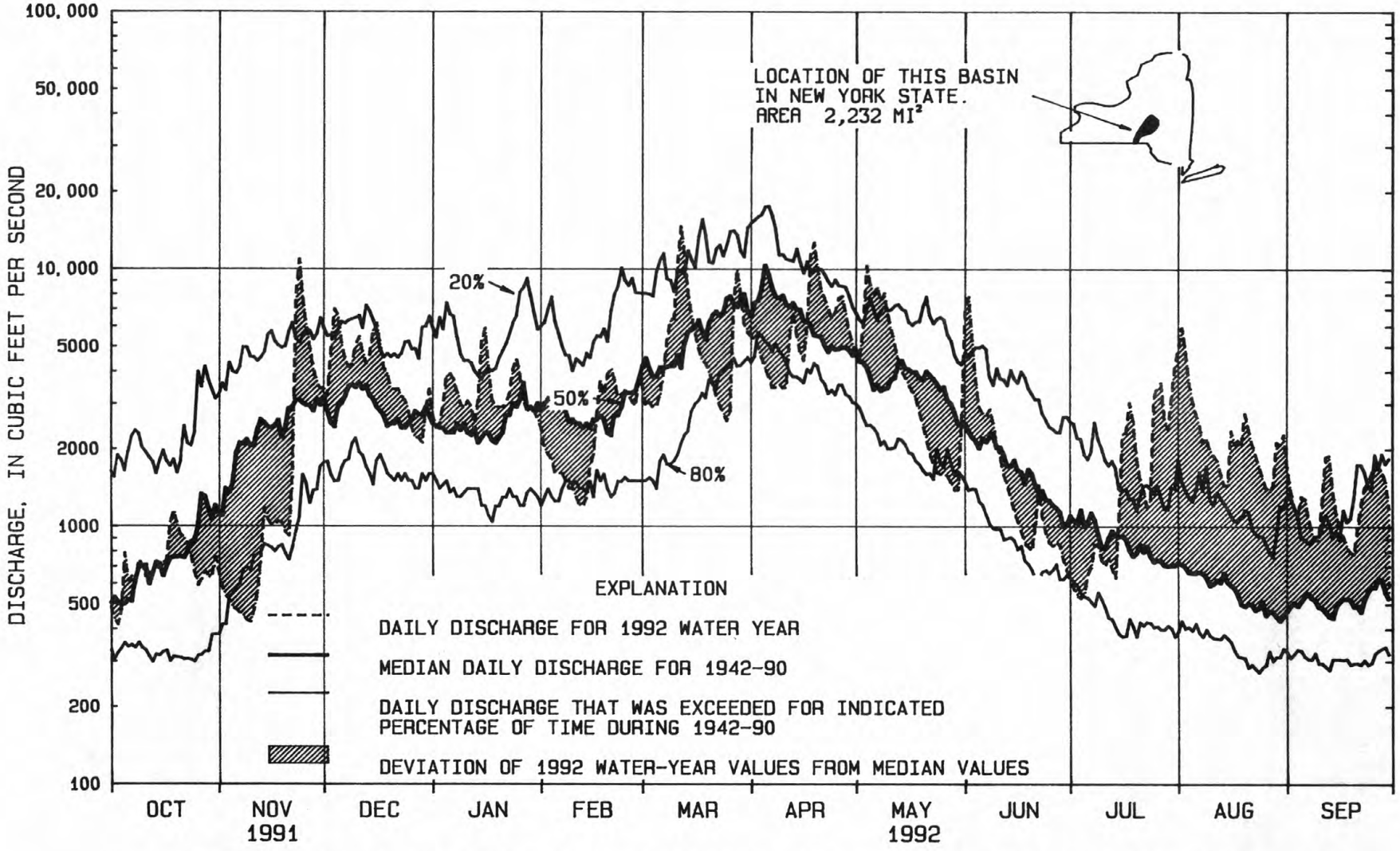


Figure 2.--Comparison of discharge at Susquehanna River at Conklin during 1992 water year with median discharge for 1942-90.

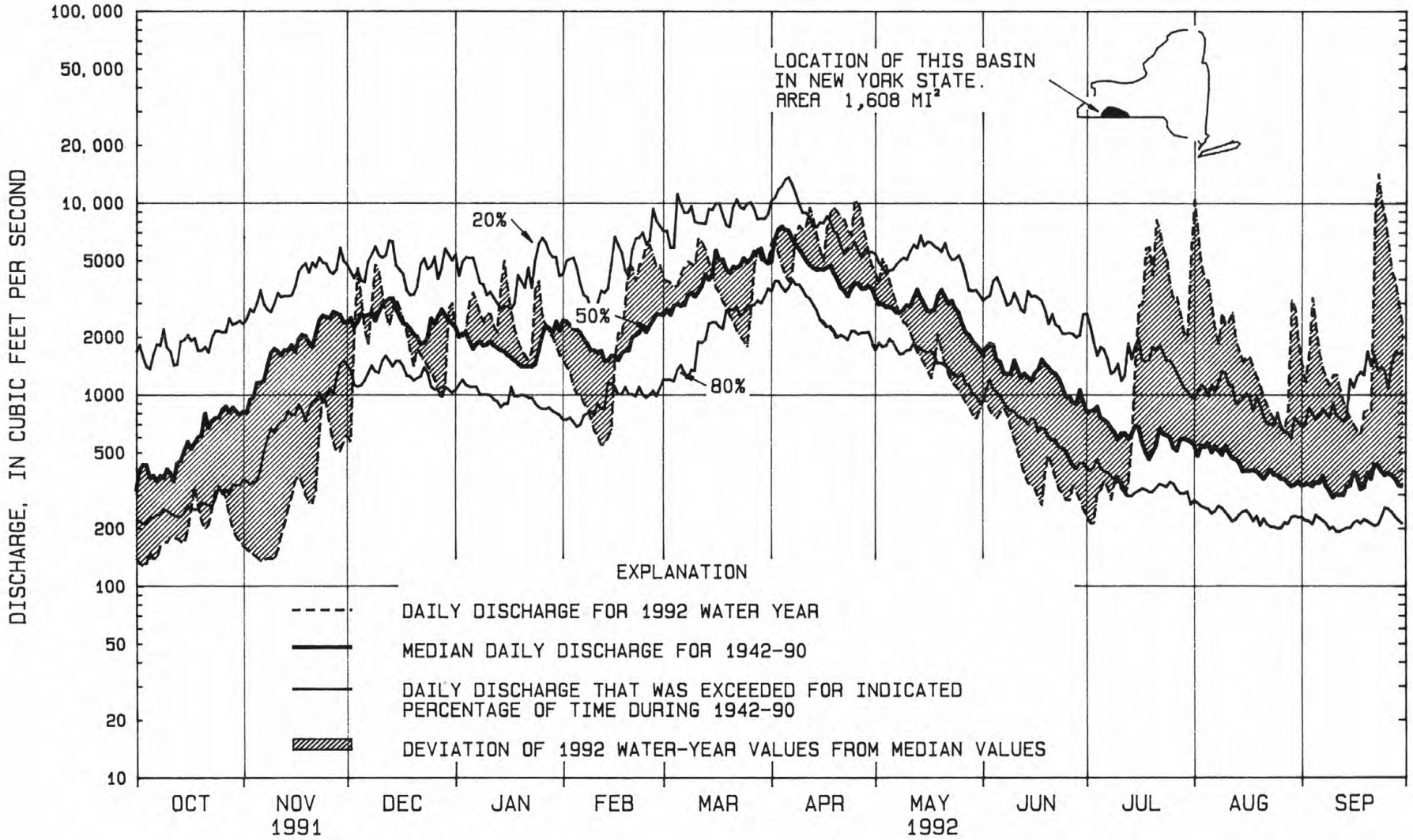


Figure 3.--Comparison of discharge at Allegheny River at Salamanca during 1992 water year with median discharge for 1942-90.

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

EXPLANATION OF THE RECORDS

The surface-water and ground-water data published in this report are for the 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 data include discharge or stage of streams and canals, surface area, stage, and contents of lakes or reservoirs, surface-water quality, and ground-water levels. The locations of the stations and wells where data were collected are shown in figure 1. The following provide an explanation of how the data were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each surface-water station and 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 is usually 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 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 main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed on listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in the front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations, miscellaneous sites, and other stations; therefore, the station number for a partial-record station or a miscellaneous site indicates downstream-order position in a list made up of all types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station, such as 01502500, includes the 2-digit Part number "01" plus the 6-digit downstream order number "502500." The Part number designates the major river basin. Part numbers used in this report and their corresponding river basins are: "01," the North Atlantic Slope basin; "03," the Ohio River basin; and "04," the St. Lawrence 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 to identify intermediate stations.

Latitude-Longitude System

The well-identification number is based on the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells within a 1-second grid. See figure below.

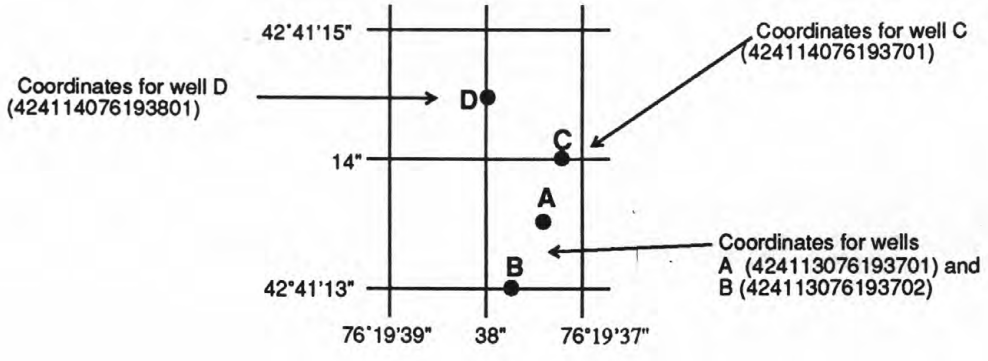


Figure 4. System for numbering wells (latitude and longitude)

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." Periods of record for discontinued continuous-record surface-water stations are given in a table following the "Contents" section of this report.

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 complete-record stations for which data are given in this report are shown in figure 1.

Data Collection and Computation

The data collected at stream-gaging stations consist of records of stage, measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationship between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data collected at a lake or reservoir station consist of records of stage and notations regarding factors that may affect the relationship between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Records of stage are obtained from direct readings on a nonrecording gage, analog recorders that trace continuous graphs of stage, digital recorders that punch stage values on paper tapes at selected time intervals, or with data-collection platforms (DCP) that electronically record and then transmit the data via satellite to ground receiving stations. 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.

For stream-gaging stations, results of individual discharge measurements are plotted against corresponding stages to develop stage-discharge relation curves. From these curves, rating tables that indicate the approximate discharge for any stage within the range of measurements are prepared. If it is necessary to express discharge greater than measured, the rating curves are extended 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.

Daily mean discharges are computed by applying the instantaneous stages (gage heights) to the stage-discharge curves or rating tables and averaging these discharges for each day. 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 of the personnel making the measurements and observers are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control.

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.

At some stream-gaging stations, formation of ice in the winter may so obscure the stage-discharge relation that daily mean discharges must be estimated on the basis of gage-height record, occasional water discharge measurements, and other information such as temperature and precipitation records, notes by gage observers and hydrographers, and records of discharge for other stations in the same or nearby basins for comparable periods.

For computing lake or reservoir contents, 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 are computed. If the stage-capacity curve 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.

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 recorded range in stage, previous and following records, discharge measurements, weather records, and comparison with other station records in the same or nearby basins. Likewise daily contents may be estimated from operator's logs, previous and following 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 1991 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent 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, daily, and instantaneous 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; historical extremes outside the period of record; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

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

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

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

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

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see 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 record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a remarks statement is used to identify estimated record, the paragraph will begin with this information presented at the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

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

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.

PEAK DISCHARGES FOR CURRENT YEAR.--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. All peaks greater than the base discharge are listed with the maximum for the year footnoted by an asterisk (*). The base discharge, which is given in the heading, is selected so that an average of about three peaks a year will be presented. 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 day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330.

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

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

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, and EXTREMES FOR CURRENT YEAR have been depleted and the information contained in these paragraphs, except for the listing of secondary instantaneous peak discharges and the PEAK DISCHARGES FOR CURRENT YEAR paragraph, is now presented in the tabular summaries following the discharge table or in the REMARKS paragraph, as appropriate. No changes have been made to the data presentations of lake contents.

Data table of daily mean values

The daily table of discharge records for stream-gaging stations gives 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 mean 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") or 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 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, unles 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, daily, and instantaneous flows, not only for the current water year, but also for the previous calendar year and for the 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 each statistic reporting extreme values of discharge is provided adjacent to the statistic. In some instances, these extremes may occur on more than one date or year. These repeated occurrences are identified with a letter symbol and printed in the 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 and instantaneous 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 REMARKS paragraph or in footnotes. Selected streamflow duration curve statistics and runoff data are also given. Runoff data maya 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.

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 data 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.)

INSTANTANEOUS PEAK FLOW.--The maximum instantaneous discharge occurring for the water year or for the designated period. Secondary instantaneous peak discharges above a selected base discharge, along with the peak discharge, are given in the station manuscript under the heading "PEAK DISCHARGES FOR CURRENT YEAR."

INSTANTANEOUS PEAK STAGE.--The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

INSTANTANEOUS LOW FLOW.--The minimum instantaneous discharge occurring for the water year or for the designated period.

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.

Information published for partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in a table of annual maximum stage and discharge at crest-stage stations. The table of partial-record stations is 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 caslled measurements at miscellaneous sites.

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 records 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 interpretations of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of the true discharge; "good," within 10 percent; and "fair," within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

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

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 used in the preparation of records in this report, such as discharge measurement notes, water temperature measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-readable form and many statistical analyses are available. Information on the availability of unpublished data or statistical analyses 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. Locations of all surface-water-quality stations for which data are given in this report are shown in figure 1.

Historical and current (1991) 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. Locations of surface-water quality stations are shown on figure 1.

Note that "continuing-record" differs from "continuous recording," which refers to a continuous graph or a series of discrete values recorded at predetermined intervals. Some water-quality data may be obtained through continuous recordings (i.e. temperature); however, 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, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the location of the water quality sampling site differs significantly from that of the nearby surface-water station, the continuing-record water-quality site is given 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.

On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern is 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 I, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed in the "Publications on Techniques of Water-Resources Investigations" section of this report. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey District office.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see DEFINITION OF TERMS) 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.

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the 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.

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 concentrations in the cross sections. 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 instantaneous suspended-sediment discharge, the percentage of suspended sediment finer than 0.062 mm are reported at continuing-record sites.

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. 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, including station location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily preceeds the data tables. If the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. Following is a list of headings and a discussion of the information provided under each heading.

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

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage area 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 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 recorder, 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 maximum or minimum may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--Published data are occasionally revised in light of new information, and appropriate revisions 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.

Following information on station history are tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily. Following these are tables of daily mean temperatures.

Remark Codes

The following remark codes may appear with the water-quality data in this report:

PRINTED OUTPUT	REMARK
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)

NOTE: In March 1989 the National Water-Quality Laboratory discovered a bias in the turbidimetric method for sulfate analysis, indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1989. Sulfate values in this report have not been corrected for this bias.

Dissolved Trace-Element Concentrations

Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (µg/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's and 100's of nanograms per liter (ng/L). Present data above the µg/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes. However, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey will begin using new trace-element protocols in water year 1994.

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").

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 usually include some but not all of the following: Al, As, Ba, Cd, Cr, Co, Cu, Hg, Li, Ni, Pb, Se, Sn, Sr, Zn.

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

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

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

NUTRIENT DATA: Constituents containing nitrogen or phosphorus. Results usually include several of the following: nitrite plus nitrate, 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.
(b) 3 to 5 samples per year.
(c) 6 to 9 samples per year.
(d) 10 to 20 samples per year.
(e) more than 20 samples per year.

Thus, "CHEMICAL DATA: 1972-74(c), 1977-82(a).", shows there are at least six analyses each year for the first three years of record, no data for this category in 1975 and 1976, and 1 or 2 samples for each of the five additional years.

Records of Ground-Water Levels

Ground-water level data consist of water-level measurements made in observation wells. Ground-water records are presented by county, in alphabetical order. Locations of observation wells are shown on figure 1.

Data Collection and Computation

Water-level 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 records are from direct measurements using a steel tape, from the punched tape of a water-stage recorder, or from an electronic data recorder. Water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above National Geodetic Vertical Datum of 1929 (see DEFINITION OF TERMS) 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; then monthly and yearly means are computed from the daily figures. Water levels in wells not equipped with recording gages are measured periodically, usually weekly, with a weighted tape.

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 current water year, and a graph of the water levels for the current water year or other selected period. 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 of the well description.

LOCATION.--Provides (immediately below the well-identification number) the latitude and longitude (in degrees, minutes, and seconds); the hydrologic unit number (see DEFINITION OF TERMS); the distance and direction from a geographic point of reference; and the owner's name.

AQUIFER.--Identifies by name (if a name exists) and geologic age the aquifer(s) open to the well.

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

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

DATUM.--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.--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.--Identifies the period for which there are published records for the observation well or for an equivalent well. This entry 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. An equivalent well is one that was in operation at a time that the present well was not, and whose location was such that water-level records from it can reasonably be considered equivalent with records from the present observation well.

EXTREMES FOR PERIOD OF RECORD.--Indicates the highest and lowest water levels of the period of published 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 above or below land-surface datum. For wells not equipped with continuous-stage recorders, the table lists the water levels and measurement dates. For wells equipped with recorders, mean daily values are published, with missing records indicated by dashes in place of the water level. Because mean daily values are published for wells with recorders, the extremes may be values that are not listed in the table.

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 above or below land-surface datum. If the period of record is less than 10 years, the water levels for the entire record are plotted. Because all values are not plotted for wells with continuous-stage recorders, some extreme values may not appear on the plot.

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 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 Storate 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 temperature, 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 chemical, physical, biological, and radio-chemical characteristics of both surface and ground water.
- 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 6-1/4 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.

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 or 1,233 cubic meters.

Algae are mostly aquatic single-celled, colonial, or multi-celled 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 ± 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 ± 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 brain heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 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/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

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

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

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

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

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

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

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

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

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 carbonaceos 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.

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.

Continuing-record station is a specified site that meets one or all conditions listed:

1. When chemical samples are collected daily or monthly for 10 or more months during the water year.
2. When water temperature records include observations taken one or more times daily.
3. When sediment discharge records include periods for which sediment loads are computed and are considered to be representative of the runoff for the water year.

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

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

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

Cubic foot per second (FT^3/S, ft^3/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 or 0.02832 cubic meters per second.

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 statistics.)

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 ($CaCO_3$).

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.

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 (µg/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 (UG/L, µg/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.

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 natural 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 the 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.

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

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

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

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

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

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

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

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

Particle-size classification used in this report agrees with recommendations 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 (PC, 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.

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

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

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

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

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

Polychlorinated napthalenes (PCNs) are industrial chemicals that are mixtures of chlorinated napthalene 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 [mg C/(m^2.time) for periphyton and macrophytes and mg C/(m^3.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 [mg 0_2/(m^2.time) for periphyton and macrophytes and mg 0_2/(m^3.time) for phytoplankton] are the 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 bedload discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

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

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

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (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 occuring emersed or submersed solid surface, such 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 or 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 multiplate 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 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 table of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45-micrometer filter.

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

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

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

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

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

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	Hexageria
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 year in U.S. 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 that includes 9 of the 12 months. Thus, the year ending September 30, 1985 is called the "1985 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 published beginning in 1975.

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.

WRD is used as an abbreviation for "Water Resources Data" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published before 1975.

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

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

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

1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficken, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations,* by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

2-D2. *Application of seismic-refraction techniques to hydrologic studies,* by F. P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 pages.

2-E1. *Application of borehole geophysics to water-resources investigations,* by W. S. Keys and L. M. McCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

2-E2. *Borehole geophysics applied to ground-water investigations,* by W. S. Keys: USGS--TWRI Book 2, Chapter E2. 1990. 150 pages.

2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W. E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 pages.

3-A1. *General field and office procedures for indirect discharge measurements,* by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method,* by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods,* by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods,* by H. F. Matthai: USGS-TWRI Book 3, Chapter A4. 1967. 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS--TWRI Book 3. Chapter A5. 1967. 29 pages.

3-A6. *General procedure for gaging streams,* by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. *Stage measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.

3-A9. *Measurement of time of travel in streams by dye tracing,* by F. A. Kilpatrick and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1989. 27 pages.

3-AI0. *Discharge ratings at gaging stations,* by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.

3-A11. *Measurement of discharge by moving-boat method,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

3-A12. *Fluorometric procedures for dye tracing,* by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS- -TWRI Book 3, Chapter A12. 1986. 41 pages.

3-A13. *Computation of continuous records of streamflow,* by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.

3-A14. *Use of flumes in measuring discharge,* by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.

3-A15. *Computation of water-surface profiles in open channels,* by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.

3-A16. *Measurement of discharge using tracers,* by F. A. Kilpatrick and E. D. Cobb: USGS--TWRI Book 3, Chapter A16. 1985. 52 pages.

3-A17. *Acoustic velocity meter systems,* by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.

3-A18. *Determination of stream reaeration coefficients by use of tracers,* by F. A. Kilpatrick, R. E. Rathburn, Nobuhiro Yotsukura, G. W. Parker, and L. L. DeLong: USGS--TWRI Book 3, Chapter A18. 1989. 52 pages.

3-A19. *Levels of streamflow gaging stations,* by E.J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 27 pages.

3-B1. *Aquifer-test design, observation, and data analysis,* by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programmed text for self-instruction,* by G. D. Bennett: USGS-- TWRI Book 3, Chapter B2. 1976. 172 pages.

3-B3. *Type curves for selected problems of flow to wells in confined aquifers,* by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.

3-B4. *Regression modeling of ground-water flow,* by R. L. Cooley and R. L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 pages.

3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems--An introduction,* by O. L. Franke, T. E. Reilly, and G. D. Bennett: USGS--TWRI Book 3, Chapter B5. 1987. 15 pages.

3-B6. *The principle of superposition and its application in ground-water hydraulics,* by T. E. Reilly, O. L. Franke, and G. D. Bennett: USGS--TWRI Book 3, Chapter B6. 1987. 28 pages.

3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow,* by E. J. Wexler: USGS--TWRI Book 3, Chapter B7. 1992. 90 pages.

3-C1. *Fluvial sediment concepts,* by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment,* by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge,* by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

4-A1. *Some statistical tools in hydrology,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

4-A2. *Frequency curves,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. *Low-flow investigations,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply,* by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. *Regional analyses of streamflow characteristics,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

4-D1. *Computation of rate and volume of stream depletion by wells,* by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments,* by M. J. Fishman and L. C. Friedman: USGS--TWRI Book 5, Chapter A1. 1989. 545 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy,* by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. *Methods for the determination of organic substances in water and fluvial sediments,* edited by R. L. Wershaw, M. J. Fishman, R. R. Grabbe, and L. E. Lowe: USGS--TWRI Book 5, Chapter A3. 1987. 80 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples,* by L. J. Britton and P. E. Greeson, editors: USGS--TWRI Book 5, Chapter A4. 1989. 363 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments,* by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.

5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments,* by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.

5-C1. *Laboratory theory and methods for sediment analysis,* by H. P. Guy: USGS-TWRI Book 5, Chapter C1. 1969. 58 pages.

6-A1. *A modular three-dimensional finite-difference ground-water flow model,* by M. G. McDonald and A. W. Harbaugh: USGS--TWRI Book 6, Chapter A1. 1988. 586 pages.

6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model,* by S. A. Leake and D. E. Prudic: USGS--TWRI Book 6, Chapter A2. 1991. 68 pages.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments,* by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water,* by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

7-C3. *A model for simulation of flow in singular and interconnected channels,* by R. W. Schaffrannek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.

8-A1. *Methods of measuring water levels in deep wells,* by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.

8-A2. *Installation and service manual for U.S. Geological Survey manometers,* by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.

8-B2. *Calibration and maintenance of vertical-axis type current meters,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

01496500 OAKS CREEK AT INDEX, NY

LOCATION.--Lat 42°39'56", long 74°57'36", Otsego County, Hydrologic Unit 02050101, on right bank 200 ft upstream from bridge on State Highway 28 at Index, 0.5 mi upstream from mouth, and 3.0 mi southwest of Cooperstown.

DRAINAGE AREA.--102 mi^2.

PERIOD OF RECORD.--November 1929 to September 1932, March 1937 to current year.

REVISED RECORDS.--WSP 2103: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,174.47 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1932, nonrecording gage at different datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Prior to June 1964 and since October 1979 flow regulated by natural storage in Canadarago Lake. June 1964 to September 1979 flow regulated by gates at Panther Mountain Dam at outlet. Satellite gage-height and precipitation telemeter at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 11	1615	*652	*4.57	No peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	45	194	150	142	e150	271	303	195	23	378	136
2	97	38	186	151	126	158	268	320	177	21	314	123
3	62	33	211	150	132	149	254	527	151	21	290	123
4	58	31	232	145	119	146	240	441	137	34	278	127
5	58	29	203	155	115	161	228	450	130	35	263	113
6	84	26	195	154	107	187	215	479	142	58	240	103
7	91	27	187	147	104	265	204	441	132	42	220	97
8	110	28	196	140	e90	319	211	408	122	34	205	92
9	125	28	281	144	e80	315	200	388	116	58	201	87
10	117	28	280	153	79	334	193	358	107	48	198	86
11	115	52	263	141	e75	565	225	334	97	39	189	130
12	115	69	256	135	71	491	310	307	77	36	183	107
13	108	59	257	137	e70	e460	260	284	69	83	173	97
14	101	60	288	208	e75	e420	247	270	63	70	199	91
15	94	62	300	e210	80	e390	237	246	58	149	194	87
16	114	69	266	e190	126	e370	240	238	54	200	189	83
17	112	71	241	e180	125	348	407	219	49	156	196	79
18	111	67	242	e180	115	329	386	203	44	150	325	74
19	104	68	178	e170	155	307	399	187	43	144	325	93
20	100	70	208	e170	197	283	381	167	53	147	254	86
21	95	72	212	e170	167	262	370	149	45	132	230	77
22	89	93	204	e180	162	239	366	125	41	124	210	78
23	84	266	196	e190	178	229	356	72	37	216	193	130
24	78	218	182	e230	183	209	346	69	35	289	177	97
25	73	213	e160	175	176	196	424	73	42	245	163	87
26	69	203	e150	e170	172	214	423	66	36	234	155	84
27	64	195	e145	169	166	341	390	64	35	228	143	86
28	62	189	e135	e160	162	315	361	74	32	213	132	82
29	58	200	155	158	e175	283	339	64	28	211	205	77
30	53	202	186	155	---	277	316	59	25	214	164	74
31	50	---	147	149	---	274	---	138	---	299	149	---
TOTAL	2662	2811	6536	5116	3724	8986	9067	7523	2372	3953	6735	2886
MEAN	85.9	93.7	211	165	128	290	302	243	79.1	128	217	96.2
MAX	125	266	300	230	197	565	424	527	195	299	378	136
MIN	11	26	135	135	70	146	193	59	25	21	132	74
CFSM	.84	.92	2.07	1.62	1.26	2.84	2.96	2.38	.78	1.25	2.13	.94
IN.	.97	1.03	2.38	1.87	1.36	3.28	3.31	2.74	.87	1.44	2.46	1.05

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1992, BY WATER YEAR (WY)

MEAN	81.5	141	185	171	186	343	473	224	106	54.4	34.2	48.7
MAX	597	374	465	388	522	777	1151	501	288	186	217	314
(WY)	1978	1973	1973	1952	1981	1977	1940	1983	1943	1976	1992	1977
MIN	2.32	3.03	19.6	17.9	25.4	97.7	128	56.5	10.8	5.19	2.71	1.71
(WY)	1965	1965	1965	1931	1980	1941	1946	1985	1964	1962	1965	1964

01496500 OAKS CREEK AT INDEX, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1930 - 1932, 1937 - 1992	
ANNUAL TOTAL	56899.5		62371			
ANNUAL MEAN	156		170		171	
HIGHEST ANNUAL MEAN					263	1943
LOWEST ANNUAL MEAN					83.6	1965
HIGHEST DAILY MEAN	833	Mar 4	565	Mar 11	2280	Mar 22 1948
LOWEST DAILY MEAN	5.5	Sep 10	11	Oct 1	1.4	Sep 21 1964
ANNUAL SEVEN-DAY MINIMUM	5.7	Aug 26	26	Jun 28	1.5	Sep 18 1964
INSTANTANEOUS PEAK FLOW			652	Mar 11	a3320	Oct 17 1977
INSTANTANEOUS PEAK STAGE			4.57	Mar 11	7.62	Oct 17 1977
INSTANTANEOUS LOW FLOW			7.7	Oct 1	1.3	b
ANNUAL RUNOFF (CFSM)	1.53		1.67		1.67	
ANNUAL RUNOFF (INCHES)	20.75		22.75		22.75	
10 PERCENT EXCEEDS	326		319		410	
50 PERCENT EXCEEDS	112		154		102	
90 PERCENT EXCEEDS	6.5		53		13	

a From rating extended above 1,700 ft^3/s by logarithmic plotting.
b Aug. 4, 5, 1962.

01500000 OULEOUT CREEK AT EAST SIDNEY, NY

LOCATION.--Lat 42°20'00", long 75°14'07", Delaware County, Hydrologic Unit 02050101, on right bank 0.2 mi downstream from bridge on County Highway 44, 0.4 mi downstream from East Sidney Dam, at East Sidney, and 3.5 mi upstream from mouth.

DRAINAGE AREA.--103 mi^2.

PERIOD OF RECORD.--August 1940 to current year.

REVISED RECORDS.--WSP 2103: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,086.23 ft above National Geodetic Vertical Datum of 1929. Prior to June 13, 1947, water-stage recorder at site 0.5 mi upstream at datum 27.30 ft higher.

REMARKS.--No estimated daily discharges. Records good. Since November 1949, flow regulated by East Sidney Lake (see station 01499500). Satellite gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of 16,700 ft^3/s, in July 1935, was determined by computation of flow over dam and from floodmarks.

PEAK DISCHARGES FOR CURRENT YEAR.--Maximum discharge, 1,720 ft^3/s, Nov. 23 at 0830 hours, gage height, 4.53 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	15	293	116	109	164	237	152	157	31	174	12
2	12	15	237	109	80	153	262	155	137	31	150	13
3	13	15	377	126	61	150	243	221	88	31	71	13
4	13	15	495	173	80	136	206	301	71	31	29	13
5	14	15	397	198	69	130	196	341	71	31	26	13
6	16	10	303	181	61	161	165	413	71	31	26	12
7	15	8.3	251	157	61	206	152	384	71	31	26	12
8	16	8.3	240	136	62	286	170	307	70	31	27	12
9	13	8.3	272	131	42	316	178	289	70	31	46	13
10	14	8.3	252	146	29	299	178	253	48	31	60	13
11	16	24	205	138	51	714	195	198	38	31	38	14
12	19	31	176	103	45	988	352	147	31	31	28	19
13	20	31	170	119	37	707	288	132	23	31	29	22
14	18	30	284	235	38	515	246	152	19	52	29	22
15	15	30	336	362	39	334	230	141	19	43	54	21
16	28	29	269	247	150	255	225	133	20	97	42	14
17	56	29	209	177	260	240	478	132	20	105	29	10
18	42	29	216	171	125	189	591	113	21	105	29	11
19	33	19	204	179	140	169	589	104	23	93	31	11
20	33	13	176	151	188	164	481	64	345	56	32	11
21	32	42	170	148	173	137	400	45	209	42	32	11
22	32	246	144	154	127	103	366	67	106	36	33	11
23	32	1470	128	153	141	109	325	76	55	63	33	43
24	19	682	128	252	171	114	247	75	60	99	24	57
25	14	531	100	199	176	107	277	74	69	66	14	56
26	14	510	85	140	160	145	342	74	69	47	11	54
27	15	338	85	116	154	434	323	51	42	30	12	53
28	15	302	85	126	139	378	235	42	29	24	12	53
29	27	307	86	132	156	292	193	42	29	24	30	30
30	32	300	134	122	---	290	162	42	30	56	37	14
31	20	---	140	109	---	240	---	75	---	94	20	---
TOTAL	670	5111.2	6647	5006	3124	8625	8532	4795	2111	1535	1234	663
MEAN	21.6	170	214	161	108	278	284	155	70.4	49.5	39.8	22.1
MAX	56	1470	495	362	260	988	591	413	345	105	174	57
MIN	12	8.3	85	103	29	103	152	42	19	24	11	10

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

MEAN	97.5	177	217	180	207	347	365	201	104	55.6	39.4	57.6
MAX	618	404	517	487	604	690	882	483	370	305	182	408
(WY)	1978	1973	1960	1979	1981	1977	1958	1983	1968	1973	1976	1977
MIN	3.35	4.46	45.0	28.3	33.3	86.2	91.6	35.4	16.2	6.95	3.86	2.45
(WY)	1965	1965	1961	1961	1980	1960	1946	1987	1964	1965	1964	1964

01500000 OULEOUT CREEK AT EAST SIDNEY, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1940 - 1992	
ANNUAL TOTAL	48878.5		48053.2			
ANNUAL MEAN	134		131		171	
HIGHEST ANNUAL MEAN					242	1960
LOWEST ANNUAL MEAN					77.9	1965
HIGHEST DAILY MEAN	1470	Nov 3	1470	Nov 23	3820	Dec 30 1942
LOWEST DAILY MEAN	6.2	a	8.3	b	1.2	Aug 13 1949
ANNUAL SEVEN-DAY MINIMUM	7.7	Aug 28	10	Nov 4	1.8	Nov 5 1973
INSTANTANEOUS PEAK FLOW			1720	Nov 23	c7250	Dec 30 1942
INSTANTANEOUS PEAK STAGE			4.53	Nov 23	d7.62	Dec 30 1942
INSTANTANEOUS LOW FLOW			7.9	Nov 1	f1.2	g
10 PERCENT EXCEEDS	334		301		401	
50 PERCENT EXCEEDS	73		75		85	
90 PERCENT EXCEEDS	9.1		14		13	

a July 6, Aug. 2.
b Nov. 7-10.
c From rating curve extended above 4,000 ft^3/s.
d Site and datum then in use.
f Result of regulation from construction.
g Aug. 13, 14, 17, 1949.

01500500 SUSQUEHANNA RIVER AT UNADILLA, NY

LOCATION.--Lat 42°19'17", long 75°19'01", Otsego County, Hydrologic Unit 02050101, on right bank 25 ft downstream from bridge on Bridge Street at Unadilla, 1.0 mi upstream from Carrs Creek, and 1.6 mi downstream from Ouleout Creek.

DRAINAGE AREA.--982 mi^2.

PERIOD OF RECORD.--June 1938 to current year.

REVISED RECORDS.--WSP 851: 1938(M). WSP 2103: 1966(M); Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 997.25 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Slight regulation by upstream lakes and reservoirs. Satellite and telephone gage-height telemeters at station. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Mar. 18, 1936, reached a stage of 16.6 ft, from floodmarks, discharge, 31,300 ft^3/s from publications of the Corps of Engineers, Baltimore District.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 11,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 11	2200	*7,870	*8.53	No peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	175	242	1680	e1000	e1000	e1200	2160	2210	1790	263	2110	519
2	138	230	1510	e960	e800	e1300	2160	2180	1500	241	2260	441
3	360	221	2140	1150	e750	1240	1980	4660	1140	230	1650	424
4	191	210	2880	1270	e750	1150	1820	4740	920	295	1350	490
5	309	203	2370	1390	e700	1280	1710	3840	822	317	1370	474
6	250	194	2050	1440	e700	1530	1570	4320	930	384	1300	413
7	299	184	1880	1320	e650	1890	1580	4070	1230	428	1090	382
8	315	186	1940	1210	e650	2590	1710	3410	1050	331	866	362
9	291	182	2450	1080	582	2800	1510	3110	906	318	872	350
10	290	176	2910	1270	545	2810	1600	2840	777	332	953	345
11	289	230	2560	1260	e520	5720	1810	2520	695	316	913	496
12	306	481	2250	986	e520	e6400	3080	2230	629	265	736	578
13	329	507	2130	1100	513	e4600	2880	1980	549	278	631	435
14	307	438	2610	1480	519	e3600	2340	1900	505	421	673	382
15	279	438	3370	2770	509	e3000	2160	1780	482	458	886	352
16	376	476	e2800	e1700	e900	e2600	2090	1640	441	1110	767	326
17	516	480	e2200	e1300	e1400	e2400	3620	1550	408	953	705	304
18	467	444	e2000	e1300	1190	e2200	4990	1360	378	741	758	290
19	460	405	e1800	e1200	1200	e2100	4640	1240	371	679	1220	306
20	464	392	e1700	e1200	1750	1930	4130	1070	819	617	1200	387
21	454	438	e1600	e1200	1490	1750	3630	942	798	585	1130	336
22	426	918	e1600	e1300	1220	1550	3370	866	544	501	1090	306
23	250	5740	e1500	e1500	1270	1480	3160	791	453	541	966	534
24	243	4570	e1400	e2000	1410	1330	2800	738	417	1300	852	582
25	277	3230	e1250	e1700	1360	1280	2980	846	436	1440	783	518
26	279	2660	e1100	e1400	1330	1470	3600	745	429	1170	751	499
27	274	2160	e1100	e1200	1300	2950	3300	742	378	1030	746	442
28	299	1860	e950	e1200	1240	3620	2860	724	335	897	695	323
29	451	1770	e950	e1200	e1600	2570	2570	687	308	830	808	226
30	325	1790	e1400	e1100	---	2260	2340	601	282	1080	875	276
31	269	---	e1200	e1100	---	2130	---	807	---	1170	646	---
TOTAL	9958	31455	59280	41286	28368	74730	80150	61139	20722	19521	31652	12098
MEAN	321	1048	1912	1332	978	2411	2672	1972	691	630	1021	403
MAX	516	5740	3370	2770	1750	6400	4990	4740	1790	1440	2260	582
MIN	138	176	950	960	509	1150	1510	601	282	230	631	226
CFSM	.33	1.07	1.95	1.36	1.00	2.45	2.72	2.01	.70	.64	1.04	.41
IN.	.38	1.19	2.25	1.56	1.07	2.83	3.04	2.32	.78	.74	1.20	.46

e Estimated

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

MEAN	781	1390	1780	1601	1792	3177	3762	2016	1048	524	382	518
MAX	5747	3191	4066	3652	4772	7113	9496	4520	3065	1568	1315	3778
(WY)	1978	1960	1973	1949	1976	1977	1940	1943	1972	1947	1942	1977
MIN	58.9	75.5	304	335	345	1130	999	543	250	136	93.1	69.2
(WY)	1965	1965	1965	1961	1980	1965	1946	1985	1964	1962	1965	1964

01500500 SUSQUEHANNA RIVER AT UNADILLA, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1938 - 1992	
ANNUAL TOTAL	472475		470359			
ANNUAL MEAN	1294		1285		1558	
HIGHEST ANNUAL MEAN					2280	1943
LOWEST ANNUAL MEAN					748	1965
HIGHEST DAILY MEAN	6250	Mar 5	6400	Mar 12	21000	Mar 15 1977
LOWEST DAILY MEAN	78	Sep 9	138	Oct 2	45	Oct 18 1964
ANNUAL SEVEN-DAY MINIMUM	83	Sep 4	191	Nov 4	50	Oct 17 1964
INSTANTANEOUS PEAK FLOW			7870	Mar 11	23500	Mar 14 1977
INSTANTANEOUS PEAK STAGE			8.53	Mar 11	14.64	Mar 14 1977
INSTANTANEOUS LOW FLOW			126	a	39	Oct 17 1964
ANNUAL RUNOFF (CFSM)	1.32		1.31		1.59	
ANNUAL RUNOFF (INCHES)	17.90		17.82		21.56	
10 PERCENT EXCEEDS	3020		2800		3630	
50 PERCENT EXCEEDS	823		1000		900	
90 PERCENT EXCEEDS	147		299		186	

a Oct. 2, 3.

01502000 BUTTERNUT CREEK AT MORRIS, NY

LOCATION.--Lat 42°32'43", long 75°14'22", Otsego County, Hydrologic Unit 02050101, on right bank 15 ft upstream from bridge on State Highway 23 at Morris, and 0.2 mi upstream from Calhoun Creek.

DRAINAGE AREA.--59.7 mi^2.

PERIOD OF RECORD.--June 1938 to current year.

REVISED RECORDS.--WSP 921: 1939. WSP 2103: Drainage area. WRD NY 1974: 1973(P).

GAGE.--Water-stage recorder. Datum of gage is 1096.21 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Several measurements of water temperature were made during the year. Satellite gage-height telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
May 3	0530	*698	*4.75	No peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	15	76	e55	e55	e75	125	131	172	17	245	44
2	37	14	69	e60	e50	e80	126	153	116	16	133	39
3	23	14	149	74	e50	e75	115	490	87	16	105	41
4	16	14	182	86	e48	e75	111	280	76	20	94	57
5	15	13	123	103	e48	95	104	264	68	25	87	42
6	19	13	114	99	e45	118	97	302	79	43	73	36
7	24	13	106	90	e42	188	94	235	83	25	63	34
8	17	13	116	83	e40	251	107	199	68	20	56	32
9	16	13	190	81	e37	215	100	186	60	27	58	30
10	15	12	159	92	37	200	94	162	52	26	59	30
11	16	23	130	85	e36	431	124	144	47	19	51	83
12	16	41	118	73	e30	e250	205	127	43	17	45	47
13	16	29	117	77	e30	e190	141	117	39	30	40	37
14	15	27	190	167	e30	e160	126	119	36	33	67	34
15	14	26	200	e180	34	e140	118	103	34	58	64	31
16	27	31	144	e100	80	e110	127	106	31	79	51	29
17	27	29	118	e90	83	e110	338	98	29	45	54	27
18	25	26	118	e85	73	e100	268	88	27	45	97	25
19	23	25	e90	e80	115	e90	258	79	32	38	95	44
20	20	25	e90	e80	141	e80	211	72	54	47	66	37
21	19	26	e90	e80	98	e75	188	66	35	36	57	30
22	17	43	e90	84	86	e70	195	60	31	31	51	30
23	17	225	e85	89	92	e65	206	55	29	115	47	84
24	16	129	e80	159	96	e60	168	54	27	145	42	49
25	16	117	74	e90	88	e55	251	57	27	79	40	41
26	16	96	e65	e75	85	e80	248	51	25	62	54	40
27	16	84	e60	e65	82	238	213	50	23	60	45	43
28	16	78	e55	e65	80	185	174	56	21	51	39	43
29	16	85	73	e62	e95	132	156	47	19	51	98	38
30	15	84	112	e60	---	125	137	41	18	76	64	35
31	15	---	e60	e60	---	122	---	131	---	210	50	---
TOTAL	571	1383	3443	2729	1906	4240	4925	4123	1488	1562	2190	1212
MEAN	18.4	46.1	111	88.0	65.7	137	164	133	49.6	50.4	70.6	40.4
MAX	37	225	200	180	141	431	338	490	172	210	245	84
MIN	11	12	55	55	30	55	94	41	18	16	39	25
CFSM	.31	.77	1.86	1.47	1.10	2.29	2.75	2.23	.83	.84	1.18	.68
IN.	.36	.86	2.15	1.70	1.19	2.64	3.07	2.57	.93	.97	1.36	.76

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1992, BY WATER YEAR (WY)

MEAN	57.3	93.9	116	97.6	113	220	232	118	64.1	30.1	21.0	33.0
MAX	486	260	267	222	351	638	589	262	234	99.5	95.0	331
(WY)	1978	1960	1973	1978	1976	1977	1940	1943	1972	1972	1986	1977
MIN	3.51	5.17	16.4	18.9	21.5	61.4	55.4	33.3	13.3	6.80	4.57	3.46
(WY)	1965	1965	1965	1961	1980	1941	1946	1985	1964	1962	1964	1964

01502000 BUTTERNUT CREEK AT MORRIS, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1938 - 1992	
ANNUAL TOTAL	29620.7		29772			
ANNUAL MEAN	81.2		81.3		99.5	
HIGHEST ANNUAL MEAN					174	1978
LOWEST ANNUAL MEAN					47.7	1965
HIGHEST DAILY MEAN	741	Mar 4	490	May 3	3700	Oct 17 1977
LOWEST DAILY MEAN	5.7	Sep 9	11	Oct 1	1.3	Sep 24 1939
ANNUAL SEVEN-DAY MINIMUM	6.1	Sep 4	13	Nov 4	2.7	Oct 9 1964
INSTANTANEOUS PEAK FLOW			698	May 3	5980	Oct 17 1977
INSTANTANEOUS PEAK STAGE			4.75	May 3	9.44	Oct 17 1977
INSTANTANEOUS LOW FLOW			10	Oct 1	a1.2	Sep 24 1939
ANNUAL RUNOFF (CFSM)	1.36		1.36		1.67	
ANNUAL RUNOFF (INCHES)	18.46		18.55		22.65	
10 PERCENT EXCEEDS	190		173		220	
50 PERCENT EXCEEDS	54		65		52	
90 PERCENT EXCEEDS	9.0		19		10	

a Result of regulation.

01502500 UNADILLA RIVER AT ROCKDALE, NY

LOCATION.--Lat 42°22'40", long 75°24'23", Chenango County, Hydrologic Unit 02050101, on right bank 400 ft down-stream from Chenango-Otsego County highway bridge at Rockdale, and 0.7 mi downstream from Kent Brook.

DRAINAGE AREA.--520 mi^2.

PERIOD OF RECORD.--November 1929 to September 1933, January 1937 to current year.

REVISED RECORDS.--WRD NY 1974: 1973 (P).

GAGE.--Water-stage recorder. Datum of gage is 992.25 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1933, nonrecording gage at bridge 400 ft upstream at datum 0.73 ft higher.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Telephone and satellite gage-height telemeters at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
May 3	1900	*3,990	*7.54	No peaks greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	144	166	913	e660	e600	654	1210	1090	2460	162	2800	566
2	187	159	801	e640	e520	710	1220	1110	1890	151	1800	468
3	528	154	1270	687	e500	688	1090	3180	1140	146	1200	444
4	357	151	1950	807	e500	647	1010	3050	833	163	919	632
5	268	143	1380	1020	e450	754	937	2100	694	227	840	545
6	259	136	1110	1040	e440	1000	840	2360	676	311	715	436
7	408	134	1020	892	e420	1390	790	1920	678	335	590	383
8	372	134	1060	794	e400	2230	861	1570	609	239	513	360
9	284	134	1510	696	e380	2220	897	1430	547	228	489	349
10	245	129	1870	826	e340	1970	820	1290	472	335	544	333
11	226	171	1450	801	e300	2960	940	1120	408	281	522	1160
12	241	447	1220	639	e280	2780	1760	976	365	214	471	966
13	250	470	1140	694	e280	1920	1490	861	334	219	414	606
14	222	392	1450	1130	e280	1510	1140	903	303	427	643	487
15	203	387	1780	2280	316	1380	1000	787	278	409	1240	444
16	253	415	1330	e1250	541	e1050	952	752	255	954	909	399
17	448	436	924	e950	858	e1000	2300	784	239	742	1170	364
18	404	416	e900	e920	778	e950	2760	692	225	534	1000	340
19	353	368	777	e900	e850	e900	2380	618	228	509	1400	408
20	310	351	e800	e860	e1400	802	2010	551	303	448	921	567
21	285	351	e800	e820	1150	742	1730	482	305	440	723	414
22	264	466	e800	809	865	648	1650	436	257	393	611	360
23	244	1960	e750	792	859	634	1640	392	236	451	532	722
24	227	1900	e720	1280	893	595	1410	368	224	2050	478	733
25	213	1600	625	1230	826	564	1760	384	224	1420	448	508
26	202	1280	564	e820	763	749	2310	371	255	952	487	465
27	200	1020	e550	e720	730	1990	1920	353	228	776	497	534
28	199	882	e500	709	694	2530	1530	367	211	672	436	515
29	191	872	566	e680	936	1620	1310	381	191	593	944	463
30	187	1010	1030	661	---	1340	1160	327	174	740	1010	405
31	173	---	e850	641	---	1230	---	709	---	1090	655	---
TOTAL	8347	16634	32410	27648	18149	40157	42827	31714	15242	16611	25921	15376
MEAN	269	554	1045	892	626	1295	1428	1023	508	536	836	513
MAX	528	1960	1950	2280	1400	2960	2760	3180	2460	2050	2800	1160
MIN	144	129	500	639	280	564	790	327	174	146	414	333
CFSM	.52	1.07	2.01	1.72	1.20	2.49	2.75	1.97	.98	1.03	1.61	.99
IN.	.60	1.19	2.32	1.98	1.30	2.87	3.06	2.27	1.09	1.19	1.85	1.10

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1992, BY WATER YEAR (WY)

MEAN	445	781	974	865	998	1800	1989	965	517	285	192	284
MAX	2944	2223	2104	1931	2857	4181	5395	2264	1710	1209	836	2067
(WY)	1978	1960	1973	1952	1981	1977	1940	1943	1972	1947	1992	1977
MIN	34.6	51.6	148	115	174	568	465	278	128	65.4	54.0	34.2
(WY)	1965	1965	1931	1931	1980	1941	1946	1985	1964	1962	1964	1964

01502500 UNADILLA RIVER AT ROCKDALE, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1930 - 1933, 1937 - 1992	
ANNUAL TOTAL	273680		291036			
ANNUAL MEAN	750		795		841	
HIGHEST ANNUAL MEAN					1294	1943
LOWEST ANNUAL MEAN					447	1965
HIGHEST DAILY MEAN	5420	Mar 5	3180	May 3	15400	Mar 6 1979
LOWEST DAILY MEAN	59	a	129	Nov 10	27	b
ANNUAL SEVEN-DAY MINIMUM	63	Sep 6	137	Nov 4	27	Sep 20 1964
INSTANTANEOUS PEAK FLOW			3990	May 3	17400	Dec 31 1942
INSTANTANEOUS PEAK STAGE			7.54	May 3	12.98	Dec 31 1942
INSTANTANEOUS LOW FLOW			126	Nov 10	24	c
ANNUAL RUNOFF (CFSM)	1.44		1.53		1.62	
ANNUAL RUNOFF (INCHES)	19.58		20.82		21.98	
10 PERCENT EXCEEDS	1770		1610		1980	
50 PERCENT EXCEEDS	500		660		451	
90 PERCENT EXCEEDS	87		227		96	

a Sept. 9, 10.
b Sept. 20-27, 1964.
c Sept. 24, 27, 1964.

01502701 SUSQUEHANNA RIVER AT AFTON, NY

LOCATION.--Lat 42°13'38", long 75°31'27", Chenango County, Hydrologic Unit 02050101, at bridge on State Highway 41, 0.1 mi southeast of Afton and intersection of State Highways 7 and 41, and 0.2 mi downstream from Kelsey Brook.

DRAINAGE AREA.--1,716 mi^2.

PERIOD OF RECORD.--Water years 1988 to current year.
CHEMICAL DATA: 1988-89 (b), 1990-91 (c), 1992 (a).
MINOR ELEMENT DATA: 1988-89 (b), 1990-91 (c), 1992 (a).
SEDIMENT DATA: 1988-89 (b), 1990-91 (c), 1992 (a).

COOPERATION.--Water samples were collected by the New York State Department of Environmental Conservation, and were analyzed by the USGS National Water Quality Laboratory at Arvada, Colorado.

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 PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
OCT									
07	1300	260	8.2	15.5	735	8.6	90	300	< 1
NOV									
04	1300	196	7.1	8.0	744	10.8	93	180	< 1

DATE	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)	SEDIMENT, SUSPENDED (MG/L)
OCT								
07	8	640	4	60	< 0.10	2	< 10	17
NOV								
04	--	300	3	50	< 0.10	2	20	7

01503000 SUSQUEHANNA RIVER AT CONKLIN, NY

LOCATION.--Lat 42°02'07", long 75°48'12", Broome County, Hydrologic Unit 02050101, on left bank at abutment of former highway bridge, 500 ft upstream from bridge on County Highway 304 at Conklin, 0.7 mi downstream from Little Snake Creek, and 3.5 mi downstream from Pennsylvania-New York State line.

DRAINAGE AREA.--2,232 mi^2.

PERIOD OF RECORD.--November 1912 to current year.

REVISED RECORDS.--WSP 1672: 1918(M, P). WSP 2103: Drainage area. WDR NY–81–3: 1918 (M, P).

GAGE.--Water-stage recorder. Datum of gage is 841.04 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 4, 1914, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Minor regulation by upstream lakes and reservoirs. Telephone and satellite gage-height telemeters at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 18,000 ft^3/s and maximum (*);

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 12	1000	*15,100	*9.46	No peak greater than base dicharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	484	656	3470	e2700	e2400	e3500	5450	4710	7000	621	4940	1690
2	438	572	3220	e2400	e2000	e2900	5350	4510	7800	573	5940	1370
3	415	534	4850	2500	e1900	3040	4990	6120	5320	535	4860	1170
4	474	516	6990	2950	e1800	2880	4500	10300	3750	524	3670	1110
5	787	481	6550	3890	e1600	2910	4130	8680	2910	547	3080	1310
6	612	475	5140	3920	e1600	3270	3790	8020	2750	654	2740	1280
7	638	458	4420	3720	e1600	3950	3450	8580	2650	698	2470	1080
8	594	449	4150	3310	e1500	5320	3460	7430	2860	854	2110	949
9	746	431	4290	2980	e1400	6430	3600	8060	2530	848	2220	887
10	705	425	5070	2870	e1400	6400	3440	6680	2100	737	1970	883
11	637	477	5460	3070	e1300	10500	3460	5800	1840	702	1880	1300
12	674	558	4750	2910	e1200	14800	5440	5050	1580	754	1800	1870
13	670	772	4270	2500	e1200	11300	6820	4440	1430	681	1600	1890
14	696	1180	4650	3100	e1300	8060	5580	4010	1290	626	1440	1360
15	686	1060	5760	5280	e1700	e6600	4760	3780	1130	1140	1450	1120
16	719	1010	6150	e5900	e1900	e5600	4390	3540	1040	2290	2360	987
17	743	1020	5100	e4100	e2800	4870	6130	3320	951	2320	2090	910
18	1040	1050	e4100	e3100	e3700	e4400	11400	3140	857	3040	2170	828
19	1150	1030	e3900	e2900	e3200	4280	12700	2780	833	2560	2070	797
20	1010	948	e3400	e2900	e3900	3980	10200	2470	804	1840	2750	776
21	925	917	e3400	e2900	e4100	3590	8310	2180	1020	1530	2400	987
22	904	1540	3400	e3000	e3700	3200	7680	1900	1450	1380	2090	1220
23	845	7810	3210	e3300	3150	2950	7050	1750	1090	1190	1900	1430
24	776	10900	3070	e4100	3260	2750	6410	1620	939	1290	1710	1480
25	659	7750	e2800	e4500	3370	2570	6820	1590	860	3200	1540	1610
26	588	5990	e2400	e3900	3250	2810	7760	1580	840	3510	1410	1750
27	626	4910	e2200	e3100	3040	7480	7860	1570	878	3620	1360	1690
28	670	4090	e2200	e2800	2940	9970	6740	1470	839	2620	1460	1650
29	637	3590	e2100	e2800	3770	8040	5750	1380	736	2390	2130	1490
30	639	3410	2830	e2800	---	6110	5120	1390	669	3190	2080	1170
31	761	---	3410	e2600	---	5630	---	2480	---	4240	2280	---
TOTAL	21948	65009	126710	102800	69980	170090	182540	130330	60746	50704	73970	38044
MEAN	708	2167	4087	3316	2413	5487	6085	4204	2025	1636	2386	1268
MAX	1150	10900	6990	5900	4100	14800	12700	10300	7800	4240	5940	1890
MIN	415	425	2100	2400	1200	2570	3440	1380	669	524	1360	776
CFSM	.32	.97	1.83	1.49	1.08	2.46	2.73	1.88	.91	.73	1.07	.57
IN.	.37	1.08	2.11	1.71	1.17	2.83	3.04	2.17	1.01	.85	1.23	.63

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1992, BY WATER YEAR (WY)

MEAN	1904	3373	3934	3804	3951	7626	8312	4241	2241	1424	977	1207
MAX	12860	9281	9665	10110	11150	18540	21340	10590	8122	7929	5033	8783
(WY)	1978	1928	1921	1913	1981	1936	1940	1943	1917	1915	1915	1977
MIN	130	140	641	476	724	2808	2000	1300	509	267	171	142
(WY)	1965	1965	1931	1931	1980	1965	1946	1985	1964	1936	1964	1964

01503000 SUSQUEHANNA RIVER AT CONKLIN, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1913 - 1992	
ANNUAL TOTAL	1051188		1092871			
ANNUAL MEAN	2880		2986		3579	
HIGHEST ANNUAL MEAN					5667	1928
LOWEST ANNUAL MEAN					1690	1965
HIGHEST DAILY MEAN	18200	Mar 5	14800	Mar 12	57800	Mar 19 1936
LOWEST DAILY MEAN	209	Sep 11	415	Oct 3	105	Oct 24 1964
ANNUAL SEVEN-DAY MINIMUM	216	Sep 8	457	Nov 5	114	Oct 19 1964
INSTANTANEOUS PEAK FLOW			15100	Mar 12	61600	Mar 18 1936
INSTANTANEOUS PEAK STAGE			9.46	Mar 12	20.83	Mar 22 1948
INSTANTANEOUS LOW FLOW			405	Oct 4	85	Oct 14 1964
ANNUAL RUNOFF (CFSM)	1.29		1.34		1.60	
ANNUAL RUNOFF (INCHES)	17.52		18.21		21.78	
10 PERCENT EXCEEDS	6860		6220		8420	
50 PERCENT EXCEEDS	1670		2470		2000	
90 PERCENT EXCEEDS	347		679		431	

01505000 CHENANGO RIVER AT SHERBURNE, NY

LOCATION.--Lat 42°40'43", long 75°30'39", Chenango County, Hydrologic Unit 02050102, on right bank 20 ft downstream from bridge on State Highway 80, 0.5 mi west of Sherburne, and 0.5 mi downstream from Handsome Brook.

DRAINAGE AREA.--263 mi^2.

PERIOD OF RECORD.--May 1938 to current year.

REVISED RECORDS.--WSP 851: 1938(M). WSP 1502: 1955. WSP 2103: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,037.16 ft above National Geodetic Vertical Datum of 1929. July 22 to Dec. 9, 1953, nonrecording gage or reference point and Dec. 10, 1953 to Jan. 26, 1955, water-stage recorder at temporary site 1.5 mi downstream, at datum approximately 11.9 ft lower, during period of construction of highway bridge.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Flow from 82 mi^2 of drainage area formerly may have been diverted into Mohawk River basin through abandoned Chenango Canal; no diversion from this cause known during period of record. Telephone gage-height telemeter and satellite gage-height, temperature, and precipitation telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936, reached a stage of 10.6 ft, from records of National Weather Service.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
May 3	0530	*2,210	*6.75	No peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	80	409	e340	e330	e340	783	499	1750	62	1510	285
2	105	81	361	e320	e310	e360	744	592	1160	57	1060	247
3	112	85	692	351	e300	352	653	1830	789	58	793	235
4	111	85	790	420	e280	338	613	1220	565	99	634	336
5	103	82	e550	642	e270	431	563	1000	442	99	486	268
6	105	81	e510	558	e250	590	512	907	425	176	391	232
7	112	81	494	488	e240	804	495	765	410	124	327	204
8	103	82	556	433	e230	1070	550	656	418	88	285	186
9	96	79	883	399	e220	1010	528	657	350	214	323	177
10	91	78	740	439	e220	975	500	581	269	189	328	242
11	94	117	623	395	e210	1280	615	507	215	120	317	526
12	99	180	545	341	e190	e900	863	448	180	91	283	351
13	96	160	526	359	e180	e750	653	418	150	208	239	298
14	94	163	546	723	e180	e700	569	411	126	288	691	253
15	90	163	556	944	e190	e590	503	362	106	449	519	216
16	120	174	e420	e650	351	e520	529	407	93	643	533	190
17	129	171	e350	e590	396	e490	1230	387	88	457	483	173
18	119	151	e340	e550	358	e440	996	340	85	462	552	157
19	111	142	e320	e520	563	e420	982	307	94	398	467	266
20	107	138	e320	e500	716	e390	827	275	184	345	390	247
21	105	142	e310	e460	549	e360	726	243	126	282	337	208
22	100	175	e310	438	467	e320	671	210	103	244	290	220
23	99	546	e300	436	475	e320	619	190	93	869	249	528
24	94	559	e280	e660	472	e310	583	178	89	1240	222	364
25	91	647	e250	e480	434	e310	887	186	109	822	207	315
26	87	499	e230	e450	412	449	941	169	93	638	208	326
27	86	426	e220	e420	392	1400	780	174	85	547	187	325
28	86	371	e180	397	381	1450	652	175	81	421	191	302
29	84	435	296	374	e420	982	573	162	78	370	585	259
30	83	449	541	361	---	873	517	151	71	417	377	244
31	81	---	e380	353	---	769	---	701	---	906	340	---
TOTAL	3080	6622	13828	14791	9986	20293	20657	15108	8827	11383	13804	8180
MEAN	99.4	221	446	477	344	655	689	487	294	367	445	273
MAX	129	647	883	944	716	1450	1230	1830	1750	1240	1510	528
MIN	81	78	180	320	180	310	495	151	71	57	187	157
CFSM	.38	.84	1.70	1.81	1.31	2.49	2.62	1.85	1.12	1.40	1.69	1.04
IN.	.44	.94	1.96	2.09	1.41	2.87	2.92	2.14	1.25	1.61	1.95	1.16

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1992, BY WATER YEAR (WY)

MEAN	208	330	456	414	472	882	965	446	255	141	99.0	137
MAX	1227	792	994	912	1497	2059	2596	989	1190	447	445	853
(WY)	1978	1969	1973	1952	1981	1977	1940	1947	1972	1947	1992	1977
MIN	20.2	33.9	97.3	82.9	102	315	222	144	64.1	28.9	31.3	21.4
(WY)	1964	1965	1961	1961	1980	1941	1946	1941	1941	1962	1939	1939

01505000 CHENANGO RIVER AT SHERBURNE, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1938 - 1992	
ANNUAL TOTAL	117927		146559			
ANNUAL MEAN	323		400		400	
HIGHEST ANNUAL MEAN					640	1943
LOWEST ANNUAL MEAN					200	1965
HIGHEST DAILY MEAN	2120	Mar 4	1830	May 3	8570	Mar 6 1979
LOWEST DAILY MEAN	37	a	57	Jul 2	14	Sep 24 1964
ANNUAL SEVEN-DAY MINIMUM	40	Jul 17	70	Jun 27	15	Sep 21 1964
INSTANTANEOUS PEAK FLOW			2210	May 3	10400	Mar 6 1979
INSTANTANEOUS PEAK STAGE			6.75	May 3	b9.99	Dec 30 1942
INSTANTANEOUS LOW FLOW			55	c	12	Sep 25 1964
ANNUAL RUNOFF (CFSM)	1.23		1.52		1.52	
ANNUAL RUNOFF (INCHES)	16.68		20.73		20.65	
10 PERCENT EXCEEDS	709		772		936	
50 PERCENT EXCEEDS	207		350		221	
90 PERCENT EXCEEDS	50		94		51	

a July 31, Aug. 1.
b Ice jam.
c July 2, 3.

01509000 TIOUGHNIOGA RIVER AT CORTLAND, NY

LOCATION.--Lat 42°36'10", long 76°09'35", Cortland County, Hydrologic Unit 02050102, on right bank at east end of Elm Street at Cortland, 0.4 mi downstream from confluence of East and West Branches. Water-quality sampling site at Cortland Sewage Treatment Plant, 0.4 mi downstream from discharge station.

DRAINAGE AREA.--292 mi^2, including 14.0 mi^2, the flow from which may be diverted into De Ruyter Reservoir in Oswego River basin.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1938 to current year.

REVISED RECORDS.--WSP 2103: Drainage area. WRD NY 1974: 1973.

GAGE.--Water-stage recorder. Datum of gage is 1,084.92 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1939, water-stage recorder at datum 4.00 ft higher; Oct. 1, 1939 to Sept. 30, 1963, water-stage recorder at datum 3.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Diurnal fluctuation at low and medium flow caused by powerplants in mills on West Branch. Slight diversion from East Branch for operation of Erie (Barge) Canal. Slight diversion from Gate House Pond on West Branch 17 mi upstream from station into Onondaga Creek basin (St. Lawrence River basin) for manufacturing purposes by Linden Chlorine Process Co. Telephone and satellite gage-height telemeters at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 28	0730	*3,430	*7.56	No peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	70	357	e380	345	539	1370	653	1690	92	2260	227
2	65	69	326	e360	e310	561	1300	686	1780	83	1580	200
3	66	67	514	e390	e290	502	1100	1240	1150	82	1030	226
4	65	66	785	524	e280	463	976	1100	727	99	770	358
5	68	67	e510	958	e280	543	884	866	538	133	622	253
6	67	69	e420	790	e260	786	791	778	480	217	516	213
7	82	69	e400	636	e250	1030	769	702	424	149	444	197
8	84	71	456	553	e240	1470	974	634	512	129	398	190
9	80	75	737	506	e240	1530	976	610	424	333	436	189
10	77	68	689	533	e230	1520	900	564	340	259	380	214
11	75	78	536	492	e230	2070	1130	513	299	189	405	347
12	74	133	469	423	e220	1830	1810	469	266	151	367	273
13	70	117	454	419	e220	e1250	1390	407	245	255	337	233
14	66	118	462	745	e220	e980	1050	387	224	321	516	206
15	66	141	453	1160	227	e850	879	375	202	405	443	190
16	95	190	394	e700	401	e720	840	386	183	886	375	173
17	128	198	e330	e620	475	e660	1520	375	171	521	341	155
18	109	159	e320	e550	399	e600	1390	385	160	724	361	142
19	118	138	e290	e480	723	588	1300	378	147	579	363	343
20	113	128	e280	e450	1080	527	1100	335	221	481	304	315
21	109	124	298	e430	788	e490	961	304	204	406	274	243
22	102	143	293	e410	654	439	896	279	184	373	251	308
23	102	279	294	e400	665	e430	803	263	171	936	232	625
24	97	319	309	e630	666	412	778	259	159	1870	215	471
25	87	370	e290	e500	618	394	1130	261	162	1170	201	394
26	83	323	e250	e420	587	481	1220	251	143	811	182	525
27	85	291	e240	e380	558	2380	1030	263	127	713	166	658
28	98	270	e220	e370	531	3230	875	275	118	559	178	689
29	83	326	e300	e370	664	2000	769	256	110	537	391	546
30	74	398	661	373	---	1560	692	237	100	564	299	482
31	71	---	e460	363	---	1300	---	603	---	1380	257	---
TOTAL	2625	4934	12797	16315	12651	32135	31603	15094	11661	15407	14894	9585
MEAN	84.7	164	413	526	436	1037	1053	487	389	497	480	319
MAX	128	398	785	1160	1080	3230	1810	1240	1780	1870	2260	689
MIN	65	66	220	360	220	394	692	237	100	82	166	142
CFSM	.29	.56	1.41	1.80	1.49	3.55	3.61	1.67	1.33	1.70	1.65	1.09
IN.	.33	.63	1.63	2.08	1.61	4.09	4.03	1.92	1.49	1.96	1.90	1.22

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1992, BY WATER YEAR (WY)

MEAN	255	415	569	495	559	1069	1219	576	330	179	127	157
MAX	1553	1119	1307	1038	1469	2432	2967	1352	1674	539	480	1125
(WY)	1978	1969	1973	1979	1976	1945	1940	1943	1972	1976	1992	1977
MIN	33.2	44.3	86.7	112	127	359	305	212	88.7	43.5	34.6	23.8
(WY)	1965	1965	1961	1961	1963	1941	1946	1985	1939	1962	1939	1939

01509000 TIOUGHNIOGA RIVER AT CORTLAND, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1938 - 1992	
ANNUAL TOTAL	141477		179701			
ANNUAL MEAN	388		491		495	
HIGHEST ANNUAL MEAN					723	1943
LOWEST ANNUAL MEAN					303	1965
HIGHEST DAILY MEAN	3000	Mar 5	3230	Mar 28	11500	Mar 6 1979
LOWEST DAILY MEAN	41	Sep 14	65	a	17	b
ANNUAL SEVEN-DAY MINIMUM	45	Sep 8	68	Nov 1	21	Sep 19 1939
INSTANTANEOUS PEAK FLOW			3430	Mar 28	13000	Mar 5 1964
INSTANTANEOUS PEAK STAGE			7.56	Mar 28	13.82	Apr 5 1950
INSTANTANEOUS LOW FLOW			64	c	9.8	Sep 20 1939
ANNUAL RUNOFF (CFSM)	1.33		1.68		1.69	
ANNUAL RUNOFF (INCHES)	18.02		22.89		23.02	
10 PERCENT EXCEEDS	871		1040		1110	
50 PERCENT EXCEEDS	225		376		281	
90 PERCENT EXCEEDS	69		96		67	

a Oct. 2, 4.
b Sept. 26, 27, 1959.
c Oct. 1, 2, 3, 14, 15.

01509000 TIOUGHNIOGA RIVER AT CORTLAND, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957 to current year.
CHEMICAL DATA: 1957 (e), 1970, 1972 (a).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1956 to September 1957, once-daily measurements, unpublished.
pH: October 1956 to September 1957, once-daily measurements, unpublished.
WATER TEMPERATURES: October 1956 to current year.

REMARKS.--Daily water-temperature measurements made at 0900 hours. Measurements are reported to half degrees Celsius.

COOPERATION.--Water-temperature records furnished by the city of Cortland.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum daily. 23.5°C July 22, 1957; minimum daily (except water year 1960), 0.0°C on many days during winter periods in water years 1957, 1959, 1962, 1967-84, 1987, 1990.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum reported daily, 19.0°C July 18,19; minimum daily, 0.0°C Dec. 31,Jan. 1,15-20, Feb. 1,2, 4-6,8-14,17-20 and Mar. 12.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
(ONCE DAILY AT 0900)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.5	7.5	7.5	.0	.0	3.0	6.0	8.0	11.0	15.0	16.0	13.0
2	11.0	11.0	6.5	1.0	.0	4.0	6.0	10.0	11.5	14.0	16.0	12.0
3	13.0	8.0	4.0	1.5	.5	5.0	4.5	10.0	13.0	14.5	15.5	14.0
4	12.5	7.5	4.0	3.0	.0	3.0	4.0	9.0	14.0	14.0	15.0	14.0
5	15.0	4.0	1.5	3.5	.0	6.0	4.5	9.0	13.0	14.0	15.5	15.0
6	14.0	3.5	2.0	3.0	.0	4.5	5.0	9.0	14.5	9.0	15.5	15.0
7	11.0	6.0	2.5	2.5	.5	4.0	8.0	8.0	14.5	9.5	15.0	14.5
8	9.0	7.0	3.5	2.5	.0	4.5	7.0	8.5	16.0	14.0	15.5	15.0
9	9.5	4.5	6.0	3.0	.0	6.0	5.5	11.0	14.0	17.0	16.5	15.0
10	11.5	4.5	5.0	4.0	.0	5.5	7.0	11.0	13.5	17.0	16.0	15.5
11	11.0	7.0	3.5	2.0	.0	4.0	8.5	11.5	14.5	17.0	17.5	15.5
12	10.0	5.5	4.0	2.0	.0	.0	8.0	13.0	14.5	17.0	16.5	13.3
13	10.0	6.0	8.0	4.0	.0	1.0	7.0	13.5	15.5	16.5	15.0	12.0
14	7.5	6.5	7.0	5.0	.0	1.0	5.5	13.0	15.5	17.0	14.5	12.0
15	9.0	7.0	3.0	.0	.5	.5	7.5	13.0	15.0	18.0	15.0	12.5
16	10.0	8.0	3.0	.0	.5	1.0	8.0	13.0	13.0	17.0	15.5	14.0
17	8.0	7.0	1.5	.0	.0	2.0	6.0	12.5	15.0	17.0	15.5	14.5
18	7.5	3.5	1.5	.0	.0	3.0	6.0	14.0	15.0	19.0	16.0	15.5
19	8.0	6.5	.5	.0	.0	4.0	7.0	11.0	14.5	19.0	15.0	16.5
20	8.0	9.0	.5	.0	.0	3.0	9.5	12.0	15.0	17.0	15.0	14.0
21	8.0	10.0	3.0	1.0	1.0	4.0	12.0	12.5	14.0	17.5	15.0	14.0
22	7.5	10.0	3.5	1.5	3.0	3.0	12.5	14.0	13.5	16.0	14.5	14.0
23	9.0	9.0	3.0	4.0	4.0	5.0	11.0	12.0	10.5	16.0	15.0	13.5
24	11.0	7.0	3.0	5.0	3.5	4.0	10.0	12.0	10.5	16.0	15.0	10.0
25	12.0	8.5	2.5	.5	4.0	7.0	10.0	11.5	13.0	16.0	16.5	10.5
26	12.5	4.0	1.5	1.0	4.5	6.0	10.5	11.0	13.5	16.5	15.5	12.5
27	13.0	3.5	2.0	1.0	3.0	3.0	8.0	10.0	14.0	17.0	17.0	13.5
28	11.0	4.5	2.5	2.5	1.5	2.0	8.0	10.0	13.0	17.0	17.0	12.5
29	8.0	6.0	3.5	3.0	1.0	2.0	7.5	10.0	14.0	16.0	16.5	12.5
30	6.5	6.0	2.0	2.0	---	4.0	9.0	12.0	14.5	16.0	14.0	9.5
31	6.0	---	.0	1.0	---	5.5	---	11.5	---	15.5	16.0	---
MEAN	10.0	6.6	3.3	1.9	.9	3.6	7.6	11.2	13.8	15.9	15.6	13.2
MAX	15.0	11.0	8.0	5.0	4.5	7.0	12.5	14.0	16.0	19.0	17.5	16.5
MIN	6.0	3.5	.0	.0	.0	.0	4.0	8.0	10.5	9.0	14.0	2.5

01510000 OTSELIC RIVER AT CINCINNATUS, NY

LOCATION.--Lat 42°32'28", long 75°54'00", Cortland County, Hydrologic Unit 02050102, on right bank 150 ft upstream from Mead Brook, and 300 ft downstream from bridge on County Highway 159 at Cincinnatus.

DRAINAGE AREA.--147 mi^2.

PERIOD OF RECORD.--June 1938 to September 1964, October 1969 to current year.

REVISED RECORDS.--WSP 2103: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,031.67 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Telephone and satellite gage-height telemeters at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
June 1	0130	*2,960	*6.11	No other peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e47	e50	280	197	e130	e200	732	320	2340	44	1310	107
2	e47	e49	219	194	e125	216	632	370	1160	39	640	92
3	e48	e48	774	225	e120	185	524	919	e520	37	436	99
4	e48	e47	706	361	e110	183	458	658	e360	54	353	142
5	e49	e48	458	577	e100	272	412	540	e260	87	297	107
6	e49	e49	393	437	e98	450	357	545	e240	135	245	92
7	e58	e49	345	364	e96	697	364	453	e210	67	208	85
8	e60	e51	391	310	e92	1000	549	384	e220	53	183	85
9	e57	e55	706	283	e86	942	509	377	e200	208	226	100
10	e56	e49	564	319	e84	983	471	323	e170	112	183	154
11	e55	e58	432	268	e84	1700	698	277	e150	82	163	238
12	e54	98	367	221	e84	920	1000	232	e140	71	145	125
13	e51	e85	395	226	e84	654	669	196	e130	151	131	102
14	e48	e85	450	703	e82	501	535	198	e120	159	478	92
15	e48	e100	426	777	e82	e400	437	154	e100	248	257	84
16	e62	e150	335	e420	241	e330	461	177	e90	434	203	79
17	e78	e160	265	e320	223	e280	1090	154	e85	262	182	76
18	e80	e115	286	e300	164	e260	791	145	e80	419	263	72
19	e84	e100	218	e250	464	e240	761	139	e220	285	191	115
20	e84	e92	e210	e240	559	e190	637	132	308	230	148	92
21	e78	e90	235	e210	351	e170	563	129	142	187	127	78
22	e75	e105	218	e200	286	134	525	126	109	158	111	181
23	e74	351	193	e190	319	e130	432	124	94	704	99	368
24	e70	471	176	473	309	121	425	123	87	861	89	162
25	e62	501	143	e240	271	118	700	122	89	478	83	128
26	e60	306	134	e210	249	277	727	117	76	374	80	236
27	e61	226	134	198	228	e1500	576	119	66	338	75	285
28	e70	186	129	198	222	1290	469	116	59	255	85	275
29	e59	306	210	177	e290	775	398	104	54	427	399	199
30	e52	330	425	165	---	674	348	91	49	395	152	172
31	e51	---	225	156	---	637	---	980	---	1420	126	---
TOTAL	1875	4410	10442	9409	5633	16429	17250	8844	7928	8774	7668	4222
MEAN	60.5	147	337	304	194	530	575	285	264	283	247	141
MAX	84	501	774	777	559	1700	1090	980	2340	1420	1310	368
MIN	47	47	129	156	82	118	348	91	49	37	75	72
CFSM	.41	1.00	2.29	2.06	1.32	3.61	3.91	1.94	1.80	1.93	1.68	.96
IN.	.47	1.12	2.64	2.38	1.43	4.16	4.37	2.24	2.01	2.22	1.94	1.07

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1992, BY WATER YEAR (WY)

MEAN	148	237	328	259	285	598	666	292	159	83.7	53.3	90.9
MAX	713	628	677	587	764	1302	1693	687	773	299	247	706
(WY)	1978	1960	1991	1952	1976	1945	1940	1947	1972	1976	1992	1977
MIN	9.90	23.3	66.9	55.6	63.1	178	150	80.3	24.6	12.5	8.99	5.54
(WY)	1964	1954	1961	1961	1987	1941	1946	1985	1962	1962	1964	1964

01510000 OTSELIC RIVER AT CINCINNATUS, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1938 - 1964, 1970 - 1992	
ANNUAL TOTAL	79001		102884			
ANNUAL MEAN	216		281		266	
HIGHEST ANNUAL MEAN					391	1943
LOWEST ANNUAL MEAN					168	1985
HIGHEST DAILY MEAN	2340	Mar 4	2340	Jun 1	6200	Mar 20 1948
LOWEST DAILY MEAN	11	a	37	Jul 3	4.1	Sep 24 1939
ANNUAL SEVEN-DAY MINIMUM	12	Sep 3	48	Jun 28	4.3	Sep 19 1939
INSTANTANEOUS PEAK FLOW			2960	Jun 1	8390	Dec 30 1942
INSTANTANEOUS PEAK STAGE			6.11	Jun 1	10.68	Apr 4 1950
INSTANTANEOUS LOW FLOW					3.8	Sep 25 1939
ANNUAL RUNOFF (CFSM)	1.47		1.91		1.81	
ANNUAL RUNOFF (INCHES)	19.99		26.04		24.58	
10 PERCENT EXCEEDS	512		637		608	
50 PERCENT EXCEEDS	120		197		137	
90 PERCENT EXCEEDS	18		60		23	

a Sept. 8, 9.

01512500 CHENANGO RIVER NEAR CHENANGO FORKS, NY

LOCATION.--Lat 42°13'05", long 75°50'55", Broome County, Hydrologic Unit 02050102, on left bank in Chenango Valley State Park, and 1.2 mi downstream from Tioughnioga River and village of Chenango Forks.

DRAINAGE AREA.--1,483 mi^2.

PERIOD OF RECORD.--November 1912 to current year.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 871.63 ft above National Geodetic Vertical Datum of 1929. Nov. 11, 1912 to Oct. 1, 1914, nonrecording gage and Oct. 2, 1914 to Aug. 2, 1936, water-stage recorder at site 300 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Since March 1942, flood flows partly regulated by Whitney Point Lake (see station 01511000). Slight diversion from upstream tributaries for operation of Erie (Barge) Canal. Telephone and satellite gage-height telemeters at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 18,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27	2230	*12,400	*8.10	No peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	333	680	2070	e1800	e1600	e2600	5460	2670	10800	539	8520	1210
2	317	676	1870	e1700	e1400	e2300	5240	2690	9470	496	6030	953
3	326	654	3230	e1800	e1300	2330	4260	6040	6910	456	3750	919
4	360	633	5360	2340	e1250	2150	3840	6330	5210	481	2790	1880
5	354	501	3970	4300	e1200	2490	3420	4810	3460	537	2420	1600
6	367	393	2940	4050	e1200	3440	3020	4750	2780	810	2060	1230
7	374	430	2690	3240	e1100	4480	2890	4200	2780	896	1690	1010
8	394	364	2650	2750	e1100	6250	3140	3620	2390	773	1480	1210
9	387	273	3440	2500	e1000	6520	3400	3470	2160	716	1460	1860
10	363	269	4110	2550	e980	6090	3190	3170	1820	982	1350	1410
11	381	442	3220	2470	e950	8690	3330	2770	1380	921	1300	3590
12	420	853	2760	2160	e900	8370	6360	2290	1230	781	1390	2770
13	396	836	2610	2020	e900	6060	5670	2020	1110	718	1210	2100
14	347	713	3310	3110	e900	e4500	3910	1950	1030	969	2380	1550
15	343	738	3590	5950	e950	e3700	3240	1870	952	1130	3020	986
16	395	931	2980	4050	e1600	e3100	2920	1840	844	2330	2020	945
17	508	915	e2300	e2900	e2400	e2800	6130	1880	731	2490	2400	892
18	564	883	e2000	e2600	e2100	e2700	7140	1750	714	2080	2010	841
19	515	777	e1900	e2300	2740	2620	6680	1630	746	2080	2610	964
20	492	714	e1800	e2100	5230	2370	5390	1380	1010	1580	2130	1280
21	486	654	e1800	e2000	3870	2140	4390	1230	1450	1270	1790	1020
22	701	1050	e1750	e2000	3080	1900	4110	1110	1010	1130	1350	966
23	817	4200	e1700	2050	3250	1800	3770	1020	807	1270	1110	2060
24	796	3350	e1700	3050	3450	1740	3370	989	701	4990	936	2040
25	745	3320	e1500	e2900	3140	1650	4480	989	693	4100	848	1600
26	559	3050	e1300	e2100	2790	2080	5880	960	719	2770	865	1830
27	544	2220	e1200	e2000	2550	9490	5150	929	683	2330	882	2300
28	547	1710	e1200	e1900	2420	11100	4050	890	637	2000	960	2240
29	537	1810	1350	e1800	e3500	8840	3370	808	594	1720	2200	1840
30	522	2090	3190	e1700	---	7240	2860	764	568	2560	2610	1570
31	571	---	e2600	1630	---	6160	---	4500	---	4670	1560	---
TOTAL	14761	36129	78090	79820	58850	137700	130060	75319	65389	50575	67131	46666
MEAN	476	1204	2519	2575	2029	4442	4335	2430	2180	1631	2166	1556
MAX	817	4200	5360	5950	5230	11100	7140	6330	10800	4990	8520	3590
MIN	317	269	1200	1630	900	1650	2860	764	568	456	848	841

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1992, BY WATER YEAR (WY)

MEAN	1309	2230	2693	2551	2634	5376	5639	2618	1476	921	632	794
MAX	7210	6167	6102	7361	7688	12560	15230	6485	7439	5713	3138	5766
(WY)	1978	1928	1973	1913	1976	1936	1940	1943	1917	1935	1915	1977
MIN	155	168	525	445	472	1977	1317	770	346	175	145	107
(WY)	1940	1965	1961	1961	1980	1937	1946	1985	1939	1939	1913	1939

01512500 CHENANGO RIVER NEAR CHENANGO FORKS, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1913 - 1992	
ANNUAL TOTAL	703126		840490			
ANNUAL MEAN	1926		2296		2405	
HIGHEST ANNUAL MEAN					3618	1943
LOWEST ANNUAL MEAN					1307	1965
HIGHEST DAILY MEAN	14100	Mar 4	11100	Mar 28	55400	Jul 8 1935
LOWEST DAILY MEAN	147	Sep 10	269	Nov 10	88	Sep 19 1939
ANNUAL SEVEN-DAY MINIMUM	161	Sep 5	347	Oct 1	94	Sep 19 1939
INSTANTANEOUS PEAK FLOW			12400	Mar 27	a96000	Jul 8 1935
INSTANTANEOUS PEAK STAGE			8.10	Mar 27	20.30	Jul 8 1935
INSTANTANEOUS LOW FLOW			265	b	84	c
10 PERCENT EXCEEDS	4250		4550		5970	
50 PERCENT EXCEEDS	1050		1860		1300	
90 PERCENT EXCEEDS	241		555		300	

a From floodmarks, from rating curve extended above 32,000 ft^3/s on basis of slope-area measurement of peak flow.
b Nov. 9, 10.
c Sept. 19, 25, 1939.

01512850 CHENANGO RIVER AT BINGHAMTON, NY

LOCATION.--Lat 42°06'11", long 75°54'55", Broome County, Hydrologic Unit 02050102, at bridge on Clinton Street, at Binghamton, and 0.7 mi upstream from mouth.

DRAINAGE AREA.--1,602 mi^2.

PERIOD OF RECORD.--October 1967, water years 1988 to current year.
CHEMICAL DATA: 1967 (a), 1988-89 (b), 1990-91 (c), 1992 (a).
MINOR ELEMENT DATA: 1967 (a), 1988-89 (b), 1990-91 (c), 1992(a).
SEDIMENT DATA: 1988-89 (b), 1990-91 (c), 1992 (a).

COOPERATION.--Water samples were collected by the New York State Department of Environmental Conservation, and samples were analyzed by the USGS National Water Quality Laboratory at Arvada, Colorado and the USGS Pennsylvania District Sediment Laboratory at LeMoyne, Pennsylvania.

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 (PER-CENT SATUR-ATION)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)
OCT									
09	1000	658	403	8.0	12.0	746	8.1	77	140
NOV									
04	0900	--	258	7.4	6.5	746	10.0	83	290

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								
09	< 1	8	310	5	40	< 0.10	2	< 10
NOV								
04	< 1	--	590	4	50	< 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-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT				
09	1000	658	11	20
NOV				
04	0900	--	3	--

01513110 SUSQUEHANNA RIVER AT JOHNSON CITY, NY

LOCATION.--Lat 42°06'37", long 75°58'30", Broome County, Hydrologic Unit 02050103, at intake of the New York State Electric and Gas Corp., Goudy Station, at Johnson City, 100 ft upstream from Little Choconut Creek, 0.5 mi downstream from C.F.J. Memorial Bridge, 3.5 mi downstream from Chenango River and 4.8 mi upstream from discontinued discharge station (01513500) at Vestal.

DRAINAGE AREA.--3,891 mi^2.

PERIOD OF RECORD.--Water years 1956 to current year. Prior to October 1960, published as 01513500, "at Johnson City", and prior to October 1967, published as 01513500, "at Vestal"; however, all water-temperature records were collected at present site.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1955 to current year.

REMARKS.--Daily water-temperature measurements made at 0800 hours. Measurements are reported to whole degrees Celsius. During winter periods water is at times recirculated from inside the plant through the intake to prevent icing conditions, thus resulting in reported water temperatures that are slightly above actual river temperatures.

COOPERATION.--Water temperature records furnished by the New York State Electric and Gas Corp.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum daily, 29.0°C Aug. 4, 1979, July 21, 1980, July 13, 1987; minimum daily, 0°C on many days during winter periods, except 1967, 1976, 1978-80 and 1982-3.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum daily, 24.0°C July 1; minimum daily, 0°C on Dec. 17, 31, Jan. 1, 16, 17, and Mar. 14-16.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
(ONCE DAILY AT 0800)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	11	6	0	1	1	4	10	13	24	18	18
2	16	12	6	1	1	1	3	11	13	23	18	17
3	17	9	5	1	1	2	3	12	16	23	18	19
4	18	8	4	2	1	2	3	12	16	20	19	18
5	18	6	1	2	1	3	3	12	17	20	18	18
6	18	6	1	2	1	4	4	10	16	20	18	19
7	15	5	1	2	1	4	5	9	17	21	19	18
8	12	4	2	1	1	4	7	11	18	21	20	19
9	13	4	3	2	1	4	6	11	19	21	18	20
10	14	3	4	2	1	4	6	12	18	23	20	21
11	15	4	4	2	1	5	8	13	18	22	21	20
12	12	4	3	1	1	1	8	15	19	23	21	18
13	11	4	4	2	1	1	6	11	21	22	20	17
14	10	4	4	3	1	0	6	17	22	23	19	17
15	11	6	3	1	1	0	6	16	22	23	17	18
16	11	6	2	0	1	0	8	16	21	22	17	19
17	11	4	0	0	1	1	6	11	21	22	17	20
18	11	3	1	1	1	1	5	11	21	21	17	21
19	12	4	1	1	1	2	6	16	22	22	18	20
20	9	7	1	1	1	2	7	17	21	23	17	18
21	9	9	1	1	1	2	10	18	18	23	17	18
22	8	8	1	1	1	2	12	18	17	21	18	18
23	10	8	1	1	2	1	13	20	15	22	19	17
24	12	8	1	1	2	2	13	21	18	20	21	14
25	12	6	1	1	2	2	12	15	18	18	22	14
26	14	4	1	1	2	4	10	17	19	19	23	14
27	14	3	1	1	2	3	9	14	19	18	23	14
28	15	2	1	1	2	2	9	13	20	19	23	14
29	11	3	1	1	2	1	9	14	21	18	22	14
30	9	4	1	1	---	2	11	16	22	19	18	12
31	9	---	0	1	---	2	---	15	---	19	19	---
MEAN	12.6	5.6	2.1	1.2	1.2	2.1	7.3	14.0	18.6	21.1	19.2	17.5
MAX	18.0	12.0	6.0	3.0	2.0	5.0	13.0	21.0	22.0	24.0	23.0	21.0
MIN	8.0	2.0	.0	.0	1.0	.0	3.0	9.0	13.0	18.0	17.0	12.0

01514937 SUSQUEHANNA RIVER AT SMITHBORO, NY

LOCATION.--Lat 42°01'41", long 76°23'07", Tioga County, Hydrologic Unit 02050103, at bridge on State Highway 282, 1.2 mi west of Nichols and 1.2 mi east of Smithboro.

DRAINAGE AREA.--4,725 mi^2.

PERIOD OF RECORD.--May 1972-74, water years 1988 to current year.
CHEMICAL DATA: 1972-74 (a), 1988-89 (b), 1990-91 (c), 1992(a).
MINOR ELEMENT DATA: 1972-74 (a), 1988-89 (b), 1990-91 (c), 1992 (a).
SEDIMENT DATA: 1988-89 (b), 1990-91 (c), 1992 (a).

COOPERATION.--Water samples were collected by the New York State Department of Environmental Conservation, and samples were analyzed by the USGS National Water Quality Laboratory at Arvada, Colorado and the USGS Pennsylvania District Sediment Laboratory at LeMoyne, Pennsylvania.

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 (PER-CENT SATUR-ATION)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)
OCT									
09	0800	1020	255	8.4	14.0	735	7.6	77	130
NOV									
05	0830	1340	293	8.3	7.5	755	9.8	83	40

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								
09	< 1	3	280	6	50	< 0.10	< 1	< 10
NOV								
05	< 1	--	150	3	30	< 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-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT				
09	0800	1020	7	19
NOV				
05	0830	1340	2	7.2

01515000 SUSQUEHANNA RIVER NEAR WAVERLY, NY

LOCATION.--Lat 41°59'05", long 76°30'05", Bradford County, Pa., Hydrologic Unit 02050103, on left bank 0.2 mi upstream from Cayuta Creek, 0.4 mi upstream from bridge on East Lockhart Street at Sayre, Pa., 1 mi downstream from New York-Pennsylvania State line, and 2 mi southeast of Waverly.

DRAINAGE AREA.--4,773 mi^2.

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

REVISED RECORDS.--WSP 2103: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 743.96 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to November 1939, at datum 1.0 ft higher.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Minor regulation by upstream lakes and reservoirs. Slight diversion from upstream tributaries for operation of Erie (Barge) Canal. Telephone and satellite gage-height telemeters at station. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a stage of about 21.4 ft, from flood profile (discharge, 128,000 ft^3/s).

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 52,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 28	0145	*38,600	*10.75	No peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1020	1410	6410	e6900	e4600	9200	15200	9710	22800	1570	15600	4490
2	913	1540	6340	e5400	e4300	8050	14300	9200	26400	1450	14900	3530
3	837	1460	7510	5470	e4000	7250	13000	13000	19200	1350	12400	3100
4	803	1380	13600	6200	e3800	7010	11500	17300	13800	1300	9140	4320
5	819	1330	14300	9550	e3500	6740	10400	17700	10600	1320	7430	4250
6	1110	1270	11100	10900	e3300	7600	9350	15400	8530	1380	6440	3890
7	1060	1040	9190	9780	e3200	9020	8630	15700	8210	1720	5660	3390
8	1000	1020	8370	8560	e2900	12100	8330	14200	7480	1980	4930	2910
9	1010	1000	8260	7590	e2800	14800	8640	14700	6990	2250	4520	3310
10	1080	896	9390	7180	e2600	15200	8750	13400	6080	2120	4650	3750
11	1140	945	10300	7140	e2400	18600	8430	11600	5140	2110	4140	5380
12	1070	1360	9430	6980	e2200	26800	12500	10100	4370	2060	3940	6500
13	1090	1710	8370	6410	e2100	23600	16000	8830	3860	1990	3840	5740
14	1110	1900	8580	6810	e2000	17200	13800	8040	3510	1890	4050	4960
15	1090	2200	10300	12400	e2100	e13400	11200	7470	3200	2620	5320	3750
16	1130	2190	11100	13500	e2700	e11000	9830	7130	2890	5310	5470	2900
17	1180	2300	10000	e10000	e4000	10100	12200	6870	2630	6000	5620	2630
18	1220	2330	8220	e7700	6900	9190	20500	6580	2360	6520	5530	2430
19	1580	2320	e7000	e6200	7350	8820	26100	6210	2210	6840	5450	2230
20	1890	2200	e6500	e6000	10300	8340	21800	5570	2160	5680	5700	2270
21	1740	2110	e5900	e5800	11100	7750	17600	4950	2340	4340	5630	2550
22	1620	2430	e6200	e6200	9780	7050	15500	4410	3070	3590	4860	2610
23	1710	10200	e5900	e6600	8570	6460	14400	3980	3070	3200	4130	3810
24	1900	15800	e5600	e7500	8620	6070	12800	3730	2500	3840	3690	4700
25	1830	14900	e5200	e9000	8910	5800	14200	3650	2250	7460	3280	4260
26	1680	11700	e4700	e8000	8550	6270	16400	3500	2050	8190	2960	5280
27	1420	9690	e4300	e6700	7910	25600	16800	3420	2020	9550	2820	6670
28	1340	7790	e4000	e5700	7500	34600	14700	3350	1980	7140	2840	6450
29	1370	6690	e4300	e5400	8860	25800	12400	3180	1890	5720	5000	5510
30	1360	6370	6420	e5300	---	19900	10800	2980	1710	6230	5960	4580
31	1330	---	8100	e5000	---	16700	---	7380	---	9160	5570	---
TOTAL	39452	119481	244890	231870	156850	406020	406060	263240	185300	125880	181470	122150
MEAN	1273	3983	7900	7480	5409	13100	13540	8492	6177	4061	5854	4072
MAX	1900	15800	14300	13500	11100	34600	26100	17700	26400	9550	15600	6670
MIN	803	896	4000	5000	2000	5800	8330	2980	1710	1300	2820	2230
CFSM	.27	.83	1.66	1.57	1.13	2.74	2.84	1.78	1.29	.85	1.23	.85
IN.	.31	.93	1.91	1.81	1.22	3.16	3.16	2.05	1.44	.98	1.41	.95

e Estimated.

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

MEAN	3940	6760	8734	7565	8860	16060	17650	9222	4884	2495	1766	2503
MAX	25090	17130	19820	18670	23870	33430	45600	22140	22550	7620	6035	17800
(WY)	1978	1973	1973	1979	1976	1945	1940	1943	1972	1947	1986	1977
MIN	392	382	1835	1319	1472	6763	3962	2418	1155	589	384	326
(WY)	1965	1965	1965	1961	1980	1941	1946	1985	1939	1962	1964	1964

01515000 SUSQUEHANNA RIVER NEAR WAVERLY, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1937 - 1992	
ANNUAL TOTAL	2270129		2482663			
ANNUAL MEAN	6220		6783		7528	
HIGHEST ANNUAL MEAN					11490	1978
LOWEST ANNUAL MEAN					3745	1965
HIGHEST DAILY MEAN	42300	Mar 5	34600	Mar 28	117000	Jun 23 1972
LOWEST DAILY MEAN	421	Sep 13	803	Oct 4	237	a
ANNUAL SEVEN-DAY MINIMUM	431	Sep 10	935	Oct 2	248	Sep 17 1964
INSTANTANEOUS PEAK FLOW	44800	Mar 5	38600	Mar 28	121000	Jun 23 1972
INSTANTANEOUS PEAK STAGE	11.84	Mar 5	10.75	Mar 28	21.24	Jun 23 1972
INSTANTANEOUS LOW FLOW	418	b	796	c	224	Sep 23 1964
ANNUAL RUNOFF (CFSM)	1.30		1.42		1.58	
ANNUAL RUNOFF (INCHES)	17.69		19.35		21.43	
10 PERCENT EXCEEDS	14800		14200		18000	
50 PERCENT EXCEEDS	3560		5700		4200	
90 PERCENT EXCEEDS	661		1420		836	

a Sept. 22, 23, 1964.
b Sept. 12, 13.
c Oct. 4, 5.

01520500 TIOGA RIVER AT LINDLEY, NY

LOCATION.--Lat 42°01'43", long 77°07'57", Steuben County, Hydrologic Unit 02050104, on left bank just downstream from bridge on County Highway 120 at Lindley, and 6 mi upstream from Canisteo River.

DRAINAGE AREA.--771 mi^2.

PERIOD OF RECORD.--January 1930 to current year.

REVISED RECORDS.--WSP 871: 1938. WSP 2103: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 964.50 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 9, 1937, nonrecording gage on bridge at same datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Since March 1979, flood flows regulated by detention in upstream reservoirs. Telephone and satellite gage-height telemeters at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27	1630	*9,980	*11.72	No peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	59	175	e400	444	696	3010	1130	1900	120	2670	318
2	46	49	168	e340	e390	701	2520	1050	1280	112	1140	264
3	47	46	467	e490	e320	683	2050	1120	925	103	856	315
4	46	46	695	1030	312	608	1680	1140	657	103	622	548
5	50	46	e450	2140	300	592	1520	914	549	108	541	275
6	52	46	e400	1600	e270	771	1220	721	1120	104	401	260
7	45	48	400	1330	e240	970	1220	616	1310	100	290	294
8	51	50	438	979	e220	1510	1760	588	757	102	293	279
9	49	50	517	830	e200	1570	1830	634	622	111	2170	243
10	52	50	488	797	e190	1600	1740	618	499	103	1190	402
11	52	65	391	713	e170	2670	1770	560	407	110	575	493
12	49	80	298	628	e170	2170	4170	479	333	109	385	434
13	45	102	330	626	e160	1650	2690	449	288	111	390	357
14	45	105	618	1400	e160	1300	1880	372	207	112	764	230
15	51	84	783	1840	179	1170	1530	339	201	408	571	181
16	66	85	620	1050	354	900	1480	335	196	1710	629	181
17	63	89	468	e700	386	915	2850	315	182	699	565	199
18	77	89	e390	e620	400	951	3880	371	154	1230	419	178
19	88	88	e370	e580	451	803	4190	469	201	1210	337	139
20	77	81	313	e560	693	794	2950	388	399	721	240	142
21	66	83	308	e540	589	731	2370	257	371	885	194	193
22	70	154	406	e520	492	706	2470	213	233	767	163	1190
23	67	807	386	740	504	651	1750	196	178	509	147	1560
24	72	588	372	1290	531	665	1670	189	172	454	141	677
25	60	434	372	e950	586	652	3090	189	175	426	146	495
26	59	284	316	640	635	1490	2900	209	147	378	204	2310
27	59	235	236	660	616	8900	2180	242	144	358	225	1860
28	58	183	243	617	576	8070	1620	213	144	346	644	1270
29	62	183	275	580	e680	3940	1340	194	138	299	3920	699
30	64	177	820	565	---	3240	1180	167	122	257	1120	582
31	57	---	693	500	---	2620	---	1080	---	4580	626	---
TOTAL	1791	4486	13206	26255	11218	54689	66510	15757	14011	16745	22578	16568
MEAN	57.8	150	426	847	387	1764	2217	508	467	540	728	552
MAX88	807	820	2140	693	8900	4190	1140	1900	4580	3920	2310	
MIN	45	46	168	340	160	592	1180	167	122	100	141	139
CFSM	.07	.19	.55	1.10	.50	2.29	2.88	.66	.61	.70	.94	.72
IN.	.09	.22	.64	1.27	.54	2.64	3.21	.76	.68	.81	1.09	.80

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1992, BY WATER YEAR (WY)

MEAN	355	610	775	704	878	1973	1856	1134	601	238	200	203
MAX	2730	2476	2275	2413	2818	7157	5277	3077	4304	1032	1037	2821
(WY)	1991	1978	1978	1937	1981	1936	1958	1943	1972	1984	1937	1975
MIN	17.3	27.4	52.0	59.5	86.1	445	270	184	76.0	36.8	19.3	13.1
(WY)	1965	1965	1931	1931	1934	1981	1946	1934	1991	1966	1966	1964

01520500 TIOGA RIVER AT LINDLEY, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1930 - 1992	
ANNUAL TOTAL	205365		263814			
ANNUAL MEAN	563		721		795	
HIGHEST ANNUAL MEAN					1451	1978
LOWEST ANNUAL MEAN					360	1965
HIGHEST DAILY MEAN	8330	Mar 4	8900	Mar 27	63000	Jun 23 1972
LOWEST DAILY MEAN	39	a	45	b	7.2	Sep 1 1939
ANNUAL SEVEN-DAY MINIMUM	40	Aug 28	47	Nov 2	9.5	Aug 28 1939
INSTANTANEOUS PEAK FLOW			9980	Mar 27	c128000	Jun 23 1972
INSTANTANEOUS PEAK STAGE			11.72	Mar 27	d26.27	Jun 23 1972
INSTANTANEOUS LOW FLOW			45	f	6.1	Sep 1 1939
ANNUAL RUNOFF (CFSM)	.73		.93		1.03	
ANNUAL RUNOFF (INCHES)	9.91		12.73		14.02	
10 PERCENT EXCEEDS	1420		1720		1900	
50 PERCENT EXCEEDS	168		407		294	
90 PERCENT EXCEEDS	48		67		54	

a Aug. 30, 31, Sept. 1, 2, 3.
b Oct. 7, 13, 14.
c From rating curve extended above 31,000 ft^3/s on basis of velocity-area and slope-area studies at gage height 19.2 ft and conveyance study and slope-area measurements at gage heights 22.87 ft and 26.27 ft.
d From flood mark in gage house.
f Oct. 4, 7, 13, 14, 15.

01521500 CANISTEO RIVER AT ARKPORT, NY

LOCATION.--Lat 42°23'45", long 77°42'42", Steuben County, Hydrologic Unit 02050104, on left bank 0.2 mi downstream from Arkport Dam, and 0.9 mi west of Arkport.

DRAINAGE AREA.--30.6 mi^2.

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

REVISED RECORDS.--WSP 1552: 1952–57. WSP 2103: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,202.85 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Since November 1939, flows above 500 ft^3/s controlled by detention in Arkport Reservoir (see station 01521000). Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 8, 1935, reached a discharge of 4,820 ft^3/s, on basis of slope-area measurement.

PEAK DISCHARGE FOR CURRENT YEAR.--Maximum discharge, 783 ft^3/s, Apr. 17 at 1300 hours, gage height, 3.36 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	2.2	12	e30	e14	e40	118	38	16	1.3	148	4.0
2	1.4	2.1	9.9	e18	e12	e35	72	63	17	1.2	38	3.2
3	1.4	2.0	68	27	e11	33	57	120	12	1.5	22	39
4	1.5	1.9	54	37	e10	e30	49	78	8.8	1.7	18	36
5	1.6	1.9	28	63	e9.5	40	49	49	8.1	1.8	16	16
6	2.2	1.9	21	45	e9.0	49	60	39	9.9	1.6	12	10
7	e1.8	2.2	25	31	e8.5	56	199	32	9.1	1.5	8.7	7.8
8	e1.8	2.2	74	e25	e8.0	65	324	27	8.6	1.5	7.4	6.0
9	e1.8	2.0	58	23	e7.5	52	140	26	6.7	11	8.2	4.7
10	e2.8	2.0	37	33	e7.5	55	112	23	5.1	5.1	7.2	5.1
11	e3.0	4.3	25	27	e7.5	e80	374	21	4.1	3.0	10	4.9
12	e2.8	4.4	20	e22	e7.0	e70	249	19	3.5	2.3	7.3	3.7
13	e2.3	5.8	18	25	e6.5	e60	70	17	2.8	11	5.5	3.3
14	e1.8	9.1	e17	e110	e6.5	e50	50	16	2.5	17	5.3	3.1
15	e3.5	16	e17	e90	6.9	e45	39	14	2.3	39	4.7	2.7
16	8.2	18	e16	e40	26	e40	47	12	2.0	35	5.4	2.5
17	4.9	11	e15	e28	e24	e34	385	11	1.9	45	4.9	2.4
18	3.8	7.6	e14	e24	23	e30	190	18	1.7	77	4.3	2.3
19	3.7	5.9	e12	e20	84	e27	135	16	2.1	41	3.6	8.5
20	3.3	4.7	e13	e18	84	e25	69	12	2.8	23	3.2	4.4
21	2.9	5.0	14	e17	44	e24	59	9.7	2.7	125	2.9	5.6
22	2.7	7.2	e12	e16	e40	e22	94	7.9	2.6	31	2.6	273
23	2.5	33	e12	e26	72	e22	55	6.7	2.3	72	2.4	74
24	2.4	22	e13	e90	63	e22	194	6.9	2.2	47	2.1	28
25	2.3	18	e12	e50	73	e25	372	6.7	2.2	27	2.4	18
26	2.2	13	e11	e35	68	89	147	6.1	2.2	262	2.7	18
27	2.2	9.6	e10	e25	43	518	75	7.6	2.0	113	2.6	22
28	2.7	8.1	e9.0	e20	e40	158	54	8.3	1.8	38	5.3	21
29	2.4	9.1	63	e18	e50	e90	42	6.7	1.6	24	18	15
30	2.3	11	e90	e17	---	82	38	6.5	1.4	19	8.2	11
31	2.2	---	e50	e15	---	106	---	14	---	353	5.7	---
TOTAL	81.8	243.2	849.9	1065	865.4	2074	3918	738.1	148.0	1432.5	394.6	655.2
MEAN	2.64	8.11	27.4	34.4	29.8	66.9	131	23.8	4.93	46.2	12.7	21.8
MAX	8.2	33	90	110	84	518	385	120	17	353	148	273
MIN	1.4	1.9	9.0	15	6.5	22	38	6.1	1.4	1.2	2.1	2.3

e Estimated

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

MEAN	16.4	26.5	38.3	35.0	45.0	86.4	81.5	40.2	26.9	8.21	6.19	10.4
MAX	98.4	106	132	100	195	188	205	144	245	46.2	58.6	151
(WY)	1977	1951	1973	1952	1976	1942	1940	1943	1972	1992	1984	1977
MIN	1.09	1.62	1.67	1.85	8.28	24.9	10.9	5.81	1.57	.82	.88	.81
(WY)	1942	1961	1961	1961	1958	1981	1946	1955	1955	1955	1966	1941

01521500 CANISTEO RIVER AT ARKPORT, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1937 - 1992	
ANNUAL TOTAL	11110.34		12465.7			
ANNUAL MEAN	30.4		34.1		35.0	
HIGHEST ANNUAL MEAN					55.9	1972
LOWEST ANNUAL MEAN					20.9	1955
HIGHEST DAILY MEAN	1100	Mar 4	518	Mar 27	1300	Feb 20 1939
LOWEST DAILY MEAN	.71	Jul 29	1.2	Jul 2	.40	Sep 2 1939
ANNUAL SEVEN-DAY MINIMUM	.76	Jul 24	1.5	Jun 28	.57	Sep 16 1941
INSTANTANEOUS PEAK FLOW			783	Apr 17	2000	a
INSTANTANEOUS PEAK STAGE			3.36	Apr 17	b5.63	Feb 19 1939
INSTANTANEOUS LOW FLOW			1.1	c	d.00	f
10 PERCENT EXCEEDS	59		76		77	
50 PERCENT EXCEEDS	9.1		14		12	
90 PERCENT EXCEEDS	1.1		2.2		1.6	

a Mar. 5, 1938, Feb. 20, 1939.
b Ice jam.
c July 2, 3.
d Practically no flow (result of construction operations).
f July 30, 1938, Sept. 30, 1939.

01523500 CANACADEA CREEK NEAR HORNELL, NY

LOCATION.--Lat 42°20'05", long 77°41'00", Steuben County, Hydrologic Unit 02050104, on right bank 35 ft downstream from bridge on State Highway 21, 1.2 mi west of Hornell, 1.5 mi downstream from Almond Dam, and 2.0 mi upstream from mouth.

DRAINAGE AREA.--57.9 mi^2.

PERIOD OF RECORD.--October 1940 to December 1942, October 1944 to current year.

REVISED RECORDS.--WSP 2103: Drainage area. WRD NY 1971: 1969(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,185.68 ft above National Geodetic Vertical Datum of 1929. Oct. 23, 1940 to Dec. 31, 1942, at site 185 ft upstream at different datum.

REMARKS.--Records fair. Since October 1948, floodflows regulated by detention in Almond Lake (see station 01523000). Occasional regulation at low flows to clear debris from gates at Almond Lake. Monthly figures for 1952–66 water years adjusted for regulation. Satellite gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 8, 1935, reached a stage of 16.61 ft, discharge, 21,000 ft^3/s, from floodmarks on basis of slope-area measurement of peak flow.

PEAK DISCHARGES FOR CURRENT YEAR.--Maximum discharge, 1,140 ft^3/s, July 17 at 2330 hours, gage height, 2.93 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	13	27	39	e35	60	235	79	18	6.6	381	29
2	9.6	13	25	37	28	58	148	149	18	6.6	152	22
3	9.5	13	63	50	e27	63	116	693	18	6.6	102	19
4	10	13	129	84	e26	59	98	266	18	6.7	65	40
5	13	13	103	102	e25	58	89	116	17	8.4	48	40
6	11	8.3	69	100	e24	81	94	91	22	13	42	37
7	9.9	7.3	61	79	e23	97	141	69	20	15	31	26
8	9.7	9.0	111	57	e22	99	456	64	14	10	25	15
9	9.4	9.0	142	51	e21	97	338	64	11	13	134	11
10	12	9.1	111	60	e20	94	173	45	11	17	98	14
11	17	9.6	71	56	e19	94	224	37	7.9	17	55	18
12	14	14	54	50	e18	139	254	46	5.5	17	47	13
13	13	17	44	46	e17	e110	200	43	13	33	36	11
14	8.5	17	41	94	e17	e85	110	37	12	54	35	9.7
15	3.6	16	37	125	e18	e75	73	37	6.5	143	31	11
16	12	23	e35	55	55	e65	56	37	6.6	113	25	10
17	20	27	e34	49	54	e55	376	29	6.7	221	21	9.2
18	15	27	e33	53	52	e46	320	24	8.4	481	22	11
19	12	24	e35	49	97	e40	281	30	17	108	21	18
20	12	25	36	42	155	e40	166	31	17	47	17	23
21	12	25	39	38	104	e39	121	26	13	62	15	18
22	12	23	36	36	65	e38	110	23	13	59	14	412
23	12	47	33	63	165	e37	110	19	13	163	14	326
24	12	45	36	112	112	e37	159	19	12	137	14	60
25	12	38	38	e72	145	46	596	19	7.5	54	13	42
26	12	39	35	e60	149	93	312	19	10	187	13	40
27	12	33	33	e47	93	505	192	18	14	472	14	44
28	13	23	29	44	75	345	106	18	16	98	14	46
29	13	25	62	44	77	157	88	18	16	60	28	41
30	13	29	212	39	---	140	78	18	10	46	33	34
31	13	---	71	40	---	158	---	18	---	395	29	---
TOTAL	366.8	634.3	1885	1873	1738	3110	5820	2202	392.1	3069.9	1589	1449.9
MEAN	11.8	21.1	60.8	60.4	59.9	100	194	71.0	13.1	99.0	51.3	48.3
MAX	20	47	212	125	165	505	596	693	22	481	381	412
MIN	3.6	7.3	25	36	17	37	56	18	5.5	6.6	13	9.2

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1992, BY WATER YEAR (WY)

MEAN	33.4	51.7	70.0	61.9	77.8	154	136	74.3	56.5	23.8	19.1	26.0
MAX	139	193	218	153	278	341	310	215	547	111	128	198
(WY)	1977	1951	1973	1952	1976	1945	1958	1984	1972	1972	1984	1977
MIN	6.81	7.63	7.13	6.55	17.7	33.4	22.8	15.5	5.24	4.63	5.13	5.60
(WY)	1942	1942	1961	1961	1980	1969	1946	1955	1965	1965	1965	1941

01523500 CANACADEA CREEK NEAR HORNELL, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1941 - 1942, 1945 - 1992	
ANNUAL TOTAL	17984.3		24130.0			
ANNUAL MEAN	49.3		65.9		65.0	
HIGHEST ANNUAL MEAN					110	1972
LOWEST ANNUAL MEAN					36.9	1965
HIGHEST DAILY MEAN	704	Mar 5	693	May 3	3970	Jun 23 1972
LOWEST DAILY MEAN	2.9	Aug 1	3.6	Oct 15	.60	a
ANNUAL SEVEN-DAY MINIMUM	3.7	Sep 3	8.3	Jun 30	.83	May26 1965
INSTANTANEOUS PEAK FLOW			1140	Jul 17	b9430	May17 1945
INSTANTANEOUS PEAK STAGE			2.93	Jul 17	6.65	Jun 3 1947
INSTANTANEOUS LOW FLOW			3.4	Oct 15	.50	May29 1965
10 PERCENT EXCEEDS	110		148		143	
50 PERCENT EXCEEDS	24		36		26	
90 PERCENT EXCEEDS	4.9		11		8.2	

a May 30 to June 1, 1965.
b From rating curve extended above 3,400 ft^3/s.

01524500 CANISTEO RIVER BELOW CANACADEA CREEK, AT HORNELL, NY

LOCATION.--Lat 42°18'50", long 77°39'05", Steuben County, Hydrologic Unit 02050104, on right bank 235 ft upstream from Erie Railroad bridge in Hornell, 0.3 mi upstream from Crosby Creek, and 1.5 mi downstream from Canacadea Creek.

DRAINAGE AREA.--158 mi^2.

PERIOD OF RECORD.--August 1942 to current year.

REVISED RECORD--WDR NY-86-3: 1971 (including minimum daily).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,131.32 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect) which are fair. Diversion from Carrington Creek, a tributary upstream from station, by City of Hornell for municipal supply (1991 average 2.8 ft^3/s); effluent from wastewater treatment plant enters river downstream from gage. Since Nov. 1939, flood flows regulated by Arkport Reservoir (see station 01521000), and, since October 1948, by Almond Lake (see station 01523000); normal regulation occasionally sufficient to affect figures of monthly runoff. Telephone and satellite gage-height telemeters at station. Several measurements of water temperature were made during the year.

COOPERATION.--Records of diversion from Carrington Creek furnished by City of Hornell.

PEAK DISCHARGE FOR CURRENT YEAR.--Maximum discharge, 1,440 ft^3/s, July 31 at 1145 hours, gage height, 3.75 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	25	48	e80	60	e140	601	235	75	21	805	70
2	22	25	45	e70	e45	e150	425	356	76	21	345	57
3	22	25	148	e110	e42	e150	346	945	61	22	230	151
4	22	25	256	174	e42	140	297	517	52	20	168	190
5	25	26	172	265	e40	155	283	310	53	23	137	113
6	27	27	119	232	e40	213	306	246	64	24	107	90
7	25	22	107	163	e34	269	466	197	57	27	81	70
8	25	24	227	117	e34	299	839	174	49	26	71	53
9	25	23	256	102	e34	273	624	168	42	52	180	44
10	26	24	194	130	e32	259	450	139	39	38	153	60
11	29	30	123	121	e32	306	695	119	34	32	112	61
12	26	32	94	102	e30	e300	678	121	30	31	94	45
13	25	36	74	99	28	e250	437	253	33	78	69	40
14	23	41	67	279	28	e215	305	184	34	113	69	37
15	23	45	65	e260	42	e195	227	129	28	303	60	36
16	34	54	e60	e130	113	e160	223	112	26	242	57	34
17	36	50	e60	e110	113	e145	708	95	24	337	77	33
18	30	45	e55	e100	103	e120	688	102	28	635	82	36
19	27	41	e50	e80	228	e110	642	98	36	237	55	57
20	27	40	53	e70	337	e100	415	87	37	156	47	50
21	26	42	57	e68	227	e105	338	73	30	356	41	47
22	26	46	53	65	151	99	360	66	30	176	38	495
23	25	118	50	101	301	e100	297	56	29	345	36	362
24	25	99	e55	250	267	103	430	56	29	286	36	178
25	25	76	e54	e150	313	110	801	55	24	152	45	120
26	26	68	e48	e130	327	264	717	53	25	506	44	168
27	26	55	e50	e110	223	1080	469	56	28	744	44	157
28	28	43	e40	87	177	745	323	56	31	249	176	143
29	27	44	107	83	204	476	262	51	29	159	254	111
30	27	49	379	69	---	445	237	51	26	126	121	88
31	25	---	152	66	---	458	---	73	---	1060	92	---
TOTAL	808	1300	3318	3973	3647	7934	13889	5233	1159	6597	3926	3196
MEAN	26.1	43.3	107	128	126	256	463	169	38.6	213	127	107
MAX	36	118	379	279	337	1080	839	945	76	1060	805	495
MIN	22	22	40	65	28	99	223	51	24	20	36	33

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1992, BY WATER YEAR (WY)

MEAN	76.4	116	158	147	188	361	337	198	141	56.8	47.4	60.4
MAX	304	455	551	361	722	826	688	696	1226	249	303	498
(WY)	1977	1951	1973	1952	1976	1945	1958	1943	1972	1972	1984	1977
MIN	13.5	17.9	16.6	15.6	35.6	111	66.6	42.4	20.1	13.8	13.2	11.7
(WY)	1965	1965	1961	1961	1963	1969	1946	1955	1955	1955	1965	1955

01524500 CANISTEO RIVER BELOW CANACADEA CREEK, AT HORNELL, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1942 - 1992	
ANNUAL TOTAL	44035		54980			
ANNUAL MEAN	121		150		157	
HIGHEST ANNUAL MEAN					255	1972
LOWEST ANNUAL MEAN					79.8	1965
HIGHEST DAILY MEAN	1100	Mar 5	1080	Mar 27	7440	Jun 23 1972
LOWEST DAILY MEAN	15	Jun 29	20	Jul 4	9.0	Sep 13 1955
ANNUAL SEVEN-DAY MINIMUM	18	Jun 27	22	Jun 30	10	Sep 8 1955
INSTANTANEOUS PEAK FLOW			1440	Jul 31	a9560	Jun 23 1972
INSTANTANEOUS PEAK STAGE			3.75	Jul 31	b13.45	Jun 23 1972
INSTANTANEOUS LOW FLOW			17	c	7.4	d
10 PERCENT EXCEEDS	292		345		344	
50 PERCENT EXCEEDS	50		77		68	
90 PERCENT EXCEEDS	22		26		22	

a From rating curve extended above 7,600 ft^3/s on basis of critical-depth measurement of peak flow.
b From floodmark.
c Oct. 14, 15.
d Sept. 13, 14, 1955.

01526500 TIOGA RIVER NEAR ERWINS, NY

LOCATION.--Lat 42°07'16", long 77°07'46", Steuben County, Hydrologic Unit 02050104, on right bank 20 ft downstream from bridge on Mulholland Road, 1.1 mi northeast of Erwins, and 1.1 mi downstream from Canisteo River.

DRAINAGE AREA.--1,377 mi^2.

PERIOD OF RECORD.--July 1918 to current year.

REVISED RECORDS.--WSP 891: 1935–38. WSP 1672: 1919(M), 1927(M), 1929(M). WSP 2103: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 931.24 ft above National Geodetic Vertical Datum of 1929. Prior to June 21, 1931, nonrecording gage on highway bridge at same datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect and missing record), which are fair. High flows regulated by upstream reservoirs. Telephone and satellite gage-height telemeters at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 17,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27	1830	*17,300	*10.36	No other peak greater than base discharges.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	89	296	806	e720	1370	5090	2020	2360	191	6070	711
2	78	87	284	761	e630	1330	4630	1970	1760	173	2360	582
3	74	80	794	877	e530	1280	3600	3730	1270	159	1550	638
4	76	78	1750	1350	e520	1190	2940	3350	943	158	1140	1120
5	77	77	1050	2880	e500	1090	2650	2360	774	166	1010	714
6	91	77	823	2530	e480	1290	2350	1850	1180	173	779	577
7	82	81	e710	2060	e460	1650	2320	1520	1820	161	576	568
8	82	84	e840	1550	e420	2270	3530	1330	1100	159	527	569
9	84	79	1050	1280	e370	2610	3860	1380	891	189	2140	504
10	88	79	997	1230	e370	2440	3320	1290	728	192	1740	635
11	85	113	811	1190	e320	3490	3180	1150	600	199	1030	953
12	84	142	607	1010	e320	3480	5910	997	503	183	930	750
13	84	165	551	990	e300	2890	4850	923	459	186	652	602
14	80	200	e1300	1440	e300	2200	3190	998	359	220	1080	462
15	83	203	e1700	3000	297	e1900	2650	837	343	447	847	366
16	113	211	914	1690	428	e1500	2250	763	325	2260	1010	349
17	123	223	e680	1200	659	1520	3980	709	307	1130	936	354
18	140	212	e600	e1000	726	1600	6020	727	256	2350	750	333
19	156	197	e590	e920	767	1410	7110	840	270	1960	647	286
20	140	185	e580	e880	1280	1360	5120	779	479	1140	484	307
21	114	190	e570	e860	1440	1260	3860	592	525	1280	401	348
22	107	239	e590	e840	1070	1220	4050	507	375	1300	334	2770
23	107	914	e590	e1150	1080	1100	3150	457	296	877	296	4610
24	107	969	e550	1840	1300	1120	2720	420	274	1240	274	1690
25	100	704	e550	1790	1340	1080	5250	413	270	883	264	1060
26	90	500	e480	1110	1510	1490	5840	407	245	738	330	4230
27	90	415	e420	1080	1470	12400	4170	461	230	1990	382	3580
28	93	336	411	1000	1240	12900	3130	428	221	1130	730	2410
29	92	306	450	916	1370	6580	2480	404	218	762	6830	1470
30	98	293	1440	886	---	5330	2160	353	203	627	1980	1130
31	93	---	1540	e800	---	4650	---	952	---	5500	1190	---
TOTAL	2992	7528	24518	40916	22217	87000	115360	34917	19584	28123	39269	34678
MEAN	96.5	251	791	1320	766	2806	3845	1126	653	907	1267	1156
MAX	156	969	1750	3000	1510	12900	7110	3730	2360	5500	6830	4610
MIN	74	77	284	761	297	1080	2160	353	203	158	264	286
CFSM	.07	.18	.57	.96	.56	2.04	2.79	.82	.47	.66	.92	.84
IN.	.08	.20	.66	1.11	.60	2.35	3.12	.94	.53	.76	1.06	.94

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 1992, BY WATER YEAR (WY)

MEAN	588	1082	1295	1192	1496	3443	3213	1971	1026	441	325	353
MAX	4160	5296	4369	4002	5305	11350	9578	7043	8905	2310	1647	3992
(WY)	1991	1928	1973	1937	1976	1936	1940	1919	1972	1935	1984	1975
MIN	44.8	60.4	95.5	108	140	843	469	316	136	72.7	49.6	38.7
(WY)	1965	1965	1931	1961	1934	1981	1946	1934	1955	1962	1966	1932

01526500 TIOGA RIVER NEAR ERWINS, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1918 - 1992	
ANNUAL TOTAL	356375		457102			
ANNUAL MEAN	976		1249		1367	
HIGHEST ANNUAL MEAN					2371	1978
LOWEST ANNUAL MEAN					634	1965
HIGHEST DAILY MEAN	16100	Mar 4	12900	Mar 28	110000	Jun 23 1972
LOWEST DAILY MEAN	58	Sep 3	74	Oct 3	20	Sep 2 1939
ANNUAL SEVEN-DAY MINIMUM	64	Aug 29	79	Nov 4	22	Aug 28 1939
INSTANTANEOUS PEAK FLOW			19100	Mar 16	a190000	Jun 23 1972
INSTANTANEOUS PEAK STAGE			10.89	Mar 16	b26.74	Jun 23 1972
INSTANTANEOUS LOW FLOW			73	c	18	d
ANNUAL RUNOFF (CFSM)	.71		.91		.99	
ANNUAL RUNOFF (INCHES)	9.63		12.35		13.49	
10 PERCENT EXCEEDS	2480		3040		3270	
50 PERCENT EXCEEDS	296		776		517	
90 PERCENT EXCEEDS	80		113		104	

a From rating curve extended above 90,000 ft^3/s, on basis of computation of peak flow at Lindley and Canisteo River at Erwins, 7.2 mi and 2.0 mi upstream, respectively, adjusted for flow from intervening area.
b From floodmarks.
c Oct. 3, 5.
d Sept. 2, 3, 1939.

01528000 FIVEMILE CREEK NEAR KANONA, NY

LOCATION.--Lat 42°23'18", long 77°21'29", Steuben County, Hydrologic Unit 02050105, on left bank just downstream from town of Wheeler highway bridge, 1.3 mi upstream from mouth and Kanona.

DRAINAGE AREA.--66.8 mi^2.

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

REVISED RECORDS.--WSP 2103: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,170.30 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1973, at datum 1.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 880 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27	2100	*1,000	*4.22	No other peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	2.4	8.7	e40	e38	e80	333	90	32	8.3	823	56
2	1.8	2.3	8.3	e44	e36	e70	254	99	34	7.1	518	41
3	1.7	2.3	42	e46	e34	67	185	285	30	6.6	149	54
4	1.4	2.2	69	66	e32	60	153	195	20	7.9	88	86
5	1.6	2.0	39	143	e30	71	140	127	17	9.0	89	51
6	2.1	2.0	29	129	e29	100	140	101	67	8.3	59	38
7	2.5	1.9	25	81	e29	135	161	85	75	7.6	45	34
8	2.2	2.0	45	63	e29	179	229	78	93	7.0	35	28
9	2.3	1.7	53	51	e28	146	176	72	62	11	34	29
10	2.0	2.0	39	56	e28	129	143	65	36	11	30	35
11	1.8	4.6	32	52	e28	148	224	58	25	9.4	29	62
12	2.0	4.8	28	44	e27	123	305	51	20	9.0	23	42
13	1.9	4.3	24	46	e26	e100	181	46	16	12	21	31
14	1.8	5.5	26	127	e26	e90	128	43	14	15	22	24
15	2.3	6.9	21	e130	e35	e80	104	41	13	20	21	20
16	4.0	7.2	e19	e65	e45	e70	105	37	12	64	23	18
17	2.7	5.8	e18	e55	e65	e65	352	35	11	43	23	19
18	2.4	5.1	e17	e46	e60	e60	372	41	10	83	23	16
19	2.6	4.7	e15	e42	e90	e54	337	45	11	61	22	51
20	2.5	3.7	e15	e40	e160	e50	217	38	34	39	18	44
21	2.4	3.5	e20	e38	132	e48	165	30	24	56	16	29
22	2.3	4.5	e24	e36	92	e44	200	26	18	42	14	209
23	2.1	14	25	e35	101	e42	160	24	15	44	13	403
24	2.1	13	22	e100	105	e40	153	23	14	59	11	166
25	2.0	11	e17	e70	92	e40	310	22	13	44	11	89
26	1.8	9.6	e14	e55	109	113	237	21	12	65	12	240
27	1.9	8.6	e18	e50	89	792	166	22	13	170	14	378
28	1.9	10	e20	e48	e70	872	128	23	11	86	64	231
29	1.8	9.0	e35	e46	e100	444	104	21	10	53	499	126
30	1.8	8.8	e130	e44	---	312	93	19	8.7	71	176	86
31	1.9	---	e100	e42	---	265	---	26	---	495	91	---
TOTAL	65.6	165.4	998.0	1930	1765	4889	5955	1889	770.7	1624.2	3016	2736
MEAN	2.12	5.51	32.2	62.3	60.9	158	198	60.9	25.7	52.4	97.3	91.2
MAX	4.0	14	130	143	160	872	372	285	93	495	823	403
MIN	1.4	1.7	8.3	35	26	40	93	19	8.7	6.6	11	16
CFSM	.03	.08	.48	.93	.91	2.36	2.97	.91	.38	.78	1.46	1.37
IN.	.04	.09	.56	1.07	.98	2.72	3.32	1.05	.43	.90	1.68	1.52

e Estimated

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

MEAN	31.2	51.3	76.3	69.7	99.1	199	188	86.1	54.1	17.5	12.3	22.2
MAX	251	189	264	235	465	449	611	281	537	107	97.3	297
(WY)	1956	1978	1973	1979	1976	1945	1940	1943	1972	1972	1992	1977
MIN	.75	1.40	3.23	3.46	9.02	54.9	23.9	13.4	4.33	1.75	1.19	.48
(WY)	1942	1942	1961	1961	1958	1965	1946	1941	1939	1955	1965	1941

SUSQUEHANNA RIVER BASIN

01528000 FIVEMILE CREEK NEAR KANONA, NY

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1937 - 1992	
ANNUAL TOTAL	19962.8		25803.9			
ANNUAL MEAN	54.7		70.5		75.3	
HIGHEST ANNUAL MEAN					131	1972
LOWEST ANNUAL MEAN					33.8	1965
HIGHEST DAILY MEAN	877	Mar 4	872	Mar 28	4180	Jun 23 1972
LOWEST DAILY MEAN	1.3	Sep 3	1.4	Oct 4	.10	Sep 19 1941
ANNUAL SEVEN-DAY MINIMUM	1.6	Aug 29	1.9	Oct 1	.14	Sep 24 1941
INSTANTANEOUS PEAK FLOW			1000	Mar 27	5110	Jun 23 1972
INSTANTANEOUS PEAK STAGE			4.22	Mar 27	a7.10	Mar 31 1940
INSTANTANEOUS LOW FLOW			1.4	b	.04	c
ANNUAL RUNOFF (CFSM)	.82		1.06		1.13	
ANNUAL RUNOFF (INCHES)	11.12		14.37		15.32	
10 PERCENT EXCEEDS	132		165		179	
50 PERCENT EXCEEDS	11		36		28	
90 PERCENT EXCEEDS	2.0		2.5		2.5	

a Ice jam.
b Oct. 4, 5, Nov. 10.
c Sept. 27, 29, 1941.

SUSQUEHANNA RIVER BASIN

01528700 DIVERSION FROM WANETA LAKE TO KEUKA LAKE AT KEUKA, NY

LOCATION.--Lat 42°29'06", long 77°06'39", Steuben County, Hydrologic Unit 02050105, at entrance to conduit on Diversion Canal, 0.8 mi east of Keuka, and 1.0 mi north of Wayne.

DRAINAGE AREA.--45.5 mi^2.

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Daily power generation records.

REMARKS.--Records for March 1931 (when diversion and power generation began) to September 1966 on file. Sketch indicates diversion from Lamoka-Waneta Lakes (Susquehanna River Basin) to Keuka Lake (Oswego River Basin).

COOPERATION.--Records furnished by New York State Electric and Gas Corp.

AVERAGE DISCHARGE.--26 years, 21.2 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 73 ft^3/s, June 23, 1972; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--No flow all year.

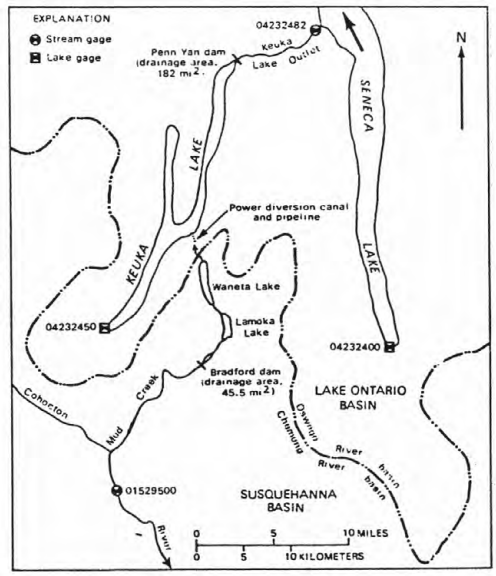


Figure 5.--Gaging stations and transbasin diversion, Cohocton River-Keuka Lake area.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR	1991	TOTAL	6615.00	MEAN	18.1	MAX	65	MIN	.00	
WTR YR	1992	TOTAL	0.00	MEAN	0.00	MAX	.00	MIN	.00	

01529500 COHOCTON RIVER NEAR CAMPBELL, NY

LOCATION.--Lat 42°15'09", long 77°13'01", Steuben County, Hydrologic Unit 02050105, on left bank just downstream from bridge on town road at junction with County Highway 125, 1.9 mi upstream from Michigan Creek, and 2.0 mi north of Campbell.

DRAINAGE AREA.--470 mi^2.

PERIOD OF RECORD.--July 1918 to current year.

REVISED RECORDS.--WSP 891: 1935. WSP 1302: 1919–20(M), 1927–28(M), 1928–38 (monthly runoff). WSP 2103: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,016.34 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 5, 1937, nonrecording gage on highway bridge.

REMARKS.--Records good except those for periods of estimated daily discharges (ice effect, intake out of water), which are fair. During each year since March 1931, a large part of flow from 45.5 mi^2 of drainage area upstream from Lake Lamoka on Mud Creek, a tributary upstream from this station, is diverted into Keuka Lake (Oswego River basin), for power development. For table of diversion, see station 01528700. Telephone and satellite gage-height telemeters at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27	2030	*4,630	*4.89	July 31	1300	4,550	4.84

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e34	e42	96	e350	e200	e500	2150	832	319	76	2730	588
2	e32	e45	91	e380	e190	e490	1820	915	402	71	1780	490
3	e30	e43	297	e380	e180	413	1500	2180	396	68	1070	503
4	e31	e42	e430	462	e170	375	1280	1390	352	76	807	653
5	e33	e38	e260	747	e160	395	1130	1080	339	86	747	436
6	e38	e39	e220	673	e150	503	1090	951	450	86	552	333
7	e34	e44	194	544	e150	637	1070	834	460	77	456	307
8	e34	e44	269	459	e150	875	1510	705	435	72	387	277
9	e33	e43	296	430	e140	811	1360	682	330	147	714	274
10	e35	e43	261	437	e140	812	1200	612	230	114	456	304
11	e40	66	224	415	e140	1030	1450	565	194	88	449	437
12	e41	89	200	367	e140	829	1730	483	170	81	359	297
13	e42	82	184	377	e130	768	1300	646	154	119	303	251
14	e40	90	187	660	e130	664	1080	835	143	151	346	224
15	e49	112	188	706	e160	e600	926	543	132	287	357	207
16	71	112	e160	e470	e210	e520	893	441	120	394	386	191
17	68	97	e130	e400	315	e500	1710	394	114	303	365	180
18	56	85	e120	e360	292	e450	1730	484	108	570	332	168
19	50	76	e110	e310	393	e430	1830	470	117	437	250	261
20	49	69	e150	e290	713	e400	1420	453	215	355	213	243
21	50	68	e150	e280	536	e380	1210	427	181	524	190	206
22	45	74	e140	e270	454	e370	1300	395	150	406	171	1050
23	e44	165	e140	e260	487	e360	1040	292	134	455	157	1550
24	e44	160	e140	e500	495	e350	1070	243	124	486	145	847
25	e41	139	e130	e400	512	e340	2100	238	117	437	140	616
26	e41	119	e110	e330	567	678	1670	226	108	919	232	1520
27	e38	104	e160	e270	513	3950	1350	231	108	1360	201	1610
28	e43	96	220	e250	469	3500	1120	229	99	754	867	1190
29	e43	95	274	e240	578	2240	961	208	90	613	2930	817
30	e40	99	e650	e240	---	1920	865	197	82	607	1230	652
31	e42	---	e500	e230	---	1800	---	299	---	2870	802	---
TOTAL	1311	2420	6681	12487	8864	27890	40865	18480	6373	13089	20124	16682
MEAN	42.3	80.7	216	403	306	900	1362	596	212	422	649	556
MAX	71	165	650	747	713	3950	2150	2180	460	2870	2930	1610
MIN	30	38	91	230	130	340	865	197	82	68	140	168

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 1992, BY WATER YEAR (WY)

MEAN	182	308	412	383	488	1118	1098	606	338	183	121	137
MAX	1284	1611	1861	943	2059	3793	3377	2074	3167	2278	649	1204
(WY)	1956	1928	1928	1952	1976	1936	1940	1919	1972	1935	1992	1977
MIN	25.7	33.0	42.5	32.5	75.1	312	201	143	59.2	31.1	25.0	15.5
(WY)	1942	1942	1961	1961	1920	1965	1946	1934	1955	1955	1934	1934

01529500 COHOCTON RIVER NEAR CAMPBELL, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1918 - 1992		
ANNUAL TOTAL	133257		175266				
ANNUAL MEAN	365		479		447		
HIGHEST ANNUAL MEAN					766		1956
LOWEST ANNUAL MEAN					210		1965
HIGHEST DAILY MEAN	4600	Mar 4	3950	Mar 27	24400	Jul 8	1935
LOWEST DAILY MEAN	25	a	30	Oct 3	8.0	Sep 6	1934
ANNUAL SEVEN-DAY MINIMUM	27	Sep 10	33	Oct 1	11	Sep 3	1934
INSTANTANEOUS PEAK FLOW			4630	Mar 27	b41100	Jul 8	1935
INSTANTANEOUS PEAK STAGE			4.89	Mar 27	c11.60	Jul 8	1935
INSTANTANEOUS LOW FLOW			30	Oct 3	8.0	d	
10 PERCENT EXCEEDS	909		1150		1080		
50 PERCENT EXCEEDS	130		303		200		
90 PERCENT EXCEEDS	33		50		49		

a Sept. 13, 14.
b From rating curve extended above 24,200 ft^3/s on basis of velocity-area and slope-area measurements of peak flow.
c From floodmark.
d Sept. 6, 7, 1934.

01529950 CHEMUNG RIVER AT CORNING, NY

LOCATION.--Lat 42°08'47", long 77°03'28", Steuben County, Hydrologic Unit 02050105, on right bank adjacent to Corning Glass Works power plant, 0.2 mi upstream from bridge on State Highway 414 (Centerway St.) at Corning, and 1.7 mi downstream from Cohocton River.

DRAINAGE AREA.--2,006 mi^2.

PERIOD OF RECORD.--Occasional discharge measurements water years 1941, 1968–69. October 1974 to current year.

REVISED RECORDS.--WRD NY–78–1: 1976, 1977(M). WDR NY–83–3: 1982(M).

GAGE.--Water-stage recorder. Datum of gage is 900.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. High flows significantly regulated by upstream reservoirs. During each year a large part of flow from 45.5 mi^2 of drainage area is diverted upstream from Lake Lamoka on Mud Creek, an upstream tributary, into Keuka Lake (Oswego River basin) for power development. For table of diversion, see station 01528700. Telephone and satellite gage-height telemeters at station. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 23, 1972, reached a stage of 40.71 ft, from floodmark; discharge 228,000 ft^3/s, from peak flows determined at upstream and downstream stations adjusted for drainage area and channel storage.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 24,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27	1945	*22,700	*21.77	No peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	143	147	414	e1200	e900	1820	7470	2980	2820	310	9450	1430
2	138	145	394	e900	e800	1840	6560	2950	2320	293	4490	1160
3	130	141	986	1310	e750	1660	5290	6610	1760	270	2930	1170
4	123	137	2300	1810	e700	1600	4400	5020	1370	270	2170	1900
5	129	133	1440	3960	e650	1520	3900	3690	1140	283	1960	1290
6	146	133	1110	3570	e600	1840	3540	3000	1810	300	1480	1000
7	136	138	956	2910	e550	2390	3470	2550	2490	283	1160	940
8	133	142	1020	2260	e500	3560	5220	2230	1640	288	1020	941
9	139	139	1350	1900	e480	3710	5280	2210	1350	340	2710	874
10	146	143	1310	1810	e460	3540	4610	2040	1050	373	2410	958
11	147	202	1090	1740	e440	5320	4640	1810	866	350	1510	1520
12	146	246	816	1510	e420	e4200	8320	1560	730	326	1410	1160
13	147	267	732	1450	e400	e3700	6120	1470	652	339	1030	939
14	147	294	928	2110	e400	e2900	4360	1900	549	403	1440	777
15	154	315	1290	4090	e450	e2700	3680	1480	518	656	1250	652
16	184	339	1130	2480	e550	2400	3250	1250	485	2630	1380	605
17	200	349	869	e1700	e800	2280	6190	1100	465	1570	1360	587
18	203	324	756	e1300	e900	2260	8100	1110	419	3250	1130	564
19	210	296	e750	e1100	e950	2080	9220	1250	427	2780	968	572
20	200	277	e700	e1000	e1600	1960	6620	1140	697	1640	769	620
21	184	286	688	e950	2010	1860	5200	963	748	1830	661	603
22	175	334	e700	e900	1510	1760	5410	821	577	1870	581	3200
23	171	950	e680	e900	1560	1620	4320	694	490	1490	526	6470
24	168	1070	650	e2000	1830	1600	3840	577	450	2000	488	2860
25	162	817	648	e2800	1910	1540	7950	538	434	1480	469	1860
26	154	626	607	e1700	2140	2430	7470	513	405	1810	573	6110
27	154	530	491	e1300	2010	18400	5620	512	380	3940	600	5980
28	153	460	519	e1200	1690	16700	4360	505	360	2260	1100	4200
29	149	424	593	e1100	2000	8980	3560	479	350	1570	10200	2730
30	154	416	1900	e1000	---	7360	3150	444	326	1540	3570	2090
31	151	---	2140	e1000	---	6500	---	1030	---	9680	2230	---
TOTAL	4876	10220	29957	54960	29960	122030	161120	54426	28078	46424	63025	55762
MEAN	157	341	966	1773	1033	3936	5371	1756	936	1498	2033	1859
MAX	210	1070	2300	4090	2140	18400	9220	6610	2820	9680	10200	6470
MIN	123	133	394	900	400	1520	3150	444	326	270	469	564
CFSM	.08	.17	.48	.88	.52	1.96	2.68	.88	.47	.75	1.01	.93
IN.	.09	.19	.56	1.02	.56	2.26	2.99	1.01	.52	.86	1.17	1.03

e Estimated

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

MEAN	1277	1514	2225	1774	2878	4287	4068	2554	1696	758	606	1012
MAX	5478	5111	5246	4544	7993	9533	9809	6692	5835	1851	2287	5569
(WY)	1991	1978	1978	1979	1976	1979	1984	1989	1989	1984	1984	1975
MIN	157	341	389	328	537	1284	1599	549	244	173	184	141
(WY)	1992	1992	1989	1981	1980	1981	1981	1985	1991	1991	1991	1991

01529950 CHEMUNG RIVER AT CORNING, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1975 - 1992	
ANNUAL TOTAL	521326		660838			
ANNUAL MEAN	1428		1806		2048	
HIGHEST ANNUAL MEAN					3284	1978
LOWEST ANNUAL MEAN					1287	1988
HIGHEST DAILY MEAN	21000	Mar 4	18400	Mar 27	87100	Sep 26 1975
LOWEST DAILY MEAN	110	Sep 9	123	Oct 4	105	Oct 3 1980
ANNUAL SEVEN-DAY MINIMUM	118	Sep 3	134	Oct 2	108	Oct 2 1980
INSTANTANEOUS PEAK FLOW			22700	Mar 27	127000	Sep 26 1975
INSTANTANEOUS PEAK STAGE			21.77	Mar 27	32.46	Sep 26 1975
INSTANTANEOUS LOW FLOW			111	Oct 4	95	a
ANNUAL RUNOFF (CFSM)	.71		.90		1.02	
ANNUAL RUNOFF (INCHES)	9.67		12.25		13.87	
10 PERCENT EXCEEDS	3530		4330		4830	
50 PERCENT EXCEEDS	453		1100		960	
90 PERCENT EXCEEDS	138		184		239	

a Sept. 9, 10, 23, 24, 1991.

01530500 NEWTOWN CREEK AT ELMIRA, NY

LOCATION.--Lat 42°06'16", long 76°47'54", Chemung County, Hydrologic Unit 02050105, on left bank 200 ft downstream from bridge on Linden Place in Elmira, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--77.5 mi^2.

PERIOD OF RECORD.--May 1938 to current year.

REVISED RECORDS.--WSP 1502: 1956. WSP 2103: Drainage area. WRD NY 1974: 1973.

GAGE.--Water-stage recorder. Datum of gage is 838.35 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Diurnal fluctuation at low flow caused by numerous industrial operations upstream. Since August 1989, high flows regulated by detention in upstream reservoir. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27	1145	*1,910	*12.22	July 31	1500	1,470	11.04

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e6.5	e8.4	19	e44	e30	73	223	71	392	16	518	50
2	e7.0	e7.8	18	e38	e27	74	184	80	275	16	180	41
3	e7.0	e8.0	210	e46	e26	69	148	246	146	16	121	234
4	e6.8	e7.8	149	124	e25	59	122	147	99	16	92	499
5	e6.6	e6.8	77	217	e24	58	105	114	80	17	77	172
6	e8.0	e6.6	55	123	e23	81	89	107	141	16	58	120
7	e9.0	e7.2	47	93	e22	90	85	87	110	16	47	95
8	e8.0	e7.6	56	73	e20	117	96	76	77	17	41	83
9	e6.6	e7.8	50	64	e19	113	87	84	60	26	46	81
10	e6.4	e7.6	43	68	e18	113	80	71	49	22	46	88
11	e6.2	e19	36	62	e17	187	86	60	42	19	41	168
12	e6.2	e50	32	52	e17	135	207	54	36	18	36	90
13	e6.2	e44	32	53	e17	107	130	48	33	21	40	68
14	e6.2	e40	57	196	e17	83	100	46	31	27	244	56
15	e11	e70	60	e155	e19	72	83	43	30	73	115	48
16	e60	e100	e46	e80	54	e56	91	41	28	152	85	43
17	e52	e50	e36	e60	44	e52	293	39	27	61	69	40
18	e32	e30	e32	e50	43	e48	292	50	25	175	58	36
19	e25	e16	28	e38	74	e44	371	50	54	219	49	42
20	e17	e9.0	26	e36	118	e40	211	42	74	83	41	39
21	e20	25	e26	e34	72	e39	160	38	38	93	36	35
22	e18	40	e26	e34	63	e38	148	33	29	57	31	48
23	e17	159	28	e40	71	e37	120	31	25	90	29	114
24	e12	72	e28	e110	79	e36	107	31	26	101	28	58
25	e10	55	e25	e70	112	e45	241	32	24	64	33	40
26	e9.4	38	e22	e48	101	162	153	29	22	218	44	296
27	e9.4	29	e20	e38	80	1540	124	30	21	324	37	214
28	e9.0	25	e20	e35	74	816	101	29	19	122	58	160
29	e8.8	22	68	e33	125	324	85	27	18	88	405	107
30	e8.6	20	155	e32	---	266	74	27	17	178	104	83
31	e8.4	---	e70	e31	---	222	---	140	---	882	66	---
TOTAL	424.3	988.6	1597	2177	1431	5196	4396	2003	2048	3243	2875	3248
MEAN	13.7	33.0	51.5	70.2	49.3	168	147	64.6	68.3	105	92.7	108
MAX	60	159	210	217	125	1540	371	246	392	882	518	499
MIN	6.2	6.6	18	31	17	36	74	27	17	16	28	35
CFSM	.18	.43	.66	.91	.64	2.16	1.89	.83	.88	1.35	1.20	1.40
IN.	.20	.47	.77	1.04	.69	2.49	2.11	.96	.98	1.56	1.38	1.56

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1992, BY WATER YEAR (WY)

MEAN	50.7	70.4	91.1	72.6	99.8	191	175	112	62.4	36.1	30.4	33.0
MAX	365	258	238	186	274	364	548	313	297	111	141	232
(WY)	1956	1978	1943	1952	1976	1945	1940	1943	1972	1958	1984	1975
MIN	7.32	8.23	12.3	9.32	18.9	43.0	36.8	20.1	12.8	7.30	5.49	6.22
(WY)	1942	1942	1961	1981	1980	1981	1946	1985	1985	1991	1980	1985

01530500 NEWTOWN CREEK AT ELMIRA, NY

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1938 - 1992	
ANNUAL TOTAL	19076.2		29626.9			
ANNUAL MEAN	52.3		80.9		85.1	
HIGHEST ANNUAL MEAN					140	1978
LOWEST ANNUAL MEAN					38.2	1965
HIGHEST DAILY MEAN	648	Mar 4	1540	Mar 27	3030	Sep 26 1975
LOWEST DAILY MEAN	4.9	Aug 3	6.2	a	1.7	Sep 16 1985
ANNUAL SEVEN-DAY MINIMUM	6.0	Aug 12	6.5	Oct 8	2.8	Sep 13 1985
INSTANTANEOUS PEAK FLOW			1910	Mar 27	b4000	Jun 23 1972
INSTANTANEOUS PEAK STAGE			12.22	Mar 27	c19.28	Jun 23 1972
INSTANTANEOUS LOW FLOW					1.5	Sep 16 1985
ANNUAL RUNOFF (CFSM)	.67		1.04		1.10	
ANNUAL RUNOFF (INCHES)	9.16		14.22		14.92	
10 PERCENT EXCEEDS	131		164		185	
50 PERCENT EXCEEDS	25		48		38	
90 PERCENT EXCEEDS	6.8		16		12	

a Oct. 11-14.
b About (backwater from Chemung River).
c From floodmarks (backwater from Chemung River).

01531000 CHEMUNG RIVER AT CHEMUNG, NY

LOCATION.--Lat 42°00'08", long 76°38'06", Chemung County, Hydrologic Unit 02050105, on right bank 100 ft upstream from bridge on State Highway 427, 0.7 mi southwest of Chemung, and 10.0 mi upstream from mouth.

DRAINAGE AREA.--2,506 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1903 to current year (gage heights only for some winter periods).

REVISED RECORDS.--WSP 891: 1935–39. WSP 1432: 1904, 1907, 1915. WSP 2103: Drainage area. WRD NY 1974: 1973.

GAGE.--Water-stage recorder. Datum of gage is 778.63 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Jan. 10, 1930, nonrecording gage on highway bridge 60 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. High flows significantly regulated by upstream reservoirs. During each year a large part of flow from 45.5 mi^2 of drainage area is diverted upstream from Lake Lamoka on Mud Creek, an upstream tributary, into Keuka Lake (Oswego River basin) for power development. For table of diversion, see station 01528700. Telephone and satellite gage-height telemeters at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 30,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27	2400	*33,200	*13.69	No other peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	197	175	555	e1700	1340	2580	9100	3870	5010	397	15900	2250
2	197	169	542	e1200	1120	2450	8990	3780	4500	364	6930	1690
3	193	169	1440	e1600	e1050	2400	7070	8120	3080	345	4480	1820
4	195	163	3560	2200	e950	2160	5990	6990	2360	340	3240	3500
5	195	156	2550	5100	e900	1970	5260	5320	1910	342	2780	2440
6	197	155	1750	5050	e820	2280	4760	4330	2840	345	2280	1640
7	210	155	1430	4050	e800	2850	4410	3610	3910	334	1780	1390
8	191	159	1350	3180	e750	4150	5570	3120	2840	329	1460	1480
9	179	164	1670	2580	698	4700	6600	3000	2210	409	1750	2350
10	173	163	1770	2430	e650	4430	5780	2910	1700	432	3940	1490
11	179	222	1530	2350	e650	5920	5310	2620	1340	425	2240	2680
12	180	283	1250	2070	e600	6420	9730	2320	1140	390	2000	2050
13	174	297	1090	1930	e600	5210	8670	2050	994	379	1540	1560
14	174	313	1260	2620	e600	4130	5910	2360	880	414	2310	1300
15	175	350	1730	5430	620	e3600	5070	2340	777	745	2130	1090
16	240	383	1690	3610	777	e3000	4260	1910	718	2820	1910	948
17	225	404	1330	e2300	1100	2800	6760	1700	693	2790	2040	869
18	231	399	1140	e2000	1310	2770	10400	1650	622	3400	1750	836
19	245	370	e1000	e1600	1350	2670	13100	1920	576	4420	1480	800
20	257	344	e960	e1500	2270	2490	9340	1870	920	2760	1230	816
21	242	369	987	e1400	e2600	2370	7090	1680	1060	2260	1030	818
22	222	496	965	e1300	2050	2240	6830	1510	928	2600	880	1250
23	211	1900	e950	e1300	1930	2060	6130	1380	734	2040	750	7740
24	206	1930	e950	e2800	2290	2010	5000	1260	646	2540	671	4350
25	201	1490	e940	e3500	2480	1980	8280	1170	619	2270	630	2590
26	196	1130	874	2330	2710	2820	9970	1100	581	1930	655	5080
27	184	870	815	e1800	2720	22800	7470	1080	540	5080	806	9020
28	181	739	748	e1700	2360	27500	5960	1070	492	3880	946	6240
29	174	637	853	1610	2750	15000	4840	984	454	2490	9960	4150
30	169	584	2000	1490	---	10000	4220	903	433	2420	6290	2920
31	169	---	e3200	1480	---	8970	---	2000	---	7640	3390	---
TOTAL	6162	15138	42879	75210	40845	166730	207870	79927	45507	57330	89178	77157
MEAN	199	505	1383	2426	1408	5378	6929	2578	1517	1849	2877	2572
MAX	257	1930	3560	5430	2750	27500	13100	8120	5010	7640	15900	9020
MIN	169	155	542	1200	600	1970	4220	903	433	329	630	800
CFSM	.08	.20	.55	.97	.56	2.15	2.76	1.03	.61	.74	1.15	1.03
IN.	.09	.22	.64	1.12	.61	2.48	3.09	1.19	.68	.85	1.32	1.15

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1906 - 1992, BY WATER YEAR (WY)

MEAN	1124	1820	2294	2244	2787	6303	6037	3665	1947	911	706	668
MAX	8408	9126	8752	7223	10090	20910	19210	11500	15720	5885	4468	7247
(WY)	1956	1928	1928	1913	1915	1936	1940	1919	1972	1935	1915	1975
MIN	101	114	137	207	327	1674	925	660	275	130	124	97.3
(WY)	1965	1931	1909	1931	1934	1965	1946	1934	1955	1911	1965	1932

01531000 CHEMUNG RIVER AT CHEMUNG, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1906 - 1913 1915 - 1992	
ANNUAL TOTAL	691505		903933			
ANNUAL MEAN	1895		2470		2527	
HIGHEST ANNUAL MEAN					4416	1978
LOWEST ANNUAL MEAN					1120	1965
HIGHEST DAILY MEAN	22600	Mar 5	27500	Mar 28	159000	Jun 23 1972
LOWEST DAILY MEAN	113	Sep 3	155	a	52	Aug 14 1911
ANNUAL SEVEN-DAY MINIMUM	125	Sep 1	159	Nov 4	75	Aug 10 1911
INSTANTANEOUS PEAK FLOW			33200	Mar 27	b189000	Jun 23 1972
INSTANTANEOUS PEAK STAGE			13.69	Mar 27	c31.62	Jun 23 1972
INSTANTANEOUS LOW FLOW			149	d	49	Aug 14 1911
ANNUAL RUNOFF (CFSM)	.76		.99		1.02	
ANNUAL RUNOFF (INCHES)	10.26		13.42		13.81	
10 PERCENT EXCEEDS	4820		5820		6050	
50 PERCENT EXCEEDS	739		1680		1010	
90 PERCENT EXCEEDS	163		224		215	

a Nov. 6, 7.
b From rating curve extended above 65,000 ft^3/s, on basis of slope-area and velocity-area studies at gage height 19.57 ft, and slope-area and contracted opening measurements at gage heights 23.97 ft and 31.62 ft.
c From floodmark.
d Nov. 5, 6, 7.

01531000 CHEMUNG RIVER AT CHEMUNG, NY--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--April 1953-54, July 1962, March 1970-78, water years 1988 to current year.
CHEMICAL DATA: 1953-54 (a), 1962 (a), 1970-71 (a), 1972 (b), 1974 (b), 1975-77 (d), 1988-90 (b), 1991(c), 1992 (a).
MINOR ELEMENT DATA: 1953-54 (a), 1972 (b), 1973 (a), 1974 (b), 1975-77 (d), 1988-90 (b), 1991 (c), 1992 (a).
PESTICIDE DATA: 1972 (a).
ORGANIC DATA: 1972 (a), 1974 (a), 1975-77 (d).
NUTRIENT DATA: 1953-54 (a), 1970-71 (a), 1972 (b), 1974 (a), 1975-77 (d).
BIOLOGICAL DATA:
Bacterial--1974 (a), 1975-77 (d).
Phytoplankton--1974 (a), 1975 (d), 1976-77 (c).
SEDIMENT: 1972 (a), 1975 (b), 1976 (a), 1988-90 (b), 1991 (c), 1992 (a).

COOPERATION.--Water samples were collected by the New York State Department of Environmental Conservation, and were analyzed by the USGS National Water Quality Laboratory at Arvada, Colorado and the USGS Pennsylvania District Sediment Laboratory at LeMoyne, Pennsylvania.

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 (PER-CENT SATUR-ATION)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)
OCT									
08	1100	189	549	8.3	12.5	735	8.3	81	70
NOV									
05	1000	159	531	8.7	5.5	754	9.9	80	110

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								
08	< 1	5	140	4	40	< 0.10	2	< 10
NOV								
05	2	--	120	7	40	< 0.10	4	10

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				
08	1100	189	6	3.1
NOV				
05	1000	159	4	1.7

LAKES AND RESERVOIRS IN SUSQUEHANNA RIVER BASIN

01499500 EAST SIDNEY LAKE.--Lat 42°19'40", long 75°13'42", Delaware County, Hydrologic Unit 02050101, at East Sidney Dam, on Ouleout Creek, 0.3 mi upstream from bridge on County Highway 44 at East Sidney, 4.4 mi upstream from mouth, and 4.5 mi east of Unadilla.

DRAINAGE AREA, 103 mi^2. PERIOD OF RECORD, November 1949 to September 1952 (monthend elevations and contents), October 1952 to September 1985 (mean daily elevations and monthend contents), October 1986 to current year (monthend elevations and contents). Prior to October 1970, published as "East Sidney Reservoir at East Sidney". REVISED RECORDS, WSP 2103: Drainage area. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1979, at datum 0.05 ft lower.

REMARKS.--Lake is formed by concrete dam and rockfill dike, completed by Corps of Engineers in June 1950; regulation of outflow began in November 1949; first used for flood regulation on Mar. 28, 1950. Usable capacity, 33,550 acre-ft between elevations 1,115.0 ft (sill of conduits) and 1,203.0 ft (crest of spillway). Dead storage 56 acre-ft. Discharge is controlled by the operation of five gates. Water is stored during high flows and released when downstream conditions warrant. Lake is used for flood control and recreation. Telephone gage-height telemeter and satellite gage-height and precipitation telemeter at station.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 25,100 acre-ft, Apr. 6, 1960, elevation 1,194.4 ft; minimum 56 acre-ft, Aug. 31, 1953, Sept. 7–26, Nov. 4, 1964, elevation, 1,115.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 4,560 acre-ft, Nov. 23, elevation, 1,155.41 ft; minimum, 1,560 acre-ft, Apr. 24, elevation, 1,139.44 ft.

01511000 WHITNEY POINT LAKE.--Lat 42°20'34", long 75°57'57", Broome County, Hydrologic Unit 02050102, on left bank at control-gate structure for Whitney Point Dam on Otselic River, 0.3 mi upstream from spillway, 0.9 mi upstream from mouth, and 1.0 mi north of Whitney Point. DRAINAGE AREA, 257 mi^2. PERIOD OF RECORD, October 1942 to September 1985 (mean daily elevations and monthend contents), October 1985 to current year (monthend elevations and contents). REVISED RECORDS, WSP 2103: Drainage area. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to October 1970, published as "Whitney Point Reservoir at Whitney Point".

REMARKS.--Lake is formed by earthfill dam with concrete spillway, completed by Corps of Engineers in 1942 for flood control; first used for flood regulation on Mar. 9, 1942. Usable capacity 86,440 acre-ft between elevations 950.0 ft (sill of gates) and 1,010.0 ft (crest of spillway). Dead storage, 28 acre-ft. Figures given herein represent total contents. Discharge is controlled by operation of three gates. Water is stored during high flows and released when downstream conditions warrant. Lake is used for flood control and recreation. Telephone gage-height telemeter and satellite gage-height and precipitation telemeter at station.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 71,440 acre-ft, Mar. 23, 1948, elevation 1,005.0 ft; minimum, 36 acre-ft, Sept. 2–4, 1953, elevation, 950.4 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 18,280 acre-ft, June 2, elevation, 977.20 ft; minimum, 4,990 acre-ft, Mar. 1, elevation, 965.76 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01499500 East Sidney Lake			01511000 Whitney Point Lake		
Sept. 30	1,150.85	3,460	--	973.51	13,330	--
Oct. 31	1,150.90	3,471	+ 0.2	969.55	8,802	- 73.6
Nov. 30	1,146.49	2,518	- 16.0	966.39	5,599	- 53.8
Dec. 31	1,141.42	1,818	- 11.4	966.18	5,392	- 3.4
CAL YR 1991	--	--	- 0.2	--	--	- 5.1
Jan. 31	1,140.39	1,681	- 2.2	966.28	5,491	+ 1.6
Feb. 29	1,141.11	1,775	+ 1.6	966.29	5,501	+ 0.2
Mar. 31	1,140.77	1,730	- 0.7	966.99	6,190	+ 11.2
Apr. 30	1,145.23	2,397	+ 11.2	971.59	11,020	+ 81.2
May 31	1,151.08	3,510	+ 18.1	974.04	14,008	+ 48.6
June 30	1,150.82	3,454	- 0.9	973.33	13,104	- 15.2
July 31	1,151.46	3,595	+ 2.3	973.39	13,180	+ 1.2
Aug. 31	1,150.54	3,395	- 3.2	972.60	12,205	- 15.9
Sept. 30	1,150.50	3,386	- 0.2	966.95	6,151	- 102
WTR YR 1992	--	--	- 0.1	--	--	- 9.9

LAKES AND RESERVOIRS IN SUSQUEHANNA RIVER BASIN--Continued

01517900 TIOGA LAKE.--Lat 41°53'57", long 77°08'21", Tioga County, Hydrologic Unit 02050104, at Tioga Dam on Tioga River, 0.8 mi south of Tioga, and 1.7 mi upstream from Crooked Creek. DRAINAGE AREA, 280 mi^2. PERIOD OF RECORD, November 1979 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by rolled earth and rockfill dam. Flood flows are routed to Hammond Lake through a connecting channel with weir at elevation 1,101.0 ft and to Hammond Dam spillway with crest at elevation 1,131.0 ft. Storage began in November 1979. Capacity at elevation 1,131.0 ft is 62,000 acre-ft. Recreation lake elevation is 1,081.0 ft, capacity 9,500 acre-ft. Reservoir is used for flood control and recreation. Figures given herein represent total contents. Flow is regulated by two service gates and low-flow by-pass system. U.S. Army Corps of Engineers satellite and landline telemeters at station.

COOPERATION.--Records provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 32,560 acre-ft, Feb. 16, 1984, elevation, 1,109.34 ft; minimum, 2,210 acre-ft, Oct. 25, 1980, elevation, 1,060.05 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 11,570 acre-ft, Mar. 27, elevation, 1,085.12 ft; minimum, 8,700 acre ft, Nov. 21, elevation, 1,079.22 ft.

01518498 HAMMOND LAKE.--Lat 41°53'56", long 77°08'52", Tioga County, Hydrologic Unit 02050104, at Hammond Dam on Crooked Creek, 3.0 mi upstream from mouth, and 0.8 mi southwest of Tioga. DRAINAGE AREA, 122 mi^2. PERIOD OF RECORD, November 1979 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by rolled earth and rockfill dam with concrete chute spillway with uncontrolled weir at elevation 1,131.0 ft. Storage began in November 1979. Capacity at elevation 1,131.0 ft is 63,000 acre-ft. Recreation lake elevation is 1,086.0 ft, capacity 8,850 acre-ft. Reservoir is used for flood control and recreation. Figures given herein represent total contents. Flow is regulated by two gates through a connecting channel that discharges into Tioga Lake, and a low-flow outlet to Crooked Creek. U.S. Army Corps of Engineers satellite and landline telemeters at station.

COOPERATION.--Records provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 30,620 acre-ft, Feb. 16, 1984, elevation, 1,109.34 ft; minimum, 2,430 acre-ft,
Oct. 24, 1980, elevation, 1,074.00 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 11,100 acre-ft, Mar. 28, elevation, 1,089.27 ft; minimum, 7,550 acre-ft, Nov. 10, elevation, 1,084.14 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation (feet)	Contents (acre-(feet)	Change in contents (equlivalent in cfs)	Elevation (feet)	Contents (acre-(feet)	Change in contents (equivalent in cfs)
	01517900 Tioga Lake			01518498 Hammond Lake		
Sept. 30	1,079.68	8,910	--	1,084.94	8,060	--
Oct. 31	1,079.54	8,840	- 1.1	1,084.32	7,660	- 6.5
Nov. 30	1,081.22	9,610	+ 12.9	1,085.13	8,200	+ 9.1
Dec. 31	1,083.14	10,570	+ 15.6	1,087.95	10,160	+ 31.9
CAL YR 1991	--	--	- 1.2	--	--	0.0
Jan. 31	1,082.02	10,000	- 9.3	1,086.42	9,110	- 17.1
Feb. 29	1,080.73	9,380	- 10.8	1,086.12	8,920	- 3.3
Mar. 31	1,082.15	10,070	+ 11.2	1,086.96	9,440	+ 8.5
Apr. 30	1,082.14	10,060	- 0.2	1,087.17	9,590	+ 2.5
May 31	1,082.34	10,160	+ 1.6	1,086.87	9,380	- 3.4
June 30	1,081.68	9,830	- 5.5	1,086.84	9,360	- 0.3
July 31	1,081.65	9,820	- 0.2	1,086.95	9,430	+ 1.1
Aug. 31	1,080.96	9,480	- 5.5	1,086.12	8,920	- 8.3
Sept. 30	1,081.45	9,720	+ 4.0	1,086.32	9,040	+ 2.0
WTR YR 1992	--	--	+ 1.1	--	--	+ 1.3

LAKES AND RESERVOIRS IN SUSQUEHANNA RIVER BASIN--Continued

01519995 COWANESQUE LAKE.--Lat 41°59'05", long 77°09'05", Tioga County, Hydrologic Unit 02050104, at Cowanesque Dam on Cowanesque River, 1.8 mi southwest of Lawrenceville, and 2.5 mi upstream from mouth. DRAINAGE AREA, 298 mi^2. PERIOD OF RECORD, December 1979 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by rolled earth and rockfill dam with concrete chute spillway with uncontrolled weir at elevation 1,117.0 ft. Storage began in December 1979. Capacity at elevation 1,117.0 ft is 89,110 acre-ft. Recreation lake elevation is 1,045.0 ft, capacity 7,330 acre-ft. Reservoir is used for flood control and recreation. Figures given herein represent total contents. Flow is regulated by two service gates and low-flow by-pass system. U.S. Army Corps of Engineers satellite and landline telemeters at station.

COOPERATION.--Records provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 45,300 acre-ft, Oct. 24, 1990, elevation, 1,090.77 ft; minimum, 65 acre-ft, June 23, 1980, elevation, 1,011.50 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 35,090 acre-ft, Mar. 28, elevation, 1,082.26 ft; minimum, 29,350 acre-ft, Nov. 10, elevation, 1,076.95 ft.

01523000 ALMOND LAKE NEAR ALMOND, NY.--Lat 42°20'56", long 77°42'10", Steuben County, Hydrologic Unit 02050104, at Almond Dam on Canacadea Creek, 2 mi northeast of Almond, and 3 mi upstream from mouth. DRAINAGE AREA, 55.8 mi^2. PERIOD OF RECORD, July 1949 to September 1952 (monthly elevations and contents), October 1952 to September 1985 (mean daily elevations and monthend contents), October 1985 to current year (monthend elevations and contents). Prior to October 1970, published as "Almond Reservoir near Almond". REVISED RECORDS, WSP 2103: Drainage area. GAGE, Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Lake is formed by earthfill dam with concrete spillway, completed by Corps of Engineers in June 1949 for flood control; first used for flood regulation on Mar. 28, 1950. Usable capacity, 14,800 acre-ft between elevations 1,229.0 ft (sill of gates) and 1,300.0 ft (crest of spillway). No dead storage. Figures given herein represent usable contents. Discharge is controlled by the operation of three gates. Water is stored during high flows and released when downstream conditions warrant. Lake is used for flood control and recreation. Telephone gage-height telemeter and satellite gage-height and precipitation telemeter at station.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 14,100 acre-ft, June 23, 1972, elevation, 1,298.58 ft; no contents for many days each year 1949–65.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,440 acre-ft, July 26, elevation, 1,263.93 ft; minimum, 1,630 acre-ft, July 20, elevation, 1,259.21 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation (feet)	Contents (acre-(feet)	Change in contents (equlivalent in cfs)	Elevation (feet)	Contents (acre-(feet)	Change in contents (equivalent in cfs)
	01519995 Cowanesque Lake			01523000 Almond Lake		
Sept. 30	1,077.19	29,590	--	1,260.63	1,851	--
Oct. 31	1,077.11	29,510	- 1.3	1,260.35	1,806	- 0.7
Nov. 30	1,078.98	31,480	+ 33.1	1,260.34	1,804	0.0
Dec. 31	1,080.14	32,740	+ 20.5	1,260.40	1,814	+ 0.2
CAL YR 1991	--	--	- 1.7	--	--	- 0.6
Jan. 31	1,080.27	32,870	+ 2.1	1,260.13	1,771	- 0.7
Feb. 29	1,080.61	33,210	+ 5.9	1,260.08	1,763	- 0.1
Mar. 31	1,080.62	33,220	+ 0.2	1,260.70	1,862	+ 1.6
Apr. 30	1,080.41	33,010	- 3.5	1,260.00	1,750	- 1.9
May 31	1,080.46	33,060	+ 0.8	1,260.54	1,836	+ 1.4
June 30	1,080.49	33,090	+ 0.5	1,260.92	1,897	+ 1.0
July 31	1,080.37	32,970	- 2.0	1,263.42	2,340	+ 7.2
Aug. 31	1,080.14	32,740	- 3.7	1,260.53	1,835	- 8.2
Sept. 30	1,080.32	32,920	+ 3.0	1,260.36	1,808	- 0.5
WTR YR 1992	--	--	+ 4.6	--	--	- 0.1

DIVERSION OF WATER AFFECTING THE SUSQUEHANNA RIVER BASIN

01528700 Diversion from Waneta Lake to Keuka Lake at Keuka, NY (see station for daily discharge).

03011020 ALLEGHENY RIVER AT SALAMANCA, NY

LOCATION.--Lat 42°09'23", long 78°42'56", Cattaraugus County, Hydrologic Unit 05010001, on left bank 230 ft upstream from Main Street bridge in Salamanca, 1.3 mi downstream from Great Valley Creek, and 1.6 mi upstream from Little Valley Creek.

DRAINAGE AREA.--1,608 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1903 to current year. Monthly discharge only for some periods, published in WSP 1305. Prior to October 1964, published as "at Red House."

REVISED RECORDS.--WSP 1385: 1907, 1909–12, 1913(M), 1914–15, 1916–17(M), 1925, 1927. WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,358.00 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Sept. 3, 1917, nonrecording gage and Sept. 4, 1917 to Sept. 30, 1964, water-stage recorder at site 7.5 mi downstream at different datum. Oct. 1, 1964 to Sept. 30, 1967, at present site at datum 0.04 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are fair. U.S. Army Corps of Engineers telephone gage-height telemeter and satellite gage-height and precipitation telemeter at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 17,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Sept. 23	0400	*15,500	*9.44	No peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	162	610	e2200	e1500	4000	6190	4310	937	230	10400	1450
2	132	156	565	e2000	e1400	3900	6180	3760	917	213	7160	1170
3	126	149	2090	e2000	e1300	3820	5420	5120	829	213	4800	1590
4	133	146	4610	e2200	e1100	3630	4710	4720	777	308	4000	3210
5	151	141	3210	3050	e1000	3710	4180	3890	751	315	3930	2300
6	139	135	2190	3410	e1000	4280	3900	3390	803	358	2920	1660
7	141	138	1810	3030	e900	4670	4430	2950	861	324	2210	1380
8	163	140	2930	2650	e850	4980	7030	2580	785	283	1840	1220
9	171	140	4750	2400	e750	4800	7630	2390	673	347	2680	1110
10	170	138	4460	2670	e650	4680	7230	2310	586	350	2270	1270
11	184	156	3420	2620	e600	6550	7660	2110	507	362	2430	1270
12	179	185	2660	2270	e550	e6300	9460	1860	441	297	2710	1070
13	177	214	2280	2110	e550	e5700	8330	1670	380	344	1900	917
14	171	258	2750	3660	e600	e4900	6820	1560	345	578	1670	813
15	167	294	3180	e5000	e650	e4200	5690	1450	338	1450	1490	748
16	197	354	2810	e3600	e1500	e3600	4940	1330	322	2910	1580	694
17	256	381	2460	e2700	e2100	e3400	7460	1220	290	2980	1560	645
18	332	344	e2100	e2200	e2000	3050	8910	1460	265	5800	1370	619
19	261	298	e1700	e1900	3010	2860	9550	2050	396	5890	1230	821
20	217	275	e1400	e1700	4900	2590	8980	1700	491	4220	1100	833
21	199	269	e1750	e1600	4580	2400	8280	1440	417	8180	970	838
22	211	317	e1600	e1500	3910	2160	8200	1280	363	7180	869	9190
23	255	624	e1500	e1700	4760	2010	7150	1160	320	5710	794	14200
24	316	1010	e1400	e3600	5110	1910	6810	1110	301	5140	737	10000
25	319	898	e1300	e3900	6080	1780	10300	1060	281	3730	700	8260
26	309	700	e1200	e2600	6030	2600	10200	983	279	3110	670	6080
27	292	566	e1050	e2300	5340	4550	8290	911	333	3220	638	4370
28	233	500	e950	e2100	4620	5810	6670	860	311	2650	837	3940
29	199	511	e1100	e2000	4740	5060	5470	788	279	2110	3140	3000
30	182	572	e2800	e1800	---	4980	4660	736	251	1980	2830	2370
31	170	---	e3000	e1600	---	4920	---	824	---	5490	1900	---
TOTAL	6291	10171	69635	78070	72080	123800	210730	62982	14829	76272	73335	87038
MEAN	203	339	2246	2518	2486	3994	7024	2032	494	2460	2366	2901
MAX	332	1010	4750	5000	6080	6550	10300	5120	937	8180	10400	14200
MIN	126	135	565	1500	550	1780	3900	736	251	213	638	619
CFSM	.13	.21	1.40	1.57	1.55	2.48	4.37	1.26	.31	1.53	1.47	1.80
IN.	.15	.24	1.61	1.81	1.67	2.86	4.88	1.46	.34	1.76	1.70	2.01
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1992, BY WATER YEAR (WY)												
MEAN	1325	2432	3075	3280	3193	6052	5817	3498	2030	1113	704	839
MAX	5801	8605	9147	10200	9683	14850	15540	9574	11520	6074	3882	7477
(WY)	1991	1928	1928	1913	1976	1936	1940	1943	1972	1942	1977	1977
MIN	124	146	189	255	550	1983	970	796	299	150	119	118
(WY)	1931	1931	1961	1961	1905	1937	1946	1985	1934	1934	1930	1932

03011020 ALLEGHENY RIVER AT SALAMANCA, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1904 - 1992	
ANNUAL TOTAL	688457		885233			
ANNUAL MEAN	1886		2419		2777	
HIGHEST ANNUAL MEAN					4174	1916
LOWEST ANNUAL MEAN					1784	1931
HIGHEST DAILY MEAN	18000	Mar 4	14200	Sep 23	67900	Jun 23 1972
LOWEST DAILY MEAN	102	Sep 16	126	Oct 3	79	a
ANNUAL SEVEN-DAY MINIMUM	107	Sep 10	137	Oct 1	84	Dec 11 1908
INSTANTANEOUS PEAK FLOW			15500	Sep 23	73000	Jun 23 1972
INSTANTANEOUS PEAK STAGE			9.44	Sep 23	24.01b	Jun 23 1972
INSTANTANEOUS LOW FLOW			119	Oct 3	79	a
ANNUAL RUNOFF (CFSM)	1.17		1.50		1.73	
ANNUAL RUNOFF (INCHES)	15.93		20.48		23.46	
10 PERCENT EXCEEDS	4680		5800		6760	
50 PERCENT EXCEEDS	691		1600		1500	
90 PERCENT EXCEEDS	138		216		284	

a Sept. 10, 11, 1971.
b From floodmarks.
e Estimated.

03011020 ALLEGHENY RIVER AT SALAMANCA, NY--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--July to September 1967, March 1971-1974, water years 1988 to current year.
CHEMICAL DATA: 1967 (a), 1971-72 (a), 1988 (b), 1989 (c), 1990 (d), 1991 (c), 1992 (a).
MINOR ELEMENT DATA: 1967 (a), 1971 (a), 1972-74 (a), 1988 (b), 1989 (c), 1990 (d), 1991 (c), 1992 (a).
NUTRIENT DATA: 1967 (a), 1971-72 (a).
SEDIMENT DATA: 1988 (b), 1989 (c), 1990 (d), 1991 (c), 1992 (a).

COOPERATION.--Water samples were collected by the New York State Department of Environmental Conservation, and were analyzed by the USGS National Water Quality Laboratory at Arvada, Colorado and the USGS Pennsylvania District Sediment Laboratory at LeMoyne, Pennsylvania.

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 (PER-CENT SATUR-ATION)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)
OCT 30	1100	185	320	8.2	9.5	773	10.6	92	250

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	9	710	4	150	< 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-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 30	1100	185	19	9.5

03013000 CONEWANGO CREEK AT WATERBORO, NY

LOCATION.--Lat 42°10'15", long 79°04'10", Chautauqua County, Hydrologic Unit 05010002, on right bank 300 ft downstream from bridge on State Highway 394 at Waterboro, 0.2 mi downstream from Davis Brook, 0.4 mi upstream from Harris Brook, and 1.9 mi northeast of Kennedy.

DRAINAGE AREA.--290 mi^2.

PERIOD OF RECORD.--September 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,255.30 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Nov. 7, 1939, nonrecording gages at site 1,300 ft upstream at various datums. Nov. 7, 1939 to Nov. 4, 1940, nonrecording gage at site 1,100 ft upstream at datum 0.79 ft higher, and Nov. 5, 1940 to May 28, 1948, nonrecording gage at site 700 ft downstream at present datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. U.S. Army Corps of Engineers satellite gage-height and precipitation telemeter at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Sept. 24	0100	*2,040	*7.79	No peak greater than base discharge			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	47	245	e370	e280	e820	1220	957	171	72	903	455
2	39	46	193	e330	e250	e800	1160	799	173	69	635	291
3	39	42	392	e320	e240	e780	1030	946	155	72	441	609
4	40	43	518	e380	e220	e750	895	946	136	82	516	1360
5	52	43	e330	e700	e200	e710	775	717	134	83	530	1160
6	52	41	e290	770	e190	e800	681	523	139	88	427	854
7	51	41	e270	631	e180	e900	721	420	130	81	306	512
8	51	41	694	481	e170	960	974	361	129	76	288	351
9	51	40	1240	433	e160	893	955	335	119	82	834	291
10	52	41	1220	708	e150	836	865	539	110	78	559	605
11	69	44	982	726	e145	832	835	518	101	73	432	526
12	69	48	683	585	e140	e640	999	402	97	72	312	387
13	67	51	516	541	e130	e630	893	333	89	134	298	298
14	68	52	538	922	e130	e600	735	289	84	206	384	243
15	63	58	519	1030	e150	e540	581	258	83	309	314	208
16	60	62	e400	e760	e300	e500	510	236	82	390	258	185
17	56	61	e370	e500	e600	e470	934	218	79	438	230	169
18	54	60	e310	e450	e900	e450	1090	240	74	1400	191	157
19	51	57	e260	e400	1220	e440	1150	258	81	1500	184	372
20	51	56	e260	e370	1470	e430	1000	230	91	1180	174	485
21	49	57	e280	e350	1480	e420	835	197	89	945	149	536
22	48	66	e280	e330	1330	e400	858	178	92	658	132	1800
23	51	68	e260	e360	1340	e360	736	163	95	423	120	1980
24	48	68	e280	e650	1320	e350	886	162	91	339	113	2020
25	46	72	e280	e700	1310	354	1450	168	90	289	106	1750
26	49	76	e240	e590	1330	769	1700	161	91	254	106	1320
27	49	69	e230	e500	1180	1330	1780	161	95	283	102	1030
28	46	69	e220	e420	e990	1500	1640	151	87	238	296	766
29	46	143	e270	e380	e900	1450	1280	140	82	218	1050	480
30	44	282	e500	e340	---	1310	1060	135	77	209	870	348
31	43	---	e450	e310	---	1180	---	151	---	468	714	---
TOTAL	1593	1944	13520	16337	18405	23204	30228	11292	3146	10809	11974	21548
MEAN	51.4	64.8	436	527	635	749	1008	364	105	349	386	718
MAX	69	282	1240	1030	1480	1500	1780	957	173	1500	1050	2020
MIN	39	40	193	310	130	350	510	135	74	69	102	157
CFSM	.18	.22	1.50	1.82	2.19	2.58	3.47	1.26	.36	1.20	1.33	2.48
IN.	.20	.25	1.73	2.10	2.36	2.98	3.88	1.45	.40	1.39	1.54	2.76

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1992, BY WATER YEAR (WY)

MEAN	299	554	745	659	768	1201	978	464	294	157	144	217
MAX	1241	1714	1627	1536	2367	2554	2516	1372	1143	527	915	1468
(WY)	1991	1986	1978	1952	1981	1945	1947	1943	1984	1986	1977	1977
MIN	31.6	64.8	61.2	101	146	551	144	116	64.6	43.1	38.5	30.1
(WY)	1964	1992	1961	1961	1963	1960	1946	1939	1964	1955	1941	1941

03013000 CONEWANGO CREEK AT WATERBORO, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1938 - 1992	
ANNUAL TOTAL	159631		164000			
ANNUAL MEAN	437		448		538	
HIGHEST ANNUAL MEAN					720	1986
LOWEST ANNUAL MEAN					363	1962
HIGHEST DAILY MEAN	3920	Jan 2	2020	Sep 24	8150	Apr 7 1947
LOWEST DAILY MEAN	33	Sep 14	39	Oct 1	22	Sep 27 1941
ANNUAL SEVEN-DAY MINIMUM	35	Sep 10	41	Nov 4	24	Sep 23 1941
INSTANTANEOUS PEAK FLOW			2040	Sep 24	8600	Apr 7 1947
INSTANTANEOUS PEAK STAGE			7.79	Sep 24	12.13	Feb 22 1981
INSTANTANEOUS LOW FLOW			38	Oct 2	a22	b
ANNUAL RUNOFF (CFSM)	1.51		1.55		1.86	
ANNUAL RUNOFF (INCHES)	20.48		21.04		25.23	
10 PERCENT EXCEEDS	1230		1050		1400	
50 PERCENT EXCEEDS	129		303		293	
90 PERCENT EXCEEDS	40		52		55	

a Observed
b Aug. 18, 1940, Sept. 27, 29, 1941

03013946 CHAUTAUQUA LAKE AT BEMUS POINT, NY

LOCATION.--Lat 42°09'23", long 79°23'39", Chautauqua County, Hydrologic Unit 05010002, 6 ft east of lake shore, 30 ft south of the intersection of Pauline Avenue and Lakeside Avenue, and 950 ft southeast of the ferry landing at Bemus Point.

DRAINAGE AREA.--189 mi^2.

PERIOD OF RECORD.--October 1972 to September 1973; November 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Nov. 1974 at site 950 ft northwest at same datum.

REMARKS.--Lake regulated for flood control by Warner Dam. Area of water surface, 20.98 mi^2. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,311.23 ft, Mar. 5, 1976; minimum, 1,306.34 ft, Feb. 27-28, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,308.91 ft, Sept. 22, 23; minimum, 1,306.63 ft, Nov. 10, 11.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1306.89	1306.77	1306.84	1307.03	1307.11	1307.60	1307.59	1308.13	1308.16	1307.99	1308.34	1308.35
2	1306.88	1306.75	1306.84	1307.00	1307.07	1307.61	1307.60	1308.15	1308.15	1307.97	1308.32	1308.30
3	1306.88	1306.73	1306.94	1306.97	1307.04	1307.61	1307.61	1308.20	1308.15	1307.99	1308.29	1308.42
4	1306.90	1306.71	1307.04	1306.98	1307.00	1307.60	1307.60	1308.20	1308.14	1307.99	1308.33	1308.62
5	1306.93	1306.69	1307.08	1307.03	1306.97	1307.58	1307.57	1308.20	1308.16	1307.98	1308.35	1308.55
6	1306.92	1306.68	1307.07	1307.04	1306.93	1307.58	1307.56	1308.20	1308.16	1307.97	1308.30	1308.45
7	1306.93	1306.67	1307.05	1307.03	1306.90	1307.58	1307.57	1308.20	1308.17	1307.95	1308.24	1308.34
8	1306.92	1306.66	1307.08	1307.01	1306.88	1307.58	1307.61	1308.21	1308.17	1307.94	1308.21	1308.27
9	1306.90	1306.65	1307.26	1307.00	1306.87	1307.58	1307.63	1308.23	1308.16	1307.94	1308.31	1308.26
10	1306.93	1306.65	1307.33	1307.06	1306.84	1307.58	1307.65	1308.29	1308.15	1307.93	1308.29	1308.38
11	1306.95	1306.67	1307.31	1307.08	1306.82	1307.61	1307.72	1308.32	1308.13	1307.92	1308.26	1308.36
12	1306.94	1306.67	1307.28	1307.07	1306.80	1307.60	1307.85	1308.33	1308.12	1307.91	1308.22	1308.29
13	1306.94	1306.67	1307.28	1307.06	1306.77	1307.57	1307.88	1308.31	1308.11	1307.98	1308.21	1308.21
14	1306.93	1306.67	1307.28	1307.13	1306.74	1307.55	1307.89	1308.27	1308.10	1308.04	1308.24	1308.14
15	1306.91	1306.68	1307.30	1307.21	1306.73	1307.51	1307.90	1308.24	1308.09	1308.11	1308.24	1308.15
16	1306.90	1306.69	1307.32	1307.24	1306.86	1307.45	1307.93	1308.24	1308.06	1308.14	1308.24	1308.15
17	1306.89	1306.68	1307.31	1307.23	1306.96	1307.42	1308.13	1308.24	1308.04	1308.26	1308.23	1308.15
18	1306.88	1306.68	1307.32	1307.22	1306.99	1307.38	1308.22	1308.30	1308.02	1308.60	1308.23	1308.16
19	1306.88	1306.69	1307.27	1307.21	1307.10	1307.36	1308.24	1308.28	1308.07	1308.72	1308.25	1308.30
20	1306.87	1306.70	1307.24	1307.20	1307.28	1307.31	1308.21	1308.26	1308.05	1308.64	1308.24	1308.27
21	1306.86	1306.73	1307.22	1307.17	1307.33	1307.28	1308.18	1308.23	1308.05	1308.58	1308.22	1308.32
22	1306.85	1306.74	1307.18	1307.14	1307.34	1307.26	1308.26	1308.20	1308.04	1308.47	1308.22	1308.81
23	1306.84	1306.74	1307.16	1307.13	1307.40	1307.25	1308.23	1308.20	1308.02	1308.35	1308.21	1308.85
24	1306.83	1306.75	1307.14	1307.23	1307.45	1307.21	1308.24	1308.21	1308.02	1308.26	1308.20	1308.74
25	1306.83	1306.76	1307.11	1307.27	1307.52	1307.17	1308.35	1308.19	1308.02	1308.23	1308.20	1308.62
26	1306.83	1306.80	1307.08	1307.27	1307.59	1307.25	1308.36	1308.18	1308.02	1308.22	1308.20	1308.51
27	1306.83	1306.78	1307.05	1307.26	1307.59	1307.43	1308.32	1308.17	1308.03	1308.23	1308.21	1308.42
28	1306.83	1306.78	1307.01	1307.24	1307.58	1307.52	1308.25	1308.15	1308.02	1308.22	1308.33	1308.33
29	1306.81	1306.80	1307.02	1307.21	1307.62	1307.53	1308.17	1308.14	1308.01	1308.23	1308.61	1308.23
30	1306.79	1306.83	1307.06	1307.17	---	1307.54	1308.13	1308.13	1308.00	1308.24	1308.54	1308.15
31	1306.78	---	1307.06	1307.15	---	1307.55	---	1308.15	---	1308.29	1308.44	---
MEAN	1306.88	1306.72	1307.15	1307.13	1307.11	1307.47	1307.95	1308.22	1308.09	1308.17	1308.28	1308.37
MAX	1306.95	1306.83	1307.33	1307.27	1307.62	1307.61	1308.36	1308.33	1308.17	1308.72	1308.61	1308.85
MIN	1306.78	1306.65	1306.84	1306.97	1306.73	1307.17	1307.56	1308.13	1308.00	1307.91	1308.20	1308.14

CAL YR	1991	MEAN	1307.69	MAX	1309.60	MIN	1306.65
WTR YR	1992	MEAN	1307.63	MAX	1308.85	MIN	1306.65

03014500 CHADAKOIN RIVER AT FALCONER, NY

LOCATION.--Lat 42°06'45", long 79°12'15", Chautauqua County, Hydrologic Unit 05010002, on left bank 10 ft downstream from South Dow Street Bridge in Falconer, 1.8 mi upstream from mouth, and 6 mi downstream from Chautauqua Lake.

DRAINAGE AREA.--194 mi^2.

PERIOD OF RECORD.--November 1934 to current year.

REVISED RECORDS.--WSP 803: 1936(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 1,256.41 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Chautauqua Lake. Diurnal fluctuation caused by mills upstream from station. Monthly figures for 1951–66 water years adjusted for regulation. Telephone gage-height telemeter at station. U.S. Army Corps of Engineers satellite gage-height and precipitation telemeter at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Maximum discharge, 1,130 ft^3/s, Sept. 21 at 2230 hours, gage height, 2.92 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	57	108	388	438	577	529	315	84	69	227	461
2	41	56	111	389	427	580	532	227	77	69	226	286
3	27	54	159	394	420	583	537	221	57	76	232	333
4	60	52	191	397	414	581	555	219	57	69	234	852
5	17	44	292	403	398	573	560	152	56	72	350	887
6	13	40	349	377	321	554	534	140	55	68	412	850
7	21	40	353	396	317	573	376	93	55	65	408	831
8	31	39	361	370	317	571	362	63	55	65	431	407
9	44	37	383	346	317	568	334	64	52	64	389	223
10	64	37	459	372	314	560	193	63	52	63	381	836
11	50	40	453	386	313	595	203	64	51	63	384	559
12	45	37	440	387	311	563	196	202	50	63	379	706
13	45	34	450	393	308	532	193	292	46	73	222	694
14	42	33	461	408	308	540	193	293	46	65	80	249
15	41	33	473	403	315	533	194	230	47	56	78	27
16	40	33	393	405	335	522	214	62	46	64	79	50
17	39	30	369	412	327	519	316	65	46	293	78	50
18	39	29	410	402	326	516	622	117	46	878	77	59
19	38	31	430	405	344	525	781	252	52	939	80	262
20	34	28	412	400	378	514	759	252	46	919	76	498
21	33	29	405	396	460	506	747	251	44	899	76	579
22	32	28	402	392	479	496	792	145	41	843	75	926
23	39	27	402	400	486	487	781	75	39	810	75	986
24	52	28	402	410	487	461	793	79	39	412	74	936
25	52	26	399	405	338	420	811	75	38	211	74	888
26	51	40	394	403	579	439	804	78	39	218	73	863
27	53	108	392	403	577	462	784	76	41	112	39	849
28	51	109	384	403	574	519	758	79	37	48	312	734
29	47	110	397	425	582	520	735	85	37	54	940	684
30	47	110	400	444	---	518	573	85	50	46	879	359
31	54	---	393	443	---	519	---	87	---	127	855	---
TOTAL	1285	1399	11427	12357	11510	16426	15761	4501	1481	7873	8295	16924
MEAN	41.5	46.6	369	399	397	530	525	145	49.4	254	268	564
MAX	64	110	473	444	582	595	811	315	84	939	940	986
MIN	13	26	108	346	308	420	193	62	37	46	39	27

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1992, BY WATER YEAR (WY)

MEAN	211	350	499	506	520	691	636	300	202	119	104	158
MAX	751	997	997	845	989	1358	1305	974	852	729	540	705
(WY)	1946	1986	1951	1991	1990	1976	1947	1943	1986	1986	1977	1977
MIN	8.12	5.69	6.38	36.3	195	282	53.1	58.5	15.1	8.55	7.44	17.8
(WY)	1964	1961	1961	1961	1963	1983	1946	1941	1954	1954	1954	1941

03014500 CHADAKOIN RIVER AT FALCONER, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1935 - 1992	
ANNUAL TOTAL	110626		109239			
ANNUAL MEAN	303		298		359	
HIGHEST ANNUAL MEAN					527	1986
LOWEST ANNUAL MEAN					228	1962
HIGHEST DAILY MEAN	1210	Jan 1	986	Sep 23	2020	Mar 6 1976
LOWEST DAILY MEAN	13	Oct 6	13	Oct 6	3.0	Nov 20 1960
ANNUAL SEVEN-DAY MINIMUM	28	Nov 19	28	Nov 19	3.7	Nov 18 1960
INSTANTANEOUS PEAK FLOW			1130	Sep 21	2250	Sep 14 1979
INSTANTANEOUS PEAK STAGE			2.92	Sep 21	4.93	Sep 14 1979
INSTANTANEOUS LOW FLOW			9.8	a	2.7	b
10 PERCENT EXCEEDS	787		603		828	
50 PERCENT EXCEEDS	73		293		268	
90 PERCENT EXCEEDS	38		39		36	

a Oct. 3, Aug. 27.
b Nov. 20, 21, 1960.

03013946 CHAUTAUQUA LAKE AT BEMUS POINT, NY (see station for daily mean elevation).

04213500 CATTARAUGUS CREEK AT GOWANDA, NY

(National stream-quality accounting network station)

LOCATION.--Lat 42°27'50", long 78°56'07", Erie County, Hydrologic Unit 04120102, on right bank 380 ft downstream from bridge on State Highways 39 and 62 at Gowanda, 4.2 mi downstream from South Branch, and 17.8 mi upstream from mouth. Water-quality sampling site at discharge station.

DRAINAGE AREA.--436 mi^2.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1912;WDR NY-82-3: Drainage area. WRD NY 1971: 1956(M). WRD NY 1974: 1940-42 (M, P).

GAGE.--Water-stage recorder. Datum of gage is 738.85 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1969, at datum 0.11 ft lower.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Diurnal fluctuation at low and medium flow caused by powerplant 20 mi upstream from station. Telephone gage-height telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Sept. 22	0630	*6,590	*6.54	No peak greater than base discharge.			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	95	300	e400	e330	835	1800	1020	443	125	2540	400
2	75	89	227	e350	e300	990	1300	1200	385	119	1060	334
3	97	e90	658	e380	e280	928	1080	2740	305	152	643	1020
4	77	e100	704	e750	e260	822	965	1320	259	264	641	1430
5	109	e95	e420	e1200	e250	957	970	1030	251	238	809	646
6	107	e90	e370	946	e240	1240	1060	850	261	200	502	455
7	117	e88	e400	671	e230	1360	1860	719	264	159	397	392
8	119	e85	1660	506	e210	1450	3540	632	273	140	358	344
9	98	e85	1960	513	e200	1270	2210	648	244	296	380	317
10	145	e80	993	1090	e200	1120	1710	742	214	217	398	632
11	205	e90	599	783	e200	1170	1930	594	195	165	433	537
12	165	e120	442	601	e200	e850	2450	516	176	155	383	379
13	158	148	461	637	e200	e950	1370	464	158	638	383	313
14	141	160	568	1640	e200	e900	1050	434	165	537	537	283
15	127	159	e500	e1000	e230	e750	878	409	159	2000	365	262
16	119	167	e450	e700	e1200	e650	838	389	148	1490	458	241
17	120	158	e400	e560	e1000	e630	1900	362	153	1250	457	226
18	115	141	e340	e500	851	e610	1670	510	137	3390	350	263
19	116	132	e320	e430	1750	e590	1670	432	225	1340	338	1300
20	113	122	e300	e400	2070	e560	1140	355	207	899	303	497
21	109	182	e300	e380	1190	e530	961	317	199	1610	262	1200
22	98	173	e320	e370	955	e500	1480	288	209	902	233	5430
23	102	152	e360	e450	1570	e490	1050	275	176	1520	214	2560
24	99	161	e400	e1200	1310	e460	1750	311	205	1200	214	1160
25	97	187	e330	e750	1340	516	4980	323	160	642	219	774
26	89	178	e300	e650	1440	1650	3470	316	168	822	218	603
27	98	165	e280	e540	1000	2570	1890	325	164	1360	221	590
28	110	176	e250	e500	849	1790	1330	294	148	713	670	606
29	114	515	e500	e440	1100	1240	1080	264	142	573	2370	467
30	81	481	e1400	e400	---	1250	1030	256	131	668	914	396
31	96	---	e600	e360	---	1250	---	370	---	1410	559	---
TOTAL	3512	4664	17112	20097	21155	30878	50412	18705	6324	25194	17829	24057
MEAN	113	155	552	648	729	996	1680	603	211	813	575	802
MAX	205	515	1960	1640	2070	2570	4980	2740	443	3390	2540	5430
MIN	75	80	227	350	200	460	838	256	131	119	214	226
CFSM	.26	.36	1.27	1.49	1.67	2.28	3.85	1.38	.48	1.86	1.32	1.84
IN.	.30	.40	1.46	1.71	1.80	2.63	4.30	1.60	.54	2.15	1.52	2.05

e Estimated

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

MEAN	405	680	960	805	946	1609	1453	735	495	296	242	317
MAX	1573	1772	2089	1727	2819	3824	3686	1948	1436	867	1225	2423
(WY)	1946	1986	1991	1952	1976	1945	1947	1943	1989	1986	1977	1977
MIN	81.8	118	111	136	222	799	279	283	143	78.3	79.5	85.8
(WY)	1964	1961	1961	1961	1963	1981	1946	1941	1955	1955	1941	1960

04213500 CATTARAUGUS CREEK AT GOWANDA, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1940 - 1992	
ANNUAL TOTAL	225810		239939			
ANNUAL MEAN	619		656		742	
HIGHEST ANNUAL MEAN					1030	1977
LOWEST ANNUAL MEAN					536	1949
HIGHEST DAILY MEAN	5330	Mar 3	5430	Sep 22	22900	Mar 17 1942
LOWEST DAILY MEAN	67	Sep 13	75	Oct 2	52	a
ANNUAL SEVEN-DAY MINIMUM	81	Sep 10	88	Nov 5	57	Sep 7 1945
INSTANTANEOUS PEAK FLOW			6590	Sep 22	34600	Mar 7 1956
INSTANTANEOUS PEAK STAGE			6.54	Sep 22	14.03	Mar 7 1956
INSTANTANEOUS LOW FLOW			48	Oct 4	b6.0	Aug 21 1941
ANNUAL RUNOFF (CFSM)	1.42		1.50		1.70	
ANNUAL RUNOFF (INCHES)	19.27		20.47		23.13	
10 PERCENT EXCEEDS	1540		1430		1610	
50 PERCENT EXCEEDS	273		404		418	
90 PERCENT EXCEEDS	91		120		124	

a Sept. 13, 1945, Aug. 1, 1955.
b About, result of regulation.

04213500 CATTARAUGUS CREEK AT GOWANDA, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959, 1963-64, 1972 to current year.
CHEMICAL DATA: 1959 (e), 1963 (b), 1972 (a), 1975 (b), 1976-78 (c), 1979-80 (d), 1981-82 (c), 1983-91 (c) 1992 (b).
MINOR ELEMENTS DATA: 1972-74 (a), 1975 (b), 1976-77 (c), 1978-86 (b), 1987-89 (d), 1990-91 (c), 1992 (b).
ORGANIC DATA: OC--1975 (b), 1976-77 (c), 1978-80 (d), 1981 (c).
NUTRIENT DATA: 1975 (b), 1976-77 (c), 1978-80 (d), 1981-82 (c), 1983-92 (b).
BIOLOGICAL DATA:
Bacterial--1978-80 (d), 1981-82 (c), 1983-92 (b).
Phytoplankton--1978 (b), 1979-80 (c), 1981 (b).
SEDIMENT DATA: 1964 (b), 1978-82 (c), 1983-86 (c), 1987-89 (d), 1990-91 (c), 1992 (b).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1958 to September 1959, unpublished; January 1978 to September 1981.
pH: Ocotber 1958 to September 1959, unpublished.
WATER TEMPERATURES: October 1958 to September 1959, January 1978 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 952 microsiemems Oct. 7, 1958; minimum daily, 150 mocrosiemems Feb. 19, 1981.
WATER TEMPERATURES: Maximum daily, 29.0 C Aug. 19, 1978; minimum daily, 0.0 C on many days during winter periods.

COOPERATION.--Water-quality analyses identified by an (*) were collected by 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 (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											
*30.....	0900	82	530	8.2	7.5	--	773	12.0	99	--	--
NOV											
13.....	1000	147	511	8.1	2.5	2.0	758	12.2	90	250	270
APR											
29.....	1000	1070	255	8.1	7.5	20	765	11.6	96	100	84
JUN											
18.....	0800	127	454	8.1	22.0	3.5	740	8.9	105	170	100
AUG											
13.....	0800	303	374	8.3	17.0	2.0	750	9.3	98	64	94

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)	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)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT											
*30.....	--	--	--	--	--	--	--	--	--	--	--
NOV											
13.....	200	62	12	21	1.6	156	52	36	0.10	3.5	269
APR											
29.....	120	37	6.0	8.3	1.2	90	27	15	< 0.10	4.1	163
JUN											
18.....	200	61	11	20	1.8	160	40	34	0.10	2.7	276
AUG											
13.....	170	52	9.1	12	1.7	174	28	20	0.20	1.5	202

04213500 - CATTARAUGUS CREEK AT GOWANDA, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NITRITE 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										
*30.....	--	--	--	--	--	--	--	--	--	110
NOV										
13.....	287	0.89	0.56	0.58	< 0.01	1.1	0.05	0.01	< 0.01	--
APR										
29.....	157	0.87	0.14	0.14	< 0.01	0.30	0.02	< 0.01	< 0.01	--
JUN										
18.....	272	1.20	0.39	0.40	0.04	0.70	0.02	0.01	< 0.01	--
AUG										
13.....	232	0.70	0.16	0.17	< 0.01	0.30	< 0.01	< 0.01	< 0.01	--

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										
*30.....	--	--	< 1	--	10	200	--	3	--	20
NOV										
13.....	50	64	--	< 3	--	--	8	--	7	--
APR										
29.....	10	38	--	< 3	--	--	16	--	< 4	--
JUN										
18.....	< 10	68	--	< 3	--	--	< 3	--	8	--
AUG										
13.....	< 10	57	--	< 3	--	--	6	--	< 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, DIS-SOLVED (UG/L AS NI)	NICKEL, TOTAL RECOV-ERABLE (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										
*30.....	--	< 0.10	--	--	1	--	--	--	--	< 10
NOV										
13.....	14	--	< 10	< 1	--	< 1	< 1.0	120	< 6	--
APR										
29.....	6	--	< 10	< 1	--	< 1	< 1.0	64	< 6	--
JUN										
18.....	< 1	--	< 10	< 1	--	< 1	< 1.0	110	< 6	--
AUG										
13.....	2	--	< 10	< 1	--	< 1	< 1.0	89	< 6	--

04213500 - CATTARAUGUS CREEK AT GOWANDA, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
NOV							
13.....	1005	25	0.5	462	--	2.5	12.7
13.....	1010	35	0.5	512	--	2.5	12.5
13.....	1015	45	0.5	510	--	2.5	12.1
13.....	1020	55	0.5	511	--	2.5	12.0
13.....	1025	65	0.5	514	--	2.5	12.2
13.....	1030	75	0.5	514	--	2.5	12.1
13.....	1035	85	0.5	514	--	2.5	12.4
13.....	1040	95	0.5	514	--	2.5	12.4
13.....	1045	105	0.5	514	--	2.5	12.3
13.....	1050	115	0.5	512	--	2.5	12.3
13.....	1055	125	0.5	512	--	2.5	12.0
APR							
29.....	1005	12.5	0.5	250	8.0	7.5	11.7
29.....	1010	37.5	0.5	250	8.1	7.5	11.6
29.....	1015	62.5	0.5	258	8.1	7.5	11.6
29.....	1020	87.5	0.5	255	8.1	7.5	11.6
29.....	1025	113	0.5	259	8.1	7.5	11.5
JUN							
18.....	0805	80	0.5	454	8.0	22.0	8.8
18.....	0810	70	0.5	454	8.0	22.0	8.9
18.....	0815	60	0.5	454	8.0	22.0	8.8
18.....	0820	50	0.5	454	8.1	22.0	8.9
18.....	0825	40	0.5	454	8.1	22.0	8.9
18.....	0830	30	0.5	454	8.1	22.0	8.9
18.....	0835	20	0.5	454	8.1	22.0	9.0
AUG							
13.....	0805	10	0.5	376	8.4	17.0	9.3
13.....	0810	25	0.5	374	8.4	17.0	9.3
13.....	0815	40	0.5	371	8.4	17.0	9.3
13.....	0820	55	0.5	374	8.4	17.0	9.3
13.....	0825	70	0.5	375	8.4	17.0	9.4
13.....	0830	85	0.5	374	8.4	17.0	9.4

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
*30	0900	82	4	0.89	--
NOV					
13	1000	147	6	2.4	98
APR					
29	1000	1070	42	121	97
JUN					
18	0800	127	22	7.5	84
AUG					
13	0800	303	4	3.3	94

0421402001 CATTARAUGUS CREEK BELOW IRVING, NY

LOCATION.--Lat 42°33'53", long 79°07'30", Chautauqua County, Hydrologic Unit 04120102, on left bank at downstream side of Conrail railroad bridge, 0.6 mi west of Irving, and 0.9 mi upstream from mouth.

DRAINAGE AREA.--554 mi^2.

PERIOD OF RECORD.--February 1985 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is International Great Lakes Datum (IGLD) of 1985. Prior to Oct. 1, 1991, datum of gage is International Great Lakes Datum (IGLD) of 1955.

COOPERATION.--Station established and maintained in cooperation with U.S. Army Corps of Engineers, Buffalo District, to evaluate magnitude and frequency of peak stages after breakwater construction.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded elevation, 583.13 ft, Feb. 25, 1985; minimum recorded, 570.10 ft, Dec. 25, 28, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum recorded elevation, 576.43 ft, Dec. 14; minimum recorded, 570.65 ft, Nov. 9, 10, but may have been lower during periods of no gage-height record, Oct. 1 to Nov. 6 and July 4-21.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	570.97	571.03	571.15	572.09	571.99	---	572.08	571.76	572.90	572.35
2	---	---	570.79	570.95	571.19	571.14	572.05	---	572.03	571.60	572.63	572.14
3	---	---	571.76	570.86	571.04	571.24	571.92	---	571.97	---	572.54	572.50
4	---	---	572.06	570.98	571.46	571.21	571.76	---	571.89	---	572.61	572.30
5	---	---	571.54	571.07	571.17	571.24	571.83	---	571.87	---	572.51	572.12
6	---	---	571.59	571.25	571.11	571.09	571.66	---	572.02	---	572.39	572.23
7	---	570.76	571.39	571.21	571.19	571.47	571.82	---	572.01	---	572.31	572.28
8	---	570.82	571.11	570.79	571.30	571.59	572.15	---	572.06	---	572.49	572.50
9	---	570.74	571.36	571.37	571.41	571.51	571.89	---	572.03	---	572.55	572.25
10	---	570.67	571.18	571.26	571.09	571.78	571.66	---	572.02	---	572.47	572.75
11	---	570.74	571.10	571.33	571.35	572.39	571.75	---	571.98	---	572.48	572.41
12	---	570.92	570.89	571.15	570.98	572.46	572.05	---	572.00	---	572.40	572.31
13	---	571.31	571.10	571.03	571.10	572.13	571.66	---	572.06	---	572.20	572.24
14	---	570.84	572.66	571.91	571.17	571.98	571.64	---	572.02	---	572.00	572.32
15	---	571.06	572.43	571.33	571.08	571.75	571.45	---	571.61	---	571.93	572.35
16	---	570.83	571.50	571.92	571.99	571.63	571.56	---	571.68	---	572.27	572.37
17	---	570.68	571.72	572.29	571.56	571.82	571.87	---	571.83	---	572.38	572.52
18	---	570.76	571.24	572.26	571.36	571.28	571.71	---	572.05	---	572.49	572.62
19	---	570.83	570.96	571.75	571.91	571.45	571.77	---	572.20	---	572.49	572.54
20	---	570.89	571.02	571.42	572.19	571.63	571.77	---	572.15	---	572.38	572.24
21	---	570.86	571.72	571.52	571.98	571.54	571.79	---	572.21	---	572.30	572.48
22	---	570.76	571.54	570.95	571.54	571.27	572.07	---	572.17	---	572.24	573.62
23	---	570.86	571.12	571.34	571.78	571.67	571.88	---	571.87	572.27	572.21	572.70
24	---	572.46	571.28	572.69	571.18	571.58	572.11	---	572.12	572.20	572.25	572.12
25	---	572.09	570.97	571.29	571.49	571.61	---	---	571.98	572.33	572.32	572.23
26	---	571.15	571.07	571.31	571.70	571.71	---	---	572.00	572.53	572.32	572.25
27	---	571.23	570.86	571.13	571.74	572.22	---	572.09	572.14	572.60	572.25	572.97
28	---	571.12	570.72	571.15	571.60	572.14	---	572.01	571.99	572.49	572.69	572.73
29	---	570.79	570.99	571.37	571.83	571.80	---	571.88	572.01	572.62	573.25	572.54
30	---	571.37	571.01	571.31	---	571.70	---	571.87	571.96	572.09	572.98	572.33
31	---	---	570.97	571.22	---	571.76	---	572.05	---	572.16	572.74	---
MEAN	---	---	571.31	571.37	571.44	571.67	---	---	572.00	---	572.45	572.44
MAX	---	---	572.66	572.69	572.19	572.46	---	---	572.21	---	573.25	573.62
MIN	---	---	570.72	570.79	570.98	571.09	---	---	571.61	---	571.93	572.12

04214500 BUFFALO CREEK AT GARDENVILLE, NY

LOCATION.--Lat 42°51'17", long 78°45'19", Erie County, Hydrologic Unit 04120103, on left bank 300 ft downstream from bridge on Union Road in Gardenville, 2 mi upstream from Cayuga Creek, and 10.1 mi upstream from mouth.

DRAINAGE AREA.--142 mi^2.

PERIOD OF RECORD.--October 1938 to current year.

REVISED RECORDS.--WSP 1337: 1939–52. WSP 1912; WDR NY–82–3: Drainage area. WRD NY–78–1: 1939–1976 (P).

GAGE.--Water-stage recorder. Datum of gage is 603.65 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 26, 1968, water-stage recorder at site 400 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Telephone gage-height telemeter at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,750 ft^3/s and maximum (*);

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Aug. 29	0130	3,990	5.71	Sept. 22	0130	*4,290	*5.91
Sept. 19	0530	3,990	5.71				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	15	82	e110	e90	271	649	255	188	17	1060	142
2	12	15	51	e100	e85	321	484	372	148	16	300	107
3	11	18	216	e115	e80	278	358	1580	88	26	162	622
4	11	30	216	387	e75	223	308	380	60	29	1430	603
5	13	17	e65	411	e75	250	301	253	51	37	813	198
6	20	16	e70	283	e70	272	316	188	50	29	254	150
7	23	16	112	166	e70	297	461	152	49	22	153	116
8	14	19	284	110	e66	465	811	130	54	27	141	135
9	13	17	227	110	e64	313	404	122	53	100	667	104
10	24	17	157	210	e60	263	312	192	41	62	409	157
11	39	20	89	158	e60	276	355	140	36	34	313	125
12	39	26	64	125	e60	e320	600	112	33	29	188	85
13	38	34	158	147	e60	e300	288	94	29	177	137	70
14	26	34	245	390	e60	e250	211	83	35	130	262	61
15	22	37	e200	224	e80	e230	176	74	32	1640	137	53
16	18	39	e100	e100	e700	e210	201	70	25	603	278	51
17	17	32	e95	e95	e450	e200	687	65	23	390	224	46
18	17	25	e95	e95	e350	e190	499	126	22	1030	141	188
19	18	22	e90	e85	e900	e180	640	109	44	301	293	1670
20	17	21	e85	e85	e900	e170	304	73	46	138	306	240
21	17	31	e85	e85	e450	e160	316	57	37	128	130	881
22	16	33	e100	e85	e400	154	472	50	36	93	88	2850
23	16	31	e140	e200	e850	155	275	46	33	1140	71	710
24	16	36	e160	e700	e400	136	468	50	35	575	61	269
25	16	139	e120	e400	333	188	1680	52	36	222	105	187
26	15	37	e100	e200	413	914	982	51	31	748	67	148
27	15	29	e90	e170	256	1360	429	63	28	753	108	151
28	15	35	e85	e130	298	717	281	64	24	230	996	189
29	14	163	e330	e120	565	434	210	51	21	528	1820	122
30	14	167	e800	e100	---	507	215	54	19	650	324	98
31	14	---	e210	e95	---	437	---	169	---	1060	228	---
TOTAL	572	1171	4921	5791	8320	10441	13693	5277	1407	10964	11666	10528
MEAN	18.5	39.0	159	187	287	337	456	170	46.9	354	376	351
MAX	39	167	800	700	900	1360	1680	1580	188	1640	1820	2850
MIN	11	15	51	85	60	136	176	46	19	16	61	46
CFSM	.13	.27	1.12	1.32	2.02	2.37	3.21	1.20	.33	2.49	2.65	2.47
IN.	.15	.31	1.29	1.52	2.18	2.74	3.59	1.38	.37	2.87	3.06	2.76

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1992, BY WATER YEAR (WY)

MEAN	91.0	192	291	241	301	502	379	177	103	51.3	47.8	71.6
MAX	381	685	706	512	835	1048	950	495	531	354	376	827
(WY)	1987	1986	1991	1969	1976	1942	1947	1984	1989	1992	1992	1977
MIN	9.32	18.2	17.4	27.4	40.2	197	68.8	38.5	15.6	6.89	10.8	6.25
(WY)	1965	1961	1961	1961	1963	1981	1946	1941	1955	1955	1966	1964

04214500 BUFFALO CREEK AT GARDENVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1939 - 1992	
ANNUAL TOTAL	63294.2		84751			
ANNUAL MEAN	173		232		203	
HIGHEST ANNUAL MEAN					301	1977
LOWEST ANNUAL MEAN					128	1965
HIGHEST DAILY MEAN	2940	Apr 22	2850	Sep 22	7650	Mar 7 1956
LOWEST DAILY MEAN	5.8	Jul 29	11	a	1.0	Sep 1 1964
ANNUAL SEVEN-DAY MINIMUM	6.4	Jul 24	15	Oct 1	2.6	Sep 13 1964
INSTANTANEOUS PEAK FLOW			4290	Sep 22	b11300	c
INSTANTANEOUS PEAK STAGE			8.68	Feb 20	d14.34	Mar 21 1978
INSTANTANEOUS LOW FLOW			10	f	.20	Sep 1 1964
ANNUAL RUNOFF (CFSM)	1.22		1.63		1.43	
ANNUAL RUNOFF (INCHES)	16.58		22.20		19.46	
10 PERCENT EXCEEDS	400		601		460	
50 PERCENT EXCEEDS	51		123		86	
90 PERCENT EXCEEDS	8.5		20		14	

a Oct. 3, 4.
b From rating curve extended above 3,200 ft^3/s on basis of slope-area measurement at gage-height 7.07 ft.
c Mar. 1, 1955, Mar. 7, 1956.
d Ice jam.
f Oct. 1, 4, Nov. 10.

04215000 CAYUGA CREEK NEAR LANCASTER, NY

LOCATION.--Lat 42°53'24", long 78°38'43", Erie County, Hydrologic Unit 04120103, on right bank 150 ft upstream from low dam in Como Lake Park, 700 ft downstream from bridge on Bowen Road, 800 ft downstream from Little Buffalo Creek, 2.0 mi southeast of Lancaster, and 8.7 mi upstream from mouth.

DRAINAGE AREA.--96.4 mi^2.

PERIOD OF RECORD.--September 1938 to September 1968. October 1971 to April 1974 (peak discharges only). May 1974 to current year.

REVISED RECORDS.--WDR NY–82–3: Drainage area.

GAGE.--Water-stage recorder and low concrete dam as control. Datum of gage is 672.02 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Since August 1962, undetermined amount of flow diverted by Lancaster Country Club for irrigation upstream from station. Concrete dam configuration modified in September 1974 resulting in a lower point of zero flow. Telephone gage-height telemeter at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
May 3	0045	4,290	7.66	Sept. 19	0400	4,150	7.58
Aug. 28	2400	*4,500	*7.78	Sept. 22	1130	3,420	7.16

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	4.6	38	e75	e50	e210	501	181	147	e8.0	607	96
2	4.3	4.8	24	e70	e48	e200	331	496	107	e7.5	164	71
3	3.9	5.1	72	e80	e44	e160	252	1400	58	e21	96	506
4	6.2	5.4	93	e260	e42	151	223	281	38	e15	866	359
5	5.1	5.2	32	e150	e42	171	221	191	32	e25	310	123
6	5.4	5.2	33	e100	e36	183	234	143	35	e15	123	84
7	7.2	5.4	50	e70	e35	209	401	115	31	11	76	67
8	5.6	6.2	121	e60	e34	302	551	96	29	14	68	99
9	4.4	5.8	89	e70	e32	217	260	88	26	63	267	63
10	5.7	5.3	68	e120	e30	184	199	97	21	30	150	76
11	10	6.0	44	e85	e30	188	304	83	17	18	233	61
12	8.9	7.6	33	e75	e30	125	452	70	15	15	99	45
13	7.8	9.0	71	e80	e30	e210	187	57	12	58	76	38
14	6.9	11	111	e180	e30	e160	141	52	10	49	108	33
15	5.9	12	e100	e100	e34	e130	114	43	10	806	61	28
16	5.3	13	47	e60	e520	e110	150	40	8.8	227	121	26
17	4.9	11	55	e55	e360	e105	615	37	8.3	272	100	23
18	4.7	9.2	51	e55	e250	e100	343	100	8.1	381	60	112
19	4.9	8.7	33	e50	802	e95	376	73	23	123	170	1600
20	5.7	8.2	41	e50	699	e90	196	44	23	63	355	165
21	5.7	11	47	e50	330	e85	174	33	19	44	100	771
22	5.3	10	55	e50	315	e80	385	27	18	34	58	2160
23	5.8	9.3	75	e100	756	e75	186	23	15	167	43	451
24	4.8	11	85	e450	293	e70	449	25	18	130	34	180
25	4.6	14	68	e220	230	e120	1230	27	22	64	57	128
26	4.7	13	48	e120	266	e800	591	27	16	236	41	99
27	4.7	11	47	e90	177	1100	265	38	16	220	47	103
28	4.8	14	36	e80	264	498	181	39	11	81	1120	111
29	4.5	60	275	e75	e350	344	140	28	9.2	453	1550	73
30	4.5	70	e500	e60	---	357	160	30	e8.5	406	241	59
31	4.5	---	e150	e55	---	365	---	155	---	1010	160	---
TOTAL	170.2	372.0	2592	3195	6159	7194	9812	4139	811.9	5066.5	7561	7810
MEAN	5.49	12.4	83.6	103	212	232	327	134	27.1	163	244	260
MAX	10	70	500	450	802	1100	1230	1400	147	1010	1550	2160
MIN	3.5	4.6	24	50	30	70	114	23	8.1	7.5	34	23
CFSM	.06	.13	.87	1.07	2.20	2.41	3.39	1.39	.28	1.70	2.53	2.70
IN.	.07	.14	1.00	1.23	2.38	2.78	3.79	1.60	.31	1.96	2.92	3.01

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1992, BY WATER YEAR (WY)

MEAN	59.7	121	188	161	212	346	252	107	53.5	23.3	31.2	49.2
MAX	252	601	505	386	457	680	623	330	338	163	323	572
(WY)	1987	1986	1978	1979	1976	1942	1940	1947	1989	1992	1977	1977
MIN	2.90	4.34	5.60	9.85	25.1	146	36.5	18.7	5.88	1.06	1.87	.80
(WY)	1967	1961	1961	1961	1963	1981	1946	1941	1955	1955	1939	1960

04215000 CAYUGA CREEK NEAR LANCASTER, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1939 - 1968, 1974 - 1992	
ANNUAL TOTAL	41037.65		54882.6			
ANNUAL MEAN	112		150		133	
HIGHEST ANNUAL MEAN					206	1956
LOWEST ANNUAL MEAN					78.5	1962
HIGHEST DAILY MEAN	2570	Apr 22	2160	Sep 22	5830	Feb 24 1985
LOWEST DAILY MEAN	.67	a	3.5	Oct 1	.10	Aug 9 1939
ANNUAL SEVEN-DAY MINIMUM	.72	Sep 9	4.6	Oct 25	.19	Jul 11 1955
INSTANTANEOUS PEAK FLOW			4500	Aug 28	9440	Sep 14 1979
INSTANTANEOUS PEAK STAGE			7.78	Aug 28	b12.58	Mar 30 1960
INSTANTANEOUS LOW FLOW			3.2	Oct 1	c.00	d
ANNUAL RUNOFF (CFSM)	1.17		1.56		1.38	
ANNUAL RUNOFF (INCHES)	15.84		21.18		18.79	
10 PERCENT EXCEEDS	286		361		308	
50 PERCENT EXCEEDS	16		68		45	
90 PERCENT EXCEEDS	1.6		6.2		3.8	

a Aug. 28, Sept. 3, 13.
b Ice jam.
c Practically no flow when stop logs were installed in the dam.
d Aug. 8, 9, 1939.

04215500 CAZENOVIA CREEK AT EBENEZER, NY

LOCATION.--Lat 42°49'47", long 78°46'31", Erie County, Hydrologic Unit 04120103, on right bank 30 ft upstream from bridge on Ridge Road in Ebenezer, 4.0 mi upstream from mouth, and 5 mi southeast of Buffalo.

DRAINAGE AREA.--135 mi^2.

PERIOD OF RECORD.--June 1940 to current year.

REVISED RECORDS.--WSP 1912: Drainage area. WRD NY 1973: 1972 (M). WDR NY–82–3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 604.86 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 4, 1955, at datum 2.00 ft higher. Apr. 4 to Oct. 12, 1955, nonrecording gage at temporary site 1.3 mi downstream at different datum.

REMARKS.--Records fair. Telephone gage-height telemeter at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
July 15	1315	4,630	8.40	Aug. 28	2030	*5,900	*9.43
July 23	1215	4,930	8.65	Sept. 21	2200	5,210	8.88

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	12	101	e140	e95	286	571	260	155	20	727	128
2	13	14	67	e120	e90	337	385	671	141	18	224	100
3	12	15	336	147	e85	288	310	976	87	43	139	852
4	12	18	276	320	e80	242	276	317	65	32	1630	561
5	17	18	e80	401	e80	291	272	227	58	47	610	188
6	27	16	e85	266	e75	377	286	179	58	31	217	140
7	20	17	e130	182	e75	417	534	150	55	24	136	104
8	15	15	455	144	e70	461	938	132	58	41	233	97
9	13	14	349	138	e68	336	449	124	55	97	611	87
10	31	15	208	293	e65	301	336	226	47	53	263	149
11	50	20	135	197	e65	e310	427	143	42	32	204	100
12	38	26	108	162	e65	e340	578	118	38	30	132	74
13	27	37	331	188	e65	e320	278	102	35	290	108	63
14	24	34	306	462	e65	e270	211	92	32	158	139	57
15	21	43	276	e260	e90	e250	177	84	29	2320	96	52
16	18	47	e120	e130	e700	e230	217	79	27	540	141	48
17	17	38	e110	e110	435	e210	795	75	26	535	129	45
18	16	28	e110	e100	303	e200	511	124	25	913	91	482
19	18	24	e100	e95	708	e190	545	100	68	249	212	1130
20	17	23	e95	e95	815	e180	300	75	55	134	107	166
21	16	35	e95	e95	419	e170	259	63	44	115	73	1450
22	15	47	e110	e95	360	e160	427	57	43	87	61	3030
23	14	36	e150	e200	785	e160	258	53	37	1850	53	617
24	13	42	e170	e700	410	e150	521	61	43	551	48	253
25	14	46	e130	e420	365	e200	1910	58	39	223	78	165
26	13	41	e110	e220	441	861	879	57	34	852	51	129
27	13	32	e100	e180	274	987	410	65	32	630	93	161
28	13	40	e95	e140	362	558	287	58	26	219	1670	193
29	13	247	e350	e130	550	384	225	50	23	477	1640	113
30	13	184	e650	e110	---	407	242	56	21	320	300	91
31	13	---	e230	e100	---	374	---	133	---	881	215	---
TOTAL	573	1224	5968	6340	8060	10247	13814	4965	1498	11812	10431	10825
MEAN	18.5	40.8	193	205	278	331	460	160	49.9	381	336	361
MAX	50	247	650	700	815	987	1910	976	155	2320	1670	3030
MIN	12	12	67	95	65	150	177	50	21	18	48	45
CFSM	.14	.30	1.43	1.51	2.06	2.45	3.41	1.19	.37	2.82	2.49	2.67
IN.	.16	.34	1.64	1.75	2.22	2.82	3.81	1.37	.41	3.25	2.87	2.98

e Estimated

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

MEAN	112	236	352	287	334	561	420	204	108	52.6	48.6	81.5
MAX	410	705	868	576	859	1062	1005	585	473	381	371	977
(WY)	1946	1986	1991	1957	1976	1945	1947	1984	1989	1992	1977	1977
MIN	9.76	16.2	20.4	37.8	55.8	216	79.9	43.6	17.5	6.11	9.62	7.93
(WY)	1954	1961	1961	1961	1963	1981	1946	1941	1955	1955	1966	1960

04215500 CAZENOVIA CREEK AT EBENEZER, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1940 - 1992	
ANNUAL TOTAL	63349.9		85757			
ANNUAL MEAN	174		234		233	
HIGHEST ANNUAL MEAN					332	1977
LOWEST ANNUAL MEAN					163	1965
HIGHEST DAILY MEAN	3010	Apr 22	3030	Sep 22	7560	Mar 7 1956
LOWEST DAILY MEAN	4.8	Sep 14	12	a	3.1	Jul 20 1955
ANNUAL SEVEN-DAY MINIMUM	5.7	Sep 10	13	Oct 26	3.5	Jul 17 1955
INSTANTANEOUS PEAK FLOW			5900	Aug 28	b13500	Mar 1 1955
INSTANTANEOUS PEAK STAGE			9.43	Aug 28	c15.82	Mar 1 1955
INSTANTANEOUS LOW FLOW			9.5	Nov 10	2.6	Nov 7 1953
ANNUAL RUNOFF (CFSM)	1.29		1.74		1.72	
ANNUAL RUNOFF (INCHES)	17.46		23.63		23.40	
10 PERCENT EXCEEDS	415		550		547	
50 PERCENT EXCEEDS	52		124		96	
90 PERCENT EXCEEDS	9.4		20		15	

a Oct. 3, 4, Nov. 10.
b From rating curve extended above 7,700 ft^3/s.
c Present datum.

04215790 BUFFALO RIVER AT OHIO STREET AT BUFFALO, NY

LOCATION.--Lat 42°51'42", long 78°52'04", Erie County, Hydrologic Unit 04120103, at Ohio Street bridge, 1.0 mi upstream of mouth.

DRAINAGE AREA.--427 mi^2.

PERIOD OF RECORD.--Water years 1971-74, 1987 to current year.
CHEMICAL DATA: 1987-89 (c), 1990-91 (b), 1992 (a).
MINOR ELEMENT DATA: 1972 (b), 1973-74 (a), 1987-89 (c), 1990-91 (b), 1992 (a).
SEDIMENT DATA: 1987-89 (c), 1990-91 (b), 1992 (a).

COOPERATION.--Water samples were collected by the New York State Department of Environmental Conservation, and were analyzed by the USGS National Water Quality Laboratory at Arvada, Colorado and the USGS Pennsylvania District Sediment Laboratory at LeMoyne, Pennsylvania.

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 PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
OCT 28	1200	540	7.6	12.5	768	7.0	65	200	< 1

DATE	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)	SEDIMENT, SUSPENDED (MG/L)
OCT 28	13	430	3	110	< 0.10	2	< 10	12

04215900 LAKE ERIE AT BUFFALO, NY

LOCATION.--Lat 42°52'39", long 78°53'26", Erie County, Hydrologic Unit 04120200, near outer end of Buffalo River South Pier, at Buffalo.

DRAINAGE AREA.--263,700 mi^2.

PERIOD OF RECORD.--January 1860 to current year. Records prior to October 1960 in files of Lake Survey Center.

REVISED RECORDS.--WDR NY-75-1: 1974.

GAGE.--Water-stage recorder. Elevations are in feet International Great Lakes Datum (IGLD) of 1985. Prior to Oct. 1, 1991, elevations are in feet (IGLD) of 1955. Prior to Feb. 5, 1899, nonrecording gages.

COOPERATION.--Records furnished by U.S. Department of Commerce, NOAA-NOS, Lake Survey Center, Detroit, Mich.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 581.34 ft, Dec. 2, 1985; minimum, 564.86 ft, Mar. 10, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 577.19 ft, Dec. 14; minimum elevation, 569.55 ft, Jan. 14.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	571.42	570.79	571.16	571.04	571.11	571.86	571.94	572.23	572.24	571.87	572.87	572.51
2	571.48	572.79	570.16	570.92	571.19	570.77	572.06	572.57	572.21	571.67	572.78	572.27
3	571.32	572.28	571.80	570.90	570.99	571.12	572.00	572.32	572.14	572.30	572.67	572.66
4	571.15	571.41	572.11	571.06	571.46	571.13	571.83	572.31	572.06	572.29	572.74	572.24
5	572.13	571.27	571.74	571.05	571.14	571.11	571.90	572.16	572.05	572.42	572.67	572.24
6	572.34	571.85	571.72	571.36	571.10	570.87	571.71	572.10	572.20	572.26	572.50	572.43
7	571.75	570.85	571.75	571.34	571.18	571.39	571.84	572.14	572.20	572.12	572.45	572.45
8	571.69	570.95	571.09	570.83	571.28	571.51	571.75	571.89	572.25	572.22	572.72	572.72
9	571.53	570.83	571.19	571.62	571.39	571.42	571.71	572.17	572.21	572.40	572.72	572.47
10	571.23	570.52	571.27	571.31	571.09	571.79	571.47	572.22	572.21	572.26	572.65	573.06
11	571.14	570.78	571.29	571.41	571.31	572.28	571.69	572.14	572.15	572.15	572.62	572.46
12	571.16	571.10	571.06	571.33	570.93	572.56	571.80	572.14	572.18	572.24	572.50	572.47
13	571.13	571.66	571.28	571.15	571.07	572.09	571.60	572.27	572.25	572.31	572.27	572.40
14	571.19	571.00	572.97	571.68	571.14	571.93	571.69	572.20	572.16	572.35	572.08	572.50
15	571.62	571.33	572.52	571.18	570.97	571.64	571.43	572.10	571.68	572.23	572.03	572.54
16	571.28	570.91	571.53	572.02	571.71	571.61	571.68	572.06	571.82	572.29	572.46	572.56
17	571.13	570.66	571.94	572.64	571.04	571.81	571.73	572.27	572.08	572.52	572.53	572.77
18	571.28	570.84	571.19	572.41	571.01	571.05	571.57	572.09	572.32	572.57	572.69	572.86
19	570.98	571.00	571.06	571.96	571.50	571.21	571.71	572.02	572.39	572.60	572.60	572.55
20	571.14	571.01	571.22	571.45	571.40	571.62	571.84	572.11	572.33	572.72	572.54	572.39
21	571.17	570.87	572.01	571.53	571.59	571.55	571.94	572.09	572.36	572.39	572.46	572.62
22	571.03	570.83	571.88	570.75	571.23	571.20	572.18	572.13	572.38	572.16	572.37	572.89
23	570.97	570.98	571.26	571.35	570.99	571.73	571.94	572.20	571.99	572.12	572.37	572.41
24	570.98	573.11	571.39	572.77	570.69	571.65	572.17	571.77	572.35	572.22	572.38	572.11
25	571.10	572.36	571.03	571.02	571.34	571.68	572.20	571.93	572.12	572.48	572.47	572.36
26	571.08	571.28	571.26	571.25	571.62	571.57	572.19	572.07	572.16	572.66	572.49	572.38
27	571.06	571.59	570.95	571.07	571.74	571.93	572.25	572.23	572.32	572.65	572.32	573.34
28	569.98	571.43	570.72	571.05	571.51	572.00	572.24	572.15	572.17	572.67	572.95	572.91
29	570.66	570.81	571.01	571.42	571.62	571.79	572.19	572.00	572.18	572.73	573.33	572.65
30	570.93	571.64	570.66	571.32	---	571.66	572.23	572.01	572.09	572.12	573.35	572.45
31	570.82	---	570.93	571.18	---	571.75	---	572.22	---	572.20	572.91	---
MEAN	571.22	571.29	571.39	571.40	571.25	571.59	571.88	572.14	572.17	572.33	572.60	572.56
MAX	572.34	573.11	572.97	572.77	571.74	572.56	572.25	572.57	572.39	572.73	573.35	573.34
MIN	569.98	570.52	570.16	570.75	570.69	570.77	571.43	571.77	571.68	571.67	572.03	572.11

04216000 NIAGARA RIVER AT BUFFALO, NY

LOCATION.--Lat 42°52'40", long 78°55'00", Erie County, Hydrologic Unit 04120104, at head of Niagara River at Buffalo, and 34.3 mi upstream from mouth.

DRAINAGE AREA.--263,700 mi^2.

PERIOD OF RECORD.--January 1860 to September 1960 (monthly discharges only published in WSP 1912), October 1960 to current year. Records of January 1926 to September 1960 daily discharges available in files of U.S. Department of Commerce and U.S. Geological Survey.

REVISED RECORDS.--WSP 1912: 1862(M), 1955 (M), 1936 (M), WDR NY-77-1: Drainage area.

GAGE.--Discharge determined from several powerplants at Niagara Falls and discharge over the falls. Discharge before 1926 determined from records of Corps of Engineers gages at Buffalo and Cleveland.

REMARKS.--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, and from Lake Erie by Welland and New York State Canals before 1918. 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. Figures of monthly mean discharge for 1860 to 1960 and daily discharge for 1961 to 1965, published in WSP 1912, are the official records of the U.S. Lake Survey, and have been coordinated with and concurred by the counterpart Canadian agencies, as have been the extremes for period of record through December 1976 and records October 1977 to current year.

COOPERATION.--Records of daily discharge furnished by Detroit District Corps of Engineers and Canada Department of the Environment.

AVERAGE DISCHARGE.--132 years, 205,700 ft^3/s.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	199000	177000	192000	191000	186000	211000	214000	221000	216000	200000	224000	223000
2	198000	219000	180000	190000	187000	186000	218000	230000	215000	195000	225000	218000
3	196000	214000	195000	187000	188000	192000	218000	227000	212000	205000	220000	228000
4	192000	195000	212000	191000	195000	192000	211000	225000	210000	210000	221000	219000
5	207000	192000	205000	193000	191000	194000	213000	222000	208000	212000	222000	219000
6	219000	203000	206000	197000	188000	187000	210000	221000	212000	208000	220000	224000
7	209000	182000	206000	199000	194000	200000	211000	219000	210000	206000	214000	225000
8	203000	185000	195000	187000	190000	202000	210000	214000	210000	208000	220000	230000
9	203000	182000	194000	202000	194000	202000	208000	218000	209000	213000	222000	221000
10	193000	179000	194000	199000	196000	202000	206000	221000	208000	210000	218000	234000
11	192000	182000	197000	199000	198000	209000	205000	218000	206000	210000	220000	226000
12	193000	191000	191000	197000	189000	216000	214000	218000	205000	208000	216000	223000
13	193000	198000	196000	197000	190000	200000	206000	221000	206000	214000	211000	222000
14	192000	187000	222000	202000	194000	195000	207000	220000	203000	213000	206000	223000
15	205000	194000	231000	200000	190000	204000	202000	218000	191000	215000	204000	223000
16	196000	187000	206000	205000	207000	206000	205000	216000	194000	217000	213000	223000
17	194000	180000	206000	222000	195000	211000	213000	221000	196000	222000	217000	226000
18	197000	182000	198000	214000	189000	198000	210000	217000	202000	226000	218000	227000
19	188000	188000	190000	180000	202000	196000	210000	214000	207000	224000	219000	227000
20	191000	189000	192000	172000	203000	207000	213000	216000	203000	222000	214000	221000
21	192000	185000	214000	191000	206000	206000	214000	215000	205000	219000	215000	225000
22	190000	185000	209000	182000	199000	198000	219000	216000	205000	212000	213000	234000
23	188000	188000	199000	196000	197000	206000	217000	218000	201000	208000	212000	225000
24	187000	224000	195000	215000	185000	208000	221000	206000	205000	208000	212000	218000
25	190000	225000	195000	158000	200000	206000	228000	208000	205000	216000	214000	220000
26	189000	196000	195000	162000	205000	207000	226000	212000	204000	220000	213000	222000
27	190000	198000	191000	172000	210000	213000	223000	217000	210000	220000	213000	238000
28	167000	203000	185000	174000	203000	217000	223000	213000	206000	218000	220000	234000
29	176000	185000	192000	182000	199000	216000	220000	210000	206000	222000	238000	228000
30	185000	202000	186000	184000	---	209000	220000	210000	202000	210000	239000	223000
31	182000	---	188000	186000	---	211000	---	214000	---	204000	230000	---
TOTAL	5996000	5797000	6157000	5926000	5670000	6307000	6415000	6736000	6172000	6595000	6763000	6749000
MEAN	193400	193200	198600	191200	195500	203500	213800	217300	205700	212700	218200	225000
MAX	219000	225000	231000	222000	210000	217000	228000	230000	216000	226000	239000	238000
MIN	167000	177000	180000	158000	185000	186000	202000	206000	191000	195000	204000	218000

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

MEAN	199600	199700	200200	193800	191300	197500	206700	215500	215900	211400	207800	203700
MAX	254000	248000	260900	254000	241600	255500	264200	264700	268400	265200	253500	243700
(WY)	1987	1987	1986	1987	1987	1986	1985	1974	1986	1986	1986	1986
MIN	152700	148100	149800	138500	116200	142700	152000	159100	158000	154100	155000	153900
(WY)	1935	1935	1965	1964	1936	1934	1935	1934	1934	1934	1934	1934

04216000 NIAGARA RIVER AT BUFFALO, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1926 - 1992	
ANNUAL TOTAL	77061000		75283000			
ANNUAL MEAN	211100		205700		204100	
HIGHEST ANNUAL MEAN					249600	1986
LOWEST ANNUAL MEAN					155300	1934
HIGHEST DAILY MEAN	264000	Mar 28	239000	Aug 30	a347000	Dec 2 1985
LOWEST DAILY MEAN	167000	Oct 28	158000	Jan 25	90000	Jan 13 1964
ANNUAL SEVEN-DAY MINIMUM	181000	Oct 26	174000	Jan 25	105000	Feb 6 1936
10 PERCENT EXCEEDS	229000		223000		238000	
50 PERCENT EXCEEDS	212000		206000		204000	
90 PERCENT EXCEEDS	191000		187000		168000	

a Result of high, storm-generated Lake Erie level.

04216052 BLACK ROCK CANAL AT PORTER AVENUE, BUFFALO, NY

LOCATION.--Lat 42°53'52", long 78°54'07", Erie County, Hydrologic Unit 04120104, on right bank at U. S. Navy Installation at Porter Avenue, Buffalo and 0.6 mi upstream from Peace bridge.

DRAINAGE AREA.--263,700 mi^2.

PERIOD OF RECORD.--October 1984 to current year.

GAGE.--Water-stage recorder. Datum of gage is International Great Lakes Datum (IGLD) of 1985. Prior to Oct. 1, 1991, datum of gage is International Great Lakes Datum (IGLD) of 1955.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 579.57 ft, Dec. 2, 1985; minimum recorded 567.98 ft, Dec. 3, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 576.31 ft, Dec. 14; minimum, 568.11 ft, Dec. 2.

ELEVATION, (FEET IGLD), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	571.58	570.82	571.20	571.09	571.15	---	571.98	572.29	572.28	571.95	572.92	572.54
2	571.52	572.77	570.31	571.00	571.24	570.83	572.07	572.65	572.29	571.78	572.93	572.29
3	571.45	572.34	571.78	570.96	571.04	571.16	572.03	572.41	572.20	572.27	572.79	572.72
4	571.25	571.47	572.14	571.12	571.49	571.19	571.86	572.37	572.11	572.39	572.85	572.31
5	572.18	571.32	571.78	571.11	571.19	571.18	571.92	572.23	572.16	572.49	572.68	572.32
6	572.44	571.95	571.81	571.41	571.12	570.90	571.77	572.18	572.27	572.29	572.53	572.48
7	571.89	570.88	571.82	571.43	571.23	571.42	571.87	572.22	572.26	572.22	572.46	572.50
8	571.74	571.01	571.17	570.90	571.31	571.54	571.80	571.98	572.31	572.26	572.70	572.83
9	571.68	570.88	571.28	571.68	571.43	571.45	571.76	572.22	572.28	572.51	572.74	572.49
10	571.33	570.60	571.34	571.37	571.13	571.85	571.60	572.30	572.29	572.39	572.63	573.12
11	571.22	570.78	571.37	571.48	571.35	572.23	571.64	572.23	572.23	572.32	572.71	572.58
12	571.27	571.14	571.11	571.40	570.96	572.54	571.92	572.24	572.25	572.31	572.49	572.52
13	571.24	571.70	571.35	571.26	571.10	572.09	571.63	572.36	572.33	572.59	572.35	572.46
14	571.17	571.07	572.72	571.71	571.18	571.94	571.74	572.29	572.17	572.46	572.10	572.53
15	571.83	571.39	572.50	571.28	570.99	571.64	571.51	572.19	571.75	572.35	572.02	572.66
16	571.34	570.97	571.62	572.01	571.76	571.62	571.66	572.16	571.93	572.43	572.38	572.67
17	571.21	570.72	571.97	572.65	571.10	571.85	571.83	572.35	572.19	572.67	572.68	572.80
18	571.40	570.92	571.27	572.43	571.05	571.11	571.66	572.21	572.34	572.72	572.71	572.96
19	571.05	571.06	571.11	572.00	571.52	571.23	571.74	572.12	572.44	572.73	572.66	572.65
20	571.22	571.09	571.26	571.46	571.44	571.63	571.91	572.20	572.40	572.82	572.51	572.42
21	571.25	570.94	572.04	571.59	571.67	571.56	571.96	572.17	572.38	572.59	572.45	572.71
22	571.15	570.89	571.92	570.79	571.27	571.22	572.23	572.20	572.41	572.31	572.36	572.98
23	571.04	571.05	571.35	571.36	571.06	571.73	572.05	572.22	572.05	572.24	572.32	572.48
24	571.05	573.10	571.43	572.76	570.73	571.67	572.20	571.86	572.43	572.32	572.37	572.23
25	571.15	572.42	571.08	571.08	571.38	571.69	572.24	571.99	572.21	572.59	572.48	572.49
26	571.11	571.34	571.31	571.28	571.64	571.59	572.24	572.14	572.22	572.71	572.45	572.44
27	571.16	571.66	571.02	571.11	571.80	571.94	572.31	572.28	572.40	572.75	572.41	573.52
28	570.04	571.53	570.79	571.10	571.56	572.01	572.30	572.21	572.24	572.67	572.81	573.03
29	570.67	570.87	571.07	571.46	---	571.83	572.26	572.06	572.24	572.87	573.44	572.76
30	571.00	571.73	570.74	571.37	---	571.70	572.30	572.06	572.17	572.26	573.37	572.55
31	570.87	---	570.99	571.21	---	571.81	---	572.30	---	572.19	573.05	---
MEAN	571.31	571.35	571.44	571.45	---	---	571.93	572.22	572.24	572.43	572.62	572.63
MAX	572.44	573.10	572.72	572.76	---	---	572.31	572.65	572.44	572.87	573.44	573.52
MIN	570.04	570.60	570.31	570.79	---	---	571.51	571.86	571.75	571.78	572.02	572.23

CAL YR 1991 MEAN 571.55 MAX 573.15 MIN 570.04

04216060 NIAGARA RIVER AT ANDERSON PARK, BUFFALO, NY

LOCATION.--Lat 42°54'53", long 78°54'12", Erie County, Hydrologic Unit 04120104, at Anderson Park (Broderick Park) dock at foot of Ferry Street on Squaw Island, Buffalo, 0.6 mi downstream from Peace Bridge.

DRAINAGE AREA.--263,700 mi^2.

PERIOD OF RECORD.--October 1984 to current year. Prior to October 1987, published as "at Bird Island."

GAGE.--Water-stage recorder. Datum of gage is International Great Lakes Datum (IGLD) of 1985. Prior to Oct. 1, 1991, datum of gage is International Great Lakes Datum (IGLD) of 1955.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 572.72 ft, Dec. 2, 1985; minimum recorded, 564.81 ft, Oct. 28, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum recorded elevation, 569.85 ft, Dec. 14, but may have been higher during period of no gage-height record; minimum recorded, 564.81 ft, Oct. 28, but may have been lower during periods of no gage-height record.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	566.17	565.42	---	565.77	---	---	566.58	566.62	---	---	566.99	---
2	566.10	566.90	---	565.73	---	---	566.46	566.92	---	---	566.97	---
3	566.05	566.66	---	---	---	---	566.47	567.10	---	---	566.84	---
4	565.92	566.01	---	---	---	---	566.69	566.79	---	---	566.95	---
5	566.54	565.92	---	---	---	---	566.51	566.59	---	---	567.06	---
6	566.90	566.34	---	---	---	---	566.47	566.45	---	---	566.77	---
7	566.54	565.64	---	---	---	566.13	566.76	566.50	---	---	566.74	---
8	566.30	565.70	---	---	---	566.24	566.55	---	---	---	567.06	---
9	566.23	565.59	---	---	---	566.26	566.53	---	---	---	567.13	---
10	566.02	565.40	---	---	---	---	566.57	566.63	---	566.56	566.96	---
11	565.95	565.45	---	---	---	---	566.48	566.53	---	566.55	567.06	---
12	566.00	565.53	---	---	---	---	566.21	566.54	---	566.49	567.01	---
13	565.99	565.91	565.95	---	---	---	565.91	566.58	---	567.01	566.79	---
14	565.84	565.70	567.07	---	---	---	566.35	566.60	---	566.82	566.53	---
15	566.36	565.90	567.25	---	---	---	566.52	566.49	---	566.62	566.44	---
16	566.04	565.63	---	---	---	---	566.88	---	---	566.66	566.77	---
17	565.87	565.49	---	---	---	566.58	566.86	---	---	566.94	566.81	---
18	565.99	565.61	---	---	---	565.99	566.77	566.70	---	566.95	566.85	---
19	565.78	565.73	---	---	---	565.82	567.20	566.55	---	566.85	566.93	---
20	565.89	565.74	---	---	---	565.80	567.03	---	---	567.13	566.80	---
21	565.93	565.66	566.52	---	---	565.76	---	---	---	566.97	566.68	---
22	565.87	565.62	566.27	---	---	565.61	---	---	---	566.46	566.70	---
23	565.73	565.70	565.94	---	---	565.67	---	---	---	566.34	566.60	---
24	565.72	567.18	566.01	---	---	565.54	566.81	---	---	566.45	566.63	---
25	565.81	566.97	565.79	---	---	565.90	566.77	---	---	566.75	566.71	---
26	565.80	565.96	565.89	---	---	566.14	566.72	---	---	566.83	566.71	---
27	565.89	566.09	565.70	---	---	566.32	566.81	---	---	566.86	566.72	---
28	565.04	566.12	565.53	---	---	566.06	566.70	---	---	566.80	566.96	---
29	565.43	565.67	565.78	---	---	566.10	566.62	---	---	566.87	567.83	---
30	565.67	---	565.50	---	---	566.32	566.69	---	---	566.51	567.68	---
31	565.55	---	565.67	---	---	566.61	---	---	---	566.70	---	---
MEAN	565.97	---	---	---	---	---	---	---	---	---	---	---
MAX	566.90	---	---	---	---	---	---	---	---	---	---	---
MIN	565.04	---	---	---	---	---	---	---	---	---	---	---

04216200 SCAJAQUADA CREEK AT BUFFALO, NY

LOCATION.--Lat 42°54'41", long 78°47'45", Erie County, Hydrologic Unit 04120104, on right bank 58 ft upstream from point where stream goes underground in concrete-lined tunnel, 86 ft upstream from Pine Ridge Road, 0.2 mi east of boundary line of city of Buffalo, and 6.2 mi upstream from mouth.

DRAINAGE AREA.--15.4 mi^2.

PERIOD OF RECORD.--February 1957 to current year.

REVISED RECORDS.--WSP 1912; WDR NY–82–3: Drainage area. WRD NY 1974: 1973.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 626.26 ft above National Geodetic Vertical Datum of 1929 (city of Buffalo bench mark).

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Prior to July 1982 discharge included flow diverted from Lake Erie and Niagara River as sewage-plant effluent entering basin upstream from station. Telephone gage-height telemeter at station. Several measurements of water temperature were made during the year.

COOPERATION.--Town of Cheektowaga maintains records of sewage-plant discharge.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
July 15	0815	857	6.44	Aug. 28	1745	645	5.34
July 17	1315	641	5.32	Sept. 18	2200	*948	*6.90
July 31	1330	780	6.05				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	1.4	22	6.4	4.0	12	46	16	11	1.7	48	4.0
2	3.5	5.1	11	5.2	3.4	10	36	26	4.7	1.7	10	2.8
3	7.9	5.1	105	5.7	3.4	7.6	22	53	3.1	54	6.3	105
4	5.1	9.6	30	7.7	4.2	6.8	16	19	2.4	9.4	30	24
5	19	7.1	10	12	3.2	7.1	13	9.3	7.0	10	8.8	5.6
6	54	5.3	7.9	8.8	2.9	10	9.4	5.8	4.2	3.2	4.1	24
7	20	7.9	66	5.9	3.5	37	8.6	4.6	6.7	2.3	3.1	5.9
8	3.0	5.3	43	4.3	3.2	30	8.4	4.1	4.1	60	16	2.6
9	2.2	3.3	25	6.1	2.9	21	6.2	3.8	2.3	42	6.6	8.2
10	41	2.8	11	8.0	3.7	41	5.6	4.2	2.1	5.0	6.7	37
11	6.1	15	7.2	5.7	3.3	19	30	3.5	1.8	3.0	33	5.2
12	8.9	19	7.1	4.5	3.1	14	34	3.4	1.9	21	5.1	2.0
13	4.1	19	52	7.3	2.7	12	12	4.2	1.8	45	7.7	1.6
14	2.5	7.7	22	30	e4.0	9.6	6.7	3.4	1.9	91	3.8	1.2
15	2.2	6.4	11	12	e40	8.3	5.4	2.9	1.8	452	2.6	1.2
16	1.9	4.6	6.6	7.1	e90	6.8	43	3.2	1.8	31	14	1.1
17	1.8	3.0	5.8	5.3	24	13	97	4.0	1.9	222	3.5	1.0
18	1.8	2.4	5.4	4.6	34	18	39	29	2.7	50	2.6	144
19	7.9	4.9	3.8	7.5	54	29	27	4.8	54	38	22	116
20	2.7	9.0	3.5	4.8	41	26	17	2.9	6.1	11	4.5	10
21	1.9	21	20	4.3	31	15	46	2.2	3.5	7.1	2.7	240
22	1.7	4.9	20	4.8	63	10	40	2.2	4.0	4.0	2.1	189
23	1.6	3.5	41	94	88	11	13	2.0	2.7	20	1.9	27
24	2.6	16	21	e60	23	11	116	22	29	5.4	1.9	8.5
25	2.0	11	9.4	e15	16	38	147	5.1	6.1	3.5	30	5.1
26	1.8	13	6.4	10	19	102	38	10	2.8	19	3.0	3.9
27	2.7	11	8.2	6.5	13	81	17	5.4	27	6.0	2.6	10
28	2.1	101	6.2	4.9	40	65	8.3	3.4	4.8	7.1	180	4.1
29	2.0	215	e120	4.4	30	39	5.8	2.7	2.2	33	81	3.0
30	1.7	79	e50	4.2	---	33	28	21	1.9	9.1	19	2.6
31	1.6	---	14	4.7	---	23	---	45	---	300	8.2	---
TOTAL	229.3	619.3	771.5	371.7	653.5	766.2	941.4	328.1	207.3	1567.5	570.8	995.6
MEAN	7.40	20.6	24.9	12.0	22.5	24.7	31.4	10.6	6.91	50.6	18.4	33.2
MAX	54	215	120	94	90	102	147	53	54	452	180	240
MIN	1.6	1.4	3.5	4.2	2.7	6.8	5.4	2.0	1.8	1.7	1.9	1.0

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1992, BY WATER YEAR (WY)

MEAN	22.7	37.3	41.5	30.4	40.6	52.4	36.5	25.2	22.5	17.3	24.0	23.4
MAX	64.7	89.1	98.2	74.2	81.8	111	75.6	52.3	57.5	50.6	103	105
(WY)	1968	1986	1978	1969	1961	1972	1961	1978	1972	1992	1977	1977
MIN	3.66	10.2	2.38	7.18	6.27	13.9	16.0	4.40	2.48	3.42	3.99	5.09
(WY)	1985	1991	1990	1983	1987	1990	1988	1987	1991	1989	1989	1988

04216200 SCAJAQUADA CREEK AT BUFFALO, NY--continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1957 - 1992	
ANNUAL TOTAL	5648.64		8022.2			
ANNUAL MEAN	15.5		21.9		31.2	
HIGHEST ANNUAL MEAN					47.6	1977
LOWEST ANNUAL MEAN					14.9	1988
HIGHEST DAILY MEAN	377	Apr 22	452	Jul 15	1370	Sep 14 1979
LOWEST DAILY MEAN	.45	Sep 2	1.0	Sep 17	.45	Sep 2 1991
ANNUAL SEVEN-DAY MINIMUM	.65	Aug 28	1.8	Jun 11	.65	Aug 28 1991
INSTANTANEOUS PEAK FLOW			948	Sep 18	2820	Jun 22 1987
INSTANTANEOUS PEAK STAGE			6.90	Sep 18	15.17	Jun 22 1987
INSTANTANEOUS LOW FLOW			.56	Jul 1	.16	Sep 11 1991
10 PERCENT EXCEEDS	37		50		64	
50 PERCENT EXCEEDS	4.8		7.6		16	
90 PERCENT EXCEEDS	.95		2.2		3.9	

04216218 BLACK ROCK CANAL AT BLACK ROCK LOCK, BUFFALO, NY

LOCATION.--Lat 42°56'01", long 78°54'18", Erie County, Hydrologic Unit 04120104, at Black Rock Lock adjacent to U.S. Army Corps of Engineers installation at foot of Hamilton Street, Buffalo and 0.2 mi downstream from International railroad bridge.

DRAINAGE AREA.--263,700 mi^2.

PERIOD OF RECORD.--October 1984 to current year.

GAGE.--Water stage recorder. Datum of gage is International Great Lakes Datum (IGLD) of 1985. Prior to Oct. 1, 1991, datum of gage is International Great Lakes Datum (IGLD) of 1955.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 579.93 ft, Dec. 2, 1985; minimum recorded, 568.34 ft, Oct. 19, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum recorded elevation, 577.16 ft, Dec. 14; minimum recorded, 568.00 ft, Dec. 2.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	570.76	571.15	571.05	571.32	---	---	---	---	---	572.91	572.60
2	---	572.73	570.27	570.96	571.33	---	---	---	---	---	572.74	572.61
3	---	572.30	571.70	570.90	571.15	---	---	---	---	---	572.77	572.71
4	---	571.41	572.08	571.06	571.24	---	---	---	---	---	572.91	572.65
5	---	571.27	571.72	571.07	571.25	---	---	---	---	---	572.81	572.57
6	---	---	571.76	571.36	571.12	---	---	---	---	---	572.68	572.48
7	---	---	571.78	571.39	571.17	---	---	---	---	---	572.55	572.50
8	---	570.96	571.12	570.85	571.28	---	---	---	---	---	572.65	572.58
9	---	570.83	571.22	571.63	571.43	---	---	---	---	---	572.67	572.65
10	---	570.56	571.28	571.30	571.22	---	---	---	---	---	572.49	---
11	---	570.74	571.34	571.44	571.22	---	---	---	---	---	572.50	572.48
12	---	571.09	571.07	571.35	571.14	---	---	---	---	---	572.66	572.46
13	---	571.66	571.32	571.21	571.28	---	---	---	---	---	572.88	572.36
14	---	571.03	572.80	571.65	571.33	---	---	---	---	---	572.79	572.42
15	---	571.35	572.53	571.23	571.00	---	---	---	---	---	572.77	572.40
16	---	570.93	571.59	571.92	571.26	---	---	---	---	---	572.64	572.36
17	---	570.66	571.90	572.59	571.17	---	---	---	---	572.52	572.54	572.49
18	---	570.85	571.22	572.43	571.05	---	---	---	---	572.43	572.50	572.56
19	---	570.99	571.07	571.97	571.10	---	---	---	---	572.37	572.57	572.51
20	---	571.12	571.24	571.41	571.22	---	---	---	---	572.33	572.60	572.35
21	---	570.89	572.03	571.58	571.18	---	---	---	---	572.36	572.47	572.54
22	---	570.82	571.90	570.76	571.16	---	---	---	---	572.47	572.37	572.68
23	---	570.98	571.30	571.31	571.07	---	---	---	---	572.44	572.21	572.42
24	571.01	573.05	571.38	572.54	570.88	---	---	---	---	572.48	572.16	572.14
25	571.13	572.40	571.04	571.05	571.10	---	---	---	---	572.23	572.19	572.33
26	571.07	571.30	571.28	571.28	571.25	---	---	---	---	572.33	572.12	572.39
27	571.09	571.61	570.98	571.07	571.19	---	---	---	---	572.22	572.19	572.74
28	569.98	571.49	570.75	571.05	571.21	---	---	---	---	572.38	572.39	572.69
29	570.61	570.82	571.03	571.27	571.45	---	---	---	---	572.27	572.59	572.65
30	570.94	571.70	570.69	571.30	---	---	---	---	---	572.38	572.58	572.44
31	570.82	---	570.94	571.25	---	---	---	---	---	572.96	572.59	---
MEAN	---	---	571.40	571.39	571.20	---	---	---	---	---	572.56	---
MAX	---	---	572.80	572.59	571.45	---	---	---	---	---	572.91	---
MIN	---	---	570.27	570.76	570.88	---	---	---	---	---	572.12	---

04216220 NIAGARA RIVER AT BLACK ROCK LOCK, BUFFALO, NY

LOCATION.--Lat 42°56'02", long 78°54'17", Erie County, Hydrologic Unit 04120104, at Black Rock Lock adjacent to U.S. Army Corps of Engineers installation at foot of Hamilton Street, Buffalo and 0.2 mi downstream from International railroad bridge.

DRAINAGE AREA.--263,700 mi^2.

PERIOD OF RECORD.--October 1984 to current year.

GAGE.--Water-stage recorder. Datum of gage is International Great Lakes Datum (IGLD) of 1985. Prior to Oct. 1, 1991, datum of gage is International Great Lakes Datum (IGLD) of 1955.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 571.15 ft, Dec. 2, 1985; minimum recorded, 563.34 ft, Dec. 3, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum recorded elevation, 568.58 ft, Dec. 14; minimum recorded, 563.34 ft, Dec. 3.

ELEVATION (FEET IGLD), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	565.38	564.65	565.06	564.98	---	566.12	---	565.72	565.71	565.42	566.14	---
2	565.31	565.98	564.70	564.94	---	565.01	---	566.00	565.69	565.26	566.20	---
3	565.28	565.81	565.40	564.87	---	565.16	---	566.00	565.72	565.53	566.09	---
4	565.16	565.22	565.79	565.01	---	565.16	---	565.90	565.70	565.74	566.15	---
5	565.68	565.15	565.51	565.06	---	565.17	---	565.74	565.68	565.83	566.13	---
6	566.06	565.53	565.57	565.21	---	564.89	---	565.61	565.82	565.69	---	---
7	565.79	564.89	---	565.23	---	565.30	---	565.61	565.77	565.67	---	---
8	565.51	564.95	---	564.87	---	565.40	---	565.50	565.85	565.62	---	---
9	565.45	564.84	---	565.34	---	565.36	---	565.68	565.84	565.83	---	---
10	565.26	564.67	---	565.14	---	565.33	---	565.79	565.85	565.70	---	---
11	565.18	564.68	---	565.22	---	566.24	---	565.64	565.79	565.69	---	566.34
12	565.23	564.70	---	565.13	565.38	566.69	---	565.72	565.80	565.69	---	566.12
13	565.22	565.04	565.15	565.11	565.47	---	---	565.78	565.85	565.93	---	566.06
14	565.07	564.94	566.12	565.55	565.46	---	---	565.73	565.82	565.83	---	566.10
15	565.54	565.09	566.29	565.15	565.29	---	---	565.56	565.49	565.89	---	566.07
16	565.27	564.86	565.49	565.60	565.84	---	---	565.65	565.59	565.90	---	566.09
17	565.10	564.76	565.49	566.14	565.40	---	---	565.74	565.72	566.08	---	566.25
18	565.21	564.85	565.25	566.34	565.31	---	---	565.66	565.90	566.11	---	566.30
19	565.01	564.98	564.99	565.68	565.64	---	---	565.63	566.02	566.07	---	566.28
20	565.12	564.98	565.09	565.11	565.57	---	---	565.66	565.93	566.26	---	566.00
21	565.18	564.90	565.65	565.60	565.75	---	---	565.67	565.97	565.96	---	566.20
22	565.13	564.88	565.43	564.99	565.44	---	565.78	---	565.90	565.73	---	566.49
23	564.98	564.93	565.13	565.00	565.31	---	565.73	---	565.64	565.58	---	566.15
24	564.95	566.18	565.18	---	565.01	---	565.87	565.45	565.71	565.71	---	565.89
25	565.04	566.19	564.97	---	565.40	---	565.90	565.63	565.64	565.94	---	565.96
26	565.03	565.19	565.08	---	565.52	---	565.86	565.66	565.62	565.99	---	565.99
27	565.11	565.27	564.90	---	565.69	---	565.97	565.74	565.74	566.05	---	566.71
28	564.36	565.37	564.75	---	565.55	---	565.83	565.69	565.57	565.96	---	566.51
29	564.66	564.90	564.98	---	565.50	---	565.75	565.59	565.57	566.07	---	566.27
30	564.88	565.36	564.72	---	---	---	565.76	565.59	565.51	565.72	---	566.04
31	564.78	---	564.87	---	---	---	---	565.72	---	565.56	---	---
MEAN	565.19	565.12	---	---	---	---	---	---	565.75	565.81	---	---
MAX	566.06	566.19	---	---	---	---	---	---	566.02	566.26	---	---
MIN	564.36	564.65	---	---	---	---	---	---	565.49	565.26	---	---

04216418 TONAWANDA CREEK AT ATTICA, NY

LOCATION.--Lat 42°51'50", long 78°17'02", Wyoming County, Hydrologic Unit 04120104, on right bank behind Village Hall and fire station, 150 ft downstream from bridge on State Highway 238 (Main Street) at Attica, and 0.4 mi upstream from Tannery Creek.

DRAINAGE AREA.--76.9 mi^2.

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

REVISED RECORDS.--WDR NY–79–1: 1978 (M). WDR NY–82–3: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete weir. Datum of gage is 954.63 ft above National Geodetic Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, about 6,000 ft^3/s, June 23, 1972, gage height, about 12.0 ft, from information supplied by Village of Attica.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft^3/s (revised) and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
May 2	2345	2,510	7.22	Aug. 29	0030	2,420	7.12
Aug. 4	1530	2,250	6.94	Sept. 19	0345	*3,070	*7.78

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	9.5	40	e65	e48	e95	357	146	124	11	410	89
2	7.1	8.7	30	e60	e44	e100	248	443	95	9.5	151	71
3	7.1	8.3	71	95	e38	82	202	702	60	16	100	465
4	7.1	8.3	78	188	e35	91	174	234	44	27	890	257
5	7.3	8.3	e40	188	e32	153	175	161	38	24	323	116
6	7.1	8.3	e35	124	e30	219	209	119	45	21	144	85
7	7.1	8.3	43	85	e28	310	506	98	38	17	97	120
8	7.1	8.3	110	60	e26	342	716	84	57	16	119	181
9	7.1	8.3	96	64	e25	220	381	80	40	61	291	83
10	12	7.3	64	99	e24	177	286	88	32	32	178	98
11	29	9.8	44	74	e23	e120	399	74	26	24	149	72
12	17	12	36	67	e23	e100	520	64	22	22	92	57
13	16	12	61	74	e23	e90	220	56	20	111	153	48
14	16	15	76	154	e23	e80	156	51	19	63	150	43
15	14	21	80	87	e28	e75	125	47	18	755	88	37
16	14	21	59	62	e190	e70	158	43	16	245	138	35
17	14	20	e45	e50	e250	e66	491	39	15	315	98	33
18	12	16	e35	e46	e110	e64	365	63	14	539	72	85
19	11	14	e30	e44	e350	e60	349	52	28	161	136	899
20	11	13	e28	e38	396	e58	208	41	29	92	171	143
21	11	13	e40	e35	132	e55	172	34	26	91	78	378
22	10	18	e50	e35	148	e52	299	31	24	65	59	831
23	9.5	18	e55	e130	382	e50	175	28	21	539	50	288
24	9.5	18	e42	e180	156	e48	283	32	22	235	45	142
25	9.5	18	e30	e150	133	66	1120	33	23	120	59	101
26	9.5	18	e26	e110	169	514	551	34	18	427	48	84
27	9.5	17	e24	e90	91	940	287	47	17	281	83	98
28	9.5	14	e22	e75	120	412	196	45	16	123	394	91
29	9.5	63	e140	e65	e150	287	144	34	14	351	828	67
30	9.5	63	309	e60	---	266	138	32	13	253	201	59
31	9.5	---	e90	e55	---	285	---	98	---	489	142	---
TOTAL	335.5	497.4	1929	2709	3227	5547	9610	3133	974	5535.5	5937	5156
MEAN	10.8	16.6	62.2	87.4	111	179	320	101	32.5	179	192	172
MAX	29	63	309	188	396	940	1120	702	124	755	890	899
MIN	6.0	7.3	22	35	23	48	125	28	13	9.5	45	33
CFSM	.14	.22	.81	1.14	1.45	2.33	4.17	1.31	.42	2.32	2.49	2.23
IN.	.16	.24	.93	1.31	1.56	2.68	4.65	1.52	.47	2.68	2.87	2.49

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1992, BY WATER YEAR (WY)

MEAN	75.4	125	170	120	145	235	209	104	66.1	41.9	40.8	52.8
MAX	182	353	329	258	293	459	366	264	278	179	192	172
(WY)	1987	1986	1978	1979	1981	1979	1978	1984	1989	1992	1992	1992
MIN	10.8	16.6	34.5	55.7	34.4	122	127	37.4	18.8	10.1	7.28	6.73
(WY)	1992	1992	1990	1981	1980	1981	1980	1987	1991	1983	1991	1991

04216418 TONAWANDA CREEK AT ATTICA, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1978 - 1992	
ANNUAL TOTAL	31382.7		44590.4			
ANNUAL MEAN	86.0		122		115	
HIGHEST ANNUAL MEAN					157	1978
LOWEST ANNUAL MEAN					88.9	1988
HIGHEST DAILY MEAN	1480	Apr 22	1120	Apr 25	2630	Feb 24 1985
LOWEST DAILY MEAN	4.4	a	6.0	Oct 1	4.4	a
ANNUAL SEVEN-DAY MINIMUM	4.4	Aug 25	7.0	Oct 1	4.4	Aug 25 1991
INSTANTANEOUS PEAK FLOW			3070	Sep 19	4700	Dec 29 1984
INSTANTANEOUS PEAK STAGE			7.78	Sep 19	b12.40	Feb 18 1979
INSTANTANEOUS LOW FLOW			5.2	Oct 1	4.4	c
ANNUAL RUNOFF (CFSM)	1.12		1.58		1.50	
ANNUAL RUNOFF (INCHES)	15.18		21.57		20.34	
10 PERCENT EXCEEDS	212		311		257	
50 PERCENT EXCEEDS	30		63		63	
90 PERCENT EXCEEDS	6.1		12		15	

a Aug. 18, 19, 26-31.
b Backwater from ice.
c Aug. 17-20, 24-31, Sept. 1, 3, 4, 9, 12-14, 1991.

04216500 LITTLE TONAWANDA CREEK AT LINDEN, NY

LOCATION.--Lat 42°52'37", long 78°09'48", Genesee County, Hydrologic Unit 04120104, on right bank at upstream side of bridge on County Highway 13A (Depot Road) in Linden and 9.3 mi upstream from mouth.

DRAINAGE AREA.--22.1 mi^2.

PERIOD OF RECORD.--July 1912 to November 1919, April 1920 to September 1968, October 1977 to September 1992 (discontinued).

GAGE.--Water-stage recorder. Concrete control since Oct. 15, 1930. Datum of gage is 1,081.62 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 26, 1943, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 530 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Sep. 19	0700	*624	*5.87	No other peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	.26	1.3	13	e9.0	e32	103	39	25	2.2	108	23
2	.21	.27	1.3	12	e8.5	38	72	92	21	2.0	38	17
3	.22	.27	5.8	13	e8.0	30	59	257	13	3.7	23	113
4	.22	.30	6.5	27	e7.0	30	52	75	9.8	3.9	145	91
5	.22	.28	3.1	35	e6.5	42	53	52	8.4	3.2	88	32
6	.18	.30	e2.5	27	e6.0	58	62	40	11	3.2	35	21
7	.17	.30	e3.0	19	e5.5	77	113	33	9.6	2.7	22	18
8	.20	.31	9.7	13	e5.0	96	179	28	9.7	2.8	31	43
9	.21	.32	7.8	13	e4.6	66	96	30	8.7	6.8	51	23
10	.32	.30	6.2	20	e4.2	53	70	33	6.7	3.9	34	20
11	.32	.37	4.4	16	e3.8	42	89	26	5.3	3.8	31	16
12	.32	.44	3.3	14	e3.5	36	136	22	4.7	3.2	19	12
13	.34	.49	4.7	18	e3.2	e32	59	19	4.1	8.6	45	10
14	.27	.51	7.8	32	e3.2	e28	45	17	4.1	7.2	43	9.0
15	.30	.58	e9.0	e19	e6.0	e25	36	16	3.6	96	24	8.1
16	.30	.58	e6.0	e14	e38	e22	53	15	3.4	47	24	7.4
17	.32	.42	e4.4	e12	e28	e22	126	16	5.0	42	20	7.2
18	.32	.34	e3.8	e11	23	e21	92	27	4.2	120	15	11
19	.32	.36	e3.4	e10	69	e20	93	21	7.1	36	29	261
20	.33	.40	e3.0	e9.0	86	e19	57	17	6.2	19	21	42
21	.32	.54	e4.0	e8.5	48	e18	50	14	5.7	14	14	62
22	.32	.54	5.0	e8.5	45	e18	74	11	4.7	11	11	170
23	.33	.51	5.3	e20	108	e17	47	11	3.6	48	8.8	64
24	.35	.59	e4.5	e50	54	e17	68	11	4.1	37	7.9	32
25	.32	.59	e4.0	e30	43	e20	184	11	4.1	22	9.9	24
26	.30	.57	e3.5	e25	51	109	119	11	3.6	48	8.5	21
27	.29	.54	e3.0	e20	36	284	69	13	3.1	49	13	25
28	.28	.58	e2.5	e18	e32	124	50	13	2.8	24	51	22
29	.26	1.2	e12	e14	e45	86	40	9.4	2.6	57	241	16
30	.29	1.8	e35	e12	---	77	39	8.4	2.4	66	61	14
31	.30	---	e15	e10	---	82	---	20	---	94	33	---
TOTAL	8.63	14.86	190.8	563.0	790.0	1641	2385	1007.8	207.3	887.2	1305.1	1234.7
MEAN	.28	.50	6.15	18.2	27.2	52.9	79.5	32.5	6.91	28.6	42.1	41.2
MAX	.35	1.8	35	50	108	284	184	257	25	120	241	261
MIN	.17	.26	1.3	8.5	3.2	17	36	8.4	2.4	2.0	7.9	7.2
CFSM	.01	.02	.28	.82	1.23	2.40	3.60	1.47	.31	1.29	1.90	1.86
IN.	.01	.03	.32	.95	1.33	2.76	4.01	1.70	.35	1.49	2.20	2.08

e Estimated

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

MEAN	8.36	17.2	29.1	34.9	40.1	81.7	65.2	28.6	13.5	4.68	3.49	4.10
MAX	52.1	86.7	97.4	117	105	196	179	135	109	28.6	42.1	41.2
(WY)	1946	1986	1928	1913	1938	1945	1940	1919	1989	1992	1992	1992
MIN	.28	.50	.69	.80	5.49	19.8	11.7	5.74	1.84	.48	.23	.16
(WY)	1992	1992	1961	1961	1980	1915	1946	1941	1941	1965	1936	1991

04216500 LITTLE TONAWANDA CREEK AT LINDEN, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1912 - 1968 1978 - 1992	
ANNUAL TOTAL	8611.00		10235.39			
ANNUAL MEAN	23.6		28.0		27.6	
HIGHEST ANNUAL MEAN					45.7	1943
LOWEST ANNUAL MEAN					17.2	1962
HIGHEST DAILY MEAN	622	Apr 22	284	Mar 27	1640	Mar 17 1942
LOWEST DAILY MEAN	.10	a	.17	Oct 7	.10	Sep 5 1934
ANNUAL SEVEN-DAY MINIMUM	.12	Sep 17	.20	Oct 1	.10	Jul 31 1955
INSTANTANEOUS PEAK FLOW			624	Sep 19	b2900	Jun 23 1989
INSTANTANEOUS PEAK STAGE			5.87	Sep 19	c16.99	Jun 23 1989
INSTANTANEOUS LOW FLOW			.16	d	.08	f
ANNUAL RUNOFF (CFSM)	1.07		1.27		1.25	
ANNUAL RUNOFF (INCHES)	14.49		17.23		16.95	
10 PERCENT EXCEEDS	60		73		64	
50 PERCENT EXCEEDS	3.1		13		9.3	
90 PERCENT EXCEEDS	.21		.32		.90	

a Sept. 18, 22.
b From rating curve extended above 1,500 ft^3/s on basis of critical-depth computation of peak flow at gage height 16.99 ft.
c From floodmark.
d Oct. 1, 2, 5, 6, 7, 9.
f Aug. 3, 4, 1955.

04217000 TONAWANDA CREEK AT BATAVIA, NY

LOCATION.--Lat 42°59'51", long 78°11'20", Genesee County, Hydrologic Unit 04120104, on right bank 150 ft downstream from municipal dam, 500 ft upstream from bridge on Walnut Street in Batavia, and 5.0 mi downstream from Little Tonawanda Creek.

DRAINAGE AREA.--171 mi^2.

PERIOD OF RECORD.--July 1944 to current year.

REVISED RECORDS.--WSP 1627: 1956–57. WSP 1912: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 876.33 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Diversion upstream from station by city of Batavia for municipal supply; sewage, which may include water from municipal and industrial wells upstream from gage, enters creek downstream from gage. Gage-height telemeter at station. Several measurements of water temperature were made during the year.

COOPERATION.--City of Batavia maintains records of diversion.

EXTREMES OUTSIDE PERIOD OF RECORD.--From records of city of Batavia, maximum stage, 14.5 ft, in March 1942.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 28	1330	*1,570	*5.38	No peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	9.6	58	130	e80	e250	658	301	200	19	913	274
2	8.6	9.0	38	109	e72	e280	594	286	202	16	671	182
3	8.8	9.2	38	112	e66	e230	460	986	124	23	278	237
4	8.2	9.3	114	227	e62	208	391	1100	85	36	468	802
5	7.9	9.2	e60	296	e58	254	355	473	68	39	949	405
6	8.5	e9.0	e50	251	e54	337	368	309	74	36	663	210
7	10	e8.8	46	159	e50	405	422	244	73	28	275	157
8	12	e8.8	82	114	e48	570	790	198	75	25	176	284
9	9.7	e8.6	124	96	e46	472	797	181	75	49	310	187
10	11	e8.4	107	133	e42	355	520	205	59	70	419	154
11	20	e9.0	71	142	e40	364	454	182	50	40	262	153
12	30	13	54	110	e40	158	739	154	42	36	206	115
13	19	16	50	113	e40	e220	568	135	38	64	150	96
14	16	17	103	173	e40	e200	336	119	35	127	359	84
15	15	22	115	e170	e46	e190	265	109	32	346	194	77
16	14	26	e78	e100	e160	e180	246	98	28	832	185	79
17	15	25	e58	e90	405	e170	660	94	27	362	207	73
18	14	21	e50	e85	252	e160	666	124	28	696	145	74
19	12	17	e44	e80	372	e160	702	144	31	610	174	597
20	12	15	e42	e75	615	e150	497	105	51	242	252	835
21	13	15	e42	e70	578	e140	359	88	43	162	161	381
22	12	17	e54	e70	338	e130	474	73	41	133	113	916
23	11	21	57	e80	585	e120	406	66	37	216	92	1420
24	9.9	18	e55	265	603	e120	416	64	35	634	80	738
25	9.1	22	e52	282	328	e130	774	70	39	275	90	311
26	9.4	23	e46	185	386	471	1300	66	36	188	93	210
27	9.7	19	e44	143	286	1140	847	86	32	646	97	193
28	9.0	18	e38	e120	e210	1460	458	95	28	305	220	214
29	9.8	30	e52	e110	400	858	321	74	26	209	921	157
30	10	86	414	e100	---	623	267	63	23	701	1360	132
31	10	---	253	e90	---	525	---	109	---	494	594	---
TOTAL	372.8	539.9	2489	4280	6302	11030	16110	6401	1737	7659	11077	9747
MEAN	12.0	18.0	80.3	138	217	356	537	206	57.9	247	357	325
MAX	30	86	414	296	615	1460	1300	1100	202	832	1360	1420
MIN	7.9	8.4	38	70	40	120	246	63	23	16	80	73

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1992, BY WATER YEAR (WY)

MEAN	81.7	163	264	245	310	547	459	203	107	54.3	51.1	65.9
MAX	344	653	718	546	903	1206	1100	544	722	247	451	873
(WY)	1946	1986	1978	1979	1976	1945	1947	1984	1989	1992	1977	1977
MIN	9.03	15.3	13.6	17.5	50.9	244	82.1	68.2	20.1	6.17	7.91	5.63
(WY)	1965	1961	1961	1961	1963	1965	1946	1965	1965	1955	1944	1955

04217000 TONAWANDA CREEK AT BATAVIA, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1944 - 1992	
ANNUAL TOTAL	65342.6		77744.7			
ANNUAL MEAN	179		212		212	
HIGHEST ANNUAL MEAN					311	1976
LOWEST ANNUAL MEAN					124	1965
HIGHEST DAILY MEAN	2980	Apr 23	1460	Mar 28	6660	Mar 31 1960
LOWEST DAILY MEAN	5.4	Aug 31	7.9	Oct 5	.60	Aug 2 1955
ANNUAL SEVEN-DAY MINIMUM	5.8	Aug 28	8.6	Oct 1	1.1	Jul 31 1955
INSTANTANEOUS PEAK FLOW			1570	Mar 28	7200	Mar 31 1960
INSTANTANEOUS PEAK STAGE			5.38	Mar 28	13.85	Apr 6 1947
INSTANTANEOUS LOW FLOW			7.0	a	.40	b
10 PERCENT EXCEEDS	492		595		508	
50 PERCENT EXCEEDS	42		112		96	
90 PERCENT EXCEEDS	8.2		14		14	

a Oct. 5, 6.
b Aug. 5-7, 1955.

04217750 MURDER CREEK NEAR AKRON, NY

LOCATION.--Lat 43°02'49", long 78°30'47", Erie County, Hydrologic Unit 04120104, on left bank at downstream side of bridge on State Highway 93, 2.0 mi northwest of Akron and 5.7 mi upstream from mouth.

DRAINAGE AREA.--58.8 mi^2.

PERIOD OF RECORD.--Occasional low flow discharge measurements, water years 1964–65. November 1982 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 623.78 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 28	2400	*597	*4.24	Sept. 24	0330	529	4.09

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	5.7	54	e55	e30	e65	299	106	77	4.4	e250	e130
2	4.5	5.8	37	e50	e27	e75	332	124	78	4.4	e200	e70
3	3.9	6.4	36	47	e24	e60	288	214	55	4.8	e115	e70
4	4.2	7.5	43	40	e21	e54	218	254	34	3.8	e160	e168
5	4.1	6.8	e36	62	e19	e70	177	196	24	8.3	e170	e130
6	4.4	6.8	e30	87	e18	87	151	119	19	9.9	e200	e110
7	6.2	6.3	e37	86	e17	95	139	88	17	9.8	e160	e66
8	4.5	6.1	59	60	e16	117	134	72	14	10	e88	e60
9	3.7	5.1	89	46	e15	126	152	65	13	12	e72	e63
10	6.9	4.5	79	45	e15	125	139	59	11	e12	e100	59
11	4.7	6.8	49	48	e14	e100	118	60	8.5	e11	e100	58
12	3.9	6.7	26	48	e13	e60	177	58	6.6	e11	e82	47
13	3.5	7.0	26	44	e13	e57	185	49	5.5	e13	e52	36
14	4.2	6.4	31	61	e13	e50	148	43	4.9	e19	e75	27
15	4.8	5.8	35	65	e14	e46	105	38	4.4	e52	e62	23
16	4.9	4.0	e27	e50	e36	e40	90	e35	4.4	e110	e66	24
17	4.6	3.6	e22	e40	e64	e38	151	e33	4.6	e105	e60	23
18	4.1	4.5	e17	e35	e90	e37	169	42	3.9	e160	e44	26
19	5.2	5.0	e15	e30	e150	e37	182	51	8.8	e155	e55	46
20	4.1	4.9	e13	e27	e200	e34	163	51	5.7	e96	e60	113
21	4.8	5.8	e12	e25	e130	e32	144	34	4.2	e86	e50	183
22	4.6	3.4	e11	e24	e130	e30	148	27	4.0	e46	e45	217
23	4.6	2.8	e13	e30	e170	e29	163	22	4.7	e55	e32	365
24	7.1	3.0	e15	e52	e145	e27	216	25	7.2	e120	e25	450
25	7.9	4.3	e17	e70	e130	e29	294	22	4.3	e90	e25	245
26	5.4	4.0	e15	e80	e150	206	426	23	4.9	e82	e26	139
27	5.8	3.9	e14	e70	e70	379	361	24	5.1	e120	e26	95
28	7.4	3.9	e13	e54	e60	491	218	24	4.6	e72	e42	77
29	8.8	14	e18	e46	e80	524	143	23	4.8	e100	e110	78
30	9.5	38	e50	e38	---	392	111	20	4.1	e140	e210	74
31	8.2	---	e60	e34	---	312	---	36	---	e100	e220	---
TOTAL	165.2	198.8	999	1549	1874	3824	5741	2037	447.2	1822.4	2982	3272
MEAN	5.33	6.63	32.2	50.0	64.6	123	191	65.7	14.9	58.8	96.2	109
MAX	9.5	38	89	87	200	524	426	254	78	160	250	450
MIN	3.5	2.8	11	24	13	27	90	20	3.9	3.8	25	23
CFSM	.09	.11	.55	.85	1.10	2.10	3.25	1.12	.25	1.00	1.64	1.85
IN.	.10	.13	.63	.98	1.19	2.42	3.63	1.29	.28	1.15	1.89	2.07

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1992, BY WATER YEAR (WY)

MEAN	26.2	67.9	114	74.4	118	130	137	75.1	40.9	16.4	16.6	18.7
MAX	87.3	183	222	128	243	214	191	157	183	58.8	96.2	109
(WY)	1987	1986	1984	1986	1985	1991	1992	1989	1989	1992	1992	1992
MIN	5.33	6.63	15.0	43.2	29.0	88.6	79.7	22.5	9.99	4.54	2.18	2.88
(WY)	1992	1992	1990	1989	1987	1983	1988	1985	1991	1983	1991	1991

04217750 MURDER CREEK NEAR AKRON, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1983 - 1992	
ANNUAL TOTAL	22455.16		24911.6			
ANNUAL MEAN	61.5		68.1		70.3	
HIGHEST ANNUAL MEAN					81.7	1984
LOWEST ANNUAL MEAN					58.5	1988
HIGHEST DAILY MEAN	975	Apr 23	524	Mar 29	2710	Feb 25 1985
LOWEST DAILY MEAN	.86	Aug 24	2.8	Nov 23	.86	Aug 24 1991
ANNUAL SEVEN-DAY MINIMUM	1.4	Aug 23	3.6	Nov 22	1.4	Aug 23 1991
INSTANTANEOUS PEAK FLOW			597	Mar 28	3000	Feb 25 1985
INSTANTANEOUS PEAK STAGE			4.24	Mar 28	7.16	Feb 25 1985
INSTANTANEOUS LOW FLOW			.63	Jun 30	.53	Aug 24 1991
ANNUAL RUNOFF (CFSM)	1.05		1.16		1.20	
ANNUAL RUNOFF (INCHES)	14.21		15.76		16.25	
10 PERCENT EXCEEDS	182		168		174	
50 PERCENT EXCEEDS	14		39		36	
90 PERCENT EXCEEDS	2.6		4.6		4.5	

04218000 TONAWANDA CREEK AT RAPIDS, NY

LOCATION.--Lat 43°05'35", long 78°38'11", Niagara County, Hydrologic Unit 04120104, on right bank at downstream side of bridge on Rapids Road at Rapids, 4.6 mi east of Pendleton, 4.9 mi downstream from Beeman Creek, and 5.9 mi upstream from Mud Creek.

DRAINAGE AREA.--349 mi^2, includes 0.76 mi^2 in Mud Creek from which flow is diverted into Black Creek.

PERIOD OF RECORD.--August 1955 to September 1965, March 1978 to September 1979 (seasonal gage-height records only), October 1979 to current year.

REVISED RECORDS.--WDR NY-82-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 571.19 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 29	2330	*2,570	*8.74	No other peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	23	106	453	e190	755	1360	626	295	45	1040	1530
2	12	23	126	295	e170	683	1430	649	418	40	1240	822
3	14	23	98	206	e150	605	1390	968	391	37	1190	498
4	14	24	93	188	e140	514	1120	1320	286	37	875	598
5	15	26	96	268	e130	437	909	1560	208	63	902	954
6	17	25	146	410	e120	452	765	1030	169	105	1130	833
7	17	24	104	400	e120	542	695	640	154	94	1080	482
8	22	25	118	261	e110	686	717	509	161	75	640	331
9	23	25	129	220	e110	839	951	421	153	94	401	367
10	25	23	182	191	e100	821	1080	385	148	129	441	348
11	22	25	173	204	e95	747	885	387	128	135	577	283
12	25	26	143	229	e95	614	940	355	109	113	484	266
13	30	30	113	201	e90	400	1110	301	94	99	394	216
14	32	29	109	220	e90	e440	1020	256	81	144	295	182
15	34	31	117	e220	e90	e400	676	222	69	607	424	160
16	29	37	148	e280	e150	e390	540	204	63	1390	359	144
17	26	35	e110	e190	241	e380	869	185	56	1560	307	131
18	23	37	e100	e180	570	e370	1150	196	51	1560	338	124
19	23	40	e90	e175	753	e360	1260	236	56	1290	271	168
20	22	41	e80	e170	869	e350	1170	261	75	1140	245	574
21	24	39	e80	e170	1050	e350	974	215	70	712	322	1000
22	22	36	e85	e165	1210	e340	857	176	81	418	271	1030
23	22	35	101	e165	1220	e330	884	150	74	324	191	1360
24	22	30	106	283	1230	e320	1040	135	70	360	156	1820
25	23	31	e100	392	1330	e350	1320	136	80	708	150	1690
26	24	41	e90	584	1070	691	1690	132	84	511	158	893
27	25	38	e80	484	845	1160	2020	142	74	372	163	498
28	23	39	e75	e360	689	1940	1780	157	68	644	257	398
29	21	50	103	e270	663	2440	1070	176	59	509	1100	381
30	21	80	226	e230	---	2390	716	162	51	330	1450	324
31	23	---	377	e200	---	1760	---	182	---	710	1780	---
TOTAL	688	991	3804	8264	13690	22856	32388	12474	3876	14355	18631	18405
MEAN	22.2	33.0	123	267	472	737	1080	402	129	463	601	613
MAX	34	80	377	584	1330	2440	2020	1560	418	1560	1780	1820
MIN	12	23	75	165	90	320	540	132	51	37	150	124
CFSM	.06	.09	.35	.76	1.35	2.11	3.09	1.15	.37	1.33	1.72	1.76
IN.	.07	.11	.41	.88	1.46	2.44	3.45	1.33	.41	1.53	1.99	1.96

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1992, BY WATER YEAR (WY)

MEAN	141	280	483	444	633	964	923	407	205	95.9	93.7	103
MAX	642	1239	1116	1014	1363	1650	1533	1046	1372	463	601	613
(WY)	1987	1986	1987	1986	1981	1956	1960	1956	1989	1992	1992	1992
MIN	14.8	25.7	23.3	29.4	103	452	422	161	45.6	26.1	15.9	10.0
(WY)	1965	1961	1961	1961	1963	1981	1981	1965	1965	1991	1991	1991

04218000 TONAWANDA CREEK AT RAPIDS, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR			FOR 1992 WATER YEAR			WATER YEARS 1955 - 1965 1980 - 1992			
ANNUAL TOTAL	139230.1			150422						
ANNUAL MEAN	381			411			397			
HIGHEST ANNUAL MEAN							556			1956
LOWEST ANNUAL MEAN							255			1965
HIGHEST DAILY MEAN	4700	Jan	2	2440	Mar	29	6130	Apr	1	1960
LOWEST DAILY MEAN	6.1	Sep	5	12	Oct	2	4.8	Jul	28	1983
ANNUAL SEVEN-DAY MINIMUM	6.8	Sep	1	15	Oct	1	6.8	Sep	1	1991
INSTANTANEOUS PEAK FLOW				2570	a		6280	Apr	1	1960
INSTANTANEOUS PEAK STAGE				8.74	a		16.96	Apr	1	1960
INSTANTANEOUS LOW FLOW				11	Oct	2	4.5	Jul	28	1983
ANNUAL RUNOFF (CFSM)	1.09			1.18			1.14			
ANNUAL RUNOFF (INCHES)	14.84			16.03			15.44			
10 PERCENT EXCEEDS	1260			1110			1030			
50 PERCENT EXCEEDS	81			211			188			
90 PERCENT EXCEEDS	12			26			28			

a Mar. 29, 30.

04218518 ELLICOTT CREEK BELOW WILLIAMSVILLE, NY

LOCATION.--Lat 42°58'40", long 78°45'50", Erie County, Hydrologic Unit 04120104, on right bank 15 ft upstream from bridge on State Highway 324 (Sheridan Drive), 0.8 mi upstream from sewage treatment plant, 1.4 mi northwest of Williamsville, and 10.8 mi upstream from mouth.

DRAINAGE AREA.--81.6 mi^2.

PERIOD OF RECORD.--October 1972 to current year.

REVISED RECORDS.--WDR NY–82–3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 586.41 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Regulation by seasonal manipulation of dam at Island Park 2.4 mi upstream by Village of Williamsville and by intermittent pumping from stone quarries into stream upstream from station. Records at medium and high flows may be comparable with those obtained at station 04218500 between October 1955 and September 1972. Telephone gage-height telemeter at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Aug. 30	0330	1,110	5.55	Sept. 23	0915	*1,420	*6.39

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	34	113	147	e62	266	413	181	195	23	828	135
2	16	25	56	99	e58	198	459	210	145	22	467	93
3	17	30	102	81	e50	168	327	416	103	46	171	142
4	17	42	136	91	e42	140	248	364	73	28	172	308
5	24	38	105	150	e42	129	224	178	60	26	323	207
6	52	34	73	177	e40	129	202	131	54	21	157	118
7	49	54	96	134	e36	147	186	115	56	32	79	90
8	28	27	165	91	e35	195	211	96	52	64	70	76
9	22	19	162	73	e35	205	202	89	49	57	64	55
10	55	18	125	64	e34	198	157	85	45	56	56	81
11	43	31	95	81	e34	e150	160	88	41	33	73	72
12	44	62	81	66	e32	e120	318	86	33	31	83	63
13	38	71	93	70	e32	e120	275	71	30	48	67	56
14	30	60	117	116	e32	e140	161	82	30	84	56	52
15	17	56	116	e110	e50	e130	129	79	29	522	63	45
16	16	46	94	e70	142	e110	141	77	28	842	58	47
17	15	22	76	e65	271	e100	365	72	26	439	58	46
18	17	19	72	e65	281	e100	439	96	25	435	52	91
19	21	23	e65	e60	291	e95	331	117	60	264	55	343
20	19	53	e60	e55	503	e95	248	98	34	135	52	471
21	19	63	59	e54	464	e90	202	78	25	77	50	250
22	18	47	63	e54	321	e85	268	65	28	65	51	831
23	19	44	84	e100	491	e85	270	58	34	68	53	1270
24	19	58	101	e260	558	e80	353	66	44	81	52	390
25	18	65	92	e360	271	e100	670	66	39	83	56	138
26	17	41	72	225	223	e400	789	69	36	74	54	91
27	17	37	66	139	197	783	402	69	27	77	47	76
28	19	68	59	93	177	755	216	67	20	85	152	70
29	18	210	141	80	284	474	157	63	20	64	782	59
30	17	159	359	e75	---	405	152	62	29	138	773	59
31	20	---	318	e70	---	354	---	102	---	321	194	---
TOTAL	760	1556	3416	3375	5088	6546	8675	3496	1470	4341	5268	5825
MEAN	24.5	51.9	110	109	175	211	289	113	49.0	140	170	194
MAX	55	210	359	360	558	783	789	416	195	842	828	1270
MIN	15	18	56	54	32	80	129	58	20	21	47	45
CFSM	.30	.64	1.35	1.33	2.15	2.59	3.54	1.38	.60	1.72	2.08	2.38
IN.	.35	.71	1.56	1.54	2.32	2.98	3.95	1.59	.67	1.98	2.40	2.66

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1992, BY WATER YEAR (WY)

MEAN	69.6	135	209	139	181	273	209	112	73.4	43.3	59.7	74.7
MAX	175	342	441	254	377	519	298	258	275	144	397	425
(WY)	1987	1986	1978	1979	1990	1977	1984	1989	1989	1976	1977	1977
MIN	11.2	27.1	40.6	39.2	56.0	119	115	47.5	24.2	11.8	13.5	9.76
(WY)	1975	1979	1990	1977	1980	1981	1983	1977	1988	1978	1974	1973

04218518 ELLICOTT CREEK BELOW WILLIAMSVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1973 - 1992	
ANNUAL TOTAL	41567.3		49816			
ANNUAL MEAN	114		136		131	
HIGHEST ANNUAL MEAN					177	1977
LOWEST ANNUAL MEAN					102	1988
HIGHEST DAILY MEAN	1570	Apr 23	1270	Sep 23	3280	Feb 25 1985
LOWEST DAILY MEAN	4.9	Sep 15	15	Oct 17	2.7	Aug 15 1978
ANNUAL SEVEN-DAY MINIMUM	7.1	Sep 12	18	Oct 15	3.6	Jul 15 1978
INSTANTANEOUS PEAK FLOW			1420	Sep 23	3640	Feb 25 1985
INSTANTANEOUS PEAK STAGE			6.39	Sep 23	11.19	Feb 25 1985
INSTANTANEOUS LOW FLOW			a6.0	Sep 9	b.00	Jul 27 1976
ANNUAL RUNOFF (CFSM)	1.40		1.67		1.61	
ANNUAL RUNOFF (INCHES)	18.95		22.71		21.85	
10 PERCENT EXCEEDS	270		328		301	
50 PERCENT EXCEEDS	59		76		70	
90 PERCENT EXCEEDS	12		26		17	

a Result of regulation.
b Result of pipeline construction.

04219000 ERIE (BARGE) CANAL AT LOCK 30, MACEDON, NY

LOCATION.--Lat 43°04'20", long 77°17'45", Wayne County, Hydrologic Unit 04140201, on left bank in Macedon, 500 ft downstream from headgate in old Erie Canal, 700 ft downstream from bridge on State Highway 350, 0.2 mi downstream from Lock 30, and 2.6 mi upstream from Ganargua Creek.

PERIOD OF RECORD.--November 1919 to December 1920, October 1950 to September 1977, October 1977 to current year (navigation seasons only). Prior to October 1956, published as "Barge Canal at Lock 30, Macedon."

REVISED RECORDS.--WSP 1237: 1951

GAGE.--Water-stage recorder. Datum of gage is 447.58 ft above National Geodetic Vertical Datum of 1929. Nov. 1, 1919 to Dec. 28, 1920, nonrecording gage at same site at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. This record represents net diversion from Niagara River basin into Oswego River basin through Erie (Barge) Canal. During the non-navigation period, when the pool upstream from Lock 30 is drained, discharge consists of leakage through guard gates, runoff from small areas tributary to canal upstream from station, or diversion for use downstream in the Canal system. Record is not published during the non-navigation period.

COOPERATION.--Records of gate openings, lockages, lock-valve openings, and elevations of water surface in Erie (Barge) Canal upstream and downstream from Lock 30 furnished by New York State Department of Transportation.

AVERAGE DISCHARGE.--27 years (water years 1951–77), 200 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 874 ft^3/s, Dec. 3, 1969; no significant flow at times in many years.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	293	278	---	---	---	---	---	e7.0	192	280	284	279
2	303	274	---	---	---	---	---	e30	191	290	290	276
3	297	269	---	---	---	---	---	e32	194	279	281	277
4	292	266	---	---	---	---	---	43	196	298	238	288
5	304	e316	---	---	---	---	---	92	200	304	191	297
6	304	e345	---	---	---	---	---	148	200	301	202	296
7	294	e304	---	---	---	---	---	146	203	285	237	313
8	296	e273	---	---	---	---	---	149	188	295	236	277
9	286	e212	---	---	---	---	---	149	194	293	230	265
10	289	e170	---	---	---	---	---	152	188	292	225	265
11	295	e151	---	---	---	---	---	140	198	282	231	281
12	286	e120	---	---	---	---	---	137	202	282	226	275
13	295	e90	---	---	---	---	---	144	215	289	224	310
14	290	e80	---	---	---	---	---	141	209	286	241	279
15	287	e60	---	---	---	---	---	146	202	291	223	272
16	293	e30	---	---	---	---	---	163	193	308	232	272
17	287	e10	---	---	---	---	---	160	199	296	226	265
18	283	---	---	---	---	---	---	150	193	311	242	262
19	279	---	---	---	---	---	---	169	199	312	231	287
20	280	---	---	---	---	---	---	181	197	303	228	267
21	272	---	---	---	---	---	---	187	210	283	239	261
22	277	---	---	---	---	---	---	189	254	277	246	265
23	275	---	---	---	---	---	---	204	296	281	252	271
24	264	---	---	---	---	---	---	196	295	279	257	264
25	280	---	---	---	---	---	---	216	285	305	283	245
26	293	---	---	---	---	---	---	188	285	300	285	245
27	294	---	---	---	---	---	---	192	295	296	286	239
28	274	---	---	---	---	---	---	186	311	290	283	248
29	272	---	---	---	---	---	---	192	297	284	282	244
30	279	---	---	---	---	---	---	177	281	279	306	252
31	276	---	---	---	---	---	---	163	---	289	290	---
TOTAL	8889	---	---	---	---	---	---	4569.0	6762	9040	7727	8137
MEAN	287	---	---	---	---	---	---	147	225	292	249	271
MAX	304	---	---	---	---	---	---	216	311	312	306	313
MIN	264	---	---	---	---	---	---	7.0	188	277	191	239

e Estimated

04219640 NIAGARA RIVER (LAKE ONTARIO) AT FORT NIAGARA, NY

(National stream-quality accounting network station)

WATER QUALITY RECORDS

LOCATION.--Lat 43°16'10", long 79°03'52", Niagara County, Hydrologic Unit 04120104, water samples collected about 2 mi upstream from Coast Guard wharf, at Fort Niagara and 1.5 mi south of Youngstown.

DRAINAGE AREA.--265,000 mi^2.

PERIOD OF RECORD.--Water years 1971 to current year.
CHEMICAL DATA: 1971 (a), 1973-74 (b), 1975-82 (c), 1983-86 (b), 1987-89 (d), 1990-91 (c), 1992 (b).
MINOR ELEMENT DATA: 1971 (a), 1972 (b), 1987-89 (d), 1990-91 (c), 1992 (b).
ORGANIC DATA: OC--1973 (a), 1974-75 (b), 1978-80 (c), 1981 (b).
NUTRIENT DATA: 1971 (a), 1973-74 (b), 1975-82 (c), 1983-87 (b), 1988-89 (c), 1990-92 (b).
BIOLOGICAL DATA:
Bacteria--1973 (b), 1974 (d), 1975-82 (c), 1983-92 (b).
Phytoplankton--1973 (b), 1974 (d), 1975-77 (c), 1978-81 (c).
Periphyton--1974 (a), 1975-80 (b).
SEDIMENT DATA: 1975-77 (c), 1978 (b), 1979-82 (c), 1983-86 (b), 1987-89 (d), 1990-91 (c), 1992 (b).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: September 1973 to June 1980.
WATER TEMPERATURE: September 1973 to June 1980.

REMARKS.--Published in 1971 as "at Youngstown." Discharge is the daily mean reported by Detroit District Corps of Engineers for the Niagara River at Queenstown. Water-quality samples collected by New York State Department of Environmental Conservation were grab samples collected from the Coast Guard wharf at Fort Niagara.

COOPERATION.--Water-quality analyses identified by an (*) were collected by the New York State Department of Environmental Conservation.

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 (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT											
*28.....	1300	167000	308	8.2	14.0	--	770	10.2	98	--	--
NOV											
12.....	1500	191000	313	8.2	8.0	1.5	763	11.0	93	160	70
APR											
28.....	1500	223000	261	8.2	6.5	1.7	765	13.8	112	23	K5
JUN											
17.....	1500	196000	289	8.1	18.0	1.7	755	10.0	106	K4	K1
AUG											
12.....	1500	216000	276	8.2	20.5	1.3	765	9.6	107	26	K4

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)	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)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT											
*28.....	--	--	--	--	--	--	--	--	--	--	--
NOV											
12.....	120	35	8.4	9.3	1.4	102	33	21	0.20	0.53	157
APR											
28.....	120	34	8.2	8.9	1.3	86	28	19	0.20	0.35	158
JUN											
17.....	130	36	8.5	9.3	1.3	78	27	19	0.10	0.13	193
AUG											
12.....	120	33	8.2	9.2	1.4	88	26	18	0.10	0.32	138

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

04219640 NIAGARA RIVER (LAKE ONTARIO) AT FORT NIAGARA, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NITRITE 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										
*28.....	--	--	--	--	--	--	--	--	--	40
NOV										
12.....	171	0.20	0.04	0.03	< 0.01	0.30	0.01	< 0.01	< 0.01	--
APR										
28.....	153	0.26	0.06	0.04	< 0.01	0.20	0.01	< 0.01	< 0.01	--
JUN										
17.....	149	0.23	0.03	0.03	0.01	0.60	0.01	< 0.01	< 0.01	--
AUG										
12.....	150	0.29	0.03	0.04	< 0.01	< 0.20	< 0.01	< 0.01	< 0.01	--

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										
*28.....	--	--	< 1	--	9	90	--	3	--	10
NOV										
12.....	< 10	21	--	< 3	--	--	4	--	4	--
APR										
28.....	< 10	20	--	< 3	--	--	5	--	< 4	--
JUN										
17.....	< 10	20	--	< 3	--	--	< 3	--	5	--
AUG										
12.....	< 10	21	--	< 3	--	--	5	--	< 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, DIS-SOLVED (UG/L AS NI)	NICKEL, TOTAL RECOV-ERABLE (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										
*28.....	--	< 0.10	--	--	1	--	--	--	--	< 10
NOV										
12.....	2	--	< 10	< 1	--	< 1	<1.0	160	< 6	--
APR										
28.....	2	--	< 10	2	--	< 1	< 1.0	160	< 6	--
JUN										
17.....	< 1	--	< 10	1	--	< 1	< 1.0	160	< 6	--
AUG										
12.....	1	--	< 10	< 1	--	<1	< 1.0	150	< 6	--

04219640 NIAGARA RIVER (LAKE ONTARIO) AT FORT NIAGARA, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DEPTH AT SAMPLE LOCATION, TOTAL (FEET)	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PG WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
NOV								
12	1505	1000	42.0	3.0	313	8.3	8.0	11.0
12	1510	1000	42.0	10.0	313	8.2	8.0	11.0
12	1515	1000	42.0	25.0	311	8.3	8.0	11.0
12	1520	1000	42.0	40.0	308	8.3	8.0	11.0
12	1530	1700	44.0	3.0	314	8.2	8.0	11.1
12	1535	1700	44.0	10.0	313	8.2	8.0	11.0
12	1540	1700	44.0	25.0	312	8.2	8.0	10.9
12	1545	1700	44.0	40.0	309	8.2	8.0	10.9
APR								
28	1505	1000	44.0	3.0	264	8.2	6.5	13.9
28	1510	1000	44.0	10.0	260	8.2	6.5	13.8
28	1515	1000	44.0	20.0	260	8.2	6.5	13.8
28	1520	1000	44.0	30.0	260	8.2	6.5	13.8
28	1525	1700	45.0	3.0	262	8.2	6.5	14.3
28	1530	1700	45.0	10.0	261	8.1	6.5	14.0
28	1535	1700	45.0	20.0	260	8.1	6.5	13.9
28	1540	1700	45.0	30.0	260	8.1	6.5	13.9
JUN								
17	1505	1000	47.0	3.0	291	8.1	18.0	10.4
17	1510	1000	47.0	15.0	290	8.1	18.0	10.2
17	1515	1000	47.0	30.0	288	8.1	17.5	9.9
17	1520	1000	47.0	45.0	287	8.2	17.5	9.9
17	1530	1700	42.0	3.0	290	8.1	18.0	10.2
17	1535	1700	42.0	12.0	289	8.1	18.0	10.1
17	1540	1700	42.0	25.0	289	8.2	18.0	10.0
17	1545	1700	42.0	40.0	288	8.1	18.0	10.0
AUG								
12	1505	1000	40.0	3.0	277	8.2	20.5	9.7
12	1510	1000	40.0	10.0	276	8.2	20.5	9.7
12	1515	1000	40.0	25.0	274	8.1	20.5	9.7
12	1520	1000	40.0	40.0	276	8.1	20.5	9.6
12	1525	1700	44.0	3.0	276	8.2	20.5	9.6
12	1530	1700	44.0	10.0	277	8.1	20.5	9.6
12	1535	1700	44.0	25.0	275	8.1	20.5	9.6
12	1540	1700	44.0	40.0	270	8.1	20.5	9.5

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
* 28	1300	167000	4	1800	--
NOV					
12	1500	191000	2	1030	98
APR					
28	1500	223000	7	4210	86
JUN					
17	1500	196000	3	1590	43
AUG					
12	1500	216000	4	2330	92

0422026250 NORTHRUP CREEK AT NORTH GREECE, NY

LOCATION.--Lat 43°15'13", long 77°43'33", Monroe County, Hydrologic Unit 04130001, on right bank 75 ft downstream from bridge on State Highway 18 (Latta Road), 0.5 mi west of North Greece and 5.1 mi upstream from mouth.

DRAINAGE AREA.--11.7 mi^2.

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 306 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Unpublished water-quality records are available in files of Monroe County Health Department.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 758 ft^3/s, May 17, 1974, from rating curve extended above 15 ft^3/s on basis of contracted-opening measurement of peak flow.

PEAK DISCHARGES FOR CURRENT YEAR.--Maximum discharge, 397 ft^3/s, Mar. 27, gage height, 3.36 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	2.1	2.9	e4.7	e8.8	e10	64	13	10	2.4	23	3.9
2	3.6	2.1	2.3	e2.9	e8.8	e5.2	39	68	9.0	2.0	9.0	3.5
3	3.0	2.1	e6.4	e2.9	e8.8	e4.0	24	106	7.1	5.8	11	6.0
4	3.1	2.1	e3.7	e3.5	e7.7	e4.2	19	24	6.3	3.7	29	6.3
5	3.9	2.1	e2.3	6.2	e8.8	e5.5	16	17	6.0	4.8	15	4.4
6	3.7	2.1	e2.0	5.9	e9.5	e12	13	13	6.3	3.5	8.3	3.9
7	3.3	2.1	e2.8	4.8	e8.0	21	13	12	7.4	2.7	6.0	4.0
8	3.1	2.3	4.7	e2.5	e7.4	23	13	10	10	2.7	6.6	5.8
9	3.0	2.0	3.5	e2.5	e6.4	19	10	11	6.4	6.0	7.4	3.8
10	3.5	2.2	2.6	e2.5	e5.8	18	9.4	12	5.3	3.3	6.5	3.5
11	2.7	3.1	2.2	e2.3	e7.0	e19	27	11	4.8	3.1	6.2	3.3
12	2.1	3.0	2.1	e3.1	e7.0	e13	47	9.8	4.4	2.8	5.0	3.1
13	2.1	2.8	2.3	e4.2	e6.7	e12	17	9.1	4.1	5.2	5.6	3.0
14	2.1	2.2	2.2	e9.9	e9.1	e12	12	8.7	3.9	8.8	6.0	3.0
15	2.6	2.7	e2.3	e6.7	e15	e11	10	8.4	3.8	24	4.9	2.8
16	3.9	2.3	e1.8	e6.1	58	e10	46	8.5	3.4	10	5.1	2.8
17	2.0	1.9	e1.4	e5.8	37	e12	136	8.8	3.3	7.7	5.0	2.7
18	1.9	1.9	e1.4	e5.0	34	e15	37	13	3.2	13	4.5	3.1
19	2.0	1.9	e1.3	e4.5	e54	e13	30	11	5.5	8.7	4.3	7.9
20	2.1	2.0	e1.6	e4.7	25	e14	20	9.7	4.4	6.2	4.0	3.6
21	2.0	2.6	e3.0	e4.7	16	e11	20	9.1	4.2	4.8	3.8	6.5
22	1.9	2.1	e3.9	e5.0	12	e8.8	34	8.7	4.1	4.0	3.7	23
23	1.9	1.9	e3.4	e30	e14	e8.8	20	8.5	3.7	5.7	3.5	12
24	1.9	2.4	e2.7	77	13	e8.4	50	10	5.0	5.3	3.5	6.3
25	1.9	2.5	e2.0	e33	e9.5	e14	27	8.5	4.6	4.4	7.3	5.3
26	1.9	2.1	e1.9	e21	e9.1	e71	22	9.9	3.5	5.4	3.7	5.5
27	2.0	2.4	e1.8	e16	e8.4	266	17	11	4.2	5.2	4.3	6.3
28	2.0	2.2	e2.0	e11	e10	80	13	9.4	3.5	3.9	7.2	5.6
29	2.0	6.6	e16	e9.9	e17	52	12	7.6	3.2	3.4	12	5.2
30	2.1	4.8	e17	e8.4	---	50	13	7.3	2.6	3.2	4.8	3.9
31	2.1	---	e7.7	e9.9	---	53	---	9.1	---	24	4.0	---
TOTAL	78.7	74.6	113.2	316.6	441.8	875.9	830.4	483.1	153.2	195.7	230.2	160.0
MEAN	2.54	2.49	3.65	10.2	15.2	28.3	27.7	15.6	5.11	6.31	7.43	5.33
MAX	3.9	6.6	17	77	58	266	136	106	10	24	29	23
MIN	1.9	1.9	1.3	2.3	5.8	4.0	9.4	7.3	2.6	2.0	3.5	2.7

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1992, BY WATER YEAR (WY)

MEAN	8.48	7.56	10.5	15.4	23.3	26.5	28.7	16.6	4.43	4.40	4.56	3.24
MAX	14.7	14.1	23.1	22.0	38.9	34.1	31.7	27.1	5.12	6.31	7.43	5.33
(WY)	1990	1990	1991	1990	1990	1991	1991	1990	1990	1992	1992	1992
MIN	2.54	2.49	3.65	10.2	15.2	17.1	26.8	7.18	3.06	2.82	2.56	1.10
(WY)	1992	1992	1992	1992	1992	1990	1990	1991	1991	1991	1991	1989

0422026250 NORTHRUP CREEK AT NORTH GREECE, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1989 - 1992	
ANNUAL TOTAL	3721.8		3953.4			
ANNUAL MEAN	10.2		10.8		12.8	
HIGHEST ANNUAL MEAN					15.0	1990
LOWEST ANNUAL MEAN					10.8	1992
HIGHEST DAILY MEAN	420	Apr 22	266	Mar 27	420	Apr 22 1991
LOWEST DAILY MEAN	1.3	Dec 19	1.3	Dec 19	.89	Aug 18 1989
ANNUAL SEVEN-DAY MINIMUM	1.7	Dec 14	1.7	Dec 14	1.0	Aug 18 1989
INSTANTANEOUS PEAK FLOW			397	Mar 27	573	Apr 22 1991
INSTANTANEOUS PEAK STAGE			3.36	Mar 27	3.89	Apr 22 1991
INSTANTANEOUS LOW FLOW			1.2	Jul 2	.49	a
10 PERCENT EXCEEDS	17		21		24	
50 PERCENT EXCEEDS	3.4		5.6		6.1	
90 PERCENT EXCEEDS	2.0		2.1		2.2	

a July 31, Aug. 28, 29, and Sept. 6, 1991.

04221000 GENESEE RIVER AT WELLSVILLE, NY

LOCATION.--Lat 42°07'20", long 77°57'27", Allegany County, Hydrologic Unit 04130002, on left bank 35 ft upstream from concrete weir at Wellsville, 0.5 mi upstream from bridge on State Highway 17, 0.6 mi upstream from Crowner Brook and sewage treatment plant, 0.6 mi downstream from Dyke Creek, and 140.9 mi upstream from mouth.

DRAINAGE AREA.--288 mi^2.

PERIOD OF RECORD.--August 1955 to September 1958, October 1972 to current year.

REVISED RECORDS.--WDR NY–82–3: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,470.00 ft above National Geodetic Vertical Datum of 1929. October 1957 to September 1958, nonrecording gage at site 0.4 mi upstream at datum 3.00 ft higher. August 1955 to September 1957, at same site at datum 8.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Record for station 04221500 Genesee River at Scio, 5.2 mi downstream, published for June 1916 to September 1972. Telephone and satellite gage-height telemeters at station. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since June 1916, 38,500 ft^3/s, June 23, 1972, gage height, 20.7 ft, present datum, from floodmark, on basis of contracted-opening measurement of peak flow 0.5 mi downstream.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Sept. 22	1400	*2,580	*7.24	No peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	25	78	e320	e240	e400	1110	603	157	35	773	105
2	21	24	70	e320	e220	e460	937	579	135	35	470	92
3	20	24	635	330	e200	430	778	814	110	37	357	122
4	20	23	581	409	e190	405	681	577	94	44	322	160
5	23	22	315	579	e180	430	649	488	99	57	300	113
6	28	22	256	472	e170	478	673	432	139	54	221	102
7	29	23	237	395	e160	572	1030	381	116	43	180	111
8	27	25	531	343	e150	658	1590	346	96	41	165	96
9	25	24	620	327	e140	608	1240	343	84	63	235	96
10	23	22	464	351	e130	693	1120	319	75	53	175	90
11	24	31	361	315	e120	1020	1440	280	68	45	568	149
12	24	37	302	274	e120	e790	1900	249	63	41	296	102
13	23	37	306	282	e125	e700	1150	228	58	49	231	87
14	23	43	e480	701	e130	e600	945	211	54	73	230	80
15	32	66	e390	e500	e150	e500	778	189	56	169	199	74
16	82	77	e320	e350	e200	e460	781	176	55	239	245	67
17	52	61	e290	e320	250	e400	1530	166	50	232	203	62
18	41	50	e270	e280	229	e390	1450	339	48	390	184	60
19	37	46	e240	e260	404	e380	1450	241	82	268	156	82
20	37	42	e220	e250	584	e330	1110	193	83	177	138	74
21	35	47	e210	e240	399	e310	1010	169	66	365	119	74
22	33	105	e200	e230	407	e270	1060	159	60	227	104	1750
23	32	294	e200	e260	556	e260	796	143	53	359	92	1210
24	30	174	e190	e440	593	e250	958	139	50	311	87	637
25	29	135	e180	e400	660	e240	1680	138	53	233	82	482
26	27	102	e170	e300	599	453	1180	133	53	256	87	502
27	27	83	e150	e280	497	1390	996	133	50	310	77	503
28	28	75	e160	e250	457	1010	841	123	46	202	96	425
29	27	72	309	e250	e540	789	717	109	41	172	356	326
30	25	74	650	e270	---	801	646	104	37	169	160	280
31	25	---	e350	e250	---	864	---	178	---	1230	129	---
TOTAL	931	1885	9735	10548	8800	17341	32226	8682	2231	5979	7037	8113
MEAN	30.0	62.8	314	340	303	559	1074	280	74.4	193	227	270
MAX	82	294	650	701	660	1390	1900	814	157	1230	773	1750
MIN	20	22	70	230	120	240	646	104	37	35	77	60
CFSM	.10	.22	1.09	1.18	1.05	1.94	3.73	.97	.26	.67	.79	.94
IN.	.12	.24	1.26	1.36	1.14	2.24	4.16	1.12	.29	.77	.91	1.05

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1992, BY WATER YEAR (WY)

MEAN	235	302	461	328	475	773	812	467	288	176	114	190
MAX	784	696	1016	919	1443	1689	1925	1115	1262	656	529	1246
(WY)	1991	1956	1973	1979	1976	1956	1958	1989	1989	1977	1984	1977
MIN	25.0	37.3	104	52.1	94.4	320	361	113	45.3	30.6	25.0	22.1
(WY)	1958	1958	1990	1981	1958	1981	1976	1985	1991	1991	1957	1991

04221000 GENESEE RIVER AT WELLSVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1955 - 1958 1973 - 1992	
ANNUAL TOTAL	92656		113508			
ANNUAL MEAN	254		310		385	
HIGHEST ANNUAL MEAN					564	1956
LOWEST ANNUAL MEAN					261	1981
HIGHEST DAILY MEAN	4810	Mar 4	1900	Apr 12	11700	Mar 8 1956
LOWEST DAILY MEAN	13	a	20	b	13	c
ANNUAL SEVEN-DAY MINIMUM	15	Aug 28	23	Nov 4	15	Aug 28 1991
INSTANTANEOUS PEAK FLOW			2580	Sep 22	d15800	f
INSTANTANEOUS PEAK STAGE			7.24	Sep 22	13.60	Oct 28 1981
INSTANTANEOUS LOW FLOW			20	g	11	h
ANNUAL RUNOFF (CFSM)	.88		1.08		1.34	
ANNUAL RUNOFF (INCHES)	11.97		14.66		18.17	
10 PERCENT EXCEEDS	620		774		867	
50 PERCENT EXCEEDS	92		200		206	
90 PERCENT EXCEEDS	20		34		41	

a Sept. 2, 3.
b Oct. 3, 4.
c Sept. 2, 3, 1991.
d From graph based on stage readings.
f Mar. 8, 1956 and Oct. 28, 1981.
g Oct. 1-5, 15.
h Sept. 2, 3, 1991.

04223000 GENESEE RIVER AT PORTAGEVILLE, NY

LOCATION.--Lat 42°34'13", long 78°02'33", Wyoming County, Hydrologic Unit 04130002, on left bank at Portageville, 500 ft downstream from bridge on State Highway 436, 800 ft upstream from abandoned railroad bridge piers, 0.9 mi upstream from Upper Falls, and 89.8 mi upstream from mouth.

DRAINAGE AREA.--984 mi^2.

PERIOD OF RECORD.--August 1908 to current year. Prior to December 1945, published as "at St. Helena". Records published for both sites December 1945 to September 1950.

REVISED RECORDS.--WSP 264: 1908. WSP 564: 1916(M). WSP 2112; WDR NY-82-3: Drainage area. WRD NY 1972: 1950(M), 1951(M), 1956(M), 1959(M), 1964(M), 1967(M).

GAGE.--Water-stage recorder. Datum of gage is 1,080.00 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Aug. 24, 1911, nonrecording gage and Aug. 24, 1911 to Sept. 30, 1946, water-stage recorder at site 8 mi downstream at different datum. Oct. 1, 1946 to June 21, 1972, water-stage recorder at site 1,200 ft downstream at datum 2.60 ft higher (destroyed by flood of June 1972). July 12, 1972 to May 18, 1973, nonrecording gage at site 500 ft upstream at datum 11.48 ft higher.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Since July 1928, some seasonal regulation by Rushford Lake. Diurnal fluctuation at low flow caused by powerplant. Monthly figures of discharge and runoff 1952 to 1966 water years adjusted for change in contents in Rushford Lake. Telephone gage-height telemeter and satellite gage-height and precipitation telemeter at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
July 31	2200	*11,800	*14.51	No peak greater than base discharge.			

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	350	155	388	e980	801	1360	4140	2080	528	145	6670	515
2	322	437	348	e920	e720	1530	3550	1990	525	132	2530	426
3	114	428	1040	915	e680	1270	2940	5240	459	138	1490	506
4	112	386	2510	1230	e650	1110	2500	3300	391	221	1420	1200
5	367	127	1240	1890	e580	1260	2420	2260	370	192	1340	778
6	387	103	874	1760	e550	1590	2560	1770	424	253	916	507
7	391	100	769	1230	e520	1790	3510	1360	440	204	727	446
8	395	102	1870	1060	e480	2370	6520	1130	419	168	622	422
9	350	96	2210	972	e440	2050	4550	1070	365	285	1380	469
10	128	95	1650	1220	e410	1870	3930	1030	319	238	1050	500
11	170	122	1090	1120	e390	2980	4690	1020	276	208	983	501
12	458	130	881	967	e370	e2000	6020	901	251	176	1270	458
13	470	150	758	940	e370	e1700	3880	742	227	375	800	363
14	466	181	898	2200	e390	e1600	2850	711	212	473	787	324
15	461	232	1040	2770	e420	e1400	2220	680	198	1510	671	302
16	427	333	e800	e1350	789	e1300	1980	660	192	2100	654	284
17	213	345	e700	e1050	1340	e1200	4760	591	188	1400	658	268
18	242	270	e620	e920	e1050	e1050	4310	637	176	4770	585	257
19	471	228	e560	e760	e1800	e1000	4710	797	200	1750	528	465
20	465	203	e540	e760	e3200	e950	3540	620	279	1080	484	424
21	457	192	e520	e840	1960	e900	2880	526	347	5190	438	372
22	450	204	e500	e840	1480	e860	4210	473	269	1810	393	7560
23	393	429	e470	e840	2420	e810	3040	435	234	1960	352	6060
24	146	709	e470	e1800	2190	e780	3210	451	209	2490	326	2200
25	166	592	e450	e1500	2950	e740	8620	482	199	1390	317	1430
26	462	457	e430	e1100	2510	1790	6020	461	189	1720	320	1120
27	465	367	e400	e980	1860	5400	3790	437	205	3160	314	1330
28	469	321	e400	e940	1480	4470	2820	436	200	1370	343	1440
29	463	356	e500	e930	1900	3080	2260	401	177	978	2140	993
30	402	405	2960	948	---	3100	2020	374	159	941	1090	789
31	137	---	e1500	857	---	2850	---	418	---	6390	662	---
TOTAL	10769	8255	29386	36589	34700	56160	114450	33483	8627	43217	32260	32709
MEAN	347	275	948	1180	1197	1812	3815	1080	288	1394	1041	1090
MAX	471	709	2960	2770	3200	5400	8620	5240	528	6390	6670	7560
MIN	112	95	348	760	370	740	1980	374	159	132	314	257

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 1992, BY WATER YEAR (WY)

MEAN	621	1023	1319	1359	1459	2933	2766	1520	891	451	320	418
MAX	3320	4201	4314	4795	5838	7360	7780	4826	7006	1876	1875	4949
(WY)	1918	1928	1928	1913	1976	1936	1940	1919	1972	1915	1977	1977
MIN	74.1	110	160	100	229	945	450	294	118	64.8	64.5	50.1
(WY)	1965	1965	1909	1961	1920	1937	1946	1934	1934	1934	1934	1913

04223000 GENESEE RIVER AT PORTAGEVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1908 - 1992	
ANNUAL TOTAL	355317		440605			
ANNUAL MEAN	973		1204		1255	
HIGHEST ANNUAL MEAN					2038	1916
LOWEST ANNUAL MEAN					766	1962
HIGHEST DAILY MEAN	9290	Mar 4	8620	Apr 25	72000	Jun 23 1972
LOWEST DAILY MEAN	70	a	95	Nov 10	20	Oct 5 1913
ANNUAL SEVEN-DAY MINIMUM	71	Sep 13	106	Nov 5	34	Jul 25 1934
INSTANTANEOUS PEAK FLOW			11800	Jul 31	b90000	Jun 23 1972
INSTANTANEOUS PEAK STAGE			14.51	Jul 31	c35.25	Jun 23 1972
INSTANTANEOUS LOW FLOW			88	Nov 10	18	d
10 PERCENT EXCEEDS	2520		2940		2880	
50 PERCENT EXCEEDS	458		704		600	
90 PERCENT EXCEEDS	89		204		132	

a Sept. 14-16.

b About, from rating curve extended above 25,000 ft^3/s on basis of contracted-opening measurement of 71,000 ft^3/s, at highway bridge 0.4 mi upstream and contracted-opening measurement of 98,200 ft^3/s, 0.7 mi downstream from gage.

c From high-water mark, site and datum then in use.

d Oct. 5, 17, 1913.

04224000 MOUNT MORRIS LAKE NEAR MOUNT MORRIS, NY

LOCATION.--Lat 42°44'00", long 77°54'40", Livingston County, Hydrologic Unit 04130002, at Mount Morris Dam on Genesee River, 2.0 mi northwest of Mount Morris, 5 mi upstream from Canaseraga Creek, and 69.3 mi upstream from mouth.

DRAINAGE AREA.--1,080 mi^2.

PERIOD OF RECORD.--January 1952 to current year. Prior to October 1970, published as "Mount Morris Reservoir near Mount Morris."

REVISED RECORDS.--WSP 1437: 1955. WSP 2112; WDR NY-82-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Apr. 8, 1952, reference point at same site and datum.

REMARKS.--Lake is formed by a concrete gravity-type dam with overflow spillway, completed by U. S. Army Corps of Engineers in 1951 for flood control; first used for flood regulation on Nov. 24, 1951. Usable capacity, 336,800 acre-ft between elevation 585.0 ft, sill of conduits, and 760.0 ft, crest of spillway. Dead storage, 609 acre-ft. Discharge is controlled by the operation of nine gates. Water is stored during high flows and released when downstream conditions warrant.

COOPERATION.--Capacity table provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 755.46 ft, June 25, 1972, contents, 322,600 acre-ft; minimum, 584.06 ft, Aug. 30, 1991, contents, 446.4 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 653.21 ft, Apr. 27, contents, 65,500 acre-ft; minimum, 585.15 ft, Oct. 4, contents 635.0 acre-ft.

Capacity table (elevation, in feet, and usable contents, in acre-feet)
(Furnished by U. S. Army Corps of Engineers in 1953)

584.00	436	605.00	8,250	660.00	78,200
586.00	782	610.00	11,600	680.00	119,800
588.00	1,210	620.00	19,800	700.00	166,300
590.00	1,730	630.00	30,500	730.00	245,200
595.00	3,410	640.00	43,700	750.00	305,100
600.00	5,610				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	585.96	586.46	588.49	599.62	593.52	595.58	635.97	641.48	589.37	586.52	645.98	589.98
2	586.14	588.02	588.30	593.50	592.51	596.41	637.33	637.05	589.59	586.40	650.08	589.26
3	585.61	588.76	589.04	593.86	593.28	596.97	636.73	636.22	589.25	586.38	649.54	589.38
4	585.85	588.76	602.37	594.65	594.49	594.36	635.29	637.21	588.75	586.93	e646.62	593.32
5	587.24	587.30	606.20	599.26	594.11	594.02	633.59	634.73	588.44	587.05	e643.70	592.24
6	588.35	586.38	603.17	604.37	593.93	594.41	632.09	629.98	588.76	587.18	e640.78	590.04
7	588.39	586.26	595.55	602.49	593.80	594.95	630.97	623.61	588.99	587.27	641.04	589.37
8	588.43	586.26	597.50	595.39	593.99	600.45	634.34	614.87	588.97	586.83	637.85	589.13
9	588.39	586.24	606.88	594.12	593.83	602.47	638.24	599.22	588.60	587.34	634.88	589.26
10	587.25	586.18	609.42	594.40	592.30	599.61	638.56	591.48	588.14	587.66	632.37	589.57
11	586.42	586.36	608.46	594.52	592.64	602.67	636.14	591.25	587.79	587.25	626.92	589.78
12	588.11	586.60	605.22	594.11	593.20	604.75	639.11	590.90	587.50	586.92	619.70	589.34
13	588.99	586.66	601.86	594.02	592.47	602.34	641.88	590.14	587.33	587.74	608.35	588.74
14	588.98	586.89	604.70	596.36	592.57	602.13	643.70	589.96	587.17	589.35	590.71	588.33
15	588.94	587.18	608.08	608.57	593.58	601.25	644.71	589.72	587.05	593.35	589.82	588.11
16	589.04	587.70	610.08	608.26	594.35	596.80	643.68	589.53	586.97	605.10	589.52	588.69
17	587.61	588.31	608.99	600.36	599.02	595.49	643.66	589.05	586.93	603.88	589.59	588.96
18	587.16	587.86	607.37	594.00	604.73	594.14	646.67	589.18	586.83	617.83	589.21	588.82
19	588.45	587.45	604.46	592.85	606.84	594.11	648.82	590.77	586.90	624.30	588.88	590.93
20	588.98	587.27	597.51	592.27	614.52	593.20	649.42	590.54	587.37	624.96	588.63	591.42
21	588.92	587.05	596.00	593.55	620.06	593.79	647.52	589.74	588.11	630.78	588.38	590.20
22	588.87	587.01	595.43	593.65	620.20	593.63	645.96	589.26	587.80	634.31	588.11	609.88
23	588.80	587.37	593.85	593.88	620.35	593.30	645.01	588.96	587.39	634.30	587.84	632.18
24	587.33	590.53	591.97	597.64	621.70	593.40	642.46	588.84	587.21	636.68	587.62	633.30
25	586.42	589.93	592.42	605.25	620.22	593.10	645.76	589.34	587.03	636.74	587.52	629.45
26	588.07	589.19	591.37	599.71	617.79	595.74	651.85	589.17	586.94	635.70	588.00	624.13
27	588.92	588.49	591.16	594.14	613.47	612.83	653.17	588.99	586.96	637.38	588.22	617.67
28	588.96	588.08	590.70	594.12	606.81	628.02	652.34	588.89	586.99	636.47	588.41	610.71
29	589.02	588.15	590.83	594.00	600.92	632.37	649.69	588.67	586.87	633.85	597.41	598.13
30	588.98	588.62	601.64	593.94	---	634.11	645.74	588.42	586.66	631.06	598.70	591.71
31	587.39	---	607.71	593.79	---	634.59	---	588.58	---	632.37	591.04	---
MEAN	587.93	587.58	599.57	596.80	602.11	601.97	642.35	600.83	587.76	608.71	609.53	597.73
MAX	589.04	590.53	610.08	608.57	621.70	634.59	653.17	641.48	589.59	637.38	650.08	633.30
MIN	585.61	586.18	588.30	592.27	592.30	593.10	630.97	588.42	586.66	586.38	587.52	588.11

CAL YR 1991 MEAN 597.99 MAX 664.20 MIN 584.10
WTR YR 1992 MEAN 601.88 MAX 653.17 MIN 585.61

e Estimated

04224775 CANASERAGA CREEK ABOVE DANSVILLE, NY

LOCATION.--Lat 42°32'08", long 77°42'16", Livingston County, Hydrologic Unit 04130002, on right bank on Poags Hole Road, 0.7 mi upstream from Stony Brook, and 1.7 mi south of Dansville.

DRAINAGE AREA.--88.9 mi^2.

PERIOD OF RECORD.--August 1974 to current year.

REVISED RECORDS.--WDR NY–82–3: Drainage area. WDR NY-91-3: 1984, 1986(P).

GAGE.--Water-stage recorder. Datum of gage is 715.60 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Telephone gage-height telemeter and satellite gage-height and precipitation telemeter at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27	0700	1,100	2.66	July 31	2215	*1,510	*3.07
Apr. 25	0345	1,100	2.66				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	11	32	e45	e32	e78	282	202	80	14	716	e29
2	9.4	11	28	e46	e28	e66	199	203	106	13	204	e24
3	9.5	10	81	e49	e26	e66	184	288	74	14	157	27
4	9.7	10	88	82	e28	e66	178	184	60	18	133	40
5	10	11	e43	139	e29	e80	176	175	55	18	112	32
6	10	11	e34	116	e28	104	181	166	59	17	75	28
7	10	11	e36	84	e28	116	280	142	58	15	61	26
8	9.8	11	93	e57	e21	157	558	123	83	15	51	26
9	9.7	11	77	e51	e20	138	357	e110	57	26	52	29
10	11	12	57	e57	e19	129	301	e97	48	23	51	28
11	11	15	43	e52	e26	e136	445	e87	42	17	53	24
12	11	14	37	e48	e23	e74	505	e80	36	16	43	23
13	11	18	34	e51	e22	e57	210	e72	32	36	41	20
14	11	21	33	132	e26	e52	182	69	28	41	42	19
15	14	31	33	e87	e29	e54	172	65	27	131	40	18
16	15	34	e28	e56	100	e48	165	58	24	134	42	15
17	14	27	e27	e46	98	e54	420	55	22	73	40	15
18	12	20	e25	e48	e62	e59	283	70	21	216	e36	16
19	12	18	e21	e45	e104	e58	288	62	35	94	e32	28
20	11	16	e25	e48	157	e52	187	54	46	91	e29	24
21	11	16	e32	e51	e99	e50	180	49	32	479	e26	24
22	11	19	e30	e56	e85	e49	223	45	28	173	e23	240
23	10	39	e29	e61	133	e52	182	42	24	187	20	150
24	11	35	e29	159	119	e54	248	42	22	160	18	74
25	10	32	e21	e46	142	e57	790	43	21	111	21	51
26	9.9	24	e20	e32	155	180	487	41	20	297	28	49
27	10	20	e16	e34	115	872	291	50	19	295	32	53
28	11	19	e17	e34	e85	413	219	52	18	150	36	57
29	10	25	e41	e41	e76	e240	210	44	16	109	90	45
30	10	32	e166	e42	---	215	206	40	16	88	e49	40
31	11	---	e74	e38	---	239	---	60	---	893	e38	---
TOTAL	335.5	584	1350	1933	1915	4065	8589	2870	1209	3964	2391	1274
MEAN	10.8	19.5	43.5	62.4	66.0	131	286	92.6	40.3	128	77.1	42.5
MAX	15	39	166	159	157	872	790	288	106	893	716	240
MIN	9.4	10	16	32	19	48	165	40	16	13	18	15
CFSM	.12	.22	.49	.70	.74	1.48	3.22	1.04	.45	1.44	.87	.48
IN.	.14	.24	.56	.81	.80	1.70	3.59	1.20	.51	1.66	1.00	.53

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1992, BY WATER YEAR (WY)

MEAN	57.1	76.2	108	86.5	139	200	190	115	72.1	40.8	32.1	48.2
MAX	175	188	252	217	432	419	311	292	270	128	77.1	331
(WY)	1991	1978	1978	1975	1976	1979	1978	1984	1989	1992	1992	1977
MIN	10.7	19.5	38.9	24.4	31.4	70.6	81.8	26.2	16.8	10.8	7.52	7.24
(WY)	1984	1992	1989	1984	1980	1984	1981	1985	1991	1985	1985	1985

04224775 CANASERAGA CREEK ABOVE DANSVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1974 - 1992	
ANNUAL TOTAL	28121.4		30479.5			
ANNUAL MEAN	77.0		83.3		96.3	
HIGHEST ANNUAL MEAN					135	1978
LOWEST ANNUAL MEAN					65.5	1985
HIGHEST DAILY MEAN	920	Mar 4	893	Jul 31	1980	Sep 20 1977
LOWEST DAILY MEAN	8.9	Aug 8	9.4	Oct 2	6.8	Sep 7 1985
ANNUAL SEVEN-DAY MINIMUM	9.1	Sep 12	9.7	Oct 1	6.9	Sep 17 1985
INSTANTANEOUS PEAK FLOW			1510	Jul 31	a4050	Jun 20 1989
INSTANTANEOUS PEAK STAGE			3.07	Jul 31	5.70	Jun 20 1989
INSTANTANEOUS LOW FLOW			9.1	b	6.7	c
ANNUAL RUNOFF (CFSM)	.87		.94		1.08	
ANNUAL RUNOFF (INCHES)	11.77		12.75		14.72	
10 PERCENT EXCEEDS	151		191		215	
50 PERCENT EXCEEDS	28		43		52	
90 PERCENT EXCEEDS	9.5		12		13	

a From rating curve extended above 1,400 ft^3/s.
b Oct. 1, 2.
c Aug. 27, Sept. 7, 8, 1985.

04227000 CANASERAGA CREEK AT SHAKERS CROSSING, NY

LOCATION.--Lat 42°44'13", long 77°50'27", Livingston County, Hydrologic Unit 04130002, on right bank 100 ft upstream from bridge on State Highway 408 at Shakers Crossing, 1.4 mi upstream from mouth, and 1.5 mi northeast of Mount Morris.

DRAINAGE AREA.--335 mi^2.

PERIOD OF RECORD.--July 1915 to September 1922 (gage height only), November 1958 to September 1970, October 1974 to current year.

REVISED RECORDS.--WDR NY-82-3: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 545.52 ft above National Geodetic Vertical Datum of 1929. Prior to July 1981 at site 250 ft east on left bank of old filled-in channel at same datum and prior to November 1958 at site 250 ft east and 40 ft north at datum 5.52 ft lower. April 1968 to September 1970, and since October 1974, auxiliary water-stage recorder 0.6 mi downstream from base gage.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Telephone gage-height telemeter at base gage. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 23, 1972 reached an estimated discharge of 11,200 ft^3/s from U. S. Army Corps of Engineers publication (Tropical Storm Agnes, June 1972).

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27	1400	*3,220	*10.37	Apr. 25	0930	3,050	10.18
May 3	0200	--	a10.18				

a Backwater from Genesee River.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	36	95	166	e89	e179	1280	458	251	54	2180	140
2	36	36	84	152	e74	e210	1040	661	336	52	1080	120
3	33	36	163	173	e72	e175	726	1680	230	65	631	144
4	35	35	269	224	e67	e172	582	944	178	98	607	184
5	36	35	e140	315	e63	226	536	572	155	87	454	135
6	43	35	125	339	e50	257	550	438	168	72	293	113
7	38	35	114	e231	e58	293	710	350	172	60	218	106
8	37	38	186	e168	e58	470	1380	304	277	60	173	98
9	35	36	202	e161	e46	439	1060	342	185	92	161	102
10	36	35	163	191	e40	408	901	356	143	79	224	100
11	42	55	134	e175	e42	429	982	330	123	67	175	96
12	41	74	116	e147	e42	e330	1370	291	112	63	e110	86
13	44	70	105	165	e43	e370	925	239	98	140	67	81
14	40	85	e95	258	e46	e253	615	220	86	134	206	76
15	40	103	e92	e266	e60	e266	525	207	78	450	172	74
16	77	110	e79	e112	182	e223	468	189	74	506	168	73
17	52	88	e56	e124	195	285	1170	177	71	482	157	68
18	43	69	e58	e131	164	e253	1190	345	71	1100	147	68
19	40	61	e49	e106	238	e262	1220	249	93	415	126	155
20	40	56	e60	e118	478	e231	959	195	141	300	118	104
21	37	58	94	e127	284	e219	605	170	104	953	110	91
22	36	60	90	e134	225	e187	1270	156	89	513	99	872
23	35	109	89	e127	304	e198	707	144	77	1310	93	709
24	37	125	e84	413	282	e179	711	145	79	866	88	282
25	36	107	e60	255	321	e248	2520	153	84	469	92	141
26	35	85	e48	175	427	867	1710	144	72	897	162	125
27	35	72	e47	156	296	2750	1250	179	74	1150	113	168
28	37	65	e46	157	228	1970	954	187	69	485	160	175
29	37	88	e109	148	e262	1410	779	154	63	584	425	131
30	36	97	408	e112	---	1360	535	142	58	357	233	141
31	36	---	220	e100	---	1190	---	208	---	2110	179	---
TOTAL	1221	1994	3680	5626	4736	16309	29230	10329	3811	14070	9221	4958
MEAN	39.4	66.5	119	181	163	526	974	333	127	454	297	165
MAX	77	125	408	413	478	2750	2520	1680	336	2110	2180	872
MIN	33	35	46	100	40	172	468	142	58	52	67	68
CFSM	.12	.20	.35	.54	.49	1.57	2.91	.99	.38	1.35	.89	.49
IN.	.14	.22	.41	.62	.53	1.81	3.25	1.15	.42	1.56	1.02	.55

e Estimated

04227000 CANASERAGA CREEK AT SHAKERS CROSSING, NY--continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1992, BY WATER YEAR (WY)

MEAN	150	199	300	274	416	656	645	341	212	109	86.2	114
MAX	601	636	906	886	1452	1575	1203	1009	913	454	297	1162
(WY)	1978	1978	1978	1979	1976	1979	1961	1984	1989	1992	1992	1977
MIN	24.4	31.3	29.9	30.9	74.6	209	234	115	48.1	22.9	19.9	22.6
(WY)	1965	1965	1961	1961	1963	1965	1981	1985	1965	1965	1965	1965

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1959 - 1970, 1975 - 1992	
ANNUAL TOTAL	103430		105185			
ANNUAL MEAN	283		287		292	
HIGHEST ANNUAL MEAN					461	1978
LOWEST ANNUAL MEAN					137	1965
HIGHEST DAILY MEAN	3230	Mar 4	2750	Mar 27	4970	Mar 4 1976
LOWEST DAILY MEAN	33	Oct 3	33	Oct 3	8.5	Aug 18 1970
ANNUAL SEVEN-DAY MINIMUM	35	Nov 1	35	Nov 1	15	Jul 26 1965
INSTANTANEOUS PEAK FLOW			3220	Mar 27	5270	Mar 4 1976
INSTANTANEOUS PEAK STAGE			10.37	Mar 7	a13.33	Mar 4 1976
INSTANTANEOUS LOW FLOW			33	b	c4.3	Aug 19 1970
ANNUAL RUNOFF (CFSM)	.85		.86		.87	
ANNUAL RUNOFF (INCHES)	11.49		11.68		11.84	
10 PERCENT EXCEEDS	677		742		700	
50 PERCENT EXCEEDS	91		147		145	
90 PERCENT EXCEEDS	36		42		38	

a Maximum gage height, 23.62 ft, present datum, May 17, 1916 (backwater from Genesee River).
b Oct. 3, 9, and Nov. 10.
c Result of temporary regulation.

04227500 GENESEE RIVER NEAR MOUNT MORRIS, NY

LOCATION.--Lat 42°46'00", long 77°50'21", Livingston County, Hydrologic Unit 04130002, on right bank 100 ft north of Jones Bridge Road, 0.8 mi downstream from Canaseraga Creek, 2.8 mi northeast of Mount Morris and 63.0 mi upstream from mouth.

DRAINAGE AREA.--1,424 mi^2.

PERIOD OF RECORD.--May 1903 to April 1906, August 1908 to April 1914, July 1915 to current year. Prior to 1968, published as "at Jones Bridge."

REVISED RECORDS.--WSP 1277: 1952. WSP 1387: 1913. WSP 1437: 1955. WSP 2112; WDR NY–82–3: Drainage area. WDR NY–78–1: 1974–77 (M, m).

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 540.12 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 11, 1915, nonrecording gage on bridge at datum 2.85 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diurnal fluctuation at low flow caused by powerplant. Flow regulated to some extent by Rushford Lake since July 1928, and at high flows since November 1951 by Mount Morris Lake (see station 04224000). Monthly figures of discharge and runoff 1952 to 1966 water years adjusted for change in contents in Rushford Lake and Mount Morris Lake. Telephone and satellite gage-height telemeters at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Maximum discharge, 7,650 ft^3/s, May 3 at 0500 hours, gage height, 12.52 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	290	148	465	e1800	e1010	e2020	4230	6260	775	223	2880	835
2	357	293	432	e1360	e871	1900	4370	6080	936	182	3010	656
3	256	443	549	e1270	e636	1910	4520	6720	768	170	3710	677
4	161	445	2030	e1400	e643	1730	4340	5330	624	249	4170	1350
5	194	295	1730	e1850	e643	1650	4210	5460	548	275	4030	1300
6	393	165	1620	2250	e517	1860	4140	5560	595	269	3680	803
7	398	157	1230	2120	e500	2080	4170	5120	640	288	3500	648
8	404	145	1300	e1580	e470	2550	4860	4540	766	233	3320	592
9	394	140	1770	e1310	e450	2700	4870	3240	617	294	3220	594
10	294	137	1840	1420	e430	2530	5790	1680	499	362	3680	643
11	192	152	1780	1560	e410	2650	6810	1580	437	284	4560	702
12	288	173	1670	1350	e400	e2580	5310	1460	393	242	4730	631
13	498	201	1010	e1200	e400	e2530	4330	1220	308	361	4040	556
14	496	227	575	e1200	e420	e2450	2230	1130	307	625	1640	477
15	488	266	616	e2000	e500	e2340	2730	1060	284	1370	1080	449
16	534	344	924	e1900	e620	e2090	3610	985	309	2650	963	426
17	350	418	1150	e1700	e800	e1870	4160	868	234	2270	983	392
18	269	350	e1130	e1200	e1000	e1690	4410	1070	255	2580	861	346
19	343	288	e1020	e982	1310	e1640	4490	1150	265	1810	760	596
20	497	247	e940	e912	1610	e1520	5250	983	364	1660	711	700
21	484	236	e811	e1000	1930	e1430	5570	791	424	1620	677	520
22	473	234	e804	e1150	2230	e1430	6080	686	397	2460	572	2160
23	469	301	e740	e1100	2250	e1390	5700	617	324	3420	507	3510
24	329	815	e720	e1600	2760	e1360	5430	591	309	2700	463	4390
25	160	733	e753	e2200	3770	e1380	6380	675	268	2870	434	4440
26	309	586	e662	e2100	4010	2430	6260	638	257	3110	509	4160
27	485	451	e569	e1400	3700	4210	5840	649	257	3990	475	3900
28	494	377	e552	e1280	3050	3690	5730	645	257	3810	537	3550
29	491	402	e581	e1210	e2440	3390	6090	579	241	3730	1850	2470
30	484	476	e800	e1110	---	3960	6480	526	218	3590	2230	1160
31	329	---	e2000	e1050	---	4120	---	608	---	3960	1110	---
TOTAL	11603	9645	32773	45564	39780	71080	148390	68501	12876	51657	64892	43633
MEAN	374	321	1057	1470	1372	2293	4946	2210	429	1666	2093	1454
MAX	534	815	2030	2250	4010	4210	6810	6720	936	3990	4730	4440
MIN	160	137	432	912	400	1360	2230	526	218	170	434	346

e Estimated

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

MEAN	817	1271	1712	1790	1891	3988	3871	2085	1132	663	426	477
MAX	4743	5447	6319	5903	5194	10010	9914	6545	4305	6801	2205	4130
(WY)	1978	1928	1928	1913	1925	1936	1940	1919	1989	1972	1977	1977
MIN	107	152	230	135	356	1289	636	410	146	84.3	82.8	105
(WY)	1961	1965	1909	1961	1920	1937	1946	1934	1934	1934	1934	1955

04227500 GENESEE RIVER NEAR MOUNT MORRIS, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1903 - 1906, 1908 - 1914, 1915 - 1992	
ANNUAL TOTAL	561097		600394			
ANNUAL MEAN	1537		1640		1678	
HIGHEST ANNUAL MEAN					2641	1916
LOWEST ANNUAL MEAN					972	1934
HIGHEST DAILY MEAN	8110	Mar 13	6810	Apr 11	45700	May 17 1916
LOWEST DAILY MEAN	75	Sep 21	137	Nov 10	15	Oct 9 1980
ANNUAL SEVEN-DAY MINIMUM	96	Sep 15	153	Nov 6	54	Sep 2 1934
INSTANTANEOUS PEAK FLOW			7650	May 3	55100	May 17 1916
INSTANTANEOUS PEAK STAGE			12.52	May 3	a25.80	Mar 13 1920
INSTANTANEOUS LOW FLOW			64	Nov 1	12	Jul 23 1955
10 PERCENT EXCEEDS	4640		4210		4300	
50 PERCENT EXCEEDS	548		982		810	
90 PERCENT EXCEEDS	126		273		189	

a Ice jam.

04227510 GENESEE RIVER NEAR GENESEO, NY

LOCATION.--Lat 42°46'37", long 77°50'31", Livingston County, Hydrologic Unit 04130003, at bridge on U.S. Highway 20A, and State Highway 39, 1.0 mi west of intersection with State Highway 63 and 1.5 mi southwest of Geneseo.

DRAINAGE AREA.--1,425 mi^2.

PERIOD OF RECORD.--May 1972-1974, Water years 1988 to current year.
CHEMICAL DATA: 1988 (b), 1989 (c), 1990 (d), 1991 (b), 1992 (a).MINOR ELEMENT DATA: 1972-74 (a), 1988-92 (d).
MINOR ELEMENT DATA: 1972-74 (a), 1988 (b), 1989 (c), 1990 (d), 1991 (b), 1992 (a).
SEDIMENT DATA: 1988 (b), 1989 (c), 1990 (d), 1991 (b), 1992 (a).

REMARKS.--Water-discharge data are based on records for station 04227500 Genesee River near Mount Morris.

COOPERATION.--Water samples were collected by the New York State Department of Environmental Conservation, and were analyzed by the USGS National Water Quality Laboratory at Arvada, Colorado and the USGS Pennsylvania District Sediment Laboratory at LeMoyne, Pennsylvania.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)
OCT 28	1300	483	7.9	14.5	748	10.9	500	< 1

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	MANGA-LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	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.....	9	1200	4	80	< 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, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 28	1300	483	1300	1700

04227980 CONESUS LAKE NEAR LAKEVILLE, NY

LOCATION.--Lat 42°47'39", long 77°43'15", Livingston County, Hydrologic Unit 04130003, on west shore of Conesus Lake at Geneseo Water Works pumping station, 300 ft east of State Highway 256, and 3.0 mi south of Lakeville.

DRAINAGE AREA.--69.8 mi^2.

PERIOD OF RECORD.--July 1963 to current year. Since 1930 in files of village of Geneseo.

REVISED RECORDS.--WSP 2112; WDR NY–82–3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Oct. 1, 1970 to Sept. 30, 1975, at datum 800.00 ft higher. Prior to Oct. 1, 1970, nonrecording gage at site 200 ft downstream at datum 796.59 ft higher.

REMARKS.--Lake elevation regulated by gates at outlet. Area of water surface, 5.08 mi^2. Daily average of about 2 ft^3/s diverted from lake for water supply for Avon, Geneseo, and Lakeville Water District.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 822.50 ft, June 24, 1972; minimum, 816.11 ft, Dec. 22, 24, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 819.21 ft, Apr. 12; minimum, 816.29 ft, Nov. 10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	816.79	816.46	816.43	816.64	817.01	817.53	818.88	818.84	818.85	818.41	819.15	818.43
2	816.78	816.45	816.42	816.64	817.02	817.55	818.86	818.85	818.82	818.39	819.05	818.40
3	816.76	816.43	816.48	816.65	817.02	817.57	818.80	819.06	818.77	818.41	818.87	818.41
4	816.75	816.40	816.48	816.66	817.03	817.58	818.75	819.08	818.71	818.42	818.74	818.41
5	816.75	816.39	816.48	816.70	817.03	817.60	818.79	819.03	818.64	818.42	818.64	818.35
6	816.76	816.36	816.49	816.72	817.03	817.62	818.83	818.94	818.58	818.40	818.59	818.28
7	816.73	816.34	816.49	816.74	817.03	817.66	818.88	818.85	818.52	818.39	818.54	818.22
8	816.70	816.34	816.49	816.74	817.04	817.73	818.96	818.75	818.47	818.40	818.53	818.20
9	816.68	816.32	816.50	816.76	817.05	817.80	819.02	818.69	818.46	818.46	818.49	818.19
10	816.69	816.31	816.50	816.77	817.05	817.86	819.06	818.71	818.46	818.46	818.46	818.20
11	816.70	816.36	816.50	816.78	817.05	817.96	819.11	818.74	818.46	818.47	818.40	818.18
12	816.70	816.39	816.51	816.79	817.05	818.02	819.17	818.76	818.45	818.47	818.36	818.16
13	816.69	816.38	816.50	816.80	817.05	818.04	819.16	818.78	818.45	818.53	818.33	818.15
14	816.67	816.37	816.51	816.83	817.06	818.06	819.12	818.79	818.44	818.54	818.32	818.13
15	816.66	816.38	816.52	816.85	817.07	818.08	819.07	818.80	818.42	818.70	818.30	818.11
16	816.66	816.37	816.52	816.86	817.10	818.10	819.05	818.81	818.41	818.74	818.31	818.10
17	816.65	816.36	816.52	816.87	817.12	818.12	819.05	818.82	818.41	818.75	818.31	818.09
18	816.64	816.35	816.52	816.87	817.13	818.14	819.05	818.91	818.42	819.02	818.31	818.09
19	816.62	816.34	816.51	816.87	817.16	818.16	819.06	818.93	818.44	818.92	818.32	818.19
20	816.61	816.35	816.50	816.88	817.19	818.19	819.02	818.92	818.45	818.79	818.31	818.12
21	816.59	816.37	816.51	816.89	817.23	818.21	818.96	818.90	818.45	818.70	818.30	818.06
22	816.57	816.37	816.50	816.89	817.25	818.24	818.95	818.89	818.45	818.62	818.29	818.21
23	816.55	816.38	816.50	816.91	817.30	818.28	818.89	818.89	818.44	818.80	818.28	818.21
24	816.55	816.40	816.49	816.95	817.33	818.30	818.86	818.88	818.45	818.90	818.27	818.11
25	816.54	816.39	816.49	816.96	817.37	818.32	818.91	818.87	818.45	818.82	818.30	818.00
26	816.53	816.38	816.50	816.97	817.41	818.40	818.95	818.87	818.45	818.74	818.29	817.92
27	816.53	816.38	816.49	816.98	817.45	818.86	818.95	818.89	818.44	818.70	818.31	817.87
28	816.52	816.36	816.49	816.99	817.48	819.11	818.93	818.89	818.44	818.61	818.41	817.90
29	816.51	816.41	816.54	816.99	817.52	819.06	818.90	818.88	818.43	818.62	818.50	817.90
30	816.49	816.43	816.61	817.00	---	818.99	818.87	818.88	818.43	818.68	818.47	817.90
31	816.47	---	816.63	817.01	---	818.92	---	818.89	---	818.88	818.46	---
MEAN	816.64	816.38	816.50	816.84	817.16	818.13	818.96	818.86	818.50	818.62	818.46	818.15
MAX	816.79	816.46	816.63	817.01	817.52	819.11	819.17	819.08	818.85	819.02	819.15	818.43
MIN	816.47	816.31	816.42	816.64	817.01	817.53	818.75	818.69	818.41	818.39	818.27	817.87

CAL YR	1991	MEAN	817.68	MAX	819.36	MIN	816.31
WTR YR	1992	MEAN	817.77	MAX	819.17	MIN	816.31

04228500 GENESEE RIVER AT AVON, NY

LOCATION.--Lat 42°55'04", long 77°45'27", Livingston County, Hydrologic Unit 04130003, on right bank 250 ft downstream from bridge on U.S. Highway 20 (State Highway 5), 0.3 mi west of Avon, 0.8 mi downstream from Conesus Creek, and 35.6 mi upstream from mouth.

DRAINAGE AREA.--1,673 mi^2.

PERIOD OF RECORD.--August 1955 to current year.

REVISED RECORDS.--WSP 2112; WDR NY-82-3: Drainage area.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 500.11 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Diurnal fluctuation at low flow caused by powerplant. Flow regulated to some extent by Rushford Lake, at high flows by Mount Morris Lake (see station 04224000), and by Conesus Lake (see station 04227980). Monthly figures of discharge and runoff August 1955 to September 1965 adjusted for change in contents in Rushford Lake and Mount Morris Lake. Telephone gage-height telemeter and satellite gage-height and precipitation telemeter at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Maximum discharge, 7,700 ft^3/s, May 3 at 1430 hours, gage height, 30.38 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	216	329	520	e2750	e1100	2350	4920	6140	888	255	5810	1100
2	340	183	494	e2400	e1000	1950	4850	5980	1050	251	3990	859
3	377	365	511	e1600	e900	1890	4940	7310	1050	210	4080	800
4	265	459	1250	e1500	e780	1720	4680	6220	889	228	5060	1270
5	205	451	1780	e2000	e820	1580	4340	5640	780	298	5230	1620
6	274	282	1600	e2500	e700	1720	4200	5630	753	291	4610	1200
7	426	200	1440	2450	e610	1990	4170	5370	804	303	3600	877
8	434	185	1080	2040	e550	2360	4460	4900	858	303	3300	690
9	442	169	1500	1470	e530	2760	4850	4200	771	306	3250	639
10	437	164	1710	1310	e520	2690	4940	2400	616	369	3320	668
11	324	174	1720	1510	e510	2550	6280	1710	526	364	4090	702
12	237	188	1640	1410	e500	2650	6040	1590	471	308	4460	682
13	402	210	1480	1260	e500	2670	5280	1390	426	313	4140	624
14	533	243	754	1290	e520	2630	3440	1220	339	514	2630	536
15	539	270	637	1970	e600	e2400	2560	1160	341	947	1300	478
16	547	313	684	e2200	e860	e2300	3430	1080	318	2530	1050	447
17	558	394	1050	e1900	1140	e2000	4340	1010	328	2570	1010	417
18	353	432	1090	e1700	1430	e1900	4900	1000	282	3790	954	398
19	319	364	1020	e1300	1560	e1700	5100	1190	295	3220	856	903
20	457	318	1310	e1100	1900	e1650	5140	1210	329	2290	770	993
21	540	284	1290	e1200	2200	e1500	5640	1010	403	1890	710	821
22	533	276	e1000	e1300	2610	e1500	6080	826	465	2290	642	1690
23	526	270	e900	e1250	2880	e1450	6120	742	400	3010	578	3390
24	511	453	e780	e1400	3060	e1400	5680	692	352	3560	533	4040
25	330	790	e820	e2100	3920	e1400	5990	703	334	3230	517	4420
26	212	692	e860	e2500	4650	2160	6510	743	302	3180	530	4240
27	425	562	e800	e2000	3850	5230	6120	734	295	3610	578	4070
28	522	459	e760	e1700	3390	6520	5680	738	290	3520	954	3790
29	528	437	e770	e1400	2760	4910	5740	708	285	3830	1720	3180
30	524	478	e1000	e1300	---	4810	6110	645	269	4370	2590	1770
31	504	---	e2000	e1200	---	4960	---	724	---	5290	1800	---
TOTAL	12840	10394	34250	53010	46350	79300	152530	74615	15509	57440	74662	47314
MEAN	414	346	1105	1710	1598	2558	5084	2407	517	1853	2408	1577
MAX	558	790	2000	2750	4650	6520	6510	7310	1050	5290	5810	4420
MIN	205	164	494	1100	500	1400	2560	645	269	210	517	398

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1992, BY WATER YEAR (WY)

MEAN	1033	1509	2243	1908	2304	4212	4548	2305	1352	870	520	629
MAX	5146	3637	5942	4781	6036	8916	7698	5761	4906	7032	2408	4569
(WY)	1978	1971	1973	1979	1990	1956	1978	1984	1989	1972	1992	1977
MIN	145	182	325	155	397	1813	1912	613	334	172	142	111
(WY)	1964	1965	1961	1961	1958	1960	1981	1985	1991	1962	1965	1955

04228500 GENESEE RIVER AT AVON, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1955 - 1992	
ANNUAL TOTAL	654487		658214			
ANNUAL MEAN	1793		1798		1951	
HIGHEST ANNUAL MEAN					2846	1978
LOWEST ANNUAL MEAN					1130	1965
HIGHEST DAILY MEAN	9310	Mar 8	7310	May 3	16200	Jun 25 1972
LOWEST DAILY MEAN	93	Sep 22	164	Nov 10	49	Oct 10 1980
ANNUAL SEVEN-DAY MINIMUM	122	Sep 16	184	Nov 7	88	Aug 1 1955
INSTANTANEOUS PEAK FLOW			7700	May 3	16500	Jun 25 1972
INSTANTANEOUS PEAK STAGE			30.38	May 3	40.67	Jun 25 1972
INSTANTANEOUS LOW FLOW			154	Nov 2	47	a
10 PERCENT EXCEEDS	5310		4850		5330	
50 PERCENT EXCEEDS	599		1080		1100	
90 PERCENT EXCEEDS	149		307		213	

a Oct. 10, 11, 1980.

04228845 HONEOYE LAKE NEAR HONEOYE, NY

LOCATION.--Lat 42°45'44", long 77°30'26", Ontario County, Hydrologic Unit 04130003, on east shore of Honeoye Lake, at Trident Marina on East Lake Road, 1.9 mi south of U.S. Highway 20A, and 2.0 mi southeast of Honeoye.

DRAINAGE AREA.--41.0 mi^2.

PERIOD OF RECORD.--July to December 1963. Occasional readings January to August 1964. October 1964 to current year.

REVISED RECORD.--WDR NY-82-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. July 10, 1963 to Sept. 28, 1967, nonrecording gage and Sept. 29, 1967 to Sept. 30, 1969, recording gage at datum 800.35 ft higher. Oct. 1, 1969 to Sept. 30, 1975, at datum 800.00 ft higher.

REMARKS.--Area of water surface, 2.71 mi^2.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 806.91 ft, June 23, 1972; minimum observed, 802.15 ft present datum, Oct. 5, 1965, Oct. 1, 2, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 804.83 ft, Aug. 1; minimum, 802.52 ft, Nov. 9, 10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	802.55	802.57	803.00	803.69	804.12	804.29	804.59	804.26	804.18	803.70	804.81	803.72
2	802.55	802.57	803.01	803.71	804.11	804.28	804.55	804.29	804.24	803.68	804.79	803.70
3	802.54	802.57	803.10	803.72	804.10	804.26	804.50	804.48	804.22	803.69	804.69	803.73
4	802.54	802.55	803.13	803.76	804.09	804.25	804.45	804.46	804.19	803.68	804.54	803.73
5	802.54	802.55	803.16	803.82	804.09	804.24	804.40	804.43	804.16	803.70	804.44	803.72
6	802.58	802.55	803.19	803.85	804.08	804.24	804.36	804.38	804.14	803.69	804.32	803.70
7	802.57	802.53	803.21	803.88	804.07	804.27	804.35	804.34	804.13	803.67	804.22	803.67
8	802.56	802.54	803.22	803.89	804.06	804.30	804.41	804.30	804.15	803.67	804.14	803.65
9	802.55	802.53	803.25	803.92	804.05	804.33	804.43	804.27	804.11	803.73	804.07	803.63
10	802.56	802.52	803.26	803.94	804.05	804.36	804.44	804.25	804.08	803.72	804.03	803.63
11	802.63	802.60	803.29	803.96	804.04	804.38	804.46	804.21	804.05	803.73	803.98	803.60
12	802.62	802.66	803.30	803.97	804.03	804.39	804.53	804.19	804.02	803.72	803.93	803.57
13	802.62	802.67	803.30	803.98	804.02	804.36	804.51	804.15	804.00	803.81	803.89	803.55
14	802.64	802.68	803.31	804.03	804.02	804.32	804.48	804.12	803.96	803.82	803.86	803.53
15	802.67	802.70	803.33	804.06	804.02	804.29	804.43	804.10	803.93	804.04	803.82	803.51
16	802.77	802.71	803.34	804.07	804.06	804.25	804.42	804.08	803.90	804.17	803.80	803.50
17	802.62	802.75	803.35	804.07	804.08	804.22	804.46	804.08	803.88	804.24	803.77	803.49
18	802.60	802.80	803.35	804.07	804.08	804.19	804.49	804.18	803.86	804.52	803.74	803.49
19	802.60	802.81	803.34	804.07	804.12	804.19	804.51	804.17	803.88	804.48	803.72	803.64
20	802.59	802.79	803.35	804.07	804.17	804.17	804.48	804.14	803.89	804.42	803.69	803.62
21	802.59	802.77	803.36	804.06	804.19	804.15	804.46	804.11	803.87	804.41	803.66	803.62
22	802.58	802.80	803.37	804.06	804.20	804.14	804.43	804.09	803.85	804.33	803.63	803.78
23	802.58	802.85	803.37	804.09	804.23	804.13	804.40	804.07	803.83	804.55	803.61	803.79
24	802.58	802.86	803.38	804.15	804.26	804.11	804.38	804.05	803.82	804.63	803.59	803.78
25	802.59	802.87	803.39	804.16	804.27	804.11	804.41	804.04	803.80	804.56	803.58	803.76
26	802.58	802.87	803.40	804.15	804.29	804.17	804.40	804.06	803.79	804.51	803.56	803.78
27	802.59	802.89	803.40	804.14	804.29	804.59	804.37	804.10	803.77	804.49	803.61	803.82
28	802.59	802.88	803.40	804.13	804.29	804.74	804.34	804.08	803.76	804.40	803.67	803.82
29	802.58	802.95	803.47	804.13	804.30	804.70	804.31	804.05	803.74	804.37	803.79	803.79
30	802.58	803.00	803.63	804.12	---	804.67	804.28	804.05	803.72	804.41	803.77	803.76
31	802.57	---	803.67	804.12	---	804.63	---	804.12	---	804.61	803.75	---
MEAN	802.59	802.71	803.31	803.99	804.13	804.31	804.43	804.18	803.96	804.10	803.95	803.67
MAX	802.77	803.00	803.67	804.16	804.30	804.74	804.59	804.48	804.24	804.63	804.81	803.82
MIN	802.54	802.52	803.00	803.69	804.02	804.11	804.28	804.04	803.72	803.67	803.56	803.49

CAL YR	1991	MEAN	803.31	MAX	804.78	MIN	802.51
WTR YR	1992	MEAN	803.78	MAX	804.81	MIN	802.52

04229500 HONEOYE CREEK AT HONEOYE FALLS, NY

LOCATION.--Lat 42°57'26", long 77°35'21", Monroe County, Hydrologic Unit 04130003, on right bank 25 ft downstream from bridge on State Highway 65 at Honeoye Falls, and 15.3 mi upstream from mouth.

DRAINAGE AREA.--196 mi^2.

PERIOD OF RECORD.--October 1945 to September 1970, October 1972 to current year.

REVISED RECORDS.--WSP 2112; WDR NY–82–3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 610.00 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1970, water-stage recorder at same site at datum 609.76 ft NGVD.

REMARKS.--Records fair. Outlet of Honeoye Lake not controlled (see station 04228845). Some diversion from and regulation of Hemlock and Canadice Lakes for water supply of city of Rochester. Diurnal fluctuation at low flow caused by mills upstream from station. Prior to 1967 water year, published monthly figures adjusted for change in contents in, and diversion from, Hemlock and Canadice Lakes. During low-water periods the village of Honeoye Falls pumps water from two deep wells with maximum pumping capacity of 600 gal/min (1.33 ft^3/s). This pumped water enters creek upstream from gage. Satellite gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 23, 1972, reached a stage of about 6.3 ft, current datum; discharge, about 6,600 ft^3/s, from rating curve extended above 2,700 ft^3/s by logarithmic plotting.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27	2330	2,250	4.26	Aug. 01	1330	1,850	3.97
July 18	1300	*2,320	*4.31				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.9	41	e270	e46	e110	568	139	158	19	1730	113
2	1.2	2.3	31	e210	e43	e100	533	149	204	16	1460	82
3	1.2	2.4	35	e110	e41	e98	400	410	182	22	985	83
4	1.2	2.4	e43	74	e40	e115	322	422	122	18	743	168
5	1.1	2.3	e37	89	e39	120	277	271	96	21	638	118
6	1.1	2.4	e39	125	e37	117	245	214	93	22	500	81
7	1.1	2.6	29	e95	e35	126	235	181	101	18	379	75
8	1.1	3.0	32	e89	e33	202	272	158	97	20	303	68
9	1.0	2.6	38	e72	e31	218	305	143	95	23	287	57
10	1.0	2.9	38	68	e29	190	261	133	82	32	275	52
11	1.0	7.1	33	e64	e28	176	252	126	70	30	204	42
12	1.0	10	28	e60	e28	e100	352	117	62	29	152	39
13	1.1	13	25	67	e26	e72	354	105	55	40	124	35
14	1.4	17	23	e80	e26	e89	273	93	50	74	125	32
15	2.8	20	e18	e72	e30	e86	234	82	46	258	114	30
16	4.0	20	e11	e60	e110	e82	223	77	41	739	97	27
17	4.7	18	e11	e55	376	e80	411	75	37	550	89	26
18	5.8	15	e12	e53	266	e79	435	106	33	2060	79	26
19	6.0	11	e13	e50	201	e76	442	176	36	1300	69	105
20	4.6	9.8	e14	e48	228	e72	361	126	80	575	61	134
21	3.2	9.8	17	e46	e190	e69	283	93	66	407	54	71
22	2.8	10	19	e48	e140	e66	267	76	49	386	48	216
23	2.3	12	22	e72	163	e65	248	65	42	335	43	362
24	2.0	16	e19	e98	203	e63	222	61	38	702	38	226
25	2.0	20	e14	e89	164	e61	227	61	34	670	36	127
26	1.9	19	e13	e80	199	323	235	62	31	481	34	99
27	1.7	16	e12	e72	e180	1340	225	69	38	418	56	152
28	1.5	14	e13	e65	e140	1650	193	81	31	389	346	213
29	1.4	18	e22	e62	e130	868	164	72	28	387	668	153
30	1.3	40	e120	e58	---	669	146	64	22	723	495	106
31	1.5	---	e230	e51	---	583	---	94	---	932	190	---
TOTAL	65.2	340.5	1052	2552	3202	8065	8965	4101	2119	11696	10422	3118
MEAN	2.10	11.3	33.9	82.3	110	260	299	132	70.6	377	336	104
MAX	6.0	40	230	270	376	1650	568	422	204	2060	1730	362
MIN	1.0	1.9	11	46	26	61	146	61	22	16	34	26

e Estimated

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

MEAN	42.6	73.3	130	121	165	294	318	172	80.7	34.0	25.3	23.8
MAX	443	345	493	369	664	685	716	500	344	377	336	538
(WY)	1978	1978	1946	1979	1976	1976	1956	1984	1989	1992	1992	1977
MIN	.45	2.06	2.04	2.15	10.3	107	50.0	55.8	9.13	1.04	.75	.64
(WY)	1964	1961	1961	1961	1958	1965	1946	1950	1955	1955	1949	1964

04229500 HONEOYE CREEK AT HONEOYE FALLS, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1946 - 1970 1973 - 1992	
ANNUAL TOTAL	54866.22		55697.7			
ANNUAL MEAN	150		152		123	
HIGHEST ANNUAL MEAN					237	1976
LOWEST ANNUAL MEAN					46.4	1965
HIGHEST DAILY MEAN	1970	Apr 22	2060	Jul 18	3760	Mar 28 1950
LOWEST DAILY MEAN	.92	Aug 30	1.0	a	.10	Aug 24 1949
ANNUAL SEVEN-DAY MINIMUM	1.0	Aug 28	1.0	Oct 6	.13	Aug 22 1949
INSTANTANEOUS PEAK FLOW			2320	Jul 18	b4630	Mar 28 1950
INSTANTANEOUS PEAK STAGE			4.31	Jul 18	c6.42	Mar 28 1950
INSTANTANEOUS LOW FLOW				d	.06	Aug 28 1949
10 PERCENT EXCEEDS	402		381		322	
50 PERCENT EXCEEDS	19		70		53	
90 PERCENT EXCEEDS	1.4		3.8		2.5	

a Oct. 9-12.
b From rating curve extended above 2,700 ft^3/s by logarithmic plotting.
c Datum then in use.
d Unknown, water below intakes many days.

04230380 OATKA CREEK AT WARSAW, NY

LOCATION.--Lat 42°44'39", long 78°08'16", Wyoming County, Hydrologic Unit 04130003, on right bank 400 ft downstream from bridge on Court Street, Warsaw.

DRAINAGE AREA.--39.1 mi^2.

PERIOD OF RECORD.--December 1963 to current year.

REVISED RECORDS.--WSP 2112; WDR NY-82-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 987.15 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records fair. Telephone gage-height telemeter and satellite gage-height and precipitation telemeter at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 690 ft^3/s and maximum(*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
May 2	2230	736	3.79	July 31	2045	828	4.01
July 15	1200	1,000	4.42	Aug. 4	1300	897	4.17
July 17	2145	879	4.13	Aug. 28	2230	720	3.75
July 23	1115	*1,240	*4.95	Sept. 19	0115	1,000	4.42
July 26	1615	1,090	4.63				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2.7	e3.7	15	35	e16	57	174	73	40	7.9	247	38
2	e3.0	e3.6	12	24	e16	56	116	172	32	7.5	88	33
3	e3.0	e3.5	43	31	e15	46	92	220	22	18	69	98
4	e3.0	e3.6	28	46	e15	47	85	93	18	14	442	61
5	e3.1	e3.6	20	58	e14	67	89	69	21	12	146	36
6	e2.9	e3.5	17	41	e14	78	107	57	27	10	72	32
7	e2.9	e3.6	22	30	e13	105	224	49	23	8.8	53	31
8	e3.0	e3.6	39	23	e13	114	286	45	26	16	50	41
9	e3.0	e3.6	30	26	e13	80	161	48	18	43	109	27
10	e4.4	e3.3	e25	40	e12	75	128	53	16	16	88	36
11	e7.2	e4.2	22	29	e12	e70	188	43	15	13	71	29
12	e4.7	e4.7	18	26	e12	e66	203	39	13	12	56	24
13	e4.9	e4.7	28	32	e11	e62	97	34	12	64	82	22
14	e4.7	e5.5	31	67	e12	e60	76	31	11	34	85	20
15	e4.3	5.6	33	40	e14	e58	63	29	10	456	57	19
16	e4.5	5.9	25	e31	e38	e54	89	25	10	101	57	18
17	e4.5	6.0	e21	e28	e34	e50	206	24	10	217	55	17
18	e4.1	6.0	e20	e27	e32	e44	161	36	9.2	231	45	59
19	e3.9	6.0	e19	e26	151	e38	149	29	15	69	41	253
20	e4.0	5.8	e19	e25	138	e34	96	23	14	47	51	44
21	e3.9	6.0	e18	e22	73	e30	85	20	14	45	39	140
22	e3.7	6.3	e18	e20	75	e28	132	19	13	37	31	340
23	e3.7	6.3	e19	e33	138	e27	79	18	11	512	27	115
24	e3.7	6.3	e18	e55	75	e26	152	20	13	143	24	57
25	e3.7	6.3	e16	e47	69	e40	469	20	13	70	33	44
26	e3.6	6.3	e15	e36	78	154	251	25	11	398	33	47
27	e3.5	6.3	e14	e27	52	410	134	28	11	186	34	68
28	e3.5	6.3	e13	e23	65	202	89	23	9.5	78	159	55
29	e3.5	30	62	e20	67	150	73	19	8.8	181	229	39
30	e3.7	22	94	e18	---	134	74	21	8.3	109	66	34
31	e3.7	---	45	e17	---	147	---	43	---	428	52	---
TOTAL	118.0	192.1	819	1003	1287	2609	4328	1448	474.8	3584.2	2691	1877
MEAN	3.81	6.40	26.4	32.4	44.4	84.2	144	46.7	15.8	116	86.8	62.6
MAX	7.2	30	94	67	151	410	469	220	40	512	442	340
MIN	2.7	3.3	12	17	11	26	63	18	8.3	7.5	24	17
CFSM	.10	.16	.68	.83	1.14	2.15	3.69	1.19	.40	2.96	2.22	1.60
IN.	.11	.18	.78	.95	1.22	2.48	4.12	1.38	.45	3.41	2.56	1.79

e Estimated

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

MEAN	24.4	47.5	69.2	61.0	75.3	126	109	51.1	31.9	17.6	14.3	19.7
MAX	76.7	131	130	234	235	228	165	129	165	116	86.8	166
(WY)	1978	1986	1978	1979	1976	1979	1971	1984	1989	1992	1992	1977
MIN	2.76	5.09	17.2	15.1	22.5	49.2	53.1	19.2	6.36	2.52	2.36	1.81
(WY)	1965	1965	1965	1981	1980	1981	1981	1987	1965	1965	1965	1964

04230380 OATKA CREEK AT WARSAW, NY--continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1964 - 1992	
ANNUAL TOTAL	15512.1		20431.1			
ANNUAL MEAN	42.5		55.8		54.0	
HIGHEST ANNUAL MEAN					73.8	1978
LOWEST ANNUAL MEAN					29.6	1965
HIGHEST DAILY MEAN	770	Apr 22	512	Jul 23	1600	Jan 26 1979
LOWEST DAILY MEAN	1.6	a	2.7	Oct 1	1.0	Aug 1 1965
ANNUAL SEVEN-DAY MINIMUM	1.7	Aug 28	2.9	Oct 1	1.4	Jul 26 1965
INSTANTANEOUS PEAK FLOW			1240	Jul 23	b4010	Jun 23 1972
INSTANTANEOUS PEAK STAGE			4.95	Jul 23	9.75	Jun 23 1972
INSTANTANEOUS LOW FLOW			c		.90	Aug 1 1965
ANNUAL RUNOFF (CFSM)	1.09		1.43		1.38	
ANNUAL RUNOFF (INCHES)	14.76		19.44		18.77	
10 PERCENT EXCEEDS	112		141		122	
50 PERCENT EXCEEDS	13		30		28	
90 PERCENT EXCEEDS	2.5		4.5		4.7	

a Aug. 29, 30, Sept. 3.
b From rating curve extended above 1,770 ft^3/s on basis of slope-area measurement of peak discharge.
c Unknown.

04230500 OATKA CREEK AT GARBUTT, NY

LOCATION.--Lat 43°00'36", long 77°47'30", Monroe County, Hydrologic Unit 04130003, on right bank 40 ft downstream from bridge on Union Street in Garbutt, 1.5 mi west of Scottsville, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--200 mi^2.

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

REVISED RECORDS.--WSP 2112; WDR NY-82-3: Drainage area. WRD NY 1971: 1960(M).

GAGE.--Water-stage recorder. Datum of gage is 560.86 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Telephone gage-height telemeter and satellite gage-height and precipitation telemeter at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 29	0500	*1,350	*5.44	No peaks greater than base discharge.			

REVISIONS.--The peak discharges and annual maximum (*) reported for the 1991 water year have been revised as shown in the following table. These figures supersede those published in the report for 1991.

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 7, 1991	1715	1,700	5.90	Apr. 23, 1991	1515	*2,450	*6.64

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	20	21	e110	e72	e226	759	349	168	47	573	318
2	22	20	23	e82	e68	e226	745	345	181	46	560	212
3	21	20	29	e72	e62	e222	667	630	160	53	603	201
4	21	20	29	71	e58	209	534	776	132	50	407	331
5	21	20	41	96	e54	200	463	720	116	53	501	353
6	22	19	43	131	e49	219	437	423	107	54	604	234
7	23	20	32	130	e44	247	440	319	110	51	580	187
8	22	20	37	93	e41	316	500	287	116	51	286	172
9	21	19	37	85	e38	362	531	264	109	55	236	182
10	23	19	55	75	e36	311	563	254	100	51	247	155
11	23	21	48	e82	e34	288	472	252	87	68	272	143
12	22	21	40	e82	e30	e209	526	236	78	56	231	140
13	22	20	36	e80	e28	e150	550	218	74	56	208	123
14	22	20	33	e90	e36	e160	480	200	70	65	258	112
15	21	20	e29	e96	e48	e160	349	188	66	214	275	105
16	23	19	e28	e75	79	e150	322	176	64	321	213	99
17	22	19	e27	e66	135	e150	507	167	62	369	204	94
18	22	18	e26	e64	184	e160	596	183	60	550	197	91
19	22	19	e23	e64	186	e170	664	183	62	463	171	181
20	22	19	e23	e66	302	e170	602	178	64	469	162	351
21	22	19	e29	e66	346	e180	492	160	62	307	158	420
22	21	19	35	68	349	e170	471	149	62	204	140	435
23	21	19	37	71	333	e140	492	143	58	185	116	517
24	21	19	38	97	404	e160	454	144	59	278	106	564
25	21	19	e33	e132	327	e180	584	140	58	381	122	439
26	21	19	e29	e119	277	297	745	147	54	443	108	245
27	21	19	e30	e107	278	894	888	147	55	322	133	225
28	21	19	e26	e98	236	1150	725	155	53	358	189	235
29	21	24	e40	e90	e236	1260	487	147	51	442	338	235
30	20	23	e60	e82	---	1040	377	138	49	444	428	189
31	20	---	e98	e76	---	785	---	139	---	418	476	---
TOTAL	669	592	1115	2716	4370	10561	16422	7957	2547	6924	9102	7288
MEAN	21.6	19.7	36.0	87.6	151	341	547	257	84.9	223	294	243
MAX	23	24	98	132	404	1260	888	776	181	550	604	564
MIN	20	18	21	64	28	140	322	138	49	46	106	91
CFSM	.11	.10	.18	.44	.75	1.70	2.74	1.28	.42	1.12	1.47	1.21
IN.	.12	.11	.21	.51	.81	1.96	3.05	1.48	.47	1.29	1.69	1.36

e Estimated

04230500 OATKA CREEK AT GARBUTT, NY--Continued

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

MEAN	75.5	133	221	218	294	560	507	248	136	73.8	59.8	63.1
MAX	400	567	798	483	868	1048	1069	581	760	249	294	748
(WY)	1978	1986	1978	1979	1976	1956	1947	1984	1989	1972	1992	1977
MIN	18.0	17.2	20.1	22.9	33.4	244	117	113	45.6	31.8	22.5	19.2
(WY)	1966	1965	1961	1961	1958	1965	1946	1985	1949	1965	1965	1965

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1946 - 1992	
ANNUAL TOTAL	76562		70263			
ANNUAL MEAN	210		192		215	
HIGHEST ANNUAL MEAN					371	1978
LOWEST ANNUAL MEAN					117	1965
HIGHEST DAILY MEAN	2720	Apr 23	1260	Mar 29	6500	Mar 31 1960
LOWEST DAILY MEAN	18	Nov 18	18	Nov 18	13	a
ANNUAL SEVEN-DAY MINIMUM	19	Nov 16	19	Nov 16	14	Oct 26 1966
INSTANTANEOUS PEAK FLOW			1350	Mar 29	7050	Mar 31 1960
INSTANTANEOUS PEAK STAGE			5.44	Mar 29	8.64	Mar 31 1960
INSTANTANEOUS LOW FLOW			18	b	3.3	c
ANNUAL RUNOFF (CFSM)	1.05		.96		1.08	
ANNUAL RUNOFF (INCHES)	14.24		13.07		14.62	
10 PERCENT EXCEEDS	568		488		518	
50 PERCENT EXCEEDS	52		117		107	
90 PERCENT EXCEEDS	21		21		29	

a Oct. 30, 31, Nov. 1, 1966.
b Nov. 10, 17-20, 22-25, 26-28.
c Sept. 11, 12, 1958.

04230650 GENESEE RIVER AT BALLANTYNE BRIDGE, NEAR MORTIMER, NY

LOCATION.--Lat 43°05'32", long 77°40'50", Monroe County, Hydrologic Unit 04130003, on right bank 400 ft upstream from Ballantyne Bridge on State Highway 252, 1.6 mi west of Mortimer, and 2.8 mi upstream from Erie (Barge) Canal.

DRAINAGE AREA.--2,210 mi^2.

PERIOD OF RECORD.--October 1973 to current year.

REVISED RECORD.--WDR NY–82–3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--River regulated for operation of Erie (Barge) Canal, downstream powerplants, and at high stages by Mount Morris Lake (see station 04224000). Satellite gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 19.33 ft, Mar. 5, 1976; minimum recordable, 8.20 ft, Nov. 9, 1979, result of regulation.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 15.48 ft, Mar. 28; minimum, 9.19 ft, Nov. 13.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.18	11.20	11.61	11.47	11.38	11.43	13.26	13.18	11.39	11.12	13.81	11.63
2	11.22	11.02	11.46	10.89	11.36	11.37	13.30	13.29	11.48	11.15	13.09	11.57
3	11.25	10.99	11.26	11.50	11.32	11.23	13.07	14.26	11.47	11.16	12.95	11.52
4	11.01	10.63	11.37	11.40	10.76	11.31	12.77	14.24	11.27	11.21	13.33	11.61
5	11.13	9.84	11.47	11.49	11.10	11.12	12.46	13.86	11.29	11.13	13.60	11.87
6	11.12	9.74	11.06	11.71	11.37	11.53	12.53	13.61	11.40	11.21	12.86	11.52
7	11.22	9.44	10.33	11.67	11.05	11.53	12.39	13.31	11.33	11.23	12.66	11.35
8	11.19	9.44	10.44	11.53	11.06	11.65	12.53	13.09	11.45	11.15	12.47	11.41
9	11.05	9.47	11.19	11.48	11.14	11.81	12.92	12.72	11.29	11.16	12.19	11.29
10	11.16	9.44	11.36	11.23	10.83	11.36	12.90	11.92	11.24	11.33	12.29	11.17
11	11.25	9.41	11.37	11.50	11.20	11.32	13.58	11.62	11.17	11.17	12.57	11.29
12	11.23	9.45	11.09	11.52	11.09	11.26	13.73	11.50	11.23	11.15	12.59	11.24
13	11.23	9.27	10.98	11.17	11.27	11.16	13.25	11.41	11.33	11.32	12.40	11.37
14	11.16	9.31	11.06	10.82	11.33	11.18	12.36	11.36	11.28	11.25	12.01	11.38
15	11.23	9.43	11.23	11.41	11.30	11.43	10.95	11.32	11.29	11.32	11.43	11.27
16	11.19	9.69	11.24	11.57	11.36	11.05	11.47	11.34	11.34	12.05	11.43	11.28
17	11.17	9.86	11.03	11.59	11.40	10.69	12.57	11.35	11.31	12.30	11.44	11.47
18	11.04	10.23	10.79	11.70	11.53	10.96	13.09	11.49	11.37	12.98	11.42	11.39
19	11.16	10.61	11.09	11.25	11.59	11.36	13.38	11.84	11.31	13.05	11.27	11.48
20	11.16	10.38	11.15	11.17	11.81	11.50	13.28	11.69	11.28	12.04	11.53	11.57
21	11.25	10.28	11.51	11.38	11.75	11.71	13.37	11.54	11.42	11.64	11.37	11.42
22	11.24	10.06	11.47	11.33	11.57	11.66	13.61	11.35	11.28	11.90	11.34	11.73
23	11.19	10.21	10.94	11.53	11.81	11.20	13.76	11.32	11.29	11.95	11.30	12.39
24	11.19	10.55	10.51	11.49	11.76	10.61	13.47	11.37	11.31	12.57	11.41	12.69
25	11.15	11.21	11.34	11.78	11.62	10.27	13.51	11.50	11.33	12.36	11.34	12.98
26	11.05	10.88	11.10	12.04	12.43	10.94	13.96	11.33	11.16	12.38	11.09	12.68
27	11.19	10.57	11.01	11.67	12.00	13.13	13.78	11.28	11.36	12.53	11.43	12.43
28	11.22	10.44	11.09	11.29	11.60	15.25	13.47	11.38	11.27	12.67	11.64	12.41
29	11.25	10.84	11.18	11.43	11.41	14.25	13.24	11.38	11.15	12.43	12.12	12.12
30	11.21	11.29	10.71	11.48	---	13.74	13.14	11.32	11.39	12.95	12.38	11.60
31	11.20	---	11.42	11.37	---	13.50	---	11.22	---	12.85	11.92	---
MEAN	11.18	10.17	11.12	11.45	11.42	11.69	13.04	12.04	11.32	11.83	12.09	11.70
MAX	11.25	11.29	11.61	12.04	12.43	15.25	13.96	14.26	11.48	13.05	13.81	12.98
MIN	11.01	9.27	10.33	10.82	10.76	10.27	10.95	11.22	11.15	11.12	11.09	11.17

CAL YR	1991	MEAN	11.71	MAX	16.83	MIN	9.27	
WTR YR	1992	MEAN	11.59	MAX	15.25	MIN	9.27	

04231000 BLACK CREEK AT CHURCHVILLE, NY

LOCATION.--Lat 43°06'02", long 77°52'57", Monroe County, Hydrologic Unit 04130003, on right bank at east end of Carrol Street in Churchville, 100 ft downstream from mainline tracks of Penn Central Transportation Co., and 0.3 mi downstream from Black Creek Dam.

DRAINAGE AREA.--130 mi^2.

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

REVISED RECORDS.--WDR NY-82-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 551.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for Oct. 1 to Dec. 15 and those for estimated daily discharges, which are fair. Prior to May 1952, small diversion by Penn Central Transportation Co. and slight regulation by pumping operations upstream from station. Telephone gage-height telemeter and satellite gage-height and precipitation telemeter at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 29	0900	*a1,300	*b6.25	Aug. 30	1330	1,090	5.58
July 17	0930	963	5.27				

a About.
b Backwater from ice.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	6.2	25	e54	38	e110	562	170	97	22	226	335
2	6.7	6.5	18	e38	33	e100	516	203	109	18	399	164
3	5.4	4.0	24	e30	30	e90	490	377	91	20	339	121
4	4.3	3.5	29	e30	29	e86	387	590	67	31	246	135
5	5.9	3.4	24	37	27	e88	302	439	52	32	324	172
6	6.2	3.8	23	49	26	90	241	257	47	38	393	145
7	4.8	3.9	22	53	e24	106	208	186	47	34	267	102
8	5.5	4.6	28	38	e24	144	190	147	52	27	142	107
9	6.0	4.3	33	31	e22	182	185	130	51	43	102	87
10	7.9	4.6	30	31	e20	189	175	124	42	74	94	72
11	7.0	7.0	29	31	e18	171	172	129	35	55	83	66
12	8.3	6.8	25	27	e16	93	216	126	32	36	81	58
13	7.1	9.4	24	34	e16	e90	291	118	29	46	77	52
14	5.6	11	21	e38	e18	e80	264	109	27	78	80	48
15	7.0	14	15	e34	e20	e70	180	103	25	246	89	46
16	6.6	17	e13	e30	e40	e70	178	98	24	507	75	43
17	5.6	16	e11	e28	e56	e68	325	97	24	917	71	40
18	6.1	12	e9.2	e26	87	e66	521	111	22	656	74	41
19	12	9.5	e8.2	e22	119	e64	508	138	30	388	62	57
20	14	9.7	e8.0	e20	154	e64	399	116	35	283	53	82
21	14	11	e9.0	e18	194	e60	328	90	34	154	48	95
22	8.8	12	e11	e18	207	e64	318	75	30	81	42	191
23	8.1	11	e14	e26	188	e68	333	63	26	69	37	292
24	11	11	e16	e40	194	e64	373	58	27	80	34	423
25	10	8.6	e15	e50	230	e60	410	62	36	83	63	278
26	9.3	7.5	e13	e56	191	e130	497	65	34	75	95	142
27	8.7	8.4	e11	e50	152	e600	463	74	40	71	105	109
28	6.5	9.8	e11	e44	e130	e1000	333	80	48	66	180	102
29	5.7	20	e26	e40	e120	e1200	231	72	42	60	614	94
30	6.3	30	e54	40	---	814	184	62	30	59	994	79
31	6.6	---	e72	39	---	668	---	68	---	98	730	---
TOTAL	231.9	286.5	671.4	1102	2423	6749	9780	4537	1285	4447	6219	3778
MEAN	7.48	9.55	21.7	35.5	83.6	218	326	146	42.8	143	201	126
MAX	14	30	72	56	230	1200	562	590	109	917	994	423
MIN	4.3	3.4	8.0	18	16	60	172	58	22	18	34	40
CFSM	.06	.07	.17	.27	.64	1.67	2.51	1.13	.33	1.10	1.54	.97
IN.	.07	.08	.19	.32	.69	1.93	2.80	1.30	.37	1.27	1.78	1.08

e Estimated

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

MEAN	38.0	72.7	124	116	185	335	254	125	60.7	26.1	22.1	26.1
MAX	235	405	497	311	460	664	497	325	348	143	201	284
(WY)	1946	1971	1978	1969	1981	1971	1947	1956	1989	1992	1992	1977
MIN	2.61	6.07	5.68	6.15	15.4	122	51.6	38.1	10.7	3.75	2.55	1.66
(WY)	1964	1965	1961	1961	1958	1989	1946	1949	1949	1965	1965	1959

04231000 BLACK CREEK AT CHURCHVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1946 - 1992	
ANNUAL TOTAL	40737.6		41509.8			
ANNUAL MEAN	112		113		115	
HIGHEST ANNUAL MEAN					207	1978
LOWEST ANNUAL MEAN					52.3	1953
HIGHEST DAILY MEAN	1870	Apr 23	1200	Mar 29	4120	Mar 31 1960
LOWEST DAILY MEAN	1.3	Sep 21	3.4	Nov 5	.30	Aug 5 1959
ANNUAL SEVEN-DAY MINIMUM	1.9	Sep 17	3.9	Nov 3	.47	Aug 3 1959
INSTANTANEOUS PEAK FLOW			a1300	Mar 29	4880	Mar 31 1960
INSTANTANEOUS PEAK STAGE			b6.25	Mar 29	9.44	Mar 31 1960
INSTANTANEOUS LOW FLOW			3.0	Nov 5	.22	Aug 19 1970
ANNUAL RUNOFF (CFSM)	.86		.87		.89	
ANNUAL RUNOFF (INCHES)	11.66		11.88		12.03	
10 PERCENT EXCEEDS	289		320		289	
50 PERCENT EXCEEDS	20		53		47	
90 PERCENT EXCEEDS	3.4		8.2		6.5	

a About.
b Backwater from ice.

04232000 GENESEE RIVER AT ROCHESTER, NY

LOCATION.--Lat 43°10'50", long 77°37'40", Monroe County, Hydrologic Unit 04130003, on right bank 40 ft downstream from Rochester Gas and Electric Corp. plant 5,100 ft upstream from bridge on Driving Park Avenue in Rochester, and 6.4 mi upstream from mouth.

DRAINAGE AREA.--2,467 mi^2.

PERIOD OF RECORD.--April 1904 to September 1918, December 1919 to current year. Published as "at Driving Park Avenue," 1919–68.

REVISED RECORDS.--WSP 1912; WDR NY–82–3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 244.24 ft (revised) above National Geodetic Vertical Datum of 1929 (245.00 ft, Barge Canal datum). April 1904 to December 1910, nonrecording gage and December 1910 to September 1918, water-stage recorder at site 5 mi upstream at datum 506.85 ft, Barge Canal datum. December 1919 to Apr. 4, 1927, water-stage recorder in plant 5, and Apr. 4, 1927 to June 19, 1956, at present site at datum 2.00 ft higher. June 20, 1956 to Sept. 30, 1986, at present site at datum 2.00 ft higher.

REMARKS.--Records poor. Extensive diurnal fluctuation caused by powerplants upstream from station. New York State Erie (Barge) Canal crosses river 5.4 mi upstream from station. Water diverted by the canal from Lake Erie is discharged into river from the west, the canal again diverting a smaller amount of water from river to the east. Additional regulation is provided by Rushford Lake, Mount Morris Lake (see station 04224000), and Conesus Lake (see station 04227980).

EXTREMES OUTSIDE PERIOD OF RECORD.--Discharge on Mar. 18, 1865, was about 54,000 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Maximum discharge, 11,500 ft^3/s, May 4 at 0015 hours, gage height, 11.89 ft, result of regulation.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e364	e509	545	2330	1410	2960	7720	6600	1660	667	7950	2780
2	e495	e337	631	1850	1090	2840	7230	7330	1850	580	7360	2100
3	e541	e521	e686	1240	1170	2390	7400	8900	1970	594	6710	1890
4	e436	924	989	1660	1040	2270	7060	9570	1880	532	7250	2170
5	e366	524	1990	1580	883	1940	5970	7760	1380	824	8190	2640
6	e442	e434	1800	2350	796	2110	5640	7840	1420	e516	6830	2350
7	e582	e354	1710	2470	950	2460	5840	7290	1490	e542	5850	1660
8	772	e317	920	2210	727	3060	5310	6550	1570	e540	5470	1450
9	e626	e287	1520	1730	e785	3870	6210	6180	1600	e546	4980	1450
10	629	e278	1730	1550	592	3830	6160	4180	1340	819	4490	1300
11	e523	e296	1870	1530	668	3550	7080	2930	1140	835	5220	1220
12	e412	e322	1710	1640	606	3490	7740	2670	1030	770	5890	1330
13	e581	e346	1560	1540	669	3310	6910	2450	850	713	5670	1080
14	675	e382	922	1590	512	3200	5480	2120	936	1140	4560	1080
15	771	e414	618	1820	672	3360	3950	2120	846	2020	2490	1010
16	e750	e458	e823	2390	745	3130	4280	1980	740	4000	1960	915
17	842	511	1000	1950	1120	2990	6350	1840	823	5020	1860	758
18	e530	511	990	1490	1550	2430	6880	1580	721	6680	1690	970
19	e488	e514	986	1090	1590	2390	7160	2030	844	7490	1570	1350
20	615	e466	699	1020	2050	2480	7270	2200	767	5160	1260	1920
21	e687	e426	858	904	2620	2260	7380	1880	851	3870	1230	1730
22	740	e415	900	1060	2730	2360	7580	1700	1090	3240	1140	2450
23	e698	e407	1330	1260	3030	2440	7740	1310	745	3870	1030	5110
24	665	511	687	1580	3550	2160	7600	1410	732	5170	1010	5360
25	e514	785	640	1770	4010	2010	7700	1040	840	5030	1100	5820
26	e378	801	964	2390	5280	2560	8600	1650	670	4900	1170	5680
27	e588	702	779	2270	5050	7300	8080	1420	e520	5190	1200	5520
28	e652	511	522	1790	4460	11000	7290	1300	794	5750	2290	5100
29	721	511	966	1390	3640	9610	7060	1480	681	5460	4200	4560
30	716	511	1060	1570	---	8810	6640	1290	666	6110	5670	3060
31	752	---	1960	1350	---	8490	---	1470	---	6210	4460	---
TOTAL	18551	14285	34365	52364	53995	117060	203310	110070	32446	94788	121750	75813
MEAN	598	476	1109	1689	1862	3776	6777	3551	1082	3058	3927	2527
MAX	842	924	1990	2470	5280	11000	8600	9570	1970	7490	8190	5820
MIN	364	278	522	904	512	1940	3950	1040	520	516	1010	758

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1992, BY WATER YEAR (WY)

MEAN	1443	2093	2747	2802	3219	6296	5964	3515	2083	1336	987	1024
MAX	7095	7383	9973	8830	9157	14300	14160	10230	7311	8524	3927	6722
(WY)	1978	1928	1928	1913	1925	1945	1940	1943	1972	1972	1992	1977
MIN	338	436	502	152	560	2213	1561	1140	479	350	229	199
(WY)	1914	1910	1910	1961	1920	1937	1946	1915	1915	1913	1913	1913

04232000 GENESEE RIVER AT ROCHESTER, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1904 - 1918 1920 - 1992	
ANNUAL TOTAL	855558		928797			
ANNUAL MEAN	2344		2538		2796	
HIGHEST ANNUAL MEAN					4426	1978
LOWEST ANNUAL MEAN					1666	1965
HIGHEST DAILY MEAN	13000	Apr 23	11000	Mar 28	46300	Mar 31 1916
LOWEST DAILY MEAN	278	Nov 10	278	Nov 10	91	a
ANNUAL SEVEN-DAY MINIMUM	314	Nov 7	314	Nov 7	104	Jan 26 1961
INSTANTANEOUS PEAK FLOW			11500	May 4	b48300	Mar 30 1916
INSTANTANEOUS PEAK STAGE			11.89	May 4	17.08	Apr 2 1940
INSTANTANEOUS LOW FLOW			278	Nov 10	c	
10 PERCENT EXCEEDS	6130		6750		6720	
50 PERCENT EXCEEDS	858		1570		1570	
90 PERCENT EXCEEDS	370		521		580	

a Jan. 9, 29, Feb. 1, 8, 1961.

b Site and datum then in use; maximum at present site, 34,400 ft^3/s, Mar. 19, 1942.

c Minimum discharge, less than 10 ft^3/s, occurred during low-water periods in some years when powerplant was shut down.

04232006 GENESEE RIVER AT CHARLOTTE DOCKS AT ROCHESTER, NY

(National stream-quality accounting network station)

WATER QUALITY RECORDS

LOCATION.--Lat 43°13'26", long 77°36'59", Monroe County, Hydrologic Unit 04130003, at Charlotte Docks, at the Rochester Cement Corp., in Rochester, 0.4 mi upstream from Rattlesnake Point, 1.6 mi upstream from Stutson Street Bridge, and 3.6 mi downstream from gaging station (04232000) at Rochester.

DRAINAGE AREA.--2,467 mi^2 at station 04232000.

PERIOD OF RECORD.--Water years 1971 to current year.
CHEMICAL DATA: 1971-72 (a), 1974 (b), 1975-82 (c), 1983-87 (b), 1988 (c), 1989-90(d), 1991 (c), 1992 (b).
MINOR ELEMENTS DATA: 1971-73 (a), 1974-87 (b), 1988 (c), 1989-90 (d), 1991 (c), 1992 (b).
ORGANIC DATA: OC--1974 (a), 1975 (b), 1977 (b), 1978-80 (c), 1981 (b).
NUTRIENT DATA: 1971 (a), 1974 (b), 1975-82 (c), 1983-90 (b), 1991 (c), 1992 (b).
BIOLOGICAL DATA:
Bacteria--1974 (b), 1975-82 (c), 1983-92 (b).
Phytoplankton--1974 (b), 1975-77 (c), 1978-81 (b).
Periphyton--1975-80 (b).
SEDIMENT DATA:1974 (b), 1975-82 (c), 1983-87 (b), 1988 (c), 1989-90 (d), 1991 (c), 1992 (b).

REMARKS.--Water-discharge data are based on records for station 04232000 Genesee River at Rochester. Water-quality samples collected by the New York State Department of Environmental Conservation were grab samples collected from the dock at Genesee Docks.

COOPERATION.--Water-quality analyses identified by an (*) were collected by the New York State Department of Environmental Conservation.

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 (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT											
*28.....	1100	652	--	6.9	15.0	--	748	10.2	--	--	--
NOV											
12.....	1000	322	1200	7.9	9.0	2.4	763	9.1	79	740	430
APR											
28.....	1100	7290	343	8.0	11.0	40	765	11.9	108	340	110
JUN											
17.....	1000	823	886	7.9	24.0	6.2	755	7.8	94	K36	K20
AUG											
12.....	1000	5900	400	8.0	20.5	31	765	9.5	105	180	240

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)	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)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT											
*28.....	--	--	--	--	--	--	--	--	--	--	--
NOV											
12.....	240	72	14	130	4.6	120	110	200	0.30	1.8	608
APR											
28.....	140	42	9.0	15	2.0	92	51	29	0.20	3.8	208
JUN											
17.....	280	84	16	70	3.4	162	110	120	0.20	1.5	522
AUG											
12.....	150	44	8.7	22	2.5	104	39	37	0.10	5.0	232

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

04232006 GENESEE RIVER AT CHARLOTTE DOCKS AT ROCHESTER, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NITRITE 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										
*28.....	--	--	--	--	--	--	--	--	--	200
NOV										
12.....	610	0.78	0.59	0.55	0.08	0.80	< 0.01	0.02	0.01	--
APR										
28.....	211	0.84	0.10	0.11	< 0.01	0.40	0.04	< 0.01	< 0.01	--
JUN										
17.....	507	0.69	0.33	0.35	0.04	0.90	0.03	0.01	< 0.01	--
AUG										
12.....	224	0.66	0.05	0.07	0.02	0.40	0.05	0.02	0.01	--

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										
*28.....	--	--	< 1	--	16	380	--	4	--	50
NOV										
12.....	< 10	54	--	< 3	--	--	14	--	28	--
APR										
28.....	< 10	30	--	< 3	--	--	23	--	< 4	--
JUN										
17.....	10	50	--	< 3	--	--	< 3	--	19	--
AUG										
12.....	< 10	32	--	< 3	--	--	38	--	< 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, DIS-SOLVED (UG/L AS NI)	NICKEL, TOTAL RECOV-ERABLE (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										
*28.....	--	< 0.10	--	--	3	--	--	--	--	10
NOV										
12.....	79	--	< 10	3	--	< 1	< 1.0	800	< 6	--
APR										
28.....	9	--	< 10	1	--	< 1	< 1.0	340	< 6	--
JUN										
17.....	20	--	< 10	3	--	< 1	< 1.0	1000	< 6	--
AUG										
12.....	5	--	< 10	< 1	--	< 1	< 1.0	310	< 6	--

04232006 GENESEE RIVER AT CHARLOTTE DOCKS AT ROCHESTER, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET)	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
NOV								
12	1005	40	24.0	3.0	1180	7.6	9.5	9.3
12	1010	40	24.0	10.0	1210	7.8	9.0	9.0
12	1015	40	24.0	15.0	1270	7.8	9.0	8.9
12	1020	40	24.0	20.0	1300	7.9	9.0	9.2
12	1025	100	18.0	3.0	1190	7.9	9.0	9.1
12	1030	100	18.0	7.0	1200	7.9	9.0	8.9
12	1035	100	18.0	11.0	1230	8.0	9.0	9.0
12	1040	100	18.0	15.0	1270	7.9	9.0	8.8
12	1045	180	14.0	3.0	1180	8.0	9.0	9.6
12	1050	180	14.0	6.0	1190	7.9	9.0	9.2
12	1055	180	14.0	9.0	1200	8.0	9.0	9.2
12	1100	180	14.0	12.0	1230	8.0	9.0	9.1
APR 1992								
28	1105	20	22.0	3.0	344	8.0	11.5	11.9
28	1110	20	22.0	10.0	343	7.9	11.5	11.9
28	1115	20	22.0	15.0	344	7.9	11.5	11.9
28	1120	20	22.0	20.0	338	7.9	11.0	11.9
28	1125	100	16.0	3.0	340	8.0	11.0	11.9
28	1130	100	16.0	9.0	343	8.0	11.0	11.9
28	1135	100	16.0	14.0	347	7.9	11.0	11.6
28	1140	180	15.0	3.0	344	8.0	11.0	11.9
28	1145	180	15.0	8.0	342	8.0	11.0	11.7
28	1150	180	15.0	13.0	340	7.9	11.0	11.6
JUN								
17	1005	40	22.0	3.0	880	8.1	24.5	8.6
17	1010	40	22.0	10.0	879	8.0	24.0	8.0
17	1015	40	22.0	15.0	880	7.9	24.0	7.4
17	1020	40	22.0	20.0	880	7.9	24.0	6.8
17	1030	100	16.0	3.0	892	7.9	24.0	8.4
17	1035	100	16.0	7.0	891	7.9	24.0	8.2
17	1040	100	16.0	10.0	889	7.9	23.5	7.8
17	1045	100	16.0	14.0	888	7.9	23.5	7.4
17	1055	180	16.0	3.0	887	8.0	24.5	8.3
17	1100	180	16.0	7.0	887	7.9	24.0	7.8
17	1105	180	16.0	10.0	886	7.9	24.0	7.7
17	1110	180	16.0	14.0	886	7.9	24.0	7.7
AUG								
12	1005	20	24.0	3.0	399	8.0	20.5	9.4
12	1010	20	24.0	7.0	398	8.0	20.5	9.3
12	1015	20	24.0	15.0	401	8.0	20.5	9.3
12	1020	20	24.0	22.0	400	8.0	20.5	9.1
12	1025	100	16.0	3.0	402	8.0	20.5	9.5
12	1030	100	16.0	7.0	403	8.0	20.5	9.3
12	1035	100	16.0	10.0	401	8.0	20.5	9.2
12	1040	100	16.0	15.0	401	8.0	20.5	9.2
12	1045	180	12.0	3.0	401	8.0	20.5	9.6
12	1050	180	12.0	7.0	402	8.0	20.5	9.2
12	1055	180	12.0	10.0	408	8.0	20.5	9.2

04232006 GENESEE RIVER AT CHARLOTTE DOCKS AT ROCHESTER, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, 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					
*28	1100	652	9	16	--
NOV					
12	1000	322	6	5.2	99
APR					
28	1100	7290	155	3050	86
JUN					
17	1000	823	11	24	96
AUG					
12	1000	5900	84	1340	97

04232034 IRONDEQUOIT CREEK AT RAILROAD MILLS NEAR FISHERS, NY

LOCATION.--Lat 43°01'40", long 77°28'42", Ontario County, Hydrologic Unit 04140101, on right bank 90 ft upstream from bridge on Railroad Mills Road, 1.5 mi northwest of Fishers, and 4.0 mi southwest of Fairport.

DRAINAGE AREA.--39.2 mi^2.

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

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

REMARKS.--Records good except those for estimated daily discharges, which are fair. Unpublished water-quality records are available in files of Monroe County Department of Health. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT PERIOD.--July 1991 to September 1992: Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27,1992	2115	*515	*9.15	Aug. 29, 1992	1330	316	7.44

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	13	9.8	10
2	---	---	---	---	---	---	---	---	---	13	9.5	10
3	---	---	---	---	---	---	---	---	---	12	14	10
4	---	---	---	---	---	---	---	---	---	13	13	13
5	---	---	---	---	---	---	---	---	---	27	12	12
6	---	---	---	---	---	---	---	---	---	22	12	11
7	---	---	---	---	---	---	---	---	---	25	12	11
8	---	---	---	---	---	---	---	---	---	18	11	11
9	---	---	---	---	---	---	---	---	---	14	21	11
10	---	---	---	---	---	---	---	---	---	13	18	12
11	---	---	---	---	---	---	---	---	---	13	15	14
12	---	---	---	---	---	---	---	---	---	12	14	12
13	---	---	---	---	---	---	---	---	---	14	13	12
14	---	---	---	---	---	---	---	---	---	14	12	12
15	---	---	---	---	---	---	---	---	---	14	13	13
16	---	---	---	---	---	---	---	---	---	13	13	12
17	---	---	---	---	---	---	---	---	---	12	12	12
18	---	---	---	---	---	---	---	---	---	12	11	12
19	---	---	---	---	---	---	---	---	---	11	11	13
20	---	---	---	---	---	---	---	---	---	10	14	12
21	---	---	---	---	---	---	---	---	---	12	17	12
22	---	---	---	---	---	---	---	---	---	12	13	12
23	---	---	---	---	---	---	---	---	---	13	12	12
24	---	---	---	---	---	---	---	---	---	12	12	12
25	---	---	---	---	---	---	---	---	---	10	12	20
26	---	---	---	---	---	---	---	---	14	10	11	17
27	---	---	---	---	---	---	---	---	13	10	11	13
28	---	---	---	---	---	---	---	---	12	10	10	12
29	---	---	---	---	---	---	---	---	12	10	10	12
30	---	---	---	---	---	---	---	---	13	10	10	12
31	---	---	---	---	---	---	---	---	---	10	10	---
TOTAL	---	---	---	---	---	---	---	---	---	414	388.3	369
MEAN	---	---	---	---	---	---	---	---	---	13.4	12.5	12.3
MAX	---	---	---	---	---	---	---	---	---	27	21	20
MIN	---	---	---	---	---	---	---	---	---	10	9.5	10
CFSM	---	---	---	---	---	---	---	---	---	.34	.32	.31
IN.	---	---	---	---	---	---	---	---	---	.39	.37	.35

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

MEAN	---	---	---	---	---	---	---	---	---	13.4	12.5	12.3
MAX	---	---	---	---	---	---	---	---	---	13.4	12.5	12.3
(WY)	---	---	---	---	---	---	---	---	---	1991	1991	1991
MIN	---	---	---	---	---	---	---	---	---	13.4	12.5	12.3
(WY)	---	---	---	---	---	---	---	---	---	1991	1991	1991

04232034 IRONDEQUOIT CREEK AT RAILROAD MILLS, NEAR FISHERS, NY--continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	13	21	e28	e20	e34	85	44	55	14	176	36
2	13	13	19	e21	e17	e32	80	72	44	13	61	31
3	12	13	45	e21	e18	e29	61	179	30	24	50	44
4	12	13	36	e23	e18	e26	55	82	e25	26	149	66
5	14	13	e24	34	e18	e28	46	57	e24	e21	109	40
6	18	13	e22	34	e19	e30	41	48	32	18	49	32
7	15	13	e24	28	e18	e46	39	42	36	17	33	29
8	13	14	30	e23	e19	77	37	37	29	17	46	26
9	13	14	28	e23	e16	62	34	36	e28	45	54	24
10	16	14	25	e24	e16	50	33	35	e28	e30	39	24
11	17	25	25	e23	e17	e36	40	e31	e25	e20	32	23
12	15	24	23	e21	e16	e31	80	e26	e22	e17	31	23
13	15	23	23	28	e16	e31	49	e24	e21	23	34	23
14	14	27	e23	47	e16	e32	37	e23	e20	45	37	21
15	17	20	e20	e39	e19	e31	35	e22	e19	161	29	19
16	20	18	e18	e31	49	e26	55	e22	e18	104	30	18
17	15	16	e17	e28	45	e25	151	e23	e18	83	32	17
18	14	16	e16	e26	e32	e27	91	43	e18	237	28	18
19	14	16	e16	e24	e36	e30	100	32	e30	80	29	49
20	14	16	e14	e20	e45	e39	62	e25	e26	47	27	26
21	14	17	e17	e19	e42	e35	51	e23	e20	49	24	31
22	13	17	e18	e19	e33	e28	70	e22	e18	37	22	73
23	13	18	e17	e24	e46	e25	53	e21	e17	53	20	74
24	13	19	e17	e52	e36	e26	67	e21	e17	58	19	35
25	13	18	e16	e33	e38	e36	62	e21	e18	38	22	28
26	13	17	e18	e22	56	120	53	e26	17	35	20	41
27	13	16	e16	e22	43	381	50	31	27	36	41	66
28	13	16	e17	e21	37	273	45	e27	e19	33	155	69
29	13	30	44	e21	40	119	42	e25	17	49	263	37
30	13	26	71	e21	---	121	43	e23	e14	66	88	30
31	13	---	e36	e21	---	94	---	53	---	133	50	---
TOTAL	437	528	756	821	841	1980	1747	1196	732	1629	1799	1073
MEAN	14.1	17.6	24.4	26.5	29.0	63.9	58.2	38.6	24.4	52.5	58.0	35.8
MAX	20	30	71	52	56	381	151	179	55	237	263	74
MIN	12	13	14	19	16	25	33	21	14	13	19	17
CFSM	.36	.45	.62	.68	.74	1.63	1.49	.98	.62	1.34	1.48	.91
IN.	.41	.50	.72	.78	.80	1.88	1.66	1.13	.69	1.55	1.71	1.02

e Estimated

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

MEAN	14.1	17.6	24.4	26.5	29.0	63.9	58.2	38.6	24.4	33.0	35.3	24.0
MAX	14.1	17.6	24.4	26.5	29.0	63.9	58.2	38.6	24.4	52.5	58.0	35.8
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992
MIN	14.1	17.6	24.4	26.5	29.0	63.9	58.2	38.6	24.4	13.4	12.5	12.3
(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	13539			
ANNUAL MEAN	37.0		37.0	
HIGHEST ANNUAL MEAN			37.0	1992
LOWEST ANNUAL MEAN			37.0	1992
HIGHEST DAILY MEAN	381	Mar 27	381	Mar 27 1992
LOWEST DAILY MEAN	12	a	9.5	Aug 2 1991
ANNUAL SEVEN-DAY MINIMUM	13	Oct 22	9.9	Jul 27 1991
INSTANTANEOUS PEAK FLOW	515	Mar 27	515	Mar 27 1992
INSTANTANEOUS PEAK STAGE	9.15	Mar 27	9.15	Mar 27 1992
INSTANTANEOUS LOW FLOW	11	Dec 20	8.5	Aug 2 1991
ANNUAL RUNOFF (CFSM)	.94		.94	
ANNUAL RUNOFF (INCHES)	12.85		12.82	
10 PERCENT EXCEEDS	66		55	
50 PERCENT EXCEEDS	26		22	
90 PERCENT EXCEEDS	15		12	

a Oct. 1, 3, 4.

0423204920 EAST BRANCH ALLEN CREEK AT PITTSFORD, NY

LOCATION.--Lat 43°06'11", long 77°32'01", Monroe County, Hydrologic Unit 04140101, on left bank 25 ft upstream from culvert of abandoned Conrail railroad, 0.2 mi downstream from State Highway 31, 0.7 mi northwest of Pittsford and 1.8 mi upstream from mouth.

DRAINAGE AREA.--6.96 mi^2, revised.

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

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Unpublished water-quality records are available in files of Monroe County Health Department. Discharge includes undetermined diversion from Erie (Barge) Canal upstream from station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Maximum discharge, 319 ft^3/s, Aug. 22, gage height, 7.18 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	3.5	1.3	e2.1	e2.0	e5.0	23	7.3	15	3.9	10	10
2	2.5	3.5	1.1	e1.8	e1.7	e4.4	14	39	7.4	2.4	4.1	8.1
3	2.3	3.4	17	e2.7	e1.6	e3.8	10	67	6.6	4.8	21	52
4	2.4	2.5	e2.6	3.9	e2.0	e3.6	8.6	19	4.3	2.4	112	25
5	2.9	1.8	e1.5	4.6	e1.8	e3.8	6.9	13	3.4	4.3	23	4.3
6	3.6	1.8	e1.4	3.8	e1.8	e4.6	5.2	11	14	2.8	5.3	2.6
7	3.2	1.9	e2.9	3.3	e1.6	e20	5.2	8.3	4.7	2.7	3.3	2.0
8	3.6	2.0	2.4	e2.1	e1.6	22	4.6	7.0	4.6	6.6	7.8	1.8
9	3.7	1.8	2.3	e2.1	e1.5	e16	4.5	9.7	2.9	9.9	5.6	1.7
10	9.7	1.9	1.7	e2.5	e1.3	e12	4.2	8.3	2.4	4.2	4.5	2.0
11	3.4	7.4	1.6	e2.2	e1.3	e7.6	26	6.3	2.3	3.6	4.1	2.5
12	3.4	4.1	1.6	e2.2	e1.3	e5.8	46	6.4	2.4	4.0	3.1	2.3
13	3.1	2.3	2.0	e2.5	e1.3	e5.4	9.9	5.5	2.1	9.0	4.5	1.8
14	3.0	1.4	1.7	e9.0	e1.6	e5.4	6.5	4.6	2.6	18	3.8	1.8
15	8.9	2.1	e1.3	e4.0	e4.8	e5.0	4.9	4.0	2.8	79	2.9	1.8
16	4.6	1.3	e1.1	e3.4	19	e5.2	37	3.6	3.0	18	3.7	1.7
17	3.5	1.1	e1.1	e2.8	e6.2	e5.0	74	3.2	3.0	52	2.8	1.5
18	3.1	1.0	e1.0	e2.2	e7.4	e6.4	30	6.1	3.1	58	2.3	7.1
19	4.6	1.0	e1.0	e2.0	e15	12	24	4.0	7.5	12	2.6	6.9
20	3.1	1.1	e1.0	e1.8	15	e11	11	3.8	3.7	9.0	2.4	1.9
21	3.0	1.5	e1.8	e1.5	e8.4	e7.0	11	3.2	3.2	4.9	2.4	8.4
22	3.2	1.3	1.8	e1.6	e7.4	e5.6	29	3.8	3.2	3.6	2.6	16
23	3.4	1.1	e2.0	e13	e14	e4.6	10	4.8	3.1	20	3.1	5.6
24	3.3	1.8	e1.4	e14	e8.8	e4.0	30	6.1	8.7	8.0	5.7	2.6
25	3.3	1.1	e1.3	e4.8	e9.4	e13	14	4.7	3.8	5.0	26	2.0
26	3.3	1.3	e1.3	e3.0	13	50	12	7.3	3.2	5.3	4.1	7.1
27	3.5	1.4	e1.2	e2.6	e7.2	167	8.4	6.9	8.5	4.1	91	13
28	3.5	1.6	e1.3	e2.4	e10	53	7.2	6.3	3.7	3.1	140	4.6
29	3.4	7.1	e21	e2.5	e9.4	38	7.4	5.0	3.1	4.9	125	2.4
30	3.6	1.9	e8.4	e2.2	---	32	6.9	6.3	3.0	3.1	29	2.4
31	3.6	---	e2.9	e2.2	---	24	---	13	---	14	16	---
TOTAL	115.5	67.0	92.0	110.8	177.4	562.2	491.4	304.5	141.3	382.6	673.7	202.9
MEAN	3.73	2.23	2.97	3.57	6.12	18.1	16.4	9.82	4.71	12.3	21.7	6.76
MAX	9.7	7.4	21	14	19	167	74	67	15	79	140	52
MIN	2.3	1.0	1.0	1.5	1.3	3.6	4.2	3.2	2.1	2.4	2.3	1.5
CFSM	.54	.32	.43	.51	.88	2.61	2.35	1.41	.68	1.77	3.12	.97
IN.	.62	.36	.49	.59	.95	3.00	2.63	1.63	.76	2.04	3.60	1.08

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1992, BY WATER YEAR (WY)

MEAN	7.02	4.65	10.6	6.97	7.86	22.4	17.5	10.5	4.24	6.75	9.72	4.79
MAX	10.3	7.06	18.1	10.4	9.67	26.7	18.7	16.4	4.71	12.3	21.7	6.76
(WY)	1991	1991	1991	1991	1991	1991	1991	1990	1992	1992	1992	1992
MIN	3.73	2.23	2.97	3.57	6.12	18.1	16.4	5.35	3.96	3.67	2.97	3.25
(WY)	1992	1992	1992	1992	1992	1992	1992	1991	1991	1991	1991	1991

0423204920 EAST BRANCH ALLEN CREEK AT PITTSFORD, NY--continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1990 - 1992	
ANNUAL TOTAL	2843.3		3321.3			
ANNUAL MEAN	7.79		9.07		9.55	
HIGHEST ANNUAL MEAN					10.0	1991
LOWEST ANNUAL MEAN					9.07	1992
HIGHEST DAILY MEAN	230	Mar 4	167	Mar 27	230	Mar 4 1991
LOWEST DAILY MEAN	1.0	a	1.0	a	1.0	b
ANNUAL SEVEN-DAY MINIMUM	1.2	Nov 17	1.2	Nov 17	1.2	Nov 17 1991
INSTANTANEOUS PEAK FLOW			319	Aug 27	319	Aug 27 1992
INSTANTANEOUS PEAK STAGE			7.18	Aug 27	7.18	Aug 27 1992
INSTANTANEOUS LOW FLOW			.95	c	.95	d
ANNUAL RUNOFF (CFSM)	1.12		1.30		1.37	
ANNUAL RUNOFF (INCHES)	15.20		17.75		18.65	
10 PERCENT EXCEEDS	17		18		18	
50 PERCENT EXCEEDS	3.5		3.8		4.0	
90 PERCENT EXCEEDS	1.8		1.6		2.0	

a Nov. 18, 19, Dec. 18-20.
b Nov. 18, 19, Dec. 18-20, 1991.
c Nov. 20, 26.
d Nov. 20, 26, 1991.

04232050 ALLEN CREEK NEAR ROCHESTER, NY

LOCATION.--Lat 43°07'49", long 77°31'08", Monroe County, Hydrologic Unit 04140101, on right bank 525 ft downstream from Penn Central Transportation Co. bridge, near Rochester, and about 1.3 mi upstream from Irondequoit Creek.

DRAINAGE AREA.--30.1 mi^2, flow from 3.5 mi^2 noncontributing.

PERIOD OF RECORD.--November 1959 to current year.

REVISED RECORDS.--WRD NY 1974: 1972(M), 1973(M, P). WDR NY–76–1: 1960–75 (M, P), 1960–63, 1972–74.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 323.54 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect and missing record), which are fair. Discharge prior to January 1980 included undetermined diversion (maximum 20 ft^3/s) from Erie (Barge) Canal upstream from station. January 1980 to present, diversion reduced to a maximum of 3 ft^3/s for use by several golf courses adjacent to stream. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27	1045	*773	*4.67	July 17	2315	582	4.37
May 2	2300	600	4.40				

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	11	9.9	12	e7.8	e19	70	18	43	11	36	e21
2	13	11	6.8	e8.5	e7.1	e17	49	118	21	11	16	15
3	10	12	66	e7.4	e6.5	e14	34	209	16	28	119	67
4	9.9	11	19	11	e6.8	e12	27	53	13	19	214	40
5	11	11	e9.2	18	e6.4	e13	21	34	12	24	62	21
6	14	11	e7.4	13	e6.5	e15	17	27	48	15	28	15
7	10	7.6	e13	e9.2	e6.4	53	17	23	32	13	19	12
8	9.9	7.2	12	e8.5	e6.2	59	15	20	34	21	35	10
9	9.7	6.6	12	e9.2	e6.2	47	14	23	17	48	25	8.6
10	27	5.7	9.0	e10	e5.8	e33	13	26	14	17	19	8.1
11	18	25	7.2	e9.2	e5.8	e20	59	19	12	16	18	7.8
12	15	24	6.5	e8.2	e5.6	e21	129	17	12	17	11	6.8
13	14	15	7.4	e10	e5.7	e22	37	16	11	47	15	6.2
14	12	9.1	7.3	32	e5.6	e22	25	14	10	54	14	6.4
15	20	12	e6.4	15	e19	e20	18	14	10	191	10	6.4
16	22	9.8	e5.2	e10	61	e18	110	13	11	50	14	6.8
17	14	6.1	e5.2	e9.2	26	e20	226	13	11	138	11	5.9
18	12	4.7	e5.0	e8.8	27	e25	91	25	11	188	8.3	11
19	17	4.2	e4.6	e8.4	45	e36	73	14	24	41	9.9	36
20	13	4.3	e4.2	e8.0	39	e39	41	13	16	37	7.5	10
21	12	7.3	e6.7	e7.0	30	e26	43	11	13	23	6.6	36
22	11	6.4	10	e6.4	26	e20	111	11	12	14	5.8	65
23	12	5.0	e7.8	e35	48	e21	42	11	11	55	6.3	26
24	11	8.9	e7.8	49	29	e19	101	19	30	26	5.8	14
25	11	7.5	e6.6	19	28	e36	52	13	17	17	e41	11
26	11	4.8	e5.7	13	30	108	43	23	13	19	e14	32
27	11	6.5	e5.3	e9.6	e22	537	29	19	30	15	e170	42
28	10	5.4	e5.1	e9.0	e28	167	22	15	20	12	e250	24
29	11	42	e81	e8.7	36	104	18	13	14	18	e250	14
30	11	17	52	e8.4	---	91	18	17	12	12	e100	11
31	11	---	20	e8.5	---	71	---	41	---	39	e31	---
TOTAL	405.5	319.1	431.3	399.2	582.4	1725	1565	902	550	1236	1572.2	596.0
MEAN	13.1	10.6	13.9	12.9	20.1	55.6	52.2	29.1	18.3	39.9	50.7	19.9
MAX	27	42	81	49	61	537	226	209	48	191	250	67
MIN	9.7	4.2	4.2	6.4	5.6	12	13	11	10	11	5.8	5.9

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1992, BY WATER YEAR (WY)

MEAN	26.6	32.2	31.6	22.1	35.7	57.8	46.8	34.8	28.7	23.0	25.8	24.1
MAX	74.8	102	89.7	50.4	94.9	131	80.7	103	78.4	63.0	50.7	60.5
(WY)	1978	1973	1978	1969	1981	1960	1969	1974	1972	1976	1992	1977
MIN	7.99	7.42	4.80	4.40	10.4	22.6	17.8	12.8	11.2	7.18	8.84	6.07
(WY)	1962	1961	1961	1963	1989	1981	1981	1980	1991	1960	1961	1961

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1960 - 1992	
ANNUAL TOTAL	9065.0		10283.7			
ANNUAL MEAN	24.8		28.1		32.1	
HIGHEST ANNUAL MEAN					50.6	1978
LOWEST ANNUAL MEAN					16.9	1962
HIGHEST DAILY MEAN	899	Mar 4	537	Mar 27	1970	Mar 30 1960
LOWEST DAILY MEAN	4.2	a	4.2	a	1.7	Jan 24 1963
ANNUAL SEVEN-DAY MINIMUM	5.3	Dec 15	5.3	Dec 15	2.3	Feb 15 1962
INSTANTANEOUS PEAK FLOW			773	Mar 27	b3280	May 17 1974
INSTANTANEOUS PEAK STAGE			4.67	Mar 27	7.42	May 17 1974
INSTANTANEOUS LOW FLOW			4.1	c	unknown	
10 PERCENT EXCEEDS	46		53		57	
50 PERCENT EXCEEDS	12		14		21	
90 PERCENT EXCEEDS	7.2		6.5		8.2	

a Nov. 19 and Dec. 20.

b From rating curve extended above 1,000 ft^3/s on basis of contracted-opening measurement of peak discharge and step-backwater analysis.

c Nov. 19, 20.

0423205010 IRONDEQUOIT CREEK AT BLOSSOM ROAD, ROCHESTER, NY

LOCATION.--Lat 43°08'42", long 77°30'44", Monroe County, Hydrologic Unit 04140101, on right bank 4,000 ft upstream from bridge on Blossom Road, 1.8 mi east of Rochester, 1.7 mi downstream from Allen Creek, and 4.4 mi upstream from mouth.

DRAINAGE AREA.--142 mi^2, flow from 8.45 mi^2 noncontributing.

PERIOD OF RECORD.--Occasional discharge measurements water years 1977–80. December 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 247.87 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1991, at site 0.8 mi downstream at datum 1.56 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Discharge includes undetermined diversion from Erie (Barge) Canal. Unpublished water-quality records are available in files of Monroe County Department of Health. Several measurements of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27	--	a*1,130	unknown	Aug. 28	0430	a1,090	b8.71
July 18	--	a940	unknown	Aug. 29	0545	a1,060	b*8.93

a About.
b Backwater from debris.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	45	66	e64	e59	e104	360	143	189	57	340	203
2	55	45	58	e62	e52	e104	322	e260	147	55	194	159
3	44	45	199	e61	e52	e94	257	e700	112	91	230	240
4	42	44	112	e68	e52	e88	217	395	95	92	e780	244
5	48	43	e72	92	e52	e87	186	248	87	87	525	166
6	62	39	e55	87	e47	e93	162	192	141	70	286	126
7	48	33	e65	77	e47	175	154	163	130	63	194	108
8	44	39	77	e63	e48	241	146	145	125	74	192	98
9	42	38	71	e64	e39	205	110	141	91	162	205	92
10	72	37	63	e67	e39	e165	93	148	87	94	167	89
11	64	75	66	e62	e43	e129	148	127	80	74	159	80
12	53	70	67	e59	e45	e110	443	116	73	69	129	75
13	51	59	59	e71	e49	e120	234	108	66	130	131	71
14	47	50	53	125	e51	e110	172	102	61	153	134	68
15	60	56	e49	e102	e75	e110	146	96	60	531	113	65
16	82	52	e40	e72	e171	e100	e290	93	59	353	118	63
17	55	46	e36	e70	e120	e110	e720	89	60	e300	112	60
18	49	44	e34	e63	e108	e120	448	167	57	e840	100	70
19	56	43	e32	e57	149	e130	388	115	111	449	98	166
20	51	43	e36	e54	169	e140	284	96	118	224	89	94
21	47	52	e44	e57	e140	e130	269	86	75	174	83	137
22	46	49	e55	e59	e117	e110	359	81	67	131	78	248
23	46	47	e54	e123	e175	e100	248	80	63	210	74	206
24	45	56	e52	184	e168	e98	331	90	110	179	72	128
25	45	75	e47	e102	e134	e120	281	85	89	137	161	100
26	44	75	e34	e85	e141	315	238	101	68	127	88	153
27	44	58	e38	e73	e127	e880	198	104	96	120	e300	209
28	44	51	e39	e65	e122	e970	169	95	87	104	e850	201
29	44	135	201	e61	e149	e640	152	84	66	113	e960	136
30	44	92	230	e61	---	509	149	89	61	131	592	108
31	44	---	e111	e62	---	403	---	171	---	223	296	---
TOTAL	1565	1636	2215	2372	2740	6810	7674	4710	2731	5617	7850	3963
MEAN	50.5	54.5	71.5	76.5	94.5	220	256	152	91.0	181	253	132
MAX	82	135	230	184	175	970	720	700	189	840	960	248
MIN	42	33	32	54	39	87	93	80	57	55	72	60

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1992, BY WATER YEAR (WY)

MEAN	85.5	116	142	119	177	200	220	150	92.6	73.4	88.6	73.0
MAX	188	224	242	212	347	328	341	292	186	181	253	132
(WY)	1987	1986	1987	1991	1981	1991	1990	1984	1989	1992	1992	1992
MIN	39.5	54.5	49.5	60.8	67.1	122	90.8	67.8	46.9	42.2	40.8	44.6
(WY)	1983	1992	1990	1989	1989	1988	1981	1982	1988	1983	1985	1991

0423205010 IRONDEQUOIT CREEK AT BLOSSOM ROAD, ROCHESTER, NY--continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1981 - 1992	
ANNUAL TOTAL	46891		49883			
ANNUAL MEAN	128		136		129	
HIGHEST ANNUAL MEAN					161	1984
LOWEST ANNUAL MEAN					98.2	1988
HIGHEST DAILY MEAN	1100	Apr 22	e970	Mar 28	1140	Feb 15 1984
LOWEST DAILY MEAN	32	Dec 19	e32	Dec 19	29	Aug 20 1985
ANNUAL SEVEN-DAY MINIMUM	38	Aug 24	39	Dec 15	30	Aug 17 1985
INSTANTANEOUS PEAK FLOW			a1130	Mar 27	1370	Feb 14 1984
INSTANTANEOUS PEAK STAGE			b8.93	Aug 29	c8.41	Mar 4 1991
INSTANTANEOUS LOW FLOW			31	Nov 7	28	Sep 11 1982
10 PERCENT EXCEEDS	265		251		247	
50 PERCENT EXCEEDS	66		93		87	
90 PERCENT EXCEEDS	40		45		45	

a About.
b Backwater from debris.
c From site 0.8 mi downstream at datum 1.56 ft lower.
e Estimated.

0423205025 IRONDEQUOIT CREEK AT EMPIRE BOULEVARD, ROCHESTER, NY

LOCATION.--Lat 43°10'34", long 77°31'37", Monroe County, Hydrologic Unit 04140101, on right bank 25 ft upstream from bridge on Empire Boulevard (Route 404), 200 ft upstream from mouth at south end of Irondequoit Bay, and 1.5 mi east of Rochester.

DRAINAGE AREA.--151 mi^2, flow from 8.45 mi^2 noncontributing.

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

GAGE.--Ultrasonic velocity meter, water-stage recorder, and crest-stage gage. Datum of gage is 242.66 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good except those for estimated daily discharges, which are fair. Records affected by backwater from Irondequoit Bay. Discharge includes undetermined diversion from Erie (Barge) Canal. Undetermined discharge (0 to 5 percent of the total flow) bypasses gage through culvert 900 ft west of main channel. Unpublished gage-height record for March 1989 to May 1990 is available in files of U.S. Geological Survey. Unpublished water-quality records are available in files of Monroe County Department of Health.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 28	0345	*1,450	4.03	Aug. 29	1600	1,330	4.88
May 24	0800	--	b*5.00				

b Backwater from Irondequoit Bay.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	49	79	89	75	130	389	142	e200	49	354	209
2	65	50	63	82	66	137	357	183	149	55	225	161
3	46	48	203	74	69	123	281	621	116	84	214	215
4	43	48	153	79	65	112	226	481	96	95	620	255
5	52	48	97	104	66	110	186	256	83	85	631	173
6	67	46	74	105	62	116	163	199	131	65	340	134
7	51	34	81	90	68	183	150	159	140	57	202	108
8	47	42	97	77	67	296	145	138	125	61	185	93
9	44	42	87	81	52	249	108	137	98	163	207	88
10	69	39	78	85	53	211	82	144	87	92	161	79
11	83	77	80	80	63	159	122	e130	82	75	144	72
12	60	94	83	74	e54	115	411	111	72	66	124	79
13	57	74	72	84	e54	159	282	102	67	128	118	74
14	51	60	68	132	e60	146	177	93	e60	142	132	67
15	58	68	62	120	e82	140	152	92	64	464	104	66
16	100	65	55	64	e180	126	225	89	57	e400	110	61
17	63	54	43	88	e130	134	653	e86	68	e330	104	55
18	53	50	54	80	e120	143	531	152	e60	e870	91	56
19	57	48	47	64	e150	165	433	e140	e110	e500	79	168
20	60	47	48	66	e170	190	311	e100	131	e250	89	103
21	52	58	62	67	e150	172	277	e88	68	e180	80	140
22	51	58	75	70	e130	144	361	79	63	e130	73	233
23	51	57	68	108	e180	134	273	e80	67	199	e70	224
24	49	65	67	237	e180	129	311	100	98	195	e70	136
25	48	79	61	140	e160	142	295	85	102	137	e180	106
26	48	97	50	116	178	312	233	98	64	118	e100	145
27	44	74	60	96	160	813	186	102	85	102	e300	202
28	45	61	57	94	145	1350	159	96	98	99	831	205
29	47	148	178	86	183	883	146	e90	65	98	1120	128
30	47	119	293	86	---	597	135	e96	53	127	736	116
31	49	---	152	84	---	468	---	e180	---	194	341	---
TOTAL	1703	1899	2747	2902	3172	8288	7760	4649	2759	5610	8135	3951
MEAN	54.9	63.3	88.6	93.6	109	267	259	150	92.0	181	262	132
MAX	100	148	293	237	183	1350	653	621	200	870	1120	255
MIN	43	34	43	64	52	110	82	79	53	49	70	55

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1992, BY WATER YEAR (WY)

MEAN	89.5	93.6	157	142	139	293	261	132	76.2	95.0	127	79.4
MAX	124	124	226	189	170	320	263	150	92.0	181	262	132
(WY)	1991	1991	1991	1991	1991	1991	1991	1992	1992	1992	1992	1992
MIN	54.9	63.3	88.6	93.6	109	267	259	114	60.4	50.3	50.4	47.1
(WY)	1992	1992	1992	1992	1992	1992	1992	1991	1991	1991	1991	1991

0423205025 IRONDEQUOIT CREEK AT EMPIRE BOULEVARD, ROCHESTER, NY--continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1990 - 1992	
ANNUAL TOTAL	44693		53575			
ANNUAL MEAN	122		146		146	
HIGHEST ANNUAL MEAN					146	1992
LOWEST ANNUAL MEAN					145	1991
HIGHEST DAILY MEAN	1210	Mar 5	1350	Mar 28	1350	Mar 28 1992
LOWEST DAILY MEAN	29	Aug 2	34	Nov 7	29	Aug 2 1991
ANNUAL SEVEN-DAY MINIMUM	38	Jul 27	43	Nov 4	37	Aug 27 1990
INSTANTANEOUS PEAK FLOW			1450	Mar 28	1450	Mar 28 1992
INSTANTANEOUS PEAK STAGE			a5.00	May 24	a5.67	Apr 22 1991
10 PERCENT EXCEEDS	233		278		256	
50 PERCENT EXCEEDS	74		98		94	
90 PERCENT EXCEEDS	41		52		44	

a Backwater from Irondequoit Bay.

04232100 STERLING CREEK AT STERLING, NY

LOCATION.--Lat 43°19'31", long 76°38'51", Cayuga County, Hydrologic Unit 04140101, on right bank at Sterling, 25 ft downstream from bridge on State Highway 104A, 1.8 mi southwest of Sterling Valley, and 1.9 mi upstream from Sterling Valley Creek.

DRAINAGE AREA.--44.4 mi^2.

PERIOD OF RECORD.--April 1957 to current year.

REVISED RECORDS.--WDR NY–85–3: 1960(M), 1979–80(M).

GAGE.--Water-stage recorder. Datum of gage is 264.69 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 630 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27	2215	*1,180	a*5.24	Aug. 29	0415	801	4.14
July 18	0015	835	4.21				

a Ice jam.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	4.6	36	e100	e31	e90	330	63	104	8.3	151	174
2	5.1	4.6	30	e74	e30	e80	260	136	103	7.1	133	115
3	4.6	4.6	e32	56	e29	e70	195	369	80	10	117	99
4	4.1	4.6	e30	61	e28	e60	157	232	63	19	430	96
5	4.1	5.0	e26	102	e27	e100	139	148	51	28	266	77
6	5.7	5.1	e22	114	e26	146	120	116	45	64	138	67
7	7.1	5.1	e38	108	e25	266	107	97	39	49	88	65
8	9.9	5.1	97	e90	e24	317	105	83	52	32	87	52
9	7.1	5.1	172	e85	e23	236	97	79	44	32	99	43
10	5.7	5.1	164	e80	e22	191	84	73	33	27	84	36
11	8.5	8.2	133	e78	e21	e160	143	66	27	27	112	31
12	8.5	14	101	e70	e20	e100	455	61	23	23	75	26
13	8.5	17	85	e60	e19	e96	291	58	19	37	57	24
14	9.9	15	73	e100	e18	e150	166	54	15	59	55	24
15	9.2	18	64	e120	e22	e150	120	48	13	113	45	27
16	22	22	e48	e90	e110	e140	135	44	11	111	40	25
17	14	18	e46	e60	e140	e120	446	43	9.7	218	40	22
18	12	15	e44	e55	e150	e110	360	68	8.6	630	40	21
19	12	14	e42	e50	e210	e100	289	69	8.8	330	40	27
20	9.9	13	38	e45	e340	e100	204	68	11	241	35	24
21	5.1	14	41	e40	348	e98	166	55	9.7	177	31	24
22	6.4	15	47	e38	272	e96	144	45	9.7	117	25	40
23	9.2	18	52	e40	265	e86	120	38	9.5	102	23	60
24	7.9	23	e54	e36	231	e74	129	36	16	98	18	48
25	5.7	26	e52	e33	182	e70	120	35	25	85	24	48
26	6.4	24	e46	e30	e181	e130	113	32	20	75	19	47
27	4.6	22	e42	e28	e148	e840	99	37	18	68	28	67
28	5.1	21	e42	e26	e110	e1050	86	36	16	58	98	82
29	5.1	41	e60	e30	e100	e820	75	29	12	49	640	73
30	5.1	46	e120	e35	---	495	67	26	9.8	41	393	63
31	4.6	---	e130	e33	---	363	---	41	---	68	277	---
TOTAL	236.7	453.1	2007	1967	3152	6904	5322	2385	905.8	3003.4	3708	1627
MEAN	7.64	15.1	64.7	63.5	109	223	177	76.9	30.2	96.9	120	54.2
MAX	22	46	172	120	348	1050	455	369	104	630	640	174
MIN	3.6	4.6	22	26	18	60	67	26	8.6	7.1	18	21
CFSM	.17	.34	1.46	1.43	2.45	5.02	4.00	1.73	.68	2.18	2.69	1.22
IN.	.20	.38	1.68	1.65	2.64	5.78	4.46	2.00	.76	2.52	3.11	1.36

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1992, BY WATER YEAR (WY)

MEAN	26.7	57.3	79.9	73.0	103	180	138	62.1	29.9	15.8	11.7	16.2
MAX	125	168	186	152	299	387	296	170	160	96.9	120	100
(WY)	1987	1978	1960	1959	1981	1979	1971	1976	1976	1992	1992	1975
MIN	1.45	4.10	5.91	9.39	15.2	56.5	42.2	21.5	6.12	2.30	1.07	1.16
(WY)	1958	1961	1961	1961	1963	1981	1981	1987	1988	1963	1966	1964

04232100 STERLING CREEK AT STERLING, NY

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1957 - 1992	
ANNUAL TOTAL	20330.5		31671.0			
ANNUAL MEAN	55.7		86.5		66.0	
HIGHEST ANNUAL MEAN					114	1976
LOWEST ANNUAL MEAN					36.1	1988
HIGHEST DAILY MEAN	707	Mar 4	1050	Mar 28	2170	Mar 22 1980
LOWEST DAILY MEAN	1.7	a	3.6	Oct 1	.37	b
ANNUAL SEVEN-DAY MINIMUM	1.9	Sep 6	4.7	Oct 30	.60	Sep 10 1966
INSTANTANEOUS PEAK FLOW			1180	Mar 27	c1760	Mar 22 1980
INSTANTANEOUS PEAK STAGE			5.24	Mar 27	5.99	Mar 22 1980
INSTANTANEOUS LOW FLOW			3.6	Oct 1	.32	Sep 14 1966
ANNUAL RUNOFF (CFSM)	1.25		1.95		1.49	
ANNUAL RUNOFF (INCHES)	17.03		26.54		20.19	
10 PERCENT EXCEEDS	148		181		154	
50 PERCENT EXCEEDS	23		48		34	
90 PERCENT EXCEEDS	2.9		8.7		3.4	

a Sept. 9, 10.
b Sept. 14, 15, 1966.
c Revised.

04232400 SENECA LAKE AT WATKINS GLEN, NY

LOCATION.--Lat 42°23'00", long 76°52'05", Schuyler County, Hydrologic Unit 04140201, on east bank about 300 ft from lake on shorter of two boat slips at Watkins Glen.

DRAINAGE AREA.--704 mi^2.

PERIOD OF RECORD.--October 1956 to current year.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datm of 1929 (1.59 ft Barge Canal datum). Prior to Oct. 1, 1975, at datum 438.41 ft higher.

REMARKS.--Area of water surface, 67.6 mi^2. Diversion from Susquehanna River basin enters lake through Keuka Lake Outlet at Dresden. For table of diversion, see station 01528700. Lake elevation regulated by taintor gates on Seneca River at Lock 4, Waterloo, for operation of Erie (Barge) Canal and power generation by New York State Electric and Gas Corp.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 448.88 ft, June 25, 1972; minimum, 442.64 ft, Mar. 14, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 445.73 ft, Aug. 1; minimum, 443.74 ft, Jan. 22, 23.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	444.26	444.17	444.09	444.20	444.01	444.22	445.30	445.27	445.25	445.15	445.64	445.05
2	444.32	444.13	444.10	444.21	443.98	444.26	445.30	445.30	445.32	445.15	445.63	444.93
3	444.29	444.12	444.14	444.23	443.98	444.21	445.26	445.47	445.29	445.07	445.56	444.91
4	444.30	444.13	444.18	444.27	443.96	444.13	445.22	445.54	445.23	445.08	445.61	444.92
5	444.28	444.10	444.14	444.35	444.00	444.09	445.21	445.52	445.20	445.14	445.57	444.85
6	444.30	444.04	444.15	444.36	443.96	444.05	445.15	445.50	445.23	445.15	445.51	444.73
7	444.34	444.07	444.11	444.33	443.96	444.07	445.09	445.46	445.29	445.14	445.46	444.68
8	444.26	444.12	444.13	444.27	444.00	444.14	445.08	445.43	445.39	445.12	445.38	444.66
9	444.19	444.09	444.16	444.18	444.00	444.16	445.03	445.41	445.37	445.18	445.37	444.67
10	444.22	444.07	444.16	444.17	443.95	444.19	445.00	445.36	445.33	445.23	445.40	444.63
11	444.27	444.18	444.15	444.10	443.96	444.32	445.03	445.32	445.26	445.23	445.35	444.74
12	444.24	444.20	444.13	444.02	443.97	444.33	445.16	445.25	445.20	445.21	445.37	444.76
13	444.25	444.13	444.14	444.00	443.93	444.31	445.18	445.22	445.18	445.25	445.29	444.69
14	444.22	444.11	444.16	443.97	443.98	444.27	445.20	445.19	445.21	445.24	445.28	444.72
15	444.18	444.12	444.15	443.95	443.96	444.24	445.22	445.14	445.25	445.31	445.21	444.70
16	444.28	444.19	444.15	443.89	444.03	444.18	445.23	445.15	445.19	445.34	445.15	444.73
17	444.27	444.17	444.10	443.80	444.06	444.19	445.37	445.13	445.06	445.27	445.12	444.72
18	444.22	444.10	444.13	443.81	444.06	444.23	445.46	445.22	444.99	445.34	445.07	444.73
19	444.26	444.05	444.10	443.78	444.09	444.25	445.50	445.17	445.00	445.35	445.01	444.85
20	444.25	444.05	444.05	443.80	444.14	444.25	445.47	445.12	445.10	445.27	444.97	444.83
21	444.16	444.13	444.06	443.81	444.16	444.27	445.47	445.07	445.11	445.29	444.88	444.75
22	444.13	444.13	444.04	443.81	444.16	444.29	445.47	445.03	445.09	445.25	444.81	444.88
23	444.17	444.16	444.06	443.80	444.22	444.32	445.44	445.03	445.09	445.26	444.76	445.05
24	444.14	444.17	444.07	443.89	444.25	444.30	445.41	445.11	445.08	445.33	444.67	444.93
25	444.11	444.14	444.07	443.92	444.26	444.28	445.42	445.12	445.10	445.24	444.69	444.89
26	444.15	444.15	444.03	443.91	444.28	444.36	445.41	445.10	445.10	445.19	444.63	445.03
27	444.18	444.09	444.05	443.91	444.24	444.88	445.37	445.06	445.09	445.25	444.67	445.13
28	444.22	444.06	444.04	443.94	444.20	445.23	445.35	445.00	445.11	445.22	444.72	445.19
29	444.18	444.09	444.11	443.95	444.26	445.27	445.32	444.99	445.11	445.16	445.06	445.19
30	444.16	444.06	444.24	443.94	---	445.29	445.29	444.99	445.11	445.22	445.08	445.16
31	444.18	---	444.20	443.98	---	445.29	---	445.09	---	445.45	445.07	---
MEAN	444.23	444.12	444.12	444.02	444.07	444.38	445.28	445.22	445.18	445.23	445.16	444.86
MAX	444.34	444.20	444.24	444.36	444.28	445.29	445.50	445.54	445.39	445.45	445.64	445.19
MIN	444.11	444.04	444.03	443.78	443.93	444.05	445.00	444.99	444.99	445.07	444.63	444.63

CAL YR	1991	MEAN	444.57	MAX	445.83	MIN	443.53
WTR YR	1992	MEAN	444.66	MAX	445.64	MIN	443.78

04232450 KEUKA INLET (KEUKA LAKE) AT HAMMONDSPORT, NY

(Formerly published as Keuka Lake at Hammondsport)

LOCATION.--Lat 42°24'22", long 77°13'08", Steuben County, Hydrologic Unit 04140201, on left bank of Keuka Inlet at end of Liberty Street extension at Hammondsport, and 300 ft upstream from mouth.

DRAINAGE AREA.--Keuka Inlet 25.0 mi^2; Keuka Lake at mouth 182 mi^2.

PERIOD OF RECORD.--August 1960 to current year.

REVISED RECORDS.--WSP 2112: Drainage area. WRD NY 1974: 1973.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to October 1, 1975, at datum 710.00 ft higher.

REMARKS.--Lake regulated by village of Penn Yan; prior to July 1962, by New York State Electric and Gas Corp. Area of water surface, 18.3 mi^2. During each year, a large part of flow from 45.5 mi^2 of drainage area of Mud Creek (Susquehanna River basin) is diverted into Keuka Lake for power development. For table of diversion, see station 01528700.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 719.35 ft, June 24, 1972; minimum daily, 711.40 ft, Feb. 2, 3, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 714.98 ft, Aug. 1; minimum, 712.01 ft, Feb. 19.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	713.12	712.95	712.65	712.49	712.36	712.28	713.63	714.23	714.23	714.05	714.91	714.09
2	713.14	712.92	712.65	712.48	712.33	712.20	713.64	714.26	714.24	714.02	714.88	714.06
3	713.14	712.89	712.70	712.48	712.32	712.18	713.63	714.46	714.22	713.98	714.85	714.07
4	713.13	712.86	712.72	712.49	712.29	712.16	713.62	714.54	714.22	713.98	714.82	714.09
5	713.11	712.83	712.69	712.53	712.28	712.17	713.59	714.56	714.21	713.97	714.78	714.07
6	713.14	712.78	712.69	712.53	712.25	712.18	713.58	714.57	714.26	713.99	714.73	714.03
7	713.11	712.79	712.66	712.54	712.23	712.21	713.55	714.57	714.28	713.97	714.67	714.01
8	713.10	712.77	712.67	712.54	712.22	712.25	713.55	714.57	714.33	713.97	714.60	714.00
9	713.06	712.74	712.68	712.51	712.21	712.27	713.53	714.58	714.34	714.01	714.56	714.01
10	713.06	712.74	712.67	712.51	712.17	712.29	713.52	714.58	714.33	714.02	714.52	714.00
11	713.07	712.81	712.66	712.51	712.17	712.41	713.53	714.59	714.31	714.03	714.47	714.03
12	713.07	712.81	712.65	712.48	712.16	712.43	713.60	714.57	714.28	714.02	714.42	713.98
13	713.07	712.79	712.65	712.47	712.17	712.44	713.60	714.56	714.26	714.08	714.35	713.92
14	713.05	712.77	712.64	712.48	712.17	712.47	713.59	714.58	714.25	714.08	714.30	713.87
15	713.05	712.77	712.62	712.54	712.13	712.47	713.57	714.55	714.27	714.17	714.23	713.85
16	713.11	712.77	712.61	712.52	712.10	712.44	713.56	714.52	714.22	714.21	714.17	713.83
17	713.09	712.75	712.59	712.49	712.10	712.44	713.69	714.48	714.19	714.21	714.11	713.81
18	713.08	712.71	712.59	712.48	712.08	712.46	713.77	714.51	714.15	714.28	714.06	713.79
19	713.08	712.69	712.57	712.45	712.11	712.48	713.85	714.49	714.20	714.28	714.00	713.86
20	713.07	712.69	712.54	712.45	712.13	712.47	713.87	714.46	714.24	714.29	713.94	713.83
21	713.04	712.71	712.52	712.45	712.12	712.47	713.91	714.42	714.22	714.34	713.88	713.79
22	713.03	712.72	712.50	712.42	712.12	712.51	713.96	714.41	714.20	714.34	713.86	713.87
23	713.03	712.75	712.49	712.41	712.16	712.51	713.98	714.39	714.18	714.38	713.84	713.96
24	713.01	712.73	712.48	712.43	712.16	712.50	714.01	714.39	714.16	714.40	713.81	713.92
25	713.01	712.70	712.46	712.47	712.15	712.49	714.12	714.34	714.14	714.37	713.82	713.90
26	713.03	712.70	712.43	712.42	712.17	712.56	714.18	714.28	714.12	714.40	713.82	714.01
27	713.04	712.66	712.42	712.42	712.16	713.11	714.20	714.26	714.11	714.47	713.83	714.10
28	713.06	712.65	712.40	712.41	712.17	713.41	714.21	714.23	714.09	714.46	713.87	714.12
29	713.01	712.67	712.45	712.40	712.22	713.48	714.21	714.20	714.07	714.45	714.09	714.09
30	713.00	712.64	712.54	712.37	---	713.54	714.22	714.18	714.05	714.48	714.09	714.05
31	712.97	---	712.50	712.37	---	713.58	---	714.21	---	714.75	714.11	---
MEAN	713.07	712.76	712.58	712.47	712.19	712.54	713.78	714.44	714.21	714.21	714.27	713.97
MAX	713.14	712.95	712.72	712.54	712.36	713.58	714.22	714.59	714.34	714.75	714.91	714.12
MIN	712.97	712.64	712.40	712.37	712.08	712.16	713.52	714.18	714.05	713.97	713.81	713.79

WTR YR 1992 MEAN 713.38 MAX 714.91 MIN 712.08

04232482 KEUKA LAKE OUTLET AT DRESDEN, NY

LOCATION.--Lat 42°40'49", long 76°57'15", Yates County, Hydrologic Unit 04140201, on right bank at upstream side of bridge on Milo Street in Dresden, and 0.4 mi upstream from mouth.

DRAINAGE AREA.--207 mi^2.

PERIOD OF RECORD.--April 1965 to current year.

REVISED RECORD.--WDR NY-86-3: 1984 (P).

GAGE.--Water-stage recorder. Datum of gage is 445.35 ft (revised) above National Geodetic Vertical Datum of 1929. Prior to Sept. 6, 1991 at datum of 444.67 ft and prior to Oct. 1, 1982, at datum 1.32 ft higher.

REMARKS.--Records fair. Flow regulated by village of Penn Yan. During each year a large part of flow from 45.5 mi^2 of Mud Creek drainage area (Susquehanna River basin) is diverted into Keuka Lake (Oswego River basin) for power development. For table of diversion, see station 01528700. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Maximum discharge, 1,730 ft^3/s , July 31 at 0800 hours, gage height, 5.61 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	83	80	107	146	144	300	155	165	111	527	122
2	14	83	80	101	153	140	332	284	138	82	389	119
3	14	82	94	98	143	105	323	246	110	53	351	130
4	14	81	88	93	144	79	314	167	105	56	363	127
5	14	80	87	105	143	80	307	159	106	54	359	121
6	15	80	86	100	142	83	302	149	113	43	353	121
7	14	79	82	94	140	88	299	144	141	28	345	119
8	14	79	77	124	139	97	297	141	152	29	342	116
9	14	78	72	154	139	93	294	140	124	41	339	114
10	15	78	50	153	147	94	288	137	112	29	372	203
11	14	84	30	150	131	91	291	134	98	28	412	295
12	15	82	51	150	128	90	294	179	90	28	400	282
13	15	81	88	150	136	93	268	220	86	31	392	276
14	14	81	88	178	126	102	240	217	85	29	375	182
15	16	80	88	157	135	94	236	214	84	69	363	113
16	17	80	84	145	156	96	244	213	83	53	357	111
17	15	79	84	161	134	90	303	206	68	37	349	110
18	15	79	55	148	131	90	278	204	70	44	341	110
19	15	79	80	222	146	96	277	192	108	32	335	155
20	14	79	130	248	143	95	259	230	101	28	310	120
21	15	79	106	206	137	92	251	258	96	27	199	117
22	14	81	105	134	135	91	247	254	94	23	107	188
23	14	82	102	142	138	89	201	254	92	87	107	166
24	14	81	99	173	139	90	173	249	92	95	80	134
25	15	80	98	156	149	101	184	247	92	82	37	138
26	15	79	98	157	158	230	182	246	96	94	36	322
27	15	78	97	158	150	897	176	215	102	93	37	254
28	32	78	97	150	147	368	171	149	109	81	159	283
29	85	80	116	149	145	293	168	144	110	134	185	310
30	84	80	125	149	---	287	167	144	111	172	58	296
31	83	---	107	148	---	279	---	155	---	789	90	---
TOTAL	678	2405	2724	4560	4100	4757	7666	6046	3133	2582	8469	5254
MEAN	21.9	80.2	87.9	147	141	153	256	195	104	83.3	273	175
MAX	85	84	130	248	158	897	332	284	165	789	527	322
MIN	14	78	30	93	126	79	167	134	68	23	36	110

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1992, BY WATER YEAR (WY)

MEAN	116	180	228	203	209	301	321	242	198	115	90.6	93.0
MAX	404	534	532	465	421	601	604	629	676	892	450	256
(WY)	1978	1978	1978	1978	1978	1976	1978	1984	1972	1972	1972	1987
MIN	14.6	28.8	25.4	18.3	19.2	31.8	44.5	22.2	17.2	21.1	13.7	7.14
(WY)	1989	1979	1981	1966	1967	1989	1965	1988	1980	1985	1983	1982

04232482 KEUKA LAKE OUTLET AT DRESDEN, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1965 - 1992	
ANNUAL TOTAL	63561		52374			
ANNUAL MEAN	174		143		193	
HIGHEST ANNUAL MEAN					362	1978
LOWEST ANNUAL MEAN					81.1	1981
HIGHEST DAILY MEAN	963	Mar 4	897	Mar 27	2200	Jun 22 1972
LOWEST DAILY MEAN	14	a	14	b	3.2	c
ANNUAL SEVEN-DAY MINIMUM	14	Sep 26	14	Oct 1	3.4	Sep 4 1982
INSTANTANEOUS PEAK FLOW			1730	Jul 31	d4000	Jun 22 1972
INSTANTANEOUS PEAK STAGE			5.61	Jul 31	f10.37	Jun 22 1972
INSTANTANEOUS LOW FLOW			12	Dec 18	3.2	g
10 PERCENT EXCEEDS	430		294		442	
50 PERCENT EXCEEDS	82		113		137	
90 PERCENT EXCEEDS	15		30		21	

a Many days in Sept. and Oct.
b Oct. 1, 2, 3, 4, 5, 7, 8, 9, 11, 14, 20, 22, 23, 24.
c Sept. 9, 10, 1982.
d From rating curve extended above 730 ft^3/s on basis of contracted-opening measurement at Mays Mill, adjusted for intervening area.
f Datum then in use.
g Sept. 6, 7, 8, 9, 10, 1982.

04233000 CAYUGA INLET NEAR ITHACA, NY

LOCATION.--Lat 42°23'35", long 76°32'43", Tompkins County, Hydrologic Unit 04140201, on left bank 0.8 mi upstream from Enfield (formerly Butternut) Creek, and 5.0 mi south of Ithaca.

DRAINAGE AREA.--35.2 mi^2.

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

REVISED RECORDS.--WSP 2112: Drainage area. WRD NY 1974: 1973.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 437.16 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records poor. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27	0715	*1,370	*4.21	Aug. 28	2345	797	3.16
July 31	0815	727	3.02				

DISCHARGE, IN 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	e3.5	e4.3	22	26	e20	51	119	48	140	e9.0	111	25
2	e3.9	e4.1	21	23	e18	43	100	59	124	e8.5	69	20
3	e4.0	e4.0	e80	23	e18	38	86	100	77	e8.0	53	54
4	e3.7	e3.8	e60	59	e17	37	74	71	56	e9.5	48	78
5	e3.5	e3.7	e45	79	e16	37	64	61	49	e11	44	42
6	e4.5	e3.7	e35	55	e15	41	55	60	50	e20	35	31
7	e5.0	e4.0	e32	43	e15	50	55	53	e45	e17	27	27
8	e4.3	e4.1	e40	34	14	60	60	53	e45	e11	25	29
9	e3.7	e4.3	e44	32	14	54	53	54	e40	e30	27	41
10	e3.5	e4.1	e40	34	14	58	50	48	e32	e26	24	86
11	e3.5	e11	e35	29	14	95	58	44	e25	e19	25	80
12	e3.5	e20	e32	26	14	72	80	40	e22	e16	19	47
13	e3.5	e17	e34	27	18	e60	55	42	e18	e22	33	36
14	e3.5	15	e50	96	19	e50	49	47	e16	e26	105	31
15	e7.2	e24	e46	66	22	e42	44	39	e14	50	56	28
16	e19	e40	e30	34	76	e38	48	39	e13	42	47	24
17	e16	e25	e26	e30	35	e35	83	35	e12	27	41	21
18	e10	e18	e24	e28	31	e32	89	36	e11	60	38	19
19	e8.0	e15	e22	e27	e140	e30	101	31	e12	52	31	32
20	e6.8	e12	e20	e26	e130	e28	79	27	e24	e40	25	21
21	e8.4	e14	e20	e25	e80	e27	69	24	e20	e30	22	21
22	e7.0	e22	e20	e24	e70	e25	67	22	e18	e25	19	33
23	e6.2	e60	e22	e30	e70	e24	54	19	e16	e70	16	e80
24	e6.0	e50	e22	e70	e70	e23	62	21	e15	e100	14	e40
25	e5.4	e45	e20	e30	63	e30	106	20	e15	e50	23	e30
26	e5.2	e35	e18	e27	61	145	86	20	e14	64	20	e90
27	e5.2	e28	e15	e24	51	860	69	23	e13	66	15	e110
28	e5.0	24	e16	e22	51	248	58	20	e12	43	67	e100
29	e4.7	24	e45	e22	61	163	51	17	e11	34	143	e55
30	e4.5	23	e60	e22	---	138	49	16	e10	27	48	e45
31	e4.3	---	e40	e20	---	123	---	70	---	200	32	---
TOTAL	182.5	562.1	1036	1113	1237	2757	2073	1259	969	1213.0	1302	1376
MEAN	5.89	18.7	33.4	35.9	42.7	88.9	69.1	40.6	32.3	39.1	42.0	45.9
MAX	19	60	80	96	140	860	119	100	140	200	143	110
MIN	3.5	3.7	15	20	14	23	44	16	10	8.0	14	19
CFSM	.17	.53	.95	1.02	1.21	2.53	1.96	1.15	.92	1.11	1.19	1.30
IN.	.19	.59	1.09	1.18	1.31	2.91	2.19	1.33	1.02	1.28	1.38	1.45

e Estimated

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

MEAN	20.5	29.4	38.9	34.3	47.1	89.6	83.5	51.2	27.0	14.3	11.5	11.5
MAX	106	93.5	118	93.5	113	182	248	132	162	57.4	66.2	61.0
(WY)	1956	1978	1973	1978	1976	1945	1958	1984	1972	1972	1942	1975
MIN	3.76	4.56	6.09	6.32	11.8	25.0	21.8	16.7	5.47	3.77	3.24	2.98
(WY)	1965	1965	1961	1961	1980	1965	1946	1955	1955	1955	1966	1964

04233000 CAYUGA INLET NEAR ITHACA, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1937 - 1992	
ANNUAL TOTAL	10882.4		15079.6			
ANNUAL MEAN	29.8		41.2		38.0	
HIGHEST ANNUAL MEAN					61.7	1978
LOWEST ANNUAL MEAN					15.3	1965
HIGHEST DAILY MEAN	229	Mar 4	860	Mar 27	1690	Jun 22 1972
LOWEST DAILY MEAN	2.6	Sep 14	3.5	a	1.9	Jul 22 1955
ANNUAL SEVEN-DAY MINIMUM	2.8	Sep 8	3.6	Oct 8	2.2	Aug 28 1939
INSTANTANEOUS PEAK FLOW			1370	Mar 27	b4800	Jun 23 1972
INSTANTANEOUS PEAK STAGE			4.21	Mar 27	8.10	Jun 23 1972
INSTANTANEOUS LOW FLOW					1.7	Jul 22 1955
ANNUAL RUNOFF (CFSM)	.85		1.17		1.08	
ANNUAL RUNOFF (INCHES)	11.50		15.94		14.67	
10 PERCENT EXCEEDS	71		79		84	
50 PERCENT EXCEEDS	19		30		20	
90 PERCENT EXCEEDS	3.8		7.8		5.3	

a Oct. 1, 5, 10-14.

b From rating curve extended above 1,600 ft^3/s on basis of slope-area measurements at gage heights 5.5 ft and 7.58 ft.

04233500 CAYUGA INLET (CAYUGA LAKE) AT ITHACA, NY

(Formerly published as Cayuga Lake at Ithaca)

LOCATION.--Lat 42°26'45", long 76°30'45", Tompkins County, Hydrologic Unit 04140201, on left bank of natural channel 40 ft upstream from flood-control channel of Cayuga Inlet, at north end of Taughannock Boulevard, and 1.0 mi upstream from mouth of Inlet, at Ithaca.

DRAINAGE AREA.--Cayuga Inlet 143 mi^2; Cayuga Lake at mouth 1,564 mi^2; Cayuga Lake portion 785 mi^2.

PERIOD OF RECORD.--August 1905 to December 1909, August 1956 to current year in reports of Geological Survey. January 1910 to September 1925 in reports of State Engineer and Surveyor.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (1.43 ft Barge Canal datum). Prior to September 1925, nonrecording gage at several sites within 1 mi of present site. Prior to October 1968, at datum 378.57 ft higher. October 1968 to September 1975, at datum 376.57 ft higher.

REMARKS.--Lake elevation regulated at Mud Lock by New York State Department of Transportation. Area of water surface, 66.9 mi^2. Seneca River (Cayuga and Seneca Canal) enters lake 0.5 mi upstream from Mud Lock and is included in second drainage area given above.

EXTREMES FOR PERIOD OF RECORD.--(1905-25 and since 1956): Maximum elevation, 386.33 ft, June 26, 1972; minimum daily, 377.64 ft, present datum, Mar. 28, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 383.58 ft, Aug. 1; minimum, 379.29 ft, Dec. 28, 29.

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	381.58	381.41	380.96	379.45	379.52	379.79	381.31	382.44	382.65	382.54	383.53	382.40
2	381.57	381.38	380.90	379.47	379.51	379.78	381.45	382.40	382.80	382.51	383.49	382.35
3	381.57	381.36	380.83	379.49	379.50	379.78	381.57	382.44	382.83	382.39	383.36	382.40
4	381.56	381.36	380.81	379.52	379.48	379.77	381.65	382.51	382.79	382.43	383.34	382.48
5	381.54	381.33	380.77	379.57	379.48	379.75	381.73	382.56	382.75	382.47	383.23	382.45
6	381.54	381.28	380.71	379.62	379.46	379.75	381.78	382.60	382.68	382.50	383.12	382.35
7	381.59	381.28	380.63	379.66	379.45	379.74	381.83	382.63	382.61	382.49	382.98	382.37
8	381.57	381.32	380.56	379.69	379.44	379.75	381.86	382.65	382.62	382.45	382.88	382.37
9	381.53	381.32	380.50	379.71	379.43	379.76	381.88	382.66	382.60	382.53	382.84	382.42
10	381.50	381.31	380.45	379.74	379.41	379.76	381.88	382.66	382.53	382.58	382.87	382.35
11	381.51	381.35	380.38	379.76	379.40	379.78	381.88	382.66	382.46	382.59	382.83	382.45
12	381.51	381.40	380.31	379.77	379.39	379.80	381.88	382.64	382.42	382.55	382.82	382.37
13	381.50	381.40	380.21	379.78	379.38	379.82	381.88	382.64	382.39	382.62	382.71	382.21
14	381.50	381.39	380.15	379.80	379.38	379.84	381.87	382.66	382.42	382.63	382.71	382.12
15	381.45	381.38	380.09	379.82	379.37	379.86	381.86	382.67	382.48	382.75	382.63	382.01
16	381.48	381.41	380.03	379.85	379.38	379.88	381.83	382.66	382.48	382.83	382.56	381.95
17	381.52	381.44	379.94	379.86	379.39	379.90	381.82	382.63	382.43	382.73	382.50	381.82
18	381.52	381.41	379.86	379.85	379.41	379.93	381.86	382.65	382.42	382.84	382.46	381.73
19	381.51	381.37	379.80	379.82	379.44	379.95	381.90	382.69	382.53	382.89	382.39	381.79
20	381.53	381.35	379.71	379.77	379.48	379.95	381.97	382.73	382.64	382.89	382.37	381.66
21	381.49	381.35	379.62	379.72	379.53	379.96	382.05	382.75	382.64	383.02	382.25	381.48
22	381.44	381.34	379.55	379.66	379.56	379.95	382.15	382.75	382.64	383.05	382.18	381.58
23	381.43	381.33	379.47	379.61	379.60	379.94	382.25	382.70	382.60	383.11	382.09	381.90
24	381.42	381.30	379.43	379.59	379.63	379.92	382.34	382.74	382.58	383.28	382.00	381.84
25	381.39	381.27	379.39	379.57	379.65	379.90	382.42	382.65	382.58	383.23	382.01	381.87
26	381.39	381.24	379.35	379.56	379.69	379.89	382.47	382.56	382.55	383.20	381.98	382.01
27	381.41	381.19	379.32	379.54	379.72	380.00	382.50	382.58	382.53	383.25	381.96	382.20
28	381.46	381.11	379.30	379.53	379.74	380.37	382.52	382.55	382.54	383.26	381.89	382.39
29	381.46	381.06	379.29	379.53	379.77	380.70	382.51	382.47	382.51	383.15	382.22	382.53
30	381.42	381.01	379.36	379.52	---	380.95	382.48	382.37	382.51	383.16	382.23	382.54
31	381.42	---	379.41	379.52	---	381.15	---	382.46	---	383.27	382.32	---
MEAN	381.49	381.31	380.04	379.66	379.50	379.97	381.98	382.61	382.57	382.81	382.60	382.15
MAX	381.59	381.44	380.96	379.86	379.77	381.15	382.52	382.75	382.83	383.28	383.53	382.54
MIN	381.39	381.01	379.29	379.45	379.37	379.74	381.31	382.37	382.39	382.39	381.89	381.48

CAL YR	1991	MEAN	381.35	MAX	383.09	MIN	379.07
WTR YR	1992	MEAN	381.39	MAX	383.53	MIN	379.29

04234000 FALL CREEK NEAR ITHACA, NY

LOCATION.--Lat 42°27'12", long 76°28'23", Tompkins County, Hydrologic Unit 04140201, on left bank in Forest Home, 0.2 mi east of Ithaca, 0.5 mi upstream from Cornell University dam, and 2.2 mi upstream from mouth.

DRAINAGE AREA.--126 mi^2.

PERIOD OF RECORD.--July 1908 to June 1909 (gage heights only), February 1925 to current year.

REVISED RECORDS.--WSP 874: 1935–38. WSP 1912: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 795.13 ft above National Geodetic Vertical Datum of 1929. July 1908 to June 1909, nonrecording gage at bridge 1.2 mi downstream at different datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect and missing record), which are fair. Diversion from point about 1 mi upstream from station by Cornell University for water supply and at several sites for irrigation purposes. Records of diversion from Fall Creek are in files of Cornell University. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27	1630	*3,090	*4.51	No other peak greater than base discharge.			

DISCHARGE, IN 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	20	95	e90	e75	221	577	183	730	32	860	101
2	18	19	80	e80	e65	218	490	211	452	30	352	92
3	18	20	290	e90	e65	194	370	758	225	29	222	95
4	17	19	323	e160	e60	173	310	370	157	36	178	149
5	16	17	162	e450	e60	232	279	269	127	41	163	101
6	21	17	137	282	e58	323	254	245	130	76	134	82
7	23	19	124	210	e54	327	242	215	121	63	115	77
8	20	20	152	166	e52	408	282	183	122	42	103	79
9	17	20	193	155	e52	372	262	188	116	112	122	150
10	16	19	182	180	e50	e360	239	177	91	111	110	270
11	e16	48	136	161	e50	e540	280	157	79	72	145	521
12	e16	76	117	143	e48	e310	524	139	71	62	138	193
13	e16	62	115	147	e48	e240	318	126	61	115	120	129
14	e16	71	173	431	e48	e190	247	120	58	127	382	103
15	e30	106	163	418	e50	e160	212	112	52	104	194	92
16	86	147	e110	e200	e90	e140	194	124	48	155	161	82
17	71	90	e80	e150	e110	e130	531	120	45	110	146	77
18	46	67	e88	e130	e90	e120	439	131	43	220	151	70
19	36	55	e75	e110	e300	e110	470	128	46	180	146	189
20	31	47	e70	e100	e500	e105	323	99	89	147	106	164
21	38	53	e70	e95	e350	e100	270	86	91	106	90	103
22	32	94	e70	e90	e300	e90	260	80	71	95	80	139
23	28	250	e75	e90	e300	e90	227	73	59	273	72	450
24	27	183	e75	e300	e300	e85	224	77	57	379	62	202
25	24	188	e65	e170	e260	e80	413	82	59	189	61	139
26	24	125	e56	e120	e240	e200	452	75	50	164	61	340
27	24	98	e54	e85	e220	2340	304	81	44	223	56	402
28	23	84	e48	e80	206	1370	238	83	43	134	71	374
29	22	103	e110	e80	358	650	204	74	38	127	608	213
30	21	118	e350	e80	---	577	183	63	35	357	208	168
31	20	---	e150	e75	---	490	---	346	---	856	124	---
TOTAL	829	2255	3988	5118	4459	10945	9618	5175	3410	4767	5541	5346
MEAN	26.7	75.2	129	165	154	353	321	167	114	154	179	178
MAX	86	250	350	450	500	2340	577	758	730	856	860	521
MIN	16	17	48	75	48	80	183	63	35	29	56	70
CFSM	.21	.60	1.02	1.31	1.22	2.80	2.54	1.32	.90	1.22	1.42	1.41
IN.	.24	.67	1.18	1.51	1.32	3.23	2.84	1.53	1.01	1.41	1.64	1.58

e Estimated

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

MEAN	104	172	205	183	218	417	399	211	117	72.1	49.1	65.6
MAX	594	497	540	417	595	1037	1021	529	615	608	179	561
(WY)	1982	1928	1973	1978	1981	1936	1940	1943	1972	1935	1992	1977
MIN	9.57	16.5	31.9	38.4	44.1	160	100	62.0	30.8	15.3	8.93	7.09
(WY)	1965	1965	1961	1961	1934	1965	1946	1934	1991	1962	1965	1964

04234000 FALL CREEK NEAR ITHACA, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1925 - 1992	
ANNUAL TOTAL	50159.1		61451			
ANNUAL MEAN	137		168		185	
HIGHEST ANNUAL MEAN					271	1978
LOWEST ANNUAL MEAN					83.6	1965
HIGHEST DAILY MEAN	1630	Mar 4	2340	Mar 27	8280	Jul 8 1935
LOWEST DAILY MEAN	9.6	Sep 9	16	a	3.6	Aug 17 1965
ANNUAL SEVEN-DAY MINIMUM	12	Jul 28	17	Oct 8	5.0	Sep 20 1964
INSTANTANEOUS PEAK FLOW			3090	Mar 27	b15500	Jul 8 1935
INSTANTANEOUS PEAK STAGE			4.51	Mar 27	c11.16	Feb 21 1971
INSTANTANEOUS LOW FLOW			13	Nov 10	d3.0	Aug 25 1927
ANNUAL RUNOFF (CFSM)	1.09		1.33		1.46	
ANNUAL RUNOFF (INCHES)	14.81		18.14		19.90	
10 PERCENT EXCEEDS	319		357		416	
50 PERCENT EXCEEDS	71		115		99	
90 PERCENT EXCEEDS	16		31		23	

a Oct. 1, 5, 10-14.
b From average of computed flow over each of four dams.
c Ice jam.
d Approximate discharge, result of regulation.

04234500 CANANDAIGUA LAKE AT CANANDAIGUA, NY

LOCATION.--Lat 42°52'19", long 77°16'22", Ontario County, Hydrologic Unit 04140201, at comfort station in middle of city pier at northern end of Canandaigua Lake, 1 mi southeast of Canandaigua.

DRAINAGE AREA.--184 mi^2.

PERIOD OF RECORD.--November 1939 to current year. December 1927 to November 1939, records for site on west side of E. T. Waldorf's boathouse collected by, and in files of, city of Canandaigua.

REVISED RECORDS.--WSP 2112: Drainage area. WRD NY 1971: 1970. WDR NY-86-3: 1985.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. June 26, 1946 to Sept. 30, 1975, at datum 681.17 ft higher, and prior to June 26, 1946, nonrecording gage at E. T. Waldorf's boathouse at same datum.

REMARKS.--Lake elevation regulated by one gate on West outlet, which is a 1.5 mi long canal, and by two gates on East outlet, which is the natural outlet. Sill elevations of West and East outflow structures are 684.37 ft and 684.94 ft, respectively. Water diverted for municipal supply for villages of Newark, Palmyra, and Gorham. Records of diversion in files of city of Canandaigua. Area of water surface, 16.6 mi^2.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 692.11 ft, June 24, 1972; minimum daily, 685.62 ft, Jan. 30, 1942.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 689.64 ft, Aug. 2; minimum, 686.43 ft, Nov. 21.

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	687.04	686.76	686.73	686.82	687.03	687.37	688.79	688.66	688.68	688.45	689.51	688.31
2	687.03	686.76	686.71	686.83	687.03	687.38	688.80	688.65	688.73	688.42	689.61	688.30
3	687.01	686.74	686.81	686.83	687.03	687.39	688.80	688.74	688.74	688.48	689.57	688.32
4	687.00	686.71	686.77	686.83	687.03	687.41	688.77	688.75	688.75	688.48	689.51	688.30
5	687.04	686.70	686.78	686.86	687.03	687.42	688.74	688.73	688.76	688.50	689.46	688.31
6	686.99	686.71	686.78	686.88	687.04	687.49	688.72	688.69	688.80	688.47	689.39	688.33
7	686.98	686.65	686.80	686.89	687.04	687.52	688.71	688.65	688.83	688.46	689.32	688.29
8	686.96	686.64	686.78	686.90	687.01	687.55	688.70	688.61	688.85	688.48	689.28	688.28
9	686.95	686.63	686.78	686.93	687.01	687.61	688.70	688.56	688.81	688.53	689.16	688.23
10	686.93	686.61	686.78	686.91	687.02	687.69	688.68	688.52	688.76	688.52	689.09	688.24
11	686.93	686.65	686.78	686.92	686.99	687.71	688.68	688.49	688.71	688.52	689.02	688.18
12	686.92	686.69	686.82	686.94	686.98	687.75	688.71	688.50	688.68	688.52	688.94	688.16
13	686.91	686.70	686.78	686.94	686.98	687.73	688.71	688.49	688.67	688.57	688.87	688.14
14	686.93	686.69	686.77	686.98	686.98	687.71	688.68	688.48	688.65	688.58	688.81	688.13
15	686.93	686.69	686.76	686.98	686.99	687.68	688.66	688.50	688.61	688.70	688.75	688.10
16	686.92	686.67	686.76	686.98	687.01	687.66	688.67	688.51	688.62	688.76	688.70	688.08
17	686.91	686.67	686.78	687.01	687.01	687.64	688.77	688.55	688.65	688.79	688.64	688.07
18	686.91	686.67	686.73	686.98	687.03	687.61	688.87	688.56	688.66	688.95	688.58	688.08
19	686.88	686.67	686.73	686.98	687.05	687.59	688.92	688.58	688.62	688.97	688.51	688.11
20	686.88	686.66	686.73	686.98	687.08	687.59	688.95	688.59	688.62	688.97	688.45	688.09
21	686.89	686.66	686.72	686.98	687.10	687.60	688.92	688.59	688.61	688.90	688.43	688.14
22	686.85	686.66	686.72	686.99	687.13	687.62	688.90	688.58	688.57	688.85	688.40	688.16
23	686.84	686.71	686.70	687.06	687.16	687.65	688.87	688.58	688.54	688.91	688.38	688.14
24	686.86	686.73	686.69	687.02	687.20	687.66	688.85	688.56	688.53	688.97	688.36	688.15
25	686.86	686.72	686.69	687.02	687.25	687.68	688.85	688.57	688.52	688.97	688.34	688.14
26	686.82	686.69	686.70	687.03	687.26	687.75	688.83	688.59	688.51	688.97	688.34	688.18
27	686.83	686.73	686.68	687.03	687.29	688.22	688.81	688.61	688.50	688.94	688.35	688.25
28	686.78	686.69	686.68	687.03	687.32	688.57	688.77	688.61	688.50	688.89	688.40	688.25
29	686.80	686.71	686.72	687.03	687.34	688.67	688.74	688.62	688.49	688.88	688.49	688.20
30	686.77	686.76	686.78	687.03	---	688.73	688.70	688.65	688.46	688.92	688.45	688.14
31	686.76	---	686.82	687.04	---	688.75	---	688.66	---	689.16	688.38	---
MEAN	686.91	686.69	686.75	686.96	687.08	687.75	688.78	688.59	688.65	688.72	688.82	688.19
MAX	687.04	686.76	686.82	687.06	687.34	688.75	688.95	688.75	688.85	689.16	689.61	688.33
MIN	686.76	686.61	686.68	686.82	686.98	687.37	688.66	688.48	688.46	688.42	688.34	688.07

CAL YR	1991	MEAN	687.73	MAX	689.51	MIN	686.61
WTR YR	1992	MEAN	687.83	MAX	689.61	MIN	686.61

04235000 CANANDAIGUA OUTLET AT CHAPIN, NY

LOCATION.--Lat 42°55'05", long 77°13'59", Ontario County, Hydrologic Unit 04140201, on right bank at Chapin, 25 ft upstream from bridge on State Highway 488, and 4.1 mi downstream from Canandaigua Lake.

DRAINAGE AREA.--195 mi^2.

PERIOD OF RECORD.--November 1939 to current year. Prior to October 1964, published as "Canandaigua Lake Outlet."

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 671.44 ft above National Geodetic Vertical Datum of 1929. Prior to June 25, 1974, at site 0.1 mi upstream at datum 676.90 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharge (ice effect), which are fair. Flow regulated by Canandaigua Lake (see station 04234500), from which water is diverted for municipal supply by villages of Newark, Palmyra, and Gorham. Monthly runoff adjusted for change in contents in Canandaigua Lake from October 1945 to September 1966. Telephone gage-height telemeter at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Maximum discharge, 939 ft^3/s, July 31 at 1900 hours, gage height, 5.81 ft.

DISCHARGE, IN 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	14	21	28	41	38	511	534	86	41	798	382
2	9.6	13	20	27	45	38	515	542	79	42	758	146
3	9.5	12	41	28	41	38	508	595	64	46	746	119
4	8.5	12	29	30	41	38	501	567	60	47	735	124
5	8.2	12	26	35	41	37	489	558	58	43	729	109
6	8.6	18	24	35	43	38	479	549	75	42	702	107
7	7.0	18	25	32	41	49	474	537	67	42	681	109
8	8.4	17	25	30	40	74	471	524	151	43	664	111
9	8.0	18	25	32	e45	56	470	513	404	51	650	107
10	5.5	18	24	32	e44	51	468	503	418	45	625	106
11	5.9	23	23	31	e43	75	471	390	410	42	606	99
12	7.3	21	23	30	e43	250	487	139	358	42	585	95
13	8.7	22	24	34	e43	293	477	111	88	50	570	95
14	8.3	21	23	52	43	292	468	100	52	47	556	88
15	8.4	21	22	48	43	297	460	49	51	307	539	90
16	12	20	22	e50	60	295	435	59	51	573	521	90
17	17	19	22	e50	47	250	178	62	51	628	509	90
18	22	19	e22	e48	45	248	124	69	50	728	493	83
19	21	19	e21	e47	51	280	499	64	55	557	480	99
20	21	19	e21	e46	53	245	547	64	57	544	409	83
21	21	20	21	e45	50	77	549	67	51	546	157	78
22	21	21	22	e44	50	57	544	69	86	513	117	107
23	20	25	22	e50	64	56	531	70	253	568	111	109
24	20	23	21	e60	59	54	525	76	57	586	107	93
25	18	21	20	e60	60	66	518	73	44	581	93	80
26	16	20	e20	e55	65	132	517	71	42	578	82	154
27	15	20	20	e40	48	556	509	74	47	575	119	139
28	14	20	20	41	40	539	499	68	42	566	286	122
29	14	28	36	41	42	493	502	65	42	566	616	298
30	14	24	51	42	---	508	536	64	42	588	470	361
31	14	---	33	42	---	505	---	74	---	783	447	---
TOTAL	402.9	578	769	1265	1371	6025	14262	7300	3391	10410	14961	3873
MEAN	13.0	19.3	24.8	40.8	47.3	194	475	235	113	336	483	129
MAX	22	28	51	60	65	556	549	595	418	783	798	382
MIN	5.5	12	20	27	40	37	124	49	42	41	82	78

e Estimated

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

MEAN	74.8	90.3	125	137	154	287	397	261	152	93.1	63.0	52.8
MAX	613	419	521	397	518	748	831	725	566	852	483	363
(WY)	1978	1978	1973	1978	1976	1976	1940	1943	1972	1972	1992	1977
MIN	13.0	12.9	11.1	8.38	9.47	28.9	61.4	48.6	20.7	17.3	16.2	13.3
(WY)	1992	1964	1967	1967	1967	1967	1946	1981	1955	1963	1991	1991

04235000 CANANDAIGUA OUTLET AT CHAPIN, NY--continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1940 - 1992	
ANNUAL TOTAL	59699.9		64607.9			
ANNUAL MEAN	164		177		156	
HIGHEST ANNUAL MEAN					295	1976
LOWEST ANNUAL MEAN					57.7	1965
HIGHEST DAILY MEAN	899	Apr 22	798	Aug 1	1680	Jun 24 1972
LOWEST DAILY MEAN	5.5	Oct 10	5.5	Oct 10	5.2	Sep 15 1948
ANNUAL SEVEN-DAY MINIMUM	7.2	Oct 6	7.2	Oct 6	7.1	Feb 23 1967
INSTANTANEOUS PEAK FLOW			939	Jul 31	1710	Jun 24 1972
INSTANTANEOUS PEAK STAGE			5.81	Jul 31	a11.08	Jun 24 1972
INSTANTANEOUS LOW FLOW			5.0	Oct 10	4.4	Sep 24 1991
10 PERCENT EXCEEDS	514		545		451	
50 PERCENT EXCEEDS	35		56		65	
90 PERCENT EXCEEDS	13		19		24	

a Present datum, at site then in use.

04235250 FLINT CREEK AT PHELPS, NY

LOCATION.--Lat 42°57'28", long 77°04'06", Ontario County, Hydrologic Unit 04140201, on right bank 25 ft downstream from bridge on Eagle Street at Phelps, and 1.1 mi upstream from Canandaigua Outlet.

DRAINAGE AREA.--102 mi^2.

PERIOD OF RECORD.--October 1959 to current year.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 523.14 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Small diversion (during periods of low ground-water level) by Phelps Cement Products, Inc., located about 0.2 mile upstream. Since 1967, flow from Canandaigua Lake diverted into Flint Creek for municipal supply of village of Gorham; presently not exceeding 0.3 ft^3/s. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27	1600	*1,580	*4.85	July 31	2330	1,550	4.82
July 17	2300	1,110	4.36				

DISCHARGE, IN 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	2.1	6.5	26	e55	e37	e75	333	102	108	12	1120	61
2	2.2	6.7	22	e50	e36	e70	300	114	135	11	658	44
3	2.0	6.7	36	e46	31	e70	239	342	100	16	386	48
4	2.1	6.9	43	40	e30	e67	196	319	69	16	208	57
5	2.0	7.5	34	61	e29	78	168	209	55	16	166	47
6	2.8	7.5	38	80	e28	96	145	154	70	17	124	37
7	2.4	7.7	32	68	e27	129	137	126	128	14	90	32
8	2.3	8.1	27	e44	e25	190	146	108	205	12	73	29
9	2.3	7.6	29	e49	e25	181	182	101	189	24	67	26
10	2.8	7.3	31	e44	e23	160	178	93	111	29	63	24
11	3.5	11	26	e39	e23	e140	164	87	74	20	61	23
12	3.0	15	22	e39	e21	e70	199	78	57	16	48	26
13	3.1	19	20	51	e21	e68	203	69	47	33	45	22
14	2.9	16	18	85	e20	e66	157	63	40	36	51	20
15	5.0	17	e16	e75	e22	e64	125	60	33	247	44	18
16	10	18	e7.0	e39	e130	e62	134	56	29	293	43	18
17	8.4	17	e8.0	e30	99	e60	282	55	27	330	43	17
18	9.6	16	e9.0	e29	71	e58	326	74	24	718	40	16
19	8.0	14	e10	e26	89	e56	339	81	25	361	36	42
20	6.7	13	e10	e24	e125	e54	268	63	30	191	31	40
21	5.8	13	e11	e23	e160	e52	209	53	35	130	27	29
22	5.6	12	e14	e23	e155	e50	196	48	29	93	24	80
23	5.6	17	e14	e34	e120	e48	179	44	25	213	22	133
24	5.5	23	e14	e55	113	e50	160	46	24	377	20	127
25	5.8	24	e13	e100	109	e60	166	46	22	208	20	71
26	5.8	20	e12	e83	147	239	187	45	19	142	20	182
27	5.7	17	e11	e61	e130	1230	166	48	19	151	24	250
28	6.5	15	e11	e44	108	984	138	53	18	149	39	198
29	6.0	22	e30	e40	97	635	117	46	15	146	225	124
30	6.4	26	e95	e41	---	479	104	43	13	251	140	82
31	7.0	---	e80	e39	---	379	---	54	---	882	89	---
TOTAL	148.9	417.5	769.0	1517	2051	6020	5843	2880	1775	5154	4047	1923
MEAN	4.80	13.9	24.8	48.9	70.7	194	195	92.9	59.2	166	131	64.1
MAX	10	26	95	100	160	1230	339	342	205	882	1120	250
MIN	2.0	6.5	7.0	23	20	48	104	43	13	11	20	16
CFSM	.05	.14	.24	.48	.69	1.90	1.91	.91	.58	1.63	1.28	.63
IN.	.05	.15	.28	.55	.75	2.20	2.13	1.05	.65	1.88	1.48	.70

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1992, BY WATER YEAR (WY)

MEAN	39.3	66.7	99.1	74.5	119	229	209	103	63.1	24.7	16.5	22.5
MAX	257	249	330	183	455	484	356	259	502	167	131	249
(WY)	1978	1978	1973	1975	1976	1978	1960	1989	1972	1972	1992	1977
MIN	.16	2.85	4.08	3.66	19.1	69.0	52.1	31.1	8.73	.94	.023	.030
(WY)	1965	1965	1961	1961	1989	1965	1981	1987	1965	1965	1965	1965

04235250 FLINT CREEK AT PHELPS, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1960 - 1992	
ANNUAL TOTAL	30191.7		32545.4			
ANNUAL MEAN	82.7		88.9		88.6	
HIGHEST ANNUAL MEAN					162	1978
LOWEST ANNUAL MEAN					32.2	1965
HIGHEST DAILY MEAN	1390	Mar 4	1230	Mar 27	2670	Jun 24 1972
LOWEST DAILY MEAN	1.7	Aug 2	2.0	Oct 3	.00	Sep 16 1962
ANNUAL SEVEN-DAY MINIMUM	2.0	Jul 30	2.2	Oct 1	.00	Sep 16 1962
INSTANTANEOUS PEAK FLOW			1580	Mar 27	2940	Mar 30 1960
INSTANTANEOUS PEAK STAGE			4.85	Mar 27	a6.20	Mar 17 1963
INSTANTANEOUS LOW FLOW			1.8	Oct 3	.00	b
ANNUAL RUNOFF (CFSM)	.81		.87		.87	
ANNUAL RUNOFF (INCHES)	11.01		11.87		11.80	
10 PERCENT EXCEEDS	219		198		228	
50 PERCENT EXCEEDS	18		44		36	
90 PERCENT EXCEEDS	2.4		7.7		3.4	

a Ice jam.
b No flow for many days 1962-65, 1969.

04235276 BLACK BROOK AT TYRE, NY

LOCATION.--Lat 42°59'30", long 76°48'13", Seneca County, Hydrologic Unit 04140201, on right bank 25 ft upstream from bridge on County Highway 101 in village of Tyre, and 0.8 mi upstream from mouth.

DRAINAGE AREA.--19.0 mi^2.

PERIOD OF RECORD.--Low-flow measurements, water years 1964–66, 1970–72, 1974, and annual maximum, water years 1965–73, 1975–85, November 1985 to current year.

GAGE.--Water-stage recorder. Datum of gage is 391.12 ft above National Geodetic Vertical Datum of 1929. December 9, 1964 to November 21, 1985, crest-stage gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 160 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27	1030	*516	*4.00	July 31	1730	347	3.16
July 18	0200	222	2.45	Sept. 26	2230	168	2.11
July 20	0100	162	2.07				

DISCHARGE, IN 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	5.1	57	e10	e24	47	9.1	16	2.4	262	31
2	.63	.69	2.9	42	e9.2	e17	41	11	27	2.5	117	21
3	.56	.70	314	16	e7.8	e14	30	71	15	3.6	54	18
4	.60	.66	31	15	e6.2	16	24	42	7.8	2.6	31	19
5	.60	.65	16	43	e5.2	17	19	25	4.9	2.1	20	13
6	1.0	.67	9.7	41	e4.6	22	15	17	4.4	2.5	14	8.6
7	.78	.71	6.8	30	e4.2	27	13	13	4.3	1.8	10	6.2
8	.72	.78	18	e16	e3.8	42	12	11	4.8	1.5	9.3	4.7
9	.68	.78	17	e17	e3.4	36	10	9.2	4.0	4.3	9.1	3.6
10	.98	.66	14	e16	e3.1	29	9.6	8.1	2.9	2.9	6.9	4.0
11	1.2	1.3	9.7	e17	e2.9	e27	13	6.9	2.4	2.0	4.7	5.5
12	.82	1.3	7.0	e18	2.8	e25	39	5.9	1.8	1.8	3.8	7.1
13	.64	1.2	6.0	19	2.7	e24	27	4.8	1.5	7.2	3.9	5.1
14	.62	1.3	4.5	42	2.8	e23	19	4.1	1.5	7.0	4.1	3.6
15	.90	1.6	e3.8	e38	6.5	e22	16	3.4	1.4	88	3.8	3.5
16	1.4	1.4	e3.0	e27	99	e21	23	3.0	1.4	89	3.9	4.0
17	.96	1.4	e2.8	e21	70	e20	112	2.7	1.3	63	3.2	3.5
18	.83	1.2	e2.5	e20	64	e19	69	3.8	1.3	196	2.8	3.1
19	.78	1.0	e2.4	e16	92	e18	59	3.6	3.5	142	2.6	5.5
20	.72	2.8	e2.3	e11	95	e17	41	3.2	3.1	125	2.3	3.7
21	.83	3.0	e2.2	e9.3	57	e16	29	2.5	2.0	69	2.0	5.8
22	.84	2.0	e3.0	e9.0	45	e15	27	2.0	1.6	40	1.7	48
23	.54	2.5	e5.0	e10	56	e13	22	1.7	1.4	61	1.5	62
24	.54	3.1	e6.5	e70	59	e12	18	2.1	1.5	81	1.5	34
25	.56	4.8	e5.5	e58	47	16	18	1.7	1.3	50	1.5	19
26	.58	2.5	e4.7	e44	59	98	19	1.7	1.1	30	2.4	91
27	.57	1.8	3.9	18	46	451	17	2.3	1.1	21	3.2	146
28	2.7	1.8	4.1	12	37	356	16	1.8	1.1	15	9.1	91
29	.76	5.7	35	10	e30	121	15	1.7	1.1	14	127	45
30	.65	7.5	115	10	---	89	13	1.8	1.1	19	83	26
31	.70	---	79	e10	---	62	---	3.4	---	211	51	---
TOTAL	25.23	56.17	459.4	782.3	931.2	1709	832.6	280.5	123.6	1358.2	852.3	741.5
MEAN	.81	1.87	14.8	25.2	32.1	55.1	27.8	9.05	4.12	43.8	27.5	24.7
MAX	2.7	7.5	115	70	99	451	112	71	27	211	262	146
MIN	.54	.65	2.2	9.0	2.7	12	9.6	1.7	1.1	1.5	1.5	3.1
CFSM	.04	.10	.78	1.33	1.69	2.90	1.46	.48	.22	2.31	1.45	1.30
IN.	.05	.11	.90	1.53	1.82	3.35	1.63	.55	.24	2.66	1.67	1.45

e Estimated

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

MEAN	10.8	18.0	25.6	23.1	28.4	37.2	36.5	18.5	7.53	9.82	6.48	5.68
MAX	23.6	34.6	61.5	41.5	65.6	55.1	64.8	51.2	19.4	43.8	27.5	24.7
(WY)	1991	1991	1991	1986	1990	1992	1990	1990	1989	1992	1992	1992
MIN	.81	1.87	2.22	2.74	5.01	22.3	11.8	2.79	1.19	2.03	.76	.56
(WY)	1992	1992	1989	1989	1989	1988	1988	1987	1988	1991	1988	1991

04235276 BLACK BROOK AT TYRE, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1986 - 1992	
ANNUAL TOTAL	5646.28		8152.00			
ANNUAL MEAN	15.5		22.3		18.5	
HIGHEST ANNUAL MEAN					25.3	1990
LOWEST ANNUAL MEAN					9.58	1988
HIGHEST DAILY MEAN	382	Apr 22	451	Mar 27	451	Mar 27 1992
LOWEST DAILY MEAN	.30	Sep 18	.54	Oct 1	.30	Sep 18 1991
ANNUAL SEVEN-DAY MINIMUM	.35	Sep 16	.64	Oct 21	.35	Sep 16 1991
INSTANTANEOUS PEAK FLOW			516	Mar 27	786	Dec 14 1977
INSTANTANEOUS PEAK STAGE			4.00	Mar 27	a6.68	Nov 5 1970
INSTANTANEOUS LOW FLOW			.48	b	.26	c
ANNUAL RUNOFF (CFSM)	.81		1.17		.97	
ANNUAL RUNOFF (INCHES)	11.05		15.96		13.21	
10 PERCENT EXCEEDS	37		59		48	
50 PERCENT EXCEEDS	3.9		7.0		7.0	
90 PERCENT EXCEEDS	.59		.97		.90	

a Discharge not determined.
b Oct. 1 and Nov. 10.
c Sept. 18, 1991.

04235396 OWASCO LAKE NEAR AUBURN, NY

LOCATION.--Lat 42°53'56", long 76°32'17", Cayuga County, Hydrologic Unit 04140201, on east side of breakwater at city of Auburn water intake and pumping station, 1.0 mi south of city limits of Auburn, and 1.8 mi upstream from State dam.

DRAINAGE AREA.--205 mi^2.

PERIOD OF RECORD.--October 1967 to current year. Records since 1912 collected by, and in files of, city of Auburn.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to May 1, 1982, nonrecording gage read once daily by employees of city of Auburn Water Division at same site and datum from reference mark at elevation 718.59 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Lake elevation regulated by gates on outlet at State dam. Area of water surface, 10.6 mi^2. Records for Jan. 15-21 and Jan. 24 to Feb. 20 computed from once-daily gage readings.

COOPERATION.--Records furnished by city of Auburn until April 30, 1982.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed elevation, 716.88 ft, June 25, 1972; minimum observed, 708.58 ft, Feb. 17, 18, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum observed elevation since 1912, 716.91 ft, Mar. 23, 1936, Apr. 9, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 713.24 ft, Aug. 2; minimum recorded, 709.45 ft, Jan. 23, but may have been lower during periods of once-daily gage readings Jan. 15-21 and Jan. 24 to Feb. 20.

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	710.86	710.60	710.78	710.00	e709.71	711.09	712.05	712.85	712.52	712.10	713.19	712.55
2	710.92	710.60	710.72	709.98	e709.65	711.03	712.10	712.89	712.74	712.08	713.14	712.58
3	710.89	710.59	710.73	709.94	e709.60	711.03	712.16	712.98	712.80	712.11	712.91	712.63
4	710.89	710.54	710.85	709.85	e709.62	711.01	712.22	712.92	712.78	712.13	712.71	712.57
5	710.73	710.56	710.85	709.95	e709.64	711.03	712.26	712.81	712.78	712.20	712.60	712.53
6	710.83	710.50	710.82	710.03	e709.67	711.01	712.28	712.86	712.71	712.17	712.57	712.53
7	710.79	710.47	710.73	710.04	e709.71	711.09	712.33	712.87	712.69	712.17	712.55	712.44
8	710.82	710.47	710.78	710.04	e709.66	711.18	712.33	712.84	712.73	712.20	712.53	712.33
9	710.74	710.45	710.78	710.04	e709.61	711.27	712.35	712.83	712.71	712.29	712.46	712.24
10	710.75	710.43	710.78	710.00	e709.53	711.36	712.36	712.80	712.68	712.32	712.41	712.22
11	710.72	710.49	710.76	709.99	e709.55	711.42	712.43	712.77	712.63	712.34	712.39	712.24
12	710.70	710.52	710.63	710.01	e709.54	711.49	712.55	712.77	712.59	712.36	712.34	712.21
13	710.68	710.56	710.58	709.96	e709.55	711.49	712.61	712.71	712.54	712.47	712.30	712.14
14	710.67	710.56	710.59	709.97	e709.56	711.38	712.64	712.63	712.47	712.56	712.24	712.06
15	710.63	710.62	710.54	e710.06	e709.66	711.26	712.64	712.60	712.33	712.71	712.18	712.05
16	710.74	710.60	710.49	e710.01	e709.76	711.13	712.67	712.61	712.27	712.82	712.13	712.07
17	710.75	710.62	710.40	e710.00	e709.85	711.00	712.77	712.65	712.26	712.74	712.08	712.06
18	710.76	710.65	710.35	e709.92	e709.94	710.86	712.79	712.69	712.20	712.57	712.08	712.03
19	710.73	710.65	710.28	e709.87	e710.07	710.74	712.82	712.65	712.18	712.52	712.09	712.20
20	710.73	710.69	710.22	e709.85	e710.42	710.66	712.82	712.64	712.16	712.53	712.08	712.24
21	710.72	710.66	710.15	e709.80	710.49	710.62	712.84	712.64	712.16	712.49	712.09	712.09
22	710.71	710.67	710.15	709.71	710.51	710.57	712.84	712.56	712.15	712.52	712.10	712.29
23	710.75	710.76	710.06	709.65	710.55	710.55	712.82	712.50	712.16	712.71	712.10	712.62
24	710.66	710.83	709.99	e709.82	710.67	710.50	712.82	712.39	712.17	712.88	712.11	712.67
25	710.66	710.90	709.92	e709.82	710.82	710.46	712.79	712.33	712.16	712.88	712.06	712.66
26	710.72	710.90	709.92	e709.80	710.92	710.48	712.86	712.34	712.16	712.80	712.05	712.75
27	710.68	710.86	709.77	e709.78	710.96	711.13	712.90	712.36	712.15	712.66	712.06	712.86
28	710.64	710.84	709.75	e709.72	711.00	711.80	712.90	712.38	712.15	712.63	712.13	712.91
29	710.64	710.83	709.75	e709.75	711.04	711.87	712.88	712.39	712.15	712.65	712.40	712.78
30	710.63	710.80	709.90	e709.81	---	711.86	712.86	712.35	712.13	712.69	712.55	712.74
31	710.61	---	710.00	e709.77	---	711.91	---	712.34	---	712.95	712.55	---
MEAN	710.73	710.64	710.39	709.90	710.04	711.11	712.59	712.64	712.41	712.49	712.36	712.41
MAX	710.92	710.90	710.85	710.06	711.04	711.91	712.90	712.98	712.80	712.95	713.19	712.91
MIN	710.61	710.43	709.75	709.65	709.53	710.46	712.05	712.33	712.13	712.08	712.05	712.03

CAL YR	1991	MEAN	711.37	MAX	713.14	MIN	709.75
WTR YR	1992	MEAN	711.48	MAX	713.19	MIN	709.53

e Estimated

04235500 OWASCO OUTLET NEAR AUBURN, NY

LOCATION.--Lat 42°56'48", long 76°35'56", Cayuga County, Hydrologic Unit 04140201, on left bank 2.5 mi downstream from center of Auburn, and 4 mi downstream from State dam at outlet of Owasco Lake.

DRAINAGE AREA.--206 mi^2.

PERIOD OF RECORD.--November 1912 to current year. Prior to October 1966, published as "Owasco Lake Outlet".

REVISED RECORDS.--WSP 824: 1913–14, 1916, 1920(M), 1922(M), 1928(M), 1929, 1932(M). WSP 2112: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 533.92 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (missing record), which are fair. Diurnal fluctuation caused by mills in Auburn; regulation at State dam at outlet of lake. Several measurements of water temperature were made during the year.

PEAK DISCHARGE FOR CURRENT YEAR.--Maximum discharge, 1,610 ft^3/s, July 31 at 1830 hours, gage height, 3.78 ft.

DISCHARGE, IN 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	56	47	336	369	359	382	649	e450	438	70	1510	105
2	54	48	337	365	357	370	696	e470	393	69	1440	102
3	55	47	346	362	176	366	407	e700	412	75	1220	207
4	52	47	363	366	70	364	390	e500	377	69	912	373
5	54	48	359	369	70	365	388	e450	375	72	502	367
6	58	48	358	368	70	364	390	e420	370	70	350	365
7	52	48	368	364	232	368	391	e400	368	70	308	361
8	53	41	364	305	361	370	385	e400	366	75	380	362
9	51	48	328	369	314	368	381	e400	371	81	372	358
10	54	49	367	368	116	358	378	e400	366	71	373	379
11	51	58	365	363	144	366	389	e395	371	72	382	366
12	50	52	363	362	144	369	382	e390	340	74	308	361
13	50	52	362	362	144	635	379	384	374	93	373	357
14	49	50	360	372	144	857	375	381	372	162	384	246
15	64	52	357	366	144	845	375	317	372	856	380	118
16	57	50	355	366	104	841	392	141	369	1070	378	75
17	50	48	357	369	60	826	641	94	370	1180	227	72
18	49	48	353	372	26	816	812	231	197	990	137	83
19	49	49	350	372	37	692	808	393	99	686	99	97
20	48	95	354	372	152	468	572	194	91	337	95	79
21	48	60	361	372	385	383	405	229	90	87	95	208
22	48	61	358	372	377	382	402	395	88	85	98	420
23	48	60	357	377	346	373	391	391	88	456	99	394
24	47	64	356	371	45	360	627	398	91	879	100	287
25	44	56	354	366	28	365	633	199	87	853	101	373
26	44	58	353	366	178	333	426	76	86	812	101	418
27	44	216	353	366	373	862	434	81	86	459	113	898
28	44	338	351	365	379	1190	435	74	84	366	152	1200
29	43	355	399	142	379	1180	e435	234	86	354	144	635
30	44	351	388	172	---	889	e440	393	78	349	116	382
31	46	---	373	358	---	526	---	420	---	1080	109	---
TOTAL	1556	2644	11105	10908	5714	17233	14208	10400	7655	12022	11358	10048
MEAN	50.2	88.1	358	352	197	556	474	335	255	388	366	335
MAX	64	355	399	377	385	1190	812	700	438	1180	1510	1200
MIN	43	41	328	142	26	333	375	74	78	69	95	72

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1992, BY WATER YEAR (WY)

MEAN	145	209	297	308	336	541	617	358	241	166	120	123
MAX	1013	773	1054	851	810	1255	1476	892	1066	620	366	597
(WY)	1978	1982	1928	1943	1990	1945	1940	1943	1972	1972	1992	1977
MIN	17.7	14.6	13.5	14.3	49.2	75.4	194	42.4	54.2	41.9	29.6	27.0
(WY)	1954	1954	1954	1961	1989	1989	1915	1985	1991	1987	1975	1983

04235500 OWASCO OUTLET NEAR AUBURN, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1913 - 1992	
ANNUAL TOTAL	80568		114851			
ANNUAL MEAN	221		314		288	
HIGHEST ANNUAL MEAN					436	1978
LOWEST ANNUAL MEAN					122	1965
HIGHEST DAILY MEAN	1030	Jan 1	1510	Aug 1	3200	Jun 24 1972
LOWEST DAILY MEAN	41	Nov 8	26	Feb 18	5.0	Nov 11 1934
ANNUAL SEVEN-DAY MINIMUM	44	Oct 25	44	Oct 25	11	Jan 29 1961
INSTANTANEOUS PEAK FLOW			1610	Jul 31	3250	Jun 23 1972
INSTANTANEOUS PEAK STAGE			3.78	Jul 31	6.28	Jun 23 1972
INSTANTANEOUS LOW FLOW			18	Oct 25	a2.0	Dec 5 1936
10 PERCENT EXCEEDS	421		540		649	
50 PERCENT EXCEEDS	71		358		198	
90 PERCENT EXCEEDS	51		50		47	

a About.

04236000 SKANEATELES LAKE AT SKANEATELES, NY

LOCATION.--Lat 42°56'42", long 76°25'46", Onondaga County, Hydrologic Unit 04140201, on east side of breakwater, enclosed in city of Syracuse boathouse, at Skaneateles.

DRAINAGE AREA.--72.7 mi^2.

PERIOD OF RECORD.--October 1967 to current year. Records since September 1890 collected by, and in files of, city of Syracuse.

GAGE.--Nonrecording gages read once daily by employees of Syracuse Water Division. Datum of gage is National Geodetic Vertical Datum of 1929. October 1967 to September 1975, at same site at datum 801.75 ft higher.

REMARKS.--Lake elevation regulated by gates at outlet by Syracuse Water Division. Area of water surface, 13.6 mi^2.

COOPERATION.--Records furnished by city of Syracuse.

EXTREMES FOR PERIOD OF RECORD.--(since 1890): Maximum observed elevation, 866.95 ft, June 25, 26, 1972; minimum observed, 858.90 ft, Nov. 15, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum observed elevation, 864.80 ft, Aug. 2, 3; minimum observed, 860.63 ft, Dec. 29

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	861.83	861.12	860.77	860.79	860.92	861.20	862.43	863.37	863.70	863.57	864.79	864.47
2	861.79	861.09	860.74	860.77	860.88	861.22	862.49	863.40	863.77	863.55	864.80	864.43
3	861.75	861.09	860.84	860.75	860.85	861.23	862.53	863.41	863.80	863.53	864.80	864.43
4	861.73	861.09	860.86	860.75	860.85	861.25	862.58	863.50	863.80	863.59	864.76	864.39
5	861.70	861.06	860.87	860.82	860.85	861.23	862.60	863.50	863.80	863.70	864.71	864.36
6	861.78	861.05	860.87	860.81	860.88	861.25	862.62	863.50	863.81	863.65	864.71	864.33
7	861.75	861.00	860.85	860.85	860.90	861.30	862.62	863.51	863.81	863.61	864.68	864.25
8	861.70	860.98	860.83	860.85	860.88	861.32	862.64	863.52	863.88	863.59	864.66	864.21
9	861.66	860.93	860.80	860.85	860.83	861.35	862.65	863.52	863.87	863.65	864.73	864.20
10	861.62	860.87	860.82	860.87	860.83	861.40	862.67	863.53	863.85	863.65	864.73	864.17
11	861.59	860.88	860.80	860.86	860.82	861.43	862.70	863.53	863.83	863.65	864.77	864.25
12	861.55	860.94	860.80	860.84	860.84	861.57	862.79	863.53	863.81	863.60	864.70	864.25
13	861.51	860.95	860.77	860.84	860.83	861.60	862.81	863.53	863.81	863.65	864.67	864.25
14	861.47	860.92	860.77	860.85	860.81	861.61	862.84	863.52	863.81	863.75	864.65	864.23
15	861.43	860.88	860.75	860.88	860.80	861.59	862.87	863.49	863.79	863.95	864.62	864.20
16	861.50	860.85	860.86	860.90	860.81	861.63	862.90	863.51	863.77	864.05	864.60	864.15
17	861.51	860.80	860.85	860.92	860.85	861.67	863.05	863.52	863.75	864.05	864.60	864.13
18	861.47	860.78	860.81	860.93	860.88	861.70	863.07	863.57	863.71	864.12	864.62	864.09
19	861.45	860.76	860.78	860.91	860.91	861.70	863.11	863.58	863.69	864.17	864.60	864.18
20	861.44	860.73	860.80	860.93	860.97	861.71	863.11	863.58	863.80	864.20	864.58	864.18
21	861.40	860.75	860.77	860.93	861.00	861.72	863.11	863.56	863.79	864.32	864.55	864.15
22	861.39	860.75	860.71	860.92	861.00	861.72	863.13	863.56	863.80	864.28	864.53	864.25
23	861.37	860.86	860.70	860.95	861.03	861.71	863.20	863.55	863.77	864.40	864.51	864.30
24	861.34	860.83	860.67	860.99	861.01	861.70	863.25	863.53	863.77	864.48	864.48	864.30
25	861.31	860.85	860.67	861.00	861.09	861.70	863.29	863.55	e863.73	864.50	864.45	864.25
26	861.28	860.81	860.65	860.98	861.08	861.70	863.33	863.55	e863.70	864.50	864.42	864.25
27	861.25	860.83	860.65	860.95	861.11	862.00	863.33	863.57	863.68	864.50	864.48	864.27
28	861.21	860.80	860.65	860.95	861.15	862.23	863.35	863.60	863.65	864.48	864.53	864.33
29	861.20	860.80	860.63	860.93	861.20	862.32	863.35	863.60	863.62	864.45	864.65	864.30
30	861.18	860.78	860.70	860.95	---	862.37	863.35	863.58	863.60	864.54	864.55	864.25
31	861.14	---	860.75	860.93	---	862.39	---	---	---	864.65	864.50	---
MEAN	861.49	860.89	860.77	860.89	860.93	861.63	862.93	---	863.77	864.01	864.63	864.26
MAX	861.83	861.12	860.87	861.00	861.20	862.39	863.35	---	863.88	864.65	864.80	864.47
MIN	861.14	860.73	860.63	860.75	860.80	861.20	862.43	---	863.60	863.53	864.42	864.09

CAL YR 1991 MEAN 862.84 MAX 864.42 MIN 860.63

e Estimated

04237410 SENECA RIVER AT JACK'S REEF NEAR MEMPHIS, NY

LOCATION.--Lat 43°05'55", long 76°25'24", Onondaga County, Hydrologic Unit 04140201, at bridge on Plainville Road, 200 ft from intersection with State Highway 31, 2.3 mi upstream from Cross Lake and 2.6 mi northwest of Memphis.

DRAINAGE AREA.--3,091 mi^2.

PERIOD OF RECORD.-- Water years 1988 to current year.
CHEMICAL DATA: 1988 (b), 1989 (c), 1990 (d), 1991 (c), 1992 (a).
MINOR ELEMENT DATA: 1988 (b), 1989 (c), 1990 (d), 1991 (c), 1992 (a).
SEDIMENT DATA: 1988 (b), 1989 (c), 1990 (d), 1991 (c), 1992 (a).

REMARKS.--Water-discharge data are based on records for station 04237500 Seneca River at Baldwinsville.

COOPERATION.--Water samples were collected by the New York State Department of Environmental Conservation, and were analyzed by the USGS National Water Quality Laboratory at Arvada, Colorado and the USGS Pennsylvania District Sediment Laboratory at LeMoyne, Pennsylvania.

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 PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)
OCT 28	0900	838	8.4	14.0	764	10.5	102	170

DATE	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	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)	SEDIMENT, SUSPENDED (MG/L)
OCT 28	< 1	210	2	50	< 0.10	2	< 10	9

04237500 SENECA RIVER AT BALDWINSVILLE, NY

LOCATION.--Lat 43°09'25", long 76°19'55", Onondaga County, Hydrologic Unit 04140201, on left bank 200 ft downstream from bridge on State Highways 31 and 48 in Baldwinsville, and 400 ft downstream from navigation dam at Lock 24 of New York State Erie (Barge) Canal.

DRAINAGE AREA.--3,138 mi^2.

PERIOD OF RECORD.--November 1949 to current year in reports of Geological Survey. November 1898 to December 1908, prior to construction of Erie (Barge) Canal, not equivalent to later records at same site because of extensive development of Erie (Barge) Canal system. January 1909 to September 1925 (gage heights only) in reports of State Engineer and Surveyor.

REVISED RECORDS.--WDR NY-78-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 361.38 ft above National Geodetic Vertical Datum of 1929 (362.60 ft Erie (Barge) Canal Datum). Prior to Dec. 31, 1908, nonrecording gage at same site at different datum. Auxiliary water-stage recorder 1,500 ft downstream from base gage at same datum. Telephone gage-height telemeter at base and auxiliary gages.

REMARKS.--Records good except those below 2,000 ft^3/s, which are fair. Discharge from 1898 to 1908 determined on basis of head on dam, flow through 10 mills nearby, lockages at Oswego Canal lock, estimated leakage of dam, wheel gates, flumes, and penstocks; not adjusted for inflow from Lake Erie through Erie (Barge) Canal. Discharge, since November 1949, computed by using fall as determined by auxiliary water-stage recorder. Published discharge represents the total flow at Baldwinsville and includes flow in Erie (Barge) Canal.

A large amount of natural storage and some artificial regulation is afforded by many large lakes and the Erie (Barge) Canal system in the river basin. Large diurnal fluctuations at low and medium flows caused by powerplants upstream from station. Seneca River basin receives water from Erie (Barge) Canal through Lock 32 near Pittsford. During part of year, entire flow from 45.5 mi^2 of Mud Creek drainage area may be diverted from Chemung River basin into Keuka Lake in Oswego River basin. Several measurements of water temperature were made during the year.

COOPERATION.--Records of lockages at Lock 24 furnished by New York State Department of Transportation (since November 1949).

DISCHARGE, IN 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	744	510	3690	2850	1890	4950	8150	5030	3830	1110	7880	6020
2	612	488	3580	2030	1840	4690	7450	4410	4970	880	8770	4890
3	1090	494	3570	1710	1830	4600	7090	4370	4870	1170	9330	4050
4	817	366	3790	1680	1770	4300	6960	4890	4810	1660	9520	4420
5	311	569	3890	2120	1220	3980	6970	5500	4640	1590	9390	4350
6	841	540	3970	2600	772	3510	6810	5520	4690	1400	9100	4510
7	1050	573	4040	3090	784	3360	6730	5360	4700	1240	8660	4470
8	764	581	4010	3450	1150	3830	6620	4900	4630	1470	7870	4060
9	654	533	4130	3620	1330	4220	6500	4620	4530	1920	7220	3850
10	283	426	4090	3660	1010	4300	6160	4690	4640	1490	6890	4320
11	905	279	4080	3660	781	4370	5650	4620	4610	1520	6690	4730
12	1380	411	4090	3650	790	4260	5430	4320	4200	1220	6250	4480
13	660	938	4030	3640	797	3920	5300	3910	2920	1680	6170	4620
14	700	1460	3590	3740	805	4030	5410	3730	1810	3140	6000	4440
15	686	1040	3240	4330	798	4340	5050	3290	1540	4630	5790	4150
16	705	582	2920	4860	1580	4410	4370	2180	1410	6400	5720	3990
17	786	836	3010	4850	2190	4240	4520	2040	1190	6840	5600	3960
18	806	1190	3270	4220	2300	4200	5210	2360	850	7900	5360	3800
19	784	1280	3130	4020	2410	4020	5470	2370	1040	8420	5250	3870
20	804	1180	3150	4010	2990	3930	5740	2690	844	8840	4950	4010
21	787	1140	3170	4280	3560	3890	5270	3210	1170	8930	4860	4100
22	781	1750	3230	3390	3940	3800	5100	3130	864	8630	4320	4610
23	787	3000	3020	2240	4020	3610	4610	2780	1180	7950	4240	4870
24	773	2370	2010	2470	3960	3140	4930	2740	1140	7590	4260	4670
25	791	2240	1720	2470	4190	2580	5850	3020	1570	7600	3770	3720
26	723	2220	1590	2570	4210	2710	5980	2980	1520	7450	2850	3300
27	545	2430	1540	2510	5210	5520	5970	2800	1480	7170	3160	3970
28	524	2660	1340	2330	5020	7780	6020	2840	1190	6800	3540	5280
29	527	3070	1250	2020	4920	8630	5910	3230	1300	6470	5900	5560
30	479	3580	2580	1680	---	9090	5450	3090	964	6240	6760	5360
31	466	---	3220	1900	---	8790	---	3160	---	6660	6570	---
TOTAL	22565	38736	97940	95650	68067	143000	176680	113780	79102	146010	192640	132430
MEAN	728	1291	3159	3085	2347	4613	5889	3670	2637	4710	6214	4414
MAX	1380	3580	4130	4860	5210	9090	8150	5520	4970	8930	9520	6020
MIN	283	279	1250	1680	772	2580	4370	2040	844	880	2850	3300
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1992, BY WATER YEAR (WY)												
MEAN	2188	3184	4339	3893	3888	5882	5897	3894	2643	2019	1598	1526
MAX	11020	9491	10330	8807	8313	11650	11330	8882	6456	12100	6214	4760
(WY)	1978	1978	1978	1978	1976	1956	1956	1983	1972	1972	1992	1977
MIN	572	675	778	805	965	1606	1317	772	957	621	588	528
(WY)	1986	1958	1961	1954	1980	1965	1981	1985	1977	1985	1985	1985

04237500 SENECA RIVER AT BALDWINSVILLE, NY--continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1950 - 1992	
ANNUAL TOTAL	1084684		1306600			
ANNUAL MEAN	2972		3570		3406	
HIGHEST ANNUAL MEAN					5998	1978
LOWEST ANNUAL MEAN					1357	1965
HIGHEST DAILY MEAN	10300	Jan 2	9520	Aug 4	17200	a
LOWEST DAILY MEAN	279	Nov 1	279	Nov 11	b34	Sep 17 1985
ANNUAL SEVEN-DAY MINIMUM	387	Sep 3	476	Oct 29	283	Sep 23 1988
10 PERCENT EXCEEDS	7260		6630		7590	
50 PERCENT EXCEEDS	1590		3660		2310	
90 PERCENT EXCEEDS	558		787		928	

a Apr. 4, 1960 and June 28, 1972.
b Result of extreme regulation.

04237944 ONONDAGA CREEK TRIBUTARY NO. 6 ABOVE MAIN MUDBOIL DEPRESSION AREA, NEAR TULLY, NY

LOCATION.--Lat 42°51'13", long 76°08'34", Onondaga County, Hydrologic Unit 04140201, about 450 ft upstream of the main depression area caused by land subsidence, about 1,325 ft east of Tully Farms Road, 2,000 ft south of Otisco Road, 1,600 ft upstream from mouth and 4.2 mi northwest of Tully.

DRAINAGE AREA.--0.26 mi^2 (0.70 mi^2 diverted to Trib. No. 5 on June 12, 1992).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1991 to September 1992.

GAGE.--Telog eletronic data loggers with 2.5 psi pressure transducers in flume stilling wells. Two sets of equipment are used. The first is in a 3-in Parshall Flume equipped to record lower stages to an acceptable level of accuracy. The second is in a 12-in Parshall Flume to record stages that exceed the capacity of the 3-in flume.

REMARKS.--Records good except those for periods of flume overflow and flow bypass of flumes, which are fair.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27	0900	*16	1.64	May 31	1900	14	*1.66
Apr. 11	1545	10	1.49	June 7	1645	12	1.51
May 2	1930	12	1.56				

DISCHARGE, IN 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	.05	.06	.68	1.3	1.5	2.9	6.0	2.4	5.9	.18	1.3	.36
2	.05	.06	.61	1.2	1.3	2.4	4.9	4.0	2.9	.17	1.1	.35
3	.04	.06	3.0	1.6	1.2	2.1	4.7	4.3	1.8	.19	1.0	.39
4	.04	.06	1.3	3.8	1.2	2.1	4.2	3.3	1.5	.22	.97	.36
5	.05	.05	.95	3.4	1.1	2.6	3.6	2.9	1.4	.23	.88	.34
6	.06	.06	.90	2.4	1.1	3.0	3.2	2.6	1.3	.18	.84	.33
7	.05	.06	1.2	2.1	1.0	3.2	3.2	2.3	3.0	.20	.75	.32
8	.04	.06	2.0	1.8	.97	3.2	3.2	2.1	2.5	.21	.71	.32
9	.04	.05	1.8	1.9	.81	3.5	2.8	2.0	1.6	.34	.68	.32
10	.05	.06	1.5	2.0	.81	4.3	2.8	1.7	1.2	.19	.66	.44
11	.04	.15	1.3	1.6	.84	6.1	5.2	1.5	1.1	.18	.63	.38
12	.04	.10	1.3	1.5	.68	4.9	5.4	1.4	.94	.21	.58	.34
13	.04	.11	1.3	1.8	.73	4.6	4.3	1.3	.78	.61	.57	.32
14	.04	.09	1.4	4.5	.76	4.2	4.0	1.1	.68	.33	.56	.31
15	.10	.14	1.3	3.0	1.6	3.6	3.7	1.0	.62	1.2	.53	.30
16	.32	.19	1.2	2.4	5.1	3.3	5.3	1.1	.58	.72	.49	.30
17	.10	.15	1.2	2.3	2.8	3.1	6.3	.94	.53	.62	.45	.29
18	.08	.13	1.1	1.9	2.8	2.6	5.1	1.2	.47	.65	.45	.34
19	.08	.12	.98	1.7	6.6	2.5	4.8	.83	.51	.60	.42	.58
20	.08	.12	.96	1.7	4.5	2.1	4.3	.74	.50	.49	.40	.34
21	.07	.16	1.1	1.6	3.5	1.8	3.8	.65	.50	.46	.39	.33
22	.07	.24	1.1	1.5	3.3	1.6	3.5	.61	.48	.40	.38	.60
23	.07	.47	1.1	3.2	3.9	1.6	3.1	.49	.41	1.2	.36	.48
24	.07	.83	1.1	4.0	3.4	1.4	3.4	.64	.44	.87	.35	.45
25	.07	.60	.93	2.3	3.4	1.9	4.4	.53	.36	.76	.35	.37
26	.07	.47	.89	1.9	3.3	6.4	3.9	.54	.31	.71	.35	.55
27	.07	.41	.87	1.8	2.9	12	3.5	.66	.28	.63	.35	.55
28	.06	.38	.79	1.8	3.7	8.1	3.2	.52	.25	.55	.55	.48
29	.06	1.3	2.6	1.7	3.5	6.8	2.8	.43	.24	.70	.58	.43
30	.06	1.1	2.8	1.8	---	5.8	2.5	.45	.21	.62	.41	.43
31	.06	---	1.6	1.7	---	5.6	---	4.6	---	2.1	.38	---
TOTAL	2.12	7.84	40.86	67.2	68.30	119.3	121.1	48.83	33.29	16.72	18.42	11.70
MEAN	.068	.26	1.32	2.17	2.36	3.85	4.04	1.58	1.11	.54	.59	.39
MAX	.32	1.3	3.0	4.5	6.6	12	6.3	4.6	5.9	2.1	1.3	.60
MIN	.04	.05	.61	1.2	.68	1.4	2.5	.43	.21	.17	.35	.29
CFSM	.07	.27	1.37	2.26	2.45	4.01	4.20	1.64	1.16	.56	.62	.41
IN.	.08	.30	1.58	2.60	2.65	4.62	4.69	1.89	1.29	.65	.71	.45

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

MEAN	.068	.26	1.32	2.17	2.36	3.85	4.04	1.58	1.11	.54	.59	.39
MAX	.068	.26	1.32	2.17	2.36	3.85	4.04	1.58	1.11	.54	.59	.39
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992
MIN	.068	.26	1.32	2.17	2.36	3.85	4.04	1.58	1.11	.54	.59	.39
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992

04237944 ONONDAGA CREEK TRIBUTARY NO. 6 ABOVE MAIN MUDBOIL DEPRESSION AREA, NEAR TULLY, NY--continued

SUMMARY STATISTICS	FOR 1992 WATER YEAR	
ANNUAL TOTAL	555.68	
ANNUAL MEAN	1.52	
HIGHEST DAILY MEAN	12	Mar 27
LOWEST DAILY MEAN	.04	Oct 3, 4, 8, 9, 11-14
ANNUAL SEVEN-DAY MINIMUM	.04	Oct 8
INSTANTANEOUS PEAK FLOW	16	Mar 27
INSTANTANEOUS PEAK STAGE	1.66	May 31
INSTANTANEOUS LOW FLOW	.03	Oct 8, 9, 10, 14, 15
ANNUAL RUNOFF (CFSM)	1.58	
ANNUAL RUNOFF (INCHES)	21.53	

04237944 ONONDAGA CREEK TRIBUTARY NO. 6 ABOVE MAIN MUDBOIL DEPRESSION AREA, NEAR TULLY, NY--continued

PERIOD OF RECORD.--October 1991 to September 1992.
CHEMICAL DATA: 1992 (d).
SEDIMENT DATA: 1992 (d).

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 (PER-CENT SATUR-ATION)	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)
OCT												
16.....	0830	0.36	427	8.0	10.0	752	7.0	63	260	78	15	7.9
DEC												
10.....	0900	1.4	460	8.4	5.5	760	10.4	83	220	66	13	5.5
MAR												
10.....	0815	3.5	405	8.2	6.0	738	9.4	78	210	64	12	5.3
27.....	0845	14	194	7.8	2.5	739	11.2	85	100	31	5.7	2.3
MAY												
13.....	0800	1.4	437	7.9	13.5	734	10.1	101	230	72	13	6.6
JUN												
04.....	0800	1.5	447	8.1	14.0	750	10.0	98	230	70	14	6.6
25.....	0800	0.40	533	7.6	14.0	745	9.8	97	260	80	15	7.3
JUL												
21.....	0800	0.47	632	7.7	16.0	754	8.8	90	320	100	18	8.0
AUG												
05.....	0800	0.89	605	7.7	14.5	753	7.9	79	310	94	18	7.5
SEP												
24.....	0900	0.52	529	7.5	11.5	--	--	--	270	80	17	8.5

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	BROMIDE DIS-SOLVED (MG/L AS BR)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT												
16.....	3.5	11	33	230	281	6.7	306	52	55	0.020	16	0.02
DEC												
10.....	1.1	15	24	--	--	5.8	256	11	18	0.040	8	0.03
MAR												
10.....	0.80	13	20	174	212	4.4	226	< 3	3	0.010	8	0.08
27.....	1.3	5.9	10	70	85	3.7	118	18	8	< 0.010	354	13
MAY												
13.....	1.3	15	20	202	246	5.0	266	7	22	0.020	7	0.03
JUN												
04.....	1.3	18	21	204	249	5.3	260	15	26	0.020	11	0.05
25.....	1.1	12	24	230	281	5.9	312	11	32	0.030	97	0.12
JUL												
21.....	1.6	17	27	264	322	8.2	336	16	51	0.040	2	0.00
AUG												
05.....	1.5	11	26	282	344	6.8	347	12	32	0.040	3	0.01
SEP												
24.....	3.0	12	22	266	325	4.9	320	16	42	0.010	6	0.00

04237946 ONONDAGA CREEK TRIBUTARY NO. 6 BELOW MAIN MUDBOIL DEPRESSION AREA AT TULLY, NY

LOCATION.--Lat 42°51'18", long 76°08'24", Onondaga County, Hydrologic Unit 04140201, on right side of 9-in flume, 250 ft downstream from main depression area, about 2,100 ft east of Tully Farms Road, 1,500 ft south of Otisco Road, 400 ft upstream from mouth and 4.2 mi northwest of Tully.

DRAINAGE AREA.--0.32 mi^2 (0.70 mi^2 diverted to Trib. No. 5 on June 12, 1992).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1991 to September 1992.

GAGE.--Telog eletronic data loggers with 2.5 psi pressure transducers in flume stilling well.

REMARKS.--Records good except those for periods of no gage-height record and flume overflow, which are fair.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 14 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27	0700	*52	*2.03	May 31	2015	14	1.65
May 2	2030	15	1.68	July 31	0700	14	1.65

DISCHARGE, IN 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	.42	e1.2	2.0	2.0	4.1	6.4	3.6	7.0	.78	2.7	.88
2	.45	.42	e1.1	1.8	1.9	3.6	5.4	5.7	3.4	.76	2.2	.73
3	.44	.41	4.2	2.1	1.8	3.1	5.1	7.4	2.3	.86	1.8	.82
4	.44	.43	2.0	5.7	1.7	3.1	4.3	4.9	2.0	.87	1.7	.70
5	.43	.44	1.5	5.5	1.7	3.3	3.7	4.1	2.0	.89	1.6	.67
6	.54	.43	1.5	3.6	1.6	3.5	3.3	3.8	1.9	.75	1.5	.66
7	.42	.43	1.8	2.9	1.6	3.9	3.2	3.3	3.6	.79	1.4	.66
8	.36	.40	2.6	2.5	1.5	4.1	3.3	3.0	2.9	.87	1.3	.66
9	.36	.39	2.3	2.6	1.5	4.5	3.4	2.8	2.1	1.1	1.3	.66
10	.39	.42	1.9	2.8	1.5	5.1	3.4	2.6	1.9	.69	1.3	.96
11	.38	.68	1.7	2.4	1.4	7.9	6.1	2.3	1.7	.67	1.3	.75
12	.39	.52	1.5	2.2	1.5	6.6	6.3	2.1	1.6	.81	1.2	.69
13	.37	.50	1.6	2.4	1.4	6.5	5.3	2.0	1.5	1.6	1.3	.66
14	.34	.45	1.7	4.9	1.3	6.3	5.0	1.9	1.4	.95	1.3	.63
15	.48	e.55	1.7	3.6	2.1	5.6	4.5	1.8	1.3	3.3	1.3	.58
16	.75	e.59	1.6	2.9	5.6	4.7	5.9	1.8	1.3	1.7	1.2	.57
17	.39	e.55	1.6	2.7	3.4	4.0	6.6	1.7	1.1	1.5	1.2	.56
18	.34	e.52	1.5	2.3	3.2	3.6	5.4	2.0	1.0	1.6	1.1	.66
19	.34	e.52	1.4	2.2	7.0	3.4	4.7	1.7	1.1	1.4	1.2	1.0
20	.33	e.51	1.4	2.1	5.5	2.9	4.1	1.5	1.3	1.2	1.2	.66
21	.32	e.56	1.6	2.0	4.4	2.7	3.8	1.4	1.3	1.2	1.1	.62
22	.32	e.65	1.6	2.0	4.2	2.6	3.6	1.4	1.3	1.1	1.1	1.0
23	.33	e.95	1.6	3.4	4.8	2.5	3.3	1.2	1.2	3.4	.97	.88
24	.33	e1.2	1.8	4.5	4.2	2.3	3.8	1.5	1.2	2.0	.95	.81
25	.33	e1.1	1.7	2.9	4.0	2.7	5.0	1.4	1.1	1.7	.93	.74
26	.33	e.94	1.3	2.6	4.0	8.3	4.8	1.3	.93	1.6	.87	1.2
27	.34	e.87	1.3	2.3	3.7	23	4.4	1.5	.88	1.5	.87	1.1
28	.34	e.84	1.2	2.2	4.5	8.4	3.5	1.3	.87	1.4	1.3	.93
29	.33	e1.7	4.2	2.1	5.4	6.7	3.5	1.2	.83	1.8	1.4	.81
30	.37	e1.5	4.4	2.1	---	6.4	3.7	1.3	.80	1.5	1.2	.81
31	.41	---	2.3	2.1	---	5.8	---	5.9	---	5.2	1.1	---
TOTAL	12.16	19.89	58.8	87.4	88.4	161.2	134.8	79.4	52.81	45.49	40.89	23.06
MEAN	.39	.66	1.90	2.82	3.05	5.20	4.49	2.56	1.76	1.47	1.32	.77
MAX	.75	1.7	4.4	5.7	7.0	23	6.6	7.4	7.0	5.2	2.7	1.2
MIN	.32	.39	1.1	1.8	1.3	2.3	3.2	1.2	.80	.67	.87	.56
CFSM	.38	.65	1.86	2.76	2.99	5.10	4.41	2.51	1.73	1.44	1.29	.75
IN.	.44	.73	2.14	3.19	3.22	5.88	4.92	2.90	1.93	1.66	1.49	.84

e Estimated

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

MEAN	.39	.66	1.90	2.82	3.05	5.20	4.49	2.56	1.76	1.47	1.32	.77
MAX	.39	.66	1.90	2.82	3.05	5.20	4.49	2.56	1.76	1.47	1.32	.77
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992
MIN	.39	.66	1.90	2.82	3.05	5.20	4.49	2.56	1.76	1.47	1.32	.77
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992

04237946 ONONDAGA CREEK TRIBUTARY NO. 6 BELOW MAIN MUDBOIL DEPRESSION AREA AT TULLY, NY--continued

SUMMARY STATISTICS	FOR 1992 WATER YEAR	
ANNUAL TOTAL	804.30	
ANNUAL MEAN	2.20	
HIGHEST DAILY MEAN	23	Mar 27
LOWEST DAILY MEAN	.32	Oct 21, 22
ANNUAL SEVEN-DAY MINIMUM	.33	Oct 20
INSTANTANEOUS PEAK FLOW	52	Mar 27
INSTANTANEOUS PEAK STAGE	2.03	Mar 27
INSTANTANEOUS LOW FLOW	.22	Aug 23
ANNUAL RUNOFF (CFSM)	2.15	
ANNUAL RUNOFF (INCHES)	29.33	

04237946 ONONDAGA CREEK TRIBUTARY NO. 6 BELOW MAIN MUDBOIL DEPRESSION AREA AT TULLY, NY--continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1991 to September 1992
CHEMICAL DATA: 1992 (d).
SEDIMENT DATA: 1992 (e).

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: October 1991 to September 1992.

EXTREMES FOR CURRENT YEAR.--
SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean 27,200 mg/L, Oct. 1; minimum daily mean 1,130 mg/L, April 17.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily mean 148 tons, Mar. 11; minimum daily mean 9.9 tons, Oct. 14.

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 (PER-CENT SATUR-ATION)	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)
OCT												
16.....	0945	0.76	4650	8.4	10.5	752	9.1	84	580	140	56	740
NOV												
07.....	0900	0.44	6910	8.4	7.0	758	9.3	79	850	190	91	1400
DEC												
10.....	1100	1.8	2020	8.5	6.0	760	10.2	83	320	84	26	240
JAN												
22.....	0900	2.1	3310	8.4	2.0	756	10.4	77	400	96	38	440
FEB												
19.....	0830	5.7	1160	8.0	3.5	755	10.8	82	230	64	18	130
MAR												
10.....	0915	5.2	2120	8.0	7.0	738	9.4	81	300	80	25	230
27.....	1015	25	425	8.2	3.5	739	11.3	87	130	37	8.2	35
MAY												
13.....	0900	2.1	3170	8.0	14.5	734	9.3	96	450	110	42	530
JUN												
04.....	0830	2.2	2890	8.0	14.0	750	9.2	91	410	100	40	430
25.....	0830	1.2	6860	7.7	13.5	745	9.1	91	680	150	74	1100
JUL												
21.....	0830	1.3	5100	8.1	15.5	754	7.9	81	610	140	62	750
AUG												
05.....	0830	1.7	3670	8.3	14.0	753	8.2	81	460	110	45	520
SEP												
24.....	1000	1.0	4640	7.7	9.5	--	--	--	580	130	62	730

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	BROMIDE DIS-SOLVED (MG/L AS BR)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT												
16.....	4.5	880	150	196	239	9.0	2080	< 9	140	0.040	12000	25
NOV												
07.....	4.6	2700	98	152	185	9.8	4860	80	140	3.5	11700	14
DEC												
10.....	1.7	410	62	168	205	6.8	1010	6	49	0.58	5140	25
JAN												
22.....	2.1	680	97	182	222	6.9	1280	20	70	1.2	6100	35
FEB												
19.....	1.2	250	45	124	151	5.2	637	9	35	0.31	2380	37
MAR												
10.....	1.6	410	69	194	237	5.2	1050	18	31	0.56	5250	74
27.....	1.6	67	19	94	115	4.0	244	15	17	0.050	--	--
MAY												
13.....	13	820	110	176	215	6.5	1740	< 10	60	1.1	4040	21
JUN												
04.....	2.2	820	130	166	203	6.7	1680	30	80	1.1	4750	26
25.....	3.7	2000	220	164	200	8.5	4040	< 10	90	2.2	11100	30
JUL												
21.....	3.3	1300	160	204	249	6.2	2780	10	90	1.9	5220	14
AUG												
05.....	0.50	960	110	216	264	8.1	1950	< 10	140	0.95	8620	33
SEP												
24.....	3.2	1300	170	180	220	8.6	2720	< 10	130	1.8	7800	19

04237946 ONONDAGA CREEK TRIBUTARY NO. 6 BELOW MAIN MUDBOIL DEPRESSION AREA AT TULLY, NY--continued

SEDIMENT, SUSPENDED CONCENTRATION (MG/L), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27200	21700	6850	5880	6210	8630	2160	2900	1140	8450	3810	9150
2	19500	19600	7460	8540	6450	11000	2710	6880	2800	9860	4600	9270
3	13900	20500	2400	6480	5820	10400	2720	3350	4550	8230	5670	7800
4	14600	25000	4500	3580	6600	7550	2460	2870	5220	9150	7870	7200
5	16800	17600	3930	2170	6510	5480	2390	2190	4990	15700	8230	7020
6	13200	13200	4410	3680	7540	5270	2960	2260	4950	5940	7750	7320
7	14000	12600	3980	4780	9810	5110	3740	2500	5020	9850	6850	8100
8	14500	12600	3960	4550	8340	5900	3770	3430	2410	11500	5730	9880
9	15000	13800	4430	3670	8760	7760	3330	4290	4080	5430	5920	10100
10	10200	12200	4560	4270	9530	7060	3280	3830	4940	6570	6140	8730
11	10500	6710	4720	7090	9480	6940	2950	3760	5540	7700	6010	9430
12	12300	11100	6800	6840	12000	5820	1750	5290	5610	9380	6600	8860
13	10100	10400	7630	6310	12600	6530	1520	4600	6230	4320	6040	8630
14	10700	10800	5860	3500	12500	5990	1620	4590	7610	8080	6040	8090
15	10200	8480	5900	3680	7940	5090	1830	4590	9040	4090	6250	8920
16	9530	7030	5370	5740	2200	4710	1620	4910	11000	5440	5240	10000
17	9450	7600	4890	5400	4740	4840	1130	4500	8580	5900	5750	9540
18	14600	14400	4720	3940	3850	5040	1200	4820	13500	5560	8840	12500
19	20000	13700	5260	6440	2210	6000	1390	5030	21700	5590	8250	5700
20	21800	11400	9540	7480	2620	7020	2070	5050	14400	5110	6760	8090
21	19500	9950	9010	6070	3870	7600	2550	5830	11500	5280	6320	8270
22	18100	8890	7150	5480	3880	7380	3020	5740	13900	5640	7310	6850
23	19400	8370	7340	4970	3860	7480	2810	5910	8380	3010	9550	7110
24	18900	6250	11000	3780	3900	7790	2370	6060	10900	3750	7600	7710
25	19000	6700	15600	3230	4080	6240	2350	7020	11900	5700	7240	9650
26	17900	6370	15600	3980	5410	3050	3020	8420	12700	6050	5520	5160
27	15600	7130	11200	4780	7710	1460	2480	7650	8870	5950	8370	8320
28	15800	6690	10400	4800	7140	2190	2600	6350	5860	5140	5800	6430
29	25200	5520	4190	4560	5110	1730	2730	8060	8050	3740	5580	5710
30	17300	5180	3720	5450	---	1810	2440	8240	8640	5040	7870	6610
31	13600	---	5430	6270	---	2210	---	2890	---	2190	8800	---
MEAN	15800	11400	6700	5080	6570	5840	2430	4960	8130	6560	6720	8200
MAX	27200	25000	15600	8540	12600	11000	3770	8420	21700	15700	9550	12500
MIN	9450	5180	2400	2170	2200	1460	1130	2190	1140	2190	3810	5160

04237946 ONONDAGA CREEK TRIBUTARY NO. 6 BELOW MAIN MUDBOIL DEPRESSION AREA AT TULLY, NY--continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), 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	24	22	31	33	95	37	29	21	18	28	22
2	24	22	22	43	32	106	39	88	24	20	27	18
3	17	23	24	35	28	86	37	65	28	19	28	17
4	17	29	24	40	30	63	29	39	29	22	36	14
5	20	21	16	31	30	48	24	24	26	38	35	13
6	19	15	17	36	33	50	26	23	25	13	31	13
7	16	15	19	37	42	54	32	22	33	21	25	14
8	14	14	28	31	35	64	34	28	17	25	21	17
9	14	15	27	26	36	94	31	32	23	15	21	18
10	11	14	23	32	37	97	30	27	25	12	22	20
11	11	12	21	45	35	148	44	24	26	14	21	19
12	13	16	28	41	49	104	30	30	24	20	22	17
13	10	14	33	41	46	115	22	25	25	17	21	15
14	9.9	13	27	38	43	103	22	24	28	21	21	14
15	12	13	27	35	37	77	22	22	32	31	21	14
16	17	11	24	44	33	60	25	24	38	24	18	15
17	10	11	21	39	43	52	20	20	27	24	18	14
18	13	20	19	25	32	49	17	26	36	23	27	21
19	18	19	19	38	41	54	17	23	67	21	27	14
20	19	16	35	43	38	55	23	21	50	16	22	14
21	17	15	39	33	46	56	26	23	41	17	20	14
22	16	16	32	29	44	51	29	21	50	16	21	17
23	17	21	32	46	50	50	25	20	26	24	25	17
24	17	20	52	47	44	48	24	24	36	20	20	17
25	17	20	69	25	44	42	32	26	35	26	18	19
26	16	16	54	27	58	67	39	31	32	26	13	16
27	14	17	39	30	77	86	30	32	21	23	20	25
28	15	15	33	29	78	49	24	23	14	19	17	16
29	22	25	31	26	72	30	26	26	18	18	20	12
30	17	21	40	31	---	31	24	28	19	21	25	15
31	15	---	33	35	---	35	---	43	---	26	26	---
TOTAL	501.9	523	930	1089	1246	2119	840	913	896	650	717	491
MEAN	16	17	30	35	43	68	28	29	30	21	23	16
MAX	34	29	69	47	78	148	44	88	67	38	36	25
MIN	9.9	11	16	25	28	30	17	20	14	12	13	12

04237946 ONONDAGA CREEK TRIBUTARY NO. 6 BELOW MAIN MUDBOIL DEPRESSION AREA AT TULLY, NY--continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, PERIOD AUGUST 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. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
AUG							
29.....	0715	0.62	11900	20	--	--	--
SEP							
04.....	0905	1.1	13100	39	--	--	--
JAN							
18.....	1600	2.3	3370	21	--	--	--
19.....	1701	2.2	7750	46	--	--	--
22.....	1700	1.9	4870	25	--	--	--
23.....	1730	5.9	5110	81	29	32	32
FEB							
07.....	2200	1.6	11000	47	40	45	61
11.....	1700	1.3	9230	32	--	--	--
14.....	1430	1.2	13100	42	--	--	--
MAR							
25.....	1200	2.1	6860	39	--	--	--
26.....	0800	4.2	2860	32	--	--	--
27.....	0930	29	1000	78	--	--	--
MAY							
25.....	2200	1.1	7650	23	40	51	66
JUN							
01.....	1030	7.8	612	13	--	--	--
03.....	1130	2.1	4300	24	--	--	--
07.....	1705	6.8	8020	147	35	47	62

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
AUG							
29.....	--	--	89	--	--	--	--
SEP							
04.....	--	--	96	--	--	--	--
JAN							
18.....	--	--	82	--	--	--	--
19.....	--	--	91	--	--	--	--
22.....	--	--	88	--	--	--	--
23.....	52	64	84	99	100	100	100
FEB							
07.....	73	87	96	99	100	100	100
11.....	--	--	96	--	--	--	--
14.....	--	--	95	--	--	--	--
MAR							
25.....	--	--	84	--	--	--	--
26.....	--	--	90	--	--	--	--
27.....	--	--	94	--	--	--	--
MAY							
25.....	77	87	96	99	100	100	100
JUN							
01.....	--	--	90	--	--	--	--
03.....	--	--	91	--	--	--	--
07.....	77	93	99	100	100	100	100

04238500 ONONDAGA RESERVOIR NEAR NEDROW, NY

LOCATION.--Lat 42°55'51", long 76°10'24", Onondaga County, Hydrologic Unit 04140201, at Onondaga Dam on Onondaga Creek, 3.5 mi southwest of Nedrow, 4 mi south of Syracuse, and 10.5 mi upstream from Onondaga Lake.

DRAINAGE AREA.--67.7 mi^2.

PERIOD OF RECORD.--June 1949 to September 1952 (monthly elevations and contents), October 1952 to current year.

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

REMARKS.--Reservoir is formed by a rolled earthfill dam, completed by Corps of Engineers in August 1949 for flood control; first used for flood regulation about a year prior to completion. Usable capacity, 18,200 acre-ft between elevations 457.0 ft, conduit invert at intake, and 504.5 ft crest of spillway. No dead storage. The flood-control works consist of a pressure conduit and a side-channel spillway and are not provided with gates. Water is stored during high flows and released gradually. Storage includes minor diversion from Gate House Pond in headwaters of West Branch Tioughnioga River basin.

COOPERATION.--Capacity curve furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 485.9 ft, Apr. 1, 1960, contents, 5,960 acre-ft; no contents at times.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 472.57 ft, Mar. 29, contents, 1,310 acre-ft; minimum elevation, 459.33 ft, Nov. 10, 11, no contents many days.

Capacity table (elevation, in feet, and contents, in acre-feet)

460.00	0	470.00	700
461.00	5	473.00	1,420
462.00	15	478.00	2,880
464.00	50	482.00	4,230
467.00	225	486.00	6,010

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	459.59	459.43	460.15	461.44	460.24	462.23	464.19	461.61	464.86	459.70	468.69	460.88
2	459.56	459.43	459.98	460.82	460.24	461.98	464.07	461.89	464.39	459.68	467.21	460.61
3	459.52	459.42	460.42	460.47	460.19	461.59	463.28	463.98	462.60	459.66	463.66	460.52
4	459.49	459.41	461.48	460.65	460.03	461.30	463.05	463.20	461.56	459.88	462.46	460.91
5	459.46	459.40	461.01	462.34	459.98	461.45	462.82	462.37	461.05	460.04	462.14	460.81
6	459.45	459.39	460.51	462.46	459.94	461.92	462.57	462.05	460.97	460.06	461.69	460.60
7	459.44	459.38	460.29	461.73	459.93	462.30	462.45	461.79	460.97	459.93	461.37	460.44
8	459.43	459.36	460.76	461.17	459.90	462.72	462.69	461.52	462.29	459.86	461.14	460.33
9	459.41	459.35	461.36	460.78	459.86	462.72	462.50	461.45	461.17	460.30	461.12	460.34
10	459.41	459.34	461.37	460.92	459.90	462.60	462.36	461.34	460.70	460.28	461.06	460.39
11	459.40	459.34	460.89	460.91	459.89	462.79	462.49	461.16	460.44	460.09	461.04	461.72
12	459.40	459.36	460.47	460.58	459.98	462.71	464.15	461.00	460.27	459.95	460.90	461.28
13	459.39	459.38	460.23	460.51	460.27	462.47	463.19	460.84	460.16	461.10	460.71	460.79
14	459.38	459.39	460.15	460.90	460.03	462.30	462.64	460.71	460.06	461.18	460.72	460.49
15	459.38	459.39	460.14	461.84	459.91	462.11	462.33	460.59	459.97	462.45	460.68	460.31
16	460.30	459.41	460.00	461.20	461.04	461.92	462.35	460.66	459.91	465.37	460.64	460.18
17	460.30	459.41	459.90	460.75	462.25	461.76	464.83	460.65	459.88	462.65	460.58	460.12
18	459.92	459.41	459.88	460.72	461.85	461.56	464.74	460.88	459.86	462.31	460.55	460.06
19	459.79	459.41	459.82	460.48	462.44	461.52	463.71	461.06	459.84	463.23	460.52	461.55
20	459.72	459.41	459.77	460.28	464.03	461.38	463.06	460.65	459.86	462.02	460.41	461.63
21	459.67	459.41	459.78	460.24	463.68	461.24	462.72	460.39	459.89	461.22	460.32	461.07
22	459.63	459.41	459.86	460.22	462.76	460.99	462.59	460.25	459.89	460.86	460.25	461.31
23	459.59	459.52	459.89	460.28	462.54	460.93	462.39	460.14	459.88	462.35	460.19	463.43
24	459.56	459.72	459.93	461.54	462.62	460.88	462.27	460.10	459.86	466.19	460.14	463.19
25	459.54	460.10	459.88	461.49	462.42	460.84	462.64	460.19	459.86	463.95	460.10	462.28
26	459.51	460.07	459.85	460.91	462.32	461.64	462.86	460.15	459.83	462.30	460.08	462.12
27	459.49	459.93	459.82	460.62	462.13	465.19	462.60	460.28	459.80	462.06	460.06	462.99
28	459.48	459.83	459.75	460.53	461.87	471.01	462.20	460.43	459.78	461.52	460.07	463.32
29	459.46	459.88	459.86	460.41	462.47	472.22	461.93	460.21	459.75	461.35	462.25	463.09
30	459.45	460.19	461.89	460.33	---	470.13	461.69	460.05	459.73	462.30	462.01	462.68
31	459.44	---	462.04	460.28	---	465.95	---	461.49	---	463.79	461.24	---
MEAN	459.57	459.53	460.36	460.90	461.20	462.98	462.91	461.07	460.64	461.54	461.42	461.31
MAX	460.30	460.19	462.04	462.46	464.03	472.22	464.83	463.98	464.86	466.19	468.69	463.43
MIN	459.38	459.34	459.75	460.22	459.86	460.84	461.69	460.05	459.73	459.66	460.06	460.06
†	0	1.10	12.9	1.40	22.2	59.3	11.5	41.8	0	256	5.40	22.5
††	0	+0.02	+0.19	-0.19	+0.36	+0.60	-0.80	+0.49	-0.70	+4.16	-4.06	+0.29

CAL YR	1991	MEAN	460.51	MAX	467.92	MIN	459.16
WTR YR	1992	MEAN	461.12	MAX	472.22	MIN	459.34

† Contents, in acre-ft, at end of month.
†† Change in contents, equivalent in cubic feet per second

04239000 ONONDAGA CREEK AT DORWIN AVENUE, SYRACUSE, NY

LOCATION.--Lat 42°59'00", long 76°09'04", Onondaga County, Hydrologic Unit 04140201, on left bank 550 ft upstream from bridge on Dorwin Avenue, at Syracuse, and 4.0 mi downstream from Onondaga Reservoir.

DRAINAGE AREA.--88.5 mi^2.

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

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 414.19 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. High flows regulated by Onondaga Reservoir (see station 04238500). Discharge includes minor diversion from Gate House Pond in headwaters of West Branch Tioughnioga River basin. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Maximum discharge, 934 ft^3/s, Mar. 27 at 1130 hours, gage height, 4.19 ft.

DISCHARGE, IN 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	24	27	78	e120	90	e170	324	139	488	41	637	66
2	24	26	65	e100	e85	e150	306	170	360	39	466	56
3	25	27	167	94	e80	140	259	361	202	52	222	65
4	27	27	178	148	e75	132	240	237	140	84	178	80
5	25	26	112	290	e75	152	217	182	116	78	158	61
6	29	26	93	210	e70	179	192	163	113	67	130	53
7	32	26	93	151	e70	195	187	148	114	52	114	50
8	28	27	161	121	68	220	210	137	201	46	102	49
9	26	26	180	107	e65	206	184	136	119	102	107	54
10	25	26	145	137	e60	194	179	128	96	65	98	62
11	29	48	107	118	e65	239	226	119	86	52	102	108
12	e25	60	90	95	e60	e180	358	110	77	48	88	67
13	e25	52	85	103	e60	174	245	104	70	167	81	55
14	e25	48	86	160	e60	e160	199	100	66	116	91	49
15	28	46	85	e190	65	152	177	97	61	343	84	46
16	117	52	73	e110	203	141	215	107	58	420	83	45
17	69	48	68	e100	198	138	458	99	56	182	78	43
18	46	42	e65	e95	144	129	368	128	53	206	77	42
19	38	38	e65	e90	268	133	305	119	54	283	72	125
20	35	36	e60	e90	350	122	245	97	64	147	66	72
21	31	40	67	e90	245	117	212	89	62	120	61	57
22	30	48	75	e90	181	102	201	86	61	99	58	122
23	28	82	72	97	215	e105	180	84	59	340	55	226
24	28	91	75	217	205	102	178	91	57	493	52	127
25	27	106	64	e140	187	105	206	96	56	266	51	83
26	26	73	e60	e115	189	229	222	88	51	184	51	124
27	27	59	59	e105	169	788	193	107	48	171	51	153
28	29	53	53	101	162	756	165	104	47	134	55	152
29	28	82	100	95	e220	679	149	88	44	133	211	109
30	28	98	e290	93	---	561	140	80	42	184	105	89
31	27	---	e180	92	---	361	---	263	---	445	80	---
TOTAL	1011	1466	3151	3864	3984	7211	6940	4057	3121	5159	3864	2490
MEAN	32.6	48.9	102	125	137	233	231	131	104	166	125	83.0
MAX	117	106	290	290	350	788	458	361	488	493	637	226
MIN	24	26	53	90	60	102	140	80	42	39	51	42

e Estimated

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

MEAN	66.8	104	142	132	167	264	256	140	95.2	59.6	41.6	45.7
MAX	328	312	365	309	390	535	486	301	563	166	125	216
(WY)	1978	1969	1973	1979	1990	1979	1958	1990	1972	1992	1992	1975
MIN	15.3	19.3	31.7	33.7	40.8	93.3	112	62.0	34.8	19.5	10.7	13.2
(WY)	1965	1965	1961	1961	1963	1983	1981	1985	1962	1962	1965	1964

04239000 ONONDAGA CREEK AT DORWIN AVENUE, SYRACUSE, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1951 - 1992	
ANNUAL TOTAL	38529		46318			
ANNUAL MEAN	106		127		126	
HIGHEST ANNUAL MEAN					198	1978
LOWEST ANNUAL MEAN					58.8	1965
HIGHEST DAILY MEAN	590	Apr 22	788	Mar 27	1710	Mar 31 1960
LOWEST DAILY MEAN	17	Aug 20	24	a	5.5	Aug 17 1965
ANNUAL SEVEN-DAY MINIMUM	19	Aug 23	26	Oct 8	7.4	Aug 11 1965
INSTANTANEOUS PEAK FLOW			934	Mar 27	3260	Jul 3 1974
INSTANTANEOUS PEAK STAGE			4.19	Mar 27	6.48	Jul 3 1974
INSTANTANEOUS LOW FLOW			21	Oct 2	b	Aug 17 1965
10 PERCENT EXCEEDS	223	227 257				
50 PERCENT EXCEEDS	73	96 80				
90 PERCENT EXCEEDS	24	34 24				

a Oct. 1, 2.
b Unknown.

04240010 ONONDAGA CREEK AT SPENCER STREET, SYRACUSE, NY

LOCATION.--Lat 43°03'27", long 76°09'46", Onondaga County, Hydrologic Unit 04140201, on right bank 250 ft upstream from bridge on Spencer Street in Syracuse, 1,000 ft upstream from Erie (Barge) Canal terminal, and 1.0 mi upstream from mouth.

DRAINAGE AREA.--110 mi^2.

PERIOD OF RECORD.--Occasional discharge measurements, water years 1958–70. September 1970 to current year.

REVISED RECORDS.--WRD NY 1972: 1971(M). WRD NY 1975: 1972(M), 1974(M). WDR NY–81–3: Drainage area. WRD NY-89-3: 1971-72(M), 1974-80(M), 1982-84(M), 1986(M), 1988(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 362.29 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (backwater from Onondaga Lake), which are fair. High flows regulated by Onondaga Reservoir (see station 04238500). Discharge includes minor diversion from Gate House Pond in headwaters of West Branch Tioughnioga River basin. Flow may be affected by backwater from Onondaga Lake at times when the lake elevation exceeds 364.75 ft. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharge, 1,410 ft^3/s, July 31 at 0730 hours, gage height, 6.27 ft.

DISCHARGE, IN 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	48	43	103	146	126	204	e425	194	676	74	704	103
2	46	42	89	126	104	207	e410	273	481	72	545	92
3	51	42	230	133	117	185	e350	493	268	191	291	120
4	45	42	214	217	106	172	318	334	195	112	e240	123
5	45	42	146	369	110	192	288	266	161	113	e210	101
6	54	42	126	266	106	226	257	242	160	96	e180	91
7	51	42	126	197	105	245	253	227	163	78	e160	87
8	48	42	206	163	103	275	272	213	261	74	148	112
9	46	42	237	149	91	263	245	212	169	137	160	91
10	46	41	190	178	89	246	235	202	146	96	142	131
11	45	70	147	160	96	295	317	188	134	80	149	155
12	45	81	128	135	86	235	451	178	123	79	132	110
13	45	72	118	144	87	218	315	169	115	206	123	95
14	44	68	120	210	93	202	263	162	107	180	130	87
15	86	68	123	249	113	196	234	162	101	454	121	84
16	132	70	110	159	250	173	354	172	96	474	120	81
17	90	69	92	136	257	184	591	162	95	258	116	79
18	65	61	106	e130	201	175	470	203	92	246	113	94
19	60	60	92	125	344	179	392	175	97	314	109	196
20	55	56	94	122	449	167	316	150	106	190	102	119
21	52	59	103	128	314	162	279	136	104	e150	95	136
22	50	72	109	126	234	144	264	128	102	e140	92	244
23	48	97	108	145	269	149	238	124	100	404	88	285
24	47	118	108	264	260	144	232	141	138	545	84	184
25	47	129	102	177	234	145	259	139	98	323	82	131
26	45	99	86	145	237	304	282	130	90	222	82	191
27	45	84	95	135	216	1130	251	152	87	210	88	220
28	44	77	84	141	212	972	221	144	84	170	176	210
29	45	105	173	136	282	872	203	127	78	161	258	164
30	45	119	377	133	---	744	191	124	76	221	147	141
31	45	---	209	130	---	e490	---	453	---	599	118	---
TOTAL	1660	2054	4351	5174	5291	9495	9176	6175	4703	6669	5305	4057
MEAN	53.5	68.5	140	167	182	306	306	199	157	215	171	135
MAX	132	129	377	369	449	1130	591	493	676	599	704	285
MIN	44	41	84	122	86	144	191	124	76	72	82	79

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1992, BY WATER YEAR (WY)

MEAN	125	162	210	181	221	334	343	208	154	109	81.9	95.1
MAX	424	324	452	381	457	653	517	379	617	237	171	275
(WY)	1978	1978	1973	1979	1976	1979	1974	1976	1972	1974	1992	1975
MIN	39.2	60.3	102	73.6	70.4	123	166	89.1	67.4	46.2	37.0	38.7
(WY)	1984	1972	1989	1981	1980	1983	1981	1987	1988	1981	1987	1980

04240010 ONONDAGA CREEK AT SPENCER STREET, SYRACUSE, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1970 - 1992	
ANNUAL TOTAL	52336		64110			
ANNUAL MEAN	143		175		185	
HIGHEST ANNUAL MEAN					273	1976
LOWEST ANNUAL MEAN					109	1988
HIGHEST DAILY MEAN	667	Jan 1	1130	Mar 27	2040	Mar 5 1979
LOWEST DAILY MEAN	38	Sep 13	41	Nov 10	23	Sep 26 1985
ANNUAL SEVEN-DAY MINIMUM	40	Sep 8	42	Nov 4	27	Aug 26 1981
INSTANTANEOUS PEAK FLOW			1410	Jul 31	a4050	Jul 3 1974
INSTANTANEOUS PEAK STAGE			6.27	Jul 31	8.73	Jul 3 1974
INSTANTANEOUS LOW FLOW			40	Nov 10	20	Sep 26 1985
10 PERCENT EXCEEDS	266		307		367	
50 PERCENT EXCEEDS	109		137		130	
90 PERCENT EXCEEDS	45		56		52	

a From rating curve extended above 1,600 ft^3/s on basis of runoff comparisons with nearby stations.

04240100 HARBOR BROOK AT SYRACUSE, NY

LOCATION.--Lat 43°02'09", long 76°10'55", Onondaga County, Hydrologic Unit 04140201, on left bank 160 ft upstream from bridge on Holden Street at Syracuse, 220 ft downstream from gated outlet of Velasko Road Detention Basin, and 2.6 mi upstream from mouth.

DRAINAGE AREA.--10.0 mi^2.

PERIOD OF RECORD.--June 1959 to current year.

REVISED RECORDS.--WSP 2112: Drainage area. WDR NY-82-3: 1981 (M), WDR-NY-88-3: 1986-87 (M).

GAGE.--Water-stage recorder. Datum of gage is 391.16 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1978, at site 1,660 ft upstream and Oct. 1, 1978 to May 31, 1980, at site 1,800 ft upstream at datum 3.63 ft higher.

REMARKS.--Records fair. Flow includes some sewage and storm sewer inflow, some originating outside the basin. Flows can be regulated at detention basin by Onondaga County. Several measurements of water temperature were made during the year.

PEAK DISCHARGE FOR CURRENT YEAR.--Maximum discharge, 245 ft^3/s, Mar. 27 at 0900 hours, gage height, 5.13 ft.

DISCHARGE, IN 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	4.0	5.2	3.8	8.1	6.5	8.9	25	9.8	e30	5.0	14	4.7
2	4.0	5.2	3.7	7.4	6.3	8.8	21	16	e14	5.1	7.5	4.8
3	e5.0	5.2	21	7.4	6.3	8.6	18	19	8.7	16	6.5	7.3
4	e4.5	4.8	11	19	6.3	9.2	17	11	8.7	4.8	7.9	5.0
5	e4.5	4.7	5.3	21	6.0	12	15	9.4	8.3	5.0	6.5	4.9
6	e6.0	4.0	4.3	13	5.4	13	13	8.8	8.4	4.2	e6.0	4.8
7	e4.5	3.6	6.6	11	5.4	15	14	8.1	8.6	4.4	e6.0	5.0
8	e4.8	3.6	20	8.7	5.4	14	12	8.2	8.0	4.3	e5.5	7.0
9	e5.0	3.6	17	9.5	5.4	13	11	7.8	7.3	5.9	e7.5	5.2
10	e6.5	3.4	9.9	13	5.4	11	10	7.5	7.2	4.5	e5.5	8.1
11	e5.5	6.7	7.5	8.9	5.4	12	18	7.5	6.9	4.3	e6.5	5.5
12	e5.0	4.5	6.8	7.5	5.4	9.2	17	7.6	6.7	4.6	e5.2	e5.2
13	e5.0	3.7	6.8	8.9	5.4	8.3	11	7.5	6.6	6.8	e5.5	e5.2
14	e5.0	3.0	6.9	16	5.4	8.1	9.9	7.5	6.5	7.1	e5.2	e4.8
15	e14	3.5	6.6	9.1	7.6	8.1	8.9	8.2	6.5	33	e5.2	e4.5
16	e10	3.3	6.1	8.0	15	8.1	24	8.8	6.3	7.5	e5.0	e4.5
17	e6.0	2.9	5.9	7.5	11	8.2	33	7.7	6.2	8.6	e5.2	e4.5
18	e5.5	2.9	5.5	7.3	12	8.7	19	11	6.6	13	e5.2	e5.0
19	e6.0	2.8	5.0	7.1	32	9.1	16	7.0	6.7	6.5	e5.2	8.8
20	e6.0	2.7	4.6	6.7	21	8.5	13	6.8	6.3	6.8	e5.0	5.9
21	e5.8	3.1	5.2	6.3	14	8.2	12	6.8	6.2	6.7	e5.0	11
22	e5.8	4.0	5.1	6.3	11	7.5	12	6.9	6.0	7.0	e5.0	24
23	e5.8	3.9	4.9	8.2	17	7.4	10	7.0	5.6	22	e5.0	10
24	e5.8	7.6	4.8	12	13	7.3	11	9.2	8.4	9.8	e5.0	6.0
25	e6.0	5.3	4.6	7.0	12	7.8	11	6.9	5.4	7.1	e4.5	6.2
26	e5.8	3.5	4.5	7.0	13	30	12	6.9	5.4	7.4	e4.5	13
27	e6.0	3.2	4.4	6.8	11	139	10	8.3	5.4	7.5	e6.0	13
28	e5.8	3.3	4.2	6.5	14	32	9.5	6.8	5.4	7.5	16	8.6
29	e5.5	7.7	18	6.5	14	27	9.4	6.8	5.8	6.9	12	6.2
30	e5.2	4.7	25	6.7	---	25	9.1	6.8	5.9	7.1	4.9	5.9
31	e5.2	---	9.3	6.5	---	24	---	e25	---	39	4.6	---
TOTAL	179.5	125.6	254.3	284.9	297.6	517.0	431.8	282.6	234.0	285.4	198.6	214.6
MEAN	5.79	4.19	8.20	9.19	10.3	16.7	14.4	9.12	7.80	9.21	6.41	7.15
MAX	14	7.7	25	21	32	139	33	25	30	39	16	24
MIN	4.0	2.7	3.7	6.3	5.4	7.3	8.9	6.8	5.4	4.2	4.5	4.5
CFSM	.58	.42	.82	.92	1.03	1.67	1.44	.91	.78	.92	.64	.72
IN.	.67	.47	.95	1.06	1.11	1.92	1.61	1.05	.87	1.06	.74	.80

e Estimated.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1992, BY WATER YEAR (WY)

MEAN	5.88	6.68	8.36	8.06	10.7	17.4	16.7	9.73	7.29	6.02	4.78	5.11
MAX	21.7	21.6	26.0	16.2	33.5	39.6	31.8	22.6	32.2	13.5	11.4	20.7
(WY)	1978	1969	1978	1969	1976	1979	1974	1976	1972	1974	1990	1975
MIN	2.24	2.74	2.76	3.07	3.48	5.14	5.07	4.39	3.95	2.81	2.55	2.35
(WY)	1967	1967	1962	1961	1963	1983	1967	1981	1979	1965	1965	1959

04240100 HARBOR BROOK AT SYRACUSE, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1959 - 1992	
ANNUAL TOTAL	3101.1		3305.9			
ANNUAL MEAN	8.50		9.03		8.90	
HIGHEST ANNUAL MEAN					15.7	1976
LOWEST ANNUAL MEAN					4.53	1967
HIGHEST DAILY MEAN	44	Aug 9	139	Mar 27	248	Mar 30 1960
LOWEST DAILY MEAN	2.7	Nov 20	2.7	Nov 20	.51	Jun 15 1984
ANNUAL SEVEN-DAY MINIMUM	3.0	Nov 14	3.0	Nov 14	1.6	Nov 10 1988
INSTANTANEOUS PEAK FLOW			245	Mar 27	a726	Jul 3 1974
INSTANTANEOUS PEAK STAGE			5.13	Mar 27	b8.34	Jul 3 1974
INSTANTANEOUS LOW FLOW			c.20	Oct 4	c.11	Aug 8 1980
ANNUAL RUNOFF (CFSM)	.85		.90		.89	
ANNUAL RUNOFF (INCHES)	11.54		12.30		12.09	
10 PERCENT EXCEEDS	13		16		17	
50 PERCENT EXCEEDS	6.9		6.8		5.6	
90 PERCENT EXCEEDS	4.0		4.5		3.1	

a From rating curve extended above 180 ft^3/s on basis of slope-area measurements of peak flow.
b From datum then in use.
c Result of regulation.

04240105 HARBOR BROOK AT HIAWATHA BOULEVARD, SYRACUSE, NY

LOCATION.--Lat 43°03'22", long 76°11'07", Onondaga County, Hydrologic Unit 04140201, on left bank 250 ft downstream from culvert on Hiawatha Boulevard, in Syracuse, and 0.5 mi upstream from mouth.

DRAINAGE AREA.--11.3 mi^2.

PERIOD OF RECORD.--Occasional discharge measurements, water years 1958–70. October 1970 to current year.

REVISED RECORDS.--WDR NY–76–1: 1971–75 (P).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 365.86 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (manometer malfunction), which are fair. Flow includes some sewage and storm sewer inflow, some originating outside the basin. Flow can be regulated at Velasko Road Detention Basin 2.1 mi upstream. Several measurements of water temperature were made during the year.

PEAK DISCHARGE FOR CURRENT YEAR.--Maximum discharge, 344 ft^3/s, Aug. 28 at 2145 hours, gage height, 5.38 ft.

DISCHARGE, IN 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	5.0	6.0	4.7	8.3	7.8	11	28	12	39	6.2	23	6.8
2	4.8	6.0	4.6	7.5	7.6	11	22	23	16	6.2	12	6.7
3	6.2	5.9	25	7.4	7.6	11	19	22	9.9	36	9.6	13
4	5.7	5.6	12	21	7.6	11	18	12	9.5	8.2	e15	7.2
5	5.7	5.6	7.0	24	7.4	13	17	11	9.4	9.4	8.0	6.6
6	7.9	5.3	6.3	15	7.4	14	16	10	10	6.9	7.8	6.2
7	5.6	4.9	8.7	12	7.4	17	18	10	11	6.5	7.6	6.2
8	5.8	4.9	21	9.4	7.3	16	17	10	9.3	7.4	7.1	13
9	6.4	4.9	20	9.8	7.1	15	15	9.6	8.5	10	e10	6.9
10	7.8	5.2	11	13	7.0	13	14	9.1	8.1	7.0	7.0	15
11	6.8	9.5	8.7	9.6	7.5	14	22	9.1	7.8	6.4	8.6	7.1
12	6.2	5.9	7.6	8.2	7.0	11	22	8.8	7.6	7.2	6.7	6.6
13	6.4	5.3	7.6	9.2	6.9	10	13	8.7	7.8	14	e7.5	6.7
14	6.3	4.7	7.4	19	6.9	10	12	8.3	7.8	e14	7.0	5.8
15	17	5.1	7.0	10	11	10	11	7.7	7.6	43	6.7	5.6
16	12	4.8	6.7	8.6	19	10	34	11	7.4	11	6.7	5.4
17	7.1	4.4	6.5	8.2	14	10	43	7.6	7.0	14	6.6	5.5
18	6.9	4.4	6.1	7.9	14	11	23	14	7.3	18	6.5	6.1
19	7.4	4.4	6.0	7.7	36	11	20	8.2	7.5	8.7	6.4	e15
20	7.1	4.2	5.8	7.6	21	10	16	8.0	7.2	8.0	6.2	5.8
21	e7.0	5.1	6.7	7.6	14	10	13	7.8	7.0	7.4	6.2	17
22	e7.0	6.3	6.1	7.4	11	9.3	14	7.8	6.9	7.2	6.2	35
23	e7.0	6.0	6.6	11	16	9.6	13	7.8	6.7	30	6.2	15
24	7.0	9.5	6.0	13	14	8.9	14	11	23	12	6.3	7.1
25	7.1	6.4	5.7	8.2	13	9.5	14	7.4	7.6	8.4	5.6	6.7
26	6.9	5.0	5.6	8.1	15	34	15	7.2	7.1	8.2	5.8	17
27	7.3	4.7	5.6	8.0	13	159	15	9.8	6.5	9.8	7.4	15
28	6.7	4.7	5.4	8.1	16	41	13	7.2	6.2	9.2	e35	e10
29	6.4	8.8	21	8.1	17	31	12	6.9	6.0	e9.5	20	7.2
30	6.1	5.7	30	8.1	---	28	12	7.4	6.1	8.9	7.7	7.4
31	6.0	---	9.9	8.1	---	27	---	36	---	64	7.2	---
TOTAL	218.6	169.2	298.3	319.1	346.5	606.3	535	336.4	288.8	422.7	289.6	294.6
MEAN	7.05	5.64	9.62	10.3	11.9	19.6	17.8	10.9	9.63	13.6	9.34	9.82
MAX	17	9.5	30	24	36	159	43	36	39	64	35	35
MIN	4.8	4.2	4.6	7.4	6.9	8.9	11	6.9	6.0	6.2	5.6	5.4
CFSM	.62	.50	.85	.91	1.06	1.73	1.58	.96	.85	1.21	.83	.87
IN.	.72	.56	.98	1.05	1.14	2.00	1.76	1.11	.95	1.39	.95	.97

e Estimated.

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

MEAN	9.52	9.63	12.6	11.7	14.0	23.8	22.8	13.6	11.5	10.1	7.37	8.79
MAX	34.0	26.6	35.8	31.0	38.4	68.8	48.4	27.9	51.9	25.4	12.0	28.7
(WY)	1978	1978	1978	1973	1976	1979	1974	1976	1972	1974	1972	1975
MIN	3.77	3.78	5.13	4.43	6.28	6.04	6.09	4.80	4.57	4.29	3.50	4.15
(WY)	1983	1979	1989	1983	1980	1983	1981	1981	1981	1981	1982	1982

04240105 HARBOR BROOK AT HIAWATHA BOULEVARD, SYRACUSE, NY--continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1971 - 1992	
ANNUAL TOTAL	3769.5		4125.1			
ANNUAL MEAN	10.3		11.3		12.9	
HIGHEST ANNUAL MEAN					21.3	1973
LOWEST ANNUAL MEAN					6.73	1988
HIGHEST DAILY MEAN	56	Mar 4	159	Mar 27	567	Mar 5 1979
LOWEST DAILY MEAN	4.1	Jul 18	4.2	Nov 20	1.3	Nov 4 1988
ANNUAL SEVEN-DAY MINIMUM	4.6	Nov 14	4.6	Nov 14	1.8	Nov 10 1988
INSTANTANEOUS PEAK FLOW			344	Aug 28	a824	Jul 3 1974
INSTANTANEOUS PEAK STAGE			5.38	Aug 28	b8.15	Sep 26 1975
INSTANTANEOUS LOW FLOW			.60	Oct 3	.00	c
ANNUAL RUNOFF (CFSM)	.91		1.00		1.15	
ANNUAL RUNOFF (INCHES)	12.41		13.58		15.57	
10 PERCENT EXCEEDS	18		19		24	
50 PERCENT EXCEEDS	7.8		8.0		8.3	
90 PERCENT EXCEEDS	5.0		5.8		4.2	

a From rating curve extended above 76 ft^3/s on basis of step-backwater computations.
b Backwater from debris jam.
c Oct. 26, 27, 1987, result of regulation for maintenance work in the channel.

04240120 LEY CREEK AT PARK STREET, SYRACUSE, NY

LOCATION.--Lat 43°04'38", long 76°10'14", Onondaga County, Hydrologic Unit 04140201, on left bank 0.2 mi upstream from bridge on Park Street, and 0.4 mi upstream from mouth.

DRAINAGE AREA.--29.9 mi^2.

PERIOD OF RECORD.--Occasional discharge measurements water years 1959–72. December 1972 to current year.

REVISED RECORDS.--WDR NY 76–1: 1975 (M).

GAGE.--Water-stage recorder, crest-stage gage and, since July 9, 1984, steel "I" beam control. Datum of gage is 362.76 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1978, at same site at datum 0.08 ft higher.

REMARKS.--Records good except those for estimated daily discharges (backwater from Onondaga Lake), which are fair. Flow may be affected by backwater from Onondaga Lake at times when the lake elevation exceeds 364.4 ft. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27	1030	*609	*3.83	July 15	1300	483	3.41
Apr. 17	0430	519	3.53	July 31	1130	483	3.41
May 3	0030	473	3.38	Aug. 29	0130	473	3.38
June 1	0200	479	3.40				

DISCHARGE, IN 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	9.2	9.9	30	28	24	51	e55	25	359	11	e130	16
2	12	9.6	24	21	20	37	e52	100	195	11	e30	13
3	11	9.0	118	19	19	31	e52	254	70	136	e24	45
4	15	9.0	74	71	18	32	e50	80	39	74	e40	21
5	13	9.8	39	97	18	40	e50	45	28	35	e22	14
6	38	9.5	33	58	17	55	e48	34	27	25	e20	12
7	12	9.4	54	42	18	140	e48	28	28	18	e18	12
8	9.6	9.5	96	35	18	135	e55	25	47	16	e16	42
9	8.4	9.4	94	34	16	85	e48	24	24	91	e30	31
10	14	8.9	52	41	16	63	45	22	20	23	e18	80
11	16	47	35	31	17	62	92	21	17	16	e24	50
12	10	31	28	25	15	46	170	21	15	14	20	21
13	8.6	26	28	24	14	41	72	20	14	110	18	16
14	8.2	18	27	78	16	37	46	20	13	108	17	14
15	33	27	22	48	52	34	37	18	13	285	13	14
16	129	22	20	35	96	32	107	44	13	135	13	13
17	27	15	17	28	61	35	349	20	13	73	12	13
18	18	13	16	22	82	41	e140	79	13	e100	12	12
19	15	13	16	21	173	43	e85	32	12	e55	13	73
20	17	12	16	21	185	41	e60	23	13	e26	11	17
21	13	19	32	21	117	38	e50	19	12	e18	10	62
22	13	28	32	21	77	31	47	17	12	e16	10	157
23	12	57	31	40	116	31	37	16	13	e120	8.9	116
24	11	74	32	62	87	30	43	34	74	e40	8.6	41
25	11	41	21	37	63	37	42	19	50	e30	11	25
26	11	30	17	31	61	141	e60	18	18	e24	9.3	66
27	11	23	16	26	58	e500	e55	38	15	e20	13	67
28	15	20	16	24	73	e160	e45	21	13	e18	26	44
29	12	67	94	23	87	e80	e40	17	12	20	169	28
30	10	40	149	23	---	e66	35	15	12	17	29	23
31	10	---	52	24	---	e56	---	252	---	225	22	---
TOTAL	553.0	717.0	1331	1111	1634	2251	2115	1401	1204	1910	817.8	1158
MEAN	17.8	23.9	42.9	35.8	56.3	72.6	70.5	45.2	40.1	61.6	26.4	38.6
MAX	129	74	149	97	185	500	349	254	359	285	169	157
MIN	8.2	8.9	16	19	14	30	35	15	12	11	8.6	12
CFSM	.60	.80	1.44	1.20	1.88	2.43	2.36	1.51	1.34	2.06	.88	1.29
IN.	.69	.89	1.66	1.38	2.03	2.80	2.63	1.74	1.50	2.38	1.02	1.44

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1992, BY WATER YEAR (WY)

MEAN	40.0	48.1	57.7	37.8	53.8	73.7	66.9	40.9	32.8	29.2	23.7	33.6
MAX	129	102	145	70.9	125	154	178	88.7	71.4	61.6	46.7	99.1
(WY)	1978	1978	1978	1973	1976	1978	1983	1976	1973	1992	1976	1975
MIN	7.01	17.3	18.5	11.0	17.4	25.0	22.5	12.7	13.0	10.9	8.22	14.3
(WY)	1983	1979	1989	1977	1987	1981	1981	1987	1981	1981	1987	1980

04240120 LEY CREEK AT PARK STREET, SYRACUSE, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1973 - 1992	
ANNUAL TOTAL	13343.5		16202.8			
ANNUAL MEAN	36.6		44.3		44.0	
HIGHEST ANNUAL MEAN					69.8	1978
LOWEST ANNUAL MEAN					26.1	1981
HIGHEST DAILY MEAN	414	Mar 4	500	Mar 27	831	Sep 26 1975
LOWEST DAILY MEAN	5.1	Jul 21	8.2	Oct 14	1.9	a
ANNUAL SEVEN-DAY MINIMUM	5.4	Jul 15	9.4	Nov 4	2.3	Feb 2 1977
INSTANTANEOUS PEAK FLOW			609	Mar 27	b1310	Sep 26 1975
INSTANTANEOUS PEAK STAGE			3.83	Mar 27	6.17	Sep 26 1975
INSTANTANEOUS LOW FLOW			7.9	c	1.9	Aug 19 1987
ANNUAL RUNOFF (CFSM)	1.22		1.48		1.47	
ANNUAL RUNOFF (INCHES)	16.60		20.16		20.02	
10 PERCENT EXCEEDS	85		95		98	
50 PERCENT EXCEEDS	27		27		25	
90 PERCENT EXCEEDS	7.3		12		11	

a Feb. 6, 7, 1977.
b From rating curve extended above 530 ft^3/s.
c Oct. 9, 10, 1991.

04240180 NINEMILE CREEK NEAR MARIETTA, NY

LOCATION.--Lat 42°55'15", long 76°19'47", Onondaga County, Hydrologic Unit 04140201, on right bank 25 ft upstream from bridge on Schuyler Road, 0.9 mi north of Marietta, and 1.8 mi downstream from Otisco Lake.

DRAINAGE AREA.--45.1 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1955, 1963. June 1964 to current year.

REVISED RECORDS.--WRD NY 1971: 1966(M), 1968, 1969. WDR NY-82-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 748.25 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (backwater from debris), which are fair. Flow regulated by Otisco Lake from which water is diverted for city of Syracuse water supply. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Maximum discharge, 262 ft^3/s, July 31 at 0900 hours, gage height, 4.76 ft.

DISCHARGE, IN 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	e5.0	e5.5	e6.0	7.9	8.6	12	198	55	37	7.7	198	10
2	e5.5	e5.5	e6.0	7.6	8.3	11	209	63	44	7.7	190	9.8
3	e6.0	e5.5	e17	8.7	8.1	11	195	79	43	10	171	13
4	e6.0	e5.5	11	15	8.3	11	179	71	41	8.1	153	11
5	e6.0	e5.5	8.9	16	8.5	13	163	68	39	8.3	137	10
6	e6.5	e5.5	8.7	11	8.2	13	148	64	36	7.9	124	10
7	e6.0	e5.2	9.3	9.2	8.2	14	138	60	34	7.1	113	9.7
8	e5.5	e5.2	13	7.9	8.1	14	133	55	40	7.5	108	11
9	e5.5	e5.0	12	8.8	7.9	13	125	53	35	11	102	10
10	e6.0	e5.0	9.2	10	7.8	12	117	49	30	7.6	101	19
11	e6.0	e8.5	8.4	8.2	8.0	14	123	45	25	7.6	101	13
12	e5.5	e7.0	7.7	7.8	7.6	11	134	42	21	7.7	99	10
13	e5.5	e7.0	7.9	8.6	8.1	11	127	36	18	17	100	9.7
14	e5.5	e6.0	7.8	16	8.1	10	120	31	15	9.6	100	9.4
15	e9.0	e6.5	9.3	11	9.3	10	114	26	13	53	99	9.3
16	e10	e7.0	6.6	8.9	19	10	120	24	12	43	99	9.2
17	e6.5	e6.0	6.8	8.6	12	13	138	23	12	70	74	9.1
18	e5.5	e5.5	6.8	7.9	11	20	132	24	11	104	50	9.3
19	e5.5	e5.5	6.5	7.5	30	20	134	22	11	99	49	15
20	e5.2	e5.5	6.6	7.6	20	19	125	20	9.9	84	48	9.7
21	e5.0	e6.0	7.4	7.7	13	19	114	17	9.1	74	32	10
22	e5.0	e6.0	7.4	7.6	12	19	107	15	8.7	67	10	34
23	e5.0	e8.0	7.7	11	16	24	99	14	8.4	124	9.3	15
24	e5.0	e8.5	7.7	14	13	36	94	13	8.2	140	9.1	12
25	e5.5	e7.0	7.0	9.0	13	38	96	13	8.1	165	9.2	32
26	e5.5	e6.5	6.6	8.4	14	54	97	12	7.9	148	9.7	69
27	e6.0	e6.0	6.9	8.2	12	204	90	12	7.8	135	10	71
28	e6.0	e6.0	6.6	8.2	16	209	82	12	7.8	122	14	65
29	e6.0	e10	25	8.3	15	208	72	12	7.7	115	19	63
30	e5.8	e7.5	23	8.5	---	200	57	11	7.7	114	11	62
31	e6.5	---	9.8	8.8	---	191	---	18	---	181	12	---
TOTAL	183.5	189.4	290.6	293.9	339.1	1464	3780	1059	608.3	1962.8	2361.3	650.2
MEAN	5.92	6.31	9.37	9.48	11.7	47.2	126	34.2	20.3	63.3	76.2	21.7
MAX	10	10	25	16	30	209	209	79	44	181	198	71
MIN	5.0	5.0	6.0	7.5	7.6	10	57	11	7.7	7.1	9.1	9.1

e Estimated

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

MEAN	23.9	33.1	45.0	48.4	52.9	60.0	92.3	48.6	31.5	18.4	12.2	12.5
MAX	147	125	160	157	143	159	206	134	278	74.0	76.2	36.3
(WY)	1978	1978	1973	1973	1990	1976	1974	1983	1972	1972	1992	1989
MIN	1.52	2.47	3.42	2.75	3.10	5.23	5.80	3.24	2.17	1.65	1.28	1.16
(WY)	1967	1967	1966	1981	1967	1965	1965	1965	1965	1981	1966	1966

04240180 NINEMILE CREEK NEAR MARIETTA, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1964 - 1992	
ANNUAL TOTAL	12710.5		13182.1			
ANNUAL MEAN	34.8		36.0		39.9	
HIGHEST ANNUAL MEAN					76.3	1976
LOWEST ANNUAL MEAN					3.95	1965
HIGHEST DAILY MEAN	185	Jan 1	209	a	931	Jun 23 1972
LOWEST DAILY MEAN	5.0	a	5.0	b	.80	c
ANNUAL SEVEN-DAY MINIMUM	5.2	Oct 18	5.2	Oct 18	.89	Sep 13 1966
INSTANTANEOUS PEAK FLOW			262	Jul 31	1030	Jun 23 1972
INSTANTANEOUS PEAK STAGE			4.76	Jul 31	8.65	Jun 23 1972
INSTANTANEOUS LOW FLOW					.80	c
10 PERCENT EXCEEDS	98		118		104	
50 PERCENT EXCEEDS	13		11		16	
90 PERCENT EXCEEDS	6.0		6.0		3.0	

a Mar. 28, Apr. 2.
b Oct. 1, 21-24, Nov. 9, 10.
c Sept. 13, 18, 19, 1966.

04240200 NINEMILE CREEK AT CAMILLUS, NY

LOCATION.--Lat 43°02'20", long 76°18'30", Onondaga County, Hydrologic Unit 04140201, on right bank 150 ft downstream from highway bridge on State Highway 5 (Main Street) in Camillus, 7.2 mi upstream from Onondaga Lake.

DRAINAGE AREA.--84.3 mi^2.

PERIOD OF RECORD.--July 1958 to September 1982, June 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 398.56 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (missing record), which are fair. Flow regulated by Otisco Lake from which water is diverted for city of Syracuse water supply. Telephone gage-height telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Maximum discharge, 1,480 ft^3/s, Mar. 27 at 1500 hours, gage height, 7.37 ft.

DISCHARGE, IN 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	32	45	71	70	e120	369	121	259	46	504	80
2	31	32	41	67	67	e120	401	136	205	45	347	75
3	33	32	111	73	67	e105	357	262	133	68	283	89
4	34	32	100	92	66	e100	322	166	109	67	264	97
5	33	31	74	150	67	e110	283	150	103	61	229	79
6	39	31	69	102	66	e130	249	140	101	56	191	76
7	34	31	69	85	66	e140	234	126	95	49	172	74
8	34	31	106	77	66	e150	228	119	106	47	164	74
9	32	30	113	76	63	e150	208	116	92	70	165	84
10	34	30	87	89	63	e140	198	111	82	55	161	94
11	36	42	75	79	63	e170	223	105	76	52	165	124
12	33	40	69	72	62	e140	315	102	69	52	158	82
13	33	40	68	75	61	e130	230	95	65	113	158	75
14	33	38	68	101	63	e120	206	90	61	89	160	71
15	38	38	67	95	66	e110	188	85	58	371	157	69
16	58	41	64	77	131	e100	217	91	55	252	159	68
17	38	38	61	75	124	e100	458	84	53	139	151	68
18	33	35	63	73	98	e110	306	104	53	240	113	67
19	31	34	61	69	e190	e110	289	89	55	383	111	104
20	30	33	62	69	e210	e110	245	82	60	180	109	78
21	30	36	65	68	e150	e110	210	77	54	149	105	81
22	31	37	66	68	e120	e110	202	74	55	130	76	223
23	31	54	66	75	e140	e115	180	71	52	309	72	327
24	31	56	67	112	e150	e130	176	77	54	338	72	106
25	32	57	65	85	e130	e130	173	71	53	271	72	91
26	32	45	61	77	e130	e150	186	67	50	244	73	191
27	33	41	63	74	e120	e900	168	78	49	222	84	230
28	33	39	61	73	e120	671	156	72	48	187	94	208
29	32	56	114	72	e180	453	150	66	48	175	257	156
30	32	54	299	71	---	419	124	64	47	174	102	139
31	32	---	93	71	---	378	---	128	---	464	95	---
TOTAL	1045	1166	2493	2513	2969	6031	7251	3219	2400	5098	5023	3380
MEAN	33.7	38.9	80.4	81.1	102	195	242	104	80.0	164	162	113
MAX	58	57	299	150	210	900	458	262	259	464	504	327
MIN	29	30	41	67	61	100	124	64	47	45	72	67

e Estimated

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

MEAN	66.0	97.2	119	125	144	205	232	130	96.0	69.0	49.4	50.1
MAX	263	259	320	331	361	398	430	273	503	190	162	136
(WY)	1978	1978	1973	1973	1990	1979	1971	1976	1972	1972	1992	1975
MIN	20.0	22.2	25.0	23.8	28.3	63.3	82.4	51.0	36.6	30.5	24.3	21.0
(WY)	1967	1965	1963	1963	1963	1965	1965	1965	1962	1981	1966	1962

04240200 NINEMILE CREEK AT CAMILLUS, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1958 - 1982 1988 - 1992	
ANNUAL TOTAL	36819		42588			
ANNUAL MEAN	101		116		115	
HIGHEST ANNUAL MEAN					182	1976
LOWEST ANNUAL MEAN					41.9	1965
HIGHEST DAILY MEAN	445	Apr 22	900	Mar 27	1660	Jun 23 1972
LOWEST DAILY MEAN	29	Oct 1	29	Oct 1	16	Oct 1 1961
ANNUAL SEVEN-DAY MINIMUM	31	Oct 19	31	Oct 19	17	Oct 15 1988
INSTANTANEOUS PEAK FLOW			1480	Mar 27	2760	Mar 30 1960
INSTANTANEOUS PEAK STAGE			7.37	Mar 27	a10.83	Sep 26 1975
INSTANTANEOUS LOW FLOW			29	Oct 1	16	b
10 PERCENT EXCEEDS	220		230		242	
50 PERCENT EXCEEDS	65		82		71	
90 PERCENT EXCEEDS	33		34		30	

a Backwater from construction activities.
b Sept. 30, Oct. 1, 2, 1961.

04240300 NINEMILE CREEK AT LAKELAND, NY

LOCATION.--Lat 43°04'51", long 76°13'36", Onondaga County, Hydrologic Unit 04140201, on left bank 30 ft downstream from bridge on State Highway 48, 0.6 mi downstream from Geddes Brook, and 0.7 mi upstream from mouth.

DRAINAGE AREA.--115 mi^2.

PERIOD OF RECORD.--Occasional measurements, water years 1959–70. November 1970 to September 1973, July 1975 to current year.

REVISED RECORDS.--WDR NY–83–3: 1972 (M), 1976 (M), 1979 (M), 1982 (M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 360.67 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Flow regulated by Otisco Lake from which water is diverted for city of Syracuse water supply. Flow affected by backwater from Onondaga Lake whenever lake level exceeds about 362 ft NGVD. Several measurements of water temperature were made during the year.

DISCHARGE, IN 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	e50	e50	e65	e110	e110	e190	e500	e160	e340	e70	e580	e140
2	e50	e50	e60	e100	e105	e190	e470	e170	e280	e70	e430	e120
3	e52	e50	e95	e120	e105	e170	e430	e320	e200	e110	e320	e140
4	e53	e50	e150	e140	e105	e160	e400	e260	e180	e110	e300	e150
5	e52	e50	e105	e190	e105	e170	e380	e220	e170	e95	e290	e130
6	e58	e50	e95	e150	e105	e190	e350	e200	e160	e85	e280	e120
7	e53	e50	e95	e130	e105	e210	e300	e190	e160	e75	e250	e110
8	e52	e50	e140	e130	e105	e220	e300	e180	e170	e70	e240	e110
9	e52	e48	e160	e120	e100	e220	e280	e175	e150	e100	e220	e120
10	e52	e48	e130	e140	e100	e210	e280	e170	e140	e85	e200	e140
11	e56	e60	e120	e120	e100	e250	e300	e170	e130	e85	e200	e175
12	e52	e58	e110	e120	e95	e230	e450	e160	e120	e80	e200	e130
13	e52	e54	e110	e120	e95	e210	e330	e150	e110	e130	e200	e120
14	e52	e53	e110	e150	e100	e190	e300	e140	e100	e130	e200	e120
15	e60	e53	e110	e160	e105	e170	e290	e120	e95	e350	e190	e110
16	e90	e55	e100	e120	e180	e160	e340	e135	e90	e300	e190	e105
17	e60	e53	e95	e115	e170	e160	e550	e120	e80	e200	e190	e100
18	e52	e52	e95	e110	e150	e170	e400	e150	e80	e300	e160	e100
19	e50	e52	e95	e110	e250	e170	e390	e130	e85	e450	e160	e140
20	e50	e52	e95	e110	e280	e170	e340	e110	e90	e280	e160	e100
21	e50	e52	e100	e110	e210	e170	e290	e110	e80	e200	e160	e100
22	e50	e55	e100	e110	e190	e170	e250	e110	e85	e170	e150	e220
23	e50	e65	e100	e120	e220	e180	e230	e110	e80	e350	e120	e400
24	e50	e75	e100	e160	e230	e190	e230	e110	e90	e400	e120	e160
25	e50	e80	e100	e130	e210	e210	e220	e100	e85	e330	e120	e150
26	e50	e65	e95	e120	e200	e320	e230	e100	e75	e310	e120	e240
27	e50	e60	e95	e120	e190	e1200	e230	e120	e75	e290	e130	e280
28	e52	e55	e95	e115	e190	e860	e200	e105	e75	e250	e140	e260
29	e50	e65	e160	e115	e270	e650	e180	e100	e70	e230	e320	e220
30	e50	e70	e380	e110	---	e580	e170	e95	e70	e230	e200	e200
31	e50	---	e140	e110	---	e520	---	e170	---	e500	e170	---
TOTAL	1650	1680	3600	3885	4480	8860	9610	4660	3715	6435	6710	4710
MEAN	53.2	56.0	116	125	154	286	320	150	124	208	216	157
MAX	90	80	380	190	280	1200	550	320	340	500	580	400
MIN	50	48	60	100	95	160	170	95	70	70	120	100

e Estimated

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

MEAN	148	187	237	211	240	333	340	218	164	114	99.5	107
MAX	529	439	623	492	549	669	604	385	676	289	216	308
(WY)	1978	1978	1973	1973	1990	1979	1971	1983	1972	1972	1992	1975
MIN	43.6	56.0	97.3	81.8	86.0	112	150	88.6	52.6	44.2	28.6	33.0
(WY)	1986	1992	1983	1984	1989	1983	1985	1987	1981	1981	1985	1985

04240300 NINEMILE CREEK AT LAKELAND, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1971 - 1973, 1975 - 1992	
ANNUAL TOTAL	55662		59995			
ANNUAL MEAN	152		164		195	
HIGHEST ANNUAL MEAN					310	1973
LOWEST ANNUAL MEAN					95.7	1988
HIGHEST DAILY MEAN	700	Jan 1	1200	Mar 27	2110	Jun 23 1972
LOWEST DAILY MEAN	45	a	48	b	13	Aug 18 1985
ANNUAL SEVEN-DAY MINIMUM	47	Sep 2	49	Nov 4	16	Sep 20 1985
INSTANTANEOUS PEAK STAGE			7.50	Mar 27	c8.75	Sep 26 1975
10 PERCENT EXCEEDS	310		300		393	
50 PERCENT EXCEEDS	95		130		146	
90 PERCENT EXCEEDS	50		52		57	

a Sept. 6, 13.
b Nov. 9, 10.
c Backwater from Onondaga Lake.

04240495 ONONDAGA LAKE AT LIVERPOOL, NY

LOCATION.--Lat 43°06'01", long 76°12'34", Onondaga County, Hydrologic Unit 04140201, on north shore of Onondaga Lake at Onondaga Park Marina basin, 200 ft southwest of Onondaga Lake Parkway, and 1.9 mi upstream from outlet of lake.

DRAINAGE AREA.--285 mi^2.

PERIOD OF RECORD.--October 1970 to current year. Elevation records, at Barge Canal datum, since February 1927 collected by, and in files of, New York State Department of Transportation at Syracuse.

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

REMARKS.--Lake elevation regulated by operation of Erie (Barge) Canal. Area of water surface, 4.60 mi^2.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 369.21 ft, June 30, 1972; minimum, 361.54 ft, Mar. 13, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 365.79 ft, Mar. 29; minimum, 362.37 ft, Nov. 4.

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	362.57	362.67	363.49	363.80	363.35	364.13	365.60	363.97	363.71	362.78	364.54	363.94
2	362.55	362.61	363.46	363.65	363.38	364.09	365.44	363.67	363.94	362.68	364.81	363.69
3	362.61	362.61	363.49	363.41	363.33	364.03	365.22	363.97	364.17	362.75	365.04	363.48
4	362.67	362.47	363.56	363.37	363.26	364.01	365.03	363.82	364.02	362.90	365.17	363.47
5	362.54	362.76	363.55	363.45	363.21	363.93	364.92	363.81	363.97	362.82	365.14	363.47
6	362.62	362.60	363.48	363.59	363.05	363.90	364.80	363.86	363.85	362.88	365.04	363.46
7	362.73	362.81	363.52	363.71	362.98	363.86	364.63	363.82	363.85	363.00	364.89	363.48
8	362.70	362.99	363.59	363.74	362.99	364.00	364.57	363.72	363.87	362.99	364.66	363.48
9	362.66	362.76	363.69	363.75	363.03	364.06	364.48	363.58	363.61	363.14	364.42	363.39
10	362.56	362.62	363.74	363.87	363.03	364.00	364.38	363.58	363.69	363.06	364.23	363.50
11	362.62	362.58	363.66	363.92	362.94	364.02	364.17	363.54	363.62	362.87	364.15	363.60
12	362.95	362.59	363.65	363.77	362.93	364.03	364.35	363.41	363.51	362.87	363.98	363.57
13	362.69	362.66	363.74	363.78	362.93	363.95	364.30	363.31	363.31	362.96	363.88	363.54
14	362.76	362.80	363.99	363.80	362.91	363.86	364.19	363.49	363.15	363.18	363.85	363.51
15	362.73	362.81	363.67	364.04	362.92	363.71	364.12	363.30	363.05	363.62	363.79	363.44
16	362.78	362.73	363.83	364.10	363.04	363.69	363.91	363.23	362.78	364.05	363.78	363.42
17	362.74	362.73	363.50	363.85	363.27	363.70	364.28	363.07	362.70	364.18	363.75	363.40
18	362.84	362.76	363.63	363.65	363.35	363.73	364.48	363.29	362.62	364.56	363.64	363.35
19	362.80	362.83	363.86	363.79	363.48	363.75	364.48	363.20	362.68	364.69	363.61	363.42
20	362.81	362.83	363.79	363.75	363.80	363.78	364.45	363.19	362.69	364.79	363.57	363.39
21	362.79	362.82	363.81	363.72	363.86	363.79	364.35	363.34	362.71	364.88	363.52	363.43
22	362.76	362.81	363.83	363.64	363.88	363.80	364.24	363.30	362.63	364.93	363.49	363.58
23	362.82	363.14	363.79	363.69	363.88	363.80	364.14	363.26	362.81	364.84	363.37	363.74
24	362.80	363.21	363.72	363.65	363.89	363.79	364.05	363.14	362.71	364.83	363.39	363.65
25	362.85	363.17	363.54	363.65	363.88	363.74	364.26	363.26	362.83	364.61	363.33	363.47
26	362.79	363.14	363.44	363.44	363.88	363.65	364.43	363.26	362.77	364.51	363.18	363.40
27	362.75	363.16	363.37	363.31	364.07	364.91	364.48	363.32	362.76	364.38	363.06	363.50
28	362.66	363.31	363.29	363.43	364.14	365.69	364.45	363.21	362.75	364.20	363.21	363.77
29	362.70	363.38	363.11	363.49	364.16	365.78	364.42	363.34	362.73	364.02	363.85	363.84
30	362.64	363.45	363.42	363.42	---	365.78	364.28	363.22	362.71	363.91	364.10	363.81
31	362.54	---	363.68	363.35	---	365.72	---	363.37	---	364.06	364.07	---
MEAN	362.71	362.86	363.61	363.66	363.41	364.15	364.50	363.45	363.21	363.74	364.02	363.54
MAX	362.95	363.45	363.99	364.10	364.16	365.78	365.60	363.97	364.17	364.93	365.17	363.94
MIN	362.54	362.47	363.11	363.31	362.91	363.65	363.91	363.07	362.62	362.68	363.06	363.35

CAL YR	1991	MEAN	363.24	MAX	365.78	MIN	362.47
WTR YR	1992	MEAN	363.57	MAX	365.78	MIN	362.47

04242500 EAST BRANCH FISH CREEK AT TABERG, NY

LOCATION.--Lat 43°18'06", long 75°37'09", Oneida County, Hydrologic Unit 04140202, on left bank at downstream side of bridge on Main Street at Taberg, just downstream from Furnace Creek, 300 ft upstream from bridge on State Highway 69, and 2.8 mi upstream from confluence of East and West Branches near Blossvale.

DRAINAGE AREA.--188 mi^2.

PERIOD OF RECORD.--April 1923 to current year.

REVISED RECORDS.--WSP 604: 1924. WSP 759: Drainage area. WSP 1034: 1944. WSP 1054: 1923–45. WDR NY–83–3: 1980 (M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 490.12 ft above National Geodetic Vertical Datum of 1929. Prior to May 20, 1969, at datum 1.00 ft higher.

REMARKS.--Records fair. Diversion upstream from station for municipal water supply by cities of Rome and Oneida. Diurnal fluctuation at low flow caused by power-generating operations upstream. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Apr. 12	0300	*6,570	*7.30	No other peaks greater than base discharge.			

DISCHARGE, IN 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	226	154	1190	e360	300	e230	808	500	2820	107	1230	275
2	421	142	853	e300	e250	e250	677	862	1230	100	718	226
3	493	137	645	e330	e240	e250	557	2880	659	105	477	178
4	359	134	633	442	e230	241	518	1280	449	178	1300	879
5	300	129	e430	1000	e230	246	521	804	334	195	997	668
6	447	123	e370	833	e220	310	502	670	327	194	541	384
7	659	123	345	575	e220	820	596	575	375	161	366	250
8	1060	124	450	403	e200	1270	1070	480	540	134	277	209
9	720	113	1340	378	e190	1370	1360	425	402	216	424	200
10	446	107	1540	457	e170	1610	1370	391	267	263	371	199
11	559	225	834	394	e180	2450	2620	339	218	285	512	630
12	456	314	586	278	e180	1570	4730	287	191	238	399	626
13	356	275	1010	328	e180	e1000	2440	247	169	522	275	394
14	284	283	1580	935	e180	e790	1540	213	157	673	294	299
15	296	425	e1020	e1650	e190	e620	1230	181	137	905	240	273
16	1220	1040	e710	e1150	e370	e460	1160	220	128	682	213	266
17	982	746	e570	e700	e550	e410	2830	206	123	420	200	148
18	556	446	e470	e480	544	e370	2240	400	121	1280	197	108
19	397	366	e430	e420	777	e350	1890	352	129	758	193	130
20	334	329	e420	e400	e1050	e300	2460	242	234	561	178	249
21	292	345	e400	e350	907	e290	2880	183	187	1120	165	212
22	255	341	390	321	608	e250	3230	151	162	685	156	632
23	231	408	388	351	510	e250	2400	134	155	609	150	1830
24	210	488	e340	736	415	e240	1930	128	154	698	138	776
25	193	612	e310	838	356	e230	1680	144	165	470	130	408
26	180	505	e280	656	329	e370	1210	134	166	337	128	291
27	176	412	e270	507	310	2050	933	160	142	271	164	303
28	214	363	e260	423	284	2120	732	193	128	220	169	673
29	207	434	e310	365	e260	1280	610	161	117	199	272	515
30	180	768	560	348	---	898	530	135	113	181	343	351
31	163	---	504	335	---	782	---	1530	---	442	328	---
TOTAL	12872	10411	19438	17043	10430	23677	47254	14607	10499	13209	11545	12582
MEAN	415	347	627	550	360	764	1575	471	350	426	372	419
MAX	1220	1040	1580	1650	1050	2450	4730	2880	2820	1280	1300	1830
MIN	163	107	260	278	170	230	502	128	113	100	128	108

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1992, BY WATER YEAR (WY)

MEAN	412	613	587	457	413	824	1616	687	284	183	157	258
MAX	1164	1322	1499	1424	1496	2158	2734	2073	1232	632	570	901
(WY)	1946	1926	1974	1937	1981	1945	1960	1947	1972	1947	1986	1975
MIN	30.8	126	183	108	102	217	591	164	52.9	33.1	31.5	28.9
(WY)	1965	1931	1961	1931	1934	1940	1946	1941	1941	1933	1944	1948

04242500 EAST BRANCH FISH CREEK AT TABERG, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1923 - 1992	
ANNUAL TOTAL	165860		203567			
ANNUAL MEAN	454		556		a540	
HIGHEST ANNUAL MEAN					909	1947
LOWEST ANNUAL MEAN					357	1931
HIGHEST DAILY MEAN	3650	Mar 4	4730	Apr 12	10900	Jun 22 1972
LOWEST DAILY MEAN	31	Aug 8	100	Jul 2	5.2	Aug 15 1949
ANNUAL SEVEN-DAY MINIMUM	41	Aug 2	116	Jun 27	6.3	Aug 11 1949
INSTANTANEOUS PEAK FLOW			6570	Apr 12	b21600	Dec 29 1984
INSTANTANEOUS PEAK STAGE			7.30	Apr 12	13.81	Dec 29 1984
INSTANTANEOUS LOW FLOW			c72	Sep 18	4.9	d
10 PERCENT EXCEEDS	1010		1230		1290	
50 PERCENT EXCEEDS	260		364		289	
90 PERCENT EXCEEDS	49		154		66	

a Unadjusted.
b From slope-area indirect measurement of peak flow and result of release of upstream debris jam (constructed maximum discharge, about 16,000 ft^3/s on same date as earlier time when adjusted for storage effects).
c Result of regulation.
d Aug. 15, 16, 1949.

04243500 ONEIDA CREEK AT ONEIDA, NY

LOCATION.--Lat 43°05'51", long 75°38'22", Oneida County, Hydrologic Unit 04140202, on right bank 70 ft upstream from bridge on Sconondoa Street at Oneida, and 500 ft downstream from Sconondoa Creek.

DRAINAGE AREA.--113 mi^2.

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

REVISED RECORDS.--WSP 2112: Drainage area. WDR NY-78-1: 1951, 1956, 1958, 1961, 1963, 1964, 1972, 1976 (P). WDR NY-83-3: 1950 (M), 1977 (M), 1979 (M).

GAGE.--Water-stage recorder. Datum of gage is 409.33 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Occasional regulation by small mills upstream from station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
June 1	0430	*2,160	*8.72	No other peak greater than base discharge.			

DISCHARGE, IN 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	53	148	e190	e130	e160	286	137	1250	53	334	50
2	93	54	123	e160	e110	e150	268	282	477	52	191	45
3	58	51	269	e130	e100	138	231	886	256	71	140	54
4	57	49	367	295	e95	147	216	352	176	110	127	106
5	49	49	200	542	e90	190	188	239	146	87	110	53
6	77	49	177	367	e85	288	168	211	144	65	95	46
7	65	49	175	251	e80	423	163	190	152	59	83	45
8	51	50	376	188	e75	488	190	167	220	58	75	49
9	46	48	440	167	e65	390	175	163	153	206	90	51
10	45	46	292	230	e60	366	166	147	115	91	94	91
11	62	202	202	e170	e65	548	253	134	97	73	83	131
12	53	158	168	e150	e60	e320	467	126	86	65	73	65
13	47	153	159	160	e60	e260	245	109	78	165	72	55
14	44	126	159	510	e60	e230	191	104	73	315	125	49
15	46	125	160	e400	e70	e200	165	97	70	857	91	44
16	218	154	119	e250	e350	e190	259	127	67	409	81	43
17	103	131	e110	e200	e250	e170	1000	106	65	244	79	41
18	97	100	e100	e180	e220	e150	474	138	63	279	82	39
19	79	84	e90	e170	e600	e140	411	111	68	169	74	128
20	78	78	e95	e160	568	e120	304	90	115	125	67	69
21	71	91	e100	e150	334	e110	247	80	77	115	64	56
22	66	97	e110	e150	235	e110	224	75	74	100	62	83
23	63	232	e110	e150	291	e110	196	71	71	425	60	153
24	61	346	e100	e370	246	e100	200	79	71	362	57	72
25	57	304	e90	e260	202	e110	217	79	74	202	55	60
26	55	171	e84	e220	205	e340	234	74	67	158	50	61
27	54	135	e84	e200	e180	1140	208	76	61	147	44	66
28	57	120	e80	e190	e190	711	168	73	59	116	66	68
29	54	196	e190	e170	e300	403	146	67	56	105	149	56
30	52	181	e510	e160	---	337	134	64	54	97	63	53
31	53	---	e210	e150	---	292	---	519	---	468	56	---
TOTAL	2057	3682	5597	7040	5376	8831	7794	5173	4535	5848	2892	1982
MEAN	66.4	123	181	227	185	285	260	167	151	189	93.3	66.1
MAX	218	346	510	542	600	1140	1000	886	1250	857	334	153
MIN	44	46	80	130	60	100	134	64	54	52	44	39
CFSM	.59	1.09	1.60	2.01	1.64	2.52	2.30	1.48	1.34	1.67	.83	.58
IN.	.68	1.21	1.84	2.32	1.77	2.91	2.57	1.70	1.49	1.93	.95	.65

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1992, BY WATER YEAR (WY)

MEAN	91.1	147	194	187	219	371	330	162	102	66.4	53.1	63.5
MAX	472	382	481	443	589	781	596	361	539	225	253	297
(WY)	1978	1973	1974	1979	1976	1977	1956	1990	1972	1951	1976	1977
MIN	21.5	30.5	39.6	38.9	50.5	131	109	66.3	38.3	23.2	22.5	18.0
(WY)	1964	1965	1961	1981	1980	1981	1981	1985	1955	1962	1987	1964

04243500 ONEIDA CREEK AT ONEIDA, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1950 - 1992	
ANNUAL TOTAL	50056		60807			
ANNUAL MEAN	137		166		165	
HIGHEST ANNUAL MEAN					284	1976
LOWEST ANNUAL MEAN					89.7	1988
HIGHEST DAILY MEAN	1270	Apr 22	1250	Jun 1	5210	Mar 5 1979
LOWEST DAILY MEAN	23	a	39	Sep 18	13	Oct 28 1964
ANNUAL SEVEN-DAY MINIMUM	24	Jul 27	48	Sep 12	15	Sep 15 1964
INSTANTANEOUS PEAK FLOW			2150	Jun 1	9100	Oct 9 1976
INSTANTANEOUS PEAK STAGE			8.68	Jun 1	15.01	Oct 9 1976
INSTANTANEOUS LOW FLOW			35	Aug 27	12	b
ANNUAL RUNOFF (CFSM)	1.21		1.47		1.46	
ANNUAL RUNOFF (INCHES)	16.48		20.02		19.87	
10 PERCENT EXCEEDS	287		338		356	
50 PERCENT EXCEEDS	100		120		95	
90 PERCENT EXCEEDS	30		53		30	

a July 21, 30, Aug. 1, 2, 18, 19.
b Aug. 5, 6, 1962, Oct. 28, 1964.

04245200 BUTTERNUT CREEK NEAR JAMESVILLE, NY

LOCATION.--Lat 42°56'02", long 76°03'44", Onondaga County, Hydrologic Unit 04140202, on left bank 15 ft downstream from bridge on Walberger Road, 125 ft downstream from tributary from Stebbins Gulf, 2.2 mi upstream from Jamesville Reservoir, and 4.0 mi south of Jamesville.

DRAINAGE AREA.--32.2 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1955–58. July 1958 to current year.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 717.93 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 550 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Mar. 27	unknown	*744	*7.66	July 31	0900	650	7.53

DISCHARGE, IN 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	7.6	7.3	26	34	28	61	157	62	196	13	203	22
2	10	7.4	23	30	e28	53	130	94	115	12	103	19
3	9.2	7.2	71	39	28	48	110	176	66	17	77	27
4	8.8	7.1	55	88	28	48	101	94	51	25	70	27
5	7.8	6.9	38	119	e27	61	89	77	45	30	62	20
6	14	7.2	33	71	27	75	79	72	43	26	52	18
7	12	7.3	35	54	26	93	81	66	76	17	46	18
8	9.5	7.6	61	44	25	108	96	61	95	15	44	17
9	8.7	7.0	64	44	24	99	83	59	53	45	47	16
10	9.3	6.8	48	52	e24	96	79	54	42	21	41	30
11	11	22	39	40	25	135	118	50	37	17	41	38
12	10	19	35	39	24	88	158	46	34	15	35	22
13	9.5	19	35	40	e23	76	96	43	31	75	35	18
14	9.0	18	35	82	e22	e70	82	41	29	32	42	17
15	12	18	34	64	e25	e65	73	39	27	185	37	16
16	40	20	28	e50	e80	e60	115	43	25	90	36	15
17	18	16	27	e42	55	e55	201	37	24	54	33	14
18	13	13	e26	e40	48	e50	131	51	22	84	37	14
19	13	12	e25	e38	129	e48	123	41	24	97	31	79
20	12	12	e24	e36	119	e46	98	33	28	48	26	31
21	10	17	e24	e36	76	e44	85	31	25	53	24	23
22	9.7	18	28	e36	62	e42	81	28	27	42	22	39
23	9.3	28	28	e50	76	e44	72	27	24	261	21	50
24	8.7	31	27	e75	68	e42	75	30	24	161	19	29
25	8.5	28	24	44	65	e44	113	30	22	90	19	24
26	8.5	21	22	38	66	e120	111	27	19	77	18	42
27	8.7	19	23	37	58	e400	87	32	18	67	21	46
28	11	18	21	37	60	e350	72	31	17	54	30	41
29	7.9	36	46	34	69	e300	65	26	15	73	89	30
30	7.3	32	79	32	---	e260	61	24	14	66	32	28
31	7.5	---	44	32	---	e160	---	129	---	329	25	---
TOTAL	341.5	488.8	1128	1497	1415	3241	3022	1654	1268	2191	1418	830
MEAN	11.0	16.3	36.4	48.3	48.8	105	101	53.4	42.3	70.7	45.7	27.7
MAX	40	36	79	119	129	400	201	176	196	329	203	79
MIN	7.3	6.8	21	30	22	42	61	24	14	12	18	14
CFSM	.34	.51	1.13	1.50	1.52	3.25	3.13	1.66	1.31	2.19	1.42	.86
IN.	.39	.56	1.30	1.73	1.63	3.74	3.49	1.91	1.46	2.53	1.64	.96

e Estimated

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

MEAN	29.7	44.8	56.6	53.1	68.8	102	103	52.8	32.9	21.0	13.7	17.5
MAX	138	124	145	127	191	198	176	106	200	71.6	45.7	66.6
(WY)	1978	1973	1973	1979	1976	1977	1983	1990	1972	1974	1992	1975
MIN	5.30	7.49	11.1	13.5	18.5	37.2	48.3	23.1	11.6	5.89	4.84	3.85
(WY)	1965	1965	1961	1961	1963	1983	1981	1987	1964	1964	1965	1964

04245200 BUTTERNUT CREEK NEAR JAMESVILLE, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1958 - 1992	
ANNUAL TOTAL	13964.6		18494.3			
ANNUAL MEAN	38.3		50.5		49.5	
HIGHEST ANNUAL MEAN					82.6	1976
LOWEST ANNUAL MEAN					24.2	1965
HIGHEST DAILY MEAN	255	Mar 4	400	Mar 27	1260	Oct 28 1981
LOWEST DAILY MEAN	5.4	Aug 2	6.8	Nov 10	3.0	Sep 27 1959
ANNUAL SEVEN-DAY MINIMUM	5.9	Jul 27	7.1	Nov 4	3.4	Sep 17 1964
INSTANTANEOUS PEAK FLOW			744	Mar 27	2820	Jul 3 1974
INSTANTANEOUS PEAK STAGE			7.66	Mar 27	8.46	Oct 28 1981
INSTANTANEOUS LOW FLOW			3.8	Nov 10	2.0	Sep 27 1959
ANNUAL RUNOFF (CFSM)	1.19		1.57		1.54	
ANNUAL RUNOFF (INCHES)	16.13		21.37		20.88	
10 PERCENT EXCEEDS	80		96		103	
50 PERCENT EXCEEDS	25		36		31	
90 PERCENT EXCEEDS	7.1		12		7.6	

04245236 MEADOW BROOK AT HURLBURT ROAD, SYRACUSE, NY

LOCATION.--Lat 43°02'30", long 76°06'02", Onondaga County, Hydrologic Unit 04140202, on right bank 170 ft downstream from culvert at intersection of Hurlburt Road and Meadowbrook Drive, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--2.90 mi^2.

PERIOD OF RECORD.--December 1970 to March 1973, April 1973 to September 1978 (annual maximum only), October 1978 to current year.

REVISED RECORDS.--WDR NY-75-1: 1974 (M). WDR NY-78-1: 1977 (M). WDR-NY-90-3: 1971-89 (P).

GAGE.--Water-stage recorder, crest-stage gage, and artificial control. Datum of gage is 511.50 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Flow includes storm sewer inflow, some originating outside the basin. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
July 31	0715	111	3.12	Sept. 22	1315	114	3.17
Aug. 28	2145	*119	*3.24				

DISCHARGE, IN 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	.86	.61	1.1	1.5	1.1	1.8	3.6	1.7	18	1.5	2.4	.76
2	.74	.61	1.0	1.3	1.1	1.7	2.0	5.9	3.8	1.4	1.2	.68
3	2.5	.61	11	1.3	1.1	1.8	2.0	11	1.8	17	1.0	3.3
4	.84	.66	1.7	9.4	1.1	1.7	1.7	2.2	1.4	1.9	1.5	.84
5	.72	.61	1.5	3.0	1.2	1.6	1.6	1.9	1.2	2.3	.95	.68
6	2.5	.66	1.9	1.8	1.2	1.5	1.5	2.0	1.8	1.0	.89	.68
7	.79	.76	4.1	1.6	1.1	2.3	2.8	1.9	2.3	.90	.88	.68
8	.76	.71	5.2	1.6	1.1	2.0	1.9	1.8	1.6	1.7	.97	2.5
9	.76	.65	4.2	2.0	1.2	1.5	1.5	1.7	1.1	3.8	1.8	.99
10	1.4	.79	1.4	1.8	1.1	1.7	1.6	1.8	1.1	.85	1.1	4.5
11	.90	4.4	1.2	1.5	1.1	2.5	7.9	1.7	1.1	.77	1.3	1.1
12	.76	1.6	1.1	1.2	1.5	1.7	3.4	1.8	1.1	1.5	.81	.78
13	.74	1.3	1.4	1.3	2.7	1.6	1.8	2.1	1.2	5.1	.93	.76
14	.68	1.0	1.4	4.9	1.1	1.5	1.7	1.6	1.5	5.9	.82	.76
15	4.6	1.5	1.3	1.7	4.9	1.7	1.6	1.6	1.5	19	.79	.76
16	4.6	1.2	1.2	1.3	5.3	1.5	16	2.8	1.6	1.3	.81	.76
17	.71	.94	1.1	1.3	1.8	1.6	9.3	1.5	1.5	5.8	.78	.71
18	.65	.89	1.1	e1.3	4.1	1.8	3.3	5.4	1.6	4.7	.82	2.7
19	1.2	.93	1.1	e1.3	6.4	1.8	3.2	1.5	2.5	1.1	1.0	5.3
20	.83	1.0	1.1	e1.3	3.3	1.6	2.1	1.4	2.1	.97	.83	.84
21	.68	1.6	1.8	1.4	2.5	1.6	2.0	1.4	1.6	1.5	.86	5.2
22	.68	3.1	1.5	1.1	2.4	1.4	2.1	1.5	1.6	1.1	.86	15
23	.68	2.4	1.5	4.6	3.6	1.8	1.8	1.5	1.7	12	.88	2.2
24	.68	3.9	1.3	e1.8	2.3	1.5	2.4	3.8	4.5	1.7	.89	.87
25	.76	1.2	1.1	e1.6	2.2	2.4	2.2	1.2	1.8	1.2	.93	.79
26	.76	1.4	1.2	1.3	2.2	14	3.4	1.3	1.6	1.6	.96	5.4
27	.98	1.1	1.0	1.1	2.0	36	2.1	2.5	1.7	1.2	1.8	3.0
28	.77	1.5	1.0	1.1	4.1	4.8	1.8	1.1	1.8	1.0	8.0	1.1
29	.64	3.2	12	1.2	2.8	3.2	1.8	1.1	1.7	1.6	6.6	.84
30	.61	1.3	5.2	1.1	---	2.6	1.7	1.1	1.7	1.2	.82	.95
31	.61	---	1.5	1.1	---	2.1	---	29	---	21	.76	---
TOTAL	35.39	42.13	74.2	59.8	67.6	106.3	91.8	98.8	69.5	123.59	44.94	65.43
MEAN	1.14	1.40	2.39	1.93	2.33	3.43	3.06	3.19	2.32	3.99	1.45	2.18
MAX	4.6	4.4	12	9.4	6.4	36	16	29	18	21	8.0	15
MIN	.61	.61	1.0	1.1	1.1	1.4	1.5	1.1	1.1	.77	.76	.68
CFSM	.39	.48	.83	.67	.80	1.18	1.06	1.10	.80	1.37	.50	.75
IN.	.45	.54	.95	.77	.87	1.36	1.18	1.27	.89	1.59	.58	.84

e Estimated.

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

MEAN	1.70	1.95	2.24	1.91	2.51	3.86	3.01	2.61	2.31	1.81	1.27	1.64
MAX	4.73	2.82	4.66	4.26	4.37	6.93	4.58	5.21	6.12	5.04	5.16	3.03
(WY)	1982	1989	1991	1979	1990	1972	1983	1990	1972	1988	1990	1989
MIN	.19	.71	1.04	.67	1.26	1.38	1.34	1.08	.86	.48	.32	.31
(WY)	1972	1979	1971	1981	1980	1981	1981	1971	1981	1980	1971	1971

04245236 MEADOW BROOK AT HURLBURT ROAD, SYRACUSE, NY--Continued

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1971 - 1973, 1979 - 1992	
ANNUAL TOTAL	923.60		879.48			
ANNUAL MEAN	2.53		2.40		2.27	
HIGHEST ANNUAL MEAN					3.27	1990
LOWEST ANNUAL MEAN					1.27	1981
HIGHEST DAILY MEAN	21	Aug 9	36	Mar 27	84	Oct 28 1981
LOWEST DAILY MEAN	.61	a	.61	a	.04	b
ANNUAL SEVEN-DAY MINIMUM	.62	Oct 30	.62	Oct 30	.04	Oct 13 1971
INSTANTANEOUS PEAK FLOW			119	Aug 28	c418	Jul 3 1974
INSTANTANEOUS PEAK STAGE			3.24	Aug 28	6.51	Jul 3 1974
INSTANTANEOUS LOW FLOW			.53	Oct 24	.02	d
ANNUAL RUNOFF (CFSM)	.87		.83		.78	
ANNUAL RUNOFF (INCHES)	11.85		11.28		10.63	
10 PERCENT EXCEEDS	4.5		4.6		4.1	
50 PERCENT EXCEEDS	1.6		1.5		1.4	
90 PERCENT EXCEEDS	.78		.76		.42	

a Oct. 30, 31, Nov. 1-3, 5.
b Oct. 13-21, 1971.
c From rating curve extended above 47 ft^3/s on basis of computation of peak flow through culvert at gage heights 5.31 ft and 6.51 ft.
d Sept. 11, 1972, Aug. 24, 1990.

04246000 ONEIDA LAKE AT BREWERTON, NY

LOCATION.--Lat 43°14'25", long 76°08'30", Onondaga County, Hydrologic Unit 04140202, at west end of Oneida Lake, 100 ft west of bridge on U.S. Highway 11, at Brewerton.

DRAINAGE AREA.--1,382 mi^2, at dam at Caughdenoy.

PERIOD OF RECORD.--November 1951 to current year. April 1904 to September 1925 in reports of State Engineer and Surveyor, published as "Oneida River at Brewerton."

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (1.01 ft Barge Canal datum). November 1951 to September 1975, at datum 360.99 ft higher.

REMARKS.--Lake elevation regulated by taintor-gate dam on Oneida River at Caughdenoy and gates on Oneida Canal and Erie (Barge) Canal. Lake volume at elevation 369 ft NGVD, 1.135 million acre-ft. Area of water surface, 79.8 mi^2; axes, 20.9 mi by 5.5 mi; shoreline length, 54.7 mi.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 372.83 ft, June 26, 1972; minimum daily, 366.12 ft, Feb. 11, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 29, 1936, reached a water surface elevation of 373.5 ft, from Corps of Engineers report "Flood Plain Information, Oneida Creek, New York."

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 370.94 ft, June 5; minimum, 367.20 ft, Feb. 15.

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	369.60	369.40	369.29	e368.05	367.76	368.00	369.20	369.95	370.47	369.79	369.89	369.78
2	369.63	369.39	369.27	e368.01	367.72	367.99	369.21	370.02	370.75	369.80	370.07	369.82
3	369.63	369.33	369.59	e367.98	367.68	367.94	369.20	370.19	370.75	370.00	370.06	369.85
4	369.68	369.32	369.18	e367.95	367.65	367.91	369.18	370.55	370.68	369.87	370.03	369.81
5	369.71	369.31	369.32	e367.99	367.60	367.88	369.12	370.62	370.71	369.93	370.02	369.88
6	369.62	369.31	369.28	e368.07	367.57	367.91	369.07	370.53	370.49	369.95	370.04	369.88
7	369.55	369.22	369.28	368.09	367.52	368.01	369.04	370.43	370.26	369.91	370.02	369.84
8	369.65	369.17	369.23	368.14	367.47	368.16	368.99	370.35	370.14	369.90	369.98	369.78
9	369.71	369.16	369.14	368.14	367.43	368.33	369.00	370.23	370.01	369.77	369.83	369.76
10	369.69	369.12	369.20	368.04	367.41	368.45	368.99	370.06	369.96	369.84	369.76	369.72
11	369.70	369.07	369.17	368.05	367.35	368.58	369.18	369.99	369.95	369.80	369.67	369.71
12	369.67	369.11	369.16	368.03	367.32	368.73	369.06	369.94	369.90	369.86	369.66	369.76
13	369.61	369.13	369.05	367.98	367.28	368.79	369.58	369.90	369.85	369.84	369.69	369.77
14	369.62	369.14	368.87	367.86	367.24	368.80	369.72	369.84	369.77	369.95	369.66	369.74
15	369.63	369.19	368.73	367.97	367.24	368.78	369.72	369.86	369.69	370.06	369.69	369.70
16	369.64	369.14	368.90	368.10	367.25	368.76	370.00	369.93	369.75	370.16	369.76	369.65
17	369.75	369.22	369.01	368.11	367.29	368.71	369.92	369.84	369.78	370.17	369.68	369.62
18	369.77	369.33	368.67	368.07	367.35	368.67	370.12	369.82	369.77	370.17	369.69	369.60
19	369.74	369.28	e368.60	368.07	367.43	368.62	370.27	369.88	369.73	370.19	369.66	369.55
20	369.76	369.24	e368.54	368.03	367.58	368.55	370.28	369.91	369.69	370.16	369.68	369.60
21	369.75	369.25	e368.45	368.00	367.73	368.49	370.29	369.91	369.71	370.09	369.69	369.65
22	369.69	369.27	e368.45	367.97	367.84	368.45	370.32	369.91	369.66	370.07	369.71	369.65
23	369.70	369.31	e368.37	367.94	367.91	368.38	370.37	369.90	369.72	370.10	369.73	369.81
24	369.65	369.31	e368.32	367.91	367.97	368.32	370.40	369.87	369.78	370.02	369.73	369.94
25	369.61	369.16	e368.26	367.94	368.00	368.28	370.37	369.88	369.79	369.94	369.71	370.02
26	369.56	369.35	e368.21	367.95	367.97	368.24	370.29	369.90	369.84	369.85	369.73	370.04
27	369.50	369.45	e368.12	367.94	367.97	368.44	370.22	369.87	369.81	369.73	369.74	369.82
28	369.47	369.34	e368.06	367.91	367.98	368.76	370.14	369.87	369.81	369.71	369.82	369.76
29	369.45	369.36	e368.03	367.88	367.99	368.98	370.05	369.91	369.82	369.72	369.75	369.59
30	369.37	369.34	e368.04	367.85	---	369.12	369.97	369.95	369.81	369.74	369.85	369.61
31	369.38	---	e368.07	367.80	---	369.16	---	370.15	---	369.99	369.75	---
MEAN	369.63	369.26	368.77	367.99	367.60	368.46	369.71	370.03	369.99	369.94	369.80	369.76
MAX	369.77	369.45	369.59	368.14	368.00	369.16	370.40	370.62	370.75	370.19	370.07	370.04
MIN	369.37	369.07	368.03	367.80	367.24	367.88	368.99	369.82	369.66	369.71	369.66	369.55

CAL YR	1991	MEAN	369.40	MAX	370.49	MIN	367.99	
WTR YR	1992	MEAN	369.25	MAX	370.75	MIN	367.24	

e Estimated.

04246500 ONEIDA RIVER AT CAUGHDENOY, NY

LOCATION.--Lat 43°14'49", long 76°10'12", Oswego County, Hydrologic Unit 04140202, on left bank at point of diversion to New York State Erie (Barge) Canal, 1.6 mi downstream from Oneida Lake, and 2.6 mi upstream from navigation dam at Caughdenoy.

DRAINAGE AREA.--1,382 mi^2; 1902–9, 1,439 mi^2.

PERIOD OF RECORD.--September 1902 to December 1909 (published as "near Euclid"), January 1910 to December 1912, and October 1947 to current year in reports of Geological Survey. September 1902 to December 1909 and January 1910 to September 1925 in reports of State Engineer and Surveyor.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Base gage: Water-stage recorder. Datum of gage is 360.98 ft above National Geodetic Vertical Datum of 1929 (362.00 ft Barge Canal datum). Prior to June 5, 1907, headwater readings, and June 5, 1907 to Dec. 31, 1909, nonrecording gage readings at former Oak Orchard State Dam 5.5 mi downstream at different datum. Jan. 1, 1910 to Dec. 31, 1912, nonrecording gage at site 2.5 mi downstream from present site at different datum. From Oct. 9, 1947 to Nov. 7, 1951, water-stage recorder at site 2.5 mi downstream at present datum.

Auxiliary gage: Water-stage recorder at site 2.5 mi downstream, 350 ft upstream from navigation dam at present datum (base gage site 1947–51).

Supplementary gage: Water-stage recorder at site 2.6 mi downstream, 180 ft downstream from navigation dam at present datum.

REMARKS.--Records fair. Jan. 1, 1910 to Dec. 31, 1912: Flow over dam computed on basis of coefficient determined for model of dam of same general type; flow through gate and diversion through lock culverts estimated by theoretical calculations.
1947 to current year: Record represents total discharge at Caughdenoy, including flow in Oneida and Erie (Barge) Canals. Considerable seasonal regulation by operation of gates in Oneida and Erie (Barge) Canals with a large amount of natural storage in Oneida Lake. Occasional large diurnal fluctuations caused by seiche in Oneida Lake. Water may be diverted into or received from Mohawk River basin through summit level of Erie (Barge) Canal between New London and Utica. Nearly all of flow from 14 mi^2 of Tioughnioga River basin may be diverted into De Ruyter Reservoir, in Oswego River basin. Several measurements of water temperature were made during the year.

COOPERATION.--Records of gate openings, lockages, and elevations of water surface in Erie (Barge) Canal above and below Lock 23, furnished by New York State Department of Transportation.

DISCHARGE, IN 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	742	697	2940	2940	2540	2880	4610	2630	2290	494	1500	1430
2	752	691	2910	2890	2490	2870	4650	1510	5940	493	3370	1420
3	749	688	3050	2840	2420	2790	4620	1560	7080	551	3760	1420
4	969	1020	2760	2800	2390	2760	4590	3670	6970	515	3760	1420
5	1110	1300	2860	2870	2320	2710	4490	e3700	7000	542	3780	1420
6	1090	1310	2890	2960	2300	2770	4420	e3600	6650	1210	3800	1420
7	1070	1800	2970	2990	2230	2920	4370	e3500	6250	1860	3800	1430
8	1070	1820	2950	3060	2160	3080	4280	e3400	6000	1850	3780	1410
9	1090	1540	3990	3070	2110	3310	4310	e3300	5420	1870	3720	1400
10	1080	1530	4570	2930	2100	3480	4300	e3200	3040	1510	3670	1400
11	1640	1520	4520	2940	2020	3640	4630	e3100	1880	1270	2720	1410
12	1950	1530	4520	2930	1980	3860	4390	2950	1880	1280	1910	1420
13	1930	1530	4330	2850	1950	3960	5280	1700	1870	1300	1390	1420
14	1930	1540	4050	2690	1900	3980	5530	1710	1830	1590	1060	1410
15	1380	1560	3860	2830	1910	3960	5550	1710	992	3190	1060	1420
16	1070	1540	4100	3000	1900	3930	6100	1720	489	4000	1060	1350
17	1440	1540	4340	3010	1960	3850	5930	1720	486	4460	752	1300
18	1980	1560	3810	2960	2040	3790	6290	1700	484	5400	505	1310
19	1960	1560	3710	2940	2110	3730	6580	1270	484	5470	552	1310
20	1970	1560	3510	2910	2300	3610	6600	1020	491	5420	540	1320
21	1950	1560	3260	2870	2490	3530	6630	1040	494	5350	555	1300
22	1940	1560	3240	2840	2650	3480	6670	1070	474	5300	554	1320
23	1950	1580	3070	2810	2740	3370	6760	1080	491	5320	533	1690
24	1930	1580	3280	2740	2850	3290	6800	1080	506	5270	523	1940
25	1940	1550	3210	2780	2890	3250	6750	1100	495	5220	518	1930
26	1940	1570	3140	2790	2850	3190	6600	1090	492	5130	500	1930
27	1910	2420	3030	2800	2830	3470	6450	1090	503	3560	488	3010
28	1890	2990	2950	2750	2850	3930	6310	1070	502	2340	557	3780
29	1880	3000	2910	2710	2860	4250	5910	1090	491	1330	1150	3670
30	1190	2980	2930	2670	---	4480	e4350	1090	486	683	1480	3670
31	692	---	2980	2600	---	4550	---	1140	---	777	1440	---
TOTAL	46184	48626	106640	88770	68140	108670	164750	60610	72460	84555	54787	52080
MEAN	1490	1621	3440	2864	2350	3505	5492	1955	2415	2728	1767	1736
MAX	1980	3000	4570	3070	2890	4550	6800	3700	7080	5470	3800	3780
MIN	692	688	2760	2600	1900	2710	4280	1020	474	493	488	1300

e Estimated

04246500 ONEIDA RIVER AT CAUGHDENOY, NY--Continued

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

MEAN	1505	2416	3455	3009	2805	3925	5464	3154	1712	1158	825	1106
MAX	5591	5635	5686	5982	6179	10630	10210	7427	5710	5151	2066	3524
(WY)	1978	1982	1978	1907	1903	1903	1905	1972	1972	1972	1986	1977
MIN	113	260	1029	1397	1048	1122	2122	815	366	281	133	129
(WY)	1965	1965	1909	1963	1963	1983	1981	1987	1988	1979	1965	1964

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1902 - 1912 1948 - 1992	
ANNUAL TOTAL	826077		956272			
ANNUAL MEAN	2263		2613		2543	
HIGHEST ANNUAL MEAN					3785	1903
LOWEST ANNUAL MEAN					1600	1965
HIGHEST DAILY MEAN (1903 - 1912)					13800	a
HIGHEST DAILY MEAN (1948 - 1992)	6530	Jan 2	7080	Jun 3	13800	Mar 25 1903
LOWEST DAILY MEAN (1903 - 1912)					52	Oct 24 1910
LOWEST DAILY MEAN (1948 - 1992)	238	May 7	474	Jun 22	52	Oct 24 1910
ANNUAL SEVEN-DAY MINIMUM	301	Sep 9	486	Jun 16	72	Jul 28 1950
10 PERCENT EXCEEDS	4500		4620		5370	
50 PERCENT EXCEEDS	1930		2450		2070	
90 PERCENT EXCEEDS	393		728		365	

a Mar. 25, 26, 27, 1903.

04248250 OSWEGO RIVER AT LOCK 5, MINETTO, NY

LOCATION.--Lat 43°24'01", long 76°28'25", Oswego County, Hydrologic Unit 04140203, at bridge on Oswego River in Minetto, 0.1 mi upstream of lock 5.

DRAINAGE AREA.--5,097 mi^2.

PERIOD OF RECORD.-- Water years 1988 to current year.
CHEMICAL DATA: 1988 (b), 1989 (c), 1990 (d), 1991 (c), 1992 (a).
MINOR ELEMENT DATA: 1988 (b), 1989 (c), 1990(d), 1991(c), 1992 (a).
SEDIMENT DATA: 1988 (b), 1989 (c), 1990 (d), 1991 (c), 1992 (a).

REMARKS.--Water-discharge data are based on records for station 04249000 Oswego River at Lock 7 Oswego.

COOPERATION.--Water samples were collected by the New York State Department of Environmental Conservation, and were analyzed by the USGS National Water Quality Laboratory at Arvada, Colorado and the USGS Pennsylvania District Sediment Laboratory at LeMoyne, Pennsylvania.

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 (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
OCT								
28	1130	2800	564	8.1	13.5	765	9.0	86

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)
OCT								
28	280	< 1	260	3	70	< 0.10	2	20

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				
28	1130	2800	12	91

04249000 OSWEGO RIVER AT LOCK 7, OSWEGO, NY

(National stream-quality accounting network station)

LOCATION.--Lat 43°27'06", long 76°30'20", Oswego County, Hydrologic Unit 04140203, on right bank at New York State Barge Canal (Oswego Canal) Lock 7 in Oswego, 0.8 mi upstream from mouth. Water-quality sampling site at discharge station.

DRAINAGE AREA.--5,100 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1900 to April 1906, October 1933 to current year. Monthly discharge only for some periods, published in WSP 1307. Prior to January 1904, published as "above Minetto" or "near Minetto." January 1904 to April 1906, published as "at Battle Island." Records for April 1897 to September 1900, published in WSP 65 and for October 1927 to September 1928, published in WSP 644, have been found to be unreliable and should not be used.

REVISED RECORDS.--WDR NY 78–1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 245.12 ft above National Geodetic Vertical Datum of 1929. Prior to 1933, nonrecording gage at site about 6 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Prior to 1933 and subsequent to 1972, flow in Oswego (Barge) Canal not included. A large amount of natural storage and some artificial regulation is afforded by the many large lakes and the Erie (Barge) and Oswego (Barge) Canal systems in the river basin. Large diurnal fluctuations at low and medium flow caused by powerplants upstream from station. Oswego River basin receives water from Erie (Barge) Canal through Lock 32 near Pittsford. Water may be diverted into or received from Mohawk River basin through Erie (Barge) Canal between New London and Utica. During part of year, entire flow from 45.5 mi^2 of Mud Creek drainage area may be diverted from Chemung River basin into Keuka Lake in Oswego River basin. Nearly all of the flow from 14 mi^2 of the Tioughnioga River basin may be diverted into De Ruyter Reservoir, in Oswego River basin. Telephone gage-height telemeter at station.

COOPERATION.--Records of lockages at Lock 7 furnished by New York State Department of Transportation, record of elevations of Lake Ontario by Corps of Engineers, daily discharge records for Oswego River High Dam upstream by Niagara Mohawk Power Corp.

DISCHARGE, IN 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	1200	765	7670	6870	5070	9770	18100	10200	8250	1900	10800	9660
2	1920	1780	7560	6310	5060	9110	17100	8290	11900	1800	12600	8320
3	1600	1390	7660	5580	4910	8480	16200	10300	13600	1860	14100	7120
4	2290	1450	8250	5230	4910	8520	15200	10800	13200	3050	15200	6950
5	1200	1480	8310	6390	4540	8060	14400	12600	13100	2580	15000	6850
6	1830	2110	7790	6450	3880	8150	14100	13000	12400	2640	14700	6910
7	2100	1460	7930	7050	3540	8850	13700	12800	11600	3530	14100	6610
8	2370	2850	8570	7140	3470	10100	13200	12300	12000	4120	13400	6600
9	2220	2840	9410	7690	3880	10100	13000	11500	10900	4060	12500	5900
10	1150	2120	10500	7270	3840	10400	12600	10900	9850	4480	11600	6250
11	1910	1530	10000	7600	3420	10100	12500	10900	8070	2740	10700	7190
12	3330	2010	9590	7400	3330	9970	14200	9990	7880	3010	9470	6810
13	3010	2560	9220	7070	3140	9780	13800	6320	6850	3030	8690	6800
14	2280	2910	8790	7830	2980	9290	13300	6530	4920	4360	8030	6860
15	3000	3030	8050	7680	3310	9830	12600	7100	3120	8190	7450	6410
16	2890	2840	7450	8860	3930	8870	12200	4560	2930	11000	7260	5990
17	2170	2350	9040	9740	5160	9170	15000	4860	2000	12000	7090	5490
18	3280	2650	6330	8040	5510	9210	15200	5500	1380	15800	6360	5520
19	3040	2860	7410	7150	6250	9190	15300	4740	1960	15800	6150	5750
20	2890	3130	7430	9020	7950	8780	15000	3750	1660	16000	5920	5670
21	3000	3220	7220	8150	8700	8510	14500	4310	2000	15200	5360	5650
22	2590	2990	7350	7520	8880	8450	13800	4310	1550	15100	5500	6570
23	2780	3990	7390	6050	8670	8030	13200	4420	1770	14900	4420	8060
24	2680	4610	6730	6560	9210	7650	12900	3720	2090	14700	4950	8290
25	2690	4450	6010	6670	8770	7170	13500	4390	2600	14100	4710	7720
26	3010	4260	5350	6920	8670	7500	14200	4040	2400	13400	4120	6590
27	2620	4400	5150	6150	8900	14800	14500	4800	1910	12100	3210	7280
28	2580	6130	5440	5840	9720	19800	14100	3800	2020	10500	4590	9440
29	2470	6920	4570	5740	9870	19500	13700	4530	2090	9330	8810	10200
30	2340	7460	6390	5330	---	19300	13000	4620	1480	7750	10600	9810
31	1350	---	7430	5260	---	18700	---	5560	---	8290	10100	---
TOTAL	73790	92545	235990	216560	169470	325140	424100	225440	177480	257320	277490	213270
MEAN	2380	3085	7613	6986	5844	10490	14140	7272	5916	8301	8951	7109
MAX	3330	7460	10500	9740	9870	19800	18100	13000	13600	16000	15200	10200
MIN	1150	765	4570	5230	2980	7170	12200	3720	1380	1800	3210	5490

04249000 OSWEGO RIVER AT LOCK 7, OSWEGO, NY--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1992, BY WATER YEAR (WY)

MEAN	3811	5842	8294	7776	7817	11680	13010	8123	5074	3503	2552	2761
MAX	17950	16070	17920	16370	15130	21720	26750	20350	17000	19660	8951	8702
(WY)	1978	1978	1978	1943	1976	1979	1940	1943	1947	1972	1992	1977
MIN	1173	1167	2917	2610	2547	3914	3782	2302	1396	1234	836	1048
(WY)	1940	1965	1940	1963	1963	1983	1946	1987	1988	1991	1934	1939

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1934 - 1992	
ANNUAL TOTAL	2187604		2688595			
ANNUAL MEAN	5993		7346		6673	
HIGHEST ANNUAL MEAN					11030	1976
LOWEST ANNUAL MEAN					3433	1965
HIGHEST DAILY MEAN	20100	Jan 1	19800	Mar 28	37000	Mar 28 1936
LOWEST DAILY MEAN	590	Jul 20	765	Nov 1	261	Sep 18 1985
ANNUAL SEVEN-DAY MINIMUM	870	Jul 27	1470	Oct 31	709	Sep 2 1934
INSTANTANEOUS PEAK FLOW			20500	Mar 27	a37500	Mar 28 1936
INSTANTANEOUS PEAK STAGE			9.47	Mar 27	13.46	Apr 10 1940
INSTANTANEOUS LOW FLOW			299	Oct 1	b30	Nov 6 1944
10 PERCENT EXCEEDS	12500		13700		14200	
50 PERCENT EXCEEDS	4480		7060		5070	
90 PERCENT EXCEEDS	1110		2260		1620	

a Includes daily mean discharge of canals.
b River only.

04249000 OSWEGO RIVER AT LOCK 7, OSWEGO, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957, 1964-66, 1971 to current year.
CHEMICAL DATA: 1957 (a), 1958-60 (a) unpublished, 1984 (b), 1965 (c), 1966 (a), 1971-72 (a), 1974 (a), 1975 (c), 1976-81 (d), 1982 (c), 1983-92 (b).
MINOR ELEMENTS DATA: 1971-73 (a), 1975 (b), 1976 (a), 1977-92 (b).
ORGANIC DATA: OC--1975 (b), 1978-81 (d).
NUTRIENT DATA: 1971 (a), 1974 (a), 1975 (c), 1976-81 (d), 1982 (c), 1983-92 (b).
BIOLOGICAL DATA:
Bacteria--1974 (a), 1975 (c), 1976-81 (d), 1982 (c), 1983-92 (b).
Phytoplankton--1974 (a), 1975 (c), 1976 (d), 1977-81 (c).
Periphyton--1975-80 (a).
SEDIMENT DATA: 1974 (a), 1975 (c), 1976 (d), 1977 (b), 1978-79 (c), 1980-81 (d), 1982 (c), 1983-92 (b).
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: September 1975 to September 1981.
WATER TEMPERATURES: July 1975 to September 1981.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (Water years 1975-78, 1981): Maximum recorded, 2,290 microsiemens Oct. 25, 1980; minimum recorded, 430 microsiemens Apr. 19, 1976.
WATER TEMPERATURES (Water years 1975-78, 1981): Minimun, 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)
NOV											
14.....	0900	2800	742	7.8	7.0	2.6	760	10.1	83	K20	30
APR											
27.....	1000	14500	520	7.7	10.0	6.4	760	11.2	100	K30	K5
JUN											
22.....	1000	2000	834	7.8	12.0	2.7	760	7.9	74	K32	150
AUG											
11.....	1000	11500	579	7.8	21.5	6.8	755	8.6	99	K60	23

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)	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)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV											
14.....	210	64	13	54	2.6	126	76	97	0.20	0.65	389
APR											
27.....	180	54	12	32	1.8	102	58	65	< 0.10	1.1	306
JUN											
22.....	250	77	14	64	2.8	124	76	130	0.20	1.2	490
AUG											
11.....	190	57	12	38	2.5	132	54	69	0.10	3.6	339

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NITRITE 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)	BARIUM, DIS-SOLVED (UG/L AS BA)
NOV											
14.....	386	0.40	0.14	0.15	0.02	0.90	0.06	0.02	0.01	< 10	43
APR											
27.....	287	0.32	0.09	0.10	< 0.01	0.50	0.03	< 0.01	< 0.01	10	34
JUN											
22.....	445	0.89	0.32	0.33	0.06	0.80	0.03	< 0.01	0.01	< 10	48
AUG											
11.....	319	0.60	0.14	0.15	0.03	0.60	0.06	0.01	0.02	< 10	40

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

04249000 OSWEGO RIVER AT LOCK 7, OSWEGO, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	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.....	< 3	8	13	10	< 10	< 1	< 1	< 1.0	810	< 6
APR										
27.....	< 3	18	5	5	< 10	< 1	< 1	< 1.0	540	< 6
JUN										
22.....	< 3	< 3	19	11	< 10	1	< 1	< 1.0	780	< 6
AUG										
11.....	< 3	20	6	6	< 10	2	< 1	< 1.0	580	< 6

DATE	TIME	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET)	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
AUG								
11.....	1005	40	15.0	3.0	577	7.8	21.5	8.6
11.....	1010	40	15.0	7.0	579	7.8	21.5	8.4
11.....	1015	100	14.0	3.0	573	7.8	21.5	8.3
11.....	1020	100	14.0	7.0	576	7.8	21.5	8.4
11.....	1025	150	13.0	3.0	576	7.8	21.5	8.5
11.....	1030	150	13.0	7.0	581	7.8	21.5	8.6
11.....	1035	200	6.5	3.0	576	8.0	21.5	9.1
11.....	1040	200	6.5	6.0	579	8.0	21.5	9.1

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
NOV					
14.....	0900	2800	6	45	--
APR					
27.....	1000	14500	24	940	88
JUN					
22.....	1000	2000	6	32	94
AUG					
11.....	1000	11500	25	776	97

04224000 MOUNT MORRIS LAKE NEAR MOUNT MORRIS, NY (see station for daily mean elevation, skeleton capacity table, monthly contents, and change in contents).

04227980 CONESUS LAKE NEAR LAKEVILLE, NY (see station for daily mean elevation).

04228845 HONEOYE LAKE NEAR HONEOYE, NY (see station for daily mean elevation).

04232400 SENECA LAKE AT WATKINS GLEN, NY (see station for daily mean elevation).

04232450 KEUKA INLET (KEUKA LAKE) AT HAMMONDSPORT, NY (see station for daily mean elevation).

04233500 CAYUGA INLET (CAYUGA LAKE) AT ITHACA, NY (see station for daily mean elevation).

04234500 CANANDAIGUA LAKE AT CANANDAIGUA, NY (see station for daily mean elevation).

04235396 OWASCO LAKE NEAR AUBURN, NY (see station for daily elevation).

04236000 SKANEATELES LAKE AT SKANEATELES, NY (see station for daily elevation).

04238500 ONONDAGA RESERVOIR NEAR NEDROW, NY (see station for daily mean elevation, skeleton capacity table, monthly contents, and change in contents).

04240495 ONONDAGA LAKE AT LIVERPOOL, NY (see station for daily mean elevation).

04246000 ONEIDA LAKE AT BREWERTON, NY (see station for daily mean elevation).

04249010 LAKE ONTARIO AT OSWEGO, NY

LOCATION.--Lat 43°27'51", long 76°30'42" Oswego County, Hydrologic Unit 04150200, in southwest corner of Port of Oswego Authority building at mouth of Oswego River at Oswego.

DRAINAGE AREA.--295,800 mi^2.

PERIOD OF RECORD.--January 1860 to current year. Records prior to October 1960 in files of Lake Survey Center.

GAGE.--Water-stage recorder. Elevations are in feet International Great Lakes Datum (IGLD) of 1985. Prior to Oct. 1, 1991, elevations are in feet (IGLD) of 1955. Prior to Jan. 1, 1933, nonrecording gages.

COOPERATION.--Records furnished by U.S. Department of Commerce, NOAA-NOS, Lake Survey Center, Detroit, Mich.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 249.49 ft, June 6, 1952; minimum observed, 241.47 ft, Dec. 23, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 246.74 ft, May 3; minimum, 243.16 ft, Dec. 3.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244.56	244.05	243.99	244.10	244.35	244.42	245.09	246.12	246.44	246.00	246.28	246.24
2	244.50	244.13	243.94	244.08	244.30	244.33	245.15	246.21	246.39	245.96	246.19	246.14
3	244.53	244.11	243.96	244.06	244.25	244.36	245.19	246.41	246.38	245.87	246.16	246.11
4	244.49	244.08	244.16	244.11	244.29	244.34	245.16	246.39	246.37	245.96	246.25	246.14
5	244.50	244.02	243.99	244.17	244.34	244.34	245.22	246.41	246.34	245.96	246.28	246.06
6	244.62	244.01	244.03	244.21	244.17	244.26	245.17	246.41	246.37	245.98	246.25	246.01
7	244.70	244.03	244.00	244.27	244.19	244.36	245.16	246.42	246.36	245.97	246.18	246.01
8	244.53	243.97	243.94	244.11	244.29	244.42	245.20	246.42	246.39	245.90	246.13	246.03
9	244.47	243.95	244.10	244.10	244.35	244.40	245.21	246.46	246.39	246.04	246.23	246.02
10	244.54	243.94	244.03	244.24	244.10	244.44	245.21	246.49	246.38	246.02	246.24	246.07
11	244.51	244.00	244.04	244.14	244.25	244.76	245.25	246.48	246.37	246.04	246.34	246.10
12	244.49	243.91	243.95	244.09	244.12	244.93	245.56	246.45	246.35	245.99	246.30	246.03
13	244.49	243.92	244.05	244.12	244.09	244.81	245.43	246.49	246.33	246.06	246.27	245.99
14	244.38	243.89	244.28	244.34	244.13	244.76	245.44	246.49	246.33	246.07	246.22	245.96
15	244.37	243.93	244.34	244.38	244.07	244.74	245.43	246.48	246.30	246.09	246.18	245.96
16	244.44	244.03	244.13	244.34	244.26	244.67	245.40	246.43	246.24	246.05	246.10	245.92
17	244.40	243.90	244.01	244.43	244.22	244.75	245.70	246.39	246.13	246.07	246.10	245.91
18	244.40	243.85	244.22	244.54	244.18	244.67	245.67	246.50	246.12	246.19	246.09	245.95
19	244.47	243.85	244.13	244.40	244.24	244.67	245.68	246.47	246.19	246.18	246.20	246.06
20	244.37	243.89	244.04	244.31	244.30	244.73	245.70	246.44	246.23	246.18	246.16	245.97
21	244.29	243.96	244.25	244.36	244.38	244.68	245.72	246.46	246.22	246.24	246.14	245.88
22	244.30	243.94	244.13	244.21	244.28	244.63	245.83	246.42	246.21	246.24	246.10	246.07
23	244.25	243.89	244.14	244.20	244.33	244.70	245.86	246.44	246.13	246.21	246.06	246.02
24	244.22	244.00	244.08	244.58	244.29	244.70	245.99	246.48	246.13	246.17	246.04	245.91
25	244.24	244.14	244.15	244.38	244.28	244.62	246.02	246.43	246.12	246.15	246.02	245.83
26	244.25	243.98	244.06	244.35	244.40	244.67	246.07	246.40	246.08	246.15	245.98	245.80
27	244.29	243.86	244.09	244.28	244.49	244.95	246.10	246.45	246.09	246.26	245.96	245.84
28	244.19	243.94	244.04	244.32	244.39	245.04	246.12	246.41	246.06	246.23	246.02	245.89
29	244.12	243.89	244.08	244.35	244.51	245.01	246.11	246.39	246.03	246.22	246.27	246.04
30	244.16	243.94	244.14	244.30	---	244.96	246.17	246.33	246.04	246.21	246.16	245.95
31	244.13	---	244.07	244.34	---	245.00	---	246.40	---	246.20	246.31	---
MEAN	244.39	243.97	244.08	244.26	244.27	244.65	245.57	246.42	246.25	246.09	246.17	246.00
MAX	244.70	244.14	244.34	244.58	244.51	245.04	246.17	246.50	246.44	246.26	246.34	246.24
MIN	244.12	243.85	243.94	244.06	244.07	244.26	245.09	246.12	246.03	245.87	245.96	245.80

CAL YR	1991	MEAN	245.25	MAX	246.72	MIN	243.85
WTR YR	1992	MEAN	245.18	MAX	246.50	MIN	243.85

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 crest-stage partial-record stations are presented in the following table. Discharge measurements made at low-flow partial-record sites and at miscellaneous sites and for special studies are given in separate tables.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device that 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)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
SUSQUEHANNA RIVER BASIN								
Little Elk Creek near Westford, NY (01497805)	Lat 42°38'01", long 74°47'45", Otsego County, Hydrologic Unit 02050101, at culvert on Greenbush Road, 1.2 mi south of Westford, and 2.2 mi upstream from mouth. Drainage area is 3.73 mi^2.	1978-92	3-11-92	15.44	55	10-17-77	18.54	202
Susquehanna River at Bainbridge, NY (01502632)	Lat 42°17'29", long 75°28'36", Chenango County, Hydrologic Unit 02050101, on right bank at the downstream side of bridge on State highway 206 over the Susquehanna River, at Bainbridge. Drainage area is 1,610 mi^2.	1988-92	3-12-92	10.68	12,300	2-17-90 2-10-88	13.98 17.85	19,000 c
Susquehanna River at Windsor, NY (01502731)	Lat 42°04'28", long 75°38'17", Broome County, Hydrologic Unit 02050101, on right bank at downstream side of bridge on County Highway 315 over the Susquehanna River, at Windsor. Drainage area is 1,820 mi^2.	1988-92	3-12-92	10.54	12,900	5- 7-89 2- 2-88	13.39 16.27	19,900 c
Chenango River at Eaton, NY (01503980)	Lat 42°51'02", long 75°36'21", Madison County, Hydrologic Unit 02050102, at bridge on Landon Road at Eaton, 0.1 mi upstream from Eaton Brook, and 0.1 mi downstream from State Highway 26. Drainage area is 24.3 mi^2.	1964-65, 1967-92	7-23-92	6.64	649	3- 6-64	8.12	2,350
Chenango River at Greene, NY (01507000)	Lat 42°19'28", long 75°46'18", Chenango County, Hydrologic Unit 02050102, on left bank 1,700 ft downstream from bridge on State Highway 206 at Greene, and 0.6 mi downstream from Birdsall Creek. Drainage area is 593 mi^2.	1937-70‡, 1971-92	6- 1-92	8.62	4,230	12-31-42	18.33	18,900

‡ Operated as a continuous-record gaging station.
c Discharge not determined.

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)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
		SUSQUEHANNA RIVER BASIN--Continued						
West Branch Tioughnioga River at Homer, NY (01508803)	Lat 42°38'18", long 76°10'36", Cortland County, Hydrologic Init 02050102, on left bank at downstream side of bridge on Wall Street at Homer and 3.4 mi upstream from confluence with East Branch. Drainage area is 71.5 mi^2.	1967-68‡, 1973-86‡, 1987-92	3-27-92	5.00	607	10-28-81	8.74	2,710
Tioughnioga River at Lisle, NY (01509520)	Lat 42°20'58", long 75°59'58", Broome County, Hydrologic Unit 02050102, on left bank 50 ft downstream from bridge on State Highway 79, at Lisle, and 2.3 mi upstream from Otselic River. Drainage area is 453 mi^2.	1988-92	3-27-92	5.68	5,840	3-27-88 3- 4-91	6.16 6.25	6,840 6,660
Merrill Creek tributary near Texas Valley, NY (01510610)	Lat 42°28'03", long 75°59'19", Cortland County, Hydrologic Unit 02050102, at bridge on town road, 0.3 mi upstream from mouth, and 1.4 mi southwest of Texas Valley. Drainage area is 5.32 mi^2.	1976-81, 1983-92	5-31-92	2.09	420	11-11-90	4.65	1,120
Tioughnioga River at Itaska, NY (01511500)	Lat 42°17'53", long 75°54'33", Broome County, Hydrologic Unit 02050102, on right bank at Itaska, 3.8 mi downstream from Otselic River and village of Whitney Point, and 6.0 mi upstream from mouth. Drainage area is 730 mi^2.	1930-67‡, 1968-92	3-27-92	6.64	7,250	7- 8-35	16.61	61,100
Susquehanna River at Vestal, NY (01513500)	Lat 42°05'27", long 76°03'23", Broome County, Hydrologic Unit 02050103, on left bank 400 ft downstream from highway bridge, at Vestal, and 800 ft upstream from Choconut Creek. Drainage area is 3,941 mi^2.	1936, 1937-67‡, 1968-72, 1974-92	3-12-92	13.51	24,500	e3-18-36	30.50	107,000
Susquehanna River at Owego, NY (01513831)	Lat 42°06'05", long 76°15'41", Tioga County, Hydrologic Unit 02050103, on left bank at the upstream side of bridge on State Highway 96 over the Susquehanna River, at Owego. Drainage area is 4,216 mi^2.	1988-92	3-28-92	22.53	30,700	3-18-36 5-11-89	g 25.39	107,000 41,800
Owego Creek near Owego, NY (01514000)	Lat 42°07'45", long 76°16'15", Tioga County, Hydrologic Unit 02050103, on right bank of right channel 300 ft upstream from bridge on State Highway 96, 0.5 mi upstream from Catatonk Creek, and 1.5 mi north of Owego. Drainage area is 185 mi^2.	1930-78‡, 1979-92	3-27-92	6.76	4,870	7- 8-35	11.50	23,500

‡ Operated as a continuous-record gaging station.
e Estimated
g None available.

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)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
		SUSQUEHANNA RIVER BASIN--Continued						
Catatonk Creek near Owego, NY (01514801)	Lat 42°08'18", long 76°17'23", Tioga County, Hydrologic Unit 02050103, on right bank 0.4 mi downstream from bridge on County Highway 23, 1.2 mi upstream from mouth, and 1.4 mi north of Owego. Drainage area is 151 mi^2.	1988-92	3-27-92	9.68	3,140	10-24-90	12.41	5,560
Big Creek near Howard, NY (01521596)	Lat 42°22'01", long 77°34'33", Steuben County, Hydrologic Unit 02050104, at culvert on town road, 0.1 mi south of State Highway 70, 1.3 mi north of Butch Corner, 3.4 mi west of Howard,and 6.2 mi upstream from mouth. Drainage area is 6.32 mi^2.	1977-92	9-22-92	14.17	c	9-13-87	16.04	580
Canisteo River at West Cameron, NY (01525500)	Lat 42°13'20", long 77°25'05", Steuben County, Hydrologic Unit 02050104, on right bank 250 ft downstream from bridge on County Highway 119, 0.3 mi southeast of West Cameron, and 1.7 mi north of Cameron. Drainage area is 340 mi^2.	1930-31‡, 1937-70‡, 1971-72, 1974-92	5- 3-92	9.36	4,000	6-23-72	23.48	43,000
Tuscarora Creek above South Addison, NY (01525981)	Lat 42°04'20", long 77°17'57", Steuben County, Hydrologic Unit 02050104, on right bank 500 ft downstream from bridge on State Highway 417, 200 ft upstream from Elk Creek, and 1.7 mi southwest of South Addison. Drainage area is 102 mi^2.	1989-92	8-28-92	8.36	6,000	10-23-91	10.96	11,800
Cohocton River at Cohocton, NY (01527000)	Lat 42°30'00", long 77°30'02", Steuben County, Hydrologic Unit 02050105, on left bank 450 ft downstream from bridge on State Highway 415 at Cohocton, 800 ft downstream from small tributary, and 1.4 mi upstream from Reynolds Creek. Drainage area is 52.2 mi^2.	1951-81‡, 1982-92	3-27-92	4.57	253	6-23-72	9.82	2,260
Cohocton River at Bath, NY (01528320)	Lat 42°20'36", long 77°20'39", Steuben County, Hydrologic Unit 02050104, on left bank 150 ft upstream from bridge on Veterans Avenue at Bath and 0.6 mi downstream from Harrisburg Hollow Creek. Drainage area is 340 mi^2.	1988-92	7-31-92	7.55	3,700	6-21-89	9.24	5,820
Cuthrie Run near Big Flats, NY (01530301)	Lat 42°10'43", long 75°55'32", Chemung County, Hydrologic Unit 02050105, at culvert on Breed Hollow Road, 0.9 mi north of intersection of Eacher Hollow Road and Breed Hollow Road, 2.3 mi north of State Highway 17, and 3.0 mi north of Big Flats. Drainage area is 5.39 mi^2.	1976, 1979-81, 1983-92	7-31-92	15.58	398	6-19-76	18.52	800

‡ Operated as a continuous-record gaging station.
c Discharge not determined.

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)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
			SUSQUEHANNA RIVER BASIN--Continued					
Chemung River at Elmira, NY (01530332)	Lat 42°05'11", long 76°48'05", Chemung County, Hydrologic Unit 02050105, on right bank 350 ft upstream from bridge on Pennsylvania Avenue at the north end of George Place, at Elmira, and 1.0 mi downstream from Hoffman Brook. Drainage area is 2,162 mi^2.	1988-92	3-27-92	11.09	26,200	10-24-90 5-11-89	g 12.06	e34,200 30,800
			ALLEGHENY RIVER BASIN					
Ischua Creek tributary near Machias, NY (03010734)	Lat 42°24'28", long 78°33'33", Cattaraugus County, Hydrologic Unit 05010001, at culvert on Very Road, 0.2 mi upstream from mouth, 0.7 mi north of State Highway 242, and 1.5 mi west of Machias. Drainage area is 5.12 mi^2.	1978-81, 1983-92	9-21-92	9.70	192	9-14-79	10.59	570
Olean Creek near Olean, NY (03010800)	Lat 42°07'12", long 78°25'12", Cattaraugus County, Hydrologic Unit 05010001, on right bank at upstream side of highway bridge, 1,000 ft west of State Highway 16, 1.4 mi northeast of Olean, and 4.6 mi upstream from mouth. Drainage area is 198 mi^2.	1958-68‡, 1969-92	9-22-92	7.76	3,240	9-29-67	16.06	18,200
Great Valley Creek near Salamanca, NY (03011000)	Lat 42°10'28", long 78°41'28", Cattaraugus County, Hydrologic Unit 05010001, at bridge on old State Highway 98, 275 ft upstream from bridge on U. S. Highway 219, 1.5 mi northeast of Salamanca, and 2.1 mi upstream from mouth. Drainage area is 137 mi^2.	1951-68‡, 1972, 1977-92	9-22-92	13.36	3,610	9-28-67	17.88	28,600
Ball Creek at Stow, NY (03013800)	Lat 42°09'13", long 79°24'27", Chautauqua County, Hydrologic Unit 05010002, on left bank 75 ft upstream from bridge on State Highway 394 at Stow, and 0.4 mi upstream from mouth. Drainage area is 9.06 mi^2.	1955-64§, 1965, 1967-68b, 1974‡, 1975-92	7-17-92	15.02	c	9-14-79	21.88	2,000
			STREAMS TRIBUTARY TO LAKE ERIE					
Canadaway Creek at Fredonia, NY (04213376)	Lat 42°27'02", long 79°21'03", Chautauqua County, Hydrologic Unit 04120102, at bridge on Van Buren Road (Matteson Street), 0.8 mi northwest of Fredonia corporate boundary, and 1.2 mi upstream from Beaver Creek. Drainage area is 32.9 mi^2.	1962-63b, 1987-92	9-22-92	4.08	c	12-30-90	5.33	c

‡ Operated as a continuous-record gaging station.
§ Operated as a low-flow partial-record station.
b Miscellaneous measurements made.
c Discharge not determined.
g None available.

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)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
		STREAMS TRIBUTARY TO LAKE ERIE--Continued						
South Branch Cattaraugus Creek near Otto, NY (04213490)	Lat 42°21'54", long 78°48'04", Cattaraugus County, Hydrologic Unit 04120102, at highway bridge, 0.2 mi upstream from Mansfield Creek, 1.7 mi northeast of Otto, and 5.5 mi upstream from mouth. Drainage area is 25.1 mi^2.	1963-92	4-25-92	5.62	1,150	9-14-79	11.18	4,350
		STREAMS TRIBUTARY TO NIAGARA RIVER						
Delaware Park Lake at Buffalo, NY (04216212)	Lat 42°56'03", long 78°52'28", Erie County, Hydrologic Unit 04120104, on north shore of Delaware Park Lake at downstream side of bridge on Scajaquada Expressway (SH 198), and 1.7 mi upstream from mouth of Scajaquada Creek. Drainage area is 1.14 mi^2.	1985-92	9-18-92	7.27	d	6-22-87	12.48	d
Scajaquada Creek below Delaware Park Lake at Buffalo, NY (04216214)	Lat 42°56'15", long 78°53'07", Erie County, Hydrologic Unit 04120104, on left bank, 400 ft east of Grant Street (North) exit from Scajaquada Expressway (SH 198), at Buffalo. Drainage area is 25.7 mi^2.	1985-92	1-24-92	6.34	d	6-22-87	11.20	d
		STREAMS TRIBUTARY TO LAKE ONTARIO						
Johnson Creek near Lyndonville, NY (04219900)	Lat 43°20'21", long 78°20'55", Orleans County, Hydrologic Unit 04130001, at bridge on Woodworth Road, 3.3 mi downstream from dam at Lyndonville, and 4.4 mi upstream from mouth. Drainage area is 87.7 mi^2.	1962-70, 1972-73, 1976-92	2-16-92	6.68	1,710	2-17-54 3-12-62	g 10.29	5,430 3,540
Black Creek at Hyder Flats Road at Black Creek, NY (04221769)	Lat 42°16'03", long 78°13'38", Allegany County, Hydrologic Unit 04130002, at culvert on Hyder Flats Road, 0.6 mi south of Black Creek, and 11.3 mi upstream from mouth. Drainage area is 10.7 mi^2.	1978-92	9-22-92	5.65	1,370	12-30-90 6-21-89	6.56 7.06	1,560 760
Bear Creek at Ontario, NY (042320578)	Lat 43°13'30", long 77°17'00", Wayne County, Hydrologic Unit 04140101, at culvert on New Street in Ontario, 100 ft west of Furnaceville Road, and 4.0 mi upstream from mouth. Drainage area is 6.74 mi^2.	1971-73, 1975-92	7-31-92	12.32	188	3- 5-79 12-29-84	13.17 13.33	189 c
Catharine Creek at Montour Falls, NY (04232200)	Lat 42°19'42", long 76°50'39", Schuyler County, Hydrologic Unit 04140201, on left bank 12 ft downstream from bridge on Town Road, 0.4 mi south of village line of Montour Falls, and 0.6 mi upstream from diversion channel. Drainage area is 41.1 mi^2.	1957-62§, 1964-66§, 1970§, 1976-77‡, 1987-92	3-27-92	5.93	840	9-26-75 12-19-75	6.40 7.52	1,680 c

‡ Operated as a continuous-record gaging station.
§ Operated as a low-flow partial-record station.
c Discharge not determined.
d No stage-discharge relationship defined at this site.
g None available.

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)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
	STREAMS TRIBUTARY TO LAKE ONTARIO--Continued							
Sugar Creek at Guyanoga, NY (04232460)	Lat 42°37'23", long 77°09'30", Yates County, Hydrologic Unit 04140201, at bridge on Sid White Road, 0.4 mi east of Guyanoga, and 2.3 mi upstream from mouth. Drainage area is 28.9 mi^2.	1966-92	7-31-92	4.97	511	7-31-92	4.97	511
Kendig Creek near MacDougall, NY (04232630)	Lat 42°50'57", long 76°53'33", Seneca County, Hydrologic Unit 04140201, at downstream side of bridge on County Highway 120, 3.0 mi north of MacDougall, 3.5 mi southwest of Waterloo, and 4.6 mi upstream from mouth. Drainage area is 13.8 mi^2.	1965-68‡, 1969-92	7-31-92	6.32	1,000	7-31-92 3-15-78	6.32 6.72	1,000 c
Cayuga Inlet at Ithaca, NY (04233255)	Lat 42°25'38", long 76°31'19", Tompkins County, Hydrologic Unit 04140201, on upstream abutment face of flood-control weir, at east end of Burtt Place, south of Ithaca city line, 0.3 mi east of State Highway 13a, 0.9 mi downstream from Buttermilk Creek, and 2.4 mi upstream from mouth. Drainage area is 86.7 mi^2.	1971-72, 1975-92	3-27-92	8.94	2,890	6-23-72	14.60	11,800
Coy Glen Creek at Ithaca, NY (04233258)	Lat 42°25'45", long 76°31'18", Tompkins County, Hydrologic Unit 04140201, on right bank at double drop structure 200 ft upstream from mouth at Ithaca. Drainage area is 3.56 mi^2.	1983-92	8-28-92	19.44	260	10-23-90	20.87	530
Schaeffer Creek near Canandaigua, NY (04234138)	Lat 42°54'25", long 72°22'14", Ontario County, Hydrologic Unit 04140201, at culvert on McCann Road, 0.8 mi upstream from Mud Creek, 1.7 mi north of U.S. Highway 20, and 3.2 mi west of Canandaigua. Drainage area is 7.84 mi^2.	1980-92	3-27-92	12.82	330	3- 5-79 3-27-92	g 12.82	520 330
Mud Creek at East Victor, NY (04234200)	Lat 42°58'28", long 77°22'58", Ontario County, Hydrologic Unit 04140201, 25 ft downstream from bridge on State Highway 96 at East Victor, 0.3 mi upstream from Fish Creek, and 0.5 mi upstream from mouth. Drainage area is 64.2 mi^2.	1958-68‡, 1972, 1976-92	1-20-86 4- 5-87 2-17-90 4-21-91 3-27-92	7.04 6.41 6.56 7.22 6.74	R1,780 R1,450 R1,520 R1,880 1,620	6-22-72 4-21-91	7.85 7.22	1,800 1,880
Canandaigua Outlet tributary near Alloway, NY (04235255)	Lat 43°00'21", long 77°00'54", Ontario County, Hydrologic Unit 04140201, at bridge on Pre-Emption Road, 0.5 mi south of Wayne-Ontario County line, 1.8 mi southwest of Alloway, and 2.9 mi upstream from mouth. Drainage area is 2.94 mi^2.	1978-92	7-31-92	7.22	116	7-31-92	7.22	116

‡ Operated as a continuous-record gaging station.
c Discharge not determined.
g None available.
R Revised.

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)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
STREAMS TRIBUTARY TO LAKE ONTARIO--Continued								
Limestone Creek at Fayetteville, NY (04245000)	Lat 43°01'48", long 76°00'49", Onondaga County, Hydrologic Unit 04140202, on left bank, 100 ft downstream from bridge on Genesee Street at Fayetteville, and 8 mi upstream from mouth. Drainage area is 85.5 mi^2.	1940-86‡, 1987-92	3-27-92	4.32	1,260	10-28-81	10.14	7,490
Scriba Creek near Constantia, NY (04245840)	Lat 43°15'35" long 76°00'11", Oswego County, Hydrologic Unit 04140202, on right bank, 8 ft upstream from road to Ingersol Road, and about 0.8 mi north of village of Constantia. Drainage area is 38.4 mi^2.	1966-68‡, 1969, 1971-92	4-12-92	5.57	670	9-26-75	7.33	1,310
Catfish Creek at New Haven, NY (04249050)	Lat 43°29'00", long 76°19'34", Oswego County, Hydrologic Unit 04140102, at bridge on State Highway 104B, at New Haven, and 1.4 mi upstream from mouth. Drainage area is 31.7 mi^2.	1962-66, 1968-92	1-14-92	5.30	509	3-18-73	7.85	1,560

Discharge measurements made at miscellaneous sites during water year 1992

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
SUSQUEHANNA RIVER BASIN						
01497842 Susquehanna River	Atlantic Ocean	Lat 42°29'06", long 74°59'21", Otsego County, Hydrologic Unit 02050101, at bridge on Town Road, 0.5 mi southwest of Colliersville.	471	--	4- 9-92 6-10-92	741 388
*01502632 Susquehanna River	Atlantic Ocean	Lat 42°17'29", long 75°28'36", Chenango County, Hydrologic Unit 02050101, on right bank at the downstream side of bridge on State Highway 206 over the Susquehanna River, at Bainbridge.	1,610	1970-71, 1987-91	4-15-92	3,580
*01502731 Susquehanna River	Atlantic Ocean	Lat 42°04'28", long 75°38'17", Broome County, Hydrologic Unit 02050101, on right bank at the downstream side of the bridge on County Highway 315 over the Susquehanna River, at Windsor.	1,820	1987-91	5- 5-92	7,190
*01507000 Chenango River	Susquehanna River	Lat 42°19'28", long 75°46'18", Chenango County, Hydrologic Unit 02050102, on left bank 1,700 ft downstream from bridge on State Highway 206, at Greene, and 0.6 mi downstream from Birdsall Creek.	593	1937-70‡, 1971-79, 1982-83, 1986, 1988-91	5- 5-92	2,030

‡ Operated as a continuous-record gaging station.
* Also a crest-stage partial-record station.

Discharge measurements made at miscellaneous sites during water year 1992--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		SUSQUEHANNA RIVER BASIN--Continued				
*01508803 West Branch Tioughnioga River	Tioughnioga River	Lat 42°38'18", long 76°10'36", Cortland County, Hydrologic Unit 02050102, on left bank at downstream side of bridge on Wall Street at Homer and 3.4 mi upstream from confluence with East Branch.	71.5	1967-68‡, 1973-86‡, 1987, 1990	3-27-92 4-17-92	623 325
*01509520 Tioughnioga River	Chenango River	Lat 42°20'58", long 75°59'58", Broome County, Hydrologic Unit 02050102, on left bank 50 ft downstream from bridge on State Highway 79, at Lisle, and 2.3 mi upstream from Otselic River.	453	1987-91	4-28-92	1,390
*01510610 Merrill Creek Tributary	Merrill Creek	Lat 42°28'03", long 75°59'19", Cortland County, Hydrologic Unit 02050102, at bridge on Piety Ridge Road, 0.3 mi upstream from mouth, and 1.4 mi southwestof Texas Valley.	5.32	1977, 1980-81, 1984, 1990	12- 3-91 3-27-92	79.3 163
*01511500 Tioughnioga River	Chenango River	Lat 42°17'55", long 75°54'33", Broome County, Hydrologic Unit 02050102, on right bank at Itaska, 3.8 mi downstream from Otselic River and village of Whitney Point, and 6 mi upstream from mouth.	730	1930-67‡, 1968-79, 1982-84, 1986-91	5- 1-92	1,180
*01513500 Susquehanna River	Atlantic Ocean	Lat 42°05'27", long 76°03'23", Broome County, Hydrologic Unit 02050103, on left bank 400 ft downstream from highway bridge, at Vestal, and 800 ft upstream from Choconut Creek.	3,941	1937-67‡, 1968-78, 1980, 1982-83, 1986, 1988-91	5- 6-92	13,200
*01513831 Susquehanna River	Atlantic Ocean	Lat 42°06'05", long 76°15'41", Tioga County, Hydrologic Unit 02050103, on right bank at the upstream side of bridge on State Highway 96 over the Susquehanna River, at Owego.	4,216	1987-91	12-17-91 4- 7-92	8,560 7,300
*01514000 Owego Creek	Susquehanna River	Lat 42°07'40", long 76°16'17", Tioga County, Hydrologic Unit 02050103, on right bank of right channel 300 ft upstream from bridge on State Highway 96, 0.5 mi upstream from Catatonk Creek, and 1.5 mi north of Owego.	185	1930-78‡, 1987, 1989-91	5- 6-92	465
*01514801 Catatonk Creek	Susquehanna River	Lat 42°08'18", long 76°17'23", Tioga County, Hydrologic Unit 02050103, on right bank 0.4 mi downstream from bridge on County Highway 23, 1.2 mi upstream from mouth, and 1.4 mi north of Owego.	151	1987-91	12-18-91 4- 7-92 4- 8-92	109 265 287

‡ Operated as a continuous-record gaging station.
* Also a crest-stage partial-record station.

Discharge measurements made at miscellaneous sites during water year 1992

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		SUSQUEHANNA RIVER BASIN--Continued				
01516000 Cayuta Creek	Susquehanna River	Lat 42°00'32", long 76°31'37", Tioga County, Hydrologic Unit 02050103, at bridge on Ithaca Street, at Waverly, and 2.4 mi upstream from mouth.	137	1937, 1953-76, 1978-80, 1983, 1988-91	11-19-91 12-17-91 2-11-92 4- 8-92 7-23-92 9- 2-92	18.7 82.5 51.2 340 205 72.4
*01521596 Big Creek	Canisteo River	Lat 42°22'01", long 77°34'33", Steuben County, Hydrologic Unit 02050104, at culvert on town road, 0.1 mi south of State Highway 70, 1.3 mi north of Butch Corner, 3.4 mi west of Howard, and 6.2 mi upstream from mouth.	6.32	--	3-27-92	71.8
*01525500 Canisteo River	Tioga River	Lat 42°13'20", long 77°25'05", Steuben County, Hydrologic Unit 02050104, on right bank 250 ft downstream from bridge on County Highway 119, 0.3 mi southeast of West Cameron, and 1.7 mi north of Cameron.	340	1930-31‡, 1937-70‡, 1972-76, 1987-91	4-10-92 4-23-92	1,030 662
*01525981 Tuscarora Creek	Susquehanna River	Lat 42°04'20", long 77°17'57", Steuben County, Hydrologic Unit 02050104, on right bank 500 ft downstream from bridge on State Highway 417, 200 ft upstream from Elk Creek, and 1.7 mi southwest of South Addison.	102	1988-91	4-15-92	117
*01527000 Cohocton River	Chemung River	Lat 42°30'00", long 77°30'00", Steuben County, Hydrologic Unit 02050105, on left bank 450 ft downstream from bridge on U.S. Highway 15 at Cohocton, 800 ft downstream from small tributary, and 1.4 mi upstream from Reynolds Creek.	52.2	1951-81‡, 1985, 1990-91	4-28-92	137
*01528320 Cohocton River	Chemung River	Lat 42°20'36" long 77°20'39", Steuben County, Hydrologic Unit 02050104, on left bank 150 ft upstream from bridge on Veterans Avenue, at Bath, and 0.6 mi downstream from Harrisburg Hollow Creek.	340	1988-91	12- 3-91 4-28-92 5-13-92	181 802 308
*01530332 Chemung River	Susquehanna River	Lat 42°05'11", long 76°48'05", Chemung County, Hydrologic Unit 02050105, on right bank 350 ft upstream from bridge on Pennsylvania Avenue at the north end of George Place, at Elmira, and 1.0 mi downstream from Hoffman Brook.	2,162	1988-91	4- 2-92	7,980

‡ Operated as a continuous-record gaging station.
* Also a crest-stage partial-record station.

Discharge measurements made at miscellaneous sites during water year 1991

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		OHIO RIVER MAIN STEM				
*03011000 Great Valley Creek	Allegheny River	Lat 42°10'28", long 78°41'28", Cattaraugus County, Hydrologic Unit 05010001, at bridge on old State Highway 98, 275 ft upstream from bridge on U.S. Highway 219, 1.5 mi northeast of Salamanca, and 2.1 mi upstream from mouth.	137	1951-68‡, 1973, 1975-77, 1986, 1990-91	4-16-92 7-21-92	361 1,310
		STREAMS TRIBUTARY TO LAKE ERIE				
*04213490 South Branch Cattaraugus Creek	Cattaraugus Creek	Lat 42°21'54", long 78°48'04", Cattaraugus County, Hydrologic Unit 04120102, at highway bridge, 0.2 mi upstream from Mansfield Creek, 1.7 mi northeast of Otto, and 5.5 mi upstream from mouth.	25.1	1963-64, 1970-72, 1974, 1979, 1990	2-21-92	88.9
		STREAMS TRIBUTARY TO LAKE ONTARIO				
*04220250 West Creek	Lake Ontario	Lat 43°18'10", long 77°48'50", Monroe County, Hydrologic Unit 04130001, at bridge on Collamer Road, 0.5 mi north of Collamer, and 1.5 mi northwest of Hilton.	31.0	1957-65, 1968, 1972, 1988-91	10-31-91 1-30-92 3-12-92 5- 8-92	10.5 10.9 20.9 15.5
*042320578 Bear Creek	Lake Ontario	Lat 43°13'30", long 77°17'00", Wayne County, Hydrologic Unit 04140101, at culvert on New Street in Ontario, 100 ft west of Furnaceville Road, and 4.0 mi upstream from mouth.	6.74	1979, 1985, 1987, 1990	5- 6-92	16.2
*04232200 Catharine Creek	Seneca Lake	Lat 42°19'42", long 76°50'39", Schuyler County, Hydrologic Unit 04140201, on left bank 12 ft downstream from bridge on Town Road, 0.4 mi south of village line of Montour Falls, and 0.6 mi upstream from diversion channel.	41.1	1957-62§, 1964-66§, 1970§, 1975, 1976-77‡, 1990-91	3- 3-92 3-27-92 3-27-92 4-27-92	32.5 798 700 84.7
*04232460 Sugar Creek	Keuka Lake	Lat 42°37'23", long 77°09'30", Yates County, Hydrologic Unit 04140201, at bridge on Sid White Road, 0.4 mi east of Guyanoga, and 2.3 mi upstream from mouth.	28.9	1955, 1964-66, 1970-72, 1977-80, 1990	3- 3-92 4-27-92	17.5 40.8
*04232630 Kendig Creek	Seneca River	Lat 42°50'57", long 76°53'33", Seneca County, Hydrologic Unit 04140201, at downstream side of bridge on County Highway 120, 3.0 mi north of MacDougall, 3.5 mi southwest of Waterloo, and 4.6 mi upstream from mouth.	13.8	1965-68‡, 1969, 1979, 1986, 1990-91	3-27-92	605
*04233258 Coy Glen Creek	Cayuga Inlet	Lat 42°25'45", long 76°31'18", Tompkins County, Hydrologic Unit 04140201, on right bank at drop structure 200 ft upstream from mouth at Ithaca.	3.56	1987-88, 1991	3-27-92	134

§ Operated as low-flow partial-record station.
‡ Operated as a continuous-record gaging station.
* Also a crest-stage partial-record station.

Discharge measurements made at miscellaneous sites during water year 1991

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		STREAMS TRIBUTARY TO LAKE ONTARIO--continued				
*04234200 Mud Creek	Ganargua Creek	Lat 42°58'28", long 77°22'58", Ontario County, Hydrologic Unit 04140201, 25 ft downstream from bridge on State Highway 96 at East Victor, 0.3 mi upstream from Fish Creek, and 0.5 mi upstream from mouth.	64.2	1957, 1958-68‡, 1969, 1980, 1982-83, 1987, 1990-91	3-10-92 3-27-92	131 1,550
*04245840 Scriba Creek	Oneida Lake	Lat 43°15'35", long 76°00'11", Oswego County, Hydrologic Unit 04140102, on right bank, 8 ft upstream from bridge on Cemetery Road, and about 0.8 mi north of Village of Constantia.	38.4	1966-68‡, 1969, 1978-81, 1990-91	10-17-91	165
*04249050 Catfish Creek	Lake Ontario	Lat 43°29'00", long 76°19'34", Oswego County, Hydrologic Unit 04140102, at bridge on State Highway 104B, at New Haven, and 1.4 mi upstream from mouth.	31.7	1961-65, 1968, 1971-73, 1978-81, 1990	4-13-92	294

‡ Operated as a continuous-record gaging station.
* Also a crest-stage partial-record station.

430850077304801 IRONDEQUOIT CREEK AT BLOSSOM ROAD, ROCHESTER, NY

LOCATION.--Lat 43°08'50", long 77°30'48", Monroe County, Hydrologic Unit 04140101, on right bank 120 ft downstream from bridge on Blossom Road, 1.6 mi east of Rochester, 2.5 mi downstream from Allen Creek, and 3.6 mi upstream from mouth.

PERIOD OF RECORD.--October 1983 to current year.

INSTRUMENTATION.--Iowa-type precipitation gage with 8-in diameter receiver funnel mounted on roof of stream gage shelter, and 4-in diameter PVC collecter pipe mounted inside of gage shelter. The bottom portion of the receiver funnel is wrapped with heat tape to prevent freezing and to facilitate the rapid melting of snow. A float-driven punched-tape recorder stores 15-min values of water level in the collector pipe. Values recorded are to the nearest 0.01 in.

REMARKS.--Records good except those for estimated precipitation, which are fair. During periods of missing or doubtful precipitation record, the total precipitation for a given period (usually between inspections) is normally known. Records from nearby precipitation gages are then used to estimate the distribution of the known total precipitation over the given period. Unpublished quantity of precipitation records avaliable in files of U.S. Geological Survey.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	.00	.00	.00	.00	.02	.08	.07	.38	.00	.12	.00
2	.02	.00	.02	.00	.00	.00	.00	.62	.00	.00	.00	.00
3	.03	.00	.00	.00	.00	.00	.00	.00	.00	.30	1.01	.52
4	.07	.00	.01	.09	.00	.00	.00	.01	.00	.03	.14	.00
5	.16	.00	.00	.05	.00	.00	.00	.00	.18	.11	.00	.00
6	.02	.00	.09	.00	.00	.00	.00	.00	.15	.01	.00	.00
7	.00	.09	.00	.00	.05	.34	.01	.00	.17	.00	.00	.02
8	.00	.02	.00	.00	.03	.00	.00	.00	.00	.36	.43	.00
9	.00	.00	.08	.04	.04	.07	.02	.07	.00	e.17	.23	.00
10	.47	.17	.00	.00	.06	.03	.01	.02	.00	e.06	.11	.00
11	.00	.54	.00	.01	.00	.08	.03	.00	.00	e.00	.02	.00
12	.15	.04	.05	.01	.05	.09	.00	.00	.00	e.55	.00	.00
13	.07	.00	.01	.02	.08	.00	.00	.00	.00	e.15	.23	.00
14	.01	.01	.03	.16	.01	.00	.00	.00	.00	e.80	.00	.00
15	.33	.21	.03	.00	.15	.00	.00	.00	.00	e1.20	.02	.00
16	.01	.01	.06	.01	.00	.00	.08	.00	.00	.00	.19	.00
17	.00	.00	.01	.02	.00	.00	.64	.19	.00	.06	.01	.00
18	.00	.00	.01	.00	.07	.00	.12	.14	.00	.00	.00	.04
19	.00	.01	.00	.01	.01	.00	.00	.00	.27	.00	.10	.00
20	.00	.13	.00	.35	.01	.00	.00	.00	.00	.04	.00	.00
21	.00	.03	.03	.00	.06	.00	.35	.00	.00	.14	.00	.50
22	.00	.00	.00	.00	.07	.03	.08	.00	.02	.00	.00	.78
23	.00	.00	.00	.28	.08	.04	.01	.00	.00	.53	.00	.00
24	.00	.17	.01	.00	.06	.00	.48	.18	.42	.00	.00	.00
25	.00	.01	.01	.01	.00	.00	.04	.00	.00	.00	.34	.00
26	.00	.01	.00	.00	.00	.15	.05	.33	.00	.16	.00	.41
27	.04	.00	.00	.00	.01	.62	.00	.12	.21	.00	1.02	.28
28	.01	.29	.00	.00	.13	.00	.00	.01	.00	.00	.72	.00
29	.00	.26	.73	.00	.01	.00	.00	.00	.01	.20	.01	.00
30	.00	.00	.01	.00	---	.01	.08	.33	.00	.00	.02	.00
31	.00	---	.00	.00	---	.00	---	.32	---	.67	.01	---
TOTAL	1.63	2.00	1.19	1.06	0.98	1.48	2.08	2.41	1.81	5.54	4.73	2.55

e Estimated

QUANTITY OF PRECIPITATION
425129076082701 AT OTISCO ROAD NEAR TULLY, NY

LOCATION.--Lat 42°21'29", long 76°08'27", Onondaga County, Hydrologic unit 04140201, in backyard of Stafford residence at 5445 Otisco Road.

PERIOD OF RECORD.--October 1991 to September 1992.

INSTRUMENTATION.--Tipping bucket raingage with 8.214 in. diameter receiving funnel, mounted on a pedestal in the backyard of residence. Funnel is heated to facilitate melting of snow. Each tip of the raingage bucket is equivilent to .01 in. of precipitation. Tips of the raingage bucket are recorded and accumulated for a 24 hour period on a Telog electronic data logger.

REMARKS.--Rain gage is operated in conjunction with streamflow stations 04237944 Onondaga Creek Tributary No. 6, upstream of main depression area, and 04237946 Onondaga Creek Tributary No. 6, downstream of main depression area, for the Tully mudboil project.

ANNUAL MAXIMUM.--Maximum daily precipitation 1.78 in. on July 31.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.24	.00	.00	.00	.00	.01	.25	.17	.44	.00	.06	.00
2	.00	.01	.05	.00	.00	.00	.00	.76	.00	.00	.00	.00
3	e.09	.00	.66	.00	.03	.00	.10	.05	.00	.50	.00	.44
4	.00	.00	.01	.53	.01	.00	.00	.00	.00	.13	.01	.00
5	e.05	.00	.00	.01	.00	.00	.00	.00	.03	.33	.00	.00
6	e.30	.00	.00	.00	.08	.01	.00	.00	.02	.00	.00	.00
7	e.00	.00	.12	.01	.00	.15	.19	.00	1.05	.00	.00	.00
8	e.00	.02	.00	.00	.12	.14	.00	.01	.00	.63	.13	.00
9	e.00	.00	.09	.08	.00	.02	.06	.00	.00	.16	.01	.00
10	.26	.14	.00	.00	.00	.29	.03	.00	.00	.01	.14	.87
11	.03	.58	.00	.00	.02	.02	.81	.00	.00	.00	.05	.00
12	.00	.19	.01	.03	.00	.00	.01	.00	.00	.59	.00	.00
13	.01	.04	.04	.01	.00	.00	.00	.00	.00	.83	.16	.00
14	.00	.00	.13	.43	.05	.00	.00	.00	.00	.00	.02	.00
15	1.05	.24	.01	.00	.33	.00	.00	.12	.00	.93	.01	.00
16	.07	.03	.00	.00	.04	.00	.79	.00	.00	.72	.01	.00
17	.00	.00	.00	.00	.05	.25	.04	.23	.00	.50	.00	.00
18	.00	.00	.00	.00	.09	.23	.18	.13	.00	.48	.22	1.12
19	.07	.00	.00	.00	.07	.11	.00	.00	.15	.01	.02	.02
20	.00	.06	.00	.00	.02	.00	.00	.00	.01	.01	.00	.00
21	.00	.23	.15	.01	.08	.00	.02	.00	.04	.29	.00	.07
22	.00	.42	.01	.09	.15	.00	.01	.00	.01	.00	.00	.77
23	.00	.01	.07	.40	.04	.22	.02	.00	.01	1.68	.00	.00
24	.00	.37	.00	.00	.05	.01	.35	.17	.13	.00	.00	e.00
25	.00	.00	.00	.00	.19	.00	.18	.00	.00	.00	.00	e.00
26	.00	.01	.01	.00	.00	.94	.09	.23	.00	.09	.00	e.63
27	.10	.00	.00	.00	.12	.91	.00	.08	.00	.00	.01	e.26
28	.01	.20	.00	.02	.48	.00	.00	.01	.00	.00	1.39	e.00
29	.00	.33	.64	.00	.00	.12	.00	.00	.00	.74	.00	e.00
30	.00	.04	.00	.00	---	.00	.03	.37	.00	.00	.16	e.00
31	.00	---	.01	.00	---	.00	---	2.01	---	1.78	.00	---
TOTAL	2.28	2.92	2.01	1.62	2.02	3.43	3.16	4.34	1.89	10.41	2.40	4.18

e Estimated

420646075531201. Local number, Bm 100.

LOCATION.--Lat 42°06'46", long 75°53'12", Hydrologic Unit 02050103, at Moeller and Frederick Streets, Binghamton. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 52 ft, cased to 52 ft, slotted 40 ft to 45 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 851.05 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelter base, 2.86 ft above land-surface datum.

REMARKS.--Lowest water level recorded on June 25, 1985 due to water-level decline for several hours, possibly due to nearby pumping.

PERIOD OF RECORD.--October 1946 to July 1955, April 1966 to current year. Records for October 1946 to July 1955 (intermittent), April 1966 to April 1968 (intermittent) and May 1968 to September 1977 are unpublished and available in files of the Geological Survey.

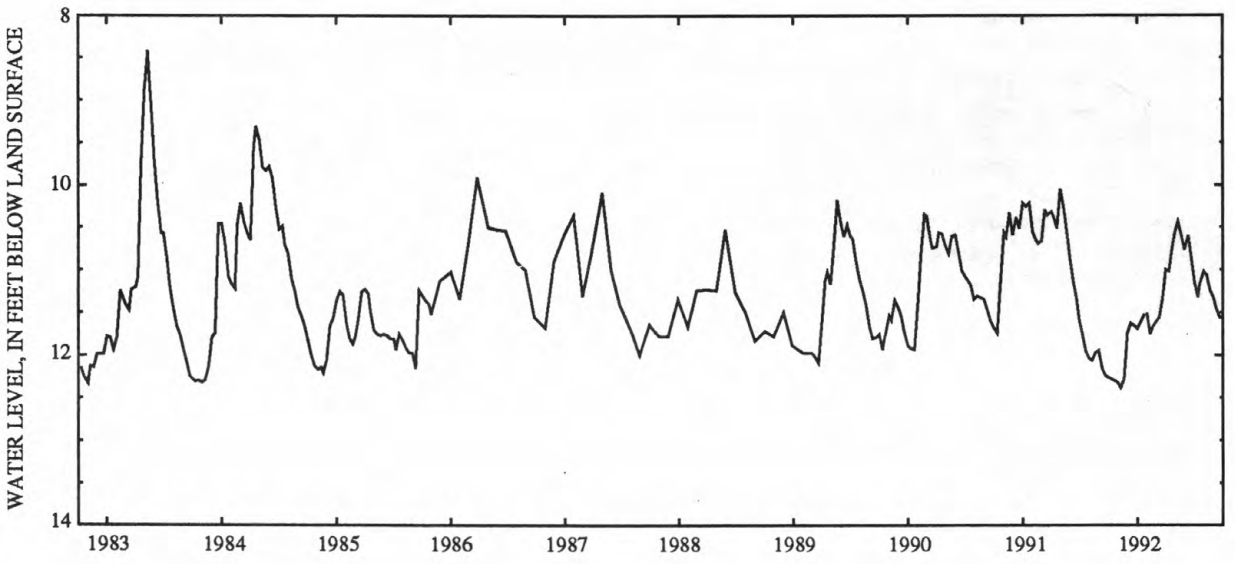
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.29 ft below land-surface datum, May 4, 1983; lowest, 13.18 ft below land-surface datum, June 25, 1985.

EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 10.37 ft below land-surface datum, May 13; lowest recorded, 12.43 ft below land-surface datum, Nov. 9.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	12.32	11.76	11.66	11.58	11.60	10.97	10.59	10.69	11.19	11.00	11.35
2	---	12.34	11.76	11.64	11.60	11.61	10.96	10.55	10.62	11.22	10.98	11.36
3	---	12.37	11.66	11.63	11.61	11.61	10.96	10.54	10.57	11.24	10.96	11.35
4	---	12.38	11.65	11.61	11.58	11.61	10.97	10.54	10.55	11.25	10.97	11.37
5	---	12.38	11.67	11.61	11.63	11.60	10.99	10.54	10.54	11.25	11.00	11.41
6	---	12.37	11.62	11.61	11.64	11.61	11.01	10.55	10.54	11.28	11.03	11.42
7	---	12.38	11.60	11.64	11.64	11.57	10.97	10.54	10.56	11.32	11.04	11.43
8	---	12.40	11.61	11.66	11.67	11.58	11.00	10.50	10.56	11.33	11.04	11.43
9	---	12.41	11.60	11.61	11.74	11.60	11.00	10.44	10.58	11.30	11.05	11.46
10	---	12.39	11.63	11.61	11.76	11.56	11.01	10.44	10.60	11.32	11.07	11.46
11	---	12.35	11.64	11.65	11.73	11.51	11.00	10.43	10.64	11.33	11.10	11.46
12	---	12.34	11.64	11.66	11.78	11.50	11.00	10.41	10.66	11.35	11.15	11.46
13	---	12.29	11.61	11.63	11.75	11.47	11.01	10.39	10.68	11.35	11.18	11.45
14	---	12.29	11.59	11.58	11.76	11.43	10.96	10.43	10.70	11.37	11.18	11.45
15	---	12.27	11.62	11.65	11.77	11.41	10.96	10.46	10.75	11.34	11.19	11.47
16	---	12.28	11.63	11.60	11.73	11.40	10.94	10.49	10.80	11.27	11.19	11.47
17	---	12.30	11.60	11.56	11.74	11.35	10.90	10.50	10.82	11.19	11.20	11.49
18	---	12.27	11.62	11.58	11.67	11.38	10.90	10.51	10.82	11.17	11.20	11.50
19	---	12.28	11.68	11.58	11.63	11.32	10.84	10.57	10.83	11.16	11.21	11.53
20	---	12.28	11.65	11.54	11.67	11.34	10.79	10.59	10.87	11.17	11.25	11.57
21	---	12.27	11.59	11.55	11.68	11.36	10.74	10.62	10.92	11.19	11.29	11.57
22	---	12.20	11.61	11.59	11.68	11.33	10.72	10.63	10.95	11.22	11.30	11.57
23	---	12.02	11.60	11.51	11.67	11.34	10.73	10.64	10.97	11.21	11.33	11.62
24	---	11.84	11.64	11.52	11.67	11.38	10.68	10.67	10.97	11.23	11.34	11.64
25	---	11.80	11.68	11.58	11.65	11.36	10.66	10.70	11.02	11.24	11.35	11.63
26	---	11.80	11.69	11.59	11.59	11.33	10.65	10.72	11.06	11.22	11.37	11.59
27	---	11.77	11.71	11.58	11.59	11.23	10.62	10.74	11.07	11.14	11.38	11.55
28	---	11.75	11.70	11.57	11.59	11.18	10.61	10.79	11.11	11.10	11.38	11.55
29	---	11.74	11.64	11.56	11.62	11.11	10.59	10.83	11.14	11.08	11.35	11.55
30	---	11.74	11.68	11.53	---	11.04	10.57	10.84	11.16	11.08	11.33	11.56
31	12.32	---	11.69	11.53	---	11.00	---	10.77	---	11.03	11.32	---
MEAN	---	12.19	11.65	11.59	11.67	11.41	10.86	10.58	10.79	11.23	11.18	11.49
LOW	---	12.41	11.76	11.66	11.78	11.61	11.01	10.84	11.16	11.37	11.38	11.64
HIGH	---	11.74	11.59	11.51	11.58	11.00	10.57	10.39	10.54	11.03	10.96	11.35

420646075531201. Local number, Bm 100--Continued.



420657075583501. Local number, Bm 121.

LOCATION.--Lat 42°06'57", long 75°58'35", Hydrologic Unit 02050103, at Camden and Main Streets, Johnson City. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 53 ft, cased to 53 ft, open end.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 833.62 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelter base, 3.42 ft above land-surface datum.

REMARKS.--Well cleaned from 46 ft to original depth on Oct. 19, 1970. Water level affected by floods of Susquehanna River and by pumping from municipal well field 1,100 ft south.

PERIOD OF RECORD.--March 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.73 ft below land-surface datum, Apr. 8, 1956; lowest, 33.47 ft below land-surface datum, Sept. 23, 1965.

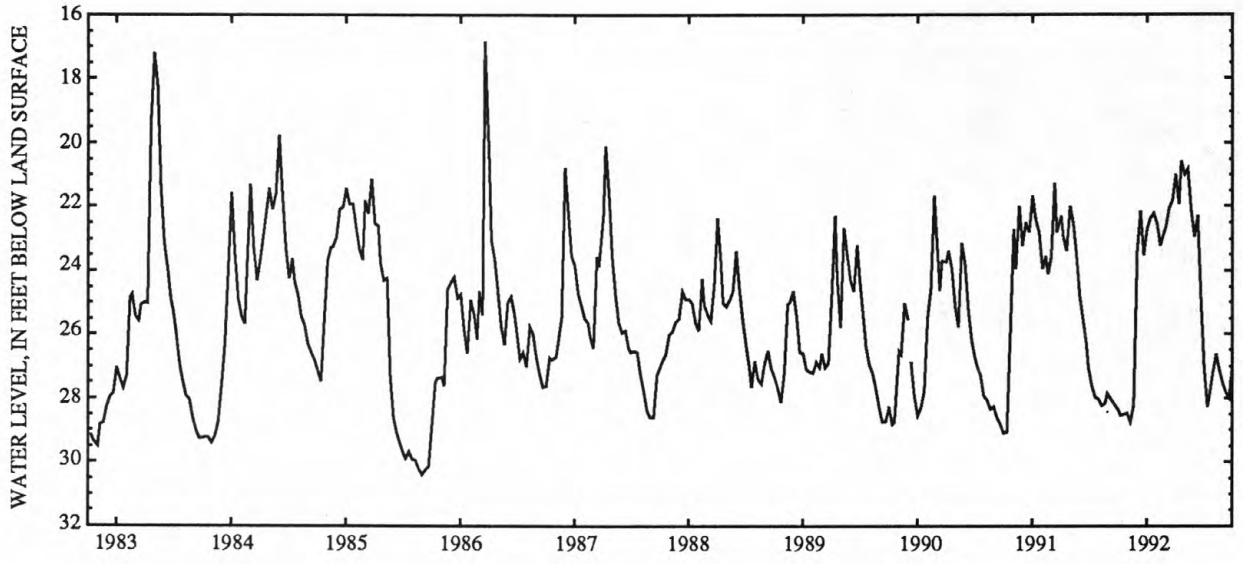
EXTREMES FOR CURRENT YEAR.--Highest water level, 20.56 ft below land-surface datum, Apr. 20, 21; lowest, 28.78 ft below land-surface datum, Nov. 10, 11.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.41	28.49	23.28	22.62	22.60	22.58	21.05	21.14	22.36	27.27	26.97	27.52
2	28.46	28.51	23.17	22.63	22.67	22.61	21.10	21.25	21.69	27.44	26.62	27.53
3	28.51	28.52	23.02	22.64	22.75	22.66	21.18	21.25	21.36	27.60	26.36	27.59
4	28.56	28.53	22.73	22.61	22.81	22.71	21.28	21.01	21.36	27.75	26.26	27.67
5	28.59	28.56	22.43	22.53	22.90	22.74	21.42	20.81	21.54	27.88	26.27	27.71
6	28.56	28.59	22.28	22.38	22.96	22.74	21.55	20.79	21.77	28.00	26.31	27.70
7	28.54	28.63	22.23	22.31	23.01	22.64	21.66	20.76	21.94	28.08	26.38	27.70
8	28.54	28.67	22.22	22.31	23.07	22.49	21.78	20.76	22.08	28.17	26.46	27.73
9	28.55	28.72	22.20	22.30	23.15	22.29	21.85	20.75	22.19	28.23	26.55	27.79
10	28.54	28.76	22.15	22.35	23.22	22.07	21.90	20.81	22.30	28.29	26.62	27.82
11	28.54	28.76	22.07	22.40	23.27	21.85	21.94	20.93	22.41	28.35	26.68	27.81
12	28.55	28.71	22.03	22.43	23.35	21.36	21.87	21.06	22.53	28.41	26.77	27.70
13	28.54	28.63	22.02	22.45	23.38	21.00	21.63	21.21	22.65	28.47	26.81	27.59
14	28.52	28.54	22.00	22.45	23.43	20.97	21.50	21.39	22.79	28.53	26.90	27.54
15	28.52	28.46	21.95	22.35	23.47	21.12	21.54	21.55	22.92	28.54	26.96	27.54
16	28.53	28.39	21.87	22.13	23.45	21.28	21.62	21.69	23.07	28.41	26.97	27.63
17	28.54	28.32	21.86	22.09	23.37	21.43	21.60	21.79	23.49	28.27	26.97	27.74
18	28.54	28.26	22.33	22.23	23.21	21.60	21.30	21.89	24.02	28.14	27.01	27.83
19	28.52	28.22	22.96	22.34	23.09	21.70	20.86	22.01	24.52	28.01	27.07	27.92
20	28.50	28.19	23.51	22.22	22.98	21.83	20.60	22.12	24.96	27.90	27.13	27.99
21	28.50	28.15	23.64	22.02	22.82	21.95	20.57	22.24	25.28	27.86	27.17	28.02
22	28.52	27.92	23.41	22.07	22.72	22.05	20.69	22.35	25.53	27.90	27.24	28.05
23	28.52	27.21	23.17	22.11	22.69	22.16	20.81	22.46	25.74	27.95	27.31	28.08
24	28.50	26.18	23.02	22.15	22.67	22.28	20.88	22.57	25.97	27.93	27.40	28.02
25	28.47	25.23	22.93	22.15	22.63	22.39	20.92	22.66	26.20	27.80	27.50	27.96
26	28.45	24.56	22.88	22.17	22.60	22.46	20.82	22.74	26.41	27.63	27.59	27.88
27	28.45	24.09	22.87	22.25	22.61	22.24	20.71	22.82	26.60	27.42	27.68	27.77
28	28.44	23.77	22.85	22.34	22.64	21.59	20.74	22.90	26.75	27.31	27.76	27.65
29	28.43	23.57	22.81	22.41	22.65	21.13	20.85	22.99	26.91	27.27	27.78	27.33
30	28.44	23.41	22.79	22.46	---	20.98	20.99	23.06	27.08	27.26	27.67	27.00
31	28.47	---	22.69	22.52	---	21.01	---	22.93	---	27.19	27.57	---
MEAN	28.51	27.48	22.62	22.34	22.97	21.93	21.24	21.76	23.81	27.91	26.99	27.73
LOW	28.59	28.76	23.64	22.64	23.47	22.74	21.94	23.06	27.08	28.54	27.78	28.08
HIGH	28.41	23.41	21.86	22.02	22.60	20.97	20.57	20.75	21.36	27.19	26.26	27.00

WTR YR 1992 MEAN 24.61 HIGH 20.57 LOW 28.76

420657075583501. Local number, Bm 121.--continued



421138075511301. Local number, Bm 128.

LOCATION.--Lat 42°11'38", long 75°51'13", Hydrologic Unit 02050102, at end of Jeffery Drive on Chenango Forks School District property at Kattelville. Owner: U.S. Geological Survey.

AQUIFER.--Unconfined aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 53 ft, cased to 48.5 ft, screened 48.5 to 53 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 908.58 ft above National Geodetic Vertical Datum of 1929. Measuring point: Double file mark on top of coupling, 3.20 ft above land-surface datum.

REMARKS.--Water level may be affected by pumping in nearby village and school wells.

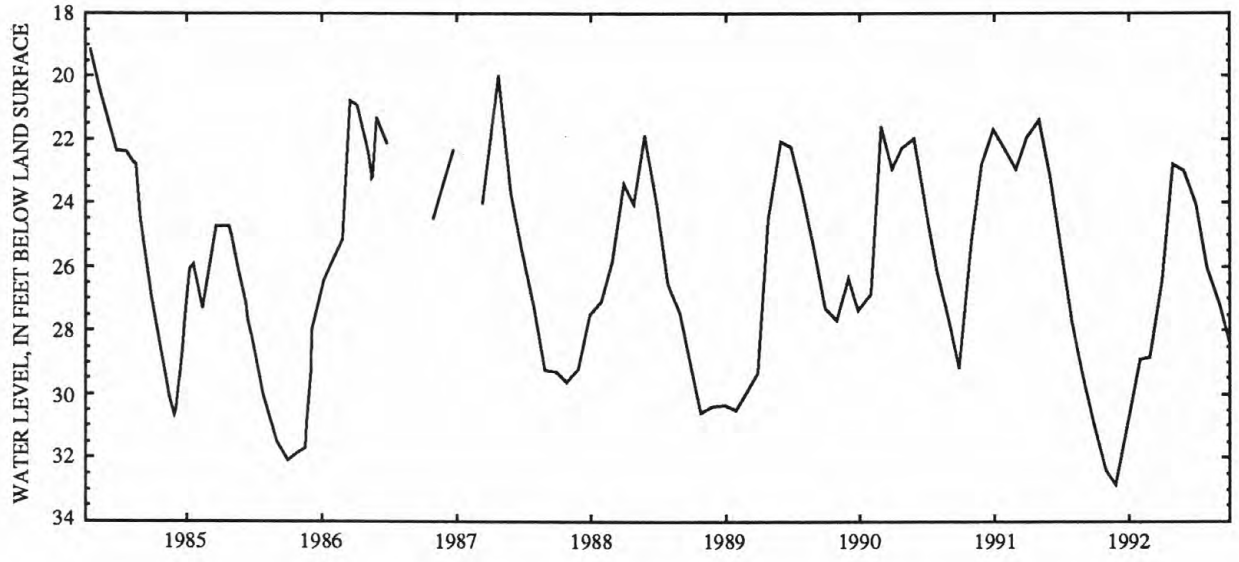
PERIOD OF RECORD.-- September 1980 to current year. Records for September 1980 to February 1982 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.17 ft below land-surface datum, Apr. 16, 1984; lowest measured, 32.84 ft below land-surface datum, Nov. 26, 1991.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 22.79 ft below land-surface datum, Apr. 29; lowest measured, 32.84 ft below land-surface datum, Nov. 26.

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 30	32.39	JAN 30	28.89	APR 29	22.79	JUL 30	26.02
NOV 26	32.84	FEB 27	28.83	MAY 28	22.99	AUG 31	27.12
DEC 30	30.67	MAR 30	26.43	MAY 28	22.99	SEP 29	28.33



421157075535401. Local number, Bm 129.

LOCATION.--Lat 42°11'57", long 75°53'54", Hydrologic Unit 02050102, near Castle Creek. Owner: New York State Department of Transportation.

AQUIFER.--Shales of Middle to Upper Devonian age.

WELL CHARACTERISTICS.--Drilled water supply-well, diameter 6 in, depth approximately 252 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1105.75 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of coupling, 2.00 ft above land-surface datum.

REMARKS.--Well drilled by New York State Department of Transportation, originally intended as water-supply well for proposed rest area on Interstate Highway I-81.

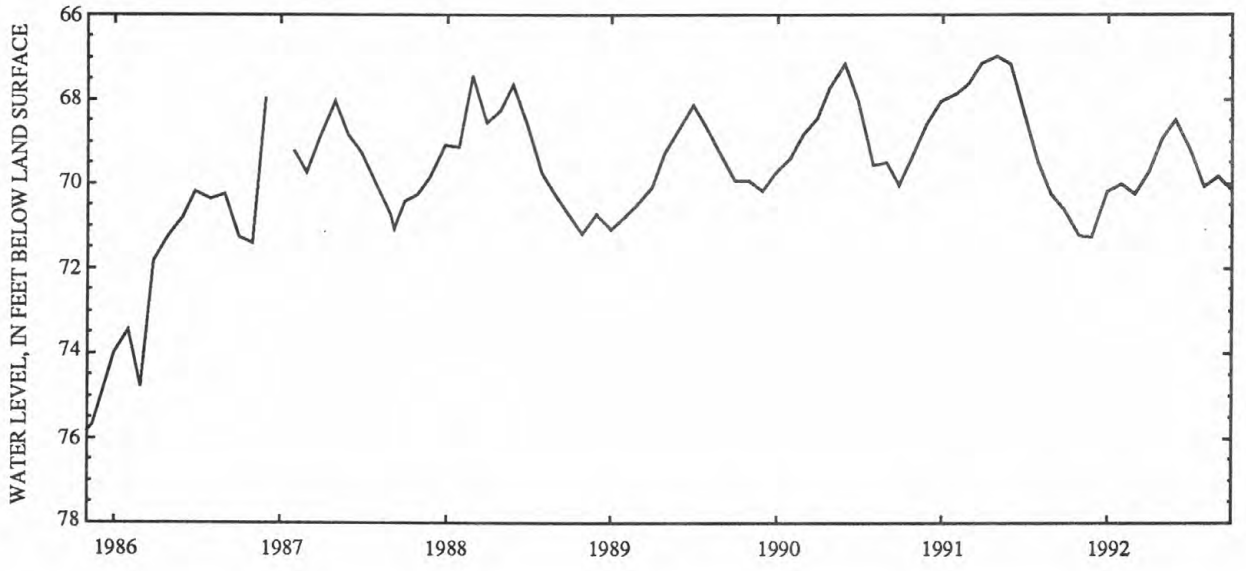
PERIOD-OF-RECORD.--November 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 66.97 ft below land-surface datum, Apr. 29, 1991; lowest measured, 75.83 ft below land-surface datum, Nov. 1, 1985.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 68.49 ft below land-surface datum, May 28; lowest measured, 71.25 ft below land-surface datum, Nov. 26.

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 30	71.24	JAN 30	70.00	APR 29	68.91	JUL 30	70.04
NOV 26	71.25	FEB 27	70.23	MAY 28	68.49	AUG 31	69.83
DEC 30	70.17	MAR 30	69.69	JUN 29	69.19	SEP 29	70.13



420530078445201. Local number, Ct 121.

LOCATION.--Lat 42°05'30", long 78°44'52", Hydrologic Unit 05010001, near Red House. Owner: New York State Department of Environmental Conservation.

AQUIFER.--Confined aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in, depth 53 ft, cased to 53 ft, open end.

INSTRUMENTATION.--Electronic data recorder--60-minute average. Prior to Mar. 5, 1990, weekly float tape readings by observer; periodic measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,467.08 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.30 ft above land-surface datum.

REMARKS.--Well is in a New York State owned and operated campground area. Extreme low water levels occurred from 1969 to 1979 due to the effect of pumping at the campground area. A central water system for the campground, utilizing a well about 1.5 mi from the observation well was put in operation in 1980.

PERIOD OF RECORD.--September 1950 to current year.

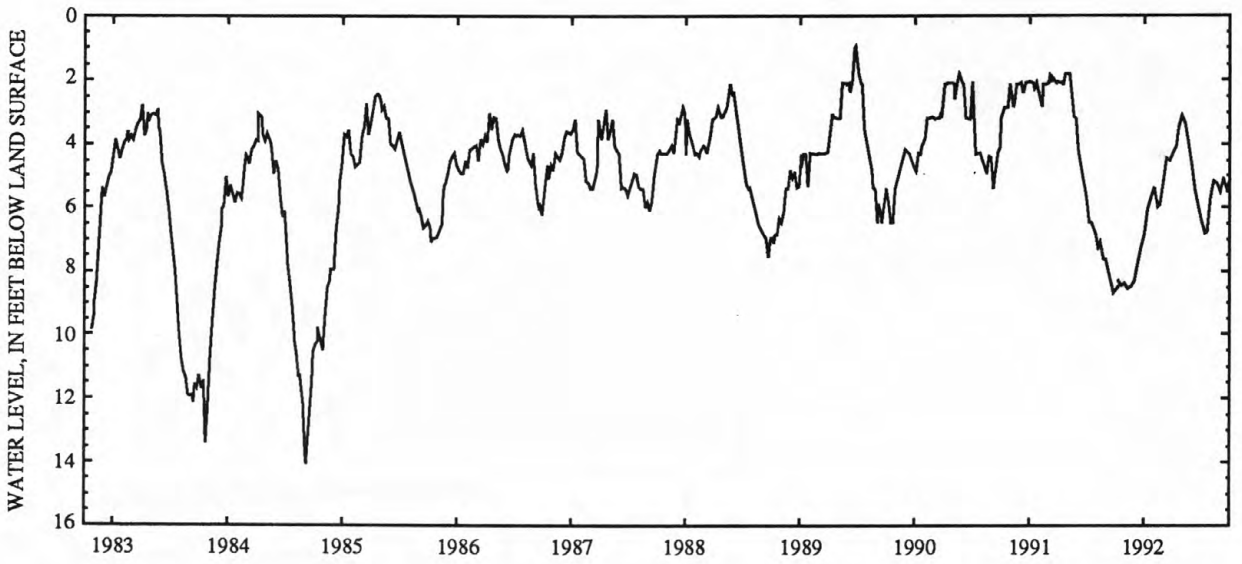
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.97 ft below land-surface datum, June 26, 1989; lowest measured, 34.87 ft below land-surface datum, Nov. 21, 1972.

EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 2.90 ft below land-surface datum, May 2; lowest recorded, 8.82 ft below land-surface datum, Nov. 17.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.21	8.30	8.43	6.66	5.65	5.11	4.16	3.18	4.79	6.49	5.73	5.59
2	8.20	8.39	8.36	6.50	5.70	5.15	4.14	3.02	4.87	6.56	5.57	5.55
3	8.23	8.54	7.99	6.34	5.66	5.16	4.10	3.11	4.92	6.54	5.43	5.40
4	8.30	8.61	8.12	6.26	5.46	5.12	4.07	3.15	4.95	6.64	5.39	5.50
5	8.24	8.60	8.25	6.28	5.67	5.02	4.33	3.18	4.96	6.60	5.50	5.40
6	8.34	8.50	8.08	6.21	5.45	4.89	4.36	3.36	5.08	6.72	5.51	5.29
7	8.39	8.62	7.90	6.31	5.36	4.69	4.07	3.41	5.22	6.84	5.41	5.22
8	8.42	8.72	7.86	6.34	5.52	4.73	4.11	3.24	5.31	6.76	5.25	5.10
9	8.37	8.73	7.74	6.05	5.94	4.77	4.07	3.16	5.38	6.74	5.24	5.13
10	8.29	8.55	7.77	6.06	6.00	4.44	4.07	3.36	5.46	6.82	5.17	5.05
11	8.18	8.49	7.72	6.15	5.89	4.47	3.88	3.40	5.55	6.90	5.16	5.25
12	8.24	8.58	7.56	6.13	6.13	4.57	4.13	3.28	5.58	6.88	5.30	5.29
13	8.41	8.55	7.35	5.93	5.83	4.63	4.16	3.26	5.56	6.87	5.29	5.24
14	8.32	8.62	7.24	5.59	5.93	4.59	3.90	3.45	5.64	6.85	5.31	5.22
15	8.25	8.54	7.35	6.00	5.75	4.68	3.84	3.60	5.83	6.86	5.30	5.26
16	8.38	8.64	7.37	5.90	5.89	4.67	3.65	3.72	5.89	6.97	5.22	5.24
17	8.37	8.75	7.12	5.71	6.14	4.46	3.61	3.69	5.87	6.89	5.25	5.21
18	8.37	8.57	7.32	5.93	5.92	4.63	3.63	3.79	5.82	6.93	5.15	5.16
19	8.40	8.56	7.56	5.91	5.76	4.42	3.56	3.90	5.81	6.89	5.15	5.35
20	8.45	8.48	7.26	5.69	5.93	4.52	3.48	3.98	5.96	6.77	5.24	5.44
21	8.36	8.54	6.89	5.71	5.94	4.65	3.37	4.03	6.05	6.72	5.27	5.35
22	8.41	8.51	6.79	5.79	5.81	4.43	3.44	4.01	6.14	6.59	5.29	5.27
23	8.45	8.47	6.62	5.34	5.69	4.59	3.53	3.94	6.11	6.40	5.32	5.48
24	8.46	8.39	6.77	5.45	5.60	4.77	3.27	4.06	6.04	6.37	5.33	5.39
25	8.42	8.52	6.93	5.78	5.39	4.67	3.23	4.18	6.18	6.25	5.36	5.22
26	8.40	8.68	6.90	5.85	5.10	4.54	3.21	4.22	6.25	6.00	5.38	5.05
27	8.41	8.59	6.97	5.72	5.04	4.35	3.19	4.36	6.32	5.96	5.34	4.98
28	8.58	8.50	6.79	5.69	4.93	4.59	3.21	4.54	6.40	5.97	5.23	5.06
29	8.59	8.43	6.42	5.60	5.23	4.60	3.15	4.66	6.40	5.88	5.45	5.15
30	8.46	8.32	6.74	5.42	---	4.41	3.10	4.66	6.42	5.91	5.44	5.12
31	8.39	---	6.83	5.37	---	4.28	---	4.65	---	5.70	5.50	---
MEAN	8.36	8.54	7.39	5.92	5.67	4.66	3.73	3.73	5.69	6.56	5.34	5.27
LOW	8.59	8.75	8.43	6.66	6.14	5.16	4.36	4.66	6.42	6.97	5.73	5.59
HIGH	8.18	8.30	6.42	5.34	4.93	4.28	3.10	3.02	4.79	5.70	5.15	4.98

420530078445201. Local number, Ct 121--Continued.



424158076251901. Local number, Cy 7.

LOCATION.--Lat 42°41'58", long 76°25'19", Hydrologic Unit 04140201, near Moravia. Owner: Earl Van Pelt.

AQUIFER.--Unconfined aquifer in clayey gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2.5 in, depth 28 ft, cased to 26 ft, screened 26 ft to 28 ft with 1.25-in well point.

INSTRUMENTATION.--Electronic data recorder--60-minute average. Periodic measurement by USGS personnel.

DATUM.--Elevation of land-surface datum is 760.70 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelter base, 3.08 ft above land-surface datum.

PERIOD OF RECORD.--December 1965 to current year. Records for December 1965 to September 1976 are unpublished and available in files of the Geological Survey. Prior to Feb. 22, 1989, weekly measurements with chalked tape by observer.

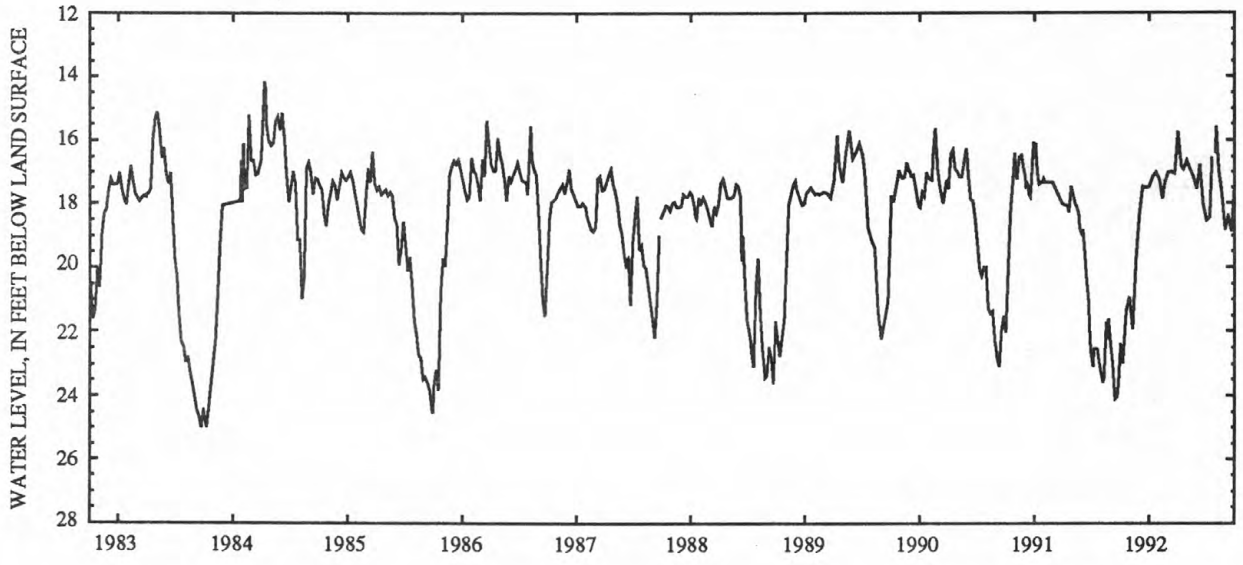
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.91 ft below land-surface datum, June 26, 1972; lowest measured, 25.00 ft below land-surface datum, Sept. 19, 1983.

EXTREMES FOR CURRENT YEAR.--Highest water level, 15.57 ft below land-surface datum, Aug. 2, 3; lowest, 23.16 ft below land-surface datum, Oct. 7.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.44	20.98	18.27	17.42	17.31	17.02	15.74	16.70	17.43	18.78	15.88	18.71
2	22.56	21.05	18.17	17.36	17.39	16.98	15.83	16.77	17.28	19.05	15.62	18.62
3	22.70	21.16	18.04	17.32	17.46	16.95	15.94	16.79	17.14	19.32	15.60	18.56
4	22.84	21.27	17.88	17.26	17.49	16.96	16.08	16.77	17.06	19.56	15.72	18.50
5	22.96	21.37	17.76	17.20	17.56	17.00	16.26	16.77	17.02	19.60	15.94	18.43
6	23.08	21.49	17.64	17.15	17.62	17.01	16.42	16.80	16.99	19.44	16.17	18.37
7	23.15	21.62	17.54	17.15	17.65	17.01	16.54	16.85	16.97	19.18	16.41	18.35
8	23.09	21.75	17.50	17.18	17.71	17.01	16.65	16.87	16.91	18.95	16.62	18.34
9	23.00	21.84	17.47	17.18	17.78	17.03	16.75	16.89	16.83	18.70	16.80	18.33
10	22.99	21.92	17.46	17.18	17.84	17.01	16.83	16.93	16.78	18.44	16.95	18.35
11	23.03	21.99	17.45	17.22	17.86	16.99	16.88	16.97	16.78	18.22	17.07	18.37
12	23.06	21.93	17.46	17.27	17.91	16.99	16.92	16.99	16.81	18.06	17.18	18.37
13	23.02	21.62	17.44	17.27	17.88	17.02	16.95	17.00	16.85	17.91	17.27	18.37
14	22.96	21.26	17.44	17.24	17.92	17.00	16.97	17.02	16.89	17.74	17.36	18.39
15	22.94	20.93	17.46	17.23	17.96	17.00	17.01	17.07	16.95	17.58	17.43	18.43
16	22.92	20.62	17.49	17.19	17.89	17.00	17.05	17.12	17.06	17.39	17.49	18.49
17	22.70	20.36	17.47	17.14	17.79	16.97	17.04	17.15	17.23	17.18	17.55	18.60
18	22.20	20.11	17.47	17.13	17.66	17.03	17.02	17.16	17.47	16.97	17.61	18.75
19	21.73	19.91	17.51	17.09	17.51	17.05	16.97	17.16	17.80	16.76	17.65	18.89
20	21.36	19.75	17.52	17.04	17.37	17.07	16.92	17.16	18.05	16.59	17.70	18.88
21	21.07	19.60	17.46	17.03	17.27	17.12	16.86	17.18	18.11	16.52	17.76	18.80
22	20.86	19.46	17.43	17.05	17.23	17.17	16.81	17.21	18.08	16.49	17.84	18.73
23	20.73	19.30	17.41	17.01	17.20	17.23	16.75	17.23	18.06	16.47	17.96	18.59
24	20.68	19.12	17.44	16.98	17.19	17.29	16.70	17.27	18.02	16.42	18.13	18.41
25	20.66	18.95	17.48	17.02	17.16	17.38	16.66	17.30	18.01	16.38	18.34	18.28
26	20.70	18.82	17.53	17.04	17.10	17.42	16.62	17.35	18.00	16.36	18.58	18.20
27	20.75	18.70	17.57	17.09	17.07	17.16	16.62	17.40	18.04	16.37	18.81	18.08
28	20.83	18.58	17.60	17.13	17.05	16.39	16.63	17.45	18.16	16.40	19.02	17.89
29	20.89	18.47	17.56	17.18	17.04	15.95	16.65	17.49	18.33	16.46	19.15	17.65
30	20.90	18.37	17.51	17.22	---	15.78	16.66	17.52	18.54	16.49	19.04	17.52
31	20.92	---	17.47	17.24	---	15.73	---	17.53	---	16.37	18.85	---
MEAN	22.06	20.41	17.58	17.17	17.51	16.93	16.66	17.09	17.45	17.62	17.40	18.41
LOW	23.15	21.99	18.27	17.42	17.96	17.42	17.05	17.53	18.54	19.60	19.15	18.89
HIGH	20.66	18.37	17.41	16.98	17.04	15.73	15.74	16.70	16.78	16.36	15.60	17.52

424158076251901. Local number, Cy 7--Continued.



420326079295801. Local number, Cu 5.

LOCATION.--Lat 42°03'26", long 79°29'58", Hydrologic Unit 05010002, near Panama. Owner: New York State Department of Environmental Conservation.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Dug unused well, diameter 36 in, depth 33 ft, stone lined.

INSTRUMENTATION.--Electronic data recorder--60-minute average. Prior to Apr. 17, 1990, periodic measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land surface datum is 1,752.51 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 0.25-in steel-plate well cover, inside shelter door, 0.44 ft below land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.43 ft below land-surface datum, July 17, 1992; lowest measured, 9.41 ft below land-surface datum, May 24, 1949.

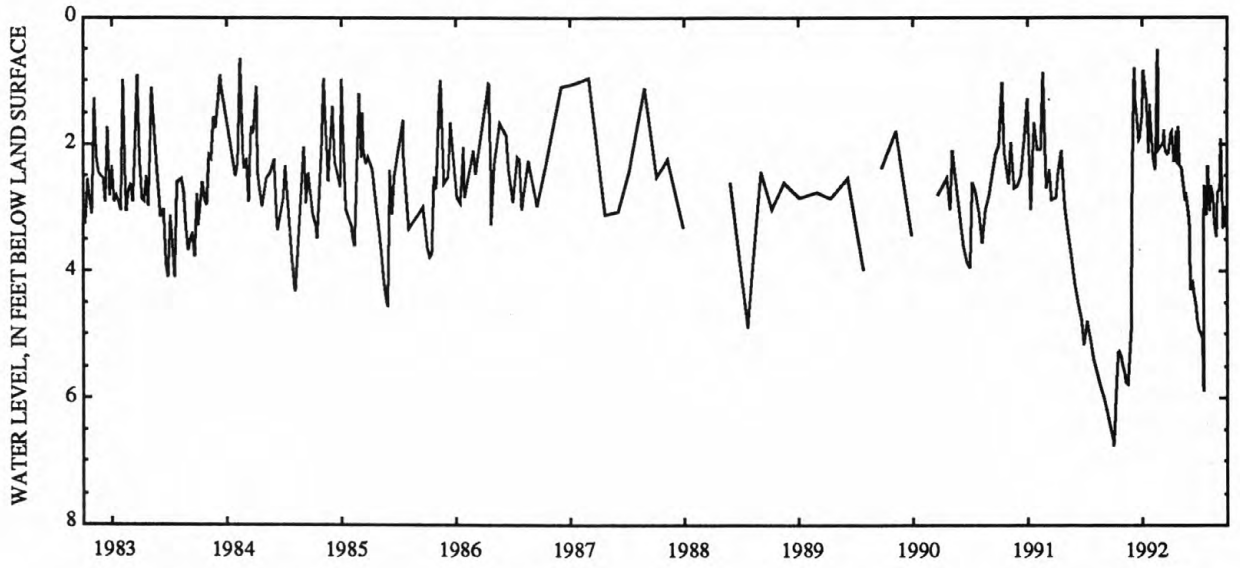
EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 0.43 ft below land-surface datum, July 17; lowest recorded, 6.78 ft below land-surface datum, Oct. 4.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.73	5.61	3.01	2.40	2.74	---	2.59	3.12	4.21	4.66	2.03	2.55
2	6.74	5.63	3.00	2.53	2.83	---	2.66	3.16	4.27	4.69	2.37	2.69
3	6.76	5.66	1.72	2.08	2.85	---	2.58	3.11	4.33	4.64	2.56	2.17
4	6.71	5.67	1.99	1.31	2.80	---	2.51	3.12	4.36	4.60	2.60	2.00
5	6.50	5.74	2.05	1.45	2.86	---	2.53	3.17	4.37	4.59	2.66	2.34
6	6.45	5.79	2.06	2.00	2.87	2.67	2.55	3.24	4.35	4.60	2.75	2.55
7	6.40	5.83	1.88	2.34	2.87	2.68	2.69	3.31	4.28	4.61	2.84	2.70
8	6.33	5.87	.81	2.53	2.94	2.47	2.81	3.36	4.27	4.60	2.54	2.78
9	6.28	5.90	.98	2.37	3.03	2.43	2.93	3.38	4.26	4.63	1.81	2.60
10	6.02	5.93	1.76	1.81	3.06	2.46	2.99	3.39	4.26	4.67	2.27	1.55
11	5.48	5.96	2.18	2.22	3.09	2.49	2.51	3.44	4.28	4.70	2.37	2.15
12	5.37	5.98	2.32	2.42	3.14	2.56	1.96	3.50	4.30	4.73	2.54	2.50
13	5.34	6.00	2.07	2.25	3.17	2.62	2.44	3.57	4.31	4.71	2.12	2.71
14	5.30	6.01	2.04	1.45	3.16	2.73	2.66	3.62	4.32	3.89	2.17	2.85
15	5.28	5.99	1.95	1.93	2.31	2.79	2.83	3.68	4.34	2.98	2.43	2.93
16	5.27	5.94	1.90	2.33	.96	2.85	2.77	3.73	4.34	2.42	2.46	2.98
17	5.27	5.86	2.10	2.51	1.62	2.83	1.54	3.79	4.37	1.22	2.60	3.03
18	5.26	5.82	2.23	2.67	1.63	2.89	1.95	3.69	4.42	1.23	2.72	3.05
19	5.27	5.79	2.33	2.78	.91	2.86	2.19	3.64	4.43	1.79	2.75	2.90
20	5.28	5.74	2.42	2.78	1.18	2.84	2.52	3.69	4.46	2.27	2.84	2.91
21	5.30	5.68	2.47	2.80	1.82	2.83	2.50	3.73	4.45	2.27	2.88	2.63
22	5.33	5.58	2.51	2.84	2.04	2.88	2.22	3.77	4.46	2.38	2.96	1.30
23	5.36	5.51	2.46	2.28	1.89	2.92	2.60	3.81	4.51	2.54	2.99	1.99
24	5.39	5.39	2.41	1.35	---	2.95	2.61	3.80	4.55	2.64	3.03	2.41
25	5.41	5.20	2.42	2.03	---	2.84	2.45	3.84	4.57	2.73	3.07	2.63
26	5.43	5.01	2.53	2.32	---	1.75	2.63	3.90	4.58	2.49	3.12	2.77
27	5.46	4.78	2.58	2.42	---	1.52	2.81	3.96	4.61	2.34	3.20	2.85
28	5.49	4.35	2.62	2.46	---	1.93	2.95	4.01	4.63	2.52	2.23	2.91
29	5.50	3.52	1.69	2.46	---	2.31	3.05	4.07	4.65	2.20	1.36	2.99
30	5.53	3.15	1.54	2.56	---	2.44	3.09	4.13	4.67	2.27	2.08	3.04
31	5.57	---	2.14	2.61	---	2.54	---	4.16	---	1.96	2.37	---
MEAN	5.74	5.50	2.13	2.27	---	---	2.57	3.61	4.41	3.31	2.54	2.58
LOW	6.76	6.01	3.01	2.84	---	---	3.09	4.16	4.67	4.73	3.20	3.05
HIGH	5.26	3.15	.81	1.31	---	---	1.54	3.11	4.21	1.22	1.36	1.30

CAL YR 1991 MEAN 4.02 HIGH .76 LOW 6.76

420326079295801. Local number, Cu 5--Continued.



420815079121401. Local number, Cu 10.

LOCATION.--Lat 42°08'15", long 79°12'14", Hydrologic Unit 05010002, at Falconer. Owner: City of Jamestown.

AQUIFER.--Confined aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 12 in to 10 in, depth 232 ft, filled in from original depth of 240 ft, diameter 12 in 0 ft to 130 ft, diameter 10 in 130 ft to 240 ft, slotted 130 ft to 144 ft, open end.

INSTRUMENTATION.--Weekly measurements by City of Jamestown personnel. Prior to Dec. 14, 1978, Type F graphic recorder at same site and datum. Dec. 14, 1978 to Sept. 16, 1982, digital recorder every fifth day high water-level published. Sept. 1982 to Sept. 1987, twice-daily readings by City of Jamestown personnel, every fifth day high water-level published.

DATUM.--Elevation of land-surface datum is 1,252.52 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of plywood sheet, 5.52 ft above land-surface datum.

REMARKS.--Water level affected by pumping from municipal well field.

PERIOD OF RECORD.--November 1939 to September 1943, August 1946 to current year. Records for November 1939 to September 1943, August 1946 to September 1976 are unpublished and available in files of the Geological Survey.

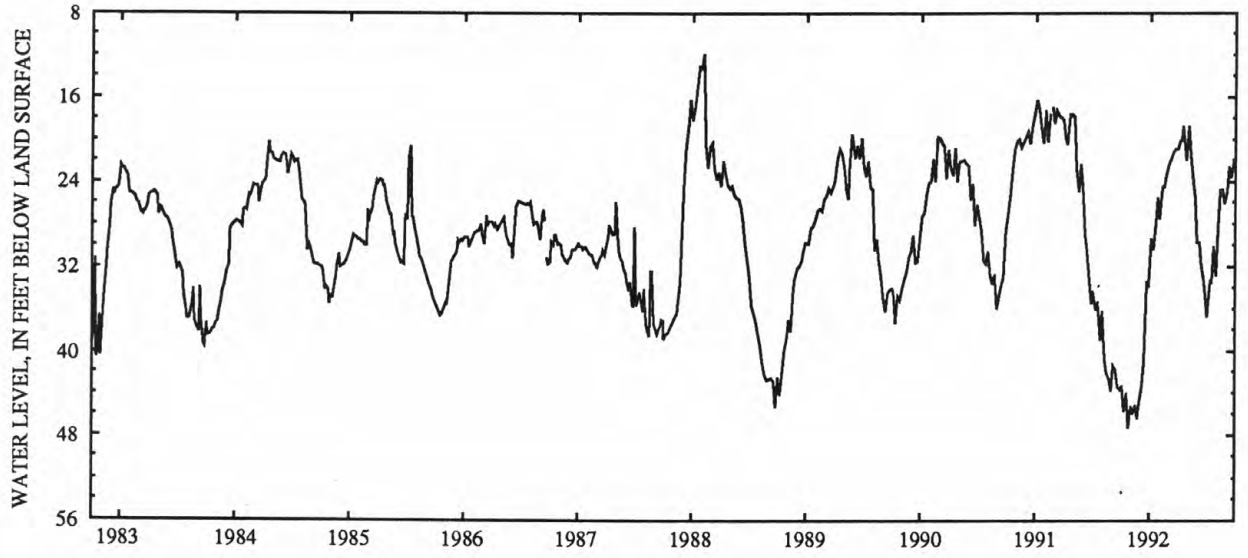
REVISED RECORD.--WDR NY-87-3: 1983-86. WDR NY-91-3: 1988-90.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.2 ft above land-surface datum, Mar. 14, 1942; lowest measured, 66.6 ft below land-surface datum, Nov. 3, 1971.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 18.78 ft below land-surface datum, May 1; lowest measured, 47.32 ft below land-surface datum, Oct. 25.

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	43.33	JAN 03	29.33	APR 03	20.16	JUL 02	36.75
11	45.73	10	30.40	10	19.98	10	33.23
18	43.98	17	28.70	16	18.80	17	33.58
25	47.32	24	25.56	24	21.93	24	30.03
NOV 01	45.25	31	27.46	MAY 01	18.78	31	32.78
08	45.99	FEB 07	24.48	08	21.44	AUG 07	28.45
15	45.13	14	24.48	15	24.04	14	24.87
22	46.38	21	23.38	22	25.54	21	24.70
27	45.30	28	22.40	29	29.73	28	26.06
DEC 06	43.28	MAR 06	21.92	JUN 05	29.73	SEP 04	24.93
13	41.08	13	21.28	11	31.52	11	22.58
20	33.54	20	20.92	19	33.48	18	23.58
27	33.73	27	20.88	26	35.38	25	22.18



420748079062701. Local number, Cu 104.

LOCATION.--Lat 42°07'48", long 79°06'27", Hydrologic Unit 05010002, 59 ft west of Conewango Creek, 20 ft north of County Highway 325 and 1 mi southeast of Poland Center. Owner: City of Jamestown.

AQUIFER.--Aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 79 ft, screened 69 ft to 79 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 1,247.62 ft above National Geodetic Vertical Datum of 1929. Measuring point: Chisled marks at top of metal shelter base, 6.22 ft above land-surface datum.

REMARKS.--Well drilled by the U.S.G.S. The water level is affected by pumping from municipal well field and by stage of Conewango Creek, which is within 100 ft of the well.

PERIOD OF RECORD.--March 1983 to current year.

REVISED RECORDS.--WDR NY-88-3: 1987.

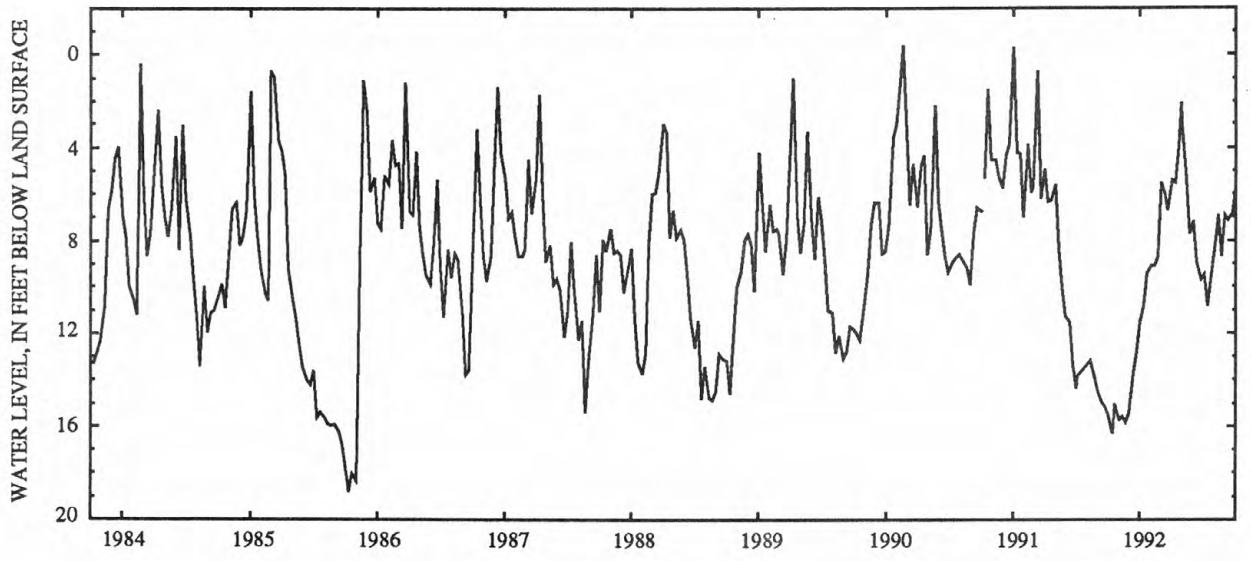
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.41 ft above land-surface datum, Jan. 2, 1991; lowest, 19.35 ft below land-surface datum, Oct. 16, 1985.

EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 1.71 ft below land-surface datum, Apr. 26; lowest recorded, 16.52 ft below land-surface datum, Nov. 9.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.76	15.84	15.15	11.50	8.26	5.50	5.36	3.27	7.94	9.82	7.80	7.73
2	15.95	15.01	15.16	11.47	7.82	5.53	4.68	4.59	8.21	10.14	6.90	7.93
3	16.12	15.43	15.27	11.43	8.64	5.49	4.88	5.68	7.64	10.39	7.24	7.22
4	16.17	15.00	15.34	11.43	8.79	5.65	5.04	5.65	8.18	9.71	7.59	6.39
5	15.70	14.24	15.29	11.32	8.90	5.77	4.72	5.29	8.58	8.84	7.61	6.93
6	15.87	14.62	15.24	11.12	9.06	5.82	4.72	5.47	7.71	9.14	7.78	6.34
7	16.06	14.76	14.53	11.02	9.24	5.86	4.99	5.85	8.34	9.87	7.90	5.39
8	16.15	15.52	13.83	10.87	8.58	5.95	5.37	6.17	8.13	10.44	6.83	6.05
9	16.18	16.21	13.93	10.94	8.91	5.91	5.29	6.31	8.68	10.66	6.32	6.84
10	16.16	15.59	13.71	10.80	9.10	5.97	5.54	5.36	8.94	10.83	6.92	7.10
11	16.28	15.53	13.45	10.68	9.27	5.96	5.07	5.67	9.17	10.01	7.33	7.34
12	15.75	15.88	13.37	10.78	9.55	6.01	5.23	6.14	9.43	9.48	7.64	6.72
13	15.51	16.10	12.83	10.76	9.45	6.22	4.22	6.45	8.83	10.33	7.92	6.14
14	15.15	16.12	13.02	10.40	9.62	6.30	4.49	6.82	9.14	10.74	7.94	7.20
15	15.48	16.13	12.33	10.02	9.02	5.36	5.01	7.06	9.50	10.65	8.15	7.55
16	15.67	15.56	11.94	9.99	8.96	5.56	5.31	6.63	9.75	8.49	7.23	7.92
17	15.80	15.71	12.42	9.81	8.89	6.09	5.13	6.61	9.95	---	7.05	8.31
18	15.43	15.90	12.26	9.58	9.00	6.41	4.04	7.22	10.08	---	8.40	8.62
19	15.49	15.55	12.59	9.50	9.55	6.51	3.42	7.51	10.25	---	8.46	7.29
20	15.06	15.80	12.81	9.43	8.73	6.72	3.98	7.75	9.69	---	8.65	6.86
21	15.30	16.03	12.12	9.56	8.41	6.84	4.18	7.95	8.73	---	8.98	7.65
22	15.66	16.18	12.03	9.78	7.57	6.96	4.27	8.15	9.09	8.67	8.08	6.91
23	15.26	15.72	12.02	9.77	7.25	7.15	4.47	7.91	9.56	7.77	8.29	5.92
24	15.56	15.57	12.10	9.73	6.81	7.35	4.54	7.21	9.85	8.61	7.93	4.18
25	15.70	15.87	12.00	9.45	6.42	7.45	3.09	7.89	10.11	8.82	8.64	4.45
26	15.06	16.06	11.89	9.22	6.08	7.29	2.09	7.52	9.63	7.67	9.07	4.45
27	14.12	16.24	11.89	9.18	5.32	6.78	2.57	8.10	9.46	7.80	9.42	3.55
28	14.40	15.98	11.93	9.13	5.51	6.35	2.72	8.33	8.84	8.54	9.63	3.81
29	15.09	15.82	11.89	9.12	5.54	6.01	2.80	8.09	9.58	8.89	9.02	4.99
30	15.21	15.45	11.74	9.14	---	5.44	3.00	7.66	9.45	9.18	7.21	5.74
31	15.73	---	11.54	9.09	---	5.43	---	7.16	---	8.18	6.92	---
MEAN	15.58	15.65	13.08	10.19	8.22	6.18	4.34	6.69	9.08	---	7.90	6.45
LOW	16.28	16.24	15.34	11.50	9.62	7.45	5.54	8.33	10.25	---	9.63	8.62
HIGH	14.12	14.24	11.54	9.09	5.32	5.36	2.09	3.27	7.64	---	6.32	3.55

420748079062701. Local number, Cu 104--Continued.



CHEMUNG COUNTY

420829076484801. Local number, Cm 46.

LOCATION.--Lat 42°08'29", long 76°48'48", Hydrologic Unit 02050105, near Horseheads. Owner: Unknown.

AQUIFER.--Unconfined aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in, depth 34 ft, cased to 34 ft, open end.

INSTRUMENTATION.--Electronic data recorder--60-minute average.

DATUM.--Elevation of land-surface datum is 885.69 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of pipe flange, 3.44 ft above land-surface datum.

REMARKS.--Water level affected by stage of Newtown Creek.

PERIOD OF RECORD.--October 1955 to current year. Records for October 1955 to September 1976 are unpublished and available in files of the Geological Survey.

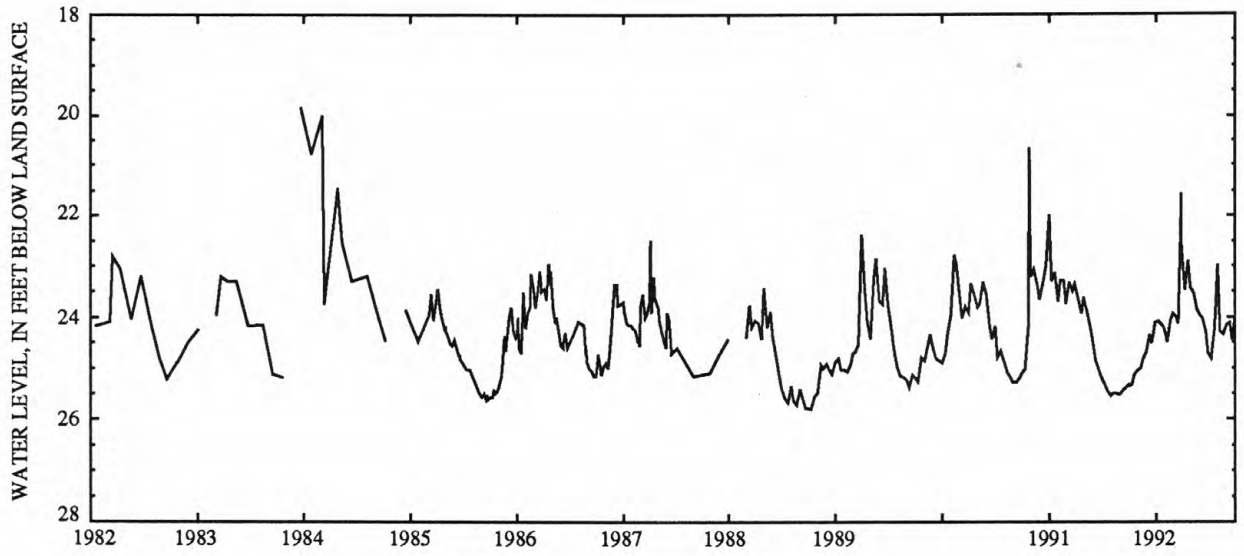
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.93 ft below land-surface datum, April 25, 1961; lowest measured, 26.30 ft below land-surface datum, July 18, 1980.

EXTREMES FOR CURRENT YEAR.--Highest water level, 21.34 ft below land-surface datum, Mar. 28; lowest, 25.39 ft below land-surface datum, Oct. 5.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.34	25.06	24.70	24.22	24.23	24.04	22.68	23.49	23.34	24.76	22.63	24.28
2	25.33	25.05	24.72	24.28	24.27	24.07	22.79	23.53	23.20	24.78	23.25	24.37
3	25.34	25.05	24.32	24.31	24.29	24.10	22.93	23.16	23.44	24.79	23.58	24.17
4	25.36	25.03	23.95	24.20	24.31	24.15	23.05	23.16	23.65	24.83	23.76	23.19
5	25.36	25.03	24.11	23.81	24.32	24.20	23.18	23.26	23.76	24.84	23.90	23.59
6	25.34	25.03	24.22	23.87	24.35	24.14	23.28	23.34	23.70	24.86	24.03	23.80
7	25.34	25.03	24.30	23.96	24.37	24.11	23.35	23.42	23.75	24.89	24.13	23.93
8	25.34	25.02	24.32	24.03	24.42	24.04	23.37	23.47	23.86	24.90	24.22	24.03
9	25.34	25.01	24.32	24.08	24.45	24.02	23.42	23.50	23.95	24.83	24.26	24.08
10	25.32	25.00	24.35	24.08	24.49	24.01	23.48	23.54	24.03	24.82	24.29	24.11
11	25.28	24.92	24.40	24.09	24.50	23.83	23.52	23.60	24.12	24.88	24.33	23.87
12	25.27	24.85	24.45	24.15	24.52	23.78	23.30	23.65	24.20	24.92	24.37	23.98
13	25.27	24.85	24.48	24.18	24.54	23.85	23.32	23.67	24.26	24.92	24.39	24.10
14	25.25	24.85	24.39	23.99	24.56	23.93	23.42	23.70	24.32	24.92	23.91	24.19
15	25.24	24.85	24.30	23.67	24.56	23.98	23.51	23.74	24.36	24.78	23.92	24.27
16	25.13	24.83	24.33	23.85	24.40	24.06	23.54	23.79	24.41	24.37	24.05	24.35
17	25.12	24.81	24.38	23.98	24.31	24.10	23.17	23.82	24.47	24.47	24.14	24.39
18	25.14	24.82	24.41	24.03	24.31	24.13	23.02	23.80	24.51	24.24	24.23	24.44
19	25.13	24.83	24.46	24.12	24.26	24.12	22.74	23.80	24.51	24.05	24.29	24.43
20	25.13	24.84	24.51	24.15	24.06	24.14	22.90	23.86	24.29	24.23	24.35	24.45
21	25.13	24.77	24.50	24.18	24.09	24.14	23.04	23.91	24.35	24.30	24.41	24.51
22	25.13	24.65	24.51	24.20	24.14	24.17	23.12	23.97	24.43	24.40	24.47	24.51
23	25.13	24.26	24.51	24.20	24.14	24.18	23.19	24.01	24.49	24.41	24.52	24.27
24	25.12	24.28	24.49	23.97	24.11	24.21	23.26	24.02	24.53	24.28	24.58	24.35
25	25.11	24.35	24.49	24.00	24.02	24.22	23.04	24.05	24.56	24.39	24.61	24.44
26	25.11	24.45	24.53	24.08	23.98	24.02	23.06	24.09	24.59	24.27	24.59	24.01
27	25.10	24.53	24.54	24.16	24.02	21.97	23.18	24.12	24.62	23.66	24.63	23.69
28	25.07	24.60	24.57	24.20	24.06	21.56	23.28	24.17	24.65	23.93	24.63	23.70
29	25.06	24.65	24.48	24.20	23.95	22.16	23.37	24.22	24.69	24.13	23.74	23.85
30	25.05	24.69	---	24.22	---	22.41	23.43	24.25	24.72	24.02	23.98	23.96
31	25.05	---	24.12	24.22	---	22.60	---	23.98	---	22.99	24.16	---
MEAN	25.21	24.80	---	24.09	24.28	23.76	23.20	23.74	24.19	24.48	24.14	24.11
LOW	25.36	25.06	---	24.31	24.56	24.22	23.54	24.25	24.72	24.92	24.63	24.51
HIGH	25.05	24.26	---	23.67	23.95	21.56	22.68	23.16	23.20	22.99	22.63	23.19

420829076484801. Local number, Cm 46--Continued.



421556075281602. Local number, Cn 12.

LOCATION.--Lat 42°15'56", long 75°28'16", Hydrologic Unit 02050101, 400 ft south of intersection of County Highways 39 and 12, 0.5 mi east of Susquehanna River, and 2.0 mi south of Bainbridge. Owner: Ilse Maehlman.

AQUIFER.--Unconfined aquifer in gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 13 ft, cased to 13 ft, open end.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 979.28 ft above National Geodetic Vertical Datum of 1929. Measuring point: File mark at top of shelter base, 1.37 ft above land-surface datum.

REMARKS.--This well drilled April 1974 as a replacement for 421556075281601 (local number Cn 11), located 90 ft north, which has a period of record from October 1965 to September 1972 (unpublished).

PERIOD OF RECORD.--April 1975 to current year. Records for April 1975 to September 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.79 ft below land-surface datum, Mar. 7, 1979; lowest, 11.81 ft below land-surface datum, Sept. 26-29, 1982.

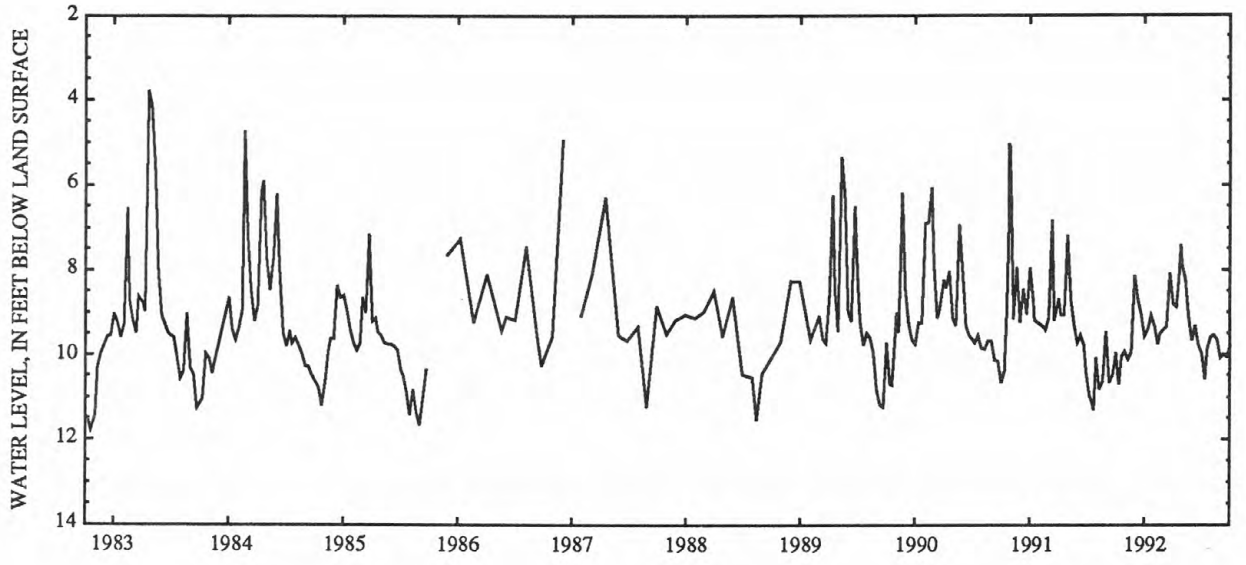
EXTREMES FOR CURRENT YEAR.--Highest water level, 7.40 ft below land-surface datum, Apr. 23, 24; lowest, 10.70 ft below land-surface datum, Oct. 13.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.95	9.93	8.30	9.57	9.37	9.38	8.71	7.99	9.68	10.01	9.59	10.03
2	9.96	9.94	8.48	9.56	9.43	9.32	8.67	8.11	9.66	10.07	9.57	9.98
3	9.99	9.95	8.65	9.55	9.50	9.27	8.63	8.23	9.57	10.15	9.53	9.95
4	10.04	9.97	8.76	9.53	9.55	9.26	8.61	8.31	9.45	10.24	9.50	9.94
5	10.11	9.99	8.77	9.50	9.59	9.27	8.61	8.31	9.35	10.35	9.49	9.95
6	10.20	10.00	8.70	9.47	9.63	9.30	8.63	8.29	9.29	10.44	9.48	9.94
7	10.30	10.03	8.64	9.44	9.66	9.34	8.68	8.25	9.27	10.50	9.48	9.93
8	10.40	10.05	8.62	9.41	9.69	9.36	8.74	8.22	9.26	10.53	9.49	9.93
9	10.48	10.08	8.64	9.40	9.71	9.37	8.81	8.19	9.28	10.56	9.51	9.96
10	10.55	10.11	8.70	9.40	9.74	9.34	8.88	8.20	9.31	10.59	9.53	10.01
11	10.60	10.13	8.78	9.42	9.77	9.27	8.94	8.24	9.34	10.59	9.54	10.06
12	10.65	10.15	8.86	9.44	9.80	8.98	8.98	8.30	9.38	10.53	9.56	10.09
13	10.69	10.16	8.95	9.46	9.83	8.42	9.01	8.38	9.43	10.44	9.57	10.04
14	10.66	10.13	9.03	9.48	9.85	7.90	9.00	8.48	9.48	10.41	9.60	9.97
15	10.55	10.08	9.09	9.47	9.87	7.64	8.98	8.59	9.54	10.42	9.63	9.92
16	10.43	10.05	9.11	9.38	9.88	7.57	8.95	8.71	9.58	10.41	9.64	9.90
17	10.32	10.02	9.09	9.26	9.81	7.61	8.94	8.82	9.63	10.34	9.64	9.90
18	10.22	9.99	9.06	9.16	9.69	7.72	8.91	8.94	9.67	10.18	9.64	9.93
19	10.13	9.97	9.04	9.10	9.59	7.88	8.72	9.03	9.72	10.02	9.64	9.99
20	10.04	9.95	9.05	9.08	9.52	8.07	8.26	9.11	9.77	9.88	9.63	10.06
21	9.98	9.94	9.07	9.08	9.48	8.26	7.80	9.19	9.81	9.79	9.62	10.13
22	9.93	9.93	9.11	9.11	9.46	8.45	7.52	9.26	9.83	9.73	9.62	10.20
23	9.90	9.79	9.16	9.14	9.45	8.62	7.42	9.33	9.83	9.71	9.63	10.25
24	9.89	9.19	9.21	9.18	9.45	8.78	7.41	9.39	9.83	9.70	9.66	10.28
25	9.88	8.50	9.27	9.20	9.45	8.91	7.46	9.46	9.85	9.69	9.69	10.22
26	9.88	8.03	9.33	9.21	9.45	9.02	7.55	9.51	9.88	9.67	9.75	10.11
27	9.89	7.88	9.38	9.21	9.44	9.10	7.65	9.55	9.90	9.64	9.84	10.02
28	9.90	7.88	9.45	9.22	9.44	9.11	7.73	9.59	9.93	9.62	9.93	9.95
29	9.91	7.97	9.50	9.25	9.43	9.05	7.80	9.62	9.95	9.60	10.03	9.88
30	9.92	8.12	9.54	9.28	---	8.92	7.88	9.65	9.97	9.59	10.10	9.82
31	9.93	---	9.57	9.33	---	8.79	---	9.67	---	9.59	10.09	---
MEAN	10.17	9.60	9.00	9.33	9.60	8.75	8.40	8.80	9.61	10.10	9.65	10.01
LOW	10.69	10.16	9.57	9.57	9.88	9.38	9.01	9.67	9.97	10.59	10.10	10.28
HIGH	9.88	7.88	8.30	9.08	9.37	7.57	7.41	7.99	9.26	9.59	9.48	9.82

WTR YR 1992 MEAN 9.42 HIGH 7.41 LOW 10.69

421556075281602. Local number, Cn 12--Continued.



423849075315701. Local number, Cn 13.

LOCATION.--Lat 42°38'49", long 75°31'57", Hydrologic Unit 02050102, at junction of Chenango County Road 23 and Erie-Lackawanna Railroad tracks, 2.1 mi north of North Norwich, and 2.7 mi south of NYS Rt. 80 near Sherburne. Owner: U. S. Geological Survey.

AQUIFER.--Confined aquifer in sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 125 ft, cased to 123 ft, screened 123 ft to 125 ft.

INSTRUMENTATION.--Periodic measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1065.77 ft above National Geodetic Vertical Datum of 1929. Measuring point: Double file mark on top of coupling, 4.01 ft above land-surface datum.

REMARKS.--Water level may be affected by pumping from nearby farm well.

PERIOD OF RECORD.--April 1984 to current year.

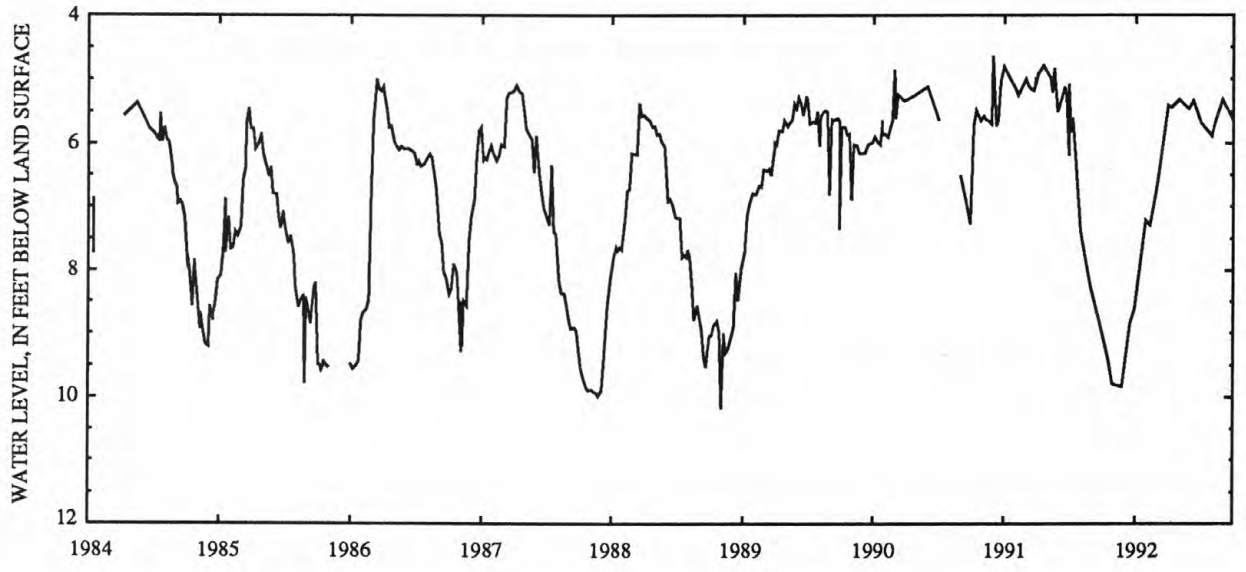
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.64 ft below land-surface datum, Nov. 29, 1990; lowest measured, 10.17 ft below land-surface datum, Nov. 1, 1988.

EXTREMES OUTSIDE PERIOD OF RECORD.--Lowest water level measured, 10.61 ft below land-surface datum, Jan. 27, 1981.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 5.31 ft below land-surface datum, Apr. 29; lowest measured, 9.83 ft below land-surface datum, Nov. 26.

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 15	9.38	JAN 30	7.22	APR 29	5.31	JUL 30	5.88
30	9.79	FEB 10	7.28	MAY 28	5.46	AUG 07	5.71
NOV 26	9.83	27	6.65	JUN 08	5.33	31	5.32
DEC 17	8.84	MAR 30	5.40	11	5.39	SEP 29	5.62
30	8.62	APR 07	5.44	29	5.67		



423541076114701. Local number, C 102.

LOCATION.--Lat 42°35'41", long 76°11'47", Hydrologic Unit 02050102, at Municipal Water Works, Cortland. Owner: City of Cortland.

AQUIFER.--Unconfined aquifer in gravel of Pleistocene age.

WELL CHARACTERISTICS.--Driven observation well, diameter 1.25 in, depth 45 ft, 1.25 in well point.

INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1136.59 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of coupling, 1.99 ft above land-surface datum.

REMARKS.--Water level is affected by pumping from nearby municipal supply wells. This well is a replacement for 423539076114801 (local number C 19), located 80 ft southwest, which has a period of record from February 1947 to May 1976.

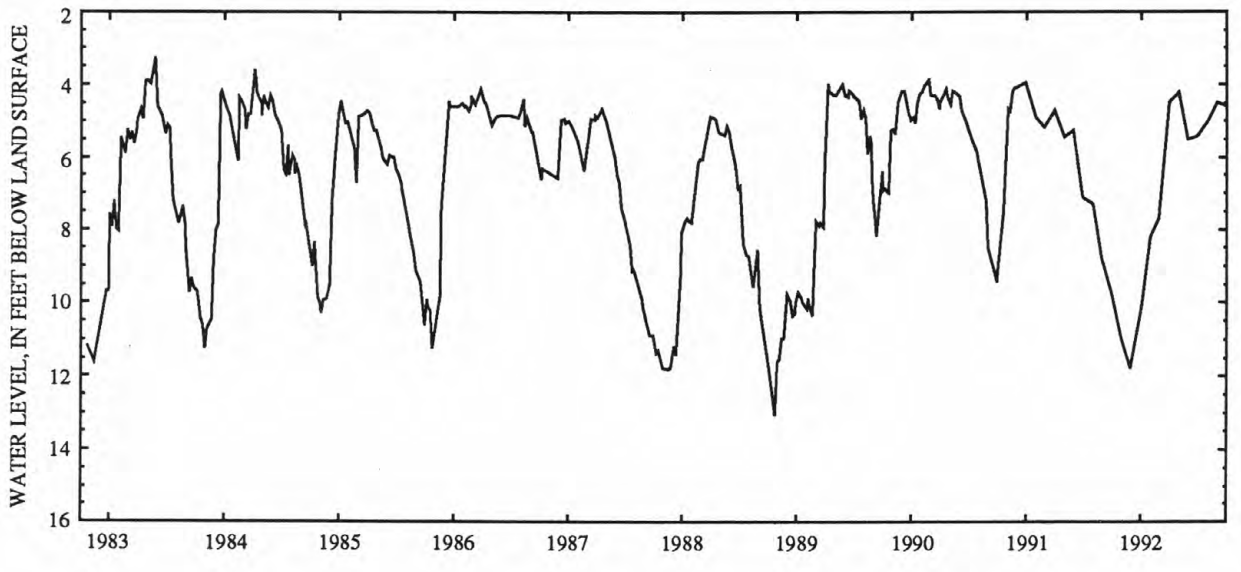
PERIOD OF RECORD.--October 1975 to current year. Records for October 1975 to September 1977 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.07 ft below land-surface datum, Sept. 25, 1977; lowest measured, 14.50 ft below land-surface datum, Dec. 14, 1978.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 4.23 ft below land-surface datum, Apr. 29; lowest measured, 11.77 ft below land-surface datum, Nov. 26.

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 30	10.99	JAN 30	8.20	APR 29	4.23	JUL 30	5.03
NOV. 26	11.77	FEB 27	7.70	MAY 28	5.50	AUG 31	4.48
DEC 30	10.15	MAR 30	4.47	JUN 29	5.41	SEP 29	4.59



430056075354102. Local number, M 178.

LOCATION.--Lat 43°00'56", long 75°35'41", Hydrologic Unit 04140202, at Valley Mills. Owner: Donald L. Greene.

AQUIFER.--Unconfined aquifer in gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 16 ft, cased to 16 ft, open end.

INSTRUMENTATION.--Periodic measurement with chalked tape by USGS personnel. April 1975 to May 1986, digital recorder at same site and datum. Weekly observer readings May 1986 to Dec. 1988. Dec. 1988 to Feb. 1991, electronic data recorder at same site and datum.

DATUM.--Elevation of land-surface datum is 573.76 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of flange, 3.06 ft above land-surface datum.

REMARKS.--Well drilled April 1974 as a replacement for 430056075354101 (local number M 177), located 10 ft west, which has a period of record from October 1965 to September 1973 (unpublished).

PERIOD OF RECORD.--April 1975 to current year. Records for April 1975 to September 1976 are unpublished and available in files of the Geological Survey.

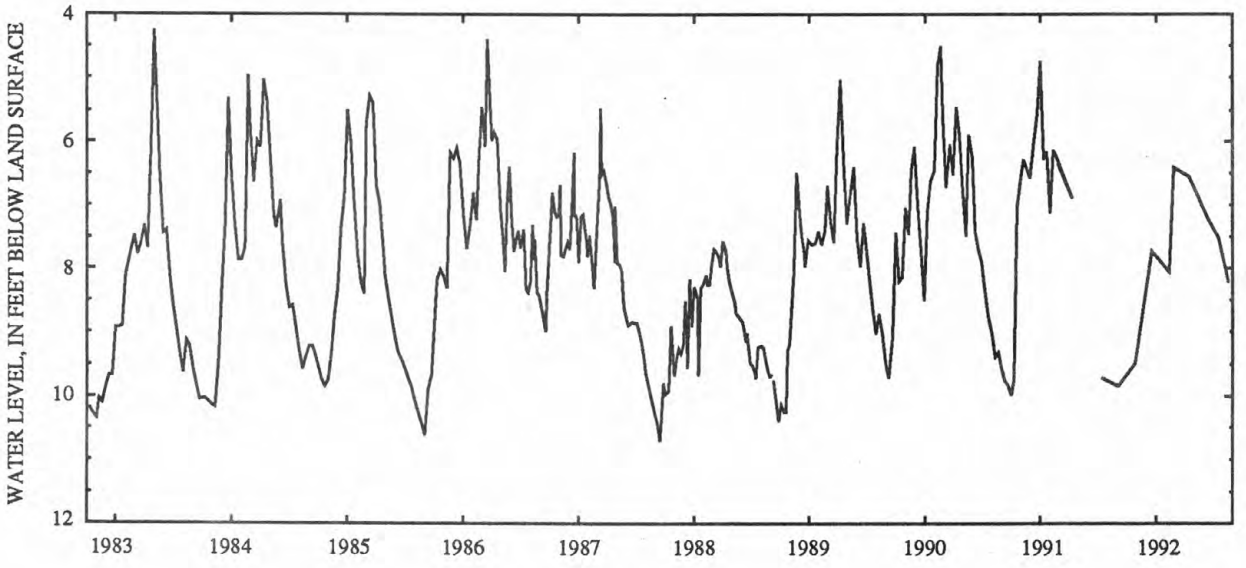
REVISED RECORDS.--WDR NY-91-3: 1990 water level.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.60 ft below land-surface datum, Mar. 5, 1979; lowest, 10.97 ft below land-surface datum, Oct. 24, 25, 1980.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 6.41 ft below land-surface datum, Feb. 26; lowest measured, 9.56 ft below land-surface datum, Oct. 17.

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 17	9.56	FEB 13	8.05	APR 13	6.54	JUL 17	7.53
28	9.49	26	6.41	JUN 10	7.16	AUG 17	8.21
DEC 19	7.72						



430655079022001. Local number, Ni 69.

LOCATION.--Lat 43°06'55", long 79°02'20", Hydrologic Unit 04120104, 20th Street and Beech Avenue, Niagara Falls. Owner: City of Niagara Falls.

AQUIFER.--Confined and unconfined zones in Lockport Dolomite of Middle Silurian age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 8 in to 6 in, depth 36 ft, cased 8 in from 0 to 17 ft, diameter 6 in from 17 to 36 ft, open end.

INSTRUMENTATION.--Periodic measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 595.61 ft National Geodetic Vertical Datum of 1929. Measuring point: top of 2 in plug in top of 8 in extended casing, 3.60 ft above land-surface datum.

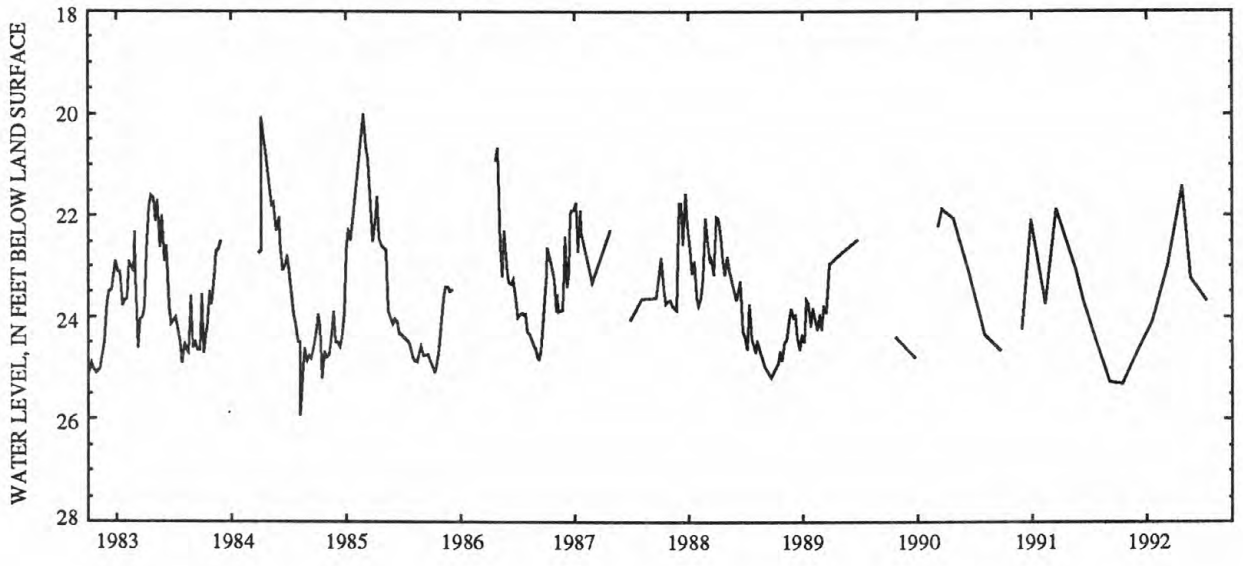
PERIOD OF RECORD.--October 1958 to current year. Records for October 1958 to September 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.00 ft below land-surface datum, Feb. 25, 1985; lowest measured, 22.21 ft below land-surface datum, Aug. 3, 1959.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 17.41 ft below land-surface datum, Apr. 22; lowest measured, 21.30 ft below land-surface datum, Oct. 15.

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 15	21.30	JAN 17	20.10	APR 22	17.41	JUL 09	19.67
DEC 05	20.64	MAR 06	19.00	MAY 20	19.23	SEP 10	19.51



431308078544501. Local number, Ni 70.

LOCATION.--Lat 43°13'08", long 78°54'45", Hydrologic Unit 04130001, near Ransomville. Owner: Calvin C. Schultz.

AQUIFER.--Unconfined aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Dug unused well, diameter 4 ft to 5 ft (reported), stone-lined, depth 24 ft.

INSTRUMENTATION.--Weekly measurement with chalked tape by observer; periodic measurement by USGS personnel.

DATUM.--Elevation of land-surface datum is 335.96 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 1 in hole in steel cover, 0.70 ft above land-surface datum.

PERIOD OF RECORD.--August 1972 to current year. Records for August 1972 to September 1976 are unpublished and available in files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.90 ft below land-surface datum, Mar. 12, 1985; lowest measured, 13.88 ft below land-surface datum, Dec. 21, 1991.

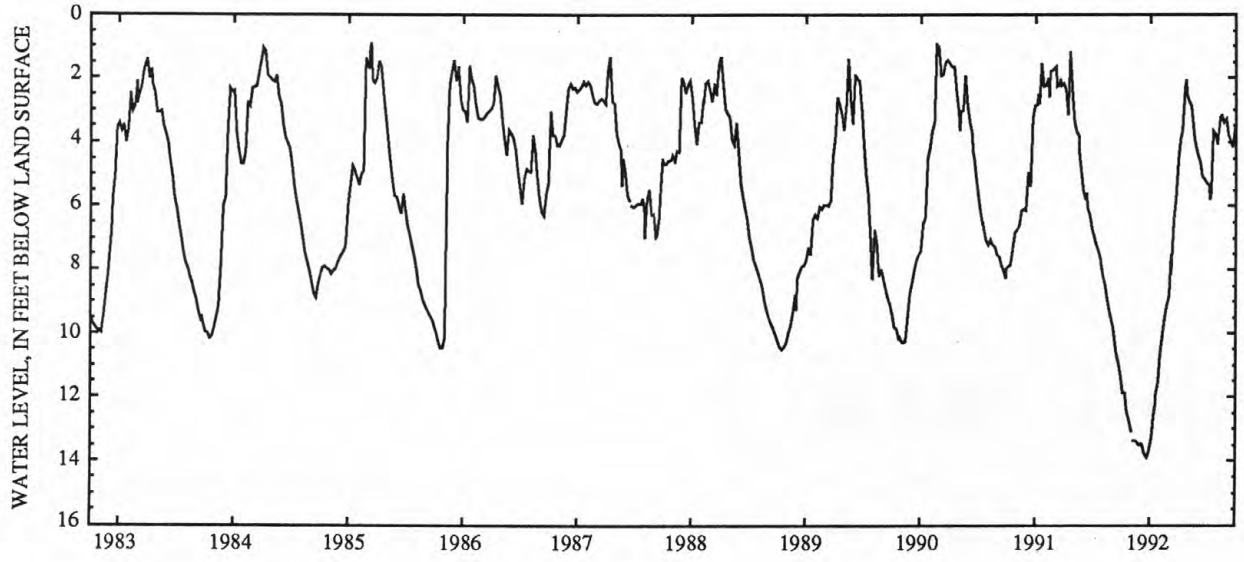
EXTREMES FOR CURRENT YEAR.--Highest water level measured, 2.04 ft below land-surface datum, Apr. 22; lowest measured, 13.88 ft below land-surface datum, Dec. 21.

REVISIONS.--Water levels measured by USGS personnel reported for the 1983 to 1991 water years have been revised: subtract 0.70 ft. The highest water level for the period of record has been revised: highest water level measured, 0.90 ft below land-surface datum, Mar. 12, 1985.

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	11.88	JAN 04	13.31	APR 04	3.95	JUL 04	5.37
12	11.88	11	12.60	11	3.65	09	5.79
15	z12.24	17	z12.21	18	2.33	11	5.54
19	12.48	18	11.96	22	z2.04	18	3.66
26	12.74	25	11.52	25	2.49	25	3.76
NOV 02	13.07	FEB 01	10.64	MAY 02	2.72	AUG 01	4.07
09	13.38	08	9.97	09	2.87	08	3.24
16	13.36	15	9.52	16	3.69	15	3.19
25	13.50	22	9.18	20	z3.89	23	3.37
DEC 01	13.49	29	8.81	23	4.12	30	3.30
05	z13.47	MAR 06	z7.53	30	4.38	31	z3.29
07	13.49	07	8.14	JUN 06	4.63	SEP 05	3.76
14	13.78	14	6.44	13	5.05	12	3.99
21	13.88	21	5.81	20	5.15	19	4.15
28	13.72	28	4.58	27	5.28	26	3.45

z Measured by USGS personnel.



425840077133901. Local number, Ot 900.

LOCATION.--Lat 42°58'40", long 77°13'39", Hydrologic Unit 04140201, at New York State Thruway Interchange 43, near Manchester. Owner: New York State Thruway Authority.

AQUIFER.--Confined zones in Camillus Shale of the Salina Group of Late Silurian age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in, depth 139 ft, cased to 11 ft, open hole.

INSTRUMENTATION.--Float tape read weekly by observer; periodic measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 556.70 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of instrument shelf, 11.63 ft above land-surface datum.

REMARKS.--Water in well casing above land surface is subject to freezing during extreme cold periods.

PERIOD OF RECORD.--May 1955 to current year.

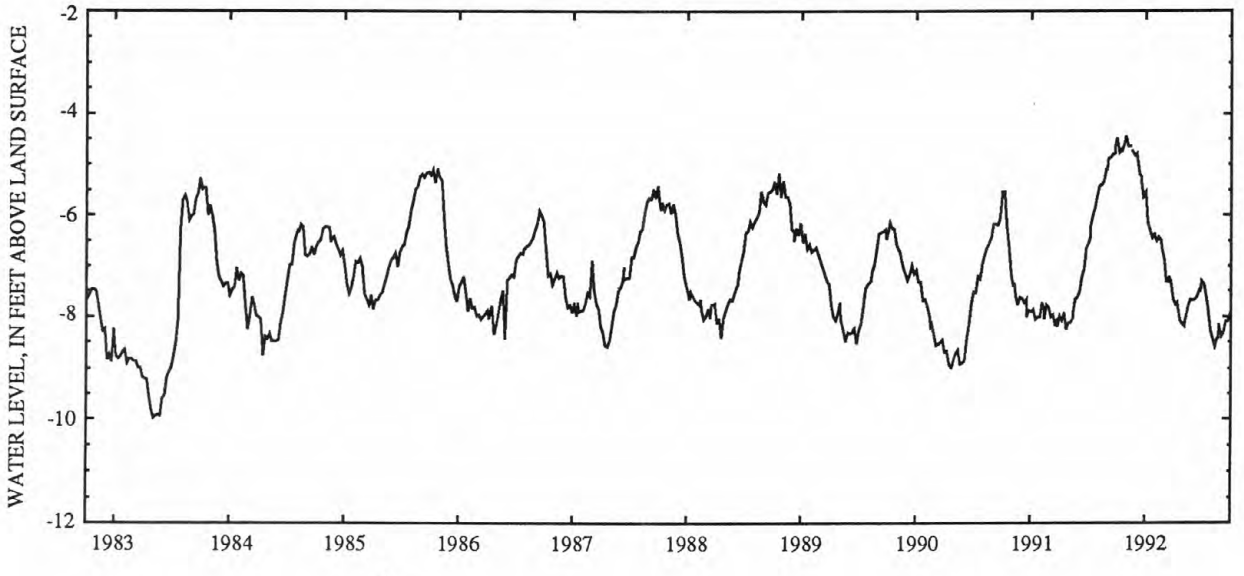
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.14 ft above land-surface datum, Mar. 15, 1976; lowest observed, 4.44 ft above land-surface datum, Oct. 28, 1991.

EXTREMES FOR CURRENT YEAR.--Highest water level observed, 8.58 ft above land-surface datum, Aug. 10; lowest observed, 4.44 ft above land-surface datum, Oct. 28.

WATER LEVEL, IN FEET ABOVE LAND-SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07	4.75	JAN 06	6.13	APR 06	7.78	JUL 06	7.37
14	4.69	13	6.32	13	7.72	13	7.57
15	z4.75	20	6.44	20	8.07	20	7.83
21	4.62	27	6.35	27	8.14	27	8.27
28	4.44	28	z6.40	MAY 04	8.18	AUG 03	8.42
NOV 04	4.63	FEB 03	6.52	06	z8.08	10	8.58
11	4.64	10	6.42	11	7.99	17	8.43
18	4.74	17	6.52	18	7.74	20	z8.44
25	4.82	24	6.63	25	7.67	24	8.15
DEC 02	4.78	MAR 02	6.89	JUN 01	7.69	31	8.38
09	5.19	09	7.30	08	7.67	SEP 07	8.33
16	5.25	13	z7.32	15	7.59	14	8.10
17	z5.34	16	7.22	22	7.46	21	8.09
23	5.64	23	7.29	25	z7.52	28	7.94
30	5.54	30	7.66	29	7.31		

z Measured by USGS personnel.



OTSEGO COUNTY

424136075025101. Local number, Og 23.

LOCATION.--Lat 42°41'36", long 75°02'51", Hydrologic Unit 02050101, at "Wild Creek Farm", 0.6 mi northeast of intersection of State Highway 205 and Kallan Road, 2.2 mi north of Hartwick, and 3.2 mi southeast of Oaksville. Owner: Thomas Kallan.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Dug unused well, diameter 36 in, depth 15 ft, stone-lined.

INSTRUMENTATION.--Weekly measurement with chalked tape by observer; periodic measurement by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,432.44 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of hole drilled through concrete well cover, at land-surface datum.

PERIOD OF RECORD.--May 1953 to current year. Records for May 1953 to September 1976 are unpublished and available in files of the Geological Survey.

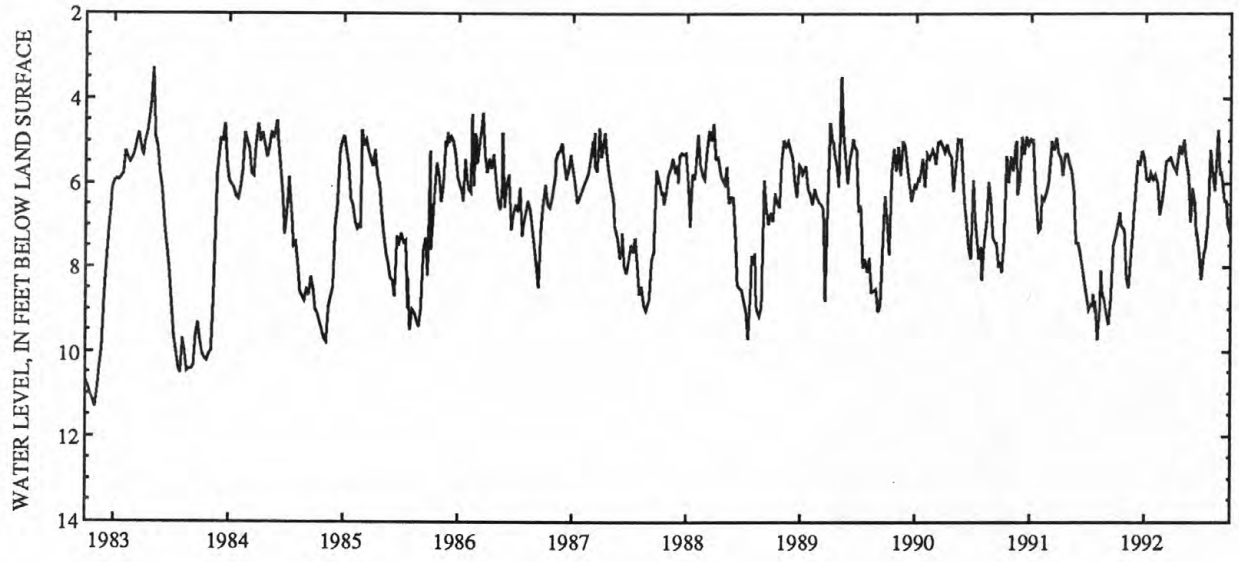
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.98 ft below land-surface datum, Apr. 2, 1960, Sept. 19, 1977; lowest measured, 12.66 ft below land-surface datum, Nov. 14, 1964.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 4.74 ft below land-surface datum, Aug. 18; lowest measured, 8.50 ft below land-surface datum, Nov. 9.

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	6.99	JAN 18	5.75	APR 18	5.10	JUL 12	7.49
12	6.69	25	5.90	25	5.30	13	z7.43
17	7.00	FEB 01	5.80	MAY 03	4.98	19	6.98
26	7.10	08	6.00	10	5.46	25	5.20
NOV 02	8.26	14	6.75	17	5.82	AUG 01	5.66
09	8.50	21	6.50	24	6.89	10	z6.16
23	7.00	28	6.00	31	6.10	18	4.74
30	6.20	MAR 06	5.50	JUN 07	6.50	25	5.80
DEC 07	5.50	14	5.45	10	z7.24	31	5.72
14	5.54	21	5.38	13	7.16	SEP 08	6.42
21	5.24	28	5.60	20	7.69	15	6.42
28	5.40	APR 04	5.67	27	8.28	21	6.95
JAN 04	5.90	09	z5.73	JUL 05	7.72	28	7.19
11	5.95	11	5.56				

z Measured by USGS personnel.



422445077203301. Local number, Sb 472.

LOCATION.--Lat 42°24'45", long 77°20'33", Hydrologic Unit 02050105, near Kanona. Owner: David Owens.

AQUIFER.--Unconfined aquifer in gravel of Pleistocene age.

WELL CHARACTERISTICS.--Driven observation well, diameter 2.5 in, depth 17 ft, filled in from original depth of 18 ft, cased to 16 ft, 1.25 in well point (60-gauze screen 16 ft to 18 ft, damaged during well installation).

INSTRUMENTATION.--Weekly measurement with chalked tape by observer; periodic measurement by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,209.78 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--November 1965 to current year. Records for November 1965 to September 1976 are unpublished and available in files of the Geological Survey.

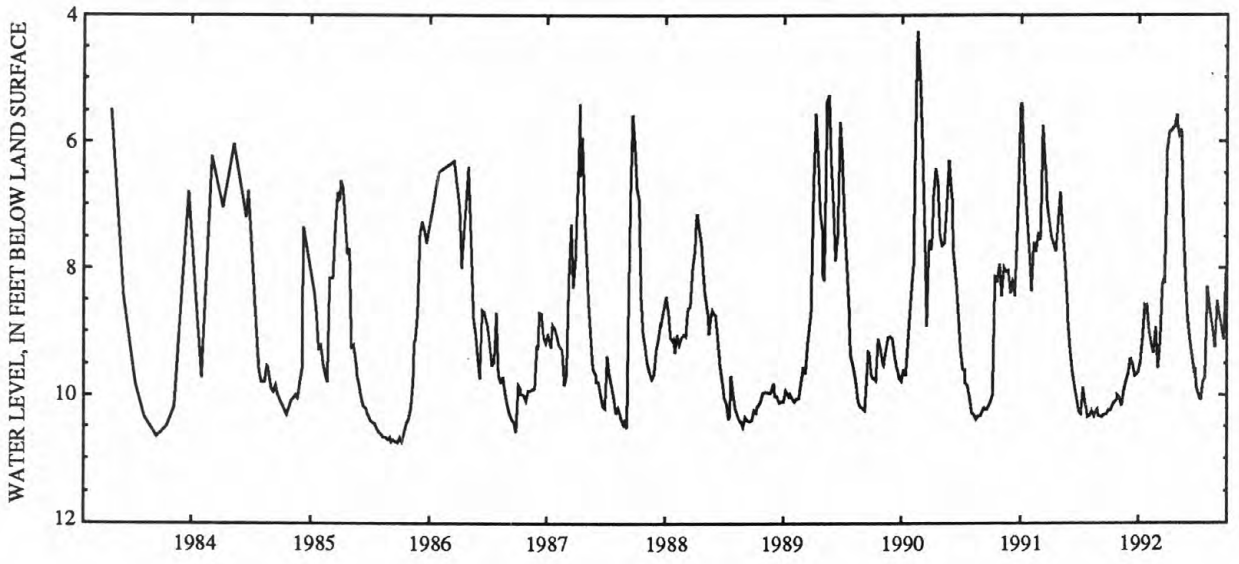
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.64 ft below land-surface datum, June 25, 1972; lowest measured, 10.84 ft below land-surface datum, Sept. 22, 1966.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 5.58 ft below land-surface datum, Apr. 26; lowest measured, 10.24 ft below land-surface datum, Oct. 6.

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	10.24	JAN 05	9.49	APR 05	5.86	JUL 05	10.00
13	10.16	12	9.11	19	5.76	12	10.08
20	10.10	19	8.59	26	5.58	19	9.79
27	10.07	22	z8.60	28	z5.71	26	9.73
28	z10.00	26	8.59	MAY 03	5.90	AUG 02	8.29
NOV 03	10.04	FEB 02	8.99	10	5.81	09	8.74
10	10.17	09	9.19	17	7.36	16	8.95
17	9.93	16	9.34	24	8.18	18	z8.95
24	9.78	23	8.92	31	8.78	23	9.25
DEC 01	9.66	MAR 01	9.58	JUN 07	9.11	31	8.51
03	z9.55	08	9.16	14	9.36	SEP 06	8.73
08	9.42	15	8.25	21	9.63	13	8.93
15	9.51	16	z8.19	23	z9.61	20	9.13
22	9.70	22	8.24	28	9.88	28	8.05
29	9.64	29	6.14				

z Measured by USGS personnel.



420811077021501. Local number, Sb 473.

LOCATION.--Lat 42°08'11", long 77°02'15", Hydrologic Unit 02050105, Denison Park, at Corning. Owner: City of Corning.

AQUIFER.--Unconfined aquifer in outwash sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in, depth 83 ft, cased to 83 ft, open end.

INSTRUMENTATION.--Electronic data recorder--60-minute average.

DATUM.--Elevation of land-surface datum is 914.31 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of well casing, 3.20 ft above land-surface datum.

REMARKS.--Water level affected by stage of Chemung River.

PERIOD OF RECORD.--September 1989 to current year. Records for December 1985 to August 1987 are published and available in files of the Susquehanna River Basin Commission.

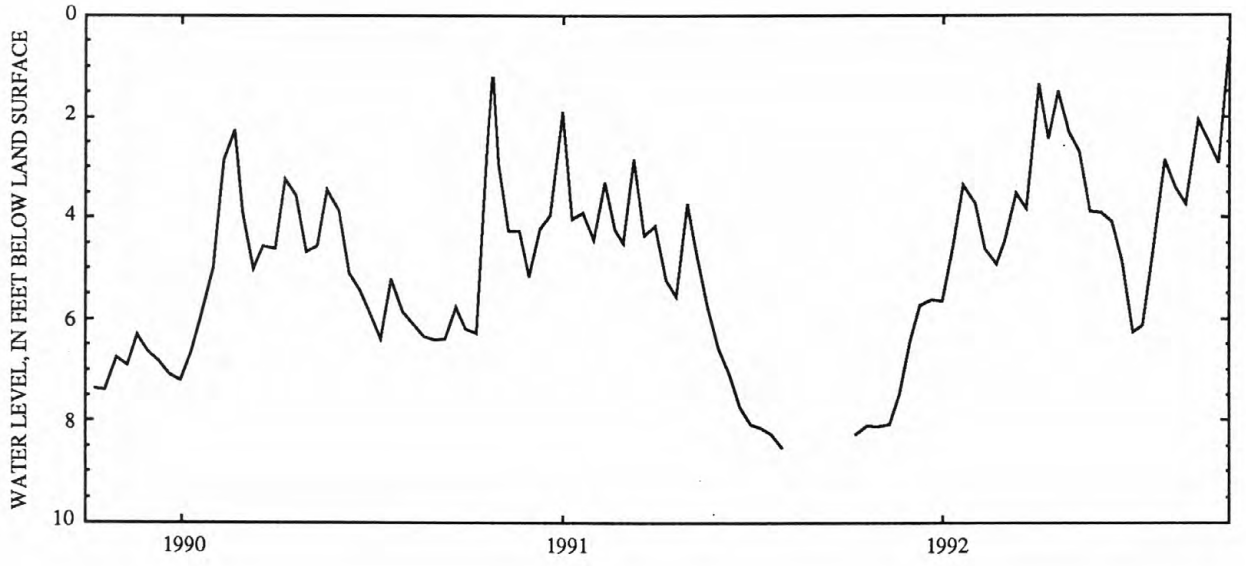
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.22 ft below land-surface datum, Oct. 25, 26, 1990; lowest recorded, 8.54 ft below land-surface datum, July 30-31, 1991.

EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 1.70 ft below land-surface datum, Mar. 29; lowest recorded, 8.15 ft below land-surface datum, Nov. 7.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	8.11	6.58	5.80	4.31	5.03	2.01	3.17	---	6.93	---	---
2	---	8.11	6.67	5.70	4.40	4.97	2.09	3.30	---	6.99	---	---
3	---	8.10	6.42	5.64	4.49	4.93	2.30	2.95	---	---	---	---
4	---	8.07	6.15	5.57	4.58	5.01	2.56	2.74	4.74	---	---	---
5	---	8.01	5.95	5.33	4.69	5.08	2.78	2.82	4.75	---	---	---
6	---	8.05	5.92	5.05	4.77	5.06	2.97	3.03	4.74	---	---	---
7	---	8.11	5.95	4.91	4.86	4.94	3.10	3.22	4.65	---	---	---
8	---	8.08	5.99	4.89	4.94	4.78	3.12	3.29	4.69	---	---	---
9	---	---	5.95	4.89	5.05	4.62	3.01	3.39	---	---	---	---
10	---	8.07	5.92	4.93	5.11	4.46	3.06	---	---	---	---	---
11	---	7.91	5.88	4.98	5.18	4.22	3.10	---	---	---	---	---
12	---	7.78	5.92	5.02	5.23	3.97	2.81	3.72	5.22	---	---	---
13	---	7.66	5.96	5.06	5.27	3.89	2.66	3.86	5.36	---	---	---
14	---	7.58	5.96	5.02	5.34	3.90	2.83	3.95	5.49	---	---	---
15	---	7.52	5.91	4.78	5.39	3.94	3.04	4.06	5.65	---	---	---
16	---	7.56	5.89	4.59	5.44	3.99	3.20	4.19	5.83	---	---	---
17	---	7.57	5.85	4.38	5.52	4.08	3.10	---	6.01	---	---	---
18	---	7.56	5.90	4.06	5.53	4.23	---	---	6.14	---	---	---
19	---	7.51	5.93	3.84	5.53	4.33	---	---	---	---	---	---
20	---	7.54	5.88	3.76	5.45	4.42	2.21	4.43	---	---	---	---
21	---	7.47	5.87	3.82	5.31	4.51	2.39	4.47	---	---	---	---
22	---	7.32	5.91	3.91	5.28	4.56	2.55	4.54	---	---	---	---
23	---	7.06	5.95	3.91	5.25	4.63	2.69	4.61	6.26	---	---	---
24	---	6.84	6.00	3.79	5.19	4.66	2.81	4.69	---	---	---	---
25	---	6.68	6.06	3.71	5.10	4.64	2.55	4.81	---	---	---	---
26	---	6.66	6.11	3.76	4.99	4.61	2.24	4.91	6.46	---	---	---
27	---	6.61	6.16	3.85	4.94	3.36	2.30	---	---	---	---	---
28	---	6.57	6.20	3.94	4.91	1.99	2.51	---	6.63	---	---	---
29	---	6.56	6.20	4.01	5.01	1.73	2.73	5.10	6.73	---	---	---
30	---	6.56	6.16	4.08	---	1.85	2.95	5.18	6.85	---	---	---
31	---	---	5.97	4.18	---	1.99	---	---	---	---	---	---
MEAN	---	---	6.04	4.55	5.07	4.14	---	---	---	---	---	---
LOW	---	---	6.67	5.80	5.53	5.08	---	---	---	---	---	---
HIGH	---	---	5.85	3.71	4.31	1.73	---	---	---	---	---	---

420811077021501. Local number, Sb 473--Continued.



423739077595501. Local number, Wo 1.

LOCATION.--Lat 42°37'39", long 77°59'55", Hydrologic Unit 04130002, Letchworth State Park, near Castile. Owner: New York State Department of Environmental Conservation.

AQUIFER.--Till of Pleistocene age.

WELL CHARACTERISTICS.--Driven unused well, diameter 2 in, depth 15 ft, well point (60-gauze screen 13 ft to 15 ft).

INSTRUMENTATION.--Monthly measurement with chalked tape by observer; periodic measurement by USGS personnel.

DATUM.--Elevation of land-surface datum is 1,045.44 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 2 in by 1 in reducing coupling, 3.33 ft above land-surface datum.

PERIOD OF RECORD.--November 1942 to current year.

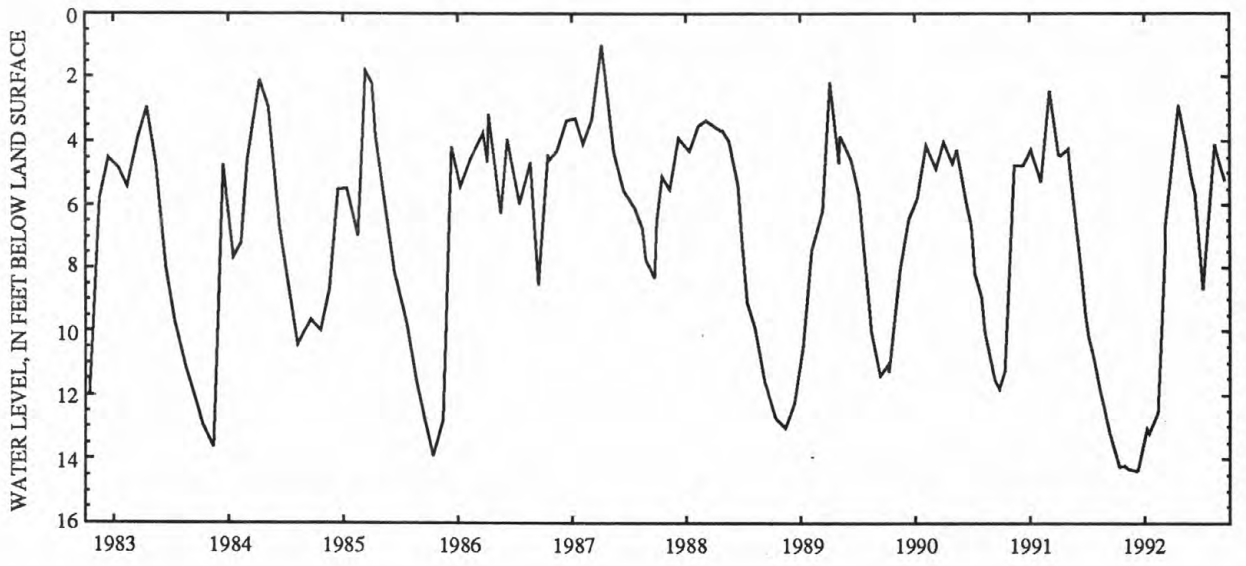
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.5 ft below land-surface datum, Apr. 5, 1947; lowest measured, dry, Dec. 6-27, 1964, Jan. 2, 1965.

EXTREMES FOR CURRENT YEAR.--Highest water level measured, 2.86 ft below land-surface datum, Apr. 20; lowest measured, 14.37 ft below land-surface datum, Dec. 7.

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 13	14.21	JAN 07	13.06	APR 20	z2.86	JUL 17	z7.42
29	z14.19	14	z13.20	MAY 12	4.11	AUG 14	4.11
NOV 09	14.30	FEB 11	12.56	27	z5.04	SEP 02	z4.84
DEC 07	14.37	MAR 07	7.17	JUN 10	5.63	13	5.19
10	z14.33	09	z6.64	JUL 06	8.70		

z Measured by USGS personnel.



423743078070802. Local number, Wo 4.

LOCATION.--Lat 42°37'43", long 78°07'08", Hydrologic Unit 04130002, near Gainesville. Owner: Letchworth Central School.

AQUIFER.--Unconfined aquifer in sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 20 ft, cased to 20 ft, open end.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 1,606.76 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 2.60 ft above land-surface datum.

REMARKS.--Well drilled May 1974 as a replacement for 423743078070801 (local number Wo 2), located 25 ft southeast, which has a period of record from November 1965 to May 1974 (unpublished). Water level may be affected by periodic water-quality sampling by county health department.

PERIOD OF RECORD.--May 1974 to current year. Records for May 1974 to September 1976 are unpublished and available in files of the Geological Survey.

REVISED RECORDS.--WDR NY-91-3: 1990.

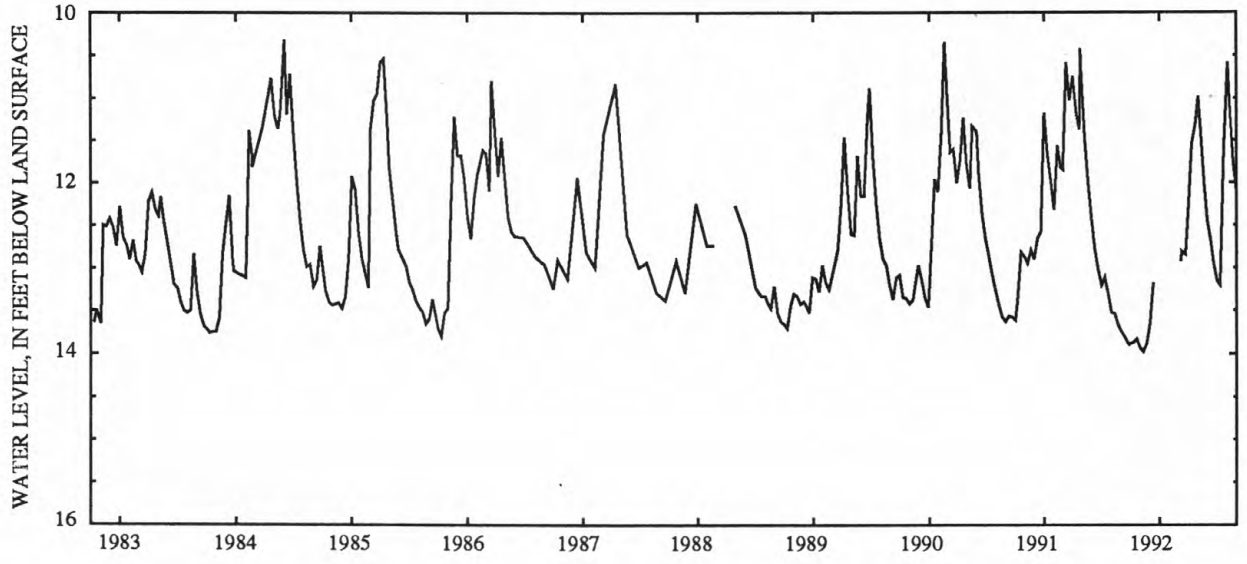
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.89 ft, below land-surface datum, Mar. 5, 1976; lowest, 14.00 ft, below land-surface datum, Nov. 3, 1974.

EXTREMES FOR CURRENT YEAR.--Highest recorded water level, 10.59 ft, below land-surface datum, Aug. 2; lowest recorded, 13.97 ft, below land-surface datum, Nov. 8-12.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.89	13.94	13.61	---	---	---	12.20	11.07	12.46	13.19	10.61	12.14
2	13.89	13.94	13.60	---	---	---	12.15	11.10	12.48	13.21	10.59	12.18
3	13.89	13.95	13.56	---	---	---	12.15	11.01	12.51	13.23	10.66	---
4	13.89	13.96	13.45	---	---	---	12.16	11.03	12.54	13.25	10.71	---
5	13.90	13.95	13.40	---	---	---	12.20	11.09	12.56	13.26	10.77	---
6	13.89	13.96	13.39	---	---	12.91	12.17	11.16	12.55	13.28	10.86	---
7	13.89	13.96	13.39	---	---	12.89	12.07	11.22	12.59	13.30	10.95	---
8	13.89	13.97	13.33	---	---	12.86	11.79	11.28	12.62	13.31	11.04	---
9	13.89	13.97	13.23	---	---	12.84	11.60	11.34	12.64	13.20	11.12	---
10	13.87	13.97	13.18	---	---	12.81	11.54	11.41	12.67	13.20	11.18	---
11	13.82	13.97	13.18	---	---	12.79	11.48	11.48	12.69	13.22	11.22	---
12	13.82	13.97	13.21	---	---	12.80	11.41	11.53	12.72	13.26	11.28	---
13	13.80	13.94	---	---	---	12.78	11.37	11.59	12.76	13.14	11.35	---
14	13.79	13.90	---	---	---	12.76	11.37	11.66	12.79	13.09	11.41	---
15	13.80	13.87	---	---	---	12.75	11.41	11.72	12.82	12.80	11.47	---
16	13.77	13.86	---	---	---	12.77	11.45	11.79	12.86	12.46	11.53	---
17	13.77	13.85	---	---	---	12.78	11.42	11.84	12.89	12.29	11.59	---
18	13.80	13.86	---	---	---	12.81	11.40	11.89	12.92	11.72	11.65	---
19	13.82	13.88	---	---	---	12.82	11.36	11.94	12.94	11.56	11.71	---
20	13.84	13.89	---	---	---	12.85	11.34	11.99	12.95	11.57	11.77	---
21	13.85	13.88	---	---	---	12.88	11.37	12.04	12.98	11.46	11.83	---
22	13.85	13.85	---	---	---	12.89	11.39	12.09	12.99	11.50	11.88	---
23	13.86	13.83	---	---	---	12.91	11.44	12.14	13.00	11.25	11.94	---
24	13.87	13.82	---	---	---	12.96	11.45	12.19	13.02	10.85	12.00	---
25	13.87	13.81	---	---	---	12.97	11.31	12.24	13.04	10.78	12.06	---
26	13.89	13.81	---	---	---	12.94	11.07	12.28	13.06	10.77	12.11	---
27	13.89	13.81	---	---	---	12.73	10.89	12.32	13.09	10.68	12.16	---
28	13.91	13.82	---	---	---	12.44	10.87	12.36	13.11	10.70	12.19	---
29	13.91	13.75	---	---	---	12.30	10.92	12.41	13.14	10.75	12.08	---
30	13.93	13.66	---	---	---	12.25	10.99	12.44	13.16	10.82	12.06	---
31	13.93	---	---	---	---	12.24	---	12.45	---	10.74	12.10	---
MEAN	13.86	13.89	---	---	---	---	11.52	11.75	12.82	12.19	11.48	---
LOW	13.93	13.97	---	---	---	---	12.20	12.45	13.16	13.31	12.19	---
HIGH	13.77	13.66	---	---	---	---	10.87	11.01	12.46	10.68	10.59	---

423743078070802. Local number, Wo 4--Continued.



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
	Length	
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)
	Area	
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)
	Volume	
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)
	Flow	
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)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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